Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

(Mark One)

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) or (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report

For the transition period from to

Commission file number: 001-37668

Ferroglobe PLC

(Exact name of Registrant as specified in its charter)

England and Wales
(Jurisdiction of incorporation or organization)

13 Chesterfield Street,
London W1J 5JN, United Kingdom
+44-(0)750-130-8322
(Address of principal executive offices)

Beatriz García-Cos Chief Financial Officer and Principal Accounting Officer
13 Chesterfield Street,
London W1J 5JN, United Kingdom
+44-(0)750-130-8322
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary Shares (nominal value of $0.01)	**GSM**	**NASDAQ Global Select Market**

Securities registered or to be registered pursuant to Section 12(g) of the Act.
None
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.
None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

Ordinary Shares (nominal value of $0.01) 187,433,543

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

Note—Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐
Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

† Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report ☒

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☐ International Financial Reporting Standards as issued by the International Accounting Standards Board ☒ Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

TABLE OF CONTENTS

CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING STATEMENTS

This annual report includes statements that are, or may be deemed to be, forward-looking statements within the meaning of the securities laws of certain applicable jurisdictions. These forward-looking statements are made under the "safe harbor" provision under Section 21E of the Securities Exchange Act of 1934, as amended, and as defined in the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this annual report, including, without limitation, those regarding our future financial position and results of operations, our strategy, plans, objectives, goals and targets, future developments in the markets in which we operate or are seeking to operate or anticipated regulatory changes in the markets in which we operate or intend to operate. These statements are often, but not always, made through the use of words or phrases such as “believe,” “anticipate,” “could,” “may,” “would,” “should,” “intend,” “plan,” “potential,” “predict(s),” “will,” “expect(s),” “estimate(s),” “project(s),” “positioned,” “strategy,” “outlook,” “aim,” “assume,” “continue,” “forecast,” “guidance,” “projected,” “risk” and similar expressions.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance and are based on numerous assumptions. Our actual results of operations, financial condition and the development of events may differ materially from (and be more negative than) those made in, or suggested by, the forward-looking statements. Investors should read the section entitled “Item 3.D.—Key Information—Risk Factors” and the description of our segments in the section entitled “Item 4.B.—Information on the Company—Business Overview” for a more complete discussion of the factors that could affect us. All such forward-looking statements involve estimates and assumptions that are subject to risks, uncertainties and other factors that could cause actual results to differ materially from the results expressed in, or suggested by, the statements. Among the key factors that could cause actual results to differ materially from those projected in the forward-looking statements are the following:

- the impacts of the COVID-19 pandemic;
- the impacts of the Ukraine-Russia conflict;
- increase in energy prices, disruptions in the supply of power and changes in governmental regulation of the power sector and the effect on costs of production;
- the outcomes of pending or potential litigation;
- operating costs, customer loss and business disruption (including, without limitation, difficulties in maintaining relationships with employees, customers, clients or suppliers) may be greater than expected;
- the retention of certain key employees;
- intense competition and expected increased competition in the future;
- our ability to adapt products and services to changes in technology or the marketplace;
- our ability to maintain and grow relationships with customers and clients;
- the historic cyclicality of the metals industry and the attendant swings in market price and demand;
- availability of raw materials and transportation;
- costs associated with labor disputes and stoppages;
- our ability to maintain our liquidity and to generate sufficient cash to service indebtedness;
- integration and development of prior and future acquisitions;

- the availability and cost of maintaining adequate levels of insurance;
- our ability to protect trade secrets, trademarks and other intellectual property;
- equipment failures, delays in deliveries or catastrophic loss at any of our manufacturing facilities, which may not be covered under any insurance policy;
- exchange rate fluctuations;
- changes in laws protecting U.S., Canadian and European Union companies from unfair foreign competition (including antidumping and countervailing duty orders and laws) or the measures currently in place or expected to be imposed under those laws;
- compliance with, or potential liability under, environmental, health and safety laws and regulations (and changes in such laws and regulations, including in their enforcement or interpretation);
- risks from international operations, such as foreign exchange fluctuations, tariffs, duties and other taxation, inflation, increased costs, political risks and our ability to maintain and increase business in international markets;
- risks associated with mining operations, metallurgical smelting and other manufacturing activities;
- our ability to manage price and operational risks including industrial accidents and natural disasters;
- our ability to acquire or renew permits and approvals;
- potential losses due to unanticipated cancellations of service contracts;
- risks associated with potential unionization of employees or work stoppages that could adversely affect our operations;
- changes in tax laws (including under applicable tax treaties) and regulations or to the interpretation of such tax laws or regulations by governmental authorities;
- changes in general economic, business and political conditions, including changes in the financial markets;
- uncertainties and challenges surrounding the implementation and development of new technologies;
- risks related to our capital structure; and
- risks related to our ordinary shares.

These and other factors are more fully discussed in the “Item 3.D.—Key Information—Risk Factors” and “Item 4.B.—Information on the Company—Business Overview” sections and elsewhere in this annual report.

The factors described above and set forth in “Item 3.D.—Key Information—Risk Factors” section are not exhaustive. Other sections of this annual report describe additional factors that could adversely affect our business, financial condition or results of operations. Moreover, we operate in a very competitive and rapidly changing commercial environment. New risk factors emerge from time to time and it is not possible for us to predict or list all such risks, nor can we assess the impact of all possible risks on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained, or implied by, in any forward-looking statements.

The forward-looking statements made in this annual report relate only to events or information as of the date on which the statements are made in this annual report. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events. You should read this annual report

and the documents we reference herein carefully and completely, with the understanding that our actual future results or performance may be materially different from what we anticipate.

CURRENCY PRESENTATION AND DEFINITIONS

In this annual report, references to "$," "US$" and "U.S. Dollars" are to the lawful currency of the United States of America, references to "Euro" and "€" are to the single currency adopted by participating member states of the European Union relating to Economic and Monetary Union and references to "Pound Sterling" and "£" are to the lawful currency of the United Kingdom.

Unless otherwise specified or the context requires otherwise, all financial information for the Company provided in this annual report is denominated in U.S. Dollars.

Definitions

Unless otherwise specified or the context requires otherwise in this annual report:

- the terms (1) "we," "us," "our," "Company," "Ferroglobe," and "our business" refer to Ferroglobe PLC and its subsidiaries, including Globe Specialty Metals, Inc. ("Globe") and its consolidated subsidiaries and Grupo FerroAtlántica, S.A.U. ("FerroAtlántica") and its consolidated subsidiaries; (2) "Globe" refers solely to Globe Specialty Metals, Inc. and its consolidated subsidiaries and (3) "FerroAtlántica" or the "FerroAtlántica Group" refers solely to FerroAtlántica and its consolidated subsidiaries;
- "Business Combination" refers to the business combination of Globe and FerroAtlántica as wholly-owned subsidiaries of Ferroglobe PLC on December 23, 2015;
- "Class A Ordinary Shares" refers to share capital issued in connection with the Business Combination, which was subsequently converted into ordinary shares of Ferroglobe PLC as a result of the distribution of beneficial interest units in the Ferroglobe Representation and Warranty Insurance Trust to certain Ferroglobe PLC shareholders on November 18, 2016;
- "Consolidated Financial Statements" refers to the audited consolidated financial statements of Ferroglobe PLC and its subsidiaries as of December 31, 2022 and December 31, 2021 and for each of the years ended December 31, 2022, 2021 and 2020, including the related notes thereto, prepared in accordance with IFRS (as such terms are defined herein);
- "IFRS" refers to International Financial Reporting Standards as issued by the International Accounting Standards Board;
- "Reinstated Senior Notes" refer to the notes issued in exchange of 98.588% of the 9.375% Notes due 2022 issued by Ferroglobe Finance Company PLC and Globe due December 2025;
- "Super Senior Notes" refer to the 9.0% senior secured notes due 2025 issued by Ferroglobe Finance Company, PLC;
- "Stub Notes" refer to the $4,942 thousand aggregate principal amount of 9.375% Notes due March 1, 2022;
- "Predecessor" refers to FerroAtlántica for all periods prior to the Business Combination;
- "Antecessor" refers to Globe for all periods prior to the Business Combination;
- "shares" or "ordinary shares" refer to the authorized share capital of Ferroglobe PLC;
- "tons" refer to metric tons (approximately 2,204.6 pounds or 1.1 short tons);

- "U.S. Exchange Act" refers to the U.S. Securities Exchange Act of 1934, as amended; and
- "U.S. Securities Act" refers to the U.S. Securities Act of 1933, as amended.
- "ABL Revolver" refers the credit agreement, dated as of June, 30, 2022, Ferroglobe subsidiaries Globe Specialty Metals, Inc., and QSIP Canada ULC, as borrowers, for a Credit and Security Agreement for a new $100 million north American asset-based revolving credit facility, with Bank of Montreal, as lender.
- "IBOR" refers to the basic rate of interest used under some financial instruments.
- "Leasing and Factoring Agent" refers to the finance entity which signed, on October 2, 2020, a factoring agreement with Grupo Ferroatlantica S.A.U. and Ferropem, Ferrgolobe's subsidiaries, to anticipate the collection of accounts receivable.
- "ZAR" refers to the currency abbreviation in forex markets for the South African Rand, the official currency of South Africa.

PRESENTATION OF FINANCIAL INFORMATION

The selected financial information as of December 31, 2022 and December 31, 2021 and for the years ended December 31, 2022, 2021 and 2020 is derived from our Consolidated Financial Statements, which are included elsewhere in this annual report and which are prepared in accordance with IFRS.

Certain numerical figures set out in this annual report, including financial data presented in millions or thousands and percentages describing market shares, have been subject to rounding adjustments, and, as a result, the totals of the data in this annual report may vary slightly from the actual arithmetic totals of such information. Percentages and amounts reflecting changes over time periods relating to financial and other data set forth in "Item 5.—Operating and Financial Review and Prospects" are calculated using the numerical data in our Consolidated Financial Statements or the tabular presentation of other data (subject to rounding) contained in this annual report, as applicable, and not using the numerical data in the narrative description thereof.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Selected Financial Data

Reserved

B. Capitalization and indebtedness.

Not applicable.

C. Reasons for the offer and use of proceeds.

Not applicable.

D. Risk factors.

An investment in our ordinary shares carries a significant degree of risk. You should carefully consider the following risks and all other information in this annual report, including our Consolidated Financial Statements elsewhere in the 20-F. Additional risks and uncertainties we are not presently aware of, or that we currently deem immaterial, could also affect our business operations and financial condition. If any of these risks are realized, our business, results of operations and financial condition could be adversely affected to a material degree. As a result, the trading price of our ordinary shares could decline and you could lose part or all of your investment.

Risks Related to Our Business and Industry

Our operations depend on industries including the aluminum, steel, polysilicon, silicone and photovoltaic/solar industries, which, in turn, rely on several end-markets. A downturn or change in these industries or end-markets could adversely affect our business, results of operations and financial condition.

Because we primarily sell silicon metal, silicon based alloys, manganese based alloys and other specialty alloys we produce to manufacturers of aluminum, steel, polysilicon, silicones, and photovoltaic products, our results are significantly affected by the economic trends in the steel, aluminum, polysilicon, silicone and photovoltaic industries. Primary end users that drive demand for steel and aluminum include construction companies, shipbuilders, electric appliance, car manufacturers, and companies operating in the rail and maritime industries. The primary end users that drive demand for polysilicon and silicones include the automotive, chemical, photovoltaic, pharmaceutical, construction and consumer products industries. Demand for steel, aluminum, polysilicon and silicones from such companies is strongly correlated with changes in gross domestic product and is affected by global economic conditions. Fluctuations in steel and aluminum prices may occur due to sustained price shifts reflecting underlying global economic and geopolitical factors, changes in industry supply-demand balances, the substitution of one product for another in times of scarcity, and changes in national tariffs. Lower demand for steel and aluminum can quickly cause a substantial build-up of steel and aluminum stocks, resulting in a decline in demand for silicon metal, silicon-based alloys, manganese-based alloys, and other specialty alloys. Polysilicon and silicone producers are subject to fluctuations in crude oil, platinum, methanol and natural gas prices, which could adversely affect their businesses. Changes in power regulations in different countries, fluctuations in the relative costs of different sources

of energy, and supply-demand balances in the different parts of the value chain, among other factors, may significantly affect the growth prospects of the photovoltaic industry. A significant and prolonged downturn in the end markets for steel, aluminum, polysilicon, silicone and photovoltaic products, could adversely affect these industries and, in turn, our business, results of operations and financial condition.

COVID-19 has had a material detrimental impact on our business and financial results, and such impact could continue for an unknown period of time.

COVID-19 has been and continues to be a complex and evolving situation, with governments, public institutions and other organizations imposing or recommending, and businesses and individuals implementing, at various times and to varying degrees, restrictions on various activities or other actions to combat its spread, such as restrictions and bans on travel or transportation; limitations on the size of in-person gatherings, restrictions on freight transportations, closures of, or occupancy or other operating limitations on work facilities, and quarantines and lock-downs. COVID-19 and its consequences significantly impacted our business, operations, and financial results. The extent to which COVID-19 impacts our business, operations, and financial results going forward will depend on the factors described above and numerous other evolving factors that we may not be able to accurately predict or assess, including the duration and scope of the COVID-19 pandemic; the effectiveness of vaccines or treatments; COVID-19's impact on global and regional economies and economic activity, including the duration and magnitude of its impact on unemployment rates; its short and longer-term impact on the demand for our products, group business, and levels of customer confidence; the ability of our owners to successfully navigate the impacts of COVID-19; and how quickly economies, and demand recovers after the pandemic subsides.

COVID-19 has negatively impacted, and in the future may negatively impact to an extent we are unable to predict, our revenues. In addition, COVID-19 and its impact on global and regional economies, and the specialty chemical industry, made it difficult to obtain financing during the height of the pandemic. If a significant number of our sales volumes are terminated as a result of bankruptcies, sales or foreclosures, our results of operations could be materially adversely affected. Also, testing our intangible assets or goodwill for impairments could result in additional charges, which could be material. For the reasons set forth above, COVID-19 has had and may in the future will have a material adverse effect on our business, operations, and financial condition.

The metals industry is cyclical and has been subject in the past to swings in market price and demand which could lead to volatility in our revenues.

Our business has historically been subject to fluctuations in the price of our products and market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors. The timing, magnitude and duration of these cycles and the resulting price fluctuations are difficult to predict. For example, we experienced a weakened economic environment in national and international metals markets, including a sharp decrease in silicon metal prices in all major markets, from late 2014 to late 2017. During the second half of 2018 and throughout 2019, we experienced the most dramatic decline in prevailing prices of our products, which adversely affected our results. In 2020, the business experienced a reduction in sales volumes as a result of lower customer demand and a decrease in prices variance.

Historically, Ferroglobe's indirect subsidiary Globe Metallurgical Inc., has been affected by recessionary conditions in the end markets for its products, such as the automotive and construction industries. In April 2003, Globe Metallurgical Inc. sought protection under Chapter 11 of the U.S. Bankruptcy Code following its inability to restructure or refinance its indebtedness amidst a confluence of several negative economic and other factors, including an influx of low priced, dumped imports, which caused it to default on then outstanding indebtedness. A recurrence of such economic factors could have a material adverse effect on our business, results of operations and financial condition.

Additionally, as a result of unfavorable conditions in the end markets for its products, Globe Metales S.R.L. ("Globe Metales") went through reorganization proceedings ("concurso preventivo") in 1999, which ended in February 2019. While such reorganization proceedings were ongoing (until February 2019), Globe Metales could not dispose of or

encumber its registered assets (including its real estate) or perform any action outside its ordinary course of business without prior court approval.

In addition to the deterioration of market conditions for several of our products in the second half of 2018 and the whole of 2019, we also saw a contraction in sales volumes during 2020 which was primarily driven by the COVID-19 pandemic. Throughout 2021, COVID -19 and its consequences continue to impact our business, operations, and financial results. Such conditions, and any future decline in the global silicon metal, manganese-based alloys and silicon-based alloys industries could have a material adverse effect on our business, results of operations and financial condition. Moreover, our business is directly related to the production levels of our customers, whose businesses are dependent on highly cyclical markets, such as the automotive, residential and non-residential construction, consumer durables, polysilicon, steel, and chemical industries. In response to unfavourable market conditions, customers may request delays in contract shipment dates or other contract modifications. If we grant modifications, these could adversely affect our anticipated revenues and results of operations. Also, many of our products are traded internationally at prices that are significantly affected by worldwide supply and demand. Consequently, our financial performance will fluctuate with the general economic cycle, which could have a material adverse effect on our business, results of operations and financial condition.

Our business is particularly sensitive to increases in energy costs, which could materially increase our cost of production.

Electricity is one of our largest production components. The price of electricity is determined in the applicable domestic jurisdiction and is influenced both by supply and demand dynamics and by domestic regulations. Changes in local energy policy, increased costs due to scarcity of energy supply, climate conditions, the termination or non-renewal of any of our power purchase contracts and other factors may affect the price of electricity supplied to our plants and adversely affect our results of operations and financial conditions.

Because electricity is indispensable to our operations and accounts for a high percentage of our production costs, we are particularly vulnerable to supply limitations and cost fluctuations in energy markets. For example, at certain of our plants, production must be modulated to reduce consumption of energy in peak hours or in seasons with higher energy prices, in order for us to maintain profitability. Generation of electricity in France by our own hydroelectric power operations partially mitigates our exposure to price increases in that market. However, in the past we have pursued possibilities of disposing of those operations, and may do so in the future. Such a divestiture, if completed, may result in a greater exposure to increases in electricity prices. In 2021 the cost of electricity in Spain experienced extremely high volatility due to the fluctuations of natural gas in the European markets. Natural gas experienced a progressive increase in price since April 2021, due to the low level of stocks in gas storages in Europe, and the reduction of supply from Russia, following the growing demand for Natural Gas from China. The risk of natural gas shortages due to a possible cold winter in Europe, caused in December 2021 an unprecedented increase in the price of gas reaching record prices in the market, which led to record prices in the Spanish electricity market of up to 400 €/Mwh. Our Spanish plants have tried to mitigate price rises by reducing the furnace capacity during peak hours and increasing production in more competitive furnaces. In the immediate aftermath of Russia's invasion of Ukraine, European energy markets saw continued levels of volatility and the prices increased in line with those seen in late 2021.

The electrical power for our U.S. and Canadian facilities is supplied mostly by American Electric Power Co., Alabama Power Co., Brookfield Renewable Partners L.P. and Hydro-Québec, and the Tennessee Valley Authority through dedicated lines. Our Alloy, West Virginia facility obtains approximately 45% of its power needs under a fixed price power purchase agreement with a nearby hydroelectric facility owned by a Brookfield affiliate. This facility is over 70 years old and any breakdown could result in the Alloy facility having to purchase more grid power at higher rates. The hydropower contract with Brookfield for the Alloy plant was renewed in 2021 for a period of four years. The energy supply for our Mendoza, Argentina facility is supplied by the national network administrator Cammesa under a power agreement expiring in December 2024 with a special rate specifically approved for ultra electro intensive industries.

Energy supply to our facilities in South Africa is provided by Eskom (State-owned power utility) through rates that are approved annually by the national power regulator (NERSA). These rates have had an upward trend in the past years, due to the instability of available supply and are likely to continue increasing. Also, NERSA applies certain revisions to rates based on cost variances for Eskom that are not within our control.

In Spain, power is purchased in a competitive wholesale market. Our facilities have to pay access tariffs to the national grid and get a small compensation for having been recognized as electro-intensive consumers. The volatile nature of the wholesale market in Spain results in price uncertainty that can be only partially offset by long term power purchase agreements. Also, the payment we receive for the services provided to the grid are a major component of our power supply arrangements in Spain, and regulation for such services has been altered several times during the past years and the economic benefits of such services vary significantly from one year to the next, affecting our production cost and results from our operations.

Additionally, our energy purchase arrangements depend to a certain extent on rebates or revenues that we get for providing different services to the grid (interruptibility, load shaving, off-peak consumption, etc.). These rebates may be significant, but such arrangements with relevant grid operators and/or regulators may vary over time, which may affect our production costs and results from our operations.

Losses caused by disruptions in the supply of power would reduce our profitability.

Large amounts of electricity are used to produce silicon metal, manganese and silicon-based alloys and other specialty alloys, and our operations are heavily dependent upon a reliable supply of electrical power. We may incur losses due to a temporary or prolonged interruption of the supply of electrical power to our facilities, which can be caused by unusually high demand, blackouts, equipment failure, natural disasters or other catastrophic events, including failure of the hydroelectric facilities that currently provide power under contract to our West Virginia, Québec and Argentina facilities. Additionally, on occasion, we have been instructed to suspend operations for several hours by the sole energy supplier in South Africa due to a general power shortage in the country. It is possible that this supplier may instruct us to suspend our operations for a similar or longer period in the future. Such interruptions or reductions in the supply of electrical power adversely affect production levels and may result in reduced profitability. Our insurance coverage does not cover all interruption events and may not be sufficient to cover losses incurred as a result.

In addition, investments in Argentina's electricity generation and transmission systems have been lower than the increase in demand in recent years. If this trend is not reversed, there could be electricity supply shortages as the result of inadequate generation and transmission capacity. Given the heavy dependence on electricity of our manufacturing operations, any electricity shortages could adversely affect our financial results.

Government regulations of electricity in Argentina give priority of use of hydroelectric power to residential users and subject violators of these restrictions to significant penalties. This preference is particularly acute during Argentina's winter months due to a lack of natural gas. We have previously successfully petitioned the government to exempt us from these restrictions given the demands of our business for continuous supply of electric power. If we are unsuccessful in our petitions or in any action we take to ensure a stable supply of electricity, our production levels may be adversely affected and our profitability reduced.

Any decrease in the availability, or increase in the cost, of raw materials or transportation could materially increase our costs.

Principal components in the production of silicon metal, silicon based alloys and manganese based alloys include coal, charcoal, graphite and carbon electrodes, manganese ore, quartzite, wood chips, steel scrap, and other metals. While we own certain sources of raw materials, we also buy raw materials on a spot or contracted basis. The availability of these raw materials and the prices at which we purchase them from third party suppliers depend on market supply and demand and may be volatile such as due to the COVID-19 pandemic or the Ukraine-Russia conflicts. Our ability to obtain these materials in a cost efficient and timely manner is dependent on certain suppliers, their labor union relationships, mining and lumbering regulations and output, pandemic, geopolitical and general local economic conditions.

Over the previous years, certain raw materials (particularly graphite electrodes, coal, manganese ore, and other electrode components) have experienced significant price increases and quick price moves in relatively short periods of time, and the recent conflict in Ukraine and resulting sanctions on Russia have led to supply limitations and interruptions. In some cases, this has been combined with certain shortage in the availability of such raw materials. While we try to anticipate

potential shortages in the supply of critical raw materials with longer term contracts and other purchasing strategies, these price swings and supply shortages may affect our cost of production or even cause interruptions in our operations, which may have a material adverse effect on our business, results of operations and financial condition.

We make extensive use of shipping by sea, rail and truck to obtain the raw materials used in our production and deliver our products to customers, depending on the geographic region and product or input. Raw materials and products often must be transported over long distances between mines and other production sites and the plants where raw materials are consumed, and between those sites and our customers. Any severe delay, interruption or other disruption in such transportation, any material damage to raw materials utilized by us or to our products while being transported, or a sharp rise in transportation prices, either relating to COVID-19, the Ukraine-Russia conflict or otherwise, could have a material adverse effect on our business, results of operations and financial condition. In addition, because we may not be able to obtain adequate supplies of raw materials from alternative sources on terms as favorable as our current arrangements, or at all, any disruption or shortfall in the production and delivery of raw materials could result in higher raw materials costs and likewise materially adversely affect our business, results of operations and financial condition.

Cost increases in raw material inputs may not be passed on to our customers, which could negatively impact our profitability.

The prices of our raw material inputs are determined by supply and demand, which may be influenced by, inter alia, economic growth and recession, changes in world politics, unstable governments in exporting nations, and inflation. The market prices of raw material inputs will thus fluctuate over time, and we may not be able to pass significant price increases on to our customers. If we do try to pass them on, we may lose sales and thereby revenue, in addition to having the higher costs. Additionally, decreases in the market prices of our products will not necessarily enable us to obtain lower prices from our suppliers.

Metallurgical manufacturing and mining are inherently dangerous activities and any accident resulting in injury or death of personnel or prolonged production shutdowns could adversely affect our business and operations.

Metallurgical manufacturing generally, and smelting in particular, is inherently dangerous and subject to risks of fire, explosion and sudden major equipment failure. Quartz and coal mining are also inherently dangerous and subject to numerous hazards, including collisions, equipment failure, accidents arising from the operation of large mining and rock transportation equipment, dust inhalation, flooding, collapse, blasting operations and operating in extreme climatic conditions. These hazards have led to accidents resulting in the serious injury and death of production personnel and prolonged production shutdowns in the past. We may experience fatal accidents or equipment malfunctions in the future, which could have a material adverse effect on our business and operations.

We are heavily dependent on our mining operations, which are subject to certain risks that are beyond our control and which could result in materially increased expenses and decreased production levels.

We mine quartz and quartzite at open pit mining operations and coal at underground and surface mining operations. We are heavily dependent on these mining operations for our quartz and coal supplies. Certain risks beyond our control could disrupt our mining operations, adversely affect production and shipments, and increase our operating costs, such as: the closure of operations as a result of the COVID-19 pandemic; a major incident at a mining site that causes all or part of the operations of the mine to cease for some period of time; mining, processing and plant equipment failures and unexpected maintenance problems; disruptions in the supply of fuel, power and/or water at the mine site; adverse changes in reclamation costs; the inability to renew mining concessions upon their expiration; the expropriation of territory subject to a valid concession without sufficient compensation; and adverse weather and natural disasters, such as heavy rains or snow, flooding and other natural events affecting operations, transportation or customers.

Regulatory agencies have the authority under certain circumstances following significant health and safety violations or incidents to order a mine to be temporarily or even permanently closed. If this occurs, we may be required to incur significant legal and capital expenditures to re-open the affected mine. In addition, environmental regulations and enforcement could impose unexpected costs on our mining operations, and future regulations could increase those costs

or limit our ability to produce quartz and sell coal. A failure to obtain and renew permits necessary for our mining operations could limit our production and negatively affect our business. It is also possible that we have extracted or may in the future extract quartz from territory beyond the boundary of our mining concession or mining right, which could result in penalties or other regulatory action or liabilities.

We are subject to environmental, health and safety regulations, including laws that impose substantial costs and the risk of material liabilities.

Our operations are subject to extensive foreign, federal, national, state, provincial and local environmental, health and safety laws and regulations governing, among other things, the generation, discharge, emission, storage, handling, transportation, use, treatment and disposal of hazardous substances; land use, reclamation and remediation; waste management and pollution prevention measures; greenhouse gas emissions; and the health and safety of our employees. We are also required to obtain permits from governmental authorities for certain operations, and to comply with related laws and regulations. We may not have been and may not be at all times in full compliance with such permits and related laws and regulations. If we violate or fail to comply with these permits and related laws and regulations, we could be subject to penalties, restrictions on operations or other sanctions, obligations to install or upgrade pollution control equipment and legal claims, including for alleged personal injury or property or environmental damages. Such liability could adversely affect our reputation, business, results of operations and financial condition. In addition, in the context of an investigation, the government may impose obligations to make technology upgrades to our facilities that could result in our incurring material capital expenses. For example, in addition to notices received with respect to other plants, we have received two Notices and Findings of Violation ("NOV/FOV") from the U.S. federal government, alleging numerous violations of the Clean Air Act relating to the Company's Beverly, Ohio facility. Should the Company and the federal government be unable to reach a negotiated resolution of the NOV/FOVs, the U.S. government could file a formal lawsuit in U.S. federal court for injunctive relief, potentially requiring the Company to implement emission reduction measures, and for civil penalties. The statutory maximum penalty is $93,750 per day per violation, from April, 2013 to December 2021, and $109,024 per day thereafter. See "Item 8.A.—Financial Information—Consolidated Financial Statements and Other Financial Information—Legal proceedings" for additional information. The Beverly facility also is located in an area currently designated as Non-Attainment for the one hour SO2 National Ambient Air Quality Standards ("NAAQS"). The Company has entered into an order with the Ohio Environmental Protection Agency ("OEPA") to accept facility-wide SO2 emission limits to ensure that the facility is not causing exceedances of the one-hour NAAQS standard for SO2. The Company is working with OEPA to develop a model that demonstrates compliance with the SO2 NAAQS that will then require approval from the United States Environmental Protection Agency ("EPA").

The metals and mining industry is generally subject to risks and hazards, including fire, explosion, toxic gas leaks, releases of other hazardous materials, rockfalls, and incidents involving mobile equipment, vehicles or machinery. These could occur by accident or by breach of operating and maintenance standards, and could result in personal injury, illness or death of employees or contractors, or in environmental damage, delays in production, monetary losses and possible legal liability.

Under certain environmental laws, we could be required to remediate or be held responsible for the costs relating to contamination at our or our antecessors' past or present facilities and at third party waste disposal sites. We could also be held liable under these environmental laws for sending or arranging for hazardous substances to be sent to third party disposal or treatment facilities if such facilities are found to be contaminated. Under these laws we could be held liable even if we did not know of, or did not cause, such contamination, or even if we never owned or operated the contaminated disposal or treatment facility.

There are a variety of laws and regulations in place or being considered at the international, federal, regional, state and local levels of government that restrict or propose to restrict and impose costs on emissions of carbon dioxide and other greenhouse gases. These legislative and regulatory developments may cause us to incur material costs if we are required to reduce or offset greenhouse gas emissions, or to purchase emission credits or allowances, and may result in a material increase in our energy costs due to additional regulation of power generators. Environmental laws are complex, change frequently and are likely to become more stringent in the future. Because environmental laws and regulations are becoming more stringent and new environmental laws and regulations are continuously being enacted or proposed, such as those relating to greenhouse gas emissions and climate change, the level of expenditures required for environmental matters could increase in the future. Future legislative action and regulatory initiatives could result in changes to operating permits,

additional remedial actions, material changes in operations, increased capital expenditures and operating costs, increased costs of the goods we sell, and decreased demand for our products that cannot be assessed with certainty at this time.

Therefore, our costs of complying with current and future environmental laws, and our liabilities arising from past or future releases of, or exposure to, hazardous substances may adversely affect our business, results of operations and financial condition.

Compliance with existing and proposed climate change laws and regulations could adversely affect our performance.

Under current European Union legislation, all industrial sites are subject to cap and trade programs, by which every facility with carbon emissions is required to purchase in the market emission rights for volumes of emission that exceed a certain allocated level. Until 2021, the allocated level of emissions had been practically sufficient for our business so the emissions rights purchases had a limited impact on our business. From 2022, new regulations reducing the allocation of free allowances require us to make significant purchases of emissions rights in the market. Also, certain Canadian provinces have implemented cap and trade programs. As a result, our facilities in Canada may be required to purchase emission credits in the future. The requirement to purchase emissions rights in the market could result in material costs to the Company, in addition to increased compliance costs, additional operating restrictions for our business, and an increase in the cost of the products we produce, which could have a material adverse effect on our financial position, results of operations, and liquidity.

In the United States, it is likely that the current administration will place a greater emphasis on regulating greenhouse gas emissions, although no proposed regulations have been outlined to date. However, carbon taxes, clean energy standards, carbon offsets, and/or the requirement to participate in a cap-and-trade program are being explored by the administration and US Congress. Although it is impossible to predict what form such action will take, any action may result in material increased compliance costs additional operating restrictions for our business, and an increase in the cost of the products we produce, which could have a material adverse effect on our financial position, results of operations and liquidity.

In 2022 Ferroglobe commenced work on assessing Climate Change Risks & Opportunities and its related financial impact across our operations. The evaluation is ongoing and will follow the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

We make a significant portion of our sales to a limited number of customers, and the loss of a portion of the sales to these customers could have a material adverse effect on our revenues and profits.

In the year ended December 31, 2022, our ten largest customers accounted for approximately 50.1% of Ferroglobe's consolidated revenue. We expect that we will continue to derive a significant portion of our business from sales to these customers.

Some contracts with our customers do not entail commitments from the customer to purchase specified or minimum volumes of products over time. Accordingly, we face a risk of unexpected reduced demand for our products from such customers as a result of, for instance, downturns in the industries in which they operate or any other factor affecting their business, which could have a material adverse effect on our revenues and profits.

If we were to experience a significant reduction in the amount of sales we make to some or all of such customers and could not replace these sales with sales to other customers, this could have a material adverse effect on our revenues and profits.

Our business benefits from antidumping and countervailing duty orders and laws that protect our products by imposing special duties on unfairly traded imports from certain countries. If these duties or laws change, certain foreign competitors might be able to compete more effectively.

Ferroglobe benefits from antidumping and countervailing duty orders and laws that protect its business and products by imposing special duties on unfairly traded imports from certain countries. See "Item 4.B.—Information on the Company—Business Overview —Regulatory Matters—Trade" for additional information.

These orders may be subject to revision, revocation or rescission at any time, including through periodic governmental reviews and proceedings. Current antidumping and countervailing duty orders thus may not remain in effect and continue to be enforced from year to year, the products and countries now covered by orders may no longer be covered, and duties may not continue to be assessed at the same rates.

Similarly, export duties imposed by foreign governments that are currently in place may change. For example, duties on Chinese exports of types of ferroalloys produced by Ferroglobe could be reduced.

Changes in any of these factors could adversely affect our business and profitability. Finally, at times, in filing trade actions, we arguably act against the interests of our customers. Certain of our customers may not continue to do business with us as a result.

Products we manufacture may be subject to unfair import competition that may affect our profitability.

A number of the products we manufacture, including silicon metal and ferrosilicon, are globally-traded commodities that are sold primarily on the basis of price. As a result, our sales volumes and prices may be adversely affected by influxes of imports of these products that are dumped or are subsidized by foreign governments. Our silicon metal and ferrosilicon operations have been injured by such unfair import competition in the past. Applicable antidumping and countervailing duty laws and regulations may provide a remedy for unfairly traded imports in the form of special duties imposed to offset the unfairly low pricing or subsidization. However, the process for obtaining such relief is complex and uncertain. As a result, while we have sought and obtained such relief in the past, in some cases we have not been successful. Thus, there is no assurance that such relief will be obtained, and if it is not, unfair import competition could have a material adverse effect on our business, results of operations and financial condition.

Competitive pressure from Chinese steel, aluminum, polysilicon and silicone producers may adversely affect the business of our customers, reducing demand for our products. Our customers may relocate to China, where they may not continue purchasing from us.

China's aluminum, polysilicon and steel producing capacity exceeds local demand and has made China an increasingly large net exporter of aluminum and steel, and the Chinese silicone manufacturing industry is growing. Chinese aluminum, polysilicon, steel and silicone producers — who are unlikely to purchase silicon metal, manganese and silicon based alloys and other specialty metals from our subsidiaries outside of China due to the ample availability of domestic Chinese production — may gain global market share at the expense of our customers. An increase in Chinese aluminum, steel, polysilicon and silicone industry market share could adversely affect the production volumes, revenue and profits of our customers, resulting in reduced purchases of our products.

Moreover, our customers might seek to relocate or refocus their operations to China or other countries with lower labor costs and higher growth rates. Any that do so might thereafter choose to purchase from other suppliers of silicon metal, manganese- and silicon-based alloys and other specialty metals which in turn could have a material adverse effect on our business, results of operations and financial condition.

We are subject to the risk of union disputes and work stoppages at our facilities, which could have a material adverse effect on our business.

A majority of our employees are members of labor unions. We experience protracted negotiations with labor unions, strikes, work stoppages or other industrial actions from time to time. Strikes called by employees or unions have in the past and could in the future materially disrupt our operations, including productions schedules and delivery times. We have experienced strikes by our employees at several of our facilities from time to time and a certain number of these strikes have been protracted and have resulted in protracted amounts of business. Any such work stoppage could have a material adverse effect on our business, results of operations and financial condition.

New labor contracts have to be negotiated to replace expiring contracts from time to time. It is possible that future collective bargaining agreements will contain terms less favorable than the current agreements. Any failure to negotiate

renewals of labor contracts on terms acceptable to us, with or without work stoppages, could have a material adverse effect on our business, results of operations and financial condition.

Many of our key customers or suppliers are similarly subject to union disputes and work stoppages, which may reduce their demand for our products or interrupt the supply of critical raw materials and impede their ability to fulfil their commitments under existing contracts, which could have a material adverse effect on our business, results of operations and financial condition.

We are dependent on key personnel.

Our success depends in part upon the retention of key employees. Competition for qualified personnel can be intense. Current and prospective employees may experience uncertainty about our business or industry, which may impair our ability to attract, retain and motivate key management, sales, technical and other personnel.

If key employees depart our overall business may be harmed. We also may have to incur significant costs in identifying, hiring and retaining replacements for departing employees, may lose significant expertise and talent relating to our business and our ability to further realize the anticipated benefits of the Business Combination may be adversely affected. In addition, the departure of key employees could cause disruption or distractions for management and other personnel. Furthermore, we cannot be certain that we will be able to attract and retain replacements of a similar caliber as departing key employees.

The long term success of our operations depends to a significant degree on the continued employment of our core senior management team. In particular, we are dependent on the skills, knowledge and experience of Javier López Madrid, our Executive Chairman, Marco Levi, our Chief Executive Officer, and Beatriz García-Cos, our Chief Financial Officer. If these employees are unable to continue in their respective roles, or if we are unable to attract and retain other skilled employees, our business, results of operations and financial condition could be adversely affected. We currently have employment agreements with Mr. López Madrid, Dr. Levi and Ms. García-Cos. These agreements contain certain non-compete provisions, which may not be fully enforceable by us. Additionally, we are substantially dependent upon key personnel among our legal, financial and information technology staff, who enable us to meet our regulatory, contractual and financial reporting obligations, including reporting requirements under our credit facilities.

Shortages of skilled labor could adversely affect our operations.

We depend on skilled labor for the operation of our submerged arc furnaces and other facilities. Some of our facilities are located in areas where demand for skilled personnel often exceeds supply. Shortages of skilled furnace technicians and other skilled workers, including as a result of deaths, work stoppages or quarantines resulting from the COVID-19 pandemic, could restrict our ability to maintain or increase production rates, lead to production inefficiencies and increase our labor costs.

In certain circumstances, the members of our Board may have interests that may conflict with yours as a holder of ordinary shares.

Our directors have no duty to us with respect to any information such directors may obtain (i) otherwise than as our directors and (ii) in respect of which directors owe a duty of confidentiality to another person, provided that where a director's relationship with such other person gives rise to a conflict, such conflict has been authorized by our Board in accordance with our articles of association ("Articles"). Our Articles provide that a director shall not be in breach of the general duties directors owe to us pursuant to the UK Companies Act 2006 because such director:

- fails to disclose any such information to our Board, directors or officers; or
- fails to use or apply any such information in performing such director's duties as a director.

In such circumstances, certain interests of the members of our Board may not be aligned with your interests as a holder of ordinary shares and the members of our Board may engage in certain business and other transactions without any accountability or obligation to us.

We may not realize the cost savings and other benefits that we expect to achieve.

We are continuosly looking for opportunities to improve our operations through changes in processes, technology, information systems, and management of best practices. These initiatives are complex and require skilled management and the support of our workforce to implement them.

In our efforts to improve our business fully and successfully, we may encounter material unanticipated problems, expenses, liabilities, competitive responses, loss of client relationships, and a resulting diversion of management's attention. The challenges include, among others:

- managing change throughout the company;
- coordinating geographically separate organizations;
- potential diversion of management focus and resources from ordinary operational matters and future strategic opportunities;
- retaining existing customers and attracting new customers;
- maintaining employee morale and retaining key management and other employees;
- integrating two unique business cultures that are not necessarily comapatible;
- issues in achieving anticipated operating efficiencies, business opportunities and growth prospects;
- issues in integrating information technology, communications and other systems;
- changes in applicable laws and regulations;
- changes in tax laws (including under applicable tax treaties) and regulations or to the interpretation of such tax laws or regulations by the governmental authorities; and
- managing tax costs or inefficiencies associated with integrating our operations.

Many of these factors are outside of our control and any one of them could result in increased costs, decreased revenues and diversion of management's time and energy, which could materially impact our business, results of operations and financial condition.

Any failure to integrate acquired businesses successfully or to complete future acquisitions successfully could be disruptive of our business and limit our future growth.

From time to time, we have pursued acquisitions in support of our strategic goals. In connection with any such acquisition, we could face significant challenges in managing and integrating our expanded or combined operations, including acquired assets, operations and personnel. For example, we have faced challenges in integrating Globe and Ferroatlantica following the merger in 2015, and with the acquisitions of the Mo i Rana and Dunkirk plants. There can be no assurance that acquisition opportunities will be available on acceptable terms or at all or that we will be able to obtain necessary financing or regulatory approvals to complete potential acquisitions. Our ability to succeed in implementing our strategy will depend to some degree upon the ability of our management to identify, complete and successfully integrate commercially viable

acquisitions. Acquisition transactions may disrupt our ongoing business and distract management from other responsibilities.

Grupo VM, our principal shareholder, has significant voting power with respect to corporate matters considered by our shareholders.

Our principal shareholder, Grupo VM, owns shares representing approximately 43.7% of the aggregate voting power of our capital stock. By virtue of Grupo VM's voting power, as well as Grupo VM's representation on the Board, Grupo VM will have significant influence over the outcome of any corporate transaction or other matters submitted to our shareholders for approval. Grupo VM is likely to be able to block any such matter, including ordinary resolutions, which, under English law, require approval by a majority of outstanding shares cast in the vote. Grupo VM will also be able to block special resolutions, which, under English law, require approval by the holders of at least 75% of the outstanding shares entitled to vote and voting on the resolution, such as an amendment of the Articles or the exclusion of preemptive rights. Our principal shareholder has, and will continue to have, directly or indirectly, the power, among other things, to affect our legal and capital structure and our day-to-day operations, as well as the ability to elect and change our management and to approve other changes to our operations.

Grupo VM has pledged most of its shares in our company to secure a loan from Tyrus Capital.

Grupo VM has guaranteed its obligations pursuant to a credit agreement (the "GVM Credit Agreement") with respect to a loan granted to GVM by Tyrus Capital ("GVM Loan"). In addition, Grupo VM has entered into a security and pledge agreement (the "GVM Pledge Agreement"), with Tyrus pursuant to which Grupo VM agreed to pledge most of its shares to Tyrus to secure the outstanding GVM Loan.

In the event Grupo VM defaults under the GVM Credit Agreement, Tyrus may foreclose on the shares subject to the pledge. The Reinstated Notes contains change of control definitions with significant exceptions compared with that contained in the indenture for the Old Notes. Under the revised change of control definitions, no change of control shall occur or be deemed to occur by reason of, among other matters, any enforcement or exercise of remedies under the GVM Pledge Agreement or any disposal by Grupo VM of the Grupo VM shares for the purpose of repaying Grupo VM's debt to Tyrus, provided that certain other conditions, as described below, are met.

A change of control will occur upon the acquisition of 35% or more of the total voting power of our shares by persons other than certain permitted holders including Grupo VM and such permitted holders "beneficially own" directly or indirectly in the aggregate the same or a lesser percentage of the total voting power of our shares than such other "person" or "group" of related persons. However, the Reinstated Notes Indenture states that no change of control shall occur or be deemed to occur by reason of:

- any enforcement of rights or exercise of remedies under the GVM Share Pledge, including any sale, transfer or other disposal or disposition of the shares in Ferroglobe in connection therewith;

- any disposal by Grupo VM of its shares in Ferroglobe where the purpose of that transaction is to facilitate the repayment or discharge (in full or in part) of the GVM Loan and the proceeds of sale are promptly applied towards such repayment or discharge; or

- any mandatory offer (or analogous offer) required under the City Code on Takeovers and Mergers or any analogous regulation applied in any jurisdiction as a consequence of a transaction under limbs (1) or (2) above.

Provided that, if any transaction under paragraphs (1) to (3) above occurs which, but for such paragraph(s), would be a "Change of Control" as a consequence of any person or persons (other than Tyrus) (x) acquiring any voting stock of

Ferroglobe PLC (or any other successor company) or (y) being or becoming the "beneficial owner" of the voting power of any voting stock of Ferroglobe PLC (or any other successor company) (such person(s), the "Controlling Shareholder"):

- the Controlling Shareholder has within 60 days of that transaction and at its election:
    - paid to the Holders, on a pro rata basis, a fee in an aggregate amount equal to the product of(i) the aggregate principal amount outstanding of the Notes, (ii) 0.02 and (iii) the number of years (or part-thereof, with any part of a year calculated on the basis of the number of days divided by 360) from the payment date of such fee to June 30, 2025; or
    - made an offer to all Holders to purchase one-third of the Notes on a pro rata basis at a price equal to (A) in the first fifteen months after the Issue Date, 100% of the principal amount of such Notes plus accrued and unpaid interest or (B) at any time after the first fifteen months following the Issue Date, 101% of the principal amount of such Notes plus accrued and unpaid interest; or
- either or both of the Issuers within 60 days of that transaction has made an offer to all Holders to repurchase or purchase (as applicable), or has otherwise redeemed, one-third of the Notes on a pro rata basis at a price equal to (A) in the first fifteen months after the Issue Date,100% of the principal amount of such Notes plus accrued and unpaid interest or (B) at anytime after the fifteen months following the Issue Date, 101% of the principal amount of such Notes plus accrued and unpaid interest, resulting in such repurchased, purchased or redeemed Notes being cancelled, and provided further that the Controlling Shareholder is not a Restricted Person.

Where:

"GVM Loan" means any financing provided by Tyrus to Grupo VM or owing by Grupo VM to Tyrus, from time to time.

"GVM Share Pledge" means any share pledge or charge or other similar security over the shares in Ferroglobe PLC held by Grupo VM granted by Grupo VM in support of or as collateral for its obligations under any Grupo VM Loan from time to time.

"Restricted Person" means any person that: (a) is listed on the United States Specifically Designated Nationals and Blocked Persons List; the European Union Consolidated List of Persons, Groups and Entities subject to EU Financial Sanctions; or the United Kingdom Consolidated List of Financial Sanctions Targets (each a "Sanctions List"); (b) is owned or controlled by a person identified on a Sanctions List, to the extent that such ownership or control results in such person being subject to the same restrictions as if such person were themselves identified on the corresponding Sanctions List; (c) is located in or incorporated under the laws of a country or territory that is the target of comprehensive sanctions imposed by the United States, which for the purposes of this Agreement, as at the date of signature of this Agreement by the last of its signatories are Iran, Syria, Cuba, the Crimea Region, and North Korea; (d) has, within the last five years, been prosecuted by a relevant authority in the United States, the United Kingdom or any member state of the European Union, in relation to a breach of securities laws (in so far as such prosecution relates to insider dealing, unlawful disclosure, market manipulation or prospectus liability) or criminal laws relating to fraud or anti-corruption, save for instances where the prosecution has concluded and did not result in any criminal or civil settlement or penalty being imposed in relation to such breaches; or (e) is a Subsidiary of a person described in (d) above.

If upon a change of control, we do not have sufficient funds available to repurchase the notes with our available cash, third party financing would be needed, yet may be impermissible under our other debt agreements. In addition, certain other contracts we are party to from time to time may contain change of control provisions. Upon a change in control, such provisions may be triggered, which could cause our contracts to be terminated or give rise to other obligations, each of which could have a material adverse effect on our business, results of operations and financial condition.

We engage in related party transactions with affiliates of Grupo VM, our principal shareholder.

Conflicts of interest may arise between our principal shareholder and your interests as a shareholder. Our principal shareholder has, and will continue to have, directly or indirectly, the power, among other things, to affect our day-to-day operations, including the pursuit of related party transactions. We have entered, and may in the future enter, into agreements with companies who are affiliates of Grupo VM, our principal shareholder. Such agreements have been approved by, or would be subject to the approval of, the Board or the Audit Committee, as its delegate. The terms of such agreements may present material risks to our business and results of operations. For example, we have entered into a number of agreements with affiliates of Grupo VM with respect to, among other things, the provision of information technology and data processing services and energy-related services. See "Item 7.B.—Major Shareholders and Related Party Transactions—Related Party Transactions."

We are exposed to significant risks in relation to compliance with anti-bribery and corruption laws, anti-money laundering laws and regulations, and economic sanctions programs.

Doing business on a worldwide basis requires us to comply with the laws and regulations of various jurisdictions. In particular, our international operations are subject to anti-corruption laws, most notably the U.S. Foreign Corrupt Practices Act of 1977 ("FCPA") and the UK Bribery Act of 2010 (the "Bribery Act"), international trade sanctions programs, most notably those administered by the U.N., U.S. and European Union, anti-money laundering laws and regulations, and laws against human trafficking and slavery, most notably the UK Modern Slavery Act 2015 ("Modern Slavery Act").

The FCPA and Bribery Act prohibit offering or providing anything of value to foreign officials for the purposes of obtaining or retaining business or securing any improper business advantage. We may deal from time to time with both governments and state-owned business enterprises, the employees of which are considered foreign officials for purposes of these laws. International trade sanctions programs restrict our business dealings with or relating to certain sanctioned countries and certain sanctioned entities and persons no matter where located.

As a result of doing business internationally, we are exposed to a risk of violating applicable anti-bribery and corruption ("ABC") laws, international trade sanctions, and anti-money laundering ("AML") laws and regulations. Some of our operations are located in developing countries that lack well-functioning legal systems and have high levels of corruption. Our worldwide operations and any expansion, including in developing countries, our development of joint venture relationships worldwide, and the engagement of local agents in the countries in which we operate tend to increase the risk of violations of such laws and regulations. Violations of ABC laws, AML laws and regulations, and trade sanctions are punishable by civil penalties, including fines, denial of export privileges, injunctions, asset seizures, debarment from government contracts (and termination of existing contracts) and revocations or restrictions of licenses, as well as criminal penalties including possible imprisonment. Moreover, any major violations could have a significant impact on our reputation and consequently on our ability to win future business.

For its part, the Modern Slavery Act requires any commercial organization that carries on a business or part of a business in the United Kingdom which (i) supplies goods or services and (ii) has an annual global turnover of £36 million to prepare a slavery and human trafficking statement for each financial year ending on or after March 31, 2016. In this statement, the commercial organization must set out the steps it has taken to ensure there is no modern slavery in its own business and its supply chain, or provide an appropriate negative statement. The UK Secretary of State may enforce this duty by means of civil proceedings. The nature of our operations and the regions in which we operate may make it difficult or impossible for us to detect all incidents of modern slavery in certain of our supply chains. Any failure in this regard would not violate the Modern Slavery Act *per se*, but could have a significant impact on our reputation and consequently on our ability to win future business.

We seek to build and continuously improve our systems of internal controls and to remedy any weaknesses identified. As part of our efforts to comply with all applicable law and regulation, we have introduced a global ethics and compliance program. We believe we are devoting appropriate time and resources to its implementation, related training, and to monitoring compliance. Despite these efforts, we cannot be certain that our policies and procedures will be followed at all times or that we will prevent or timely detect violations of applicable laws, regulations or policies by our personnel,

partners or suppliers. Any actual or alleged failure to comply with applicable laws or regulations could lead to material liabilities not covered by insurance or other significant losses, which in turn could have a material adverse effect on our business, results of operations, and financial condition.

We operate in a highly competitive industry.

The silicon metal market and the silicon-based and manganese-based alloys markets are global, capital intensive and highly competitive. Our competitors may have greater financial resources, as well as other strategic advantages, to maintain, improve and possibly expand their facilities, and, as a result, they may be better positioned than we are to adapt to changes in the industry or the global economy. Advantages that our competitors have over us from time to time, new entrants that increase competition in our industry, and increases in the use of substitutes for certain of our products could have a material adverse effect on our business, results of operations and financial condition.

Though we are not currently operating at full capacity, we have historically operated at near the maximum capacity of our operating facilities. Because the cost of increasing capacity may be prohibitively expensive, we may have difficulty increasing our production and profits.

Our facilities are able to manufacture, collectively, approximately 350,000 tons of silicon metal (including Dow's portion of the capacity of our Alloy, West Virginia and Bécancour, Québec plants and the restarts at Selma and Polokwane, and excluding currently idled plants), 343,000 tons of silicon-based alloys and 562,000 tons of manganese-based alloys on an annual basis. Our ability to increase production and revenues will depend on expanding existing facilities, acquiring facilities or building new ones. Increasing capacity is difficult because:

- adding 30,000 tons of new production capacity to an existing silicon manufacturing plant would cost approximately $120 million and take at least 12 to 18 months to complete once permits are obtained;
- a greenfield development project would take at least three to five years to complete and would require significant capital expenditure and, regulatory compliance costs; and
- obtaining sufficient and dependable electric power at competitive rates in areas near the required natural resources is extremely difficult.

We may not have sufficient funds to expand existing facilities, acquire new facilities, or open new ones and may be required to incur significant debt to do so, which could have a material adverse effect on our business and financial condition.

We are subject to restrictive covenants under our credit facilities and other financing agreements. These covenants could significantly affect the way in which we conduct our business. Our failure to comply with these covenants could lead to an acceleration of our debt.

Our ability to comply with applicable debt covenants may be affected by events beyond our control, potentially leading to future breaches. The breach of any of the covenants contained in our credit facilities, unless waived, would constitute an event of default, in turn permitting the lenders to terminate their commitments to extend credit under, and accelerate the maturity of, the credit facilities in question. If in such circumstances we were unable to repay lenders and holders, or obtain waivers from them on acceptable terms or at all, the lenders and holders could foreclose upon the collateral securing the credit facilities and exercise other rights. Such events, should they occur, could have a material adverse effect on our business, results of operations and financial condition. See "—Risks Related to Our Capital Structure—We are subject to restrictive covenants under our financing agreements, which could impair our ability to run our business" below.

Our insurance costs may increase materially, and insurance coverages may not be adequate to protect us against all risks and potential losses to which we may be subject.

We maintain various forms of insurance covering a number of specified and consequential risks and losses arising from insured events under the policies, including securities claims, certain business interruptions and claims for damage and loss caused by certain natural disasters, such as earthquakes, floods and windstorms. Our existing property and liability insurance coverage contains various exclusions and limitations on coverage. In some previous insurance policy renewals, we have acceded to larger premiums, self-insured retentions and deductibles. For example, as a result of the explosion at our facility in Chateau Feuillet, France, the applicable property insurance premium increased. We may also be subject to additional exclusions and limitations on coverage in future insurance policy renewals. There can be no assurance that the insurance policies we have in place are or will be sufficient to cover all potential losses we may incur. In addition, due to changes in our circumstances and in the global insurance market, insurance coverage may not continue to be available to us on terms we consider commercially reasonable or be sufficient to cover multiple large claims.

We have operations and assets in the United States, Spain, France, Canada, China, South Africa, Norway, Venezuela, Argentina and may have operations and assets in other countries in the future. Our international operations and assets may be subject to various economic, social and governmental risks.

Our international operations and sales may expose us to risks that are more significant in developing markets than in developed markets and which could negatively impact future revenue and profitability. Operations in developing countries may not operate or develop in the same way or at the same rate as might be expected in a country with an economy, government and legal system similar to western countries. The additional risks that we may be exposed to in such cases include, but are not limited to:

- tariffs and trade barriers;
- sanctions and other restrictions in our ability to conduct business with certain countries, companies or individuals;
- recessionary trends, inflation or instability of financial markets;
- regulations related to customs and import/export matters;
- tax issues, such as tax law changes, changes in tax treaties and variations in tax laws;
- absence of a reliable legal or court system;
- changes in regulations that affect our business, such as new or more stringent environmental requirements or sudden and unexpected raises in power rates;
- limited access to qualified staff;
- inadequate infrastructure;
- cultural and language differences;
- inadequate banking systems;
- restrictions on the repatriation of profits or payment of dividends;
- crime, strikes, riots, civil disturbances, terrorist attacks or wars;
- nationalization or expropriation of property;
- less access to urgent medical care for employees and key personnel in the case of severe illness;

- law enforcement authorities and courts that are weak or inexperienced in commercial matters; and
- deterioration of political relations among countries.

In addition to the foregoing, exchange controls and restrictions on transfers abroad and capital inflow restrictions have limited, and can be expected to continue to limit, the availability of international credit.

The critical social, political and economic conditions in Venezuela have adversely affected, and may continue to adversely affect, our results of operations.

Among other policies in recent years, the Venezuelan government has continuously devalued the Bolívar. The resulting inflation has devastated the country, which is experiencing all manner of shortages of basic materials and other goods and difficulties in importing raw materials. In 2016, we idled our Venezuelan operations and sought to determine the recoverable value of the long lived assets there. We concluded that the costs to dispose of the facility exceeded the fair value of the assets, primarily due to political and financial instability in Venezuela. Accordingly, we wrote down the full value of our Venezuelan facilities. However, our inability to generate cash in that market may cause us to default on some of our obligations there in the future, which may result in administrative intervention or other consequences. In addition, in the recent past the Venezuelan government has threatened to nationalize certain businesses and industries, which could result in a loss of our Venezuelan facilities for no consideration. If the social, political and economic conditions in Venezuela continue as they are, or worsen, our business, results of operations and financial condition could be adversely affected. Venezuela net assets value as of December 31, 2022 was negative $10 thousand (positive $708 thousand as of December 31, 2021). Revenues during 2022 amounted to $18 thousand ($11 thousand during 2021).

We are exposed to foreign currency exchange risk and our business and results of operations may be negatively affected by the fluctuation of different currencies.

We transact business in numerous countries around the world and a significant portion of our business entails cross border purchasing and sales. Our sales made in a particular currency do not exactly match the amount of our purchases in such currency. We prepare our consolidated financial statements in U.S. Dollars, while the financial statements of each of our subsidiaries are prepared in the entities functional currency. Accordingly, our revenues and earnings are continuously affected by fluctuations in foreign currency exchange rates. For example, our sales made in U.S. Dollars exceed the amount of our purchases made in U.S. Dollars, such that the appreciation of certain currencies (like the Euro or the South African Rand) against the U.S. Dollar would tend to have an adverse effect on our costs. Such adverse movements in relevant exchange rates could have a material adverse effect on our business, results of operations and financial condition.

We depend on a limited number of suppliers for certain key raw materials. The loss of one of these suppliers or the failure of one of any of them to meet contractual obligations to us could have a material adverse effect on our business.

Colombia and the United States are among the preferred sources for the coal consumed in the production of silicon metal and silicon-based alloys, and the vast majority of producers source coal from these two countries. In the year ended December 31, 2022, approximately 65% of our coal was purchased from third parties. Of our third-party purchases, approximately 59% came from a single mine in Colombia.

Additionally, nearly all of the manganese ore we purchase comes from suppliers located in South Africa and Gabon. We do not control these third-party suppliers and must rely on them to perform in accordance with the terms of their contracts. If these suppliers fail to provide us with the required raw materials in a timely manner, or at all, or if the quantity or quality of the materials they provide is lower than that contractually agreed, we may not be able to procure adequate supplies of raw materials from alternative sources on comparable terms, or at all, which could have a material adverse effect on our business, results of operations and financial condition. In addition, since many suppliers of these raw materials are located in the same region, if a natural disaster or event affected one of these regions it is likely alternative sources would also be similarly affected.

We are impacted by the ongoing military conflict between Russia and Ukraine. Our business may be materially adversely affected by any negative impact on the global economy and capital markets resulting from the conflict in Ukraine or any other geopolitical tensions.

Global markets are experiencing volatility and disruption following the escalation of geopolitical tensions and the start of the military conflict between Russia and Ukraine. On February 24, 2022, a full-scale military invasion of Ukraine by Russian troops was reported. Although the length and impact of the ongoing military conflict is highly unpredictable, the conflict in Ukraine could lead to market disruptions, including significant volatility in commodity prices, credit and capital markets, as well as supply chain interruptions.

Russia and Ukraine are meaningful producers of silicon metal, ferroalloys and manganese based alloys, and are also significant suppliers of raw materials for our business and industry. The inability of Russian and Ukrainian producers to meet their customer obligations could potentially create tightness in the market. Likewise, we rely on a number of inputs from Russia and the CIS region, including metallurgical coke, anthracite and carbon and graphite electrodes. Our inability to procure these material can adversely impact our operations.

Additionally, Russia's prior annexation of Crimea, recent recognition of two separatist republics in the Donetsk and Luhansk regions of Ukraine and subsequent military interventions in Ukraine have led to sanctions and other penalties being levied by the United States, European Union and other countries against Russia, Belarus, the Crimea Region of Ukraine, the so-called Donetsk People's Republic, and the so-called Luhansk People's Republic, including agreement to remove certain Russian financial institutions from the Society for Worldwide Interbank Financial Telecommunication ("SWIFT") payment system, expansive ban on imports and exports of products to and from Russia and ban on exportation of U.S denominated banknotes to Russia or persons located there. Additional potential sanctions and penalties have also been proposed and/or threatened. Russian military actions and the resulting sanctions could adversely affect the global economy and financial markets and lead to instability and lack of liquidity in capital markets, potentially making it more difficult for us to obtain additional funds. The extent and duration of the military action, sanctions and resulting market disruptions are impossible to predict, but could be substantial.

Management continually tracks developments in the nascent conflict in Ukraine and is committed to actively managing our response to potential distributions to the business, but can provide no assurance that the conflict in Ukraine or other ongoing headwinds will not have a material adverse effect on our business, operations and financial results.

Planned investments in the expansion and improvement of existing facilities and in the construction of new facilities may not be successful.

We may engage in significant capital improvements to our existing facilities to upgrade and add capacity to those facilities. We also may engage in the development and construction of new facilities. Should any such efforts not be completed in a timely manner and within budget, or be unsuccessful otherwise, we may incur additional costs or impairments which could have a material adverse effect on our business, results of operations and financial condition.

Any delay or failure to procure, renew or maintain necessary governmental permits, including environmental permits and concessions to operate our hydropower plants would adversely affect our results of operations.

The operation of our hydropower plants is highly regulated, requires various governmental permits, including environmental permits and concessions, and may be subject to the imposition of conditions by government authorities. We cannot predict whether the conditions prescribed in such permits and concessions will be achievable. The denial of a permit essential to a hydropower plant or the imposition of impractical conditions would impair our ability to operate the plant. If we fail to satisfy the conditions or comply with the restrictions imposed by governmental permits or concessions, or restrictions imposed by other applicable statutory or regulatory requirements, we may face enforcement action and be subject to fines, penalties or additional costs or revocation of such permits or concessions. Any failure to procure, renew or abide by necessary permits and concessions would adversely affect the operation of our hydropower plants.

Equipment failures may lead to production curtailments or shutdowns and repairing any failure could require us to incur capital expenditures and other costs.

Many of our business activities are characterized by substantial investments in complex production facilities and manufacturing equipment. Because of the complex nature of our production facilities, any interruption in manufacturing resulting from fire, explosion, industrial accidents, natural disaster, equipment failures or otherwise could cause significant losses in operational capacity and could materially and adversely affect our business, results of operations and financial condition.

Other equipment may not continue to perform as they have in the past or as they are expected. A major equipment failure due to wear and tear, latent defect, design error or operator error, early obsolescence, natural disaster or other force majeure event could cause significant losses in operational capacity. Repairs following such failures could require us to incur capital expenditures and other costs. Such major failures also could result in damage to the environment or damages and harm to third parties or the public, which could expose us to significant liability. Such costs and liabilities could adversely affect our business, results of operations and financial condition.

We depend on proprietary manufacturing processes and software. These processes may not yield the cost savings that we anticipate and our proprietary technology may be challenged.

We rely on proprietary technologies and technical capabilities in order to compete effectively and produce high quality silicon metal and silicon-based alloys, including:

- computerized technology that monitors and controls production furnaces;
- electrode technology and operational know-how;
- metallurgical processes for the production of solar-grade silicon metal;
- production software that monitors the introduction of additives to alloys, allowing the precise formulation of the chemical composition of products; and
- flowcaster equipment, which maintains certain characteristics of silicon-based alloys as they are cast.

We are subject to a risk that:

- we may not have sufficient funds to develop new technology and to implement effectively our technologies as competitors improve their processes;
- if implemented, our technologies may not work as planned; and
- our proprietary technologies may be challenged and we may not be able to protect our rights to these technologies.

Patent or other intellectual property infringement claims may be asserted against us by a competitor or others. Our intellectual property rights may not be enforceable and may not enable us to prevent others from developing and marketing competitive products or methods. An infringement action against us may require the diversion of substantial funds from our operations and may require management to expend efforts that might otherwise be devoted to operations. A successful challenge to the validity of any of our patents may subject us to a significant award of damages, and may oblige us to secure licenses of others' intellectual property, which could have a material adverse effect on our business, results of operations and financial condition.

We also rely on trade secrets, know-how and continuing technological advancement to maintain our competitive position. We may not be able to effectively protect our rights to unpatented trade secrets and know-how.

Ferroglobe PLC is a holding company whose principal source of revenue is the income received from its subsidiaries.

Ferroglobe PLC is dependent on the income generated by its subsidiaries in order to earn distributable profits and pay dividends to shareholders. The amounts of distributions and dividends, if any, to be paid to us by any operating subsidiary will depend on many factors, including such subsidiary's results of operations and financial condition, limits on dividends under applicable law, its constitutional documents, documents governing any indebtedness, applicability of tax treaties and other factors which may be outside our control. If our operating subsidiaries do not generate sufficient cash flow, we may be unable to earn distributable profits and pay dividends on our shares.

Our business operations may be impacted by various types of claims, lawsuits, and other contingent obligations.

We are involved in various legal and regulatory proceedings including those that arise in the ordinary course of our business. We estimate such potential claims and contingent liabilities and, where appropriate, record provisions to address these contingent liabilities. The ultimate outcome of the legal matters currently pending against our Company is uncertain, and although such claims, lawsuits and other legal matters are not expected individually to have a material adverse effect, such matters in the aggregate could have a material adverse effect on our business, results of operations and financial condition. Furthermore, we could, in the future, be subject to judgments or enter into settlements of lawsuits and claims that could have a material adverse effect on our results of operations in any particular period. While we maintain insurance coverage in respect of certain risks and liabilities, we may not be able to obtain such insurance on acceptable terms in the future, if at all, and any such insurance may not provide adequate coverage against such claims. See "Item 8.A.—Financial Information—Consolidated Statements and Other Financial Information—Legal proceedings" for additional information regarding legal proceedings to which we are party.

We are exposed to changes in economic and political conditions where we operate and globally that are beyond our control.

Our industry is affected by changing economic conditions, including changes in national, regional and local unemployment levels, changes in national, regional and local economic development plans and budgets, shifts in business investment and consumer spending patterns, credit availability, and business and consumer confidence. Disruptions in national economies and volatility in the financial markets may and often will reduce consumer confidence, negatively affecting business investment and consumer spending. The outlook for the global economy in the near to medium term is negative due to several factors, including the COVID-19 pandemic, geopolitical risks and concerns about global growth and stability.

Following the United Kingdom's exit from the European Union, we may face risks associated with the current uncertainty and the consequences that may result from such exit, in particular with respect to tax, customs and duty laws and regulations, volatility in exchange rates and interest rates and our ability to sell and transport products from manufacturing facilities on the continent to our customers in the United Kingdom.

We are not able to predict the timing or duration of periods economic growth in the countries where we operate or sell products, nor are we able to predict the timing or duration of any economic downturn or recession that may occur in the future.

Cybersecurity breaches and threats could disrupt our business operations and result in the loss of critical and confidential information.

We rely on the effective functioning and availability of our information technology and communication systems and the security of such systems for the secure processing, storage and transmission of confidential information. The sophistication and magnitude of cybersecurity incidents are increasing and include, among other things, unauthorized access, computer viruses, deceptive communications and malware. We have experienced minor incidents in the past, and information technology security processes may not effectively detect or prevent cybersecurity breaches or threats and the measures we have taken to protect against such incidents may not be sufficient to anticipate or prevent rapidly evolving types of cyber-attacks. Breaches of the security of our information technology and communication systems could result in destruction or

corruption of data, the misappropriation, corruption or loss of critical or confidential information, business disruption, reputational damage, litigation and remediation costs.

Possible new tariffs and duties that might be imposed by certain governments, including the United States, the European Union and others, could have a material adverse effect on our results of operations.

In March, 2018, the United States imposed import tariffs of 25 percent on steel and 10 percent on aluminum. Exemptions from these tariffs were allowed for steel from Argentina, Australia, Brazil, Canada, Mexico, and South Korea, and aluminum from Argentina, Australia, Canada, and Mexico. These tariffs were expanded to apply to steel and aluminum derivatives from most countries. China, the EU, and other countries imposed retaliatory duties on products from the United States.

In January, 2022, the tariffs on steel and aluminum from the EU were replaced by "tariff-rate quotas", which allow a certain volume of imports to enter without the additional tariffs, but impose a 25% tariff on steel imports and a 10% tariff on aluminum imports exceeding the quota amount. Similar arrangements to replace the steel and aluminum tariffs are being negotiated with Japan and the UK.

Beginning in July 2018, the United States also imposed 25 percent tariffs on a wide array of Chinese products, including products produced and consumed by Ferroglobe, and 7.5 percent on a smaller range of products. In January 2020, the United States and China entered an initial "Phase 1" agreement to resolve the trade dispute between the two countries. The agreement resulted in the suspension of Chinese retaliatory duties on certain U.S. products and the commitment by China to purchase products from the United States. It is unclear whether and, if so, when the two countries will reach a Phase 2 agreement that would resolve the dispute more broadly.

There are indications that China has not fully complied with its Phase 1 commitments. If China were found to be in noncompliance, the United States could reimpose tariffs on Chinese products that are currently suspended or increase the existing tariffs.

Any "trade war" resulting from the imposition of tariffs could have a significant adverse effect on world trade and the world economy. To date, tariffs have not affected our business to a material degree.

Our suppliers, customers, agents or business partners may be subject to or affected by export controls or trade sanctions imposed by government authorities from time to time, which may restrict our ability to conduct business with them and potentially disrupt our production or our sales.

The United States, European Union, United Nations and other authorities have variously imposed export controls and trade sanctions on certain countries, companies, individuals and products, restricting our ability to trade normally with or in them. At present, compliance with such trade regulation is not affecting our business to a material degree. However, new trade regulations may be imposed at any time that target or otherwise affect our customers, suppliers, agents or business partners or their products. In particular, trade sanctions could be imposed that restrict our ability to do business with one or more critical suppliers and require special licenses to do so. Such events could potentially disrupt our production or sales and have a material adverse effect on our business, results of operations and financial condition.

We make significant investments in the development of new technologies and new products. The success of such technologies or products is inherently uncertain and the investments made may fail to render the desired increased in profitability.

In order to improve our processes and increase the margins in our products we have constantly invested significant amounts in the development of new technologies and in the development of new value added products. However, these developments are inherently uncertain, since they may fail to render the desired results when implemented at an industrial scale.

Specifically, we have invested in the construction of a factory to produce high purity silicon metal through a technology developed and patented by the Company. We believe the technology presents several advantages when compared to competitor's processes. This high purity silicon could be used for several applications, including advanced ceramics, fillers for semiconductors, special alloys or li-ion batteries. The most promising market is the silicon for the anode of batteries, whose development depends on the validation of the Si/C composites in the new generation of battery cells for EVs. This is a long process and silicon might not deliver the expected results in terms of capacity, cyclability, fast-charging or safety. There could also be new emerging technologies such as solid-state batteries with lithium metal anode that could phase out the use of silicon in the anode.

Risks Related to Our Capital Structure

Our leverage may make it difficult for us to service our debt and operate our business.

We have significant outstanding indebtedness and debt service requirements. Our leverage has and in the future could have important consequences, including:

- making it more difficult for us to satisfy our obligations to all creditors;
- requiring us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thus reducing the availability of our cash flow to fund internal growth through working capital and capital expenditures and for other general corporate purposes;
- increasing our vulnerability to a downturn in our business or economic or industry conditions;
- placing us at a competitive disadvantage compared to our competitors that have less indebtedness in relation to cash flow;
- limiting our flexibility in planning for or reacting to changes in our business and our industry;
- restricting us from investing in growing our business, pursuing strategic acquisitions and exploiting certain business opportunities; and
- limiting, among other things, our and our subsidiaries' ability to incur additional indebtedness, including refinancing, or raise equity capital in the future and increasing the costs of such additional financings.

Our ability to service our indebtedness will depend on our future performance, including an improvement on recent financial performance, and liquidity, which will be affected by prevailing economic conditions and financial, business, regulatory and other factors, including the COVID-19 pandemic and the military conflict between Russia and Ukraine. Many of these factors are beyond our control. We may not be able to generate enough cash flow from operations or obtain enough capital to service our indebtedness or fund our planned capital expenditures. If we cannot service our indebtedness and meet our other obligations and commitments, we might be required to refinance our indebtedness, obtain additional financing, delay planned capital expenditures or to dispose of assets to obtain funds for such purpose. We cannot assure you that any refinancing or asset dispositions could be effected on a timely basis or on satisfactory terms, if at all, or would be permitted by the terms of our outstanding debt instruments.

We have in the past experienced losses and cannot assure you that we will be profitable.

Our business has historically been subject to fluctuations in the prices of our products and the market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors. Throughout 2019 and 2020 we experienced a significant decline in prevailing prices of our products, which adversely affected our results. In early 2020, the outbreak of coronavirus disease ("COVID-19") has been and continues to be a complex and evolving situation, with governments, public institutions and other organizations imposing or recommending, and businesses and individuals implementing, at various times and to varying degrees, restrictions on various activities or

other actions to combat its spread, such as restrictions and bans on travel or transportation; limitations on the size of in-person gatherings, restrictions on freight transportations, closures of, or occupancy or other operating limitations on work facilities, and quarantines and lock-downs.

As a result of this pandemic and the strict confinement and other public health measures taken around the world, the demand for our products in the second and third quarters of 2020 was reduced significantly compared with the first and fourth quarters of the year. During the fourth quarter of 2020, demand level for our products increased to levels similar to those prior to the outbreak. During 2021, demand for our products has increased even further than in the fourth quarter of 2020. However, COVID-19 has negatively impacted, and will in the future negatively impact to an extent we are unable to predict, our revenues.

As a result, in part due to this pandemic and the strict confinement and other public health measures taken around the world, our sales decreased $470.8 million, or 29.1%, from $1,615.2 million for the year ended December 31, 2019 to $1,144.4 million for the year ended December 31 2020, resulting in a loss of $249.8 million for the year ended December 31, 2020. During 2021, our sales increased $634.5 million, or 55.4%, from $1,144.4 million for the year ended December 31, 2020 to $1,778.9 million for the year ended December 31 2021, resulting in a loss of $106.4 million for the year ended December 31, 2021.

We are subject to restrictive covenants under our financing agreements, which could impair our ability to run our business.

Restrictive covenants under our financing agreements, including relating to our outstanding notes and the agreements for our SEPI financing, may restrict our ability to operate our business. Our failure to comply with these covenants, including as a result of events beyond our control, could result in an event of default that could materially and adversely affect our business, results of operations and financial condition.

The restrictions contained in our financing agreements could affect our ability to operate our business and may limit our ability to react to market conditions or take advantage of potential business opportunities as they arise. For example, such restrictions could adversely affect our ability to finance our operations, make strategic acquisitions, investments or alliances, restructure our organization or finance our capital needs. Additionally, our ability to comply with these covenants and restrictions may be affected by events beyond our control. These include prevailing economic, financial and industry conditions. If we breach any of these covenants or restrictions, we could be in default under our financing agreements.

If there were an event of default under any of our debt instruments that is not cured or waived, the holders of the defaulted debt could terminate their commitments thereunder and declare all amounts outstanding with respect to such indebtedness due and payable immediately, which, in turn, could result in cross-defaults under our other outstanding debt instruments. Any such actions could force us into bankruptcy or liquidation.

To service our indebtedness, we require a significant amount of cash, and our ability to generate cash will depend on many factors beyond our control.

Our ability to make payments on and to refinance our indebtedness, and to fund capital expenditures, depends in part on our ability to generate cash in the future, and increased cash flow than we have generated in recent periods. Debt service requirements due to increased debt and increased interest rates will increase our cash flow requirements. This depends on the success of our business strategy and on general economic, financial, competitive, legislative, regulatory and other factors, many of which are beyond our control.

The Restructuring has increased our leverage and so we will need to maintain our profitability and/or sustaine positive cash flows in order to be able to service our indebtedness. There can be no assurance that we will generate sufficient cash flow from operations, that we will realize operating improvements on schedule or that future borrowings will be available to us in an amount sufficient to enable us to service and repay our indebtedness or to fund our other liquidity needs. Furthermore, applicable law and future contractual arrangements may impose restrictions on certain of our subsidiaries’

ability to make payments to Ferroglobe and other entities within the Group, which could impact our ability to service and pay our obligations as they mature or to fund our liquidity needs.

The Reinstated Notes mature in December 2025. Other debt instruments mature at various other dates. There can be no assurance that we will have the available liquidity or the ability to raise financing in order to repay these instruments at or ahead of their maturity.

If we are unable to satisfy our debt obligations, we may have to undertake alternative financing plans, such as refinancing or further restructuring our indebtedness, selling assets, reducing or delaying capital investments or seeking to raise additional capital. There can be no assurance that any refinancing or debt restructuring would be possible, or if possible, that it would be on similar terms to those of our debt instruments existing at that time, that any assets could be sold or that, if sold, the timing of the sales and the amount of proceeds realized from those sales would be favorable to us or that additional financing could be obtained on acceptable terms. As the Reinstated Notes will be secured by a significant portion of our assets that can be granted as collateral, our ability to refinance our existing debt or raise new debt may be limited to unsecured or lesser-secured debt. Disruptions in the capital and credit markets, as have been seen in recent years, could adversely affect our ability to meet our liquidity needs or to refinance our indebtedness.

We may not be able to repurchase the Notes upon a Change of Control.

The Reinstated Notes requires us to offer to repurchase all or any part of each holder's notes upon the occurrence of a change of control, as defined in the respective indentures, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase. If such an event were to occur, we may not have sufficient financial resources available to satisfy all of those obligations.

Risks Related to Our Ordinary Shares

The market price of our ordinary shares may be volatile and may decline.

Our ordinary shares are admitted for trading on the Nasdaq Capital Market under the symbol "GSM". The market price of our ordinary shares is subject to wide fluctuations in response to numerous factors, some of which are beyond our control. These factors include, among other things, actual or anticipated variations in our costs of doing business, operating results and cash flow, the nature and content of our earnings releases and our competitors' earnings releases, changes in financial estimates by securities analysts, business conditions in our markets and the general state of the securities markets and the market for other financial stocks, changes in capital markets that affect the perceived availability of capital to companies in our industry, and governmental legislation or regulation, as well as general economic and market conditions, such as downturns in our economy and recessions.

In recent years, the stock market in general has experienced extreme price fluctuations that have often times been unrelated to the operating performance of the affected companies. Similarly, the market price of our ordinary shares may fluctuate significantly based upon factors unrelated or disproportionate to our operating performance.

These market fluctuations, as well as general economic, political and market conditions, such as recessions, interest rates or international currency fluctuations may adversely affect the market price of our ordinary shares.

Significant sales of our ordinary shares, or the perception that significant sales thereof may occur in the future, could adversely affect the market price for our ordinary shares.

The sale of substantial amounts of our ordinary shares could adversely affect the price of these securities. Sales of substantial amounts of our ordinary shares in the public market, and the availability of shares for future sale could adversely affect the prevailing market price of our ordinary shares and could cause the market price of our ordinary shares to remain low for a substantial amount of time.

We do not anticipate paying cash dividends in the foreseeable future.

We currently intend to retain future earnings, if any, for use in our business and, therefore, do not anticipate paying any cash dividends in the foreseeable future. In addition, we are subject to financial covenants restriction the payment of dividends or repurchase of our shares. The payment of future dividends, if any, will depend, among other things, on our results of operations and financial condition and on such other factors as our Board of Directors may, in their discretion, consider relevant.

If securities or industry analysts do not publish or cease publishing research reports about us, if they adversely change their recommendations regarding our ordinary shares, or if our operating results do not meet their expectations, the price of our ordinary shares could decline.

The trading market for our ordinary shares will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If there is limited or no securities or industry analyst coverage of us, the market price and trading volume of our ordinary shares would likely be negatively impacted. Moreover, if any of the analysts who may cover us downgrade our ordinary shares or provide relatively more favorable recommendations concerning our competitors, or as we experienced in 2019 and 2020, if our operating results or prospects do not meet their expectations, the market price of our ordinary shares could decline. If any of the analysts who may cover us were to cease coverage or fail regularly to publish reports about our Company, we could lose visibility in the financial markets, which, in turn, could cause our share price or trading volume to decline.

As a foreign private issuer within the meaning of the rules of NASDAQ, we are subject to different U.S. securities laws and NASDAQ governance standards than domestic U.S. issuers of securities. These may afford relatively less protection to holders of our ordinary shares, who may not receive all corporate and company information and disclosures they are accustomed to receiving or in a manner to which they are accustomed.

As a foreign private issuer, the rules governing the information that we are required to disclose differ from those governing U.S. corporations pursuant to the U.S. Exchange Act. Although we intend to report periodic financial results and certain material events, we are not required to file quarterly reports on Form 10-Q or provide current reports on Form 8-K disclosing significant events within four days of their occurrence. In addition, we are exempt from the SEC's proxy rules, and proxy statements that we distribute will not be subject to review by the SEC. Our exemption from Section 16 rules requiring the reporting of beneficial ownership and sales of shares by insiders means that you will have less data in this regard than shareholders of U.S. companies that are subject to this part of the U.S. Exchange Act and that our insiders are not subject to short-swing profit rules. As a result, in deciding whether to purchase our shares, you may not have all the data that you are accustomed to having when making investment decisions with respect to domestic U.S. public companies.

Furthermore, NASDAQ Rule 5615(a)(3) provides that a foreign private issuer, such as our Company, may rely on home country corporate governance practices in lieu of certain of the rules in the NASDAQ Rule 5600 Series and Rule 5250(d), provided that we nevertheless comply with NASDAQ's Notification of Noncompliance requirement (Rule 5625), the Voting Rights requirement (Rule 5640) and that we have an audit committee that satisfies Rule 5605(c)(3), consisting of committee members that meet the independence requirements of Rule 5605(c)(2)(A)(ii). We are permitted to follow certain corporate governance rules that conform to U.K. requirements in lieu of many of the NASDAQ corporate governance rules, and we intend to comply with the NASDAQ corporate governance rules applicable to foreign private issuers. Accordingly, our shareholders will not have the same protections afforded to stockholders of U.S. companies that are subject to all of the corporate governance requirements of NASDAQ.

We may lose our foreign private issuer status in the future, which could result in significant additional costs and expenses.

We could cease to be a foreign private issuer if a majority of our outstanding voting securities are directly or indirectly held of record by U.S. residents and we fail to meet additional requirements necessary to avoid loss of foreign private issuer status. In that event, the regulatory and compliance costs we would incur as a domestic registrant may be

significantly higher than we incur as a foreign private issuer, which could have a material adverse effect on our business, operating results and financial condition.

As an English public limited company, certain capital structure decisions require shareholder approval, which may limit our flexibility to manage our capital structure.

English law provides that a board of directors may only allot shares (or rights or convertible into shares) with the prior authorization of shareholders, such authorization being up to the aggregate nominal amount of shares and for a maximum period of five years, each as specified in the articles of association or relevant shareholder resolution. The Articles authorize the allotment of additional shares for a period of five years from October 26, 2017 (being the date of the adoption of the Articles), which authorization will need to be renewed upon expiration (*i.e.*, at least every five years) but may be sought more frequently for additional five-year terms (or any shorter period). This authorization was renewed by the 2022 AGM for an additional five years.

English law also generally provides shareholders with preemptive rights when new shares are issued for cash. However, it is possible for the articles of association, or for shareholders acting in a general meeting, to exclude preemptive rights. Such an exclusion of preemptive rights may be for a maximum period of up to five years from the date of adoption of the articles of association, if the exclusion is contained in the articles of association, or from the date of the shareholder resolution, if the exclusion is by shareholder resolution. In either case, this exclusion would need to be renewed by our shareholders upon its expiration (*i.e.*, at least every five years). The Articles exclude preemptive rights for a period of five years from October 26, 2017, which exclusion will need to be renewed upon expiration (*i.e.*, at least every five years) to remain effective, but may be sought more frequently for additional five-year terms (or any shorter period). This exclusion was renewed by the 2022 AGM for an additional five years.

English law also generally prohibits a public company from repurchasing its own shares without the prior approval of shareholders by ordinary resolution, such being a resolution passed by a simple majority of votes cast, and other formalities. As an English company listed on NASDAQ, we may not make on-market purchases of our shares and may make off-market purchases only for the purposes of or pursuant to an employees' share scheme where our shareholders have approved our doing so by ordinary resolution (and with a maximum duration of such approval of five years) or with the prior consent of our shareholders by ordinary resolution to the proposed contract for the purchase of our shares.

English law requires that we meet certain financial requirements before we declare dividends or repurchases.

Under English law, we may only declare dividends, make distributions or repurchase shares out of distributable reserves of the Company or distributable profits. "Distributable profits" are a company's accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made, as reported to the Companies House. In addition, as a public company, we may only make a distribution if the amount of our net assets is not less than the aggregate amount of our called-up share capital and undistributable reserves and if, and to the extent that, the distribution does not reduce the amount of those assets to less than that aggregate amount. The Articles permit declaration of dividends by ordinary resolution of the shareholders, provided that the directors have made a recommendation as to its amount. The dividend shall not exceed the amount recommended by the directors. The directors may also decide to pay interim dividends if it appears to them that the profits available for distribution justify the payment. When recommending or declaring the payment of a dividend, the directors will be required under English law to comply with their duties, including considering our future financial requirements.

The enforcement of shareholder judgments against us or certain of our directors may be more difficult.

Because we are a public limited company incorporated under English law, and because most of our directors and executive officers are non-residents of the United States and substantially all of the assets of such directors and executive officers are located outside of the United States, our shareholders could experience more difficulty enforcing judgments obtained against our Company or our directors in U.S. courts than would currently be the case for U.S. judgments obtained against a U.S. public company or U.S. resident directors. In addition, it may be more difficult (or impossible) to assert some types

of claims against our Company or its directors in courts in England, or against certain of our directors in courts in Spain, than it would be to bring similar claims against a U.S. company or its directors in a U.S. court.

The United States is not currently bound by a treaty with Spain or the United Kingdom providing for reciprocal recognition and enforcement of judgments rendered in civil and commercial matters with Spain or the United Kingdom, other than arbitral awards. There is, therefore, doubt as to the enforceability of civil liabilities based upon U.S. federal securities laws in an action to enforce a U.S. judgment in Spain or the United Kingdom. In addition, the enforcement in Spain or the United Kingdom of any judgment obtained in a U.S. court based on civil liabilities, whether or not predicated solely upon U.S. federal securities laws, will be subject to certain conditions. There is also doubt that a court in Spain or the United Kingdom would have the requisite power or authority to grant remedies in an original action brought in Spain or the United Kingdom on the basis of U.S. federal securities laws violations.

Risks Related to Tax Matters

The application of Section 7874 of the Code, including under IRS guidance, and changes in law could affect our status as a foreign corporation for U.S. federal income tax purposes.

We believe that, under current law, we should be treated as a foreign corporation for U.S. federal income tax purposes. However, the U.S. Internal Revenue Service (the "IRS") may assert that we should be treated as a U.S. corporation for U.S. federal income tax purposes pursuant to Section 7874 of the Internal Revenue Code of 1986, as amended (the "Code"). Under Section 7874 of the Code, we would be treated as a U.S. corporation for U.S. federal income tax purposes if, after the Business Combination, (i) at least 80% of our ordinary shares (by vote or value) were considered to be held by former holders of common stock of Globe by reason of holding such common stock, as calculated for Section 7874 purposes, and (ii) our expanded affiliated group did not have substantial business activities in the United Kingdom (the "80% Test"). The percentage (by vote and value) of our ordinary shares considered to be held by former holders of common stock of Globe immediately after the Business Combination by reason of their holding common stock of Globe is referred to in this disclosure as the "Section 7874 Percentage."

Determining the Section 7874 Percentage is complex and, with respect to the Business Combination, subject to legal uncertainties. In that regard, the IRS and U.S. Department of the Treasury ("U.S. Treasury") issued temporary Regulations in April 2016 and finalized Regulations in July 2018 (collectively, the "Section 7874 Regulations"), which include a rule that applies to certain transactions in which the Section 7874 Percentage is at least 60% and the parent company is organized in a jurisdiction different from that of the foreign target corporation (the "Third Country Rule"). This rule applies to transactions occurring on or after November 19, 2015, which date is prior to the closing of the Business Combination. If the Third Country Rule were to apply to the Business Combination, the 80% Test would be deemed met and we would be treated as a U.S. corporation for U.S. federal income tax purposes. While we believe the Section 7874 Percentage is less than 60% such that the Third Country Rule does not apply to us, we cannot assure you that the IRS will agree with this position and would not successfully challenge our status as a foreign corporation. If the IRS successfully challenged our status as a foreign corporation, significant adverse tax consequences would result for us and could apply to our shareholders.

In addition, changes to Section 7874 of the Code, the U.S. Treasury Regulations promulgated thereunder, or to other relevant tax laws (including under applicable tax treaties) could adversely affect our status or treatment as a foreign corporation, and the tax consequences to our affiliates, for U.S. federal income tax purposes, and any such changes could have prospective or retroactive application. Recent legislative proposals have aimed to expand the scope of U.S. corporate tax residence, including by potentially causing us to be treated as a U.S. corporation if the management and control of us and our affiliates were determined to be located primarily in the United States, or by reducing the Section 7874 Percentage at or above which we would be treated as a U.S. corporation such that it would be lower than the threshold imposed under the 80% Test.

IRS guidance and changes in law could affect our ability to engage in certain acquisition strategies and certain internal restructurings.

Even if we are treated as a foreign corporation for U.S. federal income tax purposes, the Section 7874 Regulations materially changed the manner in which the Section 7874 Percentage will be calculated in certain future acquisitions of U.S. businesses in exchange for our equity, which may affect the tax efficiencies that otherwise might be achieved in transactions with third parties. For example, the Section 7874 Regulations would impact certain acquisitions of U.S. companies for our Ordinary Shares (or other stock) in the 36-month period beginning December 23, 2015, by excluding from the Section 7874 Percentage the portion of Ordinary Shares that are allocable to former holders of common stock of Globe. This rule would generally have the effect of increasing the otherwise applicable Section 7874 Percentage with respect to our future acquisition of a U.S. business. The Section 7874 Regulations also may more generally limit the ability to restructure the non-U.S. members of our Company to achieve tax efficiencies, unless an exception applies. However, no such acquisition of a U.S. business was made during the 36 months period.

IRS proposed regulations and changes in laws or treaties could affect the expected financial synergies of the Business Combination.

The IRS and the U.S. Treasury also issued rules that provide that certain intercompany debt instruments issued on or after April 5, 2016, will be treated as equity for U.S. federal income tax purposes, therefore limiting U.S. tax benefits and resulting in possible U.S. withholding taxes. As a result of these rules, we may not be able to realize a portion of the financial synergies that were anticipated in connection with the Business Combination, and such rules may materially affect our future effective tax rate. While these new rules are not retroactive, they could impact our ability to engage in future restructurings if such transactions cause an existing debt instrument to be treated as reissued. Furthermore, under certain circumstances, recent treaty proposals by the U.S. Treasury, if ultimately adopted by the United States and relevant foreign jurisdictions, could reduce the potential tax benefits for us and our affiliates by imposing U.S. withholding taxes on certain payments from our U.S. affiliates to related and unrelated foreign persons.

We are subject to tax laws of numerous jurisdictions and our interpretation of those laws is subject to challenge by the relevant governmental authorities.

We and our subsidiaries are subject to tax laws and regulations in the United Kingdom, the United States, France, Spain, South Africa and the other jurisdictions in which we operate. These laws and regulations are inherently complex, and we and our subsidiaries are (and have been) obligated to make judgments and interpretations about the application of these laws and regulations to us and our subsidiaries and their operations and businesses. The interpretation and application of these laws and regulations could be challenged by the relevant governmental authority, which could result in administrative or judicial procedures, actions or sanctions, which could be material an effect our effective tax rate.

We intend to operate so as to be treated exclusively as a resident of the United Kingdom for tax purposes, but the relevant tax authorities may treat us as also being a resident of another jurisdiction for tax purposes.

We are a company incorporated in the United Kingdom. Current U.K. tax law provides that we will be regarded as being a U.K. resident for tax purposes from incorporation and shall remain so unless (i) we were concurrently resident of another jurisdiction (applying the tax residence rules of that jurisdiction) that has a double tax treaty with the United Kingdom and (ii) there is a tiebreaker provision in that tax treaty which allocates exclusive residence to that other jurisdiction.

Based upon our management and organizational structure, we believe that we should be regarded solely as resident in the United Kingdom from our incorporation for tax purposes. However, because this analysis is highly factual and may depend on changes in our management and organizational structure, there can be no assurance regarding the final determination of our tax residence. Should we be treated as resident in a country or jurisdiction other than the United Kingdom, we could be subject to taxation in that country or jurisdiction on our worldwide income and may be required to comply with a number of material and formal tax obligations, including withholding tax and reporting obligations provided under the relevant tax law, which could result in additional costs and expenses and an increase of our effective tax rate.

We may not qualify for benefits under the tax treaties entered into between the United Kingdom and other countries.

We intend to operate in a manner such that, when relevant, we are eligible for benefits under tax treaties entered into between the United Kingdom and other countries. However, our ability to qualify and continue to qualify for such benefits will depend upon the requirements contained within each treaty and the applicable domestic laws, as the case may be, on the facts and circumstances surrounding our operations and management, and on the relevant interpretation of the tax authorities and courts.

Our or our subsidiaries' failure to qualify for benefits under the tax treaties could result in adverse tax consequences to us and our subsidiaries and could result in certain tax consequences of owning or disposing of our ordinary shares differing from those discussed below.

Future changes to domestic or international tax laws or to the interpretation of these laws by the governmental authorities could adversely affect us and our subsidiaries.

The U.S. Congress, the U.K. Government, the European Union and the Organization for Economic Co-operation and Development and other government agencies in jurisdictions where we and our affiliates do business have had an extended focus on issues related to the taxation of multinational corporations. One example is in the area of "base erosion and profit shifting" (or "BEPS"), in which payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. Thus, the tax laws in the United States, the United Kingdom, the European Union or other countries in which we and our affiliates do business are changing and any such changes could adversely affect us, mostly those related to interest limitation rules. Furthermore, the interpretation and application of domestic or international tax laws made by us and our subsidiaries could differ from that of the relevant governmental authority, which could result in administrative or judicial procedures, actions or sanctions, which could be material. On July 1, 2018, OECD's so-called "Multi-Lateral Instrument" entered into force covering 87 jurisdictions and impacting over 1,200 double tax treaties. The adoption and transposition into domestic legislations of the Anti-Tax Avoidance Directives (known as "ATAD 1 and 2") by the European Union is another key development that is impacting us, mostly when it comes to interest deduction limitation. On December 2021, the European Commission published a proposal for a Directive "laying down rules to prevent the misuse of shell entities for improper tax purposes and amending Directive 2011/16/EU." This Directive is also referred to as the ATAD 3 Directive. The implementation of this directive could affect us.

Further developments are to be seen in areas such as the "making tax digital - initiatives" allowing authorities to monitor multinationals' tax position on a more real time basis and the contemplated introduction of new taxes, such as revenue-based digital services taxes aimed at technology companies, but which may impact traditional businesses as well in the sense of allocating a portion of the profitability of the given company to jurisdictions where it has significant sales even though it is not physically present. The latest developments by the OECD in this field are the so-called Pillar One and Pillar Two. Under Pillar One, the OECD intends to set up the foundations for allocating to the market jurisdiction (i) non-routine profit; (ii) a fixed remuneration based on the Arm´s length Principle for baseline distribution and marketing functions; and (iii) an additional profit where in-country functions exceed the base-line activity already compensated. In principle, our business is not in scope of this measure as it refers to raw materials and commodities and this kind of business is excluded under the current drafting of the paper. Additionally, the measure would apply to multinational entities with revenues exceeding EUR20 billion and a profitability greater than 10%, what would exclude our company from its application. Then, Pillar Two, also called the GloBE (Global Anti-Base Erosion proposal) consists of setting a minimum taxation, giving the countries the right to "tax back" profit that is currently taxed below the minimum 15% rate. This goal is reached through several avenues, that is, (i) the inclusion of foreign income when taxed below the minimum rate; (ii) an undertaxed payment rule to related parties to deny deduction or impose taxation when payment was not subject to tax; (iii) switch over rule in the double tax treaties to allow the residence jurisdiction to switch from exemption to credit method when profit of permanent establishment is taxed below the minimum rate; and (iv) a subject to tax rule to allow withholding tax or other taxation or adjust eligibility to treaty benefits on payments not subject to the minimum rate. GloBE could affect our effective tax rate when implemented. In December 2021 the OECD released a report containing further details about the implementation of Pillar I. Likewise, also in December 2021 the European Union released a proposed Directive on minimum taxation in line with the OECD report and in July 2022 the UK Government released a draft legislation in line with the OECD report. In all three cases, it is proposed a minimum taxation of 15% that, when implemented, most likely should not impact our organization since we are already based in high tax jurisdictions without significant tax

exemptions or credits or permanent adjustments to reduce our effective tax rate. Additionally, the minimum taxation under the GloBE rules is increased by parameters like number of employees on the ground and fixed assets to conduct the relevant business activity. This kick out provision should apply to Ferroglobe due to its large workforce and significant tangible footprint in each jurisdiction where it is present.

We may become subject to income or other taxes in jurisdictions which would adversely affect our financial results.

We and our subsidiaries are subject to the income tax laws of the United Kingdom, the United States, France, Spain, South Africa and the other jurisdictions in which we operate. Our effective tax rate in any period is impacted by the source and the amount of earnings among our different tax jurisdictions. A change in the division of our earnings among our tax jurisdictions could have a material impact on our effective tax rate and our financial results. In addition, we or our subsidiaries may be subject to additional income or other taxes in these and other jurisdictions by reason of the management and control of our subsidiaries, our activities and operations, where our production facilities are located or changes in tax laws, regulations or accounting principles. Changes in tax treaties, the introduction of new legislation, updates to existing legislation, or changes to regulatory interpretations of existing legislation as a result of these or similar proposals could impose additional taxes on businesses and increase the complexity, burden and cost of tax compliance in countries where we operate.

Although we have adopted guidelines and operating procedures to ensure our subsidiaries are appropriately managed and controlled, we may be subject to such taxes in the future and such taxes may be substantial. The imposition of such taxes could have a material adverse effect on our financial results.

We may incur current tax liabilities in our primary operating jurisdictions in the future.

We expect to make current tax payments in some of the jurisdictions where we do business in the normal course of our operations. Our ability to defer the payment of some level of income taxes to future periods is dependent upon the continued benefit of accelerated tax depreciation on our plant and equipment in some jurisdictions, the continued deductibility of external and intercompany financing arrangements, the application of tax losses prior to their expiration in certain tax jurisdictions and the application of tax credits including R&D credits, among other factors. The level of current tax payments we make in any of our primary operating jurisdictions could adversely affect our cash flows and have a material adverse effect on our financial results.

Changes in tax laws may result in additional taxes for us.

We cannot assure you that tax laws in the jurisdictions in which we reside or in which we conduct activities or operations will not be changed in the future. Such changes in tax law could result in additional taxes for us. As mentioned above, changes in tax treaties, the introduction of new legislation, updates to existing legislation, or changes to regulatory interpretations of existing legislation as a result of future tax law changes could impose additional taxes on businesses and increase the complexity, burden and cost of tax compliance in countries where we operate.

U.S. federal income tax reform could adversely affect us.

Legislation commonly known as the Tax Cuts and Jobs Act (the “TCJA”) was enacted on December 22, 2017 in the United States. The TCJA made significant changes to the U.S. federal tax code, including a reduction in the U.S. federal corporate statutory tax rate from 35% to 21% as well as the introduction of a base erosion minimum tax (BEAT). The TCJA also made changes to the U.S. federal taxation of foreign earnings and to the timing of recognition of certain revenue and expenses and the deductibility of certain business expenses. We examined the impact the TCJA may have on our business in detail since enactment. Although further guidance continues to be released by the IRS, so far we have concluded that tax reform should not have a material adverse impact on the taxation of our U.S. business, as of December 31, 2022. This annual report does not discuss in detail the TCJA or the manner in which it might affect us or our stockholders. We urge you to consult with your own legal and tax advisors with respect to the Tax Reform Act and the potential tax consequences of investing in our shares.

Our transfer pricing policies are open to challenge from taxation authorities internationally.

Tax authorities have become increasingly focused on transfer pricing in recent years. Due to our international operations and an increasing number of inter-company cross-border transactions, we are open to challenge from tax authorities with regards to the pricing of such transactions. A successful challenge by tax authorities may lead to a reallocation of taxable income to a different tax jurisdiction and may potentially lead to an increase of our effective tax rate.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Ferroglobe PLC

Ferroglobe PLC, initially named VeloNewco Limited, was incorporated under the U.K. Companies Act 2006 as a private limited liability company in the United Kingdom on February 5, 2015, as a wholly-owned subsidiary of Grupo VM. On October 16, 2015 VeloNewco Limited re-registered as a public limited company. As a result of the Business Combination, which was completed on December 23, 2015, FerroAtlántica and Globe merged through corporate transactions to create Ferroglobe PLC, one of the largest producers worldwide of silicon metal and silicon and manganese-based alloys. To effect the Business Combination, Ferroglobe acquired from Grupo VM all of the issued and outstanding ordinary shares, par value €1,000 per share, of Grupo FerroAtlántica, SAU in exchange for 98,078,161 newly issued Class A Ordinary Shares, nominal value $7.50 per share, of Ferroglobe, after which FerroAtlántica became a wholly-owned subsidiary of Ferroglobe. Immediately thereafter, Gordon Merger Sub, Inc., a wholly-owned subsidiary of Ferroglobe, merged with and into Globe Specialty Metals, Inc., and each outstanding share of common stock, par value $0.0001 per share, was converted into the right to receive one newly-issued ordinary share, nominal value $7.50 per share, of Ferroglobe. After these steps, Ferroglobe issued, in total, 171,838,153 shares, out of which 98,078,161 shares were issued to Grupo VM and 73,759,992 were issued to the former Globe shareholders. Our ordinary shares are currently traded on the NASDAQ under the symbol “GSM.”

On June 22, 2016, we completed a reduction of our share capital, as a result of which the nominal value of each share was reduced from $7.50 to $0.01, with the amount of the capital reduction being credited to distributable reserves.

On August 21, 2018, we announced a share repurchase program, which provided authorization to purchase up to $20 million of our ordinary shares in the period ending December 31, 2018. On November 7, 2018, we completed the repurchase program, resulting in the acquisition of a total of 2,894,049 ordinary shares for total consideration of $20,100 thousand, including applicable stamp duty. The average price paid per share was $6.89. The share repurchase program resulted in 1,152,958 ordinary shares purchased and cancelled and 1,741,091 ordinary shares purchased into treasury, all of which remained held in treasury at December 31, 2018. See “Item 16.E.— Purchases of Equity Securities by the Issuer and Affiliated Purchasers.”

On July 29, 2021, upon the closing of the Refinancing, the company issued 8,918,618 new ordinary shares to Rubric Capital Management LP on behalf of certain managed or sub-managed funds and accounts and Grupo Villar Mir, S.A.U for a total issued share capital of $40 million, 1,900,000 shares as a work fee and 7,013,872 shares to bondholder’s related to the financing transactions.

On October 6, 2021, the Company entered into an equity distribution agreement (the “Equity Distribution Agreement”) with B. Riley Securities, Inc. and Cantor Fitzgerald & Co. relating to the ordinary shares of Ferroglobe PLC. The Company may offer and sell ordinary shares having an aggregate offering price of up to $100,000,000 from time to time through B. Riley Securities, Inc. and Cantor Fitzgerald & Co. as our sales agents. In 2021 The Company sold 186,053 ordinary shares under the Equity Distribution Agrement, for net proceeds of $1.4 million.

During the year under review, a small number of the ordinary shares held in treasury have been used to satisfy share awards made by the Company to its management team under the Ferroglobe PLC Equity Incentive Plan 2016. The number of ordinary shares held in Treasury as at December 31, 2022 was 1,448,771. See Note 13.

Significant milestones in our history are as follows:

- **1996:** acquisition of the Spanish company Hidro Nitro Española, S.A. ("Hidro Nitro Española"), operating in the ferroalloys and hydroelectric power businesses, and start of the quartz mining operations through the acquisition of Cuarzos Industriales S.A. from Portuguese cement manufacturer Cimpor;

- **1998:** expansion of our manganese- and silicon-based alloy operations through the acquisition of 80% of the share capital of FerroAtlántica de Venezuela (currently FerroVen, S.A.) from the Government of Venezuela in a public auction;

- **2000:** acquisition of 67% of the share capital of quartz mining company Rocas, Arcillas y Minerales, S.A. from Elkem, a Norwegian silicon metal and manganese- and silicon-based alloy producer;

- **2005:** acquisition of Pechiney Electrométallurgie, S.A., now renamed FerroPem, S.A.S., a silicon metal and silicon-based alloys producer with operations in France, along with its affiliate Silicon Smelters (Pty) Ltd. in South Africa;

- **2005:** acquisition of the metallurgical manufacturing plant in Alloy, West Virginia, and Alabama Sand and Gravel, Inc. in Billingsly, Alabama, both in the U.S.;

- **2006:** acquisition of Globe Metallurgical Inc., the largest merchant manufacturer of silicon metal in North America and largest specialty ferroalloy manufacturer in the United States;

- **2006:** acquisition of Stein Ferroaleaciones S.A., an Argentine producer of silicon-based specialty alloys, and its Polish affiliate, Ultracore Polska;

- **2007:** creation of Grupo FerroAtlántica, S.A.U., the holding company of our FerroAtlántica Group;

- **2007:** acquisition of Camargo Correa Metais S.A., a major Brazilian silicon metal manufacturer;

- **2008:** acquisition of Rand Carbide PLC, a ferrosilicon plant in South Africa, from South African mining and steel company Evraz Highveld Steel and Vanadium Limited, and creation of Silicio FerroSolar, S.L., which conducts research and development activities in the solar grade silicon sector;

- **2008:** acquisition of 81% of Solsil, Inc., a producer of high-purity silicon for use in photovoltaic solar cells;

- **2008:** acquisition of a majority stake in Ningxia Yonvey Coal Industry Co., Ltd., a producer of carbon electrodes (the remaining stake subsequently purchased in 2012);

- **2009:** creation of French company Photosil Industries, S.A.S., which conducts research and development activities in the solar grade silicon sector;

- **2009:** sale of interest in Camargo Correa Metais S.A. in Brazil to Dow Corning Corporation and formation of a joint venture with Dow Corning at the Alloy, West Virginia facility;

- **2010:** acquisition of Core Metals Group LLC, one of North America's largest and most efficient producers and marketers of high-purity ferrosilicon and other specialty metals;

- **2010:** acquisition of Chinese silicon metal producer Mangshi Sinice Silicon Industry Company Limited;

- **2011:** acquisition of Alden Resources LLC, North America's leading miner, processor and supplier of specialty metallurgical coal to the silicon and silicon-based alloy industries;

- **2012:** acquisition of SamQuarz (Pty) Ltd, a South African producer of silica, with quartz mining operations;
- **2012:** acquisition of a majority stake (51%) in Bécancour Silicon, Inc., a silicon metal producer in Canada, operated as a joint venture with Dow Corning as the holder of the minority stake of 49%;
- **2014:** acquisition of Silicon Technology (Pty) Ltd. ("Siltech"), a ferrosilicon producer in South Africa;
- **2018:** acquisition from a subsidiary of Glencore PLC of a 100% interest in manganese alloys plants in Mo i Rana, Norway and Dunkirk, France, through newly-formed subsidiaries Ferroglobe Mangan Norge AS and Ferroglobe Manganèse France, SAS;
- **2018:** sale of the majority interest in Hidro Nitro Española to an entity sponsored by a Spanish renewable energies fund;
- **2019:** sale of 100% interest in FerroAtlántica, S.A.U. ("FAU"), to investment vehicles affiliated with TPG Sixth Street Partners;
- **2019:** sale of 100% interest in Ultra Core Polska, z.o.o, to Cedie, S.A;
- **2021:** Sale of Niagara Falls silicon metal facility.

Corporate and Other Information

Our registered office is located at 5 Fleet Place, London EC4M 7RD, our Board of Directors is based at our London Office at 13 Chesterfield Street, London W1J 5JN, United Kingdom and our management is based in London and also at Torre Emperador Castellana, Paseo de la Castellana, 259-D, P49, 28046 Madrid, Spain. The telephone number of our Spanish Office is +34 915 903 219. Our Internet address is http://www.ferroglobe.com. The information on our website is not a part of this document. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at http://www.sec.gov.

B. Business Overview

Through its operating subsidiaries, Ferroglobe is one of the world's largest producers of silicon metal, silicon-based alloys and manganese-based alloys. Additionally, Ferroglobe currently has quartz mining activities in Spain, the United States, Canada, and South Africa, low-ash metallurgical quality coal mining activities in the United States, and interests in hydroelectric power in France. Ferroglobe controls a meaningful portion of most of its raw materials and captures, recycles and sells most of the by-products generated in its production processes.

We sell our products to a diverse base of customers worldwide, in a varied range of industries. These industries include aluminum, silicone compounds used in the chemical industry, ductile iron, automotive parts, renewable energy, photovoltaic (solar) cells, electronic semiconductors and steel, all of which are key elements in the manufacturing of a wide range of industrial and consumer products.

We are able to supply our customers with the broadest range of specialty metals and alloys in the industry from our production centers in North America, Europe, South America, Africa and Asia. Our broad manufacturing platform and flexible capabilities allow us to optimize production and focus on products most likely to enhance profitability, including the production of customized solutions and high purity metals to meet specific customer requirements. We also benefit from low operating costs, resulting from our ownership of sources of critical raw materials and the flexibility derived from our ability to alternate production at certain of our furnaces between silicon metal and silicon-based alloy products.

Industry and Market Data

The statements and other information contained below regarding Ferroglobe's competitive position and market share are based on the reports periodically published by leading metals industry consultants and leading metals industry publications and information centers, as well as on the estimates of Ferroglobe's management.

Competitive Strengths and Strategy of Ferroglobe

Competitive Strengths

Leading market positions in silicon metal, silicon-based alloys and manganese-based alloys

We are a leading global producer in our core products based on merchant production capacity and hold the leading market share in certain of our products. Specifically, in the case of silicon metal, with maximum global production capacity of approximately 328 thousand metric tons (which includes 51% of our attributable joint venture capacity, we have approximately 66% of the production capacity market share in North America and approximately 25% of the global market share (all of the world excluding China), according to management estimates for our industry. In the case of manganese-based alloys, following the acquisition of the Dunkirk, France and Mo i Rana, Norway plants in 2018, our market share is approximately 15% in Europe, and we are among the three largest global producers of manganese alloys excluding China.

Our scale and global presence across five continents allows us to offer a wide range of products to serve a variety of end-markets, including those which we consider to be dynamic, such as the solar, automotive, consumer electronic products, semiconductors, construction and energy industries. As a result of our market leadership and breadth of products, we possess critical insight into market demand allowing for more efficient use of our resources and operating capacity. Our ability to supply critical sources of high-quality raw materials from within our Company group promotes operational and financial stability and reduces the need for us to compete with our competitors for supply. We believe this also provides a competitive advantage, allowing us to deliver an enhanced product offering with consistent quality on a cost-efficient basis to our customers.

Global production footprint and reach

Our diversified production base consists of production facilities across North America, Europe, South America, South Africa and Asia. We have the capability to produce our core products at multiple facilities, providing a competitive advantage when reacting to changing global demand trends and customer requirements. Furthermore, this broad base ensures reliability to our customers that value timely delivery and consistent product quality. Our diverse production base also enables us to optimize our production plans and shift production to the lowest cost facilities. Most of our production facilities are located close to sources of principal raw materials, key customers or major transport hubs to facilitate delivery of raw materials and distribution of finished products. This enables us to service our customers globally, while optimizing our working capital, as well as enabling our customers to optimize their inventory levels.

Diverse base of high-quality customers across growing industries

We sell our products to customers in over 30 countries, with our largest customer concentration in North America and in Europe. Our products are used in end products spanning a broad range of industries, including solar, personal care and healthcare products, automobile parts, carbon and stainless steel, water pipe, solar, semiconductor, oil and gas, infrastructure and construction. Although some of these end-markets have growth drivers similar to our own, others are less correlated and offer the benefits of diversification. This wide range of products, customers and end-markets provides significant diversity and stability to our business.

Many of our customers, we believe, are leaders in their end-markets and fields. We have built long-lasting relationships with customers based on the breadth and quality of our product offerings and our ability to produce products that meet specific customer requirements. For the year ended December 31, 2022 and December 31, 2021, Ferroglobe's ten largest customers accounted for approximately 50.1% and 48.1%, respectively, of Ferroglobe's consolidated revenue. Our

customer relationships provide us with stability and visibility into our future volumes and earnings, though we are not reliant on any individual customer or end-market. Our customer relationships, together with our diversified product portfolio, provide us with opportunities to cross sell new products; for example, by offering silicon-based or manganese-based alloys to existing steelmaking customers.

Flexible and low-cost structure

We believe we have an efficient cost structure, enhanced over time by vertical integration through strategic acquisitions. The largest components of our cost base are raw materials and power. Our relatively low operating costs are primarily a result of our ownership of, and proximity to, sources of raw materials, our access to attractively priced power supplies and skilled labor and our efficient production processes.

We believe our vertically integrated business model and ownership of sources of raw materials provides us with a cost advantage over our competitors. Moreover, such ownership and the fact that we are not reliant on any single supplier for the remainder of our raw materials needs generally ensures stable, long term supply of raw materials for our production processes, thereby enhancing operational and financial stability. Transportation costs can be significant in our business; our proximity to sources of raw materials and customers improves logistics and represents another cost advantage. The proximity of our facilities to our customers also allows us to provide just in time delivery of finished goods and reduces the need to store excess inventory, resulting in more efficient use of working capital.

We capture, recycle and sell most of the by-products generated in our production processes, which further reduces our costs.

We operate with a largely variable cost of production and our diversified production base allows us to shift our production and distribution between facilities and products in response to changes in market conditions over time. Additionally, the diversity of our currency and commodity exposures provides, to a degree, a natural hedge against foreign exchange and raw materials pricing volatility. Our production costs are mostly dependent on local factors while our product prices are influenced more by global factors. Depreciation of local, functional currencies relative to the U.S. Dollar, when it occurs, reduces the costs of our operations, offering an increased competitive edge in the international market.

We believe our scale and global presence enables us to sustain our operations throughout periods of economic downturn, volatile commodity prices and demand fluctuations.

Stable supply of critical, high quality raw materials

In order to ensure reliable supplies of high-quality raw materials for the production of our metallurgical products, we have invested in strategic acquisitions of sources that supply a meaningful portion of the inputs our manufacturing operations consume. Specifically, we own and operate specialty, low ash, metallurgical quality coal mines in the United States, high purity quartz quarries in the United States, Spain and South Africa, charcoal production units in South Africa, and our Yonvey production facility for carbon electrodes in Ningxia, China. For raw materials needs our subsidiaries cannot meet, we have qualified multiple suppliers in each operating region for each raw material, helping to ensure reliable access to high quality raw materials.

Efficient and environmentally friendly by-product usage

We utilize or sell most of the by-products of our manufacturing process, which reduces cost and the environmental impact of our operations. We have developed markets for the by-products generated by our production processes and have transformed our manufacturing operations so that little solid waste disposal is required. By-products not recycled in the manufacturing process are generally sold to companies, which process them for use in a variety of other applications. These materials include: silica fume (also known as microsilica), used as a concrete additive, refractory material and oil well conditioner; fines - the fine material resulting from crushing lumps; and dross, which results from the purification process during smelting.

Pioneer in innovation with focus on technological advances and development of next generation products

Our talented workforce has historically developed proprietary technological capabilities and next generation products in-house, which we believe give us a competitive advantage. In addition to a dedicated R&D division, we have cooperation agreements in place with various universities and research institutes in Spain, France and other countries around the world. Our R&D achievements include:

- ELSA electrode — Ferroglobe has internally developed a patented technology for electrodes used in silicon metal furnaces, which it has been able to sell to several major silicon producers globally. This technology, known as the ELSA electrode, improves the energy efficiency in the production process of silicon metal and eliminates contamination from iron. Ferroglobe has granted these producers the right to use the ELSA electrode against payment to Ferroglobe of royalties. Continuous improvements are made to keep this invention state of the art.

- Solar Grade Silicon — Ferroglobe has sought to produce solar grade silicon metal with a purity above 99.9999% through a new, potentially cost effective, electrometallurgical process. The traditional chemical process tends to be costly and involves high energy consumption and potentially environmentally hazardous processes. The new technology entirely developed by Ferroglobe aims to reduce the costs, energy consumption and carbon footprint associated with the production of solar grade silicon. In connection with this project, FerroAtlántica obtained a loan, with a principal amount of approximately €45 million, from the Spanish Ministry of Industry and Energy for the purpose of building the UMG silicon plant. Due to the market environment for solar grade silicon (or polysilicon) worldwide, at the end of 2018 the Company suspended the investment in the project while preserving the technology and know-how in order to be able to finalize the construction of the factory when market circumstances change.

- Silicon for Advanced Technologies — Ferroglobe has launched the Silicon for Advanced Technologies project, which aims at producing silicon-based, tailor-made products for high end applications. In this project we leveraged the purification technologies developed for the Solar Grade silicon project and which are patented. These technologies are very industrial, cost effective and with low carbon footprint, which places Ferroglobe in an excellent in this new market. . At the same time, new know-how linked to specific milling technologies has been developed in the last years, placing Ferroglobe in an excellent position in this new market. Among the various targeted applications, a specific project of Silicon for Li-ion batteries was launched. Currently, we have the first demonstration milling unit in our Innovation Centre in Sabón (Spain) and we have several industrial purification units in Montricher (France) and Puertollano (Spain).

- Li-ion batteries — The capacity of the anode in Li-ion batteries can be enhanced by adding silicon. This is a particularly attractive market because silicon not only can increase capacity of the Li-ion batteries but can contribute to reduce costs, to reduce carbon footprint and to ease fast charging. All these benefits will help to develop new mobility solutions. In this specific field, Ferroglobe has established several technical partnerships and collaborations in order to rapidly advance the research and development work that a market like this needs.

  New R&D works are being carried out by the Ferroglobe Innovation team to develop new products that could fit in the requirements of next generations of batteries.

Experienced management team in the metals and mining industry

We have a seasoned and experienced management team with extensive knowledge of the global metals and mining industry, operational and financial expertise and a track record of developing and managing large-scale operations. Our management team is committed to responding quickly and effectively to macroeconomic and industry developments, to identifying and delivering growth opportunities and to improving our performance by way of a continuous focus on operational cost control and a disciplined, value-based approach to capital allocation. Our management team is complemented by a skilled operating team with solid technical knowledge of production processes and strong relationships with key customers.

Environmental, Social and Governance (ESG) Strategy

In 2021 we defined Ferroglobe's ESG Strategy 2022-2026, a roadmap that will enable us to benchmark and assess ourselves on ESG matters, in alignment with the demands of our stakeholders and our industry trends. The ESG Strategy brings us closer to our goal of becoming a relevant player in the development of a sustainable future.

It has been defined based on four strategic lines:

(i) Strengthening our governance framework
(ii) Promoting a solid & honest engagement with our people and local communities where we operate
(iii) Reinforcing the role of sustainability through our value chain
(iv) Improving our environmental footprint to enable materials which are vital for sustainable development.

The progress on ESG performance will be included in the ESG reports to be issued on a yearly basis. 2022 ESG report will be published in 2023.

Business Strategy

In 2020 we conducted a deep and broad evaluation of our Company with the goal of designing a strategic plan focused on bolstering the long term competitiveness of the business and returning the Company to profitability by fundamentally changing the way we operate, both operationally and financially. The multi-year turnaround plan we developed essentially impacts all the functional areas of our Company as we seek to drive changes that ensure competitiveness throughout the cycle. In the last 2 years, the Company set a target of achieving $225 million in EBITDA improvement. We achieved $188 million in cost savings and met our commercial excellence target of $50M. The key value drivers of our strategic plan were the following:

- Footprint optimization: One of the Company's core advantages is our large and diverse production platform. While our asset footprint provides flexibility, at times we are restricted in our ability to quickly adapt to changing market conditions due to inherent constraints in curtailing capacity, particularly for shorter durations. Going forward, our goal is to ensure that the operating platform is more flexible and modular so shifts in production, based on needs and relative costs, are incorporated swiftly. Through this value creation driver we aim to shift our capacity footprint by optimizing production to the most competitive assets.

- Continuous plant efficiency: We will continue to build on the success of our existing key technical metrics (KTM) program, which consists of specific initiatives aimed at enhancing our process, minimizing waste, and improving the overall efficiency to drive down costs. The Company maintains a pipeline of initiatives developed through the sharing of best practices amongst our numerous sites and through new improvements identified by our research and development team. Moreover, we have implemented developing tools to track our key performance indicators in an ongoing effort to improve furnace level performance.

- Commercial excellence: we have implemented commercial best practices to maximize profitable revenue, aiming at improving and reinforcing our pricing, account management, salesforce effectiveness, and product portfolio and customer focus. We have strengthened our customer relationships by developing a target portfolio prioritization, re-designing our commercial coverage and operating model, and structuring our account planning, with the definition of clear objectives for each of our customers and a sustained focus on long-term partnership building. We have implemented a range of digitally-enabled tools and processes across the entire commercial function, bringing our team's performance to the next level. Through our new customer relationship management tool, we have reinforced our account management and front-line effectiveness, as well as our customer service and quality management. On pricing, we have redesigned our governance process and introduced new tools to maximize profitability and provide margin transparency for every sale. Furthermore, we have re-designed our product management function, empowering this role to create customer value and act as a consistent source of information and cross-functional coordination.

- Centralized purchasing: we have adapted our operating model such that the purchase of our key inputs is done centrally and to support a purchase culture centered on buying better and spending better. This will enable us to improve its tracking of needs, enhance our ability to schedule purchases and enable us to benefit from bulk purchases. Buying better is a supply-led effort that focuses on price and volume allocation, negotiating prices and terms, managing price risks, pooling volumes and contracts, shifting volumes to best-price suppliers and leveraging procurement networks. Spending better is an operation-led effort to control demand, enforce compliance, reduce complexity, and perform value engineering to fost efficient spending. Through the principles of buying better and spending better, we aim to attain more than just cost reduction. Through the new organization, we seek to reduce supply chain risk, supporting continuous quality and service improvement, fostering better decision-making about suppliers and optimizing resource allocation.

- Selling, general and administration & corporate overhead reduction: during our corporate review, we identified significant opportunities for further cost improvement through permanent cost cutting at our plants, as well as the corporate centers. By tracking these costs vigorously and increasing accountability, we aim to bolster the overall cost structure at various levels. Through this, we aim to create a culture focused on cost control and disciplines for deploying best practices to drive sound spending decisions without compromising our overall performance.

- Working capital improvement: We have improved substantially our net working capital by establishing targets and improve our Supply Chain processes. This will allow us to sustain competitive levels of Working Capital throughout the cycle – and while we have recently witnessed a peak, given by slowdown of demand and margin compression, we are taking the measures to correct it and return to previous values.

With our strategic plan we aim to:

Maintain and leverage industry leading position in core businesses and pursue long-term growth

We intend to maintain and leverage our position as a leading global producer of silicon metal and one of the leading global producers of ferroalloys based on production capacity. We believe we will achieve our goals through the execution of our current strategic plan, which focuses on expanding our asset footprint in the regions that present attractive opportunities and continuing driving continuous improvements to increase competitiveness of our assets – including continue to secure competitive and clean sources of energy, extend our existing sources of Quartz, all while continuing our ESG journey.

We also plan to achieve organic growth by developing new products to further diversify our portfolio and expand our customer base (such as silicon-based anodic materials for Li-ion batteries). We intend to focus our production and sales efforts on high-margin products and end-markets that we consider to have the highest potential for profitability and growth. We will continue to capitalize on our global reach and the diversity of our production base to adapt to changes in market demands, shifting our production and distribution across facilities and between different products as necessary in order to remain competitive and maximize profitability. We aim to obtain further direct control of key raw materials to secure our long-term access to scarce reserves, which we believe will allow us to continue delivering enhanced products while maintaining our low-cost position. Additionally, we will continue regularly to review our customer contracts in an effort to improve their terms and to optimize the balance between selling under long-term agreements and retaining some exposure to spot markets. We intent to maintain pricing that appropriately reflects the value of our products and our level of customer service and, in light of commodity prices and demand fluctuations, may decide to change the weighting of our mix of contracts that are set at fixed prices versus index-based prices, to capitalize on market opportunities and to ensure a profit throughout the cycles.

Maintain low cost position while controlling inputs

We believe we have an efficient cost structure and, going forward, we will seek to further reduce costs and improve operational efficiency through a number of initiatives. We plan to focus on controlling the cost of our raw materials through our captive sources and long-term supply contracts and on lowering our fixed costs in order to reduce the unit costs of our silicon metal and ferroalloy production. We aim to improve our internal processes and further integrate our global footprint, such as benefits from value chain optimization, including enhancements in raw materials procurement and materials management; adoption of best practices and technical and operational know how across our platform; reduced freight costs from improved logistics as well as savings through the standardization of monitoring and reporting procedures, technology, systems and controls. We intend to enhance our production process through R&D and targeted capital expenditure and leverage our geographic footprint to shift production to the most cost effective and appropriate facilities and regions for such products. We will continue to regularly review our power supply contracts with a view to improving their terms and more competitive tariff structures. In addition, we will seek to maximize the value derived from the utilization and sale of by-products generated in our production processes and continue to focus on innovation to develop next generation products.

We believe we differentiate ourselves from our competitors on the basis of our technical expertise and innovation, which allow us to deliver new high-quality products to meet our customers' needs. We intend to keep using these capabilities in the future to retain existing customers and cultivate new business. We plan to leverage the expertise of our dedicated team of specialists to advance and to develop next generation products and technologies that fuel organic growth. In particular, we intend develop high value powders for high end applications, including silicon-based anodic materials for Li-ion batteries. We also aim to further pilot EV Battery Cathodes and Test process to produce construction materials with high-thermal insulation properties, through non-recycled slag.

Maintain financial discipline to facilitate ongoing operations and support growth

We believe maintaining financial discipline will provide us with the ability to manage the volatility in our business resulting from changes in commodity prices and demand fluctuations. We intend to preserve a strong and conservative balance sheet, with sufficient liquidity and financial flexibility to facilitate all of our ongoing operations, to support organic and strategic growth and to finance prudent capital expenditure programs aimed at placing us in a better position to generate increased revenues and cash flows by delivering a more comprehensive product mix and optimized production in response to market circumstances. We plan to become even more efficient in our working capital management through various initiatives aimed at optimizing inventory levels and accounts receivable. We will also seek to repay indebtedness from free cash flow and retain low leverage for maximum free cash flow generation.

Pursue strategic opportunities

We have a proven track record of disciplined acquisitions of complementary businesses and successfully integrating them into existing operations while retaining a targeted approach through appropriate asset divestitures. Our past acquisitions have increased the vertical integration of our activities, allowing us to deliver an enhanced product offering on a cost-efficient basis. We regularly consider and evaluate strategic opportunities for our business and will continue to do so in the future with the objective of expanding our capabilities and leveraging our products and operations. In particular, we intend to pursue complementary acquisitions and other investments at appropriate valuations for the purpose of increasing our capacity, increasing our access to raw materials and other inputs, further refining existing products, broadening our product portfolio and entering new markets. We will consider such strategic opportunities in a disciplined fashion while maintaining a conservative leverage position and strong balance sheet.

We will also seek to evaluate our core business strategy on an ongoing basis and may divest certain non-core and lower margin businesses to improve our financial and operational results.

Facilities and Production Capacity

The following chart shows, as of December 31, 2022, the location of our assets and our production capacity, including 51% of the capacity of our joint ventures (of which we own 51%), by geography, of silicon, silicon-based alloys and manganese-based alloys. It is important to note that certain facilities may and do switch from time to time among different families of products (for instance, from silicon metal to silicon-based alloys and vice-versa) or among different products within the same family (for instance from ferromanganese to silicomanganese). Such switches change the production capacity at each plant.

Our production facilities are strategically located throughout the world. We operate quartz mines located in Spain, South Africa, Canada, and the United States, and charcoal production in South Africa. Additionally, we operate low-ash, metallurgical grade coal mines in the United States.

From time to time, in response to market conditions and to manage operating expenses, facilities are fully or partially idled. As of December 31, 2021, certain production facilities in the United States, Spain, Venezuela and South Africa are partially or fully idled, as a result of current market conditions. Ferroglobe subsidiaries own a total of 18.9 megawatts of hydro production capacity in France.

Products

Production Capacity by Geography (kt)

(000, mt)	Europe	N. America	S. America	Africa	Total
Silicon Metal [3]	184,000	93,160	-	51,000	328,160
Silicon-Based Alloys	118,000	92,000	26,000	66,000	302,000
Manganese-Based Alloys	561,500				561,500
Total [4],	**863,500**	**185,160**	**26,000**	**117,000**	**1,191,660**

For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's consolidated sales by product were as follows:

	Year ended December 31,		
($ thousands)	**2022**	**2021**	**2020**
Silicon metal	1,116,193	637,695	463,217
Manganese-based alloys	525,483	469,138	267,469
Ferrosilicon	561,539	337,833	176,447
Other silicon-based alloys	192,409	161,750	126,817
Silica fume	32,290	32,409	25,888
Other	170,002	140,083	84,596
Total Sales	**2,597,916**	**1,778,908**	**1,144,434**
Shipments in metric tons:			
Silicon metal	209,342	253,991	207,332
Manganese-based alloys	295,589	314,439	261,605
Ferrosilicon	154,972	166,268	134,849
Other silicon-based alloys	49,105	76,498	65,362
Average Selling price ($/MT):			
Silicon metal	5,332	2,511	2,234
Manganese-based alloys	1,778	1,492	1,022
Ferrosilicon	3,623	2,032	1,308
Other silicon-based alloys	3,918	2,114	1,940

Silicon metal

Ferroglobe is a leading global silicon metal producer with a total production capacity of approximately 328,160 tons (including our 51% share of Ferroglobe's joint venture capacity). Ferroglobe's silicon metal production is spread across facilities located in the United States, France, South Africa, Canada and Spain. For the years ended December 31, 2022, 2021 and 2020, Silicon metal sales accounted for 43.0%, 35.8% and 40.5% of Ferroglobe's total consolidated revenues.

Silicon metal is used by primary and secondary aluminum producers, who require silicon metal with specific properties to produce aluminum alloys. The addition of silicon metal during production helps to reduce shrinkage and the hot cracking tendencies of cast aluminum and improves the castability, hardness, corrosion resistance, tensile strength, wear resistance and weldability of the aluminum end products. Aluminum is used to manufacture a variety of automotive components, including engine pistons, housings, and cast aluminum wheels and trim, as well as high tension electrical wire, aircraft parts, beverage containers and other products which require aluminum properties.For the year ended December 31, 2022, sales to aluminum producers represented approximately 29% of silicon metal revenues.

Silicon metal is also used by several major silicone chemical producers across a broad range of applications, including personal care items, construction-related products, healthcare and electronics. In construction and equipment applications, silicone chemicals promote adhesion, act as a sealer and provide insulating properties. In personal care and health care products, silicone chemicals add a smooth texture that protects against ultraviolet rays and provide moisturizing and cleansing properties. Silicon metal is an essential component in the production of silicone chemicals, accounting for approximately 20% of the cost of production. For the year ended December 31, 2022 sales to chemical producers represented approximately 66% of silicon metal revenues.

In addition, silicon metal is the primary ingredient in the production of polysilicon, which is most widely used to manufacture solar cells and semiconductors. Producers of polysilicon employ processes to further purify silicon metal and grow ingots from which wafers are cut. These wafers are the base material to produce solar cells, to convert sunlight to electricity. Individual solar cells are soldered together to make solar modules. For the year ended December 31, 2022 sales to polysilicon producers represented approximately 5% of silicon metal revenues.

Silicon-based alloys

Ferrosilicon

Ferroglobe is among the leading global ferrosilicon producers based on production output in recent years. During the year ended December 31, 2022, Ferroglobe sold 147,725 tons of ferrosilicon. For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by ferrosilicon sales accounted for 21.6%, 19.0% and 15.4%, of Ferroglobe's total consolidated revenues.

Ferrosilicon is an alloy of iron and silicon (normally approximately 75% silicon). Ferrosilicon products are used to produce stainless steel, carbon steel, and various other steel alloys and to manufacture electrodes and, to a lesser extent, in the production of aluminum. Approximately 88% of ferrosilicon produced is used in steel production.

Ferrosilicon is generally used to remove oxygen from the steel and as alloying element to improve the quality and strength of iron and steel products. Silicon increases steel's strength and wear resistance, elasticity and scale resistance, and lowers the electrical conductivity and magnetostriction of steel.

Other silicon-based alloys

During the year ended December 31, 2022, Ferroglobe sold 56,630 tons of silicon-based alloys (excluding ferrosilicon). For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by silicon-based alloys (excluding ferrosilicon) accounted for 7.4%, 9.1% and 11.1% of Ferroglobe's total consolidated revenues.

Ferroglobe produces various different silicon-based alloys, including calcium silicon and foundry products, which comprise inoculants and nodularizers. Ferroglobe produces more than 20 specialized varieties of foundry products, several of which are custom made for its customers. Demand for these specialty metals is increasing and, as such, they are becoming more important components of Ferroglobe's product offering.

The primary use for calcium silicon is the deoxidation and desulfurization of liquid steel. In addition, calcium silicon is used to control the shape, size and distribution of oxide and sulfide inclusions, improving fluidity, ductility, and the transverse mechanical and impact properties of the final product. Calcium silicon is also used in the production of coatings for cast iron pipes, in the welding process of powder metal and in pyrotechnics.

The foundry products that Ferroglobe manufactures include nodularizers and inoculants, which are used in the production of iron to improve its tensile strength, ductility and impact properties, and to refine the homogeneity of the cast iron structure.

Silica fume

For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by silica fume sales accounted for 1.2%, 1.8% and 2.3% respectively, of Ferroglobe's total consolidated sales.

Silica fume is a by-product of the electrometallurgical process of silicon metal and ferrosilicon. This dust-like material, collected through Ferroglobe factories' air filtration systems, is mainly used in the production of high-performance concrete and mortar. The controlled addition of silica fume to these products results in increased durability, improving their impermeability from external agents, such as water. These types of concrete and mortar are used in large-scale projects such as bridges, viaducts, ports, skyscrapers and offshore platforms.

Manganese-based alloys

Ferroglobe is among the leading global manganese-based alloys producers based on production capacity. As of December 31, 2022, Ferroglobe maintained approximately 289,500 tons of annual silicomanganese production capacity and approximately 272,000 tons of annual ferromanganese production capacity across our factories in Spain, Norway and

France. During the year ended December 31, 2022, Ferroglobe sold 295,590 tons of manganese-based alloys. For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by manganese-based alloys sales accounted for 20.2%, 26.4% and 23.4%, of Ferroglobe's total consolidated revenues. Over 90% of global manganese based alloys production is used in steel production, and all steelmakers use manganese and manganese alloys in their production processes.

Silicomanganese is used as deoxidizing agent in the steel manufacturing process. Silicomanganese is also produced in the form of refined silicomanganese, or silicomanganese AF, super-refined silicomanganese, and silicomanganese LC.

Ferromanganese is used as a deoxidizing, desulphurizing and degassing agent in steel to remove nitrogen and other harmful elements that are present in steel in the initial smelting process, and to improve the mechanical properties, hardenability and resistance to abrasion of steel. The three types of ferromanganese produced by Ferroglobe are:

- high-carbon ferromanganese used to improve the durability of steel;
- medium-carbon ferromanganese used to manufacture flat and other steel products; and
- low-carbon ferromanganese used in the production of stainless steel, low-carbon steel, rolled steel plates and pipes utilized by the oil industry.

Raw Materials, Logistics and Power Supply

The primary raw materials used by Ferroglobe are carbon reductants (primarily coal, but also charcoal, metallurgical and petroleum coke, anthracite and wood) as well as minerals (manganese ore and quartz). Other raw materials used include electrodes (consisting of graphite and carbon electrodes and electrode paste), slag and limestone, as well as certain specialty additive metals. Ferroglobe procures coal, manganese ore, quartz, petroleum and metallurgical coke, electrodes and most additive metals centrally under the responsibility of the corporate purchasing department. Some locally sourced raw materials are purchased at a decentralized level (country specific purchasers) under close cooperation with the corporate purchasing department.

Manganese ore

The global supply of manganese ore comprises standard to high-grade manganese ore, with a 35% to 56% manganese content, and low-grade manganese ore, with lower manganese content. Manganese ore production comes mainly from a limited number of countries including South Africa, Australia, China, Gabon, Brazil, Ukraine, India and Ghana. However, the production of high-grade manganese ore is concentrated in Australia, Gabon, South Africa and Brazil.

The vast majority of the manganese ore Ferroglobe purchased in 2022 came from suppliers located in South Africa (58% of total purchases) and Gabon (40% of total purchases). Global manganese ore prices are mainly driven by manganese demand from China and to a lower extent from India. Potential disruption of supply from South Africa, Australia, Brazil or Gabon due to logistical, labor or other reasons may have an impact on the availability and the pricing of manganese ore.

Coal

Coal is the most commonly used carbon reductant in silicon and silicon alloys production. Only washed and screened coal with ash content below 10% alongside other specific physical properties, can be used in the production of silicon alloys. Colombia and the United States are the leading source for the required type of coal and the vast majority of the silicon alloys industry, including Ferroglobe, is dependent on supply from these two countries.

Approximately 65% of the coal Ferroglobe purchased externally in 2022 was sourced from one source in Colombia while the remaining 35% came from the United States as well as from Kazakhstan and South Africa. Ferroglobe has a long-standing relationship with the operators of coal washing plants who price coal using spot, quarterly, semi-annual or

annual contracts, based on market outlook. European coal prices, which are denominated in U.S. Dollars, are mainly based on API 2, the benchmark price reference for coal imported into northwest Europe.

Ferroglobe also owns Alden Resources LLC ("Alden") in the United States. Alden provides a stable and long-term supply of low ash metallurgical grade coal by fulfilling a substantial portion of the requirements of our North American operations.

See "—Mining Operations" below for further information.

Quartz

Quartz, also known as quartzite, is a key raw material in the production of silicon metal and silicon-based alloys.

Ferroglobe has secured exclusive access to quartz through its quartz mines in Spain, South Africa, the United States and Canada (see "—Mining Operations"). For the year ended December 31, 2022 60.7% of Ferroglobe's total consumption of quartz was supplied from Ferroglobe's own sources. To compliment this Ferroglobe purchases its remaining quartz requirements from third-party suppliers through annual contracts. Ferroglobe's quartz suppliers typically have operations in the same countries where Ferroglobe factories are located, or in close proximity, which minimizes logistical costs and supply chain risks.

Ferroglobe controls quartzite mining operations located in Alabama and a concession to mine quartzite in Saint-Urbain, Québec (operated by a third-party). These mines supply our North American operations with a substantial portion of their quartz requirements.

Other raw materials

Wood is needed for the production of silicon metal and silicon-based alloys. It is used directly in furnaces as woodchips or to produce charcoal, which is the primary source of carbon reductant for Ferroglobe's plants in South Africa. In South Africa, charcoal is a less expensive substitute for imported coal and provides desirable qualities to the silicon-based alloys it is used to produce. In other countries where Ferroglobe operates, Ferroglobe purchases wood chips locally or logs for on-site wood chipping operations from a variety of suppliers.

In 2022, Ferroglobe's sources of metallurgical coke were predominantly Poland and Colombia, although certain quantities were sourced from Russia in the first half of the year.

Petroleum coke, electrode related products, slag, limestone and additive metals are important raw materials that Ferroglobe utilizes to manufacture electrometallurgy products. Procurement of these raw materials is either managed centrally or in certain cases, by the local raw materials procurement manager or plant manager with the materials purchased at spot prices or through contracts of up to one year.

In 2022, the sourcing of graphite electrodes came from Europe, India, Ukraine and China through a combination of spot and long-term agreements. Carbon electrodes supplies come from Russia, Poland and China, including from Ferroglobe´s own carbon electrode factory in Ningxia Province in China.

Cost of raw materials

The main raw materials sourced by Ferroglobe are quartz, manganese ore, coal, metallurgical coke, wood and charcoal. Manganese ore is the largest component of the cost base for manganese-based alloys. In 2022, more than 33% of Ferroglobe's total expenditure on manganese ore was $187,75 million through an annual commitment, whilst the remaining was purchased on a spot basis. Coal is used as a major carbon reductant in silicon-based alloy production. In 2022, coal represented a $179.5 million expense for Ferroglobe. Metallurgical coke, used for Mn Alloys production, represented a total purchase volume of $72.9 million in 2022.

Wood is an important element for the production of both silicon alloys and charcoal, which is used as a carbon reductant at Ferroglobe's South African subsidiary Silicon Smelters (Pty.), Ltd. Ferroglobe's wood expense amounted to 37.8 million 2022.

The FerroAtlántica subsidiaries of Ferroglobe sourced approximately 63% of their quartz needs from FerroAtlántica's mines in Spain and South Africa, with Globe subsidiaries sourcing approximately 64% of their quartz needs from Globe's mines in the United States and Canada. Total quartz consumption in 2022 represented an expense of $ 90.4 million.

Logistics

Logistical operations are managed centrally where possible. Sea-freight operations are centralized at corporate level, while rail logistics are centralized at country level. Road transportation is managed at plant level with centralized coordination in countries multiple sites. Contractual commitments in respect of transportation and logistics match, to the extent possible, Ferroglobe's commitments for raw materials and customer contracts.

Power

In Spain, energy is purchased through a supply contract with trading companies. The final energy price is subject to daily market volatility. In 2022, Spanish power prices initially exceeded the general power price increases seen across Europe, with and prices moving significantly above the five-year average Spain. In June 2022, and in response to the impact of gas prices on electricity tariffs, a compensation mechanism was introduced by the Spanish Government for a duration of one year. The European Union provided additional support by capping prices in Spain. Due to the persistent high energy prices in Spain, Ferroglobe took the decision to reduce production in the country during the second half of 2022. To achieve the most competitive energy costs, production is adjusted to align with the to the hourly scheme under the tariffs alongside energy management systems implemented across all plants. All Spanish plants are classified as electro-intensive power consumers giving access to discounts on certain cost components of the electrical grid. In 2022, the Spanish government applied an 80 % rebate on distribution costs in addition to indirect CO2 compensation which helped to alleviate rate increases. See also "Item 7.—Major Shareholders and Related Party Transactions—Related Party Transactions".

Ferroglobe has negotiated a supply contract in France based on ARENH (Nuclear electricity at a fixed tariff) and market prices for three years from 2020 until 2022. A similar contract was executed in 2022 covering 2023 until 2025. Regulation enacted in 2015 enables FerroPem SAS and FMF to benefit from reduced transmission tariffs, interruptibility compensation (an agreement whereby the companies agree to interrupt production in response to surges in demand across the French electricity grid), as well as receiving compensation for indirect CO2 costs under the EU Emission Trading System (ETS) regulation. These arrangements allow FerroPem SAS and FMF to operate competitively over a 12-month basis, but also allows our plants to concentrate production during periods when energy prices are lower, as and when required. Ferroglobe's production of energy in France through its hydro-electric power plants provides some mitigation to its exposure to volatility in energy price.

In the United States, we favour long term electric supply contracts that provide the ability to interrupt load and achieve reasonable rates. Our power supply contracts have, in the past, resulted in stable price structures. In West Virginia, we have a contract with Brookfield Renewable Partners, LP to provide, on average, 45% of our power needs, from a dedicated hydro-electric facility, through December 2025 at a fixed rate. Our needs for non-hydroelectric power in West Virginia and Alabama are primarily sourced through special contracts that provide competitive rates. In Ohio, electricity is sourced at market-based rates.

In South Africa, we have an "evergreen" supply agreement with Eskom, the local electricity supplier, for our Polokwane, eMalahleni, Newcastle (Siltech) and Thaba Chueu mining facilities. Eskom's energy prices are regulated by the National Energy Regulator (NERSA) and price changes are publicly announced in advance and implemented on the 1st of April every year. Operational smelters in South Africa were operating on normal tariffs for the year 2022, with eMalahleni participating in a curtailment program. The Polokwane smelter was taken out of Care & Maintenance in November 2022 and a new Electricity Supply Agreement was signed with Eskom. The Newcastle smelter remained in Care & Maintenance for the full year. In eMalahleni, focus remained on ferrosilicon production. Profitability was very good with positive

EBITDA figures for the plant, and as a result, we are evaluating the potential to start exporting ferrosilicon. The eMalahleni plant continued to participate in an interruptibility program where power curtailments are compensated on an hourly basis. This has a positive effect on the overall price paid for electricity. As a result, we look to insure production during the summer months when power is cheaper. Conversely, we look to reduce our output during the winter months (June, July and August), when power is more expensive.

Independent power production from private power producers increased during 2022 and helped to improve supply within the country, this is expected to continue to grow over the next 2 to4 years and will help alleviate the amount Load Shedding Events undertaken by Eskom. We are currently engaging with green energy producers to diversify our power supply from 2024. This will be on a power wheeling basis through Eskom's grid, allowing consumption at any of our plants.

In Norway, we have a long-term contract with Statkraft to provide 75% of our energy needs at a fix price. Ferroglobe Manganese Norway is also benefiting from a reduction of distribution tariff, whilst also receiving compensation for indirect CO2 costs under the EU Emission Trading System (ETS) regulation, allowing FMF to produce very competitively.

The level of power consumption of our submerged electric arc furnaces is highly dependent on which products are being produced and typically fall in the following ranges: (i) manganese based alloys require between 1.5 and 5.5 megawatt hours to produce one ton of product, (ii) silicon based alloys require between 7 and 8 megawatt hours to produce one ton of product and (iii) silicon metal requires approximately 12 megawatt hours to produce one ton of product. As a result, consistent access to low cost, reliable sources of electricity is essential to our business.

Mining Operations

Reserves

The Securities and Exchange Commission ("SEC") amendments to its disclosure rules modernizing the mineral property disclosure requirements for mining registrants became effective on January 1, 2021. The amendments include the adoption of S-K 1300, which governs disclosure for mining registrants (the "SEC Mining Modernization Rules"). The SEC Mining Modernization Rules replaced the historical property disclosure requirements for mining registrants that were included in the SEC's Industry Guide 7 and better align disclosure with international industry and regulatory practices.

A Mineral reserve is defined by S-K 1300 as an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted. A proven mineral reserve is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource. A probable mineral reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource. Reserve estimates were made by independent third party consultants (qualified person), based primarily on dimensions revealed in outcrops, trenches, detailed sampling and drilling studies performed. For a probable mineral reserve, the qualified person's confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality is lower than what is sufficient for a classification as a proven mineral reserve, but is still sufficient to demonstrate that, at the time of reporting, extraction of the mineral reserve is economically viable under reasonable investment and market assumptions. For a proven mineral reserve, the qualified person has a high degree of confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality. These estimates are reviewed and reassessed from time to time. Reserve estimates are based on various assumptions, and any material changes in these assumptions could have a material impact on the accuracy of Ferroglobe's reserve estimates.

The following table sets forth summary information on Ferroglobe's mines as of December 31, 2022.

Mine	Location	Mineral	Annual capacity kt	Production in 2022 kt	Production in 2021 kt	Production in 2020 kt	Mining Recovery
Sonia	Spain (Mañón)	Quartz	150	141	125	89	0,4
Esmeralda	Spain (Val do Dubra)	Quartz	50	22	25	19	0,4
Serrabal.	Spain (Vedra & Boqueixón)	Quartz	330	288	300	184	0,2
Thaba Chueu Mining	South Africa (Delmas)	Quartzite	1,000	553	601	586	0,7
Mahale	South Africa (Limpopo)	Quartz	80	23	24	25	0,5
Roodepoort	South Africa (Limpopo)	Quartz	50	—	—	—	0,5
Fort Klipdam	South Africa (Limpopo)	Quartz	50	43	30	34	0,6
AS&G Meadows Pit	United States (Alabama)	Quartzite	300	115	242	257	0,4
			2,010	**1,185**	**1,346**	**1,194**	
Mosely Gap	United States (Kentucky)	Coal (active)	400	379.5	—	—	0,7
Davis Creek	United States (Kentucky)	Coal (inactive)	240	7.2	3	3	0,7
Log Cabin No. 5	United States (Kentucky)	Coal (active)	168	170.2	156	156	0,6
Hubbs Hollow	United States (Kentucky)	Coal (active)	200	84	—	—	0,7
Kimberly	United States (Kentucky)	Coal (inactive)	100	—	—	—	0,6
Bennett's Branch	United States (Kentucky)	Coal (inactive)	100	—	—	—	0,7
Bain Branch No. 3	United States (Kentucky)	Coal (inactive)	60	—	—	—	0,5
Harpes Creek 4A	United States (Kentucky)	Coal (active)	100	32.7	—	—	0,6
			1,368	**673.60**	**159**	159	

Mine	Proven reserves Mt(1)	Probable reserves Mt(1)	Mining Method	Reserve grade	Btus per lb.	Life(2)	Expiry date(3)
Sonia	1.58	0.8	Open-pit	Metallurgical	N/A	16	2069
Esmeralda	0.03	0.12	Open-pit	Metallurgical	N/A	7	2029
Serrabal.	3.11	1.6	Open-pit	Metallurgical	N/A	16	2038
Thaba Chueu Mining	7.03	19.5	Open-pit	Metallurgical & Glass	N/A	37	2039
Mahale	—	3.0	Open-pit	Metallurgical	N/A	30	2035
Roodepoort	—	0.02	Open-pit	Metallurgical	N/A	2	2028
Fort Klipdam	—	1.0	Open-pit	Metallurgical	N/A	5	2022 (4)
AS&G Meadows Pit	3.00	—	Surface	Metallurgical	N/A	9	2031
	14.75	26.04					
Mosely Gap	1.5	—	Surface	Metallurgical	14,000	3	2025
Hubbs Hollow	2.5	—	Surface	Metallurgical	14,000	4	2026
Log Cabin No. 5	0.6	—	Underground	Metallurgical	14,000	2	2024
Buffalo Creek	0.5	—	Surface	Metallurgical	14,000	2	2027
Kimberly	0.5	—	Surface	Metallurgical	14,000	5	2026
Bennett's Branch	1.7	—	Underground	Metallurgical	14,000	15	2036
Bain Branch No. 3	3.6	2.9	Underground	Metallurgical	14,000	25	2042
Harpes Creek 4A	1.2	1.3	Underground	Metallurgical	14,000	10	2032
	12.10	4.20					

(1) The estimated recoverable proven and probable reserves represent the tons of product that can be used internally or sold to metallurgical or glass grade customers. The mining recovery is based on historical yields at each particular site. We estimate our permitted mining life based on the number of years we can sustain average production rates under current circumstances.

(2) Current estimated mine life in years.

(3) Expiry date of Ferroglobe's mining concession.

(4) The expiry date relates to last approved mining permit relating to an area within Fort Klipdam farm. The application for a new Mining Right has not yet been approved and the last mining permit has been submitted for a 1-year renewal period until end 2022.

Ferroglobe considers its Conchitina and Conchitina Segunda mines as a single mining project legally supported by the formation of Coto Minero, formally approved by the Mining Authority in March 2018. In addition, Ferroglobe currently holds all necessary permits to start production at its Conchitina mines. Although Ferroglobe has not received formal approval from the Spanish Mining Authority over its 2023 Annual Mining Plan, we are not legally prevented from commencing mining operations in the area based on the fully-authorized 2022 Annual Mining Plan.

Reserves for the Conchitina mine are, accordingly, considered to be probable reserves, and the following table sets forth summary information on the Conchitina and Conchitina Segunda mines:

				Recoverable Reserves			
Mine	Location	Mineralization	Mining Recovery	Proven MT[1]	Probable MT[1]	Reserve Grade	Mining Method
Conchitina and Conchitina Segunda	Spain (O Vicedo)	Quartz	0.35	—	0.80	Metallurgical	Open-pit

(1) Estimates of recoverable probable reserves represent the tons of product that can be used internally or which are of metallurgical grade and can be delivered to Ferroglobe's customers.

Ferroglobe has additional mining rights in Spain (Cristina and Merlán), but none of these mines are currently producing or undergoing mine development activities as the Spanish Mining Authority started cancelling mining rights for Merlán and Cristina in September 2015 and December 2017, respectively. The Spanish Mining Authority concluded the cancellation process for our mining rights for Trasmonte. Ferroglobe does not consider classify its Venezuelan mines as mining assets (La Candelaria, El Manteco and El Merey) as the minerals are fully-depleted and due to the difficulty in obtaining new mining rights at these locations given the current economic and political environment.

Spanish mining concessions

Conchitina

The Conchitina mining concession previously belonged to Cuarzos Industriales S.A.U., which acquired the mining concession in 1979. Ferroglobe acquired this company, along with Conchitina mining concession, in 1996 from the Portuguese cement manufacturer Cimpor. The Conchitina Segunda mining concession was granted to Cuarzos Industriales S.A.U. in 1997 for a 30-year term after the necessary mining research had been conducted and the mining potential of the area had been demonstrated. The Conchitina concession expired in 2009 and Cuarzos Industriales S.A.U. subsequently applied for its renewal, whilst also requesting the competent authority to consolidate the concession with that of Conchitina Segunda. Legal support for the consolidation request was that both mining rights apply over a unique quartz deposit. Approval was formally granted in March 2018. Cuarzos Industriales S.A.U. is the owner of the properties currently mined at Conchitina. The surface area covered by Conchitina concessions is 497 hectares.

Sonia

The Sonia mining concession previously belonged to Cuarzos Industriales S.A.U., which acquired the mining concession in 1979. Ferroglobe acquired Cuarzos Industriales S.A.U., which is the owner of the properties currently mined at Sonia, along with the Sonia mining concession, in 1996 from the Portuguese cement manufacturer Cimpor. The surface area covered by the Sonia mining concession is 387 hectares. The concession is due to expire in 2069.

Esmeralda

The original Esmeralda mining concession was granted in 1999 to Cuarzos Industriales, S.A.U., the owner of the properties currently mined at Esmeralda, after proper mining research had been conducted and the mining potential of the area had been demonstrated to the relevant public authority. The surface area covered by the Esmeralda mining concession is 84 hectares. The concession is due to expire in 2029.

Serrabal

The Serrabal mining concession was originally granted in 1978 to Rocas, Arcillas y Minerales S.A. Ferroglobe acquired control of this company, which is the owner of the properties currently mined at Serrabal, along with the Serrabal mining concession, in 2000. Rocas, Arcillas y Minerales, S.A. has applied for the renewal of the concession. Pursuant to an interim measure approved by the applicable mining authority, Rocas Arcillas y Minerales S.A. is permitted to continue mining

operations in Serrabal indefinitely until a final decision on the renewal of the concession has been made. If the renewal is granted, the concession will expire in 2038. The surface area covered by Serrabal mining concession is 861 hectares.

Cabanetas

The mining right granting process and tax regulations applicable to the Cabanetas limestone quarry differ slightly from those applicable to other Ferroglobe mines in Spain due to Cabanetas classification as a quarry, as opposed to a mine. Ferroglobe is currently operating the Cabanetas quarry pursuant to a permit resolution, which authorized the extension of the original mining concession, issued in 2013 by the competent mining authority. The extension is for a period of 30 years and, consequently, the concession will expire in 2043. Limestone extracted from the Cabanetas quarry was intended to be used by the FerroAtlántica del Cinca S.L. Monzón electrometallurgy plant. However, because new metallurgical techniques require low consumption of this product, most of the Cabanetas limestone is generally sold to the civil engineering and construction industries. The production level of the Cabanetas quarry has fallen considerably in recent years, mainly due to difficulties in the local construction industry.

The land on which the mining property is located is owned by Mancomunidad de Propietarios de Fincas Las Sierras and the plot containing the mining property is leased to FerroAtlantica del Cinca S.L. pursuant to a lease agreement entered into in 1950, which was subsequently restated in 2000 and is due to expire in 2020. The lease agreement has been extended to 2050. To retain the lease, FerroAtlantica del Cinca S.L. pays the landlord an annual fee currently equal to €0.15 per ton of limestone quarried out of the mine. The quarry covers a surface area of approximately 180 hectares. The area affected by the planned exploitation during the current extension of the concession area is 6.9 hectares.

For further information regarding Spanish regulations applicable to mining concessions, as well as environmental and other regulations, see "—Laws and regulations applicable to Ferroglobe's mining operations—Spain.

South African mining rights

Thaba Chueu Mining Delmas Operation

The SamQuarz mining rights were transferred from the original owners, Glass South Africa Holdings (Pty) Ltd and Samancor Limited, to SamQuarz (Pty) Ltd. ("SamQuarz") in 1997. In 2009, the Minister of Mineral Resources converted the then existing SamQuarz mining rights into new order mining rights due to expire after 30 years in 2039. In 2012, FerroAtlántica acquired control of SamQuarz along with the mining rights. At the end of 2014, SamQuarz mining rights were transferred from SamQuarz to its sole shareholder, Thaba Chueu Mining (Pty) Ltd ("TCM"). During 2017, ownership of the properties currently mined in Delmas were transferred from SamQuarz to TCM. The total surface area covered by TCM Delmas mine is 118.1 hectares. The mine supplies some of its material to Ferroglobe's eMalahleni smelter, but the majority of its production, mainly Flint Sand, is sold to South African Glass Manufacturing Industry and other local Metallurgical customers.

Mahale

Mahale is state-owned land, lawfully occupied by the Mahale community. Thaba Chueue Mining currently leases the land pursuant to an agreement with the Majeje Traditional Authority and runs mining operations on the area with mining rights owned by Thaba Chueue Mining and licensed to it. The latest mining right license was granted by the Department of Mineral Resources in December 2014 and registered at the mining titles deeds office in early 2016. The license is for a 20-year period and will expire in 2035. The total surface area covered by Mahale mine is 329.7 hectares. The lease agreement between Thaba Chueue Mining and the Majeje Traditional Authority will be in force for the entire duration of the mining right or as long as it is economically viable for the lessee to mine. Under the lease agreement, a monthly rent of ZAR 10 per Ton is paid to the lessor in the form of a Royalty. Mining volumes reduced significantly at the Mahale mine through the stoppage of the Polokwane smelter in July 2019, but activities are continuing at minimum viable production volumes to supply the eMalahleni smelter with low alkaline quartz. Activity at this mine is expected to be restored during 2023 through the restart of the Polokwane smelter in November 2022. Options are also under investigation to target export

High Purity Quartz to the EU in order to act as a counter measure to local mining costs to improve production costs at the smelters going forward.

Roodepoort

The Roodepoort mining right is held by Ferroglobe's subsidiary, Silicon Smelters (Pty.), Ltd. ("Silicon Smelters"), and will expire in 2028. In 2009, Silicon Smelters applied for a conversion of the mining right into a new mining right under the South African Mineral and Petroleum Resources Development Act (the "MPRDA"), which came into force in 2004. The new mining right has been granted and is valid for the continuation of our mining activities at the Roodeport mine until. Silicon Smelters is currently in the process of transferring this mining right to its mining subsidiary, Thaba Chueue Mining, in order that all licenses and permits in South Africa are held under this entity.

The total surface area covered by Roodepoort mine is 17.6 hectares. The mining area covers the cobble and block areas. The land in which Roodepoort mine is located is owned by Alpha Sand, which also conducts all mining operations as a contractor for Silicon Smelters. An agreement is in place whereby Alpha Sand operates the mine and Silicon Smelters purchases the quartz mined from Alpha Sand based on the quartz requirements of Silicon Smelters and at prices that are reviewed annually on the basis of increases in production costs and diesel fuel. The agreement with Alpha Sand will terminate at the expiry of the mining right or when it is no longer economically viable to mine quartz in the area. Mining activities were suspended in July 2019 when a decision was taken to stop production at the Polokwane smelter and agreement was reached with the authorities to suspend activities legally until such time when the silicon metal market recovers significantly in order to allow the restart of the Polokwane smelter. With the restart of the Polokwane smelter in November 2022, it is expected that operations at this mine could be restored towards the second half of 2023.

Fort Klipdam

The land on which Fort Klipdam is located is owned by Silicon Smelters. The mining rights application filed by Silicon Smelters was rejected. Mining operations have been limited to mining permits that were approved for quartz mining, which includes block mine areas. As substantial block reserves have been established, a new application was launched in 2021 for a mining right and the current mining permit was extended to December 2022. Negotiations are continuing with local mining authorities in order to secure a new mining right during the year 2023, but no mining activities can be performed until this has been granted. An important quantity of block material was mined during Q4 of 2022 in order to secure a minimum of 6-months supply to the Polokwane smelter. This was done in anticipation of the expiry of the current mining permit.

For further information regarding South African regulations applicable to mining concessions, as well as environmental and other regulations, see "—Laws and regulations applicable to Ferroglobe's mining operations—South Africa."

French mining rights

Soleyron

FerroPem, SAS, a subsidiary of Ferroglobe, previously owned 12.2 hectares of the overall Soleyron quartz mine area. The Saint-Hippolyte de Montaigu Municipality owns the remaining part. In February 2015, FerroPem, SA, entered into a new lease and royalty agreement with the municipality, which is valid for five years. The effective date of the agreement and the relevant term coincide with the effective date and term of the prefectural authorization renewal, which was granted to FerroPem, SAS in March 2015. With the end of the reachable reserves, operation at the mine was terminated on December 2016 and no extension of the permit was requested. The lease and royalty agreement with the municipality was terminated on December 2016. Rehabilitation of the site was performed during the first quarter of 2022. Validation of the realized rehabilitation by the French administration was obtained in April 2022. The 12.2 hectares of land were sold to the Saint-Hippolyte de Montaigu Municipality in May 2022.

United States and Canadian mining rights

Coal

As of December 31, 2022, we have four active coal mines (two surface mines and two underground mines) located in Knox, and Whitley County, Kentucky. We also have five inactive permitted coal mines available for extraction located in Kentucky and Alabama. All of our coal mines are leased and the remaining term of the leases range from 2 to 40 years. The majority of the coal production is consumed by the Company's facilities in the production of silicon metal and silicon-based alloys. As of December 31, 2022, we estimate our proven and probable reserves to be approximately 12,100,000 tons with an average permitted life of approximately 34 years at present operating levels. Present operating levels are determined based on a three-year annual average production rate. Reserve estimates were made by our geologists, engineers and third parties based primarily on drilling studies performed. These estimates are reviewed and reassessed from time to time. Reserve estimates are based on various assumptions, and any material changes in these assumptions could have a material impact on the accuracy of our reserve estimates.

We currently have two coal processing facilities in Kentucky, one of which is inactive. The active facility processes approximately 500,000 tons of coal annually, with a capacity of 2,500,000 tons. The average coal processing recovery rate is approximately 65%.

Quartzite

We have an open-pit quartz mining operation in Lowndesboro, Alabama, with accompanying wash facilities. We also have a concession to mine quartzite in Saint-Urbain, Québec (operated by a third party miner). These mines supply our North American operations with a substantial portion of their requirements for quartzite.

Laws and regulations applicable to Ferroglobe's mining operations

Spain

In Spain, mining concessions have an average term of 30 years and are extendable for additional 30-year terms, up to a maximum of 90 years. In order to extend the concession term, the concessionaire must file an application with the competent public authority. The application, which must be filed three years prior to the expiration of the concession term, must be accompanied by a detailed report demonstrating the continuity of mineral deposits and the technical ability to extract such deposits, as well as reserve estimates, an overall mining plan for the term of the concession and a detailed description of extraction and treatment techniques. The renewal process is straightforward for a mining company that has been mining the concession regularly. The main impediments to renewal are a lack of mining activity and legal conflicts. Every year in January, in order to maintain the validity of the mining concession, we are required to submit an annual mining plan to the competent public authority. This document must detail the work to be developed during the coming year.

Regarding the environmental requirements applicable to Ferroglobe's mining operations in Spain, each of Serrabal, Esmeralda, Conchitina and Conchitina Segunda is subject to an "environmental impact statement" (or "EIS"), issued by the relevant environmental authority and specifically tailored to the environmental features of the relevant mine. The EIS requires compliance with high environmental standards and is based on the environmental impact study performed by the mining concession applicant in connection with each mining project. It is the result of a consultation process involving several public administrations, including cultural, archaeology, landscape, urbanistic, health, agriculture, water and industrial administrations. The EIS sets forth all conditions to be fulfilled by the applicant, including in connection with the protection of air, water, soil, flora and fauna, landscape, cultural heritage, restoration and the interaction of such elements. The EIS covers mining activities, auxiliary facilities and heaps carried out in a determined perimeter of each mine and includes a program of surveillance and environmental monitoring. The relevant authority regularly verifies compliance with it.

Sonia is subject to a "restoration plan" which provides for less stringent environmental requirements than an EIS and is mainly aimed at ensuring that the new areas generated as a result of the mining activity are properly restored in an environmentally friendly manner. The restoration plan is submitted by the mining concession applicant for the approval of the relevant authority together with the mining project for the area. Information about the exploitation project, including area of operation, annual production, method and operating system, and designed top and bottom level of the pit is included in the restoration plan.

All mines, with the exception of Cabanetas, also need to obtain from the relevant public administration an authorization for the discharge of the water used at the mine. This authorization is subject to certain conditions, including analyzing the water before any such discharge is made. In addition, when presenting to the competent mining authorities its annual mining plans, Ferroglobe must include an environmental report describing all environmental actions carried out during the year. Authorities are able to oversee such actions upon their annual inspections. Because Cabanetas is classified as a quarry and not as a mine, environmental requirements are generally less stringent and an environmental report is not required. The environmental license for Cabanetas is included in the mining permit and is formalized in the annual work plan and the annual restoration plan approved by the mining authority.

The main recurring payment obligation in connection with Ferroglobe's mines in Spain relates to a tax payable annually, calculated on the basis of the budget included in the relevant annual mining plan provided to the authority. In addition, with the exception of Cabanetas, a small surface tax is paid annually to the administration on the basis of the mine property extension. A levy also applies to water consumption at each mine property, which is paid at irregular intervals whenever the relevant public administration requires it.

South Africa

In South Africa, mining rights are valid for a maximum of 30 years and may be renewed for further periods of up to 30 years per renewal. Prior to granting and renewing a mining right, the competent authority must be satisfied with the technical and financial capacity of the intended mining operator and the mining work program according to which the operator intends to mine. In addition, a species rescue, relocation and re-introduction plan must be developed and implemented by a qualified person prior to the commencement of excavation, a detailed vegetation and habitat and rehabilitation plan must be developed by a qualified person and a permit must be obtained from the South African Heritage Resource Agency prior to the commencement of excavations. The mining right holder must also compile a labor and social plan for its mining operations and comply with certain additional regulatory requirements relating to, among other things, human resource development, employment equity, housing and living conditions and health and safety of employees, and the usage of water, which must be licensed.

It is a condition of the mining right that the holder disposes of all minerals and products derived from exploitation of the mineral at competitive market prices, which means, in all cases, non-discriminatory prices or non-export parity prices. If the minerals are sold to any entity which is an affiliate or non-affiliate agent or subsidy of the mining right holder, or is directly or indirectly controlled by the holder, such purchaser must unconditionally undertake in writing to dispose of the minerals and any products from the minerals and any products produced from the minerals, at competitive market prices. The mining right, a shareholding, an equity, an interest or participation in the right or joint venture, or a controlling interest in a company, close corporation or joint venture, may not be encumbered, ceded, transferred, mortgaged, let, sublet, assigned, alienated or otherwise disposed of without the written consent of the Minister of Mineral Resources, except in the case of a change of controlling interest in listed companies.

Environmental requirements applicable to mining operations in South Africa are mostly set out in the MPRDA. Pursuant to the MPRDA, in order to obtain reconnaissance permissions as well as actual mining rights, applicants must have in place an approved environmental management plan, pursuant to which, among other things, all boreholes, excavations and openings sunk or made during the duration of the mining right must be sealed, closed, fenced and made safe by the mining operator. Further environmental requirements apply in connection with health and safety matters, waste management and water usage. The MPRDA further requires mining right applicants to conduct an environmental impact assessment on the area of interest and submit an environmental management program setting forth, among other things, baseline information concerning the affected environment to determine protection, remedial measures and environmental management objectives, and describing the manner in which the applicant intends to modify, remedy, control or stop any action, activity

or process which causes pollution or environmental degradation, contain or remedy the cause of pollution or degradation and migration of pollutants and comply with any prescribed waste standard or management standards or practices. In addition, applicants must provide sufficient insurance, bank guarantees, trust funds or cash to ensure the availability of sufficient funds to undertake the agreed work programs and for the rehabilitation, management and remediation of any negative environmental impact on the interested areas. Holders of a mining right must conduct continuous monitoring of the environmental management plan, conduct performance assessments of the plan and compile and submit a performance assessment report to the competent authority, the frequency of which must be as approved in the environmental management program, or every two years or as otherwise agreed by the authority in writing. Mine closure costs are evaluated and reported on an annual basis, but are typically only incurred at mine closure, but guarantees are increased based on the extent of completed mining activity.

The mining right holder must also be in compliance with an important governmental regulation called Black Economic Empowerment ("BEE"), a program launched by the South African government to redress certain racial inequalities. In order for a mining right to be granted, a mining company must agree on certain BEE-related conditions with the Department of Mineral and Petroleum Resources. Such conditions relate to, among other things, the company's ownership and employment equity and require the submission of a social and labor plan. Failure to comply with any of these BEE conditions may have an impact on, among other things, the ability of the mining company to retain the mining right or obtain its renewal upon expiry. In addition, companies subject to BEE must conduct, on an annual basis, a BEE rating audit on several aspects of the business, including black ownership, management control, employment equity, skills development, preferential procurement, enterprise development and socio-economic development. Poor performance on the BEE rating audit may have a negative impact on the company's ability to do business with other companies, to the extent that a company's low rating is likely to reduce the rating of its business partners.

Mining rights are subject to payments of royalties to the tax authority, the South African Revenue Services. Such payments are generally made by June 30 and December 31 each year and upon the approval of the concessionaire's annual financial statements.

France

In France, mining rights are subject to a prefectural authorization. The authorization provides details of all requirements, including environmental requirements, which the mining operator and its subcontractors must comply with to operate the mine. Such requirements mainly concern archaeology, water protection, air pollution, control of noise, visual impact and safety matters. The authorization also contains the requirements relating to the remediation of the land after the end of the mining operations, including the provision of adequate financial guarantees by the mining operator. Mines are regularly inspected by the administration and local environmental commissions, comprising representatives of the relevant municipality, administration, several associations and the mining operator, which must meet at least once a year.

United States

The Coal Mine Health and Safety Act of 1969 and the Federal Mine Safety and Health Act of 1977 impose stringent safety and health standards on all aspects of mining operations. Also, the state of Kentucky, in which we operate underground and surface coal mines, has state mine safety and health regulations. The Mine Safety and Health Administration (the "MSHA") inspects mine sites and enforces safety regulations and the Company must comply with ongoing regulatory reporting to the MSHA. Numerous governmental permits, licenses or approvals are required for mining operations. In order to obtain mining permits and approvals from state regulatory authorities, we must submit a reclamation plan for restoring, upon the completion of mining operations, the mined property to its prior or better condition, productive use or other permitted condition. We are also required to establish performance bonds, consistent with state requirements, to secure our financial obligations for reclamation, including removal of mining structures and ponds, backfilling and regrading and revegetation.

Customers and Markets

The following table details the breakdown of Ferroglobe's revenues by geographic end market for the years ended December 31, 2022, 2021 and 2020.

	Year ended December 31,		
($ thousands)	**2022**	**2021**	**2020**
United States of America	966,161	515,095	404,633
Europe			
Spain	282,387	251,528	133,370
Germany	442,331	292,774	191,107
France	148,741	130,811	79,491
Italy	111,887	76,721	42,067
Other EU Countries	162,374	176,046	88,443
Total revenues in Europe	1,147,720	927,880	534,478
Rest of the World	484,035	335,933	205,323
Total	**2,597,916**	**1,778,908**	**1,144,434**

Customer base

We have a diversified customer base across our key product categories. Over our business tenure, we have built long-lasting relationships with our customers based on the breadth and quality of our product offerings, as well as our ability to frequently offer lower-cost and more reliable supply options than our competitors who do not have production facilities located near the customers' facilities or production capabilities to meet specific customer requirements. We sell our products to customers in over 30 countries across six continents, though our largest customer concentration is in the United States and Europe. The average length of our relationships with our top 30 customers exceeds ten years and, in some cases, such relationships go back as far as 30 years.

For the year ended December 31, 2022, Ferroglobe's ten largest customers accounted for approximately 50.9% of Ferroglobe's consolidated sales. During the year ending December 31, 2021, Ferroglobe's ten largest customers accounted for approximately 48.1% of Ferroglobe's consolidated sales.

Customer contracts

Our contracting strategy seeks to lock in significant revenue while remaining flexible to benefit from any movement in market pricing and operating efficiencies. Our silicon metal, manganese-based ferroalloys and silicon-based ferroalloys are typically sold under annual and quarterly contracts. Historically, we have targeted to contract approximately 50-65% of our silicon metal, manganese-based ferroalloys production and silicon-based ferroalloy production in the fourth quarter for the following calendar year. In 2022, the majority of our contracts were indexed, to market related benchmarks.

The remaining balance of our silicon metal, manganese-based ferroalloys and our silicon-based ferroalloy production are sold under quarterly contracts or on a spot basis. By selling on a spot basis, we are able to take advantage of premiums for prompt delivery. We believe that our diversified contract portfolio allows us to lock in a significant amount of revenues while also allowing us to remain flexible and benefit from unexpected price and demand upticks. Given current spot price and current market dynamics, we are looking to enter into contracts for 2023 with shorter terms as we anticipate the market price to improve, in particular over the second half of the year.

Sales and Marketing Activities

Ferroglobe generally sells the majority of its silicon products under annual or longer-term contracts for silicone producers, and mainly between one month to three months for aluminum producing customers. All contracts generally include a volume framework and price formula based on the spot market price and other elements, including expected production costs and premiums. Ferroglobe also makes spot sales to customers with whom it does not have a contract as well as

through quarterly agreements at prices that generally reflect market spot prices. In addition, Ferroglobe sells certain high-quality products at prices that are not directly correlated with the market prices for the metals or alloys from which they are composed.

With the exception of the manganese-based business, the vast majority of Ferroglobe's products are sold in Europe and United states directly by its own sales force located in Spain, France, the United States and Germany whereas sales in other regions are done via agents in general. For the manganese-based business, Glencore and Ferroglobe operates under exclusive agency agreements for the marketing of Ferroglobe's manganese alloys products worldwide, and for the procurement of manganese ores to supply Ferrogloble's plants.

Competition

The most significant competitive factor in the silicon metal, manganese and silicon-based alloys and specialty metals markets is price. Other factors include consistency of the chemical and physical specifications over time and reliability of supply.

The silicon metal, manganese- and silicon-based alloys and specialty metals markets are highly competitive, global markets, in which suppliers are able to reach customers across different geographies, and in which local presence is generally a minor advantage. In the silicon metal market, Ferroglobe's primary competitors include Chinese producers, which have production capacity that exceeds total worldwide demand. Aside from Chinese producers, Ferroglobe's competitors include Elkem, a Norwegian manufacturer of silicon metal, ferrosilicon, foundry products, silica fumes, carbon products and energy, Dow Inc., an American company specializing, in silicone and silicon-based technology, Rima, a Brazilian silicon metal and ferrosilicon producer, Liasa and Minas Ligas, Brazilian producers of silicon, Wacker, a German chemical business which manufactures silicon in Norway, Simcoa, in Australia which belongs to the Japanese chemical company Shin-Etsu, a consumer of silicon, as well as several other smaller producers in Bosnia Herzegovina, Iceland, Germany, Malaysia, Russia and Thailand.

In the manganese and silicon alloys market, Ferroglobe's competitors include Privat Group, a Ukrainian company with operations in Australia, Ghana and Ukraine, Eramet, a French mining and metallurgical group, CHEMK Industrial Group, a Russian conglomerate which is one of the largest silicon-based alloy producers in the world, South 32 (formerly BHP Billiton), a global mining company with operations in Australia and South Africa and Vale, a mining and metals group based in Brazil, Asia Minerals and OM Holdings in Malaysia and Elkem in Norway.

In the silica fumes market, Ferroglobe's main competitor is Elkem.

Ferroglobe strives to be a highly efficient, low-cost producer, offering competitive pricing and engaging in manufacturing processes that capture most of its production of by-products for reuse or resale. Additionally, through the vertical integration of its quartz mines in Spain, the United States, Canada and South Africa and its metallurgical coal mines in the United States, Ferroglobe has ensured access to some of the highest quality raw materials that are essential in silicon metal, manganese- and silicon-based alloys and specialty metals production processes and has been able to gain a competitive advantage over some of its competitors by it has reducing the contribution of these raw materials and associated due to its cost.

Research and Development (R&D)

Ferroglobe focuses on developing new products, production processes and continuous improvement to create further value for our stakeholders and to follow global megatrends, including the green energy transition. Ferroglobe has dedicated teams for R&D and continuous improvement, but it also has cooperation agreements in place with various universities and research institutes in Spain, France and other countries around the world. Set forth below is a description of Ferroglobe's significant ongoing research and development projects.

ELSA electrode

Ferroglobe has developed a patented technology for electrodes used in silicon metal furnaces, which it has been able to sell to several major silicon producers globally. This technology, known as the ELSA electrode, improves the energy efficiency in the production process of silicon metal and eliminates contamination with iron. Ferroglobe has granted these producers the right to use the ELSA electrode against payment to Ferroglobe of royalties. Continuous improvements are made in an effort to maintain ELSA's status as cutting edge.

Solar grade silicon

Ferroglobe has sought to produce solar grade silicon metal with a purity above 99.9999% through a new, potentially cost-effective, electrometallurgical process. The traditional chemical process tends to be costly and involves high energy consumption and potentially environmentally hazardous processes. The new technology, entirely developed by Ferroglobe aims to reduce the costs, energy consumption and carbon footprint associated with the production of solar grade silicon.

In 2016, FerroAtlántica entered into a project with Aurinka Photovoltaic Group, S.L. ("Aurinka") for a feasibility study and basic engineering for an upgraded metallurgical grade ("UMG") solar silicon manufacturing plant. On December 20, 2016, Grupo FerroAtlántica, S.A.U., along with certain of its subsidiaries, entered into a joint venture agreement (the "Solar JV Agreement") with Blue Power Corporation, S.L. ("Blue Power") and Aurinka providing for the formation and operation of a joint venture with the purpose of producing UMG solar silicon. In furtherance of this project, FerroAtlántica obtained a loan, with a principal amount of approximately €45 million, from the Spanish Ministry of Industry and Energy for the purpose of building the UMG silicon plant. Due to the market environment for solar grade silicon (or polysilicon) worldwide, at the end of 2018 the Company suspended the investment in the project while preserving the technology and know-how in order to be able to finalize the construction of the factory when market circumstances change. In July 2019, the Solar JV Agreement was terminated. See "Item 7.B – Related Party Transactions – Aurinka and the Solar JV, below.

Silicon for Advanced technologies– Li-ion batteries

Ferroglobe has launched the Silicon for Advanced Technologies project, which aims at producing silicon-based, tailor made products for high end applications. Among the various targeted applications, the most attractive market is the anodic materials for Li-ion batteries. In this specific field, Ferroglobe has developed several partnerships and technical collaborations to develop high purity silicon powder raw material for Si/C composites and SiOx. In a more innovative approach, we are also working on special high purity micrometric silicon for pure silicon anodes.

In this project we leveraged the purification technologies developed for the Solar Grade silicon project and which are patented. These technologies are industrial, cost effective and with low carbon footprint, and places Ferroglobe at the forefront of this this new market.

We currently have the first demonstration milling unit in our Innovation Centre in Sabón (Spain) and we have several industrial purification units in Montricher (France) and Puertollano (Spain).

High Purity Manganese Sulphate – Battery grade

This is a new addition to our portfolio of projects, based on the R&D work done some years ago to develop Electrolytic Manganese, Ferroglobe aims to produce high purity Manganese Sulphate from off-specification materials in Mn alloy production. Manganese is the next cathodic material due to its abundance, lower cost in comparison to Co and Ni, possibility of higher voltages and higher energy density.

Proprietary Rights and Licensing

The majority of Ferroglobe's intellectual property consists of proprietary know-how and trade secrets. Ferroglobe's intellectual property strategy is focused on developing and protecting proprietary know-how and trade secrets, which are maintained through employee and third-party confidentiality agreements and physical security measures. Although

Ferroglobe owns some patented technology, we believe that the Company's businesses and profitability do not rely fundamentally upon patented technology and that the publication implicit in the patenting process may in certain instances be detrimental to Ferroglobe's ability to protect its proprietary information.

Regulatory Matters

Environmental and health and safety

Ferroglobe operates facilities worldwide, which are subject to foreign, national, regional, provincial and local environmental, health and safety laws and regulations, including, among others, those requirements governing the discharge of materials into the environment, the generation, use, storage and disposal of hazardous substances, the extraction and use of water, land use, reclamation and remediation and the health and safety of Ferroglobe's employees. These laws and regulations require Ferroglobe to obtain from governmental authorities permits to conduct its regulated activities, which permits may be subject to modification or revocation by such authorities.

Ferroglobe may not be at all times in full compliance with such laws, regulations and permits, although Ferroglobe is not aware of any material past or current noncompliance. Failure to comply with these laws, regulations and permits may result in the assessment of administrative, civil and criminal penalties or other sanctions by regulators, the imposition of obligations to conduct remediation or upgrade or install pollution or dust control equipment, the issuance of injunctions limiting or preventing Ferroglobe's activities, legal claims for personal injury or property damages, and other liabilities.

Under these laws, regulations and permits, Ferroglobe could also be held liable for any consequences arising out of an industrial incident, human exposure to hazardous substances or environmental damage that relates to Ferroglobe's current or former operations or properties. Environmental, health and safety laws are likely to become more stringent in the future. Ferroglobe purchases insurance to cover these potential liabilities, but the costs of complying with current and future environmental, health and safety laws, and its liabilities arising from past or future releases of, or exposure to, hazardous substances, may exceed insured, budgeted or reserved amounts and adversely affect Ferroglobe's business, results of operations and financial condition. Several corporate standards and procedures are being deployed to ensure a proactive approach in the compliance management.

Some environmental laws assess liability on current or previous owners or operators of real property for the cost of removal or remediation of hazardous substances. In addition to cleanup, cost recovery or compensatory actions brought by foreign, national, provincial and local agencies, neighbors, employees or other third parties could make personal injury, property damage or other private claims relating to the presence or release of hazardous substances. Environmental laws often impose liability even if the owner or operator did not know of, or did not cause, the release of hazardous substances. Persons who arrange for the disposal or treatment of hazardous substances also may be responsible for the cost of removal or remediation of these substances. Such persons can be responsible for removal and remediation costs even if they never owned or operated the disposal or treatment facility. In addition, such owners or operators of real property and persons who arrange for the disposal or treatment of hazardous substances can be held responsible for damages to natural resources.

There are a variety of laws and regulations in place or being considered at the international, national, regional, provincial and local levels of government that restrict or are reasonably likely to result in limitations on, or additional costs related to, emissions of carbon dioxide and other greenhouse gases. These legislative and regulatory developments may cause Ferroglobe to incur material costs to reduce the greenhouse gas emissions from its operations (through additional environmental control equipment or retiring and replacing existing equipment) or to obtain emission allowance or credits, or result in the incurrence of material taxes, fees or other governmental impositions on account of such emissions. In addition, such developments may have indirect impacts on Ferroglobe's operations, which could be material. For example, they may impose significant additional costs or limitations on electricity generators, which could result in a material increase in energy costs. Restrictions in water usage are also expected in the near future. Open cooling systems will be less tolerated by the regulators.

For a summary of regulatory matters applicable to Ferroglobe's mining operations, see "—Laws and regulations applicable to Ferroglobe's mining operations."

Energy and electricity generation

Ferroglobe operates hydro-electric plants in France under a concession system, which are subject to energy, environmental, health and safety laws and regulations, including those governing the generation of electricity and the use of water and river basins. These laws and regulations require Ferroglobe to obtain from the French State a Prefectural decree granting the operation to Ferroglobe according to the specifications of the concession.

Trade

Ferroglobe benefits from antidumping and countervailing duty orders and laws that protect its products by imposing special duties on unfairly traded imports from certain countries. These orders may be subject to revision, revocation or rescission as a result of periodic and five-year reviews.

In the United States, antidumping or countervailing duty orders are in effect covering silicon metal imports from China, Russia, Bosnia and Herzegovina, Iceland, Kazakhstan, and Malaysia.

In June 2020, Globe Specialty Metals, Inc. ("GSM") petitioned the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("ITC") to stop silicon metal producers in Bosnia and Herzegovina, Iceland, Malaysia and Kazakhstan from selling dumped and unfairly subsidized silicon metal imports into the United States. These cases were successful, and in April 2021, Commerce issued formal antidumping orders on all imports from Bosnia and Herzegovina and Iceland, and a formal countervailing duty order on all imports from Kazakhstan. A formal antidumping duty order was issued with respect to all imports from Malaysia in August 2021. These orders will remain in place for at least five years.

In June 2020, the Russia antidumping duty order was renewed for another five years after Commerce and the ITC determined that revocation of the order would lead to continued or recurrent dumping and injury to the U.S. industry. Similarly, in June 2018, the China antidumping duty order was renewed for another five years after the ITC and Commerce determined that revocation of the order on Chinese silicon metal imports would lead to continued or recurrent dumping and injury to the U.S. industry.

Currently, an appeal of the 2021 Kazakhstan determination is pending before the United States Court of Appeals for the Federal Circuit. Additionally, periodic reviews are underway concerning imports from Kazakhstan and from Malaysia.

In Canada, antidumping and countervailing duties covering silicon metal imports from China are in effect. A five-year expiry review of the Canadian antidumping/countervailing duty order covering silicon metal imports from China will begin in the first half of 2024.

In the European Union, antidumping duties are in place covering silicon metal and calcium silicon imports from China, and ferrosilicon imports from China and Russia. In June 2020, the European Commission renewed the antidumping orders on ferrosilicon from China and Russia for five years. In August 2022, following an expiry review the European Commission extended the antidumping duties on silicon metal imports from China for another five-year period. On March 23, 2022, the European Commission imposed definitive antidumping duties on calcium silicon imports from China for a 5-year period.

Seasonality

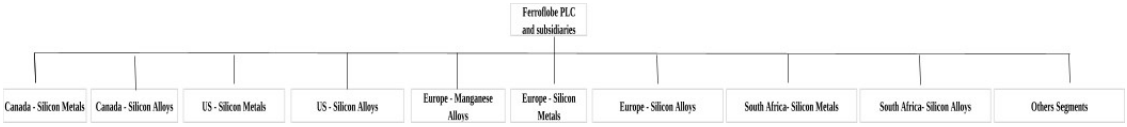
Electrometallurgy

Due to the cyclicality of energy prices and the energy-intensive nature of the production processes for silicon metal, manganese- and silicon-based alloys and specialty metals, Ferroglobe does not operate its electrometallurgy plants during certain periods or times of day when energy prices are at their peak. Demand for Ferroglobe's manganese- and silicon-based alloy and specialty metals products is lower during these periods as its customers also suspend their

energy-intensive production processes involving Ferroglobe's products. As a result, sales within particular geographic regions are subject to seasonality.

C. Organizational structure.

The organizational structure remains as follows as of December 31, 2022:



For a list of subsidiaries and ownership structure see *Note* 2 in the Consolidated Financial Statements.

D. Property, Plant and Equipment.

See "Item 4.B.—Information on the Company—Business Overview."

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

A. Operating Results

Introduction

The following "management's discussion and analysis" should be read in conjunction with the Consolidated Financial Statements of Ferroglobe as of December 31, 2022 and 2021 and for the years ended December 31, 2022, 2021 and 2020, which are included in this annual report. This discussion includes forward-looking statements, which, although based on assumptions that Ferroglobe considers reasonable, are subject to risks and uncertainties which could cause actual events or conditions to differ materially from those expressed or implied by the forward-looking statements. See "Cautionary Statements Regarding Forward-Looking Statements." For a discussion of risks and uncertainties facing Ferroglobe, see "Item 3.D.—Key Information—Risk Factors."

In accordance with IAS 21 — The Effects of Changes in Foreign Exchange Rates, Ferroglobe's consolidated income statements and consolidated statement of financial position have been translated from the functional currency of each subsidiary, which is determined by the primary economic environment in which each subsidiary operates, into the reporting currency of the Company that is U.S. Dollars.

Principal Factors Affecting Our Results of Operations

Sale prices

Ferroglobe's operating performance is highly correlated to the demand for our products, market prices and cost to serve, in a global competitive environment. Ferroglobe follows a pricing policy aimed at maintaining balance between exposures to termed contracts, based on formula pricing, and exposure to the spot market. This approach allows Ferroglobe to remain flexible in adjusting its production and sales footprint depending on changing market conditions, which traditionally have been volatile.

During 2022, demand across our segments was positively impacted due to the re-filling of value chains to pre-COVID levels and a recovery in the market demand across our core need markets. Furthermore, disruptions along the global chain,

coupled with changes in supply channels, due to the Russia/Ukraine crisis impacted global supply for our products. Collectively these factors resulted in peak demand and pricing in mid-2022, which quickly normalized in the second half of the year as demand concerns from end-use markets crept in.

Silicon metal pricing rallied until late second quarter, due to premiums placed on supply security into key sectors, like chemicals, along with increased demand in the aluminum and other commodity sectors. This normalized in the second half of the year, with US pricing lagging in the rate of correction versus Europe.

Historically, manganese-based alloy prices have shown a significant correlation with the price of manganese ore, but from 2018 up to middle 2020, the correlation was disrupted, causing a margin squeeze for Ferroglobe as a non-integrated producer. Since 2020, alloy pricing spreads over ore have recovered. In 2022, further improvements in the spread of ore continued to increase due to the recovery in steel demand and interruptions cause by the onset of the Russia/Ukraine crisis, but then normalizing in the fourth quarter. We anticipate these dynamics in the second half of 2022, driven by stable demand in the European steel sector and the supply availability of manganese ore.

Our ferrosilicon business pricing improved year over year from the historical lows of 2020. We expect these dynamics to sustain in 2023, supported by demand from the steel industry, stimulated by the construction and automotive sectors.

Cost of raw materials

The main raw materials sourced by Ferroglobe are quartz, manganese ore, coal, metallurgical coke, wood and charcoal. Manganese ore is the largest component of the cost base for manganese-based alloys. In 2022, more than 33% of Ferroglobe's total $187.75 million expense with respect to manganese ore fell under an annual commitment, whilst the remaining was purchased on spot basis. Special coal is used as a major carbon reductant in silicon-based alloy production. In 2022, coal represented a $179.5 million expense for Ferroglobe. Metallurgical coke, used for Mn Alloys production, represented a total purchase volume of $72.9 million in 2022. Wood is both an important element for the production of silicon alloys and used to produce charcoal, which is used as a carbon reductant at Ferroglobe's South African subsidiary Silicon Smelters (Pty.), Ltd. Ferroglobe's wood expense amounted to 37.8 million 2022. In 2022, the FerroAtlántica subsidiaries of Ferroglobe sourced, approximately 63% of their quartz needs from FerroAtlántica's mines in Spain and South Africa, and Globe subsidiaries sourced approximately 64% of their quartz needs from Globe's mines in the United States and Canada. Total quartz consumption in 2022 from both external purchases and own mines represented an expense of $ 90.4 million.

Power

Power constitutes one of the single largest expenses for most of Ferroglobe's products. Ferroglobe focuses on minimizing energy prices and unit consumption throughout its operations by concentrating its silicon and manganese-based alloy production during periods when energy prices are lower. In 2022, Ferroglobe's total power consumption was 6,431 gigawatt-hours, with power contracts that vary across its operations.

Energy availability was heavily challenged in all geographies due to the war in Ukraine. Power supply was heavily challenged with an evolution of the consumption matrix in European countries and particularly changes in the sources of gas supplies. Other factors, such as climate change impact, nuclear power generation decline for maintenance in France and South Africa, coal-plants performance in South Africa also reduced power availability, pushing prices higher.

In Europe, power prices climbed to unprecedented levels during the summer of 2022 forcing production adjustments in some of our plants.

In the United States, fuel price increase impacted some of our plants and translated in to prices which were higher than expected.

Foreign currency fluctuation

Ferroglobe has a diversified production base consisting of production facilities across the United States, Europe, South America, South Africa and Asia. Ferroglobe production costs are mostly dependent on local factors, with the exception of the cost of manganese ore and coal, which are dependent on global commodity prices. The relative strength of the functional currencies of Ferroglobe's subsidiaries influences its competitiveness in the international market, most notably in the case of Ferroglobe's South African operations, which have historically exported a majority of their production to the U.S. and the European Union. For additional information see "Item 11.—Quantitative and Qualitative Disclosures About Market Risk—Foreign Exchange Rate Risk."

Regulatory changes

See "Item 4.B.—Business Overview—Regulatory Matters."

Results of Operations — Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	2,597,916	1,778,908
Raw materials and energy consumption for production	(1,285,086)	(1,184,896)
Other operating income	147,356	110,085
Staff costs	(314,810)	(280,917)
Other operating expense	(346,252)	(296,809)
Depreciation and amortization charges, operating allowances and write-downs	(81,559)	(97,328)
Impairment (loss) gain	(56,999)	137
Net gain due to changes in the value of assets	349	758
(Loss) gain on disposal of non-current assets	(459)	1,386
Other gain	91	62
Operating profit	**660,547**	**31,386**
Finance income	2,274	253
Finance costs	(61,015)	(149,189)
Financial derivative gain	—	—
Exchange differences	(9,995)	(2,386)
(Loss) Profit before tax	**591,811**	**(119,936)**
Income tax (expense) benefit	(147,983)	4,562
(Loss) Profit for the year from continuing operations	**443,828**	**(115,374)**
(Loss) for the year from discontinued operations	—	—
(Loss) Profit for the year	**443,828**	**(115,374)**
Loss attributable to non-controlling interests	(2,952)	(4,750)
(Loss) Profit attributable to the Parent	**440,314**	**(110,624)**

Sales

Sales increased $819,008 thousand, or 46.0%, from $1,778,908 thousand for the year ended December 31, 2021 to $2,597,916 thousand for the year ended December 31, 2022. The increase in sales revenue is primarily attributed to the increase in average realized price across all our products portfolio despite a drop in tonnes sold.

Sales revenue increased across all major products in 2022. Silicon metal sales revenue increased 75% and average selling prices of silicon metal increased by 112.3% to $5,332/MT in 2022, and $2,511/MT in 2021. Total shipments of silicon metal decreased in 17.6% due to weak demand in chemicals and aluminum in Europe.

Silicon-Based Alloys sales revenue increased 50.9% and average selling prices increased by 79.5% to $3,694/MT in 2022, and $2,058/MT in 2021. Total shipments decreased in 15.9% driven by weak demand from steel manufacturers.

Manganese-Based Alloys sales revenue increased 12% and average selling prices increased by 19.2% to $1,778/MT in 2022, compared to $1,492/MT in 2021. Total shipments decreased by 6% due to production adjustments in Spain as a result of high energy prices, and low-cost imports higher pressure from Asia.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased $100,190 thousand, or 8.5%, from $1,184,896 thousand for the year ended December 31, 2021 to $1,285,086 thousand for the year ended December 31, 2022, primarily due to higher energy costs, higher raw material costs and lower fixed cost absorption as a result of lower production in France from July 2022. During 2022, raw materials and energy consumption for production as a percentage of sales was 49%, compared to 67% in 2021. The increase was driven by operating leverage as a result of higher pricing.

Other operating income

Other operating income increased $37,271 thousand, or 33.9%, from $110,085 thousand for the year ended December 31, 2021 to $147,356 thousand for the year ended December 31, 2022, mainly due to the energy compensation received in December from our French energy provider EDF.

Staff costs

Staff costs increased $33,893 thousand, or 12.1%, from $280,917 thousand for the year ended December 31, 2021 to $314,810 thousand for the year ended December 31, 2022. This increase is primarily due to restart of our facility in Selma, Alabama at the beginning of 2022. This resulted in higher variable remuneration driven by the improved results in 2022 and the recording of the *"participation salarie"* in FerroPem,S.A.S. This increase was partially offset by our reduced production in Spain as a result of high energy prices.

Other operating expense

Other operating expense increased $49,443 thousand, or 16.7%, from $296,809 thousand for the year ended December 31, 2021 to $346,252 thousand for the year ended December 31, 2022, driven by an increase in distribution costs.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased $15,769 thousand or 16.2%, from $97,328 thousand for the year ended December 31, 2021 to $81,559 thousand for the year ended December 31, 2022. The decrease in depreciation is driven by a number of assets being fully depreciated and the effect of the EUR/USD exchange rate.

Impairment (loss) gain

Impairment losses increased $57,136 thousand, from a profit of $137 thousand for the year ended December 31, 2021 to a loss of $56,999 thousand for the year ended December 31, 2022.

During year ended December 31, 2022 the Company recognized an impairment of $56,999 thousand in relation to; our an impairment of $5,994 thousand relating to our Château Feuillet facility in France, an impairment of $11,559 thousand relating to our Boo facility in Spain, an impairment of $5,915 thousand relating to our Cinca facility in Spain, an impairment of $20,034 thousand relating to our Cee facility in Spain, an impairment of $15,749 thousand relating to our Mo I Rana facility in Norway, impairment amounting to $5,514 thousand relating to our asset in Puertollano, Spain, an impairment reversal of $2,750 thousand relating to our mining business in South Africa alongside, an impairment reversal of $5,017 thousand relating to our Polokwane facility also located in South Africa.

In 2021, the Company recorded a reversal of the impairment recorded at the Polokwane facility, amounting to $2,681 thousand, an additional impairment at the Château Feuillet facility, amounting to $441 thousand, and an impairment in relation to our quartz mine in Mauritania amounting to $1,726 thousand.

Net loss (gain) due to changes in the value of assets

In 2022, the Company had a net gain of $349 thousand in the value of assets attributable to a higher valuation of shares in Pampa Energy in Argentina. This compares to a net gain of $758 thousand in 2021.

Loss (gain) on disposal of non-current assets

The loss on the disposal of non-current assets of $459 thousand for the year ended December 31, 2022 is mainly due to a loss of assets in the United States. The gain on disposal of non-current assets of $1,386 thousand for the year ended December 31, 2021 relates to the sale of the former Niagara plant and certain assets in France.

Finance income

Finance income increased $2,021 thousand, or 798.8%, from $253 thousand for the year ended December 31, 2021 to $2,274 thousand for the year ended December 31, 2022. The increase is driven by the interest received on the repurchased notes.

Finance costs

Finance costs decreased $88,174 thousand, or 59.1%, from $149,189 thousand for the year ended December 31, 2021 to $61.015 thousand for the year ended December 31, 2022. The decrease is primarily due to the an accounting charge related to the Senior Notes refinancing, amounting to $90.8 million in 2021.

Exchange differences

Exchange differences increased $7,609 thousand, or 318.9% from $2,386 thousand for the year ended December 31, 2021 to $9,995 thousand for the year ended December 31, 2022, primarily due to the EURO/U.S. Dollar exchange rate.

Income tax (expense) benefit

Income tax expense increased $152,545 thousand, from an income tax benefit of $4,562 thousand for the year ended December 31, 2021 to an income tax expense of $147,983 thousand for the year ended December 31, 2022. The variance is primarily due to income tax recorded in 2022, in the United States totaling $55,580 thousand, in France $46,148 thousand and in Canada $50,871 thousand.

Segment operations

In 2022, the company revised its operating segments to reflect the way its chief operating decision maker (“CODM”) is currently managing and viewing the business.

Operating segments are based upon the Company’s management reporting structure. As such, we report our results in accordance with the following segments since 2022:

- North America – Silicon Metals
- North America – Silicon Alloys
- Europe – Manganese
- Europe – Silicon Metals
- Europe – Silicon Alloys

- South Africa – Silicon Metals
- South Africa – Silicon Alloys
- Other segments

North America – Silicon Metals

($ thousands)	Year ended December 31, 2022	2021
Sales	671,290	370,109
Raw materials and energy consumption for production	(305,545)	(265,653)
Other operating income	6,464	5,089
Staff costs	(61,378)	(51,163)
Other operating expense	(33,708)	(22,222)
Depreciation and amortization charges, operating allowances and write-downs	(33,708)	(40,489)
(Loss) on disposal of non-current assets	(522)	(347)
Operating (loss) profit	**242,893**	**(4,676)**

Sales

Sales increased $301,181 thousand, or 81.4%, from $370,109 thousand for the year ended December 31, 2021 to $671,290 thousand for the year ended December 31, 2022. The increase is primarily due to an increase in the average realized selling price, resulting from a combination of higher market prices, and a different product and customer mix. In addition, 2022 saw the restart of our facility in Selma, Alabama.

Raw materials and energy consumption for production

Raw materials and energy consumption increased $39,892 thousand, or 15.0%, from $265,653 thousand for the year ended December 31, 2021 to $305,545 thousand for the year ended December 31, 2022. The increase in our raw materials and energy consumption for production is due to higher raw material costs.

Other operating income

Other operating income increased $1,375 thousand, or 27.0%, from $5,089 thousand for the year ended December 31, 2021 to $6,464 thousand for the year ended December 31, 2022, primarily due to a gain from the free CO2 emission rights regulatory period settlement in Canada and an increase in scrap sales.

Staff costs

Staff costs increased $10,215 thousand, or 20.0%, from $51,163 thousand for the year ended December 31, 2021 to $61,378 thousand for the year ended December 31, 2022. The increase is primarily due to the start-up of Selma in December 2021, as well as higher medical insurance expenses following an increase in claims during 2022.

Other operating expense

Other operating expense increased $11,486 thousand, or 51.7%, from $22,222 thousand for the year ended December 31, 2021 to $33,708 thousand for the year ended December 31, 2022 primarily due to inflationary pressure on prices and the restart of our facility in Selma, Alabama.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased $6,781 thousand, or 16.7%, from $40,489 thousand for the year ended December 31, 2021 to $33,708 thousand for the year ended December 31, 2022, primarily due to assets becoming fully depreciated at the beginning of 2022, combined with the termination of the purchase price allocation recorded in WVA, Manufacturing, LLC during 2022.

Loss on disposal of non-current assets

The loss on disposal of non-current assets relates primarily to the disposal of fixed assets at our facility in Selma, Alabama

North America – Silicon Alloys

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	339,414	154,699
Raw materials and energy consumption for production	(68,490)	(57,663)
Other operating income	122	296
Staff costs	(41,923)	(31,300)
Other operating expense	(37,859)	(20,848)
Depreciation and amortization charges, operating allowances and write-downs	(15,135)	(15,281)
(Loss) gain on disposal of non-current assets	(126)	741
Operating profit	**176,003**	**30,644**

Sales

Sales increased $184,715 thousand, or 119.4%, from $154,699 thousand for the year ended December 31, 2021 to $339,414 thousand for the year ended December 31, 2022. The increase in sales is attributed to an increase in the average realized selling price, resulting from a combination of higher market prices, and a different product and customer mix.

Raw materials and energy consumption for production

Raw materials and energy consumption increased $10,827 thousand, or 18.8%, from $57,663 thousand for the year ended December 31, 2021 to $68,490 thousand for the year ended December 31, 2022. The increase in our raw materials and energy consumption for production is due to higher raw material prices.

Other operating income

Other operating income decreased $174 thousand, or 58.8%, from $296 thousand for the year ended December 31, 2021 to $122 thousand for the year ended December 31, 2022. This income relates primarily to the sale of scrap.

Staff costs

Staff costs increased $10,623 thousand, or 33.9%, from $31,300 thousand for the year ended December 31, 2021 to $41,923 thousand for the year ended December 31, 2022. The increase is primarily due to higher variable remuneration driven by our improved results in 2022.

Other operating expense

Other operating expense increased $17,011 thousand, or 81.6%, from $20,848 thousand for the year ended December 31, 2021 to $37,859 thousand for the year ended December 31, 2022. The increase is primarily due to management fee charges that are eliminated during the consolidation process.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased $146 thousand, or 1.0%, from $15,281 thousand for the year ended December 31, 2021 to $15,135 thousand for the year ended December 31, 2022, primarily due to the disposal of certain assets at our facility in Bridgeport, Alabama during 2022.

(Loss) gain on disposal of non-current assets

The loss on disposal of non-current assets relates mainly to the disposal of fixed assets at our facility in Bridgeport, Alabama.

Europe - Manganese

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	701,140	476,287
Raw materials and energy consumption for production	(541,034)	(326,257)
Other operating income	42,882	34,142
Staff costs	(28,996)	(33,696)
Other operating expense	(111,741)	(105,290)
Depreciation and amortization charges, operating allowances and write-downs	(13,005)	(18,634)
Impairment (loss)	(33,222)	(376)
(Loss) on disposal of non-current assets	(189)	—
Other gain	11	—
Operating profit	**15,846**	**26,176**

Sales

Sales increased $224,853 thousand or 47.2%, from $476,287 thousand for the year ended December 31, 2021 to $701,140 thousand for the year ended December 31, 2022, primarily due to an increase in average selling prices of 19.2%, partially offset by a decrease in overall shipments of 6%.

Raw materials and energy consumption for production

Raw materials and energy consumption increased $214,777 thousand, or 65.8%, from $326,257 thousand for the year ended December 31, 2021 to $541,034 thousand for the year ended December 31, 2022. The increase is primarily driven by higher raw material and energy consumption in addition to higher raw material prices.

Other operating income

Other operating income increased $8,740 thousand, or 25.6%, from $34,142 thousand for the year ended December 31, 2021 to $42,882 thousand for the year ended December 31, 2022, primarily driven by energy compensation received in France.

Staff costs

Staff costs decreased $4,700 thousand or 13.9%, from $33,696 thousand for the year ended December 31, 2021 to $28,996 thousand for the year ended December 31, 2022. This decrease is mainly due to the recognition of restructuring costs during Spain in 2021 in respect of our facility in Monzón.

Other operating expense

Other operating expense increased $6,451 thousand, or 6.1%, from $105,290 thousand for the year ended December 31, 2021 to $111,741 thousand for the year ended December 31, 2022, primarily driven by a decrease in distribution costs linked to lower volumes in 2022 compared to 2021.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating provisions and write-downs decreased $5,629 thousand, or 30.2%, from $18,634 thousand for the year ended 31 December 2021 to $13,005 thousand for the year ended 31 December 2022, primarily due to an increase in the number of assets fully depreciated in Spain.

Impairment (loss)

Impairment losses increased by $32,846 thousand, from a loss of $376 thousand for the year ended 31 December 2021 to a loss of $33,222 thousand for the year ended 31 2022. During 2022, the Company recorded impairments our facilities in Boo (Spain), Monzón (Spain), and Mo I Rana (Norway) of $11,559 thousand and $5,915 thousand of $15,749 thousand respectively.

Europe – Silicon Metals

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	536,753	437,533
Raw materials and energy consumption for production	(241,936)	(303,811)
Other operating income	76,255	48,828
Staff costs	(81,175)	(77,608)
Other operating expense	(99,513)	(105,712)
Depreciation and amortization charges, operating allowances and write-downs	(4,605)	(7,330)
Impairment (loss) gain	—	14
Gain on disposal of non-current assets	230	733
Operating (loss) profit	**186,009**	**(7,353)**

Sales

Sales increased $99,220 thousand or 22.7%, from $437,533 thousand for the year ended December 31, 2021 to $536,753 thousand for the year ended December 31, 2022, primarily due to an increase in the average selling price, which was partially offset by lower product volumes during the year.

Raw materials and energy consumption for production

Raw materials and energy consumption decreased $61,875 thousand, or 20.4%, from $303,811 thousand for the year ended December 31, 2021 to $241,936 thousand for the year ended December 31, 2022. Raw materials and energy consumption decreased driven by lower product volumes during the year.

Other operating income

Other operating income increased $27,427 thousand, or 56.2%, from $48,828 thousand for the year ended December 31, 2021 to $76,255 thousand for the year ended December 31, 2022, due primarily to energy compensation received in France.

Staff costs

Staff costs increased $3,567 thousand or 4.6%, from $77,608 thousand for the year ended December 31, 2021 to $81,175 thousand for the year ended December 31, 2022. The increase is primarily due to a higher variable remuneration driven by our improved results during 2022.

Other operating expense

Other operating expense decreased $6,199 thousand, or 5,9%, from $105,712 thousand for the year ended December 31, 2021 to $99,513 thousand for the year ended December 31, 2022, primarily driven by a decrease in distribution costs due to lower product volumes in 2022 compared to 2021.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating provisions and write-downs decreased $2,725 thousand, or 37.2%, from $7,330 thousand for the year ended December 31, 2021 to $4,605 thousand for the year ended December 31, 2022, primarily due to the increase in the number of French assets fully depreciated.

Gain on disposal of non-current assets

Gain (loss) on disposal of non-current assets decreased $503 thousand, or 68.6%, from a gain of $733 thousand for the year ended December 31, 2021 to $230 thousand for the year ended December 31, 2022, driven by the disposal of buildings and other assets in France during 2021 and 2022.

Europe – Silicon Alloys

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	259,419	227,804
Raw materials and energy consumption for production	(139,687)	(170,073)
Other operating income	23,622	16,924
Staff costs	(50,467)	(42,679)
Other operating expense	(33,265)	(23,043)
Depreciation and amortization charges, operating allowances and write-downs	(8,086)	(9,522)
Impairment (loss)	(26,028)	(455)
Gain on disposal of non-current assets	82	296
Other (loss)		—
Operating (loss) profit	**25,590**	**(748)**

Sales

Sales increased $31,615 thousand or 13.9%, from $227,804 thousand for the year ended December 31, 2021 to $259,419 thousand for the year ended December 31, 2022, primarily due to an increase in both domestic sales and average selling prices, partially offset by lower product volumes.

Raw Materials and energy consumption for production

Raw Materials and energy consumption decreased $30,386 thousand, or 17.9%, from $170,073 thousand for the year ended December 31, 2021 to $139,687 thousand for the year ended December 31, 2022. Raw materials and energy consumption for production decreased due to lower volumes in 2022.

Other operating income

Other operating income increased $6,698 thousand, or 39.6%, from $16,924 thousand for the year ended December 31, 2021 to $23,622 thousand for the year ended December 31, 2022, primarily due to energy compensation received in France.

Staff costs

Staff costs increased $7,788 thousand or 18.2%, from $42,679 thousand for the year ended December 31, 2021 to $50,467 thousand for the year ended December 31, 2022. The increase is due to higher variable remuneration driven by the improved results in 2022.

Other operating expense

Other operating expense increased $10,222 thousand, or 44.4%, from $23,043 thousand for the year ended December 31, 2021 to $33,265 thousand for the year ended December 31, 2022, primarily attributable to the increase in distribution cost and management fees.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating provisions and write-downs decreased $1,436 thousand, or 15.1%, from $9,522 thousand for the year ended December 31, 2021 to $8,086 thousand for the year ended December 31, 2022.

Impairment (loss)

Impairment loss increased by $25,573 thousand, from a loss of $455 thousand for the year ended December 31, 2021 to a loss of $26,028 thousand for the year ended December 31, 2022. During the year ended December 31, 2022, the Company recognized an impairment of $5,994 thousand at the Château Feuillet facility in France and an impairment of $20,034 thousand in relation to our tolling agreement with the plant in Cee, Spain.

South Africa – Silicon Metals

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	17,337	12,604
Raw materials and energy consumption for production	(9,270)	(8,240)
Other operating income	156	278
Staff costs	(1,736)	(1,542)
Other operating expense	(2,649)	(1,904)
Depreciation and amortization charges, operating allowances and write-downs	(748)	(546)
Impairment gain	5,357	288
Operating profit	**8,447**	**938**

Sales

Sales increased $4,733 thousand, or 37.6%, from $12,604 thousand for the year ended December 31, 2021 to $17,337 thousand for the year ended December 31, 2022. Our sales in South Africa were positively impacted by improved demand and market conditions, leading to an increase in both average selling price and sales volumes.

Raw materials and energy consumption for production

Raw materials and energy consumption increased $1,030 thousand, or 12.5%, from $8,240 thousand for the year ended December 31, 2021 to $9,270 thousand for the year ended December 31, 2022, driven by higher energy cost as well as the increase in product volumes sold during 2022.

Other operating income

Other operating income decreased $122 thousand, or 43.9%, from $278 thousand for the year ended December 31, 2021 to $156 thousand for the year ended December 31, 2022.

Staff costs

Staff costs increased $194 thousand, or 12.6%, from $1,542 thousand for the year ended December 31, 2021 to $1,736 thousand for the year ended December 31, 2022. The increase in staff costs are primarily due to a higher number of employees on payroll as of December 31, 2022 resulting from the restart of our Polokwane facility.

Other operating expense

Other operating expense increased $745 thousand, or 39.1%, from $1,904 thousand for the year ended December 31, 2021 to $2,649 thousand for the year ended December 31, 2022, mainly due to the increase in activity as well as the restart of our Polokwane facility.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs increased $202 thousand, or 37.0%, from $546 thousand for the year ended December 31, 2021 to $748 thousand for the year ended December 31, 2022.

Impairment gain

Impairment gain increased $5,069 thousand, from $288 thousand for the year ended December 31, 2021 to $5,357 thousand for the year ended December 31, 2022. This variance is mainly due to the partial reversal of the Polokwane impairment in the year ended December 2022.

South Africa – Silicon Alloys

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	122,262	104,591
Raw materials and energy consumption for production	(65,373)	(68,377)
Other operating income	66	485
Staff costs	(11,652)	(11,726)
Other operating expense	(13,193)	(11,352)
Depreciation and amortization charges, operating allowances and write-downs	(5,278)	(4,535)
Impairment gain	2,408	2,396
Operating profit	**29,240**	**11,482**

Sales

Sales increased $17,671 thousand, or 16.9%, from $104,591 thousand for the year ended December 31, 2021 to $122,262 thousand for the year ended December 31, 2022. Our sales in South Africa were positively impacted by improved demand and market conditions, increasing both average selling price and sales volumes.

Raw materials and energy consumption for production

Raw materials and energy consumption for decreased $3,004 thousand, or 4.4%, from $68,377 thousand for the year ended December 31, 2021 to $65,373 thousand for the year ended December 31, 2022. The decrease is attributed to the increase in energy cost which were partially offset by lower volumes during 2022.

Other operating income

Other operating income decreased $419 thousand, or 86.4%, from $485 thousand for the year ended December 31, 2021 to $66 thousand for the year ended December 31, 2022, primarily due to sundry sales from the idle Polokwane plant reported in other income during 2021.

Staff costs

Staff costs decreased $74 thousand, from $11,726 thousand for the year ended December 31, 2021 to $11,652 thousand for the year ended December 31, 2022. The decrease is due to the impact of the ZAR/USD exchange rate, across both periods.

Other operating expense

Other operating expense increased $1,841 thousand, or 16.2%, from $11,352 thousand for the year ended December 31, 2021 to $13,193 thousand for the year ended December 31, 2022, primarily due to increased activity in addition to the restart of our Polokwane facility.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs increased $743 thousand, or 16.4%, from $4,535 thousand for the year ended December 31, 2021 to $5,278 thousand for the year ended December 31, 2022. The increase is a result of higher depreciation in leases during 2022.

Impairment gain

Impairment gain increased $12 thousand, or 0.5%, from $2,396 thousand for the year ended December 31, 2021 to $2,408 thousand for the year ended December 31, 2022. This variance is primarily due to the reversal of the Thaba Chueu Mining, Ltd impairment in 2022.

Other segments

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Sales	81,560	43,568
Raw materials and energy consumption for production	(46,759)	(33,445)
Other operating income	59,840	49,901
Staff costs	(37,483)	(31,203)
Other operating expense	(74,626)	(51,960)
Depreciation and amortization charges, operating allowances and write-downs	(994)	(991)
Impairment (loss)	(5,514)	(1,730)
Net gain due to changes in the value of assets	349	758
(Loss) gain on disposal of non-current assets	66	(37)
Other gain	80	—
Operating (loss)	**(23,481)**	**(25,076)**

Sales

Sales increased $37,992 thousand, or 87.2%, from $43,568 thousand for the year ended December 31, 2021 to $81,560 for the year ended December 31, 2022, primarily due to an increase in selling prices for our products.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased $13,314 thousand, or 39.8%, from $33,445 thousand for the year ended December 31, 2021 to $46,759 thousand for the year ended December 31, 2022, primarily due to higher costs as consequence of the higher production volumes.

Other operating income

Other operating income increased $9,939 thousand, or 19.9%, from $49,901 thousand for the year ended December 31, 2021 to $59,840 thousand for the year ended December 31, 2022, primarily due to the allocation of management fee charges that are eliminated during the consolidation process.

Staff costs

Staff costs increased $6,280 thousand, or 20,1%, from $31,203 thousand for the year ended December 31, 2021 to $37,483 thousand for the year ended December 31, 2022, primarily due increased staff numbers as a result of the restart of the second furnace at our facility in Mendoza, Argentina at the end of 2021. The increase was also attributable to the impact of the AR$/USD exchange rate.

Other operating expense

Other operating expense increased $22,666 thousand, or 43.6%, from $51,960 thousand for the year ended December 31, 2021 to $74,626 for the year ended December 31, 2022, primarily due to intercompany charges and higher cost related to an increase in sales in Argentina and China.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs were, $991 thousand for the year ended December 31, 2021 and $994 thousand for the year ended December 31,2022.

Impairment (loss)

Impairment losses increased $3,784 or 218.7%, from $1,730 thousand for the year ended 31 December 2021 to $5,514 thousand for the year ended 31 December 2022, primarily due to our solar-grade silicon metal project in Puertollano, Spain, amounting to $5,514 thousand (5,743 thousand in 2022).

Net gain due to changes in the value of assets

The gain due to changes in the value of assets in 2022 is primarily due to the valuation of Pampa Energy shares in Argentina.

Results of Operations — Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

($ thousands)	Year ended December 31, 2021	2020
Sales	1,778,908	1,144,434
Raw materials and energy consumption for production	(1,184,896)	(835,486)
Other operating income	110,085	33,627
Staff costs	(280,917)	(214,782)
Other operating expense	(296,809)	(132,059)
Depreciation and amortization charges, operating allowances and write-downs	(97,328)	(108,189)
Impairment loss	137	(73,344)
Net gain due to changes in the value of assets	758	158
Gain on disposal of non-current assets	1,386	1,292
Other losses	62	(1)
Operating profit (loss)	**31,386**	**(184,350)**
Finance income	253	177
Finance costs	(149,189)	(66,968)
Financial derivative gain	—	3,168
Exchange differences	(2,386)	25,553
(Loss) before tax	**(119,936)**	**(222,420)**
Income tax (expense) benefit	4,562	(21,939)
(Loss) for the year from continuing operations	**(115,374)**	**(244,359)**
(Loss) for the year from discontinued operations	—	(5,399)
(Loss) for the year	**(115,374)**	**(249,758)**
Loss attributable to non-controlling interests	(4,750)	(3,419)
(Loss) attributable to the Parent	**(110,624)**	**(246,339)**

Sales

Sales increased $634,474 thousand, or 55.4%, from $1,144,434 thousand for the year ended December 31, 2020 to $1,778,908 thousand for the year ended December 31, 2021. The increase in sales is attributed to an increase in volumes and average realized selling prices across our product portfolio.

Sales volumes increased across all major product categories. Silicon metal sales volume increased 22.5% and average selling prices of silicon metal increased by 12.4% to $2,511/MT in 2021, compared to $2,234/MT in 2020. Total shipments of silicon metal increased primarily as a result of continued strength in chemicals and to a lesser extent, the aluminum market in Europe which continues to lag due to continued supply chain issues. Overall tightness in the market, attributable to strong end market demand and ongoing reforms in China, propelled U.S. and European index prices to unprecedented levels mainly during the fourth quarter.

Silicon-Based Alloys sales volume increased 21.3% and average selling prices increased by 35.8% to $2,058/MT in 2021, as compared to $1,899/MT in 2020. Total shipments increased due to the continued recovery in global steel production. Strong demand for ferrosilicon, coupled with low levels of inventory, sent the index higher in the US and Europe, contributing significantly to the increase in average realized prices across silicon-based alloy.

Manganese-Based Alloys sales volume increased 20.2% and average selling prices increased by 46% to $1,492/MT in 2021, as compared to $1,022/MT in 2020. Total shipments increased due to continued recovery in global steel production, and some seasonal spillover of orders.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased $349,410 thousand, or 41.8%, from $835,486 thousand for the year ended December 31, 2020 to $1,184,896 thousand for the year ended December 31, 2021, primarily due to an

increase in sales volumes across all three product categories. For the full year 2021, raw materials and energy consumption for production as a percentage of sales was 66.6%, compared to 73.0% during full year 2020. In addition to the increase in sales, the improvement in the raw materials and energy consumption for production was primarily driven by improved utilization of our asset base, reallocation of orders to optimize economics, stronger operational performance at the furnace level, and continued cost cutting.

Other operating income

Other operating income increased $76,458 thousand, or 227.4%, from $33,627 thousand for the year ended December 31, 2020 to $110,085 thousand for the year ended December 31, 2021, primarily due to free CO_2 emissions allowances ("rights held emit greenhouse gasses"). The Company has recognized emission rights (allowances) received at market value. Market value of the allowances has increased 130.5% from $39.3/allowance for the year ended December 31, 2020 to $90.6/allowance as of December 31, 2021.

Staff costs

Staff costs increased $66,135 thousand, or 30.8%, from $214,782 thousand for the year ended December 31, 2020 to $280,917 thousand for the year ended December 31, 2021. This increase is mainly due to the recording of the restructuring provision in Spain and France amounting $27,367 thousand and higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased $164,750 thousand, or 124.8%, from $132,059 thousand for the year ended December 31, 2020 to $296,809 thousand for the year ended December 31, 2021, mainly due to CO2 emissions. As the Company emits CO2, it recognizes a provision for its obligation to deliver the CO2 allowances at the end of the compliance period. The provision is remeasured at the end of each reporting period at market value. Market value of the allowances increased 130.4% from $39.3/allowance for the year ended December 31, 2020 to $90.6/allowance as of December 31, 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased $10,861 thousand or 10.0%, from $108,189 thousand for the year ended December 31, 2020 to $97,328 thousand for the year ended December 31, 2021. The decrease in depreciation is driven by a relevant number of our assets becoming fully depreciated.

Impairment (loss) gain

Impairment losses decreased $73,481 thousand, or 100.2%, from a loss of $73,344 thousand for the year ended December 31, 2020 to a gain of $137 thousand for the year ended December 31, 2021. In 2020, the Company recognized an impairment of $73,344 thousand in relation to; our idled capacity at the Niagara facilities in the United States $35,685 thousand, our Polokwane facility in South Africa of $8,677 thousand, our Château Feuillet facility in France of $17,941 thousand and an impairment of $11,041 thousand in relation to our solar-grade silicon metal project in Puertollano, Spain. In 2021, the Company recorded a reversal of the impairment recorded at Polokwane facilities, amounting to $2,681 thousand, an additional impairment at our Château Feuillet facility, amounting to $441 thousand, an impairment in relation to our quartz mine in Mauritania amounting to $1,726 thousand.

Net gain due to changes in the value of assets

In 2021, the Company had a net gain of $758 thousand in the value of assets attributable to a higher valuation of shares in Pampa Energy in Argentina. The net loss of $158 thousand in 2020 was due to a lower valuation.

Gain on disposal of non-current assets

The gain on disposal of non-current assets of $1,386 thousand for the year ended December 31, 2021 relates to the sale of the Niagara plant (fully impaired as of December 31, 2020) and certain assets located in France.

Finance income

Finance income increased $76 thousand, or 42.9%, from $177 thousand for the year ended December 31, 2020 to $253 thousand for the year ended December 31, 2021. The increase is driven by higher earnings in our collateral account balance held by the South African subsidiary.

Finance costs

Finance costs increased $82,221 thousand, or 122.8%, from $66,968 thousand for the year ended December 31, 2020 to $149,189 thousand for the year ended December 31, 2021. The increase is due to an accounting charge relating to the Senior Notes refinancing, totaling $90.8 million.

For accounting purposes the refinancing of the Senior Notes has been considered a debt extinguishment. As a consequence:

(i) The accounting rules do not allow the company to capitalize the fees incurred during the exchange of the notes, amounting to $31.7 million

(ii) The shares issued to bondholders and the work fee paid were recognized as one-off expenses, totaling $51.6 million at market value.

(iii) In the case of an extinguishment, any outstanding upfront fees that have been capitalized upon issuance of the original notes musts to be recycled through our profit and account. This amounted to $1 million. Additionally, as a result of the refinancing, the gross carrying amount of the amortized cost of the Reinstated Notes has been adjusted to reflect actual and revised estimated contractual cash flows. The gross carrying amount of the Reinstated Notes has been recalculated as the present value of the estimated future contractual cash flows that are discounted at the effective interest rate of 9.096%. The adjustment amounts to $6,462 and was recognized as an expense in the income statement. After the exchange the Senior notes were accounted for under the amortized cost method.

The transaction fees incurred in the issuance of the Super Senior Notes have been capitalized as required by the accounting rules (IFRS).

Financial derivative gain

Gains on financial derivatives declined from $3,168 thousand in 2020 to $0 in 2021. The currency swap hedging the senior unsecured bonds was terminated in 2020.

Exchange differences

Exchange differences decreased $27,939 thousand, from income of $25,553 thousand for the year ended December 31, 2020 to a loss of $2,386 thousand for the year ended December 31, 2021, primarily due to the Euro and U.S. Dollar exchange rate**.**

Income tax (expense) benefit

Income tax expense variation amounted to $26,501 thousand, or 120.8%, from an income tax expense of $21,939 thousand for the year ended December 31, 2020 to an income tax benefit of $4,562 thousand for the year ended December 31, 2021. The variance is mainly due to the tax assets recorded in 2021 relating to a carryback credit of $ 6,408 thousand in our French subsidiary. In France, when a company incurs a loss during a given fiscal year, they may carry it back to reduce

the tax liability of the immediately previous fiscal year. This generates a deferred tax asset that can be offset against the corporate income tax for the following five fiscal years or claimed to the French Treasury at the end of that period.

Profit (loss) for the year from discontinued operations

The result from discontinued operations decreased from $5,399 thousand in 2020 to $0 in 2021, due to the adjustment of the sales price of assets in Spain registered in 2020.

Segment operations

Our operating segments were revised in 2022 to reflect the way its chief operating decision maker ("CODM") is currently managing and viewing the business. Accordingly, the results of 2021 and 2020 have been restated to report results according to the revision of operating segments in 2022.

As such, we report our results in accordance with the following segments:

- North America – Silicon Metal
- North America – Silicon Alloys
- Europe – Manganese
- Europe – Silicon Metals
- Europe – Silicon Alloys
- South Africa – Silicon Metal
- South Africa – Silicon Alloys
- Other segments

North America – Silicon Metals

	Year ended December 31,	
($ thousands)	**2021**	**2020**
Sales	370,109	289,485
Raw materials and energy consumption for production	(265,653)	(205,260)
Other operating income	5,089	2,804
Staff costs	(51,163)	(48,219)
Other operating expense	(22,222)	(18,990)
Depreciation and amortization charges, operating allowances and write-downs	(40,489)	(48,691)
Impairment (loss)	—	(26,861)
Loss on disposal of non-current assets	(347)	(641)
Operating (loss)	**(4,676)**	**(56,373)**

Sales

Sales increased $80,624 thousand, or 27.9%, from $289,485 thousand for the year ended December 31, 2020 to $370,109 thousand for the year ended December 31, 2021, the increase in sales is attributed to higher average realized prices, resulting from a combination of higher market prices, alog with a different product and customer mix. Additionally, there was an increase in volumes resulting from strong customer demand.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased $60,393 thousand, or 29.4%, from $205,260 thousand for the year ended December 31, 2020 to $265,653 thousand for the year ended December 31, 2021, primarily due to an increase in volumes.

Other operating income

Other operating income increased $2,285 thousand, or 81.5%, from $2,804 thousand for the year ended December 31, 2020 to $5,089 thousand for the year ended December 31, 2021, primarily due a gain on the free CO2 emission rights regulatory period settlement for Canada, and an increase in scrap sales.

Staff costs

Staff costs increased $2,944 thousand, or 6.1%, from $48,219 thousand for the year ended December 31, 2020 to $51,163 thousand for the year ended December 31, 2021. The increase is primarily due to a higher number of employees on payroll in 2021 as a result of an increase in production, adjustments to the Pension Plan as part of the buyout in 2021, and an increase in employee health insurance claims.

Other operating expense

Other operating expense increased $3,232 thousand, or 17.0%, from $18,990 thousand for the year ended December 31, 2020 to $22,222 thousand for the year ended December 31, 2021, This increase is attributable mainly to higher freight costs resulting from increased in the sales volumes; an increase in the property and liability insurance premium; and an increase in the royalty rate for the right fork surface mine royalty agreement.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased $8,202 thousand, or 16.8%, from $48,691 thousand for the year ended December 31, 2020 to $40,489 thousand for the year ended December 31, 2021, primarily due to the impairment of the Niagara plant write-off in 2020.

Impairment losses

There were no impairment losses for the year ended December 31, 2021. During the year ended December 2020, the Company recognized an impairment related to the permanent shutdown of the Niagara plant.

North America – Silicon Alloys

	Year ended December 31,	
($ thousands)	**2021**	**2020**
Sales	154,699	135,792
Raw materials and energy consumption for production	(57,663)	(75,597)
Other operating income	296	113
Staff costs	(31,300)	(25,769)
Other operating expense	(20,848)	(15,325)
Depreciation and amortization charges, operating allowances and write-downs	(15,281)	(12,973)
Impairment (loss)	—	(8,824)
(Loss) gain on disposal of non-current assets	741	(227)
Operating (loss) profit	**30,644**	**(2,810)**

Sales

Sales increased $18,907 thousand, or 13.9%, from $135,792 thousand for the year ended December 31, 2020 to $154,699 thousand for the year ended December 31, 2021. The increase in sales is attributed to higher average realized price, resulting from a combination of higher market selling prices, and a different product and customer mix.

Raw materials and energy consumption for production

Raw materials and energy consumption decreased $17,934 thousand, or 23.7%, from $75,597 thousand for the year ended December 31, 2020 to $57,663 thousand for the year ended December 31, 2021. The decrease is primarily to a reduction in product volumes sold from 2020 to 2021.

Other operating income

Other operating income increased $183 thousand, or 161.9%, from $113 thousand for the year ended December 31, 2020 to $296 thousand for the year ended December 31, 2021, due to the increase in scrap sales.

Staff costs

Staff costs increased $5,531 thousand, or 21.5%, from $25,769 thousand for the year ended December 31, 2020 to $31,300 thousand for the year ended December 31, 2021. The increase is primarily due to a higher number of employees on payroll in 2021 as a result of an increase in production, adjustments to the Pension Plan as part of the buyout in 2021, and an increase in employee health insurance claims.

Other operating expense

Other operating expense increased $5,523 thousand, or 36.0%, from $15,325 thousand for the year ended December 31, 2020 to $20,848 thousand for the year ended December 31, 2021. This increase is attributable mainly to higher freight cost due to the higher sales volume; an increase in the property and liability insurance premium; and an increase in the royalty rate for the Right Fork surface mine royalty agreement.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs increased by $2,308 thousand, or 17.8%, from $12,973 thousand for the year ended December 31, 2020 to $15,281 thousand for the year ended December 31, 2021.

Impairment (loss)

There were no impairment losses for the year ended December 31, 2021. During the year ended December 2020, the Company recognized an impairment related to the permanent closure of the Niagara plant.

Europe – Manganese

	Year ended December 31,	
($ thousands)	**2021**	**2020**
Sales	476,287	240,142
Raw materials and energy consumption for production	(326,257)	(204,063)
Other operating income	34,142	9,199
Staff costs	(33,696)	(28,337)
Other operating expense	(105,290)	(33,884)
Depreciation and amortization charges, operating allowances and write-downs	(18,634)	(19,086)
Impairment (loss) gain	(376)	305
Gain on disposal of non-current assets	—	1,154
Other gain	—	4
Operating (loss) profit	**26,176**	**(34,562)**

Sales

Sales increased $236,145 thousand or 98.3%, from $240,142 thousand for the year ended December 31, 2020 to $476,287 thousand for the year ended December 31, 2021, mainly due to the increase of 20.2% in both domestic sales and exports. In addition, the increase of 46% in the average price has contributed higher sales in the year.

Raw materials and energy consumption for production

Raw materials and energy consumption increased $122,194 thousand, or 59.9%, from $204,063 thousand for the year ended December 31, 2020 to $326,257 thousand for the year ended December 31, 2021. Raw materials and energy consumption for production increased due to higher volumes, as well as higher raw material costs and energy prices.

Other operating income

Other operating income increased $24,943 thousand, or 271.1%, from $9,199 thousand for the year ended December 31, 2020 to $34,142 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. Market value of the allowances has increased 130.4% from $39.3/allowance for the year ended December 31, 2020 to $90.6/allowance as of December 31, 2021.

Staff costs

Staff costs increased $5,359 thousand or 18.9%, from $28,337 thousand for the year ended December 31, 2020 to $33,696 thousand for the year ended December 31, 2021. This increase is mainly due to the recognition of the restructuring costs in Spain and a higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased $71,406 thousand, or 210.7%, from $33,884 thousand for the year ended December 31, 2020 to $105,290 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. As commented in the Other operating income section the market value of the allowances has increased significantly in 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating provisions and write-downs decreased $452 thousand, or 2.4%, from $19,086 thousand for the year ended 31 December 2020 to $18,634 thousand for the year ended 31 December 2021, due to an increase in the number of assets fully depreciated.

Impairment (loss) gain

Impairment gains decreased by $681 thousand, or 223.3%, from a gain of $305 thousand for the year ended 31 December 2020 to a loss of $376 thousand for the year ended 31 2021.

Gain on disposal of non-current assets

The amount reflected during the year ended December 31, 2020 was driven by the sale of excess CO_2 rights.

Europe – Silicon Metals

($ thousands)	Year ended December 31, 2021	2020
Sales	437,533	321,632
Raw materials and energy consumption for production	(303,811)	(255,798)
Other operating income	48,828	19,971
Staff costs	(77,608)	(52,236)
Other operating expense	(105,712)	(35,415)
Depreciation and amortization charges, operating allowances and write-downs	(7,330)	(8,900)
Impairment (loss) gain	14	—
Gain on disposal of non-current assets	733	682
Operating (loss)	**(7,353)**	**(10,064)**

Sales

Sales increased $115,901 thousand or 36.0%, from $321,632 thousand for the year ended December 31, 2020 to $437,533 thousand for the year ended December 31, 2021. The increase in sales is attributed to the increase in volumes and average realized selling prices across the products.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased $48,013 thousand, or 18.8%, from $255,798 thousand for the year ended December 31, 2020 to $303,811 thousand for the year ended December 31, 2021. Raw materials and energy consumption for production increased with higher volumes, as well as higher raw material costs.

Other operating income

Other operating income increased $28,857 thousand, or 144.5%, from $19,971 thousand for the year ended December 31, 2020 to $48,828 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. Market value of the allowances has increased 130.4% from $39.3/allowance for the year ended December 31, 2020 to $90.6/allowance as of December 31, 2021

Staff costs

Staff costs increased $25,372 thousand or 48.6%, from $52,236 thousand for the year ended December 31, 2020 to $77,608 thousand for the year ended December 31, 2021. This increase is mainly due to the recognition of the restructuring provision in France amounting $23,798 thousand and a higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased $70,297 thousand, or 198.5%, from $35,415 thousand for the year ended December 31, 2020 to $105,712 thousand for the year ended December 31, 2021. The increase is primarily attributable to the freely granted CO2 emission rights. As described in the Other operating income section the market value of the allowances increased significantly in 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write downs decreased $1,570 thousand, or 17.6%, from $8,900 thousand for the year ended December 31, 2020 to $7,330 thousand for the year ended December 31, 2021 due to an increase in the number of assets fully depreciated.

Europe – Silicon Alloys

($ thousands)	Year ended December 31, 2021	2020
Sales	227,804	146,096
Raw materials and energy consumption for production	(170,073)	(113,332)
Other operating income	16,924	5,078
Staff costs	(42,679)	(32,064)
Other operating expense	(23,043)	(16,397)
Depreciation and amortization charges, operating allowances and write-downs	(9,522)	(10,352)
Impairment (loss)	(455)	(17,942)
(Loss) gain on disposal of non-current assets	296	319
Other (loss)	—	—
Operating (loss)	**(748)**	**(38,594)**

Sales

Sales increased $81,708 thousand or 55.9%, from $146,096 thousand for the year ended December 31, 2020 to $227,804 thousand for the year ended December 31, 2021, primarily due to an increase in both domestic sales and exports.

Raw materials and energy consumption for production

Raw materials and energy consumption increased $56,741 thousand, or 50.1%, from $113,332 thousand for the year ended December 31, 2020 to $170,073 thousand for the year ended December 31, 2021. Raw materials and energy consumption for production increased with the higher sales volumes, in addition to higher raw material costs.

Other operating income

Other operating income increased $11,846 thousand, or 233.3%, from $5,078 thousand for the year ended December 31, 2020 to $16,924 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. The market value of allowances has increased 130.4% from $39.3/allowance for the year ended December 31, 2020 to $90.6/allowance as of December 31, 2021.

Staff costs

Staff costs increased $10,615 thousand or 33.1%, from $32,064 thousand for the year ended December 31, 2020 to $42,679 thousand for the year ended December 31, 2021. This increase is due to higher performance related pay, driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased $6,646 thousand, or 40.5%, from $16,397 thousand for the year ended December 31, 2020 to $23,043 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. As described in the Other operating income section the market value of the allowances increased significantly in 2021.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating allowances and write downs decreased $830 thousand, or 8.0%, from $10,352 thousand for the year ended December 31, 2020 to $9,522 thousand for the year ended December 31, 2021 due to an increase in the number of assets fully depreciated.

Impairment (loss) gain

Impairment loss decreased by $17,487 thousand, or 97.5%, from a loss of $17,942 thousand for the year ended 31 December 2020 to a loss of $455 thousand for the year ended 31 2021. During the year ended 31 December 2020, the Company recognized an impairment of $17,942 thousand at our Château Feuillet facility in France.

South Africa – Silicon Metals

	Year ended December 31,	
($ thousands)	**2021**	**2020**
Sales	12,604	17,631
Raw materials and energy consumption for production	(8,240)	(12,267)
Other operating income	278	127
Staff costs	(1,542)	(2,497)
Other operating expense	(1,904)	(3,515)
Depreciation and amortization charges, operating allowances and write-downs	(546)	(1,563)
Impairment (loss) gain	288	(1,899)
Operating (loss) profit	**938**	**(3,983)**

Sales

Sales decreased $5,027 thousand, or 28,5%, from $17,631 thousand for the year ended December 31, 2020 to $12,604 thousand for the year ended December 31, 2021. Sales in South Africa were adversely impacted by the temporary shutdown of the Polokwane facility.

Raw materials and energy consumption for production

Raw materials and energy consumption for production decreased $4,027 thousand, or 32.8%, from $12,267 thousand for the year ended December 31, 2020 to $8,240 thousand for the year ended December 31, 2021, in-line with the decrease in sales volumes.

Other operating income

Other operating income increased $151 thousand, or 118.9%, from $127 thousand for the year ended December 31, 2020 to $278 thousand for the year ended December 31, 2021.

Staff costs

Staff costs decreased $955 thousand, or 38.2%, from $2,497 thousand for the year ended December 31, 2020 to $1,542 thousand for the year ended December 31, 2021, due to staffing adjustments and employee separation costs in connection with the shutdown of Polokwane plant during 2020. Furthermore, foreign exchange differences favorably impacted staff costs.

Other operating expense

Other operating expense decreased $1,611 thousand, or 45.8%, from $3,515 thousand for the year ended December 31, 2020 to $1,904 thousand for the year ended December 31, 2021, primarily due to the recovery of operating, selling and

administrative expenses assumed in the 2020 financial year following the closure of the Polokwane facility in August 2019.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased $1,017 thousand, or 65.1%, from $1,563 thousand for the year ended December 31, 2020 to $546 thousand for the year ended December 31, 2021. The impairment of the Polokwane plant at the end of 2020 resulted in a lower depreciation charge at the end of 2021.

Impairment loss (gain)

Impairment decreased $2,187 thousand, or 115.2%, from a loss of $1,899 thousand for the year ended December 31, 2020 to a gain of $288 thousand for the year ended December 31, 2021. This effect is a result of the partial reversal of the 2020 impairment in the year ended December 2021.

South Africa – Silicon Alloys

	Year ended December 31,	
($ thousands)	**2021**	**2020**
Sales	104,591	62,941
Raw materials and energy consumption for production	(68,377)	(43,796)
Other operating income	485	3
Staff costs	(11,726)	(8,516)
Other operating expense	(11,352)	(10,583)
Depreciation and amortization charges, operating allowances and write-downs	(4,535)	(5,578)
Impairment (loss) gain	2,396	(6,777)
Operating (loss) profit	**11,482**	**(12,306)**

Sales

Sales increased $41,650 thousand, or 66.2%, from $62,941 thousand for the year ended December 31, 2020 to $104,591 thousand for the year ended December 31, 2021. Our sales in South Africa were positively impacted by improved demand and market conditions, increasing both average selling price and sales volumes. In addition, this increase translates into the recovery of sales following the impact of Covid-19 in 2020.

Raw materials and energy consumption for production

Raw materials and energy consumption for increased $24,581 thousand, or 56.1%, from $43,796 thousand for the year ended December 31, 2020 to $68,377 thousand for the year ended December 31, 2021. Such variation is attributed to the increase in electricity price alongside the improvement in sales volume.

Other operating income

Other operating income increased $482 thousand, from $3 thousand for the year ended December 31, 2020 to $485 thousand for the year ended December 31, 2021, mainly, due to all sundry sales from the idle Polokwane plant reported in other income.

Staff costs

Staff costs increased $3,210 thousand, or 37.7%, from $8,516 thousand for the year ended December 31, 2020 to $11,726 thousand for the year ended December 31, 2021. The increase in staff cost is primarily due to an inflationary adjustment made in 2021, and the incentive bonus accrued as of December 31, 2021.

Other operating expense

Other operating expense increased $769 thousand, or 7.3%, from $10,583 thousand for the year ended December 31, 2020 to $11,352 thousand for the year ended December 31, 2021, primarily due to operating, selling and administrative expenses during 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased by $1,043 thousand, or 18.7%, from $5,578 thousand for the year ended December 31, 2020 to $4,535 thousand for the year ended December 31, 2021. The impairment of the Polokwane plant at the end of 2020 resulted in a lower depreciation charge at the end of 2021.

Impairment (loss) gain

Impairment losses decreased $9,173 thousand, or 135.4%, from a loss of $6.777 thousand for the year ended December 31, 2020 to a gain of $2,396 thousand for the year ended December 31, 2021. This effect is a result of due to the partial reversal of the 2020 impairment in the year ended December 2021.

Other segments

	Year ended December 31,	
($ thousands)	**2021**	**2020**
Sales	43,568	25,334
Raw materials and energy consumption for production	(33,445)	(19,518)
Other operating income	49,901	24,587
Staff costs	(31,203)	(17,144)
Other operating expense	(51,960)	(26,679)
Depreciation and amortization charges, operating allowances and write-downs	(991)	(1,046)
Impairment (loss)	(1,730)	(11,346)
Net gain due to changes in the value of assets	758	158
(Loss) gain on disposal of non-current assets	(37)	5
Other losses	—	(5)
Operating (loss)	**(25,076)**	**(25,654)**

Sales

Sales increased $18,234 thousand, or 72.0%, from $25,334 thousand for the year ended December 31, 2020 to $43,568 for the year ended December 31, 2021, mainly due to an increase in demand and prices for all our products. Additonally, sales have increased by the restart of the second furnace in our plant in Argentina.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased $13,927 thousand, or 71.4%, from $19,518 thousand for the year ended December 31, 2020 to $33,445 thousand for the year ended December 31, 2021, mainly due to increases in sales volumes. This increase is also due to an increase in the power tariff and price increases in both local and imported raw materials.

Other operating income

Other operating income increased $25,314 thousand, or 103.0%, from $24,587 thousand for the year ended December 31, 2020 to $49,901 thousand for the year ended December 31, 2021, primarily due to intercompany charges.

Staff costs

Staff costs increased $14,059 thousand, or 82.0%, from $17,144 thousand for the year ended December 31, 2020 to $31,203 thousand for the year ended December 31, 2021, primarily due to additional personnel requirements for the reastart of the second furnace in Argentina. The increase was also attributable to wage adjustments in 2021, and a higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased $25,281 thousand, or 94.8%, from $26,679 thousand for the year ended December 31, 2020 to $51,960 for the year ended December 31, 2021, primarily due to intercompany charges.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased $55 thousand, or 5.3%, from $1,046 thousand for the year ended December 31, 2020 to $991 thousand for the year ended December 31, 2021.

Impairment (loss)

Impairment losses decreases $9,616 or 84.8%, from a loss of $11,346 thousand for the year ended 31 December 2020 to a loss of $1,730 thousand for the year ended 31 December 2021, mainly due to impaired intercompany loans. These items are eliminated in the consolidation. During 2021 the Company recorded an impairment related to quarz mine in Mauritania amounting $1,726 thousand.

Net gain due to changes in the value of assets

The gain due to changes in the value of assets in 2021 is mainly due to the increase in the valuation of Pampa Energy shares in Argentina.

(Loss) gain on disposal of non-current assets

Loss of disposal of non-current assets increased by $42 thousand, or 840.0%, from a gain of $5 thousand for the year ended 31 December 2020 to a loss of $37 thousand for the year ended 31 December 2021, mainly due to the loss on the sale of fixed assets at the facility in Puertollano, Spain.

Effect of Inflation

In 2022, inflation reached unprecedented levels in most countries where Ferroglobe operates and sources products. Inflation led to higher pressure on costs, with unusual surcharges being applied by suppliers on some product categories. Energy and fuel surcharges impacted specifically some supplies during the second and third quarter.

Management believes that the impact of inflation was not material to Ferroglobe's results of operations in the years ended December 31, 2021 and 2020.

Cyclical Nature of the Industry and Movement in Market Prices, Raw Materials and Input Costs

Our business has historically been subject to fluctuations in the price of our products and market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors. The timing, magnitude and duration of these cycles and the resulting price fluctuations are difficult to predict. For example, we experienced a weakened economic environment in national and international metals markets, including a sharp decrease in silicon metal prices in all major markets from late 2014 to late 2017. Throughout 2019 and 2020, we experienced the most dramatic decline in prevailing prices of our products, which adversely affected our results. During the fourth quarter of 2020, demand for our products increased to levels similar to those prior to the pandemic. During

2021, demand for our products has further increased; however, COVID-19 and the Ukraine-Russia conflict have negatively impacted, and will in the future negatively impact our business. The COVID pandemic and the Ukraine-Russia conflict have also impacted international logistics costs and have significantly impacted raw materials and commodities prices, external and unforeseeable factors have also contributed to extremely volatile and high spot electricity prices, in particular in Europe.

B. Liquidity and Capital Resources

Sources of Liquidity

Ferroglobe's primary sources of long-term liquidity are its senior secured notes with a $345,058 thousand aggregate principal at an interest rate of 9.375%, due on June 30, 2025, ("the Reinstated Senior Notes") and its primary source of short-term liquidity is its factoring agreements with a Leasing and Factoring Agent and with Bankinter, for anticipating the collection of receivables of the Company's European entities, which in 2022 provided upfront cash consideration of approximately $895,264. The Company also signed in 2022 a $100 million ABL Revolver, which is currently undrawn.

On March 27, 2021, Ferroglobe and Globe and certain other members of our group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to implement the restructuring. On July 30,2021 the company announced the occurrence of the "Transaction Effective Date" under the lock-up agreement dated March 27, 2021 (the "Lock-Up Agreement") between the Company and the financial stakeholders. The Issuers completed the exchange of 98.588% of the 9⅜% Senior Notes due 2022 (the "Old Notes") issued by the Company and Globe for a total consideration per $1,000 principal amount of Old Notes comprising (i) $1,000 aggregate principal amount of new 9⅜% senior secured notes due 2025 issued by the Issuers (the "New Notes") plus (ii) a cash fee amounting to $51,611 thousand, which the Parent, at the direction of the qualifying noteholders, applied as cash consideration for a subscription of new ordinary shares of the Company. In addition the Company issued new ordinary shares for total gross proceeds of $40 million.

On October 2, 2020, the Company signed a factoring agreement with a financial institution, to anticipate the collection of receivables issued by the Company's European entities (Grupo FerroAtlántica, S.A. and FerroPem S.AS). See *Note* 16.

The main characteristics of the factoring agreement are the following:

- the maximum cash consideration advanced for the financing facility is up to €60,000 thousand;
- over collateralization of 10% of accounts receivable as guarantee provided to the Agent until payment has been satisfied;
- a 0.18% to 0.25% fee charged on the total of invoices and credit notes sold to the Agent;
- a financing commission set at IBOR +1% charged on the drawdowns;

Other conditions are set in relation to credit insurance policy which has been structured in an excess of loss policy where the first €5,000 thousand of bad debt losses are not covered by the insurance provider. The Company has assumed the cash collateralization for the entire excess of loss, as agreed in contractual terms.

On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter. This program offers the possibility to sell the receivables corresponding to ten customers pre-approved by the bank and its credit insurer. Receivables are pre-financed at 100% of their face value.

The main characteristics of this program are the following:

- the maximum cash consideration advanced for the financing facility is up to €30,000 thousand;

- a service fee set at 0.25% of the receivable face value;
- a cost of financing set at Euribor 12-month +1%;
- a closing fee set at 0.25% of the financing;
- an annual renewal fee set at 0.25% of the financing.

On September 8, 2016, FerroAtlántica, S.A.U., as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry"), as lender, entered into a loan agreements under which the Ministry made available to the borrower a loan in aggregate principal amount of €44.9 million, in connection with the industrial development projects relating to our solar grade silicon project. FAU transferred the loan to OPCO before its sale. See "Item 4.B.—Information on the Company—Business Overview—Research and Development (R&D)—Solar grade silicon." The loan of €44.9 million is to be repaid in seven installments starting on 2023 and completed by 2030. On January 25, 2022, the Ministry opened a procedure to decide about the potential reimbursement of the loan. The company presented its allegations on February 15, 2022. Based on those allegations, the Ministry closed the reimbursement procedure. As a result of this procedure, a partial early repayment of €16.3 million has been made on February 10, 2023. In March 2023, we have received from the Ministry the new repayment schedule. Interest on outstanding amounts under each loan accrues at an annual rate of 3.55%. See Note 19.

On June 2, 2020, Ferroglobe subsidiary, Silicium Québec, as borrower, agreed a $7,000 thousand loan with Investissement Québec, a regional government loan & investment agency, as lender, to finance its capital expenditures activities in Canada. The loan is to be repaid in 84 installments over a 10-year period with the first three years as a grace period. Interest rate on outstanding amounts is zero percent.

On July 23, 2020, Ferroglobe subsidiary, Ferropem, S.A.S., as borrower, entered into a loan with BNP Paribas, as lender, amounting to €4,300 thousand, to finance Company's activities in France. The loan is guaranteed by French government following special measurements taken on COVID-19 impact on businesses. Repayment of principal and payment of interest and accessories shall be made with the possibility for the Borrower to request the amortization of the amounts due at maturity for an additional period of 1 to 5 years. Interest rate is zero percent and the borrower shall be liable to pay a fee equal to 0.50% equal to an amount of €22 thousand calculated on the total borrowed capital.

On March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the "Beneficiaries") and the Sociedad Estatal de Participaciones Industriales ("SEPI"), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic.

The €34.5M was funded using a dual-tranche loan, with €17.25M maturing in February 2025 and €17.25M maturing in June 2025. €16.9M of the loan carries a fixed interest rate of 2% per annum, and interest on the remaining €17.6M is calculated as IBOR plus a spread of 2.5% in the first year, 3.5% in the second and third years and 5.0% in the fourth year, plus an additional 1.0% payable if the result before taxes of the Beneficiaries is positive. The loans are secured by corporate joint guarantees from Ferroglobe, Ferroglobe Holding Company and Ferroglobe Finance Company and certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain real property, and other assets from Grupo FerroAtlántica and certain of its subsidiaries.

Until the loans have been fully repaid, the Beneficiaries are subject to several restrictions, including the following prohibited payments: (1) payment of dividends; (2) payment of management fee; (3) repayment of intra-group loans; (4) payment of intercompany net commercial balances as of June 30, 2021 (denominated "legacy"), with an exception of $20M of those balances. (Intercompany commercial balances generated after Jun-21 are permitted); and (5) payment of interest on intercompany loans corresponding to the years 2021 and 2022.

In 2022, The Company closed a new, five-year $100 million North American asset-based revolving credit facility (the "ABL Revolver"), involving Ferroglobe's subsidiary, Globe Specialty Metals, Inc. ("Globe"), and its wholly owned North American subsidiaries, as borrowers, and Bank of Montreal ("BMO"), as lender and agent.The ABL Revolver is secured by North America inventories and receivables. At December 31, 2022, the ABL Revolver was undrawn.

Ferroglobe's primary short-term liquidity needs are to fund its capital expenditure commitments, fund specific initiatives underlying the strategic plan, service its existing debt and working capital. Ferroglobe's long-term liquidity needs primarily relate to debt repayment. Ferroglobe's core objective with respect to capital management is to maintain a balanced and sustainable capital structure through the economic cycles of the industries in which it participates, while keeping the cost of capital at competitive levels.

For the year ended December 31, 2022, operating activities generated a cash flow of $405,018 thousand, compared to $(1,341) thousand in 2021 and $154,268 thousand in 2020, mainly due to the 2022 results, as a result of favourable pricing, commercial excellence, operational agility and cost discipline. Investing activities resulted in a total outflow of $51,774 thousand of cash in 2022, compared to an outflow of $23,848 thousand in 2021 and an outflow of $$31,940 thousand in 2020. Financing activities resulted in a total inflow of $140,458 thousand in cash in 2021, compared to an inflow of $10,452 thousand in 2021 and an outflow of $113,333 thousand in 2020. See "Cash Flow Analysis" below for additional information.

As of December 31, 2022 and 2021, Ferroglobe had cash, restricted cash and cash equivalents of $322,943 thousand (of which $5,008 thousand is restricted cash) and $116,663 thousand (of which $2,272 thousand is restricted cash), respectively. Cash and cash equivalents are primarily held in U.S. Dollars and Euros.

We believe our working capital is sufficient for our present requirements, and we anticipate generating sufficient cash to satisfy our short and long-term liquidity needs.

Availability of funds

At December 31, 2022, we had cash and cash equivalents, restricted cash and other restricted funds amounted to $322,943 thousand ($116,663 thousand at December 31,2021). This amount includes non-current restricted cash in relation to the guarantees taken over escrow amounting $2,133 thousand. The escrow was constituted in August 30, 2019, in consideration of previous FerroAtlántica. The restricted cash also includes current-restricted cash in relation to the NMTC program amounting 2,875 (See Note 10).

The Company also has certain restrictions for the disposal of the cash in the joint ventures with Dow Corning amounting as of December 31, 2022.

Ferroglobe PLC is the parent company of Ferroglobe Group and receives funding from its subsidiaries in the form of intercompany loans. Consequently, certain restrictions on the ability of the Group's subsidiaries to transfer funds to Ferroglobe PLC would negatively affect our liquidity and thus our business.

Grupo Ferroatlántica also has restrictions coming from the SEPI loans. Until the loans have been fully repaid, the company is subject to several restrictions, including the following prohibited payments: (1) payment of dividends; (2) payment of management fee; (3) repayment of intra-group loans; (4) payment of intercompany net commercial balances as of June 30, 2021 (denominated "legacy"), with an exception of $20M of those balances. (Intercompany commercial balances generated after Jun-21 are permitted); and (5) payment of interest on intercompany loans corresponding to the years 2021 and 2022 (see Note 19).

Under the ABL credit agreement, the borrowers commit to respect usual affirmative covenants, among others communicating any default or event of default, a change of control, the creation of acquisition of subsidiaries, a casualty or damage to any material used as a collateral, maintenance of the insurance, the compliance with ERISA and the Canadian Pension Laws, the compliance with environmental laws. The borrowers also commit not to create or incur any indebtedness, capital leases in excess of a $7.5m, create liens, merge, dissolve, divide any borrowers, change the nature of

the business, pay dividends, repay indebtedness for the account of holder of Equity Interests of any Loan Party or its affiliates, maintain a financial covenant consolidated fixed charge coverage ratio to be less than 1.00 to 1.00.

Working Capital Position

As of December 31, 2022, Ferroglobe's working capital position (defined as inventories and trade and other receivables less trade and other payables) was $705,888 thousand as compared to $464,870 thousand as of December 31, 2021, mainly due to an increase in inventories by $210,283 thousand and receivables by $44,401 thousand partially offset for an increase in payables by $13,666 thousand.

Capital Expenditures

Ferroglobe incurs capital expenditures in connection with expansion and productivity improvements, production plants maintenance and research and development projects. Capital expenditures are funded through cash generated from operations and financing activities. Ferroglobe's capital expenditures for the years ended December 31, 2022, 2021 and 2020 were $52,153 thousand, $27,597 thousand and $30,257 thousand, respectively.

Contractual Obligations

The following table sets forth Ferroglobe's contractual obligations and commercial commitments with definitive payment terms that will require significant cash outlays in the future, as of December 31, 2022.

		Payments Due by Period			
($ thousands)	**Total**	**Less than 1 year**	**1 - 3 years**	**3 - 5 years**	**More than 5 years**
Long and short term debt obligations	643,499	156,123	466,106	5,248	16,022
Capital expenditures	16,607	16,607	—	—	—
Leases	23,166	8,928	7,349	3,246	3,643
Power purchase commitments [1]	526,841	155,374	320,872	37,946	12,649
Purchase obligations [2]	32,432	32,432	—	—	—
Other Long-Term Liabilities Reflected on the Company's Balance Sheet [3]	142,221	5,500	14,595	8,367	113,759
Total	**1,384,766**	**374,964**	**808,922**	**54,807**	**146,073**

(1) Represents minimum charges that are enforceable and legally binding, and do not represent total anticipated purchases. Minimum charges requirements expire after providing one year notice of contract cancellation.

(2) The Company has outstanding purchase obligations with suppliers for raw materials in the normal course of business. The disclosed purchase obligation amount represents commitments to suppliers that are enforceable and legally binding and do not represent total anticipated purchases of raw materials in the future.

(3) Included tolling agreement with Cee-Dumbria facility and contingent consideration with Glencore.

The table above also excludes certain other obligations reflected in our consolidated balance sheet, including estimated funding for pension obligations, for which the timing of payments may vary based on changes in the fair value of pension plan assets and actuarial assumptions. We expect to contribute approximately $648 thousand to our pension plans for the year ended December 31, 2022.

Further information regarding Ferrogloble's contractual obligations and commercial commitments as of December 31, 2022, is set forth in note 28 to the consolidated financial statements.

Cash Flow Analysis — Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

The following table summarizes Ferroglobe's primary sources (uses) of cash for the years ended December 31, 2022 and 2021:

	Year ended December 31,	
($ thousands)	**2022**	**2021**
Cash and cash equivalents at beginning of period	116,663	131,557
Cash flows from operating activities	405,018	(1,341)
Cash flows from investing activities	(51,774)	(23,848)
Cash flows from financing activities	(140,458)	10,452
Exchange differences on cash and cash equivalents in foreign currencies	(6,506)	(157)
Cash, restricted cash and cash equivalents at end of period	322,943	116,663
Cash, restricted cash and cash equivalents at end of period from statement of financial position	322,943	116,663

Ferroglobe PLC paid nil dividends during the year ended December 31, 2022 and the year ended December 31, 2021.

Cash flows from operating activities

Cash flows from operating activities increased $406,359 thousand, from a negative cash generated of $1,341 thousand for the year ended December 31, 2021, to a positive $405,018 thousand for the year ended December 31, 2022, mainly due to the 2022 results, as a result of sales prices increase in 2022 compared to 2021, commercial excellence and cost discipline.

Cash flows from investing activities

Cash flows from investing activities increased $37,835 thousand from an outflow of $23,848 thousand for the year ended December 31, 2021, to an outflow of $61,683 thousand for the year ended December 31, 2022. Capital expenditures increased during the year ended December 31, 2022 to $52,153 thousand from $27,597 thousand during the year ended December 31, 2021.

Cash flows from financing activities

Cash flows from financing activities decreased $141,001 thousand, from a net inflow of $10,452 thousand for the year ended December 31, 2021 to a net outflow of $130,549 thousand for the year ended December 31, 2022. The decrease is mainly due to the repayment of the principal of the Super Senior Notes amounting $60 million and the Old Notes amounting $4.9 million, the repurchase of 19.05 million of the Reinstated Notes and the payment of the interests accrued under amounting to $52.3 million.

Cash Flow Analysis — Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

The following table summarizes Ferroglobe's primary sources (uses) of cash for the years ended December 31, 2021 and 2020:

	Year ended December 31,	
($ thousands)	**2021**	**2020**
Cash and cash equivalents at beginning of period	131,557	123,175
Cash flows from operating activities	(1,341)	154,268
Cash flows from investing activities	(23,848)	(31,940)
Cash flows from financing activities	10,452	(113,333)
Exchange differences on cash and cash equivalents in foreign currencies	(157)	(613)
Cash, restricted cash and cash equivalents at end of period	116,663	131,557
Cash, restricted cash and cash equivalents at end of period from statement of financial position	116,663	131,557

Ferroglobe paid nil dividends during the year ended December 31, 2021 and the year ended December 31, 2020.

Cash flows from operating activities

Cash flows from operating activities decreased $155,609 thousand, from a positive cash generated of $154,268 thousand for the year ended December 31, 2020, to a negative $1,341 thousand for the year ended December 31, 2021. The decrease is mainly due to the bad result in 2021, tightness in the market drove pricing to unprecedented levels primarily silicon metal and ferrosilicon.

Cash flows from investing activities

Cash flows from investing activities increased $8,092 thousand from an outflow of $31,940 thousand for the year ended December 31, 2020 to an outflow of $23,848 thousand for the year ended December 31, 2021. Capital expenditures decreased during the year ended December 31, 2021 to $27,597 thousand from $30,257 thousand during the year ended December 31, 2020. Additionally, during the year ended December 31, 2021, cash inflows were the proceeds from the disposal of certain assets, including $1,370 thousand from the sale of Niagara assets.

Cash flows from financing activities

Cash flows from financing activities increased $123,785 thousand, from a net outflow of $113,333 thousand for the year ended December 31, 2020 to a net inflow of $10,452 thousand for the year ended December 31, 2021. The increase is mainly due to the refinancing process, the issuance of the Super Senior notes amounting $60 million and $40 million of new equity.

Capital resources

Ferroglobe's core objective is to maintain a balanced and sustainable capital structure through the economic cycles of the industries in which it operates, while keeping the cost of capital at competitive levels. In addition to cash flows from continuing operations, the Company's main sources of capital resources are its Reinstated Senior Notes with an aggregate principal value of $345,058 thousand and the factoring agreements with a maximum cash consideration advanced up to €90,000 thousand.

Capital Raising and Extension of the Maturity of the Senior Notes

Details and description of Ferroglobe's debt instrument and factoring agreement are described in Notes 16 and 18 of the Consolidated Financial Statements.

For additional information see also “Item 10.C.— Material Contracts”.

C. Research and Development, Patents and Licenses, etc.

For additional information see “Item 4.B.—Information on the Company—Business Overview—Research and Development (R&D).”

D. Trend Information

We discuss in Item 5.A. above and elsewhere in this annual report, trends, uncertainties, demands, commitments or events for the year ended December 31, 2022 that we believe are reasonably likely to have a material adverse effect on our revenues, income, profitability, liquidity or capital resources or to cause the disclosed financial information not to be necessarily indicative of future operating results or financial conditions.

E. Critical Accounting Estimates

The discussion and analysis of Ferroglobe’s financial condition and results of operations is based upon its Consolidated Financial Statements, which have been prepared in accordance with IFRS. The preparation of those financial statements requires Ferroglobe to make estimates and judgments that affect the reported amounts of assets and liabilities, revenues and expenses, the disclosure of contingent assets and liabilities and related disclosure at the date of its financial statements. The estimates and related assumptions are based on available information at the date of preparation of the financial statements, on historical experience and on other relevant factors. Actual results may differ from these estimates under different assumptions and conditions. Critical accounting policies are those that reflect significant judgments of uncertainties and potentially result in materially different results under different assumptions and conditions. The principal items affected by estimates are business combinations, impairment of long-lived assets, inventories and income taxes. The following are Ferroglobe’s most critical accounting policies, because they generally involve a comparatively higher degree of judgment in their application. For a description of all of Ferroglobe’s principal accounting policies, see *Note* 4 to the Consolidated Financial Statements of Ferroglobe included elsewhere in this annual report.

Business combinations

Ferroglobe subsidiaries have completed a number of significant business acquisitions over the past several years. Our business strategy contemplates that we may pursue additional acquisitions in the future. When we acquire a business, the purchase price is allocated based on the value of tangible assets and identifiable intangible assets acquired and liabilities assumed. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. Goodwill as of the acquisition date is measured as the residual of the excess of the consideration transferred, plus the fair value of any non-controlling interest in the acquiree at the acquisition date, over the fair value of the identifiable net assets acquired. If, after reassessment, the net of the acquisition date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the excess is recognized immediately in profit or loss as a bargain purchase gain. We generally engage independent third-party appraisal firms to assist in determining the fair value of assets acquired and liabilities assumed. Such a valuation requires management to make significant estimates, especially with respect to intangible assets. These estimates are based on historical experience and information obtained from the management of the acquired companies. These estimates are inherently uncertain and may impact reported depreciation and amortization in future periods, as well as any related impairment of goodwill or other long lived assets.

When the consideration transferred by the Company in a business combination includes an asset or liability resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates at fair value with the corresponding gain or loss being recognized in profit or loss. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against

goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

See *Note* 5 to the accompanying audited Consolidated Financial Statements for detailed disclosures related to our acquisitions.

Goodwill

Goodwill represents the excess purchase price of acquired businesses over fair values attributed to underlying net tangible assets and identifiable intangible assets. For the purpose of impairment testing, goodwill is allocated to each of the Company's cash-generating units (or groups of cash generating units) that is expected to benefit from the synergies of the combination. A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the cash-generating unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in profit or loss. On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

The valuation of the Company's cash generating units requires significant judgment in evaluation of, among other things, recent indicators of market activity and estimated future cash flows, discount rates and other factors. The estimates of cash flows, future earnings, and discount rate are subject to change due to the economic environment and business trends, including such factors as raw material and product pricing, interest rates, expected market returns and volatility of markets served, as well as our future manufacturing capabilities, government regulation, technological change and operational improvements and cost efficiencies driven by the implementation of the new strategy.

We believe that the estimates of future cash flows, future earnings, and fair value are reasonable; however, changes in estimates such as volumes, pricing, costs, discount rate, circumstances or conditions could have a significant impact on our fair valuation estimation, which could then result in an impairment charge in the future.

During the years ended December 31, 2021 and December 31, 2020, the Company has concluded that there is no impairment of goodwill.

Ferroglobe operates in a cyclical market, and silicon and silicon-based alloy index pricing and foreign import pressure into the U.S. and Canadian markets impact the future projected cash flows used in our impairment analysis.

Long-lived assets (excluding goodwill)

In order to ascertain whether its assets have become impaired, Ferroglobe compares their carrying amount with their recoverable amount if there are indications that the assets might have become impaired. Where the asset itself does not generate cash flows that are independent from other assets, Ferroglobe estimates the recoverable amount of the cash-generating unit to which the asset belongs. Recoverable amount is the higher of fair value and value in use, which is the present value of the future cash flows that are expected to be derived from continuing use of the asset and from its ultimate disposal at the end of its useful life, discounted at a rate which reflects the time value of money and the risks specific to the business to which the asset belongs.

If the recoverable amount of an asset or cash-generating unit is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized as an expense under "net impairment losses" in the consolidated income statement. Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years. A reversal of an impairment is recognized as "impairment gain (losses)" in the consolidated income statement.

The basis for depreciation or amortization is the carrying amount of the assets, deemed to be the acquisition cost less any accumulated impairment losses.

During year ended December 31, 2022 the Company recognized an impairment of $56,999 thousand in relation to; our idled capacity at the Polokwane facility in South Africa impairment reversal of $5,017 thousand, at Château Feuillet facility in Europe impairment of $5,994 thousand, at Boo facility in Europe impairment of $11,559 thousand, at Cinca facility in Europe impairment of $5,915 thousand, at Cee facility in Europe impairment of $20,034 thousand, at Moi Rana facility in Europe impairment of $15,749 thousand, at South Africa mines an impairment reversal of $2,750 thousand and in our assets in Puertollano impairment amounting $5,515 thousand. During year ended December 31, 2021 the Company recognized an impairment reversal of $137 thousand in relation to; our idled capacity at the Polokwane facility in South Africa impairment reversal of $2,681 thousand, at Château Feuillet facility in Europe impairment of $441 thousand and in our quartz mine in Mauritania amounting $1,726 thousand.

Inventories

Cost of inventories is determined by the average cost method. Inventories are valued at the lower of cost or Net Realizable Value. Circumstances may arise (e.g., reductions in market pricing, obsolete, slow moving or defective inventory) that require the carrying amount of our inventory to be written down to net realizable value. We estimate market and net realizable value based on current and future expected selling prices, as well as expected costs to complete, including utilization of parts and supplies in our manufacturing process. We believe that these estimates are reasonable; however, future market price decreases caused by changing economic conditions, customer demand, or other factors could result in future inventory write-downs that could be material.

Determination of income taxes provision

The current income tax expense incurred by Ferroglobe subsidiaries on an individual basis is determined by applying the applicable tax rate to the taxable profit for the year, calculated on the basis of accounting profit before tax, increased or decreased, as appropriate, by the permanent differences arising from the application of tax legislation and by the elimination of any tax consolidation adjustments, taking into account tax relief and tax credits. The consolidated income tax expense is calculated by adding together the expense recognized by each of the consolidated subsidiaries, increased or decreased, as appropriate, as a result of the tax effect of consolidation adjustments for accounting purposes.

Ferroglobe's deferred tax assets and liabilities include temporary differences measured at the amounts expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities and their tax bases, and tax loss and tax credit carryforwards. These amounts are measured at the tax rates that are expected to apply in the period when the asset is realized or the liability is settled. Deferred tax liabilities are recognized for all taxable temporary differences, except for those arising from the initial recognition of goodwill. Deferred tax assets are recognized to the extent that it is considered probable that Ferroglobe will have taxable profits in the future against which the deferred tax assets can be utilized. The deferred tax assets and liabilities recognized are reassessed at each reporting date in order to ascertain whether they still exist, and the appropriate adjustments are made on the basis of the findings of the analyses performed.

Significant judgment is required in determining income tax provisions and tax positions. Ferroglobe may be challenged upon review by the applicable taxing authorities, and positions taken may not be sustained. The accounting for uncertain income tax positions requires consideration of timing and judgments about tax issues and potential outcomes and is a subjective estimate. In certain circumstances, the ultimate outcome of exposures and risks involves significant uncertainties. If actual outcomes differ materially from these estimates, they could have a material impact on Ferroglobe's results of operations and financial condition. Interest and penalties related to uncertain tax positions are recognized in income tax expense.

Fair value measurement of financial instruments

Certain of the Company's financial instruments are classified as Level 3 as they include unobservable inputs. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either: in the principal market for the asset or liability; or in the absence of a principal market, in the most advantageous market for the asset or liability.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

G. Safe Harbor

This annual report contains forward-looking statements within the meaning of Section 27A of the U.S. Securities Act and Section 21E of the U.S. Exchange Act and as defined in the Private Securities Litigation Reform Act of 1995. See "Cautionary Statements Regarding Forward-Looking Statements."

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and senior Management

The following table lists each of our executive officers and directors, their respective ages and positions as of the date of this annual report and their respective dates of appointment. The business address of all our directors and senior management is our business address as set forth in "Item 4.A.—Information on the Company—History and Development of the Company."

Name	Age	Position	Date of appointment
Javier López Madrid	58	Director and Executive Chairman	February 5, 2015
Marco Levi	63	Director and Chief Executive Officer	January 10, 2020
Beatriz García-Cos Muntañola	59	Chief Financial Officer and Principal Accounting Officer	October 17, 2019
Bruce L. Crockett	79	Director	December 23, 2015
Stuart E. Eizenstat	80	Director	December 23, 2015
Manuel Garrido y Ruano	57	Director	May 30, 2017
Marta de Amusategui y Vergara	58	Director	Jun 12, 2020
Juan Villar-Mir de Fuentes	61	Director	December 23, 2015
Belén Villalonga Morenés	54	Director	May 13, 2021
Silvia Villar-Mir de Fuentes	57	Director	May 13, 2021
Nicolas de Santis	57	Director	May 13, 2021
Rafael Barrilero Yarnoz	60	Director	May 13, 2021

Other than employment agreements between Ferroglobe and each of Javier López Madrid, Marco Levi and Beatriz García-Cos Muntañola, there are no service contracts between the officers and directors listed in the table above, on the one hand, and us or any of our subsidiaries on the other, providing for benefits upon termination of employment.

There are no family relationships between our executive officers and directors, except that Javier López Madrid is married to Silvia Villar-Mir de Fuentes, who is also the sister of Juan Villar-Mir de Fuentes.

Set forth below is a brief biography of each of our executive officers and directors.

Javier López Madrid

Javier López Madrid has been Executive Chairman of the Company since December 31, 2016 and Chairman of our Nominations Committee since January 1, 2018. He was first appointed to the Board on February 5, 2015 and was the Company's Executive Vice-Chairman from December 23, 2015 until December 31, 2016.

He has been Chief Executive Officer of Grupo VM since 2008, is member of the Board of several non profit organizations. He is the founder and largest shareholder of Financiera Siacapital and founded Tressis, Spain's largest independent private bank. Mr. López Madrid holds a Masters in law and business from ICADE University.

Marco Levi

Marco Levi was appointed Chief Executive Officer of the Company on January 10, 2020 and appointed to its Board of Directors on January 15, 2020. Dr Levi previously served as President and CEO of Alhstrom-Munksjö Oyj, a global fiber materials company listed in Finland, where he led a successful transformation of the business by refocusing its product portfolio towards value-added specialty products. Prior to that, Dr. Levi was Senior Vice President and Business President of the $3 billion emulsion polymers division of chemicals manufacturer Styron, including during the period in which Styron division was acquired by Bain Capital from Dow Chemical Company. Dr. Levi previously had spent over twenty-two years at Dow in various departments and roles, ultimately serving as general manager of the emulsion polymers business.

Dr Levi is also a Non-Executive Director of Mativ Holdings, Inc, the leading global performance materials company, listed on the New York Stock Exchange. Dr Levi holds a doctorate in industrial chemistry from the Università degli Studi di Milano, Statale, in Italy.

Beatriz García-Cos Muntañola

Beatriz García-Cos Muntañola was appointed as Chief Financial Officer and Principal Accounting Officer on October 17, 2019.

Before joining Ferroglobe, Ms. García-Cos served as Group CFO at Bekaert NV, a leading, global steel wire transformation company, listed on the Brussels Stock Exchange, where she focused on setting and executing financial strategy, as well as leading numerous strategic projects centered on business growth and enhanced operational efficiency. Prior to Bekaert NV, she was the Chief Financial Officer of the mining division of Trafigura Beheer BV, one of the largest physical commodities trading groups. Before that, she was Finance Director, EMEA and LATAM, for Vestas Wind Systems A.S, the Danish publicly-listed multinational and world's largest wind turbine manufacturer. Prior to that role, she was Finance Manager for PPG Industries Inc, a leading diversified manufacturing company listed on the New York Stock Exchange. On March, 2023, the Board of Directors of Bodycote plc announced the nomination of Ms. Garcia-Cos Muntañola as a Non-Executive Director effective 1 September 2023, subject to election by the shareholders of Bodycote at its annual general meeting. If elected, Ms. Garcia-Cos Muntañola is expected to join the Remuneration, Nomination and Audit committees of the Board as well.

Ms García-Cos holds an M.A. in Economics and Business Administration from the University of Barcelona and graduated from the Advanced Management Program of IESE, in Spain.

Bruce L. Crockett

Bruce L. Crockett was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015. He has been a member of our Audit Committee from that date and was Chair of the Audit Committee since June 4, 2020 and served on our Compensation Committee from January 1, 2018 until June 23, 2021. Mr. Crockett was appointed on May 13, 2021 as our Senior Independent Director and on June 23, 2021 as Chair of the Corporate Governance Committee.

Mr. Crockett holds a number of other Board and governance roles. He has been Chairman of the Invesco Mutual Funds Group Board of Directors and a member of its Audit, Investment and Governance Committees, serving on the board since 1991, as Chair since 2003 and on the Board of predecessor companies from 1978. Since 2013, he has been a member of the Board of Directors and, since 2014, Chair of the Audit Committee and since 2021 member of the Governance Committee of ALPS Property & Casualty Insurance Company. He has been Chairman of, and a private investor in, Crockett Technologies Associates since 1996. He is a life trustee of the University of Rochester. In 2021 he was appointed as a member of the Board of Advisors of the Western Colorado University Graduate Business School.

Mr. Crockett was a member of the Board of Directors of Globe from April 2014 until the closing of the Business Combination, as well as a member of Globe's Audit Committee. He was formerly President and Chief Executive Officer of COMSAT Corporation from 1992 until 1996 and its President and Chief Operating Officer from 1991 to 1992, holding a number of other operational and financial positions at COMSAT from 1980, including that of Vice President and Chief Financial Officer. He was a member of the Board of Directors of Ace Limited from 1995 until 2012 and of Captaris, Inc. from 2001 until its acquisition in 2008 and its Chairman from 2003 to 2008.

Mr. Crockett holds an A.B. degree from the University of Rochester, B.S. degree from the University of Maryland, an MBA from Columbia University and an Honorary Doctor of Law degree from the University of Maryland.

Stuart E. Eizenstat

Stuart E. Eizenstat was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015. He has been a member of the Company's Corporate Governance Committee since January 1, 2018 and was appointed to our Nominations Committee on May 16, 2018.

Mr. Eizenstat has been a Senior Counsel at Covington & Burling LLP in Washington, D.C. and headed its international practice for many years after joining the firm in 2001. He has served as a member of the Advisory Boards of GML Ltd. since 2003 and of the Office of Cherifien de Phosphates since 2010. He was a trustee of BlackRock Funds from 2001 until 2018.

Mr. Eizenstat was a member of Board of Directors of Globe from 2008 until the closing of the Business Combination and Chair of its Nominating Committee. He was a member of the Board of Directors of Alcatel-Lucent from 2008 to 2016 and of United Parcel Service from 2005 to 2015. He has had an illustrious political and advisory career, including serving as Special Adviser to Secretary of State Kerry on Holocaust-Era Issues from 2009 to 2017 and Special Representative of the President and Secretary of State on Holocaust Issues during the Clinton administration from 1993 to 2001. He was Deputy Secretary of the United States Department of the Treasury from July 1999 to January 2001, Under Secretary of State for Economic, Business and Agricultural Affairs from 1997 to 1999, Under Secretary of Commerce for International Trade from 1996 to 1997, U.S. Ambassador to the European Union from 1993 to 1996 and Chief Domestic Policy Advisor in the White House to President Carter from 1977 to 1981. He is the author of "Imperfect Justice: Looted Assets, Slave Labor, and the Unfinished Business of World War II"; "The Future of the Jews: How Global Forces are Impacting the Jewish People, Israel, and its Relationship with the United States" and "President Carter: The White House Years."

Mr. Eizenstat holds a B.A. in Political Science, cum laude and Phi Beta Kappa, from the University of North Carolina at Chapel Hill, a J.D. from Harvard Law School and nine honorary doctorate degrees from colleges and universities, high honors from the United States, French (Legion of Honor), German, Austrian, Belgian and Israeli governments, and over 75 awards from various organizations.

Manuel Garrido y Ruano

Manuel Garrido y Ruano was appointed to our Board of Directors as a Non-Executive Director on May 30, 2017. He was a member of our Nominating and Corporate Governance Committee from May 30, 2017 until December 31, 2017, when he was appointed to our Corporate Governance Committee.

Mr. Garrido y Ruano has been Chief Financial Officer of Grupo Villar Mir since 2003 and he is currently member of the Board of its subsidiary in the energy sector, and member of the steering Committee of its real estate subsidiary. In June 2021 he was appointed non-executive Chairman of Fertial SPA the Algerian fertilizers subsidiary of the Group.

He is Professor of Corporate Finance of one Graduate Management Program at the Universidad de Navarra, and has also been Professor of Communication and Leadership of the Graduate Management Program at CUNEF in Spain.

Mr. Garrido y Ruano was a member of the steering committee of FerroAtlántica until 2015, having previously served as its Chief Financial Officer from 1996 to 2003. He worked with McKinsey & Company from 1991 to 1996, specializing in restructuring, business development and turnaround and cost efficiency projects globally.

Mr. Garrido y Ruano holds a Masters in Civil Engineering with honors from the Universidad Politécnica de Madrid and an MBA from INSEAD, Fontainebleau, France.

Marta de Amusategui y Vergara

Marta de Amusategui y Vergara was appointed to our Board of Directors as a Non-Executive Director on June 12, 2020. She has been a member of our Audit Committee from that date and a member of the Compensation Committee since June 23, 2021.

Ms. Amusategui has substantial experience in executive and non-executive roles, with a background in business strategy, banking and finance. She is founder and partner of Abrego Capital S.L, providing strategic and financial advisory services, and co-founder of Observatorio Industria 4.0, the professional forum leveraging knowledge and experience to assist businesses, specifically those in the secondary sector, in their digital transformation. She began her career in management consulting and investment banking, serving as Country Executive Officer and General Manager with Bank of America in Spain from 2003 to 2008.

Ms. Amusategui has been a member of the Board of Eland Private Equity, S.G.E.I.C., S.A., a private equity management company specializing in renewable energies, since 2009. Since 2020, she has been a member of the board of directors of Eccocar Sharing S.L. She has also held other Board positions in the past, including that of Telvent GIT S.A. (NASDAQ TLVT), the global IT solutions and business information services provider, where she became an independent director from early 2010 until its de-listing following acquisition in December 2011. She is currently a member of the McKinsey Alumni Council in Spain.

Ms. Amusategui holds an Industrial Engineering degree (MSc equivalent) from Universidad Pontificia de Comillas, Madrid, Spain, and an MBA from INSEAD, Fontainebleau, France. She has held a number of academic appointments, lecturing in Financing at the Three Points Digital Business School, Grupo Planeta, in Barcelona, in Managerial Competencies in CUNEF, in Madrid, and in Risk Management on the Non-Executive Directors Program at ICADE Business School, also in Madrid.

Juan Villar-Mir de Fuentes

Juan Villar-Mir de Fuentes was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015.

Mr. Villar-Mir de Fuentes is currently Chairman of Inmobiliaria Espacio, S.A and Grupo Villar Mir, S.A.U. In both companies he served as Vice Chairman since 1996 and since 1999 respectively. He is currently Second Vice Chairman of Obrascon Huarte Lain, S.A and has been serving as a member of the Board of Directors since 1996, first as a member of the Audit Committee and, later, as a member of its Compensation Committee. He was a Board Director and member of the Compensation Committee of Inmobiliaria Colonial, S.A from June 2014 to May 2017. He also was a member of the Board of Directors and of the Compensation Committee of Abertis Infraestructuras, S.A. between 2013 and 2016.

Mr. Villar-Mir de Fuentes is Patron and member of the Patronage Council of Fundación Nantik Lum and of Fundación Santa María del Camino.

Mr. Villar-Mir holds a Bachelor's Degree in Business Administration and Economics and Business Management from the Universidad Autónoma de Madrid.

Belen Villalonga Morenés

Belen Villalonga Morenés was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. She has been a member of the Audit Committee from that date and was appointed to the Corporate Governance Committee on June 23, 2021.

Ms. Villalonga is a Professor of Management and Organizations, a Yamaichi Faculty Fellow, and a Professor of Finance (by courtesy) at New York University's Stern School of Business. Between 2001 and 2012 she was a faculty member at the Harvard Business School. During 2018-2019 she was a Visiting Professor at Oxford University's Said Business School. Her teaching, research, and consulting activities are in the areas of corporate governance, strategy, and finance, with a special focus on family-controlled companies. Her award-winning research has been cited over 17,000 times in scholarly articles and international media outlets.

Professor Villalonga is an independent director at Banco Santander International (Santander group's private banking subsidiary in the United States), as well as at Mapfre USA (insurance). She was also an independent director for many years at three global companies publicly listed in Spain: Acciona (renewable energy and infrastructure), Grifols (biopharma), and Talgo (high-speed trains).

Ms. Villalonga holds a Ph.D. in Management and an M.A. in Economics from the University of California at Los Angeles, where she was a Fulbright Scholar. She also holds a Ph.D. in Business Economics from the Complutense University of Madrid.

Silvia Villar-Mir de Fuentes

Silvia Villar-Mir de Fuentes was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. She has been a member of the Compensation Committee since June 23, 2021. Ms. Villar-Mir de Fuentes currently serves on the board of directors of Grupo Villar Mir, a privately held Spanish group with investments across a broad range of diversified industries, which is the beneficial owner of approximately 49% of the Company's share capital.

Mrs. Villar-Mir de Fuentes is a summa cum laude graduate in Economics and Business Studies, with concentration in finance and accounting, from The American College in London, United Kingdom.

Nicolas De Santis

Nicolas De Santis was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. He has been a Compensation Committee and Nominations Committee member since June 23, 2021. Mr. De Santis is a technology entrepreneur, strategist and author with substantial experience in executive and non-executive roles. Mr. De Santis is the Chief Executive Officer of De Santis Corporate Vision, a strategy and innovation consultancy and incubator. De Santis advises multinational corporations and start-ups on business visioning strategy, global branding, business model innovation, sustainability strategies and corporate culture change.

Previously Mr. De Santis served on the board of publicly traded Lyris Technologies (acquired by AUREA Software in 2015). He began his management career at Landor Associates (now WPP Group). As a technology entrepreneur, he co-founded several high-profile start-ups, including opodo.com, one of Europe's most successful start-ups, reaching $1.5 billion in gross sales. Mr. De Santis sits on the board of several foundations, including, The World Law Foundation, The Moniker Art Foundation and the IWSC Foundation for oenology.

Mr. De Santis is a regular lecturer at business schools and universities on disruptive innovation, business strategy, global branding, business model innovation and culture transformation, including IE Business School, Madrid and the University

of Wyoming. He is the author of Futurising Companies® - A systematic approach to winning the future by managing culture as the operating system of organizations.

Rafael Barrilero Yarnoz

Rafael Barrilero Yarnoz was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. He was appointed Chair of the Compensation Committee and a member of the Nominations Committee on June 23, 2021.

Mr. Barrilero Yarnoz is a senior advisor at Mercer Consulting. Mr. Barrilero Yarnoz has developed his career as a partner of the firm and as a member of the executive committee, leading the advisory talent and reward service for the boards of the main companies and multinationals. He has also led the business throughout the EMEA. Previously, he led the Watson Wyatt consulting firm in Madrid. He began his career as a lawyer at Ebro Agricolas focused on labour law, before serving as Ebro's head of human resources. In January 2022 he joined the board of directors of AltamarCAM and Grupo Hedima, as a permanent Senior Advisor. He collaborates with the HAZ foundation, whose mission is to ensure transparency and good corporate governance.

Mr. Barrilero Yarnoz has a law degree from Deusto and a Masters in Financial Economics from ICADE, as well as a masters in human resources by Euroforum-INSEAD.

Board Diversity Matrix

On August 6, 2021 the SEC approved Nasdaq's Board Diversity Rule, requiring Nasdaq-listed companies to, subject to certain transition periods and exceptions (1) publicly disclose board-level diversity statistics in its annual report or on its website and in an aggregated form, using a standardized template and (2) have or explain why they do not have at least two diverse directors.

Ferroglobe, as a listed foreign private issuer, is required to have, or explain why it does not have, at least two diverse directors, including one who self-identifies as female, and one who self-identifies as either female, LGBTQ+ or an underrepresented individual. Foreign private issuers shall, starting by the later of (i) August 8, 2022, or (ii) the date when the annual report for the year ended 2022 is filed with the SEC, publish board level diversity statistics annually using either the U.S. domestic issuers prescribed matrix or the foreign private issuers prescribed matrix, and have, or explain why they do not have, one diverse director in 2023, and two diverse directors in 2025.

As a foreign private issuer, Ferroglobe reports board diversity information following the foreign private issuers prescribed matrix. The Company believes that it is presently in compliance with the diversity requirements pursuant to Nasdaq's listing rules.

The information provided below is based on the voluntary self-identification of each member of the Company's Board of Directors as of December 31, 2022:

Board Diversity Matrix (As of December 31, 2022)	
Country of Principal Executive Offices	United Kingdom
Foreign Private Issuer	Yes
Disclosure Prohibited under Home Country Law	No
Total Number of Directors	11

	Female	Male	Non-Binary	Did Not Disclose Gender
Part I: Gender Identity				
Directors	3	8	—	—
Part II: Demographic Background				
Underrepresented Individual in Home Country Jurisdiction			—	
LGBTQ+			—	
Did Not Disclose Demographic Background			—	

B. Compensation

Compensation of executive officers and directors

The table below sets out the remuneration earned by our directors during the year ended December 31, 2022:

($ units)	Salary & Fees	Benefits	Pension	Annual Bonus	Long - Term Incentives	Total
Executive Directors						
Javier López Madrid	685,321	181,562	137,064	1,000,543	1,808,735	3,813,224
Marco Levi	842,400	27,667	168,480	1,279,920	1,716,251	4,034,718
Non-Executive Directors						
Rafael Barrilero Yarnoz	128,112	9,261	—	—	—	137,373
Bruce L. Crockett	204,053	21,609	—	—	—	225,662
Stuart E. Eizenstat	106,503	8,644	—	—	—	115,147
Manuel Garrido y Ruano	102,798	5,557	—	—	—	108,355
Nicolas de Santis	110,825	—	—	—	—	110,825
Marta Amusategui	128,729	9,261	—	—	—	137,990
Juan Villar-Mir de Fuentes	87,980	3,704	—	—	—	91,684
Silvia Villar-Mir de Fuentes	107,120	7,409	—	—	—	114,529
Belén Villalonga Morenés	124,408	21,509	—	—	—	145,917

Javier López Madrid holds 28,117 options granted on November 24, 2016 and vested in 2019, 70,464 options granted on June 1, 2017 and vested in 2020, and 46,777 options granted on March 21, 2018 (at target performance in each case). On March 14, 2019 Javier López Madrid was granted 342,329 options (at target performance). As with prior grants, the maximum opportunity for each award is twice target. The awards granted in 2019 were discounted by a significant percentage to take account of the fall in the Company's share price in 2018 and 2019, with a discount of 50% applied to awards granted to executive directors, and a cap at 400% of each of the above participants' "normal" award level was also introduced for all 2019 awards. On December 16, 2020, Javier López Madrid was granted 1,355,915 options and Marco Levi was granted 1,279,544 options (at maximum performance in each case). On September 9, 2021, Javier López Madrid was granted 385,611 options and Marco Levi was granted 359,105 options (at maximum performance in each case). On September 22, 2022 Javier Lopez Madrid was grated 184,461 options and Marco Levi was grated 233,236 options at maximum performance in each case

All of these options were granted under the rules of the Company's Equity Incentive Plan 2016, are over ordinary shares in the capital of the Company and have a strike price of nil, except the options granted in 2021 which have a strike of 0.01. The options vest and become exercisable three years from the date of grant in the case of the options granted in 2017, 2018 and 2019, and four years from the date of grant in the case of the options granted in 2020, in each case to the extent that performance conditions are satisfied, and subject to continued service with the Company, remain exercisable until the tenth anniversary of their grant date. In the case of the options granted in 2021 the options vest on January 1, 2024.

Remuneration policy

In June 2020, our shareholders approved the remuneration policy applicable to executive directors and non-executive directors of the Company as set out in the directors' remuneration report within our U.K. annual report for the year ended December 31, 2019 (the "Policy"), as required by the UK Companies Act 2006 and the Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013. The Policy was approved on June 30, 2020 and applied with immediate effect.

The overall aim of our remuneration strategy is to provide appropriate incentives that reflect our high-performance culture and values to maximize returns for our shareholders. In summary, we aim to:

- attract, retain and motivate high-caliber, high-performing employees;
- encourage strong performance and engagement, both in the short and the long term, to enable us to achieve our strategic objectives;
- link a very significant proportion of pay to performance conditions measured over both the short-term and longer term;
- set fixed pay levels at or around market norms to allow for a greater proportion of total remuneration opportunity to be in variable pay; and
- create strong alignment between the interests of shareholders and executives through both the use of equity in variable incentive plans and the setting of shareholding guidelines for directors.

Consistent with this remuneration strategy, in relation to the Company's executive directors, the Policy provides, in summary, that:

- executive director salaries are set at a rate commensurate with the individual's role, responsibilities and experience, having regard to broader market rates. Salaries are reviewed annually, when Company performance, individual performance, changes in responsibility, levels of increase for the broader employee population and market salary levels will be taken into account. No maximum salary is set under the Policy;
- executive directors may receive a cash allowance in lieu of contribution to a pension, up to a maximum of 20% of base salary per annum, which may include contributions to a U.S. tax-qualified defined contribution 401(k) plan;
- executive directors may receive other market competitive benefits such as medical cover, life assurance and income protection insurance and, where appropriate, relocation allowances (with the Compensation Committee to review relocation allowances annually);
- executive directors are provided with directors' and officers' liability insurance and an indemnity to the fullest extent permitted by the UK Companies Act 2006;
- executive directors are eligible for an annual bonus, which normally has a maximum bonus opportunity of 200% of annual base salary but could have a maximum bonus opportunity of up to 500% of annual base salary in

exceptional circumstances. No more than 25% of the maximum bonus payable for each performance condition will be payable for threshold performance. Any bonus award will be subject to the achievement of quantitative and qualitative performance conditions as determined by the Compensation Committee each year (at least two-thirds of the bonus will be based on financial metrics with the balance based on non-financial metrics). Normally any bonus earned in excess of the target amount will be deferred for three years into shares in the Company and the executive director may be granted an additional long-term incentive award of equal value (at maximum) to the amount of annual bonus deferred. Recovery and recoupment provisions apply to all bonus awards for misstatement, error or gross misconduct. The Company may also award retention bonuses, payable in addition to or instead of any annual bonus, if it considers it necessary to retain key executives in situations where the individual might otherwise leave and his or her retention is critical. The grant, terms and payment of any retention bonus are at the discretion of the Committee. Any retention bonus would normally count towards the 500% salary limit referred to above;

- executive directors are eligible to be granted an award under the Company's long-term incentive plan, at the discretion of the Compensation Committee. Any awards granted would normally vest three years after the date of grant. All long-term incentive awards granted are subject to the achievement of performance targets, determined by the Compensation Committee for each grant. If an award is granted, the annual target award limit will not normally be higher than 300% of salary (save that, in recruitment, appointment and retention situations, it could be up to 500% of salary) and maximum vesting is normally 200% of target (both measures based on the face value of shares at the date of grant). Recovery and recoupment provisions apply to all long-term incentive awards for misstatement, error or gross misconduct;

- the Company has share ownership guidelines in place under which it recommends that executive directors hold a number of shares in the Company equivalent to 200% of base salary; and

- when determining the remuneration package for a new executive director, the Compensation Committee expects to apply the Policy set out above but may, in some circumstances, need to take account of other relevant factors, such as that individual's existing employment and their personal circumstances.

The Company's executive directors are Mr. López Madrid, who has served as Executive Chairman since December 2017 and as a Director since December 2015, and receives a base salary of £555,000 per annum, and Dr. Marco Levi who serves as Chief Executive Officer and Director and receives a base salary of €800,000 per annum. The salary of Mr. López Madrid has remained unchanged since his executive appointment. Effective April 1, 2023, the base salary of Mr. López Madrid was increased 8% in light of the turnaround of the company and the fact that his base salary had not increased since assuming the role of Executive Chairman. Effective April 1, 2023 the base salary of Dr. Levi was increased 2%

In relation to the Company's non-executive directors, the Policy provides, in summary, that:

- Non-executive directors are paid a basic fee. Supplementary fees are paid for additional responsibilities and activities such as membership of a main Board committee or assuming chairmanship of a committee. Travel fees may be paid to reflect additional time incurred in travelling to meetings;

- Currently, non-executive directors receive a base fee of £70 thousand per annum, with supplemental fees being payable if that non-executive director is also the senior independent director (£35,000 per annum), a member of the Audit Committee (£17,500 per annum), a member of the Compensation Committee (£15,500 per annum), a member of the Corporate Governance Committee (£12,000 per annum) or a Committee Chairman (two times membership fee). Non-executive directors receive a travel fee of either £3,500 (for intercontinental travel) or £1,500 (for continental travel) per meeting. Members of the Nominations Committee receive a fee of £1,500 for each meeting, with a maximum set at £10,000 per annum. Extraordinary meetings are paid at £2,500 for in person meetings and £1,250 by videocoference or telephone. Where the Chair of the Nominations Committee is also an executive director, he or she is paid no fee for their chairmanship. Non-executive director fee levels are reviewed periodically, with reference to time commitment, knowledge, experience and responsibilities of the role as well

as market levels in comparable companies both in terms of size and sector. No maximum fee level or prescribed annual increase is set under the Policy;

- reasonable expenses incurred by the non-executive directors in carrying out their duties may be reimbursed by the Company including any personal tax payable by the non-executive director as a result of reimbursement of those expenses. The Company may also pay an allowance in lieu of expenses if it deems this appropriate;

- non-executive directors are provided with directors' and officers' liability insurance and an indemnity to the fullest extent permitted by the UK Companies Act 2006.

C. Board Practices

Board composition and election of Directors

As of the date of this annual report, our Board of Directors consists of eleven directors, of whom two are executive directors and nine are non-executive directors. The maximum and minimum number of directors is eleven and two respectively. Subject to the approval of the Nominations Committee, the Chief Executive Officer is nominated as a director by the Board of Directors. Of the directors, Javier López Madrid, Manuel Garrido y Ruano and Juan Villar Mir de Fuentes are Grupo VM nominees. Silvia Villar-Mir de Fuentes was appointed to the Board on May 13, 2021 as a non-executive director who is affiliated with Grupo VM. The remaining non-executive directors are independent.

All directors will stand for re-election at the Company's annual general meeting in June, 2023. Any director not so elected or re-elected will stand down. No new executive directors may be appointed without the approval of a majority of Grupo VM nominees and a majority of independent directors.

Director independence

Under the Articles of Association, as in effect since October 26, 2017, a director is considered independent if he or she is "independent" as defined in the NASDAQ rules and, while Grupo VM and its Affiliates own 10% or more of the Company's shares, is independent from Grupo VM and its Affiliates. The Board reviewed the independence of its then directors in December 2015 and concluded that each of Messrs. Crockett and Eizenstat met the independence requirements of the NASDAQ rules. Messrs. López Madrid, Garrido y Ruano and Villar Mir are GVM Nominees and are not considered to be independent. Ms. Villar Mir is associated with Grupo VM and is not considered to be independent. The independence of Ms. Amusategui was confirmed by the Nominations Committee in 2020 and the independence of Ms. Villalonga, Mr. de Santis and Mr. Barrilero was confirmed by the Nominations Committee in 2021 prior to their recommendation to the Board for appointment.

Certain approvals of the Board of Directors

Pursuant to the Articles of Association, as in effect since October 26, 2017, the approval of certain matters by our Board of Directors requires the approval of more than a simple majority of directors present.

So long as Grupo VM or its Affiliates owns 10% or more of our outstanding shares, any transaction, agreement or arrangement between Grupo VM or any of its Affiliates or Connected Persons (as defined in the articles of association)

and the Company or any of its Affiliates (or any amendment, waiver or repeal of any such transaction, agreement or arrangement) requires the approval of a majority of independent, non-conflicted directors.

No new executive directors may be appointed without the approval of a majority of GVM Nominees and a majority of independent directors.

Committees of the Board of Directors

During the year ended December 31, 2022, our Board of Directors had four standing committees: an Audit Committee, a Compensation Committee, a Corporate Governance Committee and a Nominations Committee.

Audit Committee

During the year ended December 31, 2022, our Audit Committee consisted of three directors:Mses. Amusategui and Villalonga and Mr. Crockett (as Chair). Mr. Crockett serves as Chairman of the Committee from May 31, 2020 and he meets the requirements as an "audit committee financial expert" under the rules of the SEC and qualifies as a financially sophisticated audit committee member as required by the NASDAQ rules relating to audit committees. Our Board has determined that each of these directors satisfies the enhanced independence requirements for audit committee members required by Rule 10A-3 under the U.S. Exchange Act, and is financially literate as that phrase is used in the additional audit committee requirements of the NASDAQ rules.

Our Audit Committee has responsibility to: (1) oversee our accounting and financial reporting processes and the audits of our financial statements; (2) monitor and make recommendations to the Board regarding the auditing and integrity of our consolidated financial statements; (3) be directly responsible for the qualification, selection, retention, independence, performance and compensation of our independent auditors, including resolution of disagreements between management and the auditors regarding financial reporting, for the purpose of preparing or issuing an audit report or performing other audit, review or attest services for us, and have the auditors report directly to the Committee; and (4) provide oversight in respect of our internal audit and accounting and financial reporting processes. The Audit Committee meets at least four times a year. Additional meetings may occur as the Audit Committee or its chair deem advisable.

Compensation Committee

During the year ended December 31, 2022, our Compensation Committee consisted of of four directors: Mses. Amusategui and Villar-Mir de Fuentes and Messrs. Barrilero (Chair) and De Santis. With the exception of Ms. Villar-Mir de Fuentes, our Board has determined that each of these directors meets the heightened independence requirements of compensation committee members under SEC rules.

Our Compensation Committee has responsibility to: (1) evaluate and recommend to the Board for approval the compensation of our directors, executive officers and key employees; (2) oversee directly or indirectly all compensation programs involving the use of our stock; (3) produce a report annually on executive compensation for inclusion in our proxy statement for our annual meeting of shareholders; (4) produce a report annually in compliance with remuneration reporting requirements (i.e., a directors' remuneration report), in each case in accordance with applicable rules and regulations; and (5) produce, review on an ongoing basis and update as needed, a directors' remuneration policy. The Compensation Committee meets with such frequency, and at such times, and places and whether in person or electronically/telephonically as it determines is necessary to carry out its duties and responsibilities, but shall meet at least four times annually.

Nominations Committee

During the year ended December 31, 2022 our Nominations Committee consisted of four directors: Messrs. López Madrid (as Chair), Eizenstat, Barrilero and De Santis.

Our Nominations Committee has responsibility to review and provide guidance to the Board about the composition of the Board as follows: (a) subject to the provisions of the Articles of Association where a different arrangement may be prescribed, identifying and recommending to the Board for nomination individuals qualified to become Board members, consistent with qualification standards and other criteria approved by the Board for selecting directors; (b) reviewing and providing guidance on the independence of nominees, consistent with applicable laws, NASDAQ requirements and the Articles of Association, and monitoring and ensuring that independent non-executive directors continue to meet these applicable independence requirements; and (c) reviewing and providing guidance on other nominating issues that the Board desires to have reviewed by the Committee.

Corporate Governance Committee

During the year ended December 31, 2022, our Corporate Governance Committee consisted of four directors: Ms Villar-Mir de Fuentes and Messrs. Crockett (as Chair), Eizenstat and Garrido y Ruano.

Our Corporate Governance Committee has responsibility to review and provide guidance to the Board and respond to the Board's requests about governance related matters including: (a) reviewing and providing guidance on the organization of the Board and its committee structure; (b) reviewing and providing guidance on the self-evaluation procedures of the Board and its committees; (c) reviewing and providing guidance on a conflicts register; (d) reviewing and providing guidance on the Company's code of conduct; (e) reviewing and providing guidance on the Company's insider trading policy; (f) reviewing and providing guidance on proposed changes to the Articles; (g) reviewing and making recommendations to the Board on non-executive directors' compensation reviewing and agreeing the terms of non-executive directors' letters of appointment; and (h) considering succession planning, taking into account the challenges and opportunities facing the Company and the skills and expertise needed on the Board in the future, recommending to the Board plans for succession for both executive and non-executive directors.

Senior Independent Director

In October 2017, the Board established the role of Senior Independent Director, to provide a sounding board for the Chairman and to serve as intermediary for the other directors where necessary. During the year ended December 31, 2022, Mr. Crockett has served as Senior Independent Director.

Corporate governance policy

In October 2017, the Board adopted a corporate governance policy ("the Corporate Governance Policy") under which, while Grupo VM has the right under the shareholders agreement in place between it and the Company to require that at least three members of the Board shall be persons proposed by it to the Nominations Committee, there shall be at least five directors on the Board who are independent within the meaning of the Company's Articles of Association. Under this policy the number of independent directors reduces as Grupo VM's rights to propose persons for nomination to the Board also reduce, it being the Board's policy that at all times, there is a majority of directors on the Board who are independent as so defined. The Corporate Governance Policy was most recently reviewed by the Board in November 2021 and renewed until 11 November 2023.

Board policy

In 2015, we adopted a Board policy which provides certain practical principles relating to (i) the functioning of the Board; and (ii) the principles under which we will undertake our core management and overall supervision tasks from our London headquarters (the "Board Policy"). As set out in the Board Policy, we provide management and other services (including, but not limited to, administration, financial, commercial and technical services) to Globe, FerroAtlántica and any other subsidiaries from time to time.

D. Employees

As of December 31, 2022, 2021 and 2020, on a consolidated basis, the number of employees, across the Ferroglobe Group was 3,265, 3,425 and 3,270 respectively, excluding temporary employees. We believe our relations with our employees are generally good and we have not experienced any significant labor disputes or work stoppages due to industrial action in recent years.

The following table shows the number of our full-time employees as of December 31, 2022, 2021 and 2020 on a consolidated basis, broken down by region:

	2022	2021	2020
North America	980	924	820
Spain	551	578	574
France	921	1,075	1,041
South Africa	293	306	314
Rest of the world	520	542	521
Total number of employees	**3,265**	**3,425**	**3,270**

Collective bargaining agreements ("CBAs") are applicable to our operations in Spain, France, South Africa, Argentina, Norway, the United States, Canada and Venezuela. We have experienced union activity and strikes in the past. For example, in France from time to time. In France there have been several strikes in 2021 mainly against the restructuring plan, but none in 2022. See "Item 3.D.—Key Information—Risk Factors—We are subject to the risk of union disputes and work stoppages at our facilities, which could have a material adverse effect on our business."

To improve the structure of our labor relations in Spain, a national collective agreement ("NCA") was entered into on February 2, 2018 with four out of the five trade unions representing over 70% of our workforce at the plants of Boo, Sabón, Monzón, the mining facilities in Spain and the Madrid office. The NCA provides a labor relations framework which establishes common parameters for all the work sites and is complementary to the site-specific Collective Bargaining Agreements. This NCA regulates matters such as wage increases, annual working time, professional training, gender equality and disciplinary actions. During 2022 negotiations took place to renew the NCA and the site CBAs, and determine annual salary increases for staff under their jurisdiction. Agreements were reached during the last quarter. A renewal of the NCA and the various CBAs will need to be undertaken in 2023. In the meantime, all the clauses remain in force, except those that related to salary increases.

The production stoppages at the three manufacturing facilities in Spain (Boo, Sabón and Monzón) which were initiated during the 4th quarter 2022 due to unsustainable energy costs meant that employees were placed on furlough arrangements while the plants remain idled. The measures which regulate the furlough arrangements were the result of negotiated agreements with the employee representatives at each plant. These agreements have an expiry date of end 2023 and may be extended if necessary.

In France, all employees of the FerroPem SAS plants in Anglefort, Château Feuillet, Clavaux, Laudun, Montricher, Pierrefitte, the Saint-Béron plant and the Chambéry head office are covered by the Convention Collective Nationale de la Chimie. This agreement does not have an expiration date.

The "Incentive Agreement", which is an employee incentive bonus plan based on a profit-sharing formula defined in the agreement, was signed on June 23, 2022 and the "Profit Sharing Agreement", which is mandatory under French law, was signed on December 13, 2017. No profit-sharing amounts were paid for 2019, 2020 and 2021. For the fiscal year 2022, the economic results have generated both profit-sharing and incentive payments.

In France, there is a mandatory annual negotiation with the central works council (CSEC), primarily to set salary increases, but other matters are also addressed by this negotiation such as professional equality, employment of disabled staff, quality of life at work, employment and skills, and working hours. The 2022 salary negotiation meetings took place in May. The next mandatory negotiations are scheduled for first half of 2023.

In April 2021, a restructuring plan was announced, and a social plan was agreed with the unions in April 2022. The plan to close the Château-Feuillet plant and transfer the central laboratory from Chambéry to Anglefort resulted in the proposal of 35 job transfers and 195 job cuts.

The employees of Ferroglobe Manganese France SAS are also covered by the French national collective agreement for the chemical industrys. A "profit-sharing agreement" was signed in January 2021, for a period of three years until December 2023. Employees also benefit from an individual bonus system (called PN10) negotiated each year, alongside the salary increases as part of the annual mandatory negotiation process. A new agreement has been negotiated for 2022. Finally, the plant benefits from a mandatory profit-sharing agreement signed in 2007, with three amendments signed in 2009, 2010 and 2020, with no expiry date.

At Ferroglobe Mangan Norge AS ("FMN") in Norward, three trade unions are represented among the employees. There is a collective bargaining agreement in place for all trade unions. This agreement has been renegotiated in April 2022. The unions represented at FMN are Industry and Energy (IE – for operators), Tekna (an engineers´ union), and FLT (a supervisors union).

In South Africa, the wage agreement for the TCM Delmas mine expired on 28 February 2023 and a new two-year wage agreement was concluded for the period 1 March 2023 to 28 February 2025. A two-year wage agreement was concluded for the eMalahleni plant in 2022 and the agreement will expire on 30 June 2024. Both agreements were concluded without any dispute. The Polokwane plant was restarted in October 2022 and most of the employees in the bargaining unit were appointed in September 2022. The compensation and benefits for these employees will be reviewed in September 2023. Currently there is no recognized trade union at the plant, but it is anticipated that the situation will change as the plant returns to full production.

In the United States, hourly employees at the Selma, Alabama facility are covered by a collective bargaining agreement with the Industrial Division of the Communications Workers of America under a contract that will expire on April 30, 2023. Hourly employees at the Alloy, West Virginia and Bridgeport, Alabama facilities are covered by collective bargaining agreements with The United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union under contracts running through April 3 2024 and February 28, 2024, respectively. In 2021 the Niagara Facility was sold. In 2022 the Selma facility was restarted.

Union employees in Argentina work under an annual National contract valid from May 2021 to April 30, 2022. Renewal is now underway.

In Canada, union employees at the Bécancour plant in Québec are covered by a Union Certification held by CEP, Local 184. The corresponding collective bargaining agreement at the Bécancour facility runs through April 30, 2024, following negotiations completed in 2021.

In the People's Republic of China ("PRC"), at our Yonvey plant, where operations were restarted in 2017, there is a labor union committee, supervised by the local labor union and required by it to enter into annual agreements on matters such as collective representation, collective salary negotiation and the protection of women's rights. The collective salary agreement in force at Yonvey remained in effect until March 2021, a new agreement was negotiated in March 2022.

E. Share Ownership

The following table and accompanying footnotes show information regarding the beneficial ownership of our shares as of March 8, 2022 by:

- each named executive officer;
- each of our directors; and
- all executive officers and directors as a group.

Shares that may be acquired by an individual or group within 60 days of March 11, 2021, pursuant to the exercise of options, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group,

but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table.

	Number of Shares Beneficially Owned	Percentage of Outstanding Shares
Directors and Executive Officers:		
Javier López Madrid (1)	304,537	*
Marco Levi	100,000	*
Beatriz Garcia Cos Muntanola	—	—
Bruce L. Crockett	46,000	*
Stuart E. Eizenstat	60,779	*
Manuel Garrido y Ruano	870	*
Marta de Amusategui y Vergara	78,220	*
Juan Villar-Mir de Fuentes	—	—
Rafael Barrilero Yarnoz	—	—
Nicolas De Santis	—	—
Belen Villalonga	—	—
Silvia Villar-Mir de Fuentes	49,400	*
Directors and Executive Officers as a Group	**639,806**	

* Less than one percent (1%)

(1) Includes (a) 28,117 shares issuable upon exercise of options over ordinary shares which options which expire on November 24, 2026; (b) 70,464 shares issuable upon exercise of options over ordinary shares which options which expire on June 11, 2027; (c) 46,777 shares issuable upon exercise of options over ordinary shares which options which expire on March 20, 2028; (d) 23,066 shares issuable in concept of deferred bonus which is exercisable until June 24, 2028; or (e) 110,113 shares issuable upon exercise of options over ordinary shares which options expire on March 13, 2029. The options referred to above were issued under the Ferroglobe PLC Equity Incentive Plan (EIP) under which awards may be made to selected employees of the Company. Awards under the EIP have been made to members of senior management, including to Mr. López Madrid on the terms set out in "– Compensation" above.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

The following table sets forth certain information regarding beneficial ownership of shares by each stockholder known by us to be the beneficial owner of more than 5% of our shares.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. Percentage of ownership is based on 187,433,543 shares outstanding (excluding those held in Treasury).

	Number of Shares Beneficially Owned	Percentage of Outstanding Shares
Grupo Villar Mir, S.A.U.	76,265,434	40.7
Cooper Creek Partners Management LLC	11,144,337	5.9

As of December 31, 2021 and 2020, the percentage of ownership of Grupo Villar Mir, S.A.U was 48.6% and 53.8% respectively.

The Company's shareholders do not have different voting rights.

As of May 1, 2023, Ferroglobe had four record holders in the United States, holding all of our outstanding shares. One of these shareholders is Cede & Co. The shares held by Cede & Co as record holder are held for underlying beneficial holders holding in 'street name'.

B. Related Party Transactions

The following includes a summary of material transactions with any: (i) enterprises that directly or indirectly through one or more intermediaries, control or are controlled by, or are under common control with us, (ii) associates, (iii) individuals owning, directly or indirectly, an interest in the voting power of the Company, that gives them significant influence over us, and close members of any such individual's family, (iv) key management personnel, including directors and senior management of such companies and close members of such individuals' families or (v) enterprises in which a substantial interest in the voting power is owned, directly or indirectly, by any person described in (iii) or (iv) or over which such person is able to exercise significant influence.

Grupo VM shareholder agreement

On November 21, 2017, we entered into an amended and restated shareholder agreement with Grupo VM (the "Grupo VM Shareholder Agreement"), as amended on January 13, 2021, and July 29, 2021 that contains various rights and obligations with respect to Grupo VM's Ordinary Shares, including in relation to the appointment of directors and dealings in the Company's shares. It sets out a maximum number of directors (the "Maximum Number") designated by Grupo VM (each, a "Grupo VM Director") dependent on the percentage of share capital in the Company held by Grupo VM. The Maximum Number is three, if Grupo VM's percentage of the Company's shares is greater than 25%; two if the percentage is greater than 15% but less than 25%; and one if the percentage is greater than 10% but less than 15%. As at the date of the Grupo VM Shareholder Agreement, the Board of Directors of the Company has three Grupo VM Directors.

Under the Grupo VM Shareholder Agreement, Grupo VM has the right to submit the names of one or more director candidates (a "Grupo VM Nominee") to the Nominations Committee for consideration to be nominated or appointed as a director as long as it holds 10% or more of Company's shares. If the Nominations Committee does not recommend a Grupo VM Nominee for nomination or appointment or if the requisite approval of the Board of Directors is not obtained in accordance with the Articles, Grupo VM shall, in good faith, and as promptly as possible but in all cases within thirty days, submit the names of one or more additional (but not the same) Grupo VM Nominees for approval. Grupo VM shall continue to submit the names of additional (but not the same) Grupo VM Nominees until such time as the favorable recommendation of the Nominations Committee and requisite approval of the Board of Directors are obtained. On December 23, 2015, Grupo VM designated Javier López Madrid to serve as the Executive Vice-Chairman of the Board in connection with the closing of the Business Combination. Upon the resignation of Alan Kestenbaum as Executive Chairman of the Board, Mr. López Madrid was appointed as Executive Chairman of the Board effective December 31, 2016. Mr. López Madrid is also the Chairman of the Nominations Committee.

The Board of Directors are prohibited from filling a vacancy created by the death, resignation, removal or failure to win re-election (a "Casual Vacancy") of a Grupo VM Director other than with a Grupo VM Nominee. Grupo VM shall have the right to submit a Grupo VM Nominee for appointment to fill a Casual Vacancy only if the Casual Vacancy was created by the death, resignation, removal or failure to win re-election of a Grupo VM Director. Grupo VM does not have the right to submit a Grupo VM Nominee for appointment to fill a Casual Vacancy if the number of Grupo VM Directors equals or exceeds the Maximum Number. In connection with any meeting of shareholders to elect directors, the number of Grupo VM Nominees in the slate of nominees recommended by the Board of Directors must not exceed the Maximum Number.

Subject to certain exceptions, Grupo VM has preemptive rights to subscribe for up to its proportionate share of any shares issued in connection with any primary offerings. The Grupo VM Shareholder Agreement (i) also restricts the ability of Grupo VM and its affiliates to acquire additional shares and (ii) contains a standstill provision that limits certain proposals and other actions that can be taken by Grupo VM or its affiliates with respect to the Company, in each case, subject to certain exceptions, including prior Board approval. The Grupo VM Shareholder Agreement also restricts the manner by which, and persons to whom, Grupo VM or its affiliates may transfer shares. On February 3, 2016, during an in person meeting of our Board, the Board approved the purchase of up to 1% of the shares by Javier López Madrid in the open market pursuant to Section 5.01(b)(vi) of the Grupo VM Shareholder Agreement.

The Grupo VM Shareholder Agreement will terminate on the first date on which Grupo VM and its affiliates hold less than 10% of the outstanding Shares.

Agreements with executive officers and key employees

We have entered into agreements with our executive officers and key employees. See "Item 6.A.—Directors, Senior Management and Employees—Directors, Senior Management and Employees."

VM Energía and Energya VM

Under contracts entered into with FerroAtlántica S.A.U., ("FAU") on June 22, 2010 and December 29, 2010 (assigned to FerroAtlántica de Boo, S.L.U. ("FAU Boo") and to FerroAtlántica de Sabon, S.L.U. ("FAU Sabon") in August 2019 in anticipation of the FAU Disposal), and with Hidro Nitro Española on December 27, 2012 (assigned to FerroAtlántica del Cinca when Hidro Nitro Española was sold in December 2018), VM Energía supplies the energy needs of the Boo, Sabón and Monzón electrometallurgy facilities, as a broker for FAU (FAU Boo or FAU Sabon, as appropriate) and Hidro Nitro Española (now FerroAtlántica del Cinca) in the wholesale power market. The contracts allow FAU (FAU Boo or FAU Sabon, as appropriate) and Hidro Nitro Española (now FerroAtlántica del Cinca) to buy energy from the grid at market conditions without incurring costs normally associated with operating in the complex wholesale power market, as well as to apply for fixed price arrangements in advance from VM Energía, based on the energy markets for the power, period and profile applied for. The contracts have a term of one year, which can be extended by the mutual consent of the parties to the contract. The contracts were renewed in January 2019 and will renew annually for up to three years unless terminated. The contracts were again renewed in January 2020. In January 2021, the contracts were renewed for two years with the possibility to extend it for additional one-year periods unless terminated with thirty days' notice. On September 30, 2021 Grupo FerroAtlántica, S.A.U absorbed its subsidiaries FAU Boo and FAU Sabón assuming all the rights and obligations derived from those contracts. Those contracts were assigned from Villar Mir Energía SLU to Energya VM Gestión de Energía, SLU ("Energya VM") on October 15, 2022. The relevant contracting party within the Ferroglobe group pays VM Energía a service charge in addition to paying for the cost of energy purchase from the market. For the fiscal year ended December 31, 2022, Grupo Ferroatlantica S.A.U and FerroAtlantica del Cinca's obligations to make payments to VM Energía or Energya VM under their respective agreements for the purchase of energy plus the service charge amounted to $95,401 thousand and $37,317 thousand, respectively. For the fiscal year ended December 31, 2021, Grupo Ferroatlantica S.A.U and FerroAtlantica del Cinca's obligations to make payments to VM Energía under their respective agreements for the purchase of energy plus the service charge amounted to $102,065 thousand and $30,501 thousand, respectively. For the fiscal year ended December 31, 2020, FAU Boo, FAU Sabon and FerroAtlantica del Cinca's obligations to make payments to VM Energía under their respective agreements for the purchase of energy plus the service charge amounted to $16,924 thousand, $14,334 thousand and $8,643 thousand, respectively. These contracts are similar to contracts FerroAtlántica signs with other third-party brokers.

Under contracts entered into with Rocas, Arcillas y Minerales SA ("RAMSA") on December 3, 2010 and with Cuarzos Industriales SA ("CISA") on April 27, 2012, VM Energía supplied the energy needs of the mining facilities operated by those companies, as a broker for RAMSA and CISA in the wholesale power market. RAMSA and CISA are both subsidiaries of the Company operating in the mining sector. These agreements superseded in 2019 by agreements entered into as of 15 March 2019 between VM Energía and each of RAMSA and CISA pursuant to which VM Energía provides equivalent intermediary services for term of one year, renewing annually. Those contracts were assigned from Villar Mir Energía SLU to Energya VM Gestión de Energía, SLU ("Energya VM") on September 27, 2022. For the fiscal year ended December 31, 2022, RAMSA and CISA's obligations to make payments to VM Energía or Energya VM under their respective agreements amounted to $1,152 thousand and $459 thousand respectively. For the fiscal year ended December 31, 2022, RAMSA and CISA's obligations to make payments to VM Energía under their respective agreements amounted to $1,152 thousand and $460 thousand respectively. For the fiscal year ended December 31, 2021, RAMSA was obliged to make payments to VM Energía of $1,012 thousand under its agreements then in force with VM Energía and CISA was obliged to make payments to VM Energía of $353 thousand under its agreements then in force with VM Energía. For the fiscal year ended December 31, 2020, RAMSA was obliged to make payments to VM Energía of $427 thousand under its agreements then in force with VM Energía and CISA was obliged to make payments to VM Energía of $220 thousand under its agreements then in force with VM Energía.

Additionally, for the fiscal year ended December 31, 2022, 2021 and 2020, Enérgya VM invoiced other subsidiaries of FerroAtlántica for a total amount of $ 647 thousand, $120 thousand and $79 thousand, respectively.

On June 2020, FerroAtlántica del Cinca and VM Energía entered into a collaboration agreement by virtue of which VM Energía is allowed to use Monzon's grid connection point and high voltage electrical assets for a PV installation project, electricity from which will be supplied to FerroAtlántica del Cinca.

On February 24, 2021, FerroAtlántica de Sabón and VM Energía entered into a collaboration agreement by virtue of which VM Energía is allowed to use Sabón's grid connection point and high voltage electrical assets for a PV installation project, electricity from which will be supplied to FerroAtlántica de Sabón.

On November 10, 2021 Grupo FerroAtlántica entered into an agreement with VM Energía and Parque Eólico A Picota, S.L.U. (a VM Energía subsidiary) for a free assignment of 10% of the Guarantees of Origin of the total energy consumed by Grupo FerroAtlántica for five (5) years when the wind farms start to produce (in 2023 according to the estimation).

On December 14, 2021, Grupo FerroAtlántica entered into an agreement with VM Energía to assist in the identification of counterparties and intermediation for the closing of long-term power purchase agreements. The agreement extended for a new three-months period and automatic renewals with a thirty day prior notice for its termination.

On December 22, 2022, Grupo FerroAtlántica and VM Energía entered into a Power Purchase Agreement (PPA). Under this PPA, VM Energía will supply to Sabón plant 65 GW on a *pay as produced* basis during 10 years from the commencement of operation of the Plants. This PPA will cover 10% of the total power consumption of the Sabón plant. In January 2023, VME was denied authorization to construct the plants, so the PPA was amicably terminated.

Anook, S.L

On April 2022, Grupo VM sold its interest in Espacio I.T. so those transactions do not involve a Grupo VM subsidiary and therefore as of that date should no longer be considered as related party transactions. The company was renamed Anook, S.L., shortly after the adquisition.

Espacio Information Technology, S.A. ("Espacio I.T."), a Spanish company wholly-owned by Grupo VM, provides information technology and data processing services to Ferroglobe PLC and certain of its direct and indirect subsidiaries: FAU (until shortly prior to the FAU Disposal when such services were assigned to Grupo FerroAtlántica de Servicios, S.L.U. ("Servicios")), FerroAtlántica de Mexico, Silicon Smelters (Pty), Ltd. and FerroPem, SAS pursuant to several contracts.

Under a contract entered into on January 1, 2004, Espacio I.T. provided FAU with information processing, data management, data security, communications, systems control and customer support services. The contract was assigned to Servicios shortly prior to the FAU Disposal; it has a one-year term, subject to automatic yearly renewal, unless terminated with notice provided three months prior to the scheduled renewal. The base yearly amount due under the contract for these services is $641 thousand, exclusive of VAT and subject to inflation adjustment. For the years 2021 and 2022 , Servicios's obligations to make payments to Espacio IT under this agreement amounted to $1,427 thousand and $618 thousand respectively.

Under a contract entered into on January 1, 2006, Espacio I.T. provides FerroPem, SAS with information processing, data management, data security, communications, systems control and customer support services. The contract has a one-year term, subject to automatic yearly renewal, unless terminated with notice provided three months prior to the scheduled renewal. The base yearly amount due under the contract for these services is $826 thousand, exclusive of VAT and subject to inflation adjustment. For the fiscal years 2022 , 2021 , and 2020 , FerroPem, SAS's obligations to make payments to Espacio I.T. under this agreement amounted to $215 thousand, $860 thousand and $823 thousand, respectively.

Under a contract entered into on January 1, 2009, Espacio I.T. provides Silicon Smelters (Pty), Ltd. with services including the maintenance and monitoring of the company's network, servers, applications, and user workstations, as well as standard software licenses. The contract has a one-year term, subject to automatic yearly renewal, unless terminated with notice three months prior to the scheduled renewal. The base yearly amount due under the contact is $266 thousand, subject

to inflation adjustment. For the fiscal years 2022, 2021 and 2020 Silicon Smelters (Pty), Ltd.'s obligations to make payments to Espacio I.T. under this agreement amounted to $65 thousand, $274 thousand, and $264 thousand, respectively.

Under a contract entered into on May 2, 2016, Espacio I.T. provides Quebec Silicon with services including the maintenance and monitoring of its network, servers, applications, and user workstations, as well as standard software licenses at Quebec Silicon. The contract has a one-year term, subject to automatic yearly renewal, unless terminated with notice three months prior to the scheduled renewal. The base yearly amount due under the contract is $148 thousand, subject to inflation adjustment. For the fiscal years 2022, 2021 and 2020 payments made under this contract to Espacio I.T. were $37 thousand, $147 thousand and $141 thousand, respectively.

Espacio I.T. also provides Grupo FerroAtlántica with IT outsourcing services in connection with the Mangshi facility in China and provided Hidro Nitro Española (FerroAtlántica del Cinca) with IT services, for neither of which is there a formal contract in place. The amounts invoiced in connection with these services for the fiscal years 2022, 2021 and 2020, $59 thousand, $30 thousand and $41 thousand, respectively paid by Grupo FerroAtlántica, $62 thousand, $240 thousand, and $232 thousand, respectively paid by FerroAtlántica del Cinca.

For the fiscal years 2022, 2021, and 2020, Espacio I.T. and other subsidiaries of Grupo VM involved in the provision of IT services invoiced FAU and other subsidiaries of Grupo FerroAtlántica and Ferroglobe PLC in a total amount of $59 thousand, $190 thousand, and $161 thousand, respectively.

On March 24, 2021, Servicios entered into an agreement with Espacio I.T., effective as from January 1, 2021, for the maintenance of the network electronics equipment (switches) that allow interconnection between all the user devices (computers and printers) on each of Ferroglobe floors (49th and 45th floors). The services include monitoring in order to detect eventual incidents in the network, 24x7 support, maintenance service, and spares to replace devices in the event of a breakdown.

Other agreements with other related parties

Under the terms of a loan agreement entered into on 24 July 2015 between FerroAtlántica and Inmobiliaria Espacio, S.A. ("IESA"), the ultimate parent of Grupo VM, FerroAtlántica extended to IESA a credit line for treasury purposes of up to $20 million, of which $3.1 million (the "Loan") remains outstanding. The credit line runs year on year for a maximum period of 10 years and amounts outstanding under it (including the Loan) bear interest annually at the rate equal to the EURIBOR three month rate plus 2.75 percentage points. The availability of the credit line may be cancelled at the end of any year or at any time by IESA.

Additionally, as a result of a tax audit of the IESA tax group, a reassessment of its net operating losses (NOLs) was made within the members of the tax group with respect to fiscal years 2008 through 2012. In particular, additional NOLs were attributed to Grupo Ferroatlántica, S.A.U. (GFAT) and Ferroatlántica, S.A.U. (FAT). GFAT, as top parent company of a tax group to which FAT belonged to until fiscal year 2019, filed an amending corporate income tax (CIT) return of fiscal years 2016 and 2017. By way of this amending returns, the reassigned NOLs of FAT have been partially applied and consequently partial refund of the CIT paid in such fiscal years has been in the amount of $592,378. To the extent that the negative results obtained by GFAT and FAT when forming part of the IESA tax group were duly paid each year, this refund corresponds to IESA. GFAT has granted to IESA a loan in the amount of the CIT refund requested (the CIT loan). Therefore, upon receiving the CIT refund, the CIT loan will be canceled under an assignment and offsetting agreement between GFAT and IESA. The CIT loan bears interest annually at 5.25% fix rate for one-year loan under Ferroglobe transfer pricing policy.

Calatrava RE, a Luxembourg affiliate of Grupo VM, is a reinsurer of the Company's global marine and property insurance programs. The property and marine cargo insurances are placed with Mapfre Global Risks S.A. with whom the Company contracts for the provision of this insurance. There are no contracts directly in place between the Company and Calatrava RE.

Torre Espacio Gestión SLU, a wholly owned subsidiary of Grupo VM, manages the premises which are the subject of the leases on behalf of Torre Espacio, including collecting rents and other payments under the terms of the leases from FerroAtlántica on behalf of Torre Espacio. On September 30, 2020 the contract between Torre Espacio Gestión, SLU and the owner of the premises was terminated so this transaction does not involve a Grupo VM subsidiary and should therefore not be considered a related-parties transaction anymore. For the period from January 1, 2020 to September 30, 2020, Servicios' obligations to make payments under those agreements amounted to $1,235 thousand.

Aurinka and the Solar JV

Javier López Madrid, the Company's Executive Chairman and a member of the Board, currently owns approximately 100% of the outstanding share capital of Financiera Siacapital which, in turn, holds a 31.33% interest in Aurinka International, S.L. ("Aurinka Int") and a 31.33% interest in Blue Power. Blue Power is a party to the Solar JV entered into by FerroAtlántica group with Aurinka Photovoltaic Group, S.L. ("Aurinka PV"). Aurinka PV is almost 100% owned by Aurinka Value, S.L., a company which also owns a 31.66% interest in Aurinka Int. Blue Power owns certain intellectual property contributed to the joint venture and provided certain technology consulting services to it, as summarized below.

The remaining equity interests in Blue Power and Aurinka Value, S.L. are owned by third party outside investors. In July 2019 certain changes were made to the terms of the Solar JV to effect its unwinding, as a result of which FerroAtlántica group acquired 100% of the share capital of the operating company set up as part of the joint venture to build and operate the pilot plant for the Solar JV ("OpCo") and FerroAtlántica group's wholly owned subsidiary, Silicio Ferrosolar, S.L.U. (now renamed as Ferroglobe Innovation, S.L.) ("SFS") disposed of 1% of its interest in the research and development company ("R&DCo") formed to license or develop and own certain intellectual property used in connection with the Solar JV. These changes are described further below.

In 2016, FAU entered into a project with Aurinka PV for a feasibility study and basic engineering for a UMG solar silicon manufacturing plant. Purchases under this project were approximately $3.4 million for 2016.

On December 20, 2016, FerroAtlántica and its wholly owned subsidiaries, FAU and SFS entered into the Solar JV Agreement with Blue Power and Aurinka PV providing for the formation and operation of a joint venture with the purpose of producing UMG solar silicon. The entry into the joint venture pursuant to the Solar JV Agreement was subject to certain conditions precedent, including the satisfactory completion of an ex-ante verification procedure in relation to the ability of the technology to be contributed to the joint venture by Blue Power to meet certain technical and cost parameters and the authorization of the joint venture by Ferroglobe PLC, Blue Power and Aurinka PV's management bodies. All these conditions precedent were met during 2017 and the Solar JV Agreement became fully binding.

Under the Solar JV Agreement, FerroAtlántica indirectly owned 75% of OpCo , which owns certain assets comprising, among others, constructions at Sabón and a UMG solar silicon plant at Puertollano, Spain. SFS owned 51% of R&DCo, the company formed as part of the joint venture to hold certain intellectual property rights and know-how contributed by Blue Power and SFS. R&DCo licensed such intellectual property rights and know-how to OpCo. Pursuant to the Solar JV Agreement, FerroAtlántica and other subsidiaries committed to incur capital expenditure, subject to the approval of the joint venture board, in connection with the joint venture of up to a maximum of $133,000 thousand over an initial phase of up to 2 years. During the fiscal years ended December 31, 2018 and 2017, FerroAtlántica and other subsidiaries paid Aurinka PV $4,252 thousand and $3,611 thousand, respectively, in connection with the project. Further investment in the joint venture was to be determined as the joint venture progressed. In connection with the Solar JV Agreement, FAU obtained a loan of approximately $50,000 thousand ("the REINDUS Loan") from the Spanish Ministry of Industry and Energy ("the Ministry") for the purpose of building and operating the UMG solar silicon plant. In November 2018, FAU agreed to transfer to OpCo certain assets which had been acquired with the proceeds of the REINDUS Loan and used exclusively by OpCo in connection with the joint venture in consideration of OpCo assuming liability for the REINDUS Loan. The request for this novation was formally submitted to the Ministry in November 2018. On September 25, 2017, OpCo entered into an agreement with Caiz Salceda SLU ("Salceda"), a company ultimately owned by members of the Villar Mir family (who are related to Javier Lopez Madrid by marriage), under which Salceda agrees to construct on its land and lease to the OpCo and to operate and maintain for a term of 25 years a pilot plant for power generation from photovoltaic panels produced with UMG solar silicon, in return for ownership of all power generated at the plant. On June 13, 2016, SFS entered into a loan agreement with Blue Power under which SFS advanced a principal sum of over $9,000

thousand to Blue Power in connection with the project. As at December 31, 2016 the amount outstanding under the loan agreement was $9,845 thousand. On February 24, 2017, the loan was novated to OpCo as part of a capital injection by Blue Power to OpCo and on August 1, 2019 the loan was novated to FerroAtlantica.

In July 2019, the Solar JV was unwound on the following terms:

- FerroAtlántica acquired the whole of the share capital of OpCo for €1;
- Aurinka PV acquired 1% of SFS's interest in the share capital of R&DCo for €1, such that, following such disposal, R&DCo is owned as to 50% by SFS and, following the disposal of its 49% shareholding by Blue Power to Aurinka PV, 50% by Aurinka PV;
- SFS agreed to sell certain patents to R&DCo for €1;
- arrangements were made between;
    - Aurinka PV and OpCo pursuant to which Aurinka PV will continue to maintain the Puertollano plant for a monthly fee of $33.6 thousand and for a maximum term expiring on December 31, 2020. Amounts paid pursuant to these arrangements in the fiscal year ended December 31, 2019 totalled $404;
    - Aurinka PV and FerroAtlántica, FAU and Opco for the payment by the latter of the sum of $2,800 thousand and the grant by Opco to Aurinka of an option to purchase certain equipment with a book value of approximately $6,721 thousand for the sum of $1,120 thousand, in satisfaction of any claim Aurinka PV might otherwise have in relation to the termination of the Solar JV. In April 2022, Aurinka PV exercised its option to purchase certain equipment with a book value of 1,771,725€. Eventually, Aurinka has only exercised the purchase option in time for a book value of 1,000,000€;
    - Aurinka PV and FerroAtlántica, SFS and Opco for the marketing and promotion of the sale of the OpCo and SFS's rights in R&DCo, including a right of first refusal to Aurinka PV to purchase the 50% shares in R&DCo owned by SFS and a right of first refusal to Aurinka PV to acquire assets owned by Opco. This agreement was extended until June 30, 2021 and the purchase option was exercised on February 24, 2021. On March 10, 2021 the Parties partially executed the purchase option $111 Thousand.
- save as set out above, all arrangements in place with Blue Power or Aurinka PV in relation to OpCo or R&DCo and any rights or claims which Aurinka PV or Blue Power might have in relation thereto were brought to an end.

Corporate Vision Strategists Ltd.

On September 20, 2020 Ferroglobe entered into a lease agreement with Corporate Vision Strategists Ltd for the provision of corporate and head office services for 13 Chesterfield Street, Mayfair, London, W1J 5JN. Nicolas de Santis, a Ferroglobe Director, became a director of the Company on May 13, 2021 and exercises significant influence over Corporate Vision Strategists Ltd as the company is wholly owned by him. For the years ended December 31, 2022 and 2021, Ferroglobe's obligations to make payments to Corporate Vision Strategists Ltd under this agreement amounted to $99 thousand, and $68 thousand.

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

We have included the Consolidated Financial Statements as part of this annual report. See "Item 18.—Financial Statements."

Legal proceedings

In the ordinary course of our business, Ferroglobe is subject to lawsuits, investigations, claims and proceedings, including, but not limited to, contractual disputes and employment, environmental, health and safety matters. Although we cannot predict with certainty the ultimate resolution of lawsuits, investigations, claims and proceedings, we do not believe any currently-pending legal proceeding to which Ferroglobe is a party will have a material adverse effect on our business, results of operations, or financial condition.

Asbestos-related claims

Certain employees of FerroPem, SAS, then known as Pechiney Electrometallurgie, S.A. ("PEM"), may have been exposed to asbestos at its plants in France in the decades prior to FerroAtlántica Group's purchase of that business in December 2004. During the period in question, PEM was wholly-owned by Pechiney Bâtiments, S.A., which had certain indemnification obligations to FerroAtlántica pursuant to the 2004 Share Sale and Purchase Agreement under which our FerroAtlántica acquired PEM. As of December 31, 2022, approximately 100 such employees "declared" asbestos-related injury to the French social security agencies. Approximately, three quarters of these cases now have been closed. Of the remaining cases, approximately half include assertions of "inexcusable negligence" ("faute inexcusable") which, if upheld, may lead to material liability in the aggregate on the part of FerroPem. Other employees may declare further asbestos-related injuries in the future, and may likewise assert inexcusable negligence. Litigation against, and material liability on the part of, FerroPem will not necessarily arise in each case, and to date a majority of such declared injuries have been minor and have not led to significant liability on Ferropem's part. Whether liability for "inexcusable negligence" will be found is determined case-by-case, often over a period of years, depending on the evolution of the claimant's asbestos-related condition, the possibility that the claimant was exposed while working for other employers and, where asserted, the claimant's ability to prove inexcusable negligence on PEM's part. Because of these and other uncertainties, no reliable estimate can be made of FerroPem's eventual liability in these matters, with exception of three grave cases that were litigated through the appeal process and in which claimants' assertions of inexcusable negligence were upheld against FerroPem. Liabilities in respect to asbestos-related claims have been recorded at December 31, 2022 at an estimated amount of $955 thousand.

Environmental matters

Since 2016, GMI has been negotiating with the U.S. Department of Justice (the "DOJ") and the U.S. Environmental Protection Agency (the "EPA") to resolve two Notices of Violation/Findings of Violation ("NOV/FOV") that the EPA issued to the Beverly facility. The first NOV/FOV was issued on July 1, 2015 and alleges certain violations of the Prevention of Significant Deterioration ("PSD") and New Source Performance Standards provisions of the Clean Air Act associated with a 2013 project performed at GMI's Beverly facility. Specifically, the July 2015 NOV/FOV alleges violations of the facility's existing operating and construction permits, including allegations related to opacity emissions, sulfur dioxide and particulate matter emissions, and failure to keep necessary records and properly monitor certain equipment. The second NOV/FOV was issued on December 6, 2016, and arose from the same facts as the July 2015 NOV/FOV and subsequent EPA inspections. The second NOV/FOV alleges opacity exceedances at certain units, failure to prevent the release of particulate emissions through the use of furnace hoods at a certain unit, and the failure to install Reasonably Available Control Measures (as defined) at certain emission units at the Beverly facility. To resolve the NOV/FOVs, GMI likely will be required to install additional pollution control equipment, implement other measures to reduce emissions from the facility, as well as pay a civil penalty. Should the DOJ and GMI be unable to reach a negotiated resolution of the NOVs/FOVs, the authorities could institute formal legal proceedings for injunctive relief and civil

penalties. The statutory maximum penalty is $93,750 per day per violation, from April, 2013 to December 2021, and $109,024 per day thereafter.

Information Requests

In early 2023 we received information requests to provide certain information to assist the Department of Justice in connection with their investigation of a suspected crime. As of the date of this report, the Company has received no indication from any authority that any Group company is under investigation. The Company is fully cooperating with these requests.

Other legal procedures

In the first quarter of 2023, the Company reached full and final settlements of civil lawsuits arising out of 2018 incident at Globe Metallurgical Inc.'s Selma, Alabama, facility in which two employees were injured, one of whom later died. The Company's insurer settled those claims for $18m and paid the amounts directly.

Matters pertaining to Mr. López Madrid

The legal proceedings described below are pending in Spain in which Mr. López Madrid has been called as "investigado" by a Spanish criminal investigative court. At the conclusion of criminal investigatory proceedings, the relevant Spanish court may determine to withdraw the investigation without issuing formal charges, excuse certain parties previously called "investigado" on the basis that there is insufficient evidence to issue formal charges, or issue formal charges or indictments against specific named parties.

In February 2016, Mr. López Madrid was called as "investigado" by a Spanish investigative court in connection with the "Púnica" investigation into possible bribery relating to awards of public contracts. This matter is comprised of two related investigations. The court for the "Pieza 9" investigation has dismissed Mr. López Madrid. In the "Pieza 8" investigation, the court is pending resolution of a motion to dismiss filed by Mr. López Madrid.

In connection with this matter, a further investigation (the "Lezo" investigation) was initiated and, in April 2017, Mr. López Madrid was questioned in relation to an alleged payment in 2007 of €1.4 million in favor of public officials by Obrascón Huarte Lain, S.A. ("OHL"), a company listed in Spain and at the time partially owned by Grupo VM. Mr. López Madrid was a non-executive director of OHL at the time of the alleged payment and has never held executive responsibility at OHL. Charges have been filed in connection with the "Lezo" investigation, and Mr. López Madrid has filed his defense brief vehemently denying the allegations against him. A trial date is pending to be set for this matter.

In June 2014, Mr. López Madrid filed a criminal complaint in a Spanish court against a Dermatologist who had previously treated his family, alleging that she had harassed Mr. López Madrid, his family and associates through anonymous phone calls and messages making false accusations and serious threats, which were received daily over a period of several months. The Dermatologist was called as "investigado" and this case is currently in judicial proceedings.

In September 2014, the Dermatologist filed a criminal complaint in another Spanish court against Mr. López Madrid for harassment and in connection with which he was called as "investigado". A trial date is pending to be set for this matter. In a subsequent expansion of the claim, the investigative court is investigating an accusation that Mr. López Madrid hired a former police commissioner to harass and physically assault the Dermatologist. Following a determination by the Public Prosecutor's office that no crime was committed, Mr. López Madrid filed a motion to dismiss the matter. The case is in the intermediate phase, and Mr. López Madrid vehemently denies the allegations against him.

Dividend policy

Our Board intends to declare annual (or final) dividends and interim dividends, payable quarterly, to be reviewed each year, but this will depend upon many factors, including the amount of our distributable profits as defined below. Pursuant to the Articles, and subject to applicable law, the Company may by ordinary resolution declare dividends (which shall not exceed the amounts recommended by the Board), and the Board may decide to pay interim dividends. The Articles provide that the Board may pay any dividend if it appears to them that the profits available for distribution permit the payment. Under English law, dividends may only be paid out of distributable reserves of the Company or distributable profits, defined as accumulated realized profits not previously utilized by distribution or capitalization less accumulated realized losses to the extent not previously written off in a reduction or reorganization of capital duly made, as reported to Companies House, and not out of share capital, which includes the share premium account. Further, a U.K. public company may only make a distribution if the amount of its net assets is not less than the aggregate of its called-up share capital and undistributable reserves, and if, and to the extent that, the distribution does not reduce the amount of those assets to less than such aggregate. Distributable profits are determined in accordance with generally accepted accounting principles at the time the relevant accounts are prepared. The amount of Ferroglobe's distributable profits is thus a cumulative calculation. Ferroglobe may be profitable in a single year but unable to pay a dividend if the profits of that year do not offset all the previous years' accumulated losses. The shareholders of Ferroglobe may by ordinary resolution on the recommendation of the Board decide that the payment of all or any part of a dividend shall be satisfied by transferring non-cash assets of equivalent value, including shares or securities in any corporation.

The declaration and payment of future dividends to holders of our shares will be at the discretion of our Board and will depend upon many factors, including, in addition to the amount of our distributable profits, our financial condition, earnings, legal requirements, and restrictions in our debt agreements and other factors deemed relevant by our Board of Directors. In addition, as a holding company, our ability to pay dividends depends on our receipt of cash dividends from our operating subsidiaries, the payment which may be restricted by the laws of their respective jurisdictions of organization, their respective agreements, and/or covenants under future indebtedness that we or they may incur.

B. Significant Changes

Reindus Loan

In January 25, 2022, the Ministry opened a procedure to decide about the potential reimbursement of the loan. The company presented its allegations in February 15, 2022. Based on those allegations, in January 19, 2023, a new resolution was signed by the Ministry terminating the total reimbursement procedure initiated in January 2022. Once that procedure was definitively closed, the company decided to proceed with the foreseen partial early repayment of €16.3 million in February 10, 2023.

ITEM 9. THE OFFER AND LISTING

Our ordinary shares are listed for trading on the NASDAQ Global Selected Market in U.S. Dollars under the symbol "GSM."

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital.

Not applicable.

B. Memorandum and Articles of Association.

Composition and Nomination of the Board

Pursuant to the Articles, the Board will consist of at least two directors and no more than eleven directors. The directors are nominated by the Board, after being recommended to the Board by the Nominations Committee, for appointment at a general meeting or appointed by the Board where permitted to do so by law. When a person has been approved by the Board for nomination for election as a director at a general meeting of the Company, prior to the first date after the date of adoption of the Articles on which Grupo VM and its affiliates in the aggregate beneficially own less than 10% of the issued ordinary shares of the Company (the "Sunset Day"), Grupo VM and its affiliates shall not vote against the election of that director at the general meeting unless a majority of its nominees on the Board have voted against such nomination. At every annual general meeting, all the directors shall retire from office and will be eligible, subject to applicable law, for nomination for re-appointment in accordance with the Articles.

The board shall constitute a committee (the "Nominations Committee") to perform the function of recommending a person for director. The Nominations Committee shall consist of three directors, a majority of whom shall be independent directors, as such term is defined in the NASDAQ rules and applicable law. While Grupo VM and its Affiliates own at least 30% of the shares of the Company, the Grupo VM nominees will be entitled to nominate not more than two-fifths of the members of the Nominations Committee.

On December 23, 2015, Grupo VM designated Javier López Madrid to serve as the Executive Vice-Chairman of the Board in connection with the closing of the Business Combination. Upon the resignation of Alan Kestenbaum as Executive Chairman of the Board, Mr. López Madrid was appointed as Executive Chairman of the Board effective December 31, 2016. Mr. López Madrid is also the Chairman of the Nominations Committee.

Board Powers and Function

The members of the Board, subject to the restrictions contained in the Articles, are responsible for the management of the Company's business, for which purpose they may exercise all our powers whether relating to the management of the business or not. In exercising their powers, the members of the Board must perform their duties to us under English law. These duties include, among others:

- to act within their powers and in accordance with the Articles;
- to act in a way that the directors consider, in good faith, would be most likely to promote our success for the benefit of its members as a whole (having regard to a list of non-exhaustive factors);
- to exercise independent judgment;
- to exercise reasonable care, skill and diligence;
- to avoid conflicts of interest;
- not to accept benefits from third parties; and
- to declare interests in proposed transactions/arrangements.

The Articles provide that the members of the Board may delegate any of the powers which are conferred on them under the Articles to such committee or person, by such means (including by power of attorney), to such an extent and on such terms and conditions, as they think fit.

Share Qualification of Directors

A director is not required to hold any Shares by way of qualification.

Board and Decision Making

The Articles provide that any director may call a meeting of the Board. Subject to the provisions of the U.K. Companies Act 2006, the Executive Chairman may also call general meetings on behalf of the Board. The quorum for such a meeting will be at least a majority of the directors then in office.

Except as otherwise provided in the Articles, a decision may be taken at a duly convened Board meeting with the vote of a majority of the directors present at such meeting who are entitled to vote on such question and each director will have one vote.

A director shall not be counted in the quorum present in relation to a matter or resolution on which he is not entitled to vote (or when his vote cannot be counted) but shall be counted in the quorum present in relation to all other matters or resolutions considered or voted on at the meeting. Except as otherwise provided by the Articles, a director shall not vote at a meeting of the Board or a committee of the Board on any resolution concerning a matter in which he has, directly or indirectly, an interest (other than an interest in shares, debentures or other securities of, or otherwise in or through, us) which could reasonably be regarded as likely to give rise to a conflict with our interests.

Unless otherwise determined by us by ordinary resolution, the remuneration of the non-executive directors for their services in the office of director shall be as the Board may from time to time determine. Any director who holds any executive office or who serves on any committee of the Board or who performs services which the Board considers go beyond the ordinary duties of a director may be paid such special remuneration (by way of bonus, commission, participation in profits or otherwise) as the Board may determine. However, the U.K. Companies Act 2006 requires "quoted" companies, such as the Company, to obtain a binding vote of shareholders on the directors' remuneration policy at least once every three years and an annual advisory (non-binding) shareholders' vote on an on the directors' remuneration in the financial year being reported on and how the directors' remuneration policy will be implemented in the following financial year.

Directors' Borrowing Powers

Under our Board's general power to manage our business, our Board may exercise all the powers to borrow money.

Matters Requiring Majority of Independent Directors Approval

Prior to the Sunset Date, the approval of a majority of the independent directors (who are not conflicted in relation to the relevant matter) shall be required to authorize any transaction agreement or arrangement between Grupo VM or any of its affiliates or connected persons and the Company or any of its Affiliates, or the alteration amendment, repeal or waiver of any such agreement, including any shareholders' agreement between the Company and Grupo VM.

Director Liability

Under English law, members of the Board may be liable to us for negligence, default, breach of duty or breach of trust in relation to us. Any provision that purports to exempt a director from such liability is void. Subject to certain exceptions, English law does not permit us to indemnify a director against any liability attaching to him in connection with any negligence, default, breach of duty or breach of trust in relation to us. The exceptions allow us to:

- purchase and maintain director and officer insurance against any liability attaching in connection with any negligence, default, breach of duty or breach of trust owed to us;

- provide a qualifying third party indemnity provision which permits us to indemnify its directors (and directors of an "associated company" (i.e., a company that is a parent, subsidiary or sister company of Ferroglobe) in respect of proceedings brought by third parties (covering both legal costs and the amount of any adverse judgment), except for: (i) the legal costs of an unsuccessful defense of criminal proceedings or civil proceedings brought by us an associated company, or the legal costs incurred in connection with certain specified applications by the

director for relief where the court refuses to grant the relief; (ii) fines imposed in criminal proceedings; and (iii) penalties imposed by regulatory bodies;

- loan funds to a director to meet expenditure incurred in defending civil and criminal proceedings against him or her (even if the action is brought by us), or expenditure incurred applying for certain specified relief, but subject to the requirement for the director or officer to reimburse us if the defense is unsuccessful; and

- provide a qualifying pension scheme indemnity provision, (which allows us to indemnify a director of a company that is a trustee of an occupational pension scheme against liability incurred in connection with such company's activities as a trustee of the scheme (subject to certain exceptions).

Indemnification Matters

Under the Articles, subject to the provisions of the U.K. Companies Act 2006 and applicable law, we will exercise all of our powers to (i) indemnify any person who is or was a director (including by funding any expenditure incurred or to be incurred by him or her) against any loss or liability, whether in connection with any proven or alleged negligence, default, breach of duty or breach of trust by him or her or otherwise, in relation to us or any associated company; and/or (ii) indemnify to any extent any person who is or was a director of an associated company that is a trustee of an occupational pension scheme (including by funding any expenditure incurred or to be incurred by him or her) against any liability, incurred by him or her in connection with our activities as trustee of an occupational pension scheme; including insurance against any loss or liability or any expenditure he or she may incur, whether in connection with any proven or alleged act or omission in the actual or purported execution or discharge of his or her duties or in the exercise or purported exercise of his or her powers or otherwise in relation to his or her duties, power or offices, whether comprising negligence, default, breach of duty, breach of trust or otherwise, in relation to the relevant body or fund.

Under the Articles and subject to the provisions of the U.K. Companies Act 2006, we may exercise all of our powers to purchase and maintain insurance for or for the benefit of any person who is or was a director, officer or employee of, or a trustee of any pension fund in which our employees are or have been interested, including insurance against any loss or liability or any expenditure he or she may incur, whether in connection with any proven or alleged act or omission in the actual or purported execution or discharge of his or her duties or in the exercise or purported exercise of his or her powers or otherwise in relation to his or her duties, power or offices, whether comprising negligence, default, breach of duty, breach of trust or otherwise, in relation to the relevant body or fund.

No director or former director shall be accountable to us or the members for any benefit provided pursuant to the Articles. The receipt of any such benefit shall not disqualify any person from being or becoming a director.

Director Removal or Termination of Appointment

The general meeting of shareholders will, at all times, have the power to remove a member of the Board by an ordinary resolution, being a resolution passed by a simple majority of votes cast. The Articles also provide that a member of the Board will cease to be a director as soon as:

- the director ceases to be a director by virtue of any provision of the U.K. Companies Act 2006 (including, without limitation, section 168) or he becomes prohibited by applicable law from being a director;

- the director becomes bankrupt or makes any arrangement or composition with the director's creditors generally;

- a registered medical practitioner who is treating that person gives a written opinion to us stating that that person has become physically or mentally incapable of acting as a director and may remain so for more than three months;

- by reason of the director's mental health a court makes an order which wholly or partly prevents the director from personally exercising any powers or rights he would otherwise have;

- the director resigns from office by notice in writing to us;
- in the case of a director who holds any executive office, the director's appointment as such is terminated or expires and the Board resolves that he should cease to be a director;
- the director is absent for more than six consecutive months, without permission of the Board, from meetings of the Board held during that period and the Board resolves that the director should cease to be a director; or
- the director dies.

Committees

Subject to the provisions of the Articles, the directors may delegate any of the powers which are conferred on them under the Articles:

- to a committee consisting of one or more directors and (if thought fit) one or more other persons, to such an extent and on such terms and conditions as the Board thinks fit (and such ability of the directors to delegate applies to all powers and discretions and will not be limited because certain articles refer to powers and discretions being exercised by committees authorized by directors while other articles do not);
- to such person by such means (including by power of attorney), to such an extent, and on such terms and conditions, as they think fit including delegation to any director holding any executive office, any manager or agent such of its powers as the Board considers desirable to be exercised by him; or
- to any specific director or directors (with power to sub-delegate). These powers can be given on terms and conditions decided on by the directors either in parallel with, or in place of, the powers of the directors acting jointly.

Any such delegation shall, in the absence of express provision to the contrary in the terms of delegation, be deemed to include authority to sub-delegate to one or more directors (whether or not acting as a committee) or to any employee or agent all or any of the powers delegated and may be made subject to such conditions as the Board may specify, and may be revoked or altered. The directors can remove any people they have appointed in any of these ways and cancel or change anything that they have delegated, although this will not affect anybody who acts in good faith who has not has any notice of any cancellation or change.

General Meeting

The Board shall convene and the Company shall hold general meetings as annual general meetings in accordance with the U.K. Companies Act 2006. The Board may call general meetings whenever and at such times and places as it shall determine. Subject to the provisions of the U.K. Companies Act 2006, the executive chairman of the Company may also call general meetings on behalf of the Board. On requisition of members pursuant to the provisions of the U.K. Companies Act 2006, the Board shall promptly convene a general meeting in accordance with the requirements of the U.K. Companies Act 2006.

Subject to the provisions of the U.K. Companies Act 2006, an annual general meeting and all other general meetings shall be called by at least such minimum period of notice as is prescribed or permitted under the U.K. Companies Act 2006.
All provisions of the Articles relating to general meetings of the Company shall apply, *mutatis mutandis*, to every separate general meeting of the holders of any class of shares in the capital of the Company.

C. Material Contracts

Asset-Based Lending Facility

On June 30, 2022, Ferroglobe subsidiaries Globe Specialty Metals, Inc., and QSIP Canada ULC entered into a Credit and Security Agreement for a new, five-year $100 million North American asset-based revolving credit facility with Bank of Montreal as lender and agent (the "BMO ABL Revolver"). The maximum amount available under the ABL Revolver is subject to a borrowing base test comprising North American inventory and accounts receivable of Globe and QSIP.

The credit agreement contains, inter-alia, certain covenants which are customary for transactions of this nature relating to additional indebtedness, liens, investments, dispositions. Furthermore, the credit agreement contains no leverage-based or financial ratio-based covenants.

Interest expense under the ABL Revolver is equal to SOFR plus 10 bps for 30-day SOFR's applicable margin, or Prime Spread for drawdowns outstanding for less than 30 days. The company did not make an initial drawing upon closing and the facility remains undrawn as of the date of this report.

Prior ABL

On October, 11, 2019, Ferroglobe subsidiaries Globe Specialty Metals, Inc., and QSIP Canada ULC, as borrowers, entered into a Credit and Security Agreement for a new $100 million north American asset-based revolving credit facility (the "PNC ABL Revolver"), with PNC Bank, N.A., as lender. On March 16, 2021, the Company repaid in its entirety the remaining balance in an amount equal to $39,476 thousand, cancelling its obligations derived from the contract.

Super Senior Notes

On May 17, 2021, Ferroglobe Finance Company, plc (the "UK Issuer") issued a tranche of the Super Senior Notes, comprising an initial $40 million of an aggregate of $60 million 9.0% senior secured notes due 2025, in an offering that was not subject to the registration requirements of the Securities Act. Additional Super Senior Notes were issued on July 29, 2021 such that a total of $60 million in aggregate principal amount was outstanding on such date.

The Super Senior Notes are governed by an indenture (the "Super Senior Notes Indenture") entered into by, among others, the UK Issuer, GLAS Trustees Limited, as trustee, Global Loan Agency Services Limited, as paying agent, GLAS Trust Corporation Limited, as security agent, and the guarantors named therein (the "Super Senior Notes Guarantors"). The Super Senior Notes mature on June 30, 2025 and are secured by certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain real property, leases and other assets.

The Super Senior Notes, and the guarantees thereof, are general secured, senior obligations of the UK Issuer and the Super Senior Notes Guarantors, as applicable, and rank senior in right of payment to any and all of the existing and future indebtedness of the UK Issuer and the Super Senior Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Super Senior Notes and such guarantees, as applicable.

At any time from July 29, 2021, the UK Issuer may redeem all or, from time to time, part of the Super Senior Notes upon not less than 10 nor more than 60 days' notice to the holders, at the following redemption prices: (i) commencing on July 29, 2021 to the date falling 15 months after July 29, 2021, at a redemption price of 100% of the principal amount of the Super Senior Notes being redeemed plus accrued and unpaid interest and additional amounts, (ii) commencing after the date falling 15 months after July 29, 2021 to the date falling nine (9) months after such date, at a redemption price of 100% of the principal amount of the Super Senior Notes being redeemed plus the "make-whole" premium, plus accrued and unpaid interest and additional amounts, (iii) commencing after the date falling 24 months after July 29, 2021 to the date falling 36 months after July 29, 2021, at a redemption price of 104.5% of the principal amount of the Super Senior Notes being redeemed plus accrued and unpaid interest and additional amounts and (iv) commencing after the date falling 36 months after July 29, 2021 and thereafter, at a redemption price of 100% of the principal amount of the Super Senior Notes being redeemed plus accrued and unpaid interest and additional amounts.

The Super Senior Notes Indenture require us to offer to repurchase all or any part of each holder's Super Senior Notes upon the occurrence of a change of control, as defined in the Super Senior Notes Indenture, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase. A change of control will occur upon the acquisition of 35% or more of the total voting power of our shares by persons other than certain permitted holders including Grupo VM and such permitted holders "beneficially own" directly or indirectly in the aggregate the same or a lesser percentage of the total voting power of our shares than such other "person" or "group" of related persons. However, the Super Senior Notes Indenture states that no change of control shall occur or be deemed to occur by reason of:

1. any enforcement of rights or exercise of remedies under the GVM Share Pledge, including any sale, transfer or other disposal or disposition of the shares in Ferroglobe in connection there with;

2. any disposal by Grupo VM of its shares in Ferroglobe where the purpose of that transaction is to facilitate the repayment or discharge (in full or in part) of the GVM Loan and the proceeds of sale are promptly applied towards such repayment or discharge; or

3. any mandatory offer (or analogous offer) required under the City Code on Takeovers and Mergers or any analogous regulation applied in any jurisdiction as a consequence of a transaction under limbs (1) or (2) above,

provided that, if any transaction under paragraphs (1) to (3) above occurs which, but for such paragraph(s), would be a "Change of Control" as a consequence of any person or persons (other than Tyrus) (x) acquiring any voting stock of Ferroglobe PLC (or any other successor company) or (y) being or becoming the "beneficial owner" of the voting power of any voting stock of Ferroglobe PLC (or any other successor company) (such person(s), the "Controlling Shareholder"):

- the Controlling Shareholder has within 60 days of that transaction and at its election:
    - paid to the Holders, on a pro rata basis, a fee in an aggregate amount equal to the product of(i) the aggregate principal amount outstanding of the Notes, (ii) 0.02 and (iii) the number of years (or part-thereof, with any part of a year calculated on the basis of the number of days divided by 360) from the payment date of such fee to June 30, 2025; or
    - made an offer to all Holders to purchase one-third of the Notes on a pro rata basis at a price equal to (A) in the first fifteen months after the Issue Date, 100% of the principal amount of such Notes plus accrued and unpaid interest or (B) at any time after the first fifteen months following the Issue Date, 101% of the principal amount of such Notes plus accrued and unpaid interest; or
- either or both of the Issuers within 60 days of that transaction has made an offer to all Holders to repurchase or purchase (as applicable), or has otherwise redeemed, one-third of the Notes on a pro rata basis at a price equal to (A) in the first fifteen months after the Issue Date,100% of the principal amount of such Notes plus accrued and unpaid interest or (B) at anytime after the fifteen months following the Issue Date, 101% of the principal amount of such Notes plus accrued and unpaid interest, resulting in such repurchased, purchased or redeemed Notes being cancelled, and provided further that the Controlling Shareholder is not a Restricted Person.

Where:

"GVM Loan" means any financing provided by Tyrus to Grupo VM or owing by Grupo VM to Tyrus, from time to time.

"GVM Share Pledge" means any share pledge or charge or other similar security over the shares in Ferroglobe PLC held by Grupo VM granted by Grupo VM in support of or as collateral for its obligations under any Grupo VM Loan from time to time.

"Restricted Person" means any person that: (a) is listed on the United States Specifically Designated Nationals and Blocked Persons List; the European Union Consolidated List of Persons, Groups and Entities subject to EU Financial Sanctions; or the United Kingdom Consolidated List of Financial Sanctions Targets (each a "Sanctions List"); (b) is owned or controlled by a person identified on a Sanctions List, to the extent that such ownership or control results in such person being subject to the same restrictions as if such person were themselves identified on the corresponding Sanctions List; (c) is located in or incorporated under the laws of a country or territory that is the target of comprehensive sanctions imposed by the United States, which for the purposes of this Agreement, as at the date of signature of this Agreement by the last of its signatories are Iran, Syria, Cuba, the Crimea Region, and North Korea; (d) has, within the last five years, been prosecuted by a relevant authority in the United States, the United Kingdom or any member state of the European Union, in relation to a breach of securities laws (in so far as such prosecution relates to insider dealing, unlawful disclosure, market manipulation or prospectus liability) or criminal laws relating to fraud or anti-corruption, save for instances where the prosecution has concluded and did not result in any criminal or civil settlement or penalty being imposed in relation to such breaches; or (e) is a Subsidiary of a person described in (d) above.

The Super Senior Notes Indenture restricts, among other things, the ability of Ferroglobe and its restricted subsidiaries to:

- borrow or guarantee additional indebtedness;
- pay dividends, repurchase shares and make distributions of certain other payments;
- make certain investments;
- create certain liens;
- merge or consolidate with other entities;
- Enter into certain transactions with affiliates;
- sell,lease or transfer certain assets, including shares of any restricted subsidiary of Ferroglobe; and
- guarantee certain types of other indebtedness of Ferroglobe and its restricted subsidiaries withoutalso guaranteeing the Super Senior Notes.

On July 21, 2022, Ferroglobe Finance Company, PLC redeemed of all the 9.0% Super Senior Notes due 2025 issued at 100% of the principal amount thereof plus accrued interest.

Old Notes

On February 15, 2017, Ferroglobe PLC and Globe issued the Old Notes, comprising $350 million 9⅜% senior notes due 2022, in an offering that was not subject to the registration requirements of the Securities Act. Pursuant to a consent solicitation completed on July 29, 2021 relating to the exchange of the Old Notes, the proposed amendments eliminated substantially all of the restrictive covenants, all of the reporting covenants and certain of the events of default in the Old Notes Indenture. As of July 29, 2021 $4.9 million in aggregate principal amount of the Old Notes was outstanding.

The Old Notes are governed by the Old Notes Indenture entered into by, among others, Ferroglobe and Globe, as issuers, Wilmington Trust, National Association, as trustee, registrar and paying agent, and the guarantors named therein (the "Old Notes Guarantors").

The Old Notes and the guarantees thereof are general unsecured, senior obligations of Ferroglobe and Globe and the Old Notes Guarantors, as applicable, and rank senior in right of payment to any and all of the existing and future indebtedness of Ferroglobe, Globe and the Old Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Old Notes and such guarantees, as applicable.

Ferroglobe and Globe may redeem all or, from time to time, part of the Old Notes upon not less than 10 nor more than 60 days' notice to the holders, at a redemption price of 100% of the principal amount of the Old Notes being redeemed plus accrued and unpaid interest and additional amounts, if any, to, but not including, the applicable redemption date.

On March 1, 2022, Ferroglobe repaid in its entirety the old notes for an amount equal to $5,175 thousand cancelling its obligations derived from the old notes indenture.

Reinstated Notes

Pursuant to the Exchange Offer, Ferroglobe PLC, the UK Issuer and Globe offered to eligible holders of the Old Notes the opportunity to exchange any and all of the Old Notes for new 9⅜% senior secured notes due 2025 issued by the UK Issuer and Globe.

The Reinstated Notes are governed by an indenture (the "Reinstated Notes Indenture") entered into by, among others, Ferroglobe and Globe, as issuers, GLAS Trustees Limited, as trustee, Global Loan Agency Services Limited, as paying agent, GLAS Trust Corporation Limited, as security agent, and the guarantors named therein. The Reinstated Notes are guaranteed on a senior basis by Ferroglobe and each subsidiary of Ferroglobe that guarantees the UK Issuer's obligations under the Super Senior Notes (other than Globe) (the "Reinstated Notes Guarantors"). The Reinstated Notes mature on December 31, 2025 and are secured by the same collateral that secures the Super Senior Notes.

The Reinstated Notes, and the guarantees thereof, are general secured, senior obligations of Ferroglobe and Globe and the Reinstated Notes Guarantors, as applicable, and will rank senior in right of payment to any and all of the existing and future indebtedness of Ferroglobe, Globe and the Reinstated Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Reinstated Notes and such guarantees, as applicable.

Ferroglobe and Globe may redeem all or, from time to time, part of the Reinstated Notes upon not less than 10 nor more than 60 days' notice to the holders, at the following redemption prices: (i) at any time prior to July 31, 2022, Ferroglobe and Globe may redeem all or part of the Reinstated Notes at a redemption price equal to 100% of the principal amount thereof, plus accrued and unpaid interest and additional amounts, if any, to, but excluding, the date of redemption, plus a "make whole" premium, (ii) during the twelve-month period beginning on July 31, 2022, at a redemption price of 104.6875% of the principal amount of the Reinstated Notes being redeemed plus accrued and unpaid interest and additional amounts, (iii) during the twelve-month period beginning on July 31, 2023, at a redemption price of 102.34375% of the principal amount of the Reinstated Notes being redeemed plus accrued and unpaid interest and additional amounts, (iv) during the twelve-month period beginning on July 31, 2024, at a redemption price of 101% of the principal amount of the Reinstated Notes being redeemed plus accrued and unpaid interest and additional amounts, and (v) from July 31, 2025, at a redemption price of 100% of the principal amount of the Reinstated Notes being redeemed plus accrued and unpaid interest and additional amounts.

The Reinstated Notes Indenture require us to offer to repurchase all or any part of each holder's Reinstated Notes upon the occurrence of a change of control, as defined in the Reinstated Notes Indenture, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase. A change of control will occur upon the acquisition of 35% or more of the total voting power of our shares by persons other than certain permitted holders including Grupo VM and such permitted holders "beneficially own" directly or indirectly in the aggregate the same or a lesser percentage of the total voting power of our shares than such other "person" or "group" of related persons. However, the Reinstated Notes Indenture states that no change of control shall occur or be deemed to occur by reason of:

1. any enforcement of rights or exerciseof remedies under the GVM Share Pledge, including any sale, transfer or other disposal ordisposition of the shares in Ferroglobe in connection there with;

2. any disposal by Grupo VM of its sharesin Ferroglobe where the purpose of that transaction is to facilitate the repayment or discharge(in full or in part) of the GVM Loan and the proceeds of sale are promptly applied towardssuch repayment or discharge; or

3. any mandatory offer (or analogous offer) required under the City Code on Takeovers and Mergers or any analogous regulation applied in any jurisdiction as a consequence of a transaction under limb (1) or (2) above,

provided that, if any transaction under paragraphs (1) to (3) above occurs which, but for such paragraph(s), would be a "Change of Control" as a consequence of any person or persons (other than Tyrus) (x) acquiring any voting stock of Ferroglobe PLC (or any other successor company) or (y) being or becoming the "beneficial owner" of the voting power of any voting stock of Ferroglobe PLC (or any other successor company) (such person(s), the "Controlling Shareholder"):

- the Controlling Shareholder has *within* 60 days of that transaction and at its election:
    - paid to the Holders, on a pro rata basis, a fee in an aggregate amount equal to the product of(i) the aggregate principal amount outstanding of the Reinstated Notes, (ii) 0.02 and (iii)the number of years (or part-thereof, with any part of a year calculated on the basis of the number of days divided by 360) from the payment date of such fee to December 31, 2025; or
    - made an offer to all Holders to purchase one-third of the Notes on a pro rata basis at a price equal to 101% of the principal amount of such Notes plus accrued and unpaid interest; or
- either or both of the Issuers within 60 days of that transaction has made an offer to all Holders to repurchase or purchase (as applicable), or has otherwise redeemed, one-third of the Note son a pro rata basis at a price equal to 101% of the principal amount of such Notes plus accrued and unpaid interest, resulting in such repurchased, purchased or redeemed Notes being cancelled, and provided further that the Controlling Shareholder is not a Restricted Person.

Where:

"GVM Loan" means any financing provided by Tyrus to Grupo VM or owing by Grupo VM to Tyrus, from time to time.

"GVM Share Pledge" means any share pledge or charge or other similar security over the shares in Ferroglobe PLC held by Grupo VM granted by Grupo VM in support of or as collateral for its obligations under any Grupo VM Loan from time to time.

"Restricted Person" means any person that: (a) is listed on the United States Specifically Designated Nationals and Blocked Persons List; the European Union Consolidated List of Persons, Groups and Entities subject to EU Financial Sanctions; or the United Kingdom Consolidated List of Financial Sanctions Targets (each a "Sanctions List"); (b) is owned or controlled by a person identified on a Sanctions List, to the extent that such ownership or control results in such person being subject to the same restrictions as if such person were themselves identified on the corresponding Sanctions List; (c) is located in or incorporated under the laws of a country or territory that is the target of comprehensive sanctions imposed by the United States, which for the purposes of this Agreement, as at the date of signature of this Agreement by the last of its signatories are Iran, Syria, Cuba, the Crimea Region, and North Korea; (d) has, within the last five years, been prosecuted by a relevant authority in the United States, the United Kingdom or any member state of the European Union, in relation to a breach of securities laws (in so far as such prosecution relates to insider dealing, unlawful disclosure, market manipulation or prospectus liability) or criminal laws relating to fraud or anti-corruption, save for instances where the prosecution has concluded and did not result in any criminal or civil settlement or penalty being imposed in relation to such breaches; or (e) is a Subsidiary of a person described in (d) above.

The Reinstated Notes Indenture restricts, among other things, the ability of Ferroglobe and its restricted subsidiaries to:

- borrow or guarantee additional indebtedness;
- pay dividends, repurchase shares and make distributions of certain other payments;
- make certain investments;

- create certain liens;
- merge or consolidate with other entities;
- enter into certain transactions with affiliates;
- sell, lease or transfer certain assets, including shares of any restricted subsidiary of Ferroglobe; and
- guarantee certain types of other indebtedness of Ferroglobe and its restricted subsidiaries without also guaranteeing the Reinstated Notes.

Compared to the Old Notes Indenture (prior to certain amendments on July 29, 2021) the Reinstated Notes Indenture have generally more stringent restrictive covenants. Some of these differences include, among others, the following:

- the elimination of baskets or a reduction of basket sizes in the debt covenant, restricted payment covenant, permitted investments, permitted liens and asset disposition;
- the addition of a net leverage test in the debt covenant and reduced flexibility in financial calculations;
- requirement to apply certain excess proceeds to repay debt in accordance with the applicable intercreditor agreement;
- lower event of default thresholds; and
- a 90% guarantor coverage test.

Intercreditor Agreement

In connection with the issuance of the Super Senior Notes, the UK Issuer, the Company and certain of its restricted subsidiaries entered into an intercreditor agreement (the "Intercreditor Agreement") on May 17, 2021. Under the terms of the Intercreditor Agreement, in the event of enforcement of certain collateral the holders of Reinstated Notes will receive proceeds from such collateral only after obligations under the Super Senior Notes have been repaid in full.

REINDUS Loan

On September 8, 2016, FerroAtlántica, S.A.U. ("FAU"), as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry"), as lender, entered into a loan agreement under which the Ministry made available to the borrower a loan in aggregate principal amount of €44.9 million, in connection with the industrial development projects relating silicon purification project. FAU transferred the loan to OPCO before its sale. See "Item 4.B.—Information on the Company—Business Overview—Research and Development (R&D)—Solar grade silicon." The loan of €44.9 million was scheduled to be repaid in seven installments starting in 2023 and completing by 2030. Interest on outstanding amounts under the loan accrues at an annual rate of 3.55%. As of December 31, 2022, the balance of the remaining loan has been presented within Current liabilities.

Use of the proceeds of the outstanding loan was limited to the period between January 1, 2016 and May 24, 2019. On May 24, 2019, a report on uses of the loan was presented to the Ministry. In January 25, 2022, the Ministry opened a procedure to decide about the potential reimbursement of the loan. The company presented its allegations in February 15, 2022. Based on those allegations, in January 2023, a new resolution was signed by the Ministry terminating the total reimbursement procedure initiated in January 2022. Once that procedure was definitively closed, the company decided to proceed with the foreseen partial early repayment of €16.3 million in February 10, 2023.

SEPI loan

On March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the "Beneficiaries") and the Sociedad Estatal de Participaciones Industriales ("SEPI"), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic.

The €34.5M was funded using a dual-tranche loan, with €17.25M maturing in February 2025 and €17.25M maturing in June 2025. €16.9M of the loan carries a fixed interest rate of 2% per annum, and interest on the remaining €17.6M is calculated as IBOR plus a spread of 2.5% in the first year, 3.5% in the second and third years and 5.0% in the fourth year, plus an additional 1.0% payable if the result before taxes of the Beneficiaries is positive. The loans are secured by corporate joint guarantees from Ferroglobe, Ferroglobe Holding Company and Ferroglobe Finance Company and certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain real property, and other assets from Grupo FerroAtlántica and certain of its subsidiaries.

Until the loans have been fully repaid, the Beneficiaries are subject to several restrictions, including the following prohibited payments: (1) payment of dividends; (2) payment of management fee; (3) repayment of intra-group loans; (4) payment of intercompany net commercial balances if they exceed the required threshold of €163 million for the net intercompany commercial balances (denominated "legacy"); and (5) payment of interest on intercompany loans corresponding to the years 2021 and 2022.

NMTC Program

The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. Investments made through the NMTC Program are used to finance businesses, breathing new life into neglected, underserved low-income communities. The reactivation of the plant in Selma, Alabama, has been granted with a $13.5 million allocation by the end of fiscal year 2022 under the NMTC Program. This allocation has been subscribed by Globe Metallurgical, Inc. (GMI) as owner of the plant and United Bank as investor and beneficiary of the tax credit resulting from this grant. As a result of the structure implemented for the NMTC, (i) Globe Specialty Metals, Inc. (GSM) has granted a loan to a special purpose vehicle (SPV I) (Leveraged Loan) and (ii) GMI has received two qualify low-income community investment loans (QLICI Loans) from another special purposes vehicle (SPV II) wholly owned by SPV I. Leverage loan is in the amount of $9.9 million, a 26 years term and an interest rate of 4.27%. QLICI Loan A is in the amount of $9.9 million, with a 30 years term and 3.57% interest rate. QLICI Loan B is in the amount of $3.3 million, with a 30 years term and 3.57% interest rate. Out of this investment-funding structure, GMI receives a federal grant of approximately $2.8 million, out of which, all the expenses related to the investment-funding structure are to be detracted, resulting in a net subsidy of approximately $1.8 million. This subsidy must be invested in in CAPEX in the Selma plant throughout fiscal year 2023 as per the investment plan of the group.

The net subsidy is deposited in a restricted account held by GMI. Drawing from this restricted account requires filing a disbursement request vis a vis United Bank, submitting invoices from suppliers relating to CAPEX invested in the Selma plant.

After seven years, the NMTC structure set up will be wound up, as a result of which (ii) SPV II will cancel the QLICI B loan, resulting in cancellation of debt income (CODI) for GMI; (ii) GSM will become the owner of SPV I and SPV II. Upon liquidation and dissolution of these two entities, the Leverage loan will void by confusion. QLICI A loan will be capitalized by GSM into GMI.

Other material contracts

See also "Item 7.B.—Major Shareholders and Related Party Transactions—Related Party Transactions." and "Item 5.B.—Liquidity and Capital Resources".

D. Exchange Controls

See "Item 3.D.—Key Information—Risk Factors—Risks Related to Our Ordinary Shares."

E. Taxation.

U.S. federal income taxation

The following is a discussion of the material U.S. federal income tax consequences to U.S. shareholders (as defined below) of the ownership and disposition of ordinary shares. The discussion is based on and subject to the Internal Revenue Code, the U.S. Treasury Regulations promulgated thereunder, administrative rulings and court decisions in effect on the date hereof, all of which are subject to change, possibly with retroactive effect, and to differing interpretations. The discussion applies only to U.S. shareholders that acquire ordinary shares in exchange for cash in this offering and hold ordinary shares as "capital assets" within the meaning of Section 1221 of the Code (generally, property held for investment). The discussion also assumes that we will not be treated as a U.S. corporation under Section 7874 of the Code. The discussion does not address all aspects of U.S. federal income taxation that may be relevant to particular U.S. shareholders in light of their personal circumstances, including any tax consequences arising under the Medicare contribution tax on net investment income, or to such shareholders subject to special treatment under the Code, such as:

- banks, thrifts, mutual funds, insurance companies, and other financial institutions,
- real estate investment trusts (REITs) and regulated investment companies (RICs),
- traders in securities who elect to apply a mark-to-market method of accounting,
- brokers or dealers in securities or foreign currency,
- tax-exempt organizations or governmental organizations,
- individual retirement and other deferred accounts,
- U.S. shareholders whose functional currency is not the U.S. Dollar,
- U.S. expatriates and former citizens or long-term residents of the United States,
- "passive foreign investment companies," "controlled foreign corporations," and corporations that accumulate earnings to avoid U.S. federal income tax,
- persons subject to the alternative minimum tax,
- shareholders who hold ordinary shares as part of a straddle, hedging, conversion, constructive sale or other risk reduction transaction,
- "S corporations," partnerships or other entities or arrangements classified as partnerships for U.S. federal income tax purposes or other pass-through entities (and investors therein),
- persons that actually or constructively own 10% or more of our voting stock, and
- shareholders who received their ordinary shares through the exercise of employee stock options or otherwise as compensation or through a tax-qualified retirement plan.

The discussion does not address any non-income tax consequences or any foreign, state or local tax consequences. For purposes of this discussion, a U.S. shareholder means a beneficial owner of ordinary shares who is:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in the United States or under the laws of the United States or any subdivision thereof, or that is otherwise treated as a U.S. tax resident under the Code;
- an estate the income of which is includible in gross income for U.S. federal income tax purposes regardless of its source; or
- a trust if (1) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person for U.S. federal income tax purposes.

If a partnership, including for this purpose any entity that is treated as a partnership for U.S. federal income tax purposes, holds ordinary shares, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. A U.S. holder that is a partnership and the partners in such partnership should consult their tax advisors about the U.S. federal income tax consequences of the ownership and disposition of ordinary shares.

Prospective purchasers are urged to consult their tax advisors with respect to the U.S. federal income tax consequences to them of the purchase, ownership and disposition of ordinary shares, as well as the tax consequences to them arising under U.S. federal tax laws other than those pertaining to income tax (including estate or gift tax laws), state, local and non-U.S. tax laws, as well as any applicable income tax treaty.

Dividends and other distributions on ordinary shares

Dividends will generally be taxed as ordinary income to U.S. shareholders to the extent that they are paid out of current or accumulated earnings and profits, as determined under U.S. federal income tax principles. As such, subject to the following discussion of special rules applicable to PFICs (as defined below) and, assuming that ordinary shares continue to be listed on the NASDAQ and certain holding-period requirements are met, the gross amount of the dividends paid to U.S. shareholders may be eligible to be taxed at lower rates applicable to dividends paid by a "qualified foreign corporation." Dividends paid by us will not qualify for the dividends received deduction under Section 243 of the Code otherwise available to corporate shareholders. In general, and subject to the discussion below, the dividend income will be treated as foreign source passive income for U.S. federal foreign tax credit limitation purposes. The rules relating to the determination of the U.S. foreign tax credit are complex and U.S. shareholders should consult their tax advisors to determine whether and to what extent a credit would be available.

To the extent that the amount of any dividend exceeds our current and accumulated earnings and profits for a taxable year, the excess will first be treated as a tax-free return of capital, causing a reduction in the U.S. shareholder's adjusted basis in ordinary shares. The balance of any excess will be taxed as capital gain, which would be long-term capital gain if the U.S. shareholder has held the ordinary shares for more than one year at the time the dividend is received.

It is possible that we are, or at some future time will be, at least 50% owned by U.S. persons. Dividends paid by a foreign corporation that is at least 50% owned by U.S. persons may be treated as U.S. source income (rather than foreign source passive income) for foreign tax credit purposes to the extent the foreign corporation has more than an insignificant amount of U.S. source income. The effect of this rule may be to treat a portion of any dividends paid by us as U.S. source income, which may limit a U.S. shareholder's ability to claim a foreign tax credit with respect to foreign taxes payable or deemed payable in respect of the dividends or other foreign source passive income. The Code permits a U.S. shareholder entitled to benefits under the United Kingdom-United States Income Tax Treaty to elect to treat any dividends paid by us as foreign source income for foreign tax credit purposes if the dividend income is separated from other income items for purposes of

calculating the U.S. shareholder's foreign tax credit with respect to U.K. taxes withheld, if any, on the distribution of such dividend income. U.S. shareholders should consult their own tax advisors about the desirability and method of making such an election.

We generally intend to pay dividends in U.S. Dollars. If we were to pay dividends in a foreign currency or other property, the amount of any such dividend will be the U.S. Dollar equivalent value of the foreign currency or other property distributed by us, calculated, in the case of foreign currency, by reference to the exchange rate on the date the dividend is includible in the U.S. shareholder's income, regardless of whether the payment is in fact converted into U.S. Dollars on the date of receipt. Generally, a U.S. shareholder should not recognize any foreign currency gain or loss if the foreign currency is converted into U.S. Dollars on the date the payment is received. However, any gain or loss resulting from currency exchange fluctuations during the period from the date the U.S. shareholder includes the dividend payment in income to the date such U.S. shareholder actually converts the payment into U.S. Dollars will be treated as ordinary income or loss. That currency exchange or loss (if any) generally will be income or loss from U.S. sources for foreign tax credit purposes.

Sale, exchange or other taxable disposition of ordinary shares

Subject to the following discussion of special rules applicable to PFICs, a U.S. shareholder will generally recognize taxable gain or loss on the sale, exchange or other taxable disposition of ordinary shares in an amount equal to the difference between the amount realized on such taxable disposition and the U.S. shareholder's tax basis in the ordinary shares. A U.S. shareholder's initial tax basis in ordinary shares generally will equal the cost of such ordinary shares.

The source of any such gain or loss is generally determined by reference to the residence of the shareholder such that it generally will be treated as U.S. source income for foreign tax credit limitation purposes in the case of a sale, exchange or other taxable disposition by a U.S. shareholder. However, the Code permits a U.S. shareholder entitled to benefits under the United Kingdom-United States Income Tax Treaty to elect to treat any gain or loss on the sale, exchange or other taxable disposition of ordinary shares as foreign source income for foreign tax credit purposes if the gain or loss is sourced outside of the United States under the United Kingdom-United States Income Tax Treaty and such gain or loss is separated from other income items for purposes of calculating the U.S. shareholder's foreign tax credit. U.S. shareholders should consult their own tax advisors about the desirability and method of making such an election.

Gain or loss realized on the sale, exchange or other taxable disposition of ordinary shares generally will be capital gain or loss and will be long-term capital gain or loss if the ordinary shares have been held for more than one year. Non-corporate U.S. shareholders (including individuals) generally will be subject to U.S. federal income tax on long-term capital gain at preferential rates. The deduction of capital losses is subject to limitations.

Passive foreign investment company considerations

A foreign corporation is a "passive foreign investment company" (a "PFIC") if, after the application of certain "look-through" rules, (1) at least 75% of its gross income is "passive income" as that term is defined in the relevant provisions of the Code, or (2) at least 50% of the value of its assets (determined on the basis of a quarterly average) produce "passive income" or are held for the production of "passive income." The determination as to PFIC status is made annually. If a U.S. shareholder is treated as owning PFIC stock, the U.S. shareholder will be subject to special rules generally intended to reduce or eliminate the benefit of the deferral of U.S. federal income tax that results from investing in a foreign corporation that does not distribute all of its earnings on a current basis. These rules may adversely affect the tax treatment to a U.S. shareholder of dividends paid by us and of sales, exchanges and other dispositions of ordinary shares, and may result in other adverse U.S. federal income tax consequences.

We do not expect to be treated as a PFIC for the current taxable year, and we do not expect to become a PFIC in the future. However, there can be no assurance that the IRS will not successfully challenge this position or that we will not become a PFIC at some future time as a result of changes in our assets, income or business operations. U.S. shareholders should consult their own tax advisors about the determination of our PFIC status and the U.S. federal income tax consequences of holding ordinary shares if we are considered a PFIC in any taxable year.

Information reporting and backup withholding

In general, information reporting requirements may apply to dividends received by U.S. shareholders of ordinary shares and the proceeds received on the disposition of ordinary shares effected within the United States (and, in certain cases, outside the United States), paid to U.S. shareholders other than certain exempt recipients (such as corporations). Backup withholding may apply to such amounts if the U.S. shareholder fails to provide an accurate taxpayer identification number (generally on an IRS Form W-9) or is otherwise subject to backup withholding. The amount of any backup withholding from a payment to a U.S. shareholder will be allowed as a refund or credit against the U.S. shareholder's U.S. federal income tax liability, provided that the required information is timely furnished to the IRS.

Individuals that own "specified foreign financial assets" with an aggregate value of more than $50,000 (or higher threshold for some married individuals and individuals living abroad) may be required to file an information report (IRS Form 8938) with respect to such assets with their US tax returns. Ordinary shares generally will constitute specified foreign financial assets subject to these reporting requirements, unless the ordinary shares are held in an account at a financial institution (which, in the case of a foreign financial account, may also be subject to reporting). Additionally, under recently finalized regulations, a domestic corporation, domestic partnership, or trust (as described in Section 7701(a)(30)(E) of the Code) which is formed or availed of for purposes of holding, directly or indirectly, specified foreign financial assets may be treated as an individual for purposes of these rules. U.S. shareholders should consult their own tax advisors regarding information reporting requirements relating to their ownership of ordinary shares, and the significant penalties to which they may be subject for failure to comply.

United Kingdom taxation

The following paragraphs are intended as a general guide to current U.K. tax law and HM Revenue & Customs published practice applying as at the date of this annual report (both of which are subject to change at any time, possibly with retrospective effect) relating to the holding of ordinary shares. They do not constitute legal or tax advice and do not purport to be a complete analysis of all U.K. tax considerations relating to the holding of ordinary shares. They relate only to persons who are absolute beneficial owners of ordinary shares (and where the ordinary shares are not held through an Individual Savings Account or a Self-Invested Personal Pension) and who are resident for tax purposes in (and only in) the U.K. (except to the extent that the position of non-U.K. resident persons is expressly referred to).

These paragraphs may not relate to certain classes of holders of ordinary shares, such as (but not limited to):

- persons who are connected with the Company;
- insurance companies;
- charities;
- collective investment schemes;
- pension schemes;
- brokers or dealers in securities or persons who hold ordinary shares otherwise than as an investment;
- persons who have (or are deemed to have) acquired their ordinary shares by virtue of an office or employment or who are or have been officers or employees of the Company or any of its affiliates; and
- individuals who are subject to U.K. taxation on a remittance basis.

These paragraphs do not describe all of the circumstances in which holders of ordinary shares may benefit from an exemption or relief from U.K. taxation. It is recommended that all holders of ordinary shares obtain their own tax advice.

In particular, non-U.K. resident or domiciled persons are advised to consider the potential impact of any relevant double tax agreements.

Dividends

Withholding tax

Dividends paid by the Company will not be subject to any withholding or deduction for or on account of U.K. tax, irrespective of the residence or particular circumstances of the shareholders.

Income tax

An individual holder of ordinary shares who is resident for tax purposes in the U.K. may, depending on his or her particular circumstances, be subject to U.K. tax on dividends received from the Company. An individual holder of ordinary shares who is not resident for tax purposes in the U.K. should not be chargeable to U.K. income tax on dividends received from the Company unless he or she carries on (whether solely or in partnership) any trade, profession or vocation in the U.K. through a branch or agency to which the ordinary shares are attributable (subject to certain exceptions for trading through independent agents, such as some brokers and investment managers).

A nil rate of income tax will currently apply to the first £2 thousand of dividend income received by an individual shareholder in a tax year (the "Nil Rate Amount"), regardless of what tax rate would otherwise apply to that dividend income. This will reduce to £1 thousand from 6 April 2023 and to £500 from 6 April 2024. Any dividend income received by an individual shareholder in a tax year in excess of the Nil Rate Amount will be subject to income tax at dividend rates determined by thresholds of income, as follows:

- at the rate of 8.5%, to the extent that the relevant dividend income falls below the threshold for the higher rate of income tax;
- at the rate of 33.5%, to the extent that the relevant dividend income falls above the threshold for the higher rate of income tax but below the threshold for the additional rate of income tax; and
- at the rate of 39.35%, to the extent that the relevant dividend income falls above the threshold for the additional rate of income tax.

Dividend income that is within the dividend Nil Rate Amount counts towards an individual's basic or higher rate limits and will therefore potentially affect the level of savings allowance to which an individual is entitled, and the rate of tax that is due on any dividend income in excess of the Nil Rate Amount. In calculating into which tax band any dividend income over the nil rate falls, savings and dividend income are treated as the highest part of an individual's income. Where an individual has both savings and dividend income, the dividend income is treated as the top slice.

Corporation tax

Corporate holders of ordinary shares which are resident for tax purposes in the U.K. should not be subject to U.K. corporation tax on any dividend received from the Company so long as the dividends qualify for exemption (as is likely) and certain conditions are met (including anti-avoidance conditions).

Chargeable gains

A disposal of ordinary shares by a shareholder resident for tax purposes in the U.K. may, depending on the shareholder's circumstances and subject to any available exemptions or reliefs, give rise to a chargeable gain or an allowable loss for the purposes of U.K. capital gains tax and corporation tax on chargeable gains.

If an individual holder of ordinary shares who is subject to U.K. income tax at either the higher or the additional rate becomes liable to U.K. capital gains tax on the disposal of ordinary shares, the applicable rate will be 20%. For an individual holder of ordinary shares who is subject to U.K. income tax at the basic rate and liable to U.K. capital gains tax on such disposal, the applicable rate would be 10%, save to the extent that any capital gains exceed the unused basic rate tax band. In that case, the rate applicable to the excess would be 20%. No indexation allowance will be available to an individual holder of ordinary shares in respect of any disposal of such shares. However, the capital gains tax annual exempt amount (which is £12,300 (2022/23) for individuals (2021/22: £12,300) reducing to £6,000 from 6 April 2023) may be available to exempt any chargeable gain, to the extent that the exemption has not already been utilized.

If a corporate holder of ordinary shares becomes liable to U.K. corporation tax on the disposal of ordinary shares, the main rate of U.K. corporation tax (currently 19%, rising to 25% on 1 April 2023) would apply. An indexation allowance may be available to such a holder to give an additional deduction based on the indexation of its base cost in the shares by reference to U.K. retail price inflation over its holding period (if the shares were acquired before December 2017). An indexation allowance can only reduce a gain on a future disposal, and cannot create a loss.

A holder of ordinary shares which is not resident for tax purposes in the U.K. should not normally be liable to U.K. capital gains tax or corporation tax on chargeable gains on a disposal of ordinary shares. However, an individual holder of ordinary shares who has ceased to be resident for tax purposes in the U.K. for a period of less than five years and who disposes of ordinary shares during that period may be liable on his or her return to the U.K. to U.K. tax on any capital gain realized (subject to any available exemption or relief).

Stamp duty and Stamp Duty Reserve Tax ("SDRT")

The discussion below relates to holders of ordinary shares wherever resident.

Transfers of interest in ordinary shares within a clearance service or depositary receipt system should not give rise to a liability to U.K. stamp duty or SDRT, provided that no instrument of transfer is entered into and that no election that applies to the ordinary shares is or has been made by the clearance service under Section 97A of the U.K. Finance Act 1986.

Transfers of ordinary shares within a clearance service where an election has been made by the clearance service under Section 97A of the U.K. Finance Act 1986 will generally be subject to SDRT (rather than U.K. stamp duty) at the rate of 0.5% of the amount or value of the consideration.

Transfers of ordinary shares that are held in certificated form will generally be subject to U.K. stamp duty at the rate of 0.5% of the consideration given (rounded up to the nearest £5). An exemption from U.K. stamp duty is available for a written instrument transferring an interest in ordinary shares where the amount or value of the consideration is £1,000 or less, and it is certified on the instrument that the transaction effected by the instrument does not form part of a larger transaction or series of transactions for which the aggregate consideration exceeds £1,000. SDRT may be payable on an agreement to transfer such ordinary shares, generally at the rate of 0.5% of the consideration given in money or money's worth under the agreement to transfer the ordinary shares. This charge to SDRT would be discharged if an instrument of transfer is executed pursuant to the agreement which gave rise to SDRT and U.K. stamp duty is duly paid on the instrument transferring the ordinary shares within six years of the date on which the agreement was made or, if the agreement was conditional, the date on which the agreement became unconditional. The stamp duty would be duly accounted for if it is paid, an appropriate relief is claimed or the instrument is otherwise certified as exempt.

If ordinary shares (or interests therein) are subsequently transferred into a clearance service or depositary receipt system, under Sections 93 and 96 of the U.K. Finance Act 1986 a U.K. stamp duty or SDRT charge will generally apply at the rate of 1.5% of the amount or value of the consideration given (rounded up in the case of U.K. stamp duty to the nearest £5) or, in certain circumstances, the value of the shares (save to the extent that an election has been made under Section 97A of the U.K. Finance Act 1986). This liability for U.K. stamp duty or SDRT will strictly be accountable by the clearance service or depositary receipt system, as the case may be, but will, in practice, generally be reimbursed by participants in the clearance service or depositary receipt system. However, following recent EU judicial decisions, HMRC has published

guidance that they will no longer seek to enforce such charge in certain circumstances (mainly where the transaction is in connection with the raising of capital). Specific tax advice should be sought in such circumstances.

F. Dividends and Paying Agents.

Not applicable.

G. Statements by Experts.

Not applicable.

H. Documents on Display.

We previously filed with the SEC our registration statement on Form F-1 on March 15, 2016 with file number 333-209595.

We have filed this annual report on Form 20-F with the SEC under the U.S. Exchange Act. Statements made in this annual report as to the contents of any document referred to are not necessarily complete. With respect to each such document filed as an exhibit to this annual report, reference is made to the exhibit for a more complete description of the matter involved, and each such statement shall be deemed qualified in its entirety by such reference.

We are subject to the informational requirements of the U.S. Exchange Act and file reports and other information with the SEC.

Electronic copies of this material may be obtained from the SEC's Internet site at http://www.sec.gov. The Commission's telephone number is 1-800-SEC-0330.

As a foreign private issuer, we are exempt from the rules under the U.S. Exchange Act prescribing the furnishing and content of proxy statements and will not be required to file proxy statements with the SEC, and its officers, directors and principal shareholders will be exempt from the reporting and "short swing" profit recovery provisions contained in Section 16 of the U.S. Exchange Act.

I. Subsidiary Information.

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Ferroglobe operates in an international and cyclical industry which exposes it to a variety of financial risks such as currency risk, liquidity risk, interest rate risk, credit risk and risks relating to the price of finished goods, raw materials and power.

The Company's management model aims to minimize the potential adverse impact of such risks upon the Company's financial performance. Risk is managed by the Company's executive management, supported by the Risk Management, Treasury and Finance functions. The risk management process includes identifying and evaluating financial risks in conjunction with the Company's operations and quantifying them by project, region and subsidiary. Management provides written policies for global risk management, as well as for specific areas such as foreign currency risk, credit risk, interest rate risk, liquidity risk, the use of hedging instruments and derivatives, and investment of surplus liquidity.

Market risk

Market risk is the risk that the Company's future cash flows or the fair value of its financial instruments will fluctuate because of changes in market prices. The primary market risks to which the Company is exposed comprise foreign currency risk, interest rate risk and risks related to prices of finished goods, raw materials (principally coal and manganese ore) and power.

Foreign exchange rate risk

Ferroglobe generates sales revenue and incurs operating costs in various currencies. The prices of finished goods are to a large extent determined in international markets, primarily in US dollars and Euros. Foreign currency risk is partly mitigated by the generation of sales revenue, the purchase of raw materials and other operating costs being denominated in the same currencies. Although it has done so on occasions in the past, and may decide to do so in the future, the Company does not generally enter into foreign currency derivatives in relation to its operating cash flows.

Notes and cross currency swap

The Parent Company has been historically exposed to exchange rate fluctuations as it had a Euro functional currency and future commitments to pay interest and principal in US dollars in respect of its outstanding debt instruments of $150,000 thousand (see Note 18). To manage this foreign currency risk, the Parent Company entered in 2017 into a cross currency swap and designated a portion of this as an effective cash flow hedge of the future interest and principal amounts due on its debt instruments. In March, 2020, the Company closed out the cross currency swap (see Note 19).

In 2021, due to an occurrence of events and conditions that reduce the number of transactions in euros, management conducted a review of the functional currency of the Parent Company and they concluded that there has been a change in its functional currency from Euro to US Dollars, effective since October 1, 2021 (see Note 3.3).

Interest rate risk

Ferroglobe is exposed to interest rate risk in respect of its financial liabilities that bear interest at floating rates. These primarily comprise credit facilities and leases commitments for lease agreements following IFRS 16 implementation.
At December 31, the Company's interest-bearing financial liabilities were as follows:

	2022		
	Fixed rate	**Floating rate**	**Total**
	US$'000	**US$'000**	**US$'000**
Bank borrowings	16,857	60,976	77,833
Obligations under leases	—	21,872	21,872
Debt instruments	343,443	—	343,443
Other financial liabilities (*)	80,388	18,273	98,661
	440,688	**101,121**	**541,809**

(*) Other financial liabilities comprise loans from government agencies (see *Note* 19 of the Consolidated Financial Statements).

	2021		
	Fixed rate	**Floating rate**	**Total**
	US$'000	**US$'000**	**US$'000**
Bank borrowings	—	98,967	98,967
Obligations under leases	—	18,358	18,358
Debt instruments	440,297	—	440,297
Other financial liabilities (*)	67,013	—	67,013
	507,310	**117,325**	**624,635**

(*) Other financial liabilities comprise loans from government agencies (see *Note* 19 of the Consolidated Financial Statements).

Credit risk

Credit risk refers to the risk that a customer or counterparty will default on its contractual obligations resulting in financial loss. The Company's main credit risk exposure related to financial assets is trade and other receivables.

Trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. The Company has established policies, procedures and controls relating to customer credit risk management. Ongoing credit evaluation is performed on the financial condition of accounts receivable and, where appropriate, the Company insures its trade receivables with reputable credit insurance companies.

Since October 2020, the Company entered into a factoring program where the receivables of some of the Company's French and Spanish entities are advanced pursuant to a factoring arrangement. On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter.

Since December 2019, the Company entered into a forfaiting program where some of the Company's French and Spanish entities may assign their rights to receive payments under the Contracts with the customer "ArcelorMittal Sourcing s.c.a." in accordance with a forfaiting scheme.

Liquidity risk

The purpose of the Company's liquidity and financing policy is to ensure that the Company keeps sufficient funds available to meet its financial obligations as they fall due. The Company's main sources of financing are as follows:

- $345,058 thousand aggregate principal amount of 9.375% senior secured notes due December 31, 2025 (the "Reinstated Senior Notes"). The proceeds from the Reinstated Notes, issued by Ferroglobe and Globe (together, the "Issuers") on July 30, 2021, were primarily used to repay certain existing indebtedness of the Parent Company and its subsidiaries. Interest is payable semi-annually on January 31 and July 31 of each year.

- $60,000 thousand aggregate principal amount of 9.300% super senior secured notes due June 30, 2025 (the "Super Senior Notes"). The proceeds from the Notes, issued by Ferroglobe on May 17, 2021, were primarily used to repay certain existing indebtedness of the Parent Company and its subsidiaries. Interest is payable semi-annually on January 31 and July 31 of each year. On July 21, 2022, the Super Senior Notes were redeemed at 100% of the principal amount thereof plus accrued interest.

- On September 8, 2016, FerroAtlántica, S.A.U, as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry"), as lender, entered into a loan agreement under which the Ministry made available to the borrower a loan in aggregate principal amount of €44,999 thousand, in connection with with the industrial development projects relating silicon purification project. FAU transferred the loan to OPCO before its sale. The loan of €44.9 million was scheduled to be repaid in seven installments starting in 2023 and completing by 2030. Interest on outstanding amounts under the loan accrues at an annual rate of 3.55%. As of December 31, 2022, the amortized cost of the loan was €54,989 thousand (equivalent to $58,651 thousand) (2021: €54,578 thousand and $61,815 thousand), see Note 19. A partial early repayment of €16.3 million has been made on February 10, 2023.

- On February 1, 2018 the Company acquired 100% of the outstanding ordinary shares of Kintuck (France) SAS and Kintuck AS from a wholly-owned subsidiary of Glencore International AG ("Glencore") and obtained control of both entities. Consideration included both cash and contingent consideration.The contingent consideration arrangement requires the Company to pay the former owners of Kintuck (France) SAS and Kintuck AS a sliding scale commission based on the silicomanganese and ferromanganese sales spreads of Ferroglobe Mangan Norge and Ferroglobe Manganèse France, up to a maximum amount of $60,000 thousand (undiscounted). The contingent consideration applies to sales made up to eight and a half years from the date of acquisition and if it applies, the payment is on annual basis. The potential undiscounted amount of all future payments that the Company could be required to make under the contingent consideration arrangement is between $nil thousand and $60,000 thousand.

- On October 2, 2020, the Company ended the receivables funding agreement and cancelled the securitization program, signing a new factoring agreement with a financial institution, for anticipating the collection of receivables of the Company's European entities (Grupo FerroAtlántica, S.A. and FerroPem S.AS). On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter. This program offers the possibility to sell the receivables corresponding to ten customers pre-approved by the bank and its credit insurer. During 2022, the factoring agreements provided upfront cash consideration of approximately $895,264

thousand ($659,083 thousand in 2021). The Company has repaid $ 918,070 thousand ($640,168 thousand in 2021), showing at December 31, 2022, an on-balance sheet bank borrowing debt of $60,976 thousand (2021: $93,090 thousand) (see Note 10 and 16).

- On July 23, 2020, Ferroglobe subsidiary, Ferropem, S.A.S., as borrower, contracted a loan with BNP Paribas, as lender, amounting to €4,456 thousand, to finance Company's activities in France. The loan is guaranteed by the French government as part of the COVID-19 relief measures. Repayment of principal and payment of interest and accessories offer the possibility for the Borrower to extend the amortization of the amounts due at maturity for an additional period of 1 to 5 years. Interest rate is zero percent and the borrower is liable to pay a 0.50% fee calculated on the capital borrowed equivalent to an amount of €22 thousand.

- On June 2, 2020, Ferroglobe subsidiary, Silicium Québec, as borrower, contracted a $7,000 thousand loan with Investissement Québec, a regional government loan & investment agency, as lender, to finance its capital expenditures activities in Canada. The loan is to be repaid in 84 installments over a 10 year period with the first three years as a grace period. Interest rate on outstanding amounts is zero percent.

- On March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the "Beneficiaries") and the Sociedad Estatal de Participaciones Industriales ("SEPI"), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES.

A. Debt Securities.

Not applicable.

B. Warrants and Rights.

Not applicable.

C. Other Securities.

Not applicable.

D. American Depositary Shares.

Not applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES.

None of these events occurred in any of the years ended December 31, 2022, 2021 and 2020.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS.

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES.

A. Evaluation of disclosure controls and procedures

We maintain disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are designed to ensure that information required to be disclosed by the Company in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to our management, including our principal executive officer (Chief Executive Officer) and principal financial officer (Chief Financial Officer), as appropriate, to allow timely decisions regarding required disclosure. Disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives.

Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer have conducted an evaluation of the effectiveness of our disclosure controls and procedures as of December 31, 2022. Based on that evaluation, we have concluded that, as of December 31, 2022, our disclosure controls and procedures were not effective due to the existence of certain material weaknesses in our internal control over financial reporting, as described below.

Notwithstanding the conclusion by our Chief Executive Officer and Chief Financial Officer that our disclosure controls and procedures as of December 31, 2022 were ineffective, and notwithstanding the material weaknesses in our internal control over financial reporting described below, management has concluded that the consolidated financial statements included in this Annual Report fairly present in all material respects our financial position, results of operations and cash flows as of the dates presented and for the periods ended on such dates in accordance with IFRS-IASB.

B. Previously disclosed material weaknesses

During fiscal years 2021 and 2022, with the oversight of the Audit Committee of the Board of Directors, the Company began implementing a remediation plan to address the material weaknesses identified as of December 31, 2021. The following remedial actions were taken to enhance the Company's control framework, including:

- Expanding the finance, accounting and internal control departments, including hiring additional individuals to assist in the enhancement and implementation of internal control policies and procedures related to accounting matters in our business.

- Engaged external consultants with extensive expertise in internal control to assist management in implementing its internal control framework, performing a gap analysis and designing enhanced business and IT processes and controls.

These dedicated resources have allowed us to implement improvements in our internal control framework, including a) design and implementing process-level controls at certain locations, b) design and implementing certain general information technology controls over our information technology system and c) improvement of the processes and controls to obtain certain key inputs used by management in accounting for significant estimates.

Management has determined that these enhancements to our internal control framework mainly processes and controls to obtain certain key inputs used by management in accounting for significant estimates are operating effectively and consider the previously disclosed material weaknesses over Information and Communication identified in the prior year to be remediated as of December 31, 2022.

Despite the progress discussed above, there were several matters that hindered our ability to remediate all of the material weaknesses that were identified in the prior year.

While we have put a significant effort into expanding and enhancing our finance, accounting and internal control departments, the significant effort of onboarding additional personnel resulted in delays in the timeliness of executing controls, or control activities were performed without sufficiently documented supporting evidence of their operating effectiveness. We believe that these added resources and the implementation of newly designed controls require additional time to demonstrate operating effectiveness.

While we believe that our efforts have improved our internal control over financial reporting and resulted in the remediation of certain of the material weaknesses identified as of December 31, 2020, and 2021, remediation of the material weaknesses remaining as of December 31, 2022 will require further validation and testing of the design and operating effectiveness of internal controls over a sustained period of financial reporting cycles.

C. Management's annual report on internal control over financial reporting

Management, including our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal control over financial reporting is designed by management to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of our consolidated financial statements.

An effective internal control system, no matter how well designed, has inherent limitations, including the possibility of human error or overriding of controls, and therefore can provide only reasonable assurance with respect to reliable financial reporting. Because of its inherent limitations, our internal control over financial reporting may not prevent or detect all misstatements, or fraud.

Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, management assessed the effectiveness of our internal control over financial reporting as of December 31, 2022, based on criteria established in the Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on those criteria, management concluded that our internal control over financial reporting was not effective due to the existence of the material weaknesses described below.

Material weaknesses in internal control over financial reporting

A material weakness is a control deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis.

We have identified and disclosed in our Annual Report for the year ended December 31, 2022, the following material weaknesses in internal control over financial reporting.

- *Control environment*

We did not maintain an effective control environment to enable the identification and mitigation of the risk of the existence of potential material accounting errors. We have identified deficiencies in the principles associated with the control environment component of the COSO framework. Specifically, these control deficiencies constitute material weaknesses, either individually or in the aggregate, relating to the following principles: (i) our commitment to attract, develop, and retain competent individuals in alignment with objectives, and (ii) holding individuals accountable for their internal control related responsibilities in the pursuit of objectives.

- *Control Activities*

We did not design and implement effective control activities based on the criteria established in the COSO framework. We have identified deficiencies in the principles associated with the control activities component of the COSO framework. Specifically, these control deficiencies constitute a material weakness either individually or in the aggregate, relating to the following principles: (i) selects and develops control activities (ii) deploys control activities through policies that establish what is expected and procedures that put policies into action.

We have also identified a significant number of deficiencies in the design and operating effectiveness of our internal controls which constitute a material weakness, either individually or in the aggregate, including:

- *Financial Closing and Reporting process*: controls over the oversight of the financial closing and reporting process, and controls over the review of manual journal entries, which did not operate effectively due in part to limited resources within our accounting and reporting team.

- *Impairment of Long-Lived Assets*: controls over the assumptions and external valuations used in our impairment evaluation of long-lived assets, which were not designed and/ or did not operate effectively.

C. Attestation report of the registered public accounting firm

The Company's independent registered public accounting firm, Deloitte, S.L., who audited the consolidated financial statements included in this Annual Report issued an adverse opinion on the effectiveness of the Company's internal control over financial reporting. Deloitte, S.L.'s report is included herein.

D. Remediation of material weaknesses in internal control over financial reporting for 2022

During 2022, Management continued implementing the corrective actions already initiated in 2021 and 2020 to remediate the material weaknesses identified, either by creating new controls or enhancing the existing ones, reinforcing the specific training, and paying attention to an adequate documentation of the activities done.

Although the Company has dedicated a substantial effort to improve the internal control over financial reporting, our remediation efforts are ongoing. We will continue the process of designing corrective actions to remediate the material weaknesses identified, and we will test the design and ongoing operating effectiveness of the new and existing controls in future periods.

We plan to continue with the implementation of the steps initiated in 2021 to remediate the material weaknesses described above, including:

- Design and implement more robust control over the review of the work done by the external experts.

- Enhancement and standardization of the financial closing and reporting process and the consideration of prior year adjustments.

- Remediating the deficiencies identified in the impairment of long-lived assets process.

We believe these actions will be sufficient to remediate the identified material weaknesses and strengthen our internal control over financial reporting; however, there can be no guarantee that such remediation will be sufficient.

We will continue to monitor the effectiveness of our controls and will make any further changes management determines appropriate. The planned improvements will be subject of the Company's annual evaluation and assessment of internal control over financial reporting. As we cannot consider the material weaknesses remediated until the controls described above have operated for a sufficient period of time, we will evaluate the results of our control assessments to determine

whether these controls are operating effectively and whether the material weaknesses above have been remediated as of December 31, 2023.

E. Changes in internal control over financial reporting

Except for the changes in connection with our implementation of the remediation plan discussed above, there have been no other changes in our internal control over financial reporting that occurred during the fiscal year ended December 31, 2022, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 16. [RESERVED]

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT.

See "Item 6.C.—Directors, Senior Management and Employees—Board Practices—Committees of board of directors—Audit Committee." Our Board of Directors has determined that Mr. Bruce Crockett qualifies as an "audit committee financial expert" under applicable SEC rules.

ITEM 16B. CODE OF ETHICS.

Our Board of Directors has adopted a Code of Conduct for our employees, officers and directors to govern their relations with current and potential customers, fellow employees, competitors, government and regulatory agencies, the media, and anyone else with whom Ferroglobe PLC has contact. Our Code of Conduct is publicly available on our website at www.ferroglobe.com.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The following table provides information on the aggregate fees billed by our principal accountant Deloitte or by other firms, to Ferroglobe PLC and subsidiaries, classified by type of service rendered for the periods indicated, in thousands of U.S. Dollars:

($ thousands)	2022	2021
Audit Fees	6,735	5,296
Audit-Related Fees	59	770
Tax Fees	34	37
All Other Fees	4	13
Total	**6,832**	**6,116**

Audit Fees are the aggregate fees billed for professional services in connection with the audit of our consolidated annual financial statements and statutory audits of our subsidiaries' financial statements under the rules in which our subsidiaries are organized. Also included are quarterly limited reviews, audits of non-recurring transactions, consents and any audit services required for SEC or other regulatory filings.

Audit-Related Fees are fees charged for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements, and are not restricted to those that can only be provided by the auditor signing the audit report. This category comprises fees billed for comfort letters and agreed upon procedures for grants and other financial compliance.

Tax Fees are fees billed for tax compliance, tax review and tax advice on actual or contemplated transactions.

All Other Fees comprises fees billed in relation to financial advisory services and other services not accounted for under other categories.

Audit Committee's policy on pre-approval of audit and permissible non-audit services of the independent auditor

Subject to shareholder approval of the independent auditor, the Audit Committee has the sole authority to appoint, retain or replace the independent auditor. The Audit Committee is also directly responsible for the compensation and oversight of the work of the independent auditor. These policies generally provide that we will not engage our independent auditors to render audit or non-audit services unless the service is specifically approved in advance by the Audit Committee. The Audit Committee's pre-approval policy, which covers audit and non-audit services provided to us or to any of our subsidiaries, is as follows:

- The Audit Committee shall review and approve in advance the annual plan and scope of work of the independent external auditor, including staffing of the audit, and shall (i) review with the independent external auditor any audit-related concerns and management's response and (ii) confirm that any examination is performed in accordance with the relevant accounting standards.

- The Audit Committee shall pre-approve all audit services and all permitted non-audit services (including the fees and terms thereof) to be performed for us by the independent auditors, to the extent required by law. The Audit Committee may delegate to one or more Committee members the authority to grant pre-approvals for audit and permitted non-audit services to be performed for us by the independent auditor, provided that decisions of such members to grant pre-approvals shall be presented to the full Audit Committee at its next regularly scheduled meeting.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES.

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS.

Not applicable.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT.

Not applicable.

ITEM 16G. CORPORATE GOVERNANCE.

As a "foreign private issuer," as defined by the SEC, although we are permitted to follow certain corporate governance practices of England and Wales, instead of those otherwise required under NASDAQ rules for domestic issuers, we intend to follow the NASDAQ corporate governance rules applicable to foreign private issuers. While we voluntarily follow most NASDAQ corporate governance rules, we intend to take advantage of the following limited exemptions:

- Exemption from filing quarterly reports on Form 10-Q or providing current reports on Form 8-K disclosing significant events within four days of their occurrence;

- Exemption from Section 16 rules regarding sales of ordinary shares by insiders, which will provide less data in this regard than shareholders of U.S. companies that are subject to the U.S. Exchange Act;

- Exemption from the NASDAQ rules applicable to domestic issuers requiring disclosure within four business days of any determination to grant a waiver of the code of business conduct and ethics to directors and officers. Although we will require board approval of any such waiver, we may choose not to disclose the waiver in the manner set forth in the NASDAQ rules, as permitted by the foreign private issuer exemption;

- Exemption from the requirement that our Board have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities. Currently, our Compensation Committee is composed of a majority of independent directors; and

- Exemption from the requirements that director nominees are selected, or recommended for selection by our Board, either by (1) independent directors constituting a majority of our Board's independent directors in a vote in which only independent directors participate, or (2) a nominations committee composed solely of independent directors, and that a formal written charter or board resolution, as applicable, addressing the nominations process is adopted.

Furthermore, NASDAQ Rule 5615(a)(3) provides that a foreign private issuer, such as us, may rely on home country corporate governance practices in lieu of certain of the rules in the NASDAQ Rule 5600 Series and Rule 5250(d), provided that we nevertheless comply with NASDAQ's Notification of Noncompliance requirement (Rule 5625), the Voting Rights requirement (Rule 5640) and that we have an audit committee that satisfies Rule 5605(c)(3), consisting of committee members that meet the independence requirements of Rule 5605(c)(2)(A)(ii). Although we are permitted to follow certain corporate governance rules that conform to England and Wales requirements in lieu of many of the NASDAQ corporate governance rules, we intend to comply with the NASDAQ corporate governance rules applicable to foreign private issuers. Accordingly, our shareholders will not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of NASDAQ. We may utilize these exemptions for as long as we continue to qualify as a foreign private issuer.

For additional information see "Item 6.C.—Directors, Senior Management and Employees—Board Practices."

ITEM 16H. MINE SAFETY DISCLOSURE

The information concerning mine safety violations and other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act is included in Exhibit 16.1 to this annual report.

PART III

ITEM 17. FINANCIAL STATEMENTS.

We have elected to provide financial statements pursuant to Item 18.

ITEM 18. FINANCIAL STATEMENTS.

Our Consolidated Financial Statements are included at the end of this annual report.

ITEM 19. EXHIBITS.

Exhibit No.	Exhibit Description
1.1	Articles of Association of Ferroglobe PLC, dated as of October 26, 2017 (incorporated by reference to Exhibit 1.1 to the annual report on Form 20-F filed by the Company on April 30, 2018)
2.1	Description of securities (incorporated by reference to Exhibit 2.1 to the annual report on Form 20-F filed by the Company on April 30, 2021)
3.1	Amended and Restated Shareholder Agreement, dated as of November 21, 2017, between Grupo VM and Ferroglobe (incorporated by reference to Exhibit 3.1 to the annual report on Form 20-F filed by the Company on April 30, 2018)
3.2	Amendment No. 3, to the amended and restated shareholder agreement
4.1†	Service Agreement, dated June 21, 2016, between Ferroglobe and Javier López Madrid (incorporated by reference to Exhibit 4.10 to the annual report on Form 20-F filed by the Company on May 1, 2017)
4.2†	Amendment, dated February 7, 2017, to the Service Agreement, dated June 21, 2016, between Ferroglobe and Javier López Madrid (incorporated by reference to Exhibit 4.11 to the annual report on Form 20-F filed by the Company on May 1, 2017)
4.3†	2016 Equity Incentive Plan (incorporated by reference to Exhibit 4.14 to the annual report on Form 20-F filed by the Company on April 30, 2018)
4.4	Indenture governing the $345,058 thousand exchanged old notes of 9⅜% for new 9⅜% senior secured notes due 2025 issued by the UK Issuer and Globe dated as of July 29, 2021, among Ferroglobe Finance Company, PLC, a public limited company incorporated under the laws of England and Wales (the "UK Issuer"), and Globe Specialty Metals, Inc., a corporation incorporated under the laws of the State of Delaware (the "US Co-Issuer" and, together with the UK Issuer, the "Issuers"), Ferroglobe PLC, a public limited company incorporated under the laws of England and Wales as the parent guarantor (the "Parent"), the Guarantors (as defined herein) from time to time party hereto, and GLAS Trustees Limited, as trustee (in such capacity, the "Trustee"), GLAS Trust Corporation Limited as security agent (in such capacity, the "Security Agent"), Global Loan Agency Services Limited as paying agent (in such capacity, the "Paying Agent") and GLAS Americas LLC as registrar (in such capacity, the "Registrar") and transfer agent (in such capacity, the "Transfer Agent")
5.1	Asset based loan agreement, dated 30 June 2022, among Globe Specialty Metals, Inc., QSIP Canada ULC and the Bank of Montreal
8.1	List of Significant Subsidiaries

Exhibit No.	Exhibit Description
12.1	Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2	Certification of the Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1	Certification of the Principal Executive Officers and Principal Financial Officer Pursuant to 18 U.S.C. 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1	Consent of Deloitte, S.L., Independent Registered Public Accounting Firm for Ferroglobe PLC
16.1	Mine Safety and Health Administration Safety Data
101	Interactive Data Files formatted in iXBRL (Extensible Business Reporting Language)
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibits 101)

† Management contract or compensatory plan or arrangement

SIGNATURE

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Date: May 1, 2023

Ferroglobe PLC
(Registrant)

By: /s/ Marco Levi
Marco Levi
Principal Executive Officer

By: /s/ Beatriz García-Cos
Beatriz García-Cos
Principal Accounting Officer

FERROGLOBE PLC

AUDITED CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Financial Statements as of December 31, 2022 and 2021 and for each of the three years ended December 31, 2022, 2021 and 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Ferroglobe PLC

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Ferroglobe PLC and subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated income statements, the consolidated statements of comprehensive income (loss), the consolidated statements of changes in equity, and the consolidated statements of cash flows for each of the three years in the period ended December 31, 2022, the related notes and the schedule I (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022, and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS-IASB").

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated May 1, 2023, expressed an adverse opinion on the Company's internal control over financial reporting because of material weaknesses.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Inventory Valuation – Refer to Notes 3.5, 4.8 and 11 to the financial statements

Critical Audit Matter Description

As described in Notes 4.8 and 11 to the consolidated financial statements, the Company´s consolidated inventory balance was $500 million as of December 31, 2022, compared to $290 million in prior year. As disclosed in Note 3.5, inventories are stated at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. The decreasing market prices and demand for the Company´s products experienced in the second half of the year exposes the Company´s inventory to valuation risk, and write-downs amounting to approximately $29 million were recorded at year end.

We identified the estimate of net realizable value of inventories as a critical audit matter because of the judgments involved. This required an increased extent of audit effort when performing audit procedures to evaluate the reasonableness of management's estimation.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the estimated net realizable value of inventories included the following, among others:

- We evaluated the reasonableness of the valuation methodologies and assumptions applied by management in their estimate.
- We tested the accuracy and completeness of the underlying data that served as the basis for the calculation of inventory valuation allowance, and the mathematical accuracy of management's calculation of inventory valuation allowance.
- We performed inquiries with appropriate finance and operations personnel, and reviewed the sales subsequent to December 31, 2022, to assess whether the selling price, net of selling costs, was greater than the carrying amount of the inventories sold.

Impairment of property, plant and equipment (PP&E) —Refer to Notes 3.5, 4.4, 9 and 26.5 to the financial statements

Critical Audit Matter Description

As described in Notes 3.5, 4.4, and 9 to the financial statements, the Company´s consolidated PP&E balance was $486 million as of December 31, 2022. As mentioned in Note 9, impairments amounting to approximately $57 million were recorded during 2022 relating to certain assets in the Europe - Manganese segment and other assets in Spain that are affected by increased energy costs. The Company’s evaluation of PP&E for impairment involves the comparison of the carrying amounts of assets with their recoverable amount. The determination of the recoverable amount requires significant judgement in developing and applying key underlying assumptions concerning future market and conditions (volumes, sale prices, cost structure, operating margins and capital expenditure - “capex”) for the periods projected, as well as the determination of an appropriate discount rate and terminal value. For certain assets, recoverable amount has been determined at fair value less cost of disposal, which determination is subject to significant judgement.

We identified impairment of PP&E relating to certain assets in the Europe - Manganese segment and other assets in Spain as a critical audit matter because of the significant judgments involved in the assessment. A high degree of auditor judgment and an increased extent of audit effort, including the involvement of fair value specialists and an increase in the nature and extent of audit procedures as a result of the material weaknesses identified by the Company, was required to consider management’s estimates and assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management´s assessment of PP&E for impairment included the following, among others:

- We considered the accuracy of past forecasts developed by management to assess the reliability of the forecasting process.
- We considered key assumptions applied in the development of the discounted future cash flows for the periods projected.
- We evaluated the volumes and prices projected for the period 2023-2027 using historical data and independent sources of information (such as analyst and industry reports or prices reports, when available) and considered information that could be potentially contradictory to management's forecasts.
- With the assistance of our fair value specialists, we evaluated the discount rates (WACC), the long-term growth rates, the appropriate methodology for determination of operating margins and terminal values and the underlying source information. Our fair value specialists also assisted in testing the mathematical accuracy of the calculations and developing a range of independent estimates and comparing those to management’s estimates.
- We performed sensitivity analysis over PP&E impairment test by comparing the results of the impairment test with significant changes and modifications to the underlying inputs such as the net cash flows and the terminal value, the discount rates (WACC) and the long-term growth rate.
- For those assets for which recoverable amount was determined at fair value less cost of disposal, we evaluated the main assumptions used by the Company to estimate the fair value with the assistance of our fair value specialists.

/s/ Deloitte, S.L.

Madrid, Spain

May 1, 2023

We have served as the Company's auditor since 1992.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Ferroglobe PLC

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Ferroglobe PLC and subsidiaries (the "Company") as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, because of the effect of the material weaknesses identified below on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated May 1, 2023, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's annual report on internal control over financial reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Material Weaknesses

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in management's assessment:

Control Environment: The Company identified deficiencies in the principles associated with the control environment component of the COSO framework. Specifically, these control deficiencies constitute material weaknesses, either individually or in the aggregate, relating to the following principles: (i) the organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives, and (ii) the organization holds individuals accountable for their internal control related responsibilities in the pursuit of objectives.

Control Activities: The Company identified deficiencies in the principles associated with the control activities component of the COSO framework. Specifically, these control deficiencies constitute material weaknesses, either individually or in the aggregate, relating to the following principles: (i) the organization selects and develops control activities that contribute to the mitigation of risks to acceptable levels and (ii) the organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

The COSO component material weaknesses described above contributed to the following material weaknesses within the Company's system of internal control over financial reporting at the control activity level.

- *Financial Closing and Reporting process: The Company did not design and operate effectively controls over the oversight of the financial closing and reporting process, and controls over the review of manual journal entries, due to limited resources within its accounting and reporting team.*
- *Impairment of Long-Lived Assets: controls over the assumptions and external valuations used in our impairment evaluation of long-lived assets, which were not designed and/or did not operate effectively.*

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of consolidated financial statements as of and for the year ended December 31, 2022, of the Company, and this report does not affect our report on such consolidated financial statements.

/s/ Deloitte, S.L.

Madrid, Spain

May 1, 2023

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION AS OF DECEMBER 31, 2022 AND 2021

Thousands of U.S. Dollars

	Notes	2022 US$'000	2021 US$'000
ASSETS			
Non-current assets			
Goodwill	Note 7	29,702	29,702
Other intangible assets	Note 8	111,797	100,642
Property, plant and equipment	Note 9	486,247	554,914
Other non-current financial assets	Note 10	14,186	4,091
Deferred tax assets	Note 23	7,136	7,010
Non-current receivables from related parties	Note 24	1,600	1,699
Other non-current assets	Note 12	18,218	18,734
Non-current restricted cash and cash equivalents	Note 10	2,133	2,272
Total non-current assets		**671,019**	**719,064**
Current assets			
Inventories	Note 11	500,080	289,797
Trade and other receivables	Note 10	425,474	381,073
Current receivables from related parties	Note 24	2,675	2,841
Current income tax assets	Note 23	6,104	7,660
Other current financial assets	Note 10	3	104
Other current assets	Note 12	30,608	8,408
Assets and disposal groups classified as held for sale	Note 30	1,067	—
Current restricted cash and cash equivalents	Note 10	2,875	—
Cash and cash equivalents	Note 10	317,935	114,391
Total current assets		**1,286,821**	**804,274**
Total assets		**1,957,840**	**1,523,338**
EQUITY AND LIABILITIES			
Equity			
Share capital		1,962	1,962
Reserves		439,674	544,433
Translation differences		(242,623)	(227,318)
Valuation adjustments		10,735	5,525
Result attributable to the Parent		440,314	(110,624)
Non-controlling interests		106,751	106,053
Total equity	Note 13	**756,813**	**320,031**
Non-current liabilities			
Deferred income		3,842	895
Provisions	Note 15	47,670	60,958
Bank borrowings	Note 16	15,774	3,670
Lease liabilities	Note 17	12,942	9,968
Debt instruments	Note 18	330,655	404,938
Other financial liabilities	Note 19	38,279	4,549
Other obligations	Note 21	37,502	38,082
Other non-current liabilities	Note 22	12	1,476
Deferred tax liabilities	Note 23	35,854	25,145
Total non-current liabilities		**522,530**	**549,681**
Current liabilities			
Provisions	Note 15	145,507	137,625
Bank borrowings	Note 16	62,059	95,297
Lease liabilities	Note 17	8,929	8,390
Debt instruments	Note 18	12,787	35,359
Other financial liabilities	Note 19	60,382	62,464
Payables to related parties	Note 24	1,790	9,545
Trade and other payables	Note 20	219,666	206,000
Current income tax liabilities	Note 23	53,234	1,775
Other obligations	Note 21	9,580	22,843
Other current liabilities	Note 22	104,563	74,328
Total current liabilities		**678,497**	**653,626**
Total equity and liabilities		**1,957,840**	**1,523,338**

Notes 1 to 32 and Appendix I are an integral part of the consolidated financial statements

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED INCOME STATEMENTS FOR THE YEARS 2022, 2021 AND 2020

Thousands of U.S. Dollars

	Notes	2022 US$'000	2021 US$'000	2020 US$'000
Sales	Note 26.1	2,597,916	1,778,908	1,144,434
Raw materials and energy consumption for production	Note 26.2	(1,285,086)	(1,184,896)	(835,486)
Other operating income	Note 26.3	147,356	110,085	33,627
Staff costs	Note 26.4	(314,810)	(280,917)	(214,782)
Other operating expense		(346,252)	(296,809)	(132,059)
Depreciation and amortization charges, operating allowances and write-downs	Note 26.5	(81,559)	(97,328)	(108,189)
Impairment (loss) gain	Note 26.7	(56,999)	137	(73,344)
Net gain due to changes in the value of assets	Note 26.5	349	758	158
(Loss) gain on disposal of non-current assets	Note 26.8	(459)	1,386	1,292
Other (loss) gain		91	62	(1)
Operating (loss) profit		**660,547**	**31,386**	**(184,350)**
Finance income	Note 26.6	2,274	253	177
Finance costs	Note 26.6	(61,015)	(149,189)	(66,968)
Financial derivative gain	Note 19	—	—	3,168
Exchange differences		(9,995)	(2,386)	25,553
(Loss) Profit before tax		**591,811**	**(119,936)**	**(222,420)**
Income tax benefit (expense)	Note 23	(147,983)	4,562	(21,939)
(Loss) Profit for the year from continuing operations		**443,828**	**(115,374)**	**(244,359)**
(Loss) profit for the year from discontinued operations	Note 30	—	—	(5,399)
Total (Loss) Profit for the year		**443,828**	**(115,374)**	**(249,758)**
Attributable to the Parent		440,314	(110,624)	(246,339)
Attributable to non-controlling interests	Note 13	3,514	(4,750)	(3,419)

Earnings per share

		2022	2021	2020
(Loss) Profit attributable to the Parent (US$'000)		440,314	(110,624)	(246,339)
Weighted average basic shares outstanding		187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding		189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US$)	Note 14	**2.34**	**(0.63)**	**(1.46)**
Diluted profit (loss) earnings per ordinary share (US$)	Note 14	**2.32**	**(0.63)**	**(1.46)**
(Loss) Profit for the year from continuing operations attributable to the Parent (US$'000)		440,314	(110,624)	(240,940)
Weighted average basic shares outstanding		187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding		189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US$)	Note 14	**2.34**	**(0.63)**	**(1.42)**
Diluted profit (loss) earnings per ordinary share (US$)	Note 14	**2.32**	**(0.63)**	**(1.42)**
(Loss) Profit for the year from discontinued operations (US$'000)		—	—	(5,399)
Weighted average basic shares outstanding		187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding		189,625,195	176,508,144	169,269,281
Basic (loss) earnings per ordinary share (US$)	Note 14	**—**	—	**(0.03)**
Diluted (loss) earnings per ordinary share (US$)	Note 14	**—**	**—**	**(0.03)**

Notes 1 to 32 and Appendix I are an integral part of the consolidated financial statements

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) FOR 2022, 2021 AND 2020

Thousands of U.S. Dollars

	2022 US$'000	2021 US$'000	2020 US$'000
Net (loss) gain	**443,828**	**(115,374)**	**(249,758)**
Items that will not be reclassified subsequently to income or loss:			
Defined benefit obligation	9,779	2,566	3,630
Tax effect	(2,082)	139	(45)
Total income and expense that will not be reclassified subsequently to income or loss	**7,697**	**2,705**	**3,585**
Items that may be reclassified subsequently to income or loss:			
Arising from cash flow hedges	—	—	(3,752)
Translation differences	(17,178)	(20,393)	3,239
Total income and expense that may be reclassified subsequently to income or loss	**(17,178)**	**(20,393)**	**(513)**
Items that have been reclassified to income or loss in the period:			
Arising from cash flow hedges	—	(922)	8,091
Total transfers to income or loss	**—**	**(922)**	**8,091**
Other comprehensive income (loss) for the year, net of income tax	**(9,481)**	**(18,610)**	**11,163**
Total comprehensive (loss) for the year	**434,347**	**(133,984)**	**(238,595)**
Attributable to the Parent	430,219	(131,413)	(235,022)
Attributable to non-controlling interests	4,128	(2,571)	(3,573)

Notes 1 to 32 and Appendix I are an integral part of the consolidated financial statements

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY FOR 2022, 2021 AND 2020
Thousands of U.S. Dollars

	Total Amounts Attributable to Owners								
	Issued Shares (Thousands)	Share Capital US$'000	Share Premium US$'000	Reserves US$'000	Translation Differences US$'000	Valuation Adjustments US$'000	Result for the Year US$'000	Non-controlling Interests US$'000	Total US$'000
Balance at January 1, 2021	**170,864**	**1,784**	**—**	**696,774**	**(206,759)**	**5,755**	**(246,339)**	**114,504**	**365,719**
Comprehensive (loss) income for the year 2021	—	—	—	—	(20,559)	(230)	(110,624)	(2,571)	(133,984)
Issue of share capital	18,019	178	86,220		—	—	—	—	86,398
Share-based compensation	—	—	—	3,627	—	—	—	—	3,627
Distribution of 2020 (loss)	—	—	—	(246,339)	—	—	246,339	—	—
Dividends paid non-controlling interests	—	—	—	—	—	—	—	(5,880)	(5,880)
Other changes	—	—	—	4,151	—	—	—	—	4,151
Balance at December 31, 2021	**188,883**	**1,962**	**86,220**	**458,213**	**(227,318)**	**5,525**	**(110,624)**	**106,053**	**320,031**
Comprehensive (loss) income for the year 2022	—	—	—	—	(15,305)	5,210	440,314	4,128	434,347
Cash settlement of equity awards	—	—	—	—	—	—	—	—	—
Share-based compensation	—	—	—	5,825	—	—	—	—	5,825
Distribution of 2021 (loss)	—	—	—	(110,624)	—	—	110,624	—	—
Dividends paid non-controlling interests	—	—	—	—	—	—	—	(3,430)	(3,430)
Other changes	—	—	—	40	—	—	—	—	40
Balance at December 31, 2022	**188,883**	**1,962**	**86,220**	**353,454**	**(242,623)**	**10,735**	**440,314**	**106,751**	**756,813**

Notes 1 to 32 and Appendix I are an integral part of the consolidated financial statements

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR 2022, 2021 AND 2020
Thousands of U.S. Dollars

	2022 US$'000	2021 US$'000	2020 US$'000
Cash flows from operating activities:			
Profit (Loss) for the year	**443,828**	**(115,374)**	**(249,758)**
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:			
Income tax expense (benefit)	147,983	(4,562)	21,939
Depreciation and amortization charges, operating allowances and write-downs	81,559	97,328	108,189
Finance income (loss)	(2,274)	(253)	(177)
Finance costs	61,015	149,189	66,968
Financial derivative (gain) loss	—	—	(3,168)
Exchange differences	9,995	2,386	(25,553)
Impairment (gain) loss	56,999	(137)	73,344
Loss (gain) on disposal of discontinued operations	—	—	5,399
Loss (gain) due to changes in the value of assets	(349)	(758)	(158)
Loss (gain) on disposal of non-current assets	459	(1,386)	(1,292)
Share-based compensation	5,836	3,627	2,017
Other loss (gain)	(91)	(62)	—
Changes in operating assets and liabilities:			
(Increase) decrease in inventories	(220,823)	(60,296)	114,585
(Increase) decrease in trade and other receivables	(72,558)	(161,434)	71,034
Increase (decrease) in trade and other payables	30,640	64,382	(55,405)
Other changes in operating assets and liabilities	(56,677)	29,803	14,473
Income tax paid	(80,524)	(3,794)	11,831
Net used cash provided (used) by operating activities	**405,018**	**(1,341)**	**154,268**
Cash flows from investing activities:			
Interest and finance income received	1,520	207	630
Payments due to investments:			
Other intangible assets	(1,147)	—	(2,654)
Property, plant and equipment	(52,153)	(27,597)	(30,257)
Other	6	—	—
Disposals:			
Other non-current assets	—	1,919	341
Other	—	1,623	—
Net cash provided (used) by investing activities	**(51,774)**	**(23,848)**	**(31,940)**
Cash flows from financing activities:			
Payment for debt and equity issuance costs	(853)	(43,755)	(4,540)
Proceeds from equity issuance	—	40,000	—
Proceed from debt issuance	—	60,000	—
Repayment of debt instruments	(84,823)	—	—
Increase (decrease) in bank borrowings:			
Borrowings	898,586	659,083	177,593
Payments	(919,932)	(671,467)	(235,296)
Amounts paid due to leases	(11,590)	(11,232)	(10,315)
Proceeds from other financing liabilities	38,298		
Other amounts (paid) due to financing activities	678	—	(2,863)
Interest paid	(60,822)	(22,177)	(37,912)
Net cash provided (used) by financing activities	**(140,458)**	**10,452**	**(113,333)**
Total net cash flows for the year	**212,786**	**(14,737)**	**8,995**
Beginning balance of cash and cash equivalents	116,663	131,557	123,175
Exchange differences on cash and cash equivalents in foreign currencies	(6,506)	(157)	(613)
Ending balance of cash and cash equivalents	**322,943**	**116,663**	**131,557**

Notes 1 to 32 and Appendix I are an integral part of the consolidated financial statements

Ferroglobe PLC and Subsidiaries

Notes to the Consolidated Financial Statements for the years ended December 31, 2022, 2021 and 2020
(U.S. Dollars in thousands, except share and per share data)

1. General information

Ferroglobe PLC and subsidiaries (the "Company" or "Ferroglobe") is among the world's largest producers of silicon metal and silicon-based alloys, important ingredients in a variety of industrial and consumer products. The Company's customers include major silicone chemical, aluminum and steel manufacturers, auto companies and their suppliers, ductile iron foundries, manufacturers of photovoltaic solar cells and computer chips, and concrete producers. Additionally, the Company was operating hydroelectric plants (hereinafter "energy business") in Spain until August 30, 2019 and is still operating hydroelectric plants in France.

Ferroglobe PLC (the "Parent Company" or "the Parent") is a public limited company that was incorporated in the United Kingdom on February 5, 2015 (formerly named 'Velonewco Limited'). The Parent's registered office is 5 Fleet Place, London EC4M 7RD (United Kingdom).

On December 23, 2015, Ferroglobe PLC consummated the acquisition ("Business Combination") of Globe Specialty Metals, Inc. and subsidiaries ("GSM" or "Globe") and Grupo FerroAtlántica, S.A.U. ("FerroAtlántica").

2. Organization and Subsidiaries

Ferroglobe has a diversified production base consisting of production facilities across North America, Europe, South America, South Africa and Asia.

The subsidiaries of Ferroglobe PLC as of December 31, 2022 and 2021, classified by reporting segments, were as follows:

	Percentage of Ownership			
	Direct	Total	Reporting Segment	Registered
Alabama Sand and Gravel, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Sales Corporation, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Core Metals Group Holdings, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Core Metals Group, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
ECPI, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
Gatliff Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe BG, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Financial LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Holdings, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metallurgical Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metals Enterprises, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
GSM Alloys I, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Alloys II, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Enterprises Holdings, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Enterprises, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Sales, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
Laurel Ford Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
LF Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Metallurgical Process Materials, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Norchem, Inc.	—	100.0	North America – Silicon Metal and Alloys	Florida - USA
QSIP Canada ULC	—	100.0	North America – Silicon Metal	Canada
Quebec Silicon General Partner	—	51.0	North America – Silicon Metal	Canada
Quebec Silicon Limited Partnership	—	51.0	North America – Silicon Metal	Canada
Tennessee Alloys Company, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
West Virginia Alloys, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
WVA Manufacturing, LLC	—	51.0	North America – Silicon Metal	Delaware - USA
Cuarzos Industriales, S.A.U.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Ferroatlántica del Cinca, S.L.	—	99.9	Europe – Manganese	Madrid - Spain
Ferroglobe Mangan Norge A.S.	—	100.0	Europe – Manganese	Norway
Ferroglobe Manganese France S.A.S.	—	100.0	Europe – Manganese	France
FerroPem, S.A.S.	—	100.0	Europe – Silicon Metal and Alloys	France
Grupo FerroAtlántica, S.A.U.	—	100.0	Europe – Manganese and Silicon Metal	Madrid - Spain
Grupo FerroAtlántica de Servicios, S.L.U.	—	100.0	Other segments	Madrid - Spain
Kintuck (France) S.A.S.	—	100.0	Europe – Manganese	France
Kintuck A.S.	—	100.0	Europe – Manganese	Norway
Rocas, Arcillas y Minerales, S.A.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Rebone Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Smelters (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Technology (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	South Africa
Thaba Chueu Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Cuarzos Industriales de Venezuela, S.A.	—	100.0	Other segments	Venezuela
Emix, S.A.S.	—	100.0	Other segments	France
Ferroatlántica de México, S.A. de C.V.	—	100.0	Other segments	Nueva León - Mexico
Ferroatlántica de Venezuela (FerroVen), S.A.	—	99.9	Other segments	Venezuela
Ferroatlántica Deutschland, GmbH	—	100.0	Other segments	Germany
Ferroatlántica do Brasil Mineraçao Ltda.	—	70.0	Other segments	Brazil
Ferroglobe Holding Company, LTD	100	100.0	Other segments	United Kingdom
Ferroglobe Finance Company, PLC	—	100.0	Other segments	United Kingdom
FerroManganese Mauritania S.A.R.L.	—	90.0	Other segments	Mauritania
Ferroquartz Holdings, Ltd. (Hong Kong)	—	100.0	Other segments	Hong Kong
FerroQuartz Mauritania S.A.R.L.	—	90.0	Other segments	Mauritania
Ferrosolar OPCO Group S.L.	—	100.0	Other segments	Spain
Ferrosolar R&D S.L.	—	50.0	Other segments	Spain
FerroTambao, S.A.R.L.	—	90.0	Other segments	Burkina Faso
Globe Metales S.R.L.	—	100.0	Other segments	Argentina
Globe Specialty Metals, Inc.	—	100.0	Other segments	Delaware - USA
GSM Financial, Inc.	—	100.0	Other segments	Delaware - USA
GSM Netherlands, B.V.	—	100.0	Other segments	Netherlands
Hidroelectricité de Saint Beron, S.A.S.	—	100.0	Other segments	France
Mangshi FerroAtlántica Mining Industry Service Company Limited	—	100.0	Other segments	Mangshi, Dehong -Yunnan -China
Ningxia Yonvey Coal Industrial Co., Ltd.	—	98.0	Other segments	China
Photosil Industries, S.A.S.	—	100.0	Other segments	France
Ferroglobe Innovation, S.L.U	—	100.0	Other segments	Spain
Solsil, Inc.	—	92.4	Other segments	Delaware - USA
Ultracore Energy S.A.	—	100.0	Other segments	Argentina

2021 Subsidiaries

	Percentage of Ownership			
	Direct	Total	Reporting Segment	Registered
Alabama Sand and Gravel, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Sales Corporation, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Core Metals Group Holdings, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Core Metals Group, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
ECPI, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
Gatliff Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe BG, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Financial LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Holdings, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metallurgical Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metals Enterprises, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
GSM Alloys I, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Alloys II, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Enterprises Holdings, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Enterprises, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Sales, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
Laurel Ford Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
LF Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Metallurgical Process Materials, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Norchem, Inc.	—	100.0	North America – Silicon Metal and Alloys	Florida - USA
QSIP Canada ULC	—	100.0	North America – Silicon Metal	Canada
Quebec Silicon General Partner	—	51.0	North America – Silicon Metal	Canada
Quebec Silicon Limited Partnership	—	51.0	North America – Silicon Metal	Canada
Tennessee Alloys Company, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
West Virginia Alloys, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
WVA Manufacturing, LLC	—	51.0	North America – Silicon Metal	Delaware - USA
Cuarzos Industriales, S.A.U.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Ferroatlántica del Cinca, S.L.	—	99.9	Europe – Manganese	Madrid - Spain
Ferroatlántica Participaciones, S.L.U.	—	100.0	Other segments	Madrid - Spain
Ferroglobe Mangan Norge A.S.	—	100.0	Europe – Manganese	Norway
Ferroglobe Manganese France S.A.S.	—	100.0	Europe – Manganese	France
FerroPem, S.A.S.	—	100.0	Europe – Silicon Metal and Alloys	France
Grupo FerroAtlántica, S.A.U.	—	100.0	Europe – Manganese and Silicon Metal	Madrid - Spain
Grupo FerroAtlántica de Servicios, S.L.U.	—	100.0	Other segments	Madrid - Spain
Kintuck (France) S.A.S.	—	100.0	Europe – Manganese	France
Kintuck A.S.	—	100.0	Europe – Manganese	Norway
Rocas, Arcillas y Minerales, S.A.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Rebone Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Smelters (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Technology (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	South Africa
Thaba Chueu Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Cuarzos Indus. de Venezuela (Cuarzoven), S.A.	—	100.0	Other segments	Venezuela
Emix, S.A.S.	—	100.0	Other segments	France
Ferroatlántica de México, S.A. de C.V.	—	100.0	Other segments	Nueva León - Mexico
Ferroatlántica de Venezuela (FerroVen), S.A.	—	99.9	Other segments	Venezuela
Ferroatlántica Deutschland, GmbH	—	100.0	Other segments	Germany
Ferroatlántica do Brasil Mineraçao Ltda.	—	70.0	Other segments	Brazil
Ferroglobe Holding Company, LTD	100	100.0	Other segments	United Kingdom
Ferroglobe Finance Company, PLC	—	100.0	Other segments	United Kingdom
FerroManganese Mauritania S.A.R.L.	—	90.0	Other segments	Mauritania
Ferroquartz Holdings, Ltd. (Hong Kong)	—	100.0	Other segments	Hong Kong
FerroQuartz Mauritania S.A.R.L.	—	90.0	Other segments	Mauritania
Ferrosolar OPCO Group S.L.	—	100.0	Other segments	Spain
Ferrosolar R&D S.L.	—	50.0	Other segments	Spain
FerroTambao, S.A.R.L.	—	90.0	Other segments	Burkina Faso
Globe Argentina Holdco, LLC	—	100.0	Other segments	Delaware - USA
Globe Metales S.R.L.	—	100.0	Other segments	Argentina
Globe Specialty Metals, Inc.	100	100.0	Other segments	Delaware - USA
GSM Financial, Inc.	—	100.0	Other segments	Delaware - USA
GSM Netherlands, B.V.	—	100.0	Other segments	Netherlands
Hidroelectricité de Saint Beron, S.A.S.	—	100.0	Other segments	France
Mangshi FerroAtlántica Mining Industry Service Company Limited	—	100.0	Other segments	Mangshi, Dehong -Yunnan -China
Ningxia Yonvey Coal Industrial Co., Ltd.	—	98.0	Other segments	China
Photosil Industries, S.A.S.	—	100.0	Other segments	France
Ferroglobe Innovation, S.L.U	—	100.0	Other segments	Spain
Solsil, Inc.	—	92.4	Other segments	Delaware - USA
Ultracore Energy S.A.	—	100.0	Other segments	Argentina

Subsidiaries are all companies over which Ferroglobe has control.

Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power over the investee to affect the amount of the investor's returns.

The Company has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Company considers all relevant facts and circumstances in assessing whether or not the Company's voting rights in an investee are sufficient to give it power, including:

- the total voting rights held by the Company relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by the Company, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate that the Company has, or does not have, the current ability to direct the relevant activities at the time these decisions need to be made, including voting patterns at previous shareholders' meetings.

Consolidation of a subsidiary begins when the Company obtains control over the subsidiary and ceases when the Company loses control of the subsidiary.

The Company uses the acquisition method to account for the acquisition of subsidiaries. According to this method, the consideration transferred for the acquisition of a subsidiary corresponds to the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Company. The consideration transferred also includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Any contingent consideration transferred by the Company is recognized at fair value at the date of acquisition. Subsequent changes in the fair value of the contingent consideration classified as an asset or a liability are recognized in accordance with IFRS 9 in the income statement. The costs related to the acquisition are recognized as expenses in the years incurred. The identifiable assets acquired and the liabilities and contingent liabilities assumed in a business combination are initially recognized at their fair value at the date of acquisition.

Profit or loss for the period and each component of other comprehensive (loss) income are attributed to the owners of the Company and to the non-controlling interests. The Company attributes total comprehensive (loss) income to the owners of the Company and to the non-controlling interests even if the profit or loss of the non-controlling interests gives rise to a balance receivable.

All assets and liabilities, equity, income, expenses and cash flows relating to transactions between subsidiaries are eliminated in full in consolidation.

3. Basis of presentation and basis of consolidation

3.1 Basis of presentation

These consolidated financial statements have been issued in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and interpretations issued by the International Financial Reporting Interpretations Committee (collectively "IFRS").

The consolidated financial statements have been authorized for issuance on May 1, 2023.

All accounting policies and measurement bases with effect on the consolidated financial statements were applied in their preparation.

The consolidated financial statements were prepared on a historical cost basis, with the exceptions disclosed in the notes to the consolidated financial statements, where applicable, and in those situations where IFRS requires that financial assets and financial liabilities are valued at fair value.

For the year ended December 31, 2022, the Company reported a net profit of$462,414 thousand and for the years ended 2021 and 2020, the Company reported net losses of $115,374 thousand, $249,758 respectively. Our business has historically been subject to fluctuations in the price of the products and market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors.

To support its assessment of the going concern basis of accounting, management has prepared a financial model which considers the revenues, expenditures, cash flows, net tax payments and capital expenditures for a period of at least one year from the date of approval of these financial statements. The financial projections to determine these future cash flows are modelled considering the principal variables that determine the historic flows at a Group level including prices, volumes, costs, capital expenditures and net working capital. These projections are based on the 2023 annual budget and management's five-year financial model. Key assumptions include estimates on sale prices based on the order book and indexes. It has to be considered that sale prices are the variable to which the Company´s cash flows are more sensitive to. Sensitivities have been run, including stressed scenarios with reductions on the base case sale prices for the coming months, to reflect the key risks and uncertainties impacting the cash flow projections.

Ferroglobe's primary short-term liquidity needs are to fund its capital expenditure commitments, fund specific initiatives underlying the strategic plan, service its existing debt, fund working capital and comply with other contractual obligations. Ferroglobe's long-term liquidity needs primarily relate to debt servicing and repayment. Ferroglobe's core objective with respect to capital management is to maintain a balanced and sustainable capital structure through the economic cycles, while keeping the cost of capital at competitive levels. We believe our working capital is sufficient for our present requirements, and we anticipate generating sufficient cash from operations to satisfy our short and long-term liquidity needs.

As a result of all the analysis performed, the Company has concluded that there is no substantial doubt about its ability to continue as a going concern.

3.2 International financial reporting standards

Application of new accounting standards

New and amended standards and interpretations adopted by the Company

No new standards effective on January 1, 2022 have a material impact on the consolidated financial statements. The Company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

New and amended standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for the reporting period ended December 31, 2022 and have not been early adopted by the Company. Standards, interpretations and amendments published by the IASB that will be effective for periods beginning on or after January 1, 2023:

- IFRS 17 Insurance Contracts (issued on 18 May 2017); including Amendments to IFRS 17 (issued on June 2020 and effective from annual period beginning on January 1, 2023)

- Amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current and Classification of Liabilities as Current or Non-current - Deferral of Effective Date (issued on January 2020 and July 2020 respectively and effective from annual period beginning on January 1, 2023)

- Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting policies (issued on February 2021 and effective from annual period beginning on January 1, 2023)

- Amendments to IAS 8 Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates (issued on February 2021 and effective from annual period beginning on January 1, 2023)

- Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction (issued on May 2021 and effective from annual period beginning on January 1, 2023)

- Amendments to initial application of IFRS 17 and IFRS 9: Comparative information (issued on December 2021 and effective from annual period beginning on January 1, 2023)

- Amendments to IFRS 16: Lease Liability in a sale and Leaseback (issued on September 2022 and effective from annual period beginning on January 1, 2024)

- Amendments to IAS 1: Non-current liabilities with Covenants (issued on October 2022 and effective from annual period beginning on January 1, 2024)

The Company is continuously assessing the impact of the application of these standards or interpretations that are not yet effective, and it is not expected that the application of these standards will have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

3.3 Currency

Until September 30, 2021, the Parent's functional currency was the Euro. Due to an occurrence of events and conditions that reduce the number of transactions in euros, and in accordance with International Financial Reporting Standards, management conducted a review of the functional currency of Ferroglobe PLC and they concluded that there has been a change in its functional currency from Euro to U.S. Dollars, effective since October 1, 2021.

Ferroglobe PLC is the parent company of Ferroglobe Group and its main assets and liabilities relate to intercompany transactions. Due to the new group structure, PLC has signed an agreement in which they agreed to convert all intercompany receivables and payables outstanding into US Dollars. Additionally, PLC financing instruments (debt and equity instruments) are U.S. Dollars denominated.

The change in functional currency was implemented prospectively starting October 1, 2021. To give effect to this change, balances of the parent company as of October, 1, 2021 have been translated to USD in accordance with IAS 21 "The effect of changes in foreign exchange rates". The functional currencies of subsidiaries are determined by the primary economic environment in which each subsidiary operates.

The reporting currency of the Company is U.S. Dollars and as such the accompanying results and financial position have been translated pursuant to the provisions indicated in IAS 21.

All differences arising from the aforementioned translation are recognized in equity under "Translation differences."

Upon the disposal of a foreign operation, the translation differences relating to that operation deferred as a separate component of consolidated equity are recognized in the consolidated income statement when the gain or loss on disposal is recognized.

3.4 Responsibility for the information and use of estimates

The information in these consolidated financial statements is the responsibility of Ferroglobe's Management.

Certain assumptions and estimates were made by management in the preparation of these consolidated financial statements, including:

- The impairment analysis on goodwill, see *Note* 7;
- the useful life of property, plant and equipment and intangible assets, see *Note* 4.3;
- the impairment analysis on property, plant and equipment and valuations, determined by value in use or by fair value less cost of disposal methods, see *Note* 9;
- the fair value of financial instruments, see *Note* 29;
- the assumptions used in the actuarial calculation of pension liabilities, see *Note* 15;
- the discount rate used to calculate the present value of certain collection rights and payment obligations, see *Note* 15;
- provisions for contingencies and environmental liabilities, see *Note* 25;
- the net realizable value of inventory, see *Note 11*;
- income taxes, including the recoverability of the deferred tax asset; see *Note 23*;

The Company based its estimates and judgments on historical experience, known or expected trends and other factors that are believed to be reasonable under the circumstances. Actual results may differ materially from these estimates. Changes in accounting estimates are applied in accordance with IAS 8.

At the date of preparation of these consolidated financial statements no events had taken place that might constitute a significant source of uncertainty regarding the accounting effect that such events might have in future reporting periods.

3.5 Critical accounting judgements and key sources of estimation uncertainty

In the application of the Company's accounting policies, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Company's accounting policies

The following are the critical judgements, apart from those involving estimations (which are dealt with separately below), that the directors have made in the process of applying the Company's accounting policies and that have the most significant effect on the amounts recognized in financial statements.

Fair value measurement of financial instruments

Certain of the Company's financial instruments are classified as Level 3 as they include unobservable inputs. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either: in the principal market for the asset or liability; or in the absence of a principal market, in the most advantageous market for the asset or liability.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

For those assets and liabilities measured at fair value at the balance sheet date, further information on fair value measurement is provided in Note 29.

Going concern

As required by the accounting rules, the Company performs an analysis to assess the Company’s ability to continue as a going concern. In this analysis, management makes certain estimates. To assess the liquidity risk the Company has defined a financial model which considers the revenues, expenditures, cash flows, net tax payments, capital expenditures and net working capital requirements. The financial projections to determine future cash flows are modelled considering the principal variables that determine the historic flows at a Group level including prices, volumes, costs, capital expenditures and net working capital. These projections are based on the 2023 annual budget and management’s five-year financial model.

Impairment of long-lived assets

The Company’s evaluation of goodwill and PP&E for impairment involves the comparison of the carrying amounts of assets with their recoverable amount. The determination of the recoverable amount requires significant judgement in developing and applying underlying assumptions concerning future market and conditions (operating costs and working capital requirements) for the periods projected, as well as the determination of an appropriate discount rate and terminal value. The key assumptions used for estimating cash flow projections in the Group’s impairment testing are those relating to discount rate, revenue, operating cost and operating margin. For certain assets, recoverable amount has been determined at fair value less cost of disposal, which determination is subject to significant judgement.

Inventories

Cost of inventories is determined by the average cost method. Inventories are valued at the lower of cost or Net Realizable Value. Circumstances may arise (e.g., reductions in market pricing, obsolete, slow moving or defective inventory) that require the carrying amount of our inventory to be written down to net realizable value. We estimate market and net realizable value based on current and future expected selling prices, as well as expected costs to complete, including utilization of parts and supplies in our manufacturing process. We believe that these estimates are reasonable; however, future market price decreases caused by changing economic conditions, customer demand, or other factors could result in future inventory write-downs that could be material.

Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimating uncertainty at the reporting period that may have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year, are discussed below.

Impairment of assets

The Company reviews the carrying value of assets on a periodic basis, and whenever events or changes in circumstances indicate that the related carrying amounts may not be recoverable.

Such circumstances or events could include: a pattern of losses involving the asset; a decline in the market value for the asset; and an adverse change in the business or market in which the asset is involved. Determining whether an impairment has occurred typically requires various estimates and assumptions, including determining which cash flows are directly related to the potentially impaired asset, the useful life over which cash flows will occur, their amount and the asset's residual value, if any. Estimates of future cash flows and the selection of appropriate discount rates relating to particular assets or groups of assets involve the exercise of a significant amount of judgement.

The key assumptions for the value in use calculation are those regarding the discount rate, growth rate, and cash flows. Cash flow projections are based on the Company's five year internal forecast. Estimates of selling prices and direct costs are based on past experience, expectations of future changes in the market and historic trends. Sensitivities are disclosed in Note 7 of the Consolidated Financial Statements.

3.6 Basis of consolidation

The financial statements of the subsidiaries are fully consolidated with those of the Parent. Accordingly, intercompany balances and transactions, including income, expenses and dividends, are eliminated in the consolidated financial statements. Gains and losses resulting from intercompany transactions are also eliminated.

Non-controlling interests are presented in "Equity – Non-controlling interests" in the consolidated statement of financial position, separately from the consolidated equity attributable to the Parent. The share of non-controlling interests in the profit or loss for the year is presented under "Loss/Profit attributable to non-controlling interests" in the consolidated income statement.

When necessary, adjustments are made to the financial statements of subsidiaries to align the accounting policies used to the accounting policies of the Company.

4. Accounting policies

The principal IFRS accounting policies applied in preparing these consolidated financial statements were in effect at the date of preparation are described below.

4.1 Goodwill

Goodwill arising on consolidation represents the excess of the cost of acquisition over the Company's interest in the fair value of the identifiable assets and liabilities of a subsidiary at the date of acquisition.

On disposal of a subsidiary, the attributable amount of goodwill is included in the determination of the gain or loss on disposal.

4.2 Other intangible assets

Other intangible assets are assets without physical substance which can be individually identified either because they are separable or because they arise as a result of a legal or contractual right or of a legal transaction or were developed by the consolidated companies. Only intangible assets whose value can be measured reliably and from which the Company expects to obtain future economic benefits are recognized in the consolidated statement of financial position.

Intangible assets are recognized initially at acquisition cost. The aforementioned cost is amortized systematically over each asset's useful life. At each reporting date, these assets are measured at acquisition cost less accumulated amortization and any accumulated impairment losses, if any. The Company reviews amortization periods and amortization methods for finite-lived intangible assets at the end of each fiscal year.

The Company's main intangible assets are as follows:

Development expenditures

Development expenditures are capitalized if they meet the requirements of identifiability, reliability in cost measurement and high probability that the assets created will generate economic benefits. Developmental expenditures are amortized on a straight-line basis over the useful lives of the assets, which are between four and ten years.

Expenditures on research activities are recognized as expenses in the years in which they are incurred.

Power supply agreements

Power supply agreements at rates below market acquired in business combinations are amortized on a straight-line basis over the term in which the agreement is effective.

Rights of use

Rights of use granted are amortized on a straight-line basis over the term in which the right of use was granted from the date it is considered that use commenced. Rights of use are generally amortized over a period ranging from 10 to 20 years.

Computer software

Computer software includes the costs incurred in acquiring or developing computer software, including the related installation. Computer software is amortized on a straight-line basis over two to five years.

Computer system maintenance costs are recognized as expenses in the years in which they are incurred.

Other intangible assets

Other intangible assets include:

- Supply agreements which are amortized in accordance with their estimated useful lives (see*Note* 8).
- CO_2 emissions allowances ("rights held emit greenhouse gasses") which are not amortized, but rather are expensed when used (see *Note* 4.22).

4.3 Property, plant and equipment

Cost

Property, plant and equipment for our own use are initially recognized at acquisition or production cost and are subsequently measured at acquisition or production cost less accumulated depreciation and any accumulated impairment losses.

When the construction and start-up of non-current assets require a substantial period of time, the borrowing costs incurred over that period are capitalized. In 2022, 2021 and 2020 no material borrowing cost were capitalized.

The costs of expansion, modernization or improvements leading to increased productivity, capacity or efficiency or to a lengthening of the useful lives of the assets are capitalized. Repair, upkeep and maintenance expenses are recognized in the consolidated income statement for the year in which they are incurred.

Mineral reserves are recorded at fair value at the date of acquisition. Depletion of mineral reserves is computed using the units-of-production method utilizing only proven and probable reserves (as adjusted for recoverability factors) in the depletion base.

Property, plant and equipment in the course of construction are transferred to property, plant and equipment in use at the end of the related development period.

Depreciation

The Company depreciates property, plant and equipment using the straight-line method at annual rates based on the following years of estimated useful life:

	Years of Estimated Useful Life
Properties for own use	25-50
Plant and machinery	8-20
Tools	12.5-15
Furniture and fixtures	10-15
Computer hardware	4-8
Transport equipment	10-15

Land included within property, plant and equipment is considered to be an asset with an indefinite useful life and, as such, is not depreciated, but rather it is tested for impairment annually. The Company reviews residual value, useful lives, and the depreciation method for property, plant and equipment annually.

Environment

The costs arising from the activities aimed at protecting and improving the environment are accounted for as an expense for the year in which they are incurred. When they represent additions to property, plant and equipment aimed at minimizing the environmental impact and protecting and enhancing the environment, they are capitalized to non-current assets.

4.4 Impairment of property, plant and equipment, intangible assets, right-of-use assets and goodwill

In order to ascertain whether its assets have become impaired, the Company compares their carrying amount with their recoverable amount; goodwill - the CGUs are tested for impairment annually, and whenever there is an indication of impairment and property, plant and equipment. Where the asset itself does not generate cash flows

that are independent from other assets, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of:

- Fair value less costs of disposal: the price that would be agreed upon by two independent parties, less estimated costs to sell, and
- Value in use: the present value of the future cash flows that are expected to be derived from continuing use of the asset and from its ultimate disposal at the end of its useful life, discounted at a rate which reflects the time value of money and the risks specific to the business to which the asset belongs.

If the recoverable amount of an asset (or cash-generating unit) is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized as an expense under "Impairment losses" in the consolidated income statement.

Where an impairment loss subsequently reverses (not permitted in the case of goodwill), the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years. A reversal of an impairment loss is recognized as "Impairment (loss)/gain" in the consolidated income statement.

The basis for depreciation is the carrying amount of the assets, deemed to be the acquisition cost less any accumulated impairment losses.

4.5 Financial instruments

Financial assets and financial liabilities are recognized in the Company's statement of financial position when the Company becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial assets

The Company classifies its financial assets into the following categories: those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss) and those to be measured at amortized cost. The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows.

Financial assets measured at amortized cost

Financial assets are classified as measured at amortized cost when they are held in a business model whose objective is to collect contractual cash flows and the contractual terms of the financial asset give rise on specific dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Such assets are carried at amortized cost using the effective interest method if the time value of money is significant. Gains and losses are recognized in profit or loss when the assets are derecognized or impaired and when interest is recognized using the effective interest method. This category of financial assets includes trade receivables, receivables from related parties and cash and cash equivalents.

Financial assets measured at fair value through other comprehensive income

Debt instruments are classified as measured at fair value through other comprehensive income when they are held in a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets, and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. All movements in the fair value of these financial assets are taken through other comprehensive income, except for the recognition of impairment gains or losses, interest income calculated using the effective interest method and foreign exchange gains and losses. When the financial asset is derecognized, the cumulative fair value gain or loss previously recognized in other comprehensive income is reclassified to the income statement.

Equity instruments are classified as measured at fair value through other comprehensive income if, on initial recognition, the Company makes an irrevocable election to designate the instrument as at fair value through other comprehensive income. The election is made on an instrument-by-instrument basis and is not permitted if the equity investment is held for trading. Fair value gains or losses on revaluation of such equity investments are recognized in other comprehensive income and accumulated in the valuation adjustments reserve. When the equity investment is derecognized, there is no reclassification of fair value gains or losses previously recognized in other comprehensive income to the income statement. Dividends are recognized in the income statement when the right to receive payment is established.

Financial assets measured at fair value through profit or loss.

Financial assets are classified as measured at fair value through profit or loss when the asset does not meet the criteria to be measured at amortized cost or at fair value through other comprehensive income. Such assets are carried on the balance sheet at fair value with gains or losses recognized in the income statement.

Derecognition of financial assets

The Company derecognizes a financial asset when:
- the rights to receive cash flows from the asset have expired; or
- the Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a ‘pass-through’ arrangement; and either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

On derecognition of a financial asset in its entirety, the difference between the asset’s carrying amount and the sum of the consideration received and receivable is recognized in profit or loss.

If the Company retains substantially all of the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

Impairment of financial assets

The expected credit loss model is applied for recognition and measurement of impairments in financial assets measured at amortized cost and debt instruments held at fair value through other comprehensive income. The loss allowance for the financial asset is measured at an amount equal to the 12-month expected credit losses. If the credit risk on the financial asset has increased significantly since initial recognition, the loss allowance for the financial asset is measured at an amount equal to the lifetime expected credit losses. Changes in loss allowances are recognized in profit and loss. For trade receivables, a simplified impairment approach is applied recognizing expected lifetime losses from initial recognition. For this purpose, the Company has established a provision matrix

that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Company writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Company's recovery procedures, considering legal advice where appropriate. Any recoveries made are recognized in profit or loss.

Financial liabilities

The subsequent measurement of financial liabilities depends on their classification, as described below:

Financial liabilities measured at fair value through profit or loss

Financial liabilities that meet the definition of held for trading are classified as measured at fair value through profit or loss. Such liabilities are carried on the balance sheet at fair value with gains or losses recognized in the income statement. This category includes contingent consideration and derivatives, other than those designated as hedging instruments in an effective hedge.

Financial liabilities measured at amortized cost

This is the category most relevant to the Company and comprises all other financial liabilities, including bank borrowings, debt instruments, financial loans from government agencies, payables to related parties and trade and other payables.

After initial recognition, other financial liabilities are subsequently measured at amortized cost using the effective interest method. Amortized cost is calculated by considering any issue costs and any discount or premium on settlement.

Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, the Company's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss. When the Company exchanges with the existing lender one debt instrument into another one with substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Company accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective rate is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between the carrying amount of the liability before the modification and the present value of the cash flows after modification are recognized in profit or loss as a modification gain or loss.

4.6 Derivative financial instruments and hedging activities

In order to mitigate the economic effects of exchange rate and interest rate fluctuations to which it is exposed as a result of its business activities, the Company uses derivative financial instruments, such as cross currency swaps and interest rate swaps.

The Company's derivative financial instruments are set out in Note 19 to these consolidated financial statements and the Company's financial risk management policies are set out in Note 28.

Derivatives are initially recognized at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each balance sheet date. The resulting gain or loss is recognized in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition of profit or loss depends on the nature of the hedge relationship. The gain or loss recognized in respect of derivatives that are not designated and effective as a hedging instrument is recognized in the consolidated income statement in the line item financial derivative gain (loss).

A derivative with a positive fair value is recognized as a financial asset within the line item other financial assets whereas a derivative with a negative fair value is recognized as a financial liability within the line item other financial liabilities. A derivative is presented as a non-current asset or non-current liability if the remaining maturity of the instrument is more than 12 months and it is not expected to be realized or settled within 12 months.

Hedge accounting

The Company designates certain derivatives as cash flow hedges. For further details, see*Note* 19 of the consolidated financial statements.

At the inception of the hedge relationship, the Company documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking the hedge transaction. Furthermore, at the inception of the hedge and on an ongoing basis, the Company documents whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to any ineffective portion is recognized immediately in profit or loss and is included in the financial derivative gain (loss) line item.

Amounts previously recognized in other comprehensive income and accumulated in equity in the valuation adjustments reserve are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the income statement as the recognized hedged item.

Hedge accounting is discontinued when the Company revokes the hedging relationship, the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. Any gain or loss recognized in other comprehensive income at that time is accumulated in equity and is recognized when the forecast transaction is ultimately recognized in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

4.7 Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either: in the principal market for the asset or liability; or in the absence of a principal market, in the most advantageous market for the asset or liability.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

The Company uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 — Quoted (unadjusted) market prices in active markets for identical assets or liabilities.
- Level 2 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
- Level 3 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For those assets and liabilities measured at fair value at the balance sheet date, further information on fair value measurement is provided in Note 29.

4.8 Inventories

Inventories comprise assets (goods) which:

- Are held for sale in the ordinary course of business (finished goods); or
- Are in the process of production for such sale (work in progress); or
- Will be consumed in the production process or in the rendering of services (raw materials and spare parts).

Inventories are stated at the lower of acquisition or production cost and net realizable value. The cost of each inventory item is generally calculated as follows:

- Raw materials, spare parts and other consumables and replacement parts: the lower of weighted average acquisition cost and net realizable value.
- Work in progress, finished goods and semi-finished goods: the lower of production cost (which includes the cost of materials, labor costs, direct and indirect manufacturing expenses) or net realizable value in the market.

Obsolete, defective or slow-moving inventories have been reduced to net realizable value.

Net realizable value is the estimated selling price less all the estimated costs of selling and distribution.

The amount of any write-down of inventories (as a result of damage, obsolescence or decrease in the selling price) to their net realizable value and all losses of inventories are recognized as expenses in the year in which the write-down or loss occurs. Any subsequent reversals are recognized as income in the year in which they arise.

The consumption of inventories is recognized as an expense in “Raw Materials and energy consumption for production” in the consolidated income statement in the period in which the revenue from their sale is recognized.

4.9 Raw materials and energy consumption for production

Raw materials and energy consumption for production comprise raw materials, energy, other direct costs, inventory write-downs and changes in inventory.

4.10 Cash and cash equivalents

The Company classifies under "Cash and cash equivalents" any liquid financial assets, such as for example cash on hand and at banks, deposits and liquid investments, that can be converted into known amounts of cash within three months and are subject to an insignificant risk of changes in value.

4.11 Restricted cash and cash equivalents

The Company classifies under "restricted cash and cash equivalents" any liquid financial assets, which meet the definition of cash and cash equivalents but the use or withdrawal is restricted by financial agreements.

Restrictions may include legally restricted deposits held as compensating balances against short-term borrowing arrangements and/or contracts entered into with others; however, time deposits and short-term certificates of deposit are not included in legally restricted deposits. In cases where compensating balance arrangements exist but are not agreements which legally restrict the use of cash amounts shown on the balance sheet, those arrangements and the amount involved are disclosed in the notes. Compensating balances that are maintained under an agreement to assure future credit availability are also disclosed in the notes.

As discussed in Note 31, certain of the Company´s credit agreements restrict the transfer of assets in the form of loans or dividends to other affiliates. The amount of cash and cash equivalents in subsidiaries subject to such restrictions amounted to $253,085 as of December 31, 2022, and is not presented as Restricted cash and equivalents in the balance sheet because it can be withdrawn or used except for transfers to affiliates.

4.12 Provisions and contingencies

When preparing the consolidated financial statements, the Parent's directors made a distinction between:

- Provisions: present obligations, either legal, contractual, constructive or assumed by the Company, arising from past events, the settlement of which is expected to give rise to an outflow of economic benefits the amount or timing of which are uncertain; and

- Contingent liabilities: possible obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more future events not wholly within the control of the Company, or present obligations arising from past events the amount of which cannot be estimated reliably or whose settlement is not likely to give rise to an outflow of economic benefits.

- Contingent assets: possible assets that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

The consolidated financial statements include all the material provisions with respect to which it is considered that it is probable that the obligation will have to be settled. Contingent liabilities are not recognized in the consolidated financial statements, but rather are disclosed, as required by IAS 37 (see *Note* 25).

Provisions are classified as current or non-current based on the estimated period of time in which the obligations covered by them will have to be met. They are recognized when the liability or obligation giving rise to the indemnity or payment arises, to the extent that its amount can be estimated reliably.

"Provisions" includes the provisions for pension and similar obligations assumed; provisions for contingencies and charges, such as for example those of an environmental nature and those arising from litigation in progress or from outstanding indemnity payments or obligations, and collateral and other similar guarantees provided by the Company; and provisions for medium- and long- term employee incentives.

Contingent assets are not recognized, but are disclosed where an inflow of economic benefits is probable. If it has become virtually certain that an inflow of economic benefits will arise, the asset and the related income are recognized in the financial statements in the period in which the change occurs.

Defined contribution plans

Certain employees have defined contribution plans which conform to the Spanish Pension Plans and Funds Law. The main features of these plans are as follows:

- They are mixed plans covering the benefits for retirement, disability and death of the participants.
- The sponsor undertakes to make monthly contributions of certain percentages of current employees' salaries to external pension funds.

The annual cost of these plans is recognized under Staff costs in the consolidated income statement.

Defined benefit plans

IAS 19, Employee Benefits requires defined benefit plans to be accounted for:

- Using actuarial techniques to make a reliable estimate of the amount of benefits that employees have earned in return for their service in the current and prior periods.
- Discounting those benefits in order to determine the present value of the obligation.
- Determining the fair value of any plan assets.
- Determining the total amount of actuarial gains and losses and the amount of those actuarial gains and losses that must be recognized.

The amount recognized as a benefit liability arising from a defined benefit plan is the total net sum of:

- The present value of the obligations.
- Minus the fair value of plan assets (if any) out of which the obligations are to be settled directly.

The Company recognizes provisions for these benefits as the related rights vest and on the basis of actuarial studies. These amounts are recognized under "Provisions" in the consolidated statement of financial position, on the basis of their expected due payment dates.

Environmental provisions

Provisions for environmental obligations are estimated by analyzing each case separately and observing the relevant legal provisions. The best possible estimate is made on the basis of the information available and a provision is recognized provided that the aforementioned information suggests that it is probable that the loss or expense will arise and it can be estimated in a sufficiently reliable manner.

The balance of provisions and disclosures disclosed in Notes 15 and 24 reflects management's best estimation of the potential exposure as of the date of preparation of these financial statements.

4.13 Leases

The Company assesses if a contract is or contains a lease at inception of the contract. A contract is or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company recognizes a right-of-use asset and a lease liability at the commencement date.

The lease liability is initially measured at the present value of the minimum future lease payments, discounted using the interest rate implicit in the lease, or, if not readily determinable, the incremental borrowing rate. Lease payments include fixed payments, variable payments that depend on an index or rate, as well as any extension or purchase options, if the Company is reasonably certain to exercise these options. The lease liability is subsequently measured at amortized cost using the effective interest method and remeasured with a corresponding adjustment to the related right-of-use asset when there is a change in future lease payments.

The right-of-use asset comprises, at inception, the initial lease liability, any initial direct costs and, when applicable, the obligations to refurbish the asset, less any incentives granted by the lessors. The right-of-use asset is subsequently depreciated, on a straight-line basis, over the lease term or, if the lease transfers the ownership of the underlying asset to the Company at the end of the lease term or, if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option, over the estimated useful life of the underlying asset. Right-of-use assets are also subject to testing for impairment if there is an indicator for impairment.

Variable lease payments not included in the measurement of the lease liabilities are expensed to the consolidated income statement in the period in which the events or conditions which trigger those payments occur.

In the statement of financial position, right-of-use assets and lease liabilities are classified, respectively, as part of property, plant and equipment and current and non-current lease liabilities.

4.14 Current assets and liabilities

In general, assets and liabilities are classified as current or non-current based on the Company's operating cycle. However, in view of the diverse nature of the activities carried on by the Company, in which the duration of the operating cycle differs from one activity to the next, in general assets and liabilities expected to be settled or fall due within twelve months from the end of the reporting period are classified as current items and those which fall due or will be settled within more than twelve months are classified as non-current items.

4.15 Income taxes

Income tax expense represents the sum of current tax and deferred tax. Income tax is recognized in the income statement except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case the related tax is recognized in other comprehensive income or directly in equity.

The current income tax expense is based on domestic and international statutory income tax rates in the tax jurisdictions where the Company operates related to taxable profit for the period. The taxable profit differs from net profit as reported in the income statement because it is determined in accordance with the rules established by the applicable tax authorities which includes temporary differences, permanent differences, and available credits and incentives.

The Company's deferred tax assets and liabilities are provided on temporary differences at the balance sheet date between financial reporting and the tax basis of assets and liabilities, then applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. Deferred tax assets are recognized for deductible temporary differences, carry-forward of unused tax credits and losses, to the extent that it is probable, that taxable profit will be available against which the deductible temporary difference and carryforwards of

unused tax credits and losses can be utilized. The deferred tax assets and liabilities that have been recognized are reassessed at the end of each closing period in order to ascertain whether they still exist, and adjustments are made on the basis of the findings of the analyses performed.

Income tax payable is the result of applying the relevant tax rate in force to each tax-paying entity, in accordance with the tax laws in force in the country in which the entity is registered. Additionally, tax deductions and credits are available to certain entities, primarily relating to inter-company trades and tax treaties between various countries to prevent double taxation.

Income tax expense is recognized in the consolidated income statement, except to the extent that it arises from a transaction which is recognized directly to "consolidated equity", in which case the tax is recognized directly to "consolidated equity."

Deferred tax assets and liabilities are offset only when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority or either the same taxable entity or different taxable entities where there is an intention to settle the current tax assets and liabilities on a net basis or to realize the assets and settle the liabilities simultaneously.

4.16 Foreign currency transactions

Foreign currency transactions are initially recognized in the functional currency of the subsidiary by applying the exchange rates prevailing at the date of the transaction.

Subsequently, at each reporting date, monetary assets and liabilities denominated in foreign currencies are translated to dollars at the rates prevailing on that date.

Any exchange differences arising on settlement or translation at the closing rates of monetary items are recognized in the consolidated income statement for the year.

Note 4.6 details the Company's accounting policies for derivative financial instruments. Also, Note 28 to these consolidated financial statements details the financial risk policies of Ferroglobe.

4.17 Revenue recognition

The Company recognizes sales revenue related to the transfer of promised goods or services when control of the goods or services passes to the customer. The amount of revenue recognized reflects the consideration to which the Company is or expects to be entitled in exchange for those goods or services.

In the Company's electrometallurgy business, revenue is principally generated from the sale of goods, including silicon metal and silicon- and manganese-based specialty alloys. The Company mainly satisfies its performance obligations at a point in time; the amounts of revenue recognized relating to performance obligations satisfied over time are not significant. The point in time at which control is transferred to the buyer is determined based on the agreed delivery terms, which follow Incoterms 2022 issued by International Chamber of Commerce.

In most instances, control passes and sales revenue is recognized when the product is delivered to the vessel or vehicle on which it will be transported, the destination port or the customer's premises. There may be circumstances when judgment is required based on the five indicators of control below.

- The customer has the significant risks and rewards of ownership and has the ability to direct the use of, and obtain substantially all of the remaining benefits from, the goods or service.

- The customer has a present obligation to pay in accordance with the terms of the sales contract.

- The customer has accepted the asset. Sales revenue may be subject to adjustment if the product specification does not conform to the terms specified in the sales contract, but this does not impact the passing of control. Specification adjustments have been immaterial historically.

- The customer has legal title to the asset. The Company may retain legal title until payment is received but this is for credit risk purposes only.

- The customer has physical possession of the asset. This indicator may be less important as the customer may obtain control of an asset prior to obtaining physical possession, which may be the case for goods in transit.

Where the Company sells on 'C' terms (e.g., CIF, CIP, CFR and CPT), the Company is responsible (acts as principal) for providing shipping services and, in some instances, insurance after the date at which control of goods passes to the customer at the loading point. The Company therefore has separate performance obligations for freight and insurance services that are provided solely to facilitate sale of the commodities it produces. Revenue attributable to freight and insurance services is not usually material.

Where the Company sells on 'D' terms (e.g., DDP, DAP and DAT), the Company arranges and pays for the carriage and retains the risk of the goods until delivery at an agreed destination, where ownership and control is transferred.

Where the Company sells on 'F' terms (e.g., FCA and FOB), the customer arranges and pays for the main transportation. Risk and control are transferred to the customer when the goods are handed to the carrier engaged by the customer.

The Company's products are sold to customers under contracts which vary in tenure and pricing mechanisms. The majority of pricing terms are either fixed or index-based for monthly, quarterly or annual periods, with a smaller proportion of volumes being sold on the spot market.

Within each sales contract, each unit of product shipped is a separate performance obligation. Revenue is generally recognized at the contracted price as this reflects the stand-alone selling price. Sales revenue excludes any applicable sales taxes.

Physical exchanges with counterparties in the same line of business in order to facilitate sales to customers are reported net, as are sales and purchases made with a common counterparty, as part of an arrangement similar to a physical exchange.

Revenue from the energy business is based on the power generated and put on the market at regulated prices and is recognized when the energy produced is transferred to the power network.

Interest income is recognized as the interest accrues using the effective interest rate, the rate that exactly discounts estimated future cash receipts through the expected life of the financial instrument to the net carrying amount of the financial asset.

Dividend income from investments is recognized when the shareholders' right to receive the payment is established.

4.18 Expense recognition

Expenses are recognized on an accrual basis, i.e. when the actual flow of the related goods and services occurs, regardless of when the resulting monetary or financial flow arises.

An expense is recognized in the consolidated income statement when there is a decrease in the future economic benefits related to a reduction of an asset, or an increase in a liability, which can be measured reliably. This means

that an expense is recognized simultaneously with the recognition of the increase in a liability or the reduction of an asset. Additionally, an expense is recognized immediately in the consolidated income statement when a disbursement does not give rise to future economic benefits or when the requirements for recognition as an asset are not met. Also, an expense is recognized when a liability is incurred and no asset is recognized, as in the case of a liability relating to a guarantee.

4.19 Grants

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as income on a systematic basis over the periods that the related costs, for which it is intended to compensate, are expensed. When the grant relates to an asset, it is recognized as income in equal amounts over the expected useful life of the related asset.

4.20 Termination benefits

Under current labour legislation, the Company is required to pay termination benefits to employees whose employment relationship is terminated under certain conditions. The cost of providing employee benefits is recognized in the period in which the benefit is earned by the employee, rather than when it is paid or payable.

4.21 CO2 emission allowances

The Company recognizes emission rights (allowances) received, whether allocated by government or purchased, as intangible assets. The intangible asset recognized is initially measured at fair value, being the consideration paid (if purchased on the open market) or the current market value (if granted for less than fair value).

When allowances are granted for less than fair value, the difference between the fair value and the nominal amount paid is recognized as a government grant. The grant is initially recognized as deferred income in the statement of financial position and subsequently recognized as “other operating income” on a systematic basis on the proportion of the CO2 emitted over total CO2 expected to be emitted for the compliance period. In the case that a better estimate of the expected CO2 emissions for the compliance period is available, the deferred income to be recognized in the statement of financial position is adjusted prospectively.

As the Company emits CO2, it recognizes a provision for its obligation to deliver the CO2 allowances at the end of the compliance period. The provision is remeasured and recorded as an expense at the end of each reporting period at historical cost for the emission rights (allowances) received and at acquisition cost for the CO2 purchased and at fair value for the CO2 pending to be purchased.

Intangible assets recognized for emissions allowances are not amortized and remain valued at historical cost until either sold or surrendered in satisfaction of the Company’s obligation to deliver the allowances to the relevant authority.

Sale of emission rights

In those cases that it is decided to sell some or even all of its rights in the expectation of later buying rights equal to its actual emissions, the accounting will be as follows.

The emission rights sold would be derecognized from the balance sheet against the cash received. In those cases, where the price per emission right is different to the fair value per emission right at the time they were granted, a gain or a loss on the disposal of assets will be recognized. The deferred income originally recognized for the free emission rights granted at the beginning of the compliance period that still remain in the balance sheet at the time of sale, will continue to be amortized over the remaining compliance period.

4.22 Share-based compensation

The Company recognizes share-based compensation expense based on the estimated grant date fair value of share-based awards using a Black-Scholes option pricing model. Prior to vesting, cumulative compensation cost equals the proportionate amount of the award earned to date. The Company has elected to treat each award as a single award and recognize compensation cost on a straight-line basis over the requisite service period of the entire award. If the terms of an award are modified in a manner that affects both the fair value and vesting of the award, the total amount of remaining unrecognized compensation cost (based on the grant-date fair value) and the incremental fair value of the modified award are recognized over the amended vesting period.

4.23 Assets and disposal groups classified as held for sale, liabilities associated with assets held for sale and discontinued operations

Assets and disposal groups classified as held for sale include the carrying amount of individual items, disposal groups or items forming part of a business unit earmarked for disposal (discontinued operations), whose sale in their present condition is highly likely to be completed within one year from the reporting date. Therefore, the carrying amount of these items, which may or may not be of a financial nature, will likely be recovered through the proceeds from their disposal.

Liabilities associated with non-current assets held for sale include the balances payable arising from the assets held for sale or disposal groups and from discontinued operations.

Assets and disposal groups classified as held for sale are measured at the lower of fair value less costs to sell and their carrying amount at the date of classification in this category. Non-Current assets held for sale are not depreciated as long as they remain in this category.

4.24 Consolidated statement of cash flows

The following terms are used in the consolidated statement of cash flows, prepared using the indirect method, with the meanings specified as follows:

1. Cash flows: inflows and outflows of cash and cash equivalents, which are short-term, highly liquid investments that are subject to an insignificant risk of changes in value.

2. Operating activities: activities constituting the object of the subsidiaries forming part of the consolidated Company and other activities that are not investing or financing activities.

3. Investing activities: the acquisition and disposal of long-term assets and other investments not included in cash and cash equivalents.

4. Financing activities: activities that result in changes in the size and composition of the equity and borrowings of the Company that are not operating or investing activities. Interest payments and principal payments are presented separately.

5. Business Combinations

Business combinations are accounted for using the acquisition method. The identifiable assets acquired and liabilities assumed are recognized at their fair values at the acquisition date. Acquisition costs are recognized in profit or loss as incurred.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred, the amount recognized for any non-controlling interest and the acquisition-date fair values of any previously held interest in the acquiree over the fair value of the identifiable assets acquired and liabilities assumed at the acquisition date. If, after reassessment, the net of the acquisition date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the excess is recognized immediately in profit or loss as a bargain purchase gain.

When the consideration transferred by the Company in a business combination includes an asset or liability resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination.

Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates at fair value with the corresponding gain or loss being recognized in profit or loss. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

Ferroglobe has not recorded any business combination in 2022 and 2021.

6. Segment reporting

Operating segments are based upon the Company's management reporting structure. During 2022, the Company has revised its operating segments to reflect the way its Chief Operating Decision Maker ("CODM") is currently managing the business. Our revised organizational structure includes the following ten operating segments:

- Canada – Silicon Metals
- Canada – Silicon Alloys
- US – Silicon Metals
- US - Silicon Alloys
- Europe – Manganese Alloys
- Europe – Silicon Metals
- Europe - Silicon Alloys
- South Africa – Silicon Metals
- South Africa – Silicon Alloys; and
- Other segments

The operating segments described above are those components whose operating results are regularly reviewed by the entity's Chief Operating Decision Maker to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available. This is due to the integrated operations within each region and product family and the ability to reallocate production based on the individual capacity of each plant. Additionally, economic factors that may impact our results of operations, such as currency fluctuations and energy costs, are also assessed at a region and product level.

The Company's North America- Silicon Metal and North America – Silicon Alloys reportable segments are the result of the aggregation of the operating segments of the United States and Canada Silicon Metals and the operating segments of the United States and Canada Silicon Alloys. These operating segments have been aggregated as they have similar long-term economic characteristics and there is similarity of competitive and operating risks and the political environment in the United States and Canada. The Europe-Silicon Metals, the Europe-Silicon Alloys, the Europe -Manganese, the South Africa – Silicon Metals and South Africa – Silicon Alloys reportable segments are equal to each related Operating segment.

All other segments that do not meet the quantitative threshold for separate reporting have been grouped as "Other segments", mainly includes holding entities in United Kingdom and subsidiary OPCO in Spain.

The consolidated income statements as of December 31, 2022, 2021 and 2020, by reportable segment, are as follows:

	2022									
	North America Silicon Metal US$'000	North America Silicon Alloys US$'000	Europe Manganese US$'000	Europe Silicon Metal US$'000	Europe Silicon Alloys US$'000	South Africa Silicon Metal US$'000	South Africa Silicon Alloys US$'000	Other segments US$'000	Adjustments/ Eliminations (**) US$'000	Total US$'000
Sales	671,290	339,414	701,140	536,753	259,419	17,337	122,262	81,560	(131,259)	**2,597,916**
Raw materials and energy consumption for production	(305,545)	(68,490)	(541,034)	(241,936)	(139,687)	(9,270)	(65,373)	(46,759)	133,008	**(1,285,086)**
Other operating income	6,464	122	42,882	76,255	23,622	156	66	59,840	(62,051)	**147,356**
Staff costs	(61,378)	(41,923)	(28,996)	(81,175)	(50,467)	(1,736)	(11,652)	(37,483)	—	**(314,810)**
Other operating expense	(33,708)	(37,859)	(111,741)	(99,513)	(33,265)	(2,649)	(13,193)	(74,626)	60,302	**(346,252)**
Depreciation and amortization charges, operating allowances and write-downs	(33,708)	(15,135)	(13,005)	(4,605)	(8,086)	(748)	(5,278)	(994)	—	**(81,559)**
Impairment (loss) gain	—	—	(33,222)	—	(26,028)	5,357	2,408	(5,514)	—	**(56,999)**
Net gain due to changes in the value of assets	—	—	—	—	—	—	—	349	—	**349**
(Loss) gain on disposal of non-current assets	(522)	(126)	(189)	230	82	—	—	66	—	**(459)**
Other (loss)	—	—	11	—	—	—	—	80	—	**91**
Operating Profit	**242,893**	**176,003**	**15,846**	**186,009**	**25,590**	**8,447**	**29,240**	**(23,481)**	**—**	**660,547**

(**) The amounts correspond to transactions between segments that are eliminated in the consolidation process.

	2021(*)									
	North America Silicon Metal US$'000	North America Silicon Alloys US$'000	Europe Manganese US$'000	Europe Silicon Metal US$'000	Europe Silicon Alloys US$'000	South Africa Silicon Metal US$'000	South Africa Silicon Alloys US$'000	Other segments US$'000	Adjustments/ Eliminations (**) US$'000	Total US$'000
Sales	370,109	154,699	476,287	437,533	227,804	12,604	104,591	43,568	(48,287)	**1,778,908**
Raw materials and energy consumption for production	(265,653)	(57,663)	(326,257)	(303,811)	(170,073)	(8,240)	(68,377)	(33,445)	48,623	**(1,184,896)**
Other operating income	5,089	296	34,142	48,828	16,924	278	485	49,901	(45,858)	**110,085**
Staff costs	(51,163)	(31,300)	(33,696)	(77,608)	(42,679)	(1,542)	(11,726)	(31,203)	—	**(280,917)**
Other operating expense	(22,222)	(20,848)	(105,290)	(105,712)	(23,043)	(1,904)	(11,352)	(51,960)	45,522	**(296,809)**
Depreciation and amortization charges, operating allowances and write-downs	(40,489)	(15,281)	(18,634)	(7,330)	(9,522)	(546)	(4,535)	(991)	—	**(97,328)**
Impairment (loss) gain	—	—	(376)	14	(455)	288	2,396	(1,730)	—	**137**
Net gain due to changes in the value of assets	—	—	—	—	—	—	—	758	—	**758**
(Loss) gain on disposal of non-current assets	(347)	741	—	733	296	—	—	(37)	—	**1,386**
Other (loss)	—	—	—	—	—	—	—	—	—	**—**
Operating (loss) profit	**(4,676)**	**30,644**	**26,176**	**(7,353)**	**(749)**	**938**	**11,482**	**(25,076)**	**—**	**31,386**

(*) Our operating segments have been revised in 2022 to reflect the way its chief operating decision maker ("CODM") is currently managing and viewing the business. Accordingly, the results of 2021 and 2020 have been restated to report results according to the operating segments revised in 2022.
(**) The amounts correspond to transactions between segments that are eliminated in the consolidation process.

	2020(*)									
	North America Silicon Metal US$'000	North America Silicon Alloys US$'000	Europe Manganese US$'000	Europe Silicon Metal US$'000	Europe Silicon Alloys US$'000	South Africa Silicon Metal US$'000	South Africa Silicon Alloys US$'000	Other segments US$'000	Adjustments/ Eliminations (**) US$'000	Total US$'000
Sales	289,485	135,792	240,142	321,632	146,096	17,631	62,941	25,334	(94,619)	**1,144,434**
Raw materials and energy consumption for production	(205,260)	(75,597)	(204,063)	(255,798)	(113,332)	(12,267)	(43,796)	(19,518)	94,145	**(835,486)**
Other operating income	2,804	113	9,199	19,971	5,078	127	3	24,587	(28,255)	**33,627**
Staff costs	(48,219)	(25,769)	(28,337)	(52,236)	(32,064)	(2,497)	(8,516)	(17,144)	—	**(214,782)**
Other operating expense	(18,990)	(15,325)	(33,884)	(35,415)	(16,397)	(3,515)	(10,583)	(26,679)	28,729	**(132,059)**
Depreciation and amortization charges, operating allowances and write-downs	(48,691)	(12,973)	(19,086)	(8,900)	(10,352)	(1,563)	(5,578)	(1,046)	—	**(108,189)**
Impairment (loss) gain	(26,861)	(8,824)	305	—	(17,942)	(1,899)	(6,777)	(11,346)	—	**(73,344)**
Net gain due to changes in the value of assets	—	—	—	—	—	—	—	158	—	**158**
(Loss) gain on disposal of non-current assets	(641)	(227)	1,154	682	319	—	—	5	—	**1,292**
Other (loss) gain	—	—	4	—	—	—	—	(5)	—	**(1)**
Operating (loss)	**(56,373)**	**(2,810)**	**(34,566)**	**(10,064)**	**(38,594)**	**(3,983)**	**(12,306)**	**(25,654)**	**—**	**(184,350)**

(*) Our operating segments have been revised in 2022 to reflect the way its chief operating decision maker ("CODM") is currently managing and viewing the business. Accordingly, the results of 2021 and 2020 have been restated to report results according to the operating segments revised in 2022.
(**) The amounts correspond to transactions between segments that are eliminated in the consolidation process.

Other disclosures

Sales by product line

Sales by product line are as follows:

	2022 US$'000	2021 US$'000	2020 US$'000
Silicon metal	1,116,193	637,695	463,217
Manganese-based alloys	525,483	469,138	267,469
Ferrosilicon	561,539	337,833	176,447
Other silicon-based alloys	192,409	161,750	126,817
Silica fume	32,290	32,409	25,888
Other	170,002	140,083	84,596
Total	**2,597,916**	**1,778,908**	**1,144,434**

Information about major customers

Total sales of $1,322,724 thousand, $870,039 thousand, and $580,570 thousand were attributable to the Company's top ten customers in 2022, 2021, and 2020 respectively. During 2022, 2021, and, 2020 sales corresponding to Dow Silicones Corporation represented 16.8%, 12.2% and 13.2%, respectively of the Company's sales. Sales to Dow Silicones Corporation are included partially in the North America – Silicon Metal segment and partially in the Europe - Silicon Metal segment.

Non current assets by geographical area

The non-current assets by geographical area are as follows:

	Year ended December 31,	
	2022 US$´000	2021 US$´000
United States of America	231,565	230,356
Europe		
Spain	109,759	146,405
France	133,684	138,842
Other EU Countries	55,835	71,612
Total non-current assets in Europe	299,278	356,859
Rest of the World	133,040	124,839
Total	**663,883**	**712,054**

7. Goodwill

Changes in the carrying amount of goodwill during the years ended December 31, are as follows:

	January 1, 2021 US$'000	Impairment (Note 26.5) US$'000	Exchange differences US$'000	December 31, 2021 US$'000	Impairment (Note 26.5) US$'000	Exchange differences US$'000	December 31, 2022 US$'000
U.S. Silicon Metal cash generating unit	17,230	—	—	17,230	—	—	17,230
U.S. Silicon Based Alloys cash generating unit	12,472	—	—	12,472	—	—	12,472
Total	**29,702**	**—**	**—**	**29,702**	**—**	**—**	**29,702**

On December 23, 2015, Ferroglobe PLC consummated the acquisition of 100% of the equity interests of Globe Specialty Metals, Inc. (GSM) and subsidiaries and FerroAtlántica. This Business Combination was accounted for using the acquisition method of accounting for business combinations under IFRS 3 Business Combinations, with

FerroAtlántica treated as the accounting acquirer and GSM as the acquiree. The excess of the cost of acquisition over the Company's interest in the fair value of the identifiable assets and liabilities assumed at the date of acquisition was recorded as goodwill.

During the years ended December 31, 2022 and December 31, 2021, in connection with our annual goodwill impairment test, the Company did not recognize an impairment charge.

Ferroglobe operates in a cyclical market, and silicon and silicon-based alloy index pricing and foreign import pressure into the U.S. markets impact the future projected cash flows used in our impairment analysis. Recoverable value was estimated based on discounted cash flows. Estimates under the Company's discounted income based approach involve numerous variables including anticipated sales price and volumes, cost structure, discount rates and long term growth, and therefore could impact fair values in the future. As of December 31, 2022, and 2021 the remaining goodwill for the U.S Silicon Metal and U.S Silicon Alloys cash-generating units is $29,702 thousand.

Key assumptions used in the determination of recoverable value

In determining the asset recoverability through value in use, management makes estimates, judgments and assumptions on uncertain matters. For each cash-generating units to which goodwill has been allocated, the value in use is determined based on economic assumptions and forecasted operating conditions as follows:

	2022	2021	2020
	U.S.	U.S.	U.S.
Weighted average cost of capital (pre-tax)	14.6 %	13.2 %	10.3 %
Long-term growth rate	2.0 %	2.3 %	2.0 %
Normalized tax rate	21.0 %	21.0 %	21.0 %

These assumptions have been used in the impairment test for the two Cash Generating Units

Our approach in determining the recoverable amount utilises a discounted cash flow methodology, which necessarily involves making numerous estimates and assumptions regarding, operating costs, appropriate discount rates and working capital requirements. The key assumptions used for estimating cash flow projections in the Group's impairment testing are those relating to discount rate, revenue, operating cost, operating margin and carrying amount. Carrying amount for the cash-generating units is determined by allocating individual balances to each of the cash-generating units, when a balance split is not possible an allocation key is applied based on the estimated production for the following 5 year period. The key assumptions take account of the business's expectations for the projection period. These expectations consider the macroeconomic environment, industry and market conditions, the CGU's historical performance and any other circumstances particular to the unit, such as business strategy and product mix. In particular in the case of sales prices assumptions the Company has used the latest forward prices published by a reputable industry analyst.

These estimates will likely differ from future actual results of operations and cash flows, and it is possible that these differences could be material. In addition, judgements are applied in determining the level of CGU identified for impairment testing and the criteria used to determine which assets should be aggregated. Changes in our business activities or structure may also result in additional changes to the level of testing in future periods. Further, future events could cause the Group to conclude that impairment indicators exist and that the asset values associated with a given operation have become impaired.

The Company has defined a financial model which considers the revenues, expenditures, cash flows, pre tax payments and capital expenditures on a five year period (2023-2027), and perpetuity beyond this period. The financial projections to determine the net present value of future cash flows are modeled considering the principal variables that determine the historic flows of each group of cash-generating units including prices, volumes, costs, CAPEX and net working capital. The Company has assumed that the average Operating profit margin for the five year period is 23.8 % and a Compound Annual Growth Rate of (11.0) %.

8. Other intangible assets

Changes in the carrying amount of other intangible assets during the years ended December 31 are as follows:

	Development Expenditure US$'000	Power Supply Agreements US$'000	Rights of Use US$'000	Computer Software US$'000	Other Intangible Assets US$'000	Accumulated Depreciation (Note 26.3) US$'000	Impairment (Note 26.5) US$'000	Total US$'000
Balance at January 1, 2021	**54,874**	**37,836**	**17,049**	**5,249**	**18,872**	**(93,042)**	**(20,082)**	**20,756**
Additions	1,040	—	10	—	139,180	(7,241)	(1,153)	131,836
Disposals	—	—	(3,558)	(72)	(51,796)	563	3,072	(51,791)
Exchange differences	(4,216)	—	(132)	(87)	(540)	3,580	1,236	(159)
Business disposal	—	—	—	—	—	—	—	—
Balance at December 31, 2021	**51,698**	**37,836**	**13,369**	**5,090**	**105,716**	**(96,140)**	**(16,927)**	**100,642**
Additions	910	—	23	522	113,159	(725)	—	113,889
Disposals	—	—	—	(20)	(96,869)	20	—	(96,869)
Exchange differences	(2,914)	—	(153)	(62)	(6,102)	2,536	830	(5,865)
Business disposal	—	—	—	—	—	—	—	—
Balance at December 31, 2022	**49,694**	**37,836**	**13,239**	**5,530**	**115,904**	**(94,309)**	**(16,097)**	**111,797**

Additions and disposals in other intangible assets in 2022 and 2021 primarily relate to the acquisition, use and expiration of rights held to emit greenhouse gasses by certain Spanish, French, Norwegian and Canadian subsidiaries (see *Note* 4.21).

During 2021 the Company recognized an impairment of $1,153 thousand in relation to our quartz mine located in Mauritania.

During 2022 and 2021 the company has purchased rights to emit greenhouse gasses amounting $25,035 thousand and $44,138 thousand respectively.

As a result of the Business Combination, the Company acquired a power supply agreement which provides favorable below-market power rates to the Alloy, West Virginia facility, which terminates in December 2025.

At December 31, 2022 and 2021, the Company has certain intangible assets related to rights held to emit greenhouse gasses pledged as collateral for debt instruments in Canada (see Note 18).

9. Property, plant and equipment

The detail of property, plant and equipment, net of the related accumulated depreciation and impairment in 2022 and 2021 is as follows:

	Land and Buildings	Plant and Machinery	Other Fixtures, Tools and Furniture	Advances and Property, Plant and Equipment in the Course of Construction	Mineral Reserves	Other Items of Property, Plant and Equipment	Other Items of Leased Land and Buildings	Other Items of Leased Plant and machinery	Accumulated Depreciation (Note 26.3)	Impairment (Note 26.5)	Total
	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
Balance at January 1, 2021	**208,025**	**1,331,585**	**8,422**	**124,029**	**59,325**	**33,188**	**17,588**	**24,446**	**(995,507)**	**(191,066)**	**620,034**
Additions	166	6,054	199	33,409	—	—	576	4,113	(90,087)	1,663	(43,907)
Disposals and other	(1,131)	(106,295)	(618)	(9,374)	—	(55)	—	—	73,601	39,972	(3,900)
Transfers from/(to) other accounts	65	21,883	112	(23,621)	—	(20)	—	730	867	(17)	(1)
Exchange differences	(9,911)	(50,603)	(636)	(10,481)	(306)	476	(1,008)	(1,527)	49,048	7,636	(17,312)
Balance at December 31, 2021	**197,214**	**1,202,624**	**7,479**	**113,962**	**59,019**	**33,589**	**17,156**	**27,762**	**(962,078)**	**(141,811)**	**554,914**
Additions	3,170	15,329	2,883	59,532		131	4,714	4,624	(80,834)	(56,999)	(47,450)
Disposals and other	—	(18,544)	(122)	(595)	—	—	—	—	17,685	(90)	(1,666)
Transfers from/(to) other accounts	505	28,295	(349)	(33,485)	—	1,212	—	—	3,822	—	—
Exchange differences	(7,291)	(48,278)	(731)	(6,021)	(215)	(725)	(625)	(1,028)	42,157	4,273	(18,484)
Transfer to assets and disposal groups classified as held for sale (see Note 30)	(18,108)	(56,571)	(470)	(320)	—	—	—	—	56,297	18,105	(1,067)
Balance at December 31, 2022	**175,490**	**1,122,855**	**8,690**	**133,073**	**58,804**	**34,207**	**21,245**	**31,358**	**(922,951)**	**(176,522)**	**486,247**

In order to ascertain whether its assets have become impaired, Ferroglobe compares their carrying amount with their recoverable amount if there are indications that the assets might have become impaired. Where the asset itself does not generate cash flows that are independent from other assets, Ferroglobe estimates the recoverable amount of the cash generating unit to which the asset belongs. Recoverable amount is the higher of fair value less cost of disposal and value in use, which is the present value of the future cash flows that are expected to be derived from continuing use of the asset and from its ultimate disposal at the end of its useful life, discounted at a rate which reflects the time value of money and the risks specific to the business to which the asset belongs.

If the recoverable amount of an asset or segments unit is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized as an expense under “net impairment losses” in the consolidated income statement. The increased carrying amount of an asset due to a reversal of an impairment loss should not exceed the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognized for the asset in prior years. A reversal of an impairment is recognized as “impairment (loss) gain” in the consolidated income statement. The basis for depreciation or amortization is the carrying amount of the assets, deemed to be the acquisition cost less any accumulated impairment losses.

As of December 31, 2022 the Company tested property, plant and equipment for impairment related to our solar-grade silicon metal project based in Puertollano, Spain, as the plant was shutdown at the end of 2022, the recoverable value was determined at fair value and the key assumptions used in the measurement of fair value measurements has been categorized within level "3". Therefore, OPCO recorded an impairment of $5,515 thousand in 2022.

During 2022, the Company identified indicators of impairment for some plants within the Manganese and European Silicon Alloys segments (reduction of the spread as inferred from the forward prices and increase in the energy prices). As of December 31, 2022 the Company tested property, plant and equipment for impairment, estimating the recoverable value of the cash-generating units requires significant judgment in developing and applying key underlying assumptions concerning future market and conditions (volumes, sale prices, cost structure and capital expenditure - "capex" and operating margins) for the periods projected, as well as the determination of an appropriate discount rate and terminal value assumptions (including terminal value growth rate) based on management's business plans. An impairment was recorded according to the analysis performed. Therefore, the plant and machinery for Cee, Boo, Moi Rana and Monzon facilities were fully impaired by $20,034 thousand, $11,559 thousand, $15,749 thousand and $5,915 thousand respectively.

As of December 31, 2022 the Company tested property, plant and equipment for impairment related to our silicon metal plant in Polokwane, South Africa, which has restarted in October 2022, for which the recoverable value was estimated by determining the value in use for its assets. Therefore, the company recorded an impairment reversal of $5,017 thousand for the plant in Polokwane, South Africa.

As of December 31, 2022, assets related to Chateau Feuillet facility in France have been transferred to asset held for sale. The asset has been measured at the lower of carrying amount and fair value less costs to sell, and is presented separately as an asset held for sale in the current position of the financial statements. As fair value is lower than the carrying amount, the company recognized an impairment of $5,994 thousand (see Note 30).

The investments in property plant and equipment in 2022 and 2021 amounted to $59,532 thousand and $33,409 thousand, respectively. The investments were in connection with productivity and efficiency improvements. In addition to the impairments indicated in the paragraphs above, the Company recorded at South Africa mines an impairment reversal of $2,750 thousand in 2022.

As of December 31, 2021 the Company tested property, plant and equipment for impairment related to our solar-grade silicon metal project based in Puertollano, Spain, Château-Feuillet plants in France and our silicon metal plant in Polokwane, South Africa for which the recoverable value was determined at fair value less cost of disposal.

During year ended December 31, 2021 the Company recognized an impairment reversal of $2,681 thousand in relation to our Polokwane facility in South Africa, an impairment at Château Feuillet facility in Europe $441 thousand and an impairment related to our quartz mine located in Mauritania amounting $573 thousand.

Fair value for Polokwane facility as of December 31, 2021 was $7,130 thousand. As this amount is higher than the carrying amount ($4,449 thousand), the company recognized an impairment reversal of $2,681 thousand.

Fair value for Chateau Feuillet facility as of December 31, 2021 was $7,285 thousand. As this amount is lower than the carrying amount ($7,726 thousand), the company recognized an impairment of $441 thousand.

During 2021, as a consequence of the sale of the Niagara facility, which had a net book value of nil (an impairment had been recognized in previous periods amounting to $34,229) the Company wrote off these amounts

During year ended December 31, 2020 the Company recognized an impairment of $71,929 thousand in relation to our idled capacity at the Niagara facilities in the United States $34,270 thousand, at the Polokwane facility in South Africa $8,677 thousand, at Château Feuillet facility in Europe $17,941 thousand and an impairment of $11,041 thousand in relation to our solar-grade silicon metal project in Puertollano, Spain.

At December 31, 2022 and 2021, the Company has property, plant and equipment ($278,796 thousand in 2022 and $305,298 thousand in 2021) pledged as security for debt instruments in Canada, France, Norway, Spain and USA (see Note 18).

Commitments

At December 31, 2022 and 2021, the Company has capital expenditure commitments totaling $16,607 thousand and $3,834 thousand, respectively, primarily related to improvement works at plants.

10. Financial assets and other receivables

The company's financial assets and their classification under IFRS 9 are as follows:

		2022 classification			
	Note	Amortized cost	Fair value through profit or loss - mandatorily measured	Fair value through other comprehensive income - designated	Total
		US$'000	US$'000	US$'000	US$'000
Other financial assets	10.1	13,253	936	—	14,189
Receivables from related parties	24	4,275	—	—	4,275
Trade receivables	10.2	294,491	—	—	294,491
Other receivables	10.2	6,039	—	—	6,039
Cash and cash equivalents		317,935	—	—	317,935
Restricted cash		5,008	—	—	5,008
Total financial assets		**641,001**	**936**	**—**	**641,937**

		2021 classification			
	Note	Amortized cost	Fair value through profit or loss - mandatorily measured	Fair value through other comprehensive income - designated	Total
		US$'000	US$'000	US$'000	US$'000
Other financial assets	10.1	3,348	847	—	4,195
Receivables from related parties	24	4,540	—	—	4,540
Trade receivables	10.2	321,929	—	—	321,929
Other receivables	10.2	6,199	—	—	6,199
Cash and cash equivalents		114,391	—	—	114,391
Restricted cash		2,272	—	—	2,272
Total financial assets		**452,679**	**847**	**—**	**453,526**

Restrictions on the use of group assets

As of year ended December 31, 2022 and 2021, Cash and cash equivalents and restricted cash comprise the following:

	2022 US$'000	2021 US$'000
Cash and cash equivalents	**317,935**	**114,391**
Non Current restricted cash presented as Cash	**2,133**	**2,272**
Current restricted cash presented as Cash	**2,875**	**—**
Escrow: Hydro sale	2,133	2,272
NMTC Program	2,875	—
Total	**322,943**	**116,663**

As of December 31, 2022, non-current restricted cash comprises cash in relation to the guarantees taken over escrow amounting $2,133 thousand ($2,272 thousand in 2021). The escrow was constituted in August 30, 2019, in consideration of previous FerroAtlántica; under agreement terms, the Purchaser and the Seller deposited in a restricted bank account a part of the share purchase price, guaranteeing any compensation to the purchaser for any claim under the contract. On October 30, 2021, both parts agreed the release of an amount of $3,494 thousand (€3,000 thousand) out of the Escrow funds in order to offset part of the amount that the Company owes to the buyer derived the new tolling agreement.

As of December 31, 2022, current restricted cash comprises cash in relation to the NMTC program. The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. The net grant received by Globe Metallurgical, Inc. from the NMTC program amounts to $2,875 thousand and it will be invested in CAPEX at the Selma plant throughout fiscal year 2023 as per the investment plan of the group.

The Company also has restrictions for the disposal of cash in the joint ventures with Dow Silicones Corporation. When the Company wants to access excess cash available in the joint ventures, it is necessary to organize a board meeting and approve a dividend payment.

10.1 Other financial assets

As of December 31, 2022, other financial assets comprise the following:

	2022		
	Non-Current US$'000	Current US$'000	Total US$'000
Other financial assets held with third parties:			
Other financial assets at amortised cost	3,344	—	3,344
Other financial assets	9,909	—	9,909
Equity securities	933	3	936
Total	**14,186**	**3**	**14,189**

At December 31, 2021, other financial assets comprise the following:

	2021		
	Non-Current US$'000	Current US$'000	Total US$'000
Other financial assets held with third parties:			
Other financial assets at amortised cost	3,348	—	3,348
Equity securities	743	104	847
Total	**4,091**	**104**	**4,195**

Other financial assets at amortized cost mainly comprises deposits given to French government by Ferropem ($2,770 thousand in 2022 and 2,718 thousand in 2021), a Ferroglobe subsidiary, in respect of *effort de construction.* The law in France requires employers and companies to provide a certain size to invest a portion of their budget in the construction or renovation of housing (including through direct investment, providing mortgages, and other). In this case, the mandatory contribution has been made in the form of a loan, to be returned by the French government in twenty years.

The carrying amount of other financial assets at amortised cost is considered to approximate their fair value.

Other financial assets comprise the investment fund of $9,909 thousand in Selma Globe Investment Fund, LLC as a result of the NMTC Program. The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. Investments made through the NMTC Program are used to finance businesses, breathing new life into neglected, underserved low-income communities. The reactivation of the plant in Selma, Alabama, has been granted with a $13,230 thousand allocation by the end of fiscal year 2022 under the NMTC Program (See *Note 16*). This allocation has been subscribed by Globe Metallurgical, Inc. (GMI) as owner of the plant and United Bank as investor and beneficiary of the tax credit resulting from this grant. As a result of the structure implemented for the NMTC, (i) Globe Specialty Metals, Inc. (GSM) has granted a loan to a special purpose vehicle (SPV I) (Leveraged Loan) and (ii) GMI has received two qualify low-income community investment loans (QLICI Loans) from another special purposes vehicle (SPV II) wholly owned by SPV I. Leverage loan is in the amount of $9,909 thousand, a 26 years term and an interest rate of 4.27%. QLICI Loan A is in the amount of $9,909 thousand, with a 30 years term and 3.57% interest rate. QLICI Loan B is in the amount of $3.3 million, with a 30 years term and 3.57% interest rate. Out of this investment-funding structure, GMI receives a federal grant of approximately $2,875 thousand, out of which, all the expenses related to the investment-funding structure are to be detracted. This subsidy must be invested in in CAPEX in the Selma plant throughout fiscal year 2023 as per the investment plan of the group. After seven years, the NMTC structure set up will be wound up, as a result of which (ii) SPV II will cancel the QLICI B loan, resulting in cancellation of debt income (CODI) for GMI; (ii) GSM will become the owner of SPV I and SPV II. Upon liquidation and dissolution of these two entities, the Leverage loan will void by confusion. QLICI A loan will be capitalized by GSM into GMI.

The loan was granted on December, 2022 therefore its carrying amount equals to its fair value as of December 31, 2022.

Listed equity securities comprises investments held by Globe Argentina Metales in Pampa Energía.

For those assets measured at fair value at the balance sheet date, further information on fair value measurement is provided in Note 29.

10.2 Trade and other receivables

Trade and other receivables comprise the following at December 31:

	2022 US$'000	2021 US$'000
Trade receivables	295,678	322,935
Less – allowance for doubtful debts	(1,187)	(1,006)
	294,491	321,929
Tax receivables[1]	36,852	25,244
Government grant receivables	88,092	27,701
Other receivables	6,039	6,199
Total	**425,474**	**381,073**

(1) "Tax receivables" is primarily related to VAT receivables, which are recovered either by offsetting against VAT payables or are expected to be refunded by the tax authorities in the relevant jurisdictions.

The trade and other receivables disclosed above are short-term in nature and therefore their carrying amount is considered to approximate their fair value.

The changes in the allowance for doubtful debts during 2022 and 2021 were as follows:

	Allowance US$'000
Balance at January 1, 2021	**1,697**
Impairment losses/(reversal) recognized	(580)
Exchange differences	(111)
Balance at December 31, 2021	**1,006**
Impairment losses/(reversal) recognized	361
Amounts used credited to income	(124)
Exchange differences	(56)
Balance at December 31, 2022	**1,187**

Factoring of trade receivables

On October 2, 2020, the Company signed a factoring agreement with a financial institution, to anticipate the collection of receivables issued by the Company's European entities (Grupo FerroAtlántica, S.A. and FerroPem S.AS).

The main characteristics of the factoring agreement are the following:

- the maximum cash consideration advanced for the financing facility is up to €60,000 thousand;
- over collateralization of 10% of accounts receivable as guarantee provided to the Agent until payment has been satisfied;
- a 0.18% to 0.25% fee charged on the total of invoices and credit notes sold to the factor;
- a financing commission set at Euribor 3-month +1% charged on the drawdowns;

Other conditions are set in relation to credit insurance policy which has been structured in an excess of loss policy where the first €5,000 thousand of bad debt losses are not covered by the insurance provider. The Company has assumed the cash collateralization for the entire excess of loss, as agreed in contractual terms.

On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with an additional Spanish Bank. This program offers the possibility to sell the receivables corresponding to nine customers pre-approved by the bank and its credit insurer. Receivables are pre-financed at 100% of their face value.

The main characteristics of this program are the following:

- the maximum cash consideration advanced for the financing facility is up to €30,000 thousand;
- a service fee set at 0.25% of the receivable face value;
- a cost of financing set at Euribor 12-month +1%;
- a closing fee set at 0.25% of the financing;
- an annual renewal fee set at 0.25% of the financing;

- invoices that remain unpaid by the customers to the factor at due date are subject to a late payment interest charge set at Euribor 12-month +15%, with a grace period during the first30 days.

During 2022, factoring agreements provided upfront cash consideration of approximately $895,264 thousand ($659,083 thousand in 2021). The Company has repaid $ 918,070 thousand ($640,168 thousand in 2021), showing at December 31, 2022, an on-balance sheet bank borrowing debt of $60,976 thousand (2021: $$93,090 thousand), see Note 16.

At December 31, 2022, the Company held $80,112 thousand of accounts receivables recognized in consolidated balance sheet in respect of factoring agreements ($115,684 thousand at December 31, 2021). Finance costs incurred during the year ended December 31, 2022, amounts $3,426 thousand ($3,202 thousand at December 31, 2021) recognized in finance costs in the consolidated income statement.

Judgements relating to the accounting for the factoring agreement

The Company has assessed whether it has transferred substantially all risks and rewards, continuing to be exposed to the variable returns from its involvement in the factoring agreements as it is exposed to credit risk and late-payment risk, so the conclusion is that the derecognition criteria is not met and therefore, the account receivables sold are not derecognized from the balance sheet and an obligation is recognized as bank borrowings for the amount of cash advanced by the Leasing and Factoring Agent and by Bankinter. The amount repayable under the factoring agreements is presented as on-balance sheet factoring and the debt assigned to factoring is showed as bank borrowings. See Note 16.

Government grants receivables

The Company has been awarded a compensation for the indirect CO_2 emissions costs included in the energy bills in France, Spain and Norway.

During the year ended December 31, 2022, the Company recognized $72,251 thousand of income related to these compensations. The amount was deducted against the related expense in Raw Materials and energy consumption for production (2021: $31,588 thousand of income). The Company has no unfulfilled conditions in relation to government grants, but certain grants would be repayable if the Company were to substantially curtail production or employment at certain plants.

11. Inventories

Inventories comprise the following at December 31:

	2022 US$'000	2021 US$'000
Finished goods	169,956	118,080
Raw materials in progress and industrial supplies	266,348	110,965
Other inventories	44,257	42,815
Advances to suppliers	19,519	17,937
Total	**500,080**	**289,797**

During 2022 the Company recognized an expense of $29,865 thousand, of which $17,523 related to finished goods (2021: $1,095 thousand) and $12,342 to raw material (nil in 2021) in respect of write-downs of inventory to net realizable value. The Company records expense for the write-down of inventories to Raw Materials and energy consumption for production in the consolidated income statement, see *Note* 4.8.

As of December 31, 2022 and 2021, inventories in the Company's subsidiaries in the United States, Canada, Norway, France and Spain ($435,347 thousand in 2022 and $180,575 thousand in 2021) were pledged forming part of the collateral for debt instruments, see *Note* 18.

12. Other assets

Other assets comprise the following at December 31:

	2022			2021		
	Non-Current US$'000	Current US$'000	Total US$'000	Non-Current US$'000	Current US$'000	Total US$'000
Guarantees and deposits given	17,492	293	17,785	18,020	299	18,319
Prepayments and accrued income	37	5,925	5,962	27	3,213	3,240
Other assets	689	24,390	25,079	687	4,896	5,583
Total	**18,218**	**30,608**	**48,826**	**18,734**	**8,408**	**27,142**

As of December 31, 2022, the figure in Prepayments and accrued income increased due to prepayments recorded in “Grupo FerroAtántica S.A.U”.

In 2022, a provision of $18,000 thousand was recognized at Globe Metallurgical Inc. (see Note 15) with respect to civil lawsuits arising out of a 2018 incident at Globe Metallurgical Inc.’s Selma, Alabama, facility in which two employees were injured and one of whom later died. At the time, Globe Metallurgical Inc. also recorded an expected reimbursement from the Company’s insurer as other assets for the same amount. In the first quarter of 2023, the Company reached full and final settlements of the lawsuits and all amounts were paid directly by the insurer.

During 2022 and 2021, the amount in Guarantees and deposits is mainly due to a cash deposit made during 2021 with TAC (*Tennessee Valley Authority*) which supplies power to "Core Metals Group Holdings, LLC”, the letter of credits related to the insurance company in “Global Specialty Metals, Inc” and deposits linked to factoring agreements.

13. Equity

Share capital

Ferroglobe PLC was incorporated on February 5, 2015 and issued one ordinary share with a face value of $1.00. The share was issued but uncalled. On October 13, 2015, the Company increased its share capital by £50,000 by issuing 50,000 sterling non-voting redeemable preference shares (the “Non-voting Shares”) as well as 14 ordinary shares with a par value of $1.00. Subsequently on October 13, 2015, the Company consolidated the 15 ordinary shares at a par value of $1.00 to two ordinary shares with a par value of $7.50, for a total amount of $15.00.

On December 23, 2015, the Company acquired all of the issued and outstanding ordinary shares from Grupo Villar Mir, S.A.U., par value €1,000 per share, of Grupo FerroAtlántica, S.A.U. in exchange for 98,078,161 newly-issued Ferroglobe Class A ordinary shares, nominal value $7.50 per share, making Grupo FerroAtlántica, S.A.U. a wholly-owned subsidiary of the Company. The company subsequently redeemed all Non-voting Shares.

Subsequently on December 23, 2015, Gordon Merger Sub, Inc., a wholly owned subsidiary of the Company, merged with Globe Specialty Metals, Inc., and all outstanding shares of GSM common stock, par value $0.0001 per share were converted to the right to receive one newly-issued Ferroglobe ordinary share, nominal value $7.50 per share. The ordinary shares were registered by the Company pursuant to a registration statement on Form F-4, which was declared effective by the SEC on August 11, 2015, and trade on the NASDAQ Global Select Market under the ticker symbol “GSM.”

On June 22, 2016 the Company completed a reduction of the share capital and as such the nominal value of each share has been reduced from $7.50 to $0.01, with the amount of the capital reduction being credited to a distributable reserve.

On November 18, 2016, Class A Ordinary Shares were converted into ordinary shares of Ferroglobe as a result of the distribution of beneficial interest units in the Ferroglobe Representation and Warranty Insurance Trust to certain Ferroglobe shareholders.

During the years ended December 31, 2019 and December 31, 2020, the Company did not issue new ordinary shares of any class.

Upon the closing of the financing transaction at July 29, 2021, the company issued 8,918,618 new ordinary shares to Rubric Capital Management LP on behalf of certain managed or sub-managed funds and accounts and Grupo Villar Mir, S.A.U for a total issued share capital of $40 million, and 1,900,000 shares and 7,013,872 shares par value $0.01 amounting to $51,522 thousand as equity work fee and bondholder equity stake related to the financing transactions.

The transaction fees incurred in the issuance of the share capital of $40 million amounting to $6,647 thousand were accounted for as a deduction from equity.

On October 6, 2021, the Company has entered into an equity distribution agreement (the "Equity Distribution Agreement") with B. Riley Securities, Inc. and Cantor Fitzgerald & Co. relating to the ordinary shares, par value $0.01 per share, of Ferroglobe PLC, by which the Company may offer and sell ordinary shares having an aggregate offering price of up to $100,000,000 from time to time through B. Riley Securities, Inc. and Cantor Fitzgerald & Co. as our sales agents. The company sold 186,053 ordinary shares with net proceeds of $1.4 million in 2021 (no sales were made in 2022).

At December 31, 2022, there were 188,882,316 ordinary shares in issue with a par value of $0.01, for a total issued share capital of $1,962 thousand, (2021: 188,882,316 ordinary shares in issue with a par value of $0.01, for a total issued share capital of $1,784 thousand). The Company held 1,448,773 ordinary shares in treasury.

At December 31, 2022, the Company's largest shareholders are as follows:

Name	Number of Shares Beneficially Owned	Percentage of Outstanding Shares (*)
Grupo Villar Mir, S.A.U.	81,924,822	43.7 %
Cooper Creek Partners Management LLC	11,144,337	5.9 %

(*) 187,433,543 ordinary shares were outstanding at 31 December 2022, comprising 188,882,316 shares in issue less 1,448,773 shares held in treasury

Valuation adjustments

Valuation adjustments comprise the following at December 31:

	2022 US$'000	2021 US$'000
Actuarial gains and losses	12,817	5,525
Deferred Tax Income *(See Note 23)*	(2,082)	—
Total	**10,735**	**5,525**

Changes in actuarial gain and losses are due to remeasurements of the net defined benefit liability, see*Note* 15.

Capital management

The Company's primary objective is to maintain a balanced and sustainable capital structure through the industry's economic cycles, while keeping the cost of capital at competitive levels so as to fund the Company's growth. The main sources of financing are as follows:

1. cash flow from operations;

2. bank borrowings,
3. debt instruments, including the Reinstated Senior Notes due 2025.
4. factoring and forfaiting of receivables
5. Asset-Based Lending facility

Capital Raising and Extension of the Maturity of the Notes

On March 27, 2021, Ferroglobe and Globe and certain other members of our group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to refinance the Notes and restructure our balance sheet. On July 30,2021 the company announced the occurrence of the "Transaction Effective Date" under the lock-up agreement dated March 27, 2021 (the "Lock-Up Agreement") between the Parent and the financial stakeholders. The Transaction Effective Date marked the completion of the financing proposal.

The principal elements of the restructuring, are set forth below:

- Issuance of $60 million of new senior secured notes
- Issuance of $40 million in new equity of Ferroglobe
- Extension of the maturity date of the Notes from March 31, 2022 to December 31, 2025 and amendment of certain other terms.

On July 21, 2022, the $60 million of the new Senior secured Notes maturing on June 30, 2025 were redeemedat 100% of the principal amount thereof plus accrued interest.

The Company manages its capital structure and makes adjustments in light of changes in economic conditions. To maintain or adjust the capital structure, the Company may restructure or issue new borrowings or debt, make dividend payments, return capital to shareholders or issue new shares. Management's review of the Company's capital structure includes monitoring of the leverage ratio.

Dividends

There have not been dividends paid or proposed by the Company during the year ended December 31, 2022 neither during the year ended December 31, 2021.

There were earnings distributed by a Joint Venture participated by a Globe Speciality Metals, Inc subsidiary to non-controlling interests, classified as cash from operating activities, during the years ended December 31, 2022 and 2021.

Non-controlling interests

The changes in non-controlling interests in the consolidated statements of financial position in 2022 and 2021 were as follows:

	Balance US$'000
Balance at January 1, 2021	**114,504**
(Loss) Profit for the year	(4,750)
Dividends paid to joint venture partner	(5,880)
Translation differences	166
Other	2,013
Balance at December 31, 2021	**106,053**
(Loss) Profit for the year	3,514
Dividends paid to joint venture partner	(3,430)
Translation differences	(1,873)
Other	2,487
Balance at December 31, 2022	**106,751**

The stand-alone statutory information regarding the largest non-controlling interests, in accordance with IFRS 12 Disclosure of Interests in Other Entities, is as follows:

The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. Investments made through the NMTC Program are used to finance businesses, breathing new life into neglected, underserved low-income communities. The reactivation of the plant in Selma, Alabama, has been granted with a $13.5 million allocation by the end of fiscal year 2022 under the NMTC Program. This allocation has been subscribed by Globe Metallurgical, Inc. (GMI) as owner of the plant and United Bank as investor and beneficiary of the tax credit resulting from this grant. As a result of the structure implemented for the NMTC, (i) Globe Specialty Metals, Inc. (GSM) has granted a loan to a special purpose vehicle (SPV I) (Leveraged Loan) and (ii) GMI has received two qualify low-income community investment loans (QLICI Loans) from another special purposes vehicle (SPV II) wholly owned by SPV I.

The lender to structure this program created the two SPVs described above. The Company has no exposure, risk, commitment, or obligation with these SPVs. The Company neither has any share in the equity of these vehicles (SPV I and SPV II). Accordingly, the Company has concluded that it does not control the SPV I and SPV II and does not include the special purposes vehicles in the Company's consolidation.

WVA Manufacturing, LLC (WVA) was formed on October 28, 2009 as a wholly-owned subsidiary of Globe. On November 5, 2009, Globe sold a 49% membership interest in WVA to Dow Corning Corporation (currently named "Dow"), an unrelated third party. As part of the sale of the 49% membership interest to Dow, an operating agreement and an output and supply agreement were established. The output and supply agreement states that of the silicon metal produced by WVA, 49% will be sold to Dow and 51% to Globe, which represents each member's ownership interest, at a price equal to WVA's actual production cost plus $100 per metric ton. The agreement will automatically terminate upon the dissolution or liquidation of WVA in accordance with the joint venture agreement between Globe and Dow. As of December 31, 2022 and 2021, the balance of Non-controlling interest related to WVA was $62,630 thousand and $61,912 thousand, respectively.

Quebec Silicon Limited Partnership (QSLP), formed under the laws of the Province of Québec on August 20, 2010 is managed by its general partner, Quebec Silicon General Partner Inc., which is 51% property of Globe. QSLP owns and operates the silicon metal operations in Bécancour, Québec. QSLP's production output is subject to a supply agreement, which sells 51% of the production output to Globe and 49% to Dow, which represents each member's ownership interest, at a price equal to QSLP's actual production cost plus 250 Canadian dollars per metric ton. As of

December 31, 2022 and 2021, the balance of non-controlling interest related to QSLP was $39,023 thousand and $37,682 thousand, respectively.

	2022		2021		2020	
	WVA US$'000	QSLP US$'000	WVA US$'000	QSLP US$'000	WVA US$'000	QSLP US$'000
Statements of Financial Position						
Non-current assets	78,992	64,291	83,176	63,088	99,235	67,806
Current assets	86,847	53,830	73,883	46,186	65,703	37,095
Non-current liabilities	7,108	18,719	8,654	19,005	8,982	18,529
Current liabilities	53,680	21,201	43,577	14,671	33,378	16,320
Income Statements						
Sales	187,854	102,865	165,660	89,446	156,995	70,637
Operating profit	8,306	2,897	(4,871)	2,093	(7,503)	3,113
Profit before taxes	8,155	2,195	(5,062)	1,237	(7,503)	2,898
Net (loss) income	3,075	1,015	(3,362)	613	(2,970)	1,666
Cash Flow Statements						
Cash flows from operating activities	(5,934)	(10,037)	11,981	8,997	28,683	15,387
Cash flows from investing activities	(8,304)	(1,525)	(3,893)	(4,956)	(7,977)	(5,227)
Cash flows from financing activities	—	905	—	—	—	—
Exchange differences on cash and cash equivalents in foreign currencies	—	10	—	31	—	45
Beginning balance of cash and cash equivalents	35,360	16,596	27,272	12,524	6,566	2,319
Ending balance of cash and cash equivalents	**21,122**	**5,949**	**35,360**	**16,596**	**27,272**	**12,524**

14. Earnings (loss) per ordinary share

Basic earnings (loss) per ordinary share are calculated by dividing the consolidated profit (loss) for the year attributable to the Parent by the weighted average number of ordinary shares outstanding during the year, excluding

the average number of treasury shares held in the year, if any. Dilutive earnings (loss) per share assumes the exercise of stock options, provided that the effect is dilutive.

	2022 US$'000	2021 US$'000	2020 US$'000
Profit (Loss) for the year from continuing operations	**443,828**	**(115,374)**	**(244,359)**
(Loss) for the year from discontinued operations	—	—	(5,399)
Total Profit (Loss) for the year	**443,828**	**(115,374)**	**(249,758)**
Attributable to the Parent	440,314	(110,624)	(246,339)
Attributable to non-controlling interests	3,514	(4,750)	(3,419)

Earnings per share

	2022	2021	2020
Numerator:			
(Loss) attributable to the Parent (US$'000)	440,314	(110,624)	(246,339)
Denominator:			
Weighted average basic shares outstanding	187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding	189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US$)	**2.34**	**(0.63)**	**(1.46)**
Diluted profit (loss) earnings per ordinary share (US$)	**2.32**	**(0.63)**	**(1.46)**
Numerator:			
(Loss) for the year from continuing operations attributable to the Parent (US$'000)	440,314	(110,624)	(240,940)
Denominator:			
Weighted average basic shares outstanding	187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding	189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US$)	**2.34**	**(0.63)**	**(1.42)**
Diluted profit (loss) earnings per ordinary share (US$)	**2.32**	**(0.63)**	**(1.42)**
Numerator:			
(Loss) profit for the year from discontinued operations (US$'000)	—	—	(5,399)
Denominator:			
Weighted average basic shares outstanding	187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding	189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US$)	**—**	**—**	**(0.03)**
Diluted (loss) earnings per ordinary share (US$)	**—**	**—**	**(0.03)**

No potential ordinaries shares were excluded from the calculation of diluted earnings (loss) per ordinary share because their effect would be anti-dilutive. Potential ordinary shares of 4,359,436 and of 3,411,974 were excluded from the calculation in 2021 and 2020 respectively for this reason.

15. Provisions

Provisions comprise the following as of December 31:

	2022			2021		
	Non-Current US$'000	Current US$'000	Total US$'000	Non-Current US$'000	Current US$'000	Total US$'000
Provision for pensions	25,546	180	25,726	41,238	180	41,418
Environmental provision	168	1,396	1,564	2,562	1,133	3,695
Provisions for litigation	—	23,142	23,142	—	1,952	1,952
Provisions for third-party liability	5,960	—	5,960	8,905	—	8,905
Provisions for C02 emissions allowances	7,956	94,800	102,756	3,033	107,213	110,246
Provision for restructuring cost	—	21,539	21,539	—	22,350	22,350
Other provisions	8,040	4,450	12,490	5,220	4,797	10,017
Total	**47,670**	**145,507**	**193,177**	**60,958**	**137,625**	**198,583**

As of December 31, 2022 the restructuring provision corresponds to the restructuring process in Château-Feuillet facility in France amounting $21,539 thousand ($21,717 thousand as of December, 2021) and Monzon facility in Spain reversed with a credit to income amounting $591 thousand as of December 31, 2022.

The changes in the various line items of provisions in 2022 and 2021 were as follows:

	Provision for Pensions US$'000	Environmental Provision US$'000	Provisions for Litigation in Progress US$'000	Provisions for Third Party Liability US$'000	Provisions for CO2 Emissions Allowances US$'000	Provisions for Restructuring Cost US$'000	Other Provisions US$'000	Total US$'000
Balance at January 1, 2021	**56,586**	**4,166**	**1,355**	**10,759**	**40,161**	**2**	**50,754**	**163,783**
Charges for the year	5,990	28	934	588	97,982	31,838	(12)	137,348
Provisions reversed with a credit to income	(1,419)	(189)	—	—	(7,830)	—	(9,419)	(18,857)
Amounts used	(9,911)	(1)	(233)	(535)	(18,420)	(9,534)	(269)	(38,903)
Provision against equity	(6,847)	—	—	(1,081)	—	—	—	(7,928)
Transfers from/(to) other accounts	—	(33)	—	—	—	44	(28,437)	(28,426)
Exchange differences and others	(2,981)	(276)	(104)	(826)	(1,647)	—	(2,600)	(8,434)
Balance at December 31, 2021	**41,418**	**3,695**	**1,952**	**8,905**	**110,246**	**22,350**	**10,017**	**198,583**
Charges for the year	1,405	13	22,134	454	114,185	9,092	7,022	154,305
Provisions reversed with a credit to income	(3,417)	—	(48)	—	(2,435)	(591)	(890)	(7,381)
Amounts used	(1,181)	(345)	(798)	(2,863)	(112,485)	(8,012)	(2,516)	(128,200)
Provision against equity	(9,394)	—	—	—	—	—	—	(9,394)
Transfers from/(to) other accounts	—	(1,510)	—	—	—	—	(666)	(2,176)
Exchange differences and others	(3,105)	(289)	(98)	(536)	(6,755)	(1,300)	(477)	(12,560)
Balance at December 31, 2022	**25,726**	**1,564**	**23,142**	**5,960**	**102,756**	**21,539**	**12,490**	**193,177**

The main provisions relating to employee pensions are as follows:

France

These relate to various obligations assumed by FerroPem, SAS with various groups of employees relate to long-service benefits, medical insurance supplements and retirement obligations, all of which are defined unfunded benefit obligations, whose changes in 2022 and 2021 were as follows:

	2022 US$'000	2021 US$'000
Obligations at the beginning of year	**25,950**	**34,496**
Current service cost	(1,159)	1,082
Borrowing costs	310	212
Actuarial differences	(4,821)	(3,003)
Benefits paid	(1,181)	(995)
Exchange differences	(1,253)	(2,412)
Others	(1,508)	(3,430)
Obligations at the end of year	**16,338**	**25,950**

At December 31, 2022 and 2021 the effect of a 1% change in discount rate would have resulted in a change to the provision of approximately $1,695 thousand and $3,288 thousand, respectively.

The following table reflects the gross benefit payments that are expected to be paid for the benefit plans for the year ended December 31, 2021:

	2022 US$'000
2023	1,087
2024	1,279
2025	1,339
2026	1,316
2027	1,349
Years 2028-2032	7,237

The subsidiary recognized provisions in this connection based on an actuarial study performed by an independent expert.

South Africa

Defined benefit plans relate to Retirement medical aid obligations and Retirement benefits. Actuarial valuations are performed periodically by independent third parties and in the actuary's opinion the fund was in a sound financial position. The valuation was based upon the amounts as per the latest valuation report received from third party experts.

Retirement medical aid obligations

The Company provides post-retirement benefits by way of medical aid contributions for employees and dependents.

Retirement benefits

It is the policy of the Company to provide retirement benefits to all its employees and therefore membership of the retirement fund is compulsory. The Company has both defined contribution and defined benefit plans. The pension fund obligation is recognized in current provisions as the Company will contribute the difference to the plan assets within the next 12 months.

In this regard, the changes of this provision in 2022 and 2021 were as follows:

	2022 US$'000	2021 US$'000
Obligations at beginning of year	**3,779**	**3,461**
Current service cost	34	32
Borrowing costs	411	390
Actuarial differences	(861)	526
Benefits paid	(219)	(232)
Exchange differences	(132)	(398)
	3,012	**3,779**

At December 31, 2022 and 2021, the effect of a 1% change in the cost of the medical aid would have resulted in a change to the provision of approximately $352 thousand and $481 thousand, respectively.

The breakdown, in percentage, of the plan assets are as follows:

	2022	2021
Cash	56.37 %	2.85 %
Equity	— %	47.21 %
Bond	43.63 %	17.32 %
Property	— %	2.79 %
International	— %	28.42 %
Others	— %	1.41 %
Total	100.00 %	100.00 %

As of December 31, 2022 and 2021 the Plan assets amounted to $94 thousand and $1,706 thousand, respectively. Changes in the fair value of plan assets linked to the defined benefit plans in South Africa were as set forth in the following table:

	2022 US$'000	2021 US$'000
Fair value of plan assets at the beginning of the year	**1,706**	**2,204**
Interest income on assets	93	172
Benefits paid	(1,619)	(775)
Actuarial differences	(84)	223
Other	(2)	(118)
Fair value of plan assets at the end of the year	**94**	**1,706**
Actual return on assets	**9**	**395**

Venezuela

Benefit Plan

The company FerroVen has pension obligations to all of its employees who, once reaching retirement age, have accumulated at least 15 years of service to the company and receive a Venezuelan Social Security Institute (IVSS) pension. In addition to the pension paid by the IVSS, 80% of the basic salary accrued when the pension benefit is awarded is guaranteed and paid by means of a lifelong monthly pension.

The most recent of the present value of the defined benefit obligation actuarial valuation was determined as of December 31, 2022 by independent actuaries. The present value of the obligation for defined unfunded benefit cost, the current service cost and past service cost were determined using the projected unit credit method.

In this regards, the changes of this provision in 2022 and 2021were as follows:

	2022 US$'000	2021 US$'000
Obligations at the beginning of year	**190**	**22**
Current service cost	66	102
Borrowing costs	748	115
Benefits paid	(24)	(2)
Exchange differences	(578)	(47)
Obligations at the end of year	**402**	**190**

The summary of the main actuarial assumptions used to calculate the aforementioned obligations is as follows:

	France		South Africa			Venezuela			
	2022	2021	2022	2021		2022		2021	
Salary increase	1.60%-6.10%	1.60%-6.10%	N/A	N/A	%	180	%	500	%
Discount rate	3.84%	0.75%	8.2-12.8%	10.60-11.60%	%	202.4	%	536	%
Expected inflation rate	2.20%	1.60%	4.0-7.30%	5.80-7.10%	%	200	%	550	%
Mortality	TGH05/TGF05	TGH05/TGF05	SA 85-90 / PA (90)	SA 85-90 / PA (90)		GAM 83		GAM 83	
Retirement age	65	65	63	63		63-64		63-64	

High percentages are driven by hyperinflationary economy in Venezuela.

North America

a. Defined Benefit Retirement and Post-retirement Plans

Globe Metallurgical Inc. (“GMI”) sponsored three non-contributory defined benefit pension plans covering certain employees, which were all frozen in 2003. Core Metals sponsored a non-contributory defined benefit pension plan covering certain employees, which was closed to new participants in April 2009. The Plan’s liabilities were completely settled as a result of the amendment terminating the plan. There are no remaining participants due to the plan termination effective September 30, 2021. All obligations were satisfied due to the plan termination. The total settlement payment was $2,784 thousand and resulted in a net income of $1,027 thousand recognized in 2021.

Quebec Silicon Limited partnership (“QSLP”) sponsors a contributory defined benefit pension plan and postretirement benefit plan for certain employees, based on length of service and remuneration. Post-retirement benefits consist of a group insurance plan covering plan members for life insurance, disability, hospital, medical, and dental benefits. The contributory defined benefit pension plan was closed to new participants in December 2013. On December 27, 2013, the Communications, Energy and Paper Workers Union of Canada (“CEP”) ratified a new collective bargaining agreement, which resulted in a curtailment pertaining to the closure of the postretirement benefit plan for union employees retiring after January 31, 2016. The Company’s funding policy has been to contribute, as necessary, an amount in excess of the minimum requirements in order to achieve the Company’s long-term funding targets.

Benefit Obligations and Funded Status – The following provides a reconciliation of the benefit obligations, plan assets and funded status of the North American plans as of December 31, 2022 and 2021:

	2022				2021			
	USA	Canada		Total	USA	Canada		Total
	Pension Plans US$'000	Pension Plans US$'000	Post-retirement Plans US$'000	US$'000	Pension Plans US$'000	Pension Plans US$'000	Post-retirement Plans US$'000	US$'000
Benefit obligation	—	18,266	5,497	23,763	—	25,349	8,569	33,918
Fair value of plan assets	—	(17,777)	—	(17,777)	(14)	(22,417)	—	(22,431)
Provision for pensions	**—**	**489**	**5,497**	**5,986**	**(14)**	**2,932**	**8,569**	**11,487**

All North American pension and post-retirement plans are underfunded. At December 31, 2022 and 2021, the accumulated benefit obligation was $18,266 thousand and $25,349 thousand for the defined pension plan and $5,497 thousand and $8,569 thousand for the post-retirement plans, respectively.

The assumptions used to determine benefit obligations as of December 31, 2022 and 2021 for the North American plans are as follows:

	North America – 2022			North America – 2021		
	USA	Canada		USA	Canada	
	Pension Plan	Pension Plan	Postretirement Plan	Pension Plan	Pension Plan	Postretirement Plan
Salary increase	N/A	2.75% - 3.00%	N/A	N/A	2.75% - 3.00%	N/A
Discount rate	N/A	5.25%	5.25%	N/A	3.21%	3.30%
Expected inflation rate	N/A	N/A	N/A	N/A	N/A	N/A
Mortality	N/A	CPM2014-Private Scale CPM-B	CPM2014-Private Scale CPM-B	N/A	CPM2014-Private Scale CPM-B	CPM2014-Private Scale CPM-B
Retirement age	N/A	58-60	58-60	N/A	58-60	58-60

The discount rate used in calculating the present value of our pension plan obligations is developed based on the BPS&M Pension Discount Curve for 2022 and 2021 and the Mercer Proprietary Yield Curve for 2022 and 2021 for QSLP Pension and post-retirement benefit plans and the expected cash flows of the benefit payments.

The Company expects to make discretionary contributions of approximately $648 thousand to the defined benefit pension and post-retirement plans for the year ending December 31, 2022.

The pension plan exposes the Company to the following risks:

(i) Investment risk: The defined benefit obligation is calculated using a discount rate.If the return on plan assets is below this rate, a plan deficit occurs.

(ii) Interest rate risk: Variation in bond rates will affect the value of the defined benefit obligation.

(iii) Inflation risk: The defined benefit obligation is calculated assuming a certain level of inflation. An actual inflation higher than expected will have the effect of increasing the value of the defined benefit obligation.

The following reflects the gross benefit payments that are expected to be paid in future years for the benefit plans for the year ended December 31:

	Pension Plans US$'000	Non-pension Postretirement Plans US$'000
2023	985	180
2024	1,027	186
2025	1,110	207
2026	1,154	227
2027	1,203	247
Years 2027-2031	6,212	1,535

The accumulated non-pension post-retirement benefit obligation has been determined by application of the provisions of the Company's health care and life insurance plans including established maximums, relevant actuarial assumptions and health care cost trend rates projected at 5.0% for 2022 and decreasing to an ultimate rate of 4.0% in fiscal 2040. At December, 31 2022 and 2021, the effect of a 1% increase in health care cost trend rate on the non-pension post-retirement benefit obligation is $848 thousand and $1,735 thousand, respectively. At December, 31 2022 and 2021 the effect of a 1% decrease in health care cost trend rate on the non-pension post-retirement benefit obligation is ($689) thousand and ($1,327) thousand.

The changes to these obligations in the current year ended December 31, 2022 were as follows:

	2022			
	USA	Canada		Total
	Pension Plans US$'000	Pension Plans US$'000	Post-retirement Plans US$'000	US$'000
Obligations at the beginning of year	**—**	**25,349**	**8,569**	**33,918**
Service cost	—	162	301	463
Borrowing cost	—	773	271	1,044
Actuarial differences	—	(5,774)	(3,040)	(8,814)
Benefits paid	—	(870)	(162)	(1,032)
Exchange differences	—	(1,374)	(442)	(1,816)
Expenses	—	—	—	—
Plan settlement	—	—	—	—
Obligations at the end of year	**—**	**18,266**	**5,497**	**23,763**

The plan assets of the defined benefit and retirement and post-retirement plans in North America are comprised of assets that have quoted market prices in an active market. The breakdown as of December 31, 2022 and 2021 of the assets by class are:

	2022	2021
Cash	— %	— %
Equity Mutual Funds	31 %	31 %
Fixed Income Securities	14 %	14 %
Assets held by insurance company	55 %	55 %
Total	100 %	100 %

For the year ended December 31, 2022, the changes in plan assets were as follows:

	2022		
	USA	Canada	
	Pension Plans US$'000	Pension Plans US$'000	Total US$'000
Fair value of plan assets at the beginning of the year	**—**	**22,417**	**22,417**
Interest income on assets		690	690
Benefits paid		(870)	(870)
Actuarial return on plan assets		(3,496)	(3,496)
Exchange differences		(1,269)	(1,269)
Other		305	305
Plan Settlement		—	—
Fair value of plan assets at the end of the year	**—**	**17,777**	**17,777**

b. Other Benefit Plans

The Company administers healthcare benefits for certain retired employees through a separate welfare plan requiring reimbursement from the retirees.

Environmental provision

Environmental provisions related to $168 thousand of non-current environmental rehabilitation obligations as of December 31, 2022 (2021: $2,562 thousand) and $1,396 thousand of current environmental rehabilitation obligations as of December 31, 2022 (2021: $1,133 thousand). A significant part of these provisions is related to residues disposal, such as the remediation costs required to comply with government regulations.

Provisions for litigation

Certain employees of FerroPem, SAS, then known as Pechiney Electrometallurgie, S.A., may have been exposed to asbestos at its plants in France in the decades prior to FerroAtlántica's purchase of that business in December 2004. The Company has recognized a provision of $955 thousand during the year ended December 31, 2022 as part of the current portion of Provisions for litigation (2021: $1,143 thousand). See Note 25 for further information.

The timing and amounts potential liabilities arising from such exposures is uncertain. The provision reflects the Company's best estimate of the expenditure required to meet resulting obligations.

In 2022, a provision of $18,000 thousand was recognized at Globe Metallurgical Inc. with respect to civil lawsuits arising out of a 2018 incident at Globe Metallurgical Inc.'s Selma, Alabama, facility in which two employees were injured and one of whom later died. At the time, Globe Metallurgical Inc. also recorded an expected reimbursement from the Company's insurer as other assets for the same amount (see Note 12). In the first quarter of 2023, the Company reached full and final settlements of the lawsuits and all amounts were paid directly by the insurer.

Provisions for third-party liability

Provisions for third-party liability presented as non-current obligations $5,960 thousand relate to health costs for retired employees (2021: $8,905 thousand) in the Company's subsidiary, FerroPem, SAS.

The following table reflects the gross benefit payments that are expected to be paid for the benefit plans for the year ended December 31, 2022:

	2022 US$'000
2023	-
2024	529
2025	270
2026	275
2027	282
Years 2028-2032	1458

The recognized provisions are based on an actuarial study performed by an independent expert.

Other provisions

Included in other provisions are current obligations arising from past actions that involve a probable outflow of resources that can be reliably estimated. Other provisions include taxes of $1,998 thousand (2021: $2,506 thousand) and $7,551 thousand are related to the accrued estimated costs of reclaiming the land after it has been mined for gravel or coal ($6,422 thousand as of December 31, 2021).

16. Bank borrowings

Bank borrowings comprise the following at December 31:

	2022			
	Limit US$'000	Non-Current Amount US$'000	Current Amount US$'000	Total US$'000
Borrowings carried at amortised cost:				
Credit facilities	100,000	—	—	—
Borrowings from receivable factoring facility	95,994	—	60,976	60,976
Other loans	—	15,774	1,083	16,857
Total		**15,774**	**62,059**	**77,833**

	2021			
	Limit US$'000	Non-Current Amount US$'000	Current Amount US$'000	Total US$'000
Borrowings carried at amortised cost:				
Credit facilities	—	—	—	—
Borrowings from receivable factoring facility	67,956	—	93,090	93,090
Other loans	—	3,670	2,207	5,877
Total		**3,670**	**95,297**	**98,967**

Credit facilities

On October, 11, 2019, Ferroglobe subsidiaries Globe Specialty Metals, Inc., and QSIP Canada ULC, as borrowers, entered into a Credit and Security Agreement for a new $100 million north American asset-based revolving credit facility (the "ABL Revolver"), with PNC Bank, N.A., as lender. On March 16, 2021, the Company repaid in its entirety the remaining balance at the date for an amount equal to $39,476 thousand, cancelling its obligations derived from the contract.

On June 30, 2022, The Company closed a new, five-year $100 million North American asset-based revolving credit facility (the "ABL Revolver"), involving Ferroglobe's subsidiary, Globe Specialty Metals, Inc. ("Globe"), and its wholly owned North American subsidiaries, as borrowers, and Bank of Montreal ("BMO"), as lender and agent.

At closing, there was no drawing under the ABL Revolver. Going forward, potential drawings under the ABL Revolver will be used for general corporate purposes.

The ABL Revolver is subject to a borrowing base comprising North American inventory and accounts receivable of Globe (and certain of its subsidiaries) and bears interest of SOFR plus a spread of 150-175 basis points depending on the level of utilization.

Under the ABL credit agreement, the borrowers commit to respect usual affirmative covenants, among others communicating any default or event of default, a change of control, the creation of acquisition of subsidiaries, a casualty or damage to any material used as a collateral, maintenance of the insurance, the compliance with ERISA and the Canadian Pension Laws, the compliance with environmental laws. The borrowers commit not to create or incur any indebtedness, capital leases in excess of a $7.5m, create liens, merge, dissolve, divide any borrowers, change the nature of the business, pay dividends, repay indebtedness for the account of holder of Equity Interests of any Loan Party or its affiliates, maintain a financial covenant consolidated fixed charge coverage ratio to be less than 1.00 to 1.00.

Borrowings from receivable factoring facility

On October 2, 2020, the Company signed a factoring agreement with a financial institution, to anticipate the collection of receivables issued by the Company's European entities (See *Note* 10).

The main characteristics of the agreement are the following:

- the maximum cash consideration advanced for the financing facility is up to€60,000 thousand;
- over collateralization of 10% of accounts receivable as guarantee provided to the Agent until payment has been satisfied;
- a 0.18% to 0.25% fee charged on the total of invoices and credit notes sold to the factor;
- a financing commission set at Euribor 3-month +1% charged on the drawdowns;

Other conditions are set in relation to credit insurance policy which has been structured in an excess of loss policy where the first EUR 5,000 thousand of bad debt losses are not covered by the insurance provider. The Company has assumed the cash collateralization for the entire excess of loss, as agreed in contractual terms.

On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with an additional Spanish Bank. This program offers the possibility to sell the receivables corresponding to nine customers pre-approved by the bank and its credit insurer. Receivables are pre-financed at 100% of their face value.

The main characteristics of this program are the following:

- the maximum cash consideration advanced for the financing facility is up to €30,000 thousand;
- a service fee set at 0.25% of the receivable face value;
- a cost of financing set at Euribor 12-month +1%;
- a closing fee set at 0.25% of the financing;
- an annual renewal fee set at 0.25% of the financing;
- invoices that remain unpaid by the customers to the factor at due date are subject to a late payment interest charge set at Euribor 12-month +15%, with a grace period during the first 30 days.

Judgements relating to the accounting for the factoring agreement

The Company has assessed whether it has transferred substantially all risks and rewards, continuing to be exposed to the variable returns from its involvement in the factoring agreement as it is exposed to credit risk, so the conclusion is that the derecognition criteria is not met and therefore, the account receivables sold are not derecognized from the balance sheet and an obligation is recognized as bank borrowings for the amount of cash advanced.

The borrowings from receivable factoring facility disclosed above are short-term in nature and therefore their carrying amount is considered to approximate their fair value.

Other Loans

Include loans held by the Company to finance their current activities in France and in the United States. The loan related to France was signed in July 2020 for an amount of $5,277 thousand. The balance as of December 31, 2022 is $2,544 thousand ($3,670 thousand as of December 31, 2021). The loan is zero interest rate, guaranteed by French government, and the initial period is one year duration, with repayment of up to five years. The fair value of this loan as of December 31, 2022, based on discounted cash flows at a market interest rate (Level 2), amounts to $2,959 thousand.

The loan related to the United States relates to the NMTC program, which has been signed in December by Globe Metallurgical, Inc, as owner of the Selma plant, for an amount of $13.230 thousand. The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. Investments made through the NMTC Program are used to finance businesses, breathing new life into neglected, underserved low-income communities. The reactivation of the plant in Selma, Alabama, has been granted with a $13,230 thousand allocation by the end of fiscal year 2022 under the NMTC Program. This allocation has been subscribed by Globe Metallurgical, Inc. (GMI) as owner of the plant and United Bank as investor and beneficiary of the tax credit resulting from this grant. As a result of the structure implemented for the NMTC, (i) Globe Specialty Metals, Inc. (GSM) has granted a loan to a special purpose vehicle (SPV I) (Leveraged Loan) and (ii) GMI has received two qualify low-income community investment loans (QLICI Loans) from another special purposes vehicle (SPV II) wholly owned by SPV I. Leverage loan is in the amount of $9,909 thousand, a 26 years term and an interest rate of 4.27% (See *Note 10*). QLICI Loan A is in the amount of $9,909 thousand, with a 30 years term and 3.57% interest rate. QLICI Loan B is in the amount of $3.3 million, with a 30 years term and 3.57% interest rate. Out of this investment-funding structure, GMI receives a federal grant of approximately $2,875 thousand, out of which, all the expenses related to the investment-funding structure are to be detracted. This subsidy must be invested in in CAPEX in the Selma plant throughout fiscal year 2023 as per the investment plan of the group. After seven years, the NMTC structure set up will be wound up, as a result of which (ii) SPV II will cancel the QLICI B loan, resulting in cancellation of debt income (CODI) for GMI; (ii) GSM will become the owner of SPV I and SPV II. Upon liquidation and dissolution of these two entities, the Leverage loan will void by confusion. QLICI A loan will be capitalized by

GSM into GMI. The loan was granted on December, 2022 therefore its carrying amount equals to its fair value as of December 31, 2022.

Since December 2019, the Company entered into a forfaiting program where some of the Company's French and Spanish entities may assign their rights to receive payments under the Contracts with the customer "ArcelorMittal Sourcing s.c.a." in accordance with a forfaiting scheme.

Foreign currency exposure of bank borrowings

The breakdown by currency of bank borrowings at December 31, is as follows:

	2022		
	Non-Current Principal Amount US$'000	Current Principal Amount US$'000	Total US$'000
Borrowings in US Dollars	13,230	170	13,400
Borrowings in Euros	2,544	61,889	64,433
Total	**15,774**	**62,059**	**77,833**

	2021		
	Non-Current Principal Amount US$'000	Current Principal Amount US$'000	Total US$'000
Borrowings in US Dollars	—	1,245	1,245
Borrowings in other currencies	3,670	94,052	97,722
Total	**3,670**	**95,297**	**98,967**

Contractual maturity of non-current bank borrowings

The contractual maturity of bank borrowings at December 31, 2022, was as follows:

	2022			
	2023 US$'000	2026 US$'000	2029 US$'000	Total US$'000
Borrowings from supplier factoring facility	60,976	—	—	60,976
Other loans	1,083	2,544	13,230	16,857
Total	**62,059**	**2,544**	**13,230**	**77,833**

17. Leases

Lease obligations

Lease obligations as at December 31 are as follows:

	2022			2021		
	Non-Current US$'000	Current US$'000	Total US$'000	Non-Current US$'000	Current US$'000	Total US$'000
Other leases	12,942	8,929	21,871	9,968	8,390	18,358
Total	**12,942**	**8,929**	**21,871**	**9,968**	**8,390**	**18,358**

As of December 31, 2022 and 2021 Ferroglobe holds short-term leases and low-value leases for which it has elected to recognize right of use assets and lease liabilities. Each lease is reflected in the statement of financial position as a right of use asset and a lease liability.

As of December 31, 2022 and 2021 Ferroglobe has not recorded any expense relating to variable lease payments.

As of December 31, 2022 and 2021 the company has not identified any indicator for impairment in relation to the right-of-use assets.

The detail, by maturity, of the non-current payment obligations under leases as of December 31, 2022 is as follows:

	2024 US$'000	2025 US$'000	2026 US$'000	2027 US$'000	2028 and after US$'000	Total US$'000
Other leases	4,420	2,930	1,739	1,506	3,643	14,238
Total	**4,420**	**2,930**	**1,739**	**1,506**	**3,643**	**14,238**

IFRS 16 has had the following effect on components of the consolidated financial statements:

	2022 US$'000	2021 US$'000
Balance at January 1,	(18,358)	(22,536)
Additions	(14,979)	(7,761)
Disposals and other	713	517
Interest	(1,587)	(1,100)
Lease payments	11,590	11,285
Exchange differences	750	1,237
Balance at December 31,	**(21,871)**	**(18,358)**

Lease liabilities were discounted at the average incremental borrowing rate of 5.3%.

Leases are presented as follows in the Statement of financial position:

	2022 US$'000	2021 US$'000
Non-current assets		
Leased land and buildings	21,245	17,156
Leased plant and machinery	31,358	27,762
Accumulated depreciation	(34,622)	(29,855)
Non-current liabilities		
Lease liabilities	(12,942)	(9,968)
Current liabilities		
Lease liabilities	(8,929)	(8,390)

Leases are presented as follows in the Consolidated income statement:

	2022 US$'000	2021 US$'000
Depreciation and amortization charges, operating allowances and write-downs		
Depreciation of right of use assets	4,767	7,357
Finance costs		
Interest expense on lease liabilities	1,587	1,100
Exchange differences		
Currency translation losses on lease liabilities	750	1,237
Currency translation gains on right of use assets	(812)	(1,838)

Leases are presented as follows in the Statement of cash flows:

	2022 US$'000	2021 US$'000
Payments for:		
Principal	10,003	10,185
Interest	1,587	1,100

18. Debt instruments

Debt instruments comprise the following at December 31:

	2022 US$'000	2021 US$'000
Notes carried at amortised cost (financial liability)		
Secured Super Senior Notes	—	60,000
Secured Reinstated Senior Notes	349,704	351,003
Unsecured Stub Notes	—	4,942
Unamortised issuance costs	—	(6,064)
Accrued coupon interest	13,569	30,416
Notes carried at amortised cost (financial asset)		
Secured Reinstated Senior Notes	19,048	—
Accrued coupon interest	783	—
Total net debt instruments	**343,442**	**440,297**
Amount due for settlement within 12 months	12,787	35,359
Amount due for settlement after 12 months	330,655	404,938
Total	**343,442**	**440,297**

On February 15, 2017, Ferroglobe and Globe (together, the "Issuers") co-issued $350,000 thousand aggregate principal amount of 9.375% senior unsecured notes due March 1, 2022 (the "Notes"). The proceeds were used primarily to repay existing indebtedness, including borrowings, certain credit facilities and other loans. Interest on the Notes is payable semi-annually on March 1 and September 1 of each year, commencing on September 1, 2017.

On March 27, 2021, Ferroglobe and Globe and certain other members of our group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to implement a debt restructuring plan.

On July 30,2021 the company announced the occurrence of the "Transaction Effective Date" under the lock-up agreement dated March 27, 2021 (the "Lock-Up Agreement") between the Parent and the financial stakeholders. The Transaction Effective Date marks the completion of the financing process.

As part of the transaction:

- The Company completed the exchange of 98.588% of the 9⅜% Senior Notes due 2022 (the "Stub Notes") issued by the Ferroglobe and Globe for a total consideration per $1,000 principal amount of Old Notes comprising (i)$1,000 aggregate principal amount of new 9⅜% senior secured notes due 2025 issued by Ferroglobe Finance Company, PLC and Globe ("the Issuers") (the "Reinstated Senior Notes") plus (ii) a fee amounting to $51,611 thousand. Notes not exchanged (the "Stub Notes") were repaid on March 1, 2022.

- Ferroglobe Finance Company, PLC (a new, subsidiary of the Company) issued $60 million in aggregate proceeds of new 9% senior secured notes due 2025 (the "Super Senior Notes").

At the completion of the comprehensive refinancing, we recognized a charge of $90.8 million. This related to all the advisory fees and expenses, including equity granted to the noteholders, incurred during the refinancing of the prior 9.375% Senior Notes due 2022, which were deemed to be extinguished at closing and replaced with new 9.375% million Senior Notes due 2025.

For accounting purposes the refinancing of the Senior Notes was considered a debt extinguishment. As a consequence:

(i) We recognized a finance expense amounting to $31.7 million related to the advisory fees incurred in the exchange of the notes,

(ii) Similarly to the transaction fees, the shares issued to the bondholders and the work fee were recognized as a one-off expense, amounting $51.6 million at market value.

(iii) In the case of an extinguishment, any outstanding upfront fees that had been capitalized at the issuance of the original notes needs to be recycled through profit and loss, this amounted $1 million. Additionally, as a result of the refinancing, the gross carrying amount of the amortized cost of the Reinstated Notes was adjusted to reflect actual and revised estimated contractual cash flows. The gross carrying amount of the Reinstated Notes was recalculated as the present value of the estimated future contractual cash flows that are discounted at the effective interest rate of 9.096%. The adjustment amounted to $6,462 and it was recognized as an expense in the income statement. After the exchange the Senior notes were accounted under the amortized cost method.

On June, 2022 Globe repurchased $19.05 million of the Reinstated Senior Notes and the corresponding accrued interest coupon amounting to $641 thousand as of the purchase date. The fair value of the Notes at the purchase date was $19.12 million and the purchase price was $1.01 per bond. Since the Company has a legally enforceable right to offset the financial liability and the financial asset, and has the intention to settle these financial instruments on a net basis, the Company has elected to offset these financial instruments and presents the net amount on the balance sheet.

On July 21, 2022, the Super Senior Notes maturing on June 30, 2025 were redeemed at 100% of the principal amount thereof plus accrued interest. The remaining unamortised issuance cost amounting to $6 million have been recognized as a finance expense.

The fair value of the Reinstated Senior Notes maturing on December 31, 2025, determined by reference to the closing market price on the last trading day of the year (Level 1), was $349,609 thousand.

Super Senior Notes

On May 17, 2021, Ferroglobe Finance Company, PLC (a new, subsidiary of the Company, "The UK issuer") issued a tranche of the Super Senior Notes, comprising an initial $40 million of an aggregate of $60 million 9.0% senior secured notes due 2025. Additional Super Senior Notes were issued on July 29, 2021 such that a total of $60 million in aggregate principal amount was outstanding on such date.

The Super Senior Notes are governed by an indenture (the "Super Senior Notes Indenture") entered into by, among others, the UK Issuer, GLAS Trustees Limited, as trustee, Global Loan Agency Services Limited, as paying agent, GLAS Trust Corporation Limited, as security agent, and the guarantors named therein (the "Super Senior Notes Guarantors"). The Super Senior Notes mature on June 30, 2025 and are secured by certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain mine concessions, real property, leases and other assets.

The Super Senior Notes, and the guarantees thereof, are general secured, senior obligations of the UK Issuer and the Super Senior Notes Guarantors, as applicable, and rank senior in right of payment to any and all of the existing and future indebtedness of the UK Issuer and the Super Senior Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Super Senior Notes and such guarantees, as applicable.

The Super Senior Notes Indenture require us to offer to repurchase all or any part of each holder's Super Senior Notes upon the occurrence of a change of control, as defined in the Super Senior Notes Indenture, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase.

The Super Senior Notes Indenture restricts, among other things, the ability of Ferroglobe and its restricted subsidiaries to:

- borrow or guarantee additional indebtedness;
- pay dividends, repurchase shares and make distributions of certain other payments;
- make certain investments;
- create certain liens;
- merge or consolidate with other entities;
- enter into certain transactions with affiliates;
- sell, lease or transfer certain assets, including shares of any restricted subsidiary of Ferroglobe; and
- guarantee certain types of other indebtedness of Ferroglobe and its restricted subsidiaries without also guaranteeing the Super Senior Notes.

On July 21, 2022, the Super Senior Notes maturing on June 30, 2025 were redeemedat 100% of the principal amount thereof plus accrued interest.

Reinstated Senior Notes

Pursuant to the Exchange Offer, Ferroglobe PLC, the UK Issuer and Globe offered to eligible holders of the Old Notes the opportunity to exchange any and all of the Old Notes for new 9⅜% senior secured notes due 2025 issued by the UK Issuer and Globe.

The Reinstated Notes are governed by an indenture (the "Reinstated Notes Indenture") entered into by, among others, Ferroglobe Finance Company PLC and Globe, as issuers, GLAS Trustees Limited, as trustee, Global Loan Agency Services Limited, as paying agent, GLAS Trust Corporation Limited, as security agent, and the guarantors named therein. The Reinstated Notes are guaranteed on a senior basis by Ferroglobe and each subsidiary of Ferroglobe that guarantees the UK Issuer's obligations under the Super Senior Notes (other than Globe) (the "Reinstated Notes Guarantors"). The Reinstated Notes mature on December 31, 2025 and are secured by the same collateral that secures the Super Senior Notes.

The Reinstated Notes, and the guarantees thereof, are general secured, senior obligations of Ferroglobe Finance Company PLC and Globe and the Reinstated Notes Guarantors, as applicable, and will rank senior in right of payment to any and all of the existing and future indebtedness of Ferroglobe, Globe and the Reinstated Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Reinstated Notes and such guarantees, as applicable.

The Reinstated Notes Indenture require us to offer to repurchase all or any part of each holder's Reinstated Notes upon the occurrence of a change of control, as defined in the Reinstated Notes Indenture, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase.

The Reinstated Notes Indenture restricts, among other things, the ability of Ferroglobe and its restricted subsidiaries to:

- borrow or guarantee additional indebtedness;
- pay dividends, repurchase shares and make distributions of certain other payments;
- make certain investments;
- create certain liens;
- merge or consolidate with other entities;
- enter into certain transactions with affiliates;
- sell, lease or transfer certain assets, including shares of any restricted subsidiary of Ferroglobe; and
- guarantee certain types of other indebtedness of Ferroglobe and its restricted subsidiaries without also guaranteeing the Reinstated Notes.

Compared to the Old Notes Indenture (prior to certain amendments on July 29, 2021) the Reinstated Notes Indenture have generally more stringent restrictive covenants. Some of these differences include, among others, the following:

- the elimination of baskets or a reduction of basket sizes in the debt covenant, restricted payment covenant, permitted investments,
- permitted liens and asset disposition;
- the addition of a net leverage test in the debt covenant and reduced flexibility in financial calculations;
- requirement to apply certain excess proceeds to repay debt in accordance with the applicable intercreditor agreement;
- lower event of default thresholds; and
- a 90% guarantor coverage test.

Stub Notes

The Stub Notes are senior unsecured obligations of the Issuers and are guaranteed on a senior basis by certain subsidiaries of Ferroglobe. The Notes are listed on the Irish Stock Exchange. As of December 31, 2021 $4.9 million in aggregate principal amount of the Old Notes was outstanding. This balance was settled on March 1, 2022.

The Old Notes are governed by the Old Notes Indenture entered into by, among others, Ferroglobe and Globe, as issuers, Wilmington Trust, National Association, as trustee, registrar and paying agent, and the guarantors named therein (the "Old Notes Guarantors").

The Old Notes and the guarantees thereof are general unsecured, senior obligations of Ferroglobe and Globe and the Old Notes Guarantors, as applicable, and rank senior in right of payment to any and all of the existing and future indebtedness of Ferroglobe, Globe and the Old Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Old Notes and such guarantees, as applicable.

Ferroglobe and Globe may redeem all or, from time to time, part of the Old Notes at a redemption price of 100% of the principal amount of the Old Notes being redeemed plus accrued and unpaid interest and additional amounts, if any, to, but not including, the applicable redemption date.

19. Other financial liabilities

Other financial liabilities comprise the following at December 31:

	2022			2021		
	Non-Current US$'000	Current US$'000	Total US$'000	Non-Current US$'000	Current US$'000	Total US$'000
Financial loans from government agencies	38,279	60,382	98,661	4,549	62,464	67,013
Total	**38,279**	**60,382**	**98,661**	**4,549**	**62,464**	**67,013**

Financial loans from government agencies

On September 8, 2016, FerroAtlántica, S.A.U ("FAU"), as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry"), as lender, entered into a loan agreement under which the Ministry made available to the borrower a loan in aggregate principal amount of €44,999 thousand and €26,909 thousand in connection with industrial development projects relating silicon purification project. FAU transferred the loan to OPCO before its sale. The loan is contractually due to be repaid in seven installments over a 10-year period with the first three years as a grace period. Interest on outstanding amounts under the loan accrues at an annual rate of 3.55%. Default interests are calculated at an annual rate of 3.75%. As of December 31, 2022, the amortized cost of the loan was €54,989 thousand (equivalent to $58,651 thousand) (2021: €54,578 thousand and $61,815 thousand). In November 2018, FAU agreed to transfer to OpCo certain assets which had been acquired with the proceeds of the REINDUS Loan and used exclusively by OpCo in connection with the joint venture inconsideration of OPCO assuming liability for the REINDUS Loan. Reindus loan fair value as of December 31, 2022 and 2021, based on discounted cash flows at a market interest rate (Level 2), amounts to $48,066 thousand and $44,200 thousand respectively.

The agreement governing the loan contain the following limitations on the use of the proceeds of the outstanding loan: (1) the investment of the proceeds must occur between January 1, 2016 and February 24, 2019; (2) the allocation of the proceeds must adhere to certain approved budget categories; (3) if the final investment cost is lower than the budgeted amount, the borrower must reimburse the Ministry proportionally; and (4) the borrower must comply with certain statutory restrictions regarding related party transactions and the procurement of goods and services. On May 24, 2019, a report on uses of the loan was presented to the Ministry. On January 26, 2021, the Company received a decision from the Administration under which it was agreed to extend the grace period and the term of loan, and it will be completed by 2030.

In January 25, 2022, the Ministry opened a procedure to decide about the potential reimbursement of the loan. The company presented its allegations on February 15, 2022. Based on those allegations, in January 19, 2023, a new resolution was signed by the Ministry terminating the total reimbursement procedure initiated in January 2022. Once that procedure was definitively closed, the company decided to proceed with the foreseen partial early repayment of €16.3 million in February 10, 2023.

In March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the "Beneficiaries") and the Sociedad Estatal de Participaciones Industriales ("SEPI"), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic.

The €34.5M was funded using a dual-tranche loan, with €17.25M maturing in February 2025 and €17.25M maturing in June 2025. €16.9M of the loan carries a fixed interest rate of 2% per annum, and interest on the remaining €17.6M is calculated as IBOR plus a spread of 2.5% in the first year, 3.5% in the second and third years and 5.0% in the fourth year, plus an additional 1.0% payable if the result before taxes of the Beneficiaries is positive. The loans are secured by corporate joint guarantees from Ferroglobe, Ferroglobe Holding Company and Ferroglobe Finance Company and certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain real property, and other assets from Grupo FerroAtlántica and certain of its subsidiaries. These loans are

granted at rates that are considered to be below-market rates. The company has calculated the fair value of the loans liability, based on discounted cash flows at a market interest rate (Level 2), resulting in €30,693 thousand ($34,149 thousand) as of the grant date. The difference between the fair value and the proceeds received, amounting to €3,807 thousand $(4,236 thousand), was recorded as a government grant. As of December 31, 2022, the amortized cost of the SEPI loans was $34,675 thousand.

SEPI loan fair value as of December 31, 2022 based on discounted cash flows at a market interest rate (Level 2), amounts to $48,066 thousand.

Until the loans have been fully repaid, the Beneficiaries are subject to several restrictions, including the following prohibited payments: (1) payment of dividends; (2) payment of management fee; (3) repayment of intra-group loans; (4) payment of intercompany net commercial balances as of June 30, 2021 (denominated “legacy”), with the exception of $20M of those balances. (Intercompany commercial balances generated after Jun-21 are permitted); and (5) payment of interest on intercompany loans corresponding to the years 2021 and 2022.

If GFAT fails to make the payments to which it is obliged, FASEE shall have the option (but never the obligation) to convert all or part of the Participating Loan into share capital of GFAT.

The loan contains a change of control clause stating that it will be considered change of control and therefore will suppose an early repayment event of the loan: with respect to GFAT, (a) if Ferroglobe Plc ceases to hold, directly or indirectly, an interest of at least 51% of the voting share capital or, (b) if Grupo Villar Mir, S.A.U. ceases to hold a stake of at least 35% of the voting share capital of Ferroglobe Plc, or loses the rights to which it is entitled as holder of such stake or more by virtue of the shareholders' agreement of Ferroglobe Plc or (c) if GFAT ceases to be the holder, directly or indirectly, of hundred percent (100%) shareholding in Grupo FerroAtlántica de Servicios.

Finally, the loan contains a cross-default clause meaning that (A) If any of GFAT or GFAT de Servicios: (a) defaults on any payment obligation arising from Indebtedness contracted with any other entity for amounts exceeding, during a fiscal year, €2,500,000; or (b) defaults on due and payable payment obligations of a commercial (non-financial) nature assumed with third parties for an individual or cumulative amount exceeding €2,500,000 unless such defaults are below the average of the customary commercial defaults that the Beneficiaries or Guarantors have had between fiscal years 2016 to 2019 or (B) If any creditor that has granted Indebtedness to GFAT or GFAT de Servicios for an amount equal to or greater than €5,000,000 , is entitled to declare it liquid, due and payable before its ordinary maturity date upon a default of its obligations by GFAT or GFAT de Servicios.

The remaining non-current and current balances are related to loans granted mainly by Canadian and Spanish government agencies.

20. Trade and other payables

Trade and other payables comprise the following at December 31:

	2022 US$'000	2021 US$'000
Payable to suppliers	219,020	200,999
Trade notes and bills payable	646	5,001
Total	**219,666**	**206,000**

21. Other Obligations

Other obligations comprise the following at December 31:

	2022			2021		
	Non-Current US$'000	Current US$'000	Total US$'000	Non-Current US$'000	Current US$'000	Total US$'000
Payable to non-current asset suppliers	183	4,149	4,332	135	2,677	2,812
Guarantees and deposits	12	235	247	14	4,554	4,568
Contingent consideration	3,893	1,945	5,838	13,504	13,023	26,527
Tolling agreement liability	33,414	3,251	36,665	24,429	2,589	27,018
Total	**37,502**	**9,580**	**47,082**	**38,082**	**22,843**	**60,925**

In 2021 we disaggregated “Other liabilities” into an additional line to the balance sheet “Other obligations“ to separately present certain contractual obligations whose nature and function differs from other items presented in the “Other liabilities line”, so as to allow a better understanding of the Company´s financial position.

Contingent consideration

On February 1, 2018 the Company acquired 100% of the outstanding ordinary shares of Kintuck (France) SAS and Kintuck AS from a wholly-owned subsidiary of Glencore International AG (“Glencore”) and obtained control of both entities. The new subsidiaries were renamed as Ferroglobe Mangan Norge AS and Ferroglobe Manganèse France SAS. The Company completed the acquisition through its wholly-owned subsidiary Ferroatlántica., see *Note* 5. Consideration included both cash and contingent consideration.

The contingent consideration arrangement requires the Company to pay the former owners of Kintuck (France) SAS and Kintuck AS a sliding scale commission based on the silicomanganese and ferromanganese sales spreads of Ferroglobe Mangan Norge and Ferroglobe Manganèse France, up to a maximum amount of $60,000 thousand (undiscounted). The contingent consideration applies to sales made up to eight and a half years from the date of acquisition and if it applies, the payment is on annual basis. During 2022, the total payment made amounts to $18,931 thousand.

The potential undiscounted amount of all future payments that the Company could be required to make under the contingent consideration arrangement is between $nil thousand and $60,000 thousand.

The fair value of the contingent consideration arrangement as at December, 31, 2022 of $5,838 thousand (2021: $26,527 thousand) was estimated by applying the income approach based on a Monte Carlo simulation considering various scenarios of fluctuation of future manganese alloy spreads as well at the cyclicality of manganese alloy pricing. The fair value measurement is based on significant inputs that are not observable in the market, which IFRS 13 Fair Value Measurement refers to as Level 3 inputs. Key assumptions include discount rates of 10.7 percent and 11.5 percent for Ferroglobe Mangan Norge and Ferroglobe Manganèse France respectively (2021: 10.7 percent and 10.9 percent), volumes and manganese spread. Average simulated revenues in Ferroglobe Mangan Norge and Ferroglobe Manganèse France are between $137,871 thousand and $124,999 thousand per year (2021: between $245,292 thousand and $311,050 thousand). The liability has decreased primarily driven by a reduction in the manganese spread driven by higher manganese ore costs and lower selling prices combined with higher operational costs and impact of FX and inflation forecasts. Changes in the value of contingent consideration are presented in the income statement - other operating expense.

Sensitivity to changes in assumptions

Changing assumptions, could significantly affect the evaluation of the fair value of the contingent consideration. The following changes to the assumptions used in the Monte Carlo simulation could lead to the following changes in the fair value:

		Sensibility on discount rate		Sensibility on volumes		Sensibility on Mn Spread	
	Contigent consideration December 31, 2022	Decrease by 10%	Increase by 10%	Decrease by 10%	Increase by 10%	40% percentil	60% percentil
Fair value contingent consideration	5,838	5,880	5,672	4,398	7,209	1,856	12,795

Tolling agreement liability

On August 30, 2019, Grupo FerroAtlántica, S.A.U. sold its 100% interest in the remainder of FerroAtlántica, S.A.U. to Kehlen Industries Management, S.L.U., an affiliate of U.S.-based TPG Sixth Street Partners. The FerroAtlántica, S.A.U. assets transferred by means of this transaction included ten hydroelectric power plants and the Cee-Dumbría ferroalloys manufacturing plant, all located in the province of A Coruña, Spain. Under the terms of the transaction, the Group will become exclusive off taker of finished products produced at the smelting plant at Cee and supplier of key raw materials to that facility pursuant to a tolling agreement expiring in 2060.

In November 2020, the Tribunal Superior de Justicia de Galicia dismissed the request of separation of the Cee-Dumbria's hydroelectric plants and the ferroalloys plants. Grupo FerroAtlantica, S.A.U. appealed to the Supreme Court, in 2021 the appeal was dismissed. As of December 31, 2022, the liability recognized amounts to $36,665 thousand (€34,375 thousand). The liability recognized is considered the fair value of the tolling agreement liability as of December 31, 2022 since is approximately the amount to pay by the contract as penalty fee for an early termination of the agreement.

22. Other liabilities

Other liabilities comprise the following at December 31:

	2022			2021		
	Non-Current US$'000	Current US$'000	Total US$'000	Non-Current US$'000	Current US$'000	Total US$'000
Remuneration payable	—	55,791	55,791	—	36,046	36,046
Tax payables	—	37,628	37,628	—	17,613	17,613
Other liabilities	12	11,113	11,125	1,476	20,669	22,145
Total	**12**	**104,532**	**104,544**	**1,476**	**74,328**	**75,804**

Tax payables

Tax payables comprise the following at December 31:

	2022		2021	
	Current US$'000	Total US$'000	Current US$'000	Total US$'000
VAT	20,905	20,905	4,839	4,839
Accrued social security taxes payable	6,195	6,195	6,251	6,251
Personal income tax withholding payable	896	896	820	820
Other	9,632	9,632	5,703	5,703
Total	**37,628**	**37,628**	**17,613**	**17,613**

23. Tax matters

The components of current and deferred income tax expense (benefit) are as follows:

	2022 US$'000	2021 US$'000	2020 US$'000
Consolidated income statement			
Current income tax			
Current income tax charge	144,246	5,284	4,307
Adjustments in current income tax in respect of prior years	(5,681)	—	901
Total	**138,565**	**5,284**	**5,208**
Deferred tax			
Origination and reversal of temporary differences	15,032	(9,954)	(20,961)
Impact of tax rate changes	460	—	—
Write-down of deferred tax assets	(1,448)	—	37,660
Adjustments in deferred tax in respect of prior years	(4,626)	108	32
Total	**9,418**	**(9,846)**	**16,731**
Income tax expense (benefit)	**147,983**	**(4,562)**	**21,939**

As the Company has significant business operations in Spain, France, South Africa and the United States, a weighted blended statutory tax rate is considered to be appropriate in estimating the Company's expected tax rate. The following is a reconciliation of tax expense based on a weighted blended statutory income tax rate to our effective income tax expense for the years ended December 31, 2022, 2021, and 2020:

	2022 US$'000	2021 US$'000	2020 US$'000
Accounting profit/(loss) before income tax	602,660	(119,936)	(222,420)
Adjustment for discontinued operations	—	—	(5,399)
Accounting profit/(loss) before income tax	602,660	(119,936)	(227,819)
At weighted statutory tax rate of 26% (2021: 19% and 2020: 24%)	157,620	(22,650)	(54,294)
Non-deductible income/ (expenses)	(5,920)	(11,399)	6,779
Differing territorial tax rates	591	2,603	3,064
Adjustments in respect of prior periods	1,368	—	(50)
Other items	7,539	27,884	70,123
Elimination of effect of interest in joint ventures	(913)	(782)	899
Other permanent differences	159	(673)	(389)
Incentives and deductions	(11,740)	88	(2,456)
US State taxes	(721)	367	(1,737)
Income tax expense (benefit)	**147,983**	**(4,562)**	**21,939**

Other items mainly comprise unrecognized temporary differences for tax losses.

Deferred tax assets and liabilities

For the year ended December 31,2022:

	Opening Balance US$'000	Recognized in P&L US$'000	Recognized in OCI US$'000	Write-down of Deferred Tax Assets US$'000	Exchange Differences US$'000	Closing Balance US$'000
Intangible assets	(451)	(14,014)	—	496	(9)	(13,978)
Provisions	21,672	9,090	(1,416)	9,347	(682)	38,011
Property, plant & equipment	(52,231)	3,920	—	(8,089)	1,670	(54,730)
Inventories	—	480	—	708	(2)	1,186
Tax losses	6,353	(5,894)	—	2,595	205	3,259
Incentives & credits	9,333	(254)	—	(8,542)	(505)	32
Partnership interest	(8,514)	—	—	8,514	—	—
Other	5,703	(2,746)	(666)	(4,425)	(364)	(2,498)
Total	**(18,135)**	**(9,418)**	**(2,082)**	**604**	**313**	**(28,718)**

For the year ended December 31, 2021:

	Opening Balance US$'000	Prior Year Charge US$'000	Recognized in P&L US$'000	Reclassifications US$'000	Exchange Differences US$'000	Closing Balance US$'000
Intangible assets	(458)	21	(34)	—	20	(451)
Biological assets	(1)	—	1	—	—	—
Provisions	14,235	(7)	8,503	(986)	(73)	21,672
Property, plant & equipment	(48,263)	(585)	(7,481)	3,238	860	(52,231)
Inventories	64	—	(64)	—		—
Tax losses	9,525	—	1,491	(3,959)	(704)	6,353
Incentives & credits	1,426	—	7,906	—	1	9,333
Partnership interest	(8,983)	—	469	—	—	(8,514)
Other	4,674	—	(266)	1,256	39	5,703
Total	**(27,781)**	**(571)**	**10,524**	**(451)**	**143**	**(18,135)**

Presented in the statement of financial position as follows:

	2022 US$'000	2021 US$'000
Deferred tax assets	44,644	45,246
Deferred tax liabilities	(73,362)	(63,381)
Offset between deferred tax assets and deferred tax liabilities	37,508	38,236
Total deferred tax assets due to temporary differences recognized in the statement of financial position	**7,136**	**7,010**
Total deferred tax liabilities due to temporary differences recognized in the statement of financial position	**(35,854)**	**(25,145)**

Unrecognized deductible temporary differences, unused tax losses and unused tax credits

	2022 US$'000	2021 US$'000
Unused tax losses	587,495	624,635
Unused tax credits	6,761	8,487
Unrecognized deductible temporary differences	208,011	135,174
Total	**802,267**	**768,296**

In general terms, neither the NOLs nor the tax credits have an expiration date in the jurisdictions where they derive from.

Unused tax losses and unused tax credits have decreased in 2022 compared to 2021 because of the significant positive results obtained in all jurisdictions. Unrecognized deductible temporary differences have increased in 2022 compared to 2021 due to ordinary liquidation of the tax. Management has decided to book the respective deferred tax assets corresponding to the jurisdictions where taxable profit is expected to be generated in the short and mid-term.

Management of tax risks

The Company is committed to conducting its tax affairs consistent with the following objectives:

(i) to comply with relevant laws, rules, regulations, and reporting and disclosure requirements in whichever jurisdiction it operates;
(ii) to maintain mutual trust, transparency, and respect in its dealings with all tax authorities; and
(iii) to adhere with best practice and comply with the Company's internal corporate governance procedures, including but not limited to its Code of Conduct

For further details please refer to the group's tax strategy which can be found here: http://investor.ferroglobe.com/corporate-governance.

The Group's tax department maintains a tax risk register on a jurisdictional basis.

In the jurisdictions in which the Company operates, tax returns cannot be deemed final until they have been audited by the tax authorities or until the statute-of-limitations has expired. The number of open tax years subject to examination varies depending on the tax jurisdiction. In general, the Company has the last four years open to review. The criteria that the tax authorities might adopt in relation to the years open for review could give rise to tax liabilities which cannot be quantified.

24. Related party transactions and balances

Balances with related parties at December 31 are as follows:

	2022			
	Receivables		Payables	
	Non-Current US$'000	Current US$'000	Non-Current US$'000	Current US$'000
Inmobiliaria Espacio, S.A.	—	2,675	—	—
Villar Mir Energía, S.L.U.	1,600	—	—	(10)
Enérgya VM Gestión de la Energía, S.L.	—	—	—	1,800
Total	**1,600**	**2,675**	**—**	**1,790**

	2021			
	Receivables		Payables	
	Non-Current US$'000	Current US$'000	Non-Current US$'000	Current US$'000
Inmobiliaria Espacio, S.A.	—	2,841	—	—
Villar Mir Energía, S.L.U.	1,699	—	—	8,808
Espacio Information Technology, S.A.U.	—	—	—	737
Total	**1,699**	**2,841**	**—**	**9,545**

The loan granted to Inmobiliaria Espacio, S.A. accrues a market interest (EURIBOR three-month rate plus 2.75%) and has a maturity in the short-term that is renewed tacitly upon maturity. Unless the parties agree the repayment, the loan is extended it automatically for one year.

The balance with the other related parties arose as a result of the commercial transactions performed with them (see explanation of main transactions below).

Additionally in 2022, as a result of a tax audit of the IESA tax group, a reassessment of its net operating losses (NOLs) was made within the members of the tax group with respect to fiscal years 2008 through 2012. In particular, additional NOLs were attributed to Grupo Ferroatlántica, S.A.U. (GFAT) and Ferroatlántica, S.A.U. (FAT). GFAT, as top parent company of a tax group to which FAT belonged to until fiscal year 2019, filed an amending corporate income tax (CIT) return of fiscal years 2016 and 2017. By way of this amending returns, the reassigned NOLs of FAT have been partially applied and consequently partial refund of the CIT paid in such fiscal years has been in the amount of $592,378. To the extent that the negative results obtained by GFAT and FAT when forming part of the IESA tax group were duly paid each year, this refund corresponds to IESA. GFAT has granted to IESA a loan in the amount of the CIT refund requested (the CIT loan). Therefore, upon receiving the CIT refund, the CIT loan will be canceled under an assignment and offsetting agreement between GFAT and IESA. The CIT loan bears interest annually at 5.25% fix rate for one-year loan under Ferroglobe transfer pricing policy. The Company shows a tax receivable amounting in its balance for this concept.

Transactions with related parties in 2022, 2021 and 2020 are as follows:

	2022			
	Sales and Operating Income US$'000	Raw materials and energy consumption for production US$'000	Other Operating Expenses US$'000	Finance Income (Note 26.4) US$'000
Inmobiliaria Espacio, S.A.	—	—	—	—
Villar Mir Energía, S.L.U.	—	128,211	1,612	—
Espacio Information Technology, S.A.U.	—	—	1,008	—
Enérgya VM Gestión, S.L	—	4,506	646	—
Other related parties	—	—	101	—
Total	**—**	**132,717**	**3,367**	**—**

	2021			
	Sales and Operating Income US$'000	Raw materials and energy consumption for production US$'000	Other Operating Expenses US$'000	Finance Income (Note 26.4) US$'000
Inmobiliaria Espacio, S.A.	—	—	—	—
Villar Mir Energía, S.L.U.	—	132,566	1,365	—
Espacio Information Technology, S.A.U.	—	—	3,266	—
Enérgya VM Gestión, S.L	—	—	120	—
Aurinka	—	—	111	—
Other related parties	—	—	68	—
Total	**—**	**132,566**	**4,930**	**—**

	2020			
	Sales and Operating Income US$'000	Raw materials and energy consumption for production US$'000	Other Operating Expenses US$'000	Finance Income (Note 26.4) US$'000
Inmobiliaria Espacio, S.A.	—	—	—	16
Villar Mir Energía, S.L.U.	—	39,900	647	—
Espacio Information Technology, S.A.U.	—	—	3,171	—
Enérgya VM Gestión, S.L	—	—	79	—
Aurinka	—	1	308	—
Other related parties	—	—	3	—
Total	**—**	**39,901**	**4,208**	**16**

“Raw Materials and energy consumption for production” of the related parties vis-à-vis Villar Mir Energía, S.L.U. relates to the purchase of energy from the latter by the Company’s Europe – Manganese Alloys and Europe – Silicon Metals & Silicon Alloys segment. FerroAtlántica pays VM Energía a service charge in addition to paying for the cost of energy purchase from the market. Under contracts entered into with FAU on June 22, 2010 and December 29, 2010 (assigned to FerroAtlántica de Boo, S.L.U. (“FAU Boo”) and to FerroAtlántica de Sabon, S.L.U. (“FAU Sabon”) in August 2019 in anticipation of the FAU Disposal), and with Hidro Nitro Española on December 27, 2012 (assigned to FerroAtlántica del Cinca when Hidro Nitro Española was sold in December 2018), VM Energía supplies the energy needs of the Boo, Sabón and Monzón electrometallurgy facilities, as a broker for FAU BOO or FAU Sabon (now Grupo FerroAtlántica) and Hidro Nitro Española (now FerroAtlántica del Cinca) in the wholesale power market. The contracts allow FAU Boo or FAU Sabon (now Grupo FerroAtlántica) and Hidro Nitro Española (now FerroAtlántica del Cinca) to buy energy from the grid at market conditions without incurring costs normally associated with operating in the complex wholesale power market,

as well as to apply for fixed price arrangements in advance from VM Energía, based on the energy markets for the power, period and profile applied for. For the fiscal year ended December 31, 2021, Grupo FerroAtlántica and FerroAtlántica del Cinca's obligations to make payments to VM Energía under their respective agreements for the purchase of energy plus the service charge amounted to $102,066 thousand and $30,501 thousand, respectively. The contracts have a term of one year, which can be extended by the mutual consent of the parties to the contract. The contracts were renewed in January 2019 and will renew annually for up to three years unless terminated. The contracts were again renewed in January 2020. In January 2021, the contracts were renewed for two years with the possibility to extend it for additional one-year periods unless terminated with thirty days' notice. On September 30, 2021 Grupo FerroAtlántica, S.A.U absorbed its subsidiaries FAU Boo and FAU Sabón assuming all the rights and obligations derived from those contracts. Those contracts were assigned from Villar Mir Energía SLU to Energya VM Gestión de Energía, SLU ("Energya VM") on October 15, 2022. Therefore, since the assignment the payments for the service charge was done to Energya VM, amounting $4,506 thousand in 2022.

On December 22, 2022, Grupo FerroAtlántica and VM Energía entered into a Power Purchase Agreement (PPA). Under this PPA, VM Energía would supply to Sabón plant 65 GW on a *pay as produced* basis during 10 years from the commencement of operation of the Plants. This PPA would cover 10% of the total power consumption of the Sabón plant. The agreement has been cancelled in February 2023.

"Other operating expenses" corresponds to the payment to Espacio Information Technology, S.A. ("Espacio I.T."), provides information technology and data processing services to Ferroglobe PLC and certain of its direct and indirect subsidiaries: FAU (until shortly prior to the FAU Disposal when such services were assigned to Grupo FerroAtlántica de Servicios, S.L.U. ("Servicios")), FerroAtlántica de Mexico, Silicon Smelters (Pty), Ltd. and FerroPem, SAS pursuant to several contracts. Additionally corresponds to the Payment to Villar Mir Energia, S.L.U that provides the energy needs of the mining facilities operated by RAMSA and CISA in the wholesale power market. On April 2022, Grupo VM sold its interest in Espacio I.T. so those transactions do not involve a Grupo VM subsidiary and therefore as of that date should no longer be considered as related party transactions.

25. Guarantee commitments to third parties and contingent liabilities

Guarantee commitments to third parties

As of December 31, 2022 and 2021, the Company has provided bank guarantees commitments to third parties amounting $7,905 thousand and $11,948 thousand, respectively. Management believes that any unforeseen liabilities at December 31, 2022 and 2021 that might arise from the guarantees given would not be material.

Contingent liabilities

In the ordinary course of its business, Ferroglobe is subject to lawsuits, investigations, claims and proceedings, including, but not limited to, contractual disputes and employment, environmental, health and safety matters. Although we cannot predict with certainty the ultimate resolution of lawsuits, investigations, claims and proceedings asserted against it, we do not believe any currently pending legal proceeding to which it is a party will have a material adverse effect on its business, prospects, financial condition, cash flows, results of operations or liquidity.

Stamp Tax litigation procedure

On February 2021 the Central Economic-Administrative Court ruled against the interest of Ferroglobe in a stamp duty litigation procedure initiated in 2015, where the taxpayer is Abanca. Ferroglobe agreed with Abanca that it continues the litigation at the judiciary level by filing an appeal before the Audiencia Nacional. This filing was completed in April 2021. As a result of the continuation of this litigation process, with the appropriate granting of bank guarantee by the taxpayer (Abanca), neither payment of the tax reassessment (circa 1.4MM Euro plus delay interest) nor of the penalty proposed (circa 600K Euro) are due at this stage of the process. We anticipate this stage will take between two to four years to be resolved by the Audiencia Nacional. In case the Audiencia Nacional rules against the interests

of Ferroglobe, the full amount of the tax reassessment and the penalty would be payable by Ferroglobe in applying a compensation agreement in place between Abanca and Ferroglobe.

Asbestos-related claims

Certain employees of FerroPem, SAS, then known as Pechiney Electrometallurgie, S.A. ("PEM"), may have been exposed to asbestos at its plants in France in the decades prior to FerroAtlántica Group's purchase of that business in December 2004. During the period in question, PEM was wholly-owned by Pechiney Bâtiments, S.A., which had certain indemnification obligations to FerroAtlántica pursuant to the 2004 Share Sale and Purchase Agreement under which our FerroAtlántica acquired PEM. As of December 31, 2022, approximately 100 such employees have "declared" asbestos-related injury to the French social security agencies. Approximately three quarters of these cases now have been closed. Of the remaining cases, approximately half include assertions of "inexcusable negligence" ("faute inexcusable") which, if upheld, may lead to material liability in the aggregate on the part of FerroPem. Other employees may declare further asbestos-related injuries in the future, and may likewise assert inexcusable negligence. Litigation against, and material liability on the part of, FerroPem will not necessarily arise in each case, and to date a majority of such declared injuries have been minor and have not led to significant liability on Ferropem's part. Whether liability for "inexcusable negligence" will be found is determined case-by-case, often over a period of years, depending on the evolution of the claimant's asbestos-related condition, the possibility that the claimant was exposed while working for other employers and, where asserted, the claimant's ability to prove inexcusable negligence on PEM's part. Because of these and other uncertainties, no reliable estimate can be made of FerroPem's eventual liability in these matters, with exception of three grave cases that were litigated through the appeal process and in which claimants' assertions of inexcusable negligence were upheld against FerroPem. Liabilities in respect to asbestos-related claims have been recorded at December 31, 2022 at an estimated amount of $955 thousand in Provisions for litigation in progress ($1,143 thousand in 2021).

Environmental matters

Since 2016, GMI has been negotiating with the U.S. Department of Justice (the "DOJ") and the U.S. Environmental Protection Agency (the "EPA") to resolve two Notices of Violation/Findings of Violation ("NOV/FOV") that the EPA issued to the Beverly facility. The first NOV/FOV was issued on July 1, 2015 and alleges certain violations of the Prevention of Significant Deterioration ("PSD") and New Source Performance Standards provisions of the Clean Air Act associated with a 2013 project performed at GMI's Beverly facility. Specifically, the July 2015 NOV/FOV alleges violations of the facility's existing operating and construction permits, including allegations related to opacity emissions, sulfur dioxide and particulate matter emissions, and failure to keep necessary records and properly monitor certain equipment. The second NOV/FOV was issued on December 6, 2016, and arises from the same facts as the July 2015 NOV/FOV and subsequent EPA inspections. The second NOV/FOV alleges opacity exceedances at certain units, failure to prevent the release of particulate emissions through the use of furnace hoods at a certain unit, and the failure to install Reasonably Available Control Measures (as defined) at certain emission units at the Beverly facility. To resolve the NOV/FOVs, GMI likely will be required to install additional pollution control equipment, implement other measures to reduce emissions from the facility, as well as pay a civil penalty. Should the DOJ and GMI be unable to reach a negotiated resolution of the NOVs/FOVs, the authorities could institute formal legal proceedings for injunctive relief and civil penalties. The statutory maximum penalty is $93,750 per day per violation, from April 2013 to December 2021, and $109,024 per day thereafter. Liabilities in respect these claims have been recorded at December 31, 2022 at an estimated amount of $2,800 thousand in Provisions for litigation in progress.

Other legal procedures

In the first quarter of 2023, the Company reached full and final settlements of civil lawsuits arising out of 2018 incident at Globe Metallurgical Inc.'s Selma, Alabama, facility in which two employees were injured, one of whom later died. The Company's insurer settled those claims for $18m and paid the amounts directly.

26. Income and expenses

26.1 Sales

Sales by geographical area for the years ended December 31 are as follows:

	2022 US$'000	2021 US$'000	2020 US$'000
Spain	282,387	251,528	133,370
Germany	442,331	292,774	191,107
Italy	111,887	76,721	42,067
France	148,741	130,811	79,491
Other EU Countries	162,374	176,046	88,443
USA	966,161	515,095	404,633
Rest of World	484,035	335,933	205,323
Total	**2,597,916**	**1,778,908**	**1,144,434**

26.2 Raw materials and energy consumption for production

Raw materials and energy consumption for production are comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Purchases of raw materials, supplies and goods	793,014	581,991	366,532
Variation in stocks of finished goods, raw materials, supplies and goods	(163,430)	(74,361)	61,827
Others	625,637	676,171	405,188
Write-down of raw materials	12,342	—	—
Write-down of finished goods	17,523	1,095	1,939
Total	**1,285,086**	**1,184,896**	**835,486**

26.3 Other operating income

Other operating income are comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Energy	(53,802)	—	—
C02	(88,952)	(103,044)	(25,702)
Others	(4,602)	(7,041)	(7,925)
Total	**(147,356)**	**(110,085)**	**(33,627)**

The Company recognizes emission rights (allowances) allocated by government as intangible assets. The intangible asset recognized is initially measured at fair value (current market value).

The allowances are granted for less than fair value, the difference between the fair value and the nominal amount paid is recognized as a government grant. The grant is initially recognized as deferred income in the statement of

financial position and subsequently recognized as "other operating income" on a systematic basis on the proportion of the CO2 emitted over total CO2 expected to be emitted for the compliance period, during 2022 the Company has recorded an amount of $88,952 thousand, $103,044 thousand in 2021 and $25,702 thousand in 2020.

As the Company emits CO2, it recognizes a provision for its obligation to deliver the CO2 emissions at the end of the compliance period. The provision is remeasured and recorded as an expense at the end of each reporting period at historical cost for the emission rights (allowances). Provision for its obligation to deliver the CO2 emissions is presented in the income statement - other operating expense.

26.4 Staff costs

The average monthly number of employees (including Executive Directors) was:

	2022	2021	2020
Directors	9	8	6
Senior Managers	288	289	291
Employees	3,173	2,997	3,020
Total	**3,470**	**3,294**	**3,317**

Staff costs are comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Wages, salaries and similar expenses	232,880	214,374	161,957
Pension plan contributions	7,977	7,571	3,641
Employee benefit costs	73,953	58,972	49,184
Total	**314,810**	**280,917**	**214,782**

Share-based compensation

a. Equity Incentive Plan

On May 29, 2016, the board of Ferroglobe PLC adopted the Ferroglobe PLC Equity Incentive Plan (the "Plan") and on June 29, 2016 the Plan was approved by the shareholders of the Company. The Plan is a discretionary benefit offered by Ferroglobe PLC for the benefit of selected senior employees of Ferroglobe PLC and its subsidiaries. The Plan's main purpose is to reward and foster performance through share ownership. Awards under the plan may be structured either as conditional share awards or options with a $nil exercise price (nil cost options), except the options granted in 2021 which have a strike of 0.01. The awards are subject to a service condition of three years from the date of grant in the case of the options granted in 2017, 2018, 2019 and 2022, and four years from the date of grant in the case of the options granted in 2020, in each case to the extent that performance conditions are satisfied, and subject to continued service with the Company, remain exercisable until the tenth anniversary of their grant date. In the case of the options granted in 2021 the options vest on January 1, 2024.

Details of the Plan awards during the current and prior years are as follows:

	Number of awards
Outstanding as of December 31, 2020	**3,411,974**
Granted during the period	1,307,934
Exercised during the period	(309,462)
Expired/forfeited during the period	(51,010)
Outstanding as of December 31, 2021	**4,359,436**
Granted during the period	848,710
Exercised during the period	(208,076)
Expired/forfeited during the period	(1,198,364)
Outstanding as of December 31, 2022	**3,801,706**
Exercisable as of December 31, 2022	344,385

The awards outstanding under the Plan at December 31, 2022 and December 31, 2021 were as follows:

Grant Date	Performance Period	Expiration Date	Exercise Price	Fair Value at Grant Date	2022	2021
September 22, 2022	December 31, 2024	September 9, 2032	nil	8.53	848,710	—
September 9, 2021	December 31, 2021	September 9, 2031	nil	$ 8.83	1,255,824	1,307,934
December 16, 2020	December 31, 2020	December 16, 2030	nil	$ 1.23	1,352,788	1,411,271
March 13, 2019	December 31, 2021	March 13, 2029	nil	$ 2.69	136,682	1,184,441
June 14, 2018	N/A	June 13, 2028	nil	$ 9.34	44,650	70,774
March 21, 2018	December 31, 2020	March 20, 2028	nil	$ 22.56	52,819	136,434
June 20, 2017	December 31, 2019	June 20, 2027	nil	$ 15.90	—	—
June 1, 2017	N/A	June 1, 2027	nil	$ 10.96	—	834
June 1, 2017	December 31, 2019	June 1, 2027	nil	$ 16.77	77,712	168,469
November 24, 2016	December 31, 2018	November 24, 2026	nil	$ 16.66	32,521	79,279
					3,801,706	**4,359,436**

The awards outstanding as of December 31, 2022 had a weighted average remaining contractual life of 8.33 years (2021: 8.37 years).

The weighted average share price at the date of exercise for stock options exercised in the year ended December 31, 2022 was $6.46 ($5.28 in 2021).

As of December 31, 2022, 3,757,056 of the of the outstanding awards were subject to performance conditions (2021: 4,287,828 awards). For those awards subject to performance conditions, upon completion of the three years service period, the recipient will receive a number of shares or nil cost options of between 0% and 200% of the above award numbers, depending on the financial performance of the Company during the performance period. The performance conditions for the shares granted in 2022 can be summarized as follows:

Vesting Conditions
40% based cumulative earnings before interest and tax (EBIT)
40% based on cumulative operational cash flow
20% based on total shareholder return (TSR) relative to a comparator group

There were no performance obligations linked to44,650 of the outstanding awards at December 31, 2022 (2021:71,608 awards). These awards were issued as deferred bonus awards and vested subject to remaining in employment for three years.

Fair Value

The weighted average fair value of the awards granted during the year ended December 31, 2022 was $8.53 (2021: $8.83). The Company estimates the fair value of the awards using Stochastic and Black-Scholes option pricing models (Level 3). Where relevant, the expected life used in the model has been adjusted for the remaining time from the date of valuation until options are expected to be received, exercise restrictions (including the probability of meeting market conditions attached to the option), and performance considerations. Expected volatility is calculated over the period commensurate with the remainder of the performance period immediately prior to the date of grant.

The following assumptions were used to estimate the fair value of the awards:

	Grant date	
	September 22, 2022	**September 9, 2021**
Fair value at grant date	$ 8.53	$ 8.83
Grant date share price	$ 5.76	$ 8.57
Exercise price	Nil	0.01
Expected volatility	94.28 %	104.75 %
Option life	3.00 years	2.31 years
Dividend yield	—	—
Risk-free interest rate	4.12 %	0.28 %
Remaining performance period at grant date (years)	3.00	2.31
Company TSR at grant date	(27.2) %	NA
Median comparator group TSR at grant date	10.5	NA

The Company's TSR relative to the median comparator group TSR and median index TSR at grant date may impact the grant date fair value; starting from an advantaged position increases the fair value and starting from a disadvantaged position decreases the fair value.

To model the impact of the TSR performance conditions, we have calculated the volatility of the comparator group using the same method used to calculate the Company's volatility, using historical data, where available, which matches the length of the remaining performance period grant date.

The Company's correlation with its comparator group was assessed on the basis of all comparator group correlations, regardless of the degree of correlation, have been incorporated into the valuation model.

For the year ended December 31, 2022, share-based compensation expense related to all non-vested awards amounted to $5,836 thousand, which is recorded in staff costs (2021: $3,627 thousand).

b. Executive bonus plan assumed under business combination with Globe

Prior to the business combination, shares of Globe Specialty Metals common stock were registered pursuant to Section 12(b) of the Exchange Act and listed on NASDAQ. As a result of the business combination between Ferroglobe and Globe, each share of Globe common stock was converted into the right to receive one Ferroglobe ordinary share. The shares of Globe common stock were suspended from trading on NASDAQ effective as of the opening of trading on December 24, 2015. Ferroglobe ordinary shares were approved for listing on The NASDAQ Global Market. At the effective time of the business combination, GSM stock and stock-based awards were replaced with stock and stock-based awards of Ferroglobe in a one to one exchange.

There were not options exercised or expired during the year ended December 31, 2022 and 2021.

A summary of options outstanding is as follows:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Outstanding as of December 31, 2020	26,268	$ 16.70	0.16	$ —
Expired/forfeited during the period				
Outstanding as of December 31, 2021	26,268	$ 16.70	0.16	$ —
Expired/forfeited during the period		—		
Outstanding as of December 31, 2022	26,268	$ 16.70	0.16	$ —
Exercisable as of December 31, 2022	26,268	$ 16.70	0.16	$ —

For the year ended December 31, 2022, share based compensation expense related to stock options under this plan was $101 thousand (2021: $120 thousand). The expense is reported within staff costs in the consolidated income statement.

Prior to the business combination, Globe also issued restricted stock units under the Company's Executive Bonus Plan. The fair value of restricted stock units is based on quoted market prices of the Company's stock at the end of each reporting period. These restricted stock units proportionally vest over three years, but are not delivered until the end of the third year. The Company will settle these awards by cash transfer, based on the Company's stock price on the date of transfer. For the year ended December 31, 2022 and 2021 no restricted options were exercised. As of December 31, 2022, and 2021, restricted stock units of 26,268 were outstanding.

26.5 Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs are comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Amortization of intangible assets (Note 8)	725	7,241	7,183
Depreciation of property, plant and equipment (Note 9)	80,834	90,087	101,006
Total	**81,559**	**97,328**	**108,189**

26.6 Finance income and finance costs

Finance income is comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Finance income of related parties (Note 24)	—	—	16
Other finance income	2,274	253	161
Total	**2,274**	**253**	**177**

Finance costs are comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Interest on debt instruments	40,913	42,579	34,989
Interest on loans and credit facilities	9,482	12,584	8,404
Interest on note and bill discounting	125	88	363
Interest on leases	1,587	1,100	1,358
Trade receivables securitization expense (Note 10)	26	399	15,044
Other finance costs	8,882	92,439	6,810
Total	**61,015**	**149,189**	**66,968**

At the completion of the comprehensive refinancing, the Company recorded a finance cost of $90.8 million as of December 31, 2021 (See Note 18).

26.7 Impairment losses and net (loss) gain due to changes in the value of assets

Impairment losses and net loss gain due to changes in the value of assets are comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Impairment of intangible assets (Note 8)	—	(1,153)	—
Impairment of property, plant and equipment (Note 9)	(56,999)	1,663	(71,929)
Impairment of non-current financial assets	—	(373)	—
Impairment of other	—	—	(1,415)
Impairment reversal/(losses)	**(56,999)**	**137**	**(73,344)**
Other (loss) / profit	349	758	158
Net (loss) gain due to changes in the value of assets	**349**	**758**	**158**

26.8 (Loss) gain on disposal of non-current assets

	2022 US$'000	2021 US$'000	2020 US$'000
Gain on disposal of intangible assets	—	—	1,692
Loss on disposal of intangible assets	(190)	—	—
Gain on disposal of property, plant and equipment	485	2,462	473
Loss on disposal of property, plant and equipment	(754)	(1,123)	(873)
Gain on disposal of other non-current assets	—	47	—
Total	**(459)**	**1,386**	**1,292**

During 2022,the French subsidiary FerroPem has sold property of Chateau-Feuillet facility, amounting to $312 thousand fully depreciated ($1,092 thousand as of December 31, 2021).

During 2021, Ferroglobe has sold the assets related to Niagara facility, the Company received net cash proceeds of $1,370 thousand and recognized a gain on disposal for the same amount (zero was the net book value of Niagara assets as of December 31, 2020).

Loss on disposal during 2022 and 2021 is mainly due to asset disposals in American and Canadian subsidiaries.

During 2020, Ferroglobe sold CO2 emissions rights that were derecognized from the balance sheet against the cash received, as the carrying amount price per emission right was lower to the sales price per CO2 emission right, an income of $1,692 thousand was recognized on the disposal of intangible assets.

26.9 Contractual assets and liabilities

Contractual assets and liabilities are comprised of the following for the years ended December 31:

	2022 US$'000	2021 US$'000	2020 US$'000
Contractual Liabilities	775	5,047	1,687
Total	**6,708**	**10,832**	**6,839**

Contractual liabilities are recorded within "Trade and other payable" and relate to advances from customers.

27. Remuneration of key management personnel

The remuneration of the key management personnel, which comprises the Company's management committee, during the years ended December 31 is as follows:

	2022 US$'000	2021 US$'000	2020 US$'000
Fixed remuneration	5,404	5,244	5,086
Variable remuneration	5,199	1,209	756
Contributions to pension plans and insurance policies	315	373	319
Share-based compensation	5,937	3,627	2,017
Termination benefits	316	119	1,886
Other remuneration	16	17	9
Total	**17,187**	**10,589**	**10,073**

During 2022, 2021 and 2020, no loans and advances have been granted to key management personnel.

28. Financial risk management

Ferroglobe operates in an international and cyclical industry which exposes it to a variety of financial risks such as currency risk, liquidity risk, interest rate risk, credit risk and risks relating to the price of finished goods, raw materials and power.

The Company's management model aims to minimize the potential adverse impact of such risks upon the Company's financial performance. Risk is managed by the Company's executive management, supported by the Risk Management, Treasury and Finance functions. The risk management process includes identifying and evaluating financial risks in conjunction with the Company's operations and quantifying them by project, region and subsidiary. Management provides written policies for global risk management, as well as for specific areas such as foreign currency risk, credit risk, interest rate risk, liquidity risk, the use of hedging instruments and derivatives, and investment of surplus liquidity.

The financial risks to which the Company is exposed in carrying out its business activities are as follows:

a) Market risk

Market risk is the risk that the Company's future cash flows or the fair value of its financial instruments will fluctuate because of changes in market prices. The primary market risks to which the Company is exposed comprise foreign currency risk, interest rate risk and risks related to power.

Foreign currency risk

Ferroglobe generates sales revenue and incurs operating costs in various currencies. The prices of finished goods are to a large extent determined in international markets, primarily in US dollars and Euros. Foreign currency risk is partly mitigated by the generation of sales revenue, the purchase of raw materials and other operating costs being denominated in the same currencies. Although it has done so on occasions in the past, and may decide to do so in the future, the Company does not generally enter into foreign currency derivatives in relation to its operating cash flows. As of December 31, 2022 and December 31, 2021, the Company was not party to any foreign currency forward contracts.

In July 2021 the Company completed a restructuring of its $350,000 thousand of senior unsecured Notes due 2022. This included the issue of additionally $60,000 thousand (which have been fully repaid in June 2022) of super senior secured Notes due 2025 (see *Note* 18) and the repayment of certain existing indebtedness denominated in a number of currencies across its subsidiaries. The Company is exposed to foreign exchange risk as the interest and principal of the Notes is payable in US dollars, whereas its operations principally generate a combination of US dollar and Euro cash flows.

During the year ended December 31, 2022 and 2021 the Company did not enter into any cross currency swaps.

Foreign currency Sensitivity analysis

The Company's exposure to foreign currency risk arises from the translation of the foreign currency exchange gains and losses on cash and cash equivalents, accounts receivable, accounts payable and inventories that are denominated in foreign currency.

Depreciation or appreciation of the USD by 10% against EUR, CAD and ZAR at December 31, 2022, while all other variables were remained constant, would have increased or (decreased) the net profit before tax of $62,764 thousand.

Interest rate risk

Ferroglobe is exposed to interest rate risk in respect of its financial liabilities that bear interest at floating rates. These primarily comprise credit facilities (see *Note* 16) and lease commitments (see *Note 17*).

During the year ended December 31, 2022 and 2021, the Company did not enter into any interest rate derivatives in relation to its interest bearing credit facilities.

Interest Rate Sensitivity analysis

At December 31, 2022, an increase of 1% in interest rates would have given rise to additional borrowing costs of $812 thousand (2021: $990 thousand).

Power risk

Power constitutes one of the single largest expenses for most of Ferroglobe's products. Ferroglobe focuses on minimizing energy prices and unit consumption throughout its operations by concentrating its silicon and manganese-based alloy production during periods when energy prices are lower. In 2022, Ferroglobe's total power consumption was 6,431 gigawatt-hours, with power contracts that vary across its operations.

b) Credit risk

Credit risk refers to the risk that a customer or counterparty will default on its contractual obligations resulting in financial loss. The Company's main credit risk exposure related to financial assets is set out in Note 10 and includes trade receivables, other receivables and other financial assets.

Trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. The Company has established policies, procedures and controls relating to customer credit risk management. Ongoing credit evaluation is performed on the financial condition of accounts receivable and, where appropriate, the Company insures its trade receivables with reputable credit insurance companies.

Since October 2020, the Company entered into a factoring program where the receivables of some of the Company's French and Spanish entities are prefinanced by a factor (see *Note* 10 and 16). On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter.

Since December 2019, the Company entered into a forfaiting program where some of the Company's French and Spanish entities may assign their rights to receive payments under the Contracts with the customer "ArcelorMittal Sourcing s.c.a." in accordance with a forfaiting scheme.

c) Liquidity risk

The purpose of the Company's liquidity and financing policy is to ensure that the Company keeps sufficient funds available to meet its financial obligations as they fall due. The Company's main sources of financing are as follows:

- $345,058 thousand aggregate principal amount of 9.375% senior secured notes due December 31, 2025 (the "Reinstated Senior Notes"). Interest is payable semi-annually on January 31 and July 31 of each year.

- $60,000 thousand aggregate principal amount of 9% super senior secured notes due June 30, 2025 (the "Super Senior Notes"). Interest is payable semi-annually on January 31 and July 31 of each year. On July 21, 2022, the Super Senior Notes were redeemed at 100% of the principal amount.

- On September 8, 2016, FerroAtlántica, S.A.U, as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry"), as lender, entered into a loan agreement under which the Ministry made available to the borrower loans in aggregate principal amount of €44,999 thousand in connection with industrial development projects relating silicon purification project. FAU transferred the loan to OPCO before its sale. The loan is contractually due to be repaid in 7 instalments starting in 2023 and completing by 2030. Interest on outstanding amounts under the loan accrues at an annual rate of 3.55%. As of December 31, 2022, the amortized cost of the loan was€54,989 thousand (equivalent to $58,651 thousand) (2021: €54,578 thousand and $61,815 thousand)., see *Note* 19.

- On October 2, 2020, the Company ended the receivables funding agreement and cancelled the securitization program, signing a new factoring agreement with a financial institution, for anticipating the collection of receivables of the Company's European entities (Grupo FerroAtlántica, S.A. and FerroPem S.AS). On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter. This program offers the possibility to sell the receivables corresponding to ten customers pre-approved by the bank and its credit insurer. During 2022, the factoring agreements provided upfront cash consideration of approximately $895,264 thousand ($659,083 thousand in 2021). The Company has repaid $ 918,070 thousand ($640,168 thousand in 2021), showing at December 31, 2022, an on-balance sheet bank borrowing debt of $60,976 thousand (2021: $$93,090 thousand) (see Note 10 and 16).

- On October 11, 2019, Ferroglobe subsidiaries Globe Specialty Metals, Inc., and QSIP Canada ULC, as borrowers, entered into a Credit and Security Agreement for a new $100 million north American asset-based revolving credit facility (the "ABL Revolver"), with PNC Bank, N.A., as lender. On March 16, 2021, the Company repaid in its entirety the remaining balance at the date for an amount equal to $39,476 thousand, cancelling its obligations derived from the contract. On June 30, 2022, The Company closed a new, five-year $100 million North American asset-based revolving credit facility (the "ABL Revolver"), involving Ferroglobe's subsidiary, Globe Specialty Metals, Inc. ("Globe"), and its wholly owned North American subsidiaries, as borrowers, and Bank of Montreal ("BMO"), as lender and agent.

- On July 23, 2020, Ferroglobe subsidiary, Ferropem, S.A.S., as borrower, contracted a loan with BNP Paribas, as lender, amounting to €4,456 thousand, to finance Company's activities in France. The loan is guaranteed by the French government as part of the COVID-19 relief measures. Repayment of principal and payment of interest and accessories offer the possibility for the Borrower to extend the amortization of the amounts due at maturity for an additional period of 1 to 5 years. Interest rate is zero percent and the borrower is liable to pay a 0.50% fee calculated on the capital borrowed equivalent to an amount of €22 thousand.

- On June 2, 2020, Ferroglobe subsidiary, Silicium Québec, as borrower, contracted a $7,000 thousand loan with Investissement Québec, a regional government loan & investment agency, as lender, to finance its capital expenditures activities in Canada. The loan is to be repaid in 84 installments over a 10 year period with the first three years as a grace period. Interest rate on outstanding amounts is zero percent.

- On March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the "Beneficiaries") and the Sociedad Estatal de Participaciones Industriales ("SEPI"), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic. The funds are subject to certain governance conditions that imply, among others, the prohibition of distributing dividends, paying non-mandatory coupons or acquiring own shares and the prohibition of the use of the funds for financing economic activities of the group subsidiaries that are not beneficiaries.

Quantitative information

i. Interest rate risk:

At December 31, the Company's interest-bearing financial liabilities were as follows:

	2022		
	Fixed rate	**Floating rate**	**Total**
	US$'000	**US$'000**	**US$'000**
Bank borrowings	16,857	60,976	77,833
Obligations under leases	—	21,872	21,872
Debt instruments	343,443	—	343,443
Other financial liabilities (*)	80,388	18,273	98,661
	440,688	**101,121**	**541,809**

(*) Other financial liabilities comprise loans from government agencies (see *Note* 19).

	2021		
	Fixed rate	Floating rate	Total
	US$'000	US$'000	US$'000
Bank borrowings	—	98,967	98,967
Obligations under leases	—	18,358	18,358
Debt instruments	440,297	—	440,297
Other financial liabilities (*)	67,013	—	67,013
	507,310	**117,325**	**624,635**

(*) Other financial liabilities comprise loans from government agencies (see *Note* 19).

ii. Foreign currency risk:

Notes and cross currency swap

In 2021, due to an occurrence of events and conditions that reduce the number of transactions in euros, management conducted a review of the functional currency of the Parent Company and concluded that there has been a change in its functional currency from Euro to US Dollars, effective since October 1, 2021 (see Note 3.3). Therefore, The Parent Company is no longer exposed to exchange rate fluctuations.

Foreign currency swaps in relation to trade receivables and trade payables

At December 31, 2022 and 2021, the Company has no foreign currency swaps in place in respect of foreign currency accounts receivable and accounts payable.

iii. Liquidity risk:

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2022, based on contractual undiscounted payments. The table includes both interest and principal cash flows. The cash flows for debt instruments assume that principal of Reinstated Senior Notes is repaid at maturity in December 2025 (see *Note* 18).

	2022				
	Less than 1 year	Between 1-2 years	Between 2-5 years	After 5 years	Total
	US$'000	US$'000	US$'000	US$'000	US$'000
Bank borrowings	61,888	—	2,544	13,230	77,662
Leases	8,928	7,349	6,888	—	23,166
Debt instruments	32,439	423,235	—	—	455,674
Financial loans from government agencies	61,796	4,336	41,239	2,792	110,163
Payables to related parties	1,790	—	—	—	1,790
Payable to non-current asset suppliers	4,149	183	—	—	4,332
Contingent consideration	1,945	3,930	1,257	—	7,132
Tolling agreement liability	3,555	7,110	10,665	113,759	135,089
Trade and other payables	219,666	—	—	—	219,666
	396,156	**446,143**	**62,593**	**129,781**	**1,034,674**

	2021				
	Less than 1 year	Between 1-2 years	Between 2-5 years	After 5 years	Total
	US$'000	US$'000	US$'000	US$'000	US$'000
Bank borrowings	95,899	—	3,670	—	99,569
Leases	8,092	5,897	3,251	1,289	18,529
Debt instruments	57,440	37,749	493,585	—	588,774
Financial loans from government agencies	63,868	4,304	245		68,417
Payables to related parties	9,545	—	—	—	9,545
Payable to non-current asset suppliers	2,677	135	—	—	2,812
Contingent consideration	13,023	10,684	6,844	—	30,551
Tolling agreement liability	2,589	2,367	5,952	18,379	29,287
Trade and other payables	206,000	—	—	—	206,000
	459,133	**61,136**	**513,547**	**19,668**	**1,053,484**

Additionally, as of December 31, 2022, the Company has long-term power purchase commitments amounting to $526,841 thousand ($294,557 thousand in 2021), which represents minimum charges that are enforceable and legally binding, and do not represent total anticipated purchase.

Changes in liabilities arising from financing activities

The changes in liabilities arising from financing activities during the year ended December 31, 2022 and 2021 were as follows:

	January 1, 2022	Changes from financing cash flows	Effect of changes in foreign exchange rates	Changes in fair values	Interest expenses	Other changes	December 31, 2022
	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
Bank borrowings	98,967	(24,529)	(5,991)	—	3,185	6,201	77,833
Obligations under leases (Note 17)	18,358	(11,590)	(750)	—	1,587	14,266	21,871
Debt instruments	440,297	(136,260)	—	190	34,404	4,811	343,442
Financial loans from government agencies (Note 19)	67,013	35,924	(5,289)	—	5,239	(4,226)	98,661
Total liabilities from financing activities	**624,635**	**(136,455)**	**(12,030)**	**190**	**44,415**	**21,052**	**541,807**
Other amounts paid due to net financing activities		(4,003)					
Net cash (used) by financing activities		**(140,458)**					

	January 1, 2021	Changes from financing cash flows	Effect of changes in foreign exchange rates	Changes in fair values	Interest expenses	Other changes	December 31, 2021
	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
Bank borrowings	107,607	(15,604)	1,927	—	—	5,037	98,967
Obligations under leases (Note 17)	22,536	(11,232)	(1,188)	—	—	8,242	18,358
Debt instruments (*)	357,508	43,295	—	6,462	36,233	(3,201)	440,297
Financial loans from government agencies (Note 19)	63,896	(2,252)	(702)	—	6,071	—	67,013
Total liabilities from financing activities	**551,547**	**14,207**	**37**	**6,462**	**42,304**	**10,078**	**624,635**
Other amounts paid due to net financing activities (**)		(3,755)					
Net cash provided by financing activities		**10,452**					

(*) Changes from financing cash flows in debt instruments include payments due to interest amounting to $16,705 thousand and proceeds from debt issuances of $60,000 thousand.

(**) Other amounts paid due to financing activities include payments due to equity issuance costs amounting to $43,755 thousand and proceeds from equity issuance of $40,000 thousand.

29. Fair value measurement

Fair value of assets and liabilities that are measured at fair value on a recurring basis

The following table provides the fair value measurement hierarchy of the Company's assets and liabilities that are carried at fair value in the statement of financial position:

	December 31, 2022			
	Total US$'000	Quoted prices in active markets (Level 1) US$'000	Significant observable inputs (Level 2) US$'000	Significant unobservable inputs (Level 3) US$'000
Other financial assets (Note 10):				
Listed equity securities	**936**	936	—	—
Other obligations (Note 21)				
Contingent consideration in a business combination	**(5,838)**	—	—	(5,838)

	December 31, 2021			
	Total US$'000	Quoted prices in active markets (Level 1) US$'000	Significant observable inputs (Level 2) US$'000	Significant unobservable inputs (Level 3) US$'000
Other financial assets (Note 10):				
Listed equity securities	**847**	847	—	—
Other obligations (Note 21)				
Contingent consideration in a business combination	**(26,527)**	—	—	(26,527)

A reconciliation of the beginning and ending balances of all liabilities at fair value on recurring basis using significant unobservable inputs (Level 3) for the year ended December 31, 2022, presented as follows:

	Total US$'000
Fair value at December 31, 2020	**(16,632)**
Changes in fair value through profit or loss	(13,168)
Payments	3,273
Fair value at December 31, 2021	**(26,527)**
Changes in fair value through profit or loss	1,758
Payments	18,931
Fair value at December 31, 2022	**(5,838)**

30. Assets and disposal groups classified as held for sale and discontinued operations

Assets and disposal groups classified as held for sale

At the end of 2022, the Company received two offers to sale the assets related to Chateau Feuillet facility in France, stopped operations since March 202 and the Board approved the sale. Consequently, the assets were classified as held for sale in the balance sheet as of December 31, 2022. In accordance with IFRS 5, the Company ceased to recognize depreciation expense in relation to its assets in Chateau Feuillet while it is classified as held for sale.

The assets transferred to held for sale have been measured at the lower of carrying amount and fair value less costs to sell and are presented separately in the statement of financial position. The fair value, according to the offers received, as of December 31, 2022 was $1,067 thousand and carrying value $7,061 thousand, since fair value is lower than the carrying amount, the company recognized an impairment of $5,994 thousand.

The Company expect to achieve a sale agreement during first half of 2023.

Discontinued operations

As of December, 31 2022 and 2021, there were not discontinued operations.

For the year ended December, 31 2020, the Company recorded $5,399 thousand related to price adjustment on the sale of Group's hydro-electric assets in 2019. The amount was recognized in Discontinued operations in Consolidated Income Statement.

Analysis of the result for the period from the discontinued operations

The results of the discontinued operations included in the (loss) profit after taxes from discontinued operations are set out below.

The profit and loss statement from discontinued operations is as follows:

	2022 US$'000	2021 US$'000	2020 US$'000
Sales	—	—	—
Raw materials and energy consumption for production	—	—	—
Other operating income	—	—	—
Staff costs	—	—	—
Other operating expense	—	—	—
Depreciation and amortization charges, operating allowances and write-downs	—	—	—
Impairment losses	—	—	—
Operating Profit (loss)	—	—	—
Net finance expense	—	—	—
(LOSS) PROFIT BEFORE TAXES FROM DISCONTINUED OPERATIONS	—	—	—
Income tax expense	—	—	—
Gain on sale of discontinued operation	—	—	(5,399)
(LOSS) PROFIT AFTER TAXES FROM DISCONTINUED OPERATIONS	**—**	**—**	**(5,399)**

Basic earnings (loss) per ordinary share are calculated by dividing the consolidated profit (loss) for the year attributable to the Discontinued Operations by the weighted average number of ordinary shares outstanding during the year, excluding the average number of treasury shares held in the year, if any. Dilutive earnings (loss) per share assumes the exercise of stock options, provided that the effect is dilutive. The Earnings per share is showed as follows:

	2022	2021	2020
Basic earnings (loss) per ordinary share computation			
Numerator:			
Profit (loss) attributable to Discontinued Operations (US$'000)	—	—	(5,399)
Denominator:			
Weighted average basic shares outstanding	—	—	169,269,281
Basic earnings (loss) per ordinary share (US$)	—	—	**(0.03)**
Diluted earnings (loss) per ordinary share computation			
Numerator:			
Profit (loss) attributable to Discontinued Operations (US$'000)	—	—	(5,399)
Denominator:			
Weighted average basic shares outstanding	—	—	169,269,281
Effect of dilutive securities	—	—	—
Weighted average dilutive shares outstanding	—	—	169,269,281
Diluted earnings (loss) per ordinary share (US$)	—	—	**(0.03)**

The statement of cash flows from discontinued operations is showed as follows:

	2022 US$'000	2021 US$'000	2020 US$'000
Cash flows from operating activities:			
Profit for the period	—	—	**(5,399)**
Adjustments to reconcile net (loss) profit to net cash provided by operating activities:			
Income tax expense (benefit)	—	—	—
Depreciation and amortization charges, operating allowances and write-downs	—	—	—
Net Finance expense	—	—	—
Gains on disposals of non-current and financial assets	—	—	5,399
Changes in working capital			
Decrease / (increase) in accounts receivable	—	—	—
Decrease / (increase) in inventories	—	—	—
Increase / (Decrease) in accounts payable	—	—	—
Other changes in operating assets and liabilities			
Other, net	—	—	(24)
Income tax paid	—	—	—
Interest paid	—	—	—
Total cash flow from operating activities	—	—	**(24)**
Cash flows from investing activities:			
Payments due to investments:			
Property, plant and equipment	—	—	—
Disposals:			
Disposal of business, net of cash	—	—	—
Total cash flow from investing activities	—	—	—
Cash flows from financing activities:			
Other financing activities	—	—	—
Total cash flow from financing activities	—	—	—
INCREASE / (DECREASE) IN CASH	—	—	**(24)**
CASH AT BEGINNING OF PERIOD	—	—	24
CASH AT END OF PERIOD	—	—	—

31. Other disclosures

Restricted Net Assets

Certain of our entities are restricted from remitting certain funds to us in the form of cash dividends or loans by a variety of, contractual requirements. These restrictions are related to standard covenant requirements included in our bank borrowings and debt instruments, such as the SEPI loan and the ABL Revolver. Additionally, the Company has restrictions for the disposal of cash in the joint ventures. Consequently, net assets from Ferroglobe subsidiaries Globe Specialty Metals, Inc., and other subsidiaries in the USA, QSIP Canada ULC, Grupo Ferroatlántica and the Joint Ventures are restricted. Please refer to Notes 10, 16 and 19 for further details of these restrictions.

As of December 31, 2022, the restricted net assets of the Ferroglobe Group's subsidiaries were approximately $496,983 thousand. The Company performed a test on the restricted net assets of combined subsidiaries in accordance with Securities and Exchange Commission Regulation rule 5-04 (c) 'what schedules are to be filed' and concluded the restricted net assets exceed 25% of the consolidated net assets of the Company at December 31, 2022. Therefore the separate condensed financial statements, as per SEC rule S-X 12-04, of Ferroglobe PLC are presented (see Appendix I, considered to be part of the footnotes, for details.)

Additionally, the Super Senior Notes restricts the ability of Ferroglobe PLC to pay dividends.

32. Events after the reporting period

REINDUS loan

On January 19, 2023, a new resolution was signed by the Ministry terminating the total reimbursement procedure initiated in January 2022. Once that procedure was definitively closed, the company decided to proceed with the foreseen partial early repayment of €16.3 million on February 10, 2023

Grupo Villar Mir

On February 28, 2023 Grupo Villar Mir has reduced the number of shares owned from 81,924,822 to 76,265,434 shares, representing approximately 40.72% of the capital of the company.

Reinstated Senior Notes

On March 1, 2023 Globe repurchased $25.7 million of the Reinstated Senior Notes and the corresponding accrued interest coupon amounting to $207 thousand as of the purchase date. The fair value of the Notes at the purchase date was $26.1 million and the purchase price was $1.01 per bond.

Appendix I

Schedule I has been provided pursuant to the requirements of Rule 12- 04(a) of Regulation S-X, of the US Securities and Exchange Commission (SEC) which require condensed financial information as to the financial position, cash flows and results of operations of Ferroglobe PLC, as of the same dates and for the same periods for which audited consolidated financial statements have been presented when the restricted net assets of consolidated subsidiaries exceed 25 percent of consolidated net assets as of the end of the most recently completed fiscal year.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with International Financial Reporting Standards have been condensed or omitted. The footnote disclosures contain supplementary information only and, as such, these statements should be read in conjunction with the notes to the accompanying consolidated financial statements.

Basis of Presentation.

The presentation of Ferroglobe PLC separate condensed financial statements have been prepared using the same accounting policies as set out in the accompanying consolidated financial statements except that, in the separate condensed financial statements the investments in subsidiaries are being recorded at historic cost.

SCHEDULE I - FERROGLOBE PLC (Parent company)

CONDENSED STATEMENT OF FINANCIAL POSITION AS OF DECEMBER 31, 2022 AND 2021

Thousand of US dollars

	2022 US$'000	2021 US$'000
ASSETS		
Non-current assets		
Investment in subsidiaries	629,284	629,284
Intangible assets	522	—
Property, plant and equipment	449	105
Trade and other receivables from subsidiaries	263,058	227,865
Total non-current assets	**893,313**	**857,254**
Current assets		
Trade and other receivables	797	350
Trade and other receivables from subsidiaries	118,210	159,874
Other current assets	435	441
Cash and cash equivalents	605	1,311
Total current assets	**120,047**	**161,976**
Total assets	**1,013,360**	**1,019,230**
EQUITY AND LIABILITIES		
Equity		
Share capital	1,964	1,964
Other Reserves	(158,958)	(164,783)
Retained earnings	734,095	774,531
Total equity	**577,101**	**611,712**
Non-current liabilities		
Lease liabilities	372	25
Trade and other payables	183,721	—
Other non-current liabilities	11	—
Total non-current liabilities	**184,104**	**25**
Current liabilities		
Debt instruments		2,181
Lease liabilities	550	568
Trade and other payables	10,634	11,221
Trade and other payables to subsidiaries	240,753	392,803
Current income tax liabilities	115	490
Other current liabilities	103	230
Total current liabilities	**252,155**	**407,493**
Total equity and liabilities	**1,013,360**	**1,019,230**

The accompanying notes are an integral part of these Condensed Financial Statements.

SCHEDULE I - FERROGLOBE PLC (Parent company)

CONDENSED INCOME STATEMENT FOR THE PERIODS ENDING DECEMBER 31, 2022, 2021 and 2020

Thousand of US dollars

	2022 US$'000	2021 US$'000	2020 US$'000
Other operating income	41,816	32,037	13,618
Staff costs	(5,864)	(4,983)	(6,379)
Other operating expense	(51,864)	(36,859)	(18,166)
Depreciation and amortization charges, operating allowances and write-downs	(104)	(109)	(3)
Finance income	4,029	77,232	8,976
Finance costs	(26,444)	(96,581)	(22,069)
Exchange differences	(2,005)	(15,227)	25,516
Financial derivative (gain) loss	—	—	3,168
(Loss) before tax	**(40,436)**	**(44,490)**	**4,661**
Income tax benefit (expense)		—	(515)
Total (Loss) profit for the year	**(40,436)**	**(44,490)**	**4,146**

The accompanying notes are an integral part of these Condensed Financial Statements.

SCHEDULE I - FERROGLOBE PLC (Parent company)

CONDENSED STATEMENT OF CASH FLOWS FOR THE PERIODS ENDING DECEMBER 31

Thousand of US dollars

	2022 US$'000	2021 US$'000	2020 US$'000
Cash flows from operating activities:			
(Loss) for the year	**(40,436)**	**(44,490)**	**4,146**
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:			
Income tax expense	—	—	**515**
Depreciation and amortization charges, operating allowances and write-downs	104	109	3
Finance income (loss)	(4,029)	(77,232)	(8,976)
Finance costs	26,444	96,581	22,069
Exchange differences	2,005	15,227	(25,516)
Financial derivative gain (loss)	—	—	(3,168)
Share-based compensation	5,836	3,627	2,017
Changes in operating assets and liabilities:			
(Increase) decrease in trade and other receivables	7,138	1,431	(21,300)
Increase (decrease) in trade and other payables	5,205	(22,169)	47,456
Other changes in operating assets and liabilities	(492)	(548)	(10,146)
Net used cash provided (used) by operating activities	**1,775**	**(27,464)**	**7,100**
Cash flows from investing activities:			
Payments due to investments:			
Other intangible assets	(522)	—	—
Net cash provided (used) by investing activities	**(522)**	**—**	**—**
Cash flows from financing activities:			
Payment for equity issuance costs	—	(6,647)	—
Proceeds from equity issuance	—	41,440	—
Bank borrowings	—	218	—
Repayment of debt instruments	(2,181)	—	—
Amounts paid due to leases	(123)	(111)	(733)
Interest paid	—	(7,031)	(6,590)
Net cash provided (used) by financing activities	**(2,304)**	**27,869**	**(7,323)**
Total net cash flows for the year	**(1,051)**	**405**	**(223)**
Beginning balance of cash and cash equivalents	1,311	1,065	1,199
Exchange differences on cash and cash equivalents in foreign currencies	345	(159)	89
Ending balance of cash and cash equivalents	**605**	**1,311**	**1,065**

The accompanying notes are an integral part of these Condensed Financial Statements.

SCHEDULE I - FERROGLOBE PLC (Parent company only)

Notes to Condensed Financial Statements

1. Basis for presentation

The presentation of Ferroglobe PLC separate condensed financial statements have been prepared using the same accounting policies as set out in the accompanying consolidated financial statements except that, in the separate condensed financial statements the investments in subsidiaries are being recorded at historic cost.

The Parent Company prepared these unconsolidated financial statements in accordance with International Accounting Standards 27, "Separate Financial Statements", as issued by the International Accounting Standards Board.

2. Commitments, long term obligations and contingencies

Commitments and long term obligations

On February 15, 2017, Ferroglobe PLC and Globe (together, the "Issuers") co-issued $350,000 thousand aggregate principal amount of 9.375% senior unsecured notes due March 1, 2022 (the "Notes"). On March 27, 2021, Ferroglobe PLC and Globe and certain other members of the group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to implement a debt restructuring plan. On July 30, 2021, the Group completed the exchange of 98.588% of the 9⅜% Senior Notes due 2022 (the "Stub Notes") issued by the Ferroglobe PLC and Globe for a total consideration per $1,000 principal amount of Old Notes comprising (i) $1,000 aggregate principal amount of new 9⅜% senior secured notes due 2025 issued by Ferroglobe Finance Company, PLC and Globe ("the Issuers") (the "Reinstated Senior Notes") plus (ii) a fee amounting to $51,611 thousand.

Notes not exchanged (the "Stub Notes") were repaid on March 1, 2022.

As of December 31, 2022, Ferroglobe PLC only has long-term obligations related to intercompany loans. These main long- term obligations are the following:

- $147.8 million to Ferroglobe Finance Company PLC in relation to the transfer of the Reinstated Notes due in July 30, 2026.
- $25.5 million to Ferroglobe Holding Company, LTD related to a revolving credit facility signed on July 27, 2021 and due in June 30, 2031.
- $10.3 million to Ferroglobe Holding Company, LTD related to a loan facility signed on May 19, 2021 and due in June 30, 2025.

Contingencies and guarantees

Ferroglobe PLC is guarantor of the following material obligations:

- $60 million Super Senior Notes issued by Ferroglobe Finance Company (the "UK Issuer"), which were redeemed on July 21, 2022;
- $345 million in Reinstated Notes issued by the UK issuer;
- €34.5 million in indebtedness issued by Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios under the agreement with the Sociedad Estatal de Participaciones Industriales ("SEPI"), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration; and
- Up to $7 million in connection with the New Markets Tax Credit Program in relation to our Selma, Alabama, plant and due in the event any tax credits under the Program are disallowed or recaptured.

As of December 31, 2022, 2021 and 2020, Ferroglobe PLC has no material contingencies.

3.Dividends from subsidiaries

For the years ending December 31, 2022, 2021 and 2020 Ferroglobe PLC did not receive cash dividends from its subsidiaries.

Exhibit 3.2

Execution version

AMENDMENT NO.3 TO THE AMENDED AND RESTATED SHAREHOLDER AGREEMENT

This AMENDMENT NO.3 TO THE AMENDED AND RESTATED SHAREHOLDER AGREEMENT is entered into as of this 29th day of July 2021 (this "Amendment"), between Grupo Villar Mir, S.A.U., a public limited company (*sociedad anónima*) incorporated under the laws of Spain ("Grupo VM"), and Ferroglobe PLC, a public limited company incorporated under the laws of England ("Holdco"). Each of Grupo VM and Holdco is sometimes referred to herein as a "Party" or collectively as the "Parties".

RECITALS:

WHEREAS the Parties entered into an Amended and Restated Shareholder Agreement, dated as of November 21, 2017 and amended as of January 23, 2018 and May 13, 2021 (the "Shareholder Agreement"); and

WHEREAS the Parties desire to amend the Shareholder Agreement as set forth herein and for this Amendment to subsume in their entirety the amendments dated as of January 23, 2018 and May 13, 2021, respectively, to the Amended and Restated Shareholder Agreement, dated as of November 21, 2017;

NOW, THEREFORE, the Parties agree as follows:

1. Defined Terms.

   Save as otherwise expressly defined in this Amendment, capitalised terms shall have the meanings given to them in the Shareholder Agreement.

2. Amendments.

   a. In ARTICLE I of the Shareholder Agreement:

      i. references to "Permitted Transfer" and "Transfer" under the header "Term" and their corresponding entries under the header "Defined in" shall be deleted and replaced with "Not Used"; and

      ii. a new definition of "Transfer" shall be added as follows:

         1. ""**Transfer**" shall mean (i) any offer, transfer, sale, assignment, pledge, hypothecation, encumbrance, gift or other disposal of any beneficial ownership of, legal title to, or pecuniary interest in, any Covered Equity Securities (whether by sale, merger, consolidation, liquidation, dissolution, dividend, distribution or otherwise), (ii) any hedging, swap, forward contract or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of beneficial ownership of, legal title to, or pecuniary interest in, any Covered Equity Securities, including any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to the Covered Equity Securities; or (iii)

any short sale of, or trade in, derivative securities representing the right to vote or economic benefits of, the Covered Equity Securities."

iii. a new definition of "Permitted Transfer" shall be added as follows:

1. ""**Permitted Transfer**" shall mean each of the following:

a. any Transfer to an Affiliate of Grupo VM, so long as such Affiliate, to the extent it has not already done so, executes a customary binding deed of adherence to this Agreement, in form and substance reasonably acceptable to Holdco;

b. any Transfer to Holdco or a Subsidiary of Holdco;

c. any Transfer pursuant to a widely distributed public offering of Shares for cash;

d. any Transfer of Shares effected through a "brokers' transaction" as defined in Rule 144(g) under the Securities Act;

e. any Transfer of Shares pursuant to a privately- negotiated transaction to any purchaser who, along with its Affiliates or any "group" (as defined under the Exchange Act) of which it is a member (to the extent Grupo VM has knowledge of the existence and composition of such group after reasonable inquiry), immediately after the consummation of such Transfer, would have beneficial ownership of less than 10% of outstanding Shares, provided, that after reasonable inquiry, Grupo VM has no reason to believe that such purchaser is, or has the intent to be, a Person who would be required to file a Schedule 13D (or successor form) under the Exchange Act disclosing an intent other than for investment;

f. any Transfer of Shares in connection with a public tender or similar takeover offer made to all holders of Shares for all Shares if such public tender or similar takeover offer (i) complies with all applicable requirements of the SEC, the Exchange and other applicable Law, (ii) is made on the same price per Share, with the same form of consideration per Share and otherwise on the same terms and conditions to all holders of Shares (provided, however, that if the holders of Shares are granted the right to elect to receive one of two or more alternative forms of consideration, the foregoing provision shall be deemed satisfied if each holder of Shares is granted identical election rights) and (iii) has a non-waivable condition that it be accepted by holders of a majority of the Shares not held by Grupo VM or its Affiliates;

g. any (i) pledge of (x) Covered Equity Securities or (y) depositary receipts issued by any depositary, custodian

or nominee in respect of Shares deposited with any depositary, custodian or nominee that holds legal title to the Shares for the purposes of facilitating beneficial ownership of the Shares by Grupo VM, (ii) assignment of such pledge and (iii) Transfer to the pledgee pursuant to the enforcement of such pledge if, in all such cases, such pledge or assignment, as applicable, is in favor of a bona fide independent financial institution that is not a "state-owned enterprise" (which term shall not include any publicly traded European financial institution in which some but not all of the equity interests therein are owned by a Governmental Authority), it being acknowledged and agreed that the rights of Grupo VM and its Affiliates under the Registration Rights Agreement with respect to such Covered Equity Securities shall inure to such pledgee; and

h. any hedging, swap, forward or other derivative contract with respect to any Covered Equity Securities, provided that (i) at no time shall the aggregate number of Covered Equity Securities underlying such hedging, swap, forward or other derivative arrangements exceed 20% of the aggregate number of the Covered Equity Securities held by Grupo VM and its Affiliates and (ii) Grupo VM shall not lend, or permit or authorizing the lending of, any Covered Equity Security to any Person,

provided, however, that in the event of a Transfer of Shares by a bona fide pledgee that is entitled to rely on Rule 144 under the Securities Act to publicly offer and sell such Shares without restriction under the Securities Act, such pledgee may rely on this clause (c) to Transfer such Shares with or without a registration statement if (x) such Transfer is for cash and effected on a securities exchange, or (y) such Transfer would be permitted under clause (e) above if the reference therein to "privately-negotiated" was omitted, the reference therein to "10%" was a reference to 15% and the references therein to "Grupo VM" were references to such pledgee, or (z) such Transfer is made with Holdco's consent."

b. ARTICLE V of the Shareholder Agreement shall be amended to read "Standstill Provisions and Transfer".

c. A new SECTION 5.03 shall be added to the Shareholder Agreement as follows:

i. "SECTION 5.03. Transfer. Notwithstanding anything to the contrary in this Agreement, nothing in this Agreement shall prevent Grupo VM from entering into or effecting a Transfer of any Covered Equity Securities (including for the avoidance of doubt a Permitted Transfer) held by it to any other Person for any reason whatsoever."

d. ARTICLE VI of the Shareholder Agreement is hereby deleted in its entirety and replaced with "Not Used".

3. Removal of transfer restrictions.

a. Grupo VM shall promptly and in any event within 10 days of the date of this Amendment deposit with Holdco, or if relevant with the transfer agent and registrar for the Covered Equity Securities, any certificates evidencing Covered Equity Securities held by Grupo VM which bear a legend restricting the transfer of such Covered Equity Securities.

b. Holdco shall promptly following the date of this Amendment: (i) cause any restricted transfer instructions it has noted in its records or given to the transfer agent and registrar in respect of any Covered Equity Securities held by Grupo VM to be removed, (ii) update its registry of members, and if relevant cause the transfer agent and registrar for the Covered Equity Securities to update its registry of members, to remove any transfer restriction in respect of any Covered Equity Securities held by Grupo VM, and (iii) subject to Grupo VM depositing any such certificates pursuant to Section 3a above, cause such certificates to be replaced, or if relevant cause the transfer agent and registrar for the Covered Equity Securities to replace such certificates, with certificates which do not bear a legend restricting the transfer of the Covered Equity Securities to which those certificates relate.

4. Effect of Amendment. This Amendment shall not constitute a waiver, amendment or modification of any other provision of the Shareholder Agreement not expressly referred to in Section 2 of this Amendment. Except as specifically modified and amended hereby, the Shareholder Agreement shall remain unchanged and in full force and effect. References to the date of the Shareholder Agreement, and references to the "date hereof", "the date of this Agreement" or words of similar meaning in the Shareholder Agreement shall continue to refer to November 21, 2017. The amendments dated as of January 23, 2018 and May 13, 2021, respectively, to the Amended and Restated Shareholder Agreement, dated as of November 21, 2017, are subsumed in their entirety by this Amendment.

5. Miscellaneous. The provisions of Sections 8.03 (Notices), 8.05 (Entire Agreement; Amendments and Waivers), 8.06 (Assignment), 8.07 (Parties in Interest), 8.09 (Governing Law; Consent to Jurisdiction), and 8.10 (Counterparts) of the Shareholder Agreement shall apply to this Amendment, *mutatis mutandis*, as though fully set forth herein.

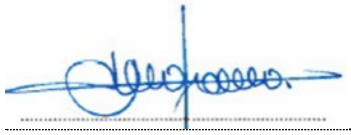
IN WITNESS WHEREOF, this Amendment has been executed as a deed and delivered on the date first above written.

[*Signatures follow*]

Executed as a deed by **GRUPO VILLAR MIR, S.A.U.,** a company incorporated in Spain, acting by

MANUEL GARRIDO

(PRINT NAME)



Authorised Signatory

who, in accordance with the laws of that territory, is acting under the authority of that company

Executed as a deed by
FERROGLOBE PLC acting by

JAVIER LOPEZ MADRID
(PRINT NAME)

Director

in the presence of:

Name: THOMAS UKENA
(BLOCK CAPITALS)

(SIGNATURE OF WITNESS)

Address: Po Castellana 259D
28046 Madrid
Spain

Occupation: CLO

Exhibit 4.4

FERROGLOBE FINANCE COMPANY, PLC

and

Globe Specialty Metals, Inc.

as Issuers

Ferroglobe PLC

as Parent Guarantor

and the Guarantors party hereto

9.375% Senior Secured Notes due 2025

INDENTURE

Dated as of July 29, 2021

GLAS Trustees Limited,
as Trustee

Global Loan Agency Services Limited,
as Paying Agent

GLAS Americas LLC
as Registrar and Transfer Agent

GLAS Trust Corporation Limited,
as Security Agent

TABLE OF CONTENTS

Exhibits

Schedules

INDENTURE dated as of July 29, 2021, among Ferroglobe Finance Company, PLC, a public limited company incorporated under the laws of England and Wales (the "*UK Issuer*"), and Globe Specialty Metals, Inc., a corporation incorporated under the laws of the State of Delaware (the "*US Co-Issuer*" and, together with the UK Issuer, the "*Issuers*"), Ferroglobe PLC, a public limited company incorporated under the laws of England and Wales as the parent guarantor (the "*Parent*"), the Guarantors (as defined herein) from time to time party hereto, and GLAS Trustees Limited, as trustee (in such capacity, the "*Trustee*"), GLAS Trust Corporation Limited as security agent (in such capacity, the "*Security Agent*"), Global Loan Agency Services Limited as paying agent (in such capacity, the "*Paying Agent*") and GLAS Americas LLC as registrar (in such capacity, the "*Registrar*") and transfer agent (in such capacity, the "*Transfer Agent*").

Each party agrees as follows for the benefit of the other parties and for the equal and ratable benefit of the Holders (as defined herein) of (a) the Issuers' U.S. dollar-denominated 9.375% Senior Secured Notes due 2025 issued on the Issue Date (the "*Initial Notes*") and (b) additional securities having identical terms and conditions as the Notes that may be issued on any later issue date subject to the conditions and in compliance with the covenants set forth herein (the "*Additional Notes*"). Unless the context otherwise requires, in this Indenture references to the "*Notes*" include the Initial Notes and any Additional Notes that are actually issued.

ARTICLE I

DEFINITIONS

Section 1.01. Definitions.

"*ABL Intercreditor Agreement*" means the intercreditor agreement to be entered into after the Issue Date, among, *inter alios*, the Trustee, the Security Agent, the Parent, the Issuers, and the Guarantors party thereto, in the form attached to this Indenture as Exhibit C, as amended from time to time.

"*ABL Guarantors*" means the Guarantors party to the ABL Intercreditor Agreement.

"*ABL Priority Collateral*" has the meaning given to it under the ABL Intercreditor Agreement.

"*ABL Priority Obligations*" has the meaning given to it under the ABL Intercreditor Agreement.

"*ABL Facility*" means an asset-based lending facility designated by an Issuer as an "ABL Facility" by written notice to the Trustee and which will be subject to the terms of the ABL Intercreditor Agreement.

"*Acquired Indebtedness*" means Indebtedness (1) of a Person or any of its Subsidiaries existing at the time such Person becomes a Restricted Subsidiary, (2) assumed in connection with the acquisition of assets from such Person, in each case whether or not Incurred by such Person in connection with such Person becoming a Restricted Subsidiary or such

acquisition or (3) of a Person at the time such Person merges with or into or consolidates or otherwise combines with the Parent or any Restricted Subsidiary. Acquired Indebtedness shall be deemed to have been Incurred, with respect to clause (1) of the preceding sentence, on the date such Person becomes a Restricted Subsidiary, with respect to clause (2) of the preceding sentence, on the date of consummation of such acquisition of assets and, with respect to clause (3) of the preceding sentence, on the date of the relevant merger, consolidation or other combination.

"*Affiliate*" of any specified Person means any other Person, directly or indirectly, controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "control" when used with respect to any Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

"*Agent*" means any Registrar, co-registrar, Transfer Agent, Paying Agent or additional paying agent.

"*Agreed Security Principles*" means the agreed security principles set out in Schedule 3 hereto.

"*Asset Disposition*" means any direct or indirect sale, lease (other than an operating lease entered into in the ordinary course of business), transfer, issuance or other disposition, or a series of related sales, leases (other than operating leases entered into in the ordinary course of business), transfers, issuances or dispositions that are part of a common plan, of shares of Capital Stock of a Subsidiary (other than directors' qualifying shares), property or other assets (each referred to for the purposes of this definition as a "disposition") by the Parent or any of its Restricted Subsidiaries, including any disposition by means of a merger, consolidation or similar transaction. Notwithstanding the preceding provisions of this definition, the following items shall not be deemed to be Asset Dispositions:

(1) a disposition by a Restricted Subsidiary to the Parent or by the Parent or a Restricted Subsidiary to a Restricted Subsidiary, *provided* that any Restricted Subsidiary that is not a Guarantor to which Collateral is disposed of (other than by way of an Investment pursuant to clause (1) of the definition of "Permitted Investment" by an Issuer or any Guarantor in a Restricted Subsidiary that is not a Guarantor) shall grant or maintain the Lien on such Collateral securing the Notes;

(2) a disposition of cash, Cash Equivalents, Temporary Cash Investments or Investment Grade Securities;

(3) a disposition of inventory, trading stock, security equipment or other equipment or assets in the ordinary course of business;

(4) a disposition of obsolete, damaged, retired, surplus or worn out equipment or assets or equipment, facilities or other assets that are no longer useful in the conduct of the business of the Parent and its Restricted Subsidiaries and

any transfer, termination, unwinding or other disposition of hedging instruments or arrangements not for speculative purposes;

(5) transactions permitted under Section 5.01 or a transaction that constitutes a Change of Control;

(6) an issuance of Capital Stock by a Restricted Subsidiary to the Parent or to another Restricted Subsidiary or as part of or pursuant to an equity incentive or compensation plan approved by the Board of Directors or the issuance of directors' qualifying shares and shares issued to individuals as required by applicable law;

(7) any dispositions of Capital Stock, properties or assets in a single transaction or series of related transactions with a fair market value (as determined in good faith by the Board of Directors or an Officer of the Parent) of less than $10.0 million;

(8) any Restricted Payment that is permitted to be made, and is made, under Section 4.02, and the making of any Permitted Payment or Permitted Investment;

(9) the granting of Liens not prohibited by Section 4.03;

(10) dispositions of receivables in connection with the compromise, settlement or collection thereof in the ordinary course of business or in bankruptcy or similar proceedings and exclusive of factoring or similar arrangements or any sale of assets received by the Parent or a Restricted Subsidiary upon the foreclosure of a Lien granted in favor of the Parent or any Restricted Subsidiary;

(11) the licensing or sub-licensing of intellectual property or other general intangibles and licenses, sub-licenses, leases or subleases of other property, in each case, in the ordinary course of business;

(12) foreclosure, condemnation, taking by eminent domain or any similar action with respect to any property or other assets;

(13) the sale or discount (with or without recourse, and on customary or commercially reasonable terms) of accounts receivable or notes receivable arising in the ordinary course of business, or the conversion or exchange of accounts receivable for notes receivable;

(14) sales or dispositions of receivables in connection with any factoring, receivables or securitization financing, including any Qualified Securitization Financing, or in the ordinary course of business;

(15) [Reserved];

(16) any disposition of Capital Stock of a Restricted Subsidiary pursuant to an agreement or other obligation with or to a Person (other than the Parent or a Restricted Subsidiary) from whom such Restricted Subsidiary was acquired, or from whom such Restricted Subsidiary acquired its business and assets (having been newly formed in connection with such acquisition), made as part of such acquisition and in each case comprising all or a portion of the consideration in respect of such sale or acquisition;

(17) any surrender or waiver of contract rights or the settlement, release or surrender of contract, tort or other claims of any kind;

(18) any disposition of assets to a Person who is providing services related to such assets, the provision of which have been or are to be outsourced by the Parent or any Restricted Subsidiary to such Person; *provided*, *however*, that the Board of Directors shall certify that in the opinion of the Board of Directors, the outsourcing transaction will be economically beneficial to the Parent and its Restricted Subsidiaries (considered as a whole); *provided further* that the fair market value of the assets disposed of, when taken together with all other dispositions made pursuant to this clause (18), does not exceed $25.0 million;

(19) an issuance of Capital Stock by a Restricted Subsidiary to the Parent or to another Restricted Subsidiary, an issuance or sale by a Restricted Subsidiary of Preferred Stock or redeemable Capital Stock that is permitted by Section

4.01 or an issuance of Capital Stock by the Parent pursuant to an equity incentive or compensation plan approved by the Board of Directors;

(20) sales, transfers or other dispositions of Investments in joint ventures to the extent required by, or made pursuant to, customary buy/sell arrangements between the joint venture parties set forth in joint venture arrangements and similar binding agreements; *provided* that any cash or Cash Equivalents received in such sale, transfer or disposition is applied in accordance with Section 4.05;

(21) any disposition with respect to property built, owned or otherwise acquired by the Parent or any Restricted Subsidiary pursuant to customary sale and lease-back transactions, asset securitizations and other similar financings permitted by this Indenture; and

(22) any disposition of Capital Stock, properties or assets of Ferroatlántica de Venezuela (Ferroven), S.A. and Cuarzos Industriales de Venezuela, S.A.

"*Associate*" means (i) any Person engaged in a Similar Business of which the Parent or its Restricted Subsidiaries are the legal and beneficial owners of between 20% and 50% of all outstanding Voting Stock and (ii) any joint venture entered into by the Parent or any Restricted Subsidiary.

"*Bankruptcy Law*" means (a) the United States Bankruptcy Code of 1978, as amended, or any similar U.S. federal or state law for the relief of debtors and (b) any other bankruptcy, insolvency, liquidation or similar laws of any relevant jurisdiction that are of general application (including, without limitation, the laws of England and Wales relating to moratorium, bankruptcy, insolvency, receivership, winding up, liquidation, reorganization or relief of debtors), and in each case, any amendment to, succession to or change in any such law.

"*Board of Directors*" means (1) with respect to an Issuer or any corporation or other body corporate, the board of directors or managers, as applicable, of the corporation or other body corporate, or any duly authorized committee thereof; (2) with respect to any partnership, the board of directors or other governing body of the general partner of the partnership or any duly authorized committee thereof; and (3) with respect to any other Person, the board or any duly authorized committee of such Person serving a similar function. Whenever any provision of this Indenture requires any action or determination to be made by, or any approval of, a Board of Directors, such action, determination or approval shall be deemed to have been taken or made if approved by a majority of the directors (excluding employee representatives, if any) on any such Board of Directors (whether or not such action or approval is taken as part of a formal board meeting or as a formal board approval). The obligations of the "Board of Directors" of an Issuer under this Indenture may be exercised by the Board of Directors of a Restricted Subsidiary or a Parent Holdco pursuant to a delegation of powers of the Board of Directors of such Issuer.

"*Business Day*" means each day that is not a Saturday, Sunday or other day on which banking institutions in London, United Kingdom, New York, United States, Madrid, Spain, Amsterdam, the Netherlands or Dublin, Ireland are authorized or required by law to close.

"*Capital Stock*" of any Person means any and all shares of, rights to purchase, warrants or options for, or other equivalents of or partnership or other interests in (however designated), equity of such Person, including any Preferred Stock, but excluding any debt securities convertible into such equity.

"*Capitalized Lease Obligations*" means an obligation that is required to be classified and accounted for as a capitalized lease for financial reporting purposes on the basis of IFRS (as in effect on the Issue Date for purposes of determining whether a lease is a capitalized lease). The amount of Indebtedness will be, at the time any determination is to be made, the amount of such obligation required to be capitalized on a balance sheet (excluding any notes thereto) prepared in accordance with IFRS, and the stated maturity thereof will be the date of the last payment of rent or any other amount due under such lease prior to the first date such lease may be terminated without penalty.

"*Cash Equivalents*" means:

(1) securities issued or directly and fully Guaranteed or insured by the United States or Canadian governments, a Permissible Jurisdiction, Switzerland or Norway or, in each case, any agency or instrumentality thereof (*provided* that the full faith and credit of such country or such member state is pledged in support thereof), having maturities of not more than two years from the date of acquisition;

(2) certificates of deposit, time deposits, eurodollar time deposits, overnight bank deposits or bankers' acceptances having maturities of not more than one year from the date of acquisition thereof (a "*Deposit*") or cash in credit balance or deposit which are freely transferable or convertible within 90 days issued or held by any lender party to any ABL Facility or by any bank or trust company (a) if at any time since January 1, 2007 the Parent or any of its Subsidiaries held Deposits with such bank or trust company (or any branch or subsidiary thereof), (b) whose commercial paper is rated at least "A-3" or the equivalent thereof by S&P or at least "P-3" or the equivalent thereof by Moody's (or if at the time neither is issuing comparable ratings, then a comparable rating of another Nationally Recognized Statistical Rating Organization) or (c) (in the event that the bank or trust company does not have commercial paper which is rated) having combined capital and surplus in excess of $250 million;

(3) repurchase obligations with a term of not more than 30 days for underlying securities of the types described in clauses (1) and (2) entered into with any bank meeting the qualifications specified in clause (2) above;

(4) commercial paper rated at the time of acquisition thereof at least "A-3" or the equivalent thereof by S&P or "P-3" or the equivalent thereof by Moody's or carrying an equivalent rating by a Nationally Recognized Statistical Rating Organization, if both of the two named rating agencies cease publishing ratings of investments or, if no rating is available in respect of the commercial paper, the issuer of which has an equivalent rating in respect of its long-term debt, and in any case maturing within one year after the date of acquisition thereof;

(5) readily marketable direct obligations issued by any state of the United States of America, any province or territory of Canada, a Permissible Jurisdiction, Switzerland or Norway or any political subdivision thereof, in each case, having one of the two highest rating categories obtainable from either Moody's or S&P (or, if at the time, neither is issuing comparable ratings, then a comparable rating of another Nationally Recognized Statistical Rating Organization) with maturities of not more than two years from the date of acquisition;

(6) Indebtedness or preferred stock issued by Persons with a rating of "BBB-" or higher from S&P or "Baa3" or higher from Moody's (or, if at the time, neither is issuing comparable ratings, then a comparable rating of another Nationally Recognized Statistical Rating Organization) with maturities of 12 months or less from the date of acquisition;

(7) bills of exchange issued in the United States, Canada, a Permissible Jurisdiction, Switzerland, Norway or Japan eligible for rediscount at the relevant central bank and accepted by a bank (or any dematerialized equivalent);

(8) interests in investment funds at least 95% of the assets of which constitute Cash Equivalents of the kinds described in clauses (1) through (7) of this definition; and

(9) for purposes of clause (2) of the definition of "Asset Disposition", the marketable securities portfolio owned by the Parent and its Subsidiaries on the Issue Date.

"*Change of Control*" means the occurrence of any of the following:

(1) the Parent becoming aware that (by way of a report or any other filing pursuant to Section 13(d) of the Exchange Act, proxy, vote, written notice or otherwise) any "person" or "group" of related persons (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act as in effect on the Issue Date), other than one or more Permitted Holders, is or becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act as in effect on the Issue Date), directly or indirectly, of 35% or more of the total voting power of the Voting Stock of the Parent and the Permitted Holders "beneficially own" directly or indirectly in the aggregate the same or a lesser percentage of the total voting power of the Voting Stock of the Parent than such other "person" or "group" of related persons; *provided* that for the purposes of this clause, (x) no Change of Control shall be deemed to occur by reason of the Parent becoming a Subsidiary of a Successor Parent; and (y) any Voting Stock of which any Permitted Holder is the "beneficial owner" (as so defined) shall not be included in any Voting Stock of which any such "person" or "group of related persons" is the "beneficial owner" (as so defined), unless such Permitted Holder is controlled by such "person" or "group" of related persons;

(2) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Parent and its Restricted Subsidiaries taken as a whole to a Person, other than a Restricted Subsidiary or one or more Permitted Holders;

(3) the Parent ceases to directly or indirectly hold 100% of the Capital Stock of an Issuer; or

(4) the shareholders of the Parent or an Issuer approve any plan of liquidation or dissolution of the Parent or an Issuer.

Notwithstanding the foregoing, no "Change of Control" shall occur or deemed to occur by reason of:

(1) any enforcement of rights or exercise of remedies under the GVM Share Pledge, including any sale, transfer or other disposal or disposition of the shares in the Parent in connection therewith;

(2) any disposal by GVM of its shares in the Parent where the purpose of that transaction is to facilitate the repayment or discharge (in full or in part) of the GVM Loan and the proceeds of sale are promptly applied towards such repayment or discharge; or

(3) any mandatory offer (or analogous offer) required under the City Code on Takeovers and Mergers or any analogous regulation applied in any jurisdiction as a consequence of a transaction under limbs (1) or (2) above,

provided that, if any transaction under paragraphs (1) to (3) above occurs which, but for such paragraph(s), would be a "Change of Control" as a consequence of any Person or Persons (other than Tyrus) (x) acquiring any Voting Stock of the Parent or (y) being or becoming the "beneficial owner" of the voting power of any Voting Stock of the Parent (such Person(s), the "*Controlling Shareholder*") either:

(A) the Controlling Shareholder has, within 60 days of that transaction, and at its election:

(x) paid to the Holders, on a *pro rata* basis, a fee in an aggregate amount equal to the product of (i) the aggregate principal amount outstanding of the Notes then outstanding, (ii) 0.02 and (iii) the number of years (or part- thereof, with any part of a year calculated on the basis of the number of days divided by 360) from the payment date of such fee to December 31, 2025; or

(y) made an offer to all Holders to purchase one-third of the outstanding principal amount of the Notes then outstanding on a *pro rata* basis at a price equal to 101% of the principal amount of such Notes plus accrued and unpaid interest to the date of such purchase; or

(B) an Issuer, within 60 days of that transaction, has made an offer to all Holders to repurchase or purchase (as applicable), or has otherwise redeemed, one-third of the outstanding principal amount of the Notes then outstanding on a *pro rata* basis at a price equal to 101% of the principal amount of such Notes plus accrued and unpaid interest to the date of such repurchase, purchase or redemption, resulting in such repurchased, purchased or redeemed Notes being cancelled,

and *provided further* that, the Controlling Shareholder is not a Restricted Person.

"*Clearstream*" means Clearstream Banking, S.A., as currently in effect or any successor securities clearing agency.

"*Collateral*" means (a) the collateral that secures the Notes and the obligations under this Indenture pursuant to the Security Documents set forth in Schedule 2 to this Indenture and (b) any other collateral that secures the Notes and the obligations under this Indenture from time to time.

"*Commodity Hedging Agreements*" means, in respect of a Person, any commodity purchase contract, commodity futures or forward contract, commodities option contract or other similar contract (including commodities derivative agreements or arrangements), to which such Person is a party or a beneficiary.

"*Consolidated EBITDA*" for the period of the four most recent fiscal quarters ending prior to the relevant date of measurement for which internal consolidated financial statements are available, means, without duplication, the Consolidated Net Income for such period, plus the following to the extent deducted in calculating such Consolidated Net Income:

(1) Consolidated Interest Expense;

(2) Consolidated Income Taxes;

(3) consolidated depreciation expense;

(4) consolidated amortization or impairment expense;

(5) any expenses, charges or other costs related to any issuance of Capital Stock, listing of Capital Stock, Investment, acquisition (including amounts paid in connection with the acquisition or retention of one or more individuals comprising part of a management team retained to manage the acquired business and any expenses, charges or other costs related to deferred or contingent payments), disposition, recapitalization or the Incurrence, issuance, redemption or refinancing of any Indebtedness permitted by this Indenture or any amendment, waiver, consent or modification to any document governing any such Indebtedness (whether or not successful), in each case, as determined in good faith by the Board of Directors or an Officer of the Parent;

(6) any minority interest expense (whether paid or not) consisting of income attributable to minority equity interests of third parties in such period or any prior period or any net earnings, income or share of profit of any Associates, associated company or undertaking;

(7) other non-cash charges, write-downs or items reducing Consolidated Net Income (excluding any such non-cash charge, write-down or item to the extent it represents an accrual of or reserve for cash charges expected to be paid in any future period) or other items classified by the Parent as special, extraordinary, exceptional, unusual or nonrecurring items less other non- cash items of income increasing Consolidated Net Income (excluding any such non-cash item of income to the extent it represents a receipt of cash expected to be paid in any future period);

(8) the proceeds of any business interruption insurance received or that become receivable during such period to the extent the associated losses arising out of the event that resulted in the payment of such business interruption insurance proceeds were included in computing Consolidated Net Income;

(9) payments received or that become receivable with respect to, expenses that are covered by the indemnification provisions in any agreement entered into by such Person in connection with an acquisition to the extent such expenses were included in computing Consolidated Net Income;

(10) any Securitization Fees and discounts on the sale of accounts receivables in connection with any Qualified Securitization Financing representing, in the Parent's reasonable determination, the implied interest component of such discount for such period, and any gains (or losses) on the sale of accounts receivables, Securitization Assets and related assets in connection with a Qualified Securitization Financing;

(11) any extraordinary, one-off, non-recurring, exceptional or unusual gain, loss, expense or charge, including any charges or reserves in respect of any restructuring, redundancy, relocation, refinancing, integration or severance or other post-employment arrangements, signing, retention or completion bonuses, transaction costs (including costs related to any investments), acquisition costs, business optimization, system establishment, software or information technology implementation or development, costs related to governmental investigations and curtailments or modifications to pension or post-retirement benefits schemes, litigation or any asset impairment charges or the financial impacts of natural disasters (including fire, flood and storm and related events); and

(12) any one-time non-cash charges or any amortization or depreciation, in each case to the extent related to any acquisition of another Person or business or resulting from any reorganization or restructuring or Incurrence of Indebtedness involving the Parent or its Restricted Subsidiaries.

Unless otherwise specified, Consolidated EBITDA shall be determined on a *pro forma* basis, including the *pro forma* application of proceeds of Indebtedness being Incurred in connection with such determination, as per the most recent four fiscal quarters for which financial statements are available immediately preceding such determination.

"*Consolidated Income Taxes*" means taxes or other payments, including deferred Taxes, based on income, profits or capital of any of the Parent and its Restricted Subsidiaries whether or not paid, estimated, accrued or required to be remitted to any governmental authority.

"*Consolidated Interest Expense*" means, for any period (in each case, determined on the basis of IFRS), the consolidated net interest income/expense of the Parent and its Restricted Subsidiaries under IFRS, whether paid or accrued, plus or including (without duplication) any interest, costs and charges consisting of:

(1) interest expense attributable to Capitalized Lease Obligations;

(2) amortization of original issue discount but excluding amortization of debt issuance costs, fees and expenses and the expensing of any finance costs;

(3) non-cash interest expense;

(4) costs associated with Hedging Obligations (excluding amortization of fees or any non-cash interest expense attributable to the movement in mark-to- market valuation of such obligations);

(5) the product of (a) all dividends or other distributions in respect of all Disqualified Stock of the Parent and all Preferred Stock of any Restricted Subsidiary, to the extent held by Persons other than the Parent or a subsidiary of the Parent, multiplied by (b) a fraction, the numerator of which is one and the denominator of which is one minus the then current combined national, state and local statutory tax rate of such Person, expressed as a decimal, as estimated in good faith by a responsible accounting or financial officer of the Parent;

(6) the consolidated interest expense that was capitalized during such period; and

(7) interest actually paid by the Parent or any Restricted Subsidiary under any Guarantee of Indebtedness or other obligation of any other Person,

minus (i) accretion or accrual of discounted liabilities other than Indebtedness, (ii) any expense resulting from the discounting of any Indebtedness in connection with the application of purchase accounting in connection with any acquisition, (iii) interest with respect to Indebtedness of any Holding Company of such Person appearing upon the balance sheet of such Person solely by reason of push-down accounting under IFRS and (iv) any Additional Amounts with respect to the Notes included in interest expense under IFRS or other similar tax gross up on any Indebtedness included in interest expense under IFRS; and excluding amortization of debt discount, premium, issuance costs, commissions, fees and expenses, any commissions, discounts, yield or other fees and charges related to any Qualified Securitization Financing or other factoring, receivables or securitization financings that are non-recourse to the Parent or its Restricted Subsidiaries.

"*Consolidated Net Income*" means, for any period, the net income (loss) of the Parent and its Restricted Subsidiaries determined on a consolidated basis on the basis of IFRS; *provided, however*, that there will not be included in such Consolidated Net Income:

(1) subject to the limitations contained in clause (3) below, any net income (loss) of any Person if such Person is not a Restricted Subsidiary, except that the Parent's equity in the net income of any such Person for such period will be included in such Consolidated Net Income up to the aggregate amount of cash or Cash Equivalents actually distributed by such Person during such period to the Parent or a Restricted Subsidiary as a dividend or other distribution or return on investment or could have been distributed, as reasonably determined by an Officer (subject, in the case of a dividend or other distribution or return on investment to a Restricted Subsidiary, to the limitations contained in clause (2) below);

(2) [Reserved];

(3) any net gain (or loss) realized upon the sale or other disposition of any asset or disposed operations of the Parent or any Restricted Subsidiaries (including pursuant to any sale/leaseback transaction) which is not sold or otherwise disposed of in the ordinary course of business (as determined in good faith by an Officer or the Board of Directors of the Parent);

(4) [Reserved];

(5) the cumulative effect of a change in accounting principles;

(6) any non-cash compensation charge or expense arising from any grant of stock, stock options or other equity based awards, any non-cash deemed finance charges in respect of any pension liabilities or other provisions, any non-cash net after tax gains or losses attributable to the termination or modification of any employee pension benefit plan and any charge or expense relating to any payment made to holders of equity based securities or rights in respect of any dividend sharing provisions of such securities or rights to the extent such payment was made pursuant to Section 4.02;

(7) all deferred financing costs written off and premiums paid or other expenses incurred directly in connection with any early extinguishment of Indebtedness or Hedging Obligations and any net gain (loss) from any write-off or forgiveness of Indebtedness;

(8) any unrealized gains or losses in respect of Hedging Obligations or other financial instruments or any ineffectiveness recognized in earnings related to qualifying hedge transactions or the fair value or changes therein recognized in earnings for derivatives that do not qualify as hedge transactions, in each case, in respect of Hedging Obligations;

(9) any unrealized foreign currency transaction gains or losses in respect of Indebtedness or other obligations of the Parent or any Restricted Subsidiary denominated in a currency other than the functional currency of such Person and any unrealized foreign exchange gains or losses resulting from re- measuring assets and liabilities denominated in foreign currencies;

(10) any unrealized foreign currency translation or transaction gains or losses in respect of Indebtedness or other obligations of the Parent or any Restricted Subsidiary owing to the Parent or any Restricted Subsidiary;

(11) any one-time non-cash charges or any amortization or depreciation, in each case to the extent related to any acquisition of another Person or business; and

(12) any goodwill or other intangible asset impairment charge or write-off or write-down.

"*Consolidated Net Leverage*" means the aggregate outstanding Indebtedness of the Parent and its Restricted Subsidiaries (excluding Hedging Obligations) as of the relevant date of calculation minus cash and cash equivalents at such date, in each case on a consolidated basis and in accordance with IFRS.

"*Consolidated Net Leverage Ratio*" means, as of any date of determination, the ratio of (x) Consolidated Net Leverage at such date to (y) the aggregate amount of Consolidated EBITDA for the period of the four most recent fiscal quarters ending prior to the date of such determination for which internal consolidated financial statements of the Parent are available.

In addition, for purposes of calculating the Consolidated Net Leverage Ratio:

(1) acquisitions and Investments (each, a "*Purchase*") that have been made by the Parent or any of its Restricted Subsidiaries, including through mergers or consolidations, or any Person or any of its Subsidiaries which are Restricted Subsidiaries acquired by the Parent or any of its Restricted Subsidiaries, and including all related financing transactions and including increases in ownership of Subsidiaries which are Restricted Subsidiaries, during the reference period or subsequent to such reference period and on or prior to the date on which the calculation of the Consolidated Net Leverage Ratio is made (the "*Calculation Date*"), or that are to be made on the Calculation Date, will be given pro forma effect (as determined in good faith by a responsible accounting or financial officer of the Parent) as if they had occurred on the first day of the reference period; provided that if definitive documentation has been entered into with respect to a Purchase that is part of the transaction causing a calculation to be made hereunder, Consolidated EBITDA for such period will be calculated after giving pro forma effect to such Purchase as if such Purchase had occurred on the first day of such period, even if the Purchase has not yet been consummated as of the date of determination;

(2) the Consolidated EBITDA (whether positive or negative) attributable to discontinued operations, as determined in accordance with IFRS, and operations, businesses or group of assets constituting a business or operating unit (and ownership interests therein) disposed of during the reference period or subsequent to such reference period and prior to the Calculation Date, will be excluded on a *pro forma* basis as if such disposition occurred on the first day of such period;

(3) the Consolidated Interest Expense attributable to discontinued operations, as determined in accordance with IFRS, and operations, businesses or group of assets constituting a business or operating unit (and ownership interests therein) disposed of during the reference period or subsequent to such reference period and prior to the Calculation Date, will be excluded on a *pro forma* basis as if such disposition occurred on the first day of such period, but only to the extent that the obligations giving rise to such

Consolidated Interest Expense will not be obligations of the Parent or any of its Restricted Subsidiaries following the Calculation Date;

(4) any Person that is a Restricted Subsidiary on the Calculation Date will be deemed to have been a Restricted Subsidiary at all times during such reference period;

(5) any Person that is not a Restricted Subsidiary on the Calculation Date will be deemed not to have been a Restricted Subsidiary at any time during such reference period; and

(6) if any Indebtedness is not denominated in the Parent's functional currency, that Indebtedness for purposes of the calculation of Consolidated Net Leverage shall be treated in accordance with IFRS.

For the purposes of the definitions of Consolidated EBITDA, Consolidated Income Taxes, Consolidated Interest Expense and Consolidated Net Income, calculations will be determined in accordance with the terms set forth above.

"*Consolidated Net Tangible Assets*" means, as of any date of determination, the total amount of assets of the Parent on a consolidated basis (including deferred pension cost and deferred tax assets (without reducing such deferred tax assets by deferred tax liabilities), and less applicable reserves and other properly deductible items), after deducting therefrom:

(1) all current liabilities (excluding any Indebtedness or obligations under capital leases classified as a current liability); and

(2) all goodwill, trade names, trademarks, patents, unamortized debt discount and financing costs and all similar intangible assets,

all as set forth in the Parent's most recent consolidated balance sheet internally available (but, in any event, as of a date within 150 days of the date of determination) and computed in accordance with IFRS.

"*Contingent Obligations*" means, with respect to any Person, any obligation of such Person guaranteeing in any manner, whether directly or indirectly, any operating lease, dividend or other obligation that does not constitute Indebtedness ("*primary obligations*") of any other Person (the "*primary obligor*"), including any obligation of such Person, whether or not contingent:

(1) to purchase any such primary obligation or any property constituting direct or indirect security therefor;

(2) to advance or supply funds:

(A) for the purchase or payment of any such primary obligation; or

(B) to maintain the working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor; or

(3) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation against loss in respect thereof.

"*Credit Facility*" means, with respect to the Parent or any of its Subsidiaries, one or more debt facilities, arrangements, instruments or indentures (including any ABL Facility or commercial paper facilities and overdraft facilities) with banks, institutions or investors providing for revolving credit loans, term loans, receivables financing (including through the sale of receivables to such institutions or to special purpose entities formed to borrow from such institutions against such receivables), notes, letters of credit or other Indebtedness, in each case, as amended, restated, modified, renewed, refunded, replaced, restructured, refinanced, repaid, increased or extended in whole or in part from time to time (and whether in whole or in part and whether or not with the original administrative agent and lenders or another administrative agent or agents or other banks, institutions or investors and whether provided under any ABL Facility or one or more other credit or other agreements, indentures, financing agreements or otherwise) and in each case including all agreements, instruments and documents executed and delivered pursuant to or in connection with the foregoing (including any notes and letters of credit issued pursuant thereto and any Guarantee and collateral agreement, patent and trademark security agreement, mortgages or letter of credit applications and other Guarantees, pledges, agreements, security agreements and collateral documents). Without limiting the generality of the foregoing, the term "Credit Facility" shall include any agreement or instrument (1) changing the maturity of any Indebtedness Incurred thereunder or contemplated thereby, (2) adding Subsidiaries of the Parent as additional borrowers or guarantors thereunder, (3) increasing the amount of Indebtedness Incurred thereunder or available to be borrowed thereunder or (4) otherwise altering the terms and conditions thereof.

"*Currency Agreement*" means, in respect of a Person, any foreign exchange contract, currency swap agreement, currency futures contract, currency option contract, currency derivative or other similar agreement to which such Person is a party or beneficiary.

"*Default*" means any event which is, or after notice or passage of time or both would be, an Event of Default.

"*Designated Non-Cash Consideration*" means the fair market value (as determined in good faith by the Board of Directors or an Officer of the Parent) of non-cash consideration received by the Parent or one of its Restricted Subsidiaries in connection with an Asset Disposition that is so designated as Designated Non-Cash Consideration pursuant to an Officer's Certificate, setting forth the basis of such valuation, less the amount of cash, Cash Equivalents or Temporary Cash Investments received in connection with a subsequent payment, redemption, retirement, sale or other disposition of such Designated Non-Cash Consideration. A particular item of Designated Non-Cash Consideration will no longer be considered to be outstanding when and to the extent it

has been paid, redeemed or otherwise retired or sold or otherwise disposed of in compliance with Section 4.05.

"*Disqualified Stock*" means any Capital Stock that, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable, in each case, at the option of the holder of the Capital Stock), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or redeemable at the option of the holder of the Capital Stock, in whole or in part, in each case on or prior to the date that is 90 days after the earlier of (a) the Stated Maturity of the Notes or (b) the date on which there are no Notes outstanding. Notwithstanding the preceding sentence, any Capital Stock that would constitute Disqualified Stock solely because the holders of the Capital Stock have the right to require the issuer thereof to repurchase such Capital Stock upon the occurrence of a Change of Control or an Asset Disposition will not constitute Disqualified Stock if the terms of such Capital Stock provide that the issuer thereof may not repurchase or redeem any such Capital Stock pursuant to such provisions unless such repurchase or redemption complies with Section 4.02. For purposes hereof, the amount of Disqualified Stock which does not have a fixed repurchase price shall be calculated in accordance with the terms of such Disqualified Stock as if such Disqualified Stock were purchased on any date on which Indebtedness shall be required to be determined pursuant to this Indenture, and if such price is based upon, or measured by, the fair market value of such Disqualified Stock, such fair market value to be determined as set forth herein. Only the portion of Capital Stock which so matures or is mandatorily redeemable, is so convertible or exchangeable or is so redeemable at the option of the holder thereof prior to such date will be deemed to be Disqualified Stock.

"*Dollar Equivalent*" means, with respect to any monetary amount in a currency other than U.S. dollars, at any time of determination thereof by the Parent, the amount of U.S. dollars obtained by converting such currency other than U.S. dollars involved in such computation into U.S. dollars at the spot rate for the purchase of U.S. dollars with the applicable currency other than U.S. dollars as published in *The Financial Times* in the "Currency Rates" section (or, if *The Financial Times* is no longer published, or if such information is no longer available in *The Financial Times,* such source as may be selected in good faith by the Board of Directors or an Officer of the Parent) on the date of such determination.

"*EBITDA*" for a Person for the period of the four most recent fiscal quarters ending prior to the relevant date of measurement for which internal consolidated financial statements are available, means, without duplication earnings before interest, tax, depreciation and amortization, calculated on a basis consistent with Consolidated EBITDA.

"*Equity Offering*" means (x) a sale of Capital Stock of a Parent Holdco, the Parent or a Restricted Subsidiary (other than Disqualified Stock and other than offerings registered on Form S-8 (or any successor form) under the Securities Act or any similar offering in other jurisdictions and other than offerings to the Parent or any Restricted Subsidiary), or (y) the sale of Capital Stock or other securities by any Person (other than to the Parent or a Restricted Subsidiary), the proceeds of which are contributed to the equity (other than through the issuance of Disqualified Stock or through Excluded Contribution) of the Parent or any of its Restricted Subsidiaries.

"*Escrowed Proceeds*" means the proceeds from the offering of any debt securities or other Indebtedness paid into escrow accounts with an independent escrow agent on the date of the applicable offering or Incurrence pursuant to escrow arrangements that permit the release of amounts on deposit in such escrow accounts upon satisfaction of certain conditions or the occurrence of certain events. The term "*Escrowed Proceeds*" shall include any interest earned on the amounts held in escrow.

"*Euroclear*" means Euroclear Bank S.A./N.V.

"*European Union*" means all members of the European Union as of January 1, 2021.

"*Excess ABL Debt*" has the meaning given to it under the ABL Intercreditor Agreement.

"*Excess Junior Note Debt*" has the meaning given to it under the ABL Intercreditor Agreement.

"*Excess Senior Note Debt*" has the meaning given to it under the ABL Intercreditor Agreement.

"*Exchange Act*" means the U.S. Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder, as amended.

"*Excluded Contribution*" means Net Cash Proceeds or property or assets received by the Parent as capital contributions to the equity (other than through the issuance of Disqualified Stock) of the Parent after the Issue Date or from the issuance or sale (other than to a Restricted Subsidiary or an employee stock ownership plan or trust established by the Parent or any Subsidiary of the Parent for the benefit of its employees to the extent funded by the Parent or any Restricted Subsidiary) of Capital Stock (other than Disqualified Stock) of the Parent after the Issue Date, in each case, to the extent designated as an Excluded Contribution pursuant to an Officer's Certificate of the Parent. For the avoidance of doubt, the any proceeds received by the Parent or any Restricted Subsidiary from the issuance of ordinary shares of the Parent issued on the Issue Date in connection with the Transaction shall not constitute Excluded Contributions.

"*Existing A/R Facility*" means the facilities available under two Factoring Agreements dated as of October 2, 2020 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time), by and among, *inter alios*, Ferropem SAS, Grupo Ferroatlantica S.A, and La Banque Postale Leasing & Factoring.

"*fair market value*" wherever such term is used in this Indenture (except as otherwise specifically provided in this Indenture), may be conclusively established by means of an Officer's Certificate or a resolution of the Board of Directors of the Parent setting out such fair market value as determined by such Officer or such Board of Directors in good faith.

"*Fairness Opinion*" means a written opinion of an accounting, appraisal, or investment banking firm of international standing, or other recognized independent expert with experience appraising the terms and conditions of the type of transaction or series of related

transactions for which an opinion is required, stating that such transaction or series of related transactions is on terms not less favorable than might have been obtained in a comparable transaction at such time on an arm's length basis from a Person that is not an Affiliate.

"*Fitch*" means Fitch Ratings, Inc. or any of its successors or assigns that is a Nationally Recognized Statistical Ratings Organization.

"Fixed Charge Coverage Ratio" means, as of any date of determination, the ratio of (x) the aggregate amount of Consolidated EBITDA of such Person for the period of the four most recent fiscal quarters prior to the date of such determination for which internal consolidated financial statements are available to (y) the Fixed Charges of such Person for such four fiscal quarters.

In the event that the specified Person or any of its Restricted Subsidiaries Incurs, assumes, guarantees, repays, repurchases, redeems, defeases, retires, extinguishes or otherwise discharges any Indebtedness (other than Indebtedness Incurred under any revolving credit facility unless such Indebtedness has been permanently repaid and has not been replaced) or issues, repurchases or redeems Disqualified Stock or Preferred Stock subsequent to the commencement of the four-quarter period for which the Fixed Charge Coverage Ratio is being calculated and on or prior to the date on which the event for which the calculation of the Fixed Charge Coverage Ratio is made (the "*Calculation Date*"), then the Fixed Charge Coverage Ratio will be calculated giving *pro forma* effect (as determined in good faith by a responsible accounting or financial officer of such Person) to such Incurrence, assumption, guarantee, repayment, repurchase, redemption, defeasance, retirement, extinguishment or other discharge of Indebtedness, or such issuance, repurchase or redemption of Disqualified Stock or Preferred Stock, and the use of the proceeds therefrom, as if the same had occurred at the beginning of the applicable four-quarter period; *provided, however*, that the *pro forma* calculation of Fixed Charges shall not give effect to (i) any Indebtedness Incurred on the Calculation Date pursuant to the provisions described in Section 4.01(b) or (ii) the discharge on the Calculation Date of any Indebtedness to the extent that such discharge results from the proceeds of Indebtedness Incurred pursuant to the provisions described in Section 4.01(b).

In addition, for purposes of calculating the Fixed Charge Coverage Ratio:

(1) Purchases that have been made by the specified Person or any of its Restricted Subsidiaries, including through mergers or consolidations, or by any Person or any of its Restricted Subsidiaries acquired by the specified Person or any of its Subsidiaries which are Restricted Subsidiaries, and including all related financing transactions and including increases in ownership of Restricted Subsidiaries, during the four-quarter reference period or subsequent to such reference period and on or prior to the Calculation Date, or that are to be made on the Calculation Date, will be given *pro forma* effect (as determined in good faith by a responsible accounting or financial officer of such Person) as if they had occurred on the first day of the four-quarter reference period; *provided* that, if definitive documentation has been entered into with respect to a Purchase that is part of the transaction causing a calculation to be made hereunder, Consolidated

EBITDA for such period will be calculated after giving *pro forma* effect to such Purchase as if such Purchase had occurred on the first day of such period, even if the Purchase has not yet been consummated as of the date of determination;

(2) the Consolidated EBITDA attributable to discontinued operations, as determined in accordance with IFRS, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded;

(3) the Fixed Charges attributable to discontinued operations, as determined in accordance with IFRS, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded, but only to the extent that the obligations giving rise to such Fixed Charges will not be obligations of the specified Person or any of its Restricted Subsidiaries following the Calculation Date;

(4) any Person that is a Restricted Subsidiary on the Calculation Date will be deemed to have been a Restricted Subsidiary at all times during such four- quarter period;

(5) any Person that is not a Restricted Subsidiary on the Calculation Date will be deemed not to have been a Restricted Subsidiary at any time during such four-quarter period;

(6) if any Indebtedness bears a floating rate of interest and is being given *pro forma* effect, the interest expense on such Indebtedness will be calculated as if the rate in effect on the Calculation Date had been the applicable rate for the entire period (taking into account any Hedging Obligation applicable to such Indebtedness if such Hedging Obligation has a remaining term as at the Calculation Date in excess of 12 months, or, if shorter, at least equal to the remaining term of such Indebtedness); and

(7) Interest on a Capitalized Lease Obligation shall be deemed to accrue at an interest rate reasonably determined by a responsible financial or accounting officer of the Parent to be the rate of interest implicit in such Capitalized Lease Obligation in accordance with IFRS.

"*Fixed Charges*" means, with respect to any specified Person for any period, the sum, without duplication, of:

(1) the Consolidated Interest Expense of such Person for such period; plus

(2) all dividends, whether paid or accrued and whether or not in cash, on or in respect of all Disqualified Stock of the Parent or any series of Preferred Stock of any Restricted Subsidiary, other than dividends on equity interests payable to the Parent or a Restricted Subsidiary.

"*Guarantee*" means any obligation, contingent or otherwise, of any Person directly or indirectly guaranteeing any Indebtedness of any other Person, including any such obligation, direct or indirect, contingent or otherwise, of such Person:

(1) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness of such other Person (whether arising by virtue of partnership arrangements, or by agreements to keep-well, to purchase assets, goods, securities or services, to take-or-pay or to maintain financial statement conditions or otherwise); or

(2) entered into primarily for purposes of assuring in any other manner the obligee of such Indebtedness of the payment thereof or to protect such obligee against loss in respect thereof (in whole or in part),

provided, however, that the term "Guarantee" will not include endorsements for collection or deposit in the ordinary course of business. The term "Guarantee" used as a verb has a corresponding meaning.

"*Government Loan*" means a loan granted by the government or any department, division, agency or any other instrumentality of a government.

"*Government Obligations*" means any security that is (1) a direct obligation of the United States government, for the payment of which the full faith and credit of the United States government is pledged or (2) an obligation of a person controlled or supervised by and acting as an agency or instrumentality of the United States government the payment of which is unconditionally Guaranteed as a full faith and credit obligation by the United States, which, in either case under the preceding clause (1) or (2), is not callable or redeemable at the option of the issuer thereof.

"*Guarantor*" means any Person that executes a Note Guarantee in accordance with the provisions of this Indenture from time to time, and their respective successors and assigns, in each case, until the Note Guarantee of such Person has been released in accordance with the provisions of this Indenture.

"*GVM*" means Grupo Villar Mir S.A.U. and its successors or assigns.

"*GVM Share Pledge*" means any share pledge or charge or other similar security over the shares in the Parent held by GVM granted by GVM in support of or as collateral for its obligations under any GVM Loan from time to time.

"*GVM Loan*" means any financing provided by Tyrus to GVM or owing by GVM to Tyrus, from time to time.

"*Hedging Obligations*" of any Person means the obligations of such Person pursuant to any Interest Rate Agreement, Currency Agreement or Commodity Hedging Agreement.

"*Holder*" means each Person in whose name the Notes are registered on the Registrar's books.

"*Holding Company*" means, in relation to any Person, any other Person in respect of which it is a Subsidiary.

"*IFRS*" means International Financial Reporting Standards (formerly International Accounting Standards) endorsed from time to time by the European Union or any variation thereof with which the Parent or its Restricted Subsidiaries are, or may be, required to comply. All ratios and calculations contained in this Indenture shall be computed in accordance with IFRS.

"*Incur*" means issue, create, assume, enter into any Guarantee of, incur or otherwise become liable for; *provided*, *however*, that any Indebtedness or Capital Stock of a Person existing at the time such Person becomes a Restricted Subsidiary (whether by merger, consolidation, acquisition or otherwise) will be deemed to be Incurred by such Restricted Subsidiary at the time it becomes a Restricted Subsidiary and the terms "*Incurred*" and "*Incurrence*" have meanings correlative to the foregoing and any Indebtedness pursuant to any revolving credit or similar facility shall only be "Incurred" at the time any funds are borrowed thereunder.

"*Indebtedness*" means, with respect to any Person on any date of determination (without duplication):

(1) the principal of indebtedness of such Person for borrowed money;

(2) the principal of obligations of such Person evidenced by bonds, debentures, notes or other similar instruments;

(3) all reimbursement obligations of such Person in respect of letters of credit, bankers' acceptances or other similar instruments (the amount of such obligations being equal at any time to the aggregate then undrawn and unexpired amount of such letters of credit or other instruments plus the aggregate amount of drawings thereunder that have been reimbursed) (except to the extent such reimbursement obligations relate to trade payables or other obligations not constituting Indebtedness and such obligations are satisfied within 30 days of Incurrence), in each case only to the extent that the underlying obligation in respect of which the instrument was issued would be treated as Indebtedness;

(4) the principal component of all obligations of such Person to pay the deferred and unpaid purchase price of property (except trade payables), where the deferred payment is arranged primarily as a means of raising finance, which purchase price is due more than one year after the date of placing such property in service or taking final delivery and title thereto;

(5) Capitalized Lease Obligations of such Person;

(6) the principal component of all obligations, or liquidation preference, of such Person with respect to any Disqualified Stock or, with respect to any

Restricted Subsidiary, any Preferred Stock (but excluding, in each case, any accrued dividends);

(7) the principal component of all Indebtedness of other Persons secured by a Lien on any asset of such Person, whether or not such Indebtedness is assumed by such Person; *provided, however*, that the amount of such Indebtedness will be the lesser of (a) the fair market value of such asset at such date of determination (as determined in good faith by the Board of Directors or an Officer of the Parent) and (b) the amount of such Indebtedness of such other Persons;

(8) Guarantees by such Person of the principal component of Indebtedness of other Persons to the extent Guaranteed by such Person; and

(9) to the extent not otherwise included in this definition, net obligations of such Person under Currency Agreements, Interest Rate Agreements and Commodity Hedging Agreements (the amount of any such obligations to be equal at any time to the termination value of such agreement or arrangement giving rise to such obligation that would be payable by such Person at such time).

The term "Indebtedness" shall not include (i) any lease, concession or license of property (or Guarantee thereof) which would be considered an operating lease under IFRS as in effect on the Issue Date, (ii) prepayments of deposits received from clients or customers in the ordinary course of business, (iii) obligations under any license, permit or other approval (or Guarantees given in respect of such obligations) Incurred prior to the Issue Date or in the ordinary course of business, (iv) any asset retirement obligations, or (v) obligations under or in respect of Qualified Securitization Financings.

The amount of Indebtedness of any Person at any time in the case of a revolving credit or similar facility shall be the total amounts of funds borrowed and then outstanding. The amount of Indebtedness of any Person at any date shall be determined as set forth above or otherwise provided in this Indenture, and (other than with respect to letters of credit or Guarantees or Indebtedness specified in clause (7) or (8) above) shall equal the amount thereof that would appear on a balance sheet of such Person (excluding any notes thereto) prepared on the basis of IFRS.

Notwithstanding the above provisions, in no event shall the following constitute Indebtedness:

(i) Contingent Obligations Incurred in the ordinary course of business and accrued liabilities Incurred in the ordinary course of business that are not more than 90 days past due;

(ii) in connection with the purchase by the Parent or any Restricted Subsidiary of any business, any post-closing payment adjustments to which the seller may become entitled to the extent such payment is determined by a final closing balance sheet or such payment depends on the performance of such business after the closing; *provided*, *however*, that, at the time of closing, the amount of any

such payment is not determinable and, to the extent such payment thereafter becomes fixed and determined, the amount is paid within 30 days thereafter;

(iii) for the avoidance of doubt, any obligations in respect of workers' compensation claims, early retirement or termination obligations, pension fund obligations or contributions or similar claims, obligations or contributions or social security or wage Taxes;

(iv) any "parallel debt" obligations (including any Guarantees with respect thereof); or

(v) any Subordinated Shareholder Funding.

"*Independent Financial Advisor*" means an investment banking or accounting firm of international standing or any third party appraiser of international standing; *provided*, *however*, that such firm or appraiser is not an Affiliate of the Parent.

"*Intercreditor Agreement*" means the Intercreditor Agreement dated on or about the Issue Date, among, *inter alios*, the Trustee, the Security Agent, the Parent, the Issuers, and the Guarantors, as amended from time to time.

"*Interest Rate Agreement*" means, with respect to any Person, any interest rate protection agreement, interest rate future agreement, interest rate option agreement, interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate hedge agreement or other similar agreement or arrangement to which such Person is party or a beneficiary.

"Investment" means, with respect to any Person, all investments by such Person in other Persons (including Affiliates) in the form of any advance, loan or other extensions of credit (other than advances or extensions of credit to customers, suppliers, directors, officers or employees of any Person in the ordinary course of business, and excluding any debt or extension of credit represented by a bank deposit other than a time deposit) or capital contribution to (by means of any transfer of cash or other property to others or any payment for property or services for the account or use of others), or the Incurrence of a Guarantee of any obligation of, or any purchase or acquisition of Capital Stock, Indebtedness or other similar instruments issued by, such other Persons and all other items that are or would be classified as investments on a balance sheet (excluding any notes thereto) prepared on the basis of IFRS; *provided*, *however*, that endorsements of negotiable instruments and documents in the ordinary course of business will not be deemed to be an Investment. If the Parent or any Restricted Subsidiary issues, sells or otherwise disposes of any Capital Stock of a Person that is a Restricted Subsidiary such that, after giving effect thereto, such Person is no longer a Restricted Subsidiary, any Investment by the Parent or any Restricted Subsidiary in such Person remaining after giving effect thereto will be deemed to be a new Investment equal to the fair market value of the Capital Stock of such Subsidiary not sold or disposed of in an amount determined as provided in Section 4.02(d).

The amount of any Investment outstanding at any time shall be the original cost of such Investment, reduced (at the Parent's option) by any dividend, distribution, interest payment, return of capital, repayment or other amount or value received in respect of such Investment.

"*Investment Grade Securities*" means:

(1) securities issued or directly and fully Guaranteed or insured by the United States or Canadian government or any agency or instrumentality thereof (other than Cash Equivalents);

(2) securities issued or directly and fully guaranteed or insured by a Permissible Jurisdiction, Switzerland or Norway or any agency or instrumentality thereof (other than Cash Equivalents);

(3) debt securities or debt instruments with a rating of "BBB-" or higher from S&P or "Baa3" or higher by Moody's or the equivalent of such rating by such rating organization or, if no rating of Moody's or S&P then exists, the equivalent of such rating by any other Nationally Recognized Statistical Ratings Organization, but excluding any debt securities or instruments constituting loans or advances among the Parent and its Subsidiaries;

(4) investments in any fund that invests exclusively in investments of the type described in clauses (1), (2) and (3) above which fund may also hold cash and Cash Equivalents pending investment or distribution; and

(5) any investment in repurchase obligations with respect to any securities of the type described in clauses (1), (2) and (3) above which are collateralized at par or over.

"*Investment Grade Status*" shall occur when all of the Notes receive both of the following:

(1) a rating of "BBB-" or higher from Fitch; and

(2) a rating of "Baa3" or higher from Moody's,

or the equivalent of such rating by either such rating organization or, if no rating of Moody's or Fitch then exists, the equivalent of such rating by any other Nationally Recognized Statistical Ratings Organization.

"*Issue Date*" means July 29, 2021.

"*Issuers*" means the UK Issuer and the US Co-Issuer.

"*Junior Note Obligations*" has the meaning given to it under the ABL Intercreditor Agreement.

"*Lien*" means any mortgage, pledge, security interest, encumbrance, lien or charge of any kind (including any conditional sale or other title retention agreement or lease in the nature thereof).

"*Limited Condition Acquisition*" means any acquisition, including by way of merger, amalgamation or consolidation, by the Parent or one or more of its Restricted Subsidiaries the consummation of which is not conditioned upon the availability of, or on obtaining, third-party financing; *provided* that Consolidated EBITDA, other than for purposes of calculating any ratios in connection with the Limited Condition Acquisition and the related transactions, shall not include any Consolidated EBITDA of or attributable to the target company or assets involved in any such Limited Condition Acquisition unless and until the closing of such Limited Condition Acquisition shall have actually occurred.

"*Lock-Up Agreement*" means the lock-up agreement dated March 27, 2021 (as amended, extended, renewed, restated, supplemented, modified or replaced), between, among others, the Parent and the Original Consenting Noteholders (as defined therein), to facilitate the restructuring of the Parent and its subsidiaries.

"*Management Advances*" means loans or advances made to, or Guarantees with respect to loans or advances made to, directors, officers, employees or consultants of any Parent Holdco, the Parent or any Restricted Subsidiary:

(1) (a) in respect of travel, entertainment or moving related expenses incurred in the ordinary course of business or (b) for purposes of funding any such person's purchase of Capital Stock of the Parent, its Subsidiaries or any Parent Holdco with (in the case of this sub-clause (b)) the approval of the Board of Directors; or

(2) in respect of moving related expenses incurred in connection with any closing or consolidation of any facility or office.

"*Material Company*" means the Parent and any Restricted Subsidiary whose total assets, sales or EBITDA on a standalone basis represents 5% of consolidated total assets, consolidated sales or Consolidated EBITDA (excluding intra-group items and investments in Subsidiaries) as of the relevant test date under Section 4.07(c).

"*Moody's*" means Moody's Investors Service, Inc. or any of its successors or assigns that is a Nationally Recognized Statistical Rating Organization.

"*Nationally Recognized Statistical Rating Organization*" means a nationally recognized statistical rating organization within the meaning of Section 3(a)(62) under the Exchange Act.

"*Net Available Cash*" from an Asset Disposition means cash payments received (including any cash payments received by way of deferred payment of principal pursuant to a note or installment receivable or otherwise and net proceeds from the sale or other disposition of any securities received as consideration, but only as and when received, but excluding any other consideration received in the form of assumption by the acquiring person of Indebtedness or other obligations relating to the properties or assets that are the subject of such Asset Disposition or received in any other non-cash form) therefrom, in each case net of:

(1) all legal, accounting, investment banking, title and recording tax expenses, commissions and other fees and expenses incurred, and all Taxes paid or required to be paid or accrued as a liability under IFRS (after taking into account any available tax credits or deductions and any Tax Sharing Agreements), as a consequence of such Asset Disposition;

(2) all payments made on any Indebtedness which is secured by any assets subject to such Asset Disposition, in accordance with the terms of any Lien upon such assets, or which must by its terms, or in order to obtain a necessary consent to such Asset Disposition, or by applicable law, be repaid out of the proceeds from such Asset Disposition;

(3) all distributions and other payments required to be made to minority interest holders (other than any Parent Holdco, the Parent or any of their respective Subsidiaries) in Subsidiaries or joint ventures as a result of such Asset Disposition; and

(4) the deduction of appropriate amounts required to be provided by the seller as a reserve, on the basis of IFRS, against any liabilities associated with the assets disposed of in such Asset Disposition and retained by the Parent or any Restricted Subsidiary after such Asset Disposition.

"*Net Cash Proceeds*", with respect to any issuance or sale of Capital Stock, means the cash proceeds of such issuance or sale net of attorneys' fees, accountants' fees, underwriters' or placement agents' fees, listing fees, discounts or commissions and brokerage, consultant and other fees and charges actually Incurred in connection with such issuance or sale and net of taxes paid or payable as a result of such issuance or sale (after taking into account any available tax credit or deductions and any Tax Sharing Agreements).

"*Note Guarantee*" means the Guarantee by any Guarantor of an Issuer's obligations under this Indenture and the Notes.

"*Note Priority Collateral*" has the meaning given to it under the ABL Intercreditor Agreement.

"*Notes Documents*" means the Notes (including Additional Notes), this Indenture, the Security Documents, the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreements.

"*Officer*" means, with respect to any Person, (1) any member of the Board of Directors, the Chief Executive Officer, the President, the Chief Financial Officer, any Vice President, the Treasurer or the Secretary (a) of such Person or (b) if such Person is owned or managed by a single entity, of such entity, or (2) any other individual designated as an "Officer" for the purposes of this Indenture by the Board of Directors of such Person. The obligations of an "Officer of the Parent" may be exercised by the Officer of any Restricted Subsidiary who has been delegated such authority by the Board of Directors of the Parent.

"*Officer's Certificate*" means, with respect to any Person, a certificate signed by one Officer of such Person.

"*Opinion of Counsel*" means a written opinion from legal counsel reasonably satisfactory to the Trustee. The counsel may be an employee of or counsel to the Parent or its Subsidiaries.

"*Parent*" means Ferroglobe PLC or any other Successor Company in accordance with this Indenture.

"*Parent Holdco*" means any Person of which the Parent at any time is or becomes a Subsidiary after the Issue Date and any holding companies established by any Permitted Holder for purposes of holding its investment in the Parent.

"*Pari Passu Indebtedness*" means Indebtedness of an Issuer or any Guarantor which does not constitute Subordinated Indebtedness.

"*Paying Agent*" means any Person authorized by the Parent to pay the principal of (and premium, if any) or interest on any Note on behalf of the Parent, which shall include the Paying Agent.

"*Permissible Jurisdiction*" means any member state of the European Union (excluding Greece) and the United Kingdom.

"*Permitted Collateral Liens*" means:

(1) Liens on the Collateral to secure the Notes, including any Guarantee of such Notes, and any Refinancing Indebtedness in respect thereof (and any Refinancing Indebtedness in respect of Refinancing Indebtedness); *provided* that each of the parties thereto will have entered into the Intercreditor Agreement, the ABL Intercreditor Agreement or an Additional Intercreditor Agreement;

(2) Liens on the Collateral that are described in one or more of clauses (2), (3), (4), (5), (6), (8), (9), (10), (11), (12), (13), (15), (17), (18), (19), (20), (21), (22), (24), (27), (28) and (29), of the definition of "Permitted Liens";

(3) Liens on the Collateral to secure any Indebtedness (including any Additional Notes) that is permitted to be Incurred under (x) Section 4.01(a), and (y) Section 4.01(b)(xi) and any Refinancing Indebtedness in respect of any of the foregoing (and any Refinancing Indebtedness in respect of Refinancing Indebtedness);

(4) Liens on the Collateral to secure any Indebtedness that is permitted to be Incurred under clauses (i), (ii) (in the case of clause (ii), to the extent such Guarantee is in respect of Indebtedness otherwise permitted to be secured and specified in clause (3) and this clause (4) of the definition of "Permitted Collateral Liens"), (iv)(B), (vi), (vii) and (xiii) of Section 4.01(b) and any

Refinancing Indebtedness in respect of any of the foregoing (and any Refinancing Indebtedness in respect of Refinancing Indebtedness); and

(5) any Lien securing Indebtedness (including any Guarantee thereof) on a basis junior to the Notes,

provided, *however*, in the case of clauses (3), (4) and (5) above, that:

(A) any such Indebtedness is subject to the Intercreditor Agreement or to an Additional Intercreditor Agreement and, if incurred under any ABL Facility, is subject to the ABL Intercreditor Agreement or to an Additional Intercreditor Agreement with respect to such ABL Facility; and

(B) the Collateral securing such Indebtedness shall also secure the Notes or the Note Guarantees on a senior or *pari passu* basis; *provided* that (I) Indebtedness that is Incurred under clauses (i) (to the extent such Indebtedness does not constitute an ABL Facility) and (iv)(B) (and any refinancing and subsequent refinancings thereof covered under (iv)(D)) of Section 4.01(b) may receive priority with respect to distributions of proceeds of any enforcement of Collateral, in which case such Indebtedness shall constitute "Super Senior Liabilities" under the Intercreditor Agreement and (II) Indebtedness incurred under Section 4.01(b)(i) (to the extent such Indebtedness constitutes an ABL Facility) shall constitute "ABL Obligations" under the ABL Intercreditor Agreement.

For purposes of determining compliance with this definition, in the event that a Permitted Collateral Lien meets the criteria of one or more of the categories of Permitted Collateral Liens described above, the Issuer will be permitted to classify such Permitted Collateral Lien on the date of its Incurrence and reclassify such Permitted Collateral Lien at any time and in any manner that complies with this definition.

"*Permitted Holders*" means, collectively, (i) Grupo Villar Mir, S.A.U., (ii) members of the senior management team of the Parent as of the Issue Date, (iii) Alan Kestenbaum and (iv) any Related Person of any Persons specified in clause (i) to (iii). Any person or group whose acquisition of beneficial ownership constitutes a Change of Control in respect of which a Change of Control Offer is made in accordance with the requirements of this Indenture will thereafter, together with its Affiliates, constitute an additional Permitted Holder.

"*Permitted Investment*" means (in each case, by the Parent or any of its Restricted Subsidiaries):

(1) Investments in (a) a Restricted Subsidiary (including the Capital Stock of a Restricted Subsidiary) or the Parent or (b) a Person that is engaged in any Similar Business (including the Capital Stock of any such Person) and such Person will, upon the making of such Investment, become a Restricted Subsidiary; *provided* that the aggregate of Investments in Restricted Subsidiaries that are not Guarantors made pursuant to this clause (1) and

clause (2) of this definition by the Issuers and the Guarantors shall not exceed $10.0 million outstanding at any one time;

(2) Investments in another Person if such Person is engaged in any Similar Business and as a result of such Investment such other Person is merged, consolidated or otherwise combined with or into, or transfers or conveys all or substantially all its assets to, the Parent or a Restricted Subsidiary; *provided* that the aggregate of Investments in Restricted Subsidiaries that are not Guarantors made pursuant to this clause (2) and clause (1) of this definition by the Issuers and the Guarantors shall not exceed $10.0 million outstanding at any one time;

(3) Investments in cash, Cash Equivalents, Temporary Cash Investments or Investment Grade Securities;

(4) Investments in receivables owing to the Parent or any Restricted Subsidiary created or acquired in the ordinary course of business;

(5) Investments in payroll, travel, relocation, entertainment and similar advances to cover matters that are expected at the time of such advances ultimately to be treated as expenses for accounting purposes and that are made in the ordinary course of business;

(6) Management Advances and any advances or loans not to exceed $10.0 million at any one time outstanding to any management equity plan or stock option plan or any other management or employee benefit or incentive plan or unit trust or the trustees of any such plan or trust to pay for the purchase or other acquisition for value of Capital Stock (other than Disqualified Stock) of the Parent or a Parent Holdco;

(7) Investments in Capital Stock, obligations or securities received in settlement of debts created in the ordinary course of business and owing to the Parent or any Restricted Subsidiary, or as a result of foreclosure, perfection or enforcement of any Lien, or in satisfaction of judgments or pursuant to any plan of reorganization or similar arrangement including upon the bankruptcy or insolvency of a debtor;

(8) Investments made as a result of the receipt of non-cash consideration from a sale or other disposition of property or assets, including an Asset Disposition, in each case, that was made in compliance with Section 4.05;

(9) Investments in existence on, or made pursuant to legally binding commitments in existence on, the Issue Date, and any extension, modification or renewal of any such Investment; *provided* that the amount of the Investment may be increased (a) as required by the terms of the Investment as in existence on the Issue Date or (b) as otherwise permitted under this Indenture;

(10) Currency Agreements, Interest Rate Agreements and related Hedging Obligations, which transactions or obligations are Incurred in compliance with Section 4.01;

(11) [Reserved];

(12) pledges or deposits with respect to leases or utilities provided to third parties in the ordinary course of business or Liens otherwise described in the definition of "Permitted Liens" or made in connection with Liens permitted under Section 4.03;

(13) any Investment to the extent made using Capital Stock of the Parent (other than Disqualified Stock), or Capital Stock of any Parent Holdco as consideration;

(14) any transaction to the extent constituting an Investment that is permitted and made in accordance with Section 4.06(b) (except those described in clauses (b)(i), (b)(iii), (b)(viii), (b)(ix) and (b)(xii) of Section 4.06);

(15) Guarantees of Indebtedness of the Parent or any of its Restricted Subsidiaries not prohibited by Section 4.01 and (other than with respect to Indebtedness) guarantees, keepwells and similar arrangements in the ordinary course of business;

(16) [Reserved];

(17) Investments in loans under any ABL Facility, the Stub Notes (including any related additional notes), the Super Senior Notes (including any related additional notes), the Notes and any Additional Notes;

(18) Investments acquired after the Issue Date as a result of the acquisition by the Parent or any of its Restricted Subsidiaries of another Person, including by way of a merger, amalgamation or consolidation with or into the Parent or any of its Restricted Subsidiaries in a transaction that is not prohibited by Section 5.01 to the extent that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;

(19) Investments in licenses, concessions, authorizations, franchises, permits or similar arrangements that are related to the Parent's or any Restricted Subsidiary's business; and

(20) Investments made in connection with any Qualified Securitization Financing, including Investments in funds held in accounts required by the arrangements governing such Qualified Securitization Financing or any related Indebtedness.

"*Permitted Joint Venture*" means any entity formed for purposes of implementing the joint venture agreement, dated as of December 20, 2016, among Grupo FerroAtlántica, S.A.U., Silicio FerroSolar, S.L.U., FerroAtlántica, S.A., Blue Power Corporation, S.L. and Aurinka Photovoltaic Group, S.L., as the same may be amended, extended or otherwise modified from time to time.

"*Permitted Liens*" means, with respect to any Person:

(1) Liens on assets or property of any Restricted Subsidiary that is not a Guarantor securing Indebtedness of such Restricted Subsidiary that is not a Guarantor;

(2) pledges, deposits or Liens under workmen's compensation laws, unemployment insurance laws, social security laws or similar legislation, or insurance related obligations (including pledges or deposits securing liability to insurance carriers under insurance or self-insurance arrangements), or in connection with bids, tenders, completion guarantees, contracts (other than for borrowed money) or leases, or to secure utilities, licenses, public or statutory obligations, or to secure surety, indemnity, judgment, appeal or performance bonds, guarantees of government contracts (or other similar bonds, instruments or obligations), or as security for contested taxes or import or customs duties or for the payment of rent, or other obligations of like nature, in each case Incurred in the ordinary course of business;

(3) Liens imposed by law, including carriers', warehousemen's, mechanics', landlords', materialmens' and repairmen's or other similar Liens, in each case for sums not yet overdue for a period of more than 60 days or that are bonded or being contested in good faith by appropriate proceedings;

(4) Liens for taxes, assessments or other governmental charges not yet delinquent or which are being contested in good faith by appropriate proceedings; *provided* that appropriate reserves required pursuant to IFRS have been made in respect thereof;

(5) Liens in favor of issuers of surety, performance or other bonds, guarantees or letters of credit or bankers' acceptances or similar arrangements (not issued to support Indebtedness for borrowed money) issued pursuant to the request of and for the account of the Parent or any Restricted Subsidiary, in each case in the ordinary course of its business;

(6) encumbrances, ground leases, easements (including reciprocal easement agreements), survey exceptions, or reservations of, or rights of others for, licenses, rights of way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning, building codes or other restrictions (including minor defects or irregularities in title and similar encumbrances) as to the use of real properties or Liens incidental to the conduct of the

business of the Parent and its Restricted Subsidiaries or to the ownership of its properties which do not in the aggregate materially adversely affect the value of said properties or materially impair their use in the operation of the business of the Parent and its Restricted Subsidiaries;

(7) Liens on assets or property of the Parent or any Restricted Subsidiary securing Hedging Obligations permitted under this Indenture relating to Indebtedness permitted to be Incurred under this Indenture and which is secured by a Lien on the same assets or property that secure such Indebtedness;

(8) leases, licenses, subleases and sublicenses of assets (including real property and intellectual property rights), in each case entered into in the ordinary course of business;

(9) Liens arising out of judgments, decrees, orders or awards not giving rise to an Event of Default so long as any appropriate legal proceedings which may have been duly initiated for the review of such judgment, decree, order or award have not been finally terminated or the period within which such proceedings may be initiated has not expired;

(10) Liens on assets or property of the Parent or any Restricted Subsidiary for the purpose of securing Capitalized Lease Obligations or Purchase Money Obligations, or securing the payment of all or a part of the purchase price of, or securing other Indebtedness Incurred to finance or refinance the acquisition, improvement or construction of, assets or property acquired or constructed in the ordinary course of business; *provided* that (a) the aggregate principal amount of Indebtedness secured by such Liens is otherwise permitted to be Incurred under Section 4.01(b)(vii) and (b) any such Lien may not extend to any assets or property of the Parent or any Restricted Subsidiary other than assets or property acquired, improved, constructed or leased with the proceeds of such Indebtedness and any improvements or accessions to such assets and property;

(11) Liens arising by virtue of any statutory or common law provisions relating to banker's Liens, rights of set-off or similar rights and remedies (including any Liens or right of set-off arising under the general banking conditions (*algemene bankvoorwaarden*) in respect of costs incurred in relation to administering the respective bank accounts) as to deposit accounts or other funds maintained with a depositary or financial institution;

(12) Liens arising from Uniform Commercial Code financing statement filings (or similar filings in other applicable jurisdictions) regarding operating leases entered into by the Parent and its Restricted Subsidiaries in the ordinary course of business;

(13) Liens existing on, or provided for or required to be granted under written agreements existing on, the Issue Date;

(14) [Reserved];

(15) (i) Liens on assets or property of an Issuer or any Guarantor securing Indebtedness or other obligations of such Issuer or such Guarantor owing to an Issuer or any Guarantor, or (ii) Liens in favor of an Issuer or any Guarantor;

(16) Liens (other than Permitted Collateral Liens) securing Refinancing Indebtedness Incurred to refinance Indebtedness that was previously so secured, and permitted to be secured under this Indenture; *provided* that any such Lien is limited to all or part of the same property or assets (plus improvements, accessions, proceeds or dividends or distributions in respect thereof) that secured (or, under the written arrangements under which the original Lien arose, could secure) the Indebtedness being refinanced or is in respect of property that is or could be the security for or subject to a Permitted Lien hereunder;

(17) any interest or title of a lessor under any Capitalized Lease Obligation or operating lease;

(18) (a) mortgages, liens, security interest, restrictions, encumbrances or any other matters of record that have been placed by any government, statutory or regulatory authority, developer, landlord or other third party on property over which the Parent or any Restricted Subsidiary has easement rights or on any leased property and subordination or similar arrangements relating thereto and (b) any condemnation or eminent domain proceedings affecting any real property;

(19) any encumbrance or restriction (including put and call arrangements) with respect to Capital Stock of, or assets owned by, any joint venture or similar arrangement pursuant to any joint venture or similar agreement;

(20) Liens on property or assets under construction (and related rights) in favor of a contractor or developer or arising from progress or partial payments by a third party relating to such property or assets;

(21) Liens arising under general business conditions in the ordinary course of business, including without limitation the general business conditions of any bank or financial institution with whom the Parent or any of its Restricted Subsidiaries maintains a banking relationship in the ordinary course of business (including arising by reason of any treasury or cash management, cash pooling, netting or set-off arrangement or other trading activities);

(22) Liens arising out of conditional sale, title retention, hire purchase, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business;

(23) [Reserved];

(24) any security granted over the marketable securities portfolio described in clause (9) of the definition of "Cash Equivalents" in connection with the disposal thereof to a third party;

(25) (a) Liens created for the benefit of or to secure, directly or indirectly, the Notes and the Note Guarantees, and the Super Senior Notes and the guarantees of the Super Senior Notes as of the Issue Date, (b) Liens securing Indebtedness Incurred under Section 4.01(b)(i) (other than an ABL Facility); *provided* that (i) any Government Loan incurred pursuant to Section 4.01(b)(i) prior to the Issue Date shall be unsecured, and (ii) any Qualified Securitization Financing (other than an ABL Facility) incurred pursuant to Section 4.01(b)(i) shall not be secured by the Collateral and (c) Liens in respect of property and assets securing Indebtedness if the recovery in respect of such Liens is subject to loss-sharing or sharing of recoveries as among the Holders of the Notes and the creditors of such Indebtedness;

(26) [Reserved];

(27) Liens on (a) Escrowed Proceeds for the benefit of the related holders of debt securities or other Indebtedness (or the underwriters or arrangers thereof) or (b) on cash set aside at the time of the Incurrence of any Indebtedness or government securities purchased with such cash, in either case to the extent such cash or government securities prefund the payment of interest on such Indebtedness and are held in escrow accounts or similar arrangement to be applied for such purpose;

(28) limited recourse Liens in respect of the ownership interests in, or assets owned by the Permitted Joint Venture and any joint ventures which are not Restricted Subsidiaries securing obligations of such joint ventures; and

(29) Liens on Securitization Assets and related assets incurred in connection with any Qualified Securitization Financing.

"*Person*" means any individual, corporation, other body corporate, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company, government or any agency or political subdivision thereof or any other entity.

"*Preferred Stock*", as applied to the Capital Stock of any Person, means Capital Stock of any class or classes (however designated) which is preferred as to the payment of dividends or as to the distribution of assets upon any voluntary or involuntary liquidation or dissolution of such Person, over shares of Capital Stock of any other class of such Person.

"*Public Debt*" means any Indebtedness consisting of bonds, debentures, notes or other similar debt securities issued in (1) a public offering registered under the Securities Act or (2) a private placement to institutional investors that is underwritten for resale in accordance with Rule 144A or Regulation S under the Securities Act, whether or not it includes registration rights entitling the holders of such debt securities to registration thereof with the SEC for public resale.

"*Purchase Money Obligations*" means any Indebtedness Incurred to finance or refinance the acquisition, leasing, construction or improvement of property (real or personal) or assets (including Capital Stock), and whether acquired through the direct acquisition of such property or assets or the acquisition of the Capital Stock of any Person owning such property or assets, or otherwise.

"*Qualified Securitization Financing*" means any financing pursuant to which the Parent or any Restricted Subsidiary may sell, convey or otherwise transfer to any other Person or grant a security interest in any accounts receivable (and related assets) in an aggregate principal amount equivalent to the fair market value of such accounts receivable (and related assets) of the Parent or any Restricted Subsidiary; *provided* that (a) the financing terms, covenants, events of default and other provisions applicable to such financing shall be in the aggregate economically fair and reasonable to the Parent and its Restricted Subsidiaries and all sales of accounts receivable (and related assets) are made on market terms (each as determined in good faith by the board of directors or a member of senior management of the Parent) at the time such financing is entered into and (b) such financing shall be non recourse to the Parent and the Restricted Subsidiaries, except to the extent of any Securitization Repurchase Obligation or to the limited extent customary for such transactions.

"*refinance*" means refinance, refund, replace, renew, repay, modify, restate, defer, substitute, supplement, reissue, resell, extend or increase (including pursuant to any defeasance or discharge mechanism) and the terms "refinances", "refinanced" and "refinancing" as used for any purpose in this Indenture shall have a correlative meaning.

"*Refinancing Indebtedness*" means Indebtedness that is Incurred to refund, refinance, replace, exchange, renew, repay or extend (including pursuant to any defeasance or discharge mechanism) any Indebtedness existing on the date of this Indenture or Incurred in compliance with this Indenture (including Indebtedness of an Issuer that refinances Indebtedness of any Restricted Subsidiary and Indebtedness of any Restricted Subsidiary that refinances Indebtedness of an Issuer or another Restricted Subsidiary) including Indebtedness that refinances Refinancing Indebtedness; *provided*, *however*, that:

(1) if the Indebtedness being refinanced constitutes Subordinated Indebtedness, the Refinancing Indebtedness has a final stated maturity at the time such Refinancing Indebtedness is Incurred that is the same as or later than the final stated maturity of the Indebtedness being refinanced or, if shorter, the Notes;

(2) such Refinancing Indebtedness is Incurred in an aggregate principal amount (or if issued with original issue discount, an aggregate issue price) that is equal to or less than the sum of the aggregate principal amount (or if issued

with original issue discount, the aggregate accreted value) then outstanding of the Indebtedness being refinanced (plus, without duplication, any additional Indebtedness Incurred to pay interest or premiums required by the instruments governing such existing Indebtedness and costs, expenses and fees Incurred in connection therewith);

(3) if the Indebtedness being refinanced is expressly subordinated to the Notes and the Super Senior Notes, such Refinancing Indebtedness is subordinated to the Notes and the Super Senior Notes on terms at least as favorable to the Holders as those contained in the documentation governing the Indebtedness being refinanced,

provided, *however*, that Refinancing Indebtedness shall not include Indebtedness of a Restricted Subsidiary that is not an Issuer or a Guarantor that refinances Indebtedness of an Issuer or a Guarantor.

"*Stub Notes*" means $4,943,000 aggregate principal amount of 9^{3}/8% Senior Notes due 2022, $350.0 million aggregate principal amount of which was originally issued on February 15, 2017.

"*Super Senior Notes*" means $60.0 million aggregate principal amount of 9.0% senior secured notes due June 30, 2025.

"*Related Fund*" means:

(a) in relation to a fund (the "*First Fund*"), a fund which is managed or advised by the same investment manager or advisor as the First Fund or, if it is managed by a different investment manager or adviser, a fund whose investment manager or advisor is an Affiliate of the investment manager or advisor of the First Fund;

(b) in relation to any other person, any fund in respect of which such person or an Affiliate of such person is investment manager or investment adviser; and

(c) any Affiliate of any fund described in sub-paragraphs (a) or (b) above.

"*Related Person*" with respect to any Permitted Holder, means:

(1) any controlling equity holder, majority (or more) owned Subsidiary or partner or member of such Person; or

(2) in the case of an individual, any spouse, family member or relative of such individual, any trust or partnership for the benefit of one or more of such individual and any such spouse, family member or relative, or the estate, executor, administrator, committee or beneficiaries of any thereof; or

(3) any trust, corporation, other body corporate, partnership or other Person for which one or more of the Permitted Holders and other Related Persons of any thereof constitute the beneficiaries, stockholders, partners or owners

thereof, or Persons beneficially holding in the aggregate a majority (or more) controlling interest therein; or

(4) any investment fund or vehicle managed, sponsored or advised by such Person or any successor thereto, or by any Affiliate of such Person or any such successor.

"*Related Taxes*" means:

any Taxes, including sales, use, transfer, rental, ad valorem, value added, stamp, property, consumption, franchise, license, capital, registration, business, customs, net worth, gross receipts, excise, occupancy, intangibles or similar Taxes (other than (x) Taxes measured by income and (y) withholding imposed on payments made by any Parent Holdco), required to be paid (*provided* such Taxes are in fact paid) by any Parent Holdco by virtue of its:

(i) being incorporated or otherwise being established or having Capital Stock outstanding (but not by virtue of owning stock or other equity interests of any corporation or other entity other than, directly or indirectly, the Parent or any of the Parent's Subsidiaries);

(ii) being a holding company parent, directly or indirectly, of the Parent or any of the Parent's Subsidiaries;

(iii) receiving dividends from or other distributions in respect of the Capital Stock of, directly or indirectly, the Parent or any of the Parent's Subsidiaries; or

(iv) having made any payment with respect to any of the items for which the Parent is permitted to make payments to any Parent Holdco pursuant to Section 4.02.

"*Replacement Assets*" means non-current properties and assets that replace the properties and assets that were the subject of an Asset Disposition or non-current properties and assets that will be used in the Parent's business or in that of the Restricted Subsidiaries or any and all businesses that in the good faith judgment of the Board of Directors or any Officer of the Parent are reasonably related, in each case subject to the provisions of Section 11.05(a)(3).

"*Representative*" means any trustee, agent or representative (if any) for an issue of Indebtedness or the provider of Indebtedness (if provided on a bilateral basis), as the case may be.

"*Responsible Officer*" means, when used with respect to the Trustee, any officer within the applicable corporate trust services department of the Trustee, including any director, assistant director, trust manager, deputy trust manager, assistant trust manager, senior trust officer, trust officer or any other officer of the Trustee who customarily performs functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any

corporate trust matter is referred because of such Person's knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

"*Restricted Investment*" means any Investment other than a Permitted Investment.

"*Restricted Person*" means any Person that: (a) is listed on the United States Specifically Designated Nationals and Blocked Persons List; the European Union Consolidated List of Persons, Groups and Entities subject to EU Financial Sanctions; or the United Kingdom Consolidated List of Financial Sanctions Targets (each a "*Sanctions List*"); (b) is owned or controlled by a Person identified on a Sanctions List, to the extent that such ownership or control results in such Person being subject to the same restrictions as if such person were themselves identified on the corresponding Sanctions List; (c) is located in or incorporated under the laws of a country or territory that is the target of comprehensive sanctions imposed by the United States, which for the purposes of this Indenture, as of the Issue Date are Iran, Syria, Cuba, the Crimea Region, and North Korea; (d) has, within the last five years, been prosecuted by a relevant authority in the United States, the United Kingdom or any member state of the European Union, in relation to a breach of securities laws (in so far as such prosecution relates to insider dealing, unlawful disclosure, market manipulation or prospectus liability) or criminal laws relating to fraud or anti- corruption, except for instances where the prosecution has concluded and did not result in any criminal or civil settlement or penalty being imposed in relation to such breaches; or (e) is a Subsidiary of a person described in (d) above.

"*Restricted Subsidiary*" means any Subsidiary of the Parent.

"*S&P*" means S&P Global Ratings (formerly Standard & Poor's Ratings Services) or any of its successors or assigns that is a Nationally Recognized Statistical Rating Organization.

"*SEC*" means the U.S. Securities and Exchange Commission.

"*Securities Act*" means the U.S. Securities Act of 1933, as amended, and the rules and regulations of the SEC promulgated thereunder, as amended.

"*Securitization Assets*" means any accounts receivable that are or will be subject to a Qualified Securitization Financing.

"*Securitization Fees*" means distributions or payments made directly or by means of discounts with respect to any participation interest issued or sold in connection with, and other commissions, discounts, charges or fees paid to a Person that is not the Parent or a Restricted Subsidiary in connection with, any Qualified Securitization Financing.

"*Securitization Repurchase Obligation*" means any obligation of a seller of Securitization Assets in a Qualified Securitization Financing to repurchase Securitization Assets arising as a result of a breach of a representation, warranty or covenant or otherwise, including as a result of a receivable or a portion thereof becoming subject to any asserted defense, dispute, off- set or counterclaim of any kind as a result of any action taken by, any failure to take action by or any other event relating to the seller.

"*Security Agent*" means GLAS Trust Corporation Limited, as security agent pursuant to the Intercreditor Agreement, or any successor or replacement security agent acting in such capacity.

"*Security Documents*" means each collateral pledge agreement or other document under which Collateral is pledged to secure the Notes.

"Spain" means the Kingdom of Spain*;*

"Spanish Civil Code" means the Spanish Civil Code published by virtue of the Royal Decree of 24 July 1889 *(Real Decreto de 24 de Julio de 1889 por el que se publica el Código Civil),* as amended from time to time*;*

"Spanish Civil Procedural Act" means the Spanish Law 1/2000 of 7 January on Civil Procedure *(Ley 1/2000, de 7 de enero, de Enjuiciamiento Civil),* as amended from time to time;

"Spanish Guarantor" means any Guarantor incorporated under the laws of Spain*;*

"Spanish Insolvency Act" means the Spanish Royal Legislative Decree 1/2020 dated 5 May 2020 approving the restated text of the Spanish Insolvency Act *(Real Decreto Legislativo 1/2020, de 5 de mayo, por el que se aprueba el texto refundido de la Ley Concursal),* as amended from time to time*;*

"Spanish Public Document" means a documento público, being either an *escritura pública or a póliza o efecto intervenido por fedatario público;*

"*Senior Note Obligations*" has the meaning given to it under the ABL Intercreditor Agreement.

"*Significant Subsidiary*" means any Restricted Subsidiary that meets any of the following conditions:

(1) the Parent's and its Restricted Subsidiaries' investments in and advances to the Restricted Subsidiary exceed 10% of the total assets of the Parent and its Restricted Subsidiaries on a consolidated basis as of the end of the most recently completed fiscal year;

(2) the Parent's and its Restricted Subsidiaries' proportionate share of the total assets (after intercompany eliminations) of the Restricted Subsidiary exceeds 10% of the total assets of the Parent and its Restricted Subsidiaries on a consolidated basis as of the end of the most recently completed fiscal year; or

(3) the Parent's and its Restricted Subsidiaries' proportionate share of the Consolidated EBITDA of the Restricted Subsidiary exceeds 10% of the Consolidated EBITDA of the Parent and its Restricted Subsidiaries on a consolidated basis for the most recently completed fiscal year.

"*Similar Business*" means (a) any businesses, services or activities engaged in by the Parent or any of its Subsidiaries or any Associates on the Issue Date and (b) any businesses, services and activities that are related, complementary, incidental, ancillary or similar to any of the foregoing or are extensions or developments of any thereof.

"*Stated Maturity*" means, with respect to any security, the date specified in such security as the fixed date on which the payment of principal of such security is due and payable, including pursuant to any mandatory redemption provision, but shall not include any Contingent Obligations, including those described Section 4.14 and Section 4.05, to repay, redeem or repurchase any such principal prior to the date originally scheduled for the payment thereof.

"*Subordinated Indebtedness*" means, with respect to any person, except for the Stub Notes, Government Loans and an ABL Facility,

(1) any Indebtedness (whether outstanding on the Issue Date or thereafter Incurred) which is expressly subordinated in right of payment to the Notes and any Note Guarantee and the Super Senior Notes and the guarantees of the Super Senior Notes pursuant to a written agreement;

(2) for purposes of Section 4.02, any Indebtedness for borrowed money that is secured solely by a Lien that ranks junior to any Liens securing the Notes and the Note Guarantees and the Super Senior Notes and the guarantees of the Super Senior Notes; and

(3) for purposes of Section 4.02, any unsecured Indebtedness for borrowed money.

"*Subordinated Shareholder Funding*" means, any indebtedness that satisfies all of the following conditions: (1) it is provided by a shareholder of the Parent to the Parent (and not to any Restricted Subsidiary), (2) it is subordinated in right of payment to the Notes by being designated as "Subordinated Liabilities" under the Intercreditor Agreement, (3) it is unsecured and does not benefit from any guarantees from the Parent or any of its Restricted Subsidiaries, (4) it does not accrue interest payable in cash and (5) it provides that no repayment of principal may be made in cash until at least six months after the final maturity date of the Notes.

"*Subsidiary*" means, with respect to any Person:

(1) any corporation, other body corporate, association, or other business entity (other than a partnership, joint venture, limited liability company or similar entity) of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time of determination owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof; or

(2) any partnership, joint venture, limited liability company or similar entity of which:

(i) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general or limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof whether in the form of membership, general, special or limited partnership interests or otherwise; and

(ii) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity.

"*Successor Parent*" with respect to any Person means any other Person with more than 50% of the total voting power of the Voting Stock of which is, at the time the first Person becomes a Subsidiary of such other Person, "beneficially owned" (as defined below) by one or more Persons that "beneficially owned" (as defined below) more than 50% of the total voting power of the Voting Stock of the first Person immediately prior to the first Person becoming a Subsidiary of such other Person. For purposes hereof, "beneficially own" has the meaning correlative to the term "beneficial owner", as such term is defined in Rules 13d-3 and 13d-5 under the Exchange Act (as in effect on the Issue Date).

"*Tax Sharing Agreement*" means any tax sharing or profit and loss pooling or similar agreement with customary or arm's-length terms entered into with any Parent Holdco or its Subsidiary, as the same may be amended, supplemented, waived or otherwise modified from time to time in accordance with the terms thereof and of this Indenture.

"*Taxes*" means all present and future taxes, levies, imposts, deductions, charges, duties and withholdings and any similar charges in the nature of a tax (including interest and penalties with respect thereto) that are imposed by any government or other taxing authority.

"*Temporary Cash Investments*" means any of the following:

(1) any investment in:

(a) direct obligations of, or obligations Guaranteed by, (i) the United States of America or Canada, (ii) a Permissible Jurisdiction, (iii) Switzerland or Norway, (iv) any country in whose currency funds are being held specifically pending application in the making of an investment or capital expenditure by the Parent or a Restricted Subsidiary in that country with such funds or (v) any agency or instrumentality of any such country or member state; or

(b) direct obligations of any country recognized by the United States of America rated at least "A" by S&P or "A-2" by Moody's (or, in either case, the equivalent of such rating by such organization or, if no rating of S&P or Moody's then exists, the equivalent of such rating by any Nationally Recognized Statistical Rating Organization);

(2) overnight bank deposits, and investments in time deposit accounts, certificates of deposit, bankers' acceptances and money market deposits (or, with respect to foreign banks, similar instruments) maturing not more than one year after the date of acquisition thereof issued by:

(a) any lender under an ABL Facility;

(b) any institution authorized to operate as a bank in any of the countries or member states referred to in sub-clause (1)(a) above; or

(c) any bank or trust company organized under the laws of any such country or member state or any political subdivision thereof,

in each case, having capital and surplus aggregating in excess of $250 million (or the foreign currency equivalent thereof) and whose long-term debt is rated at least "A" by S&P or "A-2" by Moody's (or, in either case, the equivalent of such rating by such organization or, if no rating of S&P or Moody's then exists, the equivalent of such rating by any Nationally Recognized Statistical Rating Organization) at the time such Investment is made;

(3) repurchase obligations with a term of not more than 30 days for underlying securities of the types described in clause (1) or (2) above entered into with a Person meeting the qualifications described in clause (2) above;

(4) Investments in commercial paper, maturing not more than 270 days after the date of acquisition, issued by a Person (other than the Parent or any of its Subsidiaries), with a rating at the time as of which any Investment therein is made of "P-2" (or higher) according to Moody's or "A-2" (or higher) according to S&P (or, in either case, the equivalent of such rating by such organization or, if no rating of S&P or Moody's then exists, the equivalent of such rating by any Nationally Recognized Statistical Rating Organization);

(5) Investments in securities maturing not more than one year after the date of acquisition issued or fully Guaranteed by any state, commonwealth or territory of the United States of America, Canada, a Permissible Jurisdiction or Switzerland, Norway or by any political subdivision or taxing authority of any such state, commonwealth, territory, country or member state, and rated at least "BBB-" by S&P or "Baa3" by Moody's (or, in either case, the equivalent of such rating by such organization or, if no rating of S&P or Moody's then exists, the equivalent of such rating by any Nationally Recognized Statistical Rating Organization);

(6) bills of exchange issued in the United States, Canada, a Permissible Jurisdiction, Switzerland, Norway or Japan eligible for rediscount at the relevant central bank and accepted by a bank (or any dematerialized equivalent);

(7) any money market deposit accounts issued or offered by a commercial bank organized under the laws of a country that is a member of the Organization for Economic Cooperation and Development, in each case, having capital and surplus in excess of $250 million (or the foreign currency equivalent thereof) or whose long term debt is rated at least "A" by S&P or "A2" by Moody's (or, in either case, the equivalent of such rating by such organization or, if no rating of S&P or Moody's then exists, the equivalent of such rating by any Nationally Recognized Statistical Rating Organization) at the time such Investment is made;

(8) investment funds investing 95% of their assets in securities of the type described in clauses (1) through (7) above (which funds may also hold reasonable amounts of cash pending investment or distribution); and

(9) investments in money market funds complying with the risk limiting conditions of Rule 2a-7 (or any successor rule) of the SEC under the U.S. Investment Company Act of 1940, as amended.

"*Transaction*" has the meaning given to it under the Lock-Up Agreement.

"*Trust Indenture Act*" means the Trust Indenture Act of 1939, as amended.

"*Tyrus*" means Tyrus Capital Event S.à r.l. and any of its Affiliates and/or Related Funds.

"*Uniform Commercial Code*" means the New York Uniform Commercial Code.

"*United States*" and "*U.S.*" means the United States of America, its territories and possessions, any State of the United States, and the District of Columbia.

"*Voting Stock*" of a Person means all classes of Capital Stock of such Person then outstanding and normally entitled to vote in the election of directors.

Section 1.02. Other Definitions.

Term	**Defined in Section**
"Additional Amounts"	4.13(a)
"Additional Intercreditor Agreement"	4.11(a)
"Additional Notes"	Preamble
"Affiliate Transaction"	4.06(a)
"Agent Members"	Exhibit A
"Asset Disposition Offer"	4.05(c)
"Asset Disposition Offer Amount"	4.05(g)
"Asset Disposition Offer Period"	4.05(g)
"Asset Disposition Purchase Date"	4.05(g)
"Authenticating Agent"	2.03

“Authentication Order”	2.03
“Authorized Agent”	12.08
“Calculation Date”	1.01
“Change of Control Offer”	4.14(b)
“Change of Control Payment”	4.14(b)(i)
“Change of Control Payment Date”	4.14(b)(ii)
“Code”	4.13(a)(ii)
“Common Depositary”	Exhibit A
“Controlling Shareholder”	1.01
“covenant defeasance option”	8.01(b)
“cross acceleration provision”	6.01(d)(ii)
“defeasance trust”	8.02(i)
“Definitive Registered Note”	Exhibit A
“Event of Default”	6.01
“Excess Proceeds”	4.05(c)
“Excluded Amounts”	4.02(b)
“Global Notes”	Exhibit A
“Global Notes Legend”	Exhibit A
“Guarantor Coverage Test”	4.07(a)
“IAI Global Notes”	Exhibit A
“Initial Agreement”	4.04(b)(iii)
“Initial Default”	6.02
“Initial Lien”	4.03
“Initial Notes”	Preamble
“Institutional Accredited Investor”	Exhibit A
“judgment default provision”	6.01(f)
“legal defeasance option”	8.01(b)
“Notes”	Preamble
“payment default”	6.01(d)(i)
“Payor”	4.13(a)
“Permitted Debt”	4.01(b)
“Permitted Payments”	4.02(d)
“protected purchaser”	2.08
“QIB”	Exhibit A
“Registrar”	2.04(i)
“Regulation D”	Exhibit A
“Regulation S”	Exhibit A
“Regulation S Global Notes”	Exhibit A
“Regulation S Notes”	Exhibit A
“Relevant Taxing Jurisdiction”	4.13(a)(ii)
“Restricted Global Notes”	Exhibit A
“Restricted Notes Legend”	Exhibit A
“Restricted Payment”	4.02(a)
“Reversion Date”	4.10
“Rule 144A”	Exhibit A
“Rule 144A Notes”	Exhibit A

"Sanctions List"	1.01
"Securities Act"	Exhibit A
"Successor Company"	5.01(a)(i)
"Suspension Event"	4.10
"Transfer Agent"	Preamble
"Transfer Restricted Notes"	Exhibit A
"Trustee"	Preamble
"US GAAP"	1.01

Section 1.03. Rules of Construction. Unless the context otherwise requires:

(i) a term has the meaning assigned to it;

(ii) an accounting term not otherwise defined has the meaning assigned to it in accordance with IFRS as of the Issue Date;

(iii) "or" is not exclusive;

(iv) "including" means including without limitation;

(v) words in the singular include the plural and words in the plural include the singular; and

(vi) this Indenture is not qualified under, does not incorporate by reference and does not include, and is not subject to, any of the provisions of the Trust Indenture Act.

(vii) Where it relates to a Spanish Guarantor, or to Spanish law, a reference in this Agreement to:

(1) "**insolvency**" (*concurso*) or "**insolvency proceeding**" (*procedimiento concursal*) and any step or proceeding relating to it has the meaning attributed to them under the Spanish Insolvency Act, including a *declaración de concurso con independecia de su carácter necesario o voluntario*, any notice to a competent court pursuant to articles 583 or 631 of the Spanish Insolvency Act and its *solicitud de inicio de procedimiento de concurso, auto de declaración de concurso,* any judicial or out-of-court composition agreement *(convenio de acreedores or propuesta anticipada de convenio)*, any workout homologation petition (*solicitud de homologación de un acuerdo de refinanciación),* any refinancing agreement *(acuerdo de refinanciación)* or an out-of-court payment agreement *(acuerdo extrajudicial de pagos)*. A person being unable to pay its debts includes that person being in a state of *insolvencia* or in *concurso* according to Spanish Insolvency Act;

(2) "**control**" has the meaning stated under article 42 of the Spanish Commercial Code;

(3) "**winding up**", "**administration**" or "**dissolution**" includes, without limitation, *disolución*, *liquidación* and *procedimiento concursal*;

(4) a "**receiver**", "**administrative receiver**", "**administrator**" or the like includes, without limitation, *administración concursal* or a *liquidador* or any other person performing the same function;

(5) a "**composition**", "**compromise**", "**assignment**" or "**arrangement**" with any creditor includes, without limitation, the execution of a *convenio de acreedores* within the context of a *concurso* or any agreement under Title II or Title III of the Second Book of the Spanish Insolvency Act;

(6) a "**matured obligation**" includes, without limitation, any *importe* o r *crédito vencido, líquido y exigible*;

(7) "**trustee**", "fiduciary" and "fiduciary duty" has in each case the meaning given to such term under any applicable law;

(8) "**set-off**" would include to the extent legally possible the rights to compensate under Spanish Royal Decree 5/2005;

(9) a "**security**" includes any mortgage (*hipoteca*), pledge (*prenda*) (with or without transfer of possession), financial collateral agreement (*garantía financiera pignoraticia*) and, in general, any *in rem* security right governed by Spanish law;

(10) a "**guarantee**" includes any accessory personal guarantee (*fianza*), performance bond (*aval*), joint and several guarantee (*garantía solidaria*) and first demand guarantee (*garantía a primer requerimiento*); and

(11) "**wilful misconduct**" means *dolo.*

ARTICLE II

THE NOTES

Section 2.01. Issuable in Series.

(a) The Notes may be issued in one or more series. All Notes of any one series shall be substantially identical except as to denomination.

With respect to any Additional Notes issued after the Issue Date (except for Notes authenticated and delivered upon registration of, transfer of, or in exchange for, or in lieu of, other Notes pursuant to Section 2.08, Section 2.10, Section 2.11 or Section 3.06 or Exhibit A), there shall be (a) established in or pursuant to a resolution of the Board of Directors of the Issuers and (b) (i) set forth or determined in the manner provided in an Officer's Certificate of the Issuers and (ii) established in one or more indentures supplemental hereto, prior to the issuance of such Additional Notes:

(1) whether such Additional Notes shall be issued as part of a new or existing series of Notes and the title of such Additional Notes (which shall distinguish the Additional Notes of the series from Notes of any other series);

(2) the aggregate principal amount of such Additional Notes which may be authenticated and delivered under this Indenture (except for Notes authenticated and delivered upon registration of, transfer of, or in exchange for, or in lieu of, other Notes of the same series pursuant to Section 2.08, Section 2.10, Section 2.11 or Section 3.06 or Exhibit A and except for Notes which, pursuant to Section 2.06, are deemed never to have been authenticated and delivered hereunder);

(3) the issue price and issuance date of such Additional Notes, including the date from which interest on such Additional Notes shall accrue; and

(4) if applicable, that such Additional Notes shall be issuable in whole or in part in the form of one or more Global Notes and, in such case, the Common Depositary or its nominees for such Global Notes, the form of any legend or legends which shall be borne by such Global Notes in addition to or in lieu of those set forth in Exhibit A hereto and any circumstances in addition to or in lieu of those set forth in Section 2.3 of Exhibit A in which any such Global Note may be exchanged in whole or in part for Additional Notes registered, or any transfer of such Global Note in whole or in part may be registered, in the name or names of Persons other than the Common Depositary or its nominees for such Global Note or a nominee thereof.

(b) If any of the terms of any Additional Notes are established by action taken pursuant to a resolution of the Board of Directors, a copy of an appropriate record of such action shall be certified by an Officer's Certificate and delivered to the Trustee at or prior to the delivery of the Officer's Certificate of the Issuers or this Indenture supplemental hereto setting forth the terms of the Additional Notes.

(c) This Indenture is unlimited in aggregate principal amount. The Issuers may, subject to applicable law and this Indenture, issue an unlimited principal amount of Additional Notes; *provided*, that if the Additional Notes are not fungible with the Notes issued as of the date of this Indenture for U.S. federal income tax purposes, the Additional Notes will be issued with separate ISIN or Common Code numbers from such series of Notes. The Notes and, if issued, any related Additional Notes will be treated as a single class for all purposes under this Indenture, including, without limitation, with respect to waivers, amendments, redemptions and offers to purchase, except with respect to right of payment and optional redemption, as the relevant amendment, waiver, consent, modification or similar action affects the rights of the Holders of the different series of Notes dissimilarly or as otherwise provided for herein. For the purposes of calculating the aggregate principal amount of Notes that have consented to or voted in favor of any amendment, waiver, consent, modification or other similar action, the Issuers (acting reasonably and in good faith) shall be entitled to select a record date as of which the Dollar Equivalent of the principal amount of any Notes shall be calculated in such consent or voting process.

Section 2.02. Form and Dating. Provisions relating to the Notes are set forth in Exhibit A, which is hereby incorporated in and expressly made a part of this Indenture. The (a)

Notes and the Trustee's or the Authenticating Agent's certificate of authentication (as the case may be) and (b) any related Additional Notes (if issued as Transfer Restricted Notes) and the Trustee's or the Authenticating Agent's certificate of authentication (as the case may be) shall each be substantially in the form included in Exhibit A-1, which is hereby incorporated in and expressly made a part of this Indenture. Any Additional Notes issued other than as Transfer Restricted Notes and the Trustee's or the Authenticating Agent's certificate of authentication (as the case may be) shall each be substantially in the form of Exhibit A-1 (without the Restricted Notes Legend), which is hereby incorporated in and expressly made part of this Indenture. The Notes may have notations, legends or endorsements required by law, stock exchange rule, agreements to which the Issuers are subject, if any, or usage; *provided* that any such notation, legend or endorsement is in a form acceptable to the Issuers, the Paying Agent and the Trustee. Each Note shall be dated the date of its authentication. The Notes shall be issuable only in registered form without interest coupons and only in minimum denominations of $150,000 and whole multiples of $1,000 in excess thereof. Notwithstanding anything to the contrary, to the extent any provision of any Note conflicts with the express provisions of this Indenture, the provisions of this Indenture shall govern and be controlling.

Section 2.03. Execution and Authentication. An Officer of each Issuer shall sign the Notes for the Issuers by manual or facsimile signature.

If an Officer whose signature is on a Note no longer holds that office at the time the Trustee or the Authenticating Agent (as the case may be) authenticates the Note, the Note shall be valid nevertheless.

A Note shall not be valid until an authorized signatory of the Trustee or the Authenticating Agent (as the case may be) manually signs the certificate of authentication on the Note. The signature shall be conclusive evidence that the Note has been authenticated under this Indenture. Notwithstanding the foregoing, if any Note shall have been authenticated and delivered hereunder but never issued and sold by the Issuers, the Issuers shall deliver such Note to the Trustee for cancellation as provided for in Section 2.11.

The Trustee or the Authenticating Agent (as the case may be) shall authenticate and make available for delivery Notes as set forth in Exhibit A following receipt of an authentication order signed by an Officer of each of the Issuers directing the Trustee or the Authenticating Agent to authenticate such Notes (the "*Authentication Order*").

The Trustee may appoint one or more authenticating agents (each, an "*Authenticating Agent*") to authenticate the Notes. The term "*Authenticating Agent*" includes any successor of any Authenticating Agent appointed hereunder and any additional Authenticating Agent appointed hereunder. Unless limited by the terms of such appointment, the Authenticating Agent may authenticate the Notes whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. The Authenticating Agent has the same rights as any Registrar, Paying Agent or any other Agent to deal with the Issuers or an Affiliate of an Issuer.

The Trustee or Authenticating Agent shall have the right to decline to authenticate and deliver any Notes under this Section 2.03 if the Trustee, being advised by counsel, determines

that such action may not lawfully be taken or if the Trustee or Authenticating Agent in good faith shall determine that such action would expose the Trustee or Authenticating Agent to personal liability to existing Holders.

Section 2.04. Registrar and Paying Agent.

(i) The Issuers will maintain one or more Paying Agents for the Notes. The initial Paying Agent will be Global Loan Agency Services Limited (the "*Paying Agent*"). The Issuers will also maintain one or more registrars (each, a "*Registrar*") and a transfer agent (the "*Transfer Agent*"). The initial Registrar and Transfer Agent will be GLAS Americas LLC. Subject to any applicable laws and regulations, the Registrar shall keep a register (the "*Register*") reflecting ownership of the Notes outstanding from time to time and of their transfer and exchange. Global Loan Agency Services Limited, in its capacity as Paying Agent, and GLAS Americas LLC in its capacity as Registrar and Transfer Agent, hereby accept such appointment.

(ii) The Issuers shall enter into an appropriate agency agreement with any Registrar or Paying Agent not a party to this Indenture. Such agreement shall implement the provisions of this Indenture that relate to such agent. The Issuers shall notify the Trustee of the name and address of any such agent. If the Issuers fails to maintain a Registrar or Paying Agent, the Trustee may act, or may arrange for appropriate parties to act, as such and shall be entitled to appropriate compensation therefor pursuant to Section 7.06. Each Issuer or any other Restricted Subsidiary may act as Paying Agent or Registrar in respect of the Notes.

(iii) The Issuers may change any Registrar, Paying Agent or Transfer Agent upon written notice to such Registrar, Paying Agent or Transfer Agent and to the Trustee, without prior notice to the Holders; *provided*, *however*, that no such removal shall become effective until (i) acceptance of an appointment by a successor as evidenced by an appropriate agreement entered into by the Issuers and such successor Registrar, Paying Agent, or Transfer Agent, as the case may be, and delivered to the Trustee or (ii) notification to the Trustee that the Trustee shall, to the extent that the Trustee determines that it is able and agrees to, serve as Registrar or Paying Agent or Transfer Agent until the appointment of a successor in accordance with clause (i) above. The Registrar, any Paying Agent or the Transfer Agent may resign by providing 30 days' written notice to the Issuers and the Trustee. If a successor Paying Agent, Registrar or Transfer Agent does not take office within 30 days after the retiring Paying Agent, Registrar or Transfer Agent, as the case may be, resigns or is removed the retiring Paying Agent, Registrar or Transfer Agent, as the case may be, may (after consulting with the Issuers) appoint a successor Paying Agent, Registrar or Transfer Agent, as applicable, at any time prior to the date on which a successor Paying Agent, Registrar or Transfer Agent takes office; *provided* that such appointment is reasonably satisfactory to the Issuers. If the successor Agent does not deliver its written acceptance within 30 days after the retiring Agent resigns or is removed, the retiring Agent, the Issuers or the Holders of 10% in principal amount of the outstanding Notes under this

Indenture may, at the expense of the Issuers, petition any court of competent jurisdiction for the appointment of a successor Agent. In addition, for so long as Notes are listed on the Global Exchange Market of Euronext Dublin and the rules thereof so require, the Issuers will publish notice of any change of Paying Agent, Registrar or Transfer Agent in a daily newspaper with general circulation in Ireland (which is expected to be *The Irish Times*). Such notice of the change in a Paying Agent, Registrar or Transfer Agent may also be published on the official website of Euronext Dublin (www.euronext.com/en/markets/dublin) in lieu of publication in a daily newspaper, to the extent and in the manner permitted by the rules of the Global Exchange Market of Euronext Dublin.

Section 2.05. Paying Agent. No later than 11:00 a.m. London time on each Business Day prior to the due date of the principal of, interest and premium (if any) on any Note, the Issuers shall deposit with the Paying Agent (or if an Issuer or a Restricted Subsidiary is acting as Paying Agent, segregate and hold in trust for the benefit of the Persons entitled thereto) a sum in immediately available funds sufficient to pay such principal, interest and premium (if any) when so becoming due and, subject to receipt of such monies, the Paying Agent shall make payment on the Notes in accordance with this Indenture. The Paying Agent other than the Trustee, or an Affiliate of the Trustee, will hold for the benefit of Holders or the Trustee all money held by the Paying Agent for the payment of principal, premium, or interest on the Notes, and will notify the Trustee of any default by the Issuers in making any such payment. While any such default continues, the Trustee may require a Paying Agent to pay all money held by it to the Trustee. Money held by a Paying Agent need not be segregated, except as required by law, and in no event shall any Paying Agent be liable for any money received by it hereunder. If an Issuer or a Restricted Subsidiary acts as Paying Agent, it shall segregate the money held by it as Paying Agent and hold it as a separate trust fund. The Issuers at any time may require a Paying Agent to pay all money held by it to the Trustee or such entity designated by the Trustee for this purpose and to account for any funds disbursed by the Paying Agent. Upon complying with this Section 2.05, the Paying Agent shall have no further liability for the money delivered to the Trustee. For the avoidance of doubt, the Paying Agent and the Trustee shall be held harmless and have no liability with respect to payments or disbursements to be made by the Paying Agent and Trustee (i) for which payment instructions are not made or that are not otherwise deposited by the respective times set forth in this Section 2.05, (ii) and until they have confirmed receipt of funds sufficient to make the relevant payment.

Section 2.06. Holder Lists. The Registrar shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of Holders. Following the exchange of beneficial interests in Global Notes for Definitive Registered Notes, the Issuers shall furnish to the Trustee, the Transfer Agent and the Paying Agent in writing at least five Business Days before each interest payment date, and at such other times as the Trustee may reasonably require, the names and addresses of Holders of such Definitive Registered Notes.

Neither the Trustee, the Agents nor any of their agents will have any responsibility or be liable for any aspect of the records in relation to, or payments made on account of, beneficial ownership interests in the Global Notes or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Section 2.07. Transfer and Exchange. The Notes shall be issued in registered form and shall be transferable only upon the surrender of a Note for registration of transfer and in compliance with Exhibit A. When a Note is presented to the Registrar or Transfer Agent, as the case may be, with a request to register a transfer, the Registrar or the Transfer Agent, as the case may be, shall register the transfer as requested if its requirements therefor are met. When Notes are presented to the Registrar or the Transfer Agent, as the case may be, with a request to exchange them for an equal principal amount of Notes of other denominations, the Registrar shall make the exchange as requested if the same requirements are met. To permit registration of transfers and exchanges, the Issuers shall execute and the Trustee or the Authenticating Agent, upon receipt of an authentication order, shall authenticate Notes at the request of the Registrar or the Transfer Agent, as the case may be. The Issuers, Registrar and Transfer Agent may require payment of a sum sufficient to pay all taxes, assessments or other governmental charges in connection with any transfer or exchange pursuant to this Section 2.07. The Issuers are not required to register the transfer or exchange of any Notes (i) for a period of 15 days prior to any date fixed for the redemption of the Notes, (ii) for a period of 15 days immediately prior to the date fixed for selection of Notes to be redeemed in part (iii) for a period of 15 days prior to the record date with respect to any interest payment date, or (iv) which the Holder has tendered (and not withdrawn) for repurchase in connection with a Change of Control Offer or an Asset Disposition Offer.

Prior to the due presentation for registration of transfer of any Note, the Issuers, the Trustee, each Agent, the Paying Agent, the Transfer Agent and the Registrar may deem and treat the Person in whose name a Note is registered as the absolute owner of such Note for the purpose of receiving payment of principal of and (subject to Section 2 of the Notes) interest, if any, on such Note and for all other purposes whatsoever, whether or not such Note is overdue, and none of the Issuers, the Trustee, the Paying Agent, the Transfer Agent or the Registrar shall be affected by notice to the contrary.

Any Holder of a Global Note shall, by acceptance of such Global Note, agree that transfers of beneficial interest in such Global Note may be effected only through a book-entry system maintained by (a) the Holder of such Global Note (or its agent) or (b) any Holder of a beneficial interest in such Global Note, and that ownership of a beneficial interest in such Global Note shall be required to be reflected in a book-entry.

All Notes issued upon any transfer or exchange pursuant to the terms of this Indenture shall evidence the same debt and shall be entitled to the same benefits under this Indenture as the Notes surrendered upon such transfer or exchange.

Section 2.08. Replacement Notes. If a mutilated Note is surrendered to the Registrar or if the Holder of a Note claims that the Note has been lost, destroyed or wrongfully taken, the Issuers shall issue and the Trustee or the Authenticating Agent, upon receipt of an authentication order, shall authenticate a replacement Note, such that the Holder (a) notifies the Issuers or the Trustee within a reasonable time after such Holder has notice of such loss, destruction or wrongful taking and the Registrar does not register a transfer prior to receiving such notification, (b) makes such request to the Issuers or the Trustee prior to the Note being acquired by a protected purchaser as defined in Section 8-303 of the Uniform Commercial Code (a "*protected purchaser*") and (c) satisfies any other reasonable requirements of the Trustee. If required by the Trustee, each Agent or the Issuers, such Holder shall furnish an indemnity bond

sufficient in the judgment of the Trustee and the Issuers to protect the Issuers, the Trustee, the Authenticating Agent, Paying Agent and the Registrar from any loss that any of them may suffer if a Note is replaced. The Issuers and the Trustee may charge the Holder for their expenses in replacing a Note including reasonable fees and expenses of counsel.

In the event any such mutilated, lost, destroyed or wrongfully taken Note has become or is about to become due and payable, the Issuers in their discretion may pay such Note instead of issuing a new Note in replacement thereof.

Every replacement Note is an additional obligation of the Issuers.

The provisions of this Section 2.08 are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, lost, destroyed or wrongfully taken Notes.

Section 2.09. Outstanding Notes. Notes outstanding at any time are all Notes authenticated by the Trustee or the Authenticating Agent except for those canceled by either of them, those delivered to either of them for cancellation and those described in this Section 2.09 as not outstanding. Subject to Section 12.04, a Note does not cease to be outstanding because an Issuer or an Affiliate of an Issuer holds the Note.

If a Note is replaced pursuant to Section 2.08, it ceases to be outstanding unless the Trustee and the Issuers receive proof satisfactory to them that the replaced Note is held by a protected purchaser.

If the Paying Agent receives (or an Issuer or another Restricted Subsidiary is acting as Paying Agent and such Paying Agent segregates and holds in trust) in accordance with this Indenture, by 11:00 a.m. London time on each redemption date or maturity date money sufficient to pay all principal and interest and premium, if any, payable on that date with respect to the Notes (or portions thereof) to be redeemed or maturing, as the case may be, and the Paying Agent is not prohibited from paying such amount to the Holders on that date pursuant to the terms of this Indenture then on and after that date such Notes (or portions thereof) cease to be outstanding and interest on them ceases to accrue.

Section 2.10. Temporary Notes. In the event that Definitive Registered Notes are to be issued under the terms of this Indenture, until such Definitive Registered Notes are ready for delivery, the Issuers may prepare and the Trustee or the Authenticating Agent, upon receipt of an authentication order, shall authenticate temporary Notes. Temporary Notes shall be substantially in the form of Definitive Registered Notes but may have variations that the Issuers consider appropriate for temporary Notes. Without unreasonable delay, the Issuers shall prepare and the Trustee or the Authenticating Agent, upon receipt of an authentication order, shall authenticate Definitive Registered Notes and deliver them in exchange for temporary Notes upon surrender of such temporary Notes at the office or agency of the Issuers, without charge to the Holder.

Section 2.11. Cancellation. The Issuers at any time may deliver Notes to the Registrar for cancellation. The Paying Agent, Transfer Agent and the Trustee shall forward to the Registrar any Notes surrendered to them for registration of transfer, exchange or payment. The Registrar or the Paying Agent (or an agent authorized by the Registrar) and no one else shall cancel

all Notes surrendered for registration of transfer, exchange, payment or cancellation and shall dispose of canceled Notes in accordance with its customary procedures or deliver canceled Notes to the Issuers pursuant to written direction by an Officer of an Issuer. Certification of the destruction of all canceled Notes shall be delivered to the Issuers. The Issuers may not issue new Notes to replace Notes they redeemed or delivered to the Registrar for cancellation. If an Issuer shall acquire any of the Notes, such acquisition shall not operate as a redemption or satisfaction of the Indebtedness represented by such Notes, unless and until the same are surrendered to the Registrar for cancellation pursuant to this Section 2.11. Neither the Trustee nor the Authenticating Agent shall authenticate Notes in place of canceled Notes other than pursuant to the terms of this Indenture.

Section 2.12. Common Code or ISIN Numbers. The Issuers in issuing the Notes may use Common Code or ISIN numbers (if then generally in use) and, if so, the Trustee and Agents shall use Common Code or ISIN numbers in notices of redemption as a convenience to Holders; *provided*, *however*, that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Notes or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Notes, and any such redemption shall not be affected by any defect in or omission of such numbers. The Issuers will promptly notify the Trustee and the Paying Agent of any change in the Common Code or ISIN numbers.

Section 2.13. Defaulted Interest. If the Issuers default in a payment of interest on the Notes, they will pay the defaulted interest in any lawful manner plus, to the extent lawful, interest payable on the defaulted interest, to the Persons who are Holders on a subsequent special record date, in each case at the rate provided in the Notes and in Section 4.12 hereof. The Issuers will notify the Trustee as soon as practicable in writing of the amount of defaulted interest proposed to be paid on each Note and the date of the proposed payment. The Issuers will fix or cause to be fixed each such special record date and payment date; *provided* that no such special record date may be less than 10 days prior to the related payment date for such defaulted interest. At least 15 days before the special record date, the Issuers (or, upon the written request of the Issuers, the Trustee in the name and at the expense of the Issuers) will mail or deliver or cause to be mailed or delivered to the Holders in accordance with Section 12.01 a notice that states the special record date, the related payment date and the amount of such interest to be paid. The Issuers undertake to promptly inform Euronext Dublin (for so long as the Notes are listed on the Global Exchange Market thereof) of any such special record date.

Section 2.14. Currency. The U.S. dollar is the sole currency of account and payment for all sums payable by the Issuers and the Guarantors under or in connection with this Indenture, the Notes and the Note Guarantees, including damages. Any amount received or recovered in a currency other than the U.S. dollar, whether as a result of, or the enforcement of, a judgment or order of a court of any jurisdiction, in the winding-up or dissolution of an Issuer, any Guarantor or otherwise by any Holder or by the Trustee, in respect of any sum expressed to be due to it from the Issuers or a Guarantor will only constitute a discharge to the Issuers or such Guarantor, as applicable, to the extent of the U.S. dollar amount which the recipient is able to purchase with the amount so received or recovered in that other currency on the date of that receipt or recovery (or, if it is not practicable to make that purchase on that date, on the first date on which it is practicable to do so).

If that U.S. dollar amount is less than the U.S. dollar amount expressed to be due to the recipient or the Trustee under any Note, Note Guarantee, or this Indenture, the Issuers and the Guarantors will indemnify them against any loss sustained by such recipient or the Trustee as a result. In any event, the Issuers and the Guarantors will indemnify the recipient or the Trustee on a joint and several basis against the cost of making any such purchase. For the purposes of this Section 2.14, it will be *prima facie* evidence of the matter stated therein for the Holder of a Note or the Trustee to certify in a manner reasonably satisfactory to the Issuers (indicating the sources of information used) the loss it Incurred in making any such purchase. These indemnities constitute a separate and independent obligation from the Issuers' and the Guarantors' other obligations, will give rise to a separate and independent cause of action, will apply irrespective of any waiver granted by any Holder of a Note or the Trustee (other than a waiver of the indemnities set out herein) and will continue in full force and effect despite any other judgment, order, claim or proof for a liquidated amount in respect of any sum due under any Note or any Note Guarantee, or to the Trustee.

Except as otherwise specifically set forth herein, for purposes of determining compliance with any U.S. dollar-denominated restriction herein, the Dollar Equivalent amount for purposes hereof that is denominated in a non-U.S. dollar currency shall be calculated based on the relevant currency exchange rate in effect on the date such non-U.S. dollar amount is Incurred or made, as the case may be.

ARTICLE III

REDEMPTION

Section 3.01. Notices to Trustee and Paying Agents. If the Issuers elect to redeem Notes pursuant to Section 5 or Section 6 of the Notes, it shall notify, at least three Business Days before the publication, mailing or delivery of the notice of such redemption, the Trustee, the Registrar and the Paying Agent of the redemption date and the principal amount of Notes to be redeemed and the section of the Note pursuant to which the redemption will occur.

The Issuers shall give each notice to the Trustee, Registrar and the Paying Agent provided for in this Article III at least 10 days, but not more than 60 days, before the redemption date. In the case of a redemption pursuant to Section 5 of the Notes, such notice shall be accompanied by an Officer's Certificate from the Issuers setting forth: (i) the redemption date; (ii) the ISIN, common code, CUSIP or other securities identification number of the Notes to be redeemed; (iii) the principal amount of Notes to be redeemed; (iv) the redemption price; (v) the paragraph of the Notes pursuant to which the redemption will occur and (vi) that such redemption will comply with the conditions herein.

In the case of a redemption pursuant to Section 6 of the Notes, at least three Business Days prior to the publication, mailing or delivery of any notice of redemption of Notes pursuant to the foregoing, the Issuers will deliver to the Trustee (a) an Officer's Certificate stating that they are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to their right so to redeem have been satisfied and (b) an opinion of an independent tax counsel of recognized standing to the effect that the Issuers have been or will become obligated to pay Additional Amounts as a result of a Change in Tax Law. The Trustee

will accept and shall be entitled to rely on such Officer's Certificate and opinion as sufficient evidence of the satisfaction of the conditions precedent described above, without further inquiry, in which event it will be conclusive and binding on the Holders. Any such notice may be canceled at any time prior to notice of such redemption being published, mailed or delivered to any Holder and shall thereby be void and of no effect.

Section 3.02. Selection of Notes To Be Redeemed or Repurchased. If less than all of the Notes are to be redeemed at any time, the Paying Agent or the Registrar will select Notes for redemption in compliance with the requirements of the principal securities exchange, if any, on which the Notes are listed, and in compliance with the applicable procedures of Euroclear or Clearstream, or if the Notes are not so listed or such exchange prescribes no method of selection and the Notes are not held through Euroclear or Clearstream, or Euroclear or Clearstream prescribe no method of selection, on a *pro rata* basis; *provided, however*, that no Definitive Registered Note of $150,000 in aggregate principal amount or less shall be redeemed in part and only Notes in integral multiples of $1,000 will be redeemed. None of the Trustee, the Paying Agent nor the Registrar will be liable for any selections made in accordance with this Section 3.02.

Section 3.03. Notice of Redemption. Subject to Section 3.03(ii) below, not less than 10 days but not more than 60 days before a date for redemption of Notes, the Issuers shall transmit to each Holder (with a copy to the Trustee and Registrar) a notice of redemption in accordance with Section 12.01; *provided*, *however*, that any notice of redemption provided for by Section 6 of the Notes shall not be given (a) earlier than 60 days prior to the earliest date on which the Payor would be obligated to make a payment of Additional Amounts and (b) unless at the time such notice is given, the obligation to pay such Additional Amounts remains in effect. In addition, for so long as the Notes are listed on the Global Exchange Market of Euronext Dublin and the rules thereof so require, the Issuers shall publish notice of redemption in a daily newspaper with general circulation in Ireland (which is expected to be the *Irish Times*) and in addition to such publication, not less than 10 nor more than 60 days prior to the redemption date, mail such notice to Holders by first-class mail, postage prepaid, at their respective addresses as they appear on the registration books of the Registrar. While in global form, notices to Holders may be delivered via Euroclear or Clearstream in lieu of notice via registered mail. Such notice of redemption may also be published on the website of Euronext Dublin (www.euronext.com/en/markets/dublin) in lieu of publication in *The Irish Times* so long as the rules of the Global Exchange Market of Euronext Dublin are complied with.

(i) The notice shall identify the Notes to be redeemed and shall state:

A. the redemption date and the record date;

B. the redemption price, and, if applicable, the appropriate calculation of such redemption price and the amount of accrued interest to the redemption date;

C. the name and address of the Paying Agent;

D. that Notes called for redemption must be surrendered to the Paying Agent to collect the redemption price;

E. if fewer than all the outstanding Notes are to be redeemed, the certificate numbers and principal amounts of the particular Notes to be redeemed;

F. that, unless the Issuers default in making such redemption payment or the Paying Agent is prohibited from making such payment pursuant to the terms of this Indenture, interest on Notes (or portion thereof) called for redemption ceases to accrue on and after the redemption date;

G. the Common Code or ISIN numbers, as applicable, if any, printed on the Notes being redeemed;

H. the paragraph of the Notes or section of this Indenture pursuant to which the Notes are being redeemed; and

I. that no representation is made as to the correctness or accuracy of the Common Code or ISIN numbers, as applicable, if any, listed in such notice or printed on the Notes.

(ii) At the Issuers' written request, the Trustee or the Paying Agent shall give the notice of redemption in the Issuers' name and at the Issuers' expense. In such event, the Issuers shall deliver to the Trustee and the Paying Agent, with a copy to the Trustee, at least 5 Business Days prior to the date on which notice of redemption is to be delivered to the Holders (unless a shorter period is satisfactory to the Trustee), an Officer's Certificate requesting that the Trustee give such notice and the information required and within the time periods specified by this Section.

Section 3.04. Effect of Notice of Redemption. Once notice of redemption is delivered, Notes called for redemption cease to accrue interest, and become due and payable, on the redemption date and at the redemption price stated in the notice; *provided*, *however*, that any redemption notice given in respect of the redemption referred to in Section 5 of the Notes may, at the Issuers' discretion, be subject to the satisfaction of one or more conditions precedent. If such redemption or notice is subject to satisfaction of one or more conditions precedent, such notice shall state that, in the Issuers' discretion, the redemption date may be delayed until such time as any or all such conditions shall be satisfied, or such redemption may not occur and such notice may be rescinded in the event that any or all such conditions shall not have been satisfied by the redemption date, or by the redemption date so delayed; *provided* that in no case shall the notice have been delivered less than 10 days or more than 60 days prior to the date on which such redemption (if any) occurs. In addition, the Issuers may provide in such notice that payment of the redemption price and performance of the Issuers' obligations with respect to such redemption may be performed by another Person. Upon surrender to the Paying Agent, the Notes shall be paid at the redemption price stated in the notice, plus accrued interest, if any, to, but not including, the redemption date; *provided*, *however*, that if the redemption date is after a regular record date and on or prior to the interest payment date, the accrued interest shall be payable to the Holder of the redeemed Notes registered on the relevant record date. Failure to give notice or any defect in the notice to any Holder shall not affect the validity of the notice to any other Holder.

Section 3.05. Deposit of Redemption Price. No later than 11:00 a.m. London time on the Business Day prior to each redemption date, the Issuers shall deposit with the Paying Agent (or, if an Issuer or another Restricted Subsidiary is the Paying Agent, shall segregate and hold in trust) money in immediately available funds (denominated in U.S. dollars) sufficient to pay the redemption or purchase price of and accrued interest on all Notes or portions thereof to be redeemed on that date other than Notes or portions of Notes called for redemption that have been delivered by the Issuers to the Registrar for cancellation. On and after the redemption date, interest shall cease to accrue on Notes or portions thereof called for redemption so long as the Issuers have deposited with the Paying Agent funds sufficient to pay the redemption or purchase price of, plus accrued and unpaid interest and Additional Amounts, if any, on, the Notes to be redeemed pursuant to this Indenture, unless the Paying Agent is prohibited from making such payment pursuant to the terms of this Indenture. For the avoidance of doubt, the Paying Agent and the Trustee shall be held harmless and have no liability with respect to payments or disbursements to be made by the Paying Agent and Trustee (i) for which payment instructions are not made or that are not otherwise deposited by the respective times set forth in this Section 3.05, and (ii) until they have confirmed receipt of funds sufficient to make the relevant payment. If the Issuers elect to redeem the Notes or portions thereof and request the Trustee to distribute to the Holders of the Notes any amounts deposited in trust (which, for the avoidance of doubt, will include accrued and unpaid interest to but excluding the date fixed for redemption) prior to the date fixed for redemption in accordance with Section 8.01, the applicable redemption notice will state that Holders of the Notes will receive such amounts deposited in trust prior to the date fixed for redemption and the relevant payment date.

Section 3.06. Notes Redeemed in Part. Subject to the terms hereof, upon surrender of a Note that is redeemed in part, the Issuers shall execute and the Trustee or an Authenticating Agent shall, upon receipt of an Authentication Order from the Issuers, authenticate for the Holder (at the Issuers' expense) a new Note equal in principal amount to the unredeemed portion of the Note surrendered.

ARTICLE IV

COVENANTS

Section 4.01. Limitation on Indebtedness.

(a) The Parent will not, and will not permit any of its Restricted Subsidiaries to, Incur any Indebtedness (including Acquired Indebtedness); *provided, however*, that an Issuer and any Guarantor may Incur Indebtedness (including Acquired Indebtedness) if on the date of such Incurrence and after giving *pro forma* effect thereto (including *pro forma* application of the proceeds thereof), the Fixed Charge Coverage Ratio for the Parent and its Restricted Subsidiaries would have been at least 2.0 to 1.0 and the Consolidated Net Leverage Ratio for the Parent and its Restricted Subsidiaries would have been at least 3.0 to 1.0.

(b) Section 4.01(a) will not prohibit the Incurrence of the following Indebtedness ("*Permitted Debt*"):

(i) Indebtedness Incurred pursuant to any Credit Facility (including in respect of letters of credit or bankers' acceptances issued or created thereunder), and any Refinancing Indebtedness in respect thereof and Guarantees in respect of such Indebtedness in a maximum aggregate principal amount at any time outstanding not to exceed $100.0 million; *plus* in the case of any refinancing of any Indebtedness permitted under this Section 4.01(b)(i) or any portion thereof, the aggregate amount of fees, underwriting discounts, premiums and other costs and expenses incurred in connection with such refinancing; *provided* that the aggregate principal amount of Indebtedness Incurred by Restricted Subsidiaries that are not Guarantors or an Issuer pursuant to this Section 4.01(b)(i) shall not exceed $10.0 million at any time;

(ii) A. Guarantees by the Parent or any Restricted Subsidiary of Indebtedness of an Issuer or any Guarantor or guarantees by any Restricted Subsidiary that is not a Guarantor of Indebtedness of any other Restricted Subsidiary that is not a Guarantor, so long as the Incurrence of such Indebtedness is permitted under the terms of this Indenture, *provided*, that if such Indebtedness is subordinated to the Notes or any Note Guarantee, then such guarantees shall also be subordinated to the Note or such Note Guarantee on the same basis; or

B. without limiting the provisions of Section 4.03, Indebtedness arising by reason of any Lien granted by or applicable to any Person securing Indebtedness of the Parent or any Restricted Subsidiary so long as the Incurrence of such Indebtedness is permitted under the terms of this Indenture;

(iii) Indebtedness of the Parent owing to and held by any Restricted Subsidiary or Indebtedness of a Restricted Subsidiary owing to and held by the Parent or any Restricted Subsidiary; *provided*, *however*, that:

A. in the case of Indebtedness of the Parent, an Issuer or a Guarantor owing to and held by any Restricted Subsidiary that is not a Guarantor (or an Issuer) (except in respect of intercompany current liabilities Incurred in the ordinary course of business in connection with cash management positions of the Parent and its Restricted Subsidiaries), such Indebtedness shall be unsecured and expressly subordinated in right of payment to the prior payment in full in cash of all obligations with respect to the Notes, in the case of an Issuer, and the respective Note Guarantee, in the case of a Guarantor; and

B. (i) any subsequent issuance or transfer of Capital Stock or any other event which results in any such Indebtedness being beneficially held by a Person other than the Parent or a Restricted Subsidiary; and (ii) any sale or other transfer of any such Indebtedness to a Person other than the Parent or a Restricted Subsidiary, shall be deemed, in each case, to constitute an Incurrence of such Indebtedness not permitted by this Section 4.01(b)(iii) by the Parent or such Restricted Subsidiary, as the case may be;

(iv) (A) Indebtedness represented by the Notes (other than any Additional Notes) issued on the Issue Date and the related Note Guarantees, (B) Indebtedness represented by the Super Senior Notes and the guarantees of the Super Senior Notes outstanding on the Issue Date, (C) any Indebtedness (other than Indebtedness described in Section 4.01(b)(iii)) outstanding on the Issue Date after giving effect to the Transaction, consisting of the Indebtedness listed on Schedule 1 to the Indenture, including the Stub Notes, (D) Refinancing Indebtedness Incurred in respect of any Indebtedness described in this Section 4.01(b)(iv) (other than clause (iv)(E)) or Incurred pursuant to Section 4.01(a), (E) Management Advances and (F) any loan or other instrument contributing the proceeds of the Notes, the Stub Notes and/or the Super Senior Notes;

(v) [Reserved];

(vi) Indebtedness under Currency Agreements, Interest Rate Agreements and Commodity Hedging Agreements not for speculative purposes (as determined in good faith by the Board of Directors or an Officer of the Parent);

(vii) Indebtedness consisting of (A) Capitalized Lease Obligations, mortgage financings, Purchase Money Obligations or other financings, Incurred for the purpose of financing all or any part of the purchase price or cost of construction or improvement of property, plant or equipment used in a Similar Business or (B) Indebtedness otherwise Incurred to finance the purchase, lease, rental or cost of design, construction, installation or improvement of property (real or personal) or equipment that is used or useful in a Similar Business, whether through the direct purchase of assets or the Capital Stock of any Person owning such assets, and any Indebtedness which refinances, replaces or refunds such Indebtedness, in an aggregate outstanding principal amount which, when taken together with the principal amount of all other Indebtedness Incurred pursuant to this Section 4.01(b)(vii) and then outstanding, will not exceed at any time outstanding the greater of (i) $15.0 million and (ii) 1.0% of Consolidated Net Tangible Assets;

(viii) Indebtedness in respect of (A) workers' compensation claims, self- insurance obligations, performance, indemnity, surety, judgment, appeal, advance payment, customs, VAT or other tax or other guarantees or other similar bonds, instruments or obligations and completion guarantees and warranties provided by the Parent or a Restricted Subsidiary or relating to liabilities, obligations or guarantees Incurred in the ordinary course of business or in respect of any governmental requirement, (B) letters of credit, bankers' acceptances, guarantees or other similar instruments or obligations issued or relating to liabilities or obligations Incurred in the ordinary course of business or in respect of any governmental requirement; *provided*, *however*, that upon the drawing of such letters of credit or other similar instruments, the obligations are reimbursed within 30 days following such drawing, (C) the financing of insurance premiums in the ordinary course of business and (D) any customary treasury or cash management services, including treasury, depository, overdraft, credit card processing, credit or debit card, purchase card, electronic funds transfer, the collection of checks and

direct debits, cash pooling and other cash management arrangements, in each case, in the ordinary course of business;

(ix) Indebtedness arising from agreements providing for customary guarantees, indemnification, obligations in respect of earn-outs or other adjustments of purchase price or, in each case, similar obligations, in each case, Incurred or assumed in connection with the acquisition or disposition of any business or assets or Person or any Capital Stock of a Subsidiary (other than Guarantees of Indebtedness Incurred by any Person acquiring or disposing of such business or assets or such Subsidiary for the purpose of financing such acquisition or disposition); *provided* that, in the case of a disposition, the maximum liability of the Parent and its Restricted Subsidiaries in respect of all such Indebtedness shall at no time exceed the gross proceeds, including the fair market value of non-cash proceeds (measured at the time received and without giving effect to any subsequent changes in value), actually received by the Parent and its Restricted Subsidiaries in connection with such disposition;

(x) (A) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business; *provided*, however, that such Indebtedness is extinguished within 30 Business Days of Incurrence;

(B) customer deposits and advance payments received in the ordinary course of business from customers for goods or services purchased in the ordinary course of business;

(C) Indebtedness owed on a short-term basis of no longer than 30 days to banks and other financial institutions Incurred in the ordinary course of business of the Parent and its Restricted Subsidiaries with such banks or financial institutions that arises in connection with ordinary banking arrangements to manage cash balances of the Parent and its Restricted Subsidiaries; and

(D) Indebtedness Incurred by a Restricted Subsidiary in connection with bankers' acceptances, discounted bills of exchange or the discounting or factoring of receivables for credit management of bad debt purposes, in each case Incurred or undertaken in the ordinary course of business;

(xi) Indebtedness of an Issuer or any Guarantor in an aggregate outstanding principal amount which, when taken together with any Refinancing Indebtedness in respect thereof and the principal amount of all other Indebtedness Incurred pursuant to this Section 4.01(b)(xi) and then outstanding, will not exceed $25.0 million;

(xii) Indebtedness under daylight borrowing facilities Incurred in connection with any refinancing of Indebtedness (including by way of set-off or

exchange) so long as any such Indebtedness is repaid within three days of the date on which such Indebtedness is Incurred;

(xiii) Indebtedness Incurred under (i) the Existing A/R Facility, (ii) any Qualified Securitization Financing that refinances or replaces the Existing A/R Facility and (iii) any other Qualified Securitization Financing, for this clause (iii), in an aggregate principal amount not to exceed $25.0 million at any one time; and

(xiv) Indebtedness in respect of any letters of credit, indemnities, guarantees or other undertakings in connection with environmental assurances, reclamation or rehabilitation operations.

(c) [Reserved].

(d) For purposes of determining compliance with, and the outstanding principal amount of any particular Indebtedness Incurred pursuant to and in compliance with, this Section 4.01:

(i) in the event that Indebtedness meets the criteria of more than one of the types of Indebtedness described in Section 4.01(a) and Section 4.01(b), the Parent, in its sole discretion, will classify, and may from time to time reclassify, such item of Indebtedness and only be required to include the amount and type of such Indebtedness in one of the clauses under Section 4.01(a) and Section 4.01(b);

(ii) [Reserved];

(iii) Guarantees of, or obligations in respect of letters of credit, bankers' acceptances or other similar instruments or any similar "parallel debt" obligations relating to, or Liens securing, Indebtedness that is otherwise included in the determination of a particular amount of Indebtedness shall not be included;

(iv) if obligations in respect of letters of credit, bankers' acceptances or other similar instruments are Incurred pursuant to any Credit Facility and are being treated as Incurred pursuant to clause (i), (vii) or (xi) of Section 4.01(b) or Section 4.01(a) and the letters of credit, bankers' acceptances or other similar instruments relate to other Indebtedness, then such other Indebtedness shall not be included;

(v) the principal amount of any Disqualified Stock of the Parent or a Restricted Subsidiary, or Preferred Stock of a Restricted Subsidiary, will be equal to the greater of the maximum mandatory redemption or repurchase price (not including, in either case, any redemption or repurchase premium) or the liquidation preference thereof;

(vi) Indebtedness permitted by this Section 4.01 need not be permitted solely by reference to one provision permitting such Indebtedness but may be permitted in part by one such provision and in part by one or more other provisions of this Section 4.01 permitting such Indebtedness; and

(vii) the amount of Indebtedness issued at a price that is less than the principal amount thereof will be equal to the amount of the liability in respect thereof determined on the basis of IFRS.

(e) Accrual of interest, accrual of dividends, the accretion of accreted value, the accretion or amortization of original issue discount, the payment of interest in the form of additional Indebtedness, the payment of dividends in the form of additional shares of Preferred Stock or Disqualified Stock or the reclassification of commitments or obligations not treated as Indebtedness due to a change in IFRS will not be deemed to be an Incurrence of Indebtedness for purposes of this Section 4.01. Except as otherwise specified, the amount of any Indebtedness outstanding as of any date shall be (a) the accreted value thereof in the case of any Indebtedness issued with original issue discount and (b) the principal amount, or liquidation preference thereof, in the case of any other Indebtedness.

(f) [Reserved].

(g) For purposes of determining compliance with any U.S. dollar-denominated restriction on the Incurrence of Indebtedness, the Dollar Equivalent of the principal amount of Indebtedness denominated in another currency shall be calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was Incurred, in the case of term Indebtedness, or, at the option of the Parent, first committed, in the case of Indebtedness Incurred under a revolving credit facility; *provided* that (a) if such Indebtedness is Incurred to refinance other Indebtedness denominated in a currency other than the U.S. dollar, and such refinancing would cause the applicable U.S. dollar-denominated restriction to be exceeded if calculated at the relevant currency exchange rate in effect on the date of such refinancing, such U.S. dollar- denominated restriction shall be deemed not to have been exceeded so long as the principal amount of such Refinancing Indebtedness does not exceed the amount set forth in clause (2) of the definition of Refinancing Indebtedness; (b) the Dollar Equivalent of the principal amount of any such Indebtedness outstanding on the Issue Date shall be calculated based on the relevant currency exchange rate in effect on the Issue Date; and (c) if any such Indebtedness that is denominated in a different currency is subject to a Currency Agreement (with respect to the U.S. dollar) covering principal amounts payable on such Indebtedness, the amount of such Indebtedness expressed in U.S. dollars will be adjusted to take into account the effect of such agreement.

(h) Notwithstanding any other provision of this Section 4.01, the maximum amount of Indebtedness that the Parent or a Restricted Subsidiary may Incur pursuant to this Section 4.01 shall not be deemed to be exceeded solely as a result of fluctuations in the exchange rate of currencies. The principal amount of any Indebtedness Incurred to refinance other Indebtedness, if Incurred in a different currency from the Indebtedness being refinanced, shall be calculated based on the currency exchange rate applicable to the currencies in which such Refinancing Indebtedness is denominated that is in effect on the date of such refinancing.

(i) Neither an Issuer nor any Guarantor will Incur any Indebtedness (including Permitted Debt) that is contractually subordinated in right of payment to any other Indebtedness of an Issuer or any Guarantor unless such Indebtedness is also contractually subordinated in right of payment to the Notes and the applicable Note Guarantee on substantially identical terms; *provided, however,* that no Indebtedness will be deemed to be contractually subordinated in right of payment

to any other Indebtedness of an Issuer or any Guarantor solely by virtue of being unguaranteed or unsecured or by virtue of being secured with different collateral or by virtue of being secured on a junior priority basis or by virtue of the application of waterfall or other payment ordering provisions affecting different tranches of Indebtedness.

Section 4.02. Limitation on Restricted Payments.

(a) The Parent will not, and will not permit any of its Restricted Subsidiaries, directly or indirectly, to:

(i) declare or pay any dividend or make any other payment or distribution on or in respect of the Parent's or any Restricted Subsidiary's Capital Stock (including any payment in connection with any merger or consolidation involving the Parent or any of its Restricted Subsidiaries) except:

A. dividends or distributions payable in Capital Stock of the Parent (other than Disqualified Stock) or in options, warrants or other rights to purchase such Capital Stock of the Parent; and

B. dividends or distributions payable to the Parent or a Restricted Subsidiary (and, in the case of any such Restricted Subsidiary making such dividend or distribution, to holders of its Capital Stock other than the Parent or another Restricted Subsidiary on no more than a *pro rata* basis, measured by value);

(ii) purchase, redeem, retire or otherwise acquire for value any Capital Stock of the Parent or any direct or indirect Parent Holdco held by Persons other than the Parent or a Restricted Subsidiary (other than in exchange for Capital Stock of the Parent (other than Disqualified Stock));

(iii) make any principal payment on, or purchase, repurchase, redeem, defease or otherwise acquire or retire for value, prior to scheduled maturity, scheduled repayment or scheduled sinking fund payment, any Subordinated Indebtedness (other than (a) any such payment, purchase, repurchase, redemption, defeasance or other acquisition or retirement or in anticipation of satisfying a sinking fund obligation, principal installment or final maturity, in each case, due within one year of the date of payment, purchase, repurchase, redemption, defeasance or other acquisition or retirement and (b) any Indebtedness Incurred pursuant to Section 4.01(b)(iii));

(iv) make any payment in cash on, or with respect to, or purchase, redeem, defease or otherwise acquire or retire for cash, any Subordinated Shareholder Funding; or

(v) make any Restricted Investment in any Person,

(any such dividend, distribution, payment, purchase, redemption, repurchase, defeasance, other acquisition, retirement or Restricted Investment referred to in clauses (i) through (v) of this Section 4.02(a) are referred to herein as a "*Restricted Payment*").

(b) The fair market value of property or assets other than cash covered by Section 4.02(a) shall be the fair market value thereof as determined in good faith by an Officer of the Parent, or, if such fair market value exceeds the greater of (i) $10.0 million and (ii) 1.0% of Consolidated Net Tangible Assets, by the Board of Directors.

(c) The foregoing provisions will not prohibit any of the following (collectively, "*Permitted Payments*"):

(i) any Restricted Payment made by exchange (including any such exchange pursuant to the exercise of a conversion right or privilege in connection with which cash is paid in lieu of the issuance of fractional shares) for, or out of the proceeds of the substantially concurrent sale (other than to a Subsidiary of the Parent) of, Capital Stock of the Parent (other than Disqualified Stock or an Excluded Contribution) or a substantially concurrent contribution to the equity (other than through the issuance of Disqualified Stock or through an Excluded Contribution) of the Parent;

(ii) any purchase, repurchase, redemption, defeasance or other acquisition or retirement of Subordinated Indebtedness made by exchange for, or out of the proceeds of the substantially concurrent sale of, Refinancing Indebtedness permitted to be Incurred pursuant to Section 4.01;

(iii) any purchase, repurchase, redemption, defeasance or other acquisition or retirement of Preferred Stock of the Parent or a Restricted Subsidiary made by exchange for or out of the proceeds of the substantially concurrent sale of Preferred Stock of the Parent or a Restricted Subsidiary, as the case may be, that, in each case, is permitted to be Incurred pursuant to Section 4.01, and that in each case, constitutes Refinancing Indebtedness;

(iv) any purchase, repurchase, redemption, defeasance or other acquisition or retirement of Subordinated Indebtedness:

A. (i) from Net Available Cash to the extent permitted pursuant to Section 4.05, but only if the Parent shall have first complied with Section 4.05 and purchased all Notes tendered pursuant to any offer to repurchase all the Notes required thereby, prior to purchasing, repurchasing, redeeming, defeasing or otherwise acquiring or retiring such Subordinated Indebtedness and (ii) at a purchase price not greater than 100% of the principal amount of such Subordinated Indebtedness plus accrued and unpaid interest; or

B. following the occurrence of a Change of Control (or other similar event described therein as a "change of control"), but only (i) if the Parent shall have first complied with Section 4.14 and purchased all Notes

tendered pursuant to the offer to repurchase all the Notes required thereby, prior to purchasing, repurchasing, redeeming, defeasing or otherwise acquiring or retiring such Subordinated Indebtedness and (ii) at a purchase price not greater than 101% of the principal amount of such Subordinated Indebtedness plus accrued and unpaid interest.

(v) any dividends paid within 60 days after the date of declaration if at such date of declaration such dividend would have complied with this Section 4.02;

(vi) [Reserved];

(vii) the declaration and payment of dividends to holders of any class or series of Disqualified Stock, or of any Preferred Stock of a Restricted Subsidiary, Incurred in accordance with the terms of Section 4.01;

(viii) purchases, repurchases, redemptions, defeasances or other acquisitions or retirements of Capital Stock deemed to occur upon the exercise of stock options, warrants or other rights in respect thereof if such Capital Stock represents a portion of the exercise price thereof;

(ix) dividends, loans, advances or distributions to any Parent Holdco or other payments by the Parent or any Restricted Subsidiary in amounts equal to (without duplication):

A. the amounts required for any Parent Holdco to pay any Related Taxes; or

B. the amounts constituting or to be used for purposes of making payments to the extent specified in Section 4.06(b)(ii), Section 4.06(b)(iii), Section 4.06(b)(v) and Section 4.06(b)(vii);

(x) [Reserved];

(xi) payments by the Parent, or loans, advances, dividends or distributions to any Parent Holdco to make payments, to holders of Capital Stock of the Parent or any Parent Holdco in lieu of the issuance of fractional shares of such Capital Stock; *provided*, *however*, that any such payment, loan, advance, dividend or distribution shall not be for the purpose of evading any limitation of this Section 4.02 or otherwise to facilitate any dividend or other return of capital to the holders of such Capital Stock (as determined in good faith by the Board of Directors of the Parent);

(xii) Restricted Payments in an aggregate amount outstanding at any time not to exceed the aggregate cash amount of Excluded Contributions, or consisting of non-cash Excluded Contributions, or Investments in exchange for or using as consideration Investments previously made under this Section 4.02(c)(xii);

(xiii) [Reserved];

(xiv) [Reserved];

(xv) the payment of any Securitization Fees and purchases of Securitization Assets and related assets pursuant to a Securitization Repurchase Obligation in connection with a Qualified Securitization Financing; and

(xvi) payments made in connection with the use of proceeds from the offering of the Notes.

(d) The amount of all Restricted Payments (other than cash) shall be the fair market value on the date of such Restricted Payment of the asset(s) or securities proposed to be paid, transferred or issued by the Parent or such Restricted Subsidiary, as the case may be, pursuant to such Restricted Payment. The fair market value of any cash Restricted Payment shall be its face amount, and the fair market value of any non-cash Restricted Payment shall be determined conclusively by the Board of Directors of the Parent acting in good faith.

Section 4.03. Limitation on Liens.

(a) The Parent will not, and will not permit any Restricted Subsidiary to, directly or indirectly, create, Incur or suffer to exist any Lien upon any of its property or assets (including Capital Stock of a Restricted Subsidiary), whether owned on the Issue Date or acquired after that date, or any interest therein or any income or profits therefrom, which Lien is securing any Indebtedness (such Lien, the "*Initial Lien*"), except (i) in the case of property or asset that does not constitute Collateral (1) Permitted Liens or (2) Liens on property or assets that are not Permitted Liens if the Notes and this Indenture (or a Note Guarantee in the case of Liens of a Guarantor) are directly secured equally and ratably with, or prior to, the Indebtedness secured by such Initial Lien for so long as such Indebtedness is so secured and (ii) in the case of any property or asset that constitutes Collateral, Permitted Collateral Liens.

(b) Any such Lien created in favor of the Notes, the Guarantees, and the Indenture pursuant to Section 4.03(a)(i)(2) will be automatically and unconditionally released and discharged upon (i) the release and discharge of the Initial Lien to which it relates, and (ii) otherwise as set forth under this Indenture, the Intercreditor Agreement, any Additional Intercreditor Agreement, or under the relevant Security Document.

Section 4.04. Limitation on Restrictions on Distributions from Restricted Subsidiaries.

(a) The Parent will not, and will not permit any Restricted Subsidiary to, create or otherwise cause or permit to exist or become effective any consensual encumbrance or consensual restriction on the ability of any Restricted Subsidiary to:

(i) pay dividends or make any other distributions in cash or otherwise on its Capital Stock or pay any Indebtedness or other obligations owed to the Parent or any other Restricted Subsidiary, or with respect to any other interest or participation in, or measured by, its profits;

(ii) make any loans or advances to the Parent or any other Restricted Subsidiary; or

(iii) sell, lease or transfer any of its property or assets to the Parent or any other Restricted Subsidiary,

provided that (x) the priority of any Preferred Stock in receiving dividends or liquidating distributions prior to dividends or liquidating distributions being paid on common stock and (y) the subordination of (including the application of any standstill requirements to) loans or advances made to the Parent or any Restricted Subsidiary to other Indebtedness Incurred by the Parent or any Restricted Subsidiary shall not be deemed to constitute such an encumbrance or restriction.

(b) The provisions of Section 4.04(a) will not prohibit:

(i) any encumbrance or restriction pursuant to (a) any Credit Facility, (b) the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement, (c) any other agreement or instrument, in each case, in effect at or entered into on the Issue Date, (d) the indenture governing the Super Senior Notes or (e) the indenture governing the Stub Notes;

(ii) any encumbrance or restriction pursuant to an agreement or instrument of a Person or relating to any Capital Stock or Indebtedness of a Person, entered into on or before the date on which such Person was acquired by or merged, consolidated or otherwise combined with or into the Parent or any Restricted Subsidiary, or on which such agreement or instrument is assumed by the Parent or any Restricted Subsidiary in connection with an acquisition of assets (other than Capital Stock or Indebtedness Incurred as consideration in, or to provide all or any portion of the funds utilized to consummate, the transaction or series of related transactions pursuant to which such Person became a Restricted Subsidiary or was acquired by the Parent or was merged, consolidated or otherwise combined with or into the Parent or any Restricted Subsidiary entered into or in connection with such transaction) and outstanding on such date; *provided* that, for the purposes of this Section 4.04(b)(ii), if another Person is the Successor Company (as defined in Section 5.01(a)(i)), any Subsidiary thereof or agreement or instrument of such Person or any such Subsidiary shall be deemed acquired or assumed by the Parent or any Restricted Subsidiary when such Person becomes the Successor Company;

(iii) any encumbrance or restriction pursuant to an agreement or instrument effecting a refinancing of Indebtedness Incurred pursuant to, or that otherwise refinances, an agreement or instrument referred to in Section 4.04(b)(i), Section 4.04(b)(ii) or this Section 4.04(b)(iii) (an "*Initial Agreement*") or contained in any amendment, supplement or other modification to an agreement referred to in Section 4.04(b)(i), Section 4.04(b)(ii) or this Section 4.04(b)(iii); *provided*, *however*, that the encumbrances and restrictions with respect to such Restricted Subsidiary contained in any such agreement or instrument are no less favorable in any material respect to the Holders taken as a whole than the encumbrances and restrictions contained in the Initial Agreement or Initial Agreements to which such

refinancing or amendment, supplement or other modification relates (as determined in good faith by the Board of Directors or an Officer of the Parent);

(iv) any encumbrance or restriction:

A. that restricts in a customary manner the subletting, assignment or transfer of any property or asset that is subject to a lease, license or similar contract, or the assignment or transfer of any lease, license or other contract;

B. contained in mortgages, charges, pledges or other security agreements permitted under this Indenture or securing Indebtedness of the Parent or a Restricted Subsidiary permitted under this Indenture to the extent such encumbrances or restrictions restrict the transfer of the property or assets subject to such mortgages, charges, pledges or other security agreements; or

C. pursuant to customary provisions restricting dispositions of real property interests set forth in any reciprocal easement agreements of the Parent or any Restricted Subsidiary;

(v) any encumbrance or restriction pursuant to Purchase Money Obligations and Capitalized Lease Obligations permitted under this Indenture, in each case, that impose encumbrances or restrictions on the property so acquired, or any encumbrance or restriction pursuant to a joint venture agreement that imposes restrictions on the distribution or transfer of the assets or Capital Stock of the joint venture;

(vi) any encumbrance or restriction with respect to a Restricted Subsidiary (or any of its property or assets) imposed pursuant to an agreement entered into for the direct or indirect sale or disposition to a Person of all or substantially all the Capital Stock or assets of such Restricted Subsidiary (or the property or assets that are subject to such restriction) pending the closing of such sale or disposition;

(vii) customary provisions in leases, licenses, joint venture agreements and other similar agreements and instruments entered into in the ordinary course of business;

(viii) encumbrances or restrictions arising or existing by reason of applicable law or any applicable rule, regulation or order, or required by any regulatory authority;

(ix) any encumbrance or restriction on cash or other deposits or net worth imposed by customers under agreements entered into in the ordinary course of business;

(x) any encumbrance or restriction pursuant to Currency Agreements, Interest Rate Agreements, Commodity Hedging Agreements or in connection with any Qualified Securitization Financing;

(xi) any encumbrance or restriction arising pursuant to an agreement or instrument relating to any Indebtedness permitted to be Incurred subsequent to the Issue Date pursuant to Section 4.01 if the encumbrances and restrictions contained in any such agreement or instrument taken as a whole are not materially less favorable to the Holders of the Notes than (i) the encumbrances and restrictions contained in this Indenture and the Intercreditor Agreement, together with the Security Documents associated therewith, in each case, as in effect on the Issue Date, or the ABL Intercreditor Agreement or (ii) as is customary in comparable financings (as determined in good faith by the Board of Directors or an Officer of the Parent) or where the Parent determines that such encumbrance or restriction will not adversely affect, in any material respect, the Issuers' ability to make principal or interest payments on the Notes; or

(xii) any encumbrance or restriction existing by reason of any lien permitted under Section 4.03.

Section 4.05. Limitation on Sales of Assets and Subsidiary Stock

(a) The Parent will not, and will not permit any Restricted Subsidiary to, consummate any Asset Disposition unless:

(i) the consideration the Parent or such Restricted Subsidiary receives for such Asset Disposition is not less than the fair market value of the assets sold (as determined by the Parent's Board of Directors); and

(ii) at least 75% of the consideration the Parent or such Restricted Subsidiary receives in respect of such Asset Disposition consists of:

A. cash (including any Net Cash Proceeds received from the conversion within 180 days of such Asset Disposition of securities, notes or other obligations received in consideration of such Asset Disposition);

B. Cash Equivalents;

C. the assumption by the purchaser of (x) any liabilities recorded on the Parent's or such Restricted Subsidiary's balance sheet or the notes thereto (or, if Incurred since the date of the latest balance sheet, that would be recorded on the next balance sheet) (other than Subordinated Indebtedness), as a result of which neither the Parent nor any of the Restricted Subsidiaries remains obligated in respect of such liabilities or (y) Indebtedness of a Restricted Subsidiary that is no longer a Restricted Subsidiary as a result of such Asset Disposition, if the Parent and each other Restricted Subsidiary is released from any guarantee of such Indebtedness as a result of such Asset Disposition;

D. Replacement Assets;

E. any Capital Stock of another Similar Business, if, after giving effect to any such acquisition of Capital Stock, the Similar Business is or becomes a Restricted Subsidiary;

F. assets (other than Capital Stock and cash or Cash Equivalents) that are used or useful in a Similar Business; or

G. consideration consisting of Indebtedness of an Issuer or any Guarantor received from Persons who are not the Parent or any Restricted Subsidiary, but only to the extent that such Indebtedness (i) has been extinguished by the applicable Issuer or the applicable Guarantor and (ii) is not Subordinated Indebtedness of such Issuer or such Guarantor.

(b) If the Parent or any Restricted Subsidiary consummates an Asset Disposition, the amount of Net Available Cash from such Asset Disposition shall constitute "*Excess Proceeds*".

(c) If the aggregate amount of Excess Proceeds exceeds $5.0 million, the Issuers shall, within 20 Business Days of receipt of such proceeds, apply the amount equal to the Excess Proceeds to, in the case of the Notes, the Super Senior Notes or the Stub Notes, offer to repurchase at par or, in the case of other Indebtedness, repay such Indebtedness at the required price therein, using the order such Indebtedness would be repaid with enforcement proceeds under the "Application of Proceeds" or similar waterfall provision included in the Intercreditor Agreement (an "*Asset Disposition Offer*"), *provided* that, if an ABL Facility is outstanding, the portion of the Excess Proceeds from the sale of ABL Priority Collateral or any asset held by an ABL Guarantor shall be applied as if they were enforcement proceeds of ABL Priority Collateral under the ABL Intercreditor Agreement.

(d) To the extent that the aggregate amount of Notes and Pari Passu Indebtedness so validly tendered and not properly withdrawn pursuant to an Asset Disposition Offer is less than the Excess Proceeds, the Parent and its Restricted Subsidiaries may use any remaining Excess Proceeds for general corporate purposes, subject to other covenants contained in this Indenture. If the aggregate principal amount of the Notes surrendered in any Asset Disposition Offer by Holders and other Pari Passu Indebtedness surrendered by holders or lenders, collectively, exceeds the amount of Excess Proceeds, the Excess Proceeds shall be allocated among the Notes and Pari Passu Indebtedness to be repaid or purchased on a *pro rata* basis on the basis of the aggregate principal amount of tendered Notes and Pari Passu Indebtedness. For the purposes of calculating the principal amount of any such Indebtedness not denominated in U.S. dollars, such Indebtedness shall be calculated by converting any such principal amounts into their Dollar Equivalent determined as of a date selected by the Issuers that is within the Asset Disposition Offer Period (as defined below). Upon completion of any Asset Disposition Offer, the amount of Excess Proceeds shall be reset at zero.

(e) To the extent that any portion of Net Available Cash payable in respect of the Notes is denominated in a currency other than the currency in which the relevant Notes are

denominated, the amount thereof payable in respect of such Notes shall not exceed the net amount of funds in the currency in which such Notes are denominated that is actually received by the Issuers upon converting such portion of the Net Available Cash into such currency.

(f) The Asset Disposition Offer, in so far as it relates to the Notes, will remain open for a period of not less than 20 Business Days following its commencement (the "*Asset Disposition Offer Period*"). No later than five Business Days after the termination of the Asset Disposition Offer Period (the "*Asset Disposition Purchase Date*"), the Issuers will purchase the principal amount of Notes and, to the extent they elect, Pari Passu Indebtedness required to be repaid or purchased by it pursuant to this Section 4.05 (the "*Asset Disposition Offer Amount*") or, if less than the Asset Disposition Offer Amount has been so validly tendered, all Notes and Pari Passu Indebtedness validly tendered in response to the Asset Disposition Offer.

(g) On or before the Asset Disposition Purchase Date, the Issuers will, to the extent lawful, accept for payment, on a *pro rata* basis to the extent necessary, the Asset Disposition Offer Amount of Notes and Pari Passu Indebtedness or portions of Notes and Pari Passu Indebtedness so validly tendered and not properly withdrawn pursuant to the Asset Disposition Offer, or if less than the Asset Disposition Offer Amount has been validly tendered and not properly withdrawn, all Notes and Pari Passu Indebtedness so validly tendered and not properly withdrawn and in minimum denominations of $150,000 and in integral multiples of $1,000 in excess thereof. The Issuers will deliver to the Trustee an Officer's Certificate stating that such Notes or portions thereof were accepted for payment by the Issuers in accordance with the terms of this Section 4.05. The Issuers or the Paying Agent, as the case may be, will promptly (but in any case not later than five Business Days after termination of the Asset Disposition Offer Period) mail or deliver to each tendering Holder an amount equal to the purchase price of the Notes so validly tendered and not properly withdrawn by such Holder, and accepted by the Issuers for purchase, and the Issuers will promptly issue a new Note (or amend the applicable Global Note), and the Trustee (or an authenticating agent), upon delivery of an Officer's Certificate from an Issuer, will authenticate and mail or deliver (or cause to be transferred by book-entry) such new Note to such Holder, in a principal amount equal to any unpurchased portion of the Note surrendered; *provided* that each such new Note will be in a principal amount with a minimum denomination of $150,000. Any Note not so accepted will be promptly mailed or delivered (or transferred by book-entry) by the Issuers to the Holder thereof.

The Issuers will comply, to the extent applicable, with the requirements of Section 14(e) of the Exchange Act and any other securities laws or regulations in connection with the repurchase of Notes pursuant to this Indenture. To the extent that the provisions of any securities laws or regulations conflict with provisions of this Section 4.05, the Issuers will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under this Indenture by virtue of such compliance.

Section 4.06. Limitation on Affiliate Transactions.

(a) The Parent will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, enter into or conduct any transaction or series of related transactions (including the purchase, sale, lease or exchange of any property or the rendering of any service)

with any Affiliate of the Parent (any such transaction or series of related transactions being an "*Affiliate Transaction*") involving aggregate value in excess of $2.0 million unless:

(i) the terms of such Affiliate Transaction taken as a whole are not materially less favorable to the Parent or such Restricted Subsidiary, as the case may be, than those that could be obtained in a comparable transaction at the time of such transaction or the execution of the agreement providing for such transaction in arm's-length dealings with a Person who is not such an Affiliate;

(ii) in the event such Affiliate Transaction involves an aggregate value in excess of $10.0 million, the terms of such transaction or series of related transactions have been approved by a resolution of the majority of the disinterested members of the Board of Directors of the Parent resolving that such transaction complies with clause (i) of this Section 4.06(a); *provided*, that if a majority of the members of the Board of Directors are not disinterested with respect to the transaction, the Parent shall deliver a Fairness Opinion to the Trustee; and

(iii) in the event such Affiliate Transaction involves an aggregate value in excess of $20.0 million, the Parent delivers to the Trustee a Fairness Opinion; *provided* that the liability of such accounting, appraisal, or investment banking firm or such other independent expert in giving such opinion may be limited in accordance with its engagement policies.

(b) The provisions of Section 4.06(a) will not apply to:

(i) any Restricted Payment permitted to be made pursuant to Section 4.02, any Permitted Payments (other than pursuant to Section 4.02(c)(ix)(B)) or any Permitted Investment (other than Permitted Investments as defined in paragraphs (1)(b), (2) and (15) of the definition thereof);

(ii) any purchase, issuance or sale of Capital Stock, options, other equity-related interests or other securities, or other payments, awards or grants in cash, securities or otherwise pursuant to, or the funding of, or entering into, or maintenance of, any employment, consulting, collective bargaining or benefit plan, program, agreement or arrangement, related trust or other similar agreement and other compensation arrangements, options, warrants or other rights to purchase Capital Stock of the Parent, any Restricted Subsidiary or any Parent Holdco, restricted stock plans, long-term incentive plans, stock appreciation rights plans, participation plans or similar employee benefits or consultants' plans (including valuation, health, insurance, deferred compensation, severance, retirement, savings or similar plans, programs or arrangements) or indemnities provided on behalf of officers, employees, directors or consultants approved by the Board of Directors of the Parent, in each case in the ordinary course of business;

(iii) any Management Advances and any waiver or transaction with respect thereto;

(iv) any transaction between or among the Parent and any Restricted Subsidiary (or entity that becomes a Restricted Subsidiary as a result of such transaction), or between or among Restricted Subsidiaries;

(v) the payment of reasonable fees and reimbursement of expenses to, and customary indemnities (including under customary insurance policies) and employee benefit and pension expenses provided on behalf of, directors, officers, consultants or employees of the Parent, any Restricted Subsidiary or any Parent Holdco (whether directly or indirectly and including through any Person owned or controlled by any of such directors, officers or employees);

(vi) (a) the entry into and performance of obligations of the Parent or any of its Restricted Subsidiaries under the terms of any transaction pursuant to or contemplated by, and any payments pursuant to or for purposes of funding, any agreement or instrument in effect as of the Issue Date, as these agreements and instruments may be amended, modified, supplemented, extended, renewed, replaced or refinanced from time to time in accordance with the other terms of this Section 4.06 or to the extent not more disadvantageous to the Holders in any material respect, and (b) the entry into and performance of any registration rights or other listing agreement;

(vii) the execution, delivery and performance of, including any payment to be made under, any Tax Sharing Agreement or any arrangement pursuant to which the Parent or any of its Restricted Subsidiaries is required or permitted to file a consolidated tax return, or the formation and maintenance of any consolidated group for tax, accounting or cash pooling or management purposes in the ordinary course of business;

(viii) transactions with customers, clients, suppliers or purchasers or sellers of goods or services, in each case in the ordinary course of business, which are fair to the Parent or the relevant Restricted Subsidiary in the reasonable determination of the Board of Directors or an Officer of the Parent or the relevant Restricted Subsidiary, or are on terms no less favorable than those that could reasonably have been obtained at such time from an unaffiliated party;

(ix) any transaction in the ordinary course of business between or among the Parent or any Restricted Subsidiary and any Affiliate of the Parent or an Associate or similar entity that would constitute an Affiliate Transaction solely because the Parent or a Restricted Subsidiary or any Affiliate of the Parent or a Restricted Subsidiary or any Affiliate of any Permitted Holder owns an equity interest in or otherwise controls such Affiliate, Associate or similar entity;

(x) issuances or sales of Capital Stock (other than Disqualified Stock) of the Parent or options, warrants or other rights to acquire such Capital Stock;

(xi) payment of any Securitization Fees and purchases of Securitization Assets pursuant to a Securitization Repurchase Obligation as part of or in connection with a Qualified Securitization Financing; and

(xii) any participation in a public tender or exchange offers for securities or debt instruments issued by the Parent or any of its Subsidiaries that are conducted on arms' length terms and provide for the same price or exchange ratio, as the case may be, to all holders accepting such tender or exchange offer.

Section 4.07. Guarantor Coverage Test.

(a) If, on the date on which the audited financial statements are required to be furnished to the Trustee under Section 4.09(a)(i) the aggregate (without double counting) total assets, sales, and EBITDA of the Issuers and the Guarantors (excluding intra-group items and on an unconsolidated basis) is less than 90% of the consolidated total assets, consolidated sales and Consolidated EBITDA of the Parent and its Restricted Subsidiaries (the "*Guarantor Coverage Test*"), then the Parent shall, within 90 days of such test date, cause such other Restricted Subsidiaries to accede as Guarantors, subject to the Agreed Security Principles, to ensure that the Guarantor Coverage Test is satisfied (calculated as if such Guarantors had been Guarantors for the purposes of the relevant test date).

(b) For the purposes of calculating the Guarantor Coverage Test:

(i) (for the purpose of calculating EBITDA only) any entity having negative EBITDA;

(ii) any entity which cannot, or pursuant to the Agreed Securities Principles is not required to, become a Guarantor; and

(iii) any entity which is not a wholly-owned Restricted Subsidiary (but only if minority shareholders of such entity require their consents to grant a Note Guarantee),

shall be excluded (x) as a Guarantor from the numerator; and (y) as a Restricted Subsidiary from the denominator.

(c) The Parent shall ensure that, subject to the Agreed Security Principles, when tested on:

(i) the date on which the audited financial statements are required to be furnished to the Trustee under Section 4.09(a)(i); and

(ii) the date on which the unaudited financial statements for the fiscal quarter ended June 30 of each year are required to be furnished to the Trustee under Section 4.09(a)(ii),

each Restricted Subsidiary which is a Material Company and which is not already a Guarantor shall accede as a Guarantor within 90 days of such test date (in the case of Section 4.07(c)(i)) or 60 days of such test date (in the case of Section 4.07(c)(ii)).

(d) Subject to the Agreed Security Principles, any Restricted Subsidiary acceding as a Guarantor pursuant to this Section 4.07 shall grant a Lien on its assets to secure the Notes by the time it must accede as a Guarantor, *provided* that (i) such Restricted Subsidiary that is incorporated in the same jurisdiction as any Guarantor as of the Issue Date shall provide a Lien on the same kind of assets as such Guarantor and (ii) such Restricted Subsidiary that is not incorporated in the same jurisdiction as any Guarantor as of the Issue Date shall provide "all- assets" security where available in the jurisdiction of such Restricted Subsidiary or will otherwise provide security in accordance with the Agreed Security Principles.

Section 4.08. Additional Note Guarantees.

(a) [Reserved].

(b) Notwithstanding anything to the contrary in this Section 4.08, no Restricted Subsidiary shall (x) Guarantee the Indebtedness outstanding under any ABL Facility, any Credit Facility replacing or refinancing any ABL Facility or any other Credit Facility or Public Debt, in each case of an Issuer or a Guarantor, or (y) Incur Indebtedness exceeding $10.0 million pursuant to Section 4.01(b)(i) and 4.01(b)(xi) or any Refinancing Indebtedness in respect thereof exceeding $10.0 million unless such Restricted Subsidiary is or becomes a Guarantor (or is an Issuer) on the date on which the Guarantee or such Indebtedness is Incurred and, if applicable, executes and delivers to the Trustee a supplemental indenture pursuant to which such Restricted Subsidiary will provide a Note Guarantee, which Note Guarantee will be senior to or *pari passu* with such Restricted Subsidiary's Guarantee or Indebtedness described in clauses (x) or (y) of this Section 4.08(b), respectively; *provided*, *however*, that such Restricted Subsidiary shall not be obligated to become a Guarantor to the extent and for so long as the Incurrence of such Note Guarantee could give rise to or result in: (1) any breach or violation of statutory limitations, corporate benefit, financial assistance, fraudulent preference, thin capitalization rules, capital maintenance rules, guidance and coordination rules or the laws rules or regulations (or analogous restriction) of any applicable jurisdiction; (2) any risk or liability for the officers, directors or (except in the case of a Restricted Subsidiary that is a partnership) shareholders of such Restricted Subsidiary (or, in the case of a Restricted Subsidiary that is a partnership, directors or shareholders of the partners of such partnership); or (3) any cost, expense, liability or obligation (including with respect to any Taxes) other than reasonable out of pocket expenses. At the option of the Parent, any Note Guarantee may contain limitations on Guarantor liability to the extent reasonably necessary.

(c) Note Guarantees shall be released as set forth under Section 10.06. In addition, a Note Guarantee of a future Guarantor may also be released at the option of the Parent if at the date of such release either (i) there is no Indebtedness of such Guarantor outstanding which was Incurred after the Issue Date and which could not have been Incurred in compliance with this Indenture if such Guarantor had not been designated as a Guarantor, or (ii) there is no Indebtedness of such Guarantor outstanding which was Incurred after the Issue Date and which could not have been Incurred in compliance with this Indenture as at the date of such release if such Guarantor were not designated as a Guarantor as at that date. The Trustee and the Security Agent shall take

all necessary actions, including the granting of releases or waivers under the Intercreditor Agreement or any Additional Intercreditor Agreement, requested by the Parent to effectuate any release of a Note Guarantee in accordance with these provisions, subject to customary protections and indemnifications.

Section 4.09. Reports.

(a) So long as any Notes are outstanding, the Parent will furnish to the Trustee the following reports (provided that, to the extent any reports are filed on the SEC's website, such reports shall be deemed to have been provided to the Trustee):

(i) within 120 days after the end of the Parent's fiscal year beginning with the fiscal year ended December 31, 2020, annual reports containing, to the extent applicable, the following information: (a) audited consolidated balance sheets of the Parent as of the end of the two most recent fiscal years and audited consolidated income statements and statements of cash flow of the Parent for the two most recent fiscal years, including complete footnotes to such financial statements and the report of the independent auditors on the financial statements; (b) unaudited *pro forma* income statement information and balance sheet information of the Parent (which, for the avoidance of doubt, shall not include the provision of a full income statement or balance sheet to the extent not reasonably available), together with explanatory footnotes, for any material acquisitions, dispositions or recapitalizations that have occurred since the beginning of the most recently completed fiscal year; (c) an operating and financial review of the audited financial statements, including a discussion of the results of operations, financial condition, EBITDA, and liquidity and capital resources of the Parent, and a discussion of material commitments and contingencies and critical accounting policies; (d) a summary description of the business and material affiliate transactions; (e) a description of material operational risk factors; and (f) a summary description of material recent developments;

(ii) within 60 days following the end of each fiscal quarter in each fiscal year of the Parent beginning with the fiscal quarter ending March 31, 2021, quarterly financial statements containing the following information: (a) an unaudited condensed consolidated balance sheet as of the end of such quarter and unaudited condensed statements of income and cash flow for the most recent quarter year-to-date period ending on the unaudited condensed balance sheet date, and the comparable prior year periods, together with condensed footnote disclosure; (b) unaudited *pro forma* income statement information and balance sheet information (which, for the avoidance of doubt, shall not include the provision of a full income statement or balance sheet to the extent not reasonably available), together with explanatory footnotes, for any material acquisitions, dispositions or recapitalizations that have occurred since the beginning of the relevant quarter; (c) an operating and financial review of the unaudited financial statements, including a discussion of the results of operations, financial condition, EBITDA and material changes in liquidity and capital resources, and a discussion of material changes not

in the ordinary course of business in commitments and contingencies since the most recent report; and (d) material recent developments; and

(iii) promptly after the occurrence of any material acquisition, disposition or restructuring or any senior executive officer changes at the Parent or change in auditors of the Parent or any other material event that the Parent or any of its Restricted Subsidiaries announces publicly, a report containing a description of such event.

In addition, the Parent shall furnish to the Holders and to prospective investors, upon the request of such parties, any information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act for so long as the Notes are not freely transferable under the Exchange Act by persons who are not "affiliates" under the Securities Act.

The Parent shall also make available to Holders and prospective holders of the Notes copies of all reports furnished to the Trustee or the SEC on the Parent's website and if and so long as the Notes are listed on the Global Exchange Market of Euronext Dublin and to the extent that the rules and regulations thereof so require, by posting such reports on the official website of Euronext Dublin (www.euronext.com/en/markets/dublin).

All financial statement information shall be prepared in accordance with IFRS as in effect on the date of such report or financial statement (or otherwise on the basis of IFRS as then in effect) and on a consistent basis for the periods presented, except as may otherwise be described in such information; *provided*, *however*, that the reports set forth in clauses (i), (ii) and (iii) of this Section 4.09(a) may, in the event of a change in IFRS, present earlier periods on a basis that applied to such periods. No report need include separate financial statements for any Subsidiaries of the Parent or any disclosure with respect to the results of operations or any other financial or statistical disclosure not of a type included in the Parent's previous SEC filings. In addition, the reports set forth above will not be required to contain any reconciliation to U.S. generally accepted accounting principles. For the purposes of this covenant, IFRS shall be deemed to be IFRS as in effect from time to time, without giving effect to the proviso in the definition thereof.

All reports provided pursuant to this Section 4.09 shall be made in the English language. So long as Notes are outstanding, the Parent will, in connection with delivery of the annual and quarterly reports required by clauses (i) and (ii) of this Section 4.09(a), hold a conference call to discuss such reports and the results of operations for the relevant reporting period.

While the Parent is subject to the reporting requirements of Section 13(a) or 15(d) of the Exchange Act, or elects to comply with such provisions on a voluntary basis, for so long as it continues to file with the SEC, within the time periods specified in clauses (i) and (ii) of this Section 4.09(a), annual reports required by Section 13(a) of the Exchange Act and quarterly reports containing information with a level of detail that is substantially comparable in all material respects to the reports on Form 6 K filed with the SEC on November 24, 2020, August 31, 2020 and June 9, 2020, the reporting requirements set forth in clauses (i) and (ii) of this Section 4.09(a) will be

deemed satisfied. Upon complying with the foregoing requirement, the Parent will be deemed to have complied with this Section 4.09.

Delivery of any information, documents and reports to the Trustee pursuant to this Section 4.09 is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein, including the Issuers' compliance with any of its covenants under this Indenture.

Section 4.10. Suspension of Covenants on Achievement of Investment Grade Status.

(a) If on any date following the Issue Date, the Notes have achieved Investment Grade Status and no Default or Event of Default has occurred and is continuing (a "*Suspension Event*"), then, beginning on that day and continuing until such time, if any, at which the Notes cease to have Investment Grade Status (the "*Reversion Date*"), Section 4.01, Section 4.02, Section 4.04, Section 4.05, Section 4.06, Section 4.08 and Section 5.01(a)(iii) of this Indenture and, in each case, any related default provision of this Indenture will cease to be effective and will not be applicable to the Parent and its Restricted Subsidiaries.

(b) Such sections and any related default provisions will again apply according to their terms from the first day on which a Suspension Event ceases to be in effect. Such sections will not, however, be of any effect with regard to actions of the Parent or any of its Restricted Subsidiaries properly taken during the continuance of the Suspension Event, and no action taken in respect of the suspended covenants prior to the Reversion Date will constitute a Default or Event of Default. Section 4.02 will be interpreted as if it has been in effect since the date of this Indenture but not during the continuance of the Suspension Event. On the Reversion Date, all Indebtedness Incurred during the continuance of the Suspension Event will be deemed to have been outstanding on the Issue Date, so that it is classified as permitted under Section 4.01(b)(iv)(B). In addition, the Parent or any of the Restricted Subsidiaries will be permitted, without causing a Default or Event of Default, to honor any contractual commitments or take actions in the future after any date on which the Notes cease to have an Investment Grade Status as long as the contractual commitments were entered into during the Suspension Event and not in anticipation of the Notes no longer having an Investment Grade Status. The Parent shall notify the Trustee that the conditions set forth in Section 4.10(a) have been satisfied or of any Reversion Date; *provided* that, no such notification shall be a condition for the suspension or reversion of the covenants described under this Section 4.10 to be effective and the Trustee shall not be obliged to notify the Holders of such event.

The Trustee shall have no duty to monitor the ratings of the Notes, shall not be deemed to have any knowledge of the ratings of the Notes and shall have no duty to notify Holders if the Notes achieve Investment Grade Status or upon the occurrence of the Reversion Date. The Parent shall notify the Trustee in writing that the conditions under this Section 4.10 have been satisfied, although such notification shall not be a condition for suspension of the applicable covenants to be effective.

Section 4.11. Amendments to the Intercreditor Agreement, the ABL Intercreditor Agreement and Additional Intercreditor Agreements.

(a) In connection with the Incurrence of any Indebtedness by the Parent, an Issuer or any other Restricted Subsidiary, the Trustee and the Security Agent shall, at the request of an Issuer, enter into with the Parent, the relevant Issuer, the relevant Restricted Subsidiaries and the holders of such Indebtedness (or their duly authorized Representatives), as applicable, the ABL Intercreditor Agreement or one or more intercreditor agreements or deeds (including a restatement, replacement, amendment or other modification of the Intercreditor Agreement or ABL Intercreditor Agreement) (an "*Additional Intercreditor Agreement*"), on substantially the same terms as the Intercreditor Agreement or the ABL Intercreditor Agreement (or terms that are not materially less favorable to the holders of the Notes as compared to the Intercreditor Agreement or the ABL Intercreditor Agreement) and substantially similar as applies to sharing of the proceeds of security and enforcement of security, priority and release of security; *provided* that such ABL Intercreditor Agreement or Additional Intercreditor Agreement will not impose any personal obligations on the Trustee or Security Agent or adversely affect the personal rights, duties, liabilities, indemnification or immunities of the Trustee or the Security Agent under this Indenture, the Intercreditor Agreement or the ABL Intercreditor Agreement. In connection with the foregoing, the Issuers shall furnish to the Trustee and the Security Agent such documentation in relation thereto as it may reasonably require. As used in this Indenture, a reference to the Intercreditor Agreement and the ABL Intercreditor Agreement will also include any Additional Intercreditor Agreement.

(b) Without limiting the generality of Section 4.11(a), in connection with the Incurrence of any ABL Facility by the Parent, an Issuer or any other Restricted Subsidiary, the Trustee and the Security Agent shall, at the request of an Issuer, enter into with the Parent, the relevant Issuer, the relevant Restricted Subsidiaries and the lenders under any ABL Facility (or their duly authorized Representatives), as applicable, (1) the ABL Intercreditor Agreement in substantially the same form as attached as Exhibit C to this Indenture, (2) an Additional Intercreditor Agreement in respect of the ABL Intercreditor Agreement on terms that are not materially less favorable to the holders of the Notes as compared to the ABL Intercreditor Agreement and (3) amendments or replacements to the Security Documents to secure any ABL Priority Obligations, Senior Note Obligations, Junior Note Obligations, Excess ABL Debt, Excess Senior Note Debt and Excess Junior Note Debt in accordance with the relative priorities set forth in the ABL Intercreditor Agreement (including, for the avoidance of doubt, for the purpose of releasing and regranting Liens on the ABL Priority Collateral to grant a first-priority Lien securing the creditors under any ABL Facility). In connection with the foregoing, the Issuers shall furnish to the Trustee and the Security Agent such documentation in relation thereto as it may reasonably require.

(c) In relation to the Intercreditor Agreement and the ABL Intercreditor Agreement, no consent on behalf of the Holders to the payment, repayment, purchase, repurchase, defeasance, acquisition, retirement or redemption of any obligations subordinated to the Notes thereby shall be required; *provided*, however, that such transaction would comply with Section 4.02.

(d) At the written direction of an Issuer and without the consent of holders of the Notes, the Trustee and the Security Agent shall from time to time enter into one or more amendments to the Intercreditor Agreement or the ABL Intercreditor Agreement to: (1) cure any ambiguity, omission, defect or inconsistency of any such agreement, (2) increase the amount or

types of Indebtedness covered by any such Intercreditor Agreement or such ABL Intercreditor Agreement that may be Incurred by the Parent, an Issuer or other Restricted Subsidiaries that is subject to any such Intercreditor Agreement or such ABL Intercreditor Agreement (provided that such Indebtedness is Incurred in compliance with this Indenture), (3) add Guarantors or other Restricted Subsidiaries to the Intercreditor Agreement or the ABL Intercreditor Agreement, (4) further secure the Notes (including Additional Notes), (5) make provision to implement any Permitted Collateral Liens in accordance with the terms of this Indenture, or (6) make any other change to any such agreement that does not adversely affect the holders of Notes in any material respect. The Issuers shall not otherwise direct the Trustee or Security Agent to enter into any amendment to the Intercreditor Agreement or the ABL Intercreditor Agreement (which, for the avoidance of doubt, includes the form of the ABL Intercreditor Agreement attached to this Indenture as Exhibit C) without the consent of the holders of a majority in aggregate principal amount of the Notes then outstanding, except as otherwise permitted under Article IX of this Indenture or as permitted by the terms of the Intercreditor Agreement or the ABL Intercreditor Agreement, and the Issuers may only direct the Trustee or Security Agent to enter into any amendment to the extent such amendment does not impose any personal obligations on the Trustee or Security Agent or, in the opinion of the Trustee or Security Agent, adversely affect their respective rights, duties, liabilities or immunities under this Indenture, the Intercreditor Agreement or the ABL Intercreditor Agreement.

(e) Each Holder, by accepting a Note, shall be deemed to have agreed to and accepted the terms and conditions of the Intercreditor Agreement and the ABL Intercreditor Agreement (whether then entered into or entered into in the future pursuant to the provisions described herein) and to have irrevocably appointed and authorized the Trustee and the Security Agent to enter into the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement on each Holder's behalf.

(f) A copy of the Intercreditor Agreement, the ABL Intercreditor Agreement or an Additional Intercreditor Agreement shall be made available to the holders of the Notes upon request and will be made available for inspection during normal business hours on any Business Day upon prior written request at the office of the Issuers.

Section 4.12. Payment of Notes. The Issuers shall promptly pay the principal of and interest on the Notes on the dates and in the manner provided in the Notes and in this Indenture. Principal and interest shall be considered paid on the date due if on such date the Paying Agent holds in accordance with this Indenture money sufficient to pay all principal, premium, if any, and interest then due and the Paying Agent is not prohibited from paying such money to the Holders on that date pursuant to the terms of this Indenture.

Section 4.13. Withholding Taxes.

(a) All payments made by or on behalf of an Issuer or any Guarantor (each, including any successor entities of an Issuer or any Guarantor, as applicable, a "*Payor*") in respect of the Notes or with respect to any Guarantee, as applicable, will be made free and clear of and without withholding or deduction for, or on account of, any Taxes unless the withholding or deduction of such Taxes is then required by law. If any deduction or withholding for, or on account of, any Taxes imposed or levied by or on behalf of:

(i) any jurisdiction (other than the United States or any political subdivision or governmental authority thereof or therein having the power to tax) from or through which payment on any such Note is made, or any political subdivision or governmental authority thereof or therein having the power to tax; or

(ii) any other jurisdiction (other than the United States or any political subdivision or governmental authority thereof or therein having the power to tax) in which a Payor is incorporated, organized, engaged in business for tax purposes, or otherwise considered to be a resident for tax purposes, or any political subdivision or governmental authority thereof or therein having the power to tax (each of clause (i) and (ii), a "*Relevant Taxing Jurisdiction*"),

will at any time be required by law to be made from any payments made by or on behalf of the Payor or the Paying Agent with respect to any Note, including payments of principal, redemption price, interest or premium, if any, the Payor will pay (together with such payments) such additional amounts (the "*Additional Amounts*") as may be necessary in order that the net amounts received by each Holder in respect of such payments, after such withholding, or deduction (including any such deduction or withholding from such Additional Amounts), will not be less than the amounts which would have been received in respect of such payments on any such Note in the absence of such withholding or deduction; *provided*, *however*, that no such Additional Amounts will be payable for or on account of:

A. any Taxes that would not have been so imposed but for the existence of any present or former connection between the relevant Holder (or between a fiduciary, settlor, beneficiary, partner, member or shareholder of, or possessor of power over the relevant Holder, if the relevant Holder is an estate, nominee, trust, partnership, limited liability company, corporation or other body corporate) and the Relevant Taxing Jurisdiction (including, without limitation, being resident for tax purposes, or being a citizen or resident or national of, or carrying on a business or maintaining a permanent establishment in, or being physically present in, the Relevant Taxing Jurisdiction) but excluding, in each case, any connection arising solely from the acquisition, ownership or holding of such Note or the receipt of any payment or the exercise or enforcement of rights under such Note, this Indenture or a Guarantee;

B. any Tax that is imposed or withheld by reason of the failure by the Holder or the beneficial owner of the Note to comply with a written request of the Payor addressed to the Holder, after reasonable notice (at least 30 days before any such withholding would be payable), to provide certification, information, documents or other evidence concerning the nationality, residence or identity of the Holder or such beneficial owner or to make any declaration or similar claim or satisfy any other reporting requirement relating to such matters, which is required by a statute, treaty, regulation or administrative practice of the Relevant Taxing Jurisdiction as a precondition to exemption from all or part of such Tax but, only to the extent the Holder or

beneficial owner is legally entitled to provide such certification or documentation;

C. any Taxes, to the extent that such Taxes were imposed as a result of the presentation of the Note for payment (where presentation is required) more than 30 days after the relevant payment is first made available for payment to the Holder;

D. any Taxes that are payable otherwise than by withholding from a payment of the principal of, premium, if any, or interest, if any, on the Notes or with respect to any Guarantee;

E. any estate, inheritance, gift, sales, transfer, personal property or similar tax, assessment or other governmental charge;

F. any Taxes that are imposed or withheld pursuant to the Dutch Withholding Tax Act 2021 (*Wet bronbelasting 2021*) substantially in the form as published on December 18, 2019 in the Dutch Official Gazette;

G. any Taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended (the "*Code*"), as of the Issue Date (or any amended or successor version of such sections that are substantively comparable), any regulations promulgated thereunder, any official interpretations thereof, any similar law or regulation adopted pursuant to an intergovernmental agreement between a non-U.S. jurisdiction and the United States with respect to the foregoing or any agreements entered into pursuant to Section 1471(b)(1) of the Code; or

H. any combination of the items (A) through (G) above.

(b) In addition, no Additional Amounts shall be paid with respect to a Holder who is a fiduciary or a partnership or any person other than the beneficial owner of the Notes, to the extent that the beneficiary or settler with respect to such fiduciary, the member of such partnership or the beneficial owner would not have been entitled to Additional Amounts had such beneficiary, settler, member or beneficial owner held such Notes directly.

(c) The Payor will (i) make any required withholding or deduction and (ii) remit the full amount deducted or withheld to the Relevant Taxing Jurisdiction in accordance with applicable law. The Payor will use all reasonable efforts to obtain certified copies of tax receipts evidencing the payment of any Taxes so deducted or withheld from each Relevant Taxing Jurisdiction imposing such Taxes and will provide such certified copies, or if, notwithstanding the Payor's reasonable efforts to obtain such tax receipts, such tax receipts are not available, certified copies of other reasonable evidence of such payments as soon as reasonably practicable to the Trustee and the Paying Agent. Such copies shall be made available to the Holders upon request and will be made available at the offices of the Paying Agent.

(d) If any Payor is obligated to pay Additional Amounts under or with respect to any payment made on any Note or any Guarantee, at least 30 days prior to the date of such payment, the Payor will deliver to the Trustee and the Paying Agent an Officer's Certificate stating the fact that Additional Amounts will be payable and the amount to be so payable and such other information necessary to enable the Paying Agent to pay Additional Amounts to Holders on the relevant payment date (unless such obligation to pay Additional Amounts arises less than 45 days prior to the relevant payment date, in which case the Payor may deliver such Officer's Certificate as promptly as practicable thereafter). The Trustee and the Paying Agent shall be entitled to rely solely on such Officer's Certificate as conclusive proof that such payments are necessary.

(e) Wherever in this Indenture or the Notes there is mentioned, in any context:

(i) the payment of principal;

(ii) purchase prices in connection with a redemption of Notes;

(iii) interest; or

(iv) any other amount payable on or with respect to any of the Notes or any Guarantee, such reference shall be deemed to include payment of Additional Amounts to the extent that, in such context, Additional Amounts are, were or would be payable in respect thereof.

The Payor will pay (and will indemnify the Holder for) any present or future stamp, issue, registration, court or documentary Taxes or any other excise, property or similar Taxes that arise in a Relevant Taxing Jurisdiction from the execution, delivery or registration of any Notes, any Guarantee, this Indenture, or any other document or instrument in relation thereto (other than in each case, in connection with a transfer of the Notes after the initial issuance of the Notes) or any such Taxes imposed by any jurisdiction as a result of, or in connection with, the enforcement of the Notes or any Guarantee (limited, solely in the case of any such Taxes imposed in a Relevant Taxing Jurisdiction to any such Taxes that are not excluded under (A) through (D) and (F) of Section 4.13(a) or any combination thereof).

The foregoing obligations of this Section 4.13 will survive any termination, defeasance or discharge of this Indenture and will apply *mutatis mutandis* to any jurisdiction in which any successor to a Payor is organized, engaged in business for tax purposes or otherwise resident for tax purposes, or any jurisdiction from or through which any payment under, or with respect to the Notes is made by or on behalf of such Payor, or any political subdivision or taxing authority or agency thereof or therein.

Section 4.14. Change of Control.

(a) If a Change of Control occurs, subject to this Section 4.14, each Holder will have the right to require the Issuers to repurchase all or any part of such Holder's Notes at a purchase price in cash equal to 101% of the principal amount of the Notes, plus accrued and unpaid interest to the date of purchase (subject to the right of Holders of record on the relevant record date to receive interest due on the relevant interest payment date); *provided*, *however*, that the Issuers

shall not be obligated to repurchase the Notes under this Section 4.14 in the event and to the extent that they have unconditionally exercised their right to redeem all of the Notes under Section 5 of the Notes or all conditions to such redemption have been satisfied or waived.

(b) Unless the Issuers have unconditionally exercised their right to redeem all the Notes as described under Section 5 of the Notes or all conditions to such redemption have been satisfied or waived, no later than the date that is 60 days after any Change of Control, the Issuers will mail (or otherwise deliver) a notice (the "*Change of Control Offer*") to each Holder of any such Notes, with a copy to the Trustee:

(i) stating that a Change of Control has occurred or may occur and that such Holder has the right to require the Issuers to purchase all or any part of such Holder's Notes at a purchase price in cash equal to 101% of the principal amount of such Notes plus accrued and unpaid interest to, but not including, the date of purchase (subject to the right of Holders of record on a record date to receive interest on the relevant interest payment date) (the "*Change of Control Payment*");

(ii) stating the repurchase date (which shall be no earlier than 30 days nor later than 60 days from the date such notice is mailed) and the record date (the "*Change of Control Payment Date*");

(iii) stating that any Note accepted for payment pursuant to the Change of Control Offer will cease to accrue interest on the Change of Control Payment Date unless the Change of Control Payment is not paid, and that any Notes or part thereof not tendered will continue to accrue interest;

(iv) describing the circumstances and relevant facts regarding the transaction or transactions that constitute the Change of Control;

(v) describing the procedures determined by the Issuers, consistent with this Indenture, that a Holder must follow in order to have its Notes repurchased; and

(vi) if such notice is mailed prior to the occurrence of a Change of Control, stating that the Change of Control Offer is conditional on the occurrence of such Change of Control.

(c) On the Change of Control Payment Date, if the Change of Control shall have occurred, the Issuers will, to the extent lawful:

(i) accept for payment all Notes or portion thereof properly tendered pursuant to the Change of Control Offer;

(ii) deposit with the Paying Agent an amount equal to the Change of Control Payment in respect of all Notes so tendered;

(iii) deliver or cause to be delivered to the Trustee an Officer's Certificate stating the aggregate principal amount of Notes or portions of the Notes being purchased by the Issuers in the Change of Control Offer;

(iv) in the case of Global Notes, deliver, or cause to be delivered, to the Paying Agent the Global Notes in order to reflect thereon the portion of such Notes or portions thereof that have been tendered to and purchased by the Issuers; and

(v) in the case of Definitive Registered Notes, deliver, or cause to be delivered, to the relevant Registrar for cancellation all Definitive Registered Notes accepted for purchase by the Issuers.

(d) If any Definitive Registered Notes have been issued, the Paying Agent will promptly pay each Holder of Definitive Registered Notes so tendered the Change of Control Payment for such Notes, and the Trustee (or an authenticating agent) will, at the cost of the Issuers, promptly authenticate and mail to each Holder of Definitive Registered Notes a new Definitive Registered Note equal in principal amount to the unpurchased portion of the Notes surrendered, if any; *provided* that each such new Note will be in a principal amount that is at least $150,000 and integral multiples of $1,000 in excess thereof.

(e) For so long as the Notes are listed on the Global Exchange Market of Euronext Dublin and the rules of such exchange so require, the Issuers will publish notices relating to the Change of Control Offer in a daily newspaper with general circulation in Ireland (which is expected to be *The Irish Times*) or to the extent and in the manner permitted by such rules, post such notices on the official website of Euronext Dublin (*www.euronext.com/en/markets/dublin*).

(f) The Issuers will not be required to make a Change of Control Offer upon a Change of Control if a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in this Indenture applicable to a Change of Control Offer made by the Issuers and purchases all Notes validly tendered and not withdrawn under such Change of Control Offer. Notwithstanding anything to the contrary contained herein, a Change of Control Offer may be made in advance of a Change of Control, conditioned upon the consummation of such Change of Control, if a definitive agreement is in place providing for the Change of Control at the time the Change of Control Offer is made.

(g) The Issuers will comply, to the extent applicable, with the requirements of Section 14(e) of the Exchange Act and any other securities laws or regulations in connection with the repurchase of Notes pursuant to this Section 4.14. To the extent that the provisions of any securities laws or regulations conflict with provisions of this Indenture, the Issuers will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control provisions of this Indenture by virtue of the conflict.

Section 4.15. Impairment of Security Interest.

(a) The Parent and the Issuers shall not, and the Parent shall not permit any Restricted Subsidiary to, take or knowingly or negligently omit to take any action that would have the result of materially impairing the security interest with respect to the Collateral (it being understood that the Incurrence of Permitted Collateral Liens, or the confirmation or affirmation of

security interests in respect of the Collateral, shall under no circumstances be deemed to materially impair the security interest with respect to the Collateral) for the benefit of the Trustee and the Holders, and the Parent and the Issuers shall not, and the Issuers shall not permit any Restricted Subsidiary to, grant to any Person other than the Security Agent, for the benefit of the Trustee and the Holders and the other beneficiaries described in the Security Documents, any Lien over any of the Collateral that is prohibited by Section 4.03, provided, that the Parent, the Issuers and the Restricted Subsidiaries may Incur any Lien over any of the Collateral that is not prohibited by Section 4.03 including Permitted Collateral Liens, and the Collateral may be discharged, transferred or released in any circumstances not prohibited by this Indenture, the Intercreditor Agreement or the applicable Security Documents.

(b) Notwithstanding Section 4.15(a), nothing in this Section 4.15 shall restrict the discharge and release of any Lien in accordance with this Indenture, the Intercreditor Agreement and the ABL Intercreditor Agreement. Subject to the foregoing, the Security Documents may be amended, extended, renewed, restated, supplemented or otherwise modified or released (followed by an immediate retaking of a Lien of at least equivalent ranking over the same assets) to (i) cure any ambiguity, omission, defect or inconsistency therein; (ii) provide for Permitted Collateral Liens; (iii) add to the Collateral or (iv) make any other change thereto that does not adversely affect the Holders in any material respect; *provided, however*, that (except where permitted by this Indenture, the Intercreditor Agreement or the ABL Intercreditor Agreement or to effect or facilitate the creation of Permitted Collateral Liens for the benefit of the Security Agent and holders of other Indebtedness Incurred in accordance with this Indenture), no Security Document may be amended, extended, renewed, restated, or otherwise modified or released (followed by an immediate retaking of a Lien of at least equivalent ranking over the same assets), unless contemporaneously with such amendment, extension, renewal, restatement, or modification or release (followed by an immediate retaking of a Lien of at least equivalent ranking over the same assets) or with any such action in clauses (ii) and (iii) in this Section 4.15(b), the Issuers deliver to the Security Agent and the Trustee, either (1) a solvency opinion, in form and substance reasonably satisfactory to the Security Agent and the Trustee, from an Independent Financial Advisor which confirms the solvency of the Parent and its Subsidiaries, taken as a whole, after giving effect to any transactions related to such amendment, extension, renewal, restatement, modification or release (followed by an immediate retaking of a Lien of at least equivalent ranking over the same asset), (2) a certificate from the chief financial officer or the Board of Directors of the relevant Person, in form and substance reasonably satisfactory to the Security Agent and the Trustee, which confirms the solvency of the person granting any such Lien after giving effect to any transactions related to such amendment, extension, renewal, restatement, modification or release, or (3) an Opinion of Counsel (subject to any qualifications customary for this type of Opinion of Counsel), in form and substance reasonably satisfactory to the Trustee, confirming that, after giving effect to any transactions related to such amendment, extension, renewal, restatement, supplement, modification or release (followed by an immediate retaking of a Lien of at least equivalent ranking over the same assets), the Lien or Liens created under the Security Document, so amended, extended, renewed, restated, modified or released and replaced are valid and perfected Liens not otherwise subject to any limitation, imperfection or new hardening period, in equity or at law, that such Lien or Liens were not otherwise subject to immediately prior to such amendment, extension, renewal, restatement, supplement, modification or replacement and to which the new Indebtedness secured by the Permitted Collateral Lien is not subject.

(c) In the event that the Parent, the Issuers and the Restricted Subsidiaries comply with the requirements of this Section 4.15, the Trustee and the Security Agent shall (subject to customary protections and indemnifications and each of the Trustee and the Security Agent being indemnified and/or secured to its satisfaction) consent to such actions without the need for instructions from the Holders.

Section 4.16. Compliance Certificate. The Parent will deliver to the Trustee no later than the date on which the Parent is required to deliver annual reports pursuant to Section 4.09, an Officer's Certificate indicating whether the signers thereof know of any Default or Event of Default that occurred during the previous year.

Section 4.17. Listing.

The Issuers and the Guarantors will (i) use their commercially reasonable efforts to cause the Notes, subject to notice of issuance, to be admitted to the official list of Euronext Dublin and admitted to trading on the Global Exchange Market thereof; and (ii) maintain such listing for as long as any of the Notes are outstanding. If the Notes cease to be listed on the Global Exchange Market of Euronext Dublin, the Issuers and the Guarantors will use their commercially reasonable best efforts to promptly list the Notes on another "recognised stock exchange" (as defined in Section 1005 of the Income Tax Act 2007 of the United Kingdom).

Section 4.18. Financial Calculations for Limited Condition Acquisitions.

When calculating the availability under any basket or ratio under this Indenture, in each case in connection with a Limited Condition Acquisition (other than for purposes of making a Restricted Payment, a Permitted Payment or a Permitted Investment), the date of determination of such basket or ratio and of any Default or Event of Default shall, at the option of the Parent, be the date the definitive agreements for such Limited Condition Acquisition are entered into and such baskets or ratios shall be calculated on a *pro forma* basis after giving effect to such Limited Condition Acquisition and the other transactions to be entered into in connection therewith (including any Incurrence of Indebtedness and the use of proceeds thereof) as if they occurred at the beginning of the applicable reference period for purposes of determining the ability to consummate any such Limited Condition Acquisition (and not for purposes of any subsequent availability of any basket or ratio). For the avoidance of doubt, (x) if any of such baskets or ratios are exceeded as a result of fluctuations in such basket or ratio (including due to fluctuations in Consolidated EBITDA of the Parent or the target company) subsequent to such date of determination and at or prior to the consummation of the relevant Limited Condition Acquisition, such baskets or ratios will not be deemed to have been exceeded as a result of such fluctuations solely for purposes of determining whether the Limited Condition Acquisition and the related transactions are permitted hereunder and (y) such baskets or ratios shall not be tested at the time of consummation of such Limited Condition Acquisition or related transactions; *provided*, further, that if the Parent elects to have such determinations occur at the time of entry into such definitive agreement, any such transactions (including any Incurrence of Indebtedness and the use of proceeds thereof) shall be deemed to have occurred on the date the definitive agreements are entered and outstanding thereafter for purposes of calculating any baskets or ratios under this Indenture after the date of such agreement and before the consummation of such Limited Condition Acquisition.

Section 4.19. Stay, Extension and Usury Laws. The Issuers and each of the Guarantors covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law wherever enacted, now or at any time hereafter in force, that may affect the covenants or the performance of this Indenture; and the Issuers and each of the Guarantors (to the extent that it may lawfully do so) hereby expressly waive all benefit or advantage of any such law, and covenant that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but shall suffer and permit the execution of every such power as though no such law has been enacted.

Section 4.20. Taxes. The Parent and the Issuers shall:

(a) pay, and shall cause each of their Subsidiaries to pay, prior to delinquency, all material Taxes of the Parent, Issuers and their subsidiaries, except such as are contested in good faith and by appropriate proceedings or where the failure to effect such payment is not adverse in any material respect to the Holders of the Notes; and

(b) be, and each other Guarantor shall be, at all times solely resident for Tax purposes in its place of incorporation and shall not have a permanent establishment or other taxable presence in any other jurisdiction and neither of the Issuers nor any of the Guarantors shall change its jurisdiction of residence for Tax purposes or establish a permanent establishment or other taxable presence in any jurisdiction other than its jurisdiction of incorporation.

Section 4.21. Corporate Existence. Subject to Article V, the Issuers and the Parent shall do or cause to be done all things necessary to preserve and keep in full force and effect:

(a) their corporate existence, and the corporate, partnership or other existence of each of their Subsidiaries (save for a solvent liquidation, merger or winding-up of any such Subsidiary that is not a Guarantor), in accordance with the respective organizational documents (as the same may be amended from time to time) of the Issuers, the Parent, or any such Subsidiary; and

(b) the rights (charter and statutory), licenses and franchises of the Parent and its Subsidiaries; *provided*, however, that the Parent shall not be required to preserve any such right, license or franchise, or the corporate, partnership or other existence of any of their Subsidiaries, if the Board of Directors of the Parent shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Parent and its Subsidiaries, taken as a whole, and that the loss thereof is not adverse in any material respect to the Holders.

Section 4.22. Center of Main Interests and Establishments. Each of the Parent and the Issuers (and any successor Person), for the purposes of the Insolvency (Amendment) (EU Exit) Regulations 2019 (SI 2019/146), and each of the Guarantors, for the purposes of Council Regulation (EU) 2015/848 of May 20, 2015 on insolvency proceedings (recast) (the "EU Insolvency Regulation") or otherwise, will ensure that its "centre of main interests" (as that term is used in Article 3(1) of the EU Insolvency Regulation) is situated in its original jurisdiction of incorporation and ensure that it has no "establishment" (as that term is used in Article 2(b) of the EU Insolvency Regulation) in any other jurisdiction.

Section 4.23. Ratings. The Issuers and the Guarantors will use their commercially reasonable efforts to maintain an instrument rating from one of Moody's, Fitch or S&P.

ARTICLE V

SUCCESSOR COMPANY

Section 5.01. Merger and Consolidation.

(a) The Issuers. Neither Issuer nor the Parent will consolidate with or merge with or into, or assign, convey, transfer, lease or otherwise dispose of all or substantially all of its assets, in one transaction or a series of related transactions to, any Person, unless:

(i) the resulting, surviving or transferee Person (the "*Successor Company*") will be a Person organized and existing under the laws of any member state of the European Union, the United Kingdom or the United States of America, any State of the United States or the District of Columbia, Canada or any province or territory of Canada, Norway or Switzerland and the Successor Company (if other than such Issuer or the Parent) will expressly assume, (a) by supplemental indenture, executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, all the obligations of such Issuer under the Notes and this Indenture and (b) all obligations of such Issuer under the Security Documents (and, to the extent required, by the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement);

(ii) immediately after giving effect to such transaction (and treating any Indebtedness that becomes an obligation of the Successor Company or any Subsidiary of the Successor Company as a result of such transaction as having been Incurred by the Successor Company or such Subsidiary at the time of such transaction), no Default or Event of Default shall have occurred and be continuing;

(iii) immediately after giving effect to such transaction, only to the extent it involves the Parent, either (1) the Successor Company would be able to Incur at least an additional $1.00 of Indebtedness pursuant to the Fixed Charge Coverage Ratio contained in Section 4.01(a) or (2) the Fixed Charge Coverage Ratio of the Successor Company and its consolidated Subsidiaries would not be less than the Fixed Charge Coverage Ratio of the Parent and its Restricted Subsidiaries immediately prior to giving effect to such transaction; and

(iv) such Issuer shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each to the effect that such consolidation, merger or transfer and such supplemental indenture (if any) comply with this Indenture and an Opinion of Counsel to the effect that such supplemental indenture (if any) has been duly authorized, executed and delivered and is a legal, valid and binding agreement enforceable against the Successor Company (in each case, in form and substance reasonably satisfactory to the Trustee); *provided* that in giving

an Opinion of Counsel, counsel may rely on an Officer's Certificate as to any matters of fact.

Any Indebtedness that becomes an obligation of the Parent or any Restricted Subsidiary (or that is deemed to be Incurred by any Restricted Subsidiary that becomes a Restricted Subsidiary) as a result of any such transaction undertaken in compliance with this Section 5.01, and any Refinancing Indebtedness with respect thereto, shall be deemed to have been Incurred in compliance with Section 4.01.

For purposes of this Section 5.01, the sale, lease, conveyance, assignment, transfer, or other disposition of all or substantially all of the properties and assets of one or more Subsidiaries of an Issuer, which properties and assets, if held by such Issuer instead of such Subsidiaries, would constitute all or substantially all of the properties and assets of such Issuer on a consolidated basis, shall be deemed to be the transfer of all or substantially all of the properties and assets of such Issuer.

The Successor Company will succeed to, and be substituted for, and may exercise every right and power of, such Issuer under this Indenture but in the case of a lease of all or substantially all its assets, the predecessor company will not be released from its obligations under this Indenture or the Notes.

The foregoing provisions of this Section 5.01(a) (other than Section 5.01(a)(ii)) shall not apply to (i) any transactions which constitute an Asset Disposition if the Issuers have complied with Section 4.05 or (ii) the creation of a new subsidiary as a Restricted Subsidiary.

(b) Guarantors. No Guarantor (other than a Guarantor whose guarantee is to be released in accordance with the terms of this Indenture) may: (i) consolidate with or merge with or into any Person (whether or not such Guarantor is the surviving corporation); (ii) sell, assign, convey, transfer, lease or otherwise dispose of, all or substantially all of the assets of such Guarantor and its Restricted Subsidiaries taken as a whole, in one transaction or a series of related transactions, to any Person; or (iii) permit any Person to merge with or into it unless:

A. the other Person is an Issuer or any other Restricted Subsidiary of the Parent that is a Guarantor or becomes a Guarantor;

B. (1) either (x) a Guarantor is the continuing Person or (y) the resulting, surviving or transferee Person expressly assumes all of the obligations of the Guarantor under its Guarantee, this Indenture (pursuant to a supplemental indenture executed and delivered in a form reasonably satisfactory to the Trustee), and the Security Documents (and, to the extent required, by the Intercreditor Agreement or any Additional Intercreditor Agreements); and (2) immediately after giving effect to the transaction, no Default or Event of Default shall have occurred and is continuing; or

C. the transaction constitutes a sale or other disposition (including by way of consolidation or merger) of a Guarantor or the sale or disposition of all or substantially all the assets of a Guarantor (in each case

other than to the Parent or a Restricted Subsidiary) otherwise permitted by this Indenture,

provided however, that the prohibition in Section 5.01(b)(i), Section 5.01(b)(ii) and Section 5.01(b)(iii) shall not apply to the extent that compliance with clauses (A) or (B)(1) could give rise to or result in: (1) any breach or violation of statutory limitations, corporate benefit, financial assistance, fraudulent preference, thin capitalization rules, capital maintenance rules, guidance and coordination rules or the laws rules or regulations (or analogous restriction) of any applicable jurisdiction; (2) any risk or liability for the officers, directors or (except in the case of a Restricted Subsidiary that is a partnership) shareholders of such Restricted Subsidiary (or, in the case of a Restricted Subsidiary that is a partnership, directors or shareholders of the partners of such partnership); or (3) any cost, expense, liability or obligation (including with respect to any Taxes) other than reasonable out of pocket expenses.

(c) The provisions set forth in this Section 5.01 shall not restrict (and shall not apply to): (i) any Restricted Subsidiary that is not a Guarantor (or an Issuer) from consolidating with, merging or liquidating into or transferring all or substantially all of its properties and assets to an Issuer, a Guarantor or any other Restricted Subsidiary that is not a Guarantor; (ii) a Guarantor from merging or liquidating into or transferring all or part of its properties and assets to an Issuer or another Guarantor; (iii) a Guarantor from transferring all or part of its properties and assets to a Restricted Subsidiary that is not a Guarantor (or an Issuer) in order to comply with any law, rule, regulation or order, recommendation or directions of, or agreement with, any regulatory authority having jurisdiction over the Parent or any of its Restricted Subsidiaries; (iv) any consolidation or merger of an Issuer into any Guarantor; *provided* that, if such Issuer is not the surviving entity of such merger or consolidation, the relevant Guarantor will assume the obligations of such Issuer under the Notes and this Indenture and Section 5.01(a)(i) and Section 5.01(a)(iv) shall apply to such transaction and (v) an Issuer or any Guarantor from consolidating into or merging or combining with an Affiliate incorporated or organized for the purpose of changing the legal domicile of such entity, reincorporating such entity in another jurisdiction, or changing the legal form of such entity; *provided*, *however*, that Section 5.01(a)(i), Section 5.01(a)(ii), Section 5.01(a)(iv) or Section 5.01(b)(iii)(A) and Section 5.01(b)(iii)(B), as the case may be, shall apply to any such transaction.

ARTICLE VI

DEFAULTS AND REMEDIES

Section 6.01. Events of Default. Each of the following is an "Event of Default" under this Indenture:

(a) default in any payment of interest on any Note issued under this Indenture when due and payable, continued for 30 days;

(b) default in the payment of the principal amount of or premium, if any, on any Note issued under this Indenture when due at its Stated Maturity, upon optional redemption, upon required repurchase, upon declaration or otherwise;

(c) failure by an Issuer or any Guarantor to comply with its obligations under Section 5.01;

(d) failure by an Issuer or any Guarantor to comply for 30 days after written notice by the Trustee or the Holders of at least 25% in principal amount of the outstanding Notes with its obligation to make a Change of Control Offer under Section 4.14;

(e) failure by the Parent or any of its Restricted Subsidiaries to comply for 60 days after notice by the Trustee or the Holders of at least 25% in principal amount of the outstanding Notes with its other agreements contained in this Indenture (in each case, other than a default in performance, or breach of, a covenant or agreement specifically addressed in clauses (a) to (d) of this Section 6.01);

(f) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by the Parent or any of its Restricted Subsidiaries (or the payment of which is Guaranteed by the Parent or any of its Restricted Subsidiaries) other than Indebtedness owed to the Parent or a Restricted Subsidiary whether such Indebtedness or Guarantee now exists, or is created after the Issue Date, which default:

(i) is caused by a failure to pay principal at stated maturity on such Indebtedness, immediately upon the expiration of the grace period provided in such Indebtedness ("*payment default*"); or

(ii) results in the acceleration of such Indebtedness prior to its maturity (the "*cross acceleration provision*"),

and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a payment default or the maturity of which has been so accelerated, aggregates $10.0 million or more;

(g) the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, pursuant to or within the meaning of any Bankruptcy Law:

(i) commences proceedings to be adjudicated bankrupt or insolvent;

(ii) consents to the institution of bankruptcy or insolvency proceedings against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under applicable Bankruptcy Law;

(iii) consents to the appointment of a receiver, liquidator, assignee, trustee, sequestrator or other similar official of it or for all or substantially all of its property;

(iv) makes a general assignment for the benefit of its creditors; or

(v) admits in writing that it is unable to pay its debts as they become due;

(h) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

(i) is for relief against the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, in a proceeding in which the Issuers or any such other Restricted Subsidiary, that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, is to be adjudicated bankrupt or insolvent;

(ii) appoints a receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, or for all or substantially all of the property of the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary; or

(iii) orders the winding up or liquidation of the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary,

and, in the case of any of (i), (ii) or (iii) of this Section 6.01(h), the order or decree remains un- stayed and in effect for 60 consecutive days;

(i) failure by an Issuer or any Significant Subsidiary or group of Restricted Subsidiaries that, taken together (as of the latest audited consolidated financial statements for the Parent and its Restricted Subsidiaries), would constitute a Significant Subsidiary to pay final judgments aggregating in excess of $10.0 million (exclusive of any amounts that a solvent insurance company has acknowledged liability for), which judgments are not paid, discharged or stayed for a period of 60 days after the judgment becomes final (the "*judgment default provision*");

(j) any Note Guarantee ceases to be in full force and effect (other than in accordance with the terms of such Note Guarantee or this Indenture) or is declared invalid or unenforceable in a judicial proceeding or any Guarantor denies or disaffirms in writing its obligations under its Note Guarantee and any such Default continues for 10 days; or

(k) any security interest under the Security Documents on any Collateral having a fair market value in excess of $5.0 million shall, at any time, cease to be in full force and effect (other than in accordance with the terms of the relevant Security Document, the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement, and this Indenture) for any reason other than the satisfaction in full of all obligations under this Indenture or the release or amendment of any such security interest in accordance with the terms of this Indenture, the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement or such Security Document or any such security interest

created thereunder shall be declared invalid or unenforceable or the Parent, an Issuer or any other Restricted Subsidiary shall assert in writing that any such security interest is invalid or unenforceable and any such Default continues for 10 days.

However, a default under Section 6.01(c), Section 6.01(d), Section 6.01(e), Section 6.01(f), Section 6.01(i) or Section 6.01(k) will not constitute an Event of Default until the Trustee or the Holders of 25% in principal amount of the outstanding Notes under this Indenture notify the Parent of the default and, with respect to Section 6.01(d), Section 6.01(e), Section 6.01(i) or Section 6.01(k), the Parent does not cure such default within the time specified in Section 6.01(d), Section 6.01(e), Section 6.01(i) or Section 6.01(k), as applicable, after receipt of such notice.

The Issuers shall deliver to the Trustee, within 30 days after the occurrence thereof, written notice in the form of an Officers' Certificate of any Event of Default or any event which with the giving of notice or the lapse of time would become an Event of Default, its status and what action the Issuers are taking or proposes to take with respect thereto.

Section 6.02. Remedies Upon Event of Default. Holders of the Notes may not enforce this Indenture or the Notes except as provided in this Indenture.

Notwithstanding anything to the contrary herein, (i) if a Default occurs for a failure to deliver a required certificate in connection with another default (an "*Initial Default*") then at the time such Initial Default is cured, such Default for a failure to report or deliver a required certificate in connection with the Initial Default will also be cured without any further action and (ii) any Default or Event of Default for the failure to comply with the time periods prescribed in Section 4.09, or otherwise to deliver any notice or certificate pursuant to any other provision of this Indenture shall be deemed to be cured upon the delivery (prior to acceleration in respect of the relevant breach) of any such report required by Section 4.09 or notice or certificate, as applicable, even though such delivery is not within the prescribed period specified in this Indenture.

Section 6.03. Acceleration. (a) If an Event of Default (other than an Event of Default described in Section 6.01(g) and Section 6.01(h)) occurs and is continuing, the Trustee or the Holders of at least 25% in aggregate principal amount of the outstanding Notes under this Indenture may declare all the Notes under this Indenture to be due and payable by written notice to the Issuers (and to the Trustee if such notice is given by the Holders). Upon such a declaration, such principal, premium (including Applicable Premium, if such premium would have been payable if the Issuers had issued a notice of redemption of the Notes on the date of such declaration) and accrued and unpaid interest will be due and payable immediately. In the event of a declaration of acceleration of the Notes because an Event of Default described in Section 6.01(f) has occurred and is continuing, the declaration of acceleration of the Notes shall be automatically annulled if the event of default or payment default triggering such Event of Default pursuant to Section 6.01(f) shall be remedied or cured, or waived by the holders of the Indebtedness, or the Indebtedness that gave rise to such Event of Default shall have been discharged in full, within 30 days after the declaration of acceleration with respect thereto and if (1) the annulment of the acceleration of the Notes would not conflict with any judgment or decree of a court of competent jurisdiction and (2) all existing Events of Default, except nonpayment of principal, premium or interest on the Notes that became due solely because of the acceleration of the Notes, have been cured or waived.

(b) If an Event of Default described in Section 6.01(g) or Section 6.01(h) occurs and is continuing, the principal of, premium (including Applicable Premium, if such premium would have been payable if the Issuers had issued a notice of redemption of the Notes on the date of such declaration), if any, and accrued and unpaid interest on all the Notes will become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holders.

Section 6.04. Other Remedies. Subject to Articles XI and XII and to the duties of the Trustee as provided for in Article VII, if an Event of Default occurs and is continuing, the Trustee may pursue any available remedy to collect the payment of principal of, premium (including Applicable Premium, if such premium would have been payable if the Issuers had issued a notice of redemption of the Notes on the date of such declaration), if any, or interest on the Notes or to enforce the performance of any provision of the Notes or this Indenture.

The Trustee may maintain a proceeding even if it does not possess any of the Notes or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Holder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. No remedy is exclusive of any other remedy. All available remedies are cumulative to the extent permitted by law.

Section 6.05. Waiver of Past Defaults. The Holders of a majority in principal amount of the outstanding Notes under this Indenture may waive all past or existing Defaults or Events of Default (except with respect to nonpayment of principal, premium, interest or Additional Amounts, if any) and rescind any such acceleration with respect to such Notes and its consequences if rescission would not conflict with any judgment or decree of a court of competent jurisdiction and provided the fees and expenses of the Trustee have been paid.

Section 6.06. Control by Majority. The Holders of a majority in principal amount of the Notes then outstanding may direct the time, method and place of conducting any proceeding for exercising any remedy available to the Trustee or of exercising any trust or power conferred on the Trustee. However, the Trustee may refuse to follow any direction that conflicts with law or this Indenture or, subject to Section 7.01, that the Trustee determines is unduly prejudicial to the rights of other Holders or would involve the Trustee in personal liability; *provided*, *however*, that the Trustee may take any other action deemed proper by the Trustee that is not inconsistent with such direction. Prior to taking any action under this Indenture, the Trustee will be entitled to indemnification and/or security satisfactory to the Trustee in its sole discretion against all fees, losses, claims, liabilities and expenses (including attorney's fees and expenses) caused by taking or not taking such action.

Section 6.07. Limitation on Suits. (i) Except to enforce the right to receive payment of principal, premium (if any) or interest when due, no Holder may pursue any remedy with respect to this Indenture or the Notes unless:

A. such Holder has previously given the Trustee written notice that an Event of Default is continuing;

B. Holders of at least 25% in principal amount of the outstanding Notes have requested in writing the Trustee to pursue the remedy;

C. such Holders have offered the Trustee security or indemnity satisfactory to it against any cost, loss, liability or expense;

D. the Trustee has not complied with such request within 60 days after the receipt of the written request and the offer of security or indemnity; and

E. the Holders of a majority in principal amount of the outstanding Notes have not given the Trustee a written direction that, in the opinion of the Trustee, is inconsistent with such request within such 60-day period.

(ii) A Holder may not use this Indenture to prejudice the rights of another Holder or to obtain a preference or priority over another Holder. The Trustee shall not have an obligation to ascertain whether Holders' actions are unduly prejudicial to other Holders.

Section 6.08. Rights of Holders to Receive Payment. Subject to Section 9.02, the right of any Holder to receive payment of principal of and interest on the Notes held by such Holder, on or after the respective due dates expressed or provided for in the Notes, or to bring suit for the enforcement of any such payment on or after such respective dates, shall not be impaired or affected without the consent of each Holder of an outstanding Note affected.

Section 6.09. Collection Suit by Trustee. If an Event of Default specified in Section 6.01(a) or Section 6.01(b) occurs and is continuing, the Trustee may recover judgment in its own name and as trustee of an express trust against the Issuers or any other obligor on the Notes for the whole amount then due and owing (together with interest on any unpaid interest to the extent lawful) and the amounts provided for in Section 7.06.

Section 6.10. Trustee May File Proofs of Claim. The Trustee may file such proofs of claim and other papers or documents and take such actions as may be necessary or advisable (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) in order to have the claims of the Trustee and the Holders allowed in any judicial proceedings relative to the Issuers (or any other obligor upon the Notes) or any Guarantor, their creditors or their property and, shall be entitled and empowered to collect, receive and distribute any money or other property payable or deliverable on any such claims and any custodian in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee consents to the making of such payments directly to the Holders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 7.06 hereof. To the extent that the payment of any such compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 7.06 hereof out of the estate in any such

proceeding, shall be denied for any reason, payment of the same shall be secured by a lien on, and shall be paid out of, any and all distributions, dividends, money, securities and other properties that the Holders may be entitled to receive in such proceeding whether in liquidation or under any plan of reorganization or arrangement or otherwise. Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Notes of any series or the rights of any Holder, or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 6.11. Priorities. Subject to the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement, if the Trustee or the Security Agent collects any money pursuant to this Article VI or from the enforcement of any Security Document, it shall pay out (or in the case of the Security Agent, it shall pay to the Trustee to pay out) the money in the following order:

FIRST: to the Trustee, the Security Agent and the Agents and their agents and attorneys for amounts due under Section 7.02, Section 7.06 and Section 11.06, including payment of all fees, costs, compensation, disbursements, expenses and liabilities incurred, and all advances made, by the Trustee, the Agents and the Security Agent (as the case may be) and the costs and expenses of collection;

SECOND: to Holders of Notes for amounts due and unpaid on the Notes for principal, premium, if any, interest and Additional Amounts, if any, ratably, without preference or priority of any kind, according to the amounts due and payable on the Notes for principal, premium, if any, interest and Additional Amounts, if any, respectively;

THIRD: to the Issuers, any Guarantor or to such party as a court of competent jurisdiction shall direct.

The Issuers shall provide the Trustee with any additional information in its possession necessary for the Trustee to make the payments mentioned above, upon request.

The Trustee may fix a record date and payment date for any payment to Holders pursuant to this Section 6.11. At least 15 days before such record date, the Trustee shall mail or deliver to each Holder and the Issuers a notice that states the record date, the payment date and amount to be paid.

Section 6.12. Undertaking for Costs. In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as the Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section 6.12 does not apply to a suit by the Trustee or a Paying Agent, a suit by a Holder pursuant to Section 6.08 or a suit by Holders of more than 10% in principal amount of the Notes then outstanding.

Section 6.13. Waiver of Stay or Extension Laws. The Issuers (to the extent they may lawfully do so) shall not at any time insist upon, or plead, or in any manner whatsoever claim

or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Issuers (to the extent that they may lawfully do so) hereby expressly waive all benefit or advantage of any such law, and shall not hinder, delay or impede the execution of any power herein granted to the Trustee, but shall suffer and permit the execution of every such power as though no such law had been enacted.

Section 6.14. Restoration of Rights and Remedies. If the Trustee or the Security Agent or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or the Security Agent or to such Holder, then and in every such case, subject to any determination in such proceeding, the Issuers, the Guarantors, the Trustee, the Security Agent and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee, the Security Agent and the Holders shall continue as though no such proceeding had been instituted.

Section 6.15. Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Notes in Section 2.11, no right or remedy herein conferred upon or reserved to the Trustee or the Security Agent or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 6.16. Delay or Omission Not Waiver. No delay or omission of the Trustee or the Security Agent or of any Holder of any Note to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article VI or by law to the Trustee or to the Holders, may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 6.17. Indemnification of Trustee. Prior to taking any action under this Article VI, the Trustee shall be entitled to indemnification or other security satisfactory to it in its sole discretion against all losses, liabilities and expenses caused by taking or not taking such action.

ARTICLE VII

TRUSTEE

Section 7.01. Duties of Trustee . (i) If an Event of Default, of which a Responsible Officer of the Trustee has received written notice, has occurred and is continuing, the Trustee will exercise such of the rights and powers vested in it by this Indenture and use the same degree of care and skill in its exercise as a prudent person would exercise or use under the circumstances in the conduct of such person’s own affairs.

(ii) Except during the continuance of an Event of Default:

A. the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture and no implied covenants or obligations shall be read into this Indenture against the Trustee; *provided* that to the extent the duties of the Trustee under this Indenture and the Notes may be qualified, limited or otherwise affected by the provisions of the Notes Documents, the Trustee shall be required to perform those duties only as so qualified, limited or affected, and shall be held harmless and shall not incur any liability of any kind for so acting; and

B. the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture. However, with respect to certificates or opinions specifically required to be furnished to it hereunder, the Trustee shall examine such certificates and opinions to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein) and shall be entitled to seek advice from legal counsel in relation thereto.

(iii) The Trustee may not be relieved from liability for its own grossly negligent action, its own grossly negligent failure to act or its own willful misconduct, except that:

A. this Section 7.01(iii) does not limit the effect of Section 7.01(ii);

B. the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer unless it is proved that the Trustee was grossly negligent in ascertaining the pertinent facts; and

C. the Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to Section 6.03, Section 6.05 or Section 6.06.

(iv) Every provision of this Indenture that in any way relates to the Trustee is subject to Section 7.01(i), Section 7.01(ii) and Section 7.01(iii).

(v) No provision of this Indenture or the other Notes Documents shall require the Trustee to expend or risk its own funds or otherwise incur liability in the performance of any of its duties hereunder or under the other Notes Documents or to take or omit to take any action under this Indenture or under the other Notes Documents or take any action at the request or direction of Holders if it has grounds for believing that repayment of such funds is not assured to it or it does not receive indemnity or security satisfactory to it in its sole discretion against any loss, liability or expense which might be incurred by it in compliance with such request or direction nor shall the Trustee be required to do anything which is illegal or contrary

to applicable laws. The Trustee will not be liable to the Holders if prevented or delayed in performing any of its obligations or discretionary functions under this Indenture by reason of any present or future law applicable to it, by any governmental or regulatory authority or by any circumstances beyond its control.

(vi) The Trustee shall not be liable for interest or investment income on any money received by it except as the Trustee may agree in writing with the Issuers.

(vii) Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

(viii) Each Holder, by its acceptance of any Notes and the Note Guarantees consents and agrees to the terms of the Notes Documents as the same may be in effect or as may be amended from time to time in accordance with their terms and authorizes and directs the Trustee to enter into and perform its obligations and exercise its rights under the Notes Documents in accordance therewith, to bind the Holders on the terms set forth in the Notes Documents and to execute any and all documents, amendments, waivers, consents, releases or other instruments authorized or required to be executed by it pursuant to the terms thereof.

(ix) The Trustee shall not be deemed to have notice of any matter (including, without limitation, Events of Default) unless a Responsible Officer has written notice or actual knowledge.

Section 7.02. Rights of Trustee .

(i) The Trustee may refrain without liability from taking any action in any jurisdiction if the taking of such action in that jurisdiction would, in its opinion, based upon legal advice in the relevant jurisdiction, be contrary to any law of that jurisdiction or, to the extent applicable, the State of New York. Furthermore, the Trustee may also refrain without liability from taking such action if it would otherwise render it liable to any person in that jurisdiction, the State of New York or if, in its opinion based upon such legal advice, it would not have the power to take such action in that jurisdiction by virtue of any applicable law in that jurisdiction, in the State of New York or if it is determined by any court or other competent authority in that jurisdiction, in the State of New York that it does not have such power.

(ii) The Trustee may conclusively rely and shall be fully protected in relying on any document believed by it to be genuine and to have been signed or presented by the proper Person. The Trustee need not investigate any fact or matter stated in the document.

(iii) Before the Trustee acts or refrains from acting, it may require an Officer's Certificate or an Opinion of Counsel or both. The Trustee shall not be

liable for any action it takes or omits to take in good faith in reliance on such Officer's Certificate or Opinion of Counsel.

(iv) The Trustee may act through attorneys and agents and shall not be responsible for the misconduct or negligence of any attorney, delegate, depositary, or agent appointed with due care.

(v) The Trustee shall not be liable for any action it takes or omits to take in good faith which it believes to be authorized or within its rights or powers conferred upon it by this Indenture or any other Notes Document, subject to Section 7.01(iii).

(vi) The Trustee may retain professional advisers to assist it in performing its duties under this Indenture or any Notes Document. The Trustee may consult with counsel, and the advice or opinion of counsel with respect to legal matters relating to this Indenture and the Notes shall be full and complete authorization and protection from liability in respect of any action taken, omitted or suffered by it hereunder in good faith and in accordance with the advice or opinion of such counsel or professional advisors even if such advice or opinion is subject to a limitation of liability, whether by a monetary cap or otherwise, or limited in scope.

(vii) The Trustee shall not be bound to make any investigation into the facts or matters stated in any Officer's Certificate, Opinion of Counsel, or any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, approval, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its sole and absolute discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Issuers, personally or by agent or attorney at the sole cost of the Issuers and the Trustee shall incur no liability of any kind by reason of such inquiry or investigation.

(viii) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request, order or direction of any of the Holders pursuant to the provisions of this Indenture, unless such Holders shall have offered to the Trustee indemnity or other security satisfactory to the Trustee against the costs, expenses and liabilities which may be incurred by it in compliance with such request, order or direction.

(ix) In the event the Trustee receives inconsistent or conflicting requests and indemnity from two or more groups of Holders, each representing less than the majority in aggregate principal amount of the Notes then outstanding, pursuant to the provisions of this Indenture, the Trustee, in its sole discretion, may determine what action, if any, shall be taken and shall be held harmless and shall not incur

any liability for its failure to act until such inconsistency or conflict is, in its reasonable opinion, resolved.

(x) The Trustee shall have no duty to inquire as to the performance of the Issuers with respect to the covenants contained in Article IV. Delivery of reports, information and documents to the Trustee under Section 4.09 is for informational purposes only and the Trustee's receipt of the foregoing shall not constitute actual or constructive notice of any information contained therein or determinable from information contained therein, including the Issuers' compliance with any of their covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officer's Certificates).

(xi) The Trustee shall not have any obligation or duty to monitor, determine or inquire as to compliance, and shall not be responsible or liable for compliance with restrictions on transfer, exchange, redemption, purchase or repurchase, as applicable, of minimum denominations imposed under this Indenture or under applicable law or regulation with respect to any transfer, exchange, redemption, purchase or repurchase, as applicable, of any interest in any Notes.

(xii) If any Guarantor is substituted to make payments on behalf of the Issuers pursuant to Article X, the Issuers shall promptly notify the Trustee of such substitution.

(xiii) The rights, privileges, protections, immunities and benefits given to the Trustee, including its right to be indemnified or secured to its satisfaction, are extended to, and shall be enforceable by the Trustee in each of its capacities hereunder and under the other Notes Documents, by the Security Agent and each Agent in their various capacities hereunder, custodian and other Person employed to act as agent hereunder. Each of the Trustee, the Security Agent, and each Agent shall not be liable for acting in good faith on instructions believed by it to be genuine and from the proper party.

(xiv) The Trustee shall not be required to give any bond or surety with respect to the performance of its duties or the exercise of its powers under this Indenture.

(xv) The permissive rights of the Trustee to take the actions permitted by this Indenture will not be construed as an obligation or duty to do so.

(xvi) Anything in this Indenture to the contrary notwithstanding, in no event shall the Trustee be liable for special, indirect or consequential loss or damage of any kind whatsoever (including but not limited to lost profits, loss of business, goodwill or opportunity of any kind), even if foreseeable and even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action.

(xvii) In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of, or caused by, directly or indirectly, forces beyond its control, including, without limitation, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God; it being understood that the Trustee shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances;

(xviii) The Trustee may request that the Issuers deliver an Officer's Certificate setting forth the names of the individuals or titles of officers authorized at such time to take specified actions pursuant to this Indenture or the Notes Documents, which Officer's Certificate may be signed by any person authorized to sign an Officer's Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

(xix) No provision of this Indenture shall require the Trustee to do anything which, in its opinion, may be illegal or contrary to applicable law or regulation.

(xx) The Trustee shall not be required to take notice or be deemed to have notice of any Default or Event of Default hereunder unless a Responsible Officer has actual knowledge thereof or is specifically notified in writing of such Default or Event of Default by the Issuers or by the Holders of at least 25% of the aggregate principal amount of Notes then outstanding, at the Corporate Trust Office of the Trustee, and such notice references the Notes and this Indenture.

(xxi) The Trustee and the Paying Agent shall be entitled to make payments net of any taxes or other sums required by any applicable law to be withheld or deducted.

(xxii) At any time that the security granted pursuant to the Security Documents has become enforceable and the Holders have given a written direction to the Trustee to enforce such security, the Trustee is not required to give any direction to the Security Agent with respect thereto unless it has been indemnified, secured and/or prefunded in accordance with Section 7.01(v). In any event, in connection with any enforcement of such security, the Trustee is not responsible for:

(i) any failure of the Security Agent to enforce such security within a reasonable time or at all;

(ii) any failure of the Security Agent to pay over the proceeds of enforcement of the Collateral;

(iii) any failure of the Security Agent to realize such security for the best price obtainable;

(iv) monitoring the activities of the Security Agent in relation to such enforcement;

(v) taking any enforcement action itself in relation to such security;

(vi) agreeing to any proposed course of action by the Security Agent which could result in the Trustee incurring any liability for its own account; or

(vii) paying any fees, costs or expenses of the Security Agent.

(xxiii) The Trustee may assume without inquiry in the absence of actual knowledge of a Responsible Officer that the Issuers, the Guarantors or any Holder are duly complying with their obligations contained in this Indenture required to be performed and observed by each of them, and that no Default or Event of Default or other event which would require repayment of the Notes has occurred.

(xxiv) Unless ordered to do so by a court of competent jurisdiction, the Trustee shall not be required to disclose to any Holder or any third party any confidential financial or other information made available to the Trustee by the Issuers and no Holder shall be entitled to take any action to obtain from the Trustee any such information.

Section 7.03. Individual Rights of Trustee. The Trustee in its individual or any other capacity may become the owner or pledgee of Notes or the Collateral and may otherwise deal with the Issuers or their Affiliates with the same rights it would have if it were not Trustee. For the avoidance of doubt, any Agent, Paying Agent, Transfer Agent, Authenticating Agent or Registrar may do the same with like rights.

Section 7.04. Trustee's Disclaimer. The Trustee shall not be responsible for and makes no representation as to the validity or adequacy of this Indenture or the Notes or the Note Guarantees, any other Notes Document, the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement, it shall not be accountable for the Issuers' use of the proceeds from the Notes or any money paid to the Issuers or upon the Issuers' direction under any provision of this Indenture or the Intercreditor Agreement, it will not be responsible for the use or application of any money received by any Paying Agent other than the Trustee and it shall not be responsible for any statement of the Issuers in this Indenture or any document issued in connection with the sale of the Notes or in the Notes other than the Trustee's certificate of authentication if signed by the Trustee.

Section 7.05. Notice of Defaults. If a Default or Event of Default occurs and is continuing and a Responsible Officer of the Trustee is informed in writing of such occurrence by the Issuers, the Trustee must give notice of the Default to the Holders within 60 days after being notified by the Issuers. Except in the case of a Default in payment of principal of or interest or premium, if any, on any Note, the Trustee may withhold the notice if and so long as the Trustee determines that withholding the notice is in the interests of Holders.

Section 7.06. Compensation and Indemnity. The Issuers, or, upon the failure of the Issuers to pay, each Guarantor, jointly and severally, shall pay to the Trustee, the Security

Agent and each Agent from time to time such compensation as the Issuers and Trustee, the Security Agent and each Agent may from time to time agree for its acceptance of this Indenture and services hereunder and under the Notes Documents. The Trustee's, the Security Agent's and each Agent's compensation shall not be limited by any law on compensation of a trustee of an express trust.

In the event of the occurrence of an Event of Default or the Trustee considering it expedient or necessary or being requested by the Issuers to undertake duties which the Trustee reasonably determines to be of an exceptional nature or otherwise outside the scope of the normal duties of the Trustee, the Issuers shall pay to the Trustee such additional remuneration for such duties as may be agreed.

The Issuers and each Guarantor, jointly and severally, shall reimburse the Trustee, the Security Agent and each Agent promptly upon request for all properly incurred disbursements, advances and expenses incurred or made by it), including costs of collection, in addition to the compensation for its services. Such expenses shall include the properly incurred compensation and expenses, disbursements and advances of the Trustee's and the Security Agent's agents, counsel, accountants and experts. The Issuers and each Guarantor, jointly and severally, shall indemnify the Trustee, the Security Agent, the Agents and their respective officers, directors, agents and employees and hold them harmless against any and all loss, liability or expenses (including attorneys' fees, disbursements and expenses) incurred by or in connection with the acceptance or administration of its duties under this Indenture and the Notes Documents, including the costs and expenses of enforcing this Indenture against the Issuers (including this Section 7.06) and defending itself against any claim (whether asserted by the Issuers or any Holder or any other person) or liability in connection with the exercise or performance of any of its powers or duties hereunder or under the Notes Documents, as the case may be. The Issuers and each Guarantor, jointly and severally, shall indemnify the Trustee, the Security Agent and each Agent and their respective officers, directors, agents and employees for all taxes paid by the Trustee, the Security Agent and each Agent, or required to be withheld or deducted from a payment to any Person entitled to payment hereunder, and any reasonable expenses arising therefrom or with respect thereto.

The Trustee and the Security Agent shall notify the Issuers of any claim for which it may seek indemnity promptly upon obtaining actual knowledge thereof; *provided*, *however*, that any failure so to notify the Issuers shall not relieve the Issuers or any Guarantor of their indemnity obligations hereunder or under any other Notes Documents, as the case may be. Except in cases where the interests of the Issuers and the Trustee and the Security Agent may be adverse, the Issuers shall defend the claim and the indemnified party shall provide reasonable cooperation at the Issuers' and any Guarantor's expense in the defense. Notwithstanding the foregoing, such indemnified party may, in its sole discretion, assume the defense of the claim against it and the Issuers and any Guarantor shall, jointly and severally, pay the properly incurred fees and expenses of the indemnified party's defense. Such indemnified parties may have separate counsel of their choosing and the Issuers and any Guarantor, jointly and severally, shall pay the properly incurred fees and expenses of such counsel. The Issuers need not pay for any settlement made without its consent, which consent shall not be unreasonably withheld. The Issuers need not reimburse any expense or indemnify against any loss, liability or expense incurred by an indemnified party through such party's own willful misconduct, gross negligence or fraud.

To secure the Issuers' and any Guarantor's payment obligations in this Section 7.06, the Trustee, the Security Agent, and the Agents have a lien prior to the Notes on all money or property held or collected by the Trustee or Paying Agent other than money or property held in trust to pay principal of and interest on particular Notes.

The Issuers' and any Guarantor's payment obligations pursuant to this Section 7.06 and any lien arising thereunder shall survive the satisfaction or discharge of this Indenture, payment of the Notes in full, any rejection or termination of this Indenture under any Bankruptcy Law or the resignation or removal of the Trustee, the Security Agent, and the Agents. Without prejudice to any other rights available to the Trustee, the Security Agent, and the Agents under applicable law, when the Trustee and the Paying Agents incur expenses after the occurrence of a Default specified in Section 6.01(e) and Section 6.01(f) with respect to the Issuers, the expenses and the compensation for the services (including the fees and expenses of its agents and counsel) are intended to constitute expenses of administration under the Bankruptcy Law.

For the avoidance of doubt, the rights, privileges, protections, immunities and benefits given to the Trustee and the Security Agent in this Section 7.06, including its right to be indemnified, are extended to, and shall be enforceable by the Trustee and the Security Agent in each of its capacities hereunder and by each Agent, custodian and other Person employed with due care to act as agent hereunder. For purposes of this Section 7.06, "Trustee" and "Security Agent" shall include any predecessor Trustee or Security Agent; *provided*, *however*, that the gross negligence or willful misconduct of any Trustee or the Security Agent shall not affect the rights of any other Trustee or Security Agent hereunder.

Section 7.07. Replacement of Trustee. (i) The Trustee may resign at any time by so notifying the Issuers. The Holders of a majority in principal amount of the Notes then outstanding may remove the Trustee by so notifying the Trustee and may appoint a successor Trustee. The Issuers shall be entitled to remove the Trustee or any Holder who has been a *bona fide* Holder for not less than six months may petition any court for removal of the Trustee and appointment of a successor Trustee, if:

A. the Trustee fails to comply with Section 7.11;

B. the Trustee has or acquires a conflict of interest in its capacity as Trustee that is not eliminated;

C. the Trustee is adjudged bankrupt or insolvent;

D. a receiver or other public officer takes charge of the Trustee or its property; or

E. the Trustee otherwise becomes incapable of acting as Trustee hereunder.

(ii) If the Trustee resigns, is removed pursuant to Section 7.07(i) or if a vacancy exists in the office of Trustee for any reason (the Trustee in such event being referred to herein as the retiring Trustee), the Issuers shall promptly appoint a successor Trustee.

(iii) A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Issuers. Thereupon the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers and duties of the Trustee under this Indenture and the Notes Documents. The successor Trustee shall deliver a notice of its succession to Holders. The retiring Trustee shall promptly transfer all property held by it as Trustee to the successor Trustee; *provided* that all sums owing to the Trustee hereunder have been paid and subject to the lien provided for in Section 7.06.

(iv) If a successor Trustee does not take office within 30 days after the retiring Trustee resigns or is removed, (i) the retiring Trustee or the Holders of 10% in principal amount of the Notes may petition any court of competent jurisdiction for the appointment of a successor Trustee, or (ii) the retiring Trustee may appoint a successor Trustee at any time prior to the date on which a successor Trustee takes office; *provided* that such appointment is reasonably satisfactory to the Issuers.

(v) Notwithstanding the replacement of the Trustee pursuant to this Section 7.07, the Issuers' obligations under Section 7.06 shall continue for the benefit of the retiring Trustee.

(vi) For the avoidance of doubt, the rights, privileges, protections, immunities and benefits given to the Trustee in this Article VII, including its right to be indemnified, are extended to, and shall be enforceable by each Agent employed to act hereunder.

Section 7.08. Successor Trustee by Merger. If the Trustee consolidates with, merges or converts into, or transfers all or substantially all its corporate trust business or assets to, another corporation or banking association, the resulting, surviving or transferee corporation without any further act shall be the successor Trustee.

In case at the time such successor or successors by merger, conversion or consolidation to the Trustee shall succeed to the trusts created by this Indenture, any of the Notes shall have been authenticated but not delivered, any such successor to the Trustee may adopt the certificate of authentication of any predecessor trustee, and deliver such Notes so authenticated; and in case at that time any of the Notes shall not have been authenticated, any successor to the Trustee may authenticate such Notes either in the name of any predecessor hereunder or in the name of the successor to the Trustee; and in all such cases such certificates shall have the full force which it is anywhere in the Notes or in this Indenture provided that the certificate of the Trustee shall have.

Section 7.09. Certain Provisions. Each Holder by accepting a Note authorizes and directs on his or her behalf the Trustee to enter into and to take such actions and to make such acknowledgements as are set forth in this Indenture or other documents entered into in connection therewith.

Section 7.10. Agents; General Provisions.

(i) The rights, powers, duties and obligations and actions of each Agent under this Indenture are several and not (i) joint or (ii) joint and several.

(ii) In the event that instructions given to any Agent are not reasonably clear, then such Agent shall be entitled to seek clarification from the Issuers or other party entitled to give the Agents instructions under this Indenture by written request promptly and in any event within one Business Day of receipt by such Agent of such instructions. If an Agent has sought clarification in accordance with this Section 7.10, then such Agent shall be entitled to take no action until such clarification is provided, and shall not incur any liability for not taking any action pending receipt of such clarification.

(iii) No Agent shall be under any duty or other obligation towards, or have any relationship of agency or trust for or with, any person other than the Issuers.

(iv) The Issuers shall notify each Agent in the event that they determine that any payment to be made by an Agent under the Notes is a payment which could be subject to FATCA Withholding if such payment were made to a recipient that is generally unable to receive payments free from FATCA Withholding, and the extent to which the relevant payment is so treated, provided, however, that the Issuers' obligation under this Section 7.10(iv) shall apply only to the extent that such payments are so treated by virtue of characteristics of the Issuers, the Notes, or both.

(v) Notwithstanding any other provision of this Indenture, each Agent shall be entitled to make a deduction or withholding from any payment which it makes under the Notes for or on account of any Tax, if and only to the extent so required by applicable law, in which event the Agent shall make such payment after such deduction or withholding has been made and shall account to the relevant Authority within the time allowed for the amount so deducted or withheld or, at its option, shall reasonably promptly after making such payment return to the Issuers the amount so deducted or withheld, in which case, the Issuers shall so account to the relevant Authority for such amount.

(vi) In the event that the Issuers determine at their sole discretion that any deduction or withholding for or on account of any Tax will be required by applicable law in connection with any payment due to any of the Agents on any Notes, then the Issuers will be entitled to redirect or reorganize any such payment in any way that it sees fit in order that the payment may be made without such deductions or withholding provided that, any such redirected or reorganized payment is made through a recognized institution of international standing and otherwise made in accordance with this Indenture. The Issuers will promptly notify the Agents and the Trustee of any such redirection or reorganization

(vii) For the purposes of Section 7.10(iv) through to Section 7.10(vi), the following definitions apply:

"Authority" means any competent regulatory, prosecuting, Tax or governmental authority in any jurisdiction.

"FATCA Withholding" means any withholding or deduction required pursuant to an agreement described in section 1471(b) of the Code, or otherwise imposed pursuant to sections 1471 through 1474 of the Code, any regulations or agreements thereunder, any official interpretations thereof, or any law implementing an intergovernmental approach thereto.

(viii) [Reserved].

(ix) The Issuers and the Agents acknowledge and agree that in the event of a Default or Event of Default, the Trustee may, by notice in writing to the Issuers and the Agents, require that the Agents act as agents of, and take instructions exclusively from, the Trustee. Until they have received such written notice from the Trustee, the Agents shall act solely as agents of the Issuers and shall have no fiduciary duty, or owe any obligation, towards any person other than the Issuers.

(x) Moneys held by Agents need not be segregated from other funds except to the extent required by law. Subject to Article VIII, the Agents hold all funds as agent subject to the terms of this Indenture and as a result money will not be held in accordance with the rules established by the Financial Conduct Authority in the Financial Conduct Authority's Handbook of rules and guidance from time to time in relation to client money, The Agents shall not be liable for any interest earned thereon.

(xi) The roles, duties and functions of the Agents are of a mechanical nature and each Agent shall only perform those acts and duties as specifically set out in this Indenture and no other acts, covenants, obligations or duties shall be implied or read into this Indenture against any of the Agents.

(xii) No Agent shall be required to make any payment of the principal, premium or interest payable pursuant to this Indenture unless and until it has received the full amount to be paid in accordance with the terms of this Indenture. To the extent that an Agent has made such payment with the prior written consent of the Issuers and for which it did not receive the full amount, the Issuers will reimburse the Agent the full amount of any shortfall.

(xiii) No Agent shall have any duty or obligation to monitor the Issuers' or any other party's compliance with the terms of this Indenture or to take any steps to ascertain whether any Default or Event of Default or other event which would require repayment of the Notes has occurred.

Section 7.11. Eligibility; Disqualification. There will at all times be a Trustee hereunder that is a corporation organized and doing business in England and Wales or the United States of America that is authorized to exercise corporate trustee power; and that is a corporation which is generally recognized as a corporation which customarily performs such corporate trustee

roles and provides such corporate trustee services in transactions similar in nature to the offering of the Notes.

ARTICLE VIII

DISCHARGE OF INDENTURE; DEFEASANCE

Section 8.01. Discharge of Liability on Notes; Defeasance. (a) This Indenture will be discharged and cease to be of further effect (except as to surviving rights of conversion or transfer or exchange of the Notes, as expressly provided for in this Indenture) as to all outstanding Notes when (1) either (a) all the Notes previously authenticated and delivered (other than certain lost, stolen or destroyed Notes and certain Notes for which provision for payment was previously made and thereafter the funds have been released to the Issuers) have been delivered to the Paying Agent for cancellation; or (b) all Notes not previously delivered to the Paying Agent for cancellation (i) have become due and payable, (ii) will become due and payable at their Stated Maturity within one year or (iii) are to be called for redemption within one year under arrangements reasonably satisfactory to the Trustee for the giving of notice of redemption by the Trustee or Paying Agent in the name, and at the expense, of the Issuers; (2) the Issuers have deposited or caused to be deposited with the Trustee (or another entity designated by the Trustee for this purpose) U.S. dollars or U.S. dollar-denominated Government Obligations, or a combination thereof, as applicable, in an amount sufficient, without consideration of reinvestment, to pay and discharge the entire indebtedness on the Notes not previously delivered to the Paying Agent for cancellation, for principal, premium, if any, and interest to the date of deposit (in the case of Notes that have become due and payable), or to the Stated Maturity or redemption date, as the case may be; (3) the Issuers have paid or caused to be paid all other sums payable under this Indenture; (4) the Issuers have delivered irrevocable instructions to the Trustee to apply the funds deposited towards the payment of the Notes at maturity or on the redemption date, as the case may be; and (5) the Issuers have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel each to the effect that all conditions precedent under this Section 8.01 relating to the satisfaction and discharge of this Indenture have been complied with; *provided* that any such counsel may rely on any Officer's Certificate as to matters of fact (including as to compliance with clauses (1), (2) and (3) of this Section 8.01). If requested in writing by the Issuers, the Trustee or Paying Agent may distribute any amounts deposited to the Holders prior to maturity or the redemption date, as the case may be, subject to Euroclear or Clearstream's applicable procedures. In such case, the payment to each Holder will equal the amount such Holder would have been entitled to receive at maturity or the relevant redemption date, as the case may be. For the avoidance of doubt, the distribution and payment to Holders prior to the maturity or redemption date as set forth above will not include any negative interest, present value adjustment, break cost or any further premium on such amounts.

(b) Subject to Section 8.01(c) and Section 8.02, the Parent at any time may terminate (i) all obligations of the Issuers and the Guarantors under the Notes, the Note Guarantees and this Indenture ("*legal defeasance option*"), and thereafter any omission to comply with such obligations shall not constitute a Default or Event of Default with respect to the Notes or (ii) their obligations under Article IV (other than Section 4.14) and under Section 5.01 (other than Section 5.01(a)(i) and Section 5.01(a)(ii)), and thereafter any omission to comply with such obligations shall not constitute a Default or an Event of Default with respect to the Notes and the events set

forth in Section 6.01(d), Section 6.01(e) (other than with respect to Section 5.01(a)(i) and Section 5.01(a)(ii)), Section 6.01(f), Section 6.01(g) (other than with respect to the Issuers and Significant Subsidiaries) Section 6.01(h) (other than with respect to the Issuers), Section 6.01(i) and Section 6.01(j) shall not constitute Events of Default ("*covenant defeasance option*"). The Issuers at their option at any time may exercise its legal defeasance option notwithstanding their prior exercise of its covenant defeasance option.

If the Issuers exercise their legal defeasance option or their covenant defeasance option, each Guarantor will be released from all its obligations under its Guarantee.

Upon satisfaction of the conditions set forth herein and upon request of the Issuers, the Trustee shall acknowledge in writing the discharge of those obligations that the Issuers terminate.

(c) Notwithstanding Section 8.01(a) and Section 8.01(b) above, the Issuer's and the Guarantors' obligations in Section 2.07, Section 2.08, Section 2.09, Section 2.10, Section 2.11, Section 2.12, Section 2.13, Section 2.14, Section 7.01, Section 7.02, Section 7.03, Section 7.06, Section 7.07 and this Article VIII, as applicable, shall survive until the Notes have been paid in full. Thereafter, the Issuers' and any Guarantors' obligations in Section 7.06, Section 8.05 and Section 8.06, as applicable, shall survive.

Section 8.02. Conditions to Defeasance. (i) The Issuers may exercise their legal defeasance option or their covenant defeasance option only if:

A. the Issuers have irrevocably deposited in trust (the "*defeasance trust*") with the Trustee (or another entity designated by the Trustee for this purpose) cash in U.S. dollars or U.S. dollar-denominated Government Obligations or a combination thereof, as applicable in an amount sufficient, without consideration of reinvestment, for the payment of principal, premium, if any, and interest on the Notes to redemption or maturity, as the case may be;

B. an Opinion of Counsel in the United States to the effect that Holders of the relevant Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such deposit and defeasance and will be subject to U.S. federal income tax on the same amount and in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred (and in the case of legal defeasance only, such Opinion of Counsel in the United States must be based on a ruling of the U.S. Internal Revenue Service or other change in applicable U.S. federal income tax law);

C. an Officer's Certificate stating that the deposit was not made by the Issuers with the intent of defeating, hindering, delaying, defrauding or preferring any creditors of the Issuers;

D. an Officer's Certificate and an Opinion of Counsel (which opinion of counsel may be subject to customary assumptions and

exclusions), each stating that all conditions precedent provided for or relating to legal defeasance or covenant defeasance, as the case may be, have been complied with;

E. an Opinion of Counsel to the effect that the trust resulting from the deposit does not constitute, or is qualified as, a regulated investment company under the U.S. Investment Company Act of 1940; and

F. the Issuers delivers to the Trustee all other documents or other information that the Trustee may reasonably require in connection with either defeasance option.

(ii) Before or after a deposit, the Issuers may make arrangements satisfactory to the Trustee for the redemption of Notes at a future date in accordance with Article III.

Section 8.03. Deposited Money and U.S. dollar-denominated Government Obligations to be held in Trust. Subject to Section 8.04 hereof, all money and U.S. dollar- denominated Government Obligations (including the proceeds thereof) deposited with the Trustee (or such other entity designated or appointed as agent by the Trustee for this purpose, or other qualifying trustee, collectively for purposes of this Section 8.03, the "Trustee") pursuant to Section 8.01 hereof in respect of the outstanding Notes will be held in trust and applied by the Trustee, in accordance with the provisions of such Notes and this Indenture, to the payment, either directly or through any Paying Agent as the Trustee may determine, to the Holders of such Notes of all sums due and to become due thereon in respect of principal, premium, if any, and interest, but such money need not be segregated from other funds except to the extent required by law.

Section 8.04. Repayment to Issuer. The Trustee and the Paying Agent shall promptly turn over to the Issuers upon request any money or U.S. dollar-denominated Government Obligations held by it as provided in this Article VIII which, in the written opinion of an internationally recognized firm of independent public accountants delivered to the Trustee (which delivery shall only be required if U.S. dollar-denominated Government Obligations have been so deposited), are in excess of the amount thereof which would then be required to be deposited to effect an equivalent discharge or defeasance in accordance with this Article VIII.

Subject to any applicable abandoned property law, the Trustee shall pay to the Issuers upon written request any money held by them for the payment of principal or interest that remains unclaimed for two years, and, thereafter, Holders entitled to the money must look to the Issuers for payment as general creditors, and the Trustee and the Paying Agent shall have no further liability with respect to such monies.

Section 8.05. Indemnity for Government Obligations. The Issuers and the Guarantors, jointly and severally, shall pay and shall indemnify the Trustee against any tax, fee or other charge imposed on or assessed against deposited U.S. dollar-denominated Government Obligations or the principal and interest received on such U.S. dollar-denominated Government Obligations.

Section 8.06. Reinstatement. If the Trustee is unable to apply any money or U.S. dollar-denominated Government Obligations in accordance with this Article VIII by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, the Issuers' and the Guarantors' obligations under this Indenture and the Notes shall be revived and reinstated as though no deposit had occurred pursuant to this Article VIII until such time as the Trustee is permitted to apply all such money or U.S. dollar-denominated Government Obligations in accordance with this Article VIII; *provided*, *however*, that if the Issuers have made any payment of principal of or interest on any Notes because of the reinstatement of their obligations, the Issuers shall be subrogated to the rights of the Holders of such Notes to receive such payment from the money or U.S. dollar- denominated Government Obligations held by the Trustee.

ARTICLE IX

AMENDMENTS AND WAIVERS

Section 9.01. Without Consent of Holders. Without the consent of any Holder, the Issuers, the Trustee and the other parties thereto, as applicable, may amend or supplement any Notes Documents to:

A. cure any ambiguity, omission, mistake, defect, error or inconsistency;

B. provide for the assumption by a successor Person of the obligations of the Issuers or any other Restricted Subsidiary under any Notes Document;

C. add to the covenants or provide for a Note Guarantee for the benefit of the Holders or surrender any right or power conferred upon the Parent or any Restricted Subsidiary;

D. make any change that would provide additional rights or benefits to the Trustee or the Holders or that does not adversely affect the rights or benefits to the Trustee or any of the Holders in any material respect under the Notes Documents;

E. make such provisions as necessary (as determined in good faith by the Board of Directors or an Officer of the Parent) for the issuance of Additional Notes;

F. to provide for any Restricted Subsidiary to provide a Note Guarantee in accordance with Section 4.01 or Section 4.08, to add Note Guarantees with respect to the Notes, to add security to or for the benefit of the Notes, or to confirm and evidence the release, termination, discharge or retaking of any Guarantee or Lien (including the Collateral and the Security Documents) or any amendment in respect thereof with respect to the Notes when such release, termination, discharge or retaking or amendment is provided for under this Indenture, the Intercreditor Agreement, the ABL

Intercreditor Agreement any Additional Intercreditor Agreement, or the Security Documents;

G. [reserved]; or

H. to evidence and provide for the acceptance and appointment under this Indenture, the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement of a successor Trustee pursuant to the requirements thereof or to provide for the accession by the Trustee or the Security Agent to any Notes Document;

Section 9.02. With Consent of Holders. The Issuers and the Trustee may amend, supplement or otherwise modify the Notes Documents with the consent of Holders of at least a majority in principal amount of the Notes then outstanding (including consents obtained in connection with a purchase of, or tender offer or exchange offer for, Notes) and, except as otherwise stated herein, any default or compliance with any provisions thereof may be waived with the consent of the Holders of at least a majority in principal amount of the Notes then outstanding (including consents obtained in connection with a purchase of, or tender offer or exchange offer for, Notes). However, without the consent of each Holder of an outstanding Note affected, an amendment or waiver may not:

A. reduce the percentage of principal amount of Notes whose Holders must consent to an amendment, waiver or modification;

B. reduce the stated rate of or extend the stated time for payment of interest on any Note;

C. reduce the principal of or extend the Stated Maturity of any Note;

D. reduce the premium payable upon the redemption of any Note or change the time at which any Note may be redeemed, in each case as described in Section 5 of the Notes;

E. make any Note payable in money other than that stated in the Note;

F. impair the right to institute suit for the enforcement of any Holder to receive payment of principal of and interest or Additional Amounts, if any, on such Holder's Notes on or after the due dates therefor or to institute suit for the enforcement of any such payment on or with respect to such Holder's Notes;

G. make any change to Section 4.13 that adversely affects the right of any Holder of such Notes in any material respect or amends the terms of such Notes in a way that would result in a loss of an exemption from any of the Taxes described thereunder or an exemption from any obligation to withhold or deduct Taxes so described thereunder unless the

Parent or the applicable Payor agrees to pay Additional Amounts, if any, in respect thereof;

H. release any security interests granted for the benefit of the Holders of Notes other than in accordance with the terms of this Indenture, the Intercreditor Agreement, the ABL Intercreditor Agreement, any Additional Intercreditor Agreement, or the applicable Security Documents, or make any change to the form ABL Intercreditor Agreement attached to this Indenture as Exhibit C prior to its effective date that adversely effects of right of any Holder of such Notes thereunder in any material respect;

I. waive a Default or Event of Default with respect to the nonpayment of principal, premium or interest or Additional Amounts, if any, on the Notes (except pursuant to a rescission of acceleration of the Notes by the Holders of at least a majority in aggregate principal amount of such Notes and a waiver of the payment default that resulted from such acceleration);

J. release any Guarantor from any of its obligations under its Guarantee or this Indenture, except in accordance with the terms of this Indenture, the Intercreditor Agreement and the ABL Intercreditor Agreement; or

K. make any change in the amendment or waiver provisions which require the Holders' consent described in this sentence.

In respect of such matters described in Section 9.01 and this Section 9.02, the Trustee shall be entitled to require and rely absolutely on such evidence as it deems necessary, including Officer's Certificates and Opinions of Counsel.

For the avoidance of doubt, no amendment to or deletion of, or actions taken in compliance with, the covenants contained in this Indenture shall be deemed to impair or affect any rights of Holders of the Notes to receive payment of principal of, or premium, if any, or interest, on the Notes.

For so long as the Notes are listed on the Global Exchange Market of Euronext Dublin and the rules of such exchange so require, the Parent will publish notice of any amendment, supplement and waiver in a daily newspaper with general circulation in Ireland (which is expected to be *The Irish Times*). Such notice of any amendment, supplement and waiver may also be published on the website of Euronext Dublin (www.euronext.com/en/markets/dublin) in lieu of a daily newspaper to the extent and in the manner permitted by the rules of such exchange.

It shall not be necessary for the consent of the Holders under this Section 9.02 to approve the particular form of any proposed amendment of the Notes Documents, but it shall be sufficient if such consent approves the substance thereof. A consent to any amendment or waiver under this Indenture by any Holder of Notes given in connection with a tender of such Holder's Notes will not be rendered invalid by such tender.

After an amendment under this Section 9.02 becomes effective, in case of Holders of Definitive Notes, the Issuers shall mail or deliver to the Holders a notice briefly describing such amendment. The failure to give such notice to all Holders, or any defect therein, shall not impair or affect the validity of an amendment under this Section 9.02.

Except as set forth in this Section 9.02, the Notes issued on the Issue Date and any Additional Notes part of the same series will be treated as a single class for all purposes under this Indenture, including with respect to waivers and amendments. For the purposes of calculating the aggregate principal amount of Notes that have consented to or voted in favor of any amendment, waiver, consent, modifications or other similar action, the Issuers (acting reasonably and in good faith) shall be entitled to select a record date as of which the Dollar Equivalent of the principal amount of any Notes shall be calculated in such consent or voting process.

Section 9.03. Revocation and Effect of Consents and Waivers.

(i) A written consent to an amendment or a waiver by a Holder shall bind the Holder and every subsequent Holder of that Note or portion of the Notes that evidences the same debt as the consenting Holder's Note, even if notation of the consent or waiver is not made on the Note. However, any such Holder or subsequent Holder may revoke the written consent or waiver as to such Holder's Note or portion of the Note if the Trustee receives the notice of revocation before the date on which the Trustee receives an Officer's Certificate from the Issuers certifying that the requisite number of consents have been received. After an amendment or waiver becomes effective, it shall bind every Holder. An amendment or waiver becomes effective upon the (a) receipt by the Issuers or the Trustee of the requisite number of consents, (b) satisfaction of conditions to effectiveness as set forth in this Indenture and any indenture supplemental hereto containing such amendment or waiver and (c) in the case of an amendment, execution of such amendment (or supplemental indenture) by the Issuers and the Trustee.

(ii) The Issuers may, but shall not be obligated to, fix a record date for the purpose of determining the Holders entitled to give their written consent or take any other action described above or required or permitted to be taken pursuant to this Indenture. If a record date is fixed, then notwithstanding Section 9.03(i), those Persons who were Holders at such record date (or their duly designated proxies), and only those Persons, shall be entitled to give such consent or to revoke any consent previously given or to take any such action, whether or not such Persons continue to be Holders after such record date. No such consent shall be valid or effective for more than 120 days after such record date.

Section 9.04. Notation on or Exchange of Notes. If an amendment changes the terms of a Note, the Trustee may require the Holder of the Note to deliver it to the Trustee. The Trustee may place an appropriate notation on the Note regarding the changed terms and return it to the Holder. Alternatively, if the Issuers or the Trustee so determine, the Issuers in exchange for the Note shall issue and the Trustee or an Authenticating Agent shall authenticate a new Note that

reflects the changed terms. Failure to make the appropriate notation or to issue a new Note shall not affect the validity of such amendment.

Section 9.05. Trustee and Security Agent to Sign Amendments. The Trustee and the and Security Agent shall sign any amendment or supplement authorized pursuant to this Article IX if the amendment or supplement does not impose any personal obligations on the Trustee or the Security Agent or adversely affect the rights, duties, liabilities or immunities of the Trustee or the Security Agent under this Indenture, as applicable. If it does, the Trustee and the Security Agent may, but need not, sign it. In signing such amendment or supplement the Trustee and the Security Agent shall be entitled to receive an indemnity or security satisfactory to it and to receive, and (subject to Section 7.01) shall be fully protected in relying upon, an Officer's Certificate and an Opinion of Counsel stating that such amendment or supplement complies with this Indenture, the other Notes Documents and that such amendment or supplement has been duly authorized, executed and delivered and is the legally valid and binding obligation of the Issuers and the Guarantors enforceable against them in accordance with its terms, subject to customary exceptions.

ARTICLE X

NOTE GUARANTEES

Section 10.01. Note Guarantees.

(i) Subject to this Article X, the Intercreditor Agreement and the ABL Intercreditor Agreement, each Guarantor, as primary obligor and not merely as a surety, jointly and severally, unconditionally, on a senior basis and subject to any limitations set out in any supplemental indenture, guarantees to each Holder of a Note authenticated and delivered by the Trustee (or the Authenticating Agent), to the Trustee and its successors and assigns, irrespective of the validity and enforceability of this Indenture, the Notes or the obligations of the Issuers hereunder or thereunder, that:

A. the principal of, Additional Amounts and premium, if any, and interest on, the Notes will be promptly paid in full when due, whether at maturity, by acceleration, redemption or otherwise, and interest on the overdue principal of and interest, Additional Amounts and premium, if any, on the Notes (to the extent permitted by law) and all other obligations of the Issuers to the Holders or the Trustee hereunder or thereunder will be promptly paid in full or performed, all in accordance with the terms hereof and thereof; and

B. in case of any extension of time of payment or renewal of any Notes or any of such other obligations, that same will be promptly paid in full when due or performed in accordance with the terms of the extension or renewal, whether at stated maturity, by acceleration or otherwise.

Failing payment when due of any amount so guaranteed or any performance so guaranteed for whatever reason, the Guarantors will be jointly and severally obligated to pay the same

immediately. Each Guarantor agrees that this is a guarantee of payment and not a guarantee of collection.

(ii) To the extent permitted by the applicable law and subject to the Intercreditor Agreement and the ABL Intercreditor Agreement, each Guarantor hereby agrees that its obligations hereunder are unconditional, irrespective of the validity, regularity or enforceability of the Notes or this Indenture, the absence of any action or any delay or omission to assert any claim or to demand or enforce any remedy hereunder or thereunder, any waiver, surrender, release or consent by any Holder of the Notes with respect to any provisions hereof or thereof, the recovery of any judgment against the Issuers, any action to enforce the same or any other circumstance which might otherwise constitute a legal or equitable discharge or defense of a guarantor. Each Guarantor hereby waives diligence, presentment, demand of payment, filing of claims with a court in the event of insolvency or bankruptcy of the Issuers, any right to require a proceeding first against the Issuers, protest, notice and all demands whatsoever including, with respect to any Spanish Guarantor, any right of prior prosecution, order or division (*beneficios de excusión, orden y división*) to which it may be entitled under article 1,830 et seq. of the Spanish Civil Code, and covenant that this Note Guarantee will not be discharged except by complete performance of the obligations contained in the Notes and this Indenture. For the purposes of Article 399.2, 627 and 686.2 of the Spanish Insolvency Act, each Spanish Guarantor shall remain bound by this Note Guarantee in the event that the Issuer reaches an arrangement with its creditors in the course of insolvency proceedings or similar. In particular, no Spanish Guarantor may benefit from potential privileges with regard to the Note Guarantee (such as partial release of debt, stays or others) that have been provided for in the arrangement the Issuer may have reached with its creditors (even if any or all of the Holders of the Notes have voted in favour of the approval of the arrangement) and the Note Guarantee shall therefore continue on the same terms and in full force and effect with respect to the Secured Obligations. In the event of insolvency of the Spanish Guarantor, the Holders of the Notes shall also be entitled to request the inclusion on the list of creditors of the then outstanding unpaid amounts following the enforcement of the Note Guarantee.

(iii) If any Holder or the Trustee is required by any court or otherwise to return to or for the benefit of the Issuers, the Guarantors or any custodian, trustee, liquidator or other similar official acting in relation to either the Issuers or the Guarantors, any amount paid by either the Issuers or the Guarantors to the Trustee or such Holder, this Note Guarantee, to the extent theretofore discharged, will be reinstated in full force and effect.

(iv) Each Guarantor agrees that it will not be entitled to any right of subrogation in relation to the Holders in respect of any obligations guaranteed hereby until payment in full of all obligations guaranteed hereby. Each Guarantor further agrees that, as between the Guarantors, on the one hand, and the Holders and the Trustee, on the other hand,

A. the maturity of the obligations guaranteed hereby may be accelerated as provided in Article VI hereof for the purposes of this Note Guarantee, notwithstanding any stay, injunction or other prohibition preventing such acceleration in respect of the obligations guaranteed hereby, and

B. in the event of any declaration of acceleration of such obligations as provided in Article VI, such obligations (whether or not due and payable) will forthwith become due and payable by the Guarantors for the purpose of this Note Guarantee. The Guarantors will have the right to seek contribution from any non-paying Guarantor so long as the exercise of such right does not impair the rights of the Holders under the Note Guarantee.

(v) Each Guarantor also agrees to pay any and all costs and expenses (including properly incurred attorneys' fees, disbursements and expenses as well as notarial fees relating to any Spanish Public Document or registration fees) incurred by the Trustee in enforcing any rights under this Section.

(vi) Each Spanish Guarantor acknowledges that the amounts due and payable by the Issuer under the Notes or this Indenture shall constitute liquid, due and payable amounts of such Spanish Guarantor (*deudas líquidas, vencidas y exigibles*).

Section 10.02. Successors and Assigns. This Article X shall be binding upon each Guarantor and its successors and assigns and shall inure to the benefit of the successors and assigns of the Trustee and the Holders and, in the event of any transfer or assignment of rights by any Holder or the Trustee, the rights and privileges conferred upon that party in this Indenture and in the Notes shall automatically extend to and be vested in such transferee or assignee, all subject to the terms and conditions of this Indenture.

Each party to this Indenture hereby agrees and undertakes to execute and deliver all such documents and do all such acts and things which are legally required to fully and effectively give effect to this Section 10.02.

Section 10.03. No Waiver. Neither a failure nor a delay on the part of the Trustee or the Holders in exercising any right, power or privilege under this Article X shall operate as a waiver thereof, nor shall a single or partial exercise thereof preclude any other or further exercise of any right, power or privilege. The rights, remedies and benefits of the Trustee and the Holders herein expressly specified are cumulative and not exclusive of any other rights, remedies or benefits which either may have under this Article X at law, in equity, by statute or otherwise.

Section 10.04. Modification. No modification, amendment or waiver of any provision of this Article X, nor the consent to any departure by any Guarantor therefrom, shall in any event be effective unless the same shall be in writing and signed by the Trustee, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which

given. No notice to or demand on any Guarantor in any case shall entitle such Guarantor to any other or further notice or demand in the same, similar or other circumstances.

Section 10.05. Execution of Supplemental Indenture for Guarantors. Each Subsidiary which is required to become a Guarantor pursuant to this Indenture shall promptly execute and deliver to the Trustee a supplemental indenture in the form attached to this Indenture as Exhibit B pursuant to which such Subsidiary shall become a Guarantor under this Article X. Concurrently with the execution and delivery of such supplemental indenture, the Issuers shall deliver to the Trustee an Opinion of Counsel and an Officer's Certificate in each case, prepared in accordance with Section 12.02. The obligations of a Guarantor executing and delivering a supplemental indenture to this Indenture providing for a Note Guarantee of the Notes under this Article X shall be subject to such limitations as are mandated under applicable laws in addition to the limitations set forth in Section 10.07 and set out in the relevant supplemental indenture.

Section 10.06. Release of the Note Guarantees. (a) The Note Guarantee of a Guarantor will terminate and release:

(1) upon a sale or other disposition (including by way of consolidation or merger) of the Capital Stock of the relevant Guarantor (whether by direct sale or sale of a holding company) or the sale or disposition of all or substantially all the assets of the Guarantor (other than to the Parent or a Restricted Subsidiary) otherwise permitted by this Indenture;

(2) in accordance with the provisions of the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement;

(3) upon defeasance or discharge of the Notes, as provided in Article VIII;

(4) as described under Article IX;

(5) as described under Section 4.08(b);

(6) as a result of a transaction permitted by Section 5.01(b); or

(7) [Reserved].

Upon the request of the Parent, the Trustee shall take all necessary actions to effectuate any release of a Note Guarantee in accordance with these provisions, subject to customary protections and indemnifications. Each of the releases set forth above shall be effected by the Trustee without the consent of the Holders or any other action or consent on the part of the Trustee.

Section 10.07. Limitations on Obligations of Guarantors.

Any term or provision of this Indenture to the contrary notwithstanding, the maximum aggregate amount of the obligations guaranteed hereunder by any Guarantor shall not exceed the maximum amount that can be hereby guaranteed by the applicable Guarantor without rendering the Note Guarantee, as it relates to such Guarantor, voidable under applicable laws

relating to fraudulent conveyance, fraudulent transfer, improper corporate benefit, financial assistance or similar laws affecting the rights of creditors generally; *provided* that, with respect to each relevant jurisdiction, such obligations shall be limited in the manner described in any supplemental indenture.

Section 10.08. Local Law Limitations.

(a) Limitations on Liability of French Guarantors.

(1) In the case of any Guarantor incorporated under the laws of France (a "*French Guarantor*") its obligations under this Indenture shall apply only insofar as required to:

(A) guarantee the payment obligations under this Indenture and the Notes of its direct or indirect Subsidiaries which are or become Guarantors from time to time under this Indenture and incurred by those Subsidiaries in their capacity as Guarantor (without double counting) *provided* that where such Subsidiary itself guarantees the obligations of the Parent or any of its Restricted Subsidiaries which is not a direct or indirect Subsidiary of the relevant French Guarantor, the amounts payable under this Section 10.08(a)(1)(A) in respect of the obligations of this Subsidiary as a Guarantor, shall be limited as set out in Section 10.08(a)(1)(B) below; and

(B) guarantee the payment obligations of (i) the Issuers or (ii) other Guarantors which are not direct or indirect Subsidiaries of that French Guarantor, provided that in such cases such guarantee shall be limited: (x) to the payment obligations of (i) the Issuers under this Indenture and the Notes or (ii) such other Guarantors under this Indenture but in each case (y) not exceeding an amount equal to the aggregate of all amounts made available (directly or indirectly) to the Issuers or such other Guarantors under this Indenture and the Notes/and received out of the proceeds of the Notes and on-lent (directly or indirectly by way of intercompany loans) to that French Guarantor and outstanding at the time a call is made under its Guarantee (the "*French Maximum Guaranteed Amount*"); it being specified that any payment made by such French Guarantor under this Indenture in respect of the obligations of any Issuer or any other Guarantor shall reduce *pro tanto* the outstanding amount of the intercompany loans (if any) due by such French Guarantor under the relevant intercompany loan arrangements referred to above.

(2) For the avoidance of doubt, any payment made by a French Guarantor under Section 10.08(a)(1)(B) pursuant to the guarantees granted under this Indenture shall reduce *pro tanto* the French Maximum Guaranteed Amount.

(3) Notwithstanding any other provision of this Indenture, no French Guarantor shall secure liabilities under this Indenture and the Notes which would result in such French Guarantor not complying with French financial assistance rules as set out in Article L. 225-216 of the French Commercial Code (*Code de commerce*) or would constitute a misuse of corporate assets within the meaning of article L. 241-3, L. 242-6 or L. 244-1 of the French Commercial Code (*Code de commerce*) or any other applicable law or regulations having the same effect, as interpreted by French courts.

(4) It is acknowledged that no French Guarantor is acting jointly and severally with the Issuers or other Guarantors as to its obligations arising under or in connection with this Indenture.

(5) Notwithstanding any other provision of this Indenture, (i) the representations, undertakings and warranties made in this Indenture by any French Guarantor (or by the Issuers) shall be made, in each case, in respect of itself and its Subsidiaries only and for the avoidance of any doubt will not apply in relation to matters pertaining exclusively to its shareholders or its holding companies; and (ii) the indemnities granted in this Indenture by each French Guarantor shall be, in each case, in respect of its own breach or that of (i) the Issuers (if the Issuers are a direct or indirect Subsidiary of that French Guarantor) or (ii) its Subsidiaries which are French Guarantors.

(b) Limitations on Liability of Spanish Guarantors. Any obligations or liabilities incurred or assumed under this Indenture by any Spanish Guarantor shall (i) not include any obligations or liabilities which, if incurred, would constitute a breach of the financial assistance limitations set out under Articles 143 and 150 of Spanish Royal Legislative Decree 1/2010, of 2 July, approving the consolidated text of the Spanish Capital Companies Act, as interpreted by Spanish courts, and (ii) with respect to Spanish Guarantors which are private limited liability companies (*sociedad limitada*), not exceed an amount equal to twice the amount of their respective own funds (*recursos propios*), but only to the extent that such limitation provided under Article 401.2 of the Spanish Royal Legislative Decree 1/2010, of 2 July, approving the consolidated text of the Spanish Capital Companies Act, as interpreted by Spanish courts, is compulsorily applicable to the obligations assumed by such Spanish Guarantors under this Indenture.

(c) Limitations on Liability of Norwegian Guarantors. Notwithstanding the other provisions of this Indenture, the obligations and liabilities of any Guarantor incorporated in Norway (each, a "*Norwegian Guarantor*") under this Indenture shall be deemed to have been given only to the extent such obligations and liabilities do not violate the mandatory provisions of the Norwegian Private Limited Companies Act of 13 June 1997 no. 44 (the "*Norwegian Companies Act*"), including Sections 8-7 and 8-10, regulating unlawful financial assistance and other prohibited loans, guarantees and joint and several liability as well as providing of security, and the liability of each Norwegian Guarantor shall only apply to the fullest extent permitted by such provisions of the Norwegian Companies Act. The liabilities of any Norwegian Guarantor is limited to the maximum principal amount of amount equaling $500 million of the aggregate principal amount of Notes issued pursuant to this Indenture, plus any unpaid amounts of interest, default interest, breaking costs, fees, commissions, costs, expenses and other derived liabilities under this

Indenture. The limitations in this Section 10.08(c) shall apply *mutatis mutandis* to any Security Document to which a Norwegian Guarantor is party.

Section 10.09. Non-Impairment.

The failure to endorse a Note Guarantee on any Note shall not affect or impair the validity thereof.

ARTICLE XI

COLLATERAL AND SECURITY

Section 11.01. Security Documents.

(a) The due and punctual payment of the principal of, premium on, if any, interest and Additional Amounts, if any, on, the Notes and the Guarantees when and as the same shall be due and payable, whether on an interest payment date, at maturity, by acceleration, repurchase, redemption or otherwise, and interest on the overdue principal of, premium on, if any, interest and Additional Amounts, if any (to the extent permitted by law), on the Notes, the Guarantees and performance of all other obligations of the Issuers and the Guarantors to the Holders or the Trustee and the Security Agent under this Indenture, the Notes and the Guarantees according to the terms hereunder or thereunder, are secured as provided in the Intercreditor Agreement, the ABL Intercreditor Agreement, any Additional Intercreditor Agreement and the Security Documents. Each Holder, by its acceptance of a Note: (i) consents and agrees to the terms of the Intercreditor Agreement, the ABL Intercreditor Agreement, any Additional Intercreditor Agreement and the Security Documents (including, without limitation, the provisions providing for foreclosure and release of Liens and authorizing the Security Agent to enter into any Security Document on its behalf) as the same may be in effect or may be amended from time to time in accordance with its terms and (ii) authorizes and directs the Security Agent to enter into the Security Documents and to perform its obligations and exercise its rights thereunder in accordance therewith. The Issuers will deliver to the Trustee copies of all documents delivered to the Security Agent pursuant to the Security Documents, and, subject to the Agreed Security Principles, the Issuers and the Guarantors will, and the Issuers will cause each of its Restricted Subsidiaries to, do or cause to be done all such acts and things as may be necessary or proper, or as may be required by the provisions of the Security Documents, to assure and confirm to the Trustee that the Security Agent holds, for the benefit of the Trustee and the Holders, duly created, enforceable and perfected Liens as contemplated hereby and by the Security Documents, so as to render the same available for the security and benefit of this Indenture and of the Notes and the Guarantees secured thereby, according to the intent and purposes herein expressed. Subject to the Agreed Security Principles, the Intercreditor Agreement and the ABL Intercreditor Agreement, the Issuers and the Guarantors will take, upon request of the Trustee, any and all actions reasonably required to cause the Security Documents to create and maintain, as security for the obligations of the Issuers under the Notes, a valid and enforceable Lien (i) on the Collateral held by the ABL Guarantors in accordance with the relative priorities set forth in the ABL Intercreditor Agreement and the Intercreditor Agreement and (ii) on the Collateral held by the Guarantors other than the ABL Guarantors in accordance with the relative priorities set forth in the Intercreditor Agreement.

(b) Without prejudice to the provisions of the Intercreditor Agreement or the ABL Intercreditor Agreement, each of the Issuers, the Trustee and the Holders agree that the Security Agent shall be the joint creditor (together with the Holders) of each and every obligation of the parties hereto under the Notes and this Indenture, and that accordingly the Security Agent will have its own independent right to demand performance by the Issuers of those obligations, except that such demand shall only be made with the prior written consent of the Trustee or as otherwise permitted under the Intercreditor Agreement or the ABL Intercreditor Agreement. However, any discharge of such obligation to the Security Agent, on the one hand, or to the Trustee or the Holders, as applicable, on the other hand, shall, to the same extent, discharge the corresponding obligation owing to the other.

(c) Each Holder, by accepting a Note, shall be deemed (i) to have authorized the Security Agent to enter into the Security Documents, the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement entered into in compliance with Section 4.11 and (ii) to be bound thereby. Each Holder, by accepting a Note, appoints the Security Agent as its trustee under the Security Documents and authorizes it to act on such Holder's behalf. The Trustee hereby acknowledges that the Security Agent is authorized to act under the Security Documents on behalf of the Trustee, with the full authority and powers of the Trustee thereunder, in accordance with the Intercreditor Agreement and the ABL Intercreditor Agreement. The Security Agent is hereby authorized to exercise such rights, powers and discretions as are specifically delegated to it by the terms of the Security Documents, including the power to enter into the Security Documents, as trustee on behalf of the Holders and the Trustee, in accordance with the Intercreditor Agreement and the ABL Intercreditor Agreement, together with all rights, powers and discretions as are reasonably incidental thereto or necessary to give effect to the trusts created thereunder. The Security Agent shall however at all times be entitled to seek directions from the Trustee and shall be obligated to follow those directions if given (but the Trustee shall not be obligated to give such directions unless directed in accordance with this Indenture).

(d) Neither the Trustee nor the Security Agent nor any of their respective officers, directors, employees, attorneys or agents will be responsible or liable for the existence, genuineness, value or protection of any property securing the Notes, for the legality, enforceability, effectiveness or sufficiency of the Security Documents, for the creation, perfection, priority, sufficiency or protection of any Lien, or for any defect or deficiency as to any such matters, or for any failure to demand, collect, foreclose or realize upon or otherwise enforce any of the Liens or Security Documents or any delay in doing so.

Section 11.02. Release of Collateral.

Notwithstanding the Security Documents, upon receipt by the Security Agent of a certificate from the Issuers that complies with Section 11.05, and subject to the terms of the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement, the Security Agent is authorized to release the relevant Collateral.

Section 11.03. Authorization of Actions to Be Taken by the Trustee Under the Security Documents.

Subject to the provisions of Section 7.01 and Section 7.02 hereof and the terms of the Intercreditor Agreement, the ABL Intercreditor Agreement and the Security Documents, the Trustee may, in its sole discretion and without the consent of the Holders:

(A) direct, on behalf of the Holders, the Security Agent to take all actions it deems necessary or appropriate in order to:

(1) enforce any of the terms of the Security Documents or the Intercreditor Agreement; and

(2) collect and receive any and all amounts payable in respect of the obligations of an Issuer or any Guarantor hereunder; and

(B) take all actions it deems necessary or appropriate in order to collect and receive any and all amounts payable in respect of the obligations of the Issuers hereunder.

Subject to the provisions hereof, the Security Documents, the Intercreditor Agreement and the ABL Intercreditor Agreement, the Trustee will have power to institute and maintain, or direct the Security Agent to institute and maintain, such suits and proceedings as it may deem expedient to prevent any impairment of the Liens over the Collateral by any acts that may be unlawful or in violation of the Security Documents, the Intercreditor Agreement, the ABL Intercreditor Agreement or this Indenture, and such suits and proceedings as the Trustee may deem expedient to preserve or protect its interests and the interests of the Holders in the Collateral (including power to institute and maintain suits or proceedings to restrain the enforcement of or compliance with any legislative or other governmental enactment, rule or order that may be unconstitutional or otherwise invalid if the enforcement of, or compliance with, such enactment, rule or order would impair such Liens or be prejudicial to the interests of the Holders or of the Trustee).

Section 11.04. Authorization of Receipt of Funds by the Trustee Under the Security Documents

The Trustee and/or the Security Agent is authorized to receive any funds for the benefit of the Holders distributed under the Security Documents and to make further distributions of such funds to the Holders according to the provisions of this Indenture, the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement.

Section 11.05. Termination of Security Interest; Activity with Respect to Collateral.

(a) Subject to the terms of the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement, the Security Agent shall, at the written request of the Issuers, release the relevant Collateral or execute such other appropriate instrument evidencing such release (in the form provided by, reasonably acceptable to the Trustee, and at the expense of the Issuers) under one or more of the following circumstances:

(1) upon payment in full of principal, interest and all other obligations under the Notes and this Indenture or the legal defeasance, covenant defeasance or satisfaction and discharge of this Indenture as provided for in Article VIII;

(2) in the case of a Guarantor that is released from its Guarantee pursuant to the terms of this Indenture, the release of property and assets, and Capital Stock, of such Guarantor;

(3) in connection with any sale or other disposition of Collateral, directly or indirectly, to (a) any Person other than the Parent, an Issuer or any other Restricted Subsidiaries (but excluding any transaction subject to Article V) if such sale or other disposition does not violate Section 4.05 and is otherwise not prohibited by this Indenture or (b) an Issuer or any other Restricted Subsidiary in a manner consistent with the Intercreditor Agreement and the ABL Intercreditor Agreement, *provided* that, any Replacement Asset received as consideration for such sale or disposition of Collateral in accordance with this clause (3) or acquired with the proceeds of such Collateral shall secure the Notes to the extent and so long as the provision of such Replacement Asset as Collateral is not reasonably expected to result in (i) any violation of any applicable law or regulation, (ii) any liability of officers, directors or shareholders, (iii) any cost, expense, liability or obligation (including with respect to taxes) other than reasonable out-of- pocket expenses incurred in connection with any governmental or regulatory filings or (iv) inconsistency with the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement;

(4) as provided for under Article IX;

(5) automatically without any action by the Trustee, as described in Section 4.03(b);

(6) as otherwise provided in the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement;

(7) in order to effectuate a merger, consolidation, conveyance or transfer conducted in compliance with Article V;

(8) with respect to assets held by or the Capital Stock of any Restricted Subsidiary, in connection with a solvent liquidation of such Restricted Subsidiary, pursuant to which substantially all of the assets of such Restricted Subsidiary remain owned by an Issuer or a Guarantor; *provided* that, immediately following such solvent liquidation, a Lien of at least equivalent ranking over the same assets exists or is granted in favor of the Security Agent (on its own behalf and on behalf of the Trustee for the Holders);

(9) if on any date following the Issue Date, the Notes have achieved Investment Grade Status and no Default or Event of Default has occurred and is continuing; and

(10) as otherwise permitted in accordance with this Indenture, including pursuant to Section 4.15.

The Security Agent and the Trustee (but only if required in order to effect such release) will, subject to customary protections and/or indemnifications, take all necessary action reasonably requested by, and at the cost of, the Issuers to effectuate any release of Collateral securing the Notes and the Notes Guarantees, in accordance with this Indenture, the Intercreditor Agreement, the ABL Intercreditor Agreement or any Additional Intercreditor Agreement and the relevant Security Document. Each of these releases set forth above shall be effected by the Security Agent and, to the extent required or necessary, the Trustee, without the consent of the holders of the Notes. The Security Agent and the Trustee shall be entitled to request and rely solely upon an Officer's Certificate and an Opinion of Counsel, each certifying which circumstances give rise to the release of Collateral and that such release complies with this Indenture.

Section 11.06. Security Agent.

(a) The Security Documents and the Collateral will be administered by the Security Agent, in each case pursuant to the Intercreditor Agreement and the ABL Intercreditor Agreement for the benefit of all holders of secured obligations.

(b) Any resignation or replacement of the Security Agent shall be made in accordance with the terms of the Intercreditor Agreement and the ABL Intercreditor Agreement.

ARTICLE XII

MISCELLANEOUS

Section 12.01. Notices. Any notice or communication shall be in writing, in the English language, and delivered in person or mailed by first-class mail addressed as follows:

if to the Parent or an Issuer:

Ferroglobe PLC
5 Fleet Place,
London EC4M 7RD,
United Kingdom
Attention: Thomas Wiesner

with copy to:

Milbank LLP
10 Gresham Street
London EC2V 7JD
United Kingdom
Attention: Tim Peterson

if to the Trustee

GLAS Trustees Limited
45 Ludgate Hill
London EC4M 7JU

United Kingdom
Email: TES@GLAS.AGENCY
Attention: Trustee & Escrow Services

if to the Paying Agent
Global Loan Agency Services Limited
45 Ludgate Hill
London EC4M 7JU
United Kingdom
Email : tes@glas.agency
Attention: Ferroglobe

if to the Registrar and Transfer Agent
GLAS Americas LLC
230 Park Avenue, 10th Floor
New York, New York 10169
United States of America
Telephone: +1 212 808 3050
Facsimile: +1 212 202 6246
Attention: Transaction Management
Email: Client Services Americas clientservices.americas@glas.agency

if to the Security Agent
GLAS Trust Corporation Limited
45 Ludgate Hill
London EC4M 7JU
United Kingdom
Email: TES@GLAS.AGENCY
Attention: Trustee & Escrow Services

The Issuers or the Trustee by notice to the other may designate additional or different addresses for subsequent notices or communications.

Any notice or communication sent to a Holder of Definitive Registered Notes shall be in writing and shall be made by first-class mail, postage prepaid, or by hand delivery to the Holder at the Holder's address as it appears on the registration books of the Registrar, with a copy to the Trustee.

For so long as any of the Notes are listed on the Global Exchange Market of Euronext Dublin and the rules thereof so require, notices of the Issuers with respect to the Notes will be published in a daily newspaper with general circulation in Ireland (which is expected to be *The Irish Times*) or if, in the opinion of the Issuers such publication is not practicable, in an English language newspaper having general circulation in Europe. Notices may also be published on the website of Euronext Dublin (*www.euronext.com/en/markets/dublin*) in lieu of publication in a daily newspaper so long as the rules of such exchange are complied with.

If and so long as any Notes are represented by one or more Global Notes and ownership of book-entry interests therein are shown on the records of Euroclear or Clearstream or any successor securities clearing agency appointed at the request of the Issuers, notices will be delivered in accordance with the applicable procedures of Euroclear or Clearstream or such successor clearing agency to such securities clearing agency for communication to the owners of such book-entry interests and such notices shall be deemed to have been given on the date delivered to such securities clearing agency.

Notices given by first-class mail, postage prepaid, will be deemed given five calendar days after mailing. Notices given by publication will be deemed to have been given on the date of such publication or, if published more than once on different dates, on the first date on which publication is made; *provided* that, if notices are mailed, such notice shall be deemed to have been given on the later of such publication and the seventh day after being so mailed. Any notice or communication mailed to a Holder shall be mailed to such Person by first-class mail or other equivalent means and shall be sufficiently given to such Holder if so mailed within the time prescribed. Failure to mail a notice or communication to a Holder or any defect in it shall not affect its sufficiency with respect to other Holders. If a notice or communication is mailed in the manner provided above, it is duly given, whether or not the addressee receives it.

Any notices provided by the Issuers to the Trustee or to an Agent shall be in the English language or a certified translation.

Section 12.02. Certificate and Opinion as to Conditions Precedent. Upon any request or application by the Issuers to the Trustee to take or refrain from taking any action under this Indenture, the Issuers shall furnish to the Trustee:

(i) an Officer's Certificate in form and substance reasonably satisfactory to the Trustee (which must include the statements set forth in Section 12.03 hereof) stating that, in the opinion of the signers, all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and any other matters that the Trustee may reasonably request; and

(ii) if requested by the Trustee, an Opinion of Counsel in form and substance reasonably satisfactory to the Trustee (which must include the statements set forth in Section 12.03 hereof) stating that, in the opinion of such counsel, all such conditions precedent have been complied with and any other matters that the Trustee may reasonably request.

Section 12.03. Statements Required in Certificate or Opinion. Each certificate or opinion with respect to compliance with a covenant or condition provided for in this Indenture shall include:

(i) a statement that the Person making such certificate or opinion has read such covenant or condition;

(ii) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(iii) a statement that, in the opinion of such Person, such Person has made such examination or investigation as is necessary to enable that Person to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(iv) a statement as to whether or not, in the opinion of such Person, such covenant or condition has been complied with.

Section 12.04. When Notes are to be Disregarded. In determining whether the Holders of the required principal amount of the Notes have concurred in any direction, waiver or consent, the Notes owned by the Issuers or by any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuers will be disregarded and deemed not to be outstanding, except that, for the purpose of determining whether the Trustee shall be protected in relying on any such direction, waiver or consent, only Notes so owned about which a Responsible Officer of the Trustee has been notified in accordance with this Indenture shall be so disregarded. Subject to the foregoing, only Notes outstanding at the time shall be considered in any such determination.

Section 12.05. Rules by Trustee, Paying Agent and Registrar. The Trustee may make reasonable rules for action by or a meeting of Holders. The Registrar and the Paying Agent may make reasonable rules for their functions.

Section 12.06. Legal Holidays. If a payment date is not a Business Day, payment shall be made on the next succeeding day that is a Business Day and no interest shall accrue for the intervening period. If a regular record date is not a Business Day, the record date shall not be affected.

Section 12.07. Governing Law. THIS INDENTURE, THE NOTES AND THE NOTE GUARANTEES, AND THE RIGHTS AND DUTIES OF THE PARTIES THEREUNDER, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

Section 12.08. Consent to Jurisdiction and Service. Each of the parties hereto irrevocably agrees that any suit, action or proceeding arising out of, related to, or in connection with this Indenture, the Notes and the Note Guarantees or the transactions contemplated hereby, and any action arising under U.S. Federal or state securities laws, may be instituted in any U.S. federal or state court located in the State and City of New York, Borough of Manhattan; irrevocably waives, to the fullest extent it may effectively do so, any objection which it may now or hereafter have to the laying of venue of any such proceeding; and irrevocably submits to the jurisdiction of such courts in any such suit, action or proceeding. The Parent and each of the Guarantors hereby appoint Globe Specialty Metals, Inc. as its authorized agent (the "*Authorized Agent*") upon whom process may be served in any such suit, action or proceeding which may be instituted in any Federal or state court located in the State of New York, Borough of Manhattan arising out of or based upon this Indenture, the Notes or the transactions contemplated hereby or thereby, and any action brought under U.S. Federal or state securities laws. The Issuers and each of the Guarantors expressly consents to the jurisdiction of any such court in respect of any such action and waives any other requirements of or objections to personal jurisdiction with respect

thereto and waives any right to trial by jury. Such appointment shall be irrevocable unless and until replaced by an agent reasonably acceptable to the Trustee. The Issuers and each of the Guarantors represents and warrants that the Authorized Agent has agreed to act as said agent for service of process, and the Issuers agree to take any and all action, including the filing of any and all documents and instruments, that may be necessary to continue such appointment in full force and effect as aforesaid. Service of process upon the Authorized Agent and written notice of such service to the Parent shall be deemed, in every respect, effective service of process upon the Issuers and any Guarantor.

Section 12.09. No Recourse Against Others . No director, officer, employee, incorporator or shareholder of the Parent or any of their respective Subsidiaries or Affiliates as such, shall have any liability for any obligations of the Issuers or any Guarantor under this Indenture or any Notes Documents, or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.

Section 12.10. Successors. All agreements of the Issuers and each Guarantor in this Indenture and the Notes shall bind its successors. All agreements of the Trustee in this Indenture shall bind its successors.

Section 12.11. Multiple Originals. The parties may sign any number of copies of this Indenture. Each signed copy shall be an original, but all of them together represent the same agreement. One signed copy is enough to prove this Indenture.

Section 12.12. Table of Contents; Headings. The table of contents, cross-reference sheet and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not intended to be considered a part hereof and shall not modify or restrict any of the terms or provisions hereof.

Section 12.13. Prescription. Claims against the Issuers and the Guarantors for the payment of principal, or premium, if any, on the Notes will be prescribed 10 years after the applicable due date for payment thereof. Claims against the Issuers and the Guarantors for the payment of interest on the Notes will be prescribed five years after the applicable due date for payment of interest.

Section 12.14. Severability. In case any provision in this Indenture or in the Notes is invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions will not in any way be affected or impaired thereby.

Section 12.15. Spanish Formalities. For the purpose of art. 571 et seq. of the Spanish Civil Procedural Act, it is hereby agreed that:

(i) the amount due and payable under this Indenture or in the Notes by any Spanish Guarantor that may be claimed in any executive proceedings will be contained in a certificate setting out the relevant calculations and determinations provided by the Paying Agent (on an aggregate basis) or each Holder of Notes and

will be based on the accounts maintained by the Paying Agent or that Holder of Notes in connection with this Indenture or the Notes;

(ii) subject to the terms of this Indenture, the Paying Agent and/or each Holder of Notes may (at the cost of the relevant Spanish Guarantor) have the aforementioned certificate notarized evidencing that the calculations and determinations have been effected; and

(iii) the Trustee and/or the Holder of Notes may claim the total amount of the principal and interest due if there is a default in the repayment of any instalment of principal or interest, subject to any of the applicable guarantee limitations established under this Indenture or the Notes.

The Spanish Guarantors hereby expressly authorise the Paying Agent (and each Holder of Notes, as appropriate) to request and obtain certificates and documents issued by the Notary who has formalised this Indenture (or any accession deed or amendment thereto) by means of a Spanish Public Document in order to evidence its compliance with the entries of his registry- book and the relevant entry date for the purpose of numbers 4º or 5º (as applicable) of Article 517 of the Spanish Civil Procedural Act. The cost of such certificate and documents will be for the account of the Spanish Guarantors in the manner provided under this Indenture.

This Indenture and any accession deed or amendment thereto granted by any acceding Spanish Guarantor shall be raised to the status of public in Spain by means of a Spanish Public Document for the purposes contemplated in Article 517 et seq., of the Spanish Civil Procedural Act and other related provisions. The costs of notarization of this Indenture and any accession deed or amendment thereto granted by any acceding Spanish Guarantor shall be borne by the Issuer or the relevant Spanish Guarantor.

IN WITNESS WHEREOF, the parties have caused this Indenture to be duly executed as of the date first written above.

FERROGLOBE FINANCE COMPANY, PLC,
as Issuer

By: /s/ BEATRIZ GARCIA-COS MUNTAÑOLA
Name: BEATRIZ GARCIA-COS MUNTAÑOLA
Title: DIRECTOR

[Signature Page to Indenture]

Globe Specialty Metals, Inc.,
as Issuer

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Ferroglobe PLC,
as Parent Guarantor

By: /s/ JAVIER LÓPEZ MADRID
Name: JAVIER LÓPEZ MADRID
Title: EXECUTIVE CHAIRMAN

[Signature Page to Indenture]

Grupo FerroAtlántica S.A.U.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

[Signature Page to Indenture]

Ferroatlantica Participaciones S.L.U.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

[Signature Page to Indenture]

Ferrosolar OPCO Group S.L.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

[Signature Page to Indenture]

Grupo Ferroatlantica De Servicios S.L.U.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

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Ferroatlantica De Boo S.L.U.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

[Signature Page to Indenture]

Ferroatlantica De Sabon S.L.U.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

[Signature Page to Indenture]

Ferroatlantica del Cinca S.L.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

[Signature Page to Indenture]

Cuarzos Industriales S.A.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: ATTORNEY

[Signature Page to Indenture]

GSM Netherlands B.V.,
(having its corporate seat in Amsterdam, the Netherlands and registered with the Dutch trade register under number 34358567)
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: Attorney-in-fact

[Signature Page to Indenture]

Ferroglobe Mangan Norge AS,
as Guarantor

By: /s/ BENOIST OLLIVIER
Name: BENOIST OLLIVIER
Title: DIRECTOR

[Signature Page to Indenture]

FerroPem, S.A.S.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: AUTHORIZED SIGNATORY

[Signature Page to Indenture]

Ferroglobe Manganese France S.A.S.,
as Guarantor

By: /s/ THOMAS WIESNER
Name: THOMAS WIESNER
Title: AUTHORIZED SIGNATORY

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Globe Metallurgical, Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Alden Resources LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

ARL Resources, LLC,
as Guarantor

By: Alden Resources LLC,
as sole member

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

ARL Services, LLC,

By: Alden Resources LLC,
as sole member

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Alden Sales Corp, LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Core Metals Group Holdings LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Core Metals Group LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Metallurgical Process Materials, LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Tennessee Alloys Company, LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Alabama Sand and Gravel, Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GSM Sales, Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GatliffServices LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GSM Enterprises Holdings Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GSM EnterprisesLLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GBG Holdings LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Globe Metals Enterprises LLC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GSM Alloys II Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GSM Alloys I Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Solsil Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

GSM Financial Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Norchem, Inc.,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

QSIP Canada ULC,
as Guarantor

By: /s/ Paul Lojek
Name: Paul Lojek
Title: President

[Signature Page to Indenture]

Ferroglobe Holding Company Ltd.,
as Guarantor

By: /s/ BEATRIZ GARCIA-COS MUNTAÑOLA
Name: BEATRIZ GARCIA-COS MUNTAÑOLA
Title: DIRECTOR

[Signature Page to Indenture]

GLAS Trustees Dimited,
as Trustee

By: /s/ PAUL CATTERMOLE
Name: PAUL CATTERMOLE
Title: AUTHORISED SIGNATORY

[Signature Page to Indenture]

Global Loan Agency Services Limited,
as Paying Agent

By: /s/ PAUL CATTERMOLE
Name: PAUL CATTERMOLE
Title: AUTHORISED SIGNATORY

[Signature Page to Indenture]

GLAS Americas LLC,
as Registrar and Transfer Agent

By: /s/ LISHA JOHN
Name: LISHA JOHN
Title: VICE PRESIDENT

[Signature Page to Indenture]

GLAS Trust Corporation Limited,
as Security Agent

By: /s/ PAUL CATTERMOLE
Name: PAUL CATTERMOLE
Title: AUTHORISED SIGNATORY

[Signature Page to Indenture]

PROVISIONS RELATING
TO THE NOTES

These provisions relating to the Notes are in addition to and not in lieu of the provisions relating to the Notes found in Articles II and III of the Indenture. In the event any inconsistency between the language in this Exhibit A and corresponding language in the Indenture, the language in the Indenture shall control.

1. Definitions.

Capitalized terms used but not otherwise defined in this Exhibit A shall have the meanings assigned to them in the Indenture. For the purposes of this Exhibit A the following terms shall have the meanings indicated below:

"*Definitive Registered Note*" means a certificated Note that does not include the Global Notes Legend.

"*Common Depositary*" means Banque Internationale à Luxembourg, société anonyme, for Euroclear and Clearstream accounts, or any successor Person thereto.

"*Global Notes*" has the meaning given to it in Section 2.1(a)(iv) of this Exhibit A.

"*Global Notes Legend*" means the legend set forth under that caption in Exhibit A-1.

"*IAI Global Notes*" means all Notes offered and sold to Institutional Accredited Investors in reliance on Regulation D.

"*Institutional Accredited Investors*" means an "accredited investor" as defined in Rule 501(a)(1), (2), (3), (7), (8), (9), (12) or (13) of Regulation D.

"*QIB*" means a "qualified institutional buyer" as defined in Rule 144A.

"*Regulation D*" means Regulation D under the Securities Act.

"*Regulation S*" means Regulation S under the Securities Act.

"*Regulation S Global Notes*" has the meaning given to it in Section 2.1(a)(ii) of this Exhibit A.

"*Regulation S Notes*" means all Notes offered and sold outside the United States in reliance on Regulation S.

"*Restricted Global Notes*" has the meaning given to it in Section 2.1(a)(i) of this Exhibit A.

"*Restricted Notes Legend*" means the legend set forth under that caption in this Exhibit A-1.

"*Rule 144A*" means Rule 144A under the Securities Act.

"*Rule 144A Notes*" means all Notes offered and sold to QIBs in reliance on Rule 144A.

"*Securities Act*" means the U.S. Securities Act of 1933, as amended, and the rules and regulations of the SEC promulgated thereunder, as amended.

"*Transfer Restricted Notes*" means Definitive Registered Notes and any other Notes that bear or are required to bear the Restricted Notes Legend.

"*United States*" and "U.S." means the United States of America, its territories and possessions, any State of the United States, and the District of Columbia.

2. The Notes.

2.1 Form and Dating.

(a) Global Notes.

(i) Notes offered and sold within the United States to QIBs in accordance with Rule 144A shall be issued initially in the form of one or more permanent global notes in fully registered form without interest coupons (collectively, the "*144A Global Notes*"). Notes offered and sold within the United States to Institutional Accredited Investors in reliance on Regulation D shall be issued initially in the form of one or more permanent global notes in fully registered form without interest coupons (collectively, the "*IAI Global Notes*" and, collectively with the 144A Global Notes, the "*Restricted Global Notes*").

(ii) Notes offered and sold outside the United States in reliance on Regulation S and denominated in U.S. dollars shall be issued initially in the form of one or more permanent global notes in fully registered form without interest coupons (collectively, the "*Regulation S Global Notes*").

(iii) The Restricted Global Notes and the Regulation S Global Notes shall bear the Global Notes Legend. The Restricted Global Notes shall bear the Restricted Notes Legend. The Restricted Global Notes and the Regulation S Global Notes shall be deposited on behalf of the purchasers of the Notes represented thereby with the Common Depositary, and registered in the name of the Common Depositary or its nominee, as the case may be, for the accounts of Euroclear and Clearstream, duly executed by the Issuers and authenticated by the Trustee or the Authenticating Agent as provided in the Indenture.

(iv) The Restricted Global Notes and the Regulation S Global Notes are each referred to herein as a "*Global Note*" and are collectively referred to herein as "*Global Notes*". The aggregate principal amount of the Global Notes may from time to time be increased or decreased by adjustments made on the records of the Trustee or Registrar and the Common

Depositary or its nominee and on the schedules thereto as hereinafter provided, in connection with transfers, exchanges, redemptions and repurchases of beneficial interests therein.

(b) Book-Entry Provisions. This Section 2.1(b) shall apply only to a Global Note deposited with or on behalf of the Common Depositary.

Members of, or participants and account holders in, Euroclear and Clearstream ("*Participants*") shall have no rights under the Indenture with respect to any Global Note held on their behalf by the Common Depositary or its nominee or by the Trustee, and the Common Depositary or its nominee may be treated by the Issuers, the Trustee and any agent of the Issuers or the Trustee as the absolute owner of such Global Note for all purposes whatsoever. Notwithstanding the foregoing, nothing herein shall prevent the Issuers, the Trustee or any agent of the Issuers or the Trustee from giving effect to any written certification, proxy or other authorization furnished by the Common Depositary or impair, as between the Common Depositary, on the one hand, and the Participants, on the other, the operation of customary practices of such persons governing the exercise of the rights of a Holder of a beneficial interest in any Global Note.

The registered Holder of a Global Note may grant proxies and otherwise authorize any Person, including Participants and Persons that may hold interests through Participants, to take any action that a Holder is entitled to take under this Indenture or the Notes.

(c) Definitive Registered Notes. Except as provided in Section 2.3 or 2.4 of this Exhibit A, owners of beneficial interests in Global Notes will not be entitled to receive physical delivery of certificated Notes.

2.2 Authentication. The Trustee or the Authenticating Agent, as the case may be, shall authenticate and make available for delivery the Notes upon a written Authentication Order of the Issuers signed by an Officer of the Issuers. Such Authentication Order shall (a) specify the amount of the Notes to be authenticated, the date on which the original issue of Notes is to be authenticated, (b) direct the Trustee or the Authenticating Agent to authenticate such Notes and (c) certify that all conditions precedent to the issuance of such Notes have been complied with in accordance with the terms hereof.

2.3 Transfer and Exchange.

(a) Transfer and Exchange of Definitive Registered Notes. When Definitive Registered Notes are presented to the Registrar or Transfer Agent, as the case may be, with a request:

(i) to register the transfer of such Definitive Registered Notes; or

(ii) to exchange such Definitive Registered Notes for an equal principal amount of Definitive Registered Notes of other authorized denominations,

the Registrar or the Transfer Agent, as the case may be, shall register the transfer or make the exchange as requested if its reasonable requirements for such transaction are met, *provided, however,* that the Definitive Registered Notes surrendered for transfer or exchange:

(1) shall be duly endorsed or accompanied by a written instrument of transfer in form reasonably satisfactory to the Issuers and the Registrar or the Transfer Agent, as the case may be, duly executed by the Holder thereof or its attorney duly authorized in writing; and

(2) in the case of Transfer Restricted Notes, are accompanied by the following additional information and documents, as applicable:

(i) if such Definitive Registered Notes are being delivered to the Registrar or the Transfer Agent, as the case may be, by a Holder for registration in the name of such Holder, without transfer, a certification from such Holder to that effect (in the form set forth on the reverse side of the Note);

(ii) if such Definitive Registered Notes are being transferred to the Issuers, a certification to that effect (in the form set forth on the reverse side of the Note); or

(iii) if such Definitive Registered Notes are being transferred pursuant to an exemption from registration in accordance with Rule 144A, Regulation S, Regulation D or Rule 144 under the Securities Act or in reliance upon another exemption from the registration requirements of the Securities Act, (x) a certification to that effect (in the form set forth on the reverse side of the Note) and (y) if the Issuers or Registrar or Transfer Agent, as the case may be, so requests, an opinion of counsel or other evidence reasonably satisfactory to it as to the compliance with the restrictions set forth in the legend set forth in Section 2.3(d) of this Exhibit A.

(b) Restrictions on Transfer of a Definitive Registered Note for a Beneficial Interest in a Global Note. A Definitive Registered Note may not be exchanged for a beneficial interest in a Global Note except upon satisfaction of the requirements set forth below. Upon receipt by the Registrar of a Definitive Registered Note, duly endorsed or accompanied by a written instrument of transfer in form reasonably satisfactory to the Issuers, the Registrar and the Transfer Agent, together with:

(i) certification (in the form set forth on the reverse side of the Note) that such Definitive Registered Note is being transferred to a QIB in accordance with Rule 144A or an Institutional Accredited Investor in accordance with Regulation D; and

(ii) written instructions directing the Registrar to make, or to direct the Registrar to make, an adjustment on its books and records with respect to such Global Note to reflect an increase in the aggregate principal amount of the Notes represented by the Global Note, such instructions to contain information regarding the account to be credited with such increase, then the Trustee or the Authenticating Agent shall cancel such Definitive Registered Note and cause, or direct the Registrar to cause, in accordance with the standing instructions and procedures existing between the Common Depositary and the Registrar, the aggregate principal amount of Notes represented by the Global Note to be increased by the aggregate principal amount of the Definitive Registered Note to be exchanged and shall credit or cause to be credited to the account of the Person specified in such instructions a beneficial interest in the Global Note equal to the principal amount of the Definitive Registered Note so cancelled. If no Global Notes are then outstanding and the Global Note has not been previously exchanged for certificated securities

pursuant to Section 2.4 of this Exhibit A, the Issuers shall issue and the Trustee or the Authenticating Agent shall authenticate, upon written order of the Issuers in the form of an Authentication Order, a new Global Note in the appropriate principal amount.

(c) Transfer and Exchange of Global Notes.

(i) The transfer and exchange of Global Notes or beneficial interests therein shall be effected through the Common Depositary, in accordance with the Indenture (including applicable restrictions on transfer set forth herein, if any) and the procedures of the Common Depositary therefor. A transferor of a beneficial interest in a Global Note shall deliver a written order given in accordance with the Common Depositary's procedures containing information regarding the participant account of the Common Depositary to be credited with a beneficial interest in such Global Note or another Global Note and such account shall be credited in accordance with such order with a beneficial interest in the applicable Global Note and the account of the Person making the transfer shall be debited by an amount equal to the beneficial interest in the Global Note being transferred. Transfers and exchanges of book-entry interests in a Global Note to Persons who take delivery thereof in the form of a book-entry interest in a Global Note shall be made in accordance with the transfer restrictions set forth in the Global Notes Legend. Transfers by an owner of a beneficial interest in a Restricted Global Note to a transferee who takes delivery of such interest through a Regulation S Global Note shall be made only upon receipt by the Registrar of a certification in the form provided in Exhibit B from the transferor to the effect that such transfer is being made in accordance with Regulation S or pursuant to an exemption from registration under the Securities Act provided by Rule 144 (if applicable) under the Securities Act.

(ii) Notwithstanding any other provisions of this Exhibit A (other than the provisions set forth in Section 2.4 of this Exhibit A), a Global Note may not be transferred as a whole except by the Common Depositary to a successor Common Depositary or a nominee of such successor Common Depositary.

(d) Legend.

(i) Except as permitted by the following paragraph (ii) or (iii), each Note certificate evidencing the Restricted Global Notes or any Definitive Registered Notes held by QIBs in accordance with Rule 144A or Institutional Accredited Investors in accordance with Regulation D (and all Notes issued in exchange therefor or in substitution thereof) shall bear a legend in substantially the following form (each defined term in the legend being defined as such for purposes of the legend only):

"THIS NOTE HAS NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR THE SECURIITES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION AND, NEITHER THIS NOTE NOR ANY INTEREST OR PARTICIPATION HEREIN MAY BE OFFERED, SOLD, ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED OR OTHERWISE DISPOSED OF WITHIN THE UNITED STATES IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS SUCH

TRANSACTION IS EXEMPT FROM, NOR NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT.

BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE HOLDER FOR THE BENEFIT OF THE ISSUERS AND THE GUARANTORS AND ANY OF THEIR SUCCESSORS IN INTEREST:

(1) REPRESENTS THAT (A) IT IS A "QUALIFIED INSTITUTIONAL BUYER" (AS DEFINED IN RULE 144A UNDER THE U.S. SECURITIES ACT) (A "QIB"), (B) IT HAS ACQUIRED THIS SECURITY IN AN OFFSHORE TRANSACTION COMPLIANCE WITH REGULATION S UNDER THE SECURITIES ACT OR (C) IT IS AN INSTITUTIONAL "ACCREDITED INVESTOR" (AS DEFINED IN RULE 501(a)(1), (2), (3), (7), (8), (9), (12) or (13) OF REGULATION D UNDER THE SECURITIES ACT) (AN "IAI");

(2) AGREES ON ITS OWN BEHALF AND ON BEHALF OF ANY INVESTOR ACCOUNT FOR WHICH IT HAS PURCHASED NOTES THAT IT WILL NOT PRIOR TO THE DATE WHICH IS ONE YEAR (OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE U.S. SECURITIES ACT OR ANY SUCCESSOR PROVISION THEREUNDER) AFTER THE LATER OF THE DATE OF ORIGINAL ISSUE AND THE LAST DATE ON WHICH THE ISSUERS OR ANY AFFILIATE OF THE ISSUERS WAS THE OWNER OF THE NOTES (OR ANY PREDECESSOR THERETO) (THE "RESALE RESTRICTION TERMINATION DATE") RESELL, PLEDGE OR OTHERWISE TRANSFER THIS NOTE OR A BENEFICIAL INTEREST IN THIS NOTE EXCEPT (A) TO THE ISSUERS, THE GUARANTORS OR ANY SUBSIDIARY THEREOF, (B) TO A PERSON THAT THE SELLER, AND ANY PERSON ACTING ON ITS BEHALF, REASONABLY BELIEVES IS A QIB PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QIB IN A TRANSACTION COMPLYING WITH RULE 144A UNDER THE U.S. SECURITIES ACT, (C) PURSUANT TO OFFERS AND SALES THAT OCCUR OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S UNDER THE U.S. SECURITIES ACT, (D) TO AN IAI THAT IS ACQUIRING THE NOTE FOR ITS OWN ACCOUNT, OR FOR THE ACCOUNT OF SUCH AN IAI, FOR INVESTMENT PURPOSES AND NOT WITH A VIEW TO, OR FOR OFFER OR SALE IN CONNECTION WITH, ANY DISTRIBUTION IN VIOLATION OF THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT, (E) PURSUANT TO ANY OTHER AVAILABLE EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT OR (F) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT, AND IN EACH OF SUCH CASES IN COMPLIANCE WITH ANY APPLICABLE SECURITIES LAW OF ANY STATE OF THE UNITED STATES OR ANY OTHER APPLICABLE JURISDICTION; PROVIDED THAT THE ISSUERS, THE TRUSTEE AND THE REGISTRAR SHALL HAVE THE RIGHT PRIOR TO ANY SUCH OFFER, SALE OR TRANSFER PURSUANT TO CLAUSE (C), (D) OR (E) PRIOR TO THE RESALE RESTRICTION TERMINATION DATE TO REQUIRE THAT AN OPINION OF COUNSEL, CERTIFICATIONS OR OTHER INFORMATION SATISFACTORY TO THE ISSUERS, THE TRUSTEE AND THE REGISTRAR IS COMPLETED AND DELIVERED BY THE TRANSFEROR; AND

(3) AGREES THAT IT WILL DELIVER TO EACH PERSON TO WHOM THIS NOTE OR AN INTEREST HEREIN IS TRANSFERRED, A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND.

THIS LEGEND WILL BE REMOVED UPON THE REQUEST OF THE ISSUERS AFTER THE RESALE RESTRICTION TERMINATION DATE. AS USED HEREIN, THE TERMS "OFFSHORE TRANSACTION", AND "UNITED STATES" HAVE THE MEANING GIVEN TO THEM BY REGULATION S UNDER THE U.S. SECURITIES ACT.

BY ACCEPTANCE AND HOLDING OF THIS NOTE, EACH ACQUIRER AND SUBSEQUENT TRANSFEREE OF THIS NOTE OR ANY INTEREST HEREIN WILL BE DEEMED TO HAVE REPRESENTED AND WARRANTED THAT EITHER (A) NO PORTION OF THE ASSETS USED BY SUCH ACQUIRER OR TRANSFEREE TO ACQUIRE OR HOLD THIS NOTE OR ANY INTEREST HEREIN CONSTITUTES ASSETS OF ANY (I) EMPLOYEE BENEFIT PLAN SUBJECT TO TITLE I OF THE U.S. EMPLOYEE RETIREMENT INCOME SECURITY ACT OF 1974, AS AMENDED ("ERISA"), (II) PLAN, INDIVIDUAL RETIREMENT ACCOUNT OR OTHER ARRANGEMENT SUBJECT TO SECTION 4975 OF THE U.S. INTERNAL REVENUE CODE OF 1986, AS AMENDED (THE "CODE"), OR PROVISIONS UNDER ANY U.S. OR NON-U.S. FEDERAL, STATE, LOCAL OR OTHER LAWS OR REGULATIONS THAT ARE SIMILAR TO SUCH PROVISIONS OF ERISA OR THE CODE (COLLECTIVELY, "SIMILAR LAWS"), OR (III) ENTITY WHOSE UNDERLYING ASSETS ARE CONSIDERED TO INCLUDE "PLAN ASSETS" OF ANY SUCH PLAN, ACCOUNT OR ARRANGEMENT DESCRIBED IN CLAUSE (I) AND (II) (EACH OF THE FOREGOING DESCRIBED IN CLAUSES (I), (II) AND (III) REFERRED TO AS A "PLAN") OR (B) THE ACQUISITION, HOLDING AND SUBSEQUENT DISPOSITION OF THIS NOTE OR ANY INTEREST HEREIN WILL NOT CONSTITUTE OR RESULT IN A NON-EXEMPT PROHIBITED TRANSACTION UNDER SECTION 406 OF ERISA OR SECTION 4975 OF THE CODE OR ANY SIMILAR VIOLATION UNDER ANY APPLICABLE SIMILAR LAWS."

Each Definitive Registered Note held by QIBs in accordance with Rule 144A or Institutional Accredited Investors in accordance with Section 4(a)(2) of the Securities Act shall bear the following additional legend:

"IN CONNECTION WITH ANY TRANSFER, THE HOLDER WILL DELIVER TO THE REGISTRAR AND TRANSFER AGENT SUCH CERTIFICATES AND OTHER INFORMATION AS THE ISSUERS MAY REASONABLY REQUIRE TO CONFIRM THAT THE TRANSFER COMPLIES WITH THE FOREGOING RESTRICTIONS".

(ii) Upon any sale or transfer of a Transfer Restricted Note that is a Definitive Registered Note, the Holder thereof shall be permitted to exchange such Transfer Restricted Note for a Definitive Registered Note that does not bear the legends set forth above and rescind any restriction on the transfer of such Transfer Restricted Note if the Holder certifies in writing to the Transfer Agent and Registrar that its request for such exchange was made in reliance on Rule 144 (such certification to be in the form set forth on the reverse of the Note).

(iii) Any additional Notes sold in a registered offering under the Securities Act shall not be required to bear the Restricted Notes Legend.

(e) Cancellation or Adjustment of Global Note. At such time as all beneficial interests in a Global Note have either been exchanged for Definitive Registered Notes, transferred, redeemed, repurchased or cancelled, such Global Note shall be returned by the Common Depositary to Trustee or the Authenticating Agent for cancellation or retained and cancelled by the Trustee or the Authenticating Agent. At any time prior to such cancellation, if any beneficial interest in a Global Note is exchanged for Definitive Registered Notes, transferred in exchange for an interest in another Global Note, redeemed, repurchased or cancelled, the principal amount of Notes represented by such Global Note shall be reduced and an adjustment shall be made on the books and records of the Registrar with respect to such Global Note, by the Trustee or the Registrar, to reflect such reduction.

(f) Obligations with Respect to Transfers and Exchanges.

(i) To permit registrations of transfers and exchanges, the Issuers shall execute and the Trustee or an Authenticating Agent shall authenticate, Definitive Registered Notes and Global Notes at the Registrar's request.

(ii) No service charge shall be made for any registration of transfer or exchange, but the Issuers may require payment of a sum sufficient to cover any transfer tax, assessments, or similar governmental charge payable in connection therewith (other than any such transfer taxes, assessments or similar governmental charge payable upon exchange or transfer pursuant to Section 2.07, 3.06, 4.05, 4.14 or 9.04 of the Indenture).

(iii) Prior to the due presentation for registration of transfer of any Note, the Issuers, the Trustee, the Paying Agent or the Registrar may deem and treat the person in whose name a Note is registered as the absolute owner of such Note for the purpose of receiving payment of principal of and interest on such Note and for all other purposes whatsoever, whether or not such Note is overdue, and none of the Issuers, the Trustee, the Paying Agent or the Registrar shall be affected by notice to the contrary.

(iv) All Notes issued upon any transfer or exchange pursuant to the terms of the Indenture shall evidence the same debt and shall be entitled to the same benefits under the Indenture as the Notes surrendered upon such transfer or exchange.

(g) No Obligation of the Trustee.

(i) The Trustee and Agents shall have no responsibility or obligation to any beneficial owner of a Global Note, a member of, or a participant in the Common Depositary or any other Person with respect to the accuracy of the records of the Common Depositary or its nominee or of any participant or member thereof, with respect to any ownership interest in the Notes or with respect to the delivery to any participant, member, beneficial owner or other Person (other than the Common Depositary) of any notice (including any notice of redemption or repurchase) or the payment of any amount, under or with respect to such Notes. All notices and communications to be given to the Holders and all payments to be made to Holders under the Notes shall be given or made only to the registered Holders (which shall be the Common

Depositary or its nominee in the case of a Global Note). The rights of beneficial owners in any Global Note shall be exercised only through the Common Depositary subject to the applicable rules and procedures of the Common Depositary. The Trustee and Agents may rely and shall be fully protected in relying upon information furnished by the Common Depositary with respect to its members, participants and any beneficial owners.

(ii) The Trustee shall have no obligation or duty to monitor, determine or inquire as to compliance, and shall not be responsible or liable for compliance, with any restrictions on transfer, exchange, redemption, purchase or repurchase, as applicable, imposed under the Indenture or under applicable law or regulation with respect to any transfer, exchange, redemption, purchase or repurchase, as applicable of any interest in any Note (including, without limitation, any transfers between or among Common Depositary participants, members or beneficial owners in any Global Note) other than to require delivery of such certificates and other documentation or evidence as are expressly required by, and to do so if and when expressly required by, the terms of the Indenture, and to examine the same to determine substantial compliance as to form with the express requirements hereof, it being understood that without limiting the generality of the foregoing, the Trustee shall not have any obligation or duty to monitor, determine or inquire as to compliance, and shall not be responsible or liable for compliance, with restrictions on transfer, exchange, redemption, purchase or repurchase, as applicable, of minimum denominations imposed under the Indenture or under applicable law or regulation with respect to any transfer, exchange, redemption, purchase or repurchase, as applicable, of any interest in any Note.

2.4 Transfer and Exchange of Global Notes for Definitive Registered Notes.

(a) A Global Note deposited with the Common Depositary or with the Registrar pursuant to Section 2.1 of this Exhibit A shall be transferred to the beneficial owners thereof in the form of Definitive Registered Notes in an aggregate principal amount equal to the principal amount of such Global Note, in exchange for such Global Note, only if such transfer complies with Section
2.3 of this Exhibit A and (i) the Common Depositary notifies the Issuers that it is unwilling or unable to continue as a Common Depositary for such Global Note and a successor Common Depositary is not appointed by the Issuers within 120 days of such notice or after the Issuers become aware of such cessation, or (ii) if the owner of a book-entry interest in such Global Note requests such exchange in writing delivered through the Common Depositary following an Event of Default and enforcement action is being taken in respect thereof under the Indenture.

(b) Any Global Note that is transferable to the beneficial owners thereof pursuant to this Section 2.4 shall be surrendered by the Common Depositary to the Trustee or the Registrar, to be so transferred, in whole or from time to time in part, without charge, and the Trustee or an Authenticating Agent shall authenticate and deliver, upon such transfer of each portion of such Global Note, an equal aggregate principal amount of Definitive Registered Notes of authorized denominations. Any portion of a Global Note transferred pursuant to this Section 2.4 shall be executed, authenticated and delivered only in minimum denominations of $150,000 and multiples of $1,000 in excess thereof and registered in such names as the Common Depositary shall direct. Any certificated Note in the form of a Definitive Registered Note delivered in exchange for an interest in the Global Note shall, to the extent required by Section 2.3(d) of this Exhibit A, bear the Restricted Notes Legend.

(c) Subject to the provisions of Section 2.4(d) of this Exhibit A, the registered Holder of a Global Note may grant proxies and otherwise authorize any Person, including Agent Members and Persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under the Indenture or the Notes.

(d) In the event of the occurrence of any of the events specified in Section 2.4(a)(i) or (ii) of this Exhibit A, the Issuers will promptly make available to the Trustee a reasonable supply of Definitive Registered Notes in fully registered form without interest coupons.

[FORM OF FACE OF NOTE]

9.375% SENIOR SECURED NOTE DUE 2025

[Global Notes Legend:]

THIS NOTE IS A GLOBAL NOTE WITHIN THE MEANING OF THE INDENTURE AND IS REGISTERED IN THE NAME OF THE DEPOSITARY OR A NOMINEE OF THE DEPOSITARY OR A SUCCESSOR DEPOSITARY. THIS NOTE IS NOT EXCHANGEABLE FOR SECURITIES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITARY OR ITS NOMINEE EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE, AND NO TRANSFER OF THIS NOTE (OTHER THAN A TRANSFER OF THIS NOTE AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY) MAY BE REGISTERED EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE.

THIS GLOBAL NOTE AND ANY RELATED DOCUMENTATION MAY BE AMENDED OR SUPPLEMENTED FROM TIME TO TIME TO MODIFY THE RESTRICTIONS ON AND PROCEDURES FOR RESALES AND OTHER TRANSFERS OF THIS GLOBAL NOTE TO REFLECT ANY CHANGE IN APPLICABLE LAW OR REGULATION (OR THE INTERPRETATION THEREOF) OR IN PRACTICES RELATING TO THE RESALE OR TRANSFER OF RESTRICTED SECURITIES GENERALLY. THE HOLDER OF THIS GLOBAL NOTE SHALL BE DEEMED, BY THE ACCEPTANCE HEREOF, TO HAVE AGREED TO ANY SUCH AMENDMENT OR SUPPLEMENT.

[Restricted Global Notes Legend:]

THIS NOTE HAS NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE “U.S. SECURITIES ACT”) OR THE SECURIITES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION AND, NEITHER THIS NOTE NOR ANY INTEREST OR PARTICIPATION HEREIN MAY BE OFFERED, SOLD, ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED OR OTHERWISE DISPOSED OF WITHIN THE UNITED STATES IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS SUCH TRANSACTION IS EXEMPT FROM, NOR NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT.

BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE HOLDER FOR THE BENEFIT OF THE ISSUERS AND THE GUARANTORS AND ANY OF THEIR SUCCESSORS IN INTEREST:

(1) REPRESENTS THAT (A) IT IS A “QUALIFIED INSTITUTIONAL BUYER” (AS DEFINED IN RULE 144A UNDER THE U.S. SECURITIES ACT) (A “QIB”), (B) IT HAS

ACQUIRED THIS SECURITY IN AN OFFSHORE TRANSACTION COMPLIANCE WITH REGULATION S UNDER THE SECURITIES ACT OR (C) IT IS AN INSTITUTIONAL "ACCREDITED INVESTOR" (AS DEFINED IN RULE 501(a)(1), (2), (3), (7), (8), (9), (12) or (13) OF REGULATION D UNDER THE SECURITIES ACT) (AN "IAI");

(2) AGREES ON ITS OWN BEHALF AND ON BEHALF OF ANY INVESTOR ACCOUNT FOR WHICH IT HAS PURCHASED NOTES THAT IT WILL NOT PRIOR TO THE DATE WHICH IS ONE YEAR (OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE U.S. SECURITIES ACT OR ANY SUCCESSOR PROVISION THEREUNDER) AFTER THE LATER OF THE DATE OF ORIGINAL ISSUE AND THE LAST DATE ON WHICH THE ISSUERS OR ANY AFFILIATE OF THE ISSUERS WAS THE OWNER OF THE NOTES (OR ANY PREDECESSOR THERETO) (THE "RESALE RESTRICTION TERMINATION DATE") RESELL, PLEDGE OR OTHERWISE TRANSFER THIS NOTE OR A BENEFICIAL INTEREST IN THIS NOTE EXCEPT i. TO THE ISSUERS, THE GUARANTORS OR ANY SUBSIDIARY THEREOF, ii. TO A PERSON THAT THE SELLER, AND ANY PERSON ACTING ON ITS BEHALF, REASONABLY BELIEVES IS A QIB PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QIB IN A TRANSACTION COMPLYING WITH RULE 144A UNDER THE U.S. SECURITIES ACT, iii. PURSUANT TO OFFERS AND SALES THAT OCCUR OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S UNDER THE U.S. SECURITIES ACT, iv. TO AN IAI THAT IS ACQUIRING THE NOTE FOR ITS OWN ACCOUNT, OR FOR THE ACCOUNT OF SUCH AN IAI, FOR INVESTMENT PURPOSES AND NOT WITH A VIEW TO, OR FOR OFFER OR SALE IN CONNECTION WITH, ANY DISTRIBUTION IN VIOLATION OF THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT, v. PURSUANT TO ANY OTHER AVAILABLE EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT OR vi. PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT, AND IN EACH OF SUCH CASES IN COMPLIANCE WITH ANY APPLICABLE SECURITIES LAW OF ANY STATE OF THE UNITED STATES OR ANY OTHER APPLICABLE JURISDICTION; PROVIDED THAT THE ISSUERS, THE TRUSTEE AND THE REGISTRAR SHALL HAVE THE RIGHT PRIOR TO ANY SUCH OFFER, SALE OR TRANSFER PURSUANT TO CLAUSE (C), (D) OR (E) PRIOR TO THE RESALE RESTRICTION TERMINATION DATE TO REQUIRE THAT AN OPINION OF COUNSEL, CERTIFICATIONS OR OTHER INFORMATION SATISFACTORY TO THE ISSUERS, THE TRUSTEE AND THE REGISTRAR IS COMPLETED AND DELIVERED BY THE TRANSFEROR; AND

(3) AGREES THAT IT WILL DELIVER TO EACH PERSON TO WHOM THIS NOTE OR AN INTEREST HEREIN IS TRANSFERRED, A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND.

THIS LEGEND WILL BE REMOVED UPON THE REQUEST OF THE ISSUERS AFTER THE RESALE RESTRICTION TERMINATION DATE. AS USED HEREIN, THE TERMS "OFFSHORE TRANSACTION", AND "UNITED STATES" HAVE THE MEANING GIVEN TO THEM BY REGULATION S UNDER THE U.S. SECURITIES ACT.

BY ACCEPTANCE AND HOLDING OF THIS NOTE, EACH ACQUIRER AND SUBSEQUENT TRANSFEREE OF THIS NOTE OR ANY INTEREST HEREIN WILL BE DEEMED TO HAVE REPRESENTED AND WARRANTED THAT EITHER (A) NO PORTION OF THE ASSETS USED BY SUCH ACQUIRER OR TRANSFEREE TO ACQUIRE OR HOLD THIS NOTE OR ANY INTEREST HEREIN CONSTITUTES ASSETS OF ANY (I) EMPLOYEE BENEFIT PLAN SUBJECT TO TITLE I OF THE U.S. EMPLOYEE RETIREMENT INCOME SECURITY ACT OF 1974, AS AMENDED ("ERISA"), (II) PLAN, INDIVIDUAL RETIREMENT ACCOUNT OR OTHER ARRANGEMENT SUBJECT TO SECTION 4975 OF THE U.S. INTERNAL REVENUE CODE OF 1986, AS AMENDED (THE "CODE"), OR PROVISIONS UNDER ANY U.S. OR NON-U.S. FEDERAL, STATE, LOCAL OR OTHER LAWS OR REGULATIONS THAT ARE SIMILAR TO SUCH PROVISIONS OF ERISA OR THE CODE (COLLECTIVELY, "SIMILAR LAWS"), OR (III) ENTITY WHOSE UNDERLYING ASSETS ARE CONSIDERED TO INCLUDE "PLAN ASSETS" OF ANY SUCH PLAN, ACCOUNT OR ARRANGEMENT DESCRIBED IN CLAUSE (I) AND (II) (EACH OF THE FOREGOING DESCRIBED IN CLAUSES (I), (II) AND (III) REFERRED TO AS A "PLAN") OR (B) THE ACQUISITION, HOLDING AND SUBSEQUENT DISPOSITION OF THIS NOTE OR ANY INTEREST HEREIN WILL NOT CONSTITUTE OR RESULT IN A NON-EXEMPT PROHIBITED TRANSACTION UNDER SECTION 406 OF ERISA OR SECTION 4975 OF THE CODE OR ANY SIMILAR VIOLATION UNDER ANY APPLICABLE SIMILAR LAWS."

[Each Definitive Registered Note shall bear the following additional legend:]

IN CONNECTION WITH ANY TRANSFER, THE HOLDER WILL DELIVER TO THE REGISTRAR AND TRANSFER AGENT SUCH CERTIFICATES AND OTHER INFORMATION AS THE ISSUERS MAY REASONABLY REQUIRE TO CONFIRM THAT THE TRANSFER COMPLIES WITH THE FOREGOING RESTRICTIONS.

[Rule 144A / IAI / Regulation S]

Common Code _____
ISIN _____

Issue Date: _____

9.375% Senior Secured Note due 2025

No. _____ $ _____

FERROGLOBE FINANCE COMPANY PLC

a public limited company incorporated under the laws of England and Wales, having its registered office at 5 Fleet Place, London, England EC4M 7RD, United Kingdom, promises to pay [●], or its registered assigns, the principal sum of $_____, subject to adjustments listed on the Schedule of Increases or Decreases in the Global Note attached hereto, on December 31, 2025.

Interest Payment Dates: January 31 and July 31, commencing on January 31, 2022.

Record Dates: [One Business Day immediately preceding the relevant Interest Payment Date][*for Global Notes*]/[January 30 and July 30 immediately preceding the relevant Interest Payment Date][*for Definitive Registered Notes*]

This Note and the Note Guarantees in respect thereof are also subject to the transfer restrictions set forth on the other side of this Note.

The maximum principal amount of the Notes may be increased in accordance with the provisions set forth under the Indenture.

Additional provisions of this Note are set forth on the other side of this Note.

(Signature page to follow.)

IN WITNESS WHEREOF, Ferroglobe Finance Company, PLC has caused this Note to be signed manually or by facsimile by its duly authorized officers.

Dated:

FERROGLOBE FINANCE COMPANY PLC

By: _____

Name:

Title:

Dated: _____

Trustee's Certificate of Authentication

This is one of the 9.375% Senior Secured Notes due 2025 described in the within-mentioned Indenture.

GLAS Trustees Limited, as Trustee

By:
Authorized Signatory

1. Interest.

Ferroglobe Finance Company, PLC, a public limited company incorporated under the laws of England and Wales (the "*UK Issuer*"), and Globe Specialty Metals, Inc., a corporation incorporated under the laws of the State of Delaware (the "*US Co-Issuer*" and, together with the UK Issuer, the "*Issuers*"), promise to pay interest on the principal amount of this Note at the rate of 9.375% per annum. The Issuers shall pay interest on this Note semi-annually in arrears on January 31 and July 31, commencing on January 31, 2022. The Issuers will make each interest payment to Holders of record of the Notes one Business Day immediately preceding the relevant Interest Payment Date. Interest on the Notes shall accrue from the most recent date to which interest has been paid or duly provided for or, if no interest has been paid or duly provided for, from the Issue Date until the principal hereof is due. Interest shall be computed on the basis of a 360-day year comprised of twelve 30-day months.

The Issuers will pay interest (including post-petition interest in any proceeding under any Bankruptcy Law) on overdue principal at a rate that is 2.0% higher than the then applicable interest rate on the Notes to the extent lawful; it will pay interest (including post-petition interest in any proceeding under any Bankruptcy Law) and Additional Amounts, if any, on overdue installments of interest, if any (without regard to any applicable grace period), at the same rate to the extent lawful.

2. Method of Payment.

The Issuers shall pay interest on this Note (except defaulted interest) to the persons who are registered Holders of this Note at the close of business on the Record Date for the next Interest Payment Date even if this Note is cancelled after the Record Date and on or before the Interest Payment Date. The Issuers shall pay principal and interest in euros in immediately available funds that at the time of payment is legal tender for payment of public and private debts; *provided*, that payment of interest may be made at the option of the Issuers by check mailed to the Holder.

The amount of payments in respect of interest on each Interest Payment Date shall correspond to the aggregate principal amount of Notes represented by the Regulation S Global Note and the Restricted Global Note, as established by the Registrar at the close of business on the relevant Record Date. Payments of principal shall be made upon surrender of the Regulation S Global Note and the Restricted Global Note to the Paying Agent.

3. Paying Agent and Registrar.

Initially, Global Loan Agency Services Limited will act as Paying Agent and GLAS Americas LLC will act as Registrar and Transfer Agent. The Issuers may appoint and change any Registrar, Transfer Agent or Paying Agent. The Issuers or any other Restricted Subsidiaries may act as Registrar, Transfer Agent and Paying Agent.

4. Indenture.

The Issuers issued the Notes under the Indenture dated as of July 29, 2021 (the "*Indenture*"), among the Issuers, the Parent, the Guarantors, GLAS Trustees Limited, as trustee (in such capacity, the "*Trustee*"), Global Loan Agency Services Limited, as paying agent, and GLAS Americas LLC, as registrar and transfer agent. The terms of the Notes include those stated in the Indenture. Terms defined in the Indenture and not defined herein have the meanings ascribed thereto in the Indenture. The Notes are subject to all terms and provisions of the Indenture, and Holders are referred to the Indenture for a statement of such terms and provisions. In the event of a conflict, the terms of the Indenture control.

The Notes are general, senior obligations of the Issuers. This Note is one of the Notes referred to in the Indenture. The Notes and, if issued, any Additional Notes are treated as a single class for all purposes under the Indenture, including, without limitation, with respect to waivers, amendments, redemptions and offers to purchase, except as otherwise provided for therein.

5. Optional Redemption.

(a) Except as provided in this Section 5 and Section 6, the Notes are not redeemable until July 31, 2022.

(b) On and after July 31, 2022, the Issuers may redeem all or, from time to time, part of the Notes upon not less than 10 nor more than 60 days' notice to the Holder, at the following redemption prices (expressed as a percentage of principal amount) plus accrued and unpaid interest and Additional Amounts (as defined below), if any, to, but not including, the applicable redemption date (subject to the right of Holders of record on the relevant record date to receive interest due on the relevant interest payment date), if redeemed during the twelve-month period beginning on July 31 of the years indicated below:

Year	Redemption Price
2022	104.6875%
2023	102.34375%
2024	101.0000%
2025	100.000%

Any such redemption and notice may, in the Issuers' discretion, be subject to the satisfaction of one or more conditions precedent. If such redemption or notice is subject to satisfaction of one or more conditions precedent, such notice shall state that, in the Issuers' discretion, the redemption date may be delayed until such time as any or all such conditions shall be satisfied, or such redemption may not occur and such notice may be rescinded in the event that any or all such conditions shall not have been satisfied by the redemption date, or by the redemption date so delayed; *provided* that in no case shall the notice have been delivered less than 10 days or more than 60 days prior to the date on which such redemption (if any) occurs. In addition, the Issuers may provide in such notice that payment of the redemption price and

performance of the Issuers' obligations with respect to such redemption may be performed by another Person.

(c) Prior to July 31, 2022, the Issuers may on any one or more occasions redeem up to 35% of the aggregate principal amount of the Notes (including the principal amount of any Additional Notes), upon not less than 10 nor more than 60 days' notice, with funds in an aggregate amount (the "*Redemption Amount*") not exceeding the Net Cash Proceeds of one or more Equity Offerings at a redemption price of 109.375% of the principal amount of the Notes, plus accrued and unpaid interest and Additional Amounts, if any, to, but not including, the applicable redemption date (subject to the right of Holders of record on the relevant record date to receive interest due on the relevant interest payment date); *provided* that:

(1) at least 65% of the original principal amount of the Notes (including the principal amount of any Additional Notes) remains outstanding immediately after each such redemption; and

(2) the redemption occurs within 120 days after the closing of such Equity Offering.

(d) Prior to July 31, 2022, the Issuers may redeem all or, from time to time, a part of the Notes upon not less than 10 nor more than 60 days' notice at a redemption price equal to 100% of the principal amount of the Notes plus the Applicable Premium and accrued and unpaid interest and Additional Amounts, if any, to, but not including, the applicable redemption date (subject to the right of Holders of record on the relevant record date to receive interest due on the relevant interest payment date). Any such redemption and notice may, at the Issuers' discretion, be subject to the satisfaction of one or more conditions precedent.

"*Applicable Premium*" means with respect to any Note the greater of

(A) (1% of the principal amount of such Note, and

(B) the excess (to the extent positive) of:

(i) the present value at such redemption date of (1) the redemption price of such Note at July 31, 2022 (such redemption price (expressed in percentage of principal amount) being set forth in the table above under Section 5(b) (excluding accrued and unpaid interest)), plus (2) all required interest payments due on such Note to and including July 31, 2022 (excluding accrued but unpaid interest), computed upon the redemption date using a discount rate equal to the Treasury Rate at such redemption date plus 50 basis points; over

(ii) the outstanding principal amount of such Note,

as calculated by the Issuers or on behalf of the Issuers by such Person as the Issuers shall designate. For the avoidance of doubt, calculation of Applicable Premium shall not be an obligation or duty of the Trustee or any Paying Agent or Registrar.

"*Treasury Rate*" means, as obtained by the Issuers, as of any date of redemption of Notes, the yield to maturity as of such date U.S. Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two Business Days prior to the date notice of the applicable redemption of Notes is sent in accordance with the Indenture (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from such date to July 31, 2022; *provided*, *however*, that if the period from such date to July 31, 2022 is less than one year, the weekly average yield on actively traded U.S. Treasury securities adjusted to a constant maturity of one year will be used.

6. Optional Tax Redemption.

The Issuers may redeem the Notes in whole, but not in part, at any time upon giving not less than 10 nor more than 60 days' prior notice to the Holders of the Notes (which notice will be irrevocable) at a redemption price equal to 100% of the principal amount thereof, together with accrued and unpaid interest, if any, to the date fixed for redemption (a "*Tax Redemption Date*") (subject to the right of Holders of record on the relevant record date to receive interest due on the relevant interest payment date) and all Additional Amounts (as defined in Section 4.13 of the Indenture), if any, then due and which will become due on the Tax Redemption Date as a result of the redemption or otherwise, if any, if the Issuers determine in good faith that, as a result of:

(1) any change in, or amendment to, the law or treaties (or any regulations or rulings promulgated thereunder) of a Relevant Taxing Jurisdiction (as defined in Section 4.13 of the Indenture) affecting taxation; or

(2) any amendment to, or change in an official application or interpretation of such laws, treaties, regulations or rulings (including a holding, judgment or order by a court of competent jurisdiction or a change in published administrative practice) (each of the foregoing in clauses (1) and (2), a "*Change in Tax Law*"),

a Payor (as defined below) is, or on the next interest payment date in respect of the Notes would be, required to pay Additional Amounts with respect of the Notes (but, in the case of a Guarantor, only if the payment giving rise to such requirement cannot be made by the Issuers or another Guarantor who can make such payment without the obligation to pay Additional Amounts) and such obligation cannot be avoided by taking reasonable measures available to the Payor (including, for the avoidance of doubt, the appointment of a new Paying Agent where this would be reasonable). Such Change in Tax Law must be announced and become effective on or after the Issue Date (or if the applicable Relevant Taxing Jurisdiction became a Relevant Taxing Jurisdiction on a date after the Issue Date, such later date). The foregoing provisions shall apply *mutatis mutandis* to any successor Person, after such successor Person becomes a party to the Indenture, with respect to a change or amendment occurring after the time such successor Person becomes a party to the Indenture.

Notice of redemption for taxation reasons will be published in accordance with the procedures described in Section 8. Notwithstanding the foregoing, no such notice of redemption will be given (a) earlier than 60 days prior to the earliest date on which the Payor would be obligated to make such payment of Additional Amounts and (b) unless at the time such notice is

given, such obligation to pay such Additional Amounts remains in effect. Prior to the publication or mailing of any notice of redemption of Notes pursuant to the foregoing, the Issuers will deliver to the Trustee (a) an Officer's Certificate stating that it is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to its right so to redeem have been satisfied and (b) an opinion of an independent tax counsel of recognized standing to the effect that the Payor has been or will become obligated to pay Additional Amounts as a result of a Change in Tax Law. The Trustee shall be entitled to rely on such Officer's Certificate and opinion as sufficient evidence of the satisfaction of the conditions precedent described above, without further inquiry, in which event it will be conclusive and binding on the Holders.

7. Sinking Fund.

The Issuers are not required to make mandatory redemption payments or sinking fund payments with respect to the Notes.

8. Notice of Redemption.

Subject to the next paragraph, not less than 10 days but not more than 60 days before a date for redemption of Notes, the Issuers shall transmit to each Holder (with a copy to the Trustee and Registrar) a notice of redemption in accordance with Section 12.01 of the Indenture; *provided*, *however*, that any notice of redemption provided for by Section 6 shall not be given (a) earlier than 60 days prior to the earliest date on which the Payor would be obligated to make a payment of Additional Amounts and (b) unless at the time such notice is given, the obligation to pay such Additional Amounts remains in effect. In addition, for so long as the Notes are listed on the Global Exchange Market of Euronext Dublin and the rules thereof so require, the Issuers shall publish notice of redemption in a daily newspaper with general circulation in Ireland (which is expected to be *The Irish Times*) and in addition to such publication, not less than 10 nor more than 60 days prior to the redemption date, mail such notice to Holders by first-class mail, postage prepaid, at their respective addresses as they appear on the registration books of the Registrar. While in global form, notices to Holders may be delivered via Euroclear or Clearstream and in accordance with the applicable procedures of Euroclear or Clearstream in lieu of notice via registered mail. Such notice of redemption may also be published on the website of Euronext Dublin (*www.euronext.com/en/markets/dublin)* in lieu of publication in a daily newspaper to the extent and as permitted by the rules of Euronext Dublin. The notice shall identify the Notes to be redeemed and shall state the information required pursuant to Section 3.03 of the Indenture.

At the Issuers' request, the Trustee or the Paying Agent shall give the notice of redemption in the Issuers' name and at the Issuers' expense. In such event, the Issuers shall deliver to the Trustee and the Paying Agent, with a copy to the Trustee, at least 5 Business Days prior to the date on which notice of redemption is to be delivered to the Holders (unless a shorter period is satisfactory to the Registrar), an Officer's Certificate requesting that the Registrar give such notice and the information required and within the time periods specified by this Section 8.

If less than all of the Notes are to be redeemed at any time, the Trustee shall select the Notes to be redeemed as follows: (i) if the Notes are listed on any securities exchange, in compliance with the requirements of the principal securities exchange on which the Notes are listed or (ii) if the Notes are not listed on any securities exchange, on a *pro rata* basis, by lot or by

such method as the Trustee deems fair and appropriate and in accordance with Euroclear or Clearstream procedures, *provided*, *however*, that no such partial redemption shall reduce the portion of the principal amount of a Note not redeemed to less than $1,000. None of the Trustee, the Paying Agent nor the Registrar will be liable for any selections made by it in accordance with this paragraph.

If any Note is to be redeemed in part only, the notice of redemption that relates to that Note shall state the portion of the principal amount thereof to be redeemed. In the case of a Definitive Registered Note, a new Definitive Registered Note in principal amount equal to the unredeemed portion of any Definitive Registered Note redeemed in part will be issued in the name of the Holder thereof upon cancellation of the original Definitive Registered Note. In the case of a Global Note, an appropriate notation will be made on such Note to decrease the principal amount thereof to an amount equal to the unredeemed portion thereof. Subject to the terms of the applicable redemption notice, Notes called for redemption become due on the date fixed for redemption. Unless the Issuers default in payment of the redemption price, on and after the redemption date, interest ceases to accrue on Notes or portions of Notes called for redemption. If the Issuers elect to redeem the Notes or portions thereof and request the Trustee to distribute to the Holders of the Notes any amounts deposited in trust (which, for the avoidance of doubt, will include accrued and unpaid interest to the date fixed for redemption) prior to the date fixed for redemption in accordance with the provisions set forth under Section 8.01 the applicable redemption notice will state that Holders of the Notes will receive such amounts deposited in trust prior to the date fixed for redemption and the payment date.

9. Additional Amounts.

All payments made by a Payor on the Notes or any Note Guarantee, as applicable, will be made free and clear of and without withholding or deduction for, or on account of, any Taxes subject to and in accordance with Section 4.13 of the Indenture.

10. Repurchase of Notes at the Option of Holders upon (i) a Change of Control and (ii) the occurrence of certain Asset Sales.

If a Change of Control occurs, each Holder of Notes will have the right, subject to certain conditions specified in the Indenture, to require the Issuers to repurchase all or any part of such Holder's Notes at a purchase price in cash equal to 101% of the principal amount of the Notes, plus accrued and unpaid interest to but excluding the date of purchase (subject to the right of Holders of record on the relevant record date to receive interest due on the relevant interest payment date) as provided in, and subject to the terms of, the Indenture.

In accordance with Section 4.05 of the Indenture, the Issuers will be required to, or may be permitted to, offer to purchase Notes upon the occurrence of certain events, including certain Asset Dispositions.

11. [Reserved]

12. Denominations, Transfer and Exchange.

The Notes are in registered form without interest coupons in minimum denominations of $150,000 and multiples of $1,000 in excess thereof. A Holder may transfer or exchange Notes in accordance with the Indenture. The transfer of Notes may be registered, and Notes may be exchanged, as provided in the Indenture. The Registrar may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes and fees required by law or permitted by the Indenture.

13. Persons Deemed Owners.

Except as provided in Section 2, the registered Holder of this Note will be treated as the owner of it for all purposes. Only registered Holders will have rights under the Indenture, including, without limitation, with respect to enforcement and the pursuit of other remedies.

14. Unclaimed Money.

If money for the payment of principal or interest remains unclaimed for two years, the Trustee or Paying Agent shall pay the money back to the Issuers at their written request unless an abandoned property law designates another Person. After any such payment, Holders entitled to the money must look to the Issuer for payment as general creditors and the Trustee and the Paying Agent shall have no further liability with respect to such monies.

15. Discharge and Defeasance.

Subject to certain conditions, the Issuers at any time may terminate all of its obligations and all obligations of each Guarantor under the Notes, any Note Guarantee and the Indenture if the Issuer, among other things, deposits or causes to be deposited with the Trustee money or U.S. dollar-denominated Government Obligations, or a combination thereof, in an amount sufficient, without consideration of reinvestment, to pay and discharge the entire indebtedness on the Notes not previously delivered to the Trustee for cancellation, for principal, premium, if any, and interest to the date of deposit (in the case of Notes that have become due and payable), or to the Stated Maturity or redemption date, as the case may be.

16. Amendment, Waiver.

The Indenture and the Notes may be amended as set forth in the Indenture.

17. Defaults and Remedies.

Each of the following is an "*Event of Default*" under the Indenture:

(a) default in any payment of interest on any Note issued under the Indenture when due and payable, continued for 30 days;

(b) default in the payment of the principal amount of or premium, if any, on any Note issued under the Indenture when due at its Stated Maturity, upon optional redemption, upon required repurchase, upon declaration or otherwise;

(c) failure by the Issuer or any Guarantor to comply with its obligations under Section 5.01;

(d) failure by the Issuer or any Guarantor to comply for 30 days after written notice by the Trustee or the Holders of at least 25% in principal amount of the outstanding Notes with its obligation to make a Change of Control Offer under Section 4.14;

(e) failure by the Parent or any of its Restricted Subsidiaries to comply for 60 days after notice by the Trustee or the Holders of at least 25% in principal amount of the outstanding Notes with its other agreements contained in the Indenture (in each case, other than a default in performance, or breach of, a covenant or agreement specifically addressed in clauses (a) to (d) of this Section 17);

(f) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by the Parent or any of its Restricted Subsidiaries (or the payment of which is Guaranteed by the Parent or any of its Restricted Subsidiaries) other than Indebtedness owed to the Parent or a Restricted Subsidiary whether such Indebtedness or Guarantee now exists, or is created after the Issue Date, which default:

(i) is caused by a failure to pay principal at stated maturity on such Indebtedness, immediately upon the expiration of the grace period provided in such Indebtedness ("*payment default*"); or

(ii) results in the acceleration of such Indebtedness prior to its maturity (the "*cross acceleration provision*"),

and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a payment default or the maturity of which has been so accelerated, aggregates $10.0 million or more;

(g) the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, pursuant to or within the meaning of any Bankruptcy Law:

(i) commences proceedings to be adjudicated bankrupt or insolvent;

(ii) consents to the institution of bankruptcy or insolvency proceedings against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under applicable Bankruptcy Law;

(iii) consents to the appointment of a receiver, liquidator, assignee, trustee, sequestrator or other similar official of it or for all or substantially all of its property;

(iv) makes a general assignment for the benefit of its creditors; or

(v) admits in writing that it is unable to pay its debts as they become due;

(h) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

(i) is for relief against the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, in a proceeding in which the Issuers or any such other Restricted Subsidiary, that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, is to be adjudicated bankrupt or insolvent;

(ii) appoints a receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, or for all or substantially all of the property of the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary; or

(iii) orders the winding up or liquidation of the Issuers or any other Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary,

and, in the case of any of (i), (ii) or (iii) of this clause (h), the order or decree remains un-stayed and in effect for 60 consecutive days;

(i) failure by the Issuers or any Significant Subsidiary or group of Restricted Subsidiaries that, taken together (as of the latest audited consolidated financial statements for the Parent and its Restricted Subsidiaries), would constitute a Significant Subsidiary to pay final judgments aggregating in excess of $10.0 million (exclusive of any amounts that a solvent insurance company has acknowledged liability for), which judgments are not paid, discharged or stayed for a period of 60 days after the judgment becomes final (the "*judgment default provision*");

(j) any Note Guarantee ceases to be in full force and effect (other than in accordance with the terms of such Note Guarantee or this Indenture) or is declared invalid or unenforceable in a judicial proceeding or any Guarantor denies or disaffirms in writing its obligations under its Note Guarantee and any such Default continues for 10 days; or

(k) any security interest under the Security Documents on any Collateral having a fair market value in excess of $5.0 million shall, at any time, cease to be in full force and effect (other than in accordance with the terms of the relevant Security Document, the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement, and this Indenture) for any reason other than the satisfaction in full of all obligations under this Indenture or the release or amendment of any such security interest in accordance with the terms of this Indenture, the Intercreditor Agreement, the ABL Intercreditor Agreement and any Additional Intercreditor Agreement or such Security Document or any such security interest created thereunder shall be declared invalid or unenforceable or the Parent, the Issuers or any other Restricted Subsidiary shall assert in writing that any such security interest is invalid or unenforceable and any such Default continues for 10 days.

The foregoing shall constitute Events of Default whatever the reason for any such Event of Default and whether it is voluntary or involuntary or is effected by operation of law or pursuant to any judgment, decree or order of any court of any order, rule or regulation of any administrative or governmental body. However, a default under clause (c), (d), (e), (f), (i) or (k) will not constitute an Event of Default until the Trustee or the Holders of at least 25% in principal amount of the outstanding Notes under the Indenture notify the Parent of the default and, with respect to clause (d), (e), (i) or (k), the Parent does not cure such default within the time specified in clause (d), (e), (i) or (k), as applicable, after receipt of such notice.

18. Trustee Dealings with the Issuers

The Trustee under the Indenture, in its individual or any other capacity, may become the owner or pledgee of Notes and may otherwise deal with and collect obligations owed to it by the Issuer or its Affiliates and may otherwise deal with the Issuers or their Affiliates with the same rights it would have if it were not Trustee.

19. No Recourse Against Others.

No director, officer, employee, incorporator or shareholder of the Parent or any of their respective Subsidiaries or Affiliates as such, shall have any liability for any obligations of the Issuers or the Guarantors under the Notes Documents, or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes. Such waiver may not be effective to waive liabilities under the U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy.

20. Authentication.

This Note shall not be valid until an authorized signatory of the Trustee or the Authenticating Agent manually signs the certificate of authentication on the other side of this Note. The signature shall be conclusive evidence that the security has been authenticated under the Indenture.

21. Abbreviations.

Customary abbreviations may be used in the name of a Holder or an assignee, such as TEN COM (=tenants in common), TEN ENT (=tenants by the entireties), JT TEN (=joint tenants with rights of survivorship and not as tenants in common), CUST (=custodian), and U/G/M/A (=Uniform Gift to Minors Act).

22. Governing Law.

THIS SECURITY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

The Issuers will furnish to any Holder of Notes upon written request and without charge to the Holder a copy of the Indenture which has in it the text of this Note.

[ASSIGNMENT FORM]

To assign this Note, fill in the form below:

I or we assign and transfer this Note to:

_____

(Print or type assignee's legal name)

_____

(Insert assignee's soc. sec. or tax I.D. No.)

_____

_____

_____

_____

(Insert assignee's name, address and zip or post code)

and irrevocably appoint

_____

to transfer this Note on the books of the Issuers. The agent may substitute another to act for it.

Date: _____

Your Signature:

_____

Sign exactly as your name appears on the other side of this Note.

Signature Guarantee*:

_____

*(Signature must be guaranteed by a participant in a recognized signature guaranty medallion program or other signature guarantor acceptable to the Trustee)

[FORM OF CERTIFICATE TO BE DELIVERED UPON EXCHANGE OR REGISTRATION OF TRANSFER RESTRICTED NOTES]

This certificate relates to $[●] principal amount of Notes held in (check applicable box) book-entry or definitive registered form by the undersigned.

The undersigned (check one box below):

☐ as requested the Trustee by written order to deliver, in exchange for its beneficial interest in the Global Note held by the Common Depositary, a Definitive Registered Note in definitive, registered form of authorized denominations and an aggregate principal amount equal to its beneficial interest in such Global Note (or the portion thereof indicated above);

☐ as requested the Trustee by written order to exchange or register the transfer of a Note.

In connection with any transfer of any of the Notes evidenced by this certificate occurring prior to the expiration of the period referred to in Rule 144(d) under the Securities Act, the undersigned confirms that such Notes are being transferred in accordance with its terms:

CHECK ONE BOX BELOW

(1) ☐ to the Issuers; or

(2) ☐ to the Registrar for registration in the name of the Holder, without transfer; or

(3) ☐ pursuant to an effective registration statement under the Securities Act; or

(4) ☐ inside the United Sates to a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that purchases for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A; or

(5) ☐ outside the United Sates in an offshore transaction within the meaning of Regulation S in compliance with Rule 904 under the Securities Act;

(6) ☐ to an institutional investor that is an accredited investor within the meaning of Rule 501(a)(1), (2), (3), (7), (8), (9), (12) or (13) of Regulation D in a transaction exempt from the registration requirements of the Securities Act; or

(7) ☐ pursuant to Rule 144 under the Securities Act or another available exemption from registration.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Notes evidenced by this certificate in the name of any Person other than the registered Holder thereof; *provided*, *however*, that if box (5), (6) or (7) is checked, the Trustee may require, prior to registering any such transfer of the Notes, such legal opinions, certifications and other information as the Trustee or the Issuers have reasonably requested to confirm that such transfer is being made

pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act.

Date: _____

Your Signature:

_____

Sign exactly as your name appears on the other side of this Note.

Signature Guarantee*: _____

*(Signature must be guaranteed by a participant in a recognized signature guaranty medallion program or other signature guarantor acceptable to the Trustee)

TO BE COMPLETED BY PURCHASER IF (4) ABOVE IS CHECKED.

The undersigned represents and warrants that it is purchasing this Note for its own account or an account with respect to which it exercises sole investment discretion and that it and any such account is a "qualified institutional buyer" within the meaning of Rule 144A, and is aware that the sale to it is being made in reliance on Rule 144A and acknowledges that it has received such information regarding the Issuers as the undersigned has requested pursuant to Rule 144A or has determined not to request such information and that it is aware that the transferor is relying upon the undersigned's foregoing representations in order to claim the exemption from registration provided by Rule 144A.

Date: _____

Signature: _____

(to be executed by an executive officer of purchaser)

TO BE COMPLETED BY PURCHASER IF (6) ABOVE IS CHECKED.

The undersigned represents and warrants that it is purchasing this Note for its own account or an account with respect to which it exercises sole investment discretion and that it and any such account is an institutional "accredited investor" within the meaning of Rule 501(a)(1), (2), (3), (7), (8), (9), (12) or (13) of Regulation D in a transaction meeting the requirements of Rule 506 of Regulation D or such other applicable exemption and the purchase of this Note is in compliance with any applicable blue sky securities laws of any state or territory of the United States.

Date: _____

Signature: _____

(to be executed by an executive officer of purchaser)

Schedule of Increases and Decreases in the Global Notes

The initial principal amount of this Global Note is $[●]. The following increases or decreases in this Global Note have been made:

Date of Increase/Decrease	Amount of Decrease in Principal Amount of this Global Note	Amount of Increase in Principal Amount of this Global Note	Principal Amount of this Global Note Following such Decrease or Increase	Signature of Authorized Signatory of Registrar or Paying Agent

[FORM OF OPTION OF HOLDER TO ELECT PURCHASE]

If you want to elect to have this Note purchased by the Issuers pursuant to Section 4.14 (*Change of Control*) or Section 4.05 (*Limitation on Sales of Assets and Subsidiary Stock*) of the Indenture, check the box:

Asset Disposition ☐ Change of Control ☐

If you want to elect to have only part of this Note purchased by the Issuers pursuant to Section 4.14 or Section 4.05 of the Indenture, state the amount (minimum amount of $150,000):

$ _____

Date: _____

Your Signature:

_____

(Sign exactly as your name appears on the other side of the Note)

Signature Guarantee*: _____

*(SIGNATURE MUST BE GUARANTEED BY A PARTICIPANT IN A RECOGNIZED SIGNATURE GUARANTY MEDALLION PROGRAM OR OTHER SIGNATURE GUARANTOR ACCEPTABLE TO THE TRUSTEE)

EXHIBIT B

FORM OF SUPPLEMENTAL INDENTURE

SUPPLEMENTAL INDENTURE

SUPPLEMENTAL INDENTURE No. [●] (this "*Supplemental Indenture*"), dated as of [●], among [●], a company organized and existing under the laws of [●] (the "*Additional Guarantor*"), a subsidiary of Ferroglobe PLC, a public limited company incorporated under the laws of England and Wales (the "*Parent*"), Ferroglobe Finance Company, PLC, a public limited company incorporated under the laws of England and Wales (the "*UK Issuer*"), and Globe Specialty Metals, Inc., a corporation incorporated under the laws of the State of Delaware (the "*US Co-Issuer*" and, together with the UK Issuer, the "*Issuers*") and [●], as trustee (the "*Trustee*").

W I T N E S S E T H

WHEREAS, the Issuers have heretofore executed and delivered to the Trustee an indenture (the "*Indenture*"), dated as of July 29, 2021 providing for the issuance of the Issuers' U.S. dollar- denominated 9.375% Senior Secured Notes due 2025 (the "*Notes*");

WHEREAS, the Indenture provides that under certain circumstances a Subsidiary may execute and deliver to the Trustee a supplemental indenture pursuant to which such Subsidiary shall unconditionally guarantee all of the Issuers' obligations under the Notes and the Indenture on the terms and conditions set forth herein (the "*Note Guarantee*"); and

WHEREAS, pursuant to Section 9.01 of the Indenture, the Issuers, the Additional Guarantor and the Trustee are authorized to execute and deliver this Supplemental Indenture.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Additional Guarantor and the Trustee mutually covenant and agree for the equal and ratable benefit of the Holders as follows:

1. CAPITALIZED TERMS. Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.

2. AGREEMENT TO GUARANTEE. The Additional Guarantor hereby agrees to provide an unconditional Note Guarantee on the terms and subject to the conditions set forth in the Note Guarantee and in the Indenture including but not limited to Article X thereof.

[In addition, pursuant to Section 10.07 of the Indenture, the obligations of the [Guarantor]/[Additional Guarantor] and the granting of its Guarantee shall be limited as follows: [●].]

3. NO RECOURSE AGAINST OTHERS. No past, present or future director, officer, employee, incorporator or stockholder of any Additional Guarantor, as such, shall have any liability for any obligations of the Issuers or any Additional Guarantor under the Notes, the Indenture, the Note Guarantees or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder by accepting a Note waives

and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes. The waiver may not be effective to waive liabilities under applicable securities laws.

4. THE LAWS OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE, THE NOTES AND THE NOTE GUARANTEES.

5. Each of the parties hereto irrevocably agrees that any suit, action or proceeding arising out of, related to, or in connection with the Indenture, this Supplemental Indenture, the Notes and the Note Guarantees or the transactions contemplated hereby, and any action arising under U.S. Federal or state securities laws, may be instituted in any U.S. federal or state court located in the State and City of New York, Borough of Manhattan; irrevocably waives, to the fullest extent it may effectively do so, any objection which it may now or hereafter have to the laying of venue of any such proceeding; and irrevocably submits to the jurisdiction of such courts in any such suit, action or proceeding. The Issuers and each of the Guarantors (including the Additional Guarantor) has appointed (or hereby appoints) Globe Specialty Metals, Inc., as its authorized agent (the "*Authorized Agent*") upon whom process may be served in any such suit, action or proceeding which may be instituted in any Federal or state court located in the State of New York, Borough of Manhattan arising out of or based upon the Indenture, this Supplemental Indenture, the Notes or the transactions contemplated hereby or thereby, and any action brought under U.S. Federal or state securities laws. The Issuers and each of the Guarantors (including the Additional Guarantor) expressly consents to the jurisdiction of any such court in respect of any such action and waives any other requirements of or objections to personal jurisdiction with respect thereto and waives any right to trial by jury. Such appointment shall be irrevocable unless and until replaced by an agent reasonably acceptable to the Trustee. The Issuers and each of the Guarantors (including the Additional Guarantor) represents and warrants that the Authorized Agent has agreed to act as said agent for service of process, and the Issuers agree to take any and all action, including the filing of any and all documents and instruments, that may be necessary to continue such appointment in full force and effect as aforesaid. Service of process upon the Authorized Agent and written notice of such service to the Issuers shall be deemed, in every respect, effective service of process upon the Issuers and the Guarantors (including the Additional Guarantor).

6. COUNTERPARTS. The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.

7. EFFECT OF HEADINGS. The Section headings herein are for convenience only and shall not affect the construction hereof.

8. THE TRUSTEE. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Additional Guarantor and the Issuers.

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed and attested, all as of the date first above written.

FERROGLOBE FINANCE COMPANY PLC

By: _____
Name:
Title:

Globe Specialty Metals, Inc.

By: _____
Name:
Title:

[ADDITIONAL GUARANTOR]

By: _____
Name:
Title:

GLAS Trustees Limited, as Trustee

By: _____
Name:
Title: Authorized Signatory

EXHIBIT C

FORM OF ABL INTERCREDITOR AGREEMENT

INTERCREDITOR AGREEMENT

dated as of _____ __, 2021

among

[_____],
as ABL Agent
under the ABL Credit Agreement,

[ ],
as Senior Note Agent
under the **[Senior Secured Note Agreement]**,

and

[ ],
as Junior Note Agent
under the **[Junior Secured Note Agreement]**

TABLE OF CONTENTS

This INTERCREDITOR AGREEMENT is dated as of **[, 2021]**, and is among [_____], in its capacity as agent under the ABL Credit Agreement (defined below), together with its successors and assigns in such capacity (the "ABL Agent"), **[ ]**, in its capacity as collateral agent under the Senior Secured Note Agreement (defined below), together with its successors and assigns in such capacity (the "Senior Note Agent"), and **[ ]**, in its capacity as collateral agent under the Junior Secured Note Agreement (defined below), together with its successors and assigns in such capacity (the "Junior Note Agent").

RECITALS:

WHEREAS, [_____], the "ABL Borrowers", and each an "ABL Borrower"), the lenders party thereto (the "ABL Lenders"), and ABL Agent have entered into that certain [_____], dated as of [_____] (as amended, restated, supplemented or otherwise modified and in effect from time to time, including any Permitted Refinancing thereof, the "ABL Credit Agreement"), providing for a revolving credit facility pursuant to which such lenders have or may, from time to time, make loans and provide other financial accommodations to the ABL Borrowers. The obligation of the ABL Borrowers to repay such loans and other financial accommodations under the ABL Credit Agreement are guaranteed by the ABL Borrowers and each Subsidiary of the ABL Borrowers listed on the signature pages thereto as a "Guarantor" (together with each other Person that executes a joinder agreement to become a "guarantor" thereunder or otherwise guaranties all or any part of the ABL Obligations (defined below), each an "ABL Guarantor" and, collectively, the "ABL Guarantors");

WHEREAS, [●], a [●], [●], a [●] (the "Senior Issuer[s]"), the note holders party thereto (the "Senior Note Holders"), and the Senior Note Agent have entered into that certain [Indenture] dated as of [●], 2021 (as amended, restated, supplemented or otherwise modified and in effect from time to time or as otherwise refinanced from time to time, the "Senior Secured Note Agreement"). The obligation of the Senior Issuer[s] to repay the Senior Note Obligations (defined below) is guaranteed by [each/the] Senior Issuer and each Subsidiary of the Senior Issuer[s] [listed on the signature pages thereto as a "Guarantor"] (together with each other Person that executes a joinder agreement to become a "guarantor" thereunder or otherwise guaranties all or any part of the Senior Note Obligations, each a "Senior Note Guarantor" and, collectively, the "Senior Note Guarantors") **[Confirm structure/obligors/guarantors]**;

WHEREAS, [●], a [●], [●], a [●] (the "Junior Issuer[s]"), the note holders party thereto (the "Junior Note Holders"), and the Junior Note Agent have entered into that certain [Indenture], dated as of [●], 2021 (as amended, restated, supplemented or otherwise modified and in effect from time to time, or as otherwise refinanced from time to time, the "Junior Secured Note Agreement"). The obligation of the Junior Issuer[s] to repay the Junior Note Obligations (defined below) is guaranteed by [each/the] the Junior Issuer and each Subsidiary of the Junior Issuer[s] [listed on the signature pages thereto as a "Guarantor"] (together with each other Person that executes a joinder agreement to become a "guarantor" thereunder or otherwise guaranties all or any part of the Junior Note Obligations, each a "Junior Note Guarantor" and, collectively, the "Junior Note Guarantors") **[Confirm structure/obligors/guarantors]**;

WHEREAS, the ABL Borrower[s] and the ABL Guarantors intend to secure the ABL Obligations under the ABL Credit Agreement and any other ABL Documents (including any

Permitted Refinancing thereof) with a Senior Priority Lien on the ABL Priority Collateral and a Junior Priority Lien on the Note Priority Collateral;

WHEREAS, subject to the Notes Intercreditor Agreement, the Senior Issuer[s,] and the Senior Note Guarantors intend to secure the Senior Note Obligations under the Senior Secured Note Agreement and any other Senior Note Documents (including any Permitted Refinancing thereof) with a Senior Priority Lien on the Note Priority Collateral and a Junior Priority Lien on the ABL Priority Collateral; and

WHEREAS, subject to the Notes Intercreditor Agreement the Junior Issuer[s,] and the Junior Note Guarantors, intend to secure the Junior Note Obligations under the Junior Secured Note Agreement and any other Junior Note Documents (including any Permitted Refinancing thereof) with a Senior Priority Lien on the Note Priority Collateral and a Junior Priority Lien on the ABL Priority Collateral;

NOW, THEREFORE, in consideration of the premises and the agreements, provisions and covenants herein contained, the parties hereto agree as follows:

Section 1. Definitions.

1.1. UCC Definitions. Except as the context may require with respect to matters governed under the PPSA, with respect to matters governed by the UCC any terms (whether capitalized or lower case) used in this Agreement that are defined in the UCC shall be construed and defined as set forth in the UCC unless otherwise defined herein; provided, that to the extent that the UCC is used to define any term used herein and if such term is defined differently in different Articles of the UCC, the definition of such term contained in Article 9 of the UCC shall govern. Except as the context may require with respect to matters governed under the UCC, with respect to matters governed by the PPSA any terms (whether capitalized or lower case) used in this Agreement that are defined in the PPSA shall be construed and defined as set forth in the PPSA unless otherwise defined herein.

1.2. Other Defined Terms. The following terms when used in this Agreement, including its preamble and recitals, shall have the following meanings:

"ABL Agent" shall have the meaning assigned to that term in the introduction to this Agreement and shall include any successor thereto as well as any Person designated as the "Agent", the "Administrative Agent", the "Collateral Agent" or similar agency designation under any ABL Credit Agreement and includes any New Senior Priority Agent that becomes the new ABL Agent to the extent set forth in Section 2.4(f).

"ABL Agent Advances" shall mean any and all loans, advances or other financial accommodations made or permitted by the ABL Agent pursuant to Section [_____] of the ABL Credit Agreement including all "Protective Advances" as defined under the ABL Credit Agreement (or any comparable provision of any agreement, document or instrument providing for or evidencing any Refinancing of any ABL Obligations).

"ABL Credit Agreement" shall have the meaning set forth in the recitals hereto.

"ABL Default" shall mean any "Event of Default", as defined in any ABL Document.

"ABL Default Dispositions" shall have the meaning set forth in Section 2.4(a)(ii).

"ABL DIP Financing" shall mean any Senior Priority DIP Financing consented to by the ABL Agent.

"ABL Documents" shall mean (a) the ABL Credit Agreement and the Other Documents (as defined in the ABL Credit Agreement), including the ABL Security Documents and (b) each of the other agreements, documents and instruments providing for or evidencing any ABL Obligations (including any Permitted Refinancing of any ABL Obligations), and any other document or instrument executed or delivered at any time in connection with any ABL Obligations (including any Permitted Refinancing of any ABL Obligations), together with any amendments, replacements, modifications, extensions, renewals or supplements to, or restatements of, any of the foregoing, including each of the documents executed in connection with any ABL DIP Financing provided by the ABL Agent and any ABL Lenders unless such documents expressly provide at the time executed that they shall not constitute ABL Documents for purposes of this Agreement and that the debt thereunder shall not constitute ABL Obligations for purposes of this Agreement.

"ABL Lenders" shall have the meaning set forth in the recitals hereto.

"ABL Obligations" shall mean all Obligations (as defined in the ABL Credit Agreement), and all other amounts owing, due, or secured under the terms of the ABL Credit Agreement or any other ABL Document, whether now existing or arising hereafter, including all principal, premium, interest, fees, attorneys' fees, costs, charges, expenses, reimbursement obligations, obligations with respect to loans, letters of credit, Bank Product Obligations, obligations to provide cash collateral in respect of letters of credit or Bank Product Obligations or indemnities in respect thereof, any other indemnities or guarantees, and all other amounts payable under or secured by any ABL Document (including, in each case, all amounts accruing on or after the commencement of any Insolvency or Liquidation Proceeding relating to any Grantor, or that would have accrued or become due under the terms of the ABL Documents but for the commencement of the Insolvency or Liquidation Proceeding), in each case, whether direct or indirect, absolute or contingent, joint or several, due or not due, primary or secondary, liquidated or unliquidated, secured or unsecured, including all Enforcement Expenses and Indemnity Amounts. For the avoidance of doubt, the foregoing shall constitute "ABL Obligations" notwithstanding any limitations on, restrictions of, or agreements by, Grantors in the Senior Note Documents or Junior Note Documents with respect to the incurrence of any ABL Obligations.

"ABL Permitted Liens" shall mean the "Permitted Liens" under, and as defined in, the ABL Credit Agreement as in effect on the date hereof and as amended in accordance with the terms of this Agreement.

"ABL Permitted Priority Liens" shall mean the "Permitted Liens" (or substantially similar term) under, and as defined in, the ABL Credit Agreement as in effect on the ABL Agent Joinder Effective Date and as amended in accordance with this Agreement (or substantially similar term

in any Permitted Refinancing) that are, pursuant to the terms thereof, permitted to have priority over the Liens securing the ABL Priority Obligations.

"ABL Priority Collateral" shall mean all of the following assets that constitute Collateral, whether now owned or hereafter acquired (including any of the following assets acquired or created after the commencement of any Insolvency or Liquidation Proceeding) and wherever located (including, for the avoidance of doubt, any such assets that, but for the application of Section 552 of the Bankruptcy Code (or any similar provision of any other Bankruptcy Law), would constitute ABL Priority Collateral):

(a) all Accounts[1] (other than Accounts that are identifiable Proceeds of Notes Priority Collateral);

(b) all Payment Intangibles and all other rights of payment, including all corporate and other tax refunds and all credit card receivables and all other rights to payment arising therefrom in a credit-card, debit-card, prepaid-card or other payment-card transaction (other than any payment intangibles constituting identifiable Proceeds of Notes Priority Collateral);

(c) all Inventory (including, for the avoidance of doubt, Inventory that is or becomes branded, or produced through the use or other application of, any Intellectual Property and including rights in all returned or repossessed Inventory);

(d) all Deposit Accounts, Securities Accounts and Commodity Accounts and all Money or other assets (including all cash equivalents), Financial Assets and Securities Entitlements contained in, or credited to, or arising from any such Deposit Accounts, Securities Accounts or Commodity Accounts (in each case, except to the extent constituting identifiable Proceeds of Notes Priority Collateral);

(e) all claims under, proceeds of and rights to business interruption insurance and all claims under, proceeds of and rights to credit insurance with respect to any accounts (in each case, regardless of whether ABL Agent is a loss payee thereof);

(f) to the extent evidencing, governing, securing or otherwise relating to any of the items constituting ABL Priority Collateral under clauses (a) through (e) above, (i) all General Intangibles (excluding Intellectual Property (but subject to the rights of the ABL Agent under Section 4.2) and all Capital Stock in any of the Note Guarantors and any Subsidiary of a Note Guarantor), including Indebtedness (or any evidence thereof) between or among any of the Borrowers and ABL Guarantors, all contract rights as against operators of storage facilities and as against other transporters of Inventory and all rights as consignor or consignee, whether arising by contract, statute or otherwise, (ii) Instruments (including Promissory Notes), (iii) Documents (including each warehouse receipt or bill of lading covering any Inventory), (iv) in addition to clause (e) of this definition, claims under, proceeds of and rights to insurance policies (regardless of whether ABL Agent is a loss payee thereof), (v) licenses from any governmental authority to sell or to manufacture any Inventory, (vi) all Chattel Paper (including all Electronic Chattel Paper and all Tangible Chattel Paper) and (vii) Commercial Tort Claims;

[1] Rely on UCC definition of "Accounts".

(g) all collateral and guarantees given by any other Person with respect to any of the foregoing;

(h) all Supporting Obligations (including Letter-of-Credit Rights) and all Proceeds and products of any of the foregoing, and all "adequate protection" payments (or similar payments under applicable Bankruptcy Law) made using any of the foregoing included in clauses (a) through this clause (h) in respect of ABL Obligations in any Insolvency or Liquidation Proceeding (other than adequate protection payments made with Note Priority Collateral or proceeds of any Note DIP Financing); and

(i) all books and Records, customer lists, credit files, accounting systems, computer files, programs, printouts and other computer materials, in each case, to the extent evidencing or relating to any of the foregoing.

"ABL Priority Obligations" shall mean all ABL Obligations other than Excess ABL Debt.

"ABL Secured Parties" shall mean the ABL Lenders (including, in any event, each letter of credit issuer and each swingline lender), any provider of Cash Management Products and Services, Lender-Provided Foreign Currency Hedges and/or Lender-Provided Interest Rate Hedges and the ABL Agent and shall include all former ABL Lenders, providers of Cash Management Products and Services, Lender-Provided Foreign Currency Hedges and/or Lender-Provided Interest Rate Hedges and agents under the ABL Credit Agreement to the extent that any ABL Obligations owing to such Persons were incurred while such Persons were ABL Lenders, providers of Cash Management Products and Services, Lender-Provided Foreign Currency Hedges and/or Lender-Provided Interest Rate Hedges or agents under the ABL Credit Agreement and such ABL Obligations have not been paid or satisfied in full and all new ABL Secured Parties to the extent set forth in Section 2.4(f).

"ABL Security Document" shall mean any agreement, document or instrument pursuant to which a Lien is granted by one or more of the Borrowers or any other Grantor securing any ABL Obligations (including any Permitted Refinancing of any ABL Obligations) or under which rights or remedies with respect to such Liens are governed, together with any amendments, replacements, modifications, extensions, renewals or supplements to, or restatements of, any of the foregoing, to the extent permitted hereby.

"Access Period" shall have the meaning set forth in Section 4.3.

"Additional Junior Note Obligations" means obligations with respect to Indebtedness of the Borrowers or the Guarantors (other than, for the avoidance of doubt, Junior Note Obligations) issued or guaranteed following the date of this Agreement and documented in an agreement other than any agreement governing any then existing Junior Note Obligations, provided that (a) such Indebtedness is permitted by the terms of each of the ABL Credit Agreement, Senior Secured Note Agreement, the Junior Secured Note Agreement and any then existing Additional Senior Note Obligations Agreement and Additional Junior Note Obligations Agreement to be secured by Liens on the Collateral ranking *pari passu* with the Liens securing the Junior Note Obligations, (b) the Borrowers and the Guarantors have granted or purport to have granted Liens on the Collateral to secure the obligations in respect of such Indebtedness on a *pari passu* basis with the other Junior

Note Obligations, (c) the applicable Additional Junior Note Obligations Agent, for itself and on behalf of the holders of such Indebtedness and obligations in respect of such Indebtedness, has entered into a Joinder Agreement pursuant to Section 6.21(b) acknowledging that such Indebtedness, obligations and Liens shall be subject to, and such Additional Junior Note Obligations Agent and such holders shall be bound by, and shall have rights and obligations provided under, the terms of this Agreement applicable to the Junior Note Agent and the other Junior Note Secured Parties, respectively and (d) an amendment to or other modification of this Agreement shall have been entered into pursuant to Section 6.3 to the extent contemplated and requested pursuant to Section 6.21(c).

"Additional Junior Note Obligations Agent" means any Person appointed to act as trustee, agent or similar representative for the holders of Additional Junior Note Obligations pursuant to any Additional Junior Note Obligations Agreement (including, in the case of any bilateral arrangement, the actual holder of the relevant Additional Junior Note Obligations unless such holder has otherwise appointed a trustee, agent or similar representative acting on its behalf) and has been designated as such in the applicable Joinder Agreement, and any successor thereto.

"Additional Junior Note Obligations Agreements" means (i) the indenture, credit agreement, guarantee or other agreement evidencing or governing any Additional Junior Note Obligations that are designated as Additional Junior Note Obligations pursuant to Section 6.21 and (ii) any other "Note Documents", "Loan Documents" or "Financing Documents" (or similar term as may be defined in the foregoing or referred to in the foregoing), in each case, as Refinanced from time to time in accordance with the terms thereof and subject to the terms hereof.

"Additional Junior Note Obligations Claimholders" means, at any relevant time, the lenders, creditors and secured parties under any Additional Junior Note Obligations Agreements, any Additional Junior Note Obligations Agent and the other agents under such Additional Junior Note Obligations Agreements, in each case, in their capacities as such.

"Additional Note Obligations" means, collectively, the Additional Senior Note Obligations and the Additional Junior Note Obligations.

"Additional Note Obligations Agent" means the Additional Senior Note Obligations Agent and/or the Additional Junior Note Obligations Agent, as applicable.

"Additional Note Obligations Agreements" means, collectively, the Additional Senior Note Obligations Agreements and the Additional Junior Note Obligations Agreements.

"Additional Note Obligations Secured Parties" means, collectively, the Additional Senior Note Obligations Secured Parties and the Additional Junior Note Obligations Secured Parties.

"Additional Senior Note Obligations" means obligations with respect to Indebtedness of the Borrowers or any other Guarantor (other than, for the avoidance of doubt, Senior Note Obligations) issued or guaranteed following the date of this Agreement and documented in an agreement other than any agreement governing any then existing Senior Note Obligations; provided that (a) such Indebtedness is permitted by the terms of each of the ABL Credit Agreement, Senior Secured Note Agreement, the Junior Secured Note Agreement and each then existing Additional Senior Note Obligations Agreement and Additional Junior Note Obligations

Agreement to be secured by Liens on the Collateral ranking *pari passu* with the Liens securing the Senior Note Obligations, (b) the Borrowers and the Guarantors have granted or purport to have granted Liens on the Collateral to secure the obligations in respect of such Indebtedness on a *pari passu* basis with the other Senior Note Obligations, (c) the applicable Additional Senior Notes Obligations Agent, for itself and on behalf of the holders of such Indebtedness and obligations in respect of such Indebtedness, has entered into a Joinder Agreement pursuant to Section 6.21(b) acknowledging that such Indebtedness, obligations and Liens shall be subject to, and such Additional Senior Note Obligations Agent and such holders shall be bound by, and shall have the rights and obligations provided under, the terms of this Agreement applicable to the Senior Note Agent and the other Senior Note Secured Parties, respectively and (d) an amendment to or other modification of this Agreement shall have been entered into pursuant to Section 6.3 to the extent contemplated and requested pursuant to Section 6.21(c).

"Additional Senior Note Obligations Agent" means any Person appointed to act as trustee, agent or similar representative for the holders of Additional Senior Note Obligations pursuant to any Additional Senior Note Obligations Agreement (including, in the case of any bilateral arrangement, the actual holder of the relevant Additional Senior Note Obligations unless such holder has otherwise appointed a trustee, agent or similar representative acting on its behalf) and has been designated as such in the applicable Joinder Agreement, and any successor thereto.

"Additional Senior Note Obligations Agreements" means (i) the indenture, credit agreement, guarantee or other agreement evidencing or governing any Additional Senior Note Obligations that are designated as Additional Senior Note Obligations pursuant to Section 6.21 and (ii) any other "Note Documents", "Loan Documents," or "Financing Documents" (or similar term as may be defined in the foregoing or referred to in the foregoing), in each case, as refinanced from time to time in accordance with the terms thereof and subject to the terms hereof.

"Additional Senior Note Obligations Secured Parties" means, at any relevant time, the lenders, creditors and secured parties under any Additional Senior Note Obligations Agreements, any Additional Senior Note Obligations Agent and the other agents under such Additional Senior Note Obligations Agreements, in each case, in their capacities as such.

"Affiliate" shall mean, with respect to any Person, any other Person directly or indirectly controlling (including all directors and officers of such Person), controlled by, or under direct or indirect common control with such Person. A Person shall be deemed to control another Person if such Person possesses, directly or indirectly, the power (a) to vote ten percent (10%) or more of the securities having ordinary voting power for the election of directors (or equivalent governing body) of such Person or (b) to direct or cause the direction of the management and policies of such other Person, whether through the ownership of voting securities, by contract or otherwise; provided, that, neither any Agent nor any Secured Party (nor any Affiliate thereof) shall be considered an Affiliate of any Borrower or any Subsidiary thereof.

"Agreement" shall mean this Intercreditor Agreement as the same may be amended, modified, restated and/or supplemented from time to time in accordance with its terms.

"Bank Product Agreements" shall mean the agreements and documents pursuant to which Cash Management Products and Services, Lender-Provided Foreign Currency Hedges and/or Lender-Provided Interest Rate Hedges are provided.

"Bank Product Obligations" shall mean the ABL Obligations in respect of Cash Management Liabilities and Hedge Liabilities under Lender-Provided Interest Rate Hedges and/or Lender-Provided Foreign Currency Hedges.

"Bankruptcy Code" shall mean Title 11 of the United States Code as in effect from time to time or any successor statute.

"Bankruptcy Law" shall mean, as applicable, (i) the Bankruptcy Code, (ii) the BIA, (iii) the Companies' Creditors Arrangement Act (Canada) ("CCAA"), (iv) the Winding-Up and Restructuring Act (Canada), (v) the Canada Business Corporations Act (Canada) or provincial corporate laws where such statute is used by a Person to propose an arrangement or compromise of some or all of the debts of a Person or a stay of proceedings to enforce some or all of the claims of creditors against a Person, and (vi) any other federal, state, provincial or foreign law for the relief of debtors or affecting creditors' rights generally.

"BIA" means the Bankruptcy and Insolvency Act (Canada).

"Borrowers" shall mean the collective reference to the ABL Borrower[s], the Senior Note Issuer[s] and the Junior Note Issuer[s] and their respective successors and assigns; sometimes being referred to herein individually as a "Borrower".

"Business Day" shall mean any day except Saturday, Sunday and any day which shall be in New York City a legal holiday or a day on which banking institutions are authorized or required by law or other government action to close.

"Capital Stock" shall mean any and all shares, interests, participations or other equivalents (however designated) of capital stock of a corporation, any and all equivalent ownership interests in a Person (other than a corporation), including partnership interests and membership interests, and any and all warrants, rights or options to purchase or other arrangements or rights to acquire any of the foregoing.

"Capitalized Lease Obligation" shall mean, with respect to any Person, that portion of any obligation of such Person as lessee under a lease which at the time would be required to be capitalized on the balance sheet of such lessee in accordance with GAAP.

"Cash Management Liabilities" shall mean "Cash Management Liabilities", as defined in the ABL Credit Agreement (as in effect on the date hereof or any substantially similar term in any Permitted Refinancing).

"Cash Management Products and Services" shall mean "Cash Management Products and Services", as defined in the ABL Credit Agreement (as in effect on the date hereof or any substantially similar term in any Permitted Refinancing).

"Cash Proceeds" shall mean all Proceeds of any Collateral received by any Grantor or any Secured Party consisting of Money, cash equivalents or checks.

"Collateral" shall mean all assets and property (whether real, personal, movable or immovable), now owned or hereafter acquired (including any assets or property acquired or created after the commencement of any Insolvency or Liquidation Proceeding) with respect to which any security interests have been granted (or purported to be granted) by any Grantor pursuant to any ABL Security Document, Senior Note Security Document or Junior Note Security Document.

"Collateral Agents" shall mean the ABL Agent, the Senior Note Agent and the Junior Note Agent.

"Contingent Obligation" shall mean, as to any Person, any obligation of such Person as a result of such Person being a general partner of any other Person, unless the underlying obligation is expressly made non-recourse as to such general partner, and any obligation of such Person guaranteeing or intended to guarantee any Indebtedness, leases, dividends or other obligations ("primary obligations") of any other Person (the "primary obligor") in any manner, whether directly or indirectly, including any obligation of such Person, whether or not contingent, (a) to purchase any such primary obligation or any property constituting direct or indirect security therefor, (b) to advance or supply funds (i) for the purchase or payment of any such primary obligation or (ii) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor, (c) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation or (d) otherwise to assure or hold harmless the holder of such primary obligation against loss in respect thereof; provided, that, the term "Contingent Obligation" shall not include endorsements of instruments for deposit or collection in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount equal to the lesser of (x) the stated or determinable amount of the primary obligation in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof (assuming such Person is required to perform thereunder) as determined by such Person in good faith and (y) the stated amount of such Contingent Obligation.

"Controlling Note Agent" shall mean the Security Agent as defined in the Notes Intercreditor Agreement; provided, that the Controlling Note Agent shall be the Junior Note Agent if the Discharge of Senior Note Priority Obligations has occurred; provided further that that the Controlling Note Agent shall be the Senior Note Agent if the Discharge of Junior Note Priority Obligations has occurred. For the avoidance of doubt, the Controlling Note Agent shall not be any Note Trustee (as defined in the Notes Intercreditor Agreement).

"Credit Agreements" shall mean the ABL Credit Agreement, the Senior Secured Note Agreement and the Junior Secured Note Agreement.

"Defaulting ABL Secured Party" shall have the meaning set forth in Section 3.7.

"DIP Financing" shall mean providing the Borrower or any other Grantor financing under Section 364 of the Bankruptcy Code or any similar Bankruptcy Law.

"Discharge of ABL Priority Obligations" shall mean, except to the extent otherwise provided in Section 2.4(f) and subject to Section 6.17, the occurrence of all of the following:

(a) termination or expiration of all commitments to extend credit that would constitute ABL Priority Obligations;

(b) payment in full in cash of the principal of and interest and premium (if any) on all ABL Priority Obligations (other than any undrawn letters of credit);

(c) discharge or cash collateralization (at one hundred three percent (103%) of the aggregate undrawn amount) of, or back-to-back letters of credit (in form and substance reasonably acceptable to the ABL Agent) for, of all outstanding letters of credit constituting ABL Priority Obligations;

(d) discharge or cash collateralization (in accordance with the ABL Documents) of, or back-to-back letters of credit (in form and substance reasonably acceptable to the ABL Agent) for, all outstanding Bank Product Obligations constituting ABL Priority Obligations;

(e) payment in full in cash of all other ABL Priority Obligations that are outstanding and unpaid at the time the termination, expiration, discharge and/or cash collateralization set forth in clauses (a) through (d) above have occurred (other than any obligations for taxes, costs, indemnifications, reimbursements, damages and other contingent liabilities in respect of which no claim or demand for payment has been made at such time); and

(f) providing cash collateral or letters of credit to the ABL Agent in such amount as reasonably determined by the ABL Agent as is necessary to secure the ABL Secured Parties in respect of asserted or threatened (in writing) claims for which the ABL Secured Parties are entitled to indemnification by any Grantor pursuant to the ABL Security Documents.

"Discharge of Junior Note Priority Obligations" shall mean, except to the extent otherwise provided in Section 2.4(f) and subject to Section 6.17, the occurrence of all of the following:

(a) termination or expiration of all commitments to extend credit that would constitute Junior Note Priority Obligations and, if applicable, Additional Junior Note Obligations;

(b) payment in full in cash of the principal of and interest and premium (if any) on all Junior Note Priority Obligations and, if applicable, Additional Junior Note Obligations;

(c) payment in full in cash of all other Junior Note Priority Obligations and, if applicable, and Additional Junior Note Obligations that are outstanding and unpaid at the time the termination, expiration and discharge set forth in clauses (a) and (b) above have occurred (other than any obligations for taxes, costs, indemnifications, reimbursements, damages and other contingent liabilities in respect of which no claim or demand for payment has been made at such time); and

(d) providing cash collateral or letters of credit to the Junior Note Agent (and, if applicable, the Additional Junior Note Obligations Agent) in such amount as reasonably determined by the Junior Note Agent (and, if applicable, the Additional Junior Note Obligations Agent) as is necessary to secure the Junior Note Secured Parties (and, if applicable, the Additional Junior Note Obligations Secured Parties) in respect of asserted or threatened (in writing) claims for which the Junior Note Secured Parties (and, if applicable, the Additional Junior Note Obligations Secured Parties) are entitled to indemnification by any Grantor pursuant to the Junior Note Security Documents or the Additional Junior Note Obligations Documents).

"Discharge of Note Priority Obligations" shall mean the occurrence of both the Discharge of Senior Note Priority Obligations and the Discharge of Junior Note Priority Obligations.

"Discharge of Senior Note Priority Obligations" shall mean, except to the extent otherwise provided in Section 2.4(f) and subject to Section 6.17, the occurrence of all of the following:

(a) termination or expiration of all commitments to extend credit that would constitute Senior Note Priority Obligations and, if applicable, Additional Senior Note Obligations;

(b) payment in full in cash of the principal of and interest and premium (if any) on all Senior Note Priority Obligations and, if applicable, Additional Senior Note Obligations;

(c) payment in full in cash of all other Senior Note Priority Obligations and, if applicable, Additional Senior Note Obligations, that are outstanding and unpaid at the time the termination, expiration and discharge set forth in clauses (a) and (b) above have occurred (other than any obligations for taxes, costs, indemnifications, reimbursements, damages and other contingent liabilities in respect of which no claim or demand for payment has been made at such time); and

(d) providing cash collateral or letters of credit to the Senior Note Agent (and, if applicable, Additional Senior Note Obligations Agent) in such amount as reasonably determined by the Senior Note Agent (and, if applicable, Additional Senior Note Obligations Agent) as is necessary to secure the Senior Note Secured Parties (and, if applicable, Additional Senior Note Obligations Secured Parties) in respect of asserted or threatened (in writing) claims for which the Senior Note Secured Parties (and, if applicable, Additional Senior Note Obligations Secured Parties) are entitled to indemnification by any Grantor pursuant to the Senior Note Security Documents and/or and, if applicable, Additional Senior Note Obligations Documents.

"Discharge of Senior Priority Obligations" shall mean, except to the extent otherwise provided in Section 2.4(f) and subject to Section 6.17, (a) with respect to the Senior Note Obligations or the Junior Note Obligations secured by ABL Priority Collateral, the Discharge of ABL Priority Obligations, and (b) with respect to ABL Obligations secured by the Note Priority Collateral, the Discharge of Note Priority Obligations.

"Disposition" shall mean any sale, transfer, license, lease or other disposition (including any sale and leaseback transaction) of any property by any Person, including any sale, assignment, transfer or other disposal, with or without recourse, of any notes or accounts receivable or any rights and claims associated therewith.

"Distribution" shall mean, with respect to any indebtedness or obligation, (a) any direct or indirect payment or distribution by any Borrower or any of its Affiliates of cash, securities or other property, by set-off or otherwise, on account of such indebtedness or obligation, (b) any direct or indirect redemption, purchase or other acquisition of such indebtedness or obligation by any Borrower or any of its Affiliates (other than assignments and participations (other than to the Borrower or any of its Affiliates) in accordance with the ABL Credit Agreement, the Senior Secured Note Agreement and the Junior Secured Note Agreement, as the case may be), or (c) any direct or indirect acquisition by any Borrower or any of its Affiliates of any equity or other interest in any Person that holds any such indebtedness or obligation.

"Dollar Equivalent" shall mean, with respect to any amount of any currency, as of any applicable date of computation, the Equivalent Amount of such currency converted into Dollars in accordance with the International Financial Reporting Standards and applicable accounting requirements set by the International Accounting Standards Board or any successor thereto, as in effect from time to time.

"Enforcement Expenses" shall mean all costs, expenses or fees (including fees incurred by any Collateral Agent or any attorneys or other agents or consultants retained by such Collateral Agent) that any Collateral Agent or any other Secured Party may suffer or incur after the occurrence of an Event of Default on account or in connection with (a) the repossession, storage, repair, appraisal, insuring, completion of the manufacture of, preparing for sale, advertising for sale, selling, collecting or otherwise preserving or realizing upon any Collateral, (b) the settlement or satisfaction of any prior Lien or other encumbrance upon any Collateral, (c) the exercise of rights under Section 4, including any amounts payable pursuant to Section 4, (d) the enforcement of any of the ABL Documents, the Senior Note Documents or Junior Note Documents, as the case may be, or the collection of any of the ABL Obligations, the Senior Note Obligations or the Junior Note Obligations, as the case may be, or (e) any Insolvency or Liquidation Proceeding, in each case, in accordance with the ABL Documents, the Senior Note Documents and the Junior Note Documents, as applicable, or applicable law.

"Equivalent Amount" shall mean, at any time, as determined by the applicable Agent (which determination shall be conclusive absent manifest error), with respect to an amount of any currency (the "Reference Currency") which is to be computed as an equivalent amount of another currency (the "Equivalent Currency"), the amount of such Equivalent Currency converted from such Reference Currency at the rate determined by the European Central Bank for such Reference Currency as of 16:00 Central European Time on the second Business Day immediately preceding the event for which such calculation is made.

"Event of Default" shall mean an ABL Default, Senior Note Default or Junior Note Default, as the context may require.

"Excess ABL Debt" shall mean the sum of (a) the portion of the Outstanding ABL Principal Obligations that is in excess of the Maximum ABL Principal Obligations and (b) interest and fees in respect of the Outstanding ABL Principal Obligations in excess of the Maximum ABL Principal Obligations.

"Excess Junior Note Debt" shall mean the sum of (a) the portion of the Outstanding Junior Note Principal Obligations that is in excess of the Maximum Junior Note Principal Obligations and (b) interest and fees in respect of the Outstanding Junior Note Principal Obligations in excess of the Maximum Junior Note Principal Obligations.

"Excess Senior Note Debt" shall mean the sum of (a) the portion of the Outstanding Note Principal Obligations that is in excess of the Maximum Senior Note Principal Obligations and (b) interest and fees in respect of the Outstanding Note Principal Obligations in excess of the Maximum Senior Note Principal Obligations.

"Exercise any Secured Creditor Remedies" or "Exercise of Secured Creditor Remedies" shall mean:

(a) the taking of any action to enforce any Lien in respect of the Collateral, including the institution of any foreclosure proceedings or the noticing of any public or private Disposition pursuant to Article 9 of the UCC, the PPSA, the Bankruptcy Code, similar Bankruptcy Law or other applicable law, or the taking of any action in an attempt to vacate or obtain relief from a stay or other injunction restricting any other action described in this definition,

(b) the exercise of any right or remedy provided to a secured creditor under the ABL Documents, the Senior Note Documents or the Junior Note Documents, under applicable law, at equity, in an Insolvency or Liquidation Proceeding or otherwise, including (i) exercising a right of set-off and (ii) the acceptance of Collateral in full or partial satisfaction of an obligation,

(c) the Disposition of all or any portion of the Collateral, by private or public sale or any other means, in connection with the exercise of enforcement rights relating to the Collateral,

(d) the solicitation of bids from third parties to conduct the Disposition of all or a material portion of the Collateral, in connection with, or in anticipation of, the exercise of enforcement rights relating to the Collateral,

(e) the engagement or retention of sales brokers, marketing agents, investment bankers, accountants, appraisers, auctioneers, or other third parties for the purpose of valuing, marketing, or Disposing of all or a material portion of the Collateral in connection with, or in anticipation of, the exercise of enforcement rights relating to the Collateral, following the occurrence and during the continuance of an Event of Default,

(f) the exercise of any other enforcement right relating to the Collateral (including the exercise of any voting rights relating to any Capital Stock composing a portion of the Collateral) whether under the ABL Documents, the Senior Note Documents, the Junior Note Documents, under applicable law, in equity, in an Insolvency or Liquidation Proceeding or otherwise (including the commencement of applicable legal proceedings or other actions with respect to the Collateral to facilitate the actions described in the preceding clauses), and

(g) the pursuit of ABL Default Dispositions or Senior Note Default Dispositions relative to all or a material portion of the Collateral to the extent undertaken and being diligently pursued in good faith to consummate the Disposition of such Collateral within a commercially reasonable time;

provided, that the following shall not constitute the Exercise any Secured Creditor Remedies or Exercise of Secured Creditor Remedies (and for clarity, shall not be prohibited, restricted or limited in any way by this Agreement): (i) the exercise of cash dominion by the ABL Agent over Deposit Accounts of any Grantor that constitute ABL Priority Collateral and the application of funds in connection therewith against the ABL Priority Obligations pursuant the terms of the ABL Documents, (ii) the imposition of a default interest rate or late fee, (iii) the consent of any Senior Priority Agent in connection with any ABL Default Disposition or Senior Note Default Disposition, as applicable, (iv) the acceleration of (and subject to Section 2.4(d), related collection action on) the ABL Obligations, Senior Note Obligations or Junior Note Obligations, (v) the commencement of any Senior Priority Standstill Period or Third Priority Standstill Period and (vi) any other action permitted pursuant to Section 2.2(e).

"Exigent Circumstances" shall mean (a) an exercise by another creditor of enforcement rights or remedies with respect to all or a material portion of the Collateral or (b) an event or circumstance that materially and imminently threatens the ability of the applicable Secured Party to realize upon all or a material portion of the Collateral, including fraud, fraudulent removal, concealment, or abscondment thereof, destruction or material waste thereof.

"GAAP" shall mean generally accepted accounting principles and practices set forth from time to time in the opinions and pronouncements of the Accounting Principles Board and the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board (or agencies with similar functions of comparable stature and authority within the United States of America accounting profession).

"Grantors" shall mean the Borrowers and the Guarantors and each of their respective Subsidiaries that have executed and delivered, or may from time to time hereafter execute and deliver, an ABL Security Document, a Senior Note Security Document or a Junior Note Security Document.

"Guarantors" shall mean the collective reference to the ABL Guarantors, the Senior Note Guarantors and the Junior Note Guarantors and their respective successors and assigns; sometimes being referred to herein individually as a "Guarantor".

"Hedge Liabilities" shall mean "Hedge Liabilities", as defined in the ABL Credit Agreement (as in effect on the date hereof or any substantially similar term in any Permitted Refinancing).

"Indebtedness" shall mean, as to any Person, without duplication, (a) all indebtedness (including principal, interest, fees and charges) of such Person for borrowed money or for the deferred purchase price of property or services, (b) the maximum amount available to be drawn or paid under all letters of credit, bankers' acceptances, bank guaranties and similar obligations issued for the account of such Person and all unpaid drawings and unreimbursed payments in respect of such letters of credit, bankers' acceptances, bank guaranties and similar obligations, (c) all indebtedness of the types described in clause (a), (b), (d), (e), (f) or (g) of this definition secured by any Lien on any property owned by such Person, whether or not such indebtedness has been assumed by such Person (provided that, if the Person has not assumed or otherwise become liable in respect of such indebtedness, such Indebtedness shall be deemed to be in an amount equal to

the lesser of the amount thereof or the fair market value of the property to which such Lien relates as determined in good faith by such Person), (d) the aggregate amount of all Capitalized Lease Obligations of such Person, (e) all obligations of such Person to pay a specified purchase price for goods or services, whether or not delivered or accepted, i.e., take-or-pay and similar obligations, (f) all Contingent Obligations of such Person, (g) all obligations, calculated on a basis satisfactory to the Secured Parties and in accordance with accepted practice, under any Bank Product Agreement or under any similar type of agreement and (h) obligations arising under any off- balance sheet liability retained in connection with asset securitization programs, synthetic leases, sale and leaseback transactions or other similar obligations arising with respect to any other transaction which is the functional equivalent of or takes the place of borrowing but which does not constitute a liability on the consolidated balance sheet of such Person and its Subsidiaries.

"Indemnity Amount" shall mean, on any date, the amount required to be paid by any Grantor to any Collateral Agent or any other Secured Party on such date pursuant to any indemnity provision contained in the ABL Documents, the Senior Note Documents or the Junior Note Documents, as the case may be.

"Insolvency or Liquidation Proceeding" shall mean any of the following: (a) the filing by any Grantor of a voluntary petition in bankruptcy under any provision of any Bankruptcy Law (including the Bankruptcy Code, CCAA or BIA) or a petition to take advantage of any receivership or insolvency laws, including any petition seeking the dissolution, winding up, total or partial liquidation, reorganization, composition, arrangement, adjustment or readjustment or other relief of such Grantor, such Grantor's debts or such Grantor's assets or the appointment of a trustee, receiver, liquidator, custodian or similar official for such Grantor or a material part of such Grantor's property; (b) the appointment of a receiver, liquidator, trustee, custodian or other similar official for such Grantor or all or a material part of such Grantor's assets; (c) the filing of any petition against such Grantor under any bankruptcy law (including the Bankruptcy Code) or other receivership or insolvency law, including any petition seeking the dissolution, winding up, total or partial liquidation, reorganization, composition, arrangement, adjustment or readjustment or other relief of such Grantor, such Grantor's debts or such Grantor's assets or the appointment of a trustee, receiver, liquidator, custodian or similar official for such Grantor or a material part of such Grantor's property; or (d) the general assignment by such Grantor for the benefit of creditors or any other marshaling of the assets and liabilities of such Grantor.

"Intellectual Property" shall mean, with respect to any Person, the collective reference to such Person's patents, patent applications, trademarks, service marks, trade names, trade secrets, goodwill and copyrights, Proprietary Rights, together with all licenses of the same, in each case, whether written, electronic or oral.

"Intercreditor Agreement Consent" shall mean an agreement substantially in the form of Exhibit B.

"Intercreditor Agreement Joinder" shall mean an agreement substantially in the form of Exhibit A.

"Junior 507(b) Claims" has the meaning set forth in Section 2.5(c)(iv).

"Junior Note Agent" shall have the meaning assigned to that term in the introduction to this Agreement and shall include (a) any successor thereto as well as any Person designated as the "Agent", the "Administrative Agent" or the "Collateral Agent" under any Junior Secured Note Agreement and includes any New Junior Priority Agent that becomes the new Junior Note Agent to the extent set forth in Section 2.4(g) and (b) any Additional Junior Note Obligations Agent.

"Junior Secured Note Agreement" shall have the meaning set forth in the recitals hereto.

"Junior Note Default" shall mean any **["Event of Default"]**, as defined in any Junior Note Document.

"Junior Note Documents" shall mean (a) the Junior Secured Note Agreement and the other **[Note Documents]** (as defined in the Junior Secured Note Agreement), including the Junior Note Security Documents, (b) each of the other agreements, documents and instruments providing for or evidencing any Junior Note Obligation (including any Permitted Refinancing of any Junior Note Obligation), and any other document or instrument executed or delivered at any time in connection with any Junior Note Obligation (including any Permitted Refinancing of any Junior Note Obligation), together with any amendments, replacements, modifications, extensions, renewals or supplements to, or restatements of, any of the foregoing and (c) the the Additional Junior Note Obligations Agreements.

"Junior Note Holders" shall have the meaning set forth in the recitals hereto.

"Junior Note Obligations" shall mean (a) all **[Obligations]** (as defined in the Junior Secured Note Agreement), and all other amounts owing, due, or secured under the terms of the Junior Secured Note Agreement or any other Junior Note Document, whether now existing or arising hereafter, including all principal, premium, interest, fees, attorneys' fees, costs, charges, expenses, reimbursement obligations, obligations with respect to loans, indemnities or guarantees, and all other amounts payable under or secured by any Junior Note Document (including, in each case, all amounts accruing on or after the commencement of any Insolvency or Liquidation Proceeding relating to any Grantor, or that would have accrued or become due under the terms of the Junior Note Documents but for the commencement of the Insolvency or Liquidation Proceeding), in each case, whether direct or indirect, absolute or contingent, joint or several, due or not due, primary or secondary, liquidated or unliquidated, secured or unsecured, including all Enforcement Expenses and Indemnity Amounts and (b) all Additional Junior Note Obligations.

"Junior Note Permitted Liens" shall mean the **["Permitted Liens"]** under, and as defined in, the Junior Secured Note Agreement as in effect on the date hereof and as amended in accordance with the terms of this Agreement.

"Junior Note Permitted Priority Liens" shall mean the **["Permitted Liens"]** under, and as defined in, the Junior Secured Note Agreement as in effect on the date hereof and as amended in accordance with the terms of this Agreement (or substantially similar term in any Permitted Refinancing) that are, pursuant to the terms thereof, permitted to have priority over the Liens securing the Junior Note Priority Obligations.

"Junior Note Pledge Agreement" shall mean the **["Pledge Agreement"]** (as defined in the Junior Secured Note Agreement).

"Junior Note Priority Obligations" shall mean all Junior Note Obligations other than Excess Junior Note Debt.

"Junior Note Secured Parties" shall mean (a) the Junior Note Holders and the Junior Note Agent and shall include all former Junior Note Holders and agents under the Junior Secured Note Agreement to the extent that any Junior Note Obligations owing to such Persons were incurred while such Persons were Junior Note Holders or agents under the Junior Secured Note Agreement and such Junior Note Obligations have not been paid or satisfied in full and all new Junior Note Secured Parties to the extent set forth in Section 2.4(g) and (b) the Additional Junior Note Obligations Secured Parties.

"Junior Note Security Agreement" shall mean the **["Security Agreement"]** (as defined in the Junior Secured Note Agreement).

"Junior Note Security Document" shall mean (a) the Junior Note Security Agreement, the Junior Note Pledge Agreement and any **["Mortgage"]** (as defined in the Junior Secured Note Agreement) or related security document executed and delivered by any Borrower or any other Grantor in connection therewith and (b) any other agreement, document or instrument pursuant to which a Lien is granted by any Borrower or any other Grantor securing any Junior Note Obligations (including any Permitted Refinancing of any Junior Note Obligations) or under which rights or remedies with respect to such Liens are governed, together with any amendments, replacements, modifications, extensions, renewals or supplements to, or restatements of, any of the foregoing, to the extent permitted hereby.

"Junior Priority" shall mean, (a) prior to the discharge of ABL Priority Obligations, with respect to the ABL Priority Collateral, that such Liens purported to be created on such Collateral to secure the Note Priority Obligations pursuant to the Note Security Documents are prior in right to any other Lien thereon, other than (A) the Liens on such ABL Priority Collateral securing the ABL Priority Obligations, and (B) Senior Note Permitted Priority Liens and Junior Note Permitted Priority Liens, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, that such Liens purported to be created on such Collateral to secure the ABL Priority Obligations under the ABL Security Documents are prior in right to any other Lien thereon, other than (A) the Liens on such Note Priority Collateral securing the Note Priority Obligations, and (B) ABL Permitted Priority Liens.

"Junior Priority Agent" shall mean, (a) with respect to the ABL Priority Collateral, (i) prior to the Discharge of ABL Priority Obligations, the Note Agents, and (ii) after the Discharge of Note Priority Obligations, the ABL Agent, and (b) with respect to the Note Priority Collateral, the ABL Agent.

"Junior Priority Collateral" shall mean, (a) with respect to the ABL Priority Obligations, all Collateral other than ABL Priority Collateral, and (b) with respect to the Note Priority Obligations, all Collateral other than Note Priority Collateral.

"Junior Priority Credit Agreement" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the Secured Note Agreements, and

(b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the ABL Credit Agreement.

"Junior Priority Creditors" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the Note Holders, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the ABL Lenders.

"Junior Priority Documents" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the Note Documents, and (b) with respect to the Note Priority Obligations, prior to the Discharge of Note Priority Obligations, the ABL Documents.

"Junior Priority Permitted Liens" shall mean, (a) with respect to the ABL Priority Collateral, the Senior Note Permitted Liens and the Junior Note Permitted Liens, and (b) with respect to the Note Priority Collateral, the ABL Permitted Liens.

"Junior Priority Obligations" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the Note Priority Obligations, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the ABL Priority Obligations.

"Junior Priority Secured Parties" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the Note Secured Parties, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the ABL Secured Parties.

"Lender-Provided Foreign Currency Hedge" shall mean "Lender-Provided Foreign Currency Hedge", as defined in the ABL Credit Agreement (as in effect on the date hereof or any substantially similar term in any Permitted Refinancing).

"Lender-Provided Interest Rate Hedge" shall mean "Lender-Provided Interest Rate Hedge", as defined in the ABL Credit Agreement (as in effect on the date hereof or any substantially similar term in any Permitted Refinancing).

"License Period" shall have the meaning set forth in Section 4.2(b).

"Lien" shall mean any mortgage, pledge, hypothecation, assignment, deposit arrangement, security interest, encumbrance, hypothec, charge, lien (statutory or other), charge, preference, priority or other security agreement of any kind or nature whatsoever (including any agreement to give any of the foregoing, any conditional sale or other title retention agreement, any financing or similar statement or notice filed under the UCC, or any similar recording or notice statute or other law, and any lease having substantially the same effect as the foregoing).

"Maximum ABL Principal Obligations" shall mean, as of any date of determination, the sum of:

(a) $ _____[2]

plus

(b) 110% of the amount of any incremental ABL Obligations authorized to be incurred pursuant to **[Section]** of the ABL Credit Agreement (as in effect on the date hereof or any substantially similar provision under any Permitted Refinancing),

plus

(c) the amount of Bank Product Obligations,

plus

(d) if applicable, the amount of any incremental DIP Financing permitted pursuant to Section 2.5(a), in an aggregate principal amount under this clause (c) not to exceed the sum of $**[TBD]** [3] minus the Outstanding ABL Principal Obligations as of the commencement of such Insolvency or Liquidation Proceeding in excess of the commitments (including incremental commitments) under the ABL Credit Agreement (or any Permitted Refinancing) as of the date hereof and otherwise permitted under clauses (a) and (b) above;

minus

(e) the amount of all payments of Outstanding ABL Principal Obligations under the ABL Credit Agreement that result in a permanent reduction of the revolving credit commitments under the ABL Credit Agreement (other than payments of Outstanding ABL Principal Obligations in connection with a Permitted Refinancing thereof or a refinancing pursuant to a DIP Financing permitted pursuant to Section 2.5(a)).

Any net increase in the aggregate principal amount of a loan or letter of credit (on a Dollar Equivalent (as defined under the ABL Credit Agreement) basis) after the loan is made, the letter of credit issued, or Bank Product Obligation incurred that is caused by a fluctuation in the exchange rate of the currency in which the loan, letter of credit or Bank Product Obligation is denominated will be ignored in determining whether the Maximum ABL Principal Obligations has been exceeded.

"Maximum Junior Note Principal Obligations" shall mean, as of any date of determination:

(a) the amount that is the sum of:

(i) $[_____][4];

[2] TBD. 115% of ABL commitments at close.
[3] TBD. An amount equal to 15% of the closing commitments plus the incremental commitments if funded.
[4] TBD. 15% above closing amount.

plus

(ii) [100% of the amount of any incremental Junior Note Obligations authorized to be incurred pursuant to the Junior Note Agreement (as in effect on the date hereof or any substantially similar provision under any Permitted Refinancing),][5]

plus

(iii) if applicable, the amount of any incremental DIP Financing permitted pursuant to Section 2.5(a),

minus

(b) the amount of all payments of Outstanding Junior Note Principal Obligations under the Junior Secured Note Agreement (other than payments of Outstanding Junior Note Principal Obligations in connection with a Permitted Refinancing thereof).

Any net increase in the aggregate principal amount of a loan (on a Dollar Equivalent basis) after the loan is made that is caused by a fluctuation in the exchange rate of the currency in which the loan is denominated will be ignored in determining whether the Maximum Junior Note Principal Obligations.

"Maximum Senior Note Principal Obligations" shall mean, as of any date of determination:

(a) the amount that is the sum of:

(iv) $[_____]6;

plus

(v) [100% of the amount of any incremental Senior Note Obligations authorized to be incurred pursuant to the Senior Note Agreement (as in effect on the date hereof or any substantially similar provision under any Permitted Refinancing),][7]

plus

(vi) if applicable, the amount of any incremental DIP Financing permitted pursuant to Section 2.5(a);

minus

(b) the amount of all payments of Outstanding Note Principal Obligations under the Senior Secured Note Agreement (other than payments of Outstanding Note Principal Obligations

[5] To be confirmed whether any incremental junior notes provision.
[6] TBD. 15% above closing amount,
[7] To be confirmed whether any incremental senior notes provision.

in connection with a Permitted Refinancing thereof or a refinancing pursuant to a DIP Financing permitted pursuant to Section 2.5(a)).

Any net increase in the aggregate principal amount of a loan (on a Dollar Equivalent basis) after the loan is made that is caused by a fluctuation in the exchange rate of the currency in which the loan is denominated will be ignored in determining whether the Maximum Senior Note Principal Obligations.

"New Junior Priority Agent" shall have the meaning set forth in Section 2.4(g).

"New Senior Priority Agent" shall have the meaning set forth in Section 2.4(f).

"Note Agents" shall mean the Senior Note Agent and the Junior Note Agent.

"Note Cash Proceeds Notice" shall mean a written notice delivered by the Senior Note Agent, Junior Note Agent, or any Grantor to the ABL Agent (a) stating either that a Disposition of Note Priority Collateral is being effected or that an Event of Default has occurred and is continuing under the applicable Notes Document and (b) stating that certain cash proceeds which may be deposited in any Grantor's deposit account, collection account or other account constitute Note Priority Collateral and reasonably identifying the amount of such proceeds.

"Note DIP Financing" shall mean any DIP Financing provided by or consented to by any Note Agent or any other Note Holder.

"Note Documents" shall mean the Senior Note Documents and the Junior Note Documents. "Note Holders" shall mean the Senior Note Holders and the Junior Note Holders.

"Notes Intercreditor Agreement" shall mean that certain intercreditor agreement, dated as of [_____], among [____], as the same may be amended, supplemented, restated or otherwise modified from time to time.

"Note Priority Collateral" shall mean all of the following assets that constitute Collateral, whether now owned or hereafter acquired (including any of the following assets acquired or created after the commencement of any Insolvency or Liquidation Proceeding) and wherever located (including, for the avoidance of doubt, any such assets that, but for the application of Section 552 of the Bankruptcy Code (or any similar provision of any other Bankruptcy Law), would constitute Note Priority Collateral):

(a) all Equipment and all real property and interests therein (including both fee and leasehold interests) and all Fixtures;

(b) all Intellectual Property (subject to the rights of the ABL Agent under Section 4.2 and excluding any interest in any ABL Priority Collateral that is or becomes branded or is produced through the use or other application of any Intellectual Property and other than any computer programs and any support and information relating thereto that constitute Inventory);

(c) all Capital Stock and other Investment Property (other than Investment Property constituting ABL Priority Collateral);

(d) except to the extent constituting ABL Priority Collateral, all other Instruments, Documents and other General Intangibles;

(e) except to the extent constituting ABL Priority Collateral, all other Commercial Tort Claims;

(f) all other Collateral not constituting ABL Priority Collateral;

(f) all insurance policies relating to the foregoing Note Priority Collateral (regardless of whether the Senior Note Agent or Junior Note Agent is the loss payee thereof), excluding business interruption insurance and proceeds thereof and credit insurance with respect to any Accounts;

(g) all collateral and guarantees given by any other Person with respect to any of the foregoing Note Priority Collateral;

(h) all Supporting Obligations (including Letter-of-Credit Rights) and all Proceeds of any of the foregoing Note Priority Collateral and all "adequate protection" payments (or similar payments under applicable Bankruptcy Law) made using any of the foregoing included in clauses (a) through this clause (h) in respect of Senior Note Obligations or Junior Note Obligations in any Insolvency or Liquidation Proceeding (other than adequate protection payments made with ABL Priority Collateral or proceeds of any ABL DIP Financing); and

(i) except to the extent constituting ABL Priority Collateral, all other books and Records, in each case, to the extent evidencing or relating to any of the foregoing.

Notwithstanding the foregoing, the term "Note Priority Collateral" shall not include any ABL Priority Collateral.

"Note Priority Obligations" shall mean the Senior Note Priority Obligations and the Junior Note Priority Obligations.

"Note Secured Parties" shall mean the Senior Note Secured Parties and the Junior Note Secured Parties.

"Note Security Documents" shall mean the Senior Note Security Documents and the Junior Note Security Documents.

"Outstanding ABL Principal Obligations" shall mean the sum of (a) the aggregate outstanding principal amount of all loans and advances (including ABL Agent Advances other than ABL Agent Advances made to enable the payment of Enforcement Expenses), (b) the undrawn amount available under all outstanding letters of credit, (c) all Bank Product Obligations and other financial accommodations, in each case, made, issued or incurred under the ABL Documents, and (d) the amount of all interest, fees, costs, expenses, indemnities, and other amounts accrued or charged with respect to any of the ABL Obligations (other than Excess ABL

Debt) as and when the same is added to the principal amount of the ABL Obligations and including the same as would accrue and become due but for the commencement of an Insolvency Proceeding, whether or not such amounts are allowed or allowable, in whole or in part, in any such Insolvency Proceeding).

"Outstanding Junior Note Principal Obligations" shall mean the aggregate outstanding principal amount of all loans and other financial accommodations made, issued or incurred under the Junior Note Documents (excluding protective advances made to enable the payment of Enforcement Expenses).

"Outstanding Note Principal Obligations" shall mean the aggregate outstanding principal amount of all loans and other financial accommodations made, issued or incurred under the Senior Note Documents (excluding protective advances made to enable the payment of Enforcement Expenses).

"Permitted Refinancing" shall mean, as to any Indebtedness, the Refinancing of such Indebtedness ("Refinancing Indebtedness") to refinance such existing Indebtedness; provided, that, the terms applicable to such Refinancing Indebtedness and, if applicable, the related guarantees of such Refinancing Indebtedness, shall not violate the applicable requirements contained in this Agreement.

"Person" shall mean any individual, partnership, joint venture, firm, corporation, limited liability company, association, trust or other enterprise or any government or political subdivision or any agency, department or instrumentality thereof.

"Pledged Senior Priority Collateral" shall have the meaning set forth in Section 2.4(e)(i).

"Pledged Stock" shall mean all shares of Capital Stock owned by a Grantor, and the certificates, if any, representing such shares and any interest of a Grantor in the entries on the books of the issuer of such shares or on the books of any securities intermediary pertaining to such shares, and all dividends, distributions, cash, warrants, rights, options, instruments, securities and other property or Proceeds from time to time received, receivable or otherwise distributed in respect of or in exchange for any or all of such shares.

"PPSA" means the Personal Property Security Act (Ontario), or any other applicable Canadian federal or provincial statute pertaining to the granting, perfecting, priority or ranking of security interests, liens, hypothecs or personal property (including the *Civil Code of Quebec*), and any successor statutes, together with any regulations thereunder, in each case as in effect from time to time.

"Proceeds" shall mean all "proceeds" as defined in Article 9 of the UCC as in effect in the state of New York and, in any event, shall also include (a) any and all proceeds of any insurance, indemnity, warranty or guaranty payable to any Collateral Agent or any Grantor from time to time with respect to any of the Collateral, (b) any and all payments (in any form whatsoever) made or due and payable to any Grantor from time to time in connection with any requisition, confiscation, condemnation, seizure or forfeiture of all or any part of the Collateral by any governmental authority (or any Person acting under color of governmental authority) and (c) any and all other

amounts or assets from time to time paid or payable on account of, under or in connection with any of the Collateral.

"Proprietary Rights" shall mean, with respect to a Person, all of such Person's now owned and hereafter arising or acquired licenses, franchises, customer lists, permits, patents, patent rights, copyrights, works which are the subject matter of copyrights, trademarks, service marks, trade names, trade styles, patent, trademark and service mark applications, and all licenses and rights related to any of the foregoing, including those registered patents and trademarks set forth on schedules to the ABL Credit Agreement, the Senior Note Security Agreement and the Junior Note Security Agreement, and all other rights under any of the foregoing, all extensions, renewals, reissues, divisions, continuations, and continuations-in-part of any of the foregoing, and all rights to sue for past, present, and future infringement of any of the foregoing.

"Recovery" shall have the meaning set forth in Section 6.17.

"Refinance" shall mean, in respect of any Indebtedness, to refinance, extend, renew, retire, defease, amend, modify, supplement, restructure, replace, refund, restate or repay, or to issue other Indebtedness, in exchange or replacement for, such Indebtedness in whole or in part, including with new or different lenders or whether adding new or additional Secured Parties. "Refinanced" and "Refinancing" shall have correlative meanings.

"Secured Note Agreements" means the Senior Secured Note Agreement and the Junior Secured Note Agreement.

"Secured Parties" shall mean the ABL Secured Parties, the Senior Note Secured Parties and the Junior Secured Parties.

"Senior 507(b) Claims" has the meaning set forth in Section 2.5(c)(iv).

"Senior Note Agent" shall have the meaning assigned to that term in the introduction to this Agreement and shall include (a) any successor thereto as well as any Person designated as the "Agent", the "Administrative Agent" or the "Collateral Agent" under any Senior Secured Note Agreement and includes any New Senior Priority Agent that becomes the new Senior Note Agent to the extent set forth in Section 2.4(f) and (b) any Additional Senior Note Obligations Agent.

"Senior Note Default" shall mean any **["Event of Default"]**, as defined in any Senior Note Document.

"Senior Note Default Dispositions" shall have the meaning set forth in Section 2.4(a)(ii).

"Senior Note Documents" shall mean (a) the Senior Secured Note Agreement and the other **[Note Documents]** (as defined in the Senior Secured Note Agreement), including the Senior Note Security Documents, (b) each of the other agreements, documents and instruments providing for or evidencing any Senior Note Obligation (including any Permitted Refinancing of any Senior Note Obligations), and any other document or instrument executed or delivered at any time in connection with any Senior Note Obligation (including any Permitted Refinancing of any Senior Note Obligation), together with any amendments, replacements, modifications, extensions,

renewals or supplements to, or restatements of, any of the foregoing and (c) any Additional Senior Note Obligations Agreement.

"Senior Note Obligations" shall mean (a) all **[Obligations]** (as defined in the Senior Secured Note Agreement), and all other amounts owing, due, or secured under the terms of the Senior Secured Note Agreement or any other Senior Note Document, whether now existing or arising hereafter, including all principal, premium, interest, fees, attorneys' fees, costs, charges, expenses, reimbursement obligations, obligations with respect to loans, indemnities or guarantees, and all other amounts payable under or secured by any Senior Note Document (including, in each case, all amounts accruing on or after the commencement of any Insolvency or Liquidation Proceeding relating to any Grantor, or that would have accrued or become due under the terms of the Senior Note Documents but for the effect of the Insolvency or Liquidation Proceeding), in each case, whether direct or indirect, absolute or contingent, joint or several, due or not due, primary or secondary, liquidated or unliquidated, secured or unsecured, including all Enforcement Expenses and Indemnity Amounts and (b) all Additional Senior Note Obligations. For the avoidance of doubt, the foregoing shall constitute "Senior Note Obligations" notwithstanding any limitations on, restrictions of, or agreements by, Grantors in the ABL Documents with respect to the incurrence of any Senior Note Obligations.

"Senior Note Holders" shall have the meaning set forth in the recitals hereto.

"Senior Note Permitted Liens" shall mean the **["Permitted Liens"]** under, and as defined in, the Senior Secured Note Agreement as in effect on the date hereof and as amended in accordance with the terms of this Agreement.

"Senior Note Permitted Priority Liens" shall mean the **["Permitted Liens"]** under, and as defined in, the Senior Secured Note Agreement as in effect on the date hereof and as amended in accordance with the terms of this Agreement (or substantially similar term in any Permitted Refinancing) that are, pursuant to the terms thereof, permitted to have priority over the Liens securing the Senior Note Priority Obligations.

"Senior Note Pledge Agreement" shall mean the **["Pledge Agreement"]** (as defined in the Senior Secured Note Agreement).

"Senior Note Priority Obligations" shall mean all Senior Note Obligations other than Excess Senior Note Debt.

"Senior Note Secured Parties" shall mean (a) the Senior Note Holders and the Senior Note Agent and shall include all former Senior Note Holders and agents under the Senior Secured Note Agreement to the extent that any Senior Note Obligations owing to such Persons were incurred while such Persons were Senior Note Holders or agents under the Senior Secured Note Agreement and such Senior Note Obligations have not been paid or satisfied in full and all new Senior Note Secured Parties to the extent set forth in Section 2.4(f) and (b) the Additional Senior Note Obligations Secured Parties.

"Senior Note Security Agreement" shall mean the **["Security Agreement"]** (as defined in the Senior Secured Note Agreement).

"Senior Note Security Document" shall mean (a) the Senior Note Security Agreement, the Senior Note Pledge Agreement and any **["Mortgage"]** (as defined in the Senior Secured Note Agreement) or related security document executed and delivered by the Borrower or any other Grantor in connection therewith and (b) any other agreement, document or instrument pursuant to which a Lien is granted by one or more of the Borrower or any other Grantor securing any Senior Note Obligations (including any Permitted Refinancing of any Senior Note Obligations) or under which rights or remedies with respect to such Liens are governed, together with any amendments, replacements, modifications, extensions, renewals or supplements to, or restatements of, any of the foregoing, to the extent permitted hereby.

"Senior Priority" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, that such Lien purported to be created on any ABL Priority Collateral to secure the ABL Priority Obligations pursuant to any ABL Security Document is prior in right to any other Lien thereon (other than any ABL Permitted Priority Liens applicable to such ABL Priority Collateral), and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, that such Lien purported to be created on any Note Priority Collateral to secure the Note Priority Obligations pursuant to any Note Security Document is prior in right to any other Lien thereon (other than any Senior Note Permitted Priority Liens or Junior Note Permitted Priority Liens applicable to such Note Priority Collateral).

"Senior Priority Agent" shall mean, (a) with respect to the ABL Priority Collateral, prior to the discharge of ABL Priority Obligations, the ABL Agent, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the Note Agents.

"Senior Priority Cash Collateral" shall have the meaning set forth in Section 2.5(a).

"Senior Priority Collateral" shall mean, (a) with respect to the ABL Priority Obligations, all ABL Priority Collateral and (b) with respect to the Note Priority Obligations, all Note Priority Collateral.

"Senior Priority Credit Agreement" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the ABL Credit Agreement, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the Senior Secured Note Agreement and the Junior Secured Note Agreement.

"Senior Priority DIP Financing" shall have the meaning set forth in Section 2.5(a).

"Senior Priority Documents" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the ABL Documents, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the Note Documents.

"Senior Priority Lenders" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the ABL Lenders, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the Note Holders.

"Senior Priority Obligations" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the ABL Priority Obligations, and (b) with

respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the Note Priority Obligations.

"Senior Priority Secured Parties" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the ABL Secured Parties, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the Note Secured Parties.

"Senior Priority Security Documents" shall mean, (a) with respect to the ABL Priority Collateral, prior to the Discharge of ABL Priority Obligations, the ABL Security Documents, and (b) with respect to the Note Priority Collateral, prior to the Discharge of Note Priority Obligations, the Note Security Documents.

"Senior Secured Note Agreement" shall have the meaning set forth in the recitals hereto.

"Subsidiary" shall mean, with respect to any Person, any corporation, partnership, limited liability company, association, joint venture or other business entity of which more than fifty percent (50%) of the total voting power of shares of stock or other ownership interests entitled (without regard to the occurrence of any contingency) to vote in the election of the Person or Persons (whether directors, managers, trustees or other Persons performing similar functions) having the power to direct or cause the direction of the management and policies thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person or a combination thereof; provided, that, in determining the percentage of ownership interests of any Person controlled by another Person, no ownership interest in the nature of a "qualifying share" of the former Person shall be deemed to be outstanding.

"Third Party Purchaser" shall have the meaning set forth in Section 4.3.

"UCC" shall mean the Uniform Commercial Code as in effect from time to time in the relevant jurisdiction.

"United States" shall mean the United States of America.

"Unrestricted" shall mean, when referring to cash or cash equivalents of a Grantor or any Subsidiary, any such cash or cash equivalents that is not reserved for a specific purpose and therefore is available for immediate or general business use.

1.3. Terms Generally. The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words "include", "includes" and "including" shall be deemed to be followed by the phrase "without limitation." The word "will" shall be construed to have the same meaning and effect as the word "shall". Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified in accordance with the terms hereof, (b) any reference herein to any Person shall be construed to include such Person's successors and assigns, (c) the words "herein", "hereof" and "hereunder", and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular

provision of this Agreement, (d) all references herein to Exhibits or Sections shall be construed to refer to Exhibits or Sections of this Agreement, (e) the words "asset" and "property" shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights, (f) any terms defined in the UCC but not otherwise defined herein shall have the same meanings herein as are assigned thereto in the UCC, (g) reference to any law shall mean such law as amended, modified, codified, replaced or re-enacted, in whole or in part, and in effect on the date hereof, including rules, regulations, enforcement procedures and any interpretations promulgated thereunder, (h) references to Sections or clauses shall refer to those portions of this Agreement, and any references to a clause shall, unless otherwise identified, refer to the appropriate clause within the same Section in which such reference occurs, (i) any definition of, or reference to, ABL Priority Collateral or Note Priority Collateral herein shall not be construed as referring to any amounts recovered by a Grantor, as a debtor in possession, or a trustee for the estate of a Grantor, under Section 506(c) of the Bankruptcy Code (or by comparable Persons under any other comparable Bankruptcy Law); and (j) in this Agreement, the term "UCC" shall also refer to analogous personal property security legislation in foreign jurisdictions, *mutatis mutandis*, and, where the context so requires, any term defined herein by reference to the UCC as applicable, shall also have any extended, alternative or analogous meaning given to such term in such foreign personal property security legislation.

1.4. Notes Intercreditor Agreement. Notwithstanding anything to the contrary in this Agreement, the rights and obligations of the Junior Note Secured Parties, on the one hand, and the Senior Note Secured Parties, on the other hand, with respect to the Collateral shall be governed by and subject to the terms of the Notes Intercreditor Agreement. In the event of a conflict between the terms of this Agreement and the Notes Intercreditor Agreement with respect to any matter pertaining solely to the respective rights or obligations of the Junior Note Secured Parties, on the one hand, and the Senior Note Secured Parties, on the other hand, then the Notes Intercreditor Agreement shall prevail.

Section 2. Collateral; Priorities; Payment Restrictions.

2.1. Lien Priorities; Payment Restrictions.

(a) Relative Priorities. Notwithstanding (i) the time, manner, order or method of grant, creation, attachment, validity, enforceability or perfection of any Liens in the Collateral securing the ABL Obligations, the Senior Note Obligations or the Junior Note Obligations, (ii) the date on which any ABL Obligations, any Senior Note Obligations or any Junior Note Obligations are extended, (iii) any provision of the UCC, the PPSA or any other applicable law, including any rule for determining priority thereunder or under any other law or rule governing the relative priorities of secured creditors, including with respect to real property or fixtures, (iv) any provision set forth in any ABL Document, any Senior Note Document or any Junior Note Document (other than this Agreement), or (v) the possession or control by any Collateral Agent or any Secured Party or any bailee of all or any part of any Collateral as of the date hereof or otherwise, each Collateral Agent, on behalf of itself and its respective other Secured Parties, hereby agrees that:

(i) any Lien with respect to the ABL Priority Collateral securing any ABL Priority Obligations now or hereafter held by or on behalf of the ABL Agent or any other ABL Secured Parties or any agent or trustee therefor, regardless of how or when acquired, whether by grant, possession, statute, operation of law, subrogation, or otherwise, shall be senior in all respects and prior to any Liens with respect to the ABL Priority Collateral securing (A) any Senior Note Obligations, (B) any Junior Note Obligations and (C) any Excess ABL Debt;

(ii) any Lien with respect to the ABL Priority Collateral securing any Note Priority Obligations now or hereafter held by or on behalf of the Note Agents or any other Note Secured Parties or any agent or trustee therefor, regardless of how or when acquired, whether by grant, possession, statute, operation of law, subrogation or otherwise, shall be (A) junior and subordinate in all respects to all Liens with respect to the ABL Priority Collateral securing any ABL Priority Obligations and (B) senior in all respects and prior to any Liens with respect to the ABL Priority Collateral securing (1) any Excess ABL Debt, (2) any Excess Senior Note Debt and (3) any Excess Junior Note Debt;

(iii) any Lien with respect to the Note Priority Collateral securing any Note Priority Obligations now or hereafter held by or on behalf of the Note Agents or any other Note Secured Parties or any agent or trustee therefor, regardless of how or when acquired, whether by grant, possession, statute, operation of law, subrogation or otherwise, shall be senior in all respects and prior to any Liens on the Note Priority Collateral securing (A) any ABL Obligations, (B) any Excess Senior Note Debt and (C) any Excess Junior Note Debt;

(iv) any Lien with respect to the Note Priority Collateral securing any ABL Priority Obligations now or hereafter held by or on behalf of the ABL Agent or any other ABL Secured Parties or any agent or trustee therefor, regardless of how or when acquired, whether by grant, possession, statute, operation of law, subrogation or otherwise, shall be (A) junior and subordinate in all respects to any Liens on the Note Priority Collateral securing any Note Priority Obligations and (B) senior in all respects and prior to any Lien on the Note Priority Collateral securing (1) any Excess ABL Obligations, (2) any Excess Senior Note Debt and (3) any Excess Junior Note Debt.

Notwithstanding anything to the contrary in this Agreement, the priorities of any Liens on the Note Priority Collateral securing the Senior Note Obligations and the Junior Note Obligations, as between them, shall be governed by and subject to the Notes Intercreditor Agreement.

The priorities of the Liens provided in this Section 2.1(a) shall not be altered or otherwise affected by any amendment, modification, supplement, extension, renewal, restatement, replacement, refunding or refinancing of the ABL Documents and/or the ABL Obligations, the Senior Note Documents and/or the Senior Note Obligations, or the Junior Note Documents and/or the Junior Note Obligations, nor by any action or inaction which any ABL Secured Party, Senior Note Secured Party and/or Junior Note Secured Party may take or fail to take in respect of the Collateral. Notwithstanding any failure by any Collateral Agent to perfect its security interests in the Collateral or any avoidance, invalidation or subordination by any third party or court of competent jurisdiction of the security interests in the Collateral granted to such Collateral Agent, the priority and rights as between the Liens of the ABL Agent, the Liens of the Senior Note Agent, and the Liens of the Junior Note Agent shall be as set forth herein.

(b) Prohibition on Contesting Liens. Each Collateral Agent, for itself and each of its respective Secured Parties, agrees that neither it nor any Secured Party will (and hereby waives any right to), directly or indirectly, contest, or support any other Person in contesting, in any proceeding (including any Insolvency or Liquidation Proceeding), the validity, attachment, perfection, priority, or enforceability of a Lien held by or on behalf of any of the other Collateral Agents or the Secured Parties in the Collateral (or the validity, allowability, or enforceability of any Senior Priority Obligations or Junior Priority Obligations secured thereby or purported to be secured thereby), as the case may be, or the provisions of this Agreement; provided, that nothing in this Agreement shall be construed to prevent or impair the rights of any Collateral Agent to enforce the terms of this Agreement, including the provisions of this Agreement relating to the priority of the Liens securing the Senior Priority Obligations and the Junior Priority Obligations as provided in Sections 2.1(a) and 2.2.

(c) No New Liens. So long as the Discharge of Senior Priority Obligations has not occurred, the parties hereto agree that the Borrower or any other Grantor shall not grant or permit any Liens in favor of any Junior Priority Agent or any Junior Priority Creditor on any asset or property of any Grantor to secure any Junior Priority Obligation, except for those created by the Junior Priority Security Documents as in effect on the date hereof, unless it has granted or substantially contemporaneously grants (or has offered to grant) a Lien therein in favor of the Senior Priority Agent, and once granted, such Lien shall have the priority as set forth in Section 2.1(a). To the extent that the provisions of the immediately preceding sentence are not complied with for any reason, without limiting any other rights and remedies available to the Senior Priority Agent and/or the other Senior Priority Secured Parties, the Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, agrees that any amounts received by or distributed to any of them pursuant to or as a result of Liens on the Senior Priority Collateral granted in violation of Sections 2.1(a) – (c) shall be subject to Section 2.3.[8]

2.2. Exercise of Remedies.

(a) So long as the Discharge of Senior Priority Obligations has not occurred, whether or not any Insolvency or Liquidation Proceeding has been commenced by or against one or more Grantors:

(i) Neither any Junior Priority Agent nor any of the other Junior Priority Secured Parties:

(x) will Exercise any Secured Creditor Remedies with respect to any Senior Priority Collateral; provided, however, that:

(1) with respect to the ABL Priority Collateral, the Controlling Note Agent may exercise any or all such rights after the passage of a period of one hundred fifty (150) days from the date of delivery of a notice (which notice shall identify itself as a "standstill period notice") in writing to the ABL Agent of the occurrence and continuation of a Senior Note Default in respect of the Senior Note Obligations or the acceleration of the Senior Note Obligations or a Junior Note Default in respect of the Junior Note Obligations or the

[8] To be confirmed that all of the assets of the US group are to be pledged to both ABL and Notes (i.e., no assets carved out for the benefit of the Notes only).

acceleration of the Junior Note Obligations, as applicable (and as specified in the applicable standstill period notice) (such 150-day period, the "ABL Priority Collateral Standstill Period"); and

(2) with respect to the Note Priority Collateral, the ABL Agent may exercise any or all such rights after the passage of one hundred fifty (150) days from the date of delivery of a notice (which notice shall identify itself as a "standstill period notice") in writing to the Senior Note Agent and the Junior Note Agent of the occurrence and continuation of an ABL Default in respect of the ABL Obligations or the acceleration of the ABL Obligations (such 150-day period, the "Note Priority Collateral Standstill Period" (together with the ABL Priority Collateral Standstill Period, the "Standstill Period").

The Exercise of Secured Creditor Remedies with respect to the Collateral, as between the Senior Note Secured Parties and the Junior Note Secured Parties, shall be governed by, and subject to, the Notes Intercreditor Agreement.

Notwithstanding anything herein to the contrary, (i) neither the Junior Priority Agent nor any other Junior Priority Secured Party will Exercise any Secured Creditor Remedies with respect to any Senior Priority Collateral if, (x) notwithstanding the expiration of the Standstill Period, the Senior Priority Agent or the other Senior Priority Secured Parties shall have commenced the Exercise of Secured Creditor Remedies with respect to all or any material portion of the Senior Priority Collateral (prompt notice of such exercise to be given to the Junior Priority Agent(s) by the Senior Priority Agent; provided, that the applicable Senior Priority Agent shall have no liability for failing to do so) and are diligently pursuing in good faith the exercise thereof, (y) the Senior Priority Agent or the other Senior Priority Secured Parties are diligently attempting in good faith to vacate any stay of enforcement of their Senior Liens, or (z) if the applicable default and acceleration (with respect to the Senior Priority Obligations) has been rescinded and (ii) the foregoing time periods shall be tolled if the Senior Priority Agent and the Junior Priority Agent are effectively stayed from enforcing their rights and remedies with respect to the Senior Priority Collateral;

(y) will contest, protest or object to any foreclosure proceeding or action brought by the Senior Priority Agent or any other Senior Priority Secured Party with respect to, or any other Exercise of Secured Creditor Remedies by the Senior Priority Agent or any other Senior Priority Secured Party relating to the Senior Priority Collateral under the Senior Priority Documents or otherwise; and

(z) subject to its rights under clause (i)(x) above, will object to the forbearance by the Senior Priority Agent or the other Senior Priority Secured Parties from bringing or pursuing any foreclosure proceeding or action or any other Exercise of Secured Creditor Remedies relating to the Senior Priority Collateral;

in each case of clauses (x), (y) and (z) above, the respective interests of the Junior Priority Secured Parties shall attach to the unapplied Proceeds thereof subject to the relative priorities described in Section 2.1 and such Proceeds shall be applied in accordance with Sections 5.1 and 5.2 to the ABL Priority Obligations, the Senior Note Priority Obligations and the Junior Note Priority Obligations, as applicable.

(ii) Subject to Section 2.2(a)(i) above and Section 2.2(a)(iii) below, the Senior Priority Agent and the other Senior Priority Secured Parties shall have the exclusive right to Exercise any Secured Creditor Remedies and, in connection therewith, make determinations regarding the Disposition of, or restrictions with respect to, the Senior Priority Collateral without any consultation with or the consent of the Junior Priority Agent or any other Junior Priority Secured Party.

(iii) Notwithstanding the foregoing provisions of this Section 2.2(a) to the contrary:

(A) the Junior Priority Agent may take any action (not adverse to the prior Liens on the Senior Priority Collateral securing the Senior Priority Obligations, or the rights of the Senior Priority Agent or any other Senior Priority Secured Parties to Exercise any Secured Creditor Remedies in respect thereof) in order to preserve or protect its Lien on the Senior Priority Collateral in accordance with applicable law and in a manner not in violation of the terms of this Agreement (including any of the provisions of Section 2.5);

(B) the Junior Priority Secured Parties shall be entitled to file any necessary responsive or defensive pleadings in opposition to any motion, claim, adversary proceeding or other pleading made by any Person objecting to or otherwise seeking the disallowance of the claims of the Junior Priority Secured Parties, including any claims secured by the Senior Priority Collateral, if any, in each case, in a manner not in violation of the terms of this Agreement (including any of the provisions of Section 2.5);

(C) the Junior Priority Secured Parties shall be entitled to file any pleadings, objections, motions or agreements which assert rights or interests available to unsecured creditors of the Grantors arising under either the Bankruptcy Law or applicable non- bankruptcy law and do not assert rights available solely to the holders of secured claims, in each case, not in violation of Sections 2.1, 2.2, 2.5, 5.1 or 5.2;

(D) the Junior Priority Secured Parties shall be entitled to file any proof of claim in an Insolvency or Liquidation Proceeding and vote on any plan of reorganization, and make any arguments and motions in connection with such plan, in each case, not in violation of Sections 2.1, 5.1 or 5.2; and

(E) the Junior Priority Agent or any other Junior Priority Secured Party may Exercise any Secured Creditor Remedies with respect to the Senior Priority Collateral after the termination of the applicable Standstill Period, to the extent not prohibited by clause (i)(x) above.

In connection with the Exercise of Secured Creditor Remedies with respect to the Senior Priority Collateral, the Senior Priority Agent and the other Senior Priority Secured Parties may enforce the provisions of the Senior Priority Documents and exercise remedies thereunder, all in such order and in such manner as they may determine in the exercise of their sole discretion. Such exercise and enforcement shall include the rights of an agent appointed by them to sell or otherwise dispose of Senior Priority Collateral upon foreclosure, to incur expenses in connection with such sale or Disposition, and to exercise all the rights and remedies of a secured creditor under the UCC or

PPSA, as applicable, of any applicable jurisdiction, and the Bankruptcy Laws of any applicable jurisdiction.

(b) Each Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, agrees that any Senior Priority Collateral or any Proceeds of Senior Priority Collateral received by any Junior Priority Secured Party in connection with the Exercise of Secured Creditor Remedies with respect to any Senior Priority Collateral will be remitted to the applicable Senior Priority Agent and applied in accordance with Sections 5.1 and 5.2. Without limiting the generality of the foregoing, unless and until the Discharge of Senior Priority Obligations has occurred, except as expressly provided in this Agreement, the sole right of the Junior Priority Agent and the other Junior Priority Secured Parties with respect to the Senior Priority Collateral is to hold a Lien on the Senior Priority Collateral pursuant to the Junior Priority Documents for the period and to the extent granted therein and to receive a share of the Proceeds thereof, if any, after the Discharge of the Senior Priority Obligations has occurred in accordance with the terms hereof, the Senior Priority Documents and applicable law.

(c) Subject to Section 2.2(a), Section 2.4(a) and Section 4:

(i) each Junior Priority Agent, for itself and on behalf of the other Junior Priority Secured Parties, agrees that such Junior Priority Agent and the other Junior Priority Secured Parties will not take any action that would hinder any Exercise of Secured Creditor Remedies under the Senior Priority Documents with respect to the Senior Priority Collateral or is otherwise prohibited hereunder, including any sale, lease, exchange, transfer or other Disposition of the Senior Priority Collateral, whether by foreclosure or otherwise, and

(ii) each Junior Priority Agent, for itself and on behalf of the other Junior Priority Secured Parties, hereby waives any and all rights it or the other Junior Priority Secured Parties may have as a junior lien creditor with respect to the Senior Priority Collateral or otherwise to object to the manner in which the Senior Priority Agent or the other Senior Priority Secured Parties seek to enforce or collect the Senior Priority Obligations or the Liens granted in any of the Senior Priority Collateral, regardless of whether any action or failure to act by or on behalf of the Senior Priority Agent or the other Senior Priority Secured Parties is adverse to the interest of the Junior Priority Secured Parties in the Senior Priority Collateral.

(d) Each Junior Priority Agent hereby acknowledges and agrees that no covenant, agreement or restriction contained in any Junior Priority Document (other than this Agreement) shall be deemed to restrict in any way the rights and remedies of the Senior Priority Agent or the other Senior Priority Secured Parties with respect to the Senior Priority Collateral as set forth in this Agreement and the Senior Priority Documents.

(e) Anything to the contrary in this Section 2.2 notwithstanding:

(i) any ABL Secured Parties, any Senior Note Secured Parties and any Junior Note Secured Parties may, if an Insolvency or Liquidation Proceeding has been commenced by or against any Grantor, file a claim or statement of interest with respect to the ABL Obligations, the Senior Note Obligations and the Junior Note Obligations, respectively;

(ii) any Collateral Agent may take any action (not adverse to the priority status of any senior Liens on the Collateral held by any other Collateral Agent) in order to create, perfect or preserve its Lien in and to the Collateral, to prevent the running of any applicable statute of limitation or similar restriction on claims or to assert a compulsory cross-claim or counterclaim against any Grantor;

(iii) any Collateral Agent may file any necessary responsive or defensive pleadings (A) in opposition to any motion, claim, adversary proceeding, or other pleading made by any Person objecting to or otherwise seeking the disallowance of the ABL Obligations, the Senior Note Obligation or the Junior Note Obligations, respectively, or (B) asserting rights available to unsecured creditors of the applicable Grantor, in each case, in accordance with and not in violation of the terms of Sections 2.1, 2.2, 2.5, 5.1 or 5.2;

(iv) any ABL Secured Party, any Senior Note Secured Party or any Junior Note Secured Party, during an Insolvency or Liquidation Proceeding, may vote on any Plan that is not in violation of Sections 2.1, 2.3, 2.5, 5.1 or 5.2;

(v) any Collateral Agent may join (but not exercise any control with respect to) any judicial foreclosure proceeding or other judicial lien enforcement proceeding with respect to the Collateral initiated by any other Collateral Agent to the extent that any such action would not reasonably be expected to restrain, hinder, limit, delay or otherwise interfere with any Exercise of Secured Creditor Remedies being conducted by any other Collateral Agent in accordance with Section 2.2(a);

(vi) any Collateral Agent may, so long as such action would not reasonably be expected to restrain, hinder, limit, delay or otherwise interfere with any Exercise of Secured Creditor Remedies by any other Collateral Agent being conducted in accordance with Section 2.2(a), engage or retain investment bankers or appraisers for the purposes of appraising or valuing the Collateral or to receive information or reports concerning the Collateral, in each case, pursuant to the terms of the ABL Documents, the Senior Note Documents, or the Junior Note Documents, as applicable, and applicable law;

(vii) any Collateral Agent may, so long as such action would not reasonably be expected to restrain, hinder, limit, delay or otherwise interfere with any Exercise of Secured Creditor Remedies by any other Collateral Agent being conducted in accordance with Section 2.2(a), take any action to seek and obtain specific performance or injunctive relief to compel a Grantor to comply with (or not to violate or breach) an obligation under the ABL Documents, the Senior Note Documents or the Junior Note Documents, as applicable, provided that such action does not include any action by a Junior Priority Agent to seek specific performance or injunctive relief against (A) any Senior Priority Agent or their respective Secured Parties or (B) the Disposition of any Collateral in contravention of the other provisions of this Agreement;

(viii) any Secured Party may bid for Collateral at any public or private sale thereof; provided, that: (A) with respect to ABL Priority Collateral, no Note Secured Parties may make a credit bid for such Collateral and offset Note Priority Obligations against the purchase price therefor unless the net Cash Proceeds of such bid are otherwise sufficient to cause the Discharge of ABL Priority Obligations and are applied to cause the Discharge of ABL Priority

Obligations upon the consummation of such sale; (B) with respect to the Note Priority Collateral, no ABL Secured Parties may make a credit bid for such Collateral and offset ABL Priority Obligations against the purchase price therefor unless the net Cash Proceeds of such bid are sufficient to cause the Discharge of Senior Note Priority Obligations and the Discharge of Junior Note Priority Obligations and are applied to cause the Discharge of Senior Note Priority Obligations and the Discharge of Junior Note Priority Obligations upon the consummation of such sale and (C) the rights of the Note Secured Parties (as among themselves) to make a credit bid with respect to any Collateral shall be subject to and made in accordance with the Notes Intercreditor Agreement; and

(ix) any Collateral Agent may enforce the terms of any subordination agreement with any Person (other than a Grantor) with respect to debt of a Grantor that is subordinated to the ABL Obligations, the Senior Note Obligations or the Junior Note Obligations, as applicable, provided (i) prior written notice of such action is provided to each other Collateral Agent, (ii) no such action includes any Exercise of Secured Creditor Remedies in violation of the terms hereof, (iii) any payment or other property received by such Collateral Agent, to the extent resulting from a payment or other transfer of property or an interest in property of any Grantor, shall be deemed to be proceeds of Collateral subject to the other terms of this Agreement and (iv) any other payments received by such Collateral Agent in connection with such action shall otherwise be subject to the terms of such subordination agreement with any other Person, any related subordination agreement with each of the Collateral Agents and this Agreement.

2.3. Payments Over. Any Senior Priority Collateral, Cash Proceeds thereof or non-Cash Proceeds received by any Junior Priority Agent or any other Junior Priority Secured Parties in connection with the Exercise of Secured Creditor Remedies relating to the Senior Priority Collateral or otherwise received in violation of this Agreement shall be segregated and held in trust and forthwith paid over to the Senior Priority Agent to be applied in accordance with Sections 5.1 and 5.2, as applicable, in the same form as received, with any necessary endorsements or as a court of competent jurisdiction may otherwise direct. The Senior Priority Agent is hereby authorized to make any such endorsements as agent for the Junior Priority Agent or any such other Junior Priority Secured Parties. This authorization is coupled with an interest and is irrevocable until such time as this Agreement is terminated in accordance with its terms.

2.4. Other Agreements.

(a) Releases.

(i) If, in connection with:

(A) the Exercise of Secured Creditor Remedies by the Senior Priority Agent of any rights or remedies in respect of the Senior Priority Collateral in accordance with applicable law, including one or more sales, leases, exchanges, transfers or other Dispositions of the Senior Priority Collateral, in each case, at such time as the proceeds of such sales, leases, exchanges, transfers or other Dispositions are applied in accordance with Sections 5.1 and 5.2;

(B) any sale, lease, exchange, transfer or other Disposition of any Senior Priority Collateral permitted under the terms of both the Senior Priority Documents and the Junior Priority Documents;

(C) Dispositions of Senior Priority Collateral pursuant to Section 2.5(j) hereof; or

(D) Default Dispositions (defined below);

the Senior Priority Agent, for itself or on behalf of any of the other Senior Priority Secured Parties, releases any of its Liens on any part of the Senior Priority Collateral, then the Liens, if any, of the Junior Priority Agent, for itself or for the benefit of the other Junior Priority Secured Parties, on such Senior Priority Collateral (but not the unapplied Proceeds thereof, which shall be subject to the priorities set forth in Sections 2.1(a) and the application of Proceeds set forth in Sections 5.1 and 5.2 shall be automatically, unconditionally and simultaneously released and the Junior Priority Agent, for itself or on behalf of any such other Junior Priority Secured Parties, promptly shall execute and deliver to the Senior Priority Agent such termination statements, releases and other documents as the Senior Priority Agent may request to effectively confirm such release (which request shall specify the proposed terms of the sale and the type and amount of consideration to be received in connection therewith); provided, that with respect to clause (a)(i)(A) through (a)(i)(D), (1) no such release documents shall be required to be delivered (x) to any Grantor or (y) more than three Business Days prior to the date of the closing of the Disposition of such Senior Priority Collateral, (2) if the closing of the Disposition of such Senior Priority Collateral is not consummated within ten (10) Business Days of the anticipated closing date, the Senior Priority Agent shall promptly return all release documents to the Junior Priority Agent, (3) the effectiveness of any such release by the Junior Priority Agent shall be subject to the Disposition of such Senior Priority Collateral described in such request or on substantially similar terms and shall lapse in the event such Disposition does not occur within ten (10) Business Days of the anticipated closing date, (4) such Senior Priority Agent simultaneously releases its Lien on such Collateral, and (5) such Disposition is not to an Affiliate of a Grantor (unless such Disposition is pursuant to Sections 363 or 1129 of the Bankruptcy Code (or any other similar provision under applicable Bankruptcy Law) or pursuant to another public sale or public auction process). Any release of Liens required pursuant a Disposition of Collateral under Sections 2.4(a)(i)(A) or 2.4(a)(i)(D) shall be pursuant to a commercially reasonable Disposition.

(ii) In the event of any private or public Disposition of all or any material portion of the Collateral by one or more Grantors with the consent of any Senior Priority Agent after the occurrence and during the continuance of an applicable Event of Default, which Disposition is conducted by such Grantors with the consent of such Senior Priority Agent in connection with commercially reasonable efforts by such Senior Priority Agent to collect the applicable Senior Priority Obligations through the Disposition of Collateral (each Disposition of ABL Priority Collateral, an "ABL Default Disposition", each Disposition of Note Priority Collateral, a "Senior Note Default Disposition" and, together with the ABL Default Dispositions, "Default Dispositions"), then the Liens of the Junior Priority Agents on such Collateral shall be automatically, unconditionally, and simultaneously released; provided that (A) the applicable Senior Priority Agent also releases its Liens on such Collateral, (B) the net Cash Proceeds of any such Default Disposition are applied in accordance with Sections 5.1 and 5.2 (as if they were

proceeds received in connection with an Exercise of Secured Creditor Remedies), (C) each Junior Priority Agent has received prior written notice that would have been required if the Default Disposition were a disposition of Collateral by a secured creditor under Article 9 of the UCC or otherwise required by applicable law, (D) each Grantor conducted such Default Disposition in a commercially reasonable manner as if such Default Disposition were a disposition of Collateral by a secured creditor in accordance with Article 9 of the UCC, and (E) such Disposition is not to an Affiliate of a Grantor (unless such Disposition is pursuant to Sections 363 or 1129 of the Bankruptcy Code (or any other similar provision under applicable Bankruptcy Law) or pursuant to another public sale or public auction process).

(iii) Until the Discharge of Senior Priority Obligations occurs, to the extent that the Senior Priority Secured Parties (A) have released any Lien on Senior Priority Collateral and any such Lien is later reinstated or (B) obtain any new Senior Priority Liens on assets constituting Senior Priority Collateral from the Grantors, then the Junior Priority Secured Parties shall be granted a Junior Priority Lien on any such Senior Priority Collateral.

(b) Insurance. Unless and until the Discharge of Senior Priority Obligations has occurred, the Senior Priority Agent and the other Senior Priority Secured Parties shall have the sole and exclusive right, subject to the rights of the Grantors under the Senior Priority Documents, to adjust settlement for any insurance policy covering the Senior Priority Collateral in the event of any loss thereunder and to approve any award granted in any condemnation or similar proceeding (or any deed in lieu of condemnation) in respect of the Senior Priority Collateral. Notwithstanding anything contained in this Agreement to the contrary, in the event that any Proceeds are derived from any insurance policy that covers ABL Priority Collateral and Note Priority Collateral, then, solely for the purposes of this Agreement, the allocation of proceeds of such insurance policy shall be allocated to the ABL Priority Collateral in an amount not less than the sum of (A) the book value determined in accordance with GAAP, but not less than cost, of any ABL Priority Collateral consisting of inventory that is the subject of such loss, determined as of the date of such loss, (B) the book value determined in accordance with GAAP of any ABL Priority Collateral consisting of accounts that are the subject of such loss, determined as of the date of such loss, and (C) the fair market value of all other ABL Priority Collateral that is the subject of such loss, determined as of the date of such loss.

(c) Amendments to Documents.

(i) Each Note Agent, on behalf of itself and the applicable Note Secured Parties, hereby agrees that, without affecting the obligations of such Note Agent and the applicable Note Secured Parties hereunder, the ABL Agent and the ABL Secured Parties may, at any time and from time to time, in their sole discretion without the consent of or notice to any Note Agent or any Note Secured Party, and without incurring any liability to any Note Agent or any Note Secured Party or affecting, impairing or releasing the priority of any Liens on the Collateral as provided for herein, amend, restate, supplement, replace, Refinance, extend, consolidate, restructure, or otherwise modify any of the ABL Documents in any manner whatsoever, other than in a manner which would have the effect of contravening the terms of this Agreement, provided that with respect to any Refinancing of any of the ABL Obligations, the holders of such Refinancing indebtedness bind themselves in a writing addressed to each Note Agent to the terms of this Agreement.

(ii) The ABL Agent, on behalf of itself and the ABL Secured Parties, hereby agrees that, without affecting the obligations of the ABL Agent and the ABL Secured Parties hereunder, each Note Agent and the Note Secured Parties may, at any time and from time to time, in their sole discretion without the consent of or notice to the ABL Agent or any ABL Secured Party, and without incurring any liability to the ABL Agent or any ABL Secured Party or impairing or releasing the priority of any Liens on the Collateral as provided for herein, amend, restate, supplement, replace, Refinance, extend, consolidate, restructure, or otherwise modify any of the Note Documents in any manner whatsoever other than in any manner which would have the effect of contravening the terms of this Agreement, provided that with respect to any Refinancing of any of the Note Obligations, the holders of such Refinancing indebtedness bind themselves in a writing addressed to the ABL Agent to the terms of this Agreement.

(d) Rights As Unsecured Creditors. Subject to, as between the Note Agents and the Notes Secured Parties, the Notes Intercreditor Agreement, ach Junior Priority Agent and the other Junior Priority Secured Parties may exercise rights and remedies as unsecured creditors against the Borrower or any other Grantor that has guaranteed the Junior Priority Obligations in accordance with the terms of the Junior Priority Documents and applicable law to the extent such exercise of rights and remedies is not in violation of Sections 2.1, 2.2, 2.5, 5.1 or 5.2. Except as otherwise set forth in Section 2.1 and 2.3, nothing in this Agreement shall prohibit the receipt by the Junior Priority Agent or any other Junior Priority Secured Parties of the required payments of interest, principal and other amounts in respect of the Junior Priority Obligations so long as such receipt is not the direct or indirect result of any Exercise of Secured Creditor Remedies by the Junior Priority Agent or any other Junior Priority Secured Parties in respect of the Senior Priority Collateral or the enforcement in violation of this Agreement of any Lien held by any of them. Any judgment lien obtained as a result of the exercise of rights and remedies as unsecured creditors shall be subject to the terms and conditions of this Agreement. Notwithstanding the foregoing, the ABL Secured Parties and the Notes Secured Parties, as applicable, shall give the ABL Agent or the Controlling Note Agent, as applicable, not less than five (5) Business Days) or such shorter period if Exigent Circumstances exist) written notice prior to the filing of an involuntary bankruptcy petition against any Grantor.

(e) Bailee for Perfection.

(i) The Senior Priority Agent agrees to hold that part of the Senior Priority Collateral that is in its possession or control (or in the possession or control of its agents or bailees) to the extent that possession or control thereof is taken to perfect a Lien thereon under the UCC, the PPSA or any other applicable law (such Senior Priority Collateral being the "Pledged Senior Priority Collateral") as collateral agent for the Senior Priority Secured Parties and as bailee for and, with respect to any collateral that cannot be perfected in such manner, as agent for, each Junior Priority Agent (on behalf of the Junior Priority Secured Parties) and any assignee thereof solely for the purpose of perfecting the security interest granted under the Senior Priority Documents and the Junior Priority Documents, respectively, subject to the terms and conditions of this Section 2.4(e).

(ii) Subject to the terms of this Agreement, until the Discharge of Senior Priority Obligations has occurred, the Senior Priority Agent shall be entitled to deal with the Pledged Senior Priority Collateral in accordance with the terms of the Senior Priority

Documents as if the Liens of the Junior Priority Agents under the Junior Priority Security Documents did not exist. The rights of the Junior Priority Agents shall at all times be subject to the terms of this Agreement and to the Senior Priority Agent's rights under the Senior Priority Documents.

(iii) The Senior Priority Agent shall have no obligation whatsoever to the Junior Priority Agents or any other Junior Priority Secured Party to ensure that the Pledged Senior Priority Collateral is genuine or owned by any of the Grantors or to preserve rights or benefits of any Person except as expressly set forth in this Section 2.4(e). The duties or responsibilities of the Senior Priority Agent under this Section 2.4(e) shall be limited solely to holding the Pledged Senior Priority Collateral as bailee or agent in accordance with this Section 2.4(e).

(iv) The Senior Priority Agent acting pursuant to this Section 2.4(e) shall not have by reason of the Senior Priority Security Documents, the Junior Priority Security Documents, this Agreement or any other document a fiduciary relationship in respect of the Junior Priority Agents or any other Junior Priority Secured Party.

(v) Upon the applicable Discharge of the Senior Priority Obligations, the applicable Collateral Agent (in respect of the Senior Priority Obligations having been discharged) shall deliver or cause to be delivered the remaining Pledged Senior Priority Collateral (if any) in its possession or in the possession of its agents or bailees, together with any necessary endorsements, first, to the Senior Priority Agent to the extent Senior Priority Obligations remain outstanding, second, to the Junior Priority Agent to the extent Junior Priority Obligations remain outstanding, and third, to the applicable Grantor (in each case, so as to allow such Person to obtain control of such Pledged Senior Priority Collateral) and will cooperate with the applicable Collateral Agent in assigning (without recourse to or warranty by any Collateral Agent or any other Secured Party or agent or bailee thereof) control over any other Pledged Senior Priority Collateral under its control. The applicable Collateral Agent further agrees to take all other action reasonably requested by such Person (at the sole cost and expense of the Grantors or such Person) in connection with such Person obtaining a Senior Priority interest in the Pledged Senior Priority Collateral or as a court of competent jurisdiction may otherwise direct.

(vi) Notwithstanding anything to the contrary herein, if any Junior Priority Obligations remain outstanding upon the Discharge of ABL Priority Obligations and Discharge of Senior Note Priority Obligations, all rights of the Senior Priority Agent hereunder and under the Senior Priority Security Documents (A) with respect to the delivery and control of any part of the Senior Priority Collateral, and (B) to direct, instruct, vote upon or otherwise influence the maintenance or Disposition of such Senior Priority Collateral, shall immediately, and (to the extent permitted by law) without further action on the part of either of the Junior Priority Agent or the Senior Priority Agent, pass to the Junior Priority Agent, who shall thereafter hold such rights for the benefit of the Junior Priority Secured Parties. Each of the Senior Priority Agent and the Grantors agrees that it will, if any Junior Priority Obligations remain outstanding upon the Discharge of ABL Priority Obligations and Discharge of Senior Note Priority Obligations, take any other action required by any law or reasonably requested by the Junior Priority Agent in connection with the Junior Priority Agent's establishment and perfection of a Senior Priority security interest in the Senior Priority Collateral, at the expense of the Grantors or if not paid by

the Grantors, the Junior Priority Agent, and subject in all cases to any Junior Priority Permitted Liens and to Section 2.4(f).

(vii) Notwithstanding the foregoing, solely during the time that the Senior Note Agent or the Junior Note Agent, as applicable, is permitted to Exercise any Secured Creditor Remedies with respect to the ABL Priority Collateral pursuant to Section 2.2, the Senior Note Agent or the Junior Note Agent, as applicable, shall have the right to take actions under and with respect to any collateral access agreement and any deposit account or securities account subject to any "control agreement", in each case, to which the Senior Note Agent or the Junior Note Agent, as applicable, is a party; provided, that (A) the Senior Note Agent shall provide the ABL Agent not less than two Business Days' prior written notice of its intent to take action pursuant to this Section 2.4(e), (B) the Junior Note Agent shall provide the ABL Agent and the Senior Note Agent not less than two Business Days' prior written notice of its intent to take action pursuant to this Section 2.4(e), (C) upon written request from the Senior Note Agent or the Junior Note Agent, as applicable, to the ABL Agent, the ABL Agent shall notify the third parties under such collateral access agreements and control agreements to which the Senior Note Agent or the Junior Note Agent, as applicable, is a party, that the Senior Note Agent or the Junior Note Agent, as applicable, is the "Lender Representative" or "Control Agent" (or any similar term) entitled to take action thereunder and (D) any ABL Priority Collateral received by the Senior Note Agent or the Junior Note Agent pursuant to this sentence shall be remitted to the ABL Agent for application in accordance with the terms hereof.

(f) When Discharge of Senior Priority Obligations Deemed to Not Have Occurred. Notwithstanding anything to the contrary herein, if concurrently with the Discharge of Senior Priority Obligations, the Borrower or any other Grantor enters into any Permitted Refinancing of any Senior Priority Obligations, then such Discharge of Senior Priority Obligations shall automatically be deemed not to have occurred for all purposes of this Agreement, and the obligations under the Permitted Refinancing shall automatically be treated as Senior Priority Obligations for all purposes of this Agreement, including for purposes of the Lien priorities and rights in respect of Collateral set forth herein, the term "Senior Priority Credit Agreement" shall be deemed appropriately modified to refer to such Permitted Refinancing and the Senior Priority Agent under such Senior Priority Documents shall be a Senior Priority Agent for all purposes hereof and the new secured parties under such Senior Priority Documents shall automatically be treated as the Senior Priority Secured Parties for all purposes of this Agreement. Upon receipt of a notice stating that the Borrower and/or any other Grantor is entering into a new Senior Priority Document in respect of a Permitted Refinancing of Senior Priority Obligations (which notice shall include the identity of the new collateral agent, such agent, the "New Senior Priority Agent"), and delivery by the New Senior Priority Agent of an Intercreditor Agreement Joinder, the Junior Priority Agent shall promptly enter into such documents and agreements (including amendments or supplements to this Agreement) as the Borrower or any other Grantor or such New Senior Priority Agent shall reasonably request in order to provide to the New Senior Priority Agent the rights contemplated hereby, in each case, consistent in all respects with the terms of this Agreement. The New Senior Priority Agent shall agree to be bound by the terms of this Agreement. If the new Senior Priority Obligations under the new Senior Priority Documents are secured by assets of the Grantors of the type constituting Senior Priority Collateral that do not also secure the Junior Priority Obligations, then the Junior Priority Obligations shall be secured at such time by a Junior Priority Lien on such assets to the same extent provided in the Junior Priority

Security Documents with respect to the other Senior Priority Collateral. If the new Senior Priority Obligations under the new Senior Priority Documents are secured by assets of the Grantors of the type constituting Junior Priority Collateral that do not also secure the Junior Priority Obligations, then the Junior Priority Obligations shall be secured at such time by a Senior Priority Lien on such assets to the same extent provided in the Junior Priority Security Documents with respect to the other Junior Priority Collateral.

(g) When Discharge of Junior Priority Obligations Deemed to Not Have Occurred. Notwithstanding anything to the contrary herein, if concurrently with the Discharge of Junior Priority Obligations, the Borrower or any other Grantor enters into any Permitted Refinancing of any Junior Priority Obligations, then such Discharge of Junior Priority Obligations shall automatically be deemed not to have occurred for all purposes of this Agreement, and the obligations under the Permitted Refinancing shall automatically be treated as Junior Priority Obligations for all purposes of this Agreement, including for purposes of the Lien priorities and rights in respect of Collateral set forth herein, the term "Junior Priority Credit Agreement" shall be deemed appropriately modified to refer to such Permitted Refinancing and the Junior Priority Agent under such Junior Priority Documents shall be a Junior Priority Agent for all purposes hereof and the new secured parties under such Junior Priority Documents shall automatically be treated as the Junior Priority Secured Parties for all purposes of this Agreement. Upon receipt of a notice stating that the Borrower and/or any other Grantor is entering into a new Junior Priority Document in respect of a Permitted Refinancing of Junior Priority Obligations (which notice shall include the identity of the new collateral agent, such agent, the "New Junior Priority Agent"), and delivery by the New Junior Priority Agent of an Intercreditor Agreement Joinder, the Senior Priority Agents shall promptly enter into such documents and agreements (including amendments or supplements to this Agreement) as the Borrower or any other Grantor or such New Junior Priority Agent shall reasonably request in order to provide to the New Junior Priority Agent the rights contemplated hereby, in each case, consistent in all respects with the terms of this Agreement. The New Junior Priority Agent shall agree to be bound by the terms of this Agreement. If the new Junior Priority Obligations under the new Junior Priority Documents are secured by assets of the Grantors of the type constituting Junior Priority Collateral that do not also secure the Senior Priority Obligations, then the Senior Priority Obligations shall be secured at such time by a Senior Priority Lien on such assets to the same extent provided in the Senior Priority Security Documents with respect to the other Junior Priority Collateral. If the new Junior Priority Obligations under the new Junior Priority Documents are secured by assets of the Grantors of the type constituting Senior Priority Collateral that do not also secure the Senior Priority Obligations, then the Senior Priority Obligations shall be secured at such time by a Junior Priority Lien on such assets to the same extent provided in the Senior Priority Security Documents with respect to the other Senior Priority Collateral.

2.5. Insolvency or Liquidation Proceedings.

(a) Finance Issues. If the Borrower or any other Grantor shall be subject to any Insolvency or Liquidation Proceeding and the Senior Priority Agent shall desire to (i) permit or otherwise consent to the use of cash collateral constituting Senior Priority Collateral on which the Senior Priority Agent or any other creditor has a Lien under Section 363 or any similar Bankruptcy Law (the "Senior Priority Cash Collateral") or (ii) provide or consent to any Person providing DIP Financing (such financing under this clause (ii) "Senior Priority DIP Financing"),

then the Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, agrees that it will raise no objection (on any basis available to a secured creditor but not unsecured creditors generally) to such use of cash collateral constituting Senior Priority Collateral or to the fact that such DIP Financing may be granted Liens on the Senior Priority Collateral and will not request adequate protection or any other relief with respect to the Senior Priority Collateral (except as expressly agreed by the Senior Priority Agent or to the extent permitted by Section 2.5(c)) and, to the extent the Liens on the Senior Priority Collateral securing the Senior Priority Obligations are subordinated or *pari passu* with the Liens on the Senior Priority Collateral securing such DIP Financing, the Junior Priority Agent will subordinate its Liens in the Senior Priority Collateral to the Liens securing such DIP Financing (and all obligations relating thereto), in each case, so long as (A) the interest rate, fees, advance rates, lending sublimits and limits and other terms are commercially reasonable under the circumstances, (B) the Junior Priority Agent retains a Lien on the Collateral (including Proceeds thereof arising after the commencement of such Insolvency or Liquidation Proceeding) with the same priority as existed prior to the commencement of such Insolvency or Liquidation Proceeding, subordinated to the Liens securing such DIP Financing, (C) the Junior Priority Agent receives a replacement Lien on post-petition assets to the same extent granted to the Senior Priority Secured Parties providing the DIP Financing, which Lien will be subordinated to the Liens securing the Senior Priority Obligations and such Senior Priority DIP Financing (and all obligations relating thereto) on the same basis as the other Liens on Senior Priority Collateral securing the Junior Priority Obligations are so subordinated to the Senior Priority Obligations under this Agreement, (D) with respect to a Senior Priority DIP Financing consented to by the ABL Agent, the aggregate principal amount of such DIP Financing, together with the aggregate principal amount of Outstanding ABL Principal Obligations outstanding under the Senior Priority Documents as of the commencement of the Insolvency or Liquidation Proceeding (and not otherwise refinanced with or "rolled up" by such Senior Priority DIP Financing), does not exceed the Maximum ABL Principal Obligations, (E) with respect to a Senior Priority DIP Financing consented to by the Senior Note Agent, the aggregate principal amount of such DIP Financing, together with the aggregate principal amount of Outstanding Note Principal Obligations outstanding under the Senior Priority Documents as of the commencement of the Insolvency or Liquidation Proceeding (and not otherwise refinanced with or "rolled up" by the Senior Priority DIP Financing), does not exceed the Maximum Senior Note Principal Obligations, (F) such DIP Financing does not compel any Grantor to seek confirmation of any specific Plan for which all or substantially all of the materials terms are set forth in the court order authorizing such DIP Financing or the accompanying financing documentation, (G) such DIP Financing does not expressly require the liquidation of all or substantially all of the Collateral prior to a default under such DIP Financing (as distinguished from the Disposition of any Grantor's business as a going concern) and (H) such DIP Financing is subject to the terms of this Agreement). If, in connection with any use of Senior Priority Cash Collateral or Senior Priority DIP Financing, any Liens on the Senior Priority Collateral are subject to a surcharge or are subordinated to an administrative priority claim, a professional fee "carve-out," or fees owed to the United States Trustee, then the Liens on the Junior Priority Collateral shall also be subordinated to such interest or claim and shall remain subordinated to the Liens on the Senior Priority Collateral consistent with this Agreement. The Junior Priority Secured Parties shall not provide or offer to provide any DIP Financing secured by a Lien on the Senior Priority Collateral senior or *pari passu* with the Liens on the Senior Priority Collateral securing the Senior Priority Obligations, without the prior written consent of the Senior Priority Agent. The rights of the Junior Note Agent and any Junior Note Secured Party to provide

or offer to provide any DIP Financing secured by a Lien on any Notes Priority Collateral shall be subject to the terms of the Notes Intercreditor Agreement.

(b) Relief from the Automatic Stay. Until the Discharge of Senior Priority Obligations has occurred, the Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, agrees that (i) none of them shall seek relief from the automatic stay or any other stay in any Insolvency or Liquidation Proceeding in respect of the Senior Priority Collateral, (A) without the prior written consent of the Senior Priority Agent or (B) unless and to the extent the Senior Priority Agent has obtained relief from such stay in respect of the Senior Priority Collateral and (ii) none of them shall oppose any relief from the automatic stay or other stay in any Insolvency or Liquidation Proceeding sought by the Senior Priority Agent in respect of the Senior Priority Collateral.

(c) Adequate Protection.

(i) The Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, agrees that none of them shall contest (or support any other Person contesting) (A) any request by the Senior Priority Agent or the other Senior Priority Secured Parties for adequate protection with respect to any Senior Priority Collateral or (B) any objection by the Senior Priority Agent or the other Senior Priority Secured Parties to any motion, relief, action or proceeding based on the Senior Priority Agent or the other Senior Priority Secured Parties claiming a lack of adequate protection with respect to the Senior Priority Collateral.

(ii) Notwithstanding the foregoing provisions in this Section 2.5(c), in any Insolvency or Liquidation Proceeding, (A) if the Senior Priority Secured Parties (or any subset thereof) are granted adequate protection in the form of a Lien on additional collateral in connection with any DIP Financing, then the Junior Priority Agent, on behalf of itself or any of the other Junior Priority Secured Parties, may seek or request adequate protection in the form of a Lien on such additional or replacement collateral and (1) to the extent any Lien so granted to the Junior Priority Secured Parties (or any subset thereof) in accordance with this clause (A) is on Senior Priority Collateral, such Lien will be subordinated to the Liens securing the Senior Priority Obligations and such DIP Financing (and all obligations relating thereto) on the same basis as the other Liens on Senior Priority Collateral securing the Junior Priority Obligations are so subordinated to the Senior Priority Obligations under this Agreement, and (2) to the extent any Lien so granted to the Senior Priority Secured Parties (or any subset thereof) in accordance with this clause (A) is on Junior Priority Collateral, such Lien will be subordinated to the Liens securing the Junior Priority Obligations on the same basis as the other Liens on Junior Priority Collateral securing the Senior Priority Obligations are so subordinated to the Junior Priority Obligations under this Agreement; and (B) in the event the Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, seeks or requests adequate protection in respect of Senior Priority Collateral securing Junior Priority Obligations and such adequate protection is granted in the form of additional or replacement collateral, then the Junior Priority Agent, on behalf of itself or any of the other Junior Priority Secured Parties, agrees that the Senior Priority Agent shall also be granted a senior Lien on such additional or replacement collateral as security for the Senior Priority Obligations and for any such DIP Financing provided by the Senior Priority Secured Parties and that any Lien on such additional collateral securing the Junior Priority Obligations shall be subordinated to the Liens on such collateral securing the Senior Priority Obligations and any

such DIP Financing provided by the Senior Priority Secured Parties (and all obligations relating thereto) and to any other Liens granted to the Senior Priority Secured Parties as adequate protection on the same basis as the other Liens on Senior Priority Collateral securing the Junior Priority Obligations are so subordinated to the Senior Priority Obligations under this Agreement.

(iii) Each Senior Priority Agent may seek, without objection from the Junior Priority Secured Parties, adequate protection with respect to the Senior Priority Secured Parties' rights in the Senior Priority Collateral in the form of periodic cash payments payable from such Senior Priority Collateral or the proceeds of Senior Priority DIP Financing. Except as provided in the immediately preceding sentence, no Agent or Secured Party may seek cash adequate protection payments without the consent of each Senior Priority Agent.

(iv) Any adequate protection granted in favor of any Senior Priority Secured Party in the form of a superpriority or other administrative expense claim and any claim in favor of any Senior Priority Secured Party arising under Section 507(b) of the Bankruptcy Code (or similar Bankruptcy Law) ("Senior 507(b) Claims"), shall be *pari passu* with the grant of adequate protection in favor of the other Senior Priority Secured Parties in the form of a superpriority or other administrative expense claim and any Senior 507(b) Claims in favor of such other Senior Priority Secured Parties. Any claim arising under Section 507(b) of the Bankruptcy Code (or similar Bankruptcy Law) in favor of any Junior Priority Secured Party shall be *pari passu* with the claims arising under Section 507(b) of the Bankruptcy Code (or similar Bankruptcy Law) in favor of the other Junior Priority Secured Parties (collectively, "Junior 507(b) Claims"), and all Junior 507(b) Claims shall be junior and subordinate in right of payment to the Senior 507(b) Claims and the holders of the Junior 507(b) Claims agree that, in connection with any plan of reorganization in such Insolvency or Liquidation Proceeding, such Junior 507(b) Claims may be paid in any combination of cash, securities, or other property having a present value equal to the amount of such Junior 507(b) Claims as of the effective date of confirmation of such plan.

(v) Except as otherwise expressly provided herein, without the consent of the Senior Priority Agent, no Junior Priority Agent or other Junior Priority Secured Parties may seek any other adequate protection with respect to their rights in the Collateral.

(d) No Waiver. Subject to clause (iii) of Section 2.2(a) and except as provided in Section 2.5(c), nothing contained herein shall prohibit or in any way limit the Senior Priority Agent or any other Senior Priority Secured Party from objecting in any Insolvency or Liquidation Proceeding or otherwise to any action taken by the Junior Priority Agent or any of the other Junior Priority Secured Parties in respect of the Senior Priority Collateral, including the seeking by the Junior Priority Agent or any other Junior Priority Secured Parties of adequate protection in respect thereof or the asserting by the Junior Priority Agent or any other Junior Priority Secured Parties of any of its rights and remedies under the Junior Priority Documents or otherwise in respect thereof.

(e) Post-Petition Interest. Neither the Junior Priority Agent nor any other Junior Priority Secured Party shall oppose or seek to challenge any claim by the Senior Priority Agent or any other Senior Priority Secured Party for allowance in any Insolvency or Liquidation Proceeding of Senior Priority Obligations consisting of post-petition interest, premiums, fees, costs, charges or expenses.

(f) Waiver. The Junior Priority Agent, for itself and on behalf of the Junior Priority Secured Parties, agrees that it shall consent to, and shall not object to, oppose, support any objection, or take any other action to impede, the right of any Senior Priority Secured Party or the Senior Priority Agent to make an election under Section 1111(b)(2) of the Bankruptcy Code (or similar Bankruptcy Law). The Junior Priority Agent, for itself and on behalf of the other Junior Priority Secured Parties, waives any claim it may hereafter have against any Senior Priority Secured Party arising out of the election of any Senior Priority Secured Party of the application of Section 1111(b)(2) of the Bankruptcy Code (or similar Bankruptcy Law). Nothing in this Agreement shall restrict the holder of any Senior Priority DIP Financing from having, or seeking to have, such Senior Priority DIP Financing repaid, in whole or in part, from the proceeds of the assertion of any claim under Section 506(c) of the Bankruptcy Code (or any similar provision of any other Bankruptcy Law).

(g) No Waiver. Except as otherwise expressly provided in this Agreement, nothing contained herein shall prohibit or in any way limit the Senior Priority Agent or any Senior Priority Secured Party from objecting in any Insolvency or Liquidation Proceeding to any action taken by the Junior Priority Agent or any Junior Priority Secured Party.

(h) Plan of Reorganization. If, in any Insolvency or Liquidation Proceeding, debt obligations of the reorganized debtor secured by Liens upon any property of the reorganized debtor are distributed pursuant to a plan of reorganization or similar dispositive restructuring plan, both on account of Senior Priority Obligations and on account of Junior Priority Obligations, then, to the extent the debt obligations distributed on account of the Senior Priority Obligations and on account of the Junior Priority Obligations are secured by Liens upon the same property, the provisions of this Agreement will survive the distribution of such debt obligations pursuant to such plan and will apply with like effect to the Liens securing such debt obligations.

(i) Enforceability and Continuing Priority. This Agreement shall be applicable both before and after the commencement of any Insolvency or Liquidation Proceeding and all converted or succeeding cases in respect thereof. The relative rights of the Secured Parties in or to any distributions from or in respect of any Collateral or proceeds of Collateral, shall continue after the commencement of any Insolvency or Liquidation Proceeding. Accordingly, the provisions of this Agreement are intended to be and shall be enforceable as a subordination agreement within the meaning of Section 510 of the Bankruptcy Code (or similar Bankruptcy Law).

(j) Asset Dispositions. Until the Discharge of Senior Priority Obligations has occurred, the Junior Priority Agent, for itself and on behalf of the other Junior Priority Secured Parties, agrees that, in the event of any Insolvency or Liquidation Proceeding, the Junior Priority Secured Parties will not object or oppose, or support any Person in objecting or opposing, on any basis available to a secured creditor (but not unsecured creditors generally) any motion for the Disposition of any Senior Priority Collateral free and clear of the Liens of the Junior Priority Agent and the other Junior Priority Secured Parties or other claims under Sections 363, 365 or 1129 of the Bankruptcy Code, or any comparable provision of any Bankruptcy Law (and including any motion for bid procedures or other procedures related to the Disposition that is the subject of such motion), and shall be deemed to have consented (subject to its right to object to such Disposition to the extent expressly set forth above) to any such Disposition of any Senior

Priority Collateral under Section 363(f) of the Bankruptcy Code, or any comparable provision of any Bankruptcy Law, that has been consented to by the Senior Priority Agent (to the extent consent of the holder of a Lien is required); provided, that, the Proceeds of such Disposition of any Collateral to be applied to the Junior Priority Obligations or the Senior Priority Obligations will be applied in accordance with Sections 5.1 and 5.2.

2.6. Reliance; Waivers; Etc.

(a) Reliance. Other than any reliance on the terms of this Agreement, the Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, acknowledges that it and such other Junior Priority Secured Parties have, independently and without reliance on the Senior Priority Agent or any other Senior Priority Secured Parties, and based on documents and information deemed by them appropriate, made their own credit analysis and decision to enter into such Junior Priority Documents and be bound by the terms of this Agreement and they will continue to make their own credit decisions in taking or not taking any action under the Junior Priority Credit Agreement or this Agreement.

(b) No Warranties or Liability. The Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, acknowledges and agrees that the Senior Priority Agent and the other Senior Priority Secured Parties have made no express or implied representation or warranty, including with respect to the execution, validity, legality, completeness, collectability or enforceability of any of the Senior Priority Documents, the ownership of any Collateral or the perfection or priority of any Liens thereon. The Senior Priority Secured Parties will be entitled to manage and supervise their respective loans and extensions of credit under their respective Senior Priority Documents in accordance with law and as they may otherwise, in their sole discretion, deem appropriate. The Senior Priority Agent and the other Senior Priority Secured Parties shall have no duty to the Junior Priority Agent or any of the other Junior Priority Secured Parties to act or refrain from acting in a manner which allows, or results in, the occurrence or continuance of an Event of Default or default under any agreements with the Borrower or any other Grantor (including the Senior Priority Documents and the Junior Priority Documents), regardless of any knowledge thereof which they may have or be charged with.

(c) No Waiver of Lien Priorities.

(i) No right of the Senior Priority Agent, the other Senior Priority Secured Parties, or any of them to enforce any provision of this Agreement or any Senior Priority Document shall at any time in any way be prejudiced or impaired by any act or failure to act on the part of the Borrower or any other Grantor or by any act or failure to act by the Senior Priority Agent or any other Senior Priority Secured Party, or by any noncompliance by any Person with the terms, provisions and covenants of this Agreement, any of the Senior Priority Documents or any of the Junior Priority Documents, regardless of any knowledge thereof which the Senior Priority Agent or the other Senior Priority Secured Parties, or any of them, may have or be otherwise charged with.

(ii) Without in any way limiting the generality of the foregoing paragraph (but subject to the rights of the Borrower and the other Grantors under the Senior Priority Documents and subject to the other provisions of this Agreement), the Senior Priority Agent, the

other Senior Priority Secured Parties, and any of them, may, at any time and from time to time in accordance with the Senior Priority Documents and/or applicable law, without the consent of, or notice to, the Junior Priority Agent or any other Junior Priority Secured Party, without incurring any liabilities to the Junior Priority Agent or any other Junior Priority Secured Party and without impairing or releasing the Lien priorities and other benefits provided in this Agreement (even if any right of subrogation or other right or remedy of the Junior Priority Agent or any other Junior Priority Secured Party is affected, impaired or extinguished thereby) do any one or more of the following:

(A) sell, exchange, realize upon, enforce or otherwise deal with in any manner (subject to the terms hereof and applicable law) and in any order any part of the Senior Priority Collateral or any liability of the Borrower or any other Grantor to the Senior Priority Agent or the other Senior Priority Secured Parties, or any liability incurred directly or indirectly in respect thereof;

(B) settle or compromise any Senior Priority Obligation or any other liability of the Borrower or any other Grantor or any security therefor or any liability incurred directly or indirectly in respect thereof; and

(C) exercise or delay in or refrain from exercising any right or remedy against the Borrower or any security or any other Grantor or any other Person, elect any remedy and otherwise deal freely with the Borrower, any other Grantor or any Senior Priority Collateral and any security and any guarantor or any liability of the Borrower or any other Grantor to the Senior Priority Secured Parties or any liability incurred directly or indirectly in respect thereof.

(iii) The Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, also agrees that the Senior Priority Agent and the other Senior Priority Secured Parties shall have no liability to the Junior Priority Agent or any other Junior Priority Secured Party, and the Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, hereby waives any claim against the Senior Priority Agent and any other Senior Priority Secured Party, arising out of any and all actions which the Senior Priority Agent or the other Senior Priority Secured Parties may take or permit or omit to take with respect to:

(A) the Senior Priority Documents (other than this Agreement);

(B) the collection of the Senior Priority Obligations and the Excess ABL Debt, the Excess Senior Note Debt or the Excess Junior Note Debt, as applicable; or

(C) the foreclosure upon, or sale, liquidation or other Disposition of, any Senior Priority Collateral in accordance with this Agreement and applicable law.

(iv) The Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, agrees that the Senior Priority Agent and the other Senior Priority Secured Parties have no duty to the Junior Priority Agent or the other Junior Priority Secured

Parties in respect of the maintenance or preservation of the Senior Priority Collateral, the Senior Priority Obligations or otherwise, except as otherwise provided in this Agreement.

(v) The Junior Priority Agent, on behalf of itself and the other Junior Priority Secured Parties, agrees not to assert and hereby waives, to the fullest extent permitted by law, any right to demand, request, plead or otherwise assert or otherwise claim the benefit of, any marshaling or other similar right that may otherwise be available under applicable law with respect to the Senior Priority Collateral or any other similar rights a junior secured creditor may have under applicable law.

(d) Obligations Unconditional. All rights, interests, agreements and obligations of the Senior Priority Agent and the other Senior Priority Secured Parties and the Junior Priority Agent and the other Junior Priority Secured Parties, respectively, under this Agreement shall remain in full force and effect irrespective of:

(i) any lack of validity or enforceability of any Senior Priority Document or any Junior Priority Document;

(ii) any change in the time, manner or place of payment of, or in any other terms of, all or any of the Senior Priority Obligations or Junior Priority Obligations, or any amendment or waiver or other modification, whether by course of conduct or otherwise, of the terms of any Senior Priority Document or any Junior Priority Document;

(iii) any exchange of any security interest in any Senior Priority Collateral or any amendment, waiver or other modification permitted hereunder, whether in writing or by course of conduct or otherwise, of all or any of the Senior Priority Obligations or Junior Priority Obligations; or

(iv) the commencement of any Insolvency or Liquidation Proceeding in respect of one or more of the Borrower or any other Grantor.

Section 3. Option to Purchase ABL Obligations and Senior Note Obligations.

3.1. ABL Obligations Purchase Option. At any time during the exercise period described in Section 3.3 below, any Senior Note Secured Party or any Junior Note Secured Party shall have the right to purchase by way of assignment (and shall thereby also assume all commitments and duties of the ABL Secured Parties), all, but not less than all, of the ABL Priority Obligations (other than the ABL Priority Obligations of a Defaulting ABL Secured Party (as defined below)). Any purchase pursuant to this Section 3.1 shall be made as follows:

(a) The purchase price shall be equal to the sum of (i) 100% of the principal amount of all loans, advances or other similar extensions of credit that constitute ABL Priority Obligations (including Bank Product Obligations and unreimbursed amounts drawn in respect of letters of credit, but excluding the undrawn amount of then outstanding letters of credit) (in each case, to the extent of their respective interests therein as the ABL Secured Parties), and all accrued and unpaid interest thereon through the date of purchase, plus (ii) all accrued and unpaid fees, default interest, post-petition interest and expenses (including Enforcement Expenses), Indemnity Amounts and other amounts through the date of purchase. In addition to

the payment of the purchase price described above, the Senior Note Secured Parties or the Junior Note Secured Parties, as applicable, shall be obligated (which obligation shall be expressly provided in the assignment documentation described in Section 3.1(f)) to reimburse each issuing lender (or any ABL Secured Party required to pay same) for all amounts thereafter drawn with respect to any letters of credit constituting ABL Priority Obligations which remain outstanding after the date of any purchase pursuant to this Section 3, together with all fronting fees and other amounts which may at any future time be owing to the respective issuing lenders with respect to such letters of credit, in each case, in accordance with and pursuant to clause (c) below.

(b) The purchase price described in preceding clause (a) shall be payable in cash on the date of purchase against transfer to the respective Senior Note Secured Party(s) or Junior Note Secured Party(s) (which purchase shall be allocated on a pro rata basis based on the principal amount of the Senior Note Obligations held by such Senior Note Secured Parties or Junior Note Obligations held by such Junior Note Secured Parties, as applicable) (without recourse and without any representation or warranty whatsoever, whether as to the enforceability of any ABL Obligation or the validity, enforceability, perfection, priority or sufficiency of any Lien securing, or guarantee or other supporting obligation for, any ABL Obligation or as to any other matter whatsoever, except the representations and warranties by each ABL Lender (i) that the debt being transferred by such ABL Lender is free and clear of all Liens, (ii) as to the amount of its portion of the ABL Obligations being acquired, and (iii) that such ABL Lender has the right to assign its right, title and interest in and to the ABL Obligations and the commitments of such ABL Lender under the ABL Documents); provided, that the purchase price in respect of any outstanding letter of credit described in clause (a) above that remains undrawn on the date of purchase shall be payable in cash as and when such letter of credit is drawn upon solely from the cash collateral account described in clause (c) below.

(c) Such purchase shall be accompanied by a deposit of cash collateral under the sole dominion and control of the ABL Agent or its designee in an amount equal to (i) one hundred three percent (103%) of the sum of the aggregate undrawn amount of all then outstanding letters of credit described in clause (a) above, as security for the respective Senior Note Secured Party(s)' or the Junior Note Secured Party(s)', as applicable, obligation to pay amounts as provided in preceding clause (a), it being understood and agreed that (A) at the time any fronting or similar fees are owing to an issuer with respect to any such letter of credit, the ABL Agent may apply amounts deposited with it as described above to pay same and (B) upon any drawing under any such letter of credit, the ABL Agent shall apply amounts deposited with it as described above to repay the respective unpaid drawing (it being further understood and agreed that after giving effect to any payment made as described above in this clause (i), those amounts (if any) then on deposit with the ABL Agent as described in this clause (i) which exceed one hundred three percent (103%) of the sum of the aggregate undrawn amount of all then outstanding letters of credit described in clause (a) above shall be returned to the respective Senior Note Secured Party(s) (as their interests appear) or the Junior Note Secured Party(s) (as their interests appear), as applicable), plus (ii) one hundred percent (100%) of Bank Product Obligations constituting ABL Priority Obligations not paid pursuant to clause (a)(i)(A) above (such cash collateral shall be applied to the reimbursement of such Bank Product Obligations as and when such obligations become due and payable and, at such time as all of such Bank Product Obligations are paid in full in cash, the remaining cash collateral held by the ABL Agent in respect of Bank Product Obligations shall be remitted to the Senior Note Agent (for the benefit of the purchasing Senior Note Secured Parties) or the Junior

Note Agent (for the benefit of the purchasing Junior Note Secured Parties), as applicable), plus (iii) such other amounts reasonably determined by ABL Agent to cause the Discharge of ABL Priority Obligations pursuant to clause (f) of such definition. Furthermore, at such time as all such letters of credit have been cancelled, expired or been fully drawn, as the case may be, and after all applications described above in respect of Bank Product Obligations have been made, any excess cash collateral deposited as described above in this clause (c) (and not previously applied or released as provided above) shall be returned to the respective Senior Note Secured Party(s) or the Junior Note Secured Party(s), as applicable, as their interests appear. The ABL Agent and the ABL Lenders agree not to amend, modify, renew or extend any such letters of credit or Bank Product Obligations during the period during which such cash collateral is deposited as described above in this clause (c).

(d) The purchase price described in the preceding clause (a) shall be accompanied by a waiver by the Senior Note Agent (on behalf of itself and the other Senior Note Secured Parties) or the Junior Note Agent (on behalf of itself and the other Junior Note Secured Parties), as applicable, of all claims arising out of this Agreement and the transactions contemplated hereby as a result of exercising the purchase option contemplated by this Section 3.

(e) All amounts payable to the various ABL Secured Parties in respect of the assignments described above shall be distributed to them by the ABL Agent in accordance with their respective ratable shares of the various ABL Obligations.

(f) Such purchase shall be made pursuant to assignment documentation in the form of Exhibit **[___]** to the ABL Credit Agreement; it being understood and agreed that the ABL Agent and each other ABL Secured Party shall retain all rights to indemnification as provided in the relevant ABL Documents pursuant to the provisions of this Section 3.

(g) Contemporaneously with the consummation of such purchase, the ABL Agent shall resign as the "Agent" under the ABL Documents and the Senior Note Agent (or such other Person as the Senior Note Secured Parties shall designate) or the Junior Note Agent (or such other Person as the Junior Note Secured Parties shall designate), as applicable, shall be designated as the successor "Agent" under the ABL Documents. Each Grantor hereby consents to such resignation and appointment of the successor "Agent" under the ABL Documents. All ABL Obligations in excess of the Maximum ABL Principal Obligations, including the Excess ABL Debt, shall continue to be secured by the Collateral in accordance with the terms of the ABL Documents, and the ABL Agent and the ABL Lenders shall retain all rights to receive payments in respect thereof subject to the terms of this Section 3.1.

3.2. ABL Obligations Purchase Option Timing.

(a) The Senior Note Secured Parties shall exercise the purchase option described in Section 3.1 by providing the ABL Agent on behalf of the ABL Lenders and the Junior Note Agent not less than five (5) Business Days' prior written notice of their exercise thereof, which notice, (i) once given, shall be irrevocable and fully binding on the respective Senior Note Secured Party or Senior Note Secured Parties, and (ii) shall specify a date of purchase not less than five (5) Business Days, nor more than ten (10) Business Days, after the date of the receipt by the ABL Agent of such notice. Neither the ABL Agent nor any ABL Secured Party shall have any

disclosure obligation to the Senior Note Agent or any other Senior Note Secured Party in connection with any exercise of such purchase option.

(b) Prior to exercising the purchase option described in Section 3.1, the Junior Note Secured Parties shall provide the Senior Note Agent on behalf of the Senior Note Secured Parties not less than ten (10) Business Days' prior written notice of their intent to exercise such purchase option. If the Senior Note Secured Parties send notice of the exercise of the purchase option pursuant to Section 3.2(a) within such ten (10) Business Day period, the Junior Note Secured Parties may not exercise the purchase option pursuant to this Section 3.2. If, after the Senior Note Agent receives such notice of intent to exercise such purchase option from the Junior Note Secured Parties, the Senior Note Secured Parties do not send a notice of the exercise of their purchase option pursuant to Section 3.2(a), the Junior Note Secured Parties may exercise the purchase option described in Section 3.1. Any purchase by the Junior Note Secured Parties pursuant to this Section 3.2(b) shall be made by providing the ABL Agent on behalf of the ABL Lenders and the Senior Note Agent not less than five (5) Business Days' prior written notice of their exercise thereof (which five (5) Business Days shall be in addition to the ten (10) Business Days' notice required with respect to the Senior Note Agent), which notice, (i) once given, shall be irrevocable and fully binding on the respective Junior Note Secured Party(s), and (ii) shall specify a date of purchase not less than five (5) Business Days, nor more than ten (10) Business Days, after the date of the receipt by the ABL Agent of such notice. Neither the ABL Agent nor any ABL Secured Party shall have any disclosure obligation to the Junior Note Agent or any other Junior Note Secured Party in connection with any exercise of such purchase option.

3.3. ABL Obligations Purchase Option Triggering Events. The right to purchase the ABL Obligations as described in this Section 3 may be exercised by giving the irrevocable written notice described in preceding Section 3.2 at any time from and after the date of the occurrence of any of the following: (a) an Event of Default has occurred and is continuing under the ABL Documents and the revolving loan commitment under the ABL Credit Agreement has been terminated, suspended or reduced by ABL Agent (if such reduction results in less availability under the ABL Credit Agreement than was available to the Grantors prior to such reduction by ABL Agent) for a period of more than five (5) consecutive Business Days, (b) the maturity of the ABL Obligations has been accelerated pursuant to a written notice delivered by the ABL Agent to the Borrower or any other Grantor based on an ABL Default, (c) the ABL Agent shall have commenced, or shall have notified the Senior Note Agent and the Junior Note Agent that it intends to commence, the Exercise of Any Secured Creditor Remedies with respect to any Collateral, or shall have commenced, or shall have notified the Senior Note Agent and the Junior Note Agent that it intends to commence, the exercise of any of its rights and remedies with respect to the Borrower and/or any other Grantor to collect the ABL Obligations, all in accordance with the ABL Documents, (d) an Event of Default has occurred and is continuing under the Senior Note Documents or Junior Note Documents, as applicable, and has not been waived in accordance with the terms of the Senior Note Documents or Junior Note Documents, as applicable, or (e) the commencement of an Insolvency or Liquidation Proceeding.

3.4. [Reserved].

3.5. [Reserved].

3.6. [Reserved].

3.7. Several Purchase Obligations. The obligations of the ABL Secured Parties to sell their respective ABL Priority Obligations under this Section 3 are several and not joint and several. To the extent any ABL Secured Party breaches its obligation to sell its ABL Priority Obligations under this Section 3 (a "Defaulting ABL Secured Party"), nothing in this Section 3 shall be deemed to require the ABL Agent or any other ABL Secured Party to purchase such Defaulting ABL Secured Party's ABL Priority Obligations for resale to the holders of Senior Note Obligations or Junior Note Obligations, as applicable, and in all cases, the ABL Agent and each other ABL Secured Party complying with the terms of this Section 3 shall not be deemed to be in default of this Agreement or otherwise be deemed liable for any action or inaction of any Defaulting ABL Secured Party; provided, that nothing in this Section 3.7 shall require any Senior Note Secured Party or any Junior Note Secured Party to purchase less than all of the ABL Priority Obligations.

3.8. Grantor Consent. Each Grantor irrevocably consents to any assignment effected to one or more Senior Note Secured Parties or Junior Note Secured Parties pursuant to this Section 3 (so long as they meet all eligibility standards contained in all relevant Senior Note Documents or Junior Note Documents, as applicable, other than obtaining the consent of any Grantor to an assignment to the extent required by such ABL Documents and such assignment does not violate any applicable federal or state securities laws) for purposes of all Senior Note Documents or Junior Note Documents, as applicable, and hereby agrees that no further consent from such Grantor shall be required.

3.9. Notice of Exercise of Secured Creditor Remedies. In the absence of Exigent Circumstances, the ABL Agent agrees that it will use commercially reasonable efforts to give the other Collateral Agents five (5) Business Days' prior written notice of its intention to terminate the revolving loan commitment under the ABL Documents or commence the Exercise of Secured Creditor Remedies; provided, that in the event Exigent Circumstances then exist, the ABL Agent agrees that it will use commercially reasonable efforts to give the other Collateral Agents concurrent written notice of the termination of the revolving loan commitment or the commencement of any Exercise of Secured Creditor Remedies, but, in either event, the ABL Agent shall not have any liability for any failure to provide such notice. In the event that during such five (5) Business Day period, any Senior Note Secured Party or any Junior Note Secured Party, shall send to the ABL Agent the irrevocable written notice to exercise a purchase option as described above, the ABL Agent shall not, absent Exigent Circumstances, continue or commence any foreclosure or other action to sell or otherwise realize upon the ABL Priority Collateral or Note Priority Collateral, as applicable; provided, that the ABL Agent's forbearance shall terminate if the purchase and sale with respect to the ABL Priority Obligations provided for herein shall not have closed, and the ABL Agent shall not have received the purchase price described in the preceding Section 3.1(a), within ten (10) Business Days after the date of the receipt by the ABL Agent of such irrevocable written notice.

Section 4. Cooperation with respect to ABL Priority Collateral and Note Priority Collateral.

4.1. Access to Information. If any Collateral Agent takes actual possession of any documentation of a Grantor (whether such documentation is in the form of a writing or is

stored in any data equipment or data record in the physical possession of such Collateral Agent), then upon request of the other Collateral Agent(s) and reasonable advance notice, such Collateral Agent will permit the other Collateral Agent(s) or its representative to inspect and copy such documentation.

4.2. Non-Exclusive License to Use Intellectual Property. In addition to and not in limitation of the provisions of this Section 4 for the purpose of enabling the ABL Agent and the ABL Secured Parties to Exercise any Secured Creditor Remedies at such time as the ABL Agent shall be lawfully entitled to do so,

(a) subject to the terms and conditions of this Section 4, the Senior Note Agent, each Senior Note Secured Party, the Junior Note Agent and each Junior Note Secured Party hereby (i) gives its written consent (given without any representation, warranty or obligation whatsoever) to the grant by the Borrower and the other Grantors to the ABL Agent and the ABL Secured Parties of a non-exclusive royalty-free license in the form of Exhibit C attached hereto (the "Closing Date License") and (ii) agrees that its Liens on the Note Priority Collateral shall be subject to the Closing Date License;

(b) to the extent that the Senior Note Agent, any Senior Note Holder, the Junior Note Agent or any Junior Note Lender has become the owner of any Intellectual Property of any Grantor through the Exercise of Secured Creditor Remedies and to the extent not prohibited by the terms of such Intellectual Property, such Senior Note Agent, the Senior Note Holder, the Junior Note Agent or the Junior Note Lender hereby grants to the ABL Agent, for itself and the benefit of the ABL Secured Parties, an irrevocable, non-exclusive royalty-free license (given without any representation, warranty or obligation whatsoever) to use any such Intellectual Property that is reasonably deemed necessary or desirable by the ABL Agent to sell, lease or otherwise dispose of or realize upon any ABL Priority Collateral. The license granted under this Section 4.2(b) shall continue for the period of one hundred eighty (180) days from the date the Senior Note Agent, any Senior Note Holder, the Junior Note Agent or any Junior Note Lender provides notice to the ABL Agent that the Senior Note Agent, any Senior Note Holder, the Junior Note Agent or any Junior Note Lender, as applicable, has become the owner of the Intellectual Property (the "License Period"); provided that for purposes of the sale or other Disposition of branded Inventory (including Inventory branded or stamped by the Grantors and Inventory branded or stamped by any ABL Secured Party pursuant to the license as described in the foregoing sentence) or Inventory produced utilizing any such Intellectual Property during the License Period, the license to use such Intellectual Property for purpose of the sale or other Disposition of such Inventory by the ABL Agent shall continue until the Disposition of such Inventory. If, at any time, the Senior Note Agent, any Senior Note Holder, the Junior Note Agent or any Junior Note Lender sells or transfers the Intellectual Property, the license shall continue for the License Period. The License Period shall be tolled during the pendency of any Insolvency or Liquidation Proceeding pursuant to which the ABL Agent, the Senior Note Agent and the Junior Note Agent are effectively stayed from enforcing their rights and remedies with respect to the ABL Priority Collateral; and

(c) to the extent the ABL Agent is selling, leasing, or otherwise disposing of or realizing upon any ABL Priority Collateral that is subject to a licensing agreement between any Grantor and any third party not an Affiliate of any Grantor, the ABL Agent shall sell,

lease or otherwise dispose of or realize upon any such ABL Priority Collateral in accordance with the terms and provisions of such licensing agreement.

4.3. Rights of Access and Use. In the event that any Senior Note Secured Party or any Junior Note Secured Party shall acquire control or possession of any of the Note Priority Collateral or shall, through the Exercise of Secured Creditor Remedies, sell any of the Note Priority Collateral to any third party (a "Third Party Purchaser"), the Senior Note Secured Parties and the Junior Note Secured Parties shall permit the ABL Agent (or require as a condition of such sale to the Third Party Purchaser that the Third Party Purchaser agree to permit the ABL Agent), at its option and in accordance with applicable law: (a) to enter any or all of the Note Priority Collateral under such control or possession (or sold to a Third Party Purchaser) consisting of real property during normal business hours (i) in order to inspect, remove or take any action with respect to the ABL Priority Collateral or to enforce the ABL Agent's rights with respect thereto, including the examination and removal of the ABL Priority Collateral and the examination and duplication of the books and records of any Grantor related to the ABL Priority Collateral and use of systems and other computer processing equipment in connection therewith, (ii) to sell any or all of the ABL Priority Collateral, whether in bulk, in lots or to customers in the ordinary course of business or otherwise, (iii) otherwise for the purpose of shipping, storing, selling or otherwise handling, dealing with, assembling or disposing of, in any lawful manner, the ABL Priority Collateral, and/or (iv) to take commercially reasonable actions to protect, secure, and otherwise enforce the rights or remedies of the ABL Agent and/or the other ABL Secured Parties in and to the ABL Priority Collateral, such right to include the right to conduct one or more public or private sales or auctions thereon; and (b) to use any of the Note Priority Collateral under such control or possession (or sold to a Third Party Purchaser) (including, real property, equipment, machinery, fixtures, computers or other data processing equipment) to handle, deal with or dispose of any ABL Priority Collateral pursuant to the rights of the ABL Agent and the ABL Secured Parties as set forth in the ABL Documents, the UCC of any applicable jurisdiction, the PPSA or other applicable law, including those actions listed in Section 4.3(a) above. The Senior Note Secured Parties and the Junior Note Secured Parties shall not have any responsibility or liability for the acts or omissions of the ABL Agent or any ABL Secured Party (or any of their respective representatives, contractors, licensees or invitees), and the ABL Agent and the ABL Secured Parties (and any of their respective representatives, contractors, licensees or invitees) shall not have any responsibility or liability for the acts or omissions of any Senior Note Secured Party or any Junior Note Secured Party, in each case, arising in connection with such other Secured Party's use and/or occupancy of any of the Note Priority Collateral. The rights of the ABL Agent set forth in Sections 4.3(a) and 4.3(b) above as to the Note Priority Collateral shall be irrevocable and shall continue at the ABL Agent's option for a period (the " Access Period") of one hundred eighty (180) days for each respective parcel of real property from the earlier of (i) the date that the ABL Agent receives written notice from the Senior Note Agent or the Junior Note Agent that the Senior Note Agent or the Junior Note Agent has acquired possession or control of such Note Priority Collateral and (ii) the date the ABL Agent provides the Senior Note Agent or the Junior Note Agent with written notice of its intent to exercise rights and remedies under this Section 4.3 with respect to each such parcel of real property; provided, that if the Senior Note Agent or the Junior Note Agent has entered into an agreement for the sale of all or substantially all of the Note Priority Collateral consisting of real property and equipment at a location in a bona fide arm's length transaction with an unaffiliated person, the rights of the ABL Agent set forth in Sections 4.3(a) and (b) above at such location shall only continue until the later of (A) the date one hundred twenty (120) days after the date the ABL Agent

receives written notice from the Senior Note Agent or the Junior Note Agent, as applicable, of such agreement, together with a copy thereof, as duly authorized, executed and delivered by the parties thereto or (B) the date that the proposed purchaser shall require as a condition of such sale that possession of the equipment and real property be given by the Senior Note Agent or the Junior Note Agent, as applicable, to such purchaser; provided, however, that in no event shall the rights of the ABL Agent set forth in Sections 4.3(a) and (b) above at such location exceed the applicable Access Period. The time periods set forth in Sections 4.2 and 4.3 above shall be tolled during the pendency of any Insolvency or Liquidation Proceeding pursuant to which the ABL Agent, the Senior Note Agent and the Junior Note Agent are effectively stayed from enforcing their rights and remedies with respect to the ABL Priority Collateral. In no event shall any of the Senior Note Secured Parties or the Junior Note Secured Parties take any action to interfere, limit or restrict the rights of the ABL Agent or any ABL Secured Party or the exercise of such rights by the ABL Agent or any ABL Secured Party to have access to or to use any of such Note Priority Collateral under such possession or control pursuant to Sections 4.2 and 4.3 prior to the expiration of such periods.

4.4. Grantor Consent. The Borrower and the other Grantors (a) consent to the performance by the Senior Note Secured Parties and the Junior Note Secured Parties of the obligations set forth in this Section 4 between each of them, on the one hand, and the ABL Agent, on the other hand, and (b) acknowledge and agree that they shall look to the ABL Agent (and not to any Senior Note Secured Party or any Junior Note Secured Party) for any accountability or liability in respect of any action taken or omitted by the ABL Agent or any other ABL Secured Party or its or any of their officers, employees, agents, successors or assigns in connection with or incidental to or in consequence of the aforesaid obligations under this Section 4, including any improper use or disclosure of any Intellectual Property by the ABL Agent or any other ABL Secured Party or its or any of their officers, employees, agents, successors or assigns or any other damage to or misuse or loss of any property of the Grantors as a result of any action taken or omitted by the ABL Agent or any other ABL Secured Party or its or any of their officers, employees, agents, successors or assigns, provided that nothing in this Section 4.4 shall so limit the Borrower and the other Grantors if any Senior Note Secured Party or any Junior Note Secured Party participated in any such actions, omission, improper uses or disclosures or in causing any such damage, misuse or loss. Performance by any Senior Note Secured Party or any Junior Note Secured Party, as applicable, of the undertakings in this Section 4 will not be deemed to be participation in any such actions, omissions, improper uses or disclosures or in causing any such damage, misuse or loss referenced in the prior sentence.

4.5. Reimbursement by ABL Agent and ABL Lenders . The ABL Agent and the ABL Secured Parties shall reimburse the Senior Note Agent, the Senior Note Secured Parties, the Junior Note Agent, the Junior Secured Parties and any Third Party Purchaser (but, in the case of any Third Party Purchaser, only to the extent the ABL Agent's and the ABL Secured Parties' access and use of the Note Priority Collateral continues after the sale of such Note Priority Collateral to such Third Party Purchaser) (collectively, the "Reimbursed Parties") for (a) any loss, liability, claim, damage or expense (including reasonable fees and expenses of legal counsel) arising out of any claim asserted by any third party to the extent resulting directly from any acts or omissions by the ABL Agent, any ABL Secured Party, or any of their respective agents or representatives, in connection with the exercise by any of them of the rights of access set forth in Section 4.3 above (in each case, solely to the extent not covered by insurance payable to the applicable Reimbursed

Parties); except that, the ABL Agent and the ABL Secured Parties shall not have any obligation under this Section 4.5 to reimburse any of the Reimbursed Parties with respect to a matter covered hereby to the extent resulting from the gross negligence or willful misconduct of such Reimbursed Party as determined pursuant to a final, non-appealable order of a court of competent jurisdiction, (b) any damage to any Note Priority Collateral (including any damage to real property constituting Note Priority Collateral) to the extent caused by any act of the ABL Agent, any ABL Secured Party or any of their respective agents or representatives, and (c) any injury resulting from any release of hazardous materials on such real property or arising in connection with the investigation, removal, clean-up and/or remediation of any hazardous material at such real property to the extent caused directly by the access, occupancy, use or control of such real property by the ABL Agent, any ABL Secured Party, or any of their respective agents or representatives. In no event shall the ABL Agent or any ABL Secured Party have any liability to the Reimbursed Parties pursuant to this Section 4.5 or otherwise as a result of any condition on or with respect to the Note Priority Collateral existing prior to the date of the exercise by any of them of the rights of access set forth in this Section 4, and the ABL Agent or any ABL Secured Party shall have no duty or liability to maintain the Note Priority Collateral in a condition or manner better than that in which it was maintained (ordinary wear and tear excepted) prior to the access and/or use thereof by the ABL Agent or any ABL Secured Party.

4.6. Payments by the ABL Agent. During the actual occupation and control by the ABL Agent, any ABL Secured Party or any of their respective agents or representatives of any real property constituting Note Priority Collateral during the access and use period permitted by this Section 4, the ABL Agent shall be (a) obligated to pay to the Senior Priority Agent all utilities, taxes and all other maintenance and operating costs of such real property during any such period of actual occupation and control, but only to the extent a Grantor is not otherwise paying any such amounts, (b) obligated to maintain insurance for such real property, substantially similar to the insurance maintained by the Borrower or any Grantor on such real property, naming the Senior Note Agent and the Junior Note Agent, for the benefit of the Senior Note Secured Parties and the Junior Note Secured Parties, respectively, as mortgagees, loss payees and additional insureds, if such insurance is not otherwise in effect, and (c) obligated to repair at its expense any physical damage (ordinary wear and tear excepted) to such real property resulting from any act or omission of the ABL Agent, any ABL Secured Party or any of their respective agents or representatives pursuant to such access, occupancy, use or control of such equipment or real property, and to leave the premises in a condition substantially similar to the condition of such premises prior to the date of the commencement of such access, occupancy, use or control thereof. Notwithstanding anything to the contrary in this Section 4, in no event will ABL Agent or any ABL Secured Party be obligated to pay for any diminution in value of the Note Priority Collateral resulting solely from the absence or removal of the ABL Priority Collateral from each applicable premises (other than for actual, physical damage caused by ABL Agent or ABL Secured Parties as described above). All amounts paid by ABL Secured Parties hereunder shall be added to the outstanding principal balance of the ABL Priority Obligations.

4.7. Effect Upon Discharge of Senior Note Priority Obligations. Upon the Discharge of Senior Note Priority Obligations, all references to the Senior Note Agent, the Senior Note Holders or the Senior Note Secured Parties in Sections 4.3 through 4.6 shall be deemed to refer and apply to the Junior Note Agent, the Junior Note Holders or the Junior Note Secured Parties, respectively.

Section 5. Application of Proceeds.

5.1. Application of Proceeds in Distributions by the Senior Note Agent.

(a) Note Priority Collateral. All Proceeds of Note Priority Collateral resulting from the Disposition of such Collateral pursuant to any Exercise of Secured Creditor Remedies (including a Default Disposition) or a Disposition during any Insolvency or Liquidation Proceedings, as and when received by the Senior Priority Agent, will be applied in the following order of application:

First, to the payment of all costs and expenses incurred by the Controlling Note Agent or any co-trustee or agent of the Controlling Note Agent in connection with any such collection, sale, foreclosure or other realization upon the Collateral in accordance with the terms of this Agreement and the applicable Note Documents;

Second, to the Controlling Note Agent for application to the payment of all outstanding Note Priority Obligations in such order as may be provided in the Notes Intercreditor Agreement in an amount sufficient to pay in full in cash all outstanding Note Priority Obligations;

Third, to the ABL Agent for application to the payment of all outstanding ABL Priority Obligations in such order as may be provided in the ABL Documents in an amount sufficient to pay in full in cash all outstanding ABL Priority Obligations (including the discharge or cash collateralization (at one hundred and three percent (103%) of the aggregate undrawn amount of all outstanding letters of credit, if any, constituting ABL Priority Obligations and the discharge or cash collateralization (at one hundred percent (100%) of the outstanding amount) of Bank Product Obligations, if any, constituting ABL Priority Obligations), plus such other amounts necessary to cause the Discharge of ABL Priority Obligations ;

Fourth to the Senior Note Agent for application to the payment of all Excess Senior Note Debt, in such order as may be provided in the Senior Note Documents in an amount sufficient to pay in full in cash all such obligations;

Fifth, to the Junior Note Agent for application to the payment of all Excess Junior Note Debt, in such order as may be provided in the Junior Note Documents in an amount sufficient to pay in full in cash all such obligations;

Sixth, to the ABL Agent for application to the payment of all Excess ABL Debt, in such order as may be provided in the ABL Documents in an amount sufficient to pay in full in cash all such obligations; and

Seventh, any surplus remaining after the payment in full in cash of the amounts described in the preceding clauses will be paid to the Borrower, or the applicable Grantor, as the case may be, its successors or assigns, or as a court of competent jurisdiction may direct.

The application of Proceeds pursuant to paragraphs '*First*' and '*Second*' above shall be subject to the Terms of the Notes Intercreditor Agreement.

(b) Sale of Non-Cash Proceeds. In connection with the application of Proceeds pursuant to Section 5.1(a), except as otherwise directed by the requisite lenders under the applicable Senior Priority Documents, the Senior Priority Agent may sell any non-Cash Proceeds of Senior Priority Collateral for cash prior to the application of the Proceeds thereof.

(c) Collections Applicable to ABL Priority Collateral. If the applicable Collateral Agent or any other Secured Party collects or receives any Proceeds of such foreclosure, collection or other enforcement that should have been applied in accordance with Section 5.2(a), whether after the commencement of an Insolvency or Liquidation Proceeding or otherwise, such Collateral Agent and such Secured Party will forthwith deliver the same to the Senior Priority Agent to be applied in accordance with Section 5.2(a).

5.2. Application of Proceeds in Distributions by the ABL Agent.

(a) ABL Priority Collateral. All Proceeds of ABL Priority Collateral resulting from the Disposition of such Collateral pursuant to any Exercise of Secured Creditor Remedies (including a Default Disposition) or a Disposition during any Insolvency or Liquidation Proceedings, as and when received by the Senior Priority Agent, will be applied in the following order of application:

First, to the payment of all costs and expenses incurred by the ABL Agent or any co-trustee or agent of the ABL Agent in connection with any such collection, sale, foreclosure or other realization upon the Collateral in accordance with the terms of this Agreement and the ABL Documents;

Second, to the ABL Agent for application to the payment of all outstanding ABL Priority Obligations in such order as may be provided in the ABL Documents in an amount sufficient to pay in full in cash all outstanding ABL Priority Obligations (including the discharge or cash collateralization (at one hundred and three percent (103%) of the aggregate undrawn amount) of all outstanding letters of credit, if any, constituting ABL Priority Obligations and the cash collateralization (at one hundred percent (100%) of the outstanding amount) of Bank Product Obligations, if any, constituting ABL Priority Obligations), plus such other amounts necessary to cause the Discharge of ABL Priority Obligations ;

Third, to the Controlling Note Agent for application to the payment of all outstanding Note Priority Obligations in such order as may be provided in the Notes Intercreditor Agreement in an amount sufficient to pay in full in cash all outstanding Note Priority Obligations;

Fourth, to the ABL Agent for application to the payment of all Excess ABL Debt, in such order as may be provided in the ABL Documents in an amount sufficient to pay in full in cash all such obligations, in an amount equal to the aggregate amount of such payment;

Fifth, to the Senior Note Agent for application to the payment of all Excess Senior Note Debt, in such order as may be provided in the Senior Note Documents in an amount sufficient to pay in full in cash all such obligations;

Sixth, to the Junior Note Agent for application to the payment of all Excess Junior Note Debt, in such order as may be provided in the Junior Note Documents in an amount sufficient to pay in full in cash all such obligations; and

Seventh, any surplus remaining after the payment in full in cash of the amounts described in the preceding clauses will be paid to the Borrower or the applicable Grantor, as the case may be, its successors or assigns, or as a court of competent jurisdiction may direct.

The application of Proceeds pursuant to the '*Third*' paragraph above shall be subject to the terms of the Notes Intercreditor Agreement.

(b) Sale of Non-Cash Proceeds. In connection with the application of Proceeds pursuant to Section 5.2(a), except as otherwise directed by the requisite lenders under the applicable Senior Priority Documents, the Senior Priority Agent may sell any non-Cash Proceeds of Senior Priority Collateral for cash prior to the application of the Proceeds thereof.

(c) Collections Applicable to Note Priority Collateral. If the applicable Collateral Agent or any other Secured Party collects or receives any Proceeds of such foreclosure, collection or other enforcement that should have been applied in accordance with Section 5.1(a), whether after the commencement of an Insolvency or Liquidation Proceeding or otherwise, such Collateral Agent and such Secured Party will forthwith deliver the same to the Senior Priority Agent to be applied in accordance with Section 5.1(a).

5.3. Tracing of and Priorities in Proceeds. Prior to the delivery of notice of the commencement of a Standstill Period with respect to the Collateral of a Grantor (unless an Insolvency or Liquidation Proceeding of such Grantor has been commenced and is continuing), (a) any Proceeds of ABL Priority Collateral of such Grantor used by any Grantor to acquire any Note Priority Collateral shall be treated as Note Priority Collateral, so long as such use of ABL Priority Collateral is otherwise not in violation of the terms of this Agreement or the ABL Documents and (b) any Proceeds of Note Priority Collateral of such Grantor used by any Grantor to acquire any ABL Priority Collateral shall be treated as ABL Priority Collateral, so long as such use of Note Priority Collateral is otherwise not in violation of the terms of this Agreement or the Senior Note Documents and the Junior Note Documents. Notwithstanding anything to the contrary contained in this Agreement, any Senior Note Document or any Junior Note Document, until the Discharge of ABL Priority Obligations occurs Senior Note Agent and Junior Note Agent, for itself and on behalf of the applicable Secured Parties, agrees that prior to the receipt of a Note Cash Proceeds Notice, and except with respect to Note Priority Collateral, or proceeds thereof reasonably identified in a Note Cash Proceeds Notice, the ABL Secured Parties are hereby permitted to treat all cash, cash equivalents, money, collections and payments deposited in or credited to any other Grantor's deposit account, collection account or other bank account or otherwise received by any ABL Secured Party as ABL Priority Collateral, and except as otherwise provided above, no such amounts deposited in or credited to any such accounts or received by any

ABL Secured Party or applied to the ABL Obligations shall be subject to disgorgement or deemed to be held in trust for the benefit of the Note Secured Parties (and all claims of the Note Secured Parties to such amounts are hereby waived); provided, this consent shall not inure to the benefit of any of the Grantors or be deemed a waiver of or modification of any provision of the Senior Note Security Documents or any provisions of the Junior Note Security Documents, including any provision requiring application of such proceeds to repayment of the Senior Note Obligations or Junior Note Obligations, as applicable, or otherwise in the manner provided for in the Senior Note Security Documents or Junior Note Security Documents, as applicable, or any default or event of default that may result from any Grantor's failure to comply with such requirements.

5.4. Letters of Credit. Any distribution to be made in respect of undrawn amounts of letters of credit (whether by cash collateralization or otherwise) pursuant to Section 5.1 or Section 5.2 shall be made to the ABL Agent, to be retained in a separate account, for the ratable portion of the ABL Obligations consisting of such undrawn amounts of outstanding letters of credit, it being understood that (a) if any such letter of credit is drawn upon, the ABL Agent shall pay to the relevant ABL Lenders, on a ratable basis, the amount of cash held in such separate account in respect of such letter of credit and (b) if and to the extent that any such letter of credit shall expire or terminate undrawn or drawn only in part, the amount of cash held in such separate account therefor shall be applied as if it were a newly received amount to be applied in accordance with Section 5.1 or Section 5.2 (whichever was the applicable section for the original distribution of such amount to such separate account).

5.5. Allocation of Proceeds from Dispositions of ABL Priority Collateral and Note Priority Collateral. Notwithstanding anything contained in this Agreement to the contrary, in the event of any Disposition or series of related Dispositions that includes (i) the Capital Stock issued by a Grantor, or (ii) ABL Priority Collateral and Note Priority Collateral, including during any Insolvency or Liquidation Proceeding, then solely for purposes of this Agreement, unless otherwise agreed by ABL Agent and Senior Note Agent, the proceeds of any such Disposition shall be allocated to the ABL Priority Collateral in an amount not less than the sum of (A) the book value determined in accordance with GAAP, but not less than cost, of any ABL Priority Collateral consisting of inventory that is the subject of such Disposition (or, in the case of a Disposition of Capital Stock issued by a Grantor, any ABL Priority Collateral consisting of inventory in which such Grantor or its Subsidiaries has an interest), determined as of the date of such Disposition, (B) the book value determined in accordance with GAAP of any ABL Priority Collateral consisting of accounts that are the subject of such Disposition (or, in the case of a Disposition of Capital Stock issued by a Grantor, any ABL Priority Collateral consisting of accounts in which such Grantor or its Subsidiaries has an interest), determined as of the date of such Disposition, and (C) the fair market value of all other ABL Priority Collateral that is the subject of such Disposition (or, in the case of a Disposition of Capital Stock issued by a Grantor, any other ABL Priority Collateral in which such Grantor has an interest), determined as of the date of such Disposition.

Section 6. Miscellaneous.

6.1. Conflicts. Subject to Section 1.4, in the event of any conflict between the provisions of this Agreement and the provisions of the ABL Documents, the Senior Note Documents or the Junior Note Documents, the provisions of this Agreement shall govern and control. Each Secured Party acknowledges and agrees that the terms and provisions of this

Agreement do not violate any term or provision of its respective ABL Documents, Senior Note Documents or Junior Note Documents.

6.2. Effectiveness; Continuing Nature of this Agreement; Severability.

(a) This Agreement shall become effective when executed and delivered by the parties hereto. The terms of this Agreement shall survive, and shall continue in full force and effect, in any Insolvency or Liquidation Proceeding but, as to any Grantor and the rights of the Secured Parties with respect thereto, shall not survive the effectiveness of any plan of reorganization adopted in connection therewith (subject to the terms of this Agreement with respect to any reorganization securities). Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall not invalidate the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. All references to the Borrower or any other Grantor shall include the Borrower or such Grantor as debtor and debtor in possession and any receiver or trustee for the Borrower or such Grantor in any Insolvency or Liquidation Proceeding.

(b) This Agreement shall terminate and be of no further force and effect:

(i) (A) upon the Discharge of ABL Priority Obligations and payment in full in cash of the Excess ABL Debt, subject to the rights of the ABL Secured Parties under Section 6.17 or (B) upon both (1) the Discharge of Senior Note Priority Obligations and payment in full in cash of the Excess Senior Note Debt, subject to the rights of the Senior Note Secured Parties under Section 6.17 and (2) the Discharge of Junior Note Priority Obligations and payment in full in cash of the Excess Junior Note Debt, subject to the rights of the Junior Note Secured Parties under Section 6.17;

(ii) with respect to the Senior Note Agent, the other Senior Note Secured Parties and the Senior Note Obligations, upon the Discharge of Senior Note Priority Obligations and payment in full in cash of the Excess Senior Note Debt, subject to the rights of the Senior Note Secured Parties under Section 6.17; and

(iii) with respect to the Junior Note Agent, the other Junior Note Secured Parties and the Junior Note Obligations, upon the Discharge of Junior Note Priority Obligations and payment in full in cash of the Excess Junior Note Debt, subject to the rights of the Junior Note Secured Parties under Section 6.17.

6.3. Amendments; Waivers. No amendment, modification or waiver of any of the provisions of this Agreement by the ABL Agent, the Senior Note Agent or the Junior Note Agent shall be deemed to be made unless the same shall be in writing signed on behalf of each party hereto or its authorized agent and each waiver, if any, shall be a waiver only with respect to the specific instance involved and shall in no way impair the rights of the parties making such waiver or the obligations of the other parties to such party in any other respect or at any other time; provided, that any Additional Note Obligations Agent may become party hereto by execution and delivery of a Joinder Agreement in accordance with the provisions of Section 8.21. Notwithstanding the foregoing, the Borrower or any other Grantor shall not have any right to consent to or approve any amendment, modification or waiver of any provision of this Agreement

except to the extent such amendment or modification seeks to impose affirmative obligations upon any applicable Grantor.

6.4. Information Concerning Financial Condition of the Borrower and its Subsidiaries. The Senior Priority Agent and the other Senior Priority Secured Parties, on the one hand, and the Junior Priority Agent and the other Junior Priority Secured Parties, on the other hand, shall each be responsible for keeping themselves informed of (a) the financial condition of each Borrower and its Subsidiaries and all endorsers and/or guarantors of the Senior Priority Obligations or the Junior Priority Obligations and (b) all other circumstances bearing upon the risk of nonpayment of the Senior Priority Obligations or the Junior Priority Obligations. The Senior Priority Agent and the other Senior Priority Secured Parties shall have no duty to advise the Junior Priority Agent or any other Junior Priority Secured Parties of information known to it or them regarding such condition or any such circumstances or otherwise. In the event that either the Senior Priority Agent or any of the other Senior Priority Secured Parties, on the one hand, or the Junior Priority Agent or any of the other Junior Priority Secured Parties, on the other hand, in its or their sole discretion, undertakes at any time or from time to time to provide any such information to any other party hereto, it or they shall be under no obligation (i) to make, and such informing party shall not make, any express or implied representation or warranty, including with respect to the accuracy, completeness, truthfulness or validity of any such information so provided, (ii) to provide any additional information or to provide any such information on any subsequent occasion, (iii) to undertake any investigation or (iv) to disclose any information which, pursuant to accepted or reasonable commercial finance practices, such party wishes to maintain confidential or is otherwise required to maintain confidential.

6.5. Submission to Jurisdiction; Waivers.

(a) ALL JUDICIAL PROCEEDINGS BROUGHT AGAINST ANY PARTY ARISING OUT OF OR RELATING HERETO MAY BE BROUGHT IN ANY STATE OR FEDERAL COURT OF COMPETENT JURISDICTION IN THE STATE, COUNTY AND CITY OF NEW YORK. BY EXECUTING AND DELIVERING THIS AGREEMENT, EACH PARTY, FOR ITSELF AND IN CONNECTION WITH ITS PROPERTIES, IRREVOCABLY (I) ACCEPTS GENERALLY AND UNCONDITIONALLY THE EXCLUSIVE JURISDICTION AND VENUE OF SUCH COURTS; (II) WAIVES ANY DEFENSE OF FORUM NON CONVENIENS; (III) AGREES THAT SERVICE OF ALL PROCESS IN ANY SUCH PROCEEDING IN ANY SUCH COURT MAY BE MADE BY REGISTERED OR CERTIFIED MAIL, RETURN RECEIPT REQUESTED, TO THE APPLICABLE PARTY AT ITS ADDRESS PROVIDED IN ACCORDANCE WITH SECTION 6.6; AND (IV) AGREES THAT SERVICE AS PROVIDED IN CLAUSE (III) ABOVE IS SUFFICIENT TO CONFER PERSONAL JURISDICTION OVER THE APPLICABLE PARTY IN ANY SUCH PROCEEDING IN ANY SUCH COURT, AND OTHERWISE CONSTITUTES EFFECTIVE AND BINDING SERVICE IN EVERY RESPECT.

(b) TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, EACH OF THE PARTIES HERETO HEREBY AGREES TO WAIVE ITS RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING HEREUNDER. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT

AND THAT RELATE TO THE SUBJECT MATTER HEREOF, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. EACH PARTY HERETO ACKNOWLEDGES THAT THIS WAIVER IS A MATERIAL INDUCEMENT TO ENTER INTO A BUSINESS RELATIONSHIP, THAT EACH HAS ALREADY RELIED ON THIS WAIVER IN ENTERING INTO THIS AGREEMENT, AND THAT EACH WILL CONTINUE TO RELY ON THIS WAIVER IN ITS RELATED FUTURE DEALINGS. EACH PARTY HERETO FURTHER WARRANTS AND REPRESENTS THAT IT HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL AND THAT IT KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL. THIS WAIVER IS IRREVOCABLE, MEANING THAT IT MAY NOT BE MODIFIED EITHER ORALLY OR IN WRITING (OTHER THAN BY A MUTUAL WRITTEN WAIVER SPECIFICALLY REFERRING TO THIS SECTION 6.5(b) AND EXECUTED BY EACH OF THE PARTIES HERETO), AND THIS WAIVER SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS HERETO. IN THE EVENT OF LITIGATION, THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

6.6. Notices. All notices to the ABL Secured Parties, the Senior Note Secured Parties and the Junior Note Secured Parties permitted or required under this Agreement shall also be sent to the ABL Agent, the Senior Note Agent and the Junior Note Agent, respectively. Unless otherwise specifically provided herein, any notice hereunder shall be in writing and may be personally served, telexed or sent by telefacsimile or United States mail or courier service and shall be deemed to have been given when delivered in Person or by courier service and signed for against receipt thereof, upon receipt of telefacsimile or United States mail. For the purposes hereof, the addresses of the parties hereto shall be as set forth beside each party's name on the signature pages hereto, or, as to each party, at such other address as may be designated by such party in a written notice to all of the other parties.

6.7. Further Assurances. The ABL Agent, on behalf of itself and the other ABL Secured Parties, the Senior Note Agent, on behalf of itself and the other Senior Note Secured Parties, the Junior Note Agent, on behalf of itself and the other Junior Note Secured Parties, and each Grantor agrees that each of them shall take such further action and shall execute (without recourse or warranty) and deliver such additional documents and instruments (in recordable form, if requested) as the ABL Agent, the Senior Note Agent or the Junior Note Agent may reasonably request to effectuate the terms of and the lien priorities contemplated by this Agreement. The parties hereto agree, subject to the other provisions of this Agreement upon request by the ABL Agent, the Senior Note Agent or the Junior Note Agent, to cooperate in good faith (and to direct their counsel to cooperate in good faith) from time to time in order to determine the specific items included in the ABL Priority Collateral and the Note Priority Collateral and the steps taken to perfect their respective Liens thereon and the identity of the respective parties obligated under the ABL Documents, the Senior Note Documents and the Junior Note Documents.

6.8. APPLICABLE LAW. THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE

OF NEW YORK, WITHOUT REGARD TO THE CONFLICT OF LAWS PRINCIPLES THEREOF.

6.9. Binding on Successors and Assigns. This Agreement shall be binding upon the parties hereto, the ABL Secured Parties, the Senior Note Secured Parties, the Junior Note Secured Parties and their respective successors and assigns.

6.10. Specific Performance. Each of the ABL Agent, the Senior Note Agent and the Junior Note Agent may demand specific performance of this Agreement. The ABL Agent, on behalf of itself and the other ABL Secured Parties, the Senior Note Agent, on behalf of itself and the other Senior Note Secured Parties, and the Junior Note Agent, on behalf of itself and the other Junior Note Secured Parties, hereby irrevocably waives any defense based on the adequacy of a remedy at law and any other defense which might be asserted to bar the remedy of specific performance in any action which may be brought by the ABL Agent, the Senior Note Agent or the Junior Note Agent, as the case may be.

6.11. Headings. Section headings in this Agreement are included herein for convenience of reference only and shall not constitute a part of this Agreement for any other purpose or be given any substantive effect.

6.12. Counterparts. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Agreement or any document or instrument delivered in connection herewith by telecopy or other electronic method shall be effective as delivery of a manually executed counterpart of this Agreement or such other document or instrument, as applicable.

6.13. Authorization; No Conflict. Each of the parties represents and warrants to all other parties hereto that the execution, delivery and performance by or on behalf of such party to this Agreement has been duly authorized by all necessary action, corporate or otherwise, does not violate any provision of law, governmental regulation, or any agreement or instrument by which such party is bound, and requires no governmental or other consent that has not been obtained and is not in full force and effect.

6.14. No Third Party Beneficiaries. This Agreement and the rights and benefits hereof shall inure to the benefit of the ABL Secured Parties, the Senior Note Secured Parties, the Junior Note Secured Parties, and each of their respective successors and assigns. Except as expressly provided in Section 6.3, no other Person shall have or be entitled to assert rights or benefits hereunder.

6.15. Provisions Solely to Define Relative Rights.

(a) The provisions of this Agreement are and are intended solely for the purpose of defining the relative rights of between the ABL Secured Parties, the Senior Note Secured Parties and the Junior Note Secured Parties. None of the Borrower, any other Grantor or any other creditor thereof shall have any rights hereunder (except as expressly provided in Section 6.3). Nothing in this Agreement is intended to or shall impair the obligations of the Borrower or

any other Grantor to pay the ABL Obligations, the Senior Note Obligations and the Junior Note Obligations as and when the same shall become due and payable in accordance with their terms.

(b) Nothing in this Agreement shall relieve the Borrower or any Grantor from the performance of any term, covenant, condition or agreement on the Borrower's or any Grantor's part to be performed or observed under or in respect of any of the Collateral pledged by it or from any liability to any Person under or in respect of any of such Collateral or impose any obligation on any Collateral Agent to perform or observe any such term, covenant, condition or agreement on the Borrower's or any Grantor's part to be so performed or observed or impose any liability on any Collateral Agent for any act or omission on the part of the Borrower or any Grantor relative thereto or for any breach of any representation or warranty on the part of the Borrower or any Grantor contained in this Agreement or any ABL Document, any Senior Note Document or any Junior Note Document, or in respect of the Collateral pledged by it. The obligations of the Borrower and each Grantor contained in this paragraph shall survive the termination of this Agreement and the discharge of the Borrower's or such Grantor's other obligations hereunder.

(c) Each of the Collateral Agents acknowledges and agrees that none of them has made any representation or warranty with respect to the execution, validity, legality, completeness, collectability or enforceability of any ABL Document, any Senior Note Document or any Junior Note Document. Except as otherwise provided in this Agreement, each of the Collateral Agents will be entitled to manage and supervise its respective extensions of credit to each Borrower and its Subsidiaries in accordance with law and its usual practices, modified from time to time as it deems appropriate.

6.16. Additional Grantors. The Borrower and each other Grantor will cause each Person that becomes a Grantor under any ABL Document, any Senior Note Document or any Junior Note Document to consent to this Agreement, to execute and deliver to the parties hereto an Intercreditor Agreement Consent, whereupon such Person will be bound by the terms hereof applicable to the Grantors to the same extent as if it had executed and delivered a consent to this Agreement as of the date hereof. The Borrower and the other Grantors shall promptly provide each Collateral Agent with a copy of each Intercreditor Agreement Consent executed and delivered pursuant to this Section 6.16.

6.17. Avoidance Issues. If any ABL Secured Party, any Senior Note Secured Party or any Junior Note Secured Party is required in any Insolvency or Liquidation Proceeding or otherwise to turn over or otherwise pay to the estate of the Borrower or any other Grantor any amount (a "Recovery"), then such ABL Secured Party, such Senior Note Secured Party or such Junior Note Secured Party, as applicable, shall be entitled to a reinstatement of ABL Obligations, Senior Note Obligations or Junior Note Obligations, as applicable, with respect to all such recovered amounts. If this Agreement shall have been terminated prior to such Recovery (except as the result of the effectiveness of a plan of reorganization adopted in an Insolvency or Liquidation Proceeding), this Agreement shall be reinstated in full force and effect, and such prior termination shall not diminish, release, discharge, impair or otherwise affect the obligations of the parties hereto from such date of reinstatement and, to the extent the ABL Obligations, the Senior Note Obligations or the Junior Note Obligations were decreased in connection with such payment which gave rise to the Recovery, the ABL Obligations, the Senior Note Obligations and the Junior Note Obligations, as applicable, shall be increased to such extent.

6.18. Intercreditor Agreement; Legends. This Agreement is the ABL Intercreditor Agreement referred to in the ABL Credit Agreement, the Senior Secured Note Agreement and the Junior Secured Note Agreement. Except as expressly set forth in Section 2.1(e) of this Agreement, nothing in this Agreement shall be deemed to subordinate the right of any Secured Party to receive payment under its Credit Agreement to the right of any other Secured Party to receive payment under its Credit Agreement (whether before or after the occurrence of an Insolvency or Liquidation Proceeding), it being the intent of the parties that this Agreement shall effectuate a subordination of Liens but not a subordination of Indebtedness. Notwithstanding anything to the contrary in this Agreement, the parties hereto acknowledge and agree that the rights and obligations of the Senior Note Secured Parties and the Junior Note Secured Parties are further governed by the Notes Intercreditor Agreement.

6.19. Subrogation. With respect to any payments or distributions in cash, property, or other assets that any Junior Priority Secured Party pays over to the Senior Priority Agent under the terms of this Agreement that creates a right of subrogation under applicable law, such Junior Priority Secured Party shall not assert or enforce any such rights of subrogation until the occurrence of the Discharge of Senior Priority Obligations with respect to the Senior Priority Obligations subject to such right of subrogation.

6.20. Reciprocal Rights. The parties agree that the provisions of Sections 2.1, 2.2, 2.3, 2.4(a), 2.4(b), 2.4(e), 2.4(f), 2.5(a), 2.5(b), 2.5(c), 2.5(d), 2.5(e), 2.5(f), 2.5(g), 2.5(h), 2.5(j), and 6.19 including, as applicable, the defined terms referenced therein (but only to the extent used therein), which govern the relationship, and certain rights, restrictions, and agreements, between the Senior Priority Secured Parties with respect to the Senior Priority Obligations, on the one hand, and the Junior Priority Secured Parties with respect to the Junior Priority Obligations, on the other hand, with respect to the ABL Priority Collateral subject to the Senior Note Security Documents shall apply to and govern, mutatis mutandis, the relationship between the Senior Priority Secured Parties with respect to the Senior Priority Obligations, on the one hand, and the ABL Secured Parties as the Junior Priority Secured Parties with respect to the Excess ABL Debt, on the other hand. The parties further agree that the provisions of Sections 2.1, 2.2, 2.3, 2.4(a), 2.4(b), 2.4(e), 2.4(f), 2.5(a), 2.5(b), 2.5(c), 2.5(d), 2.5(e), 2.5(f), 2.5(g), 2.5(h), 2.5(j), and 6.19 including, as applicable, the defined terms referenced therein (but only to the extent used therein), which govern the relationship, and certain rights, restrictions, and agreements, between the Senior Priority Secured Parties with respect to the Senior Priority Obligations, on the one hand, and the Junior Priority Secured Parties with respect to the Junior Priority Obligations, on the other hand, with respect to the Note Priority Collateral subject to the ABL Security Documents shall apply to and govern, mutatis mutandis, the relationship between the Senior Priority Secured Parties with respect to the Senior Priority Obligations, on the one hand, and the Senior Note Secured Parties and the Junior Note Secured Parties as the Junior Priority Secured Parties with respect to the Excess Senior Note Debt or Excess Junior Note Debt, on the other hand.

6.21. Additional Note Obligations. Subject to the terms and conditions of this Agreement and each Financing Document, the Obligors will be permitted from time to time to designate as an additional holder of Senior Note Obligations and/or Junior Note Obligations hereunder each Person that is, or that becomes or is to become, the holder of any Additional Note Obligations (or the Additional Note Obligations Agent in respect of such Additional Note Obligations). Upon the issuance or incurrence of any such Additional Note Obligations:

(a) The Borrowers shall deliver to each of the Collateral Agents a certificate of an authorized officer stating that the applicable Borrowers and/or Guarantors intend to enter or have entered into an Additional Note Obligations Agreement and certifying that the issuance or incurrence of such Additional Note Obligations and the Liens securing such Additional Note Obligations are permitted by the ABL Documents, the Senior Note Documents, the Junior Note Documents and each then existing Additional Senior Note Obligations Agreement and Additional Junior Note Obligations Agreement. Each of the Additional Note Obligations Agents, the ABL Agent, the Senior Note Agent and the Junior Note Agent shall be entitled to rely conclusively on the determination of the Borrower that such issuance and/or incurrence is permitted under the ABL Documents, the Senior Note Documents, the Junior Note Documents and each then existing Additional Senior Note Obligations Agreement and Additional Junior Note Obligations Agreement if such determination is set forth in such officer's certificate delivered to the ABL Agent, the Senior Note Agent and the Junior Note Agent; provided, however, that such determination will not affect whether or not the Borrowers and the Guarantors have complied with their undertakings in the ABL Documents, the Senior Note Documents, the Junior Note Documents or any then existing Additional Senior Note Obligations Agreement or Additional Junior Note Obligation Agreement;

(b) the Additional Note Obligations Agent for such Additional Note Obligations shall execute and deliver to the ABL Agent, the Senior Note Agent and the Junior Note Agent a Joinder Agreement acknowledging that such Additional Note Obligations and the holders of such Additional Note Obligations shall be bound by the terms hereof to the extent applicable to the Secured Parties, and

(c) the ABL Agent and each existing Note Agent shall promptly enter into such documents and agreements (including amendments, restatements, amendments and restatements, supplements or other modifications to this Agreement) as the ABL Agent or any existing Note Agent (but no other ABL Secured Party or Note Secured Party) or the Additional Note Obligations Agent may reasonably request in order to provide to it the rights, remedies and powers and authorities contemplated hereby, in each case consistent in all respects with the terms of this Agreement; provided that, for the avoidance of doubt and notwithstanding anything in this Agreement to the contrary, it is understood and agreed that any such amendment, restatement, amendment and restatement, supplement or other modification to this Agreement requested pursuant to this clause (c) may be entered into by the ABL Agent and the existing Note Agents without the consent of any other ABL Secured Party or Note Secured Party to effect the provisions of this Section 6.21 and may contain additional intercreditor terms applicable solely to the holders of such Additional Note Obligations *vis-à-vis* the holders of the relevant obligations hereunder or the holders of such Additional Note Obligations *vis-à-vis* the ABL Agent and the ABL Secured Parties or the Controlling Agent and the Note Secured Parties, as applicable.

[Remainder of Page Intentionally Blank]

IN WITNESS WHEREOF, the parties hereto have caused this Intercreditor Agreement to be executed by their respective officers or representatives as of the day and year first above written.

Address:

[_____]
[_____]
[_____]
Attention: [_____]
Telephone: [_____]
Email: [_____]

[ ],
as ABL Agent

By: _____

Name: _____

Title: _____

Address:

_____
_____
_____
Telephone:
Telecopy:
Email:

[ ],
as Senior Note Agent

By: _____

Name: _____

Title: _____

Address:

_____
_____
_____

Attention:
Telephone:
Telecopy:
Email:

[ ],
as Junior Note Agent

By: _____

Name: _____

Title: _____

CONSENT

The undersigned hereby (a) acknowledge and consent to the terms of the Intercreditor Agreement and (b) have caused this Consent to be executed by their respective officers or representatives as of _____ __, 2021.

Notice Address for each Grantor:

c/o _____
_____
_____
Attention:
Facsimile:

BORROWERS:

[ ]

By: _____
Name:
Title:

GUARANTORS:

[ ]

By: _____
Name:
Title:

[ ]

By: _____
Name:
Title:

EXHIBIT A
to Intercreditor Agreement

FORM OF
INTERCREDITOR AGREEMENT JOINDER

The undersigned, _____, a _____, hereby agrees to become party as [an ABL Agent] [a Senior Note Agent] [a Junior Note Agent] under the Intercreditor Agreement dated as of [_____ ___, 2021] (the "Intercreditor Agreement") among [_____], as ABL Agent, [_____], as Senior Note Agent, and [_____], as Junior Note Agent, as amended, supplemented, amended and restated or otherwise modified and in effect from time to time, for all purposes thereof on the terms set forth therein, and to be bound by the terms of the Intercreditor Agreement as fully as if the undersigned had executed and delivered the Intercreditor Agreement as of the date thereof.

IN WITNESS WHEREOF, the parties hereto have caused this Intercreditor Agreement Joinder to be executed by their respective officers or representatives as of _____, 20__.

[_____]

By: _____
Name: _____
Title

EXHIBIT B
to Intercreditor Agreement

FORM OF
INTERCREDITOR AGREEMENT CONSENT

The undersigned hereby (a) acknowledge and consent to the terms of the Intercreditor Agreement dated as of _____ __, 2021 (the "Intercreditor Agreement") among [_____], as ABL Agent, [_____], as the Senior Note Agent, and [_____], as Junior Note Agent, as amended, supplemented, amended and restated or otherwise modified and in effect from time to time, for all purposes on the terms set forth therein, (b) agree to be bound by the terms of the Intercreditor Agreement applicable to any of the Grantors under the Intercreditor Agreement as fully as if the undersigned had executed and delivered a consent to the Intercreditor Agreement as of the date thereof, and (c) have caused this Consent to be executed by their respective officers or representatives as of the _____day of _____, __.

[_____]

By: _____
Name: _____
Title:

EXHIBIT C
to Intercreditor Agreement

LICENSE TO USE INTELLECTUAL PROPERTY RIGHTS

For the purpose of enabling [_____], as Administrative Agent and Collateral Agent (in such capacity, the "ABL Agent") under that certain [_____], dated as of [_____ __], 2021 (as the same may be amended, restated, supplemented, modified, refinanced, replaced or renewed from time to time, the "Revolving Credit Agreement"), by and among [_____][9], the lenders party thereto (the "ABL Lenders"), and the ABL Agent, to enforce any Lien held by the ABL Agent upon any of the ABL Priority Collateral (as such terms are defined in the Intercreditor Agreement, dated as of even date herewith, by and among the ABL Agent, [___], as Administrative Agent and Collateral Agent for itself and the Senior Note Holders (as defined therein) under the Senior Secured Note Agreement (as defined therein) (in such capacities and together with any successor agent, the "Senior Note Agent"), and [ ], as Administrative Agent and Collateral Agent for itself and the Junior Note Holders (as defined therein) under the Junior Secured Note Agreement (as defined therein) (in such capacities and together with any successor agent, the "Junior Note Agent"), the Borrower and the other Grantors, the "Intercreditor Agreement") and to the extent reasonably deemed necessary or desirable by the ABL Agent to sell, lease or otherwise dispose of or realize upon any of the ABL Priority Collateral, each of the Grantors hereby grant to the ABL Agent, for the benefit of the ABL Secured Parties, a non- exclusive royalty-free license to use any Intellectual Property (including any Proprietary Rights) now owned or hereafter acquired by the Grantors, and wherever the same may be located. The Grantors hereby agree and acknowledge that no further performance is required of the ABL Agent under the terms of the license granted pursuant hereto and that this license shall not constitute an executory contract. Capitalized terms not otherwise defined herein shall have the meanings given thereto in the Intercreditor Agreement. This license shall expire and the grant herein shall be deemed terminated upon the expiration of the Access Period (as defined in the Intercreditor Agreement).

[9] Conform to final.

THIS LICENSE TO USE INTELLECTUAL PROPERTY RIGHTS SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAWS PRINCIPLES THEREOF (OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW).

Dated:_____, 2021

BORROWERS:

[_____]

By: _____
Name:
Title:

Title:

GUARANTORS:

[_____]

By: _____
Name:
Title:

[_____]

By: _____
Name:
Title:

Schedule 1

Certain Existing Indebtedness

1. The Financial support originally granted to FerroAtlántica, S.A.U. by the Ministry of Industry, Energy, and Tourism of Spain by Resolution of December 1, 2016 of the General Secretary for Industry and SMEs, under the order IET/619/2014, of April 11, and subrogated to Ferrosolar OpCo Group SL pursuant to the authorization of the General Secretary for Industry and SMEs on May 6, 2019 (the "Reindus loan")

2. Credit agreement dated July 26, 2013, as amended on January 23, 2015, between Silicio Ferrosolar, S.L.U. as borrower, Grupo Ferroatlantica S.A.U. as guarantor and el Centro Para el Desarollo Tecnológico Industrial as lender, and the credit agreement dated May 13, 2014, as amended on July 17, 2014, between Silicio Ferrosolar, S.L.U. as borrower, Grupo Ferroatlantica S.A.U. as guarantor and el Centro Para el Desarollo Tecnológico Industrial as lender (the "Silicio FerroSolar loan")

3. FerroAtlantica del Cinca loan entered into on December 23, 2008

4. A loan agreement dated July 23, 2020 and entered into between BNP Paribas as lender and Ferropem S.A.S. as borrower, pursuant to which a state-guaranteed amount of
€4,300,000 was made available to the borrower in a single draw which is to be repaid (together with a €21,500 guarantee fee) in a single payment at the maturity of the loan on July 23, 2021 (the "French COVID loan")

5. A loan agreement dated June 2, 2020 and entered into between Investissement Quebec as lender and Silicium Québec Société en Commandite and Silicium Québec Commandité Inc as the borrowers, pursuant to which an amount of (CAD)$7,000,000 plus additional hypothec of 20% was made available to the borrowers at no interest with repayment occurring after 36 months in 84 monthly instalments of (CAD)$83 340 each payable to the lender. (the "Quebec Silicon loan")

Schedule 2
Security Documents

A. **Canada**

Security Documents entered into before the Issue Date

1. Pledge Agreement entered into by GSM Netherlands B.V. as pledgor in favour of GLAS Trust Corporation Limited as the Security Agent with respect to a pledge over shares in QSIP Canada ULC.

2. General security agreement entered into between QSIP Canada ULC as the debtor and GLAS Trust Corporation Limited as the Security Agent.

3. Deed of Hypothec entered into by QSIP Canada ULC as grantor and GLAS Trust Corporation Limited as the hypothecary representative.

B. **France**

Security Documents entered into before the Issue Date

1. Securities Account Pledge Agreement entered into by, among others, Grupo FerroAtlantica S.A.U. as pledgor and GLAS Trust Corporation Limited with respect to the securities account opened in the name of Grupo FerroAtlantica S.A.U. and on which are recorded all the financial securities (*titres financiers*) issued by Ferropem S.A.S. and held by Grupo FerroAtlantica S.A.U.

2. Securities Account Pledge Agreement entered into by, among others, Kintuck SAS as pledgor and GLAS Trust Corporation Limited with respect to the securities account opened in the name of Kintuck SAS and on which are recorded all the financial securities (*titres financiers*) issued by Ferroglobe Manganese S.A.S. and held by Kintuck S.A.S.

3. Bank Accounts Pledge Agreement entered into by, among others, Ferropem S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the bank accounts listed therein.

4. Bank Accounts Pledge Agreement entered into by, among others, Ferroglobe Manganese S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the bank accounts listed therein.

5. Receivables Pledge Agreement entered into by, among others, Ferropem S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the receivables listed therein.

6. Receivables Pledge Agreement entered into by, among others, Ferroglobe Manganese S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the receivables listed therein.

7. Non-possessory Inventory Pledge Agreement entered into by, among others, Ferropem S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the inventory listed therein *provided that*, such security satisfies the requirements specified in paragraph 4(f) of the Agreed Security Principles.

8. Non-possessory Inventory Pledge Agreement entered into by, among others, Ferroglobe Manganese S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the inventory listed therein *provided that*, such security satisfies the requirements specified in paragraph 4(f) of the Agreed Security Principles.

9. Possessory Inventory Pledge Agreement entered into by, among others, Ferropem S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the inventory listed therein *provided that*, such security shall only be required to be perfected if the requirements specified in paragraph 6(m) of the Agreed Security Principles are satisfied.

10. Possessory Inventory Pledge Agreement entered into by, among others, Ferroglobe Manganese S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the inventory listed therein *provided that*, such security shall only be required to be perfected if the requirements specified in paragraph 6(m) of the Agreed Security Principles are satisfied.

Security Documents that each of Ferropem S.A.S and Ferroglobe Manganese S.A.S. (as applicable) shall use its best commercial efforts to enter into on or before the Issue Date and shall in any case ensure are entered into by the date falling 60 days after the Issue Date

1. Notarized Mortgage Agreement (*hypothèque*) to be entered into by, among others, Ferropem S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the real property listed therein *provided that*, such security satisfies the requirements specified in paragraph 4(i) of the Agreed Security Principles.

2. Pledge of going concern agreement (*nantissement de fonds de commerce*) to be entered into by, among others, Ferroglobe Manganese S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the going concern (*fonds de commerce*) identified therein *provided that*, such security satisfies the requirements specified in paragraph 4(i) of the Agreed Security Principles.

Security Documents to be entered into on or before the date falling 60 days after the Issue Date

1. Pledge of going concern agreement (*nantissement de fonds de commerce*) to be entered into by, among others, Ferropem S.A.S. as pledgor and GLAS Trust Corporation Limited as security agent with respect to the going concern (*fonds de commerce*) identified therein *provided that*, such security shall be required to be granted to the extent that the requirements specified in paragraphs 4(j) of the Agreed Security Principles are satisfied.

C. **The Netherlands**

Security Documents entered into before the Issue Date

1. Notarial Deed of Pledge of Shares. entered into by Globe Speciality Metals, Inc. as pledgor and GLAS Trust Corporation Limited as pledgee with respect to the shares in GSM Netherlands B.V.

2. Security Agreement entered into between GSM Netherlands B.V. as the pledgor and GLAS Trust Corporation Limited as pledgee with respect to account bank receivables, intra-group receivables, insurance receivables, third party receivables, movable assets and intellectual property rights.

3. Power of Attorney granted by GSM Netherlands B.V. to a Stibbe civil notary.

4. Power of Attorney granted by Globe Speciality Metals, Inc. to a Stibbe civil notary.

5. Power of Attorney granted by GLAS Trust Corporation Limited to a Stibbe civil notary.

D. **Norway**

Security Documents entered into before the Issue Date

1. Share Pledge Agreement entered into by Kintuck AS as pledgor and GLAS Trust Corporation Limited as pledgee and security agent with respect to the shares in Ferroglobe Mangan Norge AS.

2. Security Agreement entered into by Ferroglobe Mangan Norge AS as pledgor and GLAS Trust Corporation Limited as pledgee and security agent with respect to intercompany loans, accounts receivables, inventory, operating assets, real property and bank accounts.

E. **Spain**

Security Documents to be entered into on or before the Issue Date

1. Pledges Agreement over Quota Shares entered into by Grupo Ferroatlantica S.A.U. and Ferroatlantica Participaciones, S.L.U. as pledgors, Ferroatlantica Participaciones, S.L.U., Ferroatlantica de Boo S.L.U., Ferroatlantica de Sabon S.L.U., Ferroatlantica del Cinca S.L., Ferrosolar Opco Group, S.L. and Grupo Ferroatlantica de Servicios, S.L.U. as companies, and GLAS Trust Corporation Limited as pledgee and security agent, with respect to the shares in Ferroatlantica Participaciones, S.L.U., Ferroatlantica de Boo S.L.U., Ferroatlantica de Sabon S.L.U., Ferroatlantica del Cinca S.L., Ferrosolar Opco Group, S.L. and Grupo Ferroatlantica de Servicios, S.L.U.

2. Pledges Agreement over Shares entered into by Ferroglobe Holding Company, Ltd and Ferroatlantica Participaciones, S.L.U. as pledgors, Grupo Ferroatlantica S.A.U. and Cuarzos Industriales, S.A.U. as companies, and GLAS Trust Corporation Limited as pledgee and security agent, with respect to the shares in Grupo Ferroatlantica S.A.U. and Cuarzos Industriales, S.A.U.

3. Pledges Agreement over Credit Rights entered into by Ferropem, S.A.S., Grupo Ferroatlantica S.A.U., Cuarzos Industriales S.A.U., Ferroatlantica de Boo S.L.U., Ferroatlantica de Sabon S.L.U., Grupo Ferroatlantica de Servicios S.L.U., Ferroatlantica del Cinca, S.L., Ferroatlantica Participaciones S.L.U., Ferrosolar OPCO Group S.L. as pledgors and GLAS Trust Corporation Limited as pledgee and security agent with respect to the bank accounts listed therein.

4. Promissory Mortgage over mining concessions at Sonia, Conchitina, Conchitina Segunda, Esmeralda and Cabanetas (as applicable) entered into by Cuarzos Industriales S.A.U. [and Ferroatlantica del Cinca, S.L. as the promisor and GLAS Trust Corporation Limited as mortgagee and security agent.

5. Non-Possessory Pledge Agreement over Inventory entered into between Cuarzos Industriales

   S.A.U. as pledgor and GLAS Trust Corporation Limited as pledgee and security agent with respect to the inventory listed therein.

6. Non-Possessory Pledge Agreement over Inventory entered into between Ferroatlantica de Boo

   S.L.U. as pledgor and GLAS Trust Corporation Limited as pledgee and security agent with respect to the inventory listed therein.

7. Non-Possessory Pledge Agreement over Inventory entered into between Ferroatlantica de Sabon S.L.U. as pledgor and GLAS Trust Corporation Limited as pledgee and security agent with respect to the inventory listed therein.

8. Non-Possessory Pledge Agreement over Inventory entered into between Ferroatlantica del Cinca, S.L. as pledgor and GLAS Trust Corporation Limited as pledgee and security agent with respect to the inventory listed therein.

9. Non-Possessory Pledge Agreement over Inventory entered into between Ferrosolar Opco Group S.L. as pledgor and GLAS Trust Corporation Limited as pledgee and security agent with respect to the inventory listed therein.

10. Pledges Agreement over Credit Rights entered into by Grupo Ferroatlantica S.A.U., Cuarzos Industriales S.A.U., Ferroatlantica de Boo S.L.U., Ferroatlantica de Sabon S.L.U., Grupo Ferroatlantica de Servicios S.L.U., Ferroatlantica del Cinca, S.L., Ferroatlantica Participaciones S.L.U., and Ferrosolar OPCO Group S.L. as pledgors and GLAS Trust Corporation Limited as pledgee and security agent with respect to intragroup receivables held vis-à-vis other Ferroglobe PLC subsidiaries.

11. Pledge over Credit Rights arising from lease agreements entered into in relation to certain offices in Madrid to be entered into by Grupo Ferroatlantica de Servicios S.L.U. as pledgor and GLAS Trust Corporation Limited as pledgee and security agent, *provided that* such security shall only be required to be granted to the extent that the requirements specified in paragraph 4(j) of the Agreed Security Principles are satisfied.

Security Documents that each relevant mortgagor shall use its best commercial efforts to enter into on or before the Issue Date and shall in any case ensure are entered into by the date falling 60 days after the Issue Date

1. Mortgage entered into by Ferroatlantica de Boo S.L.U., Ferroatlantica de Sabon S.L.U., Ferroatlantica del Cinca, S.L. and Ferrosolar OPCO Group S.L. as the mortgagors and GLAS

Trust Corporation Limited as mortgagee and security agent over their real estate property and/or public concessions (as applicable), *provided that*, in case the mortgage is to be granted over a public concession, the mortgage will only be required to be granted to the extent that the requirements specified in paragraphs 4(h) and (j) of the Agreed Security Principles are satisfied.

Security Documents to be entered into on or before 60 days after the Issue Date

1. Real estate mortgages (*hipoteca inmobiliaria*) over mining concessions at Sonia, Conchitina, Conchitina Segunda, Esmeralda and Cabanetas to be entered into by Cuarzos Industriales S.A.U. and Ferroatlantica del Cinca, S.L. as mortgagors and GLAS Trust Corporation Limited as mortgagee and security agent, *provided that* such security shall only be required to be granted to the extent that the requirements specified in paragraph 4(j) of the Agreed Security Principles are satisfied.

F. **England & Wales**

1. Debenture entered into before the Issue Date between Ferroglobe PLC, Ferroglobe Finance Company, PLC, Ferroglobe Holding Company, Ltd and GLAS Trust Corporation Limited.

2. Deed of Security Confirmation in respect of the Debenture to be entered into on or before the Issue Date and made between Ferroglobe PLC, Ferroglobe Finance Company, PLC, Ferroglobe Holding Company, Ltd and GLAS Trust Corporation Limited.

G. **United States**

Security Documents to be entered into on or before the Issue Date

1. Pledge Agreement entered into by and among the Ferroglobe Holding Company Ltd. and GLAS Trust Corporation Limited

2. Pledge and Security Agreement entered into by and among Globe Specialty Metals, Inc., Globe Metallurgical Inc., Alden Resources LLC, ARL Resources, LLC, ARL Services, LLC, Core Metals Group Holdings LLC, Core Metals Group LLC, Metallurgical Process Materials, LLC, Tennessee Alloys Company, LLC, Alabama Sand and Gravel, Inc., GSM Sales, Inc. Gatliff Services LLC, GSM Financial, Inc., Solsil, Inc., GSM Alloys I Inc., GSM Alloys II Inc., Globe Metals Enterprises, LLC, GBG Holdings, LLC, Alden Sales Corp, LLC, GSM Enterprises LLC, GSM Enterprises Holdings Inc., Norchem, Inc. and GLAS Trust Corporation Limited.

3. Patent Security Agreement by and among Globe Metallurgical Inc. and GLAS Trust Corporation Limited.

Security Documents to be entered into on or before the date falling 30 days after the Issue Date

Owned Properties

1. the Open-End Mortgage (Second Lien), Assignment of Rents and Leases, Security Agreement and Fixture Filing relating to 1595 Sparling Road, Waterford, Washington County, Ohio 45786.

2. the Second Lien Mortgage, Security Agreement and Fixture Filing relating to 2401 Old Montgomery Highway, Selma, Dallas County, Alabama 36703.

3. the Second Lien Mortgage, Security Agreement and Fixture Filing relating to 101 Garner Road, Bridgeport, Jackson County, Alabama 35740.

4. the Second Lien Mortgage, Security Agreement and Fixture Filing relating to 133 Franklin Street, Aurora, Dearborn County, Indiana 47001.

5. the Second Lien UCC-1 Fixture Filing relating to 1595 Sparling Road, Waterford, Washington County, Ohio 45786.

6. the Second Lien UCC-1 Fixture Filing relating to 2401 Old Montgomery Highway, Selma, Dallas County, Alabama 36703.

7. the Second Lien UCC-1 Fixture Filing relating to 101 Garner Road, Bridgeport, Jackson County, Alabama 35740.

8. the Second Lien UCC-1 Fixture Filing relating to 133 Franklin Street, Aurora, Dearborn County, Indiana 47001.

Security Documents to be entered into on or before the date falling 60 days after the Issue Date

1. Control Agreement (as defined in the Pledge and Security Agreement referred to in Section

   G.2 above) by and among Globe Specialty Metals, Inc., GLAS Trust Corporation Limited and Citizens Bank, N.A. in respect of Account #6238670197.

2. Control Agreement (as defined in the Pledge and Security Agreement referred to in Section

   G.2 above) by and among Globe Specialty Metals, Inc., GLAS Trust Corporation Limited and Citizens Bank, N.A. in respect of Account #6302618189.

Leased Properties

1. the Second Lien Collateral Assignment of Lease relating to 3714 County Road 40 E, Lowndesboro, Alabama 36752 *provided that*, such security shall only be required to be granted to the extent that the requirements specified in paragraph 4(j) of the Agreed Security Principles are satisfied.

2. the Second Lien Collateral Assignment of Lease relating to 600 Brickell Ave, Suite 3100, Miami, Florida 33131 *provided that*, such security shall only be required to be granted to the extent that the requirements specified in paragraph 4(j) of the Agreed Security Principles are satisfied.

3. the Second Lien Collateral Assignment of Lease relating to 985-A Seaway Drive, Fort Pierce, Florida 34949 *provided that*, such security shall only be required to be granted to the extent

that the requirements specified in paragraph 4(j) of the Agreed Security Principles are satisfied.

Schedule 3
Agreed Security Principles

1 Agreed Security Principles

(a) The guarantees and security to be provided under the Notes Documents will be given in accordance with the security principles set out in this Schedule 3 (*Agreed Security Principles*). This Schedule 3 identifies the Agreed Security Principles and determines the extent and terms of the guarantees and security proposed to be provided in relation to the Notes.

(b) Capitalised terms used in this Schedule 3 but not otherwise defined in this Agreement shall have the meanings given in the Intercreditor Agreement.

2 Guarantees

Subject to the guarantee limitations set out in the Notes Documents, each guarantee will be an upstream, cross-stream and downstream guarantee for all liabilities of the Issuer and the Guarantors under the Notes Documents in accordance with, and subject to, the requirements of these Agreed Security Principles in each relevant jurisdiction (references to "**security**" to be read for this purpose as including guarantees).

3 Secured Liabilities

Security documents will secure the borrowing and guarantee obligations of the Issuer and each Guarantor respectively under the Notes Documents, in each case in accordance with, and subject to, the requirements of these Agreed Security Principles in each relevant jurisdiction.

4 Overriding Principle

The parties agree that the overriding intention is for security only to be granted by:

(a) the Parent over shares owned by it in the capital of Ferroglobe Holding Company, Ltd ("**Holdco**");

(b) Holdco over shares owned by it in the capital of the Issuer;

(c) the Parent and the Restricted Subsidiaries in each case over the shares owned by it in the capital of any Guarantor that is incorporated in any European jurisdiction (a "**European Guarantor**");

(d) The Parent, Holdco, the Issuer and the European Guarantors in each case over its bank accounts other than:

(i) the bank accounts of Grupo Ferroatlantica at Caixa Bank and Bankinter (or any replacement accounts thereof) used to hold amounts for certain guarantees; and

(ii) the landfill account, FX account and tax deduction account of Ferroglobe Mangan Norge AS (or any replacement accounts thereof);

(e) the Issuer and the European Guarantors in each case over intercompany receivables:

(i) arising as a result of cash pooling arrangements and tolling agreements between the European Guarantors;

(ii) arising in connection with the corporate reorganization or new money borrowing; and

(iii) that can be pledged under the relevant governing law in accordance with the general principles set out in these Agreed Security Principles;

(f) each European Guarantor in each case over its inventory (with respect to European Guarantors incorporated in France, to the extent stored in France);

(g) the Issuer and each European Guarantor (other than, without prejudice to paragraphs (h) to (j) below, those incorporated in France or Spain) over its real property, moveable machinery and plant and equipment;

(h) the Parent (if applicable) and each relevant European Guarantor, by way of promissory mortgage in respect of real property and concessions linked to real property, over the real property, moveable machinery and plant and equipment at the sites at Boo, Monzon, Sabon and Puertollano provided that, to the extent any such asset is a concession, such security will only be required to be granted to the extent that the requirements specified in sub-paragraphs (i) to (iii) of paragraph (j) below are satisfied;

(i) the Parent (if applicable) and each relevant Restricted Subsidiary over:

(A) the real property, moveable machinery, plant and equipment at the sites at Laudun, Pierrefitte, Anglefort and Montricher;

(B) the real property at Les Clavaux and Chateau Feuillet; and

(C) with respect to the Dunkirk premises, to the extent the granting of security over the relevant lease is permitted by the Dunkirk Port Authority and applicable law and regulations, a pledge of going concern (*fonds de commerce*) pursuant to articles L.142-1 of the French Code de commerce and to the extent (x) limited to the going concern operated in the Dunkirk premises and (y) limited the items listed in article L.142-2 al. 3 of the same code but excluding any trademarks and similar rights),

provided that in respect of both of (A) and (B) such security shall be limited to a mortgage (*hypothèque*) over real property owned by them;

(j) the Parent (if applicable) and each relevant Restricted Subsidiary over its rights in respect of (x) the Sonia, Conchitina, Conchitina Segunda, Esmeralda and Cabanetas mine concessions (which security shall be by way of mortgage); (y) the Chambery and Madrid leaseholds (which security shall be by way of pledge and provided that with respect to the Chambery leasehold, the security shall be a pledge of going concern (*fonds de commerce*) pursuant to articles L.142-1 of the French *Code de commerce* and to the extent (i) limited to the going concern operated in Chambery premises and (ii) limited the items listed in article L.142-2 al. 3 of the same code but excluding any trademarks and similar rights); and (z) the Prattville, AL, Miami, FL and Ft Piece, FL leaseholds (which security shall be by way of collateral assignment), provided that such security shall only be required to be granted to the extent that:

(i) consent has been granted by the relevant lessor or administrative authority for the granting of such security, it being agreed herein that neither the Parent, nor any Restricted Subsidiary shall have any obligation other than to use its reasonable endeavours to obtain such consent;

(ii) the fees, costs and expenses relating to the perfection of such security (and the compliance with the requirements of that security) are not disproportionate to the benefit obtained by the Secured Parties (as defined in the Intercreditor Agreement); and

(iii) the granting of such security (and compliance with the requirements thereof) would not unduly disrupt the business of the relevant security provider);

(k) each Restricted Subsidiary in each case over the shares owned by it in the capital of each of GSM Financial Inc., Globe Metallurgical Inc,. GSM Sales Inc., Solsil Inc., GSM Alloys I Inc., GSM Alloys II Inc., Globe Metals Enterprises LLC, Globe Specialty Metals Inc, Core Metals Group Holdings LLC, Core Metals Group LLC, Metallurgical Process Materials LLC, Tennessee Alloys Company LLC, Alabama Sand and Gravel Inc., Norchem Inc., GBG Holdings LLC, Alden Resources LLC, Alden Sales Corp LLC, Gatliff Services LLC, ARL Resources LLC, ARL Services LLC, GSM Enterprises LLC, GSM Enterprises Holdings Inc., QSIP Canada ULC and GSM Netherlands BV;

(l) the Parent (if applicable) and each relevant Restricted Subsidiary over, by way of legal mortgage (first liens and second liens, if applicable), the real property at the Beverly (Waterford, OH), Selma (Selma, AL), Bridgeport (Bridgeport, AL) and Aurora (Aurora, IN) sites; and

(m) any Guarantor incorporated in Norway over its trade receivables,

(the "**Overriding Principle**") and that no other security shall be required to be given by any other person or in relation to any other asset provided that:

(A) a Guarantor incorporated or otherwise formed in the United States of America (including the District of Columbia), Canada or the Netherlands will also grant customary all asset security over its personal property and such security shall be subject to the terms of these Agreed Security Principles;

(B) a Guarantor incorporated or otherwise formed in the United States of America (including the District of Columbia), Canada or the Netherlands will also grant, following its acquisition of any real property, customary security on such real property and such security shall be subject to the terms of these Agreed Security Principles;

(C) the Issuer and each Guarantor incorporated in the United Kingdom or any other jurisdiction that recognises a floating charge (or equivalent security) will also grant a floating charge;

(D) if the date by which any security is required to be granted is expressly specified in the Lock-up Agreement, then that security shall not be required to be granted until that date, notwithstanding anything to the contrary in these Agreed Security Principles or in the relevant security document; and

(E) to the extent security in any category referred to in this paragraph 4 is granted on or before the Issue Date, any future security under the same category shall, subject to these Agreed Security Principles, be on the same terms unless otherwise required by law in order for the relevant security to be valid, effective and enforceable.

5 Governing Law and Jurisdiction of Security

(a) All security (other than share security) will be governed by the law of, and secure only assets located in, the jurisdiction of incorporation or formation of the applicable grantor of the security, provided that with respect to any company incorporated in the United States of America, all security agreements shall by governed by the laws of the State of New York and with respect to any Guarantor incorporated or otherwise formed in Canada, all security agreements shall be governed by the laws of the province of Nova Scotia, provided that a hypothec governed by the laws of the Province of Quebec shall also be entered into if such Guarantor has its registered office or tangible property located in the Province of Quebec, which security agreements and hypothec shall secure assets located in Canada.

(b) Share security over any subsidiary will be governed by the law of the place of incorporation or other formation of that subsidiary or, to the extent applicable, the place of incorporation or other formation of the financial intermediary with which the relevant shares are deposited, provided that with respect to share security over

any company incorporated or otherwise formed in the United States of America, all share security shall be governed by the laws of the State of New York and with respect to share security over any company incorporated or otherwise formed in Canada, all share security shall be governed by the laws of the province in which such subsidiary has its registered office unless such subsidiary has its registered office in the Province of Quebec, in which case a hypothec governed by the laws of the Province of Quebec shall govern the share security.

6 Terms of security documents

The following principles will be reflected in the terms of any security taken in connection with the Facilities:

(a) the security will be first ranking to the extent possible unless otherwise agreed;

(b) security will not be enforceable until the occurrence of an Acceleration Event (or, in the case of Security governed by French law, until the occurrence of an Event of Default under paragraphs (a) and/or (b) of section 6.01 (*Event of Default*) of the Indenture which is continuing or the delivery of a notice of acceleration under section 6.03 (*Acceleration*) of the Indenture);

(c) the beneficiaries of the security or any agent will only be able to exercise a power of attorney following the occurrence of an Event of Default which is continuing or where the relevant security provider has failed to comply with a written request to fulfil a further assurance or perfection obligation;

(d) notices to account banks shall not request the account bank to amend or waive the standard terms and conditions of the account bank and any acknowledgement provided by an account bank shall be permitted to include a permission for any prior security interests in favour of the account bank created or arising by operation of law or in its standard terms and conditions;

(e) unless a security document specifies a later date, notices and other perfection steps are to be completed within five (5) Business Days after the date of the security document (or the date on which any security provider becomes a party to that security document);

(f) in relation to any asset which a security provider does not own on the date of a security document (or the date on which the security provider becomes a party to that security document) including the opening of a new bank account, any notices or other perfection steps shall, the Company shall ensure that, unless a security document specifies a later date, any notice, document, certificate or other requirement required to be sent, deposited or completed in respect of that asset in accordance with the terms of the relevant security document is sent, deposited or completed as soon as reasonably practicable after the relevant asset is acquired by the relevant security provider;

(g) until an Event of Default has occurred and is continuing, the security providers shall be permitted to retain and to exercise voting rights to any shares secured by them

in a manner which does not materially adversely affect the validity or enforceability of the Security or cause an Event of Default to occur and the security providers shall be permitted to receive and retain dividends on secured shares/pay dividends upstream on secured shares;

(h) the security documents should only operate to create security rather than to impose new commercial obligations or repeat clauses in other Notes Documents; accordingly:

(i) they should not contain additional representations, undertakings or indemnities unless these are the same as or consistent with those contained in this Agreement or are required for the creation, perfection, protection, preservation or maintenance of security; and

(ii) notwithstanding anything to the contrary in any security document, the terms of a security document shall not operate or be construed so as to prohibit or restrict any transaction, matter or other step (or a grantor of security taking or entering into the same) or dealing in any manner whatsoever in relation to any asset with the exception of ULC Shares (as such term is defined below) (including all rights, claims, benefits, proceeds and documentation, and contractual counterparties in relation to such assets) the subject of (or expressed to be the subject of) the security document if not prohibited by the Notes Documents;

(i) security will, where possible and practical, automatically create security over future assets of the same type as those already secured;

(j) where local law requires supplemental pledges or stock transfer powers, unless the relevant security document specifies otherwise, lists of assets or notices to be delivered in respect of future acquired assets in order for effective security to be created over that class of asset, such supplemental pledges or notices, such lists of assets shall be delivered to the Security Agent promptly upon request by the Security Agent;

(k) to the extent possible under applicable law, each security document must contain a clause which records that if there is a conflict between the security document and this Agreement or the Intercreditor Agreement then (to the fullest extent permitted by law) the provisions of this Agreement or (as applicable) the Intercreditor Agreement will take priority over the provisions of the security document with the exception of any provision of the security document specifically relating to shares of stock or membership interests issued by any unlimited company or unlimited liability company ("**ULC Shares**");

(l) if the date by which any security is required to be perfected, registered or stamped is expressly specified in the Lock-up Agreement, then that security shall not be required to be perfected, registered or stamped until that date, notwithstanding anything to the contrary in these Agreed Security Principles; and

(m) the security referred to in sub-paragraph (f) of paragraph 4 of these Agreed Security Principles shall, to the extent possessory security granted by a Guarantor incorporated in France, only be required to be perfected if:

(i) it does not relate to the Les Clavaux and Chateau Feuillet premises;

(ii) the fees, costs and expenses relating to the perfection of such possessory security (and the compliance with the requirements of that security) are not disproportionate to the benefit obtained by the Secured Parties (as defined in the Intercreditor Agreement); and

(iii) the perfection of such possessory security (and compliance with the requirements thereof) would not unduly disrupt the business of the relevant security provider,

and any such perfection shall not be required to be completed until the date falling 60 days after the Issue Date.

7 Additional Principles

The Agreed Security Principles embody the recognition by all parties that there may be certain legal and practical difficulties in obtaining effective or commercially reasonable guarantees and/or security from the Parent and all relevant Restricted Subsidiaries in each jurisdiction in which it has been agreed that guarantees and security will be granted by those members. In particular:

(a) general legal and statutory limitations, regulatory restrictions, financial assistance, anti-trust and other competition authority restrictions, corporate benefit, fraudulent preference, equitable subordination, "transfer pricing", "thin capitalisation", "earnings stripping", "controlled foreign corporation" "fiscal unity requirements" and other tax restrictions, "exchange control restrictions", "capital maintenance" rules and "liquidity impairment" rules, tax restrictions, retention of title claims, employee consultation or approval requirements and similar principles may limit the ability of the Parent or its Restricted Subsidiaries to provide a guarantee or security or may require that the guarantee or security be limited as to amount or otherwise and, if so, the guarantee or security will be limited accordingly, provided that, to the extent requested by the Security Agent before signing any applicable security or accession document, the Parent or relevant Restricted Subsidiary shall use its best efforts to overcome any such obstacle or otherwise such guarantee or security document shall be subject to such limit;

(b) a key factor in determining whether or not (and the terms of which) a guarantee or security will be taken (and in respect of the security, the extent of its perfection and/or registration) is the applicable time and cost (including adverse effects on taxes, interest deductibility, stamp duty, registration costs and taxes, notarial and registration costs, translation costs, guarantee fees payable to any person that is not the Parent or a Restricted Subsidiary and all applicable legal and notarial fees and

adverse effects on the ability of the Parent or any Restricted Subsidiary to obtain or maintain local facilities or other financing arrangements, including any factoring or similar arrangement (in each case not prohibited by this Agreement) which will not be disproportionate to the benefit accruing to the Secured Parties (as defined in the Intercreditor Agreement) of obtaining such guarantee or security;

(c) the Parent and its Restricted Subsidiaries will not be required to give guarantees or enter into security documents if it would conflict with the fiduciary or statutory duties of their directors or contravene any applicable legal or regulatory prohibition or restriction or have the potential to result in a material risk of personal or criminal liability for any director or officer of or for the Parent or any Restricted Subsidiary, provided that, to the extent requested by the Security Agent before signing any applicable security document or accession document, the Parent or relevant Restricted Subsidiary shall, in relation to a contractual prohibition or restriction only, use reasonable endeavours to overcome any such obstacle or otherwise such guarantee or security document shall be subject to such limit;

(d) guarantees and security (and/or the maximum guaranteed or secured amount thereunder) will be limited so that the aggregate of notarial costs and all registration and relevant taxes and duties relating to the provision of security will not exceed an amount to be agreed between the Issuer and the Security Agent;

(e) where a class of assets to be secured includes material and immaterial assets, if the cost of granting security over the immaterial assets is disproportionate to the benefit of such security, security will be granted over the material assets only;

(f) it is expressly acknowledged that it may be either impossible or impractical to create security over certain categories of assets in which event security will not be taken over such assets;

(g) the giving of a guarantee, the granting of security and the registration and/or the perfection of the security granted will not be required if it would have a material adverse effect on the ability of the Parent or the relevant Restricted Subsidiary to conduct its operations and business in the ordinary course as otherwise permitted by the Notes Documents;

(h) any security document will only be required to be notarised if required by law in order for the relevant security to become effective or admissible in evidence;

(i) to the extent possible or legally effective, all security will be given in favour of the Security Agent and not the Secured Parties (as defined in the Intercreditor Agreement) individually (with the Security Agent to hold one set of security documents for all the Noteholders); "*parallel debt*" provisions will be used where necessary (and included in the Intercreditor Agreement and not the individual security documents);

(j) no security may be provided on terms which are inconsistent with the turnover or sharing provisions in the Intercreditor Agreement;

(k) no guarantee or security shall guarantee or secure any "Excluded Swap Obligations" defined in accordance with the LSTA Market Advisory Update dated February 15, 2013 entitled "Swap Regulations' Implications for Loan Documentation", and any update thereto by the LSTA;

(l) other than a general security document and related filing, no perfection, filing or other action will be required with respect to assets of a type not owned by members of the Group; and

(m) no translation of any document relating to any security or any asset subject to any security will be required to be prepared or provided to the Secured Parties (as defined in the Intercreditor Agreement), unless required for such documents to become effective or admissible in evidence.

Exhibit 5.1

EXECUTION VERSION

CREDIT AGREEMENT

Dated as of June 30, 2022
among

GLOBE SPECIALTY METALS, INC.
QSIP CANADA ULC
GLOBE METALLURGICAL INC.
GSM SALES, INC.
NORCHEM, INC.
CORE METALS GROUP HOLDINGS LLC
ALDEN RESOURCES LLC
GLOBE METALS ENTERPRISES, LLC
GSM ENTERPRISES LLC
GSM ENTERPRISES HOLDINGS INC.
GBG HOLDINGS, LLC
GSM ALLOYS I INC.
GSM ALLOYS II INC.
GSM FINANCIAL, INC.
L F RESOURCES, INC.
SOLSIL, INC.
ALABAMA SAND AND GRAVEL, INC.
LAUREL FORD RESOURCES, INC.
WEST VIRGINIA ALLOYS, INC.
CORE METALS GROUP LLC
ECPI INC.
GBG FINANCIAL, LLC
GLOBE BG, LLC
METALLURGICAL PROCESS MATERIALS, LLC
TENNESSEE ALLOYS COMPANY, LLC
ALDEN SALES CORP, LLC
GATLIFF SERVICES, LLC
ARL RESOURCES, LLC
ARL SERVICES, LLC
and
EACH PERSON FROM TIME TO TIME PARTY HERETO AS A BORROWER,
each as a Borrower,

and
EACH PERSON FROM TIME TO TIME PARTY HERETO AS A GUARANTOR,
each as a Guarantor,

CERTAIN FINANCIAL INSTITUTIONS,
as Lenders,

and

BANK OF MONTREAL,
as Administrative Agent and Swing Line Lender

BMO CAPITAL MARKETS,
as Arranger and Book Runner

TABLE OF CONTENTS

ARTICLE III
TAXES, YIELD PROTECTION AND ILLEGALITY

ARTICLE IV
SECURITY AND ADMINISTRATION OF COLLATERAL

ARTICLE V
CONDITIONS PRECEDENT TO CREDIT EXTENSIONS

ARTICLE VI
REPRESENTATIONS AND WARRANTIES

SCHEDULES

EXHIBITS

CREDIT AGREEMENT

This **CREDIT AGREEMENT** (this "Agreement") is entered into as of June 30, 2022, by and among **GLOBE SPECIALTY METALS, INC.**, a Delaware corporation ("GSM"), **QSIP CANADA ULC,** a Nova Scotia unlimited company ("QSIP" or the "Canadian Borrower"), **GLOBE METALLURGICAL INC.**, a Delaware corporation ("Globe Metallurgical"), **GSM SALES, INC.**, a Delaware corporation ("GSM Sales"), **NORCHEM, INC.**, a Florida corporation ("Norchem"), **CORE METALS GROUP HOLDINGS LLC**, a Delaware limited liability company ("Core Metals"), **ALDEN RESOURCES LLC,** a Delaware limited liability company ("Alden"), **GLOBE METALS ENTERPRISES, LLC**, a Delaware limited liability company ("GM Enterprises"), **GSM ENTERPRISES LLC**, a Delaware limited liability company ("GSM Enterprises"), **GSM ENTERPRISES HOLDINGS INC.**, a Delaware corporation ("GSME Holdings") and **GBG HOLDINGS, LLC**, a Delaware limited liability company ("GBG"), **GSM ALLOYS I INC.**, a Delaware corporation ("Alloys I"), **GSM ALLOYS II INC.**, a Delaware corporation ("Alloys II"), **GSM FINANCIAL, INC.**, a Delaware corporation ("GSM Financial"), **L F RESOURCES, INC.**, a Delaware corporation ("L F Resources"), **SOLSIL, INC.**, a Delaware corporation ("Solsil"), **ALABAMA SAND AND GRAVEL, INC.**, a Delaware corporation ("Alabama Sand"), **LAUREL FORD RESOURCES, INC.**, a Kentucky corporation ("Laurel Ford"), **WEST VIRGINIA ALLOYS, INC.**, a Delaware corporation ("WV Alloys"), **CORE METALS GROUP LLC**, a Delaware limited liability company ("CM Group"), **ECPI INC.**, a Delaware corporation ("ECPI"), **GBG FINANCIAL, LLC**, a Delaware limited liability company ("GBG Financial"), **GLOBE BG, LLC**, a Delaware limited liability company ("Globe BG"), **METALLURGICAL PROCESS MATERIALS, LLC**, a Delaware limited liability company ("MPM"), **TENNESSEE ALLOYS COMPANY, LLC**, a Delaware limited liability company ("Tennessee Alloys"), **ALDEN SALES CORP, LLC**, a Delaware limited liability company ("Alden Sales"), **GATLIFF SERVICES, LLC**, a Delaware limited liability company ("Gatliff"), **ARL RESOURCES, LLC**, a Delaware limited liability company ("ARL Resources"), **ARL SERVICES, LLC**, a Delaware limited liability company ("ARL Services", and collectively with GSM, Globe Metallurgical, GSM Sales, Norchem, Core Metals, Alden, GM Enterprises, GSM Enterprises, GSME Holdings, GBG, Alloys I, Alloys II, GSM Financial, LF Resources, Solsil, Alabama Sand, Laurel Ford, WV Alloys, CM Group, ECPI, GBG Financial, Globe BG, MPM, Tennessee Alloys, Alden Sales, Gatliff and ARL Resources, the "U.S. Borrowers" and each a "U.S. Borrower", and the U.S. Borrowers together with the Canadian Borrower, and each other party that executes a joinder to the Credit Agreement as a borrower, whether pursuant to Section 7.12 or otherwise, collectively, the "Borrowers" and each a "Borrower"), **EACH GUARANTOR FROM TIME TO TIME PARTY HERETO**, **EACH LENDER FROM TIME TO TIME PARTY HERETO** (collectively, the "Lenders" and individually, a "Lender"), and **BANK OF MONTREAL**, as Administrative Agent, Swing Line Lender and a Letter of Credit Issuer.

Preliminary Statements

A. The Borrowers have requested that Lenders, the Swing Line Lender and the Letter of Credit Issuer provide certain credit facilities to the Borrowers to finance their mutual and collective business enterprise.

B. The Lenders are willing to provide the credit facilities on the terms and conditions set forth in this Agreement.

In consideration of the mutual covenants and agreements herein contained, the parties hereto covenant and agree as follows:

ARTICLE I
DEFINITIONS AND ACCOUNTING TERMS

1.01 Defined Terms. As used in this Agreement, the following terms shall have the meanings set forth below:

"ABL Priority Collateral" means the "ABL Priority Collateral", as that term is defined in the Secured Note Intercreditor Agreement.

"Account" means "accounts" as defined in the UCC and the PPSA, as applicable.

"Account Debtor" means any Person who is or may become obligated under or on account of any Account, Contractual Obligation, Chattel Paper or General Intangible (or where the PPSA is applicable, an "intangible" as defined therein).

"Accounts Formula Amount" means, at any time of calculation, an amount equal to the Value of all Eligible Accounts multiplied by 90%.

"ACH" means automated clearing house transfers.

"Acquisition" means (a) the acquisition of a controlling Equity Interest or other ownership interest in or Control of another Person, whether by purchase of such Equity Interest or other ownership interest or upon exercise of an option or warrant for, or conversion of securities into, such Equity Interest or other ownership interest, or (b) the acquisition of assets of another Person which constitute all or substantially all of the assets of such Person or of a line or lines of business conducted by such Person, whether in one or a series of related transactions or (c) the merger, consolidation or combination of any Loan Party or Subsidiary thereof with another Person.

"Additional Commitment Lender" has the meaning specified in Section 2.18(c).

"Adjusted Term SOFR" means with respect to any tenor, the per annum rate equal to the sum of (i) Term SOFR plus (ii) 0.10% (10 basis points) for one-month, 0.25% (25 basis points) for three-months, and 0.45% (45 basis points) for six-months; provided, that if Adjusted Term SOFR determined as provided above shall ever be less than the Floor, then Adjusted Term SOFR shall be deemed to be the Floor.

"Adjustment Date" has the meaning specified in the definition of "Applicable Margin."

"Administrative Agent" means Bank of Montreal, in its capacity as administrative agent under any of the Loan Documents, or any successor administrative agent.

"Administrative Agent's Office" means the Administrative Agent's address and, as appropriate, account as set forth on Schedule 11.02, or such other address or account as the Administrative Agent may from time to time notify to the Borrower Agent and the Lenders.

"Administrative Questionnaire" means an Administrative Questionnaire in a form supplied by the Administrative Agent.

"Affected Financial Institution" means (a) any EEA Financial Institution or (b) any UK Financial Institution.

"Affiliate" means, with respect to a specified Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified. For the purposes of this Agreement, only, a Person shall be deemed to be Controlled by another Person if such other Person possesses, directly or indirectly, power to vote 10% or more of the securities having ordinary voting power for the election of directors, managing general partners or the equivalent or is an officer or director of the specified Person.

"Agent Indemnitee" has the meaning specified in Section 11.04(c).

"Agent Indemnitee Liabilities" has the meaning specified in Section 11.04(c).

"Aggregate Revolving Credit Commitments" means, as at any date of determination thereof, the sum of all Revolving Credit Commitments of all Lenders at such date.

"Agreement" means this Credit Agreement.

"Allocable Amount" has the meaning specified in Section 2.15(c)(ii).

"AML Legislation" has the meaning specified in Section 11.17.

"Anti-Corruption Laws" means all Laws of any jurisdiction applicable to a Loan Party or any of their Subsidiaries from time to time targeting or relating to bribery or corruption, including the FCPA, the Freezing Assets of Corrupt Foreign Officials Act (Canada), the Corruption of Foreign Public Officials Act (Canada) and the UK Bribery Act 2010.

"Anti-Money Laundering Laws" means all Laws applicable to a Loan Party or its Subsidiaries related to terrorism financing or money laundering, including Executive Order No. 13224, the Currency and Foreign Transactions Reporting Act of 1970 (otherwise known as the Bank Secrecy Act), the PATRIOT Act, the Proceeds of Crime Act and the Money Laundering Control Act of 1986.

"Applicable Margin" means with respect to any Type of Loan, the percentages per annum set forth below, as based upon the Average Availability for the immediately preceding Fiscal Quarter:

Level	Average Availability	SOFR or CDOR Revolving Credit Loans	Base Rate, Canadian Prime Rate or Canadian Base Rate Revolving Credit Loans	Unused Fee Rate
I	≥$35,000,000	1.50%	0.50%	.35%
II	< $35,000,000	1.75%	0.75%	.25%

From the Closing Date until the first day of each Fiscal Quarter for which the Borrowing Base Certificate and any other materials required to be delivered pursuant to Sections 7.02(a) and (b) (including any required financial information in support thereof) have been received by Administrative Agent, commencing with October 1, 2022 (the "Adjustment Date"), margins shall be determined as if Level I were applicable. Thereafter, any increase or decrease in the Applicable Margin resulting from a change in Average Availability shall become effective as of each Adjustment Date based upon Average Availability for the immediately preceding Fiscal Quarter. If either (a) an Event of Default has occurred and is

continuing or (b) any Borrowing Base Certificate and any other materials required to be delivered pursuant toSection 7.02(a) (including any required financial information in support thereof) have not been received by Administrative Agent by the date required pursuant to Section 7.02(a), then the Applicable Margin shall be determined as if the Average Availability for the immediately preceding Fiscal Quarter is at Level II until (x) in the case of clause (a), the cure or waiver of such Event or Default or (y) in the case of clause (b), such time as such Borrowing Base Certificate and supporting information are received.

"Applicable Percentage" means in respect of the Revolving Credit Facility, with respect to any Revolving Credit Lender at any time, the percentage (carried out to the ninth decimal place) of the Revolving Credit Facility, represented by the amount of the Revolving Credit Commitment of such Revolving Credit Lender at such time; provided that if the Aggregate Revolving Credit Commitments have been terminated at such time, then the Applicable Percentage of each Revolving Credit Lender shall be the Applicable Percentage of such Revolving Credit Lender immediately prior to such termination and after giving effect to any subsequent assignments. The initial Applicable Percentage of each Lender with respect to each Facility is set forth opposite the name of such Lender on Schedule 2.01 or in the Assignment and Assumption pursuant to which such Lender becomes a party hereto, as applicable.

"Appropriate Lender" means, at any time, (a) with respect to any Facility, a Lender that has a Commitment with respect to such Facility or holds a Loan under such Facility at such time, (b) with respect to the Letter of Credit Sublimit, (i) the Letter of Credit Issuer and (ii) if any Letters of Credit have been issued, the Revolving Credit Lenders and (c) with respect to the Swing Line Sublimit, (i) the Swing Line Lender and (ii) if any Swing Line Loans are outstanding, the Revolving Credit Lenders.

"Approved Fund" means any Fund that is administered or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers or manages a Lender.

"Arranger" means BMO Capital.

"Assignment and Assumption" means an assignment and assumption entered into by a Lender and an Eligible Assignee (with the consent of any party whose consent is required by Section 11.06(b)), and accepted by the Administrative Agent, in substantially the form of Exhibit F or any other form approved by the Administrative Agent.

"Assumed Indebtedness" means Indebtedness of a Person which is (a) in existence at the time such Person becomes a Subsidiary or (b) assumed in connection with an Investment in or Acquisition of such Person, and which, in each case, (i) has not been incurred or created in connection with, or in anticipation or contemplation of, such Person becoming a Subsidiary, (ii) only such Person (or its Subsidiaries so acquired) are obligors with respect to such Indebtedness, (iii) such Indebtedness is not a revolving loan facility; and (iv) such Indebtedness is not secured by any Liens on working capital assets.

"Attributable Indebtedness" means, on any date, (a) in respect of any Capital Lease of any Person, the capitalized amount thereof that would appear on a balance sheet of such Person prepared as of such date in accordance with IFRS, and (b) in respect of any Synthetic Lease Obligation, the capitalized amount of the remaining lease payments under the relevant lease that would appear on a balance sheet of such Person prepared as of such date in accordance with IFRS if such lease were accounted for as a Capital Lease.

"Attorney" has the meaning specified in Section 10.01.

"Audited Financial Statements" means the audited Consolidated balance sheet of the Parent and its Subsidiaries for the Fiscal Year ended December 31, 2021, and the related Consolidated statements of

income or operations, retained earnings and cash flows for such Fiscal Year of the Parent and its Subsidiaries, including the notes thereto.

"Auditor" has the meaning specified in Section 7.01(a).

"Auto-Extension Letter of Credit" has the meaning specified in Section 2.03(b)(iii).

"Availability" means (a) the Maximum Borrowing Amount minus (b) Total Revolving Credit Outstandings.

In calculating Availability at any time and for any purpose under this Agreement, the Borrower Agent, on behalf of the Borrowers, shall certify to the Administrative Agent that all accounts payable and Taxes are being paid on a timely basis and consistent with past practices (absent which the Administrative Agent may establish a Reserve therefor).

"Availability Period" means the period from the Closing Date to the Revolving Credit Termination Date.

"Availability Reserves" means, without duplication of any other Reserves or items that are otherwise addressed or excluded through eligibility criteria, such reserves and adjustments thereto as the Administrative Agent from time to time determines in its Credit Judgment as being appropriate, including, without limitation, (a) to reflect the impediments to the Administrative Agent's ability to realize upon the Collateral, (b) to reflect sums that any Loan Party may be required to pay under this Agreement or any other Loan Document (including taxes, assessments, insurance premiums, or, in the case of leased assets, rents or other amounts payable under such leases) and has failed to pay, (c) to reflect amounts for which claims may be reasonably expected to be asserted against the Collateral, the Administrative Agent or the Lenders or (d) to reflect criteria, events, conditions, contingencies or risks which adversely affect any component of the Borrowing Base, or the assets, business, financial performance or financial condition of any Loan Party or Subsidiary thereof. Without limiting the generality of the foregoing, Availability Reserves may include (but are not limited to) (i) Rent and Charge Reserves; (ii) the Dilution Reserve; (iii) Credit Product Reserves, (iv) Wage Claim Reserves, (v) customs duties, and other costs to release Inventory which is being imported into the United States; (vi) outstanding Taxes and other governmental charges, including, without limitation, ad valorem, real estate, personal property, sales, and other Taxes which might have priority over the interests of the Administrative Agent in the Collateral (including any Permitted Tax Distributions); (vii) any liabilities that are or may become secured by Liens on the Collateral (including Permitted Liens) which might have priority over the Liens or interests of the Administrative Agent in the Collateral (other than, for avoidance of doubt, the Secured Note Liens on the Secured Note Priority Collateral subject to the Secured Note Intercreditor Agreement); (viii) reserves for any royalty or other compensation owing to any Person with respect to any Intellectual Property; (ix) reserves with respect to the salability of Eligible Inventory or which reflect such other factors as affect the market value of the Eligible Inventory, including, without limitation, obsolescence, seasonality, Shrink; vendor chargebacks, imbalance, change in Inventory character, composition or mix, markdowns and out of date and/or expired Inventory; and (x) Priority Payables Reserves.

"Available Tenor" means, as of any date of determination and with respect to the then-current Benchmark, as applicable, (x) if such Benchmark is a term rate, any tenor for such Benchmark (or component thereof) that is or may be used for determining the length of an interest period pursuant to this Agreement or (y) otherwise, any payment period for interest calculated with reference to such Benchmark (or component thereof) that is or may be used for determining any frequency of making payments of interest calculated with reference to such Benchmark, in each case, as of such date.

"Average Availability" means for any period, the average daily amount of Availability during such period.

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution

"Bail-In Legislation" means, (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, regulation, rule or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

"Bankruptcy Code" means Title 11 of the United States Code.

"Base Rate" means, for any day, a fluctuating rate per annum equal tothe highest of (a) the rate of interest announced by BMO from time to time as its prime rate for such day (with any change in such rate announced by BMO taking effect at the opening of business on the day specified in the public announcement of such change); (b) the Federal Funds Rate for such day, plus 0.50% and (c) the sum of (i) Adjusted Term SOFR for a one-month tenor in effect on such day, plus (ii) 1.00%. Any change in the Base Rate due to a change in the prime rate, the Federal Funds Rate or Term SOFR, as applicable, shall be effective from and including the effective date of the change in such rate. If the Base Rate is being used as an alternative rate of interest pursuant to Section 3.03, then the Base Rate shall be the greater of clauses (a) and (b) above and shall be determined without reference to clause (c) above, provided that if Base Rate as determined above shall ever be less than the Floorplus 1.00%, then Base Rate shall be deemed to be the Floor plus 1.00%.

"Base Rate Loan" means a Base Rate Revolving Credit Loan.

"Base Rate Revolving Credit Loan" means a Revolving Credit Loan that bears interest based on the Base Rate.

"Benchmark" means, initially, the Term SOFR Reference Rate; provided that if a Benchmark Transition Event has occurred with respect to the Term SOFR Reference Rate or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to Section 3.03.

"Benchmark Replacement" means the first alternative set forth in the order below that can be determined by the Administrative Agent for the applicable Benchmark Replacement Date,

(a) the sum of Daily Simple SOFR plus (ii) 0.10% (10 basis points);

(b) the sum of: (i) the alternate benchmark rate that has been selected by the Administrative Agent and the Borrower Agent giving due consideration to (A) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body and (B) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement to the then-current Benchmark for Dollar-denominated syndicated credit facilities and (ii) the related Benchmark Replacement Adjustment.

If the Benchmark Replacement as determined pursuant to clause (a) or (b) above would be less than the Floor, the Benchmark Replacement will be deemed to be the Floor.

"Benchmark Replacement Adjustment" means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement, the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Administrative Agent and the Borrower Agent giving due consideration to (a) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body and (b) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for Dollar-denominated syndicated credit facilities.

"Benchmark Replacement Date" means the earliest to occur of the following events with respect to the then-current Benchmark:

(a) in the case of clause (a) or (b) of the definition of "Benchmark Transition Event", the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide all Available Tenors of such Benchmark (or such component thereof); or

(b) in the case of clause (c) of the definition of "Benchmark Transition Event", the first date on which such Benchmark (or the published component used in the calculation thereof) has been determined and announced by or on behalf of the administrator of such Benchmark (or such component thereof) or the regulatory supervisor for the administrator of such Benchmark (or such component thereof) to be no longer representative; provided, that such non-representativeness or non-compliance will be determined by reference to the most recent statement or publication referenced in such clause (c) and even if any Available Tenor of such Benchmark (or such component thereof) continues to be provided on such date.

For the avoidance of doubt, the "Benchmark Replacement Date" will be deemed to have occurred in the case of clause (a) or (b) with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

"Benchmark Transition Event" means, the occurrence of one or more of the following events with respect to the then-current Benchmark:

(a) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof);

(b) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Federal Reserve Board, the Federal Reserve Bank of New York, an insolvency official with jurisdiction over the administrator for such Benchmark (or such component), a resolution authority with jurisdiction over the administrator for such Benchmark (or such component) or a court or an entity with similar insolvency or

resolution authority over the administrator for such Benchmark (or such component), which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); or

(c) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) or the regulatory supervisor for the administrator of such Benchmark (or such component thereof) announcing that all Available Tenors of such Benchmark (or such component thereof) are no longer, or as of a specified future date will no longer be, representative.

For the avoidance of doubt, a "Benchmark Transition Event" will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

"Benchmark Unavailability Period" means the period (if any) (a) beginning at the time that a Benchmark Replacement Date has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark in accordance with Section 3.03 and (b) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark in accordance with Section 3.03.

"Beneficial Ownership Certification" means a certification regarding beneficial ownership required by the Beneficial Ownership Regulation, which certification shall be substantially similar in form and substance to the form of Certification Regarding Beneficial Owners of Legal Entity Customers published jointly, in May 2018, by the Loan Syndications and Trading Association and Securities Industry and Financial Markets Association.

"Beneficial Ownership Regulation" means 31 C.F.R. § 1010.230.

"Benefit Plan" means any of (a) an "employee benefit plan" (as defined in ERISA) that is subject to Title I of ERISA, (b) a "plan" as defined in Section 4975 of the Code or (c) any Person whose assets include (for purposes of ERISA Section 3(42) or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such "employee benefit plan" or "plan".

"BHC Act Affiliate" has the meaning specified in Section 11.21(b).

"BIA" means the Bankruptcy and Insolvency Act (Canada), as amended.

"BMO" means Bank of Montreal.

"BMO Capital" means BMO Capital Markets.

"Board of Directors" means, with respect to any Person, (a) in the case of any corporation (which for certainty includes unlimited liability corporations and unlimited liability companies), the board of directors of such Person or any committee thereof duly authorized to act on behalf of such board, (b) in the case of any limited liability company, the board of managers or board of directors or sole member or manager of such Person or any Person or any committee thereof duly authorized to act on behalf of such board, (c) in the case of any partnership, the Board of Directors of a general partner of such Person and (d) in any other case, the functional equivalent of the foregoing.

"Borrower" means each U.S. Borrower and the Canadian Borrower.

"Borrower Agent" has the meaning specified in Section 2.15(g).

"Borrower Materials" has the meaning specified in Section 7.02.

"Borrowing" means a Revolving Credit Borrowing or a Swing Line Borrowing, as the context may require.

"Borrowing Base" means, at any time of calculation, an amount equal to, the lesser of (x) $100,000,000 and (y) the sum, without duplication, of:

(a) the Accounts Formula Amount; plus

(b) the Inventory Formula Amount; minus

(c) the amount of all Availability Reserves.

The term "Borrowing Base" and the calculation thereof shall not include any assets or property acquired in an Acquisition or otherwise outside the ordinary course of business unless (x) if so required by the Administrative Agent, the Administrative Agent has conducted Field Exams and appraisals reasonably required by it (with results reasonably satisfactory to the Administrative Agent) and (y) the Person owning such assets or property shall be a (directly or indirectly) wholly-owned Domestic Subsidiary of a Loan Party and have become a Specified Borrower. For the avoidance of doubt, the Borrowing Base shall be calculated solely based on the assets and property of the Specified Borrowers.

"Borrowing Base Certificate" means a certificate, in the form of Exhibit D hereto and otherwise satisfactory to Administrative Agent, by which Borrowers certify calculation of the Borrowing Base.

"Business Day" means any day other than a Saturday, Sunday or other day on which commercial banks are authorized to close under the Laws of, or are in fact closed in, the state where the Administrative Agent's Office is located provided that when used in connection with a Loan made to, or a Letter of Credit issued for the account of a Canadian Borrower, the term "Business Day" shall include any day on which commercial banks in Toronto, Ontario are open for business, even if commercial banks in the state where the Administrative Agent's Office is located are not open on such day.

"Canadian Base Rate" means, for any day, the greater of the following: (i) the floating rate of interest announced from time to time by BMO as its reference rate then in effect for determining rates of interest on U.S. dollar loans to its customers in Canada and designated as its U.S. base rate; (ii) Adjusted Term SOFR for a one-month tenor in effect on such day plus one percent (1.0%) per annum; and (iii) the Federal Funds Rate plus one percent (1.0%) per annum. Any change in the Canadian Base Rate shall be effective on the date the change becomes effective generally without the necessity for any notice.

"Canadian Base Rate Loan" means a Revolving Credit Loan that bears interest based on the Canadian Base Rate.

"Canadian Borrower" has the meaning specified in the introductory paragraph hereto.

"Canadian Borrowing Sublimit" means an amount equal to the lesser of (a) C$5,000,000, and (b) the Aggregate Revolving Credit Commitments. The Canadian Borrowing Sublimit is part of, and not in addition to, the Aggregate Revolving Credit Commitments.

"Canadian Defined Benefit Pension Plan" means a Canadian Pension Plan, which contains a "defined benefit provision," as defined in subsection 147.1(1) of the ITA.

"Canadian Dollar" and "C$" mean lawful money of Canada.

"Canadian Hypothec" means the Deed of hypothec on Universality of Movable Property dated as of June 28, 2022 the Canadian Borrower in favor of the Administrative Agent acting as the hypothecary representative, for the benefit of the Secured Parties, substantially in the form of Exhibit C-3.

"Canadian Loan Party" means any Loan Party that is organized under the laws of Canada or any province or territory thereof, including, for avoidance of doubt, any Canadian Borrower.

"Canadian Multi-Employer Plan" means a multi-employer pension plan, as such term is defined in the Pension Benefits Act (Ontario) or any similar plan registered under pension standards legislation of another jurisdiction in Canada to which any of the U.S. Borrowers, the Canadian Borrowers or any of their respective Subsidiaries, contributes for its employees or former employees employed in Canada.

"Canadian Pension Event" means (a) the termination or wind-up in whole or in part of a Canadian Pension Plan, (b) the occurrence of any circumstance or event that would provide any basis for a Governmental Authority to take steps to cause the termination or wind-up, in whole or in part, of any Canadian Pension Plan, the issuance of a notice (or a notice of intent to issue such a notice) to terminate in whole or in part any Canadian Pension Plan or the receipt of a notice of intent from a Governmental Authority to require the termination in whole or in part of any Canadian Pension Plan, revoking the registration of same or appointing a new administrator of such a plan, (c) an event or condition which constitutes grounds under applicable pension standards or tax legislation for the issuance of an order, direction or other communication from any Governmental Authority or a notice of an intent to issue such an order, direction or other communication requiring a Loan Party or any Subsidiary to take or refrain from taking any action in respect of a Canadian Pension Plan, (d) the issuance of either any order or charges which may give rise to the imposition of any fines or penalties to or in respect of any Canadian Pension Plan or the issuance of such fines or penalties, (e) the failure to remit by a Loan Party or any Subsidiary (including the Canadian Borrowers or any of their Subsidiaries) any contribution to a Canadian Pension Plan when due or the receipt of any notice from an administrator, a trustee or other funding agent or any other Person that a Loan Party or any Subsidiary (including the Canadian Borrowers or any of their Subsidiaries) have failed to remit any contribution to a Canadian Pension Plan or a similar notice from a Governmental Body relating to a failure to pay any fees or other amounts that individually or in the aggregate would result in a Material Adverse Effect, (f) the non-compliance by a Loan Party or any Subsidiary (including the Canadian Borrowers or any of their Subsidiaries) or with any law applicable to the Canadian Pension Plans that individually or in the aggregate would result in a Material Adverse Effect, and (g) the existence of any unfunded liability or any solvency deficiency with respect to any Canadian Pension Plan.

"Canadian Pension Laws" shall mean the applicable Laws applying to Canadian Pension Plans.

"Canadian Pension Plan" means a plan that is a "registered pension plan" as defined in the ITA, and which is maintained or contributed to by, or to which there is or may be an obligation to contribute by, any Loan Party or any Subsidiary, including the Canadian Borrowers and their Subsidiaries, in respect of its employees or former employees employed in Canada, and for greater certainty does not include a Canadian Multi-Employer Plan.

"Canadian Prime Rate" means, for any day, a fluctuating rate per annum equal to the higher of (a) the floating rate of interest announced from time to time by BMO as its reference rate then in effect for

determining rates of interest on Canadian Dollar loans to its customers in Canada and designated as its prime rate (with any change in such rate announced by BMO taking effect at the opening of business on the day specified in the public announcement of such change); or (b) the CDOR Rate for a one month Interest Period plus 1.00%.

"Canadian Prime Rate Loan" means a Revolving Credit Loan that bears interest based on the Canadian Prime Rate.

"Canadian Security Agreement" means the Canadian Security Agreement dated as of the date hereof by the Canadian Borrower and the Administrative Agent for the benefit of the Secured Parties, substantially in the form of Exhibit C-2.

"Capital Leases" means all leases that have been or should be, in accordance with IFRS, recorded as capitalized leases.

"Cash Collateralize" means to pledge and deposit with or deliver to the Administrative Agent, (a) for the benefit of one or more of the Letter of Credit Issuer or the Revolving Credit Lenders, as collateral for Letter of Credit Obligations or obligations of the Revolving Credit Lenders to fund participations in respect of Letter of Credit Obligations, cash or deposit account balances or, if the Administrative Agent and the Letter of Credit Issuer shall agree in their sole discretion, other credit support, in each case pursuant to documentation in form and substance satisfactory to the Administrative Agent and the Letter of Credit Issuer or (b) for the benefit of the Administrative Agent, as collateral for Protective Advances or Swing Line Loans that have not been refunded by the Revolving Credit Lenders, cash or deposit account balances or, if the Administrative Agent shall agree in its sole discretion, other credit support, in each case pursuant to documentation in form and substance satisfactory to the Administrative Agent or (c) for the benefit of the Secured Parties during the continuance of an Event of Default or in connection with the Payment in Full, as collateral for any Obligations that are due or may become due, cash or deposit account balances or, if the Administrative Agent shall agree in its sole discretion, other credit support, in each case pursuant to documentation in form and substance satisfactory to the Administrative Agent. "Cash Collateral" shall have a meaning correlative to the foregoing and shall include the proceeds of such cash collateral and other credit support.

"Cash Equivalents" means any of the following types of property, to the extent owned by a Loan Party or any of its Subsidiaries free and clear of all Liens (other than Liens created under the Security Instruments and the Secured Note Liens subject to the Secured Note Intercreditor Agreement):

(a) cash, denominated in Dollars;

(b) readily marketable direct obligations of the government of the United States or any agency or instrumentality thereof, or obligations the timely payment of principal and interest on which are fully and unconditionally guaranteed by the government of the United States or any state or municipality thereof, in each case so long as such obligation has an investment grade rating by S&P and Moody's;

(c) commercial paper rated at least P-1 (or the then equivalent grade) by Moody's and A-1 (or the then equivalent grade) by S&P, or carrying an equivalent rating by a nationally recognized rating agency if at any time neither Moody's nor S&P shall be rating such obligations;

(d) insured certificates of deposit or bankers' acceptances of, or time deposits with any Lender or with any commercial bank that (i) is a member of the Federal Reserve System, (ii) issues (or the parent of which issues) commercial paper rated as described in the first portion of clause (c) above, (iii) is

organized under the laws of the United States or of any state thereof and (iv) has combined capital and surplus of at least $500,000,000;

(e) readily marketable general obligations of any corporation organized under the laws of any state of the United States of America, payable in the United States of America, expressed to mature not later than twelve months following the date of issuance thereof and rated A or better by S&P or A3 or better by Moody's;

(f) readily marketable shares of investment companies or money market funds that, in each case, invest solely in the foregoing Investments described in clauses (a) through (e) above;

(g) in the case of any Loan Party organized or having its principal place of business outside the United States or Canada, investments denominated in the currency of the jurisdiction in which such Loan Party is organized or has its principal place of business which are similar in nature and substantially the same in term and ratings to the items specified in clauses (a) through (f) above; and

(h) solely with respect to any Canadian Loan Party, (a) marketable securities (1) issued or directly and unconditionally guaranteed as to interest and principal by the Canadian Government or (2) issued by any agency of Canada, in each case maturing within one year after such date, (b) direct obligations of any province or territory of Canada and (c) certificates of deposit or bankers' acceptances maturing within three (3) months after such date by any commercial bank organized under applicable Laws of Canada.

"CCAA" means the Companies' Creditors Arrangement Act (Canada), as amended.

"CDOR Rate" means on any day the annual rate of interest which is the rate determined as being the average of the quotations of all financial institutions listed in respect of the rate for Canadian Dollar bankers' acceptances for the relevant period displayed and identified as such on the "Refinitiv CDOR Page" (as defined in the International Swap Dealer Association, Inc. definitions, as modified and amended from time to time) as of 10:15 A.M. Toronto, Ontario local time on such day and, if such day is not a Business Day, then on the immediately preceding Business Day (as adjusted by the Administrative Agent after 10:15 A.M. Toronto, Ontario local time to reflect any error in a posted rate of interest or in the posted average annual rate of interest with notice of such adjustment in reasonable detail evidencing the basis for such determination being concurrently provided to the Borrowers). If such rates are not available on the Refinitiv CDOR Page on any particular day, then the CDOR Rate on that day shall be the rates applicable to Canadian Dollar bankers' acceptances for the relevant period quoted for customer in Canada by the Administrative Agent as of 10:15 A.M. Toronto, Ontario local time on such day; or if such day is not a Business Day, then on the immediately preceding Business Day. In no event shall the CDOR Rate be less than the Floor.

"CDOR Rate Loan" means a Revolving Credit Loan that bears interest based on the CDOR Rate.

"CERCLA" means the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

"CERCLIS" means the Comprehensive Environmental Response, Compensation and Liability Information System maintained by the U.S. Environmental Protection Agency.

"Change in Law" means the occurrence, after the date of this Agreement, of any of the following: (a) the adoption or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything

herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (y) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "Change in Law", regardless of the date enacted, adopted or issued.

"Change of Control" means an event or series of events by which:

(a) Ferroglobe Holding Company, Ltd. shall cease to own and control, beneficially and of record, directly or indirectly, both (i) 51% of the issued and outstanding Equity Interests of GSM and (ii) a sufficient percentage of the issued and outstanding Equity Interests of GSM to control its Board of

Directors;

(b) any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act, and any person or entity acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan) becomes the "beneficial owner" (as defined in Rules 13d-4 and 13d-6 under the Exchange Act, except that a person or group shall be deemed to have "beneficial ownership" of all securities that such person or group has the right to acquire (such right, an "option right"), whether such right is exercisable immediately or only after the passage of time), directly or indirectly, of 51% or more of the Equity Interests of GSM on a fully-diluted basis (and taking into account all such Equity Interests that such person or group has the right to acquire pursuant to any option right);

(c) during any period of 24 consecutive months, a majority of the members of the board of directors or other equivalent governing body of GSM cease to be composed of individuals (i) who were members of that board or equivalent governing body on the first day of such period, (ii) whose election or nomination to that board or equivalent governing body was approved by individuals referred to in clause (i) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body or (iii) whose election or nomination to that board or other equivalent governing body was approved by individuals referred to in clauses (i) and (ii) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body;

(d) GSM shall fail to own and control, beneficially and of record (directly or indirectly), 100% of the issued and outstanding Equity Interests of any of the other Borrowers or its other Subsidiaries;

(e) any Borrower shall fail to own and control, beneficially and of record (directly or indirectly), 100% of the issued and outstanding Equity Interests of each of its Subsidiaries, except where such failure is the result of a transaction permitted under the Loan Documents; or

(f) any "change of control" or similar event occurs under the Organization Documents of any Loan Party or Subsidiary thereof or under the Secured Note Documents.

"Closing Date" means the first date all the conditions precedent in Section 5.01 are satisfied or waived in accordance with Section 11.01 (or, in the case of Section 5.01(b), waived by the Person entitled to receive the applicable payment).

"Code" means the Internal Revenue Code of 1986, as amended.

"Collateral" means, collectively, all real and personal property of the Loan Parties or any other Person in which the Administrative Agent or any Secured Party is granted a Lien under any Security

Instrument as security for all or any portion of the Obligations or any other obligation arising under any Loan Document, other than, for avoidance of doubt, the Excluded Collateral.

"Commitment" means the Revolving Credit Commitment.

"Commitment Increase" has the meaning specified in Section 2.18(a).

"Committed Loan Notice" means a notice, which may be in the form of Exhibit G, of (a) a Borrowing, and (b) a continuation of SOFR Loans or CDOR Rate Loans, in each case, described in Section 2.02.

"Commodity Exchange Act" means the Commodity Exchange Act (7 U.S.C. § 1 et seq.), as amended from time to time, and any successor statute.

"Compliance Certificate" means a certificate substantially in the form of Exhibit B.

"Concentration Account" has the meaning specified in Section 4.04(b).

"Conforming Changes" means with respect to either the use of administration of Term SOFR or the use, administration, adoption or implementation of any Benchmark Replacement, any technical, administrative or operational changes (including changes to the definition of "Base Rate," the definition of "Business Day," the definition of "Interest Period," the definition of "U.S. Government Securities Business Day", the timing and frequency of determining rates and making payments of interest, the timing of borrowing requests or prepayment, conversion or continuation notices, the applicability and length of lookback periods, the applicability of breakage provisions, and other technical, administrative or operational matters) that the Administrative Agent decides may be appropriate to reflect the adoption and implementation of any such rate or to permit the use and administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Administrative Agent determines that no market practice for the administration of any such rate exists, in such other manner of administration as the Administrative Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Loan Documents).

"Conforming Credit Product Obligations" means Credit Product Obligations (a) established pursuant to a Credit Product Notice delivered at a time no Event of Default shall be continuing and (b) up to a maximum amount (or, in the case of Credit Product Obligations arising under Swap Contracts, the Swap Termination Value thereunder) specified in such Credit Product Notice (whether delivered to establish or increase the amount thereof) to the extent that no Overadvance would exist if a Credit Product Reserve were established therefore on the date of such Credit Product Notice.

"Consolidated" means, with respect to any Person, the consolidation, in accordance with IFRS, of the financial condition or operating results of such Person and its Subsidiaries (other than Excluded Subsidiaries).

"Consolidated Capital Expenditures" means, with respect to the Consolidated Group on a Consolidated basis, for any period, the sum of (without duplication) all expenditures (whether paid in cash or accrued as liabilities) by the Consolidated Group during such period for items that would be classified as "property, plant or equipment" or comparable items on the Consolidated balance sheet of the Consolidated Group, including without limitation all transactional costs incurred in connection with such expenditures provided the same have been capitalized; provided that Consolidated Capital Expenditures shall exclude any capital expenditures (a) financed with Indebtedness permitted hereunder other than Loans,

(b) made with (i) Net Cash Proceeds from any Disposition described in Section 8.05(b) or (ii) proceeds of insurance arising from any casualty or other insured damage or from condemnation or similar awards with respect to any property or asset, in each case, to the extent such proceeds are reinvested within 90 days of receipt thereof and (c) constituting any portion of the purchase price of a Permitted Acquisition which is accounted for as a capital expenditure.

"Consolidated Cash Balance" means, on any date of determination, (a) the aggregate amount of cash and Cash Equivalents held or controlled by the Consolidated Group minus (b) the sum of (i) Cash Collateral that is Cash Collateralizing Obligations in accordance with this Agreement plus (ii) any outstanding checks and similar payment items issued by the Consolidated Group in the ordinary course of business and pending electronic funds transfers of the Consolidated Group.

"Consolidated EBITDA" means, for any Measurement Period, Consolidated Net Income for such period; plus, to the extent deducted in determining such Consolidated Net Income, without duplication, (a) Consolidated Interest Charges (net of interest income for such period of the Consolidated Group) for such period, plus (b) Income Tax Expenses for such period, plus (c) depreciation and amortization for such period, plus (d) non-cash compensation expense, or other non-cash expenses or charges, for such period arising from the granting of stock options, stock appreciation rights or similar equity arrangements, plus (e) non-cash expenses or losses and other non-cash charges incurred (excluding any non-cash charges representing an accrual of, or reserve for, cash charges to be paid within the next twelve months and reduced by any cash payments made during such period in respect of such non-cash items added back in a prior period); plus (f) expenses of up to $2,000,000 incurred in connection with the Transaction, plus (g) other one-time or non-recurring expenses approved by the Administrative Agent in its sole discretion; minus noncash income, gains or profits during such period, in each case as determined for the Consolidated Group on a Consolidated basis for such period and subject to applicable Pro Forma Adjustments.

"Consolidated Fixed Charge Coverage Ratio" means the ratio, determined on a Consolidated basis for the Consolidated Group for the applicable Measurement Period, of (a) the sum of (i) Consolidated EBITDA during such period minus (ii) Consolidated Capital Expenditures during such period to (b) Consolidated Fixed Charges during such period.

"Consolidated Fixed Charges" means, for any Measurement Period, for the Consolidated Group on a Consolidated basis, the sum of, without duplication, (a) Consolidated Interest Charges paid or required to be paid in cash during such period, (b) all principal repayments made or required to be made of Consolidated Funded Indebtedness during such period, but excluding (i) any such payments to the extent constituting a refinancing of such Consolidated Funded Indebtedness through the incurrence of additional Indebtedness otherwise expressly permitted under Section 8.01(o), and (ii) repayments of Revolving Credit Loans, (c) all Restricted Payments made in cash during such period and (d) all Income Tax Expenses paid in cash during such period.

"Consolidated Funded Indebtedness" means, as of any date of determination, for the Consolidated Group on a Consolidated basis, the sum of (a) the outstanding principal amount of all obligations, whether current or long-term, for borrowed money (including Obligations hereunder) and all obligations evidenced by bonds, debentures, notes, loan agreements or other similar instruments (including, for avoidance of doubt, the Secured Note Debt), (b) all purchase money Indebtedness, (c) all direct obligations arising under standby and commercial letters of credit (excluding the undrawn amount thereof), bankers' acceptances, bank guaranties (excluding the amounts available thereunder as to which demand for payment has not yet been made), surety bonds (excluding the amounts available thereunder as to which demand for payment has not yet been made) and similar instruments, (d) all obligations in respect of the deferred purchase price of property or services (other than trade accounts payable in the Ordinary Course of Business not more than 60 days past due), (e) Attributable Indebtedness in respect of Capital Leases and Synthetic Lease

Obligations, (f) without duplication, all Guarantees with respect to outstanding Indebtedness of the types specified in clauses (a) through (e) above of Persons other than any Borrower or any Subsidiary thereof, and (g) all Indebtedness of the types referred to in clauses (a) through (f) above of any partnership or joint venture (other than a joint venture that is itself a corporation or limited liability company) in which any Loan Party or a Subsidiary thereof is a general partner or joint venturer, to the extent such Indebtedness is recourse to such Loan Party or such Subsidiary.

"Consolidated Group" means, collectively, the Loan Parties and their Subsidiaries other than the Excluded Subsidiaries.

"Consolidated Interest Charges" means, with respect to the Consolidated Group for any period ending on the date of computation thereof, the gross interest expense of the Consolidated Group, including without limitation (a) the current amortized portion of all fees (including fees payable in respect of any Swap Contract in the nature of an interest rate hedge and all fees payable in respect of any Letter of Credit) payable in connection with the incurrence of Indebtedness to the extent included in gross interest expense and (b) the portion of any payments made in connection with Capital Leases allocable to interest expense, all determined on a Consolidated basis; provided however, that Consolidated Interest Charges shall include the amount of payments in respect of Synthetic Lease Obligations that are in the nature of interest.

"Consolidated Net Income" means, for any period, for the Consolidated Group on a Consolidated basis, the net income after taxation of the Consolidated Group for that period excluding (a) net losses or gains realized in connection with (i) any sale, lease, conveyance or other disposition of any asset (other than in the Ordinary Course of Business), or (ii) repayment, repurchase or redemption of Indebtedness, and (b) extraordinary or nonrecurring gain or income (or expense), including, any compensation charge incurred in connection with the Transactions; provided that there shall be excluded from Consolidated Net Income, without duplication, (x) the net income or loss of (x) any Person that is not a Subsidiary or that is accounted for by the equity method of accounting to the extent of the amount of dividends or distributions are not actually paid to a Loan Party or a Subsidiary in cash, (y) any Person in which any other Person (other than a Loan Party or a Subsidiary) has an ownership interest, except to the extent of the amount of dividends or other distributions actually paid in cash to a Loan Party or a Subsidiary by such Person during such period and (z) any Person the ability of which to make Restricted Payments is restricted by any agreement or Organization Document, except to the extent of the amount of dividends or other distributions actually paid in cash to a Loan Party or a Subsidiary by such Person during such period.

"Consolidated Tangible Net Worth" means, with respect to the Consolidated Group on any date of determination, Net Worth on such date, minus (a) the sum of (i) Intangible Assets on such date, and (ii) accounts due from Affiliates, members, partners, shareholders, managers, directors, officers, and employees of the Borrowers and their Subsidiaries on such date, plus (b) any Indebtedness owed from any Loan Party or Subsidiary or Affiliate thereof on such date.

"Contractual Obligation" means, as to any Person, any provision of any security issued by such Person or of any agreement, instrument or other undertaking to which such Person is a party or by which it or any of its property is bound.

"Control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. "Controlling" and "Controlled" have meanings correlative thereto.

"Control Agreement" means, with respect to any Deposit Account, Securities Account or Commodity Account, an agreement, in form and substance satisfactory to the Administrative Agent in its discretion, among the Administrative Agent, the financial institution or other Person at which such account

is maintained and the Loan Party maintaining such account, which has a blocking function and/or is effective to grant "control" (as defined under the applicable UCC or the STA, as applicable) over such account to the Administrative Agent, subject to the terms of the Secured Note Intercreditor Agreement, as applicable.

"Controlled Account Bank" means each bank with whom Deposit Accounts are maintained in which any funds of any of the Loan Parties are concentrated and with whom a Control Agreement has been, or is required to be, executed in accordance with the terms hereof.

"Controlled Deposit Account" means each Deposit Account (including all funds on deposit therein) that is the subject of an effective Control Agreement and that is maintained by any Loan Party with a financial institution approved by the Administrative Agent.

"Controlled Persons" means, with respect to any Person, (a) its Subsidiaries and Affiliates, (b) its officers, directors, employees and agents and (c) the officers, directors, employees and agents of such Subsidiaries and Affiliates.

"Core Business" means any material line of business conducted by the Consolidated Group as of the Closing Date and any business directly related or incidental thereto.

"Cost" means (a) with respect to Inventory, the lower of (i) cost (as reflected in the general ledger of such Person) and (ii) market value, in each case, determined in accordance with IFRS calculated on a first-in, first-out basis and in accordance with the Loan Parties' accounting practices as in effect on the Closing Date and (b) with respect to Equipment, Real Property and other property, the lower of (i) cost (as reflected in the general ledger of such Person) and (ii) market value, in each case, determined in accordance with IFRS.

"Covered Entity" has the meaning specified in Section 11.21(b).

"Credit Exposure" means, as to any Lender at any time, the aggregate amount of such Lender's Revolving Credit Exposure at such time.

"Credit Extension" means each of the following: (a) a Borrowing and (b) a Letter of Credit Extension.

"Credit Judgment" means, with reference to the Administrative Agent, a determination made in good faith using reasonable business judgment (from the perspective of a secured, asset-based lender).

"Credit Product Arrangements" means, collectively, (a) Swap Contracts between a Loan Party and any Lender or Affiliate of a Lender and (b) Treasury Management and Other Services.

"Credit Product Notice" means the written notice from a Credit Product Provider and the Borrower Agent to the Administrative Agent relating to Credit Product Arrangements in the form of Exhibit F hereto, or such other form as may be acceptable to the Administrative Agent.

"Credit Product Obligations" means Indebtedness and other obligations of any Loan Party (a) arising under Credit Product Arrangements, (b) owing to any Credit Product Provider and (c) only if owing to a Credit Product Provider other than BMO or its Affiliates, as to which a Credit Product Notice has been delivered to the Administrative Agent in which the Borrower Agent has expressly requested that such obligations be treated as Credit Product Obligations for purposes hereof; provided, however, Credit Product Obligations shall not include Excluded Swap Obligations.

"Credit Product Provider" means (a) BMO or any of its Affiliates and (b) any other Lender or an Affiliate of a Lender that is a provider under a Credit Product Arrangement, so long as such provider and the Borrower Agent deliver a Credit Product Notice to the Administrative Agent by the later of the Closing Date or, if not outstanding on the Closing Date, 10 days following the entering into of the applicable Credit Product Arrangement, (i) describing the Credit Product Arrangement and setting forth the maximum amount of Credit Product Obligations thereunder to be secured by the Collateral (and, if all or any portion of such Credit Product Obligations arise under Swap Contracts, the Swap Termination Value of such Credit Product Obligations) and the methodology to be used in calculating such amount and (ii) agreeing to be bound by Section 10.12.

"Credit Product Reserve" means (a) reserves which shall be established by the Administrative Agent in an amount equal to not less than the last reported Swap Termination Value (as given in accordance with the definition of Credit Product Obligation) of the then outstanding Priority Swap Obligations for the account of the Loan Parties or their Affiliates, and (b) reserves established by the Administrative Agent from time to time in its discretion to reflect the reasonably anticipated liabilities in respect of the then outstanding Credit Product Obligations.

"Daily Simple SOFR" means, for any day, SOFR, with the conventions for this rate (which will include a lookback) being established by the Administrative Agent in accordance with the conventions for this rate selected or recommended by the Relevant Governmental Body for determining "Daily Simple SOFR" for syndicated business loans; provided, that if the Administrative Agent decides that any such convention is not administratively feasible for the Administrative Agent, then the Administrative Agent may establish another convention in its reasonable discretion.

"Debtor Relief Laws" means the Bankruptcy Code, the Winding-up and Restructuring Act (Canada), the CCAA, the BIA, and all other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief Laws (including corporate statutes) of the United States, Canada or other applicable jurisdictions from time to time in effect and affecting the rights of creditors generally.

"Default" means any event or condition that constitutes an Event of Default or that, with the giving of any notice, the passage of time, or both, would unless cured or waived be an Event of Default.

"Default Rate" means an interest rate equal to (a) the Base Rate plus (b) the Applicable Margin with respect to Base Rate Loans plus (c) 2% per annum; provided, however, that (i) with respect to a SOFR Loan or a CDOR Rate Loan, until the end of the Interest Period during which the Default Rate is first applicable, the Default Rate shall be an interest rate equal to the interest rate (including any Applicable Margin) otherwise applicable to such SOFR Loan or CDOR Rate Loan plus 2% per annum, and thereafter as set forth in the portion of this sentence preceding this proviso, (ii) with respect to a Canadian Base Rate Loan or a Canadian Prime Rate Loan, an interest rate equal to (a) the Canadian Base Rate or the Canadian Prime Rate, as applicable plus (b) the Applicable Margin with respect to Canadian Base Rate Loans or Canadian Prime Rate Loans, as applicable, plus (c) 2% per annum and (iii) with respect to Letter of Credit Fees, (x) the Default Rate for standby Letters of Credit shall equal the Standby Letter of Credit Fee then in effect plus 2% per annum, in each case to the fullest extent permitted by applicable Laws and (y) the Default Rate for documentary Letters of Credit shall equal the Documentary Letter of Credit Fee then in effect plus 2% per annum, in each case to the fullest extent permitted by applicable Laws.

"Default Right" has the meaning specified in Section 11.21(b).

"Defaulting Lender" means, subject to Section 2.17(b), any Lender that (a) has failed to (i) fund all or any portion of its Loans within two Business Days of the date such Loans were required to be funded

hereunder unless such Lender notifies the Administrative Agent and the Borrower Agent in writing that such failure is the result of such Lender's determination that one or more conditions precedent to funding (each of which conditions precedent, together with any applicable default, shall be specifically identified in such writing) has not been satisfied, or (ii) pay to the Administrative Agent, the Letter of Credit Issuer, the Swing Line Lender or any other Lender any other amount required to be paid by it hereunder (including, in the case of any Revolving Credit Lender, in respect of its participations in Letters of Credit or Swing Line Loans) within two Business Days of the date when due, (b) has notified any Borrower, the Administrative Agent, the Letter of Credit Issuer or the Swing Line Lender in writing that it does not intend to comply with its funding obligations hereunder, or has made a public statement to that effect (unless such writing or public statement relates to such Lender's obligation to fund a Loan hereunder and states that such position is based on such Lender's determination that a condition precedent to funding (which condition precedent, together with any applicable default, shall be specifically identified in such writing or public statement) cannot be satisfied), (c) has failed, within three Business Days after written request by the Administrative Agent or the Borrower Agent, to confirm in writing to the Administrative Agent and the Borrower Agent that it will comply with its prospective funding obligations hereunder (provided that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon receipt of such written confirmation by the Administrative Agent and the Borrower Agent), or (d) has, or has a direct or indirect parent company that has, (i) become the subject of a proceeding under any Debtor Relief Law, (ii) had appointed for it a receiver, interim receiver, receiver and manager, monitor, custodian, conservator, trustee, administrator, assignee for the benefit of creditors or similar Person charged with reorganization or liquidation of its business or assets, including the Federal Deposit Insurance Corporation or any other federal, state, provincial or territorial regulatory authority acting in such a capacity or (iii) become the subject of a Bail-In Action; provided that a Lender shall not be a Defaulting Lender solely by virtue of the ownership or acquisition of any Equity Interest in that Lender or any direct or indirect parent company thereof by a Governmental Authority so long as such ownership interest does not result in or provide such Lender with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Lender (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made with such Lender. Any determination by the Administrative Agent that a Lender is a Defaulting Lender under any one or more of clauses (a) through (d) above shall be conclusive and binding absent manifest error, and such Lender shall be deemed to be a Defaulting Lender (subject to Section 2.17(b)) upon delivery of written notice of such determination by the Administrative Agent to the Borrower Agent, the Letter of Credit Issuer, the Swing Line Lender and each other Lender.

"Deposit Account" means (a) "deposit account" as defined in the UCC, and (b) a demand, time, savings, passbook or like account with a bank, saving and loan association, credit union or like organization, other than, in the case of this clause (b), an account evidenced by a negotiable certificate of deposit, as applicable.

"Designated Jurisdiction" means, at any time, any country, region or territory which is itself the target of Sanctions broadly restricting or prohibiting dealings with such country, region or territory.

"Dilution Percent" means the percent, based on the most recently concluded Field Exam, equal to (a) bad debt write-downs or write-offs, discounts, returns, promotions, credits, credit memos and other dilutive items with respect to Accounts for such period, divided by (b) gross sales for such period.

"Dilution Reserve" means, at any date of determination, (a) the percentage amount by which the Dilution Percent exceeds five percent (5.0%) times (b) the amount of Eligible Accounts of the Borrowers.

"Disposition" or "Dispose" means the sale, transfer, license, lease or other disposition (including by Division, any sale and leaseback transaction, any casualty or condemnation, or otherwise) of any

property (including any Equity Interest), or part thereof, by any Person, and including any sale, assignment, transfer, forgiveness, write-off, or other disposal, with or without recourse, of any notes or accounts receivable or any rights and claims associated therewith.

"Disqualified Equity Interest" means any Equity Interest that, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable), or upon the happening of any event, (a) matures (excluding any maturity as the result of an optional redemption by the issuer thereof) or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or is redeemable at the option of the holder thereof, in whole or in part, on or prior to the date that is 91 days after the Maturity Date, (b) is convertible into or exchangeable for debt securities (unless only occurring at the sole option of the issuer thereof), (c) (i) contains any repurchase obligation that may come into effect prior to, (ii) requires cash dividend payments (other than taxes) prior to, or (iii) provides the holders thereof with any rights to receive any cash upon the occurrence of a change of control or sale of assets prior to, in each case, the date that is 91 days after the Maturity Date; provided, however, that (i) with respect to any Equity Interests issued to any employee or to any plan for the benefit of employees of a Loan Party or its Subsidiaries or by any such plan to such employees, such Equity Interest shall not constitute Disqualified Equity Interests solely because it may be required to be repurchased by a Loan Party or one of its Subsidiaries in order to satisfy applicable statutory or regulatory obligations or as a result of such employee's termination, resignation, death or disability and (ii) any class of Equity Interest of such Person that by its terms authorizes such Person to satisfy its obligations thereunder by delivery of an Equity Interest that is not a Disqualified Equity Interest, such Equity Interests shall not be deemed to be Disqualified Equity Interests and (iii) only the portion of such Equity Interests which so matures or is so mandatorily redeemable, is so convertible or exchangeable or is so redeemable at the option of the holder thereof prior to such date shall be deemed to be Disqualified Equity Interests.

"Division" means the creation of one or more new limited liability companies by means of any statutory division of a limited liability company pursuant to any applicable limited liability company act or similar statue of any jurisdiction. "Divide" shall have the corresponding meaning.

"Documentary Letter of Credit Fee" has the meaning provided in Section 2.09(b).

"Dollar" and "$" mean lawful money of the United States.

"Domestic Subsidiary" means any Subsidiary that is organized under the laws of any political subdivision of the United States (but excluding any territory or possession thereof).

"Dominion Trigger Period" means any period (a) commencing on the day on or after the Closing Date that (i) an Event of Default occurs and is continuing or (ii) Availability is less than the greater of (x) 10% of the Maximum Borrowing Amount at such time and (y) $10,000,000, and (b) continuing until the date that (i) in the case of clause (a)(i), no Event of Default exists, and (ii) in the case of clause (a)(ii), during the previous thirty (30) consecutive days, Availability has been greater than the greater of (x) 10% of the Maximum Borrowing Amount at such time and (y) $10,000,000.

"EEA Financial Institution" means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"Eligible Accounts" means all Accounts due to a Specified Borrower that are determined by the Administrative Agent, in its Credit Judgment, to be Eligible Accounts. Except as otherwise agreed by the Administrative Agent, none of the following shall be deemed to be Eligible Accounts:

(a) Accounts that are not fully earned by performance (or otherwise represent a progress billing or pre-billing) or not evidenced by an invoice which has been delivered to the applicable Account Debtor;

(b) Accounts that have been outstanding for more than ninety (90) days from the invoice date or more than sixty (60) days past the original due date, whichever comes first;

(c) Accounts due from any Account Debtor, fifty percent (50%) of whose Accounts are otherwise ineligible under the terms clause (b) above;

(d) Accounts with respect to which (i) any representation or warranty set forth in any Loan Document with respect thereto is not true and correct in all material respects, (ii) a Specified Borrower does not have good, valid and marketable title thereto, free and clear of any Lien (other than (x) the Secured Note Liens subject to the Secured Note Intercreditor Agreement and (y) other Permitted Liens) or (iii) subject to the Post-Closing Agreement, the applicable Account Debtor has not been instructed to (or does not in fact) remit payment to a deposit account of a Specified Borrower subject to a Control Agreement;

(e) Accounts which are disputed or with respect to which a claim, counterclaim, rebate, bonus credit, offset or chargeback has been asserted, but only to the extent of such dispute, counterclaim, rebate, bonus credit, offset or chargeback;

(f) Accounts which (i) do not arise out of a sale of goods or rendition of services in the Ordinary Course of Business, (ii) do not arise upon credit terms usual to the business of the Specified

Borrowers or (iii) are not payable in Dollars (or, solely in the case of any Account due to the Canadian Borrower, Canadian Dollars);

(g) Accounts (i) upon which a Specified Borrower's right to receive payment is not absolute or is contingent upon the fulfillment of any condition whatsoever, including cash on delivery, progress bills, and cash in advance transactions or (ii) as to which a Specified Borrower is not able to bring suit or otherwise enforce its remedies against the related Account Debtor through judicial process;

(h) Accounts which are owed by (i) any other Borrower or (ii) any Affiliate which is not a Specified Borrower;

(i) Accounts for which all material consents, approvals or authorizations of, or registrations or declarations with any Governmental Authority required to be obtained, effected or given in connection with the performance of such Account by the Account Debtor or in connection with the enforcement of such Account by the Administrative Agent have not been duly obtained, effected or given or are not in full force and effect;

(j) Accounts due from an Account Debtor which is the subject of any bankruptcy, insolvency or similar proceeding under any Debtor Relief Laws, has had a trustee, receiver, interim receiver, receiver and manager, monitor or other like Person appointed for all or a substantial part of its property, has made an assignment for the benefit of creditors or has suspended its business;

(k) Accounts due from any Governmental Authority, except (x) to the extent that the subject Account Debtor is the federal government of the United States of America and has complied with the Federal Assignment of Claims Act of 1940 and any similar state legislation or (y) to the extent that the subject Account Debtor is the government of Canada (or any political subdivision thereof), or any department, agency, Crown corporation or instrumentality thereof and (1) has complied with the Financial Administration Act (Canada), as amended, or any comparable requirements under any other Canadian federal, provincial, territorial or municipal law regarding the assignment of Crown debts, and any other steps necessary to perfect the Lien of the Administrative Agent in such Account or (2) there are not comparable restrictions on the assignment of Crown debts of such political subdivision of Canada, or any department, agency, Crown corporation or institution thereof;

(l) Accounts (i) owing from any Account Debtor that is also a supplier to or creditor of a Specified Borrower unless such Person has waived any right of setoff in a manner reasonably acceptable to the Administrative Agent but only to the extent of the aggregate amount of such Specified Borrower's liability to such Account Debtor, (ii) to the extent representing any manufacturer's or supplier's allowances, credits, discounts, rebates, rebate accruals, bonus credits, incentive plans or similar arrangements entitling such Specified Borrower to discounts on future purchase, rebates or rebate accruals, or bonus credits therefrom, (iii) with respect to which any Loan Party or Subsidiary thereof has received a loan or advance payment, to the extent of such loan or payment, or (iv) to the extent relating to payment of interest, fees or late charges;

(m) Accounts arising out of sales on a bill-and-hold, guaranteed sale, sale-or-return, sale on approval or consignment basis, arising from a sale for consumer, personal, family or household purposes, or subject to any right of return, setoff or charge back;

(n) Accounts arising out of sales to an Account Debtor organized or having its principal office or substantially all of its assets outside the United States or Canada unless either (i) such Accounts are fully backed by an irrevocable letter of credit on terms, and issued by a financial institution, acceptable to the Administrative Agent and such irrevocable letter of credit is in the possession of the Administrative Agent, or (ii) such Accounts are supported by credit insurance on terms and from providers acceptable to the

(o) Administrative Agent, including naming the Administrative Agent as an additional insured and loss payee; (o) Accounts that are evidenced by a judgment, Instrument or Chattel Paper;

(p) Accounts due from an Account Debtor and its Affiliates, the aggregate of which Accounts due from such Account Debtor and its Affiliates represents more than 30% (or, solely in the case of Dow Silicones Corporation, 55%) of all then outstanding Accounts owed to the Borrowers, but only to the extent of such excess;

(q) Accounts that remain open after the applicable Account Debtor has made a partial payment in respect of the applicable invoice (whether or not the applicable Account Debtor has provided an explanation for such partial payment);

(r) Accounts where the applicable Account Debtor tendered a check or other item of payment in full or partial satisfaction and such check or other item of payment has been returned by the financial institution on which it is drawn; or

(s) Accounts for which payment has been received by the applicable Specified Borrower but such payment has not been applied to the applicable Account.

"Eligible Assignee" means (a) a Lender or any of its Affiliates; (b) an Approved Fund; and (c) any other Person (other than a natural person) approved by (i) the Administrative Agent, the Letter of Credit Issuer, and the Swing Line Lender (each such approval not to be unreasonably withheld or delayed), and (ii) unless an Event of Default has occurred and is continuing, the Borrower Agent (such approval not to be unreasonably withheld or delayed); provided that, notwithstanding the foregoing, "Eligible Assignee" shall not include a Loan Party or any of the Loan Parties' Affiliates.

"Eligible Inventory" means, as of any date of determination thereof, Inventory of a Specified Borrower that is determined by the Administrative Agent, in its Credit Judgment, to be Eligible Inventory. Except as otherwise agreed by the Administrative Agent, the following items of Inventory shall not be included in Eligible Inventory:

(a) Inventory that is not solely owned by a Specified Borrower or a Specified Borrower does not have good and valid title thereto;

(b) Inventory that (i) does not consist of finished goods, work in process, or raw materials or (ii) is not readily saleable in the Ordinary Course of Business;

(c) Inventory that does not comply with each of the covenants, representations and warranties respecting Inventory made by the Specified Borrowers in the Loan Documents;

(d) Inventory that is leased by or is on consignment to a Specified Borrower;

(e) Inventory that is not located in the United States or Canada (excluding territories or possessions of the United States or Canada);

(f) Inventory that is not at a location that is owned by a Specified Borrower, provided, however, that such Inventory that is located on leased premises or in the possession of a warehouseman, bailee, processor, repairman, mechanic or similar other Person in the Ordinary Course of Business shall not be excluded from Eligible Inventory under this clause (f) so long as (i) the lessor or such Person possessing such Inventory has delivered a Lien Waiver to the Administrative Agent and (ii) an appropriate Rent and Charges Reserve has been established with respect to such Inventory;

(g) Inventory held at any location (owned or a third-party location) with an aggregate Cost of Inventory at such location of less than $100,000, notwithstanding receipt of a Lien Waiver or implementation of a Rent and Charge Reserve as provided under clause (f) above;

(h) Inventory that is in transit, except between locations of Specified Borrowers (or between locations of Specified Borrowers and processors or vendors in the Ordinary Course of Business);

(i) Inventory that is comprised of goods which (i) are damaged, defective, "seconds" or otherwise unmerchantable, (ii) have been returned or are to be returned to the vendor, (iii) are in possession of the Specified Borrowers for in excess of 365 days, (iv) are discontinued products, obsolete, or slow moving, or (v) are subject to recall or similar notices;

(j) Inventory consisting of spare parts or consumables;

(k) Inventory consisting of promotional, marketing, packaging and shipping materials or supplies used or consumed in the Specified Borrowers' business and other similar non-merchandise categories;

(l) Inventory that is not in compliance with all standards imposed by any Governmental Authority having regulatory authority over such Inventory, its use or sale;

(m) Inventory that is subject to any warehouse receipt, bill of lading or negotiable Document that has not been issued to or in the name of the Administrative Agent;

(n) Inventory consisting of or containing Hazardous Materials;

(o) Inventory that is not subject to a perfected first priority Lien in favor of the Administrative Agent (subject only to Permitted Liens described in clauses (c) or (d) of Section 8.02);

(p) Inventory that is not insured in compliance with the provisions of this Agreement and the other Loan Documents;

(q) Inventory not on a perpetual schedule;

(r) Inventory that consists of (i) bill-and-hold goods, or (ii) goods that have been sold but not yet delivered; or

(s) Inventory that is subject to any License or other arrangement that restricts such Specified Borrowers' or the Administrative Agent's right to dispose of such Inventory, unless (i) Administrative Agent has received an appropriate Lien Waiver; and (ii) such Specified Borrowers have not received notice of a dispute in respect of any such License or other arrangement.

"Environmental Laws" means any and all federal, state, provincial, territorial, municipal, local, and foreign statutes, laws, regulations, ordinances, rules, judgments, orders, decrees, permits, concessions, grants, franchises, licenses, agreements or governmental restrictions relating to pollution and the protection of the environment or the release of any materials into the environment, including those related to hazardous substances or wastes, air emissions and discharges to waste or public systems.

"Environmental Liability" means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of a Loan Party or any of its Subsidiaries directly or indirectly resulting from or based upon (a) violation of any Environmental Law, (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Materials, (c) exposure to any Hazardous Materials, (d) the release or threatened release of any Hazardous Materials into the environment or (e) any contract, agreement or other consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

"Equity Interests" means, with respect to any Person, all of the shares of capital stock of or partnership or membership interest in (or other ownership or profit interests in) such Person, all of the warrants, options or other rights for the purchase or acquisition from such Person of shares of capital stock of or partnership or membership interest in (or other ownership or profit interests in) such Person, all of the securities convertible into or exchangeable for shares of capital stock of or partnership or membership interest in (or other ownership or profit interests in) such Person or warrants, rights or options for the purchase or acquisition from such Person of such shares, interests or units (or such other interests), and all of the other ownership or profit interests in such Person, whether voting or nonvoting, and whether or not such shares, units, warrants, options, rights or other interests are outstanding on any date of determination.

"Equivalent Amount" means, on any date, the amount of Dollars into which an amount of Canadian Dollars may be converted or the amount of Canadian Dollars into which an amount of Dollars may be converted, in either case, at, in the case of the Canadian Borrower, the Administrative Agent's spot buying rate in Toronto as at approximately 4:30 p.m. (Toronto time) on such date and, in the case of a U.S. Borrower, the Administrative Agent's spot buying rate in New York as at approximately 12:00 noon (New York City time) on such date, such spot buying rates hereinafter (the "Spot Rate").

"ERISA" means the Employee Retirement Income Security Act of 1974.

"ERISA Affiliate" means any trade or business (whether or not incorporated) under common control with any Loan Party within the meaning of Section 414(b) or (c) of the Code (and Sections 414(m) and (o) of the Code for purposes of provisions relating to Section 412 of the Code).

"ERISA Event" means (a) a Reportable Event with respect to a Pension Plan; (b) the withdrawal of any Loan Party or any ERISA Affiliate from a Pension Plan subject to Section 4063 of ERISA during a plan year in which such entity was a "substantial employer" as defined in Section 4001(a)(3) of ERISA or a cessation of operations that is treated as such a withdrawal under Section 4062(e) of ERISA; (c) a complete or partial withdrawal by any Loan Party or any ERISA Affiliate from a Multiemployer Plan or notification that a Multiemployer Plan is in reorganization; (d) the filing of a notice of intent to terminate, the treatment of a Pension Plan amendment as a termination under Section 4041 or 4041A of ERISA; (e) the institution by the PBGC of proceedings to terminate a Pension Plan; (f) any event or condition which constitutes grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Pension Plan; (g) the determination that any Pension Plan is considered an at-risk plan or a plan in endangered or critical status within the meaning of Sections 430, 431 and 432 of the Code or Sections 303, 304 and 305 of ERISA; or (h) the imposition of any liability under Title IV of ERISA, other than for PBGC premiums due but not delinquent under Section 4007 of ERISA, upon any Loan Party or any ERISA Affiliate.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor thereto), as in effect from time to time.

"Eurocurrency liabilities" has the meaning specified in Section 3.04(e).

"Event of Default" has the meaning specified in Section 9.01.

"Exchange Act" means the Securities Exchange Act of 1934 and the regulations promulgated thereunder.

"Excluded Collateral" means, collectively, "Excluded Collateral" as defined the Security Agreement and "Excluded Collateral" as defined in the Canadian Security Agreement.

"Excluded Deposit Account" means (a) Trust Accounts, (b) zero balance disbursement accounts and (c) other Deposit Accounts maintained in the Ordinary Course of Business containing cash amounts that do not exceed at any time $25,000 for any such account and $50,000 in the aggregate for all such accounts under this clause (c).

"Excluded Subsidiary" means each of WVA Manufacturing, LLC, a Delaware limited liability company GSM Netherlands, B.V., a Netherlands private limited liability company, Globe Metales S.R.L, an Argentina limited liability company, Ultracore Energy S.A., an Argentina corporation, Silicon Technology (Proprietary) Limited, a South Africa proprietary limited company, Ningxia Yonvey Coal

Industrial Co., Ltd., a China company limited by shares, Quebec Silicon General Partner Inc., a Quebec corporation and Quebec Silicon Limited Partnership, a Quebec limited partnership.

"Excluded Swap Obligation" means, with respect to any Loan Party, any Swap Obligation if, and to the extent that, all or a portion of the Guarantee of such Loan Party of, or the grant by such Loan Party of a Lien to secure, such Swap Obligation (or any Guarantee thereof) is or becomes illegal under the Commodity Exchange Act or any rule, regulation or order of the Commodity Futures Trading Commission (or the application or official interpretation of any thereof) by virtue of such Loan Party's failure for any reason to constitute an "eligible contract participant" as defined in the Commodity Exchange Act and the regulations thereunder at the time the Guarantee of such Loan Party or the grant of such Lien becomes effective with respect to such Swap Obligation. If a Swap Obligation arises under a master agreement governing more than one swap, such exclusion shall apply only to the portion of such Swap Obligation that is attributable to swaps for which such Guarantee or Lien is or becomes illegal.

"Excluded Taxes" means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its Lending Office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan or Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the Loan or Commitment (other than pursuant to an assignment request by the Borrower Agent under Section 11.13) or (ii) such Lender changes its Lending Office, except in each case to the extent that, pursuant to Section 3.01(a)(ii) or Section 3.01(c), amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender became a party hereto or to such Lender immediately before it changed its Lending Office, (c) Canadian federal withholding taxes under Part XIII of the ITA arising as a result of any Lender: (i) not dealing at "arm's length" (within the meaning of the ITA) with a Loan Party, or (ii) being a "specified non-resident shareholder" of a Loan Party or not dealing at arm's length with any "specified shareholder" of a Loan Party (in each case within the meaning of the ITA), except where the non-arm's length relationship arises or where the Lender is a specified non-resident shareholder of a Borrower or does not deal at arm's length with a specified shareholder of Borrower, on account of the Lender having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or having sold or assigned an interest in any Loan or Loan Document, (d) Taxes attributable to such Recipient's failure to comply with Section 3.01(e) and (e) any U.S. federal withholding Taxes imposed pursuant to FATCA.

"Extraordinary Expenses" means all costs, expenses, liabilities or advances that Administrative Agent may incur or make during a Default or Event of Default, or during the pendency of an proceeding of any Loan Party or Subsidiary thereof under any Debtor Relief Laws, including those relating to (a) any audit, inspection, repossession, storage, repair, appraisal, insurance, manufacture, preparation or advertising for sale, sale, collection, or other preservation of or realization upon any Collateral; (b) any action, arbitration or other proceeding (whether instituted by or against Administrative Agent, any Lender, any Loan Party or Subsidiary thereof, any representative of creditors of a Loan Party or any other Person) in any way relating to any Collateral (including the validity, perfection, priority or avoidability of Administrative Agent's Liens with respect to any Collateral), Loan Documents, Letters of Credit or Obligations, including any lender liability or other claims; (c) the exercise, protection or enforcement of any rights or remedies of Administrative Agent in, or the monitoring of, any proceeding applicable to any Loan Party or Subsidiary thereof under any Debtor Relief Laws; (d) settlement or satisfaction of any taxes, charges or Liens with respect to any Collateral; (e) any enforcement action; (f) negotiation and

documentation of any modification, waiver, workout, restructuring or forbearance with respect to any Loan Documents or Obligations; and (g) Protective Advances. Such costs, expenses and advances include transfer fees, Other Taxes, storage fees, insurance costs, permit fees, utility reservation and standby fees, legal fees, appraisal fees, brokers' fees and commissions, auctioneers' fees and commissions, accountants' fees, environmental study fees, wages and salaries paid to employees of any Loan Party or Subsidiary thereof or independent contractors in liquidating any Collateral, and travel expenses.

"FASB ASC" means the Accounting Standards Codification of the Financial Accounting Standards Board.

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with) and any current or future regulations or official interpretations thereof and any agreements entered into pursuant to Section 1471(b)(1) of the Code.

"Facilities" or "Facility" means the Revolving Credit Facility.

"Facility Termination Date" means the date as of which Payment in Full has occurred.

"Fair Market Value" means, with respect to any asset or any group of assets, as of any date of determination, the value of the consideration obtainable in a sale of such assets at such date of determination assuming a sale by a willing seller to a willing purchaser dealing at arm's length and arranged in an orderly manner over a reasonable period of time giving regard to the nature and characteristics of such asset.

"FCPA" means the U.S. Foreign Corrupt Practices Act.

"Federal Funds Rate" means, for any day, the rate per annum equal to the weighted average of the rates on overnight federal funds transactions with members of the Federal Reserve System arranged by federal funds brokers on such day, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; provided that (a) if such day is not a Business Day, the Federal Funds Rate for such day shall be such rate on such transactions on the next preceding Business Day as so published on the next succeeding Business Day, and (b) if no such rate is so published on such next succeeding Business Day, the Federal Funds Rate for such day shall be the average rate (rounded upward, if necessary, to a whole multiple of 1/100 of 1%) charged to BMO on such day on such transactions as determined by the Administrative Agent.

"Fee Letter" means the letter agreement, dated as of the Closing Date, among the Borrowers and the Administrative Agent.

"Field Exam" means any visit and inspection of the properties, assets and records of any Loan Party or Subsidiary thereof, which shall include access to such properties, assets and records sufficient to permit the Administrative Agent or its representatives to examine, audit and make extracts from any books and records of any Loan Party or Subsidiary thereof, make examinations and audits of any other financial matters and Collateral of any Loan Party or Subsidiary thereof as Administrative Agent deems appropriate in its Credit Judgment, and discussions with its officers, employees, agents, advisors and independent accountants regarding such Loan Party's or Subsidiary's business, financial condition, assets, prospects and results of operations.

"FIRREA" means The Financial Institutions Reform, Recovery, and Enforcement Act of 1989.

"Fiscal Quarter" means each period of three months, commencing on the first day of a Fiscal Year.

"Fiscal Year" means the fiscal year of the Consolidated Group for accounting and tax purposes, ending on December 31 of each calendar year.

"Fixed Charge Trigger Period" means any period (a) commencing on the day on or after Closing Date that (i) an Event of Default occurs and is continuing, or (ii) Availability is less than the greater of (x) 10% of the Maximum Borrowing Amount at such time and (y) $10,000,000, and (b) continuing until the date that (i) in the case of clause (a)(i), no Event of Default exists, and (ii) in the case of clause (a)(ii), during the previous thirty (30) consecutive days, Availability has been equal to or greater than the greater of (x) 10% of the Maximum Borrowing Amount at such time and (y) $10,000,000.

"Floor" means 0.00%.

"FLSA" means the Fair Labor Standards Act of 1938.

"Foreign Activities Laws" has the meaning specified in Section 7.11.

"Foreign Benefit Law" means any law or regulation, other than United States law, governing or applicable to any employee benefit plan, program, scheme or arrangement that is not subject to United States law.

"Foreign Government Scheme or Arrangement" has the meaning specified in Section 6.12(e).

"Foreign Lender" means (a) if the applicable Borrower is a U.S. Person, a Lender that is not a U.S. Person, and (b) if the applicable Borrower is not a U.S. Person, a Lender that is resident or organized under the laws of a jurisdiction other than that in which such Borrower is resident for tax purposes.

"Foreign Plan" has the meaning specified in Section 6.12(e).

"Foreign Subsidiary" means any Subsidiary that is not a Domestic Subsidiary.

"Fronting Exposure" means, at any time there is a Defaulting Lender that is a Revolving Credit Lender, (a) with respect to the Letter of Credit Issuer, such Defaulting Lender's Applicable Percentage of the outstanding Letter of Credit Obligations other than Letter of Credit Obligations as to which such Defaulting Lender's participation obligation has been reallocated to other Revolving Credit Lenders or Cash Collateralized in accordance with the terms hereof, (b) with respect to the Swing Line Lender, such Defaulting Lender's Applicable Percentage of Swing Line Loans other than Swing Line Loans as to which such Defaulting Lender's participation obligation has been reallocated to other Revolving Credit Lenders, and (c) with respect to the Administrative Agent, such Defaulting Lender's Applicable Percentage of Protective Advances other than Protective Advances as to which such Defaulting Lender's participation obligation has been reallocated to other Revolving Credit Lenders.

"Fund" means any Person (other than a natural Person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its activities.

"GAAP" means generally accepted accounting principles as in effect from time to time in the United States (or in the case of Canada-based entities/operations, as in effect from time to time in Canada), consistently applied.

"Governmental Authority" means the government of the United States, the government of Canada or any other nation, or of any political subdivision thereof, whether state, provincial, territorial, municipal

or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including any supra-national bodies such as the European Union or the European Central Bank).

"Guarantee" or "Guaranty" means, as to any Person, (a) any obligation, contingent or otherwise, of such Person guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation payable or performable by another Person (the "primary obligor") in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation, (ii) to purchase or lease property, securities or services for the purpose of assuring the obligee in respect of such Indebtedness or other obligation of the payment or performance of such Indebtedness or other obligation, (iii) to maintain working capital, equity capital or any other financial statement condition or liquidity or level of income or cash flow of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation, or (iv) entered into for the purpose of assuring in any other manner the obligee in respect of such Indebtedness or other obligation of the payment or performance thereof or to protect such obligee against loss in respect thereof (in whole or in part), or (b) any Lien on any assets of such Person securing any Indebtedness or other obligation of any other Person, whether or not such Indebtedness or other obligation is assumed by such Person (or any right, contingent or otherwise, of any holder of such Indebtedness to obtain any such Lien). The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith. The term "Guarantee" as a verb has a corresponding meaning.

"Guarantied Obligations" has the meaning specified in Section 12.01.

"Guarantor" means each Person who executes or becomes a party to this Agreement as a guarantor or otherwise executes and delivers a guaranty agreement acceptable to the Administrative Agent guaranteeing any of the Obligations.

"Guarantor Payment" has the meaning specified in Section 2.15(c).

"Hazardous Materials" means all explosive or radioactive substances or wastes and all hazardous or toxic substances, wastes or other pollutants, including petroleum or petroleum distillates, asbestos or asbestos-containing materials, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other substances or wastes of any nature regulated pursuant to any Environmental Law.

"Honor Date" has the meaning specified in Section 2.03(c)(i).

"IFRS" means the body of pronouncements issued by the International Accounting Standards Board (IASB).

"Income Tax Expenses" means for the Loan Parties on a consolidated basis for any period, the sum of all federal, state and local income taxes paid in cash during such period (including quarterly estimated payments thereof) for such period, including, for avoidance of doubt, Permitted Tax Distributions.

"Indebtedness" means, as to any Person at a particular time, without duplication, all of the following, whether or not included as indebtedness or liabilities in accordance with IFRS:

(a) all obligations of such Person for borrowed money and all obligations of such Person evidenced by bonds, debentures, notes, loan agreements or other similar instruments or upon which interest is customarily paid;

(b) all direct or contingent obligations of such Person arising under or in respect of letters of credit (including standby and commercial), bankers' acceptances, bank guaranties, surety bonds and other financial products and services (including treasury management and commercial credit card, merchant card and purchase or procurement card services);

(c) net obligations of such Person under any Swap Contract;

(d) all obligations of such Person to pay the deferred purchase price of property or services (other than trade accounts payable arising in the Ordinary Course of Business not more than 120 days past due) and any accrued and unpaid obligations with respect to any earn-out or similar payments under any Acquisition documents;

(e) indebtedness secured by a Lien on property owned or being purchased by such Person (including indebtedness arising under conditional sales or other title retention agreements), whether or not such indebtedness shall have been assumed by such Person or is limited in recourse;

(f) obligations under Capital Leases and Synthetic Lease Obligations of such Person;

(g) all obligations of such Person with respect to the redemption, repayment or other repurchase or payment in respect of any Disqualified Equity Interest; and

(h) all Guarantees of such Person in respect of any of the foregoing.

For all purposes hereof, the Indebtedness of any Person shall include the Indebtedness of any partnership or joint venture (other than a joint venture that is itself a corporation or limited liability company) in which such Person is a general partner or a joint venturer, to the extent such Indebtedness is recourse to such Person. The amount of any net obligation under any Swap Contract on any date shall be deemed to be the Swap Termination Value thereof as of such date. The amount of any Capital Lease or Synthetic Lease Obligation as of any date shall be deemed to be the amount of Attributable Indebtedness in respect thereof as of such date. For avoidance of doubt, all Secured Note Debt and other obligations owing under the Secured Note Documents shall constitute Indebtedness.

"Indemnified Taxes" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Loan Party under any Loan Document and (b) to the extent not otherwise described in clause (a), Other Taxes.

"Indemnitees" has the meaning specified in Section 11.04(b).

"Information" has the meaning specified in Section 11.07.

"Insolvency Event" means, with respect to any Person:

(a) the commencement of: (i) a voluntary case by such Person under the Bankruptcy Code or (ii) the seeking of relief by such Person under other Debtor Relief Laws;

(b) the commencement of an involuntary case or proceeding against such Person under the Bankruptcy Code or other Debtor Relief Laws and the petition or other filing is not controverted or dismissed within sixty (60) days after commencement of the case or proceeding;

(c) a custodian (as defined in the Bankruptcy Code or equal term under any other Debtor Relief Law, including a receiver, interim receiver, receiver manager, trustee or monitor) is appointed for, or takes charge of, all or substantially all of the property of such Person;

(d) such Person commences (including by way of applying for or consenting to the appointment of, or the taking charge by, a rehabilitator, receiver, interim receiver, custodian, trustee, monitor, conservator or liquidator (or any equal term under any other Debtor Relief Laws) (collectively, a "conservator") of such Person or all or any substantial portion of its property) any other proceeding under any reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency, liquidation, rehabilitation, conservatorship or similar law of any jurisdiction whether now or hereafter in effect relating to such Person;

(e) such Person is adjudicated by a court of competent jurisdiction to be insolvent or bankrupt;

(f) any order of relief or other order approving any such case or proceeding referred to inclauses (a) or (b) above is entered;

(g) such Person suffers any appointment of any conservator or the like for it or any substantial part of its property that continues undischarged or unstayed for a period of sixty (60) days; or

(h) such Person makes a compromise, arrangement or assignment for the benefit of creditors or generally does not pay its debts as such debts become due.

"Intangible Assets" means assets that are considered to be intangible assets under IFRS, including customer lists, goodwill, computer software, copyrights, trade names, trademarks, patents, franchises, licenses, unamortized debt discount, and capitalized research and development costs (including, without limitation, any Intellectual Property).

"Intellectual Property" means all past, present and future: trade secrets, know-how and other proprietary information; trademarks, uniform resource locations (URLs), internet domain names, service marks, sound marks, trade dress, trade names, business names, designs, logos, slogans (and all translations, adaptations, derivations and combinations of the foregoing) indicia and other source and/or business identifiers, and the goodwill of the business relating thereto and all registrations or applications for registrations which have heretofore been or may hereafter be issued thereon throughout the world; copyrights (including copyrights for computer programs) and copyright registrations or applications for registrations which have heretofore been or may hereafter be issued throughout the world and all tangible property embodying the copyrights, unpatented inventions (whether or not patentable); patent applications and patents; industrial design applications and registered industrial designs; license agreements related to any of the foregoing and income therefrom; books, records, writings, computer tapes or disks, flow diagrams, specification sheets, computer software, source codes, object codes, executable code, data, databases and other physical manifestations, embodiments or incorporations of any of the foregoing; the right to sue for all past, present and future infringements of any of the foregoing; all other intellectual property; and all common law and other rights throughout the world in and to all of the foregoing.

"Interest Payment Date" means, (a) as to any SOFR Loan or CDOR Rate Loan, (i) the last day of each Interest Period applicable to such SOFR Loan or CDOR Rate Loan; provided that if any Interest Period for a SOFR Loan or CDOR Rate Loan is greater than three months, the respective dates that fall every three

months after the beginning of such Interest Period shall also be Interest Payment Dates; (ii) any date that such Loan is prepaid or converted, in whole or in part, and (iii) the Maturity Date; and (b) as to any Base Rate Loan (including a Swing Line Loan), Canadian Prime Rate Loan or Canadian Base Rate Loan (i) the first day of each month with respect to interest accrued through the last day of the immediately preceding month, (ii) any date that such Loan is prepaid or converted, in whole or in part, and (iii) the Maturity Date; provided, further, that interest accruing at the Default Rate shall be payable from time to time upon demand of the Administrative Agent.

"Interest Period" means, as to each SOFR Loan or CDOR Rate Loan, the period commencing on the date such SOFR Loan or CDOR Rate Loan is disbursed or converted to or continued as a SOFR Loan or CDOR Rate Loan and ending, in each case, on the date one, three or, in the case of SOFR Loans only, six months thereafter, as selected by the Borrower Agent in its Committed Loan Notice; provided that:

(a) any Interest Period that would otherwise end on a day that is not a Business Day shall be extended to the next succeeding Business Day unless such Business Day falls in another calendar month, in which case such Interest Period shall end on the next preceding Business Day;

(b) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest

Period) shall end on the last Business Day of the calendar month at the end of such Interest Period; and

(c) no Interest Period shall extend beyond the Maturity Date; and

(d) no tenor that has been removed from this definition pursuant toSection 3.03 below shall be available for specification in a Committed Loan Notice.

"Inventory Formula Amount" means, at any time of calculation, an amount equal to the lesser of (a) the Cost of Eligible Inventory multiplied by 80% and (b) the NOLV of Eligible Inventory multiplied by 85%.

"Investment" means, as to any Person, any direct or indirect acquisition or investment by such Person, whether by means of (a) an Acquisition with respect to another Person or (b) a loan, advance or capital contribution to, Guarantee or assumption of debt of, or purchase or other acquisition of any other debt or equity participation or interest in, another Person, including any partnership or joint venture interest in such other Person and any arrangement pursuant to which the investor Guarantees Indebtedness of such other Person. For purposes of compliance with Section 8.03, the amount of any Investment (i) shall be the amount actually invested, without adjustment for subsequent increases or decreases in the value of such Investment, less all returns of principal or equity thereon (and without adjustment by reason of the financial condition of such other Person), (ii) if made by the transfer or exchange of property other than cash, shall be deemed to be the original principal or capital amount equal to the Fair Market Value of such property at the time of such transfer or exchange and (iii) if made in the form of a Guaranty or acquisition or assumption of Indebtedness, shall be deemed the maximum principal amount of such Indebtedness or maximum value of the obligation Guaranteed when made, as applicable.

"IP Rights" rights of any Person to use any Intellectual Property.

"ISP" means, with respect to any Letter of Credit, the "International Standby Practices 1998" published by the Institute of International Banking Law & Practice (or such later version thereof as may be in effect at the time of issuance).

"Issuer Documents" means with respect to any Letter of Credit, the Letter of Credit Application, and any other document, agreement and instrument entered into by the Letter of Credit Issuer and any Borrower (or any Subsidiary) or in favor the Letter of Credit Issuer and relating to any such Letter of Credit. "ITA" means the Income Tax Act (Canada), as amended.

"Joint Venture" means each of (i) WVA Manufacturing, LLC, a Delaware limited liability company, (ii) Quebec Silicon General Partner Inc., a Quebec corporation and (iii) Quebec Silicon Limited Partnership, a Quebec limited partnership.

"Junior Secured Note Agent" means GLAS Trust Corporation Limited, in its capacity as security agent under the Junior Secured Note Agreement.

"Junior Secured Note Agreement" means the Indenture dated as of July 29, 2021 entered into by and among Ferroglobe Finance Company, PLC as Issuer, Ferroglobe PLC, as Guarantor, the Junior Secured Note Agent, Glas Trustees Limited, as Trustee, Global Loan Agency Services Limited, as Paying Agent, and GLAS Americas LLC as Registrar and Transfer Agent, with respect to the Junior Secured Note Debt, all as in effect on the date hereof or as may be amended, modified, restated, supplemented, refinanced or replaced and in effect from time to time in accordance with the terms and conditions of the Secured Note Intercreditor Agreement.

"Junior Secured Note Debt" means all Indebtedness under the Junior Secured Note Documents.

"Junior Secured Note Documents" means, collectively, (a) the Junior Secured Note Agreement and (b) each of the other "Notes Documents," as that term is defined in the Junior Secured Note Agreement.

"Junior Secured Note Liens" means the Liens and security interests granted by the Loan Parties to Junior Secured Note Agent to secure the Junior Secured Note Debt under the Junior Secured Note Documents.

"Laws" means, collectively, all international, foreign, federal, state, provincial, territorial, municipal and local statutes, treaties, rules, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority, in each case whether or not having the force of law.

"Lender" has the meaning specified in the introductory paragraph hereto and, as the context requires, includes the Letter of Credit Issuer and the Swing Line Lender.

"Lending Office" means, as to any Lender, the office or offices of such Lender described as such in such Lender's Administrative Questionnaire, or such other office or offices as a Lender may from time to time notify the Borrower Agent and the Administrative Agent.

"Letter of Credit" means (a) any standby or documentary letter of credit issued by a Letter of Credit Issuer or (b) any indemnity, guarantee, exposure transmittal memorandum or similar form of credit support, in any case, issued by the Administrative Agent or a Letter of Credit Issuer pursuant to this Agreement for the benefit of a Borrower.

"Letter of Credit Advance" means each Revolving Credit Lender's funding of its participation in any Letter of Credit Borrowing in accordance with its Applicable Percentage. All Letter of Credit Advances shall be denominated in Dollars or Canadian Dollars.

"Letter of Credit Application" means an application and agreement for the issuance or amendment of a Letter of Credit in the form from time to time in use by the Letter of Credit Issuer.

"Letter of Credit Borrowing" means an extension of credit resulting from a drawing under any Letter of Credit which has not been reimbursed on the date when made or refinanced as a Revolving Credit Borrowing.

"Letter of Credit Expiration Date" means the day that is thirty (30) days prior to the Maturity Date (or, if such day is not a Business Day, the preceding Business Day).

"Letter of Credit Extension" means, with respect to any Letter of Credit, the issuance thereof or extension of the expiry date thereof, or the renewal or increase of the amount thereof.

"Letter of Credit Fees" means, collectively or individually as the context may indicate, the fees with respect to Letters of Credit described in Section 2.09(b).

"Letter of Credit Issuer" means BMO (and/or any Affiliate thereof) in its capacity as an issuer of Letters of Credit hereunder, or any successor issuer of Letters of Credit hereunder. At any time there is more than one Letter of Credit Issuer, all singular references to the Letter of Credit Issuer shall mean any Letter of Credit Issuer, either Letter of Credit Issuer, each Letter of Credit Issuer, the Letter of Credit Issuer that has issued the applicable Letter of Credit, or all Letter of Credit Issuers, as the context may require.

"Letter of Credit Obligations" means, as at any date of determination, (a) the aggregate undrawn amount of all outstanding Letters of Credit, plus (b) the aggregate of all Unreimbursed Amounts, including all Letter of Credit Borrowings, plus (c) the aggregate amount of all accrued and unpaid Letter of Credit Fees. For purposes of computing the amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.07. For all purposes of this Agreement, if on any date of determination a Letter of Credit has expired by its terms but any amount may still be drawn thereunder by reason of the operation of Rule 3.14 of the ISP, such Letter of Credit shall be deemed to be "outstanding" in the amount so remaining available to be drawn.

"Letter of Credit Sublimit" means an amount equal to the lesser of (a) $10,000,000, and (b) the Aggregate Revolving Credit Commitments. The Letter of Credit Sublimit is part of, and not in addition to, the Aggregate Revolving Credit Commitments.

"License" means any license or agreement under which a Loan Party is granted IP Rights in connection with any manufacture, marketing, distribution or disposition of Collateral, any use of assets or property or any other conduct of its business.

"Licensor" means any Person from whom a Loan Party obtains IP Rights.

"Lien" means any mortgage, deed of trust, pledge, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or other), charge or other security interest, or any preference, priority or other security agreement or preferential arrangement in the nature of a security interest of any kind or nature whatsoever (including any conditional sale or other title retention agreement, any easement, right of way or other encumbrance on title to Real Property, and any financing lease having substantially the same economic effect as any of the foregoing).

"Lien Waiver" means an agreement, in form and substance reasonably satisfactory to the Administrative Agent, by which (a) for any material Collateral located on leased premises or owned premises subject to a mortgage, the lessor or mortgagee, as applicable, agrees to, among other things, waive or subordinate any Lien it may have on the Collateral and permit the Administrative Agent to enter upon the premises and remove the Collateral or to use the premises to store or dispose of the Collateral; (b) for any Collateral held by a warehouseman, processor, shipper, customs broker or freight forwarder, such Person waives or subordinates any Lien it may have on the Collateral, agrees to hold any Documents in its possession relating to the Collateral as agent for the Administrative Agent, and agrees to deliver the Collateral to the Administrative Agent upon request; (c) for any Collateral held by a repairman, mechanic or bailee, such Person acknowledges the Administrative Agent's Lien, waives or subordinates any Lien it may have on the Collateral, and agrees to deliver the Collateral to Administrative Agent upon request; and (d) for any Collateral subject to a Licensor's IP Rights, the Licensor grants to the Administrative Agent the right, vis-à-vis such Licensor, to enforce the Administrative Agent's Liens with respect to the Collateral, including the right to dispose of it with the benefit of the Intellectual Property, whether or not a default exists under any applicable License.

"Line Reserve" means such reserves and adjustments thereto as the Administrative Agent from time to time determines in its Credit Judgment as being appropriate, including, without limitation: (a) the Rent and Charges Reserve; (b) the Credit Product Reserve; (c) Wage Claim Reserves, (d) the aggregate amount of liabilities at any time secured by Liens upon Collateral that are senior to the Administrative Agent's Liens (other than, for avoidance of doubt, the Secured Note Liens on the Secured Note Priority Collateral subject to the Secured Note Intercreditor Agreement); (e) sums that any Loan Party may be required to pay under any Section of this Agreement or any other Loan Document (including taxes, assessments, insurance premiums, or, in the case of leased assets, rents or other amounts payable under such leases) and has failed to pay; (f) amounts for which claims may be reasonably expected to be asserted against the Collateral, the Administrative Agent or the Lenders; and (g) Priority Payables Reserves.

"Loan" means an extension of credit under Article II in the form of a Revolving Credit Loan, a Protective Advance, or a Swing Line Loan.

"Loan Account" has the meaning assigned to such term in Section 2.11(a).

"Loan Documents" means this Agreement, each Note, each Security Instrument, each Committed Loan Notice, each Swing Line Loan Notice, each Issuer Document, each Borrowing Base Certificate, each Compliance Certificate, each Subordination Agreement, the Fee Letter, the Secured Note Intercreditor Agreement, any agreement creating or perfecting rights in Cash Collateral securing any Obligation hereunder, each guarantee agreement of the Obligations and all other instruments and documents heretofore or hereafter executed or delivered to or in favor of any Lender or the Administrative Agent in connection with the Loans made and transactions contemplated by this Agreement, but excluding, for the avoidance of doubt, Credit Product Arrangements.

"Loan Obligations" means all Obligations other than amounts (including fees) owing by any Loan Party pursuant to any Credit Product Arrangements.

"Loan Parties" means, collectively: (a) each Borrower, (b) each Guarantor, if any and (c) each other Person that (i) executes a joinder to this Agreement as a Loan Party; (ii) is liable for payment of any of the Obligations; and (iii) has granted a Lien in favor of Administrative Agent on its assets to secure any of the Obligations. For the avoidance of doubt, "Loan Parties" does not include any Excluded Subsidiary.

"Master Intercompany Note" means that certain Master Intercompany Note, dated as of the date hereof, among the Loan Parties and their Subsidiaries (other than Excluded Subsidiaries), if any.

"Material Adverse Effect" means (a) a material adverse change in, or a material adverse effect on, the operations, business, assets, properties, liabilities, or financial condition of either (i) the Borrowers, taken as a whole or (ii) the Loan Parties and their Subsidiaries, taken as a whole; (b) a material impairment of the ability of any Loan Party to perform its obligations under any Loan Document to which it is a party; or (c) a material adverse effect upon the legality, validity, binding effect or enforceability against any Loan Party of any Loan Document to which it is a party or on the ability of the Administrative Agent to collect any Obligation or realize upon any material portion of the Collateral.

"Material Contract" means any intercompany note and any other agreement or arrangement to which a Loan Party or Subsidiary thereof is party (other than the Loan Documents) (a) for which breach, termination, nonperformance or failure to renew could reasonably be expected to have a Material Adverse Effect; or (b) that (i) relates to the Secured Note Debt, or any other Indebtedness in an aggregate principal amount in excess of $2,500,000, or (ii) involves aggregate consideration in excess of $10,000,000 per year.

"Material License" has the meaning assigned to such term in Section 7.15.

"Material Third-Party Agreement" has the meaning assigned to such term in Section 7.17(a).

"Maturity Date" means the earliest to occur of (a) to the extent any Junior Secured Note Debt is outstanding on such date, ninety-one (91) days prior to the date payment is to be made on the Junior Secured Note Debt pursuant to the Junior Secured Note Agreement), (b) to the extent any Senior Secured Note Debt is outstanding on such date, ninety-one (91) days prior to the date payment is to be made on the Senior Secured Note Debt pursuant to the Senior Secured Note Agreement, and (c) June 30, 2027.

"Maximum Borrowing Amount" means the lesser of (A) (i) the Aggregate Revolving Credit Commitments, minus (ii) the Line Reserves, if any, and (B) the Borrowing Base.

"Measurement Period" means, at any date of determination, the most recently completed trailing twelve-month period of the Consolidated Group for which financial statements have or should have been delivered with respect to the Consolidated Group in accordance with Section 7.01(a) or 7.01(b).

"Minimum Collateral Amount" means, at any time, (a) with respect to Cash Collateral consisting of cash or Deposit Account balances provided to reduce or eliminate Fronting Exposure during the existence of a Defaulting Lender, an amount equal to 105% of the Fronting Exposure of the Letter of Credit Issuer with respect to Letters of Credit issued and outstanding at such time plus 105% of the Fronting Exposure of the Administrative Agent with respect to Protective Advances outstanding at such time, (b) with respect to Cash Collateral consisting of cash or Deposit Account balances provided in accordance with the provisions of Section 2.16(a)(i) or 2.16(a)(ii), an amount equal to 105% of the Outstanding Amount of all Letter of Credit Obligations, and (c) otherwise, an amount determined by the Administrative Agent and the Letter of Credit Issuer in their sole discretion.

"Moody's" means Moody's Investors Service, Inc. and any successor thereto.

"Multiemployer Plan" means any employee benefit plan of the type described in Section 4001(a)(3) of ERISA, to which any Loan Party or any ERISA Affiliate makes or is obligated to make contributions, or during the preceding five plan years, has made or been obligated to make contributions.

"Multiple Employer Plan" means a Plan which has two or more contributing sponsors (including any Loan Party or any ERISA Affiliate) at least two of whom are not under common control, as such a plan is described in Section 4064 of ERISA.

"Net Cash Proceeds" means

(a) with respect to the Disposition of any asset of any Loan Party or any Subsidiary thereof, the excess, if any, of (i) the sum of the cash and Cash Equivalents received in connection with such Disposition (including any cash received by way of deferred payment pursuant to, or by monetization of, a note receivable or otherwise, but only as and when so received) over (ii) the sum of (A) the principal amount of any Indebtedness that is secured by such asset and that is required to be repaid in connection with the Disposition thereof (other than Indebtedness under the Loan Documents or the Secured Note Documents and Indebtedness owing to any Loan Party or Subsidiary thereof), (B) the reasonable out-of-pocket expenses incurred by such Loan Party or any Subsidiary in connection with such Disposition, including any brokerage commissions, underwriting fees and discount, legal fees, finder's fees and other similar fees and commissions, (C) taxes paid or reasonably estimated to be payable by the Loan Party or any Subsidiary thereof in connection with the relevant Disposition, (D) the amount of any reasonable reserve required to be established in accordance with IFRS against liabilities (other than taxes deducted pursuant to clause (C) above) to the extent such reserves are (x) associated with the assets that are the object of such Disposition and (y) retained by such Loan Party or applicable Subsidiary thereof, and (E) the amount of any reasonable reserve for purchase price adjustments and retained fixed liabilities reasonably expected to be payable by such Loan Party or applicable Subsidiary thereof in connection therewith to the extent such reserves are (1) associated with the assets that are the object of such Disposition and (2) retained by such Loan Party or applicable Subsidiary thereof; provided that the amount of any subsequent reduction of any reserve provided for in clause (D) or (E) above (other than in connection with a payment in respect of such liability) shall (X) be deemed to be Net Cash Proceeds of such Disposition occurring on the date of such reduction, and (Y) immediately be applied to the prepayment of Loans in accordance with Sections 2.06(c) and (d); and

(b) with respect to any issuance of Indebtedness or Equity Interests by any Loan Party or any Subsidiary thereof, the excess, if any, of (i) the sum of the cash and Cash Equivalents received in connection with such issuance over (ii) the sum of (A) the reasonable out-of-pocket expenses incurred by such Loan Party or any Subsidiary thereof in connection with such issuance, including any brokerage commissions, underwriting fees and discount, legal fees, and other similar fees and commissions and (B) taxes paid or payable to the applicable taxing authorities by the Loan Party or any Subsidiary thereof in connection with and at the time of such issuance.

"Net Worth" means, as of any date of determination, consolidated members' equity of the Consolidated Group as of that date, as determined in accordance with IFRS.

"NOLV" means with respect to the Borrowers' Inventory, the net orderly liquidation value of such Inventory (a percentage of the Cost of such Inventory) that might be realized at an orderly, negotiated sale held within a reasonable period of time, net of all liquidation expenses, as determined from time to time by reference to the most recent appraisal received by the Administrative Agent conducted by an independent appraiser engaged by the Administrative Agent.

"Non-Consenting Lender" has the meaning assigned to such term in Section 11.01(d).

"Non-Defaulting Lender" means, at any time, each Lender that is not a Defaulting Lender at such time.

"Non-Extension Notice Date" has the meaning specified in Section 2.03(b)(iii).

"Non-Lender Credit Product Provider" has the meaning specified in Section 10.12(b).

"Note" means the Revolving Credit Loan Notes.

"NPL" means the National Priorities List pursuant to CERCLA, as updated from time to time.

"Obligations" means (a) all amounts owing by any Loan Party to the Administrative Agent, any Lender or any other Secured Party pursuant to or in connection with this Agreement or any other Loan Document or otherwise with respect to any Loan or Letter of Credit, including all Letter of Credit Obligations, and including all principal, interest (including any interest accruing after the filing of any petition in bankruptcy or the commencement of any proceeding under any Debtor Relief Law relating to any Loan Party, or would accrue but for such filing or commencement, whether or not a claim for postfiling or post-petition interest is allowed in such proceeding), reimbursement obligations, indemnification and reimbursement payments, fees, costs and expenses (including all fees, costs and expenses of counsel to the Administrative Agent) incurred in connection with this Agreement or any other Loan Document, whether direct or indirect, absolute or contingent, liquidated or unliquidated, now existing or hereafter arising hereunder or thereunder, together with all renewals, extensions, modifications or refinancings thereof and (b) Credit Product Obligations; provided, that Obligations of a Loan Party shall not include its Excluded Swap Obligations.

"OFAC" means the United States Department of Treasury Office of Foreign Assets Control.

"OFAC SDN List" means the list of the Specially Designated Nationals and Blocked Persons maintained by OFAC.

"Ordinary Course of Business" means the ordinary course of business of the Borrowers and their Subsidiaries, consistent with past practices and undertaken in good faith.

"Organization Documents" means, (a) with respect to any corporation, the certificate or articles of incorporation and the bylaws (or equivalent or comparable constitutive documents with respect to any nonU.S. jurisdiction); (b) with respect to any limited liability company, the certificate or articles of formation or organization and operating agreement; (c) with respect to any partnership, joint venture, trust or other form of business entity, the partnership, joint venture or other applicable agreement of formation or organization and any agreement, instrument, filing or notice with respect thereto filed in connection with its formation or organization with the applicable Governmental Authority in the jurisdiction of its formation or organization and, if applicable, any certificate or articles of formation or organization of such entity and (d) with respect to any of the foregoing, each shareholder agreement, member agreement, agreement among partners or limited partners, stock designation, equity holder agreement or other agreement among or affecting rights of holders of Equity Interests issued by any Loan Party or Subsidiary thereof.

"Other Connection Taxes" means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

"Other Taxes" means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 11.13).

"Outstanding Amount" means (a) with respect to Revolving Credit Loans, Protective Advances and Swing Line Loans on any date, the aggregate outstanding principal amount thereof after giving effect to any Borrowings and any prepayments or repayments of Revolving Credit Loans, Protective Advances or Swing Line Loans occurring on such date; and (b) with respect to any Letter of Credit Obligations on any date, (i) the aggregate outstanding amount of such Letter of Credit Obligations on such date after giving effect to any Letter of Credit Extension occurring on such date plus and any other changes in the aggregate amount of the Letter of Credit Obligations as of such date, including as a result of any reimbursements by the Borrowers of Unreimbursed Amounts and all Letter of Credit Borrowings on such date.

"Overadvance" has the meaning given to such term in Section 2.01(c)(i)(A).

"Overadvance Loan" means a Base Rate Revolving Credit Loan, a Canadian Prime Rate Loan or a Canadian Base Rate Loan made when an Overadvance exists or is caused by the funding thereof.

"Overnight Rate" means, for any day and from time to time as in effect, the greater of (a) the Federal Funds Rate and (b) an overnight rate determined by the Administrative Agent, the Letter of Credit Issuer, or the Swing Line Lender, as the case may be, in accordance with banking industry rules on interbank compensation.

"Parent" means Ferroglobe PLC.

"Participant" has the meaning assigned to such term in clause (d) of Section 11.06.

"Participant Register" has the meaning assigned to such term in clause (d) of Section 11.06.

"PATRIOT Act" means United States Public Law 107-56, Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT ACT) Act of 2001, as amended from time to time, and the rules and regulations promulgated thereunder from time to time in effect.

"Payment Conditions" means, with respect to any Specified Transaction, the satisfaction of the following conditions:

(a) as of the date of any such Specified Transaction and immediately after giving effect thereto, no Default or Event of Default has occurred and is continuing;

(b) if such Specified Transaction is a Specified Restricted Payment or a Specified Debt Payment, either (i) Availability (after giving Pro Forma Effect to such Specified Transaction) during the thirty (30) consecutive day period ending on and including the date of such Specified Transaction shall not be less than the greater of (A) 17.5% of the Maximum Borrowing Amount and (B) $17,500,000, in each case, as of such date; or (ii) (x) Availability (after giving Pro Forma Effect to such Specified Transaction) during the thirty (30) consecutive day period ending on and including the date of such Specified Transaction shall not be less than the greater of (A) 15.0% of the Maximum Borrowing Amount and (B) $15,000,000, in each case, as of such date, and (y) the Consolidated Fixed Charge Coverage Ratio of the Consolidated Group as of the end of the most recently ended Measurement Period prior to the making of such Specified Transaction, calculated on a Pro Forma Basis, shall be equal to or greater than 1.10:1.00;

(c) if such Specified Transaction is a Permitted Acquisition or a Specified Investment, either (i) Availability (after giving Pro Forma Effect to such Specified Transaction) during the thirty (30) consecutive day period ending on and including the date of such Specified Transaction shall not be less than the greater of (A) 17.5% of the Maximum Borrowing Amount and (B) $17,500,000, in each case,

as of such date; or (ii) (x) Availability (after giving Pro Forma Effect to such Specified Transaction) during the thirty (30) consecutive day period ending on and including the date of such Specified Transaction shall not be less than the greater of (A) 12.5% of the Maximum Borrowing Amount and (B) $12,500,000, in each case, as of such date, and (y) the Consolidated Fixed Charge Coverage Ratio of the Consolidated Group as of the end of the most recently ended Measurement Period prior to the making of such Specified Transaction, calculated on a Pro Forma Basis, shall be equal to or greater than 1.10:1.00;

(d) such Specified Transaction is permitted under the Secured Note Documents; and

(e) the Administrative Agent shall have received, at least five (5) Business Days prior to engaging in the Specified Transaction (or such shorter period as the Administrative Agent may agree in its discretion), a certificate of a Responsible Officer of the Borrower Agent certifying as to compliance with the preceding clauses and demonstrating (in reasonable detail) the calculations required thereby.

"Payment in Full" means (a) the indefeasible payment in full in cash of all Obligations, together with all accrued and unpaid interest and fees thereon, other than Letter of Credit Obligations that have been fully Cash Collateralized in an amount equal to 105% of the amount thereof or as to which other arrangements with respect thereto satisfactory to the Administrative Agent and the Letter of Credit Issuer shall have been made, (b) the Commitments shall have terminated or expired, (c) the obligations and liabilities of each Loan Party and its Affiliates under all Credit Product Arrangements shall have been fully, finally and irrevocably paid and satisfied in full and the Credit Product Arrangements shall have expired or been terminated, or other arrangements satisfactory to the applicable Credit Product Providers shall have been made with respect thereto, and (d) all claims of the Loan Parties against any Secured Party arising on or before the payment date in connection with the Loan Documents or any Credit Product Arrangements, as applicable, shall have been released on terms acceptable to the Administrative Agent or the applicable Credit Product Providers; provided that notwithstanding full payment or Cash Collateralization of the Obligations as provided herein, the Administrative Agent shall not be required to terminate its Liens in any Collateral unless, with respect to any damages the Administrative Agent may incur as a result of the dishonor or return of Payment Items applied to Obligations, Administrative Agent receives (i) a written agreement, executed by Borrowers and any Person whose advances are used in whole or in part to satisfy the Obligations, indemnifying Administrative Agent and Lenders from any such damages; or (ii) such Cash Collateral as the Administrative Agent, in its discretion, deems necessary to protect against any such damages.

"Payment Item" means each check, draft or other item of payment payable to a Borrower, including those constituting proceeds of any Collateral.

"PBGC" means the Pension Benefit Guaranty Corporation.

"Pension Act" means the Pension Protection Act of 2006.

"Pension Funding Rules" means the rules of the Code and ERISA regarding minimum required contributions (including any installment payment thereof) to Pension Plans and Multiemployer Plans as set forth in, with respect to plan years ending prior to the effective date of the Pension Act, Section 412 of the Code and Section 302 of ERISA, each as in effect prior to the Pension Act and, thereafter, Section 412, 430, 431, 432 and 436 of the Code and Sections 302, 303, 304 and 305 of ERISA.

"Pension Plan" means any employee pension benefit plan (including a Multiple Employer Plan or a Multiemployer Plan) that is maintained or is contributed to by any Loan Party and any ERISA Affiliate and is either covered by Title IV of ERISA or is subject to the minimum funding standards under Section 412 of the Code.

"Permitted Acquisition" means any Acquisition by a Loan Party with respect to which:

(a) the Person to be (or whose assets are to be) acquired does not oppose such Acquisition and the line or lines of business of the Person to be acquired constitute Core Businesses and had positive EBITDA for the 12-month period most recently ended;

(b) the cost of such Acquisition (including cash and other property (other than Equity Interests or options to acquire Equity Interests of any Loan Party) given as consideration, any Indebtedness incurred, assumed or acquired by any Loan Party or any Subsidiary in connection with such Acquisition, and all additional purchase price amounts in the form of earnouts and other contingent obligations calculated at the maximum amount thereof) does not exceed $5,000,000 individually and $15,000,000 when aggregated with all other Acquisitions consummated during the term of this Agreement;

(c) after giving effect to such Acquisition on a Pro Forma Basis and the costs related thereto (including cash and other property (other than Equity Interests or options to acquire Equity Interests of any Loan Party) given as consideration, any Indebtedness incurred, assumed or acquired by any Loan Party or any Subsidiary in connection with such Acquisition, all additional purchase price amounts in the form of earnouts and other contingent obligation calculated at the maximum amount thereof, and all fees expenses and transaction costs incurred in connection therewith), the Payment Conditions shall have been met with respect thereto;

(d) the Borrower Agent shall have furnished to the Administrative Agent at least five (5) Business Days prior to the date on which any such Acquisition is to be consummated or such shorter time as Administrative Agent may allow, a certificate of a Responsible Officer of the Borrower Agent, in form and substance reasonably satisfactory to the Administrative Agent, (i) certifying that all of the requirements set forth above will be satisfied on or prior to the consummation of such Acquisition and (ii) a reasonably detailed calculation of item (b) above (and such certificate shall be updated as necessary to make it accurate as of the date the Acquisition is consummated); and

(e) the Borrower Agent shall have furnished the Administrative Agent with ten (10) days' prior written notice of such intended Acquisition and shall have furnished the Administrative Agent with a current draft of the applicable acquisition documents (and final copies thereof as and when executed), and to the extent available, appropriate financial statements of the Person which is the subject of such Acquisition, pro forma projected financial statements for the twelve (12) month period following such Acquisition after giving effect to such Acquisition (including balance sheets, cash flows and income statements by month for the acquired Person, individually, and on a Consolidated basis with all Loan Parties), and, to the extent available, such other information as the Administrative Agent may reasonably request.

"Permitted Investment" has the meaning specified in Section 8.03.

"Permitted Liens" has the meaning specified in Section 8.02.

"Permitted Tax Distributions" means with respect to any Person, any dividend or distribution to any holder of such Person's stock or other equity interests to permit such holders to pay federal income taxes and all relevant state and local income taxes at a rate equal to the highest marginal applicable tax rate for the applicable tax year, however denominated (together with any interest, penalties, additions to tax, or additional amounts with respect thereto) imposed as a result of taxable income attributed to such holder as a partner of such Person under federal, state, and local income tax laws, determined on a basis that combines those liabilities arising out of the net effect of the income, gains, deductions, losses, and credits of such

Person and attributable to it in proportion and to the extent in which such holders hold stock or other equity interests of such Person.

"Person" means any natural person, corporation, limited liability company, unlimited liability corporation, unlimited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

"Plan" means any employee benefit plan within the meaning of Section 3(3) of ERISA (including a Pension Plan), maintained for employees of any Loan Party or any ERISA Affiliate or any such Plan to which any Loan Party or any ERISA Affiliate is required to contribute on behalf of any of its employees.

"Platform" has the meaning specified in Section 7.02.

"Post-Closing Agreement" means that certain Post-Closing Agreement by and between the Borrower Agent and the Administrative Agent dated as of the Closing Date with respect to the satisfaction after the Closing Date of certain collateral matters.

"PPSA" means the Personal Property Security Act (Nova Scotia), including the regulations thereto, provided that, if perfection or the effect of perfection or non-perfection or the priority of any Lien created hereunder on the Collateral is governed by the personal property security legislation or other applicable legislation (including the Civil Code of Québec) with respect to personal property security in effect in a jurisdiction other than Nova Scotia, "PPSA" means the Personal Property Security Act or such other applicable legislation in effect from time to time in such other jurisdiction (including the Civil Code of Québec, as applicable) for purposes of the provisions hereof relating to such perfection, effect of perfection or non-perfection or priority.

"Priority Payables Reserves" means reserves (determined from time to time by Administrative Agent in its discretion) for: (a) amounts owing or in respect of which any Loan Party has an obligation to remit to a Governmental Authority or other Person pursuant to any applicable law, rule or regulation, with respect to (i) goods and services Taxes, sales Taxes, employee income Taxes, municipal Taxes and other Taxes payable or to be remitted or withheld; (ii) workers' compensation or employment insurance; (iii) vacation or holiday pay; and (iv) other like charges and demands, in each case, to the extent that any Governmental Authority or other Person may claim a lien, security interest, hypothec, trust or other claim or Lien ranking or which would reasonably be expected to rank in priority to or pari passu with one or more of the Liens granted in the Loan Documents; and (b) the aggregate amount of any other liabilities of any Loan Party (i) in respect of which a trust or deemed trust has been imposed or may reasonably be likely to be imposed on any Collateral to provide for payment, (ii) in respect of rights or claims of suppliers under section 81.1 of the BIA and in respect of the rights or claims of farmers, fisherman or aquaculturists under Section 81.2 of the BIA or any similar statute or regulation; (iii) in respect of pension fund obligations with respect to Canadian Pension Plans, including in respect of unpaid or unremitted Canadian Pension Plan contributions, amounts representing any unfunded liability, solvency deficiency or wind-up deficiency whether or not due with respect to a Canadian Pension Plan (including "normal cost", "special payments" and any other payments in respect of any funding deficiency or shortfall), (iv) which are secured by a lien, security interest, pledge, charge, right or claim on any Collateral (other than Permitted Liens that do not have priority over Administrative Agent's Liens), or (v) in respect of directors and officers, debtor-in possession financing, administrative charges, critical supplier charges or shareholder charges; in each case, pursuant to any applicable law, rule or regulation and which such lien, trust, security interest, hypothec, pledge, charge, right, claim or Lien ranks or in the discretion of Administrative Agent, could reasonably be expected to rank in priority to or pari passu with one or more of the Liens granted in the Loan Documents (such as liens, trusts, security interests, hypothecs, pledges, charges, rights, claims or Liens in favor of employees or salespersons (including, without limitation, in respect of wages, salaries, commissions,

vacation pay, or other compensation or amounts (including severance pay) payable under the Wage Earner Protection Program Act (Canada), the BIA or the CCAA, landlords, warehousemen, customs brokers, carriers, mechanics, repairmen, materialmen, laborers, or suppliers, or liens, trusts, security interests, hypothecs, pledges, charges, rights or claims for ad valorem, excise, sales, or other Taxes where given priority under applicable law)).

"Priority Swap Obligations" means Credit Product Obligations under Swap Contracts (a) owing to BMO or its Affiliates (so long as BMO (in its discretion) shall have established a Credit Product Reserve with respect thereto) or (b) owing to any other Credit Product Provider and expressly identified as "Priority Swap Obligations" in a Credit Product Notice from the Borrower Agent and such Credit Product Provider to the Administrative Agent (which at all times shall be subject to a Credit Product Reserve).

"Proceeds of Crime Act" means the Proceeds of Crime (Money Laundering) and Terrorist Financing Act (Canada), and including all regulations thereunder, as amended.

"Pro Forma Adjustment" means, for the purposes of calculating Consolidated EBITDA for the Consolidated Group for any Measurement Period, if at any time during such Measurement Period, any Loan Party or Subsidiary thereof that is a member of the Consolidated Group shall have made a Permitted Acquisition or Disposition, Consolidated EBITDA for such Measurement Period shall be calculated after giving pro forma effect thereto as if any such Permitted Acquisition or Disposition occurred on the first day of such Measurement Period, including (a) with respect to an any Permitted Acquisition, inclusion of (i) the actual historical results of operation of such acquired Person or line of business during such Measurement Period and (ii) pro forma adjustments arising out of events which are directly attributable to such Permitted Acquisition, are factually supportable, and are expected to have a continuing impact, in each case to be mutually and reasonably agreed upon by the Borrower Agent and the Administrative Agent, and (b) with respect to any Disposition, exclusion of the actual historical results of operations of the disposed of Person or line of business or assets during such Measurement Period.

"Pro Forma Basis," "Pro Forma Compliance" and "Pro Forma Effect" means, with respect to compliance with any applicable test, financial ratio or covenant hereunder, that (without duplication):

(a) the Pro Forma Adjustment shall have been made, to the extent applicable;

(b) all Specified Pro Forma Transactions that have been made during the applicable period of measurement or subsequent to such period and prior to or simultaneously with the event for which the calculation is made (the period beginning on the first day of such period of measurement and continuing until the date of the consummation of such event, the "Reference Period") shall be deemed to have occurred as of the first day of the applicable Reference Period; provided that (i) income statement items (whether positive or negative) attributable to the property or Person subject to such Specified Pro Forma Transaction, (A) shall be excluded in the case of a Disposition of all or substantially all Equity Interests in or assets of any Loan Party or its Subsidiaries or any division, product line, or facility used for operations of the Loan Parties or their Subsidiaries, and (B) shall be included in the case of a Permitted Acquisition or Investment described in the definition of Specified Pro Forma Transaction, and (ii) all Indebtedness issued, incurred or assumed as a result of, or to finance, any Specified Pro Forma Transaction or permanently repaid in connection with any Specified Pro Forma Transaction during the Reference Period shall be deemed to have been issued, incurred, assumed or permanently repaid at the beginning of such Reference Period (with interest expense of such Person attributable to any Indebtedness for which pro forma effect is being given as provided in preceding clause (ii) that has a floating or formula rate, shall have an implied rate of interest for the applicable Reference Period determined by utilizing the rate that is or would be in effect with respect to such Indebtedness as at the relevant date of determination); provided, that, the foregoing pro forma adjustments may be applied to any such test, financial ratio or covenant solely to the extent that such

adjustments are consistent with the definition of Consolidated EBITDA and the definition of Pro Forma Adjustment;

(c) with respect to any calculation of Availability on a pro forma basis (i) for any period or as of any specified time pursuant to any provision hereunder, the determination or calculation of Availability shall be made giving pro forma effect to all funds utilized in connection with the consummation of Specified Transactions as if funded with Loans hereunder on the date of such Specified Transactions and on each date of the period being so tested and (ii) for any Permitted Acquisition, the calculation of consideration paid in connection with such Acquisition shall include all earn-out obligations, if any, in connection therewith, calculated at the maximum potential amount thereof; and

(d) for the purposes of calculating the Consolidated Fixed Charge Coverage Ratio for any Measurement Period on a Pro Forma Basis for determining compliance with the Payment Conditions with respect to any Specified Debt Payment or Specified Restricted Payment, the amount of any proposed Specified Debt Payment or Specified Restricted Payment, together with all other such payments made during such Measurement Period based on compliance with the Payment Conditions, shall be included in the definition of "Consolidated Fixed Charges" for such determination.

Whenever any provision of this Agreement requires the Borrowers to be in compliance on a Pro Forma Basis (or in Pro Forma Compliance) with a specified level of Availability or specified Fixed Charge Coverage Ratio in connection with any action to be taken by any Loan Party or any Subsidiary, the Borrower Agent shall deliver to the Administrative Agent a certificate of a Senior Officer setting forth in reasonable detail the calculations demonstrating such compliance.

"Properly Contested" means with respect to any obligation of a Loan Party or Subsidiary thereof, (a) the obligation is subject to a bona fide dispute regarding amount or such Loan Party's or Subsidiary's liability to pay; (b) the obligation is being properly contested in good faith by appropriate proceedings promptly instituted and diligently pursued; (c) appropriate reserves have been established in accordance with IFRS; (d) non-payment could not have a Material Adverse Effect, nor result in forfeiture or sale of any assets of any Loan Party or Subsidiary thereof; (e) no Lien is imposed on assets of any Loan Party or Subsidiary thereof, unless bonded and stayed to the satisfaction of the Administrative Agent; and (f) if the obligation results from entry of a judgment or other order, such judgment or order is stayed pending appeal or other judicial review.

"Protective Advance" has the meaning specified in Section 2.01(c)(ii)(A).

"PTE" means a prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time.

"Public Lender" has the meaning specified in Section 7.02.

"QFC" has the meaning specified in Section 11.21(b).

"QFC Credit Support" has the meaning specified in Section 11.21(b).

"Qualified ECP" means any Loan Party with total assets exceeding $10,000,000, or that constitutes an "eligible contract participant" under the Commodity Exchange Act and can cause another Person to qualify as an "eligible contract participant" under Section 1a(18)(A)(v)(II) of the Commodity Exchange Act.

"Ratable Share" has the meaning specified in Section 2.01(c)(ii)(C).

"Real Property" means all land (including immovable property), together with the buildings, structures, parking areas, and other improvements thereon, now or hereafter owned by any Person, including all easements, rights-of-way, and similar rights appurtenant thereto and all leases, tenancies, and occupancies thereof. As of the Closing Date, no member of the Consolidated Group has any rights in any Real Property.

"Recipient" means the Administrative Agent, any Lender, any Letter of Credit Issuer or any other recipient of any payment to be made by or on account of any Obligation of a Borrower hereunder.

"Refinancing Conditions" means the following conditions for Refinancing Indebtedness: (a) it is in an aggregate principal amount that does not exceed the principal amount of the Indebtedness being modified, refinanced, refunded, replaced, renewed or extended (the "Original Indebtedness") plus accrued interest and reasonable fees and expenses incurred in connection with such Refinancing Indebtedness; (b) the interest rate applicable to such Refinancing Indebtedness does not exceed the greater of the (i) interest rate applicable to the Original Indebtedness and (ii) the otherwise market rate of interest for such similar Indebtedness to similarly borrowers; (c) it has a final maturity no sooner than and a weighted average life no less than the applicable Original Indebtedness; (d) it contains no mandatory prepayment provisions more favorable to the lenders thereunder than the mandatory prepayment provision under the Original Indebtedness, (e) such Refinancing Indebtedness shall be unsecured; (f) to the extent the Original Indebtedness is secured by Liens, such Refinancing Indebtedness is either unsecured or is not secured by any Liens (or by any Collateral) that did not secure the Original Indebtedness immediately prior to incurrence of the Refinancing Indebtedness; (g) to the extent that such Original Indebtedness is subject to any Subordination Provisions, such Refinancing Indebtedness is subject to Subordination Provisions no less favorable to the Administrative Agent and the Lenders than those applicable to the Original Indebtedness immediately prior to incurrence of the Refinancing Indebtedness; (h) no additional Person not obligated, primarily or contingently, on the Original Indebtedness is obligated, primarily or contingently, on such Refinancing Indebtedness; (i) such Refinancing Indebtedness shall be on terms not materially less favorable to the Administrative Agent or the Lenders, and not materially more restrictive to the Loan Parties, than the terms of the Original Indebtedness; (j) upon giving effect to such Refinancing Indebtedness, no Default or Event of Default exists and (k) in the case of any Refinancing Indebtedness in respect of the Secured Note Debt, (x) the interest rate and unused fees applicable to any such modification, refinancing, refunding, renewing or extending Indebtedness does not exceed the interest rate and unused fees for the Indebtedness being modified refinanced, refunded, renewed, or extended except to the extent permitted under the Secured Note Intercreditor Agreement and (y) such Indebtedness shall be subject to the Secured Note Intercreditor Agreement.

"Refinancing Indebtedness" means the Indebtedness that is the result of any renewal, modification, refinancing, refunding, replacement, or extension of Indebtedness permitted under Section 8.01(g) or 8.01(p) as to which the Refinancing Conditions are satisfied; provided that the incurrence of any such Refinancing Indebtedness will be deemed to utilize permitted amounts of Indebtedness, if any, under each clause thereof.

"Register" has the meaning specified in Section 11.06(c).

"Registered Public Accounting Firm" has the meaning specified in the Securities Laws and shall be independent of the Loan Parties and their Affiliates as prescribed in the Securities Laws.

"Related Parties" means, with respect to any Person, such Person's Affiliates and the partners, directors, officers, employees, agents, trustees, administrators, managers, advisors and representatives of such Person and of such Person's Affiliates.

"Relevant Governmental Body" means the Board of Governors of the Federal Reserve System and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Board of Governors of the Federal Reserve System and/or the Federal Reserve Bank of New York, or any successor thereto.

"Rent and Charges Reserve" means the aggregate of (a) all past due rent and other amounts owing by a Borrower to any landlord, warehouseman, processor, repairman, mechanic, shipper, freight forwarder, broker or other Person who possesses any Collateral or could assert a Lien on any Collateral; and (b) a reserve at least equal to two months' rent and other charges that could be payable to any such Person, unless it has executed a Lien Waiver.

"Report" has the meaning specified in Section 10.11(c).

"Reportable Event" means any of the events set forth in Section 4043(c) of ERISA, other than events for which the 30 day notice period has been waived.

"Reporting Trigger Period" means any period (a) commencing on the day that (i) an Event of Default occurs and is continuing, or (ii) Availability is less than the greater of (x) 10% of the Maximum Borrowing Amount at such time and (y) $10,000,000, and (b) continuing until the date that (i) in the case of clause (a)(i), no Event of Default exists, and (ii) in the case of clause (a)(ii), during the previous thirty (30) consecutive days, Availability has been equal to or greater than the greater of (x) 10% of the Maximum Borrowing Amount at such time and (y) $10,000,000.

"Request for Credit Extension" means (a) with respect to a Borrowing, conversion or continuation of Loans, a Committed Loan Notice, (b) with respect to a Letter of Credit Extension, a Letter of Credit Application, and (c) with respect to a Swing Line Loan, a Swing Line Loan Notice.

"Required Lenders" means, as of any date of determination, Lenders holding (and at any time there are two or more Lenders, at least two non-Affiliate Lenders holding) more than fifty percent (50%) of the Total Credit Exposure of all Lenders. The Total Credit Exposure of any Defaulting Lender shall be disregarded in determining Required Lenders at any time.

"Required Supermajority Lenders" means, as of any date of determination, Lenders holding (and at any time there are two or more Lenders, at least two non-Affiliate Lenders holding) more than sixty-six and two-thirds percent (66⅔%) of the Total Credit Exposure of all Lenders. The Total Credit Exposure of any Defaulting Lender shall be disregarded in determining Required Supermajority Lenders at any time.

"Rescindable Amount" has the meaning specified in Section 2.12(b)(ii).

"Reserve" means any reserve constituting all or any portion of the Availability Reserve or the Line Reserve.

"Resolution Authority" means an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

"Responsible Officer" means, with respect to each Loan Party, the chief executive officer, president, chief financial officer, treasurer, controller, assistant treasurer, secretary or any vice president of such Loan Party. Any document delivered hereunder that is signed by a Responsible Officer of a Loan Party shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Loan Party and such Responsible Officer shall be conclusively presumed to have acted on behalf of such Loan Party.

"Restricted Payment" means (i) any dividend or other distribution (whether in cash, securities or other property) with respect to any capital stock or other Equity Interest of any Loan Party or any Subsidiary thereof, (ii) any payment (whether in cash, securities or other property), including any sinking fund or similar deposit, on account of the purchase, redemption, retirement, acquisition, cancellation or termination of any such capital stock or other Equity Interest, or on account of any return of capital to any Loan Party's or any Subsidiary thereof's stockholders, partners or members (or the equivalent Person thereof) or (iii) any distribution, advance or repayment of Indebtedness to or for the account of a holder of Equity Interests of any Loan Party or its Affiliates.

"Revolving Credit Borrowing" means a borrowing consisting of simultaneous Revolving Credit Loans of the same Type and, in the case of SOFR Loans or CDOR Rate Loans, having the same Interest Period, made by each of the Revolving Credit Lenders pursuant to Section 2.01(a) or (c).

"Revolving Credit Commitment" means, as to each Revolving Credit Lender, its obligation to (a) make Revolving Credit Loans to the Borrowers pursuant to Section 2.01(a), (b) purchase participations in Letter of Credit Obligations, and (c) purchase participations in Swing Line Loans, in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Revolving Credit Lender's name on Schedule 2.01 or in the Assignment and Assumption pursuant to which such Lender becomes a party hereto, as applicable, as such amount may be adjusted from time to time in accordance with this Agreement, including, without limitation, under Section 2.18 hereof.

"Revolving Credit Exposure" means, as to any Lender at any time, the aggregate principal amount at such time of its outstanding Revolving Credit Loans and such Lender's participation in Letter of Credit Obligations, Swing Line Loans and Protective Advances at such time.

"Revolving Credit Facility" means the facility described in Sections 2.01(a), 2.03 and 2.04 providing for Revolving Credit Loans, Letters of Credit and Swing Line Loans to or for the benefit of the Borrowers by the Revolving Credit Lenders, Letter of Credit Issuer, and Swing Line Lender, as the case may be, in the maximum aggregate principal amount at any time outstanding of $100,000,000, as adjusted from time to time pursuant to the terms of this Agreement including, without limitation, under Section 2.18 hereof.

"Revolving Credit Lender" means each Lender that has a Revolving Credit Commitment or, following termination of the Revolving Credit Commitments, has any Revolving Credit Exposure.

"Revolving Credit Loan" has the meaning specified in Section 2.01(a).

"Revolving Credit Loan Note" means a promissory note made by the Borrowers in favor of a Revolving Credit Lender evidencing Revolving Credit Loans made by such Revolving Credit Lender, substantially in the form of Exhibit A-1.

"Revolving Credit Termination Date" means the earliest of (a) the Maturity Date, (b) the date of termination of the Aggregate Revolving Credit Commitments pursuant to Section 2.07(a), and (c) the date of termination of the commitment of each Lender to make Loans and of the obligation of the Letter of Credit Issuer to make Letter of Credit Extensions pursuant to Section 9.02.

"Royalties" means all royalties, fees, expense reimbursement and other amounts payable by a Loan Party under a License.

"S&P" means Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc. and any successor thereto.

"Same Day Funds" means immediately available funds.

"Sanctioned Person" means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by OFAC (including the OFAC SDN List), the United States Department of State, the government of Canada, the United Nations Security Council, the European Union, any European Union member state, Her Majesty's Treasury of the United Kingdom, or any other relevant sanctions authority, (b) any Person located, organized or resident in a Designated Jurisdiction or (c) any Person 50% or more owned by any Person described in clauses (a) or (b) above.

"Sanctions" means all economic or financial sanctions, sectoral sanctions, secondary sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the United States government (including those administered by OFAC or the United States Department of State), (b) the government of Canada (including Canadian laws, regulations or orders governing transactions in controlled goods or technologies or dealings with countries, entities, organizations, or individuals subject to economic sanctions and similar measures, including the Special Economic Measures Act (Canada), the United Nations Act (Canada), the Freezing Assets of Corrupt Foreign Officials Act (Canada), Part II.1 of the Criminal Code (Canada), the Export and Import Permits Act (Canada) and the Proceeds of Crime Act, and any related regulations) or (c) the United Nations Security Council, the European Union, any European Union member state, Her Majesty's Treasury of the United Kingdom, or any other relevant sanctions authority with jurisdiction over any Loan Party or any of their respective Subsidiaries or Affiliates.

"Sarbanes-Oxley" means the Sarbanes-Oxley Act of 2002.

"SEC" means the Securities and Exchange Commission, or any Governmental Authority succeeding to any of its principal functions.

"Secured Party" means (a) each Lender, (b) each Credit Product Provider, (c) the Administrative Agent, (d) the Letter of Credit Issuer, (e) the Arranger and (f) the successors and assigns of each of the foregoing.

"Secured Party Expenses" has the meaning set forth in Section 11.04(a).

"Securities Laws" means (i) the Securities Act of 1933, the Exchange Act, Sarbanes-Oxley and the applicable accounting and auditing principles, rules, standards and practices promulgated, approved or incorporated by the SEC or the Public Company Accounting Oversight Board and (ii) any other applicable federal, state, provincial or territorial securities laws, as each of the foregoing may be amended and in effect on any applicable date hereunder.

"Security Agreement" means the Security Agreement dated as of the date hereof by the Loan Parties party thereto and the Administrative Agent for the benefit of the Secured Parties, substantially in the form of Exhibit C-1.

"Security Instruments" means, collectively or individually as the context may indicate, the Security Agreement, the Canadian Security Agreement, the Canadian Hypothec, the Control Agreements, each Lien Waiver and all other agreements (including securities account control agreements), deeds of hypothec, instruments and other documents, whether now existing or hereafter in effect, pursuant to which any Loan Party, any Subsidiary thereof, or any other Person shall grant or convey to the Administrative Agent or the Lenders a Lien in property as security for all or any portion of the Obligations.

"Secured Note Agent" means, collectively, the Senior Secured Note Agent and the Junior Secured Note Agent.

"Secured Note Agreement" means, collectively, the Senior Secured Note Agreement and the Junior Secured Note Agreement.

"Secured Note Debt" means, collectively, the Senior Secured Note Debt and the Junior Secured Note Debt.

"Secured Note Documents" means, collectively (a) the Senior Secured Note Documents and (b) the Junior Secured Note Documents.

"Secured Note Intercreditor Agreement" means the Intercreditor Agreement of even date herewith between Administrative Agent and Secured Note Agent, as may be amended, modified, restated, or supplemented from time to time in accordance therewith, which provides that: (a) the Liens of the Administrative Agent on the ABL Priority Collateral shall be senior in priority to the Secured Note Liens on the ABL Priority Collateral, and (b) the Secured Note Liens on the Secured Note Priority Collateral shall be senior in priority to the Liens of the Administrative Agent on the Secured Note Priority Collateral, and is otherwise in form and substance acceptable to Administrative Agent in its discretion.

"Secured Note Liens" means the Liens and security interests granted by the Loan Parties to Secured Note Agent to secure the Secured Note Debt under the Secured Note Documents.

"Secured Note Priority Collateral" means the "Secured Note Priority Collateral", as that term is defined in the Secured Note Intercreditor Agreement.

"Senior Secured Note Agent" means GLAS Trust Corporation Limited, in its capacity as security agent under the Senior Secured Note Agreement.

"Senior Secured Note Agreement" means the Indenture, dated as of May 17, 2021 entered into by and among Ferroglobe Finance Company, PLC and GSM, as Issuers, Ferroglobe PLC, as Guarantor, the Senior Secured Note Agent, Glas Trustees Limited, as Trustee, Global Loan Agency Services Limited, as Paying Agent, and GLAS Americas LLC as Registrar and Transfer Agent, with respect to the Senior Secured Note Debt, all as in effect on the date hereof or as may be amended, modified, restated, supplemented, refinanced or replaced and in effect from time to time in accordance with the terms and conditions of the Secured Note Intercreditor Agreement.

"Senior Secured Note Debt" means all Indebtedness under the Senior Secured Note Documents.

"Senior Secured Note Documents" means, collectively, (a) the Senior Secured Note Agreement and (b) each of the other "Notes Documents," as that term is defined in the Senior Secured Note Agreement.

"Senior Secured Note Liens" means the Liens and security interests granted by the Loan Parties to Senior Secured Note Agent to secure the Senior Secured Note Debt under the Senior Secured Note Documents.

"Settlement Date" has the meaning provided in Section 2.14.

"Shrink" means Inventory which has been lost, misplaced, stolen, or is otherwise unaccounted for.

"SOFR" means a rate equal to the secured overnight financing rate as administered by the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

"SOFR Loan" means a Loan bearing interest based on Adjusted Term SOFR, other than pursuant to clause (c) of the definition of "Base Rate."

"Solvent" means, as to any Person, such Person (a) owns property or assets whose fair salable value is greater than the amount required to pay all of its debts (including contingent, subordinated, unmatured and unliquidated liabilities); (b) owns property or assets whose present fair salable value (as defined below) is greater than the probable total liabilities (including contingent, subordinated, unmatured and unliquidated liabilities) of such Person as they become absolute and matured; (c) is able to pay all of its debts as they mature; (d) has capital that is not unreasonably small for its business and is sufficient to carry on its business and transactions and all business and transactions in which it is about to engage; (e) is not "insolvent" within the meaning of Section 101(32) of the Bankruptcy Code; (f) is not an "insolvent person" within the meaning of the BIA and (g) has not incurred (by way of assumption or otherwise) any obligations or liabilities (contingent or otherwise) under any Loan Documents, or made any conveyance in connection therewith, with actual intent to hinder, delay or defraud either present or future creditors of such Person or any of its Affiliates. "Fair salable value" means the amount that could be obtained for assets within a reasonable time, either through collection or through sale under ordinary selling conditions by a capable and diligent seller to an interested buyer who is willing (but under no compulsion) to purchase. For purposes hereof, the amount of all contingent liabilities at any time shall be computed as the amount that, in light of all the facts and circumstances existing at the time, can reasonably be expected to become an actual or matured liability.

"Specified Borrower" means each of Globe Metallurgical, GSM Sales, Norchem, Core Metals, QSIP, and Alden.

"Specified Debt Payment" means any prepayment of Indebtedness made pursuant to

Section 8.11(a)(vii).

"Specified Investment" means any Investment made pursuant to Section 8.03(h).

"Specified Loan Party" means a Loan Party that is not then an "eligible contract participant" under the Commodity Exchange Act (determined prior to giving effect to Section 2.15(c)).

"Specified Pro Forma Transaction" means, with respect to any period, any Acquisition or other Investment, Disposition, or other event or transaction, including any Specified Transaction, that by the terms of the Loan Documents requires "Pro Forma Compliance" with a test or covenant hereunder or requires such test or covenant to be calculated on a "Pro Forma Basis."

"Specified Restricted Payment" means any Restricted Payment made pursuant to Section 8.06(f).

"Specified Transaction" means each Specified Debt Payment, Specified Investment, Specified Restricted Payment and Permitted Acquisition.

"Spot Rate" shall have the meaning set forth in the definition of "Equivalent Amount".

"STA" means the Securities Transfer Act (Nova Scotia), provided that, to the extent that perfection or the effect of perfection or non-perfection or the priority of any Lien created hereunder on Collateral that is investment property is governed by the laws in effect in any province or territory of Canada other than Nova Scotia in which there is in force legislation substantially the same as the Securities Transfer Act (Nova Scotia) then "STA" means such other legislation as in effect from time to time in such other province or territory for purposes of the provisions hereof referring to or incorporating by reference provisions of the STA; and to the extent that such perfection or the effect of perfection or non-perfection or the priority of

any Lien created hereunder on the Collateral is governed by the laws of a jurisdiction other than Nova Scotia or any other province or territory or Canada, then references herein to the STA shall be disregarded. "Standby Letter of Credit Fee" has the meaning specified in Section 2.09(b).

"Subordinated Debt" means Indebtedness (including any earn-out or similar payments under any Acquisition documents) of any Loan Party or Subsidiary thereof which is expressly subordinated in right of payment to Payment in Full and which is in form and on terms satisfactory to, and approved in writing by, the Administrative Agent (including, without limitation, the obligations under the Master Intercompany Note). For avoidance of doubt, the Secured Note Debt shall not constitute Subordinated Debt.

"Subordinated Debt Documents" means any documents evidencing, or otherwise relating to, any Subordinated Debt, including, without limitation, the Master Intercompany Note, and any other subordination agreement entered into with respect to Subordinated Debt.

"Subordination Agreement" means each of (a) the Master Intercompany Note, and (b) any other written subordination agreement with respect to Subordinated Debt by and among Administrative Agent, the holder(s) of such Subordinated Debt, the issuer(s) of such Subordinated Debt and the other parties thereto, which agreement subordinates all of such Subordinated Debt to Payment in Full of all Obligations and is otherwise on subordination terms satisfactory to Administrative Agent, in its discretion. For avoidance of doubt, the Secured Note Intercreditor Agreement shall not constitute a Subordination Agreement.

"Subordination Provisions" means any provision relating to debt or lien subordination applicable to or contained in any documents evidencing any Indebtedness (including Subordinated Debt, including, without limitation, the obligations under any Master Intercompany Note or the Secured Note Intercreditor Agreement).

"Subsidiary" of a Person means a corporation, partnership, joint venture, limited liability company, unlimited liability company, unlimited liability corporation or other business entity (but not a representative office of such Person) of which a majority of the shares of securities or other interests having ordinary voting power for the election of directors or other governing body (other than securities or interests having such power only by reason of the happening of a contingency) are at the time beneficially owned, or the management of which is otherwise controlled, directly, or indirectly through one or more intermediaries, or both, by such Person. Unless otherwise specified, all references herein to a "Subsidiary" or to "Subsidiaries" (x) shall refer to a Subsidiary or Subsidiaries of a Loan Party and (y) shall not include any Joint Venture.

"Supplemental Facility" has the meaning provided in Section 11.01(c).

"Swap Contract" means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and

Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement, together with any related schedules.

"Swap Obligation" means, with respect to any Loan Party, any obligation to perform under any agreement, contract or transaction that constitutes a "swap" within the meaning of Section 1a(47) of the Commodity Exchange Act.

"Swap Termination Value" means, in respect of any one or more Swap Contracts, after taking into account the effect of any legally enforceable netting agreement relating to such Swap Contracts, (a) for any date on or after the date such Swap Contracts have been closed out and termination value(s) determined in accordance therewith, such termination value(s), and (b) for any date prior to the date referenced in clause (a), the amount(s) determined as the mark-to-market value(s) for such Swap Contracts, as determined based upon one or more mid-market or other readily available quotations provided by any recognized dealer in such Swap Contracts (which may include a Lender or any Affiliate of a Lender); provided, however that it is understood and agreed that such amounts provided by the applicable Credit Product Provider with respect to Credit Product Obligations under Swap Contracts may include a commercially reasonable level of "cushion" to account for normal short-term market fluctuations.

"Swing Line" means the revolving credit facility made available by the Swing Line Lender pursuant to Section 2.04.

"Swing Line Borrowing" means a borrowing of a Swing Line Loan pursuant to Section 2.04.

"Swing Line Lender" means BMO in its capacity as provider of Swing Line Loans, or any successor swing line lender hereunder.

"Swing Line Loan" has the meaning specified in Section 2.04(a).

"Swing Line Loan Notice" means a notice, which may be in the form of Exhibit H, of a Swing Line Borrowing pursuant to Section 2.04(b).

"Swing Line Sublimit" means an amount equal to the lesser of (a) $10,000,000, and (b) the Aggregate Revolving Credit Commitments. The Swing Line Sublimit is part of, and not in addition to, the Aggregate Revolving Credit Commitments.

"Synthetic Lease Obligation" means the monetary obligation of a Person under (a) a so-called synthetic, off-balance sheet or tax retention lease, or (b) an agreement for the use or possession of property creating obligations that do not appear on the balance sheet of such Person but which, upon the insolvency or bankruptcy of such Person, would be characterized as the indebtedness of such Person (without regard to accounting treatment).

"Taxes" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"Term SOFR" means, for the applicable tenor, the Term SOFR Reference Rate on the day (such day, the "Term SOFR Determination Day") that is two (2) U.S. Government Securities Business Days prior to (a) in the case of SOFR Loans, the first day of such applicable Interest Period, or (b) with respect to Base Rate, such day of determination of the Base Rate, in each case as such rate is published by the Term SOFR Administrator; provided, however, that if as of 5:00 p.m. (New York City time) on any Term SOFR Determination Day the Term SOFR Reference Rate for the applicable tenor has not been published by the

Term SOFR Administrator and a Benchmark Replacement Date with respect to the Term SOFR Reference Rate has not occurred, then Term SOFR will be the Term SOFR Reference Rate for such tenor as published by the Term SOFR Administrator on the first preceding U.S. Government Securities Business Day for which such Term SOFR Reference Rate for such tenor was published by the Term SOFR Administrator so long as such first preceding U.S. Government Securities Business Day is not more than three (3) U.S. Government Securities Business Days prior to such Term SOFR Determination Day.

"Term SOFR Administrator" means CME Group Benchmark Administration Limited (CBA) (or a successor administrator of the Term SOFR Reference Rate selected by the Administrative Agent in its reasonable discretion).

"Term SOFR Reference Rate" means the forward-looking term rate based on SOFR.

"Total Credit Exposure" means, as to any Lender at any time, the unused outstanding Commitments of such Lender and the Credit Exposure of such Lender at such time.

"Total Revolving Credit Outstandings" means, without duplication, the aggregate Outstanding Amount of all Revolving Credit Loans, Protective Advances, Swing Line Loans and Letter of Credit Obligations.

"Transactions" means, individually or collectively as the context may indicate, the entering by the Borrowers of the Loan Documents to which they are a party and the funding of the Revolving Credit Facility.

"Treasury Management and Other Services" means (a) all arrangements for the delivery of treasury and cash management services, including, without limitation, controlled disbursements, accounts or services and ACH transactions, (b) all commercial credit card, purchase card, p-card, debit cards, credit card processing services and merchant card services; and (c) all other banking products or services, including trade and supply chain finance services and leases and foreign currency exchange, other than Letters of Credit, in each case, to or for the benefit of any Loan Party or an Affiliate of any Loan Party which are entered into or maintained with an entity that is a Lender or an Affiliate of a Lender at the time such agreement or other arrangement in connection with such Treasury Management and Other Services is entered into and which are not prohibited by the express terms of the Loan Documents.

"Trust Accounts" means Deposit Accounts or Securities Accounts containing cash, cash equivalents or Securities (a) held exclusively for employee benefit payments and expenses related to a Loan Party's employees, or (b) required to be collected, remitted or withheld exclusively to pay payroll or taxes (including, without limitation, federal and state withholding taxes, including the employer's share thereof).

"Type" means, with respect to a Loan, its character as a Base Rate Loan, Canadian Base Rate Loan, Canadian Prime Rate Loan, SOFR Loan or a CDOR Rate Loan.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of New York;provided that if, with respect to any financing statement or by reason of any mandatory provisions of law, the perfection or the effect of perfection or non-perfection of the security interests granted to the Administrative Agent pursuant to any applicable Loan Document is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than New York, the term "UCC" shall also include the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of this Agreement, each Loan Document and any financing statement relating to such perfection or effect of perfection or non-perfection.

"UK Financial Institution" means any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended form time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

"UK Resolution Authority" means the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

"Unadjusted Benchmark Replacement" means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.

"United States" and "U.S." mean the United States of America.

"Unreimbursed Amount" has the meaning specified in Section 2.03(c)(i).

"Unused Facility Amount" means the daily amount by which (a) the Aggregate Revolving Credit Commitments exceeds (b) the sum of (i) Outstanding Amount of all Revolving Credit Loans other than Swing Line Loans and (ii) the Outstanding Amount of all Letter of Credit Obligations, subject to adjustment as provided in Section 2.17. For the avoidance of doubt, the Outstanding Amount of Swing Line Loans shall not be considered usage for purposes of determining the Unused Facility Amount.

"Unused Fee" has the meaning specified in Section 2.09(a).

"Unused Fee Rate" has the meaning specified in the definition of "Applicable Margin."

"U.S. Borrower" and "U.S. Borrowers" have the meanings specified in the introductory paragraph hereto.

"U.S. Economic Sanctions" has the meaning specified in Section 6.21.

"U.S. Government Securities Business Day" means any day except for (i) a Saturday, (ii) a Sunday or (iii) a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities.

"U.S. Person" means any Person that is a "United States person" as defined in Section 7701(a)(30) of the Code.

"Value" means, for an Eligible Account, the face amount of such Eligible Account, net of (a) any returns, rebates, discounts (calculated on the shortest terms), credits, allowances or Taxes (including sales, excise or other taxes) that have been or could reasonably be expected to be claimed by the Account Debtor or any other Person and (b) the amount of any premiums, deductibles, co-insurance, fees or similar costs of and amounts payable by any Borrower relating to any acceptable credit insurance obtained with respect to such Account.

"Wage Claim Reserves" means the reserves established by the Administrative Agent from time to time, in its reasonable discretion, to reflect the aggregate amount of liabilities of the Loan Parties that are or, upon nonpayment of or creation of a claim with respect to such liability, would, pursuant to Law, be secured by Liens on the Collateral that are senior to the Administrative Agent's Liens arising from any

state, province, territory or federal statutory provision for wage claims, unpaid taxes or other obligations or liabilities of the Loan Parties.

"Write-Down and Conversion Powers" means, (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the BailIn Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule, and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

1.02 Other Interpretive Provisions. With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document:

(a) The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words "include," "includes" and "including" shall be deemed to be followed by the phrase "without limitation." The word "will" shall be construed to have the same meaning and effect as the word "shall." Unless the context requires otherwise, (i) any definition of or reference to any agreement, instrument or other document (including any Organization Document) shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or in any other Loan Document), (ii) any reference herein to any Person shall be construed to include such Person's successors and assigns, (iii) the words "herein," "hereof" and "hereunder," and words of similar import when used in any Loan Document, shall be construed to refer to such Loan Document in its entirety and not to any particular provision thereof, (iv) the phrase "in its discretion" shall be construed to mean in its sole and absolute discretion, (v) all references in a Loan Document to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, the Loan Document in which such references appear, (vi) any reference to any law shall include all statutory and regulatory provisions consolidating, amending, replacing or interpreting such law and any reference to any law or regulation shall, unless otherwise specified, refer to such law or regulation as amended, modified or supplemented from time to time, (vii) the words "asset" and "property" shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights, and (viii) all covenants in Article VIII shall be given independent effect so that if a particular action or condition is not permitted by any of such covenants, the fact that it would be permitted by an exception to, or be otherwise within the limitations of, another covenant (other than specific cross references permitting actions or conditions under other covenants) shall not avoid the occurrence of an Event of Default or Default if such action is taken or condition exists.

(b) In the computation of periods of time from a specified date to a later specified date, the word 'from" means "from and including;" the words "to" and "until" each mean "to but excluding;" and the word "through" means "to and including."

(c) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

(d) A reference to Loan Parties' "knowledge" or similar concept means actual knowledge of a Responsible Officer, or knowledge that a Responsible Officer would have obtained if he or she had engaged in good faith and diligent performance of his or her duties, including reasonably specific inquiries of employees or agents and a good faith attempt to ascertain the matter. "Actually known", "knowingly" and "knowing" or other similar terms shall have correlative meanings.

1.03 Accounting Terms.

(a) Generally. Unless otherwise indicated, all accounting terms, ratios and measurements shall be interpreted or determined in accordance with IFRS as in effect as of the Closing Date, it being understood and agreed that any such term phrased in a manner customary under GAAP shall be interpreted to refer to the equivalent accounting or financial concept under IFRS and, if there is no such equivalent accounting or financial concept, shall be interpreted in a manner that best approximates the effect that such term would have if it were construed in accordance GAAP as in effect on the Closing Date, except (i) with respect to any reports or financial information required to be delivered pursuant to Section 7.01, which shall be prepared in accordance with IFRS as in effect and applicable to that accounting period in respect of which reference to IFRS is being made and (ii) as otherwise specifically prescribed herein. Notwithstanding the foregoing, for purposes of determining compliance with any covenant (including the computation of any financial covenant) contained herein, Indebtedness of each Borrower and its Subsidiaries shall be deemed to be carried at 100% of the outstanding principal amount thereof, and the effects of FASB ASC 825 and FASB ASC 470-20 on financial liabilities shall be disregarded.

(b) [Reserved]

(c) Consolidation of Variable Interest Entities. Except as expressly provided otherwise herein, all references herein to Consolidated financial statements of the Consolidated Group or to the determination of any amount for the Consolidated Group on a Consolidated basis or any similar reference shall, in each case, be deemed to include each variable interest entity that the Company is required to consolidate pursuant to FASB ASC 810 as if such variable interest entity were a Subsidiary as defined herein.

(d) Calculations. In computing financial ratios and other financial calculations of the Consolidated Group required to be submitted pursuant to this Agreement, all Indebtedness of the Consolidated Group shall be calculated at par value irrespective if the Company has elected the fair value option pursuant to FASB Interpretation No. 159 – The Fair Value Option for Financial Assets and Financial Liabilities—Including an amendment of FASB Statement No. 115 (February 2007).

1.04 Uniform Commercial Code/PPSA Terms. As used herein, the following terms are defined in accordance with the UCC in effect in the State of New York from time to time, or the PPSA, as applicable: "Chattel Paper," "Commodity Account," (or "Futures Account" as defined in the PPSA, as the context requires), "Commodity Contracts," (or "Futures Contracts", as defined in the PPSA, as the context requires) "Deposit Account," "Documents," (or "Document of Title", as defined in the PPSA, as the context requires) "Equipment", "General Intangibles," (or "Intangibles", as defined in the PPSA, as the context requires) "Instrument," "Inventory," "Record," and "Securities Account."

1.05 Rounding. Any financial ratios required to be maintained by the Borrowers pursuant to this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

1.06 Times of Day. Unless otherwise specified, all references herein to times of day shall be references to Central time (daylight or standard, as applicable).

1.07 Québec Interpretation. For purposes of any Collateral located in the Province of Québec or charged by the Canadian Hypothec or any other deed of hypothec and for all other purposes pursuant to which the interpretation or construction of this Agreement may be subject to the laws of the Province of Québec or a court or tribunal exercising jurisdiction in the Province of Québec, (a) "priority" shall be deemed to include "rank" or "prior claim", as applicable, (b) "beneficial ownership" shall be deemed to include "ownership on behalf of another as mandatary", (c) "fee owned" shall be deemed to include "owned", (d) "leasehold interest" and "leasehold rights" shall be deemed to include "rights resulting from a lease", (e) "lease" shall be deemed to include a "contract of leasing (crédit-bail)", (f) "personal property" shall be deemed to include "movable property", (g) "real property" shall be deemed to include "immovable property", (h) "tangible property" shall be deemed to include "corporeal property", (i) "intangible property" shall be deemed to include "incorporeal property", (j) "security interest", "lien" and "mortgage" shall be deemed to include a "hypothec", "prior claim", "reservation of ownership" and a "resolutory clause", as applicable, (k) all references to filing, registering or recording under the UCC or the PPSA shall be deemed to include publication under the Civil Code of Québec, (l) all references to "perfection" of or "perfected" liens shall be deemed to include a reference to the "opposability" of such liens against third parties, (m) any "right of offset", "right of setoff" or similar expression shall be deemed to include a "right of compensation", (n) "goods" shall be deemed to include "corporeal movable property" other than chattel paper, documents of title, instruments, money and securities, (o) an "agent" shall be deemed to include a "mandatary", (p) a "deposit account" shall be deemed to include a "financial account" (within the meaning of Article 2713.6 of the Civil Code of Québec), (q) "joint and several" shall be deemed to include "solidary" and (r) "foreclosure" shall be deemed to include "the exercise of a hypothecary right". The parties hereto confirm that it is their wish that this Agreement and any other document executed in connection with the transactions contemplated herein be drawn up in the English language only and that all other documents contemplated thereunder or relating thereto, including notices, may also be drawn up in the English language only. Les parties aux présentes confirment que c'est leur volonté que la présente convention et les autres documents qui y sont afférents soient rédigés en langue anglaise seulement et que tous les documents, y compris tous avis, envisagés par la présente convention soient également rédigés en la langue anglaise seulement.

1.08 Currency Translation.

(a) Except as specifically provided in paragraph (b) of this Section 1.08, for purposes of determining compliance as of any date with the terms of any Loan Document, amounts incurred or outstanding in Canadian Dollars shall be translated into Dollars at the Equivalent Amount on the date or in respect of which such determination is being made.

(b) The Administrative Agent shall determine the Equivalent Amount in Dollars of any Borrowing, Letter of Credit Advance or Letter of Credit denominated in Canadian Dollars, as well as of each component of the Borrowing Base, as of each date (with such date to be reasonably determined by the Administrative Agent) that is on or about the date of each request for the issuance, amendment, renewal or extension of such Letter of Credit, using the Spot Rate for the applicable currency in relation to Canadian Dollars in effect on the date of determination, and each such amount shall be the Equivalent Amount in Dollars of such Letter of Credit (or such Borrowing Base component, as the case may be) until the next required calculation thereof pursuant to this paragraph (b) (or, in the case of such Borrowing Base component, pursuant to paragraph (c) or (d)) of this Section 1.08.

(c) The Administrative Agent shall determine the Equivalent Amount in Dollars of any Borrowing denominated in Canadian Dollars, as well as of each component of the Borrowing Base, as of each date (with such date to be reasonably determined by the Administrative Agent) that is on or about the date of a Request for Credit Extension, or as of each date of any termination or reduction of Commitments hereunder or the prepayment of Loans hereunder, in each case using the Spot Rate for the applicable

currency in relation to Canadian Dollars in effect on the date of determination, and each such amount shall be the Equivalent Amount in Dollars of such Borrowing (or such Borrowing Base component, as the case may be) until the next required calculation thereof pursuant to this paragraph (c) (or, in the case of such Borrowing Base component, pursuant to paragraph (b) or (d)) of this Section 1.08.

(d) In addition to the requirements set forth in paragraphs (b) and (c) of this Section 1.08, the Administrative Agent shall determine the Equivalent Amount in Dollars of each applicable component of each Borrowing Base as of each date (with such date to be reasonably determined by the Administrative Agent) that is on or about the date of delivery of each Borrowing Base Certificate hereunder, in each case using the Spot Rate for the applicable currency in relation to Canadian Dollars in effect on the date of determination, and each such amount shall be the Equivalent Amount in Dollars of such Borrowing Base component until the next required calculation thereof pursuant to paragraph (b), (c) or (d) of this Section 1.08.

1.09 Excess Resulting From Exchange Rate Change. If at any time following one or more fluctuations in the exchange rate of the Canadian Dollar against the Dollar, (a) the aggregate outstanding principal balance of Credit Extension to the Canadian Borrower exceeds the limit of the Borrowing Base of the Canadian Borrower or any other limitations hereunder based on Dollars or (b) the aggregate outstanding principal balance of Credit Extension to the Canadian Borrower exceeds any other limit based on Dollars set forth herein for such Obligations, the Canadian Borrower shall, within three (3) Business Days of notice from the Administrative Agent, immediately make the necessary payments or repayments to reduce such Obligations to an amount necessary to eliminate such excess.

1.10 Letter of Credit Amounts. Unless otherwise specified herein, the amount of a Letter of Credit at any time shall be deemed to be the stated amount of such Letter of Credit in effect at such time; provided, however, that with respect to any Letter of Credit that, by its terms or the terms of any Issuer Document related thereto, provides for one or more automatic increases in the stated amount thereof, the amount of such Letter of Credit shall be deemed to be the maximum stated amount of such Letter of Credit after giving effect to all such increases, whether or not such maximum stated amount is in effect at such time.

1.11 Interest Rates. The Administrative Agent does not warrant or accept responsibility for, and shall not have any liability with respect to (a) the continuation of, administration of, submission of, calculation of or any other matter related to the Benchmark, any component definition thereof or rates referred to in the definition thereof, or any alternative, successor or replacement rate thereto (including any Benchmark Replacement), including whether the composition or characteristics of any such alternative, successor or replacement rate (including any Benchmark Replacement) will be similar to, or produce the same value or economic equivalence of, or have the same volume or liquidity as, the Benchmark or any other Benchmark prior to its discontinuance or unavailability, or (b) the effect, implementation or composition of any Conforming Changes. The Administrative Agent and its affiliates or other related entities may engage in transactions that affect the calculation of the Benchmark, any alternative, successor or replacement rate (including any Benchmark Replacement) and/or any relevant adjustments thereto, in each case, in a manner adverse to the Borrower. The Administrative Agent may select information sources or services in its reasonable discretion to ascertain the Benchmark or any other Benchmark, in each case pursuant to the terms of this Agreement, and shall have no liability to any Borrower, any Lender or any other person or entity for damages of any kind, including direct or indirect, special, punitive, incidental or consequential damages, costs, losses or expenses (whether in tort, contract or otherwise and whether at law or in equity), for any error or calculation of any such rate (or component thereof) provided by any such information source or service.

2.01 Loan Commitments.

(a) Revolving Credit Commitments. Subject to the terms and conditions set forth herein, each Lender severally agrees to make loans (each such loan, a "Revolving Credit Loan") to the Borrowers from time to time during the Availability Period, in an aggregate amount not to exceed at any time outstanding the lesser of (i) the amount of such Lender's Revolving Credit Commitment, or (ii) such Lender's Applicable Percentage of the Borrowing Base; provided however, that after giving effect to any Revolving Credit Borrowing, (A) the Total Revolving Credit Outstandings shall not exceed the Maximum Borrowing Amount, and (B) the Revolving Credit Exposure of each Lender shall not exceed such Lender's Revolving Credit Commitment. All Revolving Credit Loans made to the U.S. Borrowers shall be made in Dollars by way of Base Rate Loans or SOFR Loans. All Revolving Credit Loans made to the Canadian Borrower shall be made in either (i) Dollars by way of Canadian Base Rate Loans or SOFR Loans or (ii) Canadian Dollars by way of Canadian Prime Rate Loans or CDOR Rate Loans.

Within such limits and subject to the other terms and conditions hereof, the Borrowers may borrow under this Section 2.01(a), prepay under Section 2.06(a), and reborrow under this Section 2.01(a).

(b) [Intentionally Omitted].

(c) Overadvances and Protective Advances.

(i) Overadvances.

(A) If at any time the aggregate principal balance of all Loans exceeds the Borrowing Base (an 'Overadvance"), the excess amount shall be payable by the Borrowers on demand by the Administrative Agent. All Overadvance Loans shall constitute Obligations secured by the Collateral and shall be entitled to all benefits of the Loan Documents.

(B) The Administrative Agent may, in its sole discretion (but shall have absolutely no obligation to), require Lenders to honor requests for Overadvance Loans and to forbear from requiring the applicable Borrower(s) to cure an Overadvance as long as (a) such Overadvance does not continue for more than 30 consecutive days and (b) the aggregate amount of the Overadvances existing at any time, together with the Protective Advances outstanding at any time, do not exceed ten percent (10.0%) of the Commitments then in effect. Overadvance Loans may be required even if the conditions set forth in Section 5.02 have not been satisfied. In no event shall Overadvance Loans be required that would cause the Total Revolving Credit Outstandings to exceed the Aggregate Revolving Credit Commitments. Required Lenders may at any time revoke the Administrative Agent's authority to make further Overadvance Loans to any or all Borrowers by written notice to the Administrative Agent. Any funding of an Overadvance Loan or sufferance of an Overadvance shall not constitute a waiver by the Administrative Agent or Lenders of the Event of Default caused thereby. In no event shall any Borrower or other Loan Party be deemed a beneficiary of this Section 2.01(c) nor authorized to enforce any of its terms.

(ii) Protective Advances.

(A) The Administrative Agent shall be authorized by each Borrower and the Lenders from time to time in the Administrative Agent's sole discretion (but shall have absolutely no obligation to), to make Base Rate Loans, Canadian Base Rate Loans and Canadian Prime Rate Loans, as applicable, to the Borrowers on behalf of the Lenders (any of such Loans are herein referred to as "Protective Advances") which the Administrative Agent deems necessary or desirable to (a) preserve or protect Collateral or any portion thereof or (b) to enhance the likelihood of, or maximize the amount of, repayment of the Loans and other Credit Exposure; provided that no Protective Advance shall cause the aggregate amount of the Total Revolving Credit Outstandings at such time to exceed the Aggregate Revolving Credit Commitments then in effect. All Protective Advances made by the Administrative Agent constitute Obligations, secured by the Collateral and shall be treated for all purposes as Base Rate Loans, Canadian Base Rate Loans, and Canadian Prime Rate Loans, as applicable.

(B) The aggregate amount of Protective Advances outstanding at any time shall not exceed ten percent (10.0% percent) of the Aggregate Revolving Credit Commitments then in effect, and such Protective Advances, together with the aggregate amount of Overadvances existing at any time, shall not exceed ten percent (10.0%) of the Aggregate Revolving Credit Commitments then in effect. Protective Advances may be made even if the conditions set forth in Section 5.02 have not been satisfied. Each Lender shall participate in each Protective Advance on a ratable basis. Required Lenders may at any time revoke the Administrative Agent's authority to make further Protective Advances to any or all Borrowers by written notice to the Administrative Agent. Absent such revocation, the Administrative Agent's determination that funding of a Protective Advance is appropriate shall be conclusive. At any time that there is sufficient Availability and the conditions precedent set forth in Section 5.02 have been satisfied, the Administrative Agent may request the Lenders to make a Loan to repay a Protective Advance. At any other time, the Administrative Agent may require the Lenders to fund their risk participations described in Section 2.01(c)(ii)(C).

(C) Upon the making of a Protective Advance by the Administrative Agent (whether before or after the occurrence of a Default or Event of Default), each Lender shall be deemed, without further action by any party hereto, to have unconditionally and irrevocably purchased from the Administrative Agent without recourse or warranty, an undivided interest and participation in such Protective Advance equal to the proportion of the Total Credit Exposure of such Lender to the Total Credit Exposure of all Lenders (its "Ratable Share") of such Protective Advance. Each Lender shall transfer (a "Transfer") the amount of such Lender's purchased interest and participation promptly when requested to the Administrative Agent, to such account of the Administrative Agent as the Administrative Agent may designate, but in any case not later than 3:00 P.M. on the Business Day notified (if notice is provided by the Administrative Agent prior to 12:00 P.M. and otherwise on the immediately following Business Day (the "Transfer Date")). Transfers may occur during the existence of a Default or Event of Default and whether or not the applicable conditions precedent set forth in Section 5.02 have then been satisfied. Such amounts transferred to the Administrative Agent shall be applied against the amount of the applicable Protective Advance and shall constitute Loans of such Lenders, respectively. If any such amount is not transferred to the Administrative Agent by any Lender on such Transfer Date, the Administrative Agent shall be entitled to recover such amount on demand from such Lender together with interest thereon for each day from the date such payment was due until the date such amount is paid to the Administrative Agent, at the Overnight Rate or the Canadian overnight rate set by the Bank of Canada, as

applicable for three (3) Business Days and thereafter at the Base Rate, Canadian Base Rate or Canadian Prime Rate as applicable. From and after the date, if any, on which any Lender is required to fund, and funds, its interest and participation in any Protective Advance purchased hereunder, the Administrative Agent shall promptly distribute to such Lender, such Lender's Ratable Share of all payments of principal and interest and all proceeds of Collateral received by the Administrative Agent in respect of such Protective Advance.

(d) Determination of the Borrowing Base.

(i) The amount of the Borrowing Base shall initially be established in each Borrowing Base Certificate delivered to the Administrative Agent by the Borrower Agent pursuant to Section 7.02(a). The Administrative Agent shall have the right, at any time and from time to time on and after the Closing Date in good faith and in the exercise of its Credit Judgment to establish, modify or eliminate Reserves. The Borrowing Base shall also be subject to adjustment by the Administrative Agent in its Credit Judgment (A) to reflect any determination that the amount of the Borrowing Base set forth in a Borrowing Base Certificate differs materially from the actual Borrowing Base determined by the Administrative Agent; (B) to reflect Administrative Agent's reasonable estimate of declines in value of the Collateral due to collections received in the Concentration Account or otherwise; (C) to reflect changes in advance rates as a result of changes in dilution, quality, mix and other factors affecting the Collateral, (D) to the extent any information or calculation does not comply with this Agreement and (E) to reflect other adjustments in accordance with the terms of this Agreement.

(ii) In connection with any adjustment to the Borrowing Base, the Administrative Agent shall (A) promptly notify the Borrower Agent in writing (including via e-mail) whenever the Administrative Agent determines that the amount of the Borrowing Base set forth in a Borrowing Base Certificate differs materially from the actual Borrowing Base determined by the Administrative Agent and (B) discuss with Borrower Agent (1) the basis for any such difference and (2) any changes made or proposed to be made to the amount of the Borrowing Base, including the reasons for any imposition of or changes in Reserves or any change in advance rates or eligibility criteria with respect to Borrowing Base Assets. The determination of the Borrowing Base by the Administrative Agent shall be presumptively correct and shall constitute the Borrowing Base for all purposes hereunder.

2.02 Borrowings, Conversions and Continuations of Loans.

(a) Each Borrowing, each conversion of Loans from one Type to the other, and each continuation of SOFR Loans or CDOR Rate Loans shall be made upon the Borrower Agent's irrevocable notice to the Administrative Agent, which may be given by telephone. Each such notice must be received by the Administrative Agent not later than 11:00 A.M. (i) three (3) Business Days prior to the requested date of any Borrowing of, conversion to or continuation of SOFR Loans or CDOR Rate Loans or of any conversion of SOFR Loans to Base Rate Loans or Canadian Base Rate Loans or of any conversion of CDOR Rate Loans to Canadian Prime Rate Loans, and (ii) on the requested date of any Borrowing of Base Rate Loans or Canadian Base Rate Loans or Canadian Prime Rate Loans. Each telephonic notice by the Borrowers pursuant to this Section 2.02(a) must be promptly confirmed in writing by a Responsible Officer of the Borrower Agent. Each Borrowing of, conversion to or continuation of (i) SOFR Loans shall be in a principal amount of $500,000 or a whole multiple of $100,000 in excess thereof, or (ii) CDOR Rate Loans shall be in a principal amount of C$500,000 or a whole multiple of C$100,000 thereof. Except as provided in Sections 2.02(f), 2.03(c) and 2.04(c), each Borrowing of or conversion to Base Rate Loans shall be in a principal amount of $500,000 or a whole multiple of $100,000 in excess thereof. During a Dominion Trigger Period, there shall be no minimum borrowing amounts for Base Rate Loans. Each such notice

(whether telephonic or written) shall specify (i) in the case of a Canadian Borrower requesting a Revolving Credit Borrowing, whether such borrowing will be in Dollars or Canadian Dollars, provided that the aggregate amount of borrowings in Canadian Dollars at any time outstanding shall not exceed the amount of the Canadian Borrowing Sublimit, (ii) the principal amount of Loans to be borrowed, converted or continued, (iii) the Type of Loans to be borrowed or to which existing Loans are to be converted, (iv) the requested date of the Borrowing, conversion or continuation, as the case may be (which shall be a Business Day) and (v) if applicable, the duration of the Interest Period with respect thereto. If the Borrowers fail to specify a Type of Loan or if the Borrowers fail to give a timely notice requesting a conversion or continuation, then the applicable Loans shall be made as, or converted to, in the case of Loans denominated in Dollars, Base Rate Loans or Canadian Base Rate Loans, as applicable, or, in the case of Loans denominated in Canadian Dollars, Canadian Prime Rate Loans. Any such automatic conversion to Base Rate Loans, Canadian Base Rate Loans or Canadian Prime Rate Loans shall be effective as of the last day of the Interest Period then in effect with respect to the applicable SOFR Loans or CDOR Rate Loans. If the Borrowers request a Borrowing of, conversion to, or continuation of SOFR Loans or CDOR Rate Loans in any such Committed Loan Notice, but fail to specify an Interest Period, they will be deemed to have specified an Interest Period of one month).

(b) Following receipt of a Committed Loan Notice for a Revolving Borrowing, the Administrative Agent shall promptly notify each Appropriate Lender of the amount of its Applicable Percentage under such Facility of the applicable Loans and if no timely notice of a conversion or continuation is provided by the Borrowers, the Administrative Agent shall notify each Appropriate Lender of the details of any automatic conversion to Base Rate Loans, Canadian Base Rate Loans or Canadian Prime Rate Loans, as applicable, described in the preceding subsection. Each Appropriate Lender shall make the amount of its Loan available to the Administrative Agent in immediately available funds at the Administrative Agent's Office not later than 1:00 P.M. on the Business Day specified in the applicable Committed Loan Notice. Upon satisfaction of the applicable conditions set forth in Section 5.02 (and, if such Borrowing is the initial Credit Extension,Section 5.01), the Administrative Agent shall make all funds so received available to the Borrowers in like funds as received by the Administrative Agent either by (i) crediting the account of the Borrowers on the books of BMO with the amount of such funds or (ii) wire transfer of such funds, in each case in accordance with instructions provided to (and reasonably acceptable to) the Administrative Agent by the Borrower; provided, however, that if, on the date a Committed Loan Notice with respect to a Revolving Credit Borrowing is given by the Borrower, there are Letter of Credit Borrowings outstanding, then the proceeds of such Revolving Credit Borrowing, first, shall be applied to the payment in full of any such Letter of Credit Borrowings, andsecond, shall be made available to the Borrowers as provided above.

(c) Except as otherwise provided herein, a SOFR Loan or a CDOR Rate Loan may be continued or converted only on the last day of an Interest Period for such SOFR Loan or CDOR Rate Loan. During the existence of a Default, no Loans may be requested as, converted to or continued as SOFR Loans or CDOR Rate Loans without the consent of the Required Lenders

(d) The Administrative Agent shall promptly notify the Borrower Agent and the Lenders of the interest rate applicable to any Interest Period for SOFR Loans or CDOR Rate Loans upon determination of such interest rate. At any time that Base Rate Loans, Canadian Base Rate Loans or Canadian Prime Rate Loans are outstanding, the Administrative Agent shall notify the Borrower Agent and the Lenders of any change in BMO's prime rate used in determining the Base Rate, Canadian Base Rate or Canadian Prime Rate, as applicable, promptly following the public announcement of such change.

(e) After giving effect to all conversions of Loans from one Type to the other, and all continuations of Loans as the same Type, there shall not be more than five (5) Interest Periods in effect in respect of the Revolving Credit Facility.

(f) Borrowers and each Lender hereby irrevocably authorize the Administrative Agent, in the Administrative Agent's sole discretion, to advance to Borrowers, and/or to pay directly and charge to Borrowers' Loan Account hereunder, all sums necessary to pay (i) any interest accrued on the Obligations when due and to pay all fees, costs and expenses and other Obligations at any time owed by any Loan Party to the Administrative Agent or any Lender hereunder and (ii) any service charge or expenses due pursuant to Section 11.04 when due. The Administrative Agent shall advise the Borrower Agent of any such advance or charge promptly after the making thereof. Such action on the part of the Administrative Agent shall not constitute a waiver of the Administrative Agent's rights and the Borrowers' obligations under this Agreement. Any amount which is added to the principal balance of the Loan Account as provided in this Section 2.02(f) shall constitute Revolving Credit Loans (notwithstanding the failure of the Borrowers to satisfy any of the conditions to Credit Extensions in Section 5.02) and Obligations hereunder and shall bear interest at the interest rate then and thereafter applicable to Base Rate Loans or Canadian Base Rate Loans, if denominated in Dollars and Canadian Prime Rate Loans, if denominated in Canadian Dollars.

2.03 Letters of Credit.

(a) The Letter of Credit Commitment.

(i) Subject to the terms and conditions set forth herein, (A) the Letter of Credit Issuer agrees, in reliance upon the agreements of the Revolving Credit Lenders set forth in this Section 2.03, (1) from time to time on any Business Day during the period from the Closing Date until the earlier to occur of the Letter of Credit Expiration Date or the termination of the Availability Period, to issue Letters of Credit denominated in Dollars, or, in the case of any Letters of Credit issued for the Canadian Borrower, Dollars or Canadian Dollars, at the request of the Borrower Agent for the account of a Borrower and to amend Letters of Credit previously issued by it, in accordance with subsection (b) below, and (2) to honor drafts under the Letters of Credit; and (B) the Revolving Credit Lenders severally agree to participate in Letters of Credit issued for the account of a Borrower and any drawings thereunder; provided that the Letter of Credit Issuer shall not make any Letter of Credit Extension with respect to any Letter of Credit, and no Revolving Credit Lender shall be obligated to participate in any Letter of Credit, if as of the date of such Letter of Credit Extension, (A) the Total Revolving Credit Outstandings would exceed the Maximum Borrowing Amount, (B) the Revolving Credit Exposure of any Revolving Credit Lender would exceed such Revolving Credit Lender's Revolving Credit Commitment, or (C) the Outstanding Amount of all Letter of Credit Obligations would exceed the Letter of Credit Sublimit. Each request by the Borrower Agent for the issuance or amendment of a Letter of Credit shall be deemed to be a representation by the Borrower Agent that the Letter of Credit Extension so requested complies with the conditions set forth in the proviso to the preceding sentence. Within the foregoing limits, and subject to the terms and conditions hereof, the Borrowers' ability to obtain Letters of Credit shall be fully revolving, and accordingly the Borrowers may, during the foregoing period, obtain Letters of Credit to replace Letters of Credit that have expired or that have been drawn upon and reimbursed.

(ii) The Letter of Credit Issuer shall not issue any Letter of Credit, if:

(A) subject to Section 2.03(b)(iii), the expiry date of such requested Letter of Credit would occur (i) as to standby Letters of Credit, more than twelve months after the date of issuance or last renewal, and (ii) as to documentary/commercial Letters of Credit, later than 270 days after the date of issuance thereof, unless in each case the Administrative Agent has approved such expiry date in its discretion;

(B) the expiry date of such requested Letter of Credit would occur after the Letter of Credit Expiration Date, unless Cash Collateralized on and after the Letter of Credit Expiration Date or the Administrative Agent has approved such expiry date in its discretion;

(iii) The Letter of Credit Issuer shall not be under any obligation to issue any Letter of Credit if:

(A) any order, judgment or decree of any Governmental Authority or arbitrator shall by its terms purport to enjoin or restrain the Letter of Credit Issuer from issuing such Letter of Credit or any Law applicable to the Letter of Credit Issuer or any request or directive (whether or not having the force of law) from any Governmental Authority with jurisdiction over the Letter of Credit Issuer shall prohibit, or request that the Letter of Credit Issuer refrain from, the issuance of letters of credit generally or such Letter of Credit in particular or shall impose upon the Letter of Credit Issuer with respect to such Letter of Credit any restriction, reserve or capital requirement (for which the Letter of Credit Issuer is not otherwise compensated hereunder) not in effect on the Closing Date, or shall impose upon the Letter of Credit Issuer any unreimbursed loss, cost or expense which was not applicable on the Closing Date and which the Letter of Credit Issuer in good faith deems material to it;

(B) the issuance of such Letter of Credit would violate one or more policies of the Letter of Credit Issuer and the Letter of Credit Issuer has provided the Borrower Agent evidence reasonably satisfactory to the Borrower Agent demonstrating such violation(s);

(C) such Letter of Credit is in an initial amount less than $10,000.

(iv) The Letter of Credit Issuer shall not amend any Letter of Credit if the Letter of Credit Issuer would not be permitted at such time to issue such Letter of Credit in its amended form under the terms hereof.

(v) The Letter of Credit Issuer shall be under no obligation to amend any Letter of Credit if (A) the Letter of Credit Issuer would have no obligation at such time to issue such Letter of Credit in its amended form under the terms hereof, or (B) the beneficiary of such Letter of Credit does not accept the proposed amendment to such Letter of Credit.

(vi) The Letter of Credit Issuer shall act on behalf of the Revolving Credit Lenders with respect to any Letters of Credit issued by it and the documents associated therewith, and the Letter of Credit Issuer shall have all of the benefits and immunities (A) provided to the Administrative Agent in Article X with respect to any acts taken or omissions suffered by the Letter of Credit Issuer in connection with Letters of Credit issued by it or proposed to be issued by it and Issuer Documents pertaining to such Letters of Credit as fully as if the term "Administrative Agent" as used in Article X included the Letter of Credit Issuer with respect to such acts or omissions, and (B) as additionally provided herein with respect to the Letter of Credit Issuer.

(b) Procedures for Issuance and Amendment of Letters of Credit; Auto-Extension Letters of Credit

(i) Each Letter of Credit shall be issued or amended, as the case may be, upon the request of the Borrower Agent delivered to the Letter of Credit Issuer (with a copy to the Administrative Agent) in the form of a Letter of Credit Application, appropriately completed and

signed by a Responsible Officer of the Borrower Agent and, if applicable, of the applicable Borrower. Such Letter of Credit Application must be received by the Letter of Credit Issuer and the Administrative Agent not later than 11:00 A.M. at least two (2) Business Days (or such later date and time as the Administrative Agent and the Letter of Credit Issuer may agree in a particular instance in its sole discretion) prior to the proposed issuance date or date of amendment, as the case may be. In the case of a request for an initial issuance of a Letter of Credit, such Letter of Credit Application shall specify in form and detail satisfactory to the Letter of Credit Issuer: (A) the proposed issuance date of the requested Letter of Credit (which shall be a Business Day); (B) the amount thereof; (C) the expiry date thereof; (D) the name and address of the beneficiary thereof; (E) the documents to be presented by such beneficiary in case of any drawing or presentation thereunder; (F) the full text of any certificate to be presented by such beneficiary in case of any drawing or presentation thereunder; and (G) such other matters as the Letter of Credit Issuer may reasonably require. In the case of a request for an amendment of any outstanding Letter of Credit, such Letter of Credit Application shall specify in form and detail satisfactory to the Letter of Credit Issuer (A) the Letter of Credit to be amended; (B) the proposed date of amendment thereof (which shall be a Business Day); (C) the nature of the proposed amendment; and (D) such other matters as the Letter of Credit Issuer may reasonably require. Additionally, the Borrower Agent shall furnish to the Letter of Credit Issuer and the Administrative Agent such other documents and information pertaining to such requested Letter of Credit issuance or amendment, including any Issuer Documents, as the Letter of Credit Issuer or the Administrative Agent may reasonably require.

(ii) Promptly after receipt of any Letter of Credit Application, the Letter of Credit Issuer will confirm with the Administrative Agent (by telephone or in writing) that the Administrative Agent has received a copy of such Letter of Credit Application from the applicable Borrower and, if not, the Letter of Credit Issuer will provide the Administrative Agent with a copy thereof. Unless the Letter of Credit Issuer has received written notice from any Revolving Credit Lender, the Administrative Agent or any Borrower, at least one (1) Business Day prior to the requested date of issuance or amendment of the applicable Letter of Credit, that one or more applicable conditions contained in Article V shall not then be satisfied, then, subject to the terms and conditions hereof, the Letter of Credit Issuer shall, on the requested date, issue a Letter of Credit for the account of the applicable Borrower or enter into the applicable amendment, as the case may be, in each case in accordance with the Letter of Credit Issuer's usual and customary business practices. Immediately upon the issuance of each Letter of Credit, each Revolving Credit Lender shall be deemed to, and hereby irrevocably and unconditionally agrees to, purchase from the Letter of Credit Issuer a risk participation in such Letter of Credit in an amount equal to the product of such Revolving Credit Lender's Applicable Percentage times the amount of such Letter of Credit.

(iii) If the Borrower Agent so requests in any applicable Letter of Credit Application, the Letter of Credit Issuer may, in its discretion, agree to issue a Letter of Credit other than a commercial Letter of Credit that has automatic extension provisions (each, an "Auto-Extension Letter of Credit"); provided that any such Auto-Extension Letter of Credit must permit the Letter of Credit Issuer to prevent any such extension at least once in each twelve-month period (commencing with the date of issuance of such Letter of Credit) by giving prior notice to the beneficiary thereof not later than a day (the "Non-Extension Notice Date") in each such twelvemonth period to be agreed upon at the time such Letter of Credit is issued. Unless otherwise directed by the Letter of Credit Issuer, the Borrower Agent shall not be required to make a specific request to the Letter of Credit Issuer for any such extension. Once an Auto-Extension Letter of Credit has been issued, the Revolving Credit Lenders shall be deemed to have authorized (but may not require) the Letter of Credit Issuer to permit the extension of such Letter of Credit at any time to an expiry date not later than the Letter of Credit Expiration Date; provided, however, that the

Letter of Credit Issuer shall not permit any such extension if (A) the Letter of Credit Issuer has determined that it would not be permitted, or would have no obligation, at such time to issue such Letter of Credit in its revised form (as extended) under the terms hereof (by reason of the provisions clause (ii) or (iii) of Section 2.03(a) or otherwise), or (B) it has received notice (which may be by telephone or in writing) on or before the day that is five (5) Business Days before the NonExtension Notice Date (1) from the Administrative Agent that the Required Lenders have elected not to permit such extension or (2) from the Administrative Agent, any Revolving Credit Lender or the Borrower Agent that one or more of the applicable conditions specified in Section 5.02 is not then satisfied, and in each such case directing the Letter of Credit Issuer not to permit such extension.

(iv) Promptly after its delivery of any Letter of Credit or any amendment to a Letter of Credit to an advising bank with respect thereto or to the beneficiary thereof, the Letter of Credit Issuer will also deliver to the Borrower Agent and the Administrative Agent a true and complete copy of such Letter of Credit or amendment.

(c) Drawings and Reimbursements; Funding of Participations.

(i) Upon receipt from the beneficiary of any Letter of Credit of any notice of a drawing or presentation of documents under such Letter of Credit, the Letter of Credit Issuer shall notify the Borrower Agent and the Administrative Agent thereof. Not later than 1:00 P.M. on the date of any payment by the Letter of Credit Issuer under a Letter of Credit (each such date, an "Honor Date"), the Borrowers shall reimburse the Letter of Credit Issuer through the Administrative Agent in Dollars or Canadian Dollars, as applicable, and in an amount equal to the amount of such drawing. If the Borrowers fail to reimburse the Letter of Credit Issuer by such time, the Administrative Agent shall promptly notify each Revolving Credit Lender of the Honor Date, the amount of the unreimbursed drawing or payment (the "Unreimbursed Amount"), and the amount of such Revolving Credit Lender's Applicable Percentage thereof. In such event, the Borrower Agent shall be deemed to have requested a Revolving Credit Borrowing of Base Rate Loans or Canadian Base Rate Loans if such drawing was denominated in Dollars or Canadian Prime Rate Loans if such drawing was denominated in Canadian Dollars, in each case, to be disbursed on the Honor Date in an amount equal to the Unreimbursed Amount, without regard to the minimum and multiples specified in Section 2.03 for the principal amount of Base Rate Loans or Canadian Base Rate Loans or Canadian Prime Rate Loans, as applicable, but subject to the amount of the unutilized portion of the Aggregate Revolving Credit Commitments and the conditions set forth in Section 5.02 (other than the delivery of a Committed Loan Notice). Any notice given by the Letter of Credit Issuer or the Administrative Agent pursuant to this Section 2.03(c)(i) may be given by telephone if immediately confirmed in writing;provided that the lack of such an immediate confirmation shall not affect the conclusiveness or binding effect of such notice.

(ii) Each Revolving Credit Lender shall upon any notice pursuant to Section 2.03(c)(i) make funds available (and the Administrative Agent may apply Cash Collateral provided for this purpose) to the Administrative Agent for the account of the Letter of Credit Issuer, in Dollars or Canadian Dollars, at the Administrative Agent's Office for payments in an amount equal to its Applicable Percentage of the Unreimbursed Amount not later than 3:00 P.M. on the Business Day specified in such notice by the Administrative Agent, whereupon, subject to the provisions of Section 2.03(c)(iii), each Revolving Credit Lender that so makes funds available shall be deemed to have made a Base Rate Loan or Canadian Base Rate Loan or Canadian Prime Rate Loan to the Borrower Agent in such amount. The Administrative Agent shall remit the funds so received to the Letter of Credit Issuer in Dollars or Canadian Dollars, as applicable.

(iii) With respect to any Unreimbursed Amount that is not fully refinanced by a Revolving Credit Borrowing of Base Rate Loans, Canadian Base Rate Loans and Canadian Prime Rate Loans because the conditions set forth in Section 5.02 cannot be satisfied or for any other reason, the Borrowers shall be deemed to have incurred from the Letter of Credit Issuer a Letter of Credit Borrowing in the amount of the Unreimbursed Amount that is not so refinanced, which Letter of Credit Borrowing shall be due and payable on demand (together with interest) and shall bear interest at the Default Rate. In such event, each Revolving Credit Lender's payment to the Administrative Agent for the account of the Letter of Credit Issuer pursuant to Section 2.03(c)(ii) shall be deemed payment in respect of its participation in such Letter of Credit Borrowing and shall constitute a Letter of Credit Advance from such Revolving Credit Lender in satisfaction of its participation obligation under this Section 2.03.

(iv) Until each Revolving Credit Lender funds its Revolving Credit Loan or Letter of Credit Advance pursuant to thisSection 2.03(c) to reimburse the Letter of Credit Issuer for any amount drawn under any Letter of Credit, interest in respect of such Revolving Credit Lender's Applicable Percentage of such amount shall be solely for the account of the Letter of Credit Issuer.

(v) Each Revolving Credit Lender's obligation to make Revolving Credit Loans or Letter of Credit Advances to reimburse the Letter of Credit Issuer for amounts drawn under Letters of Credit, as contemplated by this Section 2.03(c), shall be absolute and unconditional and shall not be affected by any circumstance, including (A) any set-off, counterclaim, recoupment, defense or other right which such Revolving Credit Lender may have against the Letter of Credit Issuer, any Loan Party or any other Person for any reason whatsoever; (B) the occurrence or continuance of a Default, or (C) any other occurrence, event or condition, whether or not similar to any of the foregoing. No such making of a Letter of Credit Advance shall relieve or otherwise impair the obligation of the Borrowers to reimburse the Letter of Credit Issuer for the amount of any payment made by the Letter of Credit Issuer under any Letter of Credit, together with interest as provided herein.

(vi) If any Revolving Credit Lender fails to make available to the Administrative Agent for the account of the Letter of Credit Issuer any amount required to be paid by such Revolving Credit Lender pursuant to the foregoing provisions of this Section 2.03(c) by the time specified in Section 2.03(c)(ii), then, without limiting the other provisions of this Agreement, the Letter of Credit Issuer shall be entitled to recover from such Revolving Credit Lender (acting through the Administrative Agent), on demand, such amount with interest thereon for the period from the date such payment is required to the date on which such payment is immediately available to the Letter of Credit Issuer at a rate per annum equal to the applicable Overnight Rate for three (3) Business Days and thereafter at the Base Rate, Canadian Base Rate or Canadian Prime Rate, as applicable, plus any administrative, processing or similar fees customarily charged by the Letter of Credit Issuer in connection with the foregoing. A certificate of the Letter of Credit Issuer submitted to any Revolving Credit Lender (through the Administrative Agent) with respect to any amounts owing under this clause (vi) shall be conclusive absent manifest error.

(d) Repayment of Participations. At any time after the Letter of Credit Issuer has made a payment under any Letter of Credit and has received from any Revolving Credit Lender such Revolving Credit Lender's Letter of Credit Advance in respect of such payment in accordance with Section 2.03(c), if the Administrative Agent receives for the account of the Letter of Credit Issuer any payment in respect of the related Unreimbursed Amount or interest thereon (whether directly from the Borrowers or otherwise, including proceeds of Cash Collateral applied thereto by the Administrative Agent), the Administrative Agent will distribute to such Revolving Credit Lender its Applicable Percentage thereof in Dollars or Canadian Dollars, as applicable, (appropriately adjusted, in the case of interest payments, to reflect the

period of time during which such Revolving Credit Lender's Letter of Credit Advance was outstanding) and in the same funds as those received by the Administrative Agent.

(e) Obligations Absolute. The obligation of the Borrowers to reimburse the Letter of Credit Issuer for each drawing under each Letter of Credit, and to repay each Letter of Credit Borrowing shall be joint and several and absolute, unconditional and irrevocable, and shall be paid strictly in accordance with the terms of this Agreement under all circumstances, including the following:

(i) any lack of validity or enforceability of such Letter of Credit, this Agreement, or any other agreement or instrument relating thereto;

(ii) the existence of any claim, counterclaim, set-off, defense or other right that any Loan Party or any Subsidiary thereof may have at any time against any beneficiary or any transferee of such Letter of Credit (or any Person for whom any such beneficiary or any such transferee may be acting), the Letter of Credit Issuer or any other Person, whether in connection with this Agreement, the transactions contemplated hereby or by such Letter of Credit or any agreement or instrument relating thereto, or any unrelated transaction;

(iii) any draft, demand, certificate or other document or endorsement presented under or in connection with such Letter of Credit proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any respect; or any loss or delay in the transmission or otherwise of any document required in order to make a drawing under such Letter of Credit;

(iv) any payment by the Letter of Credit Issuer under such Letter of Credit against presentation of a draft or certificate that does not strictly comply with the terms of such Letter of Credit, or any payment made by the Letter of Credit Issuer under such Letter of Credit to any Person purporting to be a trustee in bankruptcy, debtor-in-possession, assignee for the benefit of creditors, liquidator, receiver, interim receiver, receiver and manager, monitor or other representative of or successor to any beneficiary or any transferee of such Letter of Credit, including any arising in connection with any proceeding under any Debtor Relief Law; or

(v) any other circumstance or happening whatsoever, whether or not similar to any of the foregoing, including any other circumstance that might otherwise constitute a defense available to, or a discharge of, any Loan Party or any Subsidiary thereof.

(f) Role of Letter of Credit Issuer. Each Revolving Credit Lender and the Borrowers agree that, in paying any drawing under a Letter of Credit, the Letter of Credit Issuer shall not have any responsibility to obtain any document (other than any sight draft, certificates and documents expressly required by the Letter of Credit) or to ascertain or inquire as to the validity or accuracy of any such document or the authority of the Person executing or delivering any such document. None of the Letter of Credit Issuer, the Administrative Agent, any of their respective Related Parties nor any correspondent, participant or assignee of the Letter of Credit Issuer shall be liable to any Lender for (i) any action taken or omitted in connection herewith at the request or with the approval of the Revolving Credit Lenders or the Required Lenders, as applicable; (ii) any action taken or omitted in the absence of gross negligence or willful misconduct; or (iii) the due execution, effectiveness, validity or enforceability of any document or instrument related to any Letter of Credit or Issuer Document. Each Borrower hereby assumes all risks of the acts or omissions of any beneficiary or transferee with respect to its use of any Letter of Credit. The Letter of Credit Issuer may accept documents that appear on their face to be in order, without responsibility for further investigation, and the Letter of Credit Issuer shall not be responsible for the validity or sufficiency of any instrument endorsing, transferring or assigning or purporting to endorse, transfer or

assign a Letter of Credit or the rights or benefits thereunder or proceeds thereof, in whole or in part, which may prove to be invalid or ineffective for any reason.

(g) Applicability of ISP and UCP. Unless otherwise expressly agreed by the Letter of Credit Issuer and the Borrower Agent, when a Letter of Credit is issued, (i) the rules of the ISP shall apply to each standby Letter of Credit, and (ii) the rules of the Uniform Customs and Practice for Documentary Credits, as most recently published by the International Chamber of Commerce at the time of issuance shall apply to each commercial Letter of Credit.

(h) Fronting/Other Fees and Charges Payable to Letter of Credit Issuer. The Borrowers shall pay directly to the Letter of Credit Issuer for its own account a fronting fee with respect to each Letter of Credit, at a rate equal to 0.125%, computed on the amount of such Letter of Credit (a "Fronting Fee"), and payable upon the issuance or renewal (automatic or otherwise) thereof or upon any amendment increasing the amount thereof. In addition, the Borrowers shall pay directly to the Letter of Credit Issuer for its own account, in Dollars, the customary issuance, presentation, amendment and other processing fees, and other standard costs and charges, of the Letter of Credit Issuer relating to letters of credit issued by it as from time to time in effect. Such customary fees and standard costs and charges are due and payable on demand and are nonrefundable.

(i) Conflict with Issuer Documents. In the event of any conflict between the terms hereof and the terms of any Issuer Document, the terms hereof shall control.

2.04 Swing Line Loans.

(a) The Swing Line. Subject to the terms and conditions set forth herein, the Swing Line Lender may, but shall not be obligated to, make loans in reliance upon the agreements of the other Lenders set forth in this Section 2.04 in Dollars (each such loan, a "Swing Line Loan") to the Borrowers from time to time on any Business Day during the Availability Period in an aggregate amount not to exceed at any time outstanding the amount of the Swing Line Sublimit, notwithstanding the fact that such Swing Line Loans, when aggregated with the Applicable Percentage of the Outstanding Amount of Revolving Credit Loans and Letter of Credit Obligations of the Revolving Credit Lender acting as Swing Line Lender, may exceed the amount of such Revolving Credit Lender's Revolving Credit Commitment; provided, however, that after giving effect to any Swing Line Loan, (i) the Total Revolving Credit Outstandings shall not exceed the Maximum Borrowing Amount, and (ii) the Revolving Credit Exposure of any Revolving Credit Lender shall not exceed such Revolving Credit Lender's Revolving Credit Commitment, and provided, further, that the Borrowers shall not use the proceeds of any Swing Line Loan to refinance any outstanding Swing Line Loan. Within the foregoing limits and subject to the discretion of the Swing Line Lender to make Swing Line Loans, and subject to the other terms and conditions hereof, the Borrowers may borrow under this Section 2.04, prepay under Section 2.06(a)(ii), and reborrow under this Section 2.04. Each Swing Line Loan shall be (i) in the case of Swing Line Loans denominated in Dollars, a Base Rate Loan and (ii) in the case of Swing Line Loans denominated in Canadian Dollars, a Canadian Prime Rate Loan. Immediately upon the making of a Swing Line Loan, each Revolving Credit Lender shall be deemed to, and hereby irrevocably and unconditionally agrees to, purchase from the Swing Line Lender a risk participation in such Swing Line Loan in an amount equal to the product of such Revolving Credit Lender's Applicable Percentage times the amount of such Swing Line Loan.

(b) Borrowing Procedures. Each Swing Line Borrowing shall be made upon the Borrower Agent's irrevocable notice to the Swing Line Lender and the Administrative Agent, which may be given by telephone. Each such notice must be received by the Swing Line Lender and the Administrative Agent not later than 12:00 P.M. on the requested borrowing date, and shall specify (i) the amount to be borrowed, which shall be (A) in the case of Swing Line Loans denominated in Dollars, a minimum of $500,000

and integral multiples of $100,000 in excess thereof and (B) in the case of Swing Line Loans denominated in Canadian Dollars, a minimum of C$500,000 and integral multiples of C$100,000, and (ii) the requested borrowing date, which shall be a Business Day. Each such telephonic notice must be confirmed promptly by delivery to the Swing Line Lender and the Administrative Agent of a written Swing Line Loan Notice, appropriately completed and signed by a Responsible Officer of the Borrower Agent. Promptly after receipt by the Swing Line Lender of any telephonic Swing Line Loan Notice, the Swing Line Lender will (i) deliver notice to the Borrower Agent and the Administrative Agent as to whether it will or will not make such Swing Line Loan available to the Borrowers and, if agreeing to make such Swing Line Loan, (ii) confirm with the Administrative Agent (by telephone or in writing) that the Administrative Agent has also received such Swing Line Loan Notice and, if not, the Swing Line Lender will notify the Administrative Agent (by telephone or in writing) of the contents thereof. Unless the Swing Line Lender has received notice (by telephone or in writing) from the Administrative Agent (including at the request of any Revolving Credit Lender) prior to 1:00 P.M. on the date of the proposed Swing Line Borrowing (A) directing the Swing Line Lender not to make such Swing Line Loan as a result of the limitations set forth in the proviso to the first sentence of Section 2.04(a), or (B) that one or more of the applicable conditions specified inArticle V is not then satisfied, then, subject to the terms and conditions hereof, the Swing Line Lender may, not later than 3:00 P.M. on the borrowing date specified in such Swing Line Loan Notice, make the amount of its Swing Line Loan available to the Borrower Agent at its office by crediting the account of the Borrower Agent on the books of the Swing Line Lender in Same Day Funds.

(c) Refinancing of Swing Line Loans.

(i) The Swing Line Lender at any time in its discretion, but no less frequently than weekly, may request, on behalf of the Borrowers (which hereby irrevocably authorize the Swing Line Lender to so request on their behalf), that each Revolving Credit Lender make a Base Rate Loan, Canadian Base Rate Loan or Canadian Prime Rate Loan in an amount equal to such Revolving Credit Lender's Applicable Percentage of the amount of Swing Line Loans then outstanding. Such request shall be made in writing (which written request shall be deemed to be a Committed Loan Notice for purposes hereof) and in accordance with the requirements of Section 2.02 without regard to the minimum and multiples specified therein for the principal amount of Base Rate Loans, Canadian Base Rate Loans and Canadian Prime Rate Loans, as applicable, but subject to the unutilized portion of the Aggregate Revolving Credit Commitments and the conditions set forth in Section 5.02. The Swing Line Lender shall furnish the Borrower Agent with a copy of the applicable Committed Loan Notice promptly after delivering such notice to the Administrative Agent. Each Revolving Credit Lender shall make an amount equal to its Applicable Percentage of the amount specified in such Committed Loan Notice available to the Administrative Agent in Same Day Funds (and the Administrative Agent may apply Cash Collateral available with respect to the applicable Swing Line Loan) for the account of the Swing Line Lender at the Administrative Agent's Office not later than 2:00 P.M. on the day specified in such Committed Loan Notice, whereupon, subject to Section 2.04(c)(ii), each Revolving Credit Lender that so makes funds available shall be deemed to have made a Base Rate Loan, a Canadian Base Rate Loan or a Canadian Prime Rate Loan, as applicable, to the applicable Borrower in such amount. The Administrative Agent shall remit the funds so received to the Swing Line Lender.

(ii) If for any reason any Swing Line Loan cannot be refinanced by such a Revolving Credit Borrowing in accordance with Section 2.04(c)(i), the request for Base Rate Loans, Canadian Base Rate Loans or Canadian Prime Rate Loans submitted by the Swing Line Lender as set forth herein shall be deemed to be a request by the Swing Line Lender that each of the Revolving Credit Lenders fund its risk participation in the relevant Swing Line Loan and each Revolving Credit Lender's payment to the Administrative Agent for the account of the Swing Line Lender pursuant to Section 2.04(c)(i) shall be deemed payment in respect of such participation.

(iii) If any Revolving Credit Lender fails to make available to the Administrative Agent for the account of the Swing Line Lender any amount required to be paid by such Revolving Credit Lender pursuant to the foregoing provisions of this Section 2.04(c) by the time specified in Section 2.04(c)(i), the Swing Line Lender shall be entitled to recover from such Revolving Credit Lender (acting through the Administrative Agent), on demand, such amount with interest thereon for the period from the date such payment is required to the date on which such payment is immediately available to the Swing Line Lender at a rate per annum equal to the applicable Overnight Rate for three (3) Business Days and thereafter at the Base Rate, Canadian Base Rate or Canadian Prime Rate, as applicable, plus any administrative processing or similar fees customarily charged by the Swing Line Lender in connection with the foregoing. A certificate of the Swing Line Lender submitted to any Revolving Credit Lender (through the Administrative Agent) with respect to any amounts owing under this clause (iii) shall be conclusive absent manifest error.

(iv) Each Revolving Credit Lender's obligation to make Revolving Credit Loans or to purchase and fund risk participations in Swing Line Loans pursuant to this Section 2.04(c) shall be absolute and unconditional and shall not be affected by any circumstance, including (A) any setoff, counterclaim, recoupment, defense or other right which such Revolving Credit Lender may have against the Swing Line Lender, the Borrowers or any other Person for any reason whatsoever, (B) the occurrence or continuance of a Default, or (C) any other occurrence, event or condition, whether or not similar to any of the foregoing; provided, however, that each Revolving Credit Lender's obligation to make Revolving Credit Loans pursuant to this Section 2.04(c) is subject to the conditions set forth in Section 5.02. No such funding of risk participations shall relieve or otherwise impair the obligation of the Borrowers to repay Swing Line Loans, together with interest as provided herein.

(v) All refinancings and fundings under this Section 2.04(c) shall be in addition to and without duplication of the settlement procedures and obligations under Section 2.14.

(d) Repayment of Participations. At any time after any Revolving Credit Lender has purchased and funded a risk participation in a Swing Line Loan, if the Swing Line Lender receives any payment on account of such Swing Line Loan, the Swing Line Lender will distribute to such Revolving Credit Lender its Applicable Percentage of such payment (appropriately adjusted, in the case of interest payments, to reflect the period of time during which such Revolving Credit Lender's risk participation was funded) in the same funds as those received by the Swing Line Lender.

(e) Interest for Account of Swing Line Lender. The Swing Line Lender shall be responsible for invoicing the Borrowers for interest on the Swing Line Loans. Until each Revolving Credit Lender funds its Base Rate Revolving Credit Loan or risk participation pursuant to this Section 2.04 to refinance such Revolving Credit Lender's Applicable Percentage of any Swing Line Loan, interest in respect of such Applicable Percentage shall be solely for the account of the Swing Line Lender.

(f) Payments Directly to Swing Line Lender. The Borrowers shall make all payments of principal and interest in respect of the Swing Line Loans directly to the Swing Line Lender.

2.05 Repayment of Loans.

(a) **[Intentionally Omitted]**

(b) Revolving Credit Loans. The Borrowers shall repay to the Administrative Agent for the account of each the Revolving Credit Lenders on the Maturity Date the aggregate principal amount of and all accrued and unpaid interest on all Revolving Credit Loans outstanding on such date.

(c) Swing Line Loans. The Borrowers shall repay each Swing Line Loan on the earlier to occur of (i) each refinancing date arising under Section 2.04(c) and (ii) the Maturity Date.

(d) Protective Advances. The Borrowers shall repay all Protective Advances on the earlier to occur of (i) demand by the Administrative Agent and (ii) the Maturity Date.

(e) Other Obligations. Obligations other than principal and interest on the Loans, including Letter of Credit Obligations and Extraordinary Expenses, shall be paid by Borrowers as specifically provided herein and in any other applicable Loan Documents or, if no payment date is specified, on demand.

2.06 Prepayments.

(a) Optional.

(i) The Borrowers may, upon notice to the Administrative Agent from the Borrower Agent, at any time or from time to time voluntarily prepay Revolving Credit Loans in whole or in part without premium or penalty; provided that except with respect to prepayments in accordance with Section 4.04(c), (A) such notice must be received by the Administrative Agent not later than 11:00 A.M. (1) two (2) Business Days prior to any date of prepayment of SOFR Loans and CDOR Rate Loans and (2) on the date of prepayment of Base Rate Loans, Canadian Base Rate Loans and Canadian Prime Rate Loans; (B) (i) any prepayment of SOFR Loans shall be in a principal amount of $500,000 or a whole multiple of $100,000 in excess thereof and (ii) any prepayment of CDOR Rate Loans shall be in a principal amount of C$500,000 or a whole multiple of C$100,000 in excess thereof, and in each case shall be accompanied by payment of all amounts due under Section 3.05; and (C) (i) any prepayment of Base Rate Loans shall be in a principal amount of $500,000 or a whole multiple of $100,000 in excess thereof and (ii) any prepayment of Canadian Base Rate Loans or Canadian Prime Rate Loans shall be in a principal amount of C$500,000 or a whole multiple of C$100,000 in excess thereof or, in each case, if less, the entire principal amount thereof then outstanding. During a Dominion Trigger Period, there shall be no minimum repayment amount for Base Rate Loans, Canadian Base Rate Loans and Canadian Prime Rate Loans. Each such notice shall specify the date and amount of such prepayment and the Type(s) of Loans to be prepaid and, if SOFR Loans or CDOR Rate Loans are to be prepaid, the Interest Period(s) of such Loans. The Administrative Agent will promptly notify each Lender of its receipt of each such notice, and of the amount of such Lender's ratable portion of such prepayment (based on such Lender's Applicable Percentage in respect of the relevant Facility). If such notice is given by the Borrower Agent, the Borrowers shall make such prepayment and the payment amount specified in such notice shall be due and payable on the date specified therein. Any prepayment of a SOFR Loan or a CDOR Rate Loan shall be accompanied by all accrued interest on the amount prepaid, together with any additional amounts required pursuant to Section 3.05. Subject to Section 2.17, such prepayments shall be paid to the Lenders in accordance with their respective Applicable Percentage.

(ii) The Borrowers may, upon notice to the Swing Line Lender (with a copy to the Administrative Agent) from the Borrower Agent, at any time or from time to time, voluntarily prepay Swing Line Loans in whole or in part without premium or penalty; provided that (A) such notice must be received by the Swing Line Lender and the Administrative Agent not later than 1:00 P.M. on the date of the prepayment, and (B) any such prepayment shall be (i) in the case of Base Rate Loans, or Canadian Base Rate Loans in a minimum principal amount of $100,000 and (ii) in the case of Canadian Prime Rate Loans, in a minimum principal amount of C$100,000. Each such notice shall specify the date and amount of such prepayment. If such notice is given by the

Borrower Agent, the Borrowers shall make such prepayment and the payment amount specified in such notice shall be due and payable on the date specified therein.

(b) Mandatory.

(i) [Intentionally Omitted].

(ii) Asset Dispositions. If a Disposition occurs with respect to any property of any Loan Party or Subsidiary thereof (other than (A) any Disposition of Secured Note Priority Collateral the proceeds of which are either (x) applied as a mandatory prepayment of the Secured Note Debt in accordance with the applicable Secured Note Documents or (y) are permitted to be reinvested pursuant to the Secured Note Documents or (B) any Disposition permitted by Section 8.05(a), (c), (f), or (g)), the Borrowers shall prepay an aggregate principal amount of Loans (and Cash Collateralize Letter of Credit Obligations, if applicable) equal to 100% (or such lesser percentage as agreed to by the Administrative Agent in its discretion) of such Net Cash Proceeds promptly (and in any event within three (3) Business Days) upon receipt thereof by such Loan Party or such Subsidiary.

(iii) Equity Issuance. Upon the sale or issuance by any Loan Party or any Subsidiary thereof of any of its Equity Interests (other than Equity Interests issued pursuant to Section 8.06(b)), the Borrowers shall prepay an aggregate principal amount of Loans (and Cash Collateralize Letter of Credit Obligations, if applicable) equal to 100% (or such lesser percentage as agreed to by the Administrative Agent in its discretion) of all Net Cash Proceeds received therefrom immediately upon receipt thereof by such Loan Party or such Subsidiary.

(iv) Debt Incurrence. Upon the incurrence or issuance by any Loan Party or any Subsidiary thereof of any Indebtedness (other than Indebtedness expressly permitted to be incurred or issued pursuant to Section 8.01), the Borrowers shall prepay an aggregate principal amount of Loans (and Cash Collateralize Letter of Credit Obligations, if applicable) equal to 100% (or such lesser percentage as agreed to by the Administrative Agent in its discretion) of all Net Cash Proceeds received therefrom immediately upon receipt thereof by such Loan Party or such Subsidiary.

(v) Extraordinary Receipts. Upon receipt of any cash by (or paid to or for the account of) any Loan Party or Subsidiary thereof not in the Ordinary Course of Business (including tax refunds, pension plan reversions, proceeds of insurance (including, without limitation, proceeds of business interruption insurance), casualty or condemnation proceeds, indemnity payments, purchase price adjustments, judgments, settlements or other payments in connection with any cause of action, but for the avoidance of doubt, in the case of insurance or condemnation proceeds received in respect of Secured Note Priority Collateral, excluding the amount of such proceeds that are applied as a mandatory prepayment of the Secured Note Debt under the applicable Secured Note Documents)), and not otherwise included in clauses (ii), (iii), or (iv) of this Section 2.06(b), the Borrowers shall prepay an aggregate principal amount of Loans (and Cash Collateralize Letter of Credit Obligations, if applicable) equal to 100% of such excess (net of all reasonable documented out-of-pocket expenses or other amounts required to be paid in connection therewith) (and in any event within five (5) Business Days) upon receipt provided that this clause (v) shall not apply in any Fiscal Year until such time as the Net Cash Proceeds from all such events resulting in receipt of proceeds described herein in any Fiscal Year exceeds $250,000 (and then, in each case, only in respect of the amount in excess).

(vi) Overadvances. If for any reason the Total Revolving Credit Outstandings at any time exceed the Maximum Borrowing Amount at such time, the Borrowers shall upon demand prepay Revolving Credit Loans, Swing Line Loans, and Letter of Credit Borrowings and/or Cash Collateralize the Letter of Credit Obligations in an aggregate amount equal to such excess.

(c) Application of Mandatory Prepayments. Subject to Section 9.03 and the Secured Note Intercreditor Agreement:

(i) Each prepayment of Loans pursuant to the provisions of Section 2.06(b) (other than prepayments from any Disposition of assets of the type included in the Borrowing Base) shall be applied to the Revolving Credit Facility in the manner set forth in clause (ii) below. Subject to Section 2.17, such prepayments shall be paid to the Lenders in accordance with their respective Applicable Percentage in respect of the relevant Facilities. Notwithstanding the foregoing, any prepayment hereunder arising from a Disposition of assets of the type then included in the Borrowing Base shall be applied to repay Revolving Credit Facility in accordance with clause (ii) below.

(ii) Except as otherwise provided in Section 2.17, prepayments of the Revolving Credit Facility made pursuant to Section 2.06(b), first, shall be applied ratably to the Letter of Credit Borrowings and the Swing Line Loans, second, shall be applied ratably to the outstanding Revolving Credit Loans (without any corresponding reduction of the Aggregate Revolving Credit Commitments), third, shall be used to Cash Collateralize the remaining Letter of Credit Obligations in the Minimum Collateral Amount and, fourth, the amount remaining, if any, after the prepayment in full of all outstanding Obligations (other than Credit Product Obligations) and the Cash Collateralization of the remaining Letter of Credit Obligations in the Minimum Collateral Amount may be retained by the Borrowers for use in the ordinary course of Borrowers' business. Upon the drawing of any Letter of Credit that has been Cash Collateralized, the funds held as Cash Collateral shall be applied (without any further action by or notice to or from the Borrowers or any other Loan Party or any Defaulting Lender that has provided Cash Collateral) to reimburse the Letter of Credit Issuer or the Revolving Credit Lenders, as applicable.

(d) Reinvestment. Notwithstanding the foregoing, (A) with respect to any Net Cash Proceeds less than $1,000,000 in the aggregate during the term of this Agreement realized in connection with (collectively) any Dispositions described in Section 2.06(b)(ii) or extraordinary receipts described in Section 2.06(b)(v), at the election of the Borrowers (as notified by the Borrower Agent to the Administrative Agent on or prior to the date of such Disposition or receipt of proceeds) and so long as no Default shall have occurred and be continuing, such Loan Party or such Subsidiary may reinvest all or any portion of such Net Cash Proceeds in operating assets within 180 days after the receipt of such Net Cash Proceeds (the consummation of such reinvestment to be certified by the Borrower Agent in writing to the Administrative Agent within such period); provided, however, that any Net Cash Proceeds not so reinvested shall be immediately applied to the prepayment of the Loans as set forth in Section 2.06(c) and (B) with respect to Net Cash Proceeds equal to or greater than $1,000,000 in the aggregate during the term of this Agreement realized in connection with any Dispositions described in Section 2.06(b)(ii), if the Borrowers have requested that Administrative Agent agree to permit Borrowers or the applicable Subsidiary to repair or replace the Collateral subject to such Disposition, such amounts shall be held as Cash Collateral and provisionally applied to reduce the outstanding principal balance of the Revolving Credit Loans (but shall not create Availability) until the earlier of Administrative Agent's decision with respect thereto or the expiration of 180 days from such request. If Administrative Agent, after consultation with the Borrowers agrees in its Credit Judgment to permit such repair or replacement, such amount shall, unless an Event of Default is in existence, be remitted to Borrowers for use in replacing or repairing the Collateral so Disposed of at such time and in such amounts as the Administrative Agent may determine in its Credit Judgment.

If Administrative Agent declines to permit such repair or replacement or does not respond to Borrowers request within such 180 day period, such amount shall be applied to the Loans in the manner otherwise specified in Section 2.06(c).

2.07 Termination or Reduction of Commitments.

(a) Revolving Credit Commitment. The Borrowers may, upon notice to the Administrative Agent from the Borrower Agent, terminate the Aggregate Revolving Credit Commitments, or the Letter of Credit Sublimit or the Swing Line Sublimit, or from time to time permanently reduce the Aggregate Revolving Credit Commitments, the Letter of Credit Sublimit or the Swing Line Sublimit; provided that (i) any such notice shall be received by the Administrative Agent not later than 11:00 A.M. five (5) Business Days prior to the date of termination or reduction, (ii) any such partial reduction shall be in an aggregate amount of $5,000,000 or any whole multiple of $5,000,000 in excess thereof, (iii) the Borrowers shall not terminate or reduce (A) the Aggregate Revolving Credit Commitments if, after giving effect thereto and to any concurrent prepayments hereunder, the Total Revolving Credit Outstandings would exceed the Aggregate Revolving Credit Commitments, (B) the Letter of Credit Sublimit if, after giving effect thereto, the Outstanding Amount of Letter of Credit Obligations not fully Cash Collateralized hereunder would exceed the Letter of Credit Sublimit, or (C) the Swing Line Sublimit if, after giving effect thereto and to any concurrent prepayments hereunder, the Outstanding Amount of Swing Line Loans would exceed the Swing Line Sublimit and (iv) if, after giving effect to any reduction or termination of the Aggregate Revolving Credit Commitments, the Letter of Credit Sublimit or the Swing Line Sublimit exceeds the amount of the Aggregate Revolving Credit Commitments, such Sublimit shall be automatically reduced by the amount of such excess. The Administrative Agent will promptly notify the Lenders of any such notice of termination or reduction of the Aggregate Revolving Credit Commitments, the Letter of Credit Sublimit or the Swing Line Sublimit. Any reduction of the Aggregate Revolving Credit Commitments shall be applied to the Revolving Credit Commitment of each Revolving Credit Lender according to its Applicable Percentage. All fees accrued until the effective date of any termination of the Aggregate Revolving Credit Commitments shall be paid on the effective date of such termination.

2.08 Interest.

(a) Subject to the provisions of Sections 2.08(b) and 3.03 below, (i) each SOFR Loan shall bear interest on the outstanding principal amount thereof for each Interest Period at a rate per annum equal to the Adjusted Term SOFR for such Interest Period plus the Applicable Margin; (ii) each CDOR Rate Loan shall bear interest on the outstanding principal amount thereof for each Interest Period at a rate per annum equal to the CDOR Rate for such Interest Period plus the Applicable Margin; (iii) each (A) Base Rate Loan, and (B) Swing Line Loan shall bear interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the Base Rate plus the Applicable Margin; (iv) each Canadian Base Rate Loan shall bear interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the Canadian Base Rate plus the Applicable Margin; (v) each Canadian Prime Rate Loan shall bear interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the Canadian Prime Rate plus the Applicable Margin; and (vi) each other Obligation (including, to the extent not prohibited by applicable Law, interest not paid when due) shall bear interest on the unpaid amount thereof at a rate per annum equal to (x) with respect to amounts owed by the U.S. Borrowers and amounts owed by the Canadian Borrowers and denominated in Dollars, the Base Rate or the Canadian Base Rate, as applicable, plus the Applicable Margin, and (y) with respect to amounts owed by the Canadian Borrowers and denominated in Canadian Dollars, the Canadian Prime Rate plus the Applicable Margin.

(b) (i) If any amount payable by the Borrowers under any Loan Document is not paid when due (without regard to any applicable grace periods), whether at stated maturity, by acceleration or

otherwise, then such amount shall thereafter bear interest at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws.

(ii) If any other Event of Default exists, then the Administrative Agent may, and upon the request of the Required Lenders shall, require (and notify the Borrower Agent thereof) that all outstanding Loan Obligations shall thereafter bear interest at a fluctuating interest rate per annum at all times equal to the Default Rate.

(iii) Accrued and unpaid interest on past due amounts (including interest on past due interest) shall be due and payable upon demand.

(c) Interest on each Loan shall be due and payable in arrears on each Interest Payment Date applicable thereto and at such other times as may be specified herein. Interest hereunder shall be due and payable in accordance with the terms hereof before and after judgment, and before and after the commencement of any proceeding under any Debtor Relief Law.

(d) If, for any reason (including inaccurate reporting in any Compliance Certificate, Borrowing Base Certificate or other Borrower Materials), it is determined that a higher Applicable Margin should have applied to a period than was actually applied, then the proper margin shall be applied retroactively and Borrowers shall immediately pay to the Administrative Agent, for the ratable benefit of Lenders, an amount equal to the difference between the amount of interest and fees that would have accrued using the proper margin and the amount actually paid.

2.09 Fees.

(a) Unused Fee. The Borrowers shall pay to the Administrative Agent for the account of each Revolving Credit Lender in accordance with its Applicable Percentage, a fee (the "Unused Fee") equal to the Unused Fee Rate times the Unused Facility Amount. The Unused Fee shall accrue at all times during the Availability Period, including at any time during which one or more of the conditions in Article V is not met, and shall be due and payable quarterly in arrears on the first Business Day after each calendar quarter, commencing with the first such date to occur after the Closing Date, and on the last day of the Availability Period. If there is any change in the Unused Fee Rate during any quarter, the actual daily amount shall be computed and multiplied by the Unused Fee Rate separately for each period during such quarter that such Unused Fee Rate was in effect.

(b) Letter of Credit Fees. Subject to the provisions of the last sentence of this clause (b), the Borrowers shall pay to the Administrative Agent, for the account of each Revolving Credit Lender in accordance with its Applicable Percentage, in Dollars, (x) a Letter of Credit fee with respect to any standby Letters of Credit ("Standby Letter of Credit Fee") for each stand-by Letter of Credit equal to the Applicable Margin for SOFR Loans times the daily maximum amount available to be drawn under such Letter of Credit (whether or not such maximum amount is then in effect under such Letter of Credit) and (y) a Letter of Credit fee with respect to any documentary Letters of Credit ("Documentary Letter of Credit Fee", and collectively with any Standby Letter of Credit Fee, the "Letter of Credit Fees") for each documentary Letter of Credit equal to 1.25% times the outstanding amount of such documentary Letter of Credit on the date payment of such fee is due in accordance with this Section 2.09(b); provided, however, any Letter of Credit Fees otherwise payable for the account of a Defaulting Lender with respect to any Letter of Credit as to which such Defaulting Lender has not provided Cash Collateral satisfactory to the Letter of Credit Issuer shall be payable, to the maximum extent permitted by applicable Law, to the other Revolving Credit Lenders in accordance with the upward adjustments in their respective Applicable Percentages allocable to such Letter of Credit pursuant to Section 2.17(a)(iv), with the balance of such fee, if any, payable to the Letter of Credit Issuer for its own account. For purposes of computing the daily amount available to be

drawn under any standby Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.07. The Letter of Credit Fees shall accrue at all times during the Availability Period, including at any time during which one or more of the conditions in Article V is not met, and shall be due and payable monthly in arrears on the first Business Day after each calendar month, commencing with the first such date to occur after the Closing Date, and on the last day of the Availability Period. If there is any change in the Applicable Margin for SOFR Loans during any calendar month, the daily maximum amount of each Standby Letter of Credit shall be computed and multiplied by the Applicable Margin for SOFR Loans separately for each period during such calendar month that such Applicable Margin was in effect. At all times that the Default Rate shall be applicable to any Loans pursuant to Section 2.08(b), the Letter of Credit Fees payable under this clause (b) shall accrue and be payable at the Default Rate.

(c) Fee Letter. The Borrowers agree to pay to the Administrative Agent, for its own account, the fees payable in the amounts and at the times set forth in the Fee Letter.

(d) Generally. All fees payable hereunder shall be paid on the dates due, in immediately available funds, to (i) the Administrative Agent for distribution, in the case of commitment fees and participation fees, to the Revolving Credit Lenders, and otherwise, to the Lenders entitled thereto or (ii) the Letter of Credit Issuer, in the case of fees payable to it. Fees paid shall not be refundable under any circumstances.

2.10 Computation of Interest and Fees. All computations of interest for Base Rate Loans and Canadian Base Rate Loans (including Base Rate Loans and Canadian Base Rate Loans determined by reference to Adjusted Term SOFR) and Canadian Prime Rate Loans (including Canadian Prime Rate Loans determined by reference to the CDOR Rate), and the Unused Fee shall be made on the basis of a year of 365 or 366 days, as the case may be, and actual days elapsed. All other computations of fees and interest shall be made on the basis of a 360-day year and actual days elapsed (which results in more fees or interest, as applicable, being paid than if computed on the basis of a 365-day year). Interest shall accrue on each Loan or other Loan Obligation not paid when due for the day on which the Loan is made or such Loan Obligation is due and unpaid, and shall not accrue on a Loan, or any portion thereof, or such Loan Obligation for the day on which the Loan, or such portion thereof, or Loan Obligation is paid, provided that any Loan that is repaid on the same day on which it is made shall, subject to Section 2.12(a), bear interest for one day. Each determination by the Administrative Agent of an interest rate or fee hereunder shall be conclusive and binding for all purposes, absent manifest error. Solely for purposes of the Interest Act (Canada), (i) whenever any interest or fee under this Agreement is calculated based on a year of 360 days or 365 days, as the case may be, the rate used pursuant to such calculation, when expressed as an annual rate, is equivalent to such rate multiplied by a fraction, the numerator of which is the actual number of days in the relevant calendar year and the denominator of which is 360 or 365, as the case may be, (ii) the rates of interest under this Agreement are nominal rates and not effective rates or yields and (iii) the principle of deemed reinvestment of interest does not apply to any interest calculation under this Agreement. Each Canadian Loan Party confirms that it understands and is able to calculate the rate of interest applicable to Borrowings based on the methodology for calculating per annum rates provided for herein. Each Canadian Loan Party irrevocably agrees not to plead or assert, whether by way of defense or otherwise, in any proceeding relating to this Agreement or any Loan Documents, that the interest payable hereunder and the calculation thereof has not been adequately disclosed to the Borrowers as required pursuant to Section 4 of the Interest Act (Canada). In connection with the use or administration of Term SOFR, the Administrative Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document. The Administrative Agent will promptly notify the Borrower Agent and the Lenders of the effectiveness of any Conforming Changes in connection with the use or administration of Term SOFR.

2.11 Evidence of Debt.

(a) Loan Account. The Credit Extensions made by each Lender shall be evidenced by one or more accounts or records maintained by the Administrative Agent (the "Loan Account") in the ordinary course of business. In addition, each Lender may record in such Lender's internal records, an appropriate notation evidencing the date and amount of each Loan from such Lender, each payment and prepayment of principal of any such Loan, and each payment of interest, fees and other amounts due in connection with the Loan Obligations due to such Lender. The accounts or records maintained by the Administrative Agent and each Lender shall be conclusive absent manifest error of the amount of the Credit Extensions made by the Lenders to the Borrowers and the interest and payments thereon. Any failure to so record or any error in doing so shall not, however, limit or otherwise affect the obligation of the Borrowers hereunder to pay any amount owing with respect to the Loan Obligations. In the event of any conflict between the accounts and records maintained by any Lender and the accounts and records of the Administrative Agent in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error. Upon the request of any Lender made through the Administrative Agent, the Borrowers shall execute and deliver to such Lender (through the Administrative Agent) a Note, which shall evidence such Lender's Loans in addition to such accounts or records. Each Lender may attach schedules to its Note and endorse thereon the date, Type (if applicable), amount and maturity of its Loans and payments with respect thereto.

(b) Account Records. In addition to the accounts and records referred to in (a) above, each Lender and the Administrative Agent shall maintain in accordance with its usual practice accounts or records evidencing the purchases and sales by such Lender of participations in Letters of Credit and Swing Line Loans. In the event of any conflict between the accounts and records maintained by the Administrative Agent and the accounts and records of any Lender in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error.

2.12 Payments Generally; the Administrative Agent's Clawback.

(a) General. All payments to be made by the Borrowers shall be made without condition or deduction for any counterclaim, defense, recoupment or setoff. Except as otherwise expressly provided herein, all payments by the Borrowers hereunder shall be made to the Administrative Agent, for the account of the respective Lenders to which such payment is owed, at the Administrative Agent's Office in Dollars or Canadian Dollars, as applicable, and in immediately available funds not later than 2:00 P.M. on the date specified herein. Subject to Section 2.14, Section 9.03, and payments made during the Dominion Trigger Period from the Concentration Account, the Administrative Agent will promptly distribute to each Lender its Applicable Percentage in respect of the relevant Facility (or other applicable share as provided herein) of such payment in like funds as received by wire transfer to such Lender's Lending Office. All payments received by the Administrative Agent after 2:00 P.M. shall be deemed received on the next succeeding Business Day and any applicable interest or fee shall continue to accrue. If any payment to be made by the Borrowers shall come due on a day other than a Business Day, payment shall be made on the next following Business Day, and such extension of time shall be reflected on computing interest or fees, as the case may be.

(b) Presumptions by Administrative Agent.

(i) Funding by Lenders. Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing of SOFR Loans (or, in the case of any Borrowing of Base Rate Loans or Canadian Base Rate Loans, prior to 12:00 noon on the date of such Borrowing) that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has

made such share available on such date in accordance withSection 2.02 (or, in the case of a Borrowing of Base Rate Loans or Canadian Base Rate Loans, that such Lender has made such share available in accordance with and at the time required by Section 2.02) and may, in reliance upon such assumption, make available to the Borrowers a corresponding amount. In such event, if a Lender has not in fact made its share of the applicable Borrowing available to the Administrative Agent, then the applicable Lender and the Borrowers severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount in immediately available funds with interest thereon, for each day from and including the date such amount is made available to the Borrowers to but excluding the date of payment to the Administrative Agent, at (A) in the case of a payment to be made by such Lender, the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation, plus any administrative, processing or similar fees customarily charged by the Administrative Agent in connection with the foregoing, and (B) in the case of a payment to be made by the Borrowers, the interest rate applicable to Base Rate Loans and Canadian Base Rate Loans. If the Borrowers and such Lender shall pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Borrowers the amount of such interest paid by the Borrowers for such period. If such Lender pays its share of the applicable Borrowing to the Administrative Agent, then the amount so paid shall constitute such Lender's Loan included in such Borrowing. Any payment by the Borrowers shall be without prejudice to any claim the Borrowers may have against a Lender that shall have failed to make such payment to the Administrative Agent.

(ii) Payments by Borrowers. Unless the Administrative Agent shall have received notice from the Borrower Agent prior to the time at which any payment is due to the Administrative Agent for the account of the Lenders, the Letter of Credit Issuer or the Swing Line Lender hereunder that the Borrowers will not make such payment, the Administrative Agent may assume that the Borrowers have made such payment on such date in accordance herewith and may (but shall not be required to) in reliance upon such assumption, distribute to the Appropriate Lenders the amount due. With respect to any payment that the Administrative Agent makes to any Lender, the Letter of Credit Issuer, the Swing Line Lender or any other Secured Party as to which the Administrative Agent determines (in its sole and absolute discretion) that any of the following applies (such payment referred to as the "Rescindable Amount"): (1) the Borrowers have not in fact made the corresponding payment to the Administrative Agent; (2) the Administrative Agent has made a payment in excess of the amount(s) received by it from the Borrowers either individually or in the aggregate (whether or not then owed); or (3) the Administrative Agent has for any reason otherwise erroneously made such payment; then each of the Secured Parties severally agrees to repay to the Administrative Agent forthwith on demand the Rescindable Amount so distributed to such Secured Party, in immediately available funds with interest thereon, for each day from and including the date such amount is distributed to it to but excluding the date of payment to the Administrative Agent, at the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation.

A notice of the Administrative Agent to any Lender or any Borrower with respect to any amount owing under this subsection (b) shall be conclusive, absent manifest error.

(c) Failure to Satisfy Conditions Precedent. If any Lender makes available to the Administrative Agent funds for any Loan to be made by such Lender as provided in the foregoing provisions of this Article II, and such funds are not made available to the Borrowers by the Administrative Agent because the conditions to the applicable Credit Extension set forth in Article V are not satisfied or waived in accordance with the terms hereof, the Administrative Agent shall return such funds (in like funds as received from such Lender) to such Lender, without interest.

(d) Obligations of Lenders Several. The obligations of the Lenders hereunder to make Revolving Credit Loans, to fund participations in Letters of Credit and Swing Line Loans and to make payments pursuant to Section 11.04(c) are several and not joint. The failure of any Lender to make any Loan, to fund any such participation or to make any payment under Section 11.04(c) on any date required hereunder shall not relieve any other Lender of its corresponding obligation to do so on such date, and no Lender shall be responsible for the failure of any other Lender to so make its Loan, to purchase its participation or to make its payment under Section 11.04(c).

(e) Funding Source. Nothing herein shall be deemed to obligate any Lender to obtain the funds for any Loan in any particular place or manner or to constitute a representation by any Lender that it has obtained or will obtain the funds for any Loan in any particular place or manner.

(f) Insufficient Funds. If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, Letter of Credit Borrowings, interest and fees then due hereunder, such funds shall be applied as provided in Section 2.06(c).

2.13 Sharing of Payments by Lenders. If any Lender shall, by exercising any right of setoff or counterclaim or otherwise (other than in connection with a Supplemental Facility), obtain payment in respect of (a) the Loan Obligations due and payable to such Lender hereunder and under the other Loan Documents at such time in excess of its ratable share (according to the proportion of (i) the amount of such Loan Obligations due and payable to such Lender at such time to (ii) the aggregate amount of the Loan Obligations due and payable to all Lenders hereunder and under the other Loan Documents at such time) of payments on account of the Loan Obligations due and payable to all Lenders hereunder and under the other Loan Documents at such time obtained by all the Lenders at such time or (b) the Loan Obligations owing (but not due and payable) to such Lender hereunder and under the other Loan Documents at such time in excess of its ratable share (according to the proportion of (i) the amount of such Loan Obligations owing (but not due and payable) to such Lender at such time to (ii) the aggregate amount of the Loan Obligations owing (but not due and payable) to all Lenders hereunder and under the other Loan Documents at such time) of payments on account of the Loan Obligations owing (but not due and payable) to all Lenders hereunder and under the other Loan Documents at such time obtained by all of the Lenders at such time, then, in each case under clauses (a) and (b) above, the Lender receiving such greater proportion shall (A) notify the Administrative Agent of such fact, and (B) purchase (for cash at face value) participations in the Loans and subparticipations in Letter of Credit Obligations and Swing Line Loans of the other Lenders, or make such other adjustments as shall be equitable, so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of Loan Obligations then due and payable to the Lenders or owing (but not due and payable) to the Lenders, as the case may be, provided that:

(i) if any such participations or subparticipations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations or subparticipations shall be rescinded and the purchase price restored to the extent of such recovery, without interest; and

(ii) the provisions of this Section shall not be construed to apply to (A) any payment made by or on behalf of any Loan Party pursuant to and in accordance with the express terms of this Agreement (including the application of funds arising from the existence of a Defaulting Lender), (B) the application of Cash Collateral provided for in Section 2.16, or (C) any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Loans or subparticipations in Letter of Credit Obligations or Swing Line Loans to any assignee or participant, other than an assignment to any Loan Party or any Affiliate thereof (as to which the provisions of this Section shall apply).

Each Loan Party consents to the foregoing and agrees, to the extent it may effectively do so under applicable Law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against such Loan Party rights of setoff and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of such Loan Party in the amount of such participation.

2.14 Settlement Among Lenders.

(a) The amount of each Revolving Credit Lender's Applicable Percentage of outstanding Revolving Credit Loans shall be computed weekly (or more frequently in the Administrative Agent's discretion) and such amount shall be adjusted upward or downward based on all Revolving Credit Loans and repayments of Revolving Credit Loans received by the Administrative Agent as of 3:00 P.M. on the first Business Day (such date, the "Settlement Date") following the end of the period specified by the Administrative Agent.

(b) The Administrative Agent shall deliver to each of the Revolving Credit Lenders promptly after a Settlement Date a summary statement of the amount of outstanding Revolving Credit Loans for the period and the amount of repayments received for the period. As reflected on the summary statement, (i) the Administrative Agent shall transfer to each Revolving Credit Lender its Applicable Percentage of repayments, and (ii) each Revolving Credit Lender shall transfer to the Administrative Agent (as provided below) or the Administrative Agent shall transfer to each Revolving Credit Lender, such amounts as are necessary to insure that, after giving effect to all such transfers, the Revolving Credit Exposure of each Revolving Credit Lender shall be equal to such Revolving Credit Lender's Applicable Percentage of the Total Revolving Credit Outstandings as of such Settlement Date. If the summary statement requires transfers to be made to the Administrative Agent by the Revolving Credit Lenders and is received prior to 1:00 P.M. on a Business Day, such transfers shall be made in immediately available funds no later than 3:00 P.M. that day; and, if received after 1:00 P.M., then no later than 3:00 P.M. on the next Business Day. The obligation of each Revolving Credit Lender to transfer such funds is irrevocable, unconditional and without recourse to or warranty by the Administrative Agent. If and to the extent any Revolving Credit Lender shall not have so made its transfer to the Administrative Agent, such Lender agrees to pay to the Administrative Agent, forthwith on demand such amount, together with interest thereon, for each day from such date until the date such amount is paid to the Administrative Agent, equal to the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation plus any reasonable administrative, processing, or similar fees customarily charged by the Administrative Agent in connection with the foregoing.

2.15 Nature and Extent of Liability.

(a) Joint and Several Liability. Each Borrower agrees that it is jointly and severally liable for, and absolutely and unconditionally guarantees to Administrative Agent and Lenders, all Obligations, except Excluded Swap Obligations, and all agreements under the Loan Documents. Each Borrower agrees that its guaranty obligations hereunder constitute a continuing guaranty of payment and not of collection, that such obligations shall not be discharged until the Facility Termination Date, and that such obligations are absolute and unconditional, irrespective of (i) the genuineness, validity, regularity, enforceability, subordination or any future modification of, or change in, any Obligations or Loan Document, or any other document, instrument or agreement to which any Loan Party or Subsidiary thereof is or may become a party or be bound; (ii) the absence of any action to enforce this Agreement (including this Section) or any other Loan Document, or any waiver, consent or indulgence of any kind by the Administrative Agent or any Lender with respect thereto; (iii) the existence, value or condition of, or failure to perfect a Lien or to preserve rights against, any security or guaranty for the Obligations or any action, or the absence of any action, by the Administrative Agent or any Lender in respect thereof (including the release of any security or guaranty); (iv) the insolvency of any Loan Party or Subsidiary thereof; (v) any election by the

Administrative Agent or any Lender in proceeding under Debtor Relief Laws for the application of Section 1111(b)(2) of the Bankruptcy Code or similar provisions under other Debtor Relief Laws; (vi) any borrowing or grant of a Lien by any other Loan Party or Subsidiary thereof, as debtor-in-possession under Section 364 of the Bankruptcy Code or similar provisions under other Debtor Relief Laws, or otherwise; (vii) the disallowance of any claims of the Administrative Agent or any Lender against any Loan Party or Subsidiary thereof for the repayment of any Obligations under Section 502 of the Bankruptcy Code or similar provisions under other Debtor Relief Laws, or otherwise; or (viii) any other action or circumstances that might otherwise constitute a legal or equitable discharge or defense of a surety or guarantor, except Payment in Full on the Facility Termination Date.

(b) Waivers.

(i) Each Borrower expressly waives all rights that it may have now or in the future under any statute, at common law, in equity or otherwise, to compel the Administrative Agent or Lenders to marshal assets or to proceed against any Loan Party, other Person or security for the payment or performance of any Obligations before, or as a condition to, proceeding against such Borrower. Each Borrower waives all defenses available to a surety, guarantor or accommodation co-obligor other than Payment in Full. It is agreed among each Loan Party, the Administrative Agent and Lenders that the provisions of this Section 2.15 are of the essence of the transaction contemplated by the Loan Documents and that, but for such provisions, the Administrative Agent and Lenders would decline to make Loans and issue Letters of Credit. Each Borrower acknowledges that its guaranty pursuant to this Section is necessary to the conduct and promotion of its business, and can be expected to benefit such business.

(ii) The Administrative Agent and Lenders may, in their discretion, pursue such rights and remedies as they deem appropriate, including realization upon Collateral by judicial foreclosure or non-judicial sale or enforcement, without affecting any rights and remedies under this Section 2.15. If, in taking any action in connection with the exercise of any rights or remedies, the Administrative Agent or any Lender shall forfeit any other rights or remedies, including the right to enter a deficiency judgment against any Loan Party or other Person, whether because of any applicable Laws pertaining to "election of remedies" or otherwise, each Borrower consents to such action and waives any claim of forfeiture of such rights or remedies based upon it, even if the action may result in loss of any rights of subrogation that such Borrower might otherwise have had. Any election of remedies that results in denial or impairment of the right of the Administrative Agent or any Lender to seek a deficiency judgment against any Loan Party shall not impair any Borrower's obligation to pay the full amount of the Obligations. Each Borrower waives all rights and defenses arising out of an election of remedies, such as nonjudicial foreclosure with respect to any security for the Obligations, even though that election of remedies destroys such Borrower's rights of subrogation against any other Person. The Administrative Agent may bid all or a portion of the Obligations at any foreclosure or trustee's sale or at any private sale, and the amount of such bid need not be paid by the Administrative Agent but shall be credited against the Obligations. The amount of the successful bid at any such sale, whether the Administrative Agent or any other Person is the successful bidder, shall be conclusively deemed to be the Fair Market Value of the Collateral, and the difference between such bid amount and the remaining balance of the Obligations shall be conclusively deemed to be the amount of the Obligations guaranteed under this Section 2.15, notwithstanding that any present or future law or court decision may have the effect of reducing the amount of any deficiency claim to which the Administrative Agent or any Lender might otherwise be entitled but for such bidding at any such sale.

(c) Extent of Liability; Contribution.

(i) Notwithstanding anything herein to the contrary, each Borrower's liability under this Section 2.15 shall be limited to the greater of (i) all amounts for which such Borrower is primarily liable, as described below, and (ii) such Borrower's Allocable Amount.

(ii) If any Borrower makes a payment under this Section 2.15 of any Obligations (other than amounts for which such Borrower is primarily liable) (a "Guarantor Payment") that, taking into account all other Guarantor Payments previously or concurrently made by any other Borrower, exceeds the amount that such Borrower would otherwise have paid if each Borrower had paid the aggregate Obligations satisfied by such Guarantor Payments in the same proportion that such Borrower's Allocable Amount bore to the total Allocable Amounts of all Borrowers, then such Borrower shall be entitled to receive contribution and indemnification payments from, and to be reimbursed by, each other Borrower for the amount of such excess, pro rata based upon their respective Allocable Amounts in effect immediately prior to such Guarantor Payment. The "Allocable Amount" for any Borrower shall be the maximum amount that could then be recovered from such Borrower under this Section 2.15 without rendering such payment voidable under Section 548 of the Bankruptcy Code or under any applicable state fraudulent transfer or conveyance act, or similar statute or common law including Debtor Relief Laws.

(iii) Each Loan Party that is a Qualified ECP when its guaranty of or grant of Lien as security for a Swap Obligation becomes effective hereby jointly and severally, absolutely, unconditionally and irrevocably undertakes to provide such funds or other support to each Specified Loan Party with respect to such Swap Obligation as may be needed by such Specified Loan Party from time to time to honor all of its obligations under the Loan Documents in respect of such Swap Obligation (but, in each case, only up to the maximum amount of such liability that can be hereby incurred without rendering such Qualified ECP's obligations and undertakings under this Section 2.15 voidable under any applicable fraudulent transfer or conveyance act). The obligations and undertakings of each Qualified ECP under this Section shall remain in full force and effect until Payment in Full. Each Loan Party intends this Section to constitute, and this Section shall be deemed to constitute, a guarantee of the obligations of, and a "keepwell, support or other agreement" for the benefit of, each Loan Party for all purposes of the Commodity Exchange Act.

(d) Direct Liability; Separate Borrowing Availability. Nothing contained in this Section 2.15 shall limit the liability of any Borrower to pay Loans made directly or indirectly to that Borrower (including Loans advanced to any other Borrower and then re-loaned or otherwise transferred to, or for the benefit of, such Borrower), Letter of Credit Obligations relating to Letters of Credit issued to support such Borrower's business, and all accrued interest, fees, expenses and other related Obligations with respect thereto, for which such Borrower shall be primarily liable for all purposes hereunder.

(e) Joint Enterprise. Each Loan Party has requested that the Administrative Agent and Lenders make this credit facility available to the Borrowers on a combined basis, in order to finance the Borrowers' business most efficiently and economically. The Loan Parties' business is a mutual and collective enterprise, and the successful operation of each Loan Party is dependent upon the successful performance of the integrated group. The Loan Parties believe that consolidation of their credit facility will enhance the borrowing power of each Loan Party and ease administration of the Facility, all to their mutual advantage. The Loan Parties acknowledge that the Administrative Agent's and Lenders' willingness to extend credit and to administer the Collateral on a combined basis hereunder is done solely as an accommodation to the Loan Parties and at the Loan Parties' request.

(f) Subordination. Each Loan Party hereby subordinates any claims, including any rights at law or in equity to payment, subrogation, reimbursement, exoneration, contribution, indemnification or set

off, that it may have at any time against any other Loan Party, howsoever arising, to Payment in Full on the Facility Termination Date.

(g) Borrower Agent.

(i) Each Borrower hereby irrevocably appoints and designates (or, if not a party hereto, by execution and delivery of a guaranty agreement acceptable to Administrative Agent or otherwise becoming a Guarantor hereunder shall be deemed to have irrevocably appointed and designated) GSM (the "Borrower Agent") as its representative and borrower agent and attorneyin-fact for all purposes under the Loan Documents, including, as applicable, requests for Credit Extensions, designation of interest rates, delivery or receipt of communications, preparation and delivery of Borrowing Base and financial reports, receipt and payment of Obligations, requests for waivers, amendments or other accommodations, actions under the Loan Documents (including in respect of compliance with covenants), and all other dealings with the Administrative Agent, the Letter of Credit Issuers, Swing Line Lender or any Lender. For the avoidance of doubt, any action permitted or required to be taken by the Borrowers or any Borrower under this Agreement may be taken by the Borrower Agent.

(ii) Any notice, election, representation, warranty, agreement or undertaking by or on behalf of any Loan Party by the Borrower Agent shall be deemed for all purposes to have been made by such Loan Party and shall be binding upon and enforceable against such Loan Party to the same extent as if made directly by such Loan Party.

(iii) The Borrower Agent hereby accepts the appointment by each Loan Party hereunder to act as its agent and attorney-in-fact.

(iv) The Administrative Agent and Lenders shall be entitled to rely upon, and shall be fully protected in relying upon, any notice or communication (including any notice of borrowing) delivered by Borrower Agent on behalf of any Borrower or other Loan Party. The Administrative Agent and Lenders may give any notice to or communication with a Loan Party hereunder to the Borrower Agent on behalf of such Loan Party. Each of the Administrative Agent, the Letter of Credit Issuers and the Lenders shall have the right, in its discretion, to deal exclusively with Borrower Agent for any or all purposes under the Loan Documents. Each Loan Party agrees (or, if not a party hereto, by execution and delivery of a guaranty agreement acceptable to Administrative Agent or otherwise becoming a Guarantor hereunder shall be deemed to have agreed) that any notice, election, communication, representation, agreement or undertaking made on its behalf by the Borrower Agent shall be binding upon and enforceable against it.

(h) Notwithstanding any other provision contained herein or in any other Loan Document, if a "secured creditor" (as that term is defined under the BIA) is determined by a court of competent jurisdiction not to include a Person to whom obligations are owed on a joint or joint and several basis, then each Canadian Loan Party's obligations hereunder (and such obligations of each other Loan Party), to the extent such obligations are secured, shall be several obligations and not joint or joint and several obligations.

2.16 Cash Collateral.

(a) Certain Credit Support Events. If (i) the Letter of Credit Issuer has honored any full or partial drawing request under any Letter of Credit upon presentation and such drawing has resulted in a Letter of Credit Borrowing, (ii) as of the Letter of Credit Expiration Date, any Letter of Credit Obligation for any reason remains outstanding, (iii) any Protective Advance shall not have been funded by the Lenders upon demand by the Administrative Agent, (iv) the Borrowers shall be required to provide Cash Collateral

pursuant to Section 9.02 or (v) there shall exist a Defaulting Lender, the Borrowers shall immediately (in the case of clause (iv) above) or within one Business Day (in all other cases) following any request by the Administrative Agent or the Letter of Credit Issuer, provide Cash Collateral in an amount not less than the Minimum Collateral Amount (determined in the case of Cash Collateral provided pursuant to clause (v) above, after giving effect to Section 2.17(a)(iv) and any Cash Collateral provided by the Defaulting Lender).

(b) Grant of Security Interest. The Borrowers, and to the extent provided by any Defaulting Lender, such Defaulting Lender, hereby grant to (and subjects to the control of) the Administrative Agent, for the benefit of the Administrative Agent, the Letter of Credit Issuer and the Lenders, and agree to maintain, a first priority security interest in all such cash, deposit accounts and all balances therein, and all other property so provided as collateral pursuant hereto, and in all proceeds of the foregoing, all as security for the obligations to which such Cash Collateral may be applied pursuant to Section 2.16(c). If at any time the Administrative Agent determines that Cash Collateral is less than the Minimum Collateral Amount or otherwise deficient for any reason, the Borrowers will, promptly upon demand by the Administrative Agent, pay or provide to the Administrative Agent additional Cash Collateral in an amount sufficient to eliminate such deficiency. All Cash Collateral (other than credit support not constituting funds subject to deposit) shall be maintained in one or more blocked, non-interest bearing deposit accounts at BMO.

(c) Application. Notwithstanding anything to the contrary contained in this Agreement, Cash Collateral provided in respect of Letters of Credit, Swing Line Loans or Protective Advances shall be held and applied to the specific Letter of Credit Obligations, Swing Line Loans or Protective Advances (including any the Defaulting Lender's obligation to fund participations in respect thereof) for which the Cash Collateral was so provided (including, as to Cash Collateral provided by a Defaulting Lender, any interest accrued on such obligation) and other obligations for which the Cash Collateral was so provided, prior to any other application of such property as may be provided for herein.

(d) Release. Cash Collateral (or the appropriate portion thereof) provided to reduce Fronting Exposure or to secure other obligations shall be released promptly following (i) the elimination of the applicable Fronting Exposure or other obligations giving rise thereto (including by the termination of Defaulting Lender status of the applicable Revolving Credit Lender (or, as appropriate, its assignee following compliance with Section 11.06(b)(vi))) or (ii) the determination by the Administrative Agent and the Letter of Credit Issuer that there exists excess Cash Collateral.

2.17 Defaulting Lenders.

(a) Adjustments. Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by applicable Law:

(i) Waivers and Amendments. Such Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in the definition of "Required Lenders", "Required Supermajority Lenders" and Section 11.01.

(ii) Reallocation of Payments. Any payment of principal, interest, fees or other amounts received by the Administrative Agent for the account of such Defaulting Lender (whether voluntary or mandatory, at maturity, pursuant to Article IX or otherwise) or received by the Administrative Agent from a Defaulting Lender pursuant to Section 11.08 shall be applied at such time or times as may be determined by the Administrative Agent as follows: *first*, to the payment of any amounts owing by such Defaulting Lender to the Administrative Agent hereunder; *second*, if such Defaulting Lender is a Revolving Credit Lender, to the payment on a pro rata basis of any

amounts owing by that Defaulting Lender to the Letter of Credit Issuer or Swing Line Lender hereunder; *third*, if such Defaulting Lender is a Revolving Credit Lender, to Cash Collateralize the Letter of Credit Issuer's and the Administrative Agent's Fronting Exposure with respect to such Defaulting Lender in accordance with Section 2.16; *fourth*, as the Borrower Agent may request (so long as no Default or Event of Default exists) to the funding of any Loan in respect of which that Defaulting Lender has failed to fund its portion thereof as required by this Agreement, as determined by the Administrative Agent; *fifth*, if so determined by the Administrative Agent and the Borrower Agent, to be held in a deposit account and released in order to (x) satisfy such Defaulting Lender's potential future funding obligations with respect to Loans under this Agreement and (y) if such Defaulting Lender is a Revolving Credit Lender, Cash Collateralize the Letter of Credit Issuer's and the Administrative Agent's future Fronting Exposure with respect to such Defaulting Lender with respect to future Letters of Credit and Protective Advances; *sixth*, in the case of a Defaulting Lender under any Facility, to the payment of any obligations owing to the other Lenders under such Facility (in the case of the Revolving Credit Facility, including the Letter of Credit Issuer or Swing Line Lender) as a result of any judgment of a court of competent jurisdiction obtained by any Lender under such Facility (in the case of the Revolving Credit Facility, including the Letter of Credit Issuer or Swing Line Lender) against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; *seventh*, so long as no Default or Event of Default exists, to the payment of any amounts owing to the Borrowers as a result of any judgment of a court of competent jurisdiction obtained by the Borrowers against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; and *eighth*, to such Defaulting Lender or as otherwise directed by a court of competent jurisdiction; provided that if (x) such payment is a payment of the principal amount of any Loans or Letter of Credit Borrowings in respect of which that Defaulting Lender has not fully funded its appropriate share and (y) such Loans were made or the related Letters of Credit were issued at a time when the conditions set forth in Section 5.02 were satisfied or waived, such payment shall be applied solely to pay the Loans of, and Letter of Credit Obligations owed to, all Non-Defaulting Lenders under the applicable Facility on a pro rata basis (and ratably among all applicable Facilities computed in accordance with the Defaulting Lenders' respective funding deficiencies) prior to being applied to the payment of any Loans of, or Letter of Credit Obligations owed to, such Defaulting Lender under the applicable Facility until such time as all Loans and funded and unfunded participations in Letter of Credit Obligations, Swing Line Loans and Protective Advances are held by the Lenders pro rata in accordance with the Commitments hereunder without giving effect to Section 2.17(a)(iv). Any payments, prepayments or other amounts paid or payable to a Defaulting Lender that are applied (or held) to pay amounts owed by a Defaulting Lender or to post Cash Collateral pursuant to this Section 2.17(a)(ii) shall be deemed paid to and redirected by such Defaulting Lender, and each Lender irrevocably consents hereto.

(iii) Certain Fees. No Defaulting Lender shall be entitled to receive any Unused Fee payable pursuant to Section 2.09(a) for any period during which that Lender is a Defaulting Lender (and the Borrowers shall not be required to pay any such fee that otherwise would have been required to have been paid to that Defaulting Lender). Each Defaulting Lender which is a Revolving Credit Lender shall be entitled to receive Letter of Credit Fees for any period during which that Lender is a Defaulting Lender only to the extent allocable to its Applicable Percentage of the stated amount of Letters of Credit for which it has provided Cash Collateral pursuant to Section 2.16. With respect to any Letter of Credit Fee not required to be paid to any Defaulting Lender pursuant to this clause (iii), the Borrowers shall (A) pay to each Non-Defaulting Lender which is a Revolving Credit Lender that portion of any such fee otherwise payable to such Defaulting Lender with respect to such Defaulting Lender's participation in Letter of Credit Obligations that has been reallocated to such Non-Defaulting Lender pursuant to clause (iv) below, (y) pay to the Letter of Credit Issuer the amount of any such fee otherwise payable to such Defaulting Lender to the extent allocable to such Letter of Credit Issuer's Fronting Exposure to such

Defaulting Lender, and (z) not be required to pay the remaining amount of any such fee.

(iv) Reallocation of Applicable Percentages to Reduce Fronting Exposure. All or any part of such Defaulting Lender's participation in Letter of Credit Obligations, Swing Line Loans and Protective Advances shall be reallocated among the Non-Defaulting Lenders which are Revolving Credit Lenders in accordance with their respective Applicable Percentages (calculated without regard to such Defaulting Lender's Revolving Credit Commitment) but only to the extent that (x) the conditions set forth in Section 5.02 are satisfied at the time of such reallocation (and, unless the Borrower Agent shall have otherwise notified the Administrative Agent at such time, the Borrowers shall be deemed to have represented and warranted that such conditions are satisfied at such time), and (y) such reallocation does not cause the aggregate Revolving Credit Exposure of any Non-Defaulting Lender to exceed such Non-Defaulting Lender's Revolving Credit Commitment. Subject to Section 11.20, no reallocation hereunder shall constitute a waiver or release of any claim of any party hereunder against a Defaulting Lender arising from that Lender having become a Defaulting Lender, including any claim of a Non-Defaulting Lender as a result of such Non-Defaulting Lender's increased exposure following such reallocation.

(b) Defaulting Lender Cure. If the Borrower Agent, the Administrative Agent and, in the case that a Defaulting Lender is a Revolving Credit Lender, the Swing Line Lender and the Letter of Credit Issuer, agree in writing that a Lender is no longer a Defaulting Lender, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any Cash Collateral), that Lender will, to the extent applicable, purchase at par that portion of outstanding Revolving Credit Loans of the other Lenders or take such other actions as the Administrative Agent may determine to be necessary to cause the Revolving Credit Loans and funded and unfunded participations in Letters of Credit, Swing Line Loans and Protective Advances to be held on a pro rata basis by the Lenders in accordance with their Applicable Percentages (without giving effect to Section 2.17(a)(iv)), whereupon such Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrowers while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender's having been a Defaulting Lender.

2.18 Increase in Revolving Credit Commitments.

(a) Request for Increase. Provided there exists no Default or Event of Default, upon notice to and with the written consent of the Administrative Agent in its discretion (which shall promptly notify the applicable Revolving Credit Lenders), the Borrower Agent may from time to time request an increase in the Aggregate Revolving Credit Commitments by an amount (for all such requests) not exceeding $50,000,000 (each such increase, a "Commitment Increase"); provided that (i) any such request for an increase shall be in a minimum amount of $5,000,000 in the aggregate or, if less, the entire unutilized amount of the maximum amount of all such requests set forth above and (ii) no more than three (3) such requests shall be made during the term of this Agreement. At the time of sending such notice, the Borrower Agent (in consultation with the Administrative Agent) shall specify the time period within which each applicable Revolving Credit Lender is requested to respond (which shall in no event be less than ten (10) Business Days from the date of delivery of such notice to the applicable Revolving Credit Lenders).

(b) Revolving Credit Lender Elections to Increase. Each Revolving Credit Lender shall notify the Administrative Agent within such time period whether or not it agrees to commit to a portion of the requested increase of the Revolving Credit Facility and, if so, whether by an amount equal to, greater than,

or less than its Applicable Percentage. Any Revolving Credit Lender not responding within such time period shall be deemed to have declined to commit to any portion of the requested increase.

(c) Notification by Administrative Agent; Additional Revolving Credit Lenders. The Administrative Agent shall notify the Borrower Agent of the Revolving Credit Lenders' responses to each request made hereunder. To achieve the full amount of a requested increase and subject to the approval of the Administrative Agent (which approval shall not be unreasonably withheld, delayed or conditioned), the Borrower Agent may also invite additional Eligible Assignees to become Revolving Credit Lenders pursuant to a joinder agreement in form and substance satisfactory to the Administrative Agent and its counsel (each such Eligible Assignee issuing a commitment, executing and delivering such joinder agreement and becoming a Revolving Credit Lender, an "Additional Commitment Lender"); provided, however, that without the consent of the Administrative Agent, at no time shall the Commitment of any Additional Commitment Lender be less than $5,000,000.

(d) Increase Effective Date and Allocations. If the Aggregate Revolving Credit Commitments are increased in accordance with this Section 2.18, the Administrative Agent and the Borrower Agent shall determine the effective date (the "Increase Effective Date") and the final allocation of such increase. The Administrative Agent shall promptly notify the Borrower Agent and the Revolving Credit Lenders of the final allocation of such increase and the Increase Effective Date.

(e) Conditions to Effectiveness of Increase. As a condition precedent to such increase, (i) the Borrower Agent shall deliver to the Administrative Agent a certificate of each Loan Party dated as of the Increase Effective Date (in sufficient copies for each Lender) signed by a Responsible Officer of such Loan Party (A) certifying and attaching the resolutions adopted by such Loan Party approving or consenting to such increase, and (B) certifying that, before and after giving effect to such increase, the representations and warranties contained in Article VI and in the other Loan Documents, or which are contained in any document furnished at any time under or in connection herewith or therewith, are true and correct on and as of the Increase Effective Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they are true and correct as of such earlier date, and except that for purposes of this Section 2.18, the representations and warranties contained in subsections (a) and (b) of Section 6.05 shall be deemed to refer to the most recent statements furnished pursuant to clauses(a) and (b), respectively, of Section 7.01, (ii) the Loan Parties, the Administrative Agent, and any Additional Commitment Lender shall have executed and delivered a joinder agreement in form and substance satisfactory to the Administrative Agent and its counsel; (iii) the Borrowers shall have paid such fees and other compensation to the Revolving Credit Lenders increasing their Revolving Credit Commitments and to the Additional Commitment Lenders as the Borrowers and such Lenders and Additional Commitment Lenders shall agree; (iv) the Borrowers shall have paid such arrangement fees, if any, to the Administrative Agent as the Borrowers and the Administrative Agent may agree; (v) other than the fees and compensation referred to in clauses (iii) and (iv) above, the Commitment Increase shall be on the same terms and pursuant to the same documentation applicable to the existing Revolving Credit Commitments, (vi) the Loan Parties shall deliver to the Administrative Agent (A) an opinion or opinions, in form and substance reasonably satisfactory to the Administrative Agent, from counsel to the Loan Parties reasonably satisfactory to the Administrative Agent and dated such date and (B) a certification from the Borrower Agent, or other evidence satisfactory to the Administrative Agent, that such increase is permitted under the Secured Note Debt Documents; (viii) the Loan Parties, the Lenders increasing their Commitments and each Additional Commitment Lender shall have delivered such other instruments, documents and agreements as the Administrative Agent may reasonably have requested; (ix) the definitions of Required Lenders and Required Supermajority Lenders shall have been revised in a manner acceptable to Administrative Agent in its discretion; and (x) no Default or Event of Default exists or shall result therefrom. The Revolving Credit Loans outstanding on the Increase Effective Date shall be reallocated and adjusted between and among the applicable Lenders, and the Borrowers shall pay any additional amounts required pursuant

to Section 3.05 resulting therefrom, to the extent necessary to keep the outstanding applicable Revolving Credit Loans ratable among the applicable Lenders with any revised Applicable Percentages, as applicable, arising from any nonratable increase in the applicable Revolving Credit Loans under this Section 2.18.

(f) Conflicting Provisions. This Section 2.18 shall supersede any provisions in Section 2.13 or 11.01 to the contrary.

ARTICLE III
TAXES, YIELD PROTECTION AND ILLEGALITY

3.01 Taxes.

(a) Payments Free of Taxes; Obligation to Withhold; Payments on Account of Taxes.

(i) Any and all payments by or on account of any obligation of the Loan Parties hereunder or under any other Loan Document shall to the extent permitted by applicable Laws be made free and clear of and without reduction or withholding for any Taxes. If, however, applicable Laws require the Loan Parties or the Administrative Agent to withhold or deduct any Tax, such Tax shall be withheld or deducted in accordance with such Laws as determined by the Borrower Agent or the Administrative Agent, as the case may be, upon the basis of the information and documentation to be delivered pursuant to subsection (e) below.

(ii) If any Loan Party or the Administrative Agent shall be required by applicable Laws to withhold or deduct any Taxes (including both United States federal backup withholding and withholding taxes) from any payment, then (A) the Administrative Agent shall withhold or make such deductions as are determined by the Administrative Agent to be required based upon the information and documentation it has received pursuant to subsection (e) below, (B) the Administrative Agent shall timely pay the full amount withheld or deducted to the relevant Governmental Authority in accordance with applicable Laws, and (C) to the extent that the withholding or deduction is made on account of Indemnified Taxes or Other Taxes, the sum payable by the Loan Parties shall be increased as necessary so that after any required withholding or the making of all required deductions (including withholdings or deductions applicable to additional sums payable under this Section) the Administrative Agent, Lender or Letter of Credit Issuer, as the case may be, receives an amount equal to the sum it would have received had no such withholding or deduction been made.

(b) Payment of Other Taxes by the Borrowers. Without limiting the provisions of subsection (a) above, the Loan Parties shall timely pay any Other Taxes to the relevant Governmental Authority in accordance with applicable Law.

(c) Tax Indemnification by the Borrowers.

(i) Without limiting the provisions of subsection (a) or (b) above, each Loan Party shall, and does hereby, indemnify the Administrative Agent, each Lender and the Letter of Credit Issuer, and shall make payment in respect thereof within ten (10) days after demand therefor, for the full amount of any Indemnified Taxes or Other Taxes (including Indemnified Taxes or Other Taxes imposed or asserted on or attributable to amounts payable under this Section) withheld or deducted by the Loan Parties or the Administrative Agent or paid by the Administrative Agent, such Lender or the Letter of Credit Issuer, as the case may be, and any penalties, interest and reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes or Other Taxes were correctly or legally imposed or asserted by the relevant Governmental

Authority. Each Loan Party shall also, and does hereby, indemnify the Administrative Agent, and shall make payment in respect thereof within ten (10) days after demand therefor, for any amount which a Lender or the Letter of Credit Issuer for any reason fails to pay indefeasibly to the Administrative Agent as required by clause (ii) of this subsection. A certificate as to the amount of any such payment or liability delivered to the Borrower Agent by a Lender or the Letter of Credit Issuer (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender or the Letter of Credit Issuer, shall be conclusive absent manifest error.

(ii) Without limiting the provisions of subsection (a) or (b) above, each Lender and the Letter of Credit Issuer shall, and does hereby, indemnify the Loan Parties and the Administrative Agent, and shall make payment in respect thereof within ten (10) days after demand therefor, against any and all Taxes and any and all related losses, claims, liabilities, penalties, interest and expenses (including the fees, charges and disbursements of any counsel for the Borrowers or the Administrative Agent) incurred by or asserted against the Loan Parties or the Administrative Agent by any Governmental Authority as a result of the failure by such Lender or the Letter of Credit Issuer, as the case may be, to deliver, or as a result of the inaccuracy, inadequacy or deficiency of, any documentation required to be delivered by such Lender or the Letter of Credit Issuer, as the case may be, to the Borrower Agent or the Administrative Agent pursuant to subsection (e). Each Lender and the Letter of Credit Issuer hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender or the Letter of Credit Issuer, as the case may be, under this Agreement or any other Loan Document against any amount due to the Administrative Agent under this clause (ii). The agreements in this clause (ii) shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the replacement of, a Lender or the Letter of Credit Issuer and the occurrence of the Facility Termination Date.

(d) Evidence of Payments. Upon request by the Borrower Agent or the Administrative Agent, as the case may be, after any payment of Taxes by the Loan Parties or by the Administrative Agent to a Governmental Authority as provided in this Section 3.01, the Borrower Agent shall deliver to the Administrative Agent or the Administrative Agent shall deliver to the Borrower Agent, as the case may be, the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of any return required by Laws to report such payment or other evidence of such payment reasonably satisfactory to the Borrower Agent or the Administrative Agent, as the case may be.

(e) Status of Lenders; Tax Documentation.

(i) Each Lender shall deliver to the Borrower Agent and to the Administrative Agent, at the time or times prescribed by applicable Laws or when reasonably requested by the Borrower Agent or the Administrative Agent, such properly completed and executed documentation prescribed by applicable Laws or by the taxing authorities of any jurisdiction and such other reasonably requested information as will permit the Borrower Agent or the Administrative Agent, as the case may be, to determine (A) whether or not payments made hereunder or under any other Loan Document are subject to Taxes, (B) if applicable, the required rate of withholding or deduction, and (C) such Lender's entitlement to any available exemption from, or reduction of, applicable Taxes in respect of all payments to be made to such Lender by the Loan Parties pursuant to this Agreement or otherwise to establish such Lender's status for withholding tax purposes in the applicable jurisdiction.

(ii) Without limiting the generality of the foregoing, if a Borrower is resident for tax purposes in the United States,

(A) any Lender that is a U.S. Person shall deliver to the Borrower Agent and the Administrative Agent executed originals of Internal Revenue Service Form W-9 or such other documentation or information prescribed by applicable Laws or reasonably requested by the Borrower Agent or the Administrative Agent as will enable the Borrower Agent or the Administrative Agent, as the case may be, to determine whether or not such Lender is subject to backup withholding or information reporting requirements; and

(B) each Foreign Lender that is entitled under the Code or any applicable treaty to an exemption from or reduction of withholding tax with respect to payments hereunder or under any other Loan Document shall deliver to the Borrower Agent and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the request of the Borrower Agent or the Administrative Agent, but only if such Foreign Lender is legally entitled to do so), whichever of the following is applicable:

(I) executed originals of Internal Revenue Service Form W-8BEN-E (or, if applicable W-8BEN) claiming eligibility for benefits of an income tax treaty to which the United States is a party,

(II) executed originals of Internal Revenue Service Form W-8ECI,

(III) executed originals of Internal Revenue Service Form W-8IMY and all required supporting documentation,

(IV) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate to the effect that such Foreign Lender is not (A) a "bank" within the meaning of Section 881(c)(3)(A) of the Code, (B) a "10 percent shareholder" of any Borrower within the meaning of Section 881(c)(3)(B) of the Code, or (C) a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code and (y) executed originals of Internal Revenue Service Form W-8BEN-E (or, if applicable, W-8BEN), or

(V) executed originals of any other form prescribed by applicable Laws as a basis for claiming exemption from or a reduction in United States federal withholding tax together with such supplementary documentation as may be prescribed by applicable Laws to permit the Borrower Agent or the Administrative Agent to determine the withholding or deduction required to be made; and

(C) if a payment made to a Lender under any Loan Document would be subject to U.S. federal withholding tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Borrower Agent and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by any Borrower or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by any Borrower or the Administrative Agent as may be necessary for the Borrowers and the Administrative Agent to comply with their obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (C),

"FATCA" shall include any amendments made to FATCA after the date of this Agreement. For purposes of this Section 3.01, "Laws" shall include FATCA.

(iii) Each Lender shall promptly (A) notify the Borrower Agent and the Administrative Agent of any change in circumstances which would modify or render invalid any claimed exemption or reduction, and (B) take such steps as shall not be materially disadvantageous to it, in the reasonable judgment of such Lender, and as may be reasonably necessary (including the redesignation of its Lending Office) to avoid any requirement of applicable Laws of any jurisdiction that the Loan Parties or the Administrative Agent make any withholding or deduction for taxes from amounts payable to such Lender.

(f) Treatment of Certain Refunds. Unless required by applicable Laws, at no time shall the Administrative Agent have any obligation to file for or otherwise pursue on behalf of a Lender or the Letter of Credit Issuer, or have any obligation to pay to any Lender or the Letter of Credit Issuer, any refund of Taxes withheld or deducted from funds paid for the account of such Lender or the Letter of Credit Issuer, as the case may be. If the Administrative Agent, any Lender or the Letter of Credit Issuer determines, in its sole discretion, that it has received a refund of any Taxes or Other Taxes as to which it has been indemnified by any Loan Party or with respect to which any Loan Party has paid additional amounts pursuant to this Section, it shall pay to such Loan Party an amount equal to such refund (but only to the extent of indemnity payments made, or additional amounts paid, by any Loan Party under this Section with respect to the Taxes or Other Taxes giving rise to such refund), net of all out-of-pocket expenses incurred by the Administrative Agent, such Lender or the Letter of Credit Issuer, as the case may be, and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund), provided that each Loan Party, upon the request of the Administrative Agent, such Lender or the Letter of Credit Issuer, agrees to repay the amount paid over to any Loan Party (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) to the Administrative Agent, such Lender or the Letter of Credit Issuer in the event the Administrative Agent, such Lender or the Letter of Credit Issuer is required to repay such refund to such Governmental Authority. This subsection shall not be construed to require the Administrative Agent, any Lender or the Letter of Credit Issuer to make available its tax returns (or any other information relating to its taxes that it deems confidential) to any Loan Party or any other Person.

3.02 Illegality. If any Lender determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable Lending Office to make, maintain or fund Loans whose interest is determined by reference to Term SOFR or the CDOR Rate, or to determine or charge interest rates based upon Term SOFR or the CDOR Rate, then, on notice thereof by such Lender to the Borrower Agent through the Administrative Agent, (i) any obligation of such Lender to make or continue SOFR Loans or to convert Canadian Base Rate Loans or Base Rate Loans to SOFR Loans shall be suspended and any obligation of such Lender to make or continue CDOR Rate Loans or to convert Canadian Prime Rate Loans to CDOR Rate Loans shall be suspended, (ii) if such notice asserts the illegality of such Lender making or maintaining Base Rate Loans or Canadian Base Rate Loans the interest rate on which is determined by reference to the Term SOFR component of the Base Rate and the Canadian Base Rate, the interest rate on which Base Rate Loans and Canadian Base Rate Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Term SOFR component of the Base Rate and Canadian Base Rate, and (iii) if such notice asserts the illegality of such Lender making or maintaining Canadian Prime Rate Loans the interest rate on which is determined by reference to the CDOR Rate component of Canadian Prime Rate, the interest rate on which Canadian Prime Rate Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the CDOR Rate component of the Canadian Prime Rate, in each case until such Lender notifies the Administrative Agent and the Borrower Agent that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, (x) the Loan

Parties shall, upon demand from such Lender (with a copy to the Administrative Agent), prepay or, if applicable, convert all SOFR Loans of such Lender to Base Rate Loans or Canadian Base Rate Loans (the interest rate on which Base Rate Loans or Canadian Base Rate of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Term SOFR component of the Base Rate and Canadian Base Rate), either on the last day of the Interest Period therefor, if such Lender may lawfully continue to maintain such SOFR Loans to such day, or immediately, if such Lender may not lawfully continue to maintain such SOFR Loans, (y) the Loan Parties shall, upon demand from such Lender (with a copy to the Administrative Agent), prepay or, if applicable, convert all CDOR Rate Loans of such Lender to Canadian Prime Rate Loans (the interest rate on which Canadian Prime Rate of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the CDOR Rate component of the Canadian Prime Rate), either on the last day of the Interest Period therefor, if such Lender may lawfully continue to maintain such CDOR Rate Loans to such day, or immediately, if such Lender may not lawfully continue to maintain such CDOR Rate Loans, and (z) if such notice asserts the illegality of such Lender determining or charging interest rates based upon Term SOFR or the CDOR Rate, the Administrative Agent shall during the period of such suspension compute (A) the Base Rate or Canadian Base Rate, as applicable, applicable to such Lender without reference to the Term SOFR component thereof and (B) the Canadian Prime Rate applicable to such Lender without reference to the CDOR component thereof, until the Administrative Agent is advised in writing by such Lender that it is no longer illegal for such Lender to determine or charge interest rates based upon Term SOFR or the CDOR Rate, as applicable. Upon any such prepayment or conversion, the Loan Parties shall also pay accrued interest on the amount so prepaid or converted.

3.03 Inability to Determine Rates; Effect of Benchmark Transition Event.

(a) Inability to Determine Rates. Subject to Section 3.03(b), if, on or prior to the first day of any Interest Period for any SOFR Loan or CDOR Rate Loan, as applicable:

(i) the Administrative Agent determines (which determination shall be conclusive and binding absent manifest error) that Term SOFR cannot be determined, or

(ii) the Required Lenders determine that for any reason in connection with any request for a SOFR Loan or CDOR Rate Loans or a conversion thereto or a continuation thereof that Term SOFR or the CDOR Rate for any requested Interest Period with respect to a proposed SOFR Loan or CDOR Rate Loan or in connection with an existing or proposed Base Rate Loan, Canadian Base Rate Loan or Canadian Prime Rate Loan does not adequately and fairly reflect the cost to such Lenders of funding such Loan, and the Required Lenders have provided notice of such determination to the Administrative Agent, then the Administrative Agent will promptly so notify the Borrower Agent and each Lender. Upon notice thereof by the Administrative Agent to the Borrower Agent, any obligation of the Lenders to make or continue SOFR Loans or CDOR Rate Loans shall be suspended (to the extent of the affected SOFR Loans or CDOR Rate Loans and, in the case of a SOFR Loan or a CDOR Rate Loan, the affected Interest Periods) until the Administrative Agent revokes such notice. Upon receipt of such notice, (i) the Borrower Agent may revoke any pending request for a borrowing of, conversion to or continuation of SOFR Loans or CDOR Rate Loans (to the extent or the affected SOFR Loans or CDOR Rate Loans and, in the case of a SOFR Loan or CDOR Rate Loan, the affected Interest Periods) or, failing that, the Borrower Agent will be deemed to have converted such any request into a request for a Borrowing of or conversion to Base Rate Loans, Canadian Base Rate Loans or Canadian Prime Rate Loans in the amount specified therein and (ii) any outstanding affected SOFR Loans or CDOR Rate Loans will be deemed to have been converted into Base Rate Loans, Canadian Base Rate Loans or Canadian Prime Rate Loans, as applicable immediately or, in the case of SOFR Loans or CDOR Rate Loans, at the end of the applicable Interest Period. Upon any such conversion, the Borrowers shall also pay any additional amounts required pursuant to this Agreement.

(b) Effect of Benchmark Transition Event. Notwithstanding anything to the contrary herein or in any other Loan Document (and any Swap Contract shall be deemed not to be a "Loan Document" for the purposes of this Section 3.03):

(i) Benchmark Replacement. If a Benchmark Transition Event and its related Benchmark Replacement Date have occurred prior to any setting of the then-current Benchmark, then (A) if a Benchmark Replacement is determined in accordance with clause (a) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of such Benchmark setting and subsequent Benchmark settings without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document and (B) if a Benchmark Replacement is determined in accordance with clause (b) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of any Benchmark setting at or after 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Benchmark Replacement is provided to the Lenders without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document so long as the Administrative Agent has not received, by such time, written notice of objection to such Benchmark Replacement from Lenders comprising the Required Lenders. If the Benchmark Replacement is Daily Simple SOFR, all interest payments will be payable on a monthly basis.

(ii) Benchmark Replacement Conforming Changes. In connection with the use, administration, adoption or implementation of a Benchmark Replacement, the Administrative Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document.

(iii) Notice; Standards for Decisions and Determinations. The Administrative Agent will promptly notify the Borrower Agent and the Lenders of (A) the implementation of any Benchmark Replacement and (B) the effectiveness of any Conforming Changes in connection with the use, administration, adoption or implementation of a Benchmark Replacement. The Administrative Agent will promptly notify the Borrower Agent of the removal or reinstatement of any tenor of a Benchmark pursuant to Section 3.03. Any determination, decision or election that may be made by the Administrative Agent or, if applicable, any Lender (or group of Lenders) pursuant to this Section 3.03, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Loan Document, except, in each case, as expressly required pursuant to this Section 3.03.

(iv) Unavailability of Tenor of Benchmark. At any time (including in connection with the implementation of a Benchmark Replacement) (A) if the then-current Benchmark is a term rate (including the Term SOFR Reference Rate) and either (1) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion or (2) the administration of such

Benchmark or the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is not or will not be representative, then the Administrative Agent may modify the definition of "Interest Period" (or any similar or analogous definition) for any Benchmark settings at or after such time to remove such unavailable, non-representative, non-compliant or non-aligned tenor and (B) if a tenor that was removed pursuant to clause (A) above either (1) is subsequently displayed on a screen or information service for a Benchmark (including a Benchmark Replacement) or (2) ceases to be not be representative for a Benchmark (including a Benchmark Replacement), then the Administrative Agent may modify the definition of "Interest Period" (or any similar or analogous definition) for all Benchmark settings at or after such time to reinstate such previously removed tenor.

(v) Benchmark Unavailability Period. Upon the Borrower Agent's receipt of notice of the commencement of a Benchmark Unavailability Period, the Borrower Agent may revoke any pending request for a SOFR Loan, or conversion to or continuation of SOFR Loans to be made, converted or continued during any Benchmark Unavailability Period and, failing that, the Borrower Agent will be deemed to have converted any such request into a request for a Borrowing of or conversion to Base Rate Loans. During a Benchmark Unavailability Period or at any time that a tenor for the then-current Benchmark is not an Available Tenor, the component of Base Rate based upon the then-current Benchmark or such tenor for such Benchmark, as applicable, will not be used in any determination of Base Rate.

3.04 Increased Costs; Reserves on SOFR Loans or CDOR Rate Loans.

(a) Increased Costs Generally. If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Lender (except any reserve requirement contemplated by Section 3.04(e)) or the Letter of Credit Issuer;

(ii) subject any Lender or the Letter of Credit Issuer to any tax of any kind whatsoever with respect to this Agreement, any Letter of Credit, any participation in a Letter of Credit, or any SOFR Loan or CDOR Rate Loan made by it, or change the basis of taxation of payments to such Lender or the Letter of Credit Issuer in respect thereof (except for Indemnified Taxes or Other Taxes covered by Section 3.01 and the imposition of, or any change in the rate of, any Excluded Tax payable by such Lender or the Letter of Credit Issuer); or

(iii) impose on any Lender or the Letter of Credit Issuer any other condition, cost or expense affecting this Agreement or SOFR Loans or CDOR Rate Loans made by such Lender or any Letter of Credit or participation therein;

and the result of any of the foregoing shall be to increase the cost to such Lender of making or maintaining any Loan the interest on which is determined by reference to Term SOFR or the CDOR Rate (or of maintaining its obligation to make any such Loan), or to increase the cost to such Lender or the Letter of Credit Issuer issuing or maintaining any Letter of Credit (or of maintaining its obligation to issue any Letter of Credit), or to reduce the amount of any sum received or receivable by such Lender or the Letter of Credit Issuer hereunder (whether of principal, interest or any other amount) then, upon request of such Lender or the Letter of Credit Issuer, the Loan Parties will pay to such Lender or the Letter of Credit Issuer,

as the case may be, such additional amount or amounts as will compensate such Lender or the Letter of Credit Issuer, as the case may be, for such additional costs incurred or reduction suffered.

(b) Capital Requirements. If any Lender or the Letter of Credit Issuer determines that any Change in Law affecting such Lender or the Letter of Credit Issuer or any Lending Office of such Lender or such Lender's or the Letter of Credit Issuer's holding company, if any, regarding capital or liquidity requirements has or would have the effect of reducing the rate of return on such Lender's or the Letter of Credit Issuer's capital or on the capital of such Lender's or the Letter of Credit Issuer's holding company, if any, as a consequence of this Agreement, the Revolving Credit Commitments of such Lender or the Loans made by, or participations in Letters of Credit held by, such Lender, or the Letters of Credit issued by the Letter of Credit Issuer, to a level below that which such Lender or the Letter of Credit Issuer or such Lender's or the Letter of Credit Issuer's holding company could have achieved but for such Change in Law (taking into consideration such Lender's or the Letter of Credit Issuer's policies and the policies of such Lender's or the Letter of Credit Issuer's holding company with respect to capital adequacy), then from time to time pursuant to subsection (c) below the Loan Parties will pay to such Lender or the Letter of Credit Issuer, as the case may be, such additional amount or amounts as will compensate such Lender or the Letter of Credit Issuer or such Lender's or the Letter of Credit Issuer's holding company for any such reduction suffered.

(c) Certificates for Reimbursement. A certificate of a Lender or the Letter of Credit Issuer setting forth the amount or amounts necessary to compensate such Lender or the Letter of Credit Issuer or its holding company, as the case may be, as specified in subsection (a) or (b) of this Section and delivered to the Borrower Agent shall be conclusive absent manifest error. The Loan Parties shall pay such Lender or the Letter of Credit Issuer, as the case may be, the amount shown as due on any such certificate within ten (10) days after receipt thereof.

(d) Delay in Requests. Failure or delay on the part of any Lender or the Letter of Credit Issuer to demand compensation pursuant to the foregoing provisions of this Section shall not constitute a waiver of such Lender's or the Letter of Credit Issuer's right to demand such compensation, provided that the Loan Parties shall not be required to compensate a Lender or the Letter of Credit Issuer pursuant to the foregoing provisions of this Section for any increased costs incurred or reductions suffered more than six months prior to the date that such Lender or the Letter of Credit Issuer, as the case may be, notifies the Loan Parties of the Change in Law giving rise to such increased costs or reductions and of such Lender's or the Letter of Credit Issuer's intention to claim compensation therefor (except that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the nine-month period referred to above shall be extended to include the period of retroactive effect thereof).

3.05 Compensation for Losses. Upon demand of any Lender (with a copy to the Administrative Agent) from time to time, the Borrowers shall promptly compensate such Lender for and hold such Lender harmless from any loss, cost or expense incurred by it as a result of:

(a) any continuation, conversion, payment or prepayment of any Loan other than a Base Rate Loan, Canadian Base Rate Loan or Canadian Prime Rate Loan on a day other than the last day of the Interest Period for such Loan (whether voluntary, mandatory, automatic, by reason of acceleration, or otherwise);

(b) any failure by the Borrowers (for a reason other than the failure of such Lender to make a Loan) to prepay, borrow, continue or convert any Loan other than a Base Rate Loan on the date or in the amount notified by the Borrower Agent; or

(c) any assignment of a SOFR Loan or CDOR Rate Loan on a day other than the last day of the Interest Period therefor as a result of a request by the Borrower Agent pursuant to Section 11.13;

including any loss or expense arising from the liquidation or reemployment of funds obtained by it to maintain such Loan or from fees payable to terminate the deposits from which such funds were obtained. The Borrowers shall also pay any customary administrative fees charged by such Lender in connection with the foregoing.

For purposes of calculating amounts payable by the Borrowers to the Lenders under this Section 3.05, each Lender shall be deemed to have funded each SOFR Loan or CDOR Rate Loan made by it at Term SOFR or the CDOR Rate, as applicable, for such Loan by a matching deposit or other borrowing in the applicable market for a comparable amount and for a comparable period, whether or not such SOFR Loan or CDOR Rate Loan was in fact so funded.

3.06 Mitigation Obligations; Replacement of Lenders.

(a) Designation of a Different Lending Office. If any Lender requests compensation under Section 3.04, or the Borrowers are required to pay any additional amount to any Lender, the Letter of Credit Issuer or any Governmental Authority for the account of any Lender or the Letter of Credit Issuer pursuant to Section 3.01, or if any Lender gives a notice pursuant to Section 3.02, then such Lender or the Letter of Credit Issuer, as applicable, shall use reasonable efforts to designate a different Lending Office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender or the Letter of Credit Issuer, such designation or assignment (i) would eliminate or reduce amounts payable pursuant to Section 3.01 or 3.04, as the case may be, in the future, or eliminate the need for the notice pursuant to Section 3.02, as applicable, and (ii) in each case, would not subject such Lender or the Letter of Credit Issuer, as the case may be, to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender or the Letter of Credit Issuer, as the case may be. The Borrowers hereby agree to pay all reasonable costs and expenses incurred by any Lender or the Letter of Credit Issuer in connection with any such designation or assignment.

(b) Replacement of Lenders. If any Lender requests compensation under Section 3.04, or if the Borrowers are required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 3.01, the Borrowers may replace such Lender in accordance with Section 11.13.

3.07 Survival. All of the Borrowers' obligations under this Article III shall survive the resignation of the Administrative Agent, the Letter of Credit Issuer and the Swing Line Lender, the replacement of any Lender and the occurrence of the Facility Termination Date.

3.08 Judgment Currency.

(a) Currency Conversion Procedures for Judgments. If for the purposes of obtaining judgment in any court it is necessary to convert a sum due hereunder or under any Loan Document in any currency (the "Original Currency") in another currency (the "Other Currency"), the parties hereby agree, to the fullest extent permitted by applicable Law, that the rate of exchange used shall be that at which, on the relevant date, in accordance with its normal banking procedures, the Administrative Agent and each Lender could purchase the Original Currency with the Other Currency after any premium and costs of exchange on the Business Day preceding that on which final judgment is given.

(b) Indemnity in Certain Events. The obligation of the Loan Parties in respect of any sum due from any Loan Party to the Administrative Agent or any Lender hereunder shall, notwithstanding any judgment in any Other Currency, whether pursuant to a judgment or otherwise, be discharged only to the extent that, on the Business Day of receipt (if received by 1:00 p.m., Chicago time, and otherwise on the following Business Day) by any Lender of any sum adjudged to be so due in such Other Currency, such

lender may, on the relevant date, in accordance with its normal banking procedures, purchase the Original Currency with such Other Currency. If the amount of the Original Currency so purchased is less than the sum originally due to such Lender in the Original Currency, the Loan Parties agree, as a separate obligation and notwithstanding such judgment or payment, to indemnify Administrative Agent and each Lender against such loss.

ARTICLE IV
SECURITY AND ADMINISTRATION OF COLLATERAL

4.01 Security. As security for the full and timely payment and performance of all Obligations, the Borrower Agent shall, and shall cause each other Loan Party to, on or before the Closing Date, do or cause to be done all things necessary in the opinion of the Administrative Agent and its counsel to grant to the Administrative Agent for the benefit of the Secured Parties a duly perfected first priority security interest in all Collateral (subject to no prior Lien or other encumbrance or restriction on transfer, other than (x) the Secured Note Liens expressly permitted to have priority with respect to the Secured Note Priority Collateral under and in accordance with this Agreement and the Secured Note Intercreditor Agreement and (y) other Permitted Liens expressly permitted to have priority over such security interest in such Collateral under this Agreement). Without limiting the foregoing, on the Closing Date the Borrower Agent shall deliver, and shall cause each other Loan Party to deliver, to the Administrative Agent, in form and substance reasonably acceptable to the Administrative Agent, (a) the Security Agreement, the Canadian Security Agreement, and the Canadian Hypothec, each of which shall pledge to the Administrative Agent for the benefit of the Secured Parties certain personal property of the applicable Borrowers and the other Loan Parties more particularly described therein, and (b) UCC and PPSA financing statements (including confirmation of the registration of the Canadian Hypothec) in form, substance and number as requested by the Administrative Agent, reflecting the Lien in favor of the Secured Parties on the Collateral, and shall take such further action and deliver or cause to be delivered such further documents as required by the Security Instruments or otherwise as the Administrative Agent may request to effect the transactions contemplated by this Article IV.

4.02 Collateral Administration.

(a) Administration of Accounts.

(i) Records and Schedules of Accounts. Each Borrower shall keep accurate and complete records of its Accounts, including all payments and collections thereon, and shall submit to the Administrative Agent sales, collection, reconciliation and other reports in form satisfactory to the Administrative Agent, on such periodic basis as the Administrative Agent may request.

(ii) Taxes. If an Account of any Loan Party includes a charge for any Taxes, Administrative Agent is authorized, in its discretion, to pay the amount thereof to the proper taxing authority for the account of such Borrower and to charge Borrowers therefor; provided, however, that neither the Administrative Agent nor Lenders shall be liable for any Taxes that may be due from the Borrowers or with respect to any Collateral.

(iii) Account Verification. Whether or not a Default or Event of Default exists, the Administrative Agent shall have the right at any time, in the name of the Administrative Agent, any designee of the Administrative Agent or (during the continuance of any Event of Default) any Borrower, to verify the validity, amount or any other matter relating to any Accounts of the Borrowers by mail, telephone or otherwise. The Borrowers shall cooperate fully with the Administrative Agent in an effort to facilitate and promptly conclude any such verification process.

(iv) Proceeds of Collateral. The Borrowers shall request in writing and otherwise take all necessary steps to ensure that all payments on Accounts or otherwise relating to Collateral are made directly to a Controlled Deposit Account (or a lockbox relating to a Controlled Deposit Account). If any Borrower or Subsidiary receives cash or Payment Items with respect to any Collateral, it shall hold same in trust for the Administrative Agent and promptly (not later than the next Business Day) deposit same into a Controlled Deposit Account.

(v) Extensions of Time for Payment. In addition, upon the occurrence and during the continuance of an Event of Default, other than in the Ordinary Course of Business and in amounts which are not material to such Borrower, each Borrower will not (i) grant any extension of the time for payment of any Account, (ii) compromise or settle any Account for less than the full amount thereof, (iii) release, wholly or partially, any Person liable for the payment of any Account, (iv) allow any credit or discount whatsoever on any Account or (v) amend, supplement or modify any Account in any manner that could adversely affect the value thereof.

(b) Administration of Inventory.

(i) Records and Reports of Inventory. Each Borrower shall keep accurate and complete records of its Inventory, including costs and daily withdrawals and additions, and shall submit to Administrative Agent inventory and reconciliation reports in form satisfactory to the Administrative Agent, on such periodic basis as the Administrative Agent may request in accordance with Section 7.02(d). Each Borrower shall conduct a physical inventory at least once per calendar year (and on a more frequent basis if requested by the Administrative Agent when an Event of Default exists) and periodic cycle counts consistent with historical practices, and shall provide to the Administrative Agent a report based on each such inventory and count promptly upon completion thereof, together with such supporting information as the Administrative Agent may request. The Administrative Agent may participate in and observe each physical count. The Administrative Agent, in its reasonable discretion if any Event of Default is continuing, may cause additional such inventories to be taken as the Administrative Agent determines (each, at the expense of the Loan Parties).

(ii) Returns of Inventory. No Borrower shall return any Inventory to a supplier, vendor or other Person, whether for cash, credit or otherwise, unless (a) such return is in the Ordinary Course of Business; (b) no Default, Event of Default or Overadvance exists or would result therefrom; (c) the Administrative Agent is promptly notified if the aggregate value of all Inventory returned in any month exceeds $500,000; and (d) any payment received by a Borrower for a return is promptly remitted to the Administrative Agent for application to the Obligations in accordance with Section 2.06(c).

(iii) Acquisition, Sale and Maintenance. No Borrower shall acquire or accept any Inventory on consignment or approval, and shall take all steps to assure that all Inventory is produced in accordance with applicable Law, including the FLSA. No Borrower shall sell any Inventory on consignment or approval or any other basis under which the customer may return or require a Borrower to repurchase such Inventory. The Borrowers shall use, store and maintain all Inventory with reasonable care and caution, in accordance with applicable standards of any insurance and in conformity with all applicable Laws, and shall make current rent payments (within applicable grace periods provided for in leases) at all locations where any Collateral is located.

4.03 After Acquired Property; Further Assurances.

(a) New Deposit Accounts and Securities Accounts. Concurrently with or prior to the opening of any Deposit Account, Securities Account or Commodity Account by any Loan Party, other than any Excluded Deposit Account, such Loan Party shall deliver to the Administrative Agent a Control Agreement covering such Deposit Account, Securities Account or Commodity Account, duly executed by such Loan Party, the Administrative Agent and the applicable Controlled Account Bank, securities intermediary or financial institution at which such account is maintained.

(b) Future Locations Subject to Material Third-Party Agreements. With respect to any location of Collateral subject to a Material Third-Party Agreement entered into after the Closing Date, each Loan Party shall use commercially reasonable efforts to provide the Administrative Agent with Lien Waivers with respect to the premises subject to such Material Third-Party Agreements. Loan Parties acknowledge that if such Lien Waivers are not delivered, then, at the election of the Administrative Agent, all or a portion of the Collateral at such locations may be deemed ineligible for inclusion in the Borrowing Base and/or the Administrative Agent may establish a Rent and Charges Reserve for such location.

(c) [Reserved].

(d) Future Leases. Without limiting the generality of Section 4.03(b), promptly after entering into any new lease of Real Property or renewing any existing lease of Real Property following the Closing Date, each Borrower shall, and shall cause each Loan Party to, use commercially reasonable efforts to deliver to the Administrative Agent a Lien Waiver, in form and substance reasonably satisfactory to the Administrative Agent, executed by the lessor of any Real Property. Loan Parties acknowledge that if such a Lien Waivers is not delivered, then, at the election of the Administrative Agent, all or a portion of the Collateral at such locations may be deemed ineligible for inclusion in the Borrowing Base and/or the Administrative Agent may establish a Rent and Charges Reserve for such location.

(e) UCC/PPSA Authorization. The Administrative Agent is hereby irrevocably authorized to execute (if necessary) and file or cause to be filed, with or if permitted by applicable Law without the signature of any Borrower appearing thereon, all UCC and PPSA financing statements reflecting any Borrower as "debtor" and the Administrative Agent as "secured party", and continuations or renewals thereof and amendments thereto, as the Administrative Agent reasonably deems necessary or advisable to give effect to the transactions contemplated hereby and by the other Loan Documents.

4.04 Cash Management.

(a) Controlled Deposit Accounts. Each Loan Party shall enter into a Control Agreement with respect to each Deposit Account listed on Schedule 6.19, other than Excluded Deposit Accounts, which shall include all lockboxes and related lockbox accounts used for the collection of Accounts. Each Loan Party agrees that it shall take all commercially reasonable steps necessary to ensure that all payments in respect of Accounts or other Collateral be paid to a Controlled Deposit Account in its name, including ensuring that all invoices rendered and other requests made by any Loan Party for payment in respect of Accounts contain a written statement directing payment to be made to a Controlled Deposit Account in its name. At the request of the Administrative Agent, the Borrower Agent shall cause bank statements and/or other reports from the Controlled Account Banks to be delivered to the Administrative Agent not less often than monthly, accurately setting forth all amounts deposited in each Controlled Deposit Account to ensure the proper transfer of funds as set forth above. All remittances received by any Loan Party on account of Accounts, together with the proceeds of any other Collateral, shall be held as the Administrative Agent's property, for its benefit and the benefit of the Lenders, by such Loan Party as trustee of an express trust for the Administrative Agent's benefit and such Loan Party shall immediately deposit same in kind in a Controlled Deposit Account. The Administrative Agent retains the right at all times after the occurrence and during the continuance of a Default or an Event of Default to notify Account Debtors that a Loan

Party's Accounts have been assigned to the Administrative Agent and to collect such Loan Party's Accounts directly in its own name, or in the name of the Administrative Agent's agent, and to charge the collection costs and expenses, including reasonable attorneys' fees, to the Loan Account.

(b) Concentration Account. Each Control Agreement with respect to a Controlled Deposit Account shall require that, during a Dominion Trigger Period, the Controlled Account Bank transfer all cash receipts and other collections by ACH or wire transfer no less frequently than daily (and whether or not there are then any outstanding Obligations) to the concentration account maintained by the Administrative Agent at BMO (the "Concentration Account"). The Concentration Account shall at all times be under the sole dominion and control of the Administrative Agent. The Loan Parties hereby acknowledge and agree that (i) the Loan Parties have no right of withdrawal from the Concentration Account, (ii) the funds on deposit in the Concentration Account shall at all times be collateral security for all of the Obligations and (iii) the funds on deposit in the Concentration Account shall be applied as provided in Section 4.04(c) below. In the event that, notwithstanding the provisions of this Section 4.04, any Loan Party receives or otherwise has dominion and control of any such proceeds or collections described above, such proceeds and collections shall be held in trust by such Loan Party for the Administrative Agent, shall not be commingled with any of such Loan Party's other funds or deposited in any account of such Loan Party and shall, not later than the Business Day after receipt thereof, be deposited into a Controlled Deposit Account, or during a Dominion Trigger Period, the Concentration Account, or dealt with in such other fashion as such Loan Party may be instructed by the Administrative Agent.

(c) Application of Funds in the Concentration Account. All funds received in the Concentration Account in immediately available funds shall, subject to Section 9.03, be applied on a daily basis first, to the Letter of Credit Borrowings and the Swing Line Loans, second, to the outstanding Revolving Credit Loans and third, to any fees, expenses, costs or reimbursement obligations due and owing to the Administrative Agent or the Lenders. All funds received in the Concentration Account that are not immediately available funds (checks, drafts and similar forms of payment) shall be deemed applied by the Administrative Agent on account of the Obligations (subject to final payment of such items) in accordance with the foregoing sentence on the first Business Day after receipt by the Administrative Agent of such items in the Administrative Agent's account located in Chicago, Illinois. If as the result of such application of funds a credit balance exists in the Loan Account, such credit balance shall not accrue interest in favor of the Borrowers but shall, so long as no Default or Event of Default then exists, be disbursed to the Borrowers or otherwise at the Borrower Agent's direction, upon the Borrower Agent's request. Upon and during the continuance of any Event of Default, the Administrative Agent may, at its option, offset such credit balance against any of the Obligations or hold such credit balance as Collateral for the Obligations.

(d) Controlled Securities Accounts. Within sixty (60) days after the Closing Date (or such later time as the Administrative Agent shall agree), enter into a Control Agreement with respect to each Securities Account and Commodity Account listed on part (b) of Schedule 6.19. At the request of the Administrative Agent, the Borrower Agent shall cause account statements and/or other reports from the applicable broker, financial institution or other financial intermediary to be delivered to the Administrative Agent not less often than monthly, accurately setting forth all assets, including securities entitlements, financial assets or other amounts, held in each Securities Account or Commodity Account.

4.05 Information Regarding Collateral. Each Borrower represents, warrants and covenants that Schedule 4.05 sets forth as of the Closing Date, (a) the exact legal name, jurisdiction of formation, organizational identification number, chief executive office and any trade name or other trade style of each Loan Party and each of its Subsidiaries, (b) each Person that has effected any merger, amalgamation or consolidation with a Loan Party or sold, contributed or transferred to a Loan Party any property constituting Collateral at any time since, in each case, June 30, 2017 (excluding Persons making sales in the ordinary course of their businesses to a Loan Party of property constituting Inventory in the hands of such seller),

(c) any prior legal name, jurisdiction of formation, organizational identification number, trade name or other trade style or location of the chief executive office of each Loan Party at any time since June 30, 2017, and (d) each location within the United States or Canada in which material goods constituting Collateral are located as of the Closing Date (together with the name of each owner of the property located at such address if not the applicable Loan Party, a summary description of the relationship between the applicable Loan Party and such Person and the maximum approximate book or market value of the Collateral held or to be held at such location). No Loan Party shall change, or permit any other Loan Party or Subsidiary of any Loan Party to change, its name, jurisdiction of formation (whether by reincorporation, merger, amalgamation, continuation or otherwise), the location of its chief executive office or registered office or any location specified in clause (d) of the immediately preceding sentence, or use or permit any other Loan Party to use, any additional trade name or other trade style, except upon giving not less than thirty (30) days' prior written notice to the Administrative Agent (or such shorter period as the Administrative Agent may agree) and taking or causing to be taken all such action at Borrowers' or such other Loan Parties' expense as may be reasonably requested by the Administrative Agent to perfect or maintain the perfection and priority of the Lien of the Administrative Agent in the Collateral.

ARTICLE V
CONDITIONS PRECEDENT TO CREDIT EXTENSIONS

5.01 Conditions of Initial Credit Extension. The obligation of each Lender and the Letter of Credit Issuer to make any initial Credit Extension hereunder is subject to satisfaction of the following conditions precedent:

(a) The Administrative Agent's receipt of the following items (except those items that are expressly permitted to be delivered after the Closing Date pursuant to the terms hereof and/or the PostClosing Agreement), each properly executed by a Responsible Officer of the applicable Loan Party, each dated as of the Closing Date (or, in the case of certificates of governmental officials, a recent date before the Closing Date) and each in form and substance satisfactory to the Administrative Agent in its discretion and its legal counsel:

(i) (x) executed counterparts of this Agreement and each of the Security Instruments and (y) executed counterparts of the Secured Note Intercreditor Agreement;

(ii) Notes executed by the Borrowers in favor of each Lender requesting a Note;

(iii) a Secretary's Certificate for each Loan Party certifying as to (A) true and complete copies of all Organization Documents of such Loan Party attached thereto, (B) resolutions of the Board of Directors or other organizational action authorizing execution, delivery and performance of all Loan Documents to which such Loan Party is a party, and (C), incumbency of officers (including specimen signatures) evidencing the identity, authority and capacity of each Responsible Officer thereof authorized to act as a Responsible Officer in connection with this Agreement and the other Loan Documents to which such Loan Party is a party;

(iv) certification from any applicable Governmental Authority as the Administrative Agent may reasonably require to evidence that each Loan Party is duly organized or formed, and that each Loan Party is validly existing, in good standing and qualified to engage in business in its jurisdiction of organization and in any other jurisdiction in which the failure to be so qualified could reasonably be expected to have a Material Adverse Effect, including certified copies of such Loan Party's Organization Documents, agreements among holders of Equity Interests, certificates of good standing (or the equivalent thereof) and qualification to engage in business in each applicable jurisdiction;

(v) a favorable opinion of FisherBroyles, LLP, counsel to the Loan Parties, and acceptable local counsel to the Loan Parties (including Stewart McKelvey, Nova Scotia counsel to the Loan Parties and Lavery de Billy LLP, Quebec counsel to the Loan Parties), each addressed to the Administrative Agent and each Lender and their successors and assigns, as to the matters concerning the Loan Parties and the Loan Documents as the Administrative Agent may reasonably request;

(vi) certificates of Responsible Officers of the Borrower Agent or the applicable Loan Parties either (A) identifying all consents, licenses and approvals required in connection with the execution, delivery and performance by each Borrower and the validity against each such Loan Party of the Loan Documents to which it is a party, and stating that such consents, licenses and approvals shall be in full force and effect, and attaching true and correct copies thereof or (B) stating that no such consents, licenses or approvals are so required;

(vii) a certificate signed by a Responsible Officer of the Borrower Agent certifying (A) that the conditions specified in Sections 5.02(a) and 5.02(b) have been satisfied and (B) as to the matters described in Section 5.01(d);

(viii) (A) audited financial statements of the Borrowers and their Subsidiaries, on a Consolidated basis, for the Fiscal Years ended December 31, 2021, December 31, 2020, and December 31, 2019 (B) unaudited interim financial statements for the Borrowers and their Subsidiaries as of March 31, 2022, and (C) financial projections of the Consolidated Group for the next twelve (12) months;

(ix) a certificate signed by the chief financial officer, chief accounting officer, or treasurer, as a Responsible Officer of the Borrower Agent certifying that, after giving effect to the entering into of the Loan Documents and the consummation of all of the Transactions, (A) each Borrower is Solvent and (B) the Loan Parties, taken as a whole, are Solvent;

(x) evidence that all insurance required to be maintained pursuant to the Loan Documents has been obtained and is in effect (with loss payee endorsements naming the Administrative Agent as loss payee);

(xi) an initial Borrowing Base Certificate;

(xii) initial written notice of Borrowing;

(xiii) delivery of UCC and PPSA financing statements (including confirmation of the registration of the Canadian Hypothec), suitable in form and substance for filing in all places required by applicable law to perfect the Liens of the Administrative Agent under the Security Instruments as a first priority Lien as to items of Collateral (subject, in the case of the Secured Note Priority Collateral in accordance with the Secured Note Intercreditor Agreement, to the Secured Note Liens) in which a security interest may be perfected by the filing of financing statements, and such other documents and/or evidence of other actions as may be reasonably necessary under applicable law to perfect the Liens of the Administrative Agent under such Security Instruments as a first priority Lien in and to such other Collateral (subject, in the case of the Secured Note Priority Collateral in accordance with the Secured Note Intercreditor Agreement, to the Secured Note Liens) as the Administrative Agent may require;

(xiv) (A) UCC, PPSA and other customary lien search results showing only Permitted Liens and (B) searches of ownership of United States and Canadian Intellectual Property in the

appropriate governmental offices and such Intellectual Property filings as may be requested by the Administrative Agent to the extent necessary or desirable to perfect the Administrative Agent's security interest in intellectual property Collateral;

(xv) evidence satisfactory to the Administrative Agent of the consummation (in compliance with all applicable laws and regulations, with the receipt of all material governmental, shareholder and third party consents and approvals relating thereto) of the Transactions;

(xvi) executed counterparts of the Post-Closing Agreement;

(xvii) such other assurances, certificates, documents, consents or opinions as the Administrative Agent, the Letter of Credit Issuer, the Swing Line Lender or the Required Lenders may reasonably require, including, without limitation, all documents on the closing checklist last delivered by Administrative Agent to counsel for the Loan Parties.

(b) At least two (2) days prior to the Closing Date, (i) any Borrower that qualifies as a "legal entity customer" under the Beneficial Ownership Regulation shall deliver a Beneficial Ownership Certification in relation to such Borrower and (ii) so long as requested by the Administrative Agent or any Lender at least two (2) days prior to the Closing Date, the Borrowers shall have provided to the Administrative Agent and each requesting Lender the documentation and other information so requested in connection with applicable "know your customer" and Anti-Money Laundering Laws or Anti-Corruption Laws, including the PATRIOT Act and the Proceeds of Crime Act.

(c) Any fees required to be paid on or before the Closing Date shall have been paid.

(d) Unless waived by the Administrative Agent, the Borrowers shall have paid all reasonable fees, charges and disbursements of counsel to the Administrative Agent to the extent invoiced prior to or on the Closing Date, plus such additional amounts of such reasonable fees, charges and disbursements as shall constitute its reasonable estimate of such reasonable fees, charges and disbursements incurred or to be incurred by it through the closing proceedings (provided that such estimate shall not thereafter preclude a final settling of accounts between the Borrowers and the Administrative Agent).

(e) The Administrative Agent shall be satisfied that after giving effect to (i) the initial Credit Extension hereunder, (ii) consummation of the Transactions and payment of all fees and expenses in connection therewith and (iii) any payables stretched beyond their customary payment practices, Availability shall be at least $35,000,000.

(f) [Reserved].

(g) [Reserved].

(h) [Reserved].

(i) The Administrative Agent shall have completed all legal due diligence, insurance review and management background checks, in each case, the results of which shall be reasonably satisfactory to Administrative Agent.

(j) Since the date of the Audited Financial Statements there has been no event or circumstance, either individually or in the aggregate, that has had or could reasonably be expected to have a Material Adverse Effect, and the representations and warranties of the Loan Parties which are contained in Article

VI or any other Loan Document, or which are contained in any document furnished at any time prior to or on the Closing Date, shall be true and correct in all respects on and as of the Closing Date.

(k) On the Closing Date, the Administrative Agent and the Secured Note Agent shall have duly authorized, executed and delivered the Secured Note Intercreditor Agreement, and each Loan Party shall have acknowledged and agreed to the Secured Note Intercreditor Agreement, and the Secured Note Intercreditor Agreement shall be in full force and effect.

Without limiting the generality of the provisions of Section 10.04, for purposes of determining compliance with the conditions specified in this Section 5.01, each Lender that has signed this Agreement shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received notice from such Lender prior to the proposed Closing Date specifying its objection thereto.

5.02 Conditions to all Credit Extensions. The obligation of each Lender or Letter of Credit Issuer to honor any Request for Credit Extension (other than one requesting only a conversion of Loans to the other Type or a continuation of SOFR Loans or CDOR Rate Loans) or make the initial Credit Extension hereunder is subject to the following conditions precedent:

(a) The representations and warranties of the Loan Parties contained in Article VI or any other Loan Document, or which are contained in any document furnished at any time under or in connection herewith or therewith, shall be true and correct on and as of the date of such Credit Extension, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct as of such earlier date, and except that for purposes of this Section 5.02(a), the representations and warranties contained in subsections (a) and (b) of Section 6.05 shall be deemed to refer to the most recent financial statements furnished pursuant to clauses (a) and (b), respectively, of Section 7.01.

(b) No Default or Event of Default shall have occurred and be continuing, or would result from such proposed Credit Extension or from the application of the proceeds thereof.

(c) Except with respect to Credit Extensions in accordance with Section 4.04(c), the Administrative Agent and, if applicable, the Letter of Credit Issuer or the Swing Line Lender shall have received a Request for Credit Extension in accordance with the requirements hereof.

(d) In each case as determined on a pro forma basis after giving effect to such proposed Credit Extension as of the end of the Business Day on which such Credit Extension is to be made, (i) Total Revolving Credit Outstandings do not exceed the Maximum Borrowing Amount, and (ii) no prepayment would be required under Section 7.20 (on the next Business Day or otherwise).

Each Request for Credit Extension (other than one requesting only a conversion of Loans to the other Type or a continuation of SOFR Loans or CDOR Rate Loans) submitted by the Borrower Agent shall be deemed to be a representation and warranty that the conditions specified above in this Section 5.02 have been satisfied on and as of the date of the applicable Credit Extension. As an additional condition to any Credit Extension, Administrative Agent may request any other information, certification, document, instrument or agreement as it deems appropriate.

ARTICLE VI
REPRESENTATIONS AND WARRANTIES

To induce the Secured Parties to enter into this Agreement and to make Loans and to issue Letters of Credit hereunder, each Loan Party represents and warrants to the Administrative Agent and the Lenders, on the Closing Date and the date of each Credit Extension (subject to the limitation set forth in Section 5.02(a)) that:

6.01 Existence, Qualification and Power. Each Loan Party and each Subsidiary thereof (a) is a corporation, partnership, unlimited liability company or limited liability company duly organized or formed, validly existing and in good standing under the Laws of the jurisdiction of its incorporation, amalgamation, organization or formation, (b) has all requisite power and authority and all requisite governmental licenses, authorizations, consents and approvals to (i) own or lease its assets and carry on its business as is now being conducted and (ii) execute, deliver and perform its obligations under the Loan Documents to which it is a party and to consummate the Transactions to which it is a party, and (c) is duly qualified and is licensed and in good standing under the Laws of each jurisdiction where its ownership, lease or operation of properties or the conduct of its business requires such qualification or license; except in each case referred to in clause (b)(i), or (c), to the extent that failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. No Loan Party is an Affected Financial Institution or a Covered Entity (as defined in Section 11.21(b)).

6.02 Authorization; No Contravention. The execution, delivery and performance by each Loan Party of each Loan Document to which such Person is party, and the consummation of the Transactions, have been duly authorized by all necessary corporate or other organizational action, and do not and will not (a) contravene the terms of the Organization Documents of any such Person; (b) conflict with or result in any breach or contravention of, or the creation of any Lien under (i) any Contractual Obligation to which such Person is a party or (ii) any order, injunction, writ or decree of any Governmental Authority or any arbitral award to which such Person or its property is subject; or (c) violate any Law.

6.03 Governmental Authorization; Other Consents. No approval, consent, exemption, authorization, or other action by, or notice to, or filing with, any Governmental Authority or any other Person is necessary or required in connection with (a) the execution, delivery or performance by, or enforcement against, any Loan Party of this Agreement or any other Loan Document or the consummation of the Transactions, (b) the grant by any Loan Party of the Liens granted by it pursuant to the Collateral Documents, (c) the perfection or maintenance of the Liens created under the Collateral Documents (including the first priority nature thereof, subject to the Secured Note Intercreditor Agreement) or (d) the exercise by the Administrative Agent or any Lender of its rights under the Loan Documents or the remedies in respect of the Collateral pursuant to the Collateral Documents, except for the authorizations, approvals, actions, notices and filings listed on Schedule 6.03, all of which have been duly obtained, taken, given or made and are in full force and effect.

6.04 Binding Effect. This Agreement has been, and each other Loan Document, when

delivered hereunder, will have been, duly executed and delivered by each Loan Party that is party thereto. This Agreement constitutes, and each other Loan Document when so delivered will constitute, a legal, valid and binding obligation of such Loan Party, enforceable against each Loan Party that is party thereto in accordance with its terms, except (a) as rights to indemnification hereunder may be limited by applicable Law and (b) as the enforcement hereof may be limited by any applicable Debtor Relief Laws or by general equitable principles.

6.05 Financial Statements; No Material Adverse Effect.

(a) The Audited Financial Statements (i) were prepared in accordance with IFRS consistently applied throughout the period covered thereby, except as otherwise expressly noted therein; (ii) fairly present the financial condition of the Consolidated Group as of the date thereof and their results of operations for the period covered thereby in accordance with IFRS consistently applied throughout the period covered thereby, except as otherwise expressly noted therein; (iii) show all material Indebtedness and other liabilities, direct or contingent, of the Consolidated Group as of the date thereof, including liabilities for taxes, material commitments and Indebtedness.

(b) The unaudited Consolidated and consolidating balance sheet of the Consolidated Group dated as of March 31, 2022 and the related Consolidated and consolidating statements of income or operations, shareholders' equity and cash flows for the month then ended (i) were prepared in accordance with IFRS consistently applied throughout the period covered thereby, except as otherwise expressly noted therein, and (ii) fairly present the financial condition of the Consolidated Group as of the date thereof and their results of operations for the period covered thereby, subject, in the case of clauses (i) and (ii), to the absence of footnotes and to normal year-end audit adjustments.

(c) Since the date of the Audited Financial Statements there has been no event or circumstance, either individually or in the aggregate, that has had or could reasonably be expected to have a Material Adverse Effect.

(d) Each Borrower is Solvent and the Loan Parties and their Subsidiaries, on a Consolidated basis, are Solvent. No transfer of property has been or will be made by any Loan Party and no obligation has been or will be incurred by any Loan Party in connection with the transactions contemplated by this Agreement or the other Loan Documents with the intent to hinder, delay, or defraud either present or future creditors of any Loan Party or Subsidiary thereof.

6.06 Litigation. There are no actions, suits, proceedings, claims or disputes pending or, to the knowledge of any Loan Party after due investigation, threatened or contemplated, at law, in equity, in arbitration or before any Governmental Authority, by or against any Loan Party or any of its Subsidiaries or against any of their properties or revenues, that (a) purport to affect or pertain to this Agreement or any other Loan Document (including the grant and perfection of any Lien under any Security Instrument) or any of the Transactions or (b) except as specifically disclosed in Schedule 6.06, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect. There has been no adverse change in the status, or financial effect on any Loan Party or any Subsidiary thereof, of the matters described on Schedule 6.06.

6.07 No Default. No Loan Party nor any Subsidiary thereof is in default under or with respect to any Contractual Obligation that could, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. No Default has occurred and is continuing or would result from the consummation of the Transactions or any other transactions contemplated by this Agreement or any other Loan Document.

6.08 Ownership of Property; Liens.

(a) Each Loan Party and each Subsidiary thereof has good title to, or valid leasehold interests in, all its real and personal property material to its business, if any, and, with respect to any assets constituting Collateral, (i) free and clear of all Liens, claims and interests, except for Permitted Liens and (ii) except for minor defects in title that do not materially interfere with its ability to conduct its business as currently conducted or as proposed to be conducted or to utilize such properties for their intended purposes.

(b) Schedule 6.08 sets forth the address (including street address, county and state or province or territory) of all Real Property that is owned or subject to a ground lease by the Loan Parties and their Subsidiaries as of the Closing Date and identifies the owner thereof. Each Loan Party and each of its Subsidiaries has good, marketable and insurable fee simple title to the Real Property owned by such Loan Party or such Subsidiary, free and clear of all Liens, other than Permitted Liens. Each ground lease of the Loan Parties is in full force and effect and the Loan Parties are not in default of any material terms thereof.

6.09 Environmental Compliance.

(a) Except as disclosed in Schedule 6.09, no Loan Party or any Subsidiary thereof (i) has failed to comply with any Environmental Law or to obtain, maintain or comply with any permit, license or other approval required under any Environmental Law with respect to such Loan Party's or such Subsidiary's operations, (ii) has become subject to a pending claim with respect to any Environmental Liability or (iii) has received written notice of any claim with respect to any Environmental Liability except, in each case, as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(b) Except as otherwise set forth in Schedule 6.09 or as would not individually or in the aggregate reasonably be expected to result in a Material Adverse Effect none of the properties currently owned or operated by any Loan Party or any Subsidiary thereof is listed or, to the knowledge of the Loan Parties, proposed for listing on the NPL or on the CERCLIS or any analogous foreign, federal, state, provincial, territorial or local list or is adjacent to any such property.

(c) Except as otherwise set forth on Schedule 6.09 or as would not individually or in the aggregate reasonably be expected to result in a Material Adverse Effect, (i) no Loan Party nor any Subsidiary thereof is undertaking, and no Loan Party nor any Subsidiary thereof has completed, either individually or together with other potentially responsible parties, any investigation or assessment or remedial or response action relating to any actual or threatened release, discharge or disposal of Hazardous Materials at any site, location or operation, either voluntarily or pursuant to the order of any Governmental Authority or the requirements of any Environmental Law, and (ii) all Hazardous Materials generated, used, treated, handled or stored by any Loan Party or any Subsidiary thereof at, or transported to or from by or on behalf of any Loan Party or any Subsidiary thereof, any property currently owned or operated by any Loan Party or any Subsidiary thereof have, to the knowledge of the Loan Parties, been disposed of in a manner not reasonably expected to result in material liability to any Loan Party or any Subsidiary thereof.

(d) Each Loan Party and Subsidiary thereof conducts in the Ordinary Course of Business a review of the effect of existing Environmental Laws and claims alleging potential liability or responsibility for violation of any Environmental Law on their respective businesses, operations and properties, and as a result thereof each Loan Party has reasonably concluded that, except as set forth on Schedule 6.09, such Environmental Laws and claims could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

6.10 Insurance. The properties of the Loan Parties and their Subsidiaries are insured with financially sound and reputable insurance companies which are not Affiliates of the Loan Parties, in such amounts, with such deductibles and covering such risks (including, without limitation, workmen's compensation, public liability, business interruption, property damage insurance, and environmental insurance) as are customarily carried by companies engaged in similar businesses and owning similar properties in localities where the Loan Parties or the applicable Subsidiary operates. Schedule 6.10 sets forth a description of all insurance maintained by or on behalf of the Loan Parties as of the Closing Date. Each insurance policy listed on Schedule 6.10 is in full force and effect and all premiums in respect thereof that are due and payable have been paid.

6.11 Taxes. Each Loan Party and its Subsidiaries have filed all federal, state, provincial, territorial, municipal and other tax returns and reports required to be filed, and have paid all federal, state, provincial, territorial, municipal and other taxes, assessments, fees and other governmental charges levied or imposed upon them or their properties, income or assets otherwise due and payable, except those which are being Properly Contested and except where the failure to file such returns or reports could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. There is no proposed tax assessment against any Loan Party or Subsidiary thereof that would, if made, have a Material Adverse Effect.

6.12 ERISA Compliance; Canadian Defined Benefit Pension Plans.

(a) Each Plan is in compliance in all material respects with the applicable provisions of ERISA, the Code and other federal or state Laws. Each Plan that is intended to be a qualified plan under Section 401(a) of the Code has received a favorable determination letter from the Internal Revenue Service to the effect that the form of such Plan is qualified under Section 401(a) of the Code and the trust related thereto has been determined by the Internal Revenue Service to be exempt from federal income tax under Section 501(a) of the Code, or an application for such a letter is currently being processed by the Internal Revenue Service. To the best knowledge of each Loan Party, nothing has occurred that would prevent or cause the loss of such tax-qualified status.

(b) There are no pending or, to the knowledge of any Loan Party, threatened claims, actions or lawsuits, or action by any Governmental Authority, with respect to any Plan that could reasonably be expected to have a Material Adverse Effect. There has been no prohibited transaction or violation of the fiduciary responsibility rules with respect to any Plan that has resulted or could reasonably be expected to result in a Material Adverse Effect.

(c) (i) No ERISA Event has occurred, and no Loan Party nor any ERISA Affiliate is aware of any fact, event or circumstance that could reasonably be expected to constitute or result in an ERISA Event with respect to any Pension Plan; (ii) each Loan Party and each ERISA Affiliate has met all applicable requirements under the Pension Funding Rules in respect of each Pension Plan, and no waiver of the minimum funding standards under the Pension Funding Rules has been applied for or obtained with respect to any Pension Plan; (iii) as of the most recent valuation date for any Pension Plan, the funding target attainment percentage (as defined in Section 430(d)(2) of the Code) is 60% or higher and no Loan Party nor any ERISA Affiliate knows of any facts or circumstances that could reasonably be expected to cause the funding target attainment percentage for any such plan to drop below 60% as of the most recent valuation date; (iv) no Loan Party nor any ERISA Affiliate has incurred any liability to the PBGC other than for the payment of premiums, and there are no premium payments which have become due that are unpaid; (v) no Loan Party nor any ERISA Affiliate has engaged in a transaction that could be subject to Section 4069 or Section 4212(c) of ERISA; and (vi) no Pension Plan has been terminated by the plan administrator thereof nor by the PBGC, and no event or circumstance has occurred or exists that could reasonably be expected to cause the PBGC to institute proceedings under Title IV of ERISA to terminate any Pension Plan.

(d) No Loan Party nor any ERISA Affiliate maintains or contributes to, or has any unsatisfied obligation to contribute to, or liability under, any active or terminated Pension Plan other than those listed on Schedule 6.12 hereto.

(e) No Canadian Pension Event has occurred. Each Canadian Pension Plan (i) is in compliance in all material respects with the applicable provisions of all Laws and (ii) is registered under the ITA and, to the best knowledge of the Borrowers, nothing has occurred which would cause such registration to be revoked. Each Loan Party and each Subsidiary thereof has made all required contributions to each Canadian

Pension Plan. No Loan Party or Subsidiary has any, or any liability (currently or in the past five years) under, Canadian Defined Benefit Pension Plans. The Financial Services Regulatory Authority of Ontario (or such other equivalent body in any other jurisdiction) has not issued any default or other breach notices in respect of any Canadian Pension Plan. No Lien has arisen, choate or inchoate, in respect of any Loan Party or Subsidiary or their property in connection with any Canadian Pension Plan (save for contribution amounts not yet due).

(f) With respect to each scheme or arrangement mandated by a government other than the United States (a "Foreign Government Scheme or Arrangement") and with respect to each employee benefit plan maintained or contributed to by any Loan Party or any Subsidiary thereof that is not subject to United States law (a "Foreign Plan"):

(i) any employer and employee contributions required by law or by the terms of any Foreign Government Scheme or Arrangement or any Foreign Plan have been made, or, if applicable, accrued, in accordance with normal accounting practices;

(ii) the Fair Market Value of the assets of each funded Foreign Plan, the liability of each insurer for any Foreign Plan funded through insurance or the book reserve established for any Foreign Plan, together with any accrued contributions, is sufficient to procure or provide for the accrued benefit obligations, as of the date hereof, with respect to all current and former participants in such Foreign Plan according to the actuarial assumptions and valuations most recently used to account for such obligations in accordance with applicable generally accepted accounting principles; and

(iii) each Foreign Plan required to be registered has been registered and has been maintained in good standing with applicable regulatory authorities.

(g) As of the Closing Date, the Borrowers are not and will not be using "plan assets" (within the meaning of 29 CFR § 2510.3-101, as modified by Section 3(42) of ERISA) of one or more Benefit Plans in connection with the Loans, the Letters of Credit or the Commitments.

6.13 Subsidiaries and Equity Interests. No Loan Party (a) has any Subsidiaries other than those specifically disclosed in part (a) of Schedule 4.05 or created or acquired after the Closing Date in compliance with Section 7.12, and (b) owns any Equity Interests in any other Person other than those specifically disclosed on Schedule 6.13, except, in each case, Subsidiaries acquired or created and equity investments made on or after the Closing Date in compliance with this Agreement and the other Loan Documents. All of the outstanding Equity Interests in such Subsidiaries have been validly issued, are fully paid and non-assessable and are owned by a Loan Party (or a Subsidiary of a Loan Party) in the amounts specified on Schedule 6.13 free and clear of all Liens except for those created under the Security Instruments (and, subject to the Secured Note Intercreditor Agreement, the Secured Note Liens). All of the outstanding Equity Interests in the Loan Parties and their Subsidiaries have been validly issued, are fully paid and nonassessable and are owned in the amounts specified on Schedule 6.13 free and clear of all Liens except for those created under the Security Instruments (and, subject to the Secured Note Intercreditor Agreement, the Secured Note Liens).

6.14 Margin Regulations; Investment Company Act. No Loan Party nor Subsidiary thereof is engaged nor will engage, principally or as one of its important activities, in the business of purchasing or carrying margin stock (within the meaning of Regulation U issued by the Board of Governors of the Federal Reserve System), or extending credit for the purpose of purchasing or carrying margin stock. None of the Loan Parties, any Person Controlling any Loan Party, nor any Subsidiary of any Loan Party or such Person is or is required to be registered as an "investment company" under the Investment Company Act of 1940.

6.15 Disclosure. Each Loan Party has disclosed or caused the Borrower Agent to disclose to the Administrative Agent and the Lenders all agreements, instruments and corporate or other restrictions to which it or any of its Subsidiaries is subject, and all other matters known to it, that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. No report, financial statement, certificate (including the Borrowing Base Certificates) or other information furnished (whether in writing or orally) by or on behalf of any Loan Party or any Subsidiary thereof to the Administrative Agent or any Lender in connection with the transactions contemplated hereby and the negotiation of this Agreement or delivered hereunder or under any other Loan Document (in each case, as modified or supplemented by other information so furnished) contains any material misstatement of fact or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that, with respect to projected financial information, each Loan Party represents only that such information was prepared in good faith based upon assumptions believed to be reasonable at the time.

6.16 Compliance with Laws. Each Loan Party and each Subsidiary thereof is in compliance in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its properties, except in such instances in which (a) such requirement of Law or order, writ, injunction or decree is being contested in good faith by appropriate proceedings diligently conducted or (b) the failure to comply therewith, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

6.17 Intellectual Property; Licenses, Etc. Each Loan Party and its Subsidiaries own, or possess the right to use, all of the Intellectual Property (including IP Rights) that are reasonably necessary for the operation of their respective businesses, without known conflict with the IP Rights of any other Person, except to the extent any failure so to own or possess the right to use could not reasonably be expected to have a Material Adverse Effect. To the knowledge of each Loan Party, the operation by each Loan Party and its Subsidiaries of their respective businesses does not infringe upon any IP Rights held by any other Person.

6.18 Labor Matters. Except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Effect or as set forth on Schedule 6.18, there are no strikes, lockouts, slowdowns or other material labor disputes against any Loan Party or any Subsidiary thereof pending or, to the knowledge of any Loan Party, threatened. The hours worked by and payments made to employees of the Loan Parties comply with the FLSA and any other applicable federal, state, provincial, territorial, local or foreign Law dealing with such matters. No Loan Party nor any of its Subsidiaries has incurred any liability or obligation under the Worker Adjustment and Retraining Act or other applicable Law. All payments due from any Loan Party and its Subsidiaries, or for which any claim may be made against any Loan Party, on account of wages and employee health and welfare insurance and other benefits, have been paid or properly accrued in accordance with IFRS as a liability on the books of such Loan Party. Except as set forth on Schedule 6.18 no Loan Party nor any Subsidiary is a party to or bound by any collective bargaining agreement or management agreement. There are no representation proceedings pending or, to any Loan Party's knowledge, threatened to be filed with the National Labor Relations Board or the Canadian equivalent thereof, and no labor organization or group of employees of any Loan Party or any Subsidiary has made a pending demand for recognition. Except as disclosed on Schedule 6.18 there are no complaints, unfair labor practice charges, grievances, arbitrations, unfair employment practices charges or any other claims or complaints against any Loan Party or any Subsidiary pending or, to the knowledge of any Loan Party, threatened to be filed with any Governmental Authority or arbitrator based on, arising out of, in connection with, or otherwise relating to the employment or termination of employment of any employee of any Loan Party or any of its Subsidiaries. The consummation of the transactions contemplated by the Loan Documents will not give rise to any right of termination or right of renegotiation on the part of

any union under any collective bargaining agreement to which any Loan Party or any of its Subsidiaries is bound.

6.19 Deposit Accounts and Securities Accounts.

(a) Part (a) of Schedule 6.19 sets forth a list of all Deposit Accounts (including Excluded Deposit Accounts) maintained by the Loan Parties and their Subsidiaries as of the Closing Date, which Schedule includes, with respect to each Deposit Account (i) the name and address of the depository, (ii) the name and account number of such Deposit Account, (iii) the type or use of such Deposit Accounts, and (iv) the average balance of such Deposit Account over the prior twelve month period.

(b) Part (b) of Schedule 6.19 sets forth a list of all Securities Accounts and Commodity Accounts maintained by the Loan Parties and their Subsidiaries as of the Closing Date, which Schedule includes with respect to each Securities Account and Commodity Account (i) the name and address of the securities intermediary or institution holding such account, (ii) the name and account number of such account, (iii) a contact person at such securities intermediary or institution and (iv) the average value of assets held in such account over the prior twelve month period.

6.20 Accounts. The Administrative Agent may rely, in determining which Accounts are

Eligible Accounts, on all statements and representations made by the Loan Parties with respect thereto. Each Borrower warrants, with respect to each Account at the time it is shown as an Eligible Account in a Borrowing Base Certificate, that:

(a) it is genuine and in all respects what it purports to be, and is not evidenced by a judgment;

(b) it arises out of a completed, *bona fide* sale and delivery of goods in the Ordinary Course of Business, and substantially in accordance with any purchase order, contract or other document relating thereto;

(c) it is for a sum certain, maturing as stated in the invoice covering such sale, a copy of which has been furnished or is available to the Administrative Agent on request;

(d) it is not subject to any offset, Lien (other than the Administrative Agent's Lien), deduction, defense, dispute, counterclaim or other adverse condition except as arising in the Ordinary Course of Business and disclosed to the Administrative Agent; and it is absolutely owing by the Account Debtor, without contingency in any respect;

(e) no purchase order, agreement, document or applicable Laws restricts assignment of the Account to the Administrative Agent (regardless of whether, under the UCC or PPSA, if applicable, the restriction is ineffective), and the applicable Borrower is the sole payee or remittance party shown on the invoice;

(f) no extension, compromise, settlement, modification, credit, deduction or return has been authorized with respect to the Account, except discounts or allowances granted in the Ordinary Course of Business for prompt payment that are reflected on the face of the invoice related thereto and in the reports submitted to the Administrative Agent hereunder; and

(g) to each Borrower's knowledge, (i) there are no facts or circumstances that are reasonably likely to impair the enforceability or collectability of such Account; (ii) the Account Debtor had the capacity to contract when the Account arose, continues to meet the applicable Borrower's customary credit standards, is Solvent, is not contemplating or subject to any proceeding under any Debtor Relief Laws, and

has not failed, or suspended or ceased doing business; and (iii) there are no proceedings or actions threatened or pending against any Account Debtor that could reasonably be expected to have a material adverse effect on the Account Debtor's financial condition.

6.21 Sanctions; Anti-Money Laundering Laws and Anti-Corruption Laws.

(a) None of the Loan Parties nor any of their Controlled Persons nor, to the knowledge of any Loan Party, any agent, affiliate or representative of any Loan Party or any of their Subsidiaries, is, or is controlled by a Person that is, a Sanctioned Person or currently the subject or target of any Sanctions.

(b) The Loan Parties and each of their Subsidiaries and, to the knowledge of each Loan Party, each of the Loan Parties' and their Subsidiaries' respective agents, affiliates and representatives, is in compliance with all applicable Anti-Corruption Laws, Anti-Money Laundering Laws and Sanctions.

(c) The Loan Parties and their Subsidiaries have instituted and maintain in effect policies and procedures reasonably designed to ensure compliance by the Loan Parties, their Subsidiaries, and their Controlled Persons with all applicable Anti-Corruption Laws, Anti-Money Laundering Laws and Sanctions.

(d) As of the Closing Date, the information included in the Beneficial Ownership Certification, if applicable, is true and correct in all respects.

6.22 Brokers. No broker or finder brought about the obtaining, making or closing of the Loans or transactions contemplated by the Loan Documents, and no Loan Party or Affiliate thereof has any obligation to any Person in respect of any finder's or brokerage fees in connection therewith.

6.23 Customer and Trade Relations. There exists no actual or, to the knowledge of any Loan Party, threatened, termination or cancellation of, or any modification or change in the business relationship of any Loan Party or Subsidiary thereof with any customers or suppliers which are, individually or in the aggregate, material to its operations, to the extent that such cancellation, modification or change would reasonably be expected to result in a Material Adverse Effect.

6.24 Material Contracts. Schedule 6.24 sets forth all Material Contracts to which any Loan Party or Subsidiary thereof is a party or is bound as of the Closing Date (and the date any revised Schedule 6.24 is delivered pursuant to Section 7.01(a)). The Loan Parties have delivered true, correct and complete copies of such Material Contracts to the Administrative Agent on or before the date hereof.

6.25 Casualty. Neither the businesses nor the properties of any Loan Party or any of its Subsidiaries are affected by any fire, explosion, accident, strike, lockout or other labor dispute, drought, storm, hail, earthquake, embargo, act of God or of the public enemy or other casualty (whether or not covered by insurance) that, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

6.26 Senior Indebtedness. All Obligations including those to pay principal of and interest (including post-petition interest, whether or not allowed as a claim under Debtor Relief Laws) on the Loans and other Obligations, and fees and expenses in connection therewith, are entitled to the benefits of any Subordination Provisions applicable to all Indebtedness (including, without limitation, any contained in the Secured Note Intercreditor Agreement and any Master Intercompany Note). Each Loan Party acknowledges that the Administrative Agent and each Lender is entering into this Agreement and each Lender is extending its Commitments in reliance upon the Subordination Provisions (including, without limitation, any contained in the Secured Note Intercreditor Agreement and any Master Intercompany Note).

6.27 Secured Note Documents. The Loan Parties have delivered to Administrative Agent complete and correct copies of, (i) the Secured Note Documents and of all exhibits and schedules thereto as of the Closing Date and (ii) copies of any amendment, restatement, supplement or other modification to or waiver under each Secured Note Document entered into after the date hereof (including any such modification accomplished via a side letter or any other document).

ARTICLE VII
AFFIRMATIVE COVENANTS

So long as any Lender shall have any Commitment hereunder or any Loan Obligation hereunder shall remain unpaid or unsatisfied, each Loan Party shall, and shall cause each of its Subsidiaries to, or with respect to Sections 7.01, 7.02 and 7.03 the Borrower Agent shall:

7.01 Financial Statements. Deliver to the Administrative Agent, in form and scope acceptable to the Administrative Agent in its discretion:

(a) as soon as available, but in any event within 90 days after the end of each Fiscal Year or, if earlier, 15 days after the date required to be filed with the SEC or such other applicable foreign securities commission (without giving effect to any extension permitted by the SEC or such other applicable foreign securities commission), a Consolidated and consolidating balance sheet of the Parent and its Subsidiaries as at the end of such Fiscal Year, and the related Consolidated and consolidating statements of income or operations, shareholders' equity and cash flows for such Fiscal Year, setting forth in each case in comparative form the figures for the previous Fiscal Year, all in reasonable detail and prepared in accordance with IFRS, (i) such Consolidated statements to be audited and accompanied by a report and opinion of a Registered Public Accounting Firm of nationally recognized standing reasonably acceptable to the Administrative Agent (the "Auditor"), which report and opinion shall be prepared in accordance with audit standards of the Public Company Accounting Oversight Board and applicable Securities Laws and shall not be subject to any "going concern" or like qualification or exception or any qualification or exception as to the scope of such audit, and (ii) such consolidating statements to be certified by the chief executive officer, chief financial officer, treasurer or controller of the Borrower Agent to the effect that such statements are fairly stated in all material respects when considered in relation to the Consolidated financial statements of the Parent and its Subsidiaries;

(b) monthly, as soon as available, but in any event within 30 days after the end of each Fiscal Month, unaudited Consolidated and consolidating balance sheets of the Consolidated Group as of the end of such month and the related statements of income and cash flow for such month and the portion of the Fiscal Year then elapsed on a Consolidated basis for the Consolidated Group, setting forth in comparative form corresponding figures for the preceding Fiscal Year and certified by the chief financial officer or treasurer as a Responsible Officer of Borrower Agent as prepared in accordance with IFRS and fairly the financial condition, results of operations, shareholders equity and cash flows for such month and period, subject to normal year-end adjustments and the absence of footnotes;

(c) as soon as available but not later than prior to the end of each Fiscal Year, monthly financial projections of the Consolidated Group on a Consolidated basis, in form reasonably satisfactory to the Administrative Agent, consisting of (i) Consolidated balance sheets and statements of income or operations and cash flows and (ii) monthly Availability for Borrowers for the immediately following Fiscal Year; and

(d) as to any information contained in materials furnished pursuant to Section 7.02(d), the Loan Parties shall not be separately required to furnish such information under clause (a) or (b) above, but

the foregoing shall not be in derogation of the obligation of the Loan Parties to furnish the information and materials described in subsections (a) and (b) above at the times specified therein.

7.02 Borrowing Base Certificate; Other Information. Deliver to the Administrative Agent, in form, scope and detail satisfactory to the Administrative Agent in its discretion:

(a) On or before the 20th day of each calendar month from and after the date hereof (or more frequently at the Borrowers' option), the Borrower Agent shall deliver to the Administrative Agent, in form acceptable to the Administrative Agent in its Credit Judgment, a Consolidated Borrowing Base Certificate as of the last day of the immediately preceding calendar month, with such supporting materials as the Administrative Agent shall reasonably request (including week-by-week reporting of rolling forward accounts receivable data by reporting week-by-week sales, cash collections and credits and monthly reporting of gross inventory, inventory ineligibles and accounts receivable ineligibles). If a Reporting Trigger Period exists, the Borrower Agent shall execute and deliver to the Administrative Agent the Borrowing Base Certificates and all such supporting materials weekly, within three (3) Business Days of each week then ended and current as of the close of the prior week; for the avoidance of doubt, such Consolidated Borrowing Base Certificates and supporting materials shall include, without limitation, an updated calculation of the Borrowing Base on a Consolidated basis. All calculations of Availability in any Borrowing Base Certificate shall originally be made by the Borrowers and certified by a Responsible Officer, provided that the Administrative Agent may from time to time review and (upon prior written notice to the Borrowers accompanied by a reasonable explanation) adjust any such calculation (i) to reflect its reasonable Credit Judgment of declines in value of any Collateral, due to collections received in the Concentration Account or otherwise; (ii) to adjust advance rates to reflect in its reasonable estimate changes in dilution, quality, mix and other factors affecting the Collateral, including delay of payment in accounts payable beyond past practice; and (iii) to the extent the calculation is not made in accordance with this Agreement or does not accurately reflect the Availability Reserve, the Line Reserve or the Borrowing Base (and the Administrative Agent shall notify the Borrowers of any such adjustment and its effective date);

(b) on or before the 20th day of each calendar month from and after the date hereof, Borrower Agent shall deliver to the Administrative Agent, in the form reasonably acceptable to the Administrative Agent, (i) reconciliations of all Borrowers' Accounts as shown on the month-end Borrowing Base Certificate for the immediately preceding month to Borrowers' accounts receivable agings, to Borrowers' general ledger and to Borrowers' most recent financial statements, (ii) a detailed aged trial balance of all Accounts as of the end of the preceding calendar month, specifying each Account's Account Debtor name and address, amount, invoice date and due date, showing any discount, allowance, credit, authorized return or dispute, and including such proof of delivery, copies of invoices and invoice registers, copies of related documents, repayment histories, status reports and other information as the Administrative Agent may reasonably request. (iii) accounts payable agings, (iv) accounts receivable agings, (v) reconciliations of Borrowers' Inventory as shown on Borrowers' perpetual inventory, to Borrowers' general ledger and to Borrowers' financial statements and (vi) Inventory status reports, all with supporting materials as the Administrative Agent shall reasonably request;

(c) a Compliance Certificate executed by the chief financial officer of the Borrower Agent which certifies compliance with Section 8.12 and provides a reasonably detailed calculation of the Consolidated Fixed Charge Coverage Ratio delivered (i) concurrently with delivery of financial statements under Sections 7.01(a) and 7.01(b) above, whether or not a Fixed Charge Trigger Period then exists, (ii) on the first day of any Fixed Charge Trigger Period (certifying compliance as of the last day of the Measurement Period most recently ended prior to the start of such Fixed Charge Trigger Period) and (iii) as requested by the Administrative Agent while a Default or Event of Default exists;

(d) promptly after the same are available, copies of each annual report, proxy or financial statement sent to the stockholders of any Loan Party or Subsidiary thereof and copies of all annual, regular, periodic and special reports and registration statements which any Loan Party or Subsidiary thereof may file or be required to file with the SEC or such other applicable securities commission under Section 13 or 15(d) of the Exchange Act and applicable Securities Laws, and not otherwise required to be delivered to the Administrative Agent pursuant hereto;

(e) at the Administrative Agent's request (but not more frequently than monthly unless a Default or Event of Default has occurred and is continuing), a listing of each Borrower's trade payables, specifying the trade creditor and balance due, and a detailed trade payable aging, all in form and scope satisfactory to the Administrative Agent;

(f) promptly following any request therefor, provide information and documentation reasonably requested by the Administrative Agent for purposes of compliance with applicable "know your customer" requirements under the PATRIOT Act, the Beneficial Ownership Regulation, the Proceeds of Crime Act or other applicable Anti-Money Laundering Laws, Anti-Corruption Laws, or Sanctions; and

(g) promptly, such additional information regarding the business, financial or corporate affairs of any Loan Party or any Subsidiary, thereof or compliance with the terms of the Loan Documents, as the Administrative Agent or any Lender may from time to time reasonably request, all in form and scope reasonably acceptable to the Administrative Agent.

Documents required to be delivered pursuant toSection 7.01(a) or 7.01(b) or Section 7.02(c) (to the extent any such documents are included in materials otherwise filed with the SEC or other applicable securities commission) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date (i) on which the Borrower Agent posts such documents, or provides a link thereto on the Borrower Agent's website on the Internet at the website address listed on Schedule 11.02; or (ii) on which such documents are posted on the Borrower Agent's behalf on an Internet or intranet website, if any, to which each Lender and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent); provided that: (x) the Borrower Agent shall deliver paper copies of such documents to the Administrative Agent or any Lender that requests the Borrower Agent to deliver such paper copies until a written request to cease delivering paper copies is given by the Administrative Agent or such Lender and (y) the Borrower Agent shall notify (which may be by facsimile or electronic mail) the Administrative Agent and each Lender of the posting of any such documents and provide to the Administrative Agent by electronic mail electronic versions (i.e., soft copies) of such documents. The Administrative Agent shall have no obligation to request the delivery or to maintain copies of the documents referred to above, and in any event shall have no responsibility to monitor compliance by the Borrowers with any such request for delivery, and each Lender shall be solely responsible for requesting delivery to it or maintaining its copies of such documents.

Each Loan Party hereby acknowledges that (a) the Administrative Agent and/or the Arrangers will make available to the Lenders and the Letter of Credit Issuer materials and/or information provided by or on behalf of the Borrowers hereunder (collectively, "Borrower Materials") by posting the Borrower Materials on SyndTrak or another similar electronic system (the "Platform") and (b) certain of the Lenders (each, a "Public Lender") may have personnel who do not wish to receive material non-public information with respect to the Loan Parties or their Affiliates, or the respective securities of any of the foregoing, and who may be engaged in investment and other market-related activities with respect to such Persons' securities. Each Loan Party hereby agrees that, so long as any Borrower is the issuer of any outstanding debt or equity securities that are registered or issued pursuant to a private offering or is actively contemplating issuing any such securities, (w) all Borrower Materials that are to be made available to Public Lenders shall be clearly and conspicuously marked "PUBLIC" which, at a minimum, shall mean that the

word “PUBLIC” shall appear prominently on the first page thereof; (x) by marking Borrower Materials “PUBLIC”, each Loan Party shall be deemed to have authorized the Administrative Agent, the Arrangers, the Letter of Credit Issuer and the Lenders to treat such Borrower Materials as not containing any material non-public information with respect to any Loan Party or its securities for purposes of any applicable Securities Laws (provided, however, that to the extent such Borrower Materials constitute Information, they shall be treated as set forth in Section 11.07); (y) all Borrower Materials marked “PUBLIC” are permitted to be made available through a portion of the Platform designated “Public Investor”; and (z) the Administrative Agent and the Arrangers shall be entitled to treat any Borrower Materials that are not marked “PUBLIC” as being suitable only for posting on a portion of the Platform not designated “Public Investor”. Notwithstanding the foregoing, the Borrowers shall be under no obligation to mark any Borrower Materials “PUBLIC.”

7.03 Notices. Promptly, and in any event within one (1) Business Day after any Responsible Officer obtains knowledge thereof, notify the Administrative Agent:

(a) of the occurrence of any Default or Event of Default;

(b) of any matter that has resulted or could reasonably be expected to result in a Material Adverse Effect, including (i) breach or non-performance of, or any default under, a Contractual Obligation of any Loan Party or any Subsidiary; (ii) any dispute, litigation, investigation, proceeding or suspension between any Loan Party or any Subsidiary and any Governmental Authority; (iii) the commencement of, or any material development in, any litigation or proceeding affecting any Loan Party or any Subsidiary, including pursuant to any applicable Environmental Laws; violation or asserted violation of any applicable Law;

(c) of the occurrence of any ERISA Event or Canadian Pension Event;

(d) of the occurrence of a Change of Control;

(e) of the creation (by Division or otherwise) or acquisition of any Subsidiary;

(f) of any material change in accounting policies or financial reporting practices by any Loan

Party or any Subsidiary thereof;

(g) of any change in the senior executive officers of any Loan Party or Subsidiary thereof;

(h) of the discharge by any Loan Party or Subsidiary thereof of its present Auditors or any withdrawal or resignation by such Auditors;

(i) of any collective bargaining agreement or other labor contract to which a Loan Party becomes a party, or the application for the certification of a collective bargaining agent;

(j) of the filing of any Lien for unpaid Taxes against any Loan Party;

(k) of any casualty or other insured damage to any material portion of the Collateral or the commencement of any action or proceeding for the taking of any interest in a material portion of the Collateral under power of eminent domain or by condemnation or similar proceeding or if any material portion of the Collateral is damaged or destroyed;

(l) of any change in the information provided in the Beneficial Ownership Certification delivered to such Lender that would result in a change to the list of beneficial owners identified in such certification;

(m) of Collateral in an aggregate face amount of $1,000,000 or more ceasing to be Eligible Accounts;

(n) of Collateral in an aggregate face amount of $1,000,000 or more ceasing to be Eligible Inventory;

(o) of any material notice received with respect to any Collateral;

(p) of any failure by any Loan Party or Subsidiary thereof to pay rent at any of such Loan Party's or Subsidiary's locations if such failure continues for more than fifteen (15) days following the day on which such rent first came due;

(q) of the occurrence of any Default or Event of Default in connection with any Material Contract; and

(r) promptly following receipt, copies of any notices (including notices of default or acceleration), reporting, certificates, or financial statements received with respect to the Secured Note Documents or any Subordinated Debt, in all cases to the extent not delivered to the Administrative Agent pursuant to Section 7.01 or any clause of this Section 7.03.

Each notice pursuant to this Section 7.03 shall be accompanied by a statement of a Responsible Officer of the Borrower Agent setting forth details of the occurrence referred to therein and stating what action the Borrowers have taken and propose to take with respect thereto. Each notice pursuant to Section 7.03(a) shall describe with particularity any and all provisions of this Agreement and any other Loan Document that have been breached.

7.04 Payment of Obligations. Pay and discharge as the same shall become due and payable, all its obligations and liabilities, including (a) all tax liabilities, assessments and governmental charges or levies upon it or its properties or assets, unless the same are (i) less than $1,000,000 in the aggregate or (ii) being Properly Contested; (b) all lawful claims which, if unpaid, would by law become a Lien upon its property, except to the extent that any such Lien would otherwise be permitted by Section 8.02; and (c) all Indebtedness having an aggregate principal amount (including undrawn committed or available amounts and including amounts owing to all creditors under any combined or syndicated credit arrangement) of more than $1,000,000 as and when due and payable, but subject to this Agreement and any Subordination Agreement (or any Subordination Provisions contained in any instrument or agreement evidencing such Indebtedness).

7.05 Preservation of Existence, Etc. (a) Preserve, renew and maintain in full force and effect its legal existence and good standing under the Laws of the jurisdiction of its organization or formation except in a transaction permitted by Section 8.04 or 8.05; (b) take all reasonable actions to maintain all rights, privileges, permits, licenses and franchises necessary or desirable in the normal conduct of its business, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect; and (c) preserve or renew all of its registered Intellectual Property, the non-preservation of which could reasonably be expected to have a Material Adverse Effect.

7.06 Maintenance of Properties. (a) Maintain, preserve and protect all of its properties (other than insignificant properties) and equipment necessary in the operation of its business in good working

order and condition, ordinary wear and tear excepted except where the failure to do so could not reasonably be expected to have a Material Adverse Effect; (b) make all necessary repairs thereto and renewals and replacements thereof except where the failure to do so could not reasonably be expected to have a Material Adverse Effect; and (c) use the standard of care typical in the industry in the operation and maintenance of its facilities.

7.07 Maintenance of Insurance; Condemnation Proceeds.

(a) Maintain with (i) companies having an A.M. Best Rating of at least "A" or (ii) financially sound and reputable insurance companies reasonably acceptable to the Administrative Agent and not Affiliates of the Loan Parties, insurance with respect to its properties and business against loss or damage of the kinds customarily insured against by Persons engaged in the same or similar business and operating in the same or similar locations or as is required by applicable Law, of such types and in such amounts as are customarily carried under similar circumstances by such other Persons and as are reasonably acceptable to the Administrative Agent;

(b) Maintain flood insurance with respect to any Real Property located in any area identified by FEMA (or any successor agency) as a Special Flood Zone with such providers, on such terms and in such amounts as required pursuant to the Flood Disaster Protection Act and the National Flood Insurance Act of 1968, and all applicable rules and regulations promulgated thereunder, or as otherwise required by the Lenders.

(c) Cause all casualty policies, including fire and extended coverage policies, maintained with respect to any Collateral to be endorsed or otherwise amended to include (i) a non-contributing mortgagee clause (regarding improvements to Real Property) and lenders' loss payable clause (regarding personal property), in form and substance reasonably satisfactory to the Administrative Agent, which endorsements or amendments shall provide that the insurer shall pay all proceeds otherwise payable to the Loan Parties under the policies directly to the Administrative Agent, (ii) a provision to the effect that none of the Loan Parties, Secured Parties or any other Person shall be a co-insurer and (iii) such other provisions as the Administrative Agent may reasonably require from time to time to protect the interests of the Secured Parties.

(d) Cause commercial general liability policies to be endorsed to name the Administrative Agent as an additional insured; and cause business interruption policies to name the Administrative Agent as a loss payee and to be endorsed or amended to include (i) a provision that, from and after the Closing Date, the insurer shall pay all proceeds otherwise payable to the Loan Parties under the policies directly to the Administrative Agent, (ii) a provision to the effect that none of the Loan Parties, the Administrative Agent or any other party shall be a co-insurer and (iii) such other provisions as the Administrative Agent may reasonably require from time to time to protect the interests of the Secured Parties.

(e) Cause each such policy referred to in this Section 7.07 to also provide that it shall not be canceled, modified or not renewed (i) by reason of nonpayment of premium except upon not less than thirty (30) days' prior written notice thereof by the insurer to the Administrative Agent (giving the Administrative Agent the right to cure defaults in the payment of premiums) or (ii) for any other reason except upon not less than thirty (30) days' prior written notice thereof by the insurer to the Administrative Agent.

(f) Deliver to the Administrative Agent, prior to the cancellation, modification or non-renewal of any such policy of insurance, a copy of a renewal or replacement policy or insurance certificate (or other evidence of renewal of a policy previously delivered to the Administrative Agent, including an insurance binder) together with evidence reasonably satisfactory to the Administrative Agent of payment of the premium therefor.

(g) Permit any representatives that are designated by the Administrative Agent to inspect the insurance policies maintained by or on behalf of the Loan Parties and to inspect books and records related thereto and any properties covered thereby. The Loan Parties shall pay the reasonable fees and expenses of any representatives retained by the Administrative Agent to conduct any such inspection.

(h) None of the Secured Parties, or their agents or employees shall be liable for any loss or damage insured by the insurance policies required to be maintained under this Section 7.07. Each Loan Party shall look solely to its insurance companies or any other parties other than the Secured Parties for the recovery of such loss or damage and such insurance companies shall have no rights of subrogation against any Secured Party or its agents or employees. If, however, the insurance policies do not provide waiver of subrogation rights against such parties, as required above, then the Loan Parties hereby agree, to the extent permitted by law, to waive their right of recovery, if any, against the Secured Parties and their agents and employees. The designation of any form, type or amount of insurance coverage by any Secured Party under this Section 7.07 shall in no event be deemed a representation, warranty or advice by such Secured Party that such insurance is adequate for the purposes of the business of the Loan Parties or the protection of their properties.

(i) Notwithstanding anything to the contrary contained herein, if any Loan Party or any Subsidiary thereof at any time or times hereafter shall fail to obtain or maintain any of the policies of insurance required above or to pay all premiums relating thereto, the Administrative Agent may at any time or times thereafter obtain and maintain such policies of insurance and pay such premiums and take any other action with respect thereto that the Administrative Agent deems advisable. The Administrative Agent shall have no obligation to obtain insurance for any Loan Party or any such Subsidiary or pay any premiums therefor. By doing so, the Administrative Agent shall not be deemed to have waived any Default or Event of Default arising from the failure of such Loan Party or Subsidiary to maintain such insurance or pay any premiums therefor. All sums so disbursed, including reasonable attorneys' fees, court costs and other charges related thereto, shall be payable on demand by the Borrowers to the Administrative Agent and shall be additional Obligations hereunder secured by the Collateral.

7.08 Compliance with Laws; **Anti-Corruption Laws, Anti-Money Laundering Laws and Sanctions**.

(a) Comply in all material respects with the requirements of all Laws (including without limitation all applicable Environmental Laws) and all orders, writs, injunctions and decrees applicable to it or to its business or property, except in such instances in which (i) such requirement of Law or order, writ, injunction or decree is being Properly Contested; or (ii) the failure to comply therewith could not reasonably be expected to have a Material Adverse Effect;

(b) Notwithstanding the general applicability of Section 7.08(a) above, comply with the requirements of all Anti-Corruption Laws, Anti-Money Laundering Laws and Sanctions applicable to the Borrowers and shall cause each other Loan Party and each of its and their respective Subsidiaries to comply with the requirements of all Anti-Corruption Laws, Anti-Money Laundering Laws and Sanctions applicable to such Persons.

(c) The Borrowers will maintain in effect and enforce policies and procedures reasonably designed to ensure compliance by the Loan Parties and each of their Subsidiaries with applicable AntiCorruption Laws, Anti Money-Laundering Laws and Sanctions.

7.09 Books and Records. (a) Maintain proper books of record and account, in which full, true and correct entries in conformity with IFRS consistently applied shall be made of all financial transactions and matters involving the assets and business of the Loan Parties or such Subsidiary, as the case may be;

and (b) maintain such books of record and account in material conformity with all applicable requirements of any Governmental Authority having regulatory jurisdiction over any Loan Party or such Subsidiary thereof, as the case may be.

7.10 Inspection Rights and Appraisals; Meetings with the Administrative Agent.

(a) Permit the Administrative Agent or its designees or representatives from time to time, subject to reasonable notice and normal business hours (except, in each case, when a Default or Event of Default exists), to conduct Field Exams and/or appraisals of Inventory and to examine its corporate, financial and operating records, and make copies thereof or abstracts therefrom, and to discuss its affairs, finances and accounts with its directors, officers and Auditors. Appraisals may be shared with the Borrower Agent upon request. The Loan Parties acknowledge that all Field Exams, appraisals and reports are prepared by or for the Administrative Agent and Lenders for their purposes, and the Loan Parties shall not be entitled to rely upon them.

(b) Reimburse the Administrative Agent for all reasonable and documented out-of-pocket charges, costs and expenses of the Administrative Agent in connection with (i) up to one appraisal and one Field Exam during any twelve (12) month period during which no Reporting Trigger Event has occurred and (ii) up to two appraisals and two Field Exams in any twelve (12) month period during which a Reporting Trigger Event has occurred; provided, however, that if a Field Exam or appraisal is initiated during a Default or Event of Default, all charges, costs and expenses therefor shall be reimbursed by the Loan Parties without regard to such limits.

(c) Without limiting the foregoing, participate and will cause their key management personnel to participate in meetings with the Administrative Agent and Lenders periodically during each year, which meetings shall be held at such times and such places as may be reasonably requested by the Administrative Agent.

7.11 Use of Proceeds. Use the proceeds of the Credit Extensions (i) to pay fees and expenses in connection with the Transactions and (ii) for working capital, capital expenditures, and permitted Restricted Payments, and other general corporate purposes not in contravention of any Law or of any Loan Document. None of the proceeds of the Credit Extensions will be used, directly or indirectly, (x) to finance or refinance dealings or transactions by or with any Person that is described or designated in the Specially Designated Nationals and Blocked Persons List (the "SDN List") of the Office of Foreign Assets Control, United States Department of the Treasury ("OFAC") or is otherwise a Person officially sanctioned by the United States of America pursuant to the OFAC Sanctions Program or by the government of Canada or (y) for any purpose that is otherwise in violation of the Trading with the Enemy Act, the OFAC Sanctions Program, the PATRIOT Act, CISADA or any other Sanctions (collectively, the "Foreign Activities Laws"). Notwithstanding, the foregoing shall not be made by nor apply to any Person that qualifies as a corporation that is registered or incorporated under the laws of Canada or any province or territory thereof and that carries on business in whole or in part in Canada within the meaning of Section 2 of the Foreign Extraterritorial Measures (United States) Order, 1992 passed under the Foreign Extraterritorial Measures Act (Canada) in so far as such representations would result in a violation of or conflict with the Foreign Extraterritorial Measures Act (Canada) or any similar law.

7.12 New Subsidiaries. As soon as practicable but in any event within ten (10) Business Days after (or such later date as the Administrative Agent shall agree to) the acquisition or creation (by division or otherwise) of any Subsidiary (or such other period as the Administrative Agent may agree in its discretion), cause to be delivered to the Administrative Agent each of the following, as applicable:

(a) a joinder agreement acceptable to the Administrative Agent duly executed by such Subsidiary sufficient to cause such Subsidiary to become a Borrower (or, in Administrative Agent's discretion, a Guarantor), together with executed counterparts of each other Loan Document reasonably requested by the Administrative Agent, including all Security Instruments and other documents reasonably requested to establish and preserve the Lien of the Administrative Agent in all Collateral of such Subsidiary and to acknowledge the Secured Note Intercreditor Agreement;

(b) (i) UCC or PPSA, as applicable, financing statements naming such Person as "Debtor" and naming the Administrative Agent for the benefit of the Secured Parties as "Secured Party," in form, substance and number sufficient in the reasonable opinion of the Administrative Agent and its special counsel to be filed in all UCC or PPSA, as applicable, filing offices and in all jurisdictions in which filing is necessary to perfect in favor of the Administrative Agent for the benefit of the Secured Parties the Lien on the Collateral conferred under such Security Instrument to the extent such Lien may be perfected by UCC or PPSA filing, and (ii) security agreements, control agreements, Documents and original collateral (including pledged Deposit Accounts, Securities and Instruments) and such other documents and agreements as may be reasonably required by the Administrative Agent, all as necessary to establish and maintain a valid, perfected security interest in all Collateral in which such Subsidiary has an interest consistent with the terms of the Loan Documents;

(c) upon the request of the Administrative Agent, an opinion of counsel to the Loan Parties and their Subsidiaries (including, without limitation, such Subsidiary) and addressed to the Administrative Agent and the Lenders, in form and substance reasonably acceptable to the Administrative Agent, each of which opinions may be in form and substance, including assumptions and qualifications contained therein, substantially similar to those opinions of counsel delivered pursuant to Section 5.01(a);

(d) current copies of the Organization Documents of each such Subsidiary, together with minutes of duly called and conducted meetings (or duly effected consent actions) of the Board of Directors, partners, or appropriate committees thereof (and, if required by such Organization Documents or applicable law, of the shareholders, members or partners) of such Person authorizing the actions and the execution and delivery of documents described in this Section 7.12, all certified by the applicable Governmental Authority or appropriate officer as the Administrative Agent may elect; and

(e) with respect to any Subsidiary to become a Borrower or Guarantor hereunder, within three (3) Business Days prior to becoming a Borrower or Guarantor (which shall require the consent of the Administrative Agent), all information and documentation reasonably requested by (and results satisfactory to) Administrative Agent and each Lender for purposes of compliance with applicable "know your customer" requirements under the PATRIOT Act, the Beneficial Ownership Regulation , the Proceeds of Crime Act or other applicable anti-money laundering laws to the extent such information is requested by the Administrative Agent or the Lenders reasonably promptly after written notice to the Administrative Agent of the proposed joinder of a Borrower or Guarantor.

7.13 Compliance with ERISA and Canadian Pension Laws. (a) Do, and cause each of its ERISA Affiliates to do, each of the following: (i) maintain each Plan in compliance in all material respects with the applicable provisions of ERISA, the Code and other applicable Laws, including Canadian Pension Laws and Foreign Benefit Laws; (ii) cause each Plan which is qualified under Section 401(a) of the Code to maintain such qualification; (iii) cause each Plan subject to any Canadian Pension Law or other Foreign Benefit Law to maintain any required approvals by any Governmental Authority regulating such Plan, and (iv) make all required contributions to any Plan subject to the Pension Funding Rules, and (v) make all required contributions and payments to any Canadian Defined Benefit Plans and other Foreign Plans. At no time shall the accumulated benefit obligations under any Plan subject to Title IV of ERISA that is not a Multiemployer Plan exceed the Fair Market Value of the assets of such Plan allocable to such benefits by

more than $500,000. The Loan Parties and each of their respective Subsidiaries shall not withdraw, and shall cause each ERISA Affiliate not to withdraw, in whole or in part, from any Multiemployer Plan so as to give rise to withdrawal liability exceeding $500,000 in the aggregate. At no time shall the actuarial present value of unfunded liabilities for post-employment health care benefits, whether or not provided under a Plan, calculated in a manner consistent with Statement No. 106 of the Financial Accounting Standards Board, exceed $500,000 and (b) do, and shall cause its Subsidiaries to cause, its Canadian Pension Plans to be duly qualified and administered in all respects in compliance with, as applicable, the Pension Benefits Act (Ontario) and all applicable laws (including regulations, orders and directives), and the terms of the Canadian Pension Plans and any agreements relating thereto, except to the extent noncompliance could not be reasonably expected to have a Material Adverse Effect. The Loan Parties and the Subsidiaries shall ensure that: (i) no unfunded current liability in respect of any Canadian Pension Plan, including any Canadian Pension Plan to be established and administered by it or them, will exist; (ii) each of them does not engage in a prohibited transaction or violation of the fiduciary responsibility rules with respect to any Canadian Pension Plan that could reasonably be expected to result in material liability, and (iii) each of them as a Canadian Pension Plan sponsor or otherwise, shall not, nor shall they permit, without the consent of the Administrative Agent, the wind up and/or termination of any Canadian Pension Plan.

7.14 Further Assurances. At the Borrowers' cost and expense, upon request of the Administrative Agent, duly execute and deliver or cause to be duly executed and delivered, to the Administrative Agent such further information, instruments, documents, certificates, financing and continuation statements, and do and cause to be done such further acts that may be reasonably necessary or advisable in the reasonable opinion of the Administrative Agent to carry out more effectively the provisions and purposes of this Agreement, the Security Instruments and the other Loan Document, including, to create, continue or preserve the liens and security interests in Collateral (and the perfection and priority thereof) of the Administrative Agent contemplated hereby and by the other Loan Documents and specifically including all Collateral acquired by the Borrowers after the Closing Date.

7.15 Licenses. (a) Keep in full force and effect each License (i) the expiration or termination of which could reasonably be expected to materially adversely affect the realizable value in the use or sale of a material amount of Inventory or (ii) the expiration or termination of which could reasonably be expected to have a Material Adverse Effect (each a "Material License"); (b) promptly notify the Administrative Agent of (i) any material modification to any such Material License that could reasonably be expected to be materially adverse to any Loan Party or the Administrative Agent or any Lender and (ii) entering into any new Material License; (c) pay all Royalties (other than immaterial Royalties or Royalties being Properly Contested) arising under such Material Licenses when due (subject to any cure or grace period applicable thereto); and (d) notify the Administrative Agent of any material default or material breach asserted in writing by any Person to have occurred under any such Material License.

7.16 Environmental Laws. Conduct its operations and keep and maintain its Real Property in material compliance with all Environmental Laws, other than any such non-compliance which would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Effect; (b) obtain and renew all environmental permits necessary for its operations and properties, other than any environmental permits the failure of which to obtain would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Effect; and (c) implement any and all investigation, remediation, removal and response actions that are required to comply with Environmental Laws pertaining to the presence, generation, treatment, storage, use, disposal, transportation or release of any Hazardous Materials on, at, in, under or about any of its Real Property other than any such non-compliance which would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Effect; provided, however, that, neither a Loan Party nor any of its Subsidiaries shall be required to undertake any such cleanup, removal, remedial or other action to the extent that its obligation to do so is being contested

in good faith and by proper proceedings and adequate reserves have been set aside and are being maintained by the Loan Parties with respect to such circumstances in accordance with IFRS.

7.17 Leases, Mortgages and Third-Party Agreements.

(a) Upon request, provide the Administrative Agent with copies of all existing and future agreements (including any mortgage, deed of trust or similar security document) entered into between a Borrower and any landlord, warehouseman, processor, shipper, bailee or other Person that owns, or has a mortgage or similar lien on, any premises at which any Collateral with an aggregate value of $1,000,000 or greater may be kept or that otherwise may possess any Collateral with an aggregate value of $1,000,000 or greater (each a "Material Third-Party Agreement").

(b) Except as otherwise expressly permitted hereunder, (i) make all payments and otherwise perform all obligations in respect of all leases and all mortgages, deeds of trust or similar security documents constituting Material Third-Party Agreements and not allow such leases to lapse or be terminated (or any rights to renew such leases to be forfeited or cancelled), (ii) notify the Administrative Agent of any default by the applicable Loan Party or Subsidiary with respect to such leases or mortgages, deeds of trust or similar security documents and (iii) promptly cure any such default by the applicable Loan Party or Subsidiary. If any such default is not so cured, each Loan Party hereby authorizes the Administrative Agent (as its nonfiduciary agent and on its behalf) to, if elected by the Administrative Agent in its discretion, make such payments and/or take such other actions as the Administrative Agent may elect in order to cure any such default (whether or not an Event of Default under this Agreement exists at such time). Any payment made pursuant to this Section 7.17(b) shall be deemed a Protective Advance hereunder. Each Loan Party agrees that the Administrative Agent shall have no obligation to exercise any right to cure hereunder, whether or not such right is exercised on any one or more occasions.

. Perform and observe all the payment terms and other material terms and provisions of each Material Contract to be performed or observed by it, maintain each such Material Contract in full force and effect, enforce each such Material Contract in accordance with its terms, take all such action to such end as may be from time to time reasonably requested by the Administrative Agent and, upon reasonable request of the Administrative Agent, make to each other party to each such Material Contract such demands and requests for information and reports or for action as any Loan Party or any of its Subsidiaries is entitled to make under such Material Contract, and cause each of its Subsidiaries to do so, except, in any case, where the failure to do any of the foregoing, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

7.19 Treasury Management Services. Subject to the provisions of the Post-Closing Agreement, commencing with the date which is one hundred twenty (120) days after the Closing Date (or such later date as the Administrative Agent may agree), each Loan Party shall maintain all of its United States and Canadian lockbox deposit accounts and Deposit Accounts exclusively with BMO and/or BMO Harris Bank, N.A. and shall utilize BMO or BMO Harris Bank, N.A. for its primary disbursement account and other Treasury Management and Other Services.

7.20 No Cash Hoarding. If, at the end of any Business Day, Total Revolving Credit Outstandings are greater than zero and the Consolidated Cash Balance exceeds $2,500,000 then the Borrowers shall, no later than the Business Day thereafter, (i) prepay Revolving Credit Borrowings outstanding on such Business Day in an aggregate principal amount equal to the lesser of (A) such excess Consolidated Cash Balance and (B) the amount of Revolving Credit Borrowings then outstanding and (ii) if a Default then exists and Total Revolving Credit Outstandings remain after prepaying all Revolving Credit Borrowings because of Letter of Credit Obligations, Cash Collateralize such Letter of Credit

Obligations to the extent any such excess remains after giving effect to the prepayment of all Revolving Credit Borrowings.

ARTICLE VIII
NEGATIVE COVENANTS

So long as any Lender shall have any Commitment hereunder or any Loan Obligation hereunder shall remain unpaid or unsatisfied, no Loan Party shall, nor shall it permit any Subsidiary thereof to, directly or indirectly:

8.01 Indebtedness. Create, incur, assume or suffer to exist any Indebtedness or issue any Disqualified Equity Interest, except:

(a) Indebtedness under the Loan Documents (including, for avoidance of doubt, Indebtedness arising pursuant to Section 2.18 and under any Supplemental Facility);

(b) any Indebtedness outstanding on the Closing Date and listed on Schedule 8.01;

(c) any Subordinated Debt owed to a non-Affiliate, so long as such Subordinated Debt is (i) unsecured and subject to a Subordination Agreement, and (ii) not owed to any Loan Party or Subsidiary or Affiliate thereof;

(d) Guarantees of any Borrower in respect of Indebtedness otherwise permitted hereunder of any other Borrower; provided that any Guarantee of Indebtedness permitted hereunder that is subordinated to the Obligations shall be subordinated to the Obligations on substantially the same terms as such guaranteed Indebtedness;

(e) Credit Product Obligations consisting of obligations (contingent or otherwise) existing or arising under any Swap Contract, provided that (i) such obligations are (or were) entered into by such Person in the Ordinary Course of Business for the purpose of directly mitigating risks reasonably anticipated by such Person associated with liabilities, commitments, investments, assets, cash flows of or property held by, or changes in the value of securities issued by, such Person, and not for purposes of speculation or taking a "market view", and (ii) such Swap Contract does not contain any provision exonerating the nondefaulting party from its obligation to make payments on outstanding transactions to the defaulting party; provided further that the Swap Termination Value of all Swap Contracts permitted under this clause (e) shall not exceed $1,000,000;

(f) Indebtedness arising in the Ordinary Course of Business in connection with treasury management and commercial credit card, merchant card and purchase or procurement card services including Treasury Management and Other Services;

(g) Indebtedness owed to a non-Affiliate in respect of Capital Leases, Synthetic Lease Obligations and purchase money obligations for Equipment within the limitations set forth in Section 8.02(i); provided, however, that the aggregate amount of all such Indebtedness of all Loan Parties and their Subsidiaries at any one time outstanding shall not exceed $7,500,000;

(h) unsecured Assumed Indebtedness; provided that the aggregate principal amount of all such

Indebtedness of all Loan Parties and their Subsidiaries at any time outstanding shall not exceed $2,500,000;

(i) Indebtedness incurred to finance or as part of the consideration for any Permitted Acquisition; provided, that, (i) no Event of Default exists at the time of or would be caused by the incurrence

of such Indebtedness and (ii) such Indebtedness (A) is unsecured, (B) bears interest (and provided for fees) at a rate (or amount) no greater than the then current arm's length market rate (or amount) for similar Indebtedness, (C) does not have a maturity date or require the payment in cash of principal (other than in respect of working capital adjustments) prior to a date later than 91 days following the Maturity Date, (D) is subordinated to the Obligations on terms reasonably acceptable to the Administrative Agent, and (E) the aggregate principal amount of all such Indebtedness for all Loan Parties and their Subsidiaries, for all Permitted Acquisitions on or after the Closing Date shall not exceed $1,000,000;

(j) the endorsement of negotiable instruments for deposit or collection or similar transactions in the Ordinary Course of Business;

(k) Indebtedness in respect of any bankers' acceptances, bank guarantees, or similar facilities entered into in the ordinary course of business in respect of workers' compensation and other casualty claims, health, disability or other employee benefits or property, casualty or liability insurance or selfinsurance or other Indebtedness with respect to reimbursement-type obligations regarding workers' compensation and other casualty claims;

(l) Indebtedness owed to a non-Affiliate incurred or arising in the Ordinary Course of Business (and not in connection with the borrowing of money) in respect of (i) obligations to pay the deferred purchase price of goods or services or progress payments in connection with such goods and services; provided that such obligations are incurred in connection with open accounts extended by suppliers on customary trade terms; (ii) performance bonds, bid bonds, appeal bonds, surety bonds, performance and completion guarantees and similar instruments or obligations; and (iii) obligations to pay insurance premiums;

(m) Indebtedness representing deferred compensation to employees, consultants or independent contractors incurred in the Ordinary Course of Business;

(n) surety bonds, deposits and similar obligations permitted under Section 8.02(f);

(o) Refinancing Indebtedness;

(p) the Secured Note Debt in an amount not to exceed $405,000,000, so long as all such Indebtedness is subject to the Secured Note Intercreditor Agreement; and

(q) other Indebtedness owed to a non-Affiliate in an aggregate principal amount of up to $2,500,000 at any time outstanding.

8.02 Liens. Create, incur, assume or suffer to exist any Lien upon any of its property, assets or revenues, whether now owned or hereafter acquired, other than the following (the "Permitted Liens"):

(a) Liens in favor of the Administrative Agent pursuant to any Loan Document;

(b) Liens existing on the date hereof as described on Schedule 8.02 (setting forth, as of the Closing Date, the lienholder thereof, the principal amount of the obligations secured thereby and the property or assets of such Loan Party or such Subsidiary subject thereto) and any renewals or extensions thereof, provided that (i) the Lien does not extend to any additional property, and (ii) the obligations secured or benefited thereby constitutes Refinancing Indebtedness;

(c) Liens for taxes, assessments or other governmental charges, not yet due or which are being Properly Contested, and which in all cases are junior to the Lien of the Administrative Agent;

(d) Liens of carriers, warehousemen, mechanics, materialmen, repairmen, landlords or other like Liens imposed by Law or arising in the Ordinary Course of Business which are not overdue for a period of more than thirty (30) days or which are being Properly Contested;

(e) Liens, pledges or deposits in the Ordinary Course of Business in connection with (i) insurance, workers compensation, unemployment insurance and social security legislation, (ii) contracts, bids, government contracts, and surety, appeal, customs, performance and return-of-money bonds and (iii) other similar obligations (exclusive of obligations in respect of the payment for borrowed money), whether pursuant to contracts, statutory requirements, common law or consensual arrangements, other than any Lien imposed by ERISA, Canadian Pension Laws or a Foreign Benefit Law;

(f) Liens arising in the Ordinary Course of Business consisting of deposits to secure the performance of bids, trade contracts and leases (other than Indebtedness), statutory obligations, surety bonds (other than bonds related to judgments or litigation), performance bonds and other obligations of a like nature, in each case, incurred in the Ordinary Course of Business;

(g) Liens with respect to minor imperfections of title and easements, rights-of-way, covenants, consents, reservations, encroachments, variations and zoning and other similar restrictions, charges, encumbrances or title defects affecting Real Property which, in the aggregate, are not substantial in amount, and which do not in any case materially detract from the value of the property subject thereto or materially interfere with the ordinary conduct of the business of the applicable Person and do not materially detract from the value of or materially impair the use by the Loan Parties in the Ordinary Course of Business of the property subject to or to be subject to such encumbrance;

(h) Liens securing judgments for the payment of money not constituting an Event of Default underSection 9.01 or securing appeal or other surety bonds related to such judgments, and which in all cases are junior to the Lien of the Administrative Agent;

(i) Liens in favor of a non-Affiliate securing Indebtedness in respect of Capital Leases, Synthetic Lease Obligations and purchase money obligations for Equipment permitted under Section 8.01(g); provided that (i) such Liens do not at any time encumber any property other than the property financed by such Indebtedness and (ii) the Indebtedness secured thereby does not exceed the cost or Fair Market Value, whichever is lower, of the property being acquired on the date of acquisition;

(j) operating leases or subleases granted by the Loan Parties to any other Person in the Ordinary Course of Business;

(k) Liens (a) of a collection bank arising under Section 4-210 of the UCC or any comparable or successor provision (including the PPSA) on items in the course of collection, (b) attaching to commodity trading accounts or other commodity brokerage accounts incurred in the Ordinary Course of Business and (c) in favor of banking institutions accepting deposits in the ordinary course of business (including customary banker's liens or other like rights with respect to (x) returned or charged-back items, reversals or cancellations of payments or transfers or other corrections or adjustments, (y) overdrafts not in violation of this Agreement and (z) bank's customary charges, fees and documented expenses), in the case of clauses (a) through (c) to the extent such Liens (i) arise as a matter of law encumbering deposits (including the right of set-off) and (ii) are within the general parameters customary in the banking industry;

(l) Liens in favor of customs and revenue authorities imposed by Law to secure payment of customs duties in connection with the importation of goods and arising in the Ordinary Course of Business which are not overdue for a period of more than 30 days or which are being Properly Contested;

(m) in the case of any Joint Venture, any encumbrance or restriction, including any put and call arrangements, related to Equity Interests in such Joint Venture set forth in the organizational documents of such Joint Venture or any related joint venture, shareholders' or similar agreement;

(n) Liens on insurance policies and proceeds thereof securing the financing of premiums with respect to such policies;

(o) Liens in connection with any sale-leaseback transactions permitted under this Agreement;

(p) the Secured Note Liens securing the Secured Note Debt permitted under Section 8.01(p), so long as all such Secured Note Liens are subject to the Secured Note Intercreditor Agreement; and

(q) Liens securing Indebtedness permitted by Section 8.01(q).

Notwithstanding the foregoing or anything to the contrary set forth herein or in any other Loan Document, no Loan Party or Subsidiary thereof shall grant or permit any Lien upon any Equity Interests owned or issued by such Loan Party or Subsidiary (or allow any holder of any of its Equity Interests to grant or permit such Lien on such Equity Interests, whether or not the granting or permitting of such a Lien is within the control of such Loan Party or Subsidiary), other than any Lien in favor of the Administrative Agent pursuant to any Loan Document or any Lien in favor of the Secured Note Agent pursuant to any Secured Note Document.

8.03 Investments. Make or maintain any Investments, other than the following (the "Permitted Investments"):

(a) Investments owned and held by the Loan Parties in the form of Cash Equivalents that are subject to Administrative Agent's Lien and in a Controlled Deposit Account (other than any Excluded Deposit Account);

(b) loans and advances to officers, directors and employees of the Loan Parties and their Subsidiaries (other than Excluded Subsidiaries) made in the Ordinary Course of Business in an aggregate amount at any one time outstanding not to exceed $1,000,000;

(c) (i) Investments by Loan Parties in Subsidiaries outstanding on the date hereof, and (ii) Investments by Loan Parties in other Loan Parties;

(d) Investments in non-Affiliates consisting of extensions of credit in the nature of accounts receivable or notes receivable arising from the grant of trade credit in the Ordinary Course of Business, and Investments received in satisfaction or partial satisfaction thereof from financially troubled Account

Debtors to the extent reasonably necessary in order to prevent or limit loss;

(e) Guarantees permitted by Section 8.01(d);

(f) Investments existing as of the date hereof as described in Schedule 8.03 (setting forth, as of the Closing Date, the amount, obligor or issuer and maturity, if any, thereof) and extensions or renewals thereof, provided that no such extension or renewal shall be permitted if it would (i) increase the amount of such Investment at the time of such extension or renewal, or (ii) result in a Default or Event of Default hereunder;

(g) Permitted Acquisitions;

(h) Credit Product Obligations permitted by Section 8.01(e);

(i) any transaction permitted by Sections 8.04, 8.05 or 8.06 to the extent also constituting an Investment;

(j) loans or advances made by any Borrower or Subsidiary of any Borrower to such Borrower's or Subsidiary's employees on an arm's length basis, in an amount not to exceed (x) $50,000 per employee and (y) $250,000 in the aggregate for all Borrowers and Subsidiaries at all times;

(k) loans or advances existing on the date hereof as described on Schedule 8.03, made by any Borrower or Subsidiary of any Borrower to (x) GSM or (y) any Excluded Subsidiary;

(l) any other Investments (other than any Investments described in clause (g)) solely if, as of the date of any such Investment and after giving Pro Forma Effect thereto, the Payment Conditions are satisfied with respect thereto; and

(m) Other Investments (excluding any Acquisitions) in an aggregate amount of up to $500,000 at any time outstanding.

Notwithstanding the terms of this Section 8.03, in no event shall any Loan Party or any Subsidiary thereof sell, lease, convey, assign, transfer or otherwise dispose of Intellectual Property of any Loan Party or Subsidiary thereof to any Person who is not a Borrower.

8.04 Fundamental Changes. Merge, amalgamate, divide, dissolve, liquidate, consolidate with or into another Person, except that, so long as no Default exists or would result therefrom:

(a) any Subsidiary of a Borrower may merge, amalgamate or consolidate with or liquidate or dissolve into such Borrower;provided, that such Borrower shall be the continuing or surviving Person; and

(b) in connection with a Permitted Acquisition, any Subsidiary of a Borrower may merge or amalgamate with or into or consolidate with any other Person or permit any other Person to merge or amalgamate with or into or consolidate with it; provided, that the Person surviving such merger shall be a Borrower; and

(c) any Borrower may merge, amalgamate or consolidate with or liquidate or dissolve into any other Borrower; any Excluded Subsidiary may merge or amalgamate into any other Excluded Subsidiary; provided that, when any wholly-owned Subsidiary is merging or amalgamating, as applicable with another Subsidiary that is not wholly-owned, the wholly-owned Subsidiary shall be the continuing or surviving Person.

Notwithstanding the terms of this Section 8.04, in no event shall any Loan Party or any Subsidiary thereof sell, lease, convey, assign, transfer or otherwise dispose of Intellectual Property of any Loan Party or Subsidiary thereof to any Person who is not a Borrower.

8.05 Dispositions. Make any Disposition or enter into any agreement to make any Disposition, except:

(a) (i) Dispositions to a non-Affiliate of Inventory and (ii) so long as no Event of Default exists or is created thereby, Dispositions of Cash Equivalents of the Loan Parties to non-Affiliates, in the case of clauses (i) and (ii) in the Ordinary Course of Business,

(b) Dispositions to a non-Affiliate in the Ordinary Course of Business of (x) Equipment or fixed assets that are obsolete, worn out or no longer useful to the Core Business, so long as (i) no Event of Default has occurred and is continuing at the time of such Disposition, (ii) such Disposition is permitted under the Secured Note Documents, and (iii) all the Net Cash Proceeds thereof are applied in accordance with Section 2.06(c) (or reinvested in accordance with and to the extent permitted by Section 2.06(d)) and (y) other specific items of Equipment, so long as the purpose of such sale or disposition, is to acquire replacement items of like-kind Equipment or other Equipment used or useful in the conduct of the business of any Borrower or Subsidiary of any Borrower; provided, that the aggregate Fair Market Value or book value, whichever is more, of all such Equipment and fixed assets Disposed of pursuant to this Section 8.05(b) does not exceed $10,000,000 in any Fiscal Year;

(c) Dispositions that constitute (i) an Investment permitted under Section 8.03, (ii) a Lien permitted under Section 8.02, (iii) a merger, dissolution, consolidation or liquidation permitted under Section 8.04(a), or (iv) a Restricted Payment permitted under Section 8.06;

(d) Dispositions that result from a casualty or condemnation in respect of such property or assets and is not otherwise an Event of Default so long as all proceeds thereof are applied in accordance with Section 2.06(c);

(e) the licensing to a non-Affiliate, on a non-exclusive basis, of patents, trademarks, copyrights, and other Intellectual Property rights in the Ordinary Course of Business;

(f) (i) the lapse of immaterial registered patents, trademarks, copyrights and other Intellectual Property to the extent maintaining such registered Intellectual Property is not economically desirable in the conduct of its business or (ii) the abandonment of patents, trademarks, copyrights, or other intellectual property rights in the Ordinary Course of Business so long as in each case under clauses (i) and (ii), such lapse or abandonment is not materially adverse to the interests of the Secured Parties;

(g) the leasing or subleasing of assets to Loan Parties (other than sale and leaseback transactions prohibited under Section 8.15) in the Ordinary Course of Business;

(h) Dispositions to a non-Affiliate that consist of the sale or discount in the Ordinary Course of Business of overdue accounts receivable that are not Eligible Accounts and in connection with the compromise or collection thereof, provided that the Net Cash Proceeds from such Disposition shall be deposited in the Concentration Account;

(i) Dispositions of Accounts or Inventory in an amount not to exceed $1,000,000 in the aggregate per Fiscal Year for all Loan Parties and their Subsidiaries;

(j) Dispositions of assets other than those specifically permitted by the foregoing clauses (a) through (i), to the extent such Disposition is approved by the Administrative Agent in its discretion;

(k) Dispositions among the Borrowers or by any Subsidiary of a Borrower to such Borrower.

Notwithstanding the terms of this Section 8.05, in no event shall any Loan Party or any Subsidiary thereof sell, lease, convey, assign, transfer or otherwise dispose of Intellectual Property of any Loan Party or Subsidiary thereof to any Person who is not a Borrower.

8.06 Restricted Payments. Declare or make, directly or indirectly, any Restricted Payment, or incur any obligation (contingent or otherwise) to do so, except that, in each case:

(a) each Subsidiary of a Borrower may make Restricted Payments, directly or indirectly, to such Borrower;

(b) Excluded Subsidiaries may make Restricted Payments to other Excluded Subsidiaries;

(c) Borrowers may make Restricted Payments to GSM to the extent necessary to permit GSM to make payments on the Secured Note Debt permitted under Section 8.11.

(d) each Borrower may declare and make non-cash dividend payments or other distributions payable solely in the common stock or other common Equity Interests of such Borrower;

(e) so long as no Default or Event of Default shall have occurred and be continuing or be caused thereby, any Borrower may purchase, redeem or otherwise acquire shares of its common stock or other common Equity Interests or warrants or options to acquire any such shares in connection with customary employee or management agreements, plans or arrangements, all in an aggregate amount not to exceed $1,000,000 during the term of this Agreement;

(f) any Borrower or Subsidiary thereof may make Restricted Payments to GSM to the necessary to permit GSM to pay administrative costs and expenses related to the business of the Borrowers and their Subsidiaries, not to exceed $1,000,000 in the aggregate for all Borrowers and Subsidiaries thereof in any Fiscal Year of the Consolidated Group, so long as GSM applies the amount of such Restricted Payments for such purpose;

(g) any Borrower or Subsidiary thereof (other than an Excluded Subsidiary) may make Permitted Tax Distributions to GSM; and

(h) solely if, as of the date of such Restricted Payment and after giving Pro Forma Effect thereto, the Payment Conditions are satisfied with respect thereto, any Borrower or Subsidiary thereof may make other Restricted Payments (other than the types of Restricted Payments described in clauses (a) through (e) above) to GSM.

8.07 Change in Nature of Business. Engage in any material line of business, other than the Core Business.

8.08 Transactions with Affiliates. Enter into any transaction of any kind with any Affiliate of any Loan Party or Subsidiary thereof, whether or not in the Ordinary Course of Business, other than:

(a) Transactions (other than transactions involving Excluded Subsidiaries) on fair and reasonable terms substantially as favorable to such Loan Party or Subsidiary as would be obtainable by such Loan Party or such Subsidiary at the time in a comparable arm's length transaction with a Person other than an Affiliate;

(b) transactions between or among the Borrowers;

(c) transactions between and among Excluded Subsidiaries;

(d) any payments of fees and expenses expressly contemplated in the Loan Documents or Secured Note Documents, as set forth on Schedule 8.08; and

(e) transactions pursuant to agreements in existence or contemplated on the Closing Date as set forth on Schedule 8.08 and otherwise permitted hereunder.

8.09 Burdensome Agreements. Enter into any Contractual Obligation (other than this Agreement, any other Loan Document or any Secured Note Document) that:

(a) requires the grant of a Lien to secure an obligation of such Person if a Lien is granted to secure another obligation of such Person; or

(b) limits the ability (i) of any Subsidiary to make Restricted Payments to any Loan Party or to otherwise transfer property to any Loan Party, (ii) of any Subsidiary of a Loan Party to Guarantee the Indebtedness of the Borrowers or become a direct Borrower hereunder, or (iii) of any Borrower or any Subsidiary thereof to create, incur, assume or suffer to exist Liens on the Collateral in favor of the Administrative Agent; provided, however, that this clause (iii) shall not prohibit any negative pledge incurred or provided in favor of any holder of Indebtedness permitted under Section 8.01(g) solely to the extent any such negative pledge relates to the property financed by or the subject of such Indebtedness.

8.10 Use of Proceeds. Use the proceeds of any Credit Extension, whether directly or indirectly, including through or by any Controlled Person, and whether immediately, incidentally or ultimately, (a) in any manner that might cause the Credit Extension or the application of such proceeds to violate Regulations T, U or X of the Board of Governors of the Federal Reserve System, in each case as in effect on the date or dates of such Credit Extension, or (b) (i) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws, (ii) to fund, finance or facilitate any activities, business or transaction of or with any Sanctioned Person or in any Designated Jurisdiction, or (iii) in any other manner that would result in the violation of any Sanctions, Anti-Corruption Laws or Anti-Money Laundering Laws applicable to any party hereto. Notwithstanding, the foregoing shall not be made by nor apply to any Person that qualifies as a corporation that is registered or incorporated under the laws of Canada or any province thereof and that carries on business in whole or in part in Canada within the meaning of Section 2 of the Foreign Extraterritorial Measures (United States) Order, 1992 passed under the Foreign Extraterritorial Measures Act (Canada) in so far as such representations would result in a violation of or conflict with the Foreign Extraterritorial Measures Act (Canada) or any similar law

8.11 Payment of Indebtedness; Amendment to Material Agreements.

(a) Make or pay, directly or indirectly, any payment or other distribution (whether in cash, securities or other property) of or in respect of principal, interest, fees, or other amounts due on any Indebtedness (other than the Obligations) or any payment or other distribution (whether in cash, securities or other property), including any sinking fund or similar deposit, on account of the purchase, redemption, retirement, acquisition, cancellation or termination of any such Indebtedness (other than the Obligations), except for the following:

(i) (x) payments when due under the Secured Note Documents of regularly scheduled interest and principal payments on the Secured Note Debt; (y) mandatory prepayments in respect of Secured Note Debt under the applicable Secured Note Documents, and (z) voluntary prepayments of the Secured Note Debt under the applicable Secured Note Documents (including, for the avoidance of doubt, any prepayment fee or make-whole amount required to be paid in connection with a voluntary prepayment under the applicable Secured Note Documents), solely, in the case of clauses (y) and (z), so long as of the date of any such prepayment and after giving Pro Forma Effect thereto, the Payment Conditions are satisfied with respect thereto;

(ii) payments when due of regularly scheduled interest and principal payments on any Subordinated Debt (other than payments in respect of any Indebtedness owed to any Loan Party or

Subsidiary or Affiliate thereof), solely to the extent permitted by the Subordination Agreement entered into with respect thereto;

(iii) solely if, as of the date of any such payment and after giving Pro Forma Effect thereto, no Event of Default has occurred and is continuing, payments of any Indebtedness owed to any Loan Party that is evidenced by and subject to the Master Intercompany Note;

(iv) payments made through the incurrence of Refinancing Indebtedness with respect to such Indebtedness;

(v) payments of secured Indebtedness permitted hereunder that become due as a result of a voluntary Disposition permitted hereunder of the property securing such Indebtedness;

(vi) payments made solely from and substantially contemporaneously with the proceeds of the issuance of Equity Interests by GSM (other than Disqualified Equity Interests); and

(vii) solely if, as of the date of any such prepayment and after giving Pro Forma Effect thereto, the Payment Conditions are satisfied with respect thereto, (x) payments when due of regularly scheduled interest and principal on any Indebtedness, and (y) mandatory or optional prepayments on any Indebtedness, in each case, other than payments in respect of any Indebtedness consisting of (A) Secured Note Debt, (B) Subordinated Debt, or (C) owed to any Loan Party or Subsidiary or Affiliate thereof.

Notwithstanding anything to the contrary set forth herein, other than as expressly set forth in clause (a)(iii) above, no Loan Party may make a payment with respect to any Indebtedness owed to any Loan Party or Subsidiary or Affiliate thereof.

(b) Amend, modify or change in any manner any term or condition of (i) any Secured Note Documents, except to the extent permitted by the Secured Note Intercreditor Agreement, or (ii) any Subordinated Debt Documents, except to the extent permitted by the applicable Subordination Agreement.

(c) Amend, modify or change in any manner any term or condition of (i) any Material Contract or (ii) any Indebtedness permitted under Section 8.01 outstanding on the Closing Date, in each case so that the terms and conditions of such Material Contract or Indebtedness are less favorable in any material respect to the Administrative Agent or the Lenders than the terms of such Material Contract or Indebtedness as of the Closing Date.

8.12 Financial Covenant.

(a) Consolidated Fixed Charge Coverage Ratio. Permit the Consolidated Fixed Charge Coverage Ratio, determined on a Pro Forma Basis as of (i) the last day of the Measurement Period most recently ended before the commencement of a Fixed Charge Trigger Period and (ii) the last day of each Measurement Period thereafter ending during any Fixed Charge Trigger Period to be less than 1.00 to 1.00 for such Measurement Period.

8.13 Creation of New Subsidiaries. Create or acquire any new Subsidiary after the Closing Date, other than Subsidiaries thereof created or acquired in accordance with Sections 7.12 and 8.18.

8.14 Securities of Subsidiaries. Permit any Subsidiary thereof to issue any Equity Interests (whether for value or otherwise) to any Person other than a Loan Party.

8.15 Sale and Leaseback. Except for transactions consented to by the Administrative Agent in its discretion, enter into any agreement or arrangement with any other Person providing for the leasing by any Loan Party or any Subsidiary thereof of real or personal property which has been or is to be sold or transferred by any Loan Party or any Subsidiary thereof to such other Person or to any other Person to whom funds have been or are to be advanced by such Person on the security of such property or rental obligations of a Loan Party or any Subsidiary thereof.

8.16 Organization Documents; Fiscal Year. (a) Amend, modify or otherwise change any of its Organizational Documents in any material respect, except in connection with a transaction permitted under Section 8.04, but in any case not in any manner that could have a Material Adverse Effect on the interests of the Secured Parties, or (b) change its Fiscal Year.

8.17 [Reserved].

8.18 Canadian Defined Benefit Pension Plans. None of the Loan Parties shall, without the consent of the Administrative Agent, maintain, administer, contribute or have any liability in respect of any Canadian Defined Benefit Pension Plan or acquire an interest in any Person if such Person sponsors, maintains, administers or contributes to, or has any liability in respect of any Canadian Defined Benefit Pension Plan.

ARTICLE IX
EVENTS OF DEFAULT AND REMEDIES

9.01 Events of Default. Any of the following shall constitute an Event of Default:

(a) Non-Payment. Any Borrower fails to pay (i) when and as required to be paid herein, any amount of principal of any Loan or any Letter of Credit Obligation, or (ii) within five (5) days after the same becomes due, any interest on any Loan or on any Letter of Credit Obligation, or any commitment or other fee due hereunder, or (iii) within five days after the same becomes due, any other amount payable hereunder or under any other Loan Document; or

(b) Specific Covenants. Any Loan Party fails to perform or observe any term, covenant or agreement contained (i) in any of Sections 7.01(a), 7.01(b), 7.02(a), 7.02(b), 7.02(c), 7.03, 7.05, 7.07, 7.10, 7.11, 7.12, 7.19, 7.20, or Article VIII, or (ii) Section 4.04 and such failure continues for five (5) or more Business Days after such failure; or

(c) Other Defaults. Any Loan Party fails to perform or observe any other covenant or agreement (not specified in subsection (a) or (b) above) contained in any Loan Document on its part to be performed or observed and such failure continues for thirty (30) days after the earlier of (i) receipt of notice of such default by a Responsible Officer of the Borrower Agent from the Administrative Agent, or (ii) any Responsible Officer of any Loan Party becomes aware of such default; or

(d) Representations and Warranties. Any representation, warranty, certification or statement of fact made or deemed made by or on behalf of any Loan Party or its Subsidiaries herein, in any other Loan Document, or in any document delivered in connection herewith or therewith shall be incorrect or misleading when made or deemed made in any material respect; or

(e) Cross-Default. (i) With respect to any Indebtedness or guarantee (other than Indebtedness hereunder and Indebtedness under Swap Contracts) having an aggregate principal amount (including undrawn committed or available amounts and including amounts owing to all creditors under any combined or syndicated credit arrangement) of more than $1,000,000, any Loan Party or Subsidiary thereof (A)

fails to make any payment when due (whether by scheduled maturity, required prepayment, acceleration, demand, or otherwise, and after passage of any grace period) in respect of any such Indebtedness or guarantee, or (B) fails to observe or perform any other agreement or condition relating to any such Indebtedness or guarantee or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event occurs, and such default continues for more than the grace or cure period, if any, therein specified, the effect of which default or other event is to cause, or to permit the holder of such Indebtedness or beneficiary of such guarantee (or a trustee or agent on behalf of such holder or beneficiary) to cause, with the giving of notice if required, such Indebtedness to be demanded or to become due or to be repurchased, prepaid, defeased or redeemed (automatically or otherwise), or an offer to repurchase, prepay, defease or redeem such Indebtedness to be made, prior to its stated maturity, or such guarantee to become payable or cash collateral in respect thereof to be demanded; (ii) there occurs under any Swap Contract an Early Termination Date (as defined in such Swap Contract) resulting from (A) any event of default under such Swap Contract as to which any Loan Party or any Subsidiary is the Defaulting Party (as defined in such Swap Contract) or (B) any Termination Event (as so defined under such Swap Contract) as to which any Loan Party or any Subsidiary is an Affected Party (as so defined) and, in either event, the Swap Termination Value owed by a Loan Party or any Subsidiary as a result thereof is greater than $1,000,000; or (iii) default or event of default occurs under any Secured Note Agreement or otherwise in respect of the Secured Note Debt; or

(f) Insolvency Events. Any Insolvency Event shall occur with respect to any Loan Party; or

(g) Inability to Pay Debts; Attachment. (i) Any Loan Party becomes unable or admits in writing its inability or fails generally to pay its debts as they become due, (ii) any writ or warrant of attachment or execution or similar process is issued or levied against all or any material part of the property of any Loan Party and is not released, vacated or fully bonded within thirty (30) days after its issue or levy; (iii) any Loan Party is enjoined, restrained or in any way prevented by any Governmental Authority from conducting any material part of its business; (iv) any Loan Party suffers the loss, revocation or termination of any material license, permit, lease or agreement necessary to its business; (v) there is a cessation of any material part of any Loan Party's business for a material period of time; or (vi) any material Collateral or property or assets of a Loan Party is taken or impaired through condemnation; or

(h) Judgments. There is entered against any Loan Party (i) one or more final judgments or orders for the payment of money in an aggregate amount exceeding $1,000,000 (to the extent not covered by insurance as to which the insurer does not dispute coverage), or (ii) any one or more non-monetary final judgments or orders (including for injunctive relief) that have, or would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect and, in either case, such judgment or order remains unvacated and unpaid and either (A) enforcement proceedings are commenced by any creditor upon such judgment or order, or (B) there is a period of thirty (30) consecutive days during which a stay of enforcement of such judgment, by reason of a pending appeal or otherwise, is not in effect; or

(i) ERISA and Canadian Pensions Laws. (i) An ERISA Event occurs with respect to a Pension Plan or Multiemployer Plan which has resulted or could reasonably be expected to result in liability of any Loan Party under Title IV of ERISA to the Pension Plan, Multiemployer Plan or the PBGC in an aggregate amount in excess of $1,000,000 or (ii) a Loan Party or any ERISA Affiliate fails to pay when due, after the expiration of any applicable grace period, any installment payment with respect to its withdrawal liability under Section 4201 of ERISA under a Multiemployer Plan in an aggregate amount in excess of the $1,000,000, (iii) a Canadian Pension Event occurs or a Lien arises, choate or inchoate, in respect of any Canadian Loan Party or its property in connection with any Canadian Pension Plan (save for contribution amounts not yet due), or (iv) the benefit liabilities of all Plans governed by Canadian Pension Laws and Foreign Benefit Laws, or the funding of which are regulated by any Canadian Pension Laws or

Foreign Benefit Laws, at any time exceed all such Plans' assets, as computed in accordance with applicable Law as of the most recent valuation date for such Plans, by more than $1,000,000; or

(j) Invalidity of Loan Documents. Any Loan Document, or any Lien granted thereunder, at any time after its execution and delivery and for any reason, other than as expressly permitted hereunder or under the terms of such Loan Document or upon Payment in Full, ceases to be in full force and effect (except with respect to immaterial assets); or any Borrower or any other Person contests in any manner the validity or enforceability of any Loan Document or any Lien granted to the Administrative Agent pursuant to the Security Instruments; or any Borrower denies that it has any or further liability or obligation under any Loan Document, or purports to revoke, terminate or rescind any Loan Document; or

(k) Breach of Contractual Obligation. Any Borrower or any Subsidiary thereof fails to make any payment when due (whether by scheduled maturity, required prepayment, acceleration, demand, or otherwise) in respect of any contract to which it is party or fails to observe or perform any other agreement or condition relating to any such contract to which it is party or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event occurs, the effect of which default or other event is to cause, or to permit the counterparty to such contract to terminate such contract, in each case (i) if such contract is a Material Contract or (ii) which would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect; or

(l) Subordinated Debt. (i) The Subordination Provisions shall fail to be enforceable by the Lenders (which have not effectively waived the benefits thereof) in accordance with the terms thereof; or (ii) the principal or interest on any Loan, any Letter of Credit Obligation or other Loan Obligations shall fail to constitute "designated senior debt" (or any other similar term) under any document, instrument or agreement evidencing such Subordinated Debt; or (iii) any Loan Party or any of its Subsidiaries shall, directly or indirectly, disavow or contest in any manner (A) the effectiveness, validity or enforceability of any of the Subordination Provisions, or (B) that any of such Subordination Provisions exist for the benefit of any Secured Party; or (iv) any Loan Party or any Subsidiary thereof or any other Person fails to observe or perform any of the Subordination Provisions; or

(m) Uninsured Loss. A loss, theft, damage or destruction occurs with respect to any Collateral if the amount not covered by insurance exceeds $1,000,000; or

(n) Change of Control. There occurs any Change of Control.

9.02 Remedies Upon Event of Default If any Event of Default occurs and is continuing, the Administrative Agent may, and at the direction of the Required Lenders shall, take any or all of the following actions:

(a) declare the commitment of each Lender to make Loans and any obligation of the Letter of Credit Issuer to make Letter of Credit Extensions to be terminated, whereupon such commitments and obligation shall be terminated;

(b) declare the unpaid principal amount of all outstanding Loans, all interest accrued and unpaid thereon, and all other Loan Obligations owing or payable hereunder or under any other Loan Document to be immediately due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by the Borrowers;

(c) require that the Borrowers Cash Collateralize the Letter of Credit Obligations (in an amount equal to the then Outstanding Amount thereof) or any other Loan Obligations that are contingent or not yet

due and payable in amount determined by the Administrative Agent in accordance with this Agreement; and

(d) exercise on behalf of itself and the Lenders all rights and remedies available to it and the Lenders under the Loan Documents or applicable Law;

provided, however, that upon the occurrence of an Event of Default underSection 9.01(f), the obligation of each Lender to make Loans and any obligation of the Letter of Credit Issuer to make Letter of Credit Extensions shall automatically terminate, the unpaid principal amount of all outstanding Loans and all interest and other amounts as aforesaid shall automatically become due and payable, and the obligation of the Borrowers to Cash Collateralize the Letter of Credit Obligations as aforesaid shall automatically become effective, in each case without further act of the Administrative Agent or any Lender.

No remedy herein is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or any other provision of Law.

9.03 Application of Funds.

(a) Subject to Section 9.03(b) below, all payments made by Loan Parties in respect of the Loan Obligations shall be applied (a) first, as specifically required in the Loan Documents; (b) second, to Loan Obligations then due and owing; (b) third, to other Loan Obligations specified by the Administrative Agent; and (c) fourth, as determined by the Borrower Agent in its discretion.

(b) Notwithstanding any provision to the contrary contained herein, after the exercise of remedies provided for inSection 9.02 (or after the Loans have automatically become immediately due and payable and the Letter of Credit Obligations have automatically been required to be Cash Collateralized as set forth in the proviso to Section 9.02), any amounts received on account of the Obligations shall, subject to the provisions of Sections 2.16 and 2.17, and subject to the Secured Note Intercreditor Agreement, be applied by the Administrative Agent in the following order:

First, to all fees, indemnities, expenses and other amounts (including reasonable fees, charges and disbursements of counsel to the Administrative Agent and amounts payable under Article IV) due to the Administrative Agent in its capacity as such, until paid in full;

Second, to all Protective Advances and unreimbursed Overadvances payable to the Administrative Agent until paid in full;

Third, to all amounts owing to the Swing Line Lender for outstanding Swing Line Loans until paid in full;

Fourth, to that portion of the Loan Obligations constituting fees, indemnities and other amounts (other than principal, interest, Letter of Credit Fees and other Obligations expressly described in clauses Fifth through Eighth below) payable to the Lenders and the Letter of Credit Issuer (including reasonable fees, charges and disbursements of counsel to the respective Lenders and the Letter of Credit Issuer and amounts payable under Article III), ratably among them in proportion to the respective amounts described in this clauseFourth payable to them until paid in full;

Fifth, to that portion of the Loan Obligations constituting accrued and unpaid Letter of Credit Fees and interest on the Loans, Letter of Credit Borrowings and other Loan Obligations, ratably

among the Lenders and the Letter of Credit Issuer in proportion to the respective amounts described in this clause Fifth payable to them until paid in full;

Sixth, to (i) that portion of the Obligations constituting unpaid principal of the Loans and Letter of Credit Borrowings and to Cash Collateralize that portion of Letter of Credit Obligations comprising the aggregate undrawn amount of Letters of Credit to the extent not otherwise Cash Collateralized by the Borrowers and (ii) the payment of Priority Swap Obligations to the extent a Credit Product Reserve has been established therefor, ratably among the Lenders, Letter of Credit Issuer and the applicable Credit Product Providers in proportion to the respective amounts described in this clause Sixth payable to them until paid in full;

Seventh, to payment of Conforming Credit Product Obligations (other than Priority Swap Obligations to the extent paid under clause Sixth above) ratably to the Credit Product Providers in proportion to the respective amounts described in this clause Seventh payable to them until paid in full;

Eighth, to all other Obligations (including Credit Product Obligations to the extent not paid under clauses Sixth or Seventh above) that are due and payable to the Administrative Agent and the other Secured Parties, or any of them, on such date, ratably based on the respective aggregate amounts of all such Obligations owing to the Administrative Agent and the other Secured Parties on such date until paid in full; and

Last, the balance, if any, after Payment in Full, to the Borrowers or as otherwise required by Law.

(c) Subject to Sections 2.03(c) and 2.17, amounts used to Cash Collateralize the aggregate undrawn amount of Letters of Credit pursuant to clause Sixth above shall be applied to satisfy drawings under such Letters of Credit as they occur. Amounts distributed with respect to any Credit Product Obligations shall be the lesser of (i) the maximum Credit Product Obligations last reported to the Administrative Agent or (ii) the actual Credit Product Obligations as calculated by the methodology reported to the Administrative Agent for determining the amount due. The Administrative Agent shall have no obligation to calculate the amount to be distributed with respect to any Credit Product Obligations, and may request a reasonably detailed calculation of such amount from the applicable Credit Product Provider. The allocations set forth in this Section are solely to determine the rights and priorities of the Administrative Agent and the Secured Parties as among themselves, and may be changed by agreement among them without the consent of any Borrower. This Section is not for the benefit of or enforceable by any Loan Party.

(d) For purposes of Section 9.03(b), "paid in full" of a type of Obligation means payment in cash or immediately available funds of all amounts owing on account of such type of Obligation, including interest accrued after the commencement of any Insolvency Event, default interest, interest on interest, and expense reimbursements, irrespective of whether any of the foregoing would be or is allowed or disallowed in whole or in part in any proceeding under Debtor Relief Laws.

(e) The Administrative Agent shall not be liable for any application of amounts made by it in good faith under this Section 9.03, notwithstanding the fact that any such application is subsequently determined to have been made in error.

ARTICLE X
ADMINISTRATIVE AGENT

10.01 Appointment and Authority. Each of the Lenders and the Letter of Credit Issuer hereby irrevocably appoints BMO to act on its behalf as the Administrative Agent hereunder and under the other Loan Documents and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this Article are solely for the benefit of the Administrative Agent, the Lenders and the Letter of Credit Issuer, and no Loan Party shall have rights as a third party beneficiary of any of such provisions. The Administrative Agent alone shall be authorized to determine whether any Accounts or Inventory constitute Eligible Accounts or Eligible Inventory, or whether to impose or release any Reserve, or whether any conditions to funding any Loan or to issuance of a Letter of Credit have been satisfied, which determinations and judgments, if exercised in good faith, shall exonerate Administrative Agent from liability to any Lender or other Person for any error in judgment or mistake.

Without limiting the powers of the Administrative Agent, for the purposes of holding any hypothec granted to the Attorney (as defined below) pursuant to the laws of the Province of Québec to secure the prompt payment and performance of any and all Obligations by any Loan Party, each of the Secured Parties hereby irrevocably appoints and authorizes the Administrative Agent and, to the extent necessary, ratifies the appointment and authorization of the Administrative Agent, to act as the hypothecary representative of the creditors as contemplated under Article 2692 of the Civil Code of Québec (in such capacity, the "Attorney"), and to enter into, to take and to hold on their behalf, and for their benefit, any hypothec, and to exercise such powers and duties that are conferred upon the Attorney under any related deed of hypothec. The Attorney shall: (a) have the sole and exclusive right and authority to exercise, except as may be otherwise specifically restricted by the terms hereof, all rights and remedies given to the Attorney pursuant to any such deed of hypothec and applicable law, and (b) benefit from and be subject to all provisions hereof with respect to the Administrative Agent mutatis mutandis, including, without limitation, all such provisions with respect to the liability or responsibility to and indemnification by the Secured Parties and Loan Parties. Any person who becomes a Secured Party shall, by its execution of an Assignment and Acceptance Agreement, be deemed to have consented to and confirmed the Attorney as the person acting as hypothecary representative holding the aforesaid hypothecs as aforesaid and to have ratified, as of the date it becomes a Secured Party, all actions taken by the Attorney in such capacity. The substitution of the Administrative Agent pursuant to the provisions of Section 10.06 also constitute the substitution of the Attorney.

10.02 Rights as a Lender. The Person serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent and the term "Lender" or "Lenders" shall, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as the Administrative Agent hereunder in its individual capacity. Such Person and its Affiliates may accept deposits from, lend money to, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Loan Parties or any Subsidiary or other Affiliate thereof as if such Person were not the Administrative Agent hereunder and without any duty to account therefor to the Lenders.

10.03 Exculpatory Provisions. The Administrative Agent shall not have any duties or obligations except those expressly set forth herein and in the other Loan Documents. Without limiting the generality of the foregoing, the Administrative Agent:

(a) shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;

(b) shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that the Administrative Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be expressly provided for herein or in the other Loan Documents), provided that the Administrative Agent shall not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Administrative Agent to liability or that is contrary to any Loan Document or applicable Law; and

(c) shall not, except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to any Loan Party or any of its Affiliates that is communicated to or obtained by the Person serving as the Administrative Agent or any of its Affiliates in any capacity.

The Administrative Agent shall not be liable to any other Secured Party for any action taken or not taken by it under or in connection with the Loan Documents, except for direct (as opposed to consequential) losses directly and solely caused by the Administrative Agent's gross negligence or willful misconduct. The Administrative Agent shall not be liable for any action taken or not taken by it with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the Loan Documents). The Administrative Agent shall not be liable for, and shall be fully justified in, failing or refusing to take any action under any Loan Document unless it shall first receive such advice or concurrence of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the Loan Documents) as it reasonably deems appropriate. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until notice describing such Default is given to the Administrative Agent by the Borrower Agent, a Lender or the Letter of Credit Issuer.

The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document or (v) the satisfaction of any condition set forth in Article V or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent.

10.04 Reliance by the Administrative Agent. The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Loan, or the issuance of a Letter of Credit that by its terms must be fulfilled to the satisfaction of a Lender or the Letter of Credit Issuer, the Administrative Agent may presume that such condition is satisfactory to such Lender or the Letter of Credit Issuer unless the Administrative Agent shall have received notice to the contrary from such Lender or the Letter of Credit Issuer prior to the making of such Loan or the issuance

of such Letter of Credit. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrowers), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

10.05 Delegation of Duties. The Administrative Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such sub-agent may perform any and all of its duties and exercise its rights and powers by or through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as the Administrative Agent.

10.06 Resignation of the Administrative Agent. The Administrative Agent may at any time give notice of its resignation to the Lenders, the Letter of Credit Issuer and the Borrower Agent. Upon receipt of any such notice of resignation, the Required Lenders shall have the right, in consultation with the Borrower Agent, to appoint a successor, which shall be a bank with an office in the United States, or an Affiliate of any such bank with an office in the United States. If no such successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation, then the retiring Administrative Agent may on behalf of the Lenders and the Letter of Credit Issuer, appoint a successor Administrative Agent meeting the qualifications set forth above; provided that if the Administrative Agent shall notify the Borrower Agent and the Lenders that no qualifying Person has accepted such appointment, then such resignation shall nonetheless become effective in accordance with such notice and (1) the retiring Administrative Agent shall be discharged from its duties and obligations hereunder and under the other Loan Documents (except that in the case of any Collateral held by the Administrative Agent on behalf of the Lenders or the Letter of Credit Issuer under any of the Loan Documents, the retiring Administrative Agent shall continue to hold such Collateral until such time as a successor Administrative Agent is appointed) and (2) all payments, communications and determinations provided to be made by, to or through the Administrative Agent shall instead be made by or to each Lender and the Letter of Credit Issuer directly, until such time as the Required Lenders appoint a successor Administrative Agent as provided for above in this Section. Upon the acceptance of a successor's appointment as the Administrative Agent hereunder, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring (or retired) Administrative Agent, and the retiring Administrative Agent shall be discharged from all of its duties and obligations hereunder or under the other Loan Documents (if not already discharged therefrom as provided above in this Section). The fees payable by the Borrowers to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Borrowers and such successor. After the retiring Administrative Agent's resignation hereunder and under the other Loan Documents, the provisions of this Article and Section 11.04 shall continue in effect for the benefit of such retiring Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while the retiring Administrative Agent was acting as the Administrative Agent.

Any resignation by BMO as the Administrative Agent pursuant to this Section shall also constitute its resignation as Letter of Credit Issuer and Swing Line Lender. Upon the acceptance of a successor's appointment as the Administrative Agent hereunder, (a) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Letter of Credit Issuer and Swing Line Lender, (b) the retiring Letter of Credit Issuer and Swing Line Lender shall be discharged from all of their respective duties and obligations hereunder or under the other Loan Documents, and (c) the successor Letter of Credit Issuer shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make other arrangements satisfactory to the retiring Letter of Credit Issuer to

effectively assume the obligations of the retiring Letter of Credit Issuer with respect to such Letters of Credit.

10.07 Non-Reliance on the Administrative Agent and Other Lenders. Each Lender and the Letter of Credit Issuer acknowledges that it has, independently and without reliance upon the Administrative Agent or any other Lender or any of their Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Lender and the Letter of Credit Issuer also acknowledges that it will, independently and without reliance upon the Administrative Agent or any other Lender or any of their Related Parties and based on such documents and information as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any other Loan Document or any related agreement or any document furnished hereunder or thereunder.

10.08 No Other Duties, Etc. Anything herein to the contrary notwithstanding, none of the bookrunners, arrangers, syndication agents or documentation agents listed on the cover page hereof shall have any rights, powers, duties or responsibilities under this Agreement or any of the other Loan Documents, except in its capacity, as applicable, as the Administrative Agent, a Lender or the Letter of Credit Issuer hereunder.

10.09 The Administrative Agent May File Proofs of Claim; Credit Bidding. In case of the pendency of any proceeding under any Debtor Relief Law or any other judicial proceeding relative to any Loan Party, the Administrative Agent (irrespective of whether the principal of any Loan or Letter of Credit Obligation shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Borrower) shall be entitled and empowered, by intervention in such proceeding or otherwise

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans, Letter of Credit Obligations and all other Obligations that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders, the Letter of Credit Issuer and the Administrative Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders, the Letter of Credit Issuer and the Administrative Agent and their respective agents and counsel and all other amounts due the Lenders, the Letter of Credit Issuer and the Administrative Agent under Sections 2.03(h), 2.09 and 11.04) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, interim receiver, receiver and manager, monitor, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender and the Letter of Credit Issuer to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Lenders and the Letter of Credit Issuer, to pay to the Administrative Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Administrative Agent and its agents and counsel, and any other amounts due the Administrative Agent under Sections 2.09 and 10.04.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Lender or the Letter of Credit Issuer any plan of reorganization, arrangement, adjustment or composition affecting the Obligations or the rights of any Lender or the Letter of Credit Issuer to authorize the Administrative Agent to vote in respect of the claim of any Lender or the Letter of Credit Issuer in any such proceeding.

The Loan Parties and the Secured Parties hereby irrevocably authorize the Administrative Agent, based upon the instruction of the Required Lenders, to (a) credit bid and in such manner purchase (either directly or through one or more acquisition vehicles) all or any portion of the Collateral at any sale thereof conducted under the provisions of the Bankruptcy Code of the United States, including under Section 363 of the Bankruptcy Code of the United States or any similar Laws in any other jurisdictions to which a Loan Party is subject, or (b) credit bid and in such manner purchase (either directly or through one or more acquisition vehicles) all or any portion of the Collateral at any other sale or foreclosure conducted by (or with the consent or at the direction of) the Administrative Agent (whether by judicial action or otherwise) in accordance with applicable Law. In connection with any such credit bid and purchase, the Obligations owed to the Secured Parties shall be entitled to be, and shall be, credit bid on a ratable basis (with Obligations with respect to contingent or unliquidated claims being estimated for such purpose if the fixing or liquidation thereof would not unduly delay the ability of the Administrative Agent to credit bid and purchase at such sale or other disposition of the Collateral and, if such claims cannot be estimated without unduly delaying the ability of the Administrative Agent to credit bid, then such claims shall be disregarded, not credit bid, and not entitled to any interest in the asset or assets purchased by means of such credit bid) and the Secured Parties whose Obligations are credit bid shall be entitled to receive interests (ratably based upon the proportion of their Obligations credit bid in relation to the aggregate amount of Obligations so credit bid) in the asset or assets so purchased (or in the Equity Interests of the acquisition vehicle or vehicles that are used to consummate such purchase). Upon request by the Administrative Agent or the Borrower Agent at any time, the Secured Parties will confirm in writing the Administrative Agent's authority to release any such Liens on particular types or items of Collateral pursuant to this Section 10.09.

10.10 Collateral Matters. The Secured Parties irrevocably authorize the Administrative Agent, at its option and in its discretion.

(a) to release any Lien on any Collateral (i) upon the occurrence of the Facility Termination Date, (ii) that is Disposed or to be Disposed as part of or in connection with any Disposition permitted hereunder or under any other Loan Document, or (iii) subject to Section 11.01, if approved, authorized or ratified in writing by the Required Lenders;

(b) to release or subordinate any Lien (and any Indebtedness secured thereby) on any property granted to or held by the Administrative Agent under any Loan Document to the holder of any Lien on such property (i) that is permitted by Section 8.02(i), so long as the Borrower Agent shall have delivered to the Administrative Agent on or prior to the date of release or subordination, as the case may be, a certificate of a Responsible Officer certifying that such Lien (and the Indebtedness secured thereby) is permitted by Section 8.02(i) (and the Administrative Agent may rely conclusively on any such certificate, without further inquiry), or (ii) if such release or subordination is required under any subordination agreement or the Secured Note Intercreditor Agreement; and

(c) to release any Subsidiary from its obligations under the Loan Documents, and release any Lien granted by such Subsidiary thereunder, if such Person ceases to be a Subsidiary as a result of a transaction permitted hereunder, so long as the Borrower Agent shall have delivered to the Administrative Agent on or prior to the date of release a certificate of a Responsible Officer certifying that such transaction is permitted by this Agreement (and the Administrative Agent may rely conclusively on any such certificate, without further inquiry).

Upon request by the Administrative Agent at any time, the Required Lenders will confirm in writing the Administrative Agent's authority to release or subordinate its interest in particular types or items of property, or to release any Loan Party from its obligations under the Loan Documents pursuant to this Section 10.10.

10.11 Other Collateral Matters.

(a) Care of Collateral. The Administrative Agent shall have no obligation to assure that any Collateral exists or is owned by a Loan Party or is cared for, protected or insured, nor to assure that the Administrative Agent's Liens have been properly created, perfected or enforced, or are entitled to any particular priority, nor to exercise any duty of care with respect to any Collateral.

(b) Lenders as Agent For Perfection by Possession or Control. The Administrative Agent and Secured Parties appoint each Lender as agent (for the benefit of Secured Parties) for the purpose of perfecting Liens in any Collateral held or controlled by such Lender, to the extent such Liens are perfected by possession or control. If any Lender obtains possession or control of any Collateral, it shall notify the Administrative Agent thereof and, promptly upon the Administrative Agent's request, deliver such Collateral to the Administrative Agent or otherwise deal with it in accordance with the Administrative Agent's instructions.

(c) Reports. The Administrative Agent shall promptly forward to each Lender, when complete, copies of any Field Exam or appraisal report prepared by or for the Administrative Agent with respect to any Borrower or Collateral ("Report"). Each Lender agrees (a) that neither BMO nor the Administrative Agent makes any representation or warranty as to the accuracy or completeness of any Report, and shall not be liable for any information contained in or omitted from any Report; (b) that the Reports are not intended to be comprehensive audits or examinations, and that the Administrative Agent or any other Person performing any audit or examination will inspect only specific information regarding Obligations or the Collateral and will rely significantly upon Borrowers' books and records as well as upon representations of Borrowers' officers and employees; and (c) to keep all Reports confidential and strictly for such Lender's internal use, and not to distribute any Report (or the contents thereof) to any Person (except to such Lender's Participants, attorneys and accountants) or use any Report in any manner other than administration of the Loans and other Obligations, except as permitted under Section 11.07. Each Lender shall indemnify and hold harmless the Administrative Agent and any other Person preparing a Report from any action such Lender may take as a result of or any conclusion it may draw from any Report, as well as from any claims arising as a direct or indirect result of the Administrative Agent furnishing a Report to such Lender.

10.12 Credit Product Arrangement Provisions.

(a) No Credit Product Provider that is party to any Credit Product Arrangement permitted hereunder that obtains the benefits of Section 9.03 or any Collateral by virtue of the provisions hereof or of any Security Instrument shall have (i) any right to notice of any action, (ii) any right to consent to, direct or object to any action or inaction hereunder or under any other Loan Document or otherwise in respect of the Collateral (including the release or impairment of any Collateral), or (iii) any right to require or receive any financial information or Borrowing Base Certificates or reports or similar certificates or information under the Loan Documents, other than in its capacity as a Lender, if applicable, and, in such case, only to the extent expressly provided in the Loan Documents. Notwithstanding any other provision of this Article X to the contrary, the Administrative Agent shall not be required to verify the payment of, or that other satisfactory arrangements have been made with respect to, Credit Product Obligations unless the Administrative Agent has received written notice of such Credit Product Obligations, together with such supporting documentation as the Administrative Agent may reasonably request, from the applicable Credit Product Provider. The Lenders irrevocably authorize the Administrative Agent to secure all Credit Product Obligations with the Collateral to the same extent as other Obligations, all to the extent contemplated hereunder as determined by the Administrative Agent in its Credit Judgment.

(b) By delivery of a Credit Product Notice, each Credit Product Provider that is not a Lender (a "Non-Lender Credit Product Provider") shall be deemed to have joined this Agreement and be bound by Section 9.03, this Article X and Section 11.04(c) as if it were a Lender hereunder holding a "Loan" in the amount of its applicable Credit Product Obligations. No Non-Lender Credit Product Provider shall have any right or claim against any Loan Party under the Loan Documents other than as a Secured Party under the Security Instruments, nor shall any of them be a third party beneficiary of any provisions of this Agreement by which the Loan Parties are bound other than provisions relating to the granting of the Lien of the Administrative Agent on the Collateral and the application of proceeds thereof pursuant to Section 9.03.

10.13 ERISA Related Provisions.

(a) Each Lender (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent, the Arranger and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrowers or any other Loan Party, that at least one of the following is and will be true:

(i) such Lender is not using "plan assets" (within the meaning of 29 CFR § 2510.3101, as modified by Section 3(42) of ERISA) of one or more Benefit Plans in connection with the Loans, the Letters of Credit or the Commitments,

(ii) the transaction exemption set forth in one or more PTEs, such as PTE 84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate accounts), PTE 91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement,

(iii) (iii) (A) such Lender is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Lender to enter into, participate in, administer and perform the Loans, the Letters of Credit, the Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement satisfies the requirements of sub-sections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Lender, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement, or

(iv) (iv) such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Lender.

(b) In addition, unless sub-clause (i) in the immediately preceding clause (a) is true with respect to a Lender or such Lender has not provided another representation, warranty and covenant as provided in sub-clause (iv) in the immediately preceding clause (a), such Lender further (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the

benefit of, the Administrative Agent, the Arranger and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrowers or any other Loan Party, that:

(i) none of the Administrative Agent or the Arranger or any of their respective Affiliates is a fiduciary with respect to the assets of such Lender (including in connection with the reservation or exercise of any rights by the Administrative Agent under this Agreement, any Loan Document or any documents related to hereto or thereto),

(ii) the Person making the investment decision on behalf of such Lender with respect

to the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement is independent (within the meaning of 29 CFR § 2510.3-21) and is a bank, an insurance carrier, an investment adviser, a broker-dealer or other person that holds, or has under management or control, total assets of at least $50 million, in each case as described in 29 CFR § 2510.321(c)(1)(i)(A)-(E),

(iii) the Person making the investment decision on behalf of such Lender with respect

to the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies (including in respect of the Obligations),

(iv) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement is a fiduciary under ERISA or the Code, or both, with respect to the Loans, the Letters of Credit, the Commitments and this Agreement and is responsible for exercising independent judgment in evaluating the transactions hereunder, and

(v) no fee or other compensation is being paid directly to the Administrative Agent or the Arranger or any their respective Affiliates for investment advice (as opposed to other services) in connection with the Loans, the Letters of Credit, the Commitments or this Agreement.

(c) The Administrative Agent and the Arranger hereby informs the Lenders that each such Person is not undertaking to provide impartial investment advice, or to give advice in a fiduciary capacity, in connection with the transactions contemplated hereby, and that such Person has a financial interest in the transactions contemplated hereby in that such Person or an Affiliate thereof (i) may receive interest or other payments with respect to the Loans, the Letters of Credit, the Commitments and this Agreement, (ii) may recognize a gain if it extended the Loans, the Letters of Credit or the Commitments for an amount less than the amount being paid for an interest in the Loans, the Letters of Credit or the Commitments by such Lender or (iii) may receive fees or other payments in connection with the transactions contemplated hereby, the Loan Documents or otherwise, including structuring fees, commitment fees, arrangement fees, facility fees, upfront fees, underwriting fees, ticking fees, agency fees, administrative agent or collateral agent fees, utilization fees, minimum usage fees, letter of credit fees, fronting fees, deal-away or alternate transaction fees, amendment fees, processing fees, term out premiums, banker's acceptance fees, breakage or other early termination fees or fees similar to the foregoing.

10.14 Recovery of Erroneous Payments. Notwithstanding anything to the contrary in this Agreement, if at any time the Administrative Agent determines (in its sole and absolute discretion) that it has made a payment hereunder in error to any Lender, the Letter of Credit Issuer, the Swing Line Lender or any other Secured Party, whether or not in respect of an Obligation due and owing by any Borrower at such time, where such payment is a Rescindable Amount, then in any such event, each such Person receiving a Rescindable Amount severally agrees to repay to the Administrative Agent forthwith on demand

the Rescindable Amount received by such Person in immediately available funds in the currency so received, with interest thereon, for each day from and including the date such Rescindable Amount is received by it to but excluding the date of payment to the Administrative Agent, at the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation. Each Lender, the Letter of Credit Issuer, the Swing Line Lender and each other Secured Party irrevocably waives any and all defenses, including any "discharge for value" (under which a creditor might otherwise claim a right to retain funds mistakenly paid by a third party in respect of a debt owed by another), "good consideration", "change of position" or similar defenses (whether at law or in equity) to its obligation to return any Rescindable Amount. The Administrative Agent shall inform each Lender, the Letter of Credit Issuer the Swing Line Lender and each other Secured Party that received a Rescindable Amount promptly upon determining that any payment made to such Person comprised, in whole or in part, a Rescindable Amount. Each Person's obligations, agreements and waivers under this Section 10.14 shall survive the resignation or replacement of the Administrative Agent, any transfer of rights or obligations by, or the replacement of, a Lender, the Letter of Credit Issuer or the Swing Line Lender, the termination of the Commitments and/or the repayment, satisfaction or discharge of all Obligations (or any portion thereof) under any Loan Document.

ARTICLE XI MISCELLANEOUS

11.01 Amendments, Etc.

(a) Subject to Section 3.03(b) above, no amendment or waiver of any provision of this Agreement or any other Loan Document, and no consent to any departure by the Borrowers or any other Borrower therefrom, shall be effective unless in writing signed by the Required Lenders and the Borrowers or the applicable Borrower, as the case may be, and acknowledged by the Administrative Agent, and each such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given; provided, however, that no such amendment, waiver or consent shall:

(i) extend or increase the Commitment of any Lender (or reinstate any Commitment terminated pursuant to Section 9.02) without the written consent of such Lender;

(ii) postpone any date fixed by this Agreement or any other Loan Document for any payment (but excluding the delay or waiver of any mandatory prepayment) of principal, interest, fees or other amounts due to the Lenders (or any of them), including the Maturity Date, or any scheduled reduction of the Commitments hereunder or under any other Loan Document, in each case without the written consent of each Lender directly affected thereby;

(iii) reduce the principal of, or the rate of interest specified herein on, any Loan or Letter of Credit Borrowing, or reduce any fees or other amounts payable hereunder or under any other Loan Document, without the written consent of each Lender directly affected thereby; provided, however, that only the consent of the Required Lenders shall be necessary (A) to amend the definition of "Default Rate" (so long as such amendment does not result in the Default Rate being lower than the interest rate then applicable to Base Rate Loans or SOFR Loans, as applicable) or to waive any obligation of the Borrowers to pay interest or Letter of Credit Fees at the Default Rate or (B) to amend any financial covenant hereunder (or any defined term used therein);

(iv) change (i) Section 2.13 in a manner that would alter the pro rata sharing of payments required thereby or (ii) Section 9.03, in each case without the written consent of each Lender directly affected thereby;

(v) change (i) any provision of this Section or the definition of "Required Lenders" or "Required Supermajority Lenders" or any other provision hereof specifying the number or percentage of Lenders required to amend, waive or otherwise modify any rights hereunder or make any determination or grant any consent hereunder, without the written consent of each Lender or (ii) the definition of "Required Lenders" without the written consent of each Lender;

(vi) except as provided in Section 2.18, increase the Aggregate Revolving Credit Commitments without the written consent of each Revolving Credit Lender;

(vii) release any material Borrower or Guarantor from this Agreement or any material Security Instrument to which it is a party without the written consent of each Lender, except to the extent such Borrower is the subject of a Disposition or other transaction permitted by Section 8.04 or 8.05 (in which case such release may be made by the Administrative Agent acting alone)

(viii) release all or any material part of the Collateral without the written consent of each Lender except (A) with respect to Dispositions and releases of Collateral permitted or required hereunder (including pursuant to Sections 8.04 and 8.05) or under the Security Agreement, the Canadian Security Agreement or (B) to the extent required pursuant to the terms of the Secured Note Intercreditor Agreement or any subordination agreement (in either of which cases such release may be made by the Administrative Agent acting alone);

(ix) release, or subordinate the Administrative Agent's Lien on, all or substantially all of the Collateral without the written consent of each Lender;

(x) without the prior written consent of the Required Supermajority Lenders, amend the definition of "Borrowing Base" or any defined term used therein in a manner that would increase availability; provided, that the foregoing shall not limit the discretion of the Administrative Agent to change, establish or eliminate any Reserves or to determine eligibility of Accounts or Inventory or other assets of the type available to be included in the Borrowing Bases in accordance with such terms; or

(xi) without the prior written consent of each Lender, impose any materially greater restriction on the ability of any Lender to assign any of its rights or obligations hereunder.

(b) In addition to the foregoing, (i) no amendment, waiver or consent shall, unless in writing and signed by the Letter of Credit Issuer in addition to the Lenders required above, affect the rights or duties of the Letter of Credit Issuer under this Agreement or any Issuer Document relating to any Letter of Credit issued or to be issued by it; (ii) no amendment, waiver or consent shall, unless in writing and signed by the Swing Line Lender in addition to the Lenders required above, affect the rights or duties of the Swing Line Lender under this Agreement; (iii) no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent in addition to the Lenders required above, affect the rights or duties of the Administrative Agent under this Agreement or any other Loan Document; (iv) the Fee Letter may be amended, or rights or privileges thereunder waived, in a writing executed only by the respective parties thereto; (v) no amendment, waiver or consent which has the effect of enabling the Borrowers to satisfy any condition to a Borrowing contained in Section 5.02 hereof which, but for such amendment, waiver or consent would not be satisfied, shall be effective to require the Revolving Credit Lenders, the Swing Line Lender or the Letter of Credit Issuer to make any additional Revolving Credit Loan or Swing Line Loan, or to issue any additional or renew any existing Letter of Credit, unless and until the Required Lenders (or, if applicable, all Revolving Credit Lenders) shall have approved such amendment, waiver or consent and (vi) the Administrative Agent and the Borrowers shall be permitted to amend any provision of the Loan Documents (and such amendment shall become effective without any further action or consent of any other

party to any Loan Document) if the Administrative Agent and the Borrower shall have jointly identified an obvious error or any error or omission of a technical or immaterial nature in any such provision. Notwithstanding anything to the contrary herein, no Defaulting Lender shall have any right to approve or disapprove any amendment, waiver or consent hereunder (and any amendment, waiver or consent which by its terms requires the consent of all Lenders or each affected Lender may be effected with the consent of the applicable Lenders other than Defaulting Lenders), except that (x) the Revolving Credit Commitment of any Defaulting Lender may not be increased or extended without the consent of such Lender and (y) any waiver, amendment or modification requiring the consent of all Lenders or each affected Lender that by its terms affects any Defaulting Lender more adversely than other affected Lenders shall require the consent of such Defaulting Lender.

(c) Notwithstanding any provision herein to the contrary, this Agreement may be amended with the written consent of the Required Lenders, the Administrative Agent and the Borrowers (i) to add one or more additional revolving credit or term loan facilities (each a "Supplemental Facility") to this Agreement, in each case subject to the limitations in Section 2.18, and to permit the extensions of credit and all related obligations and liabilities arising in connection therewith from time to time outstanding to share ratably (or on a basis subordinated to the existing facilities hereunder) in the benefits of this Agreement and the other Loan Documents with the obligations and liabilities from time to time outstanding in respect of the existing facilities hereunder, and (ii) in connection with the foregoing, to permit, as deemed appropriate by the Administrative Agent and approved by the Required Lenders, the Lenders providing such Supplemental Facilities to participate in any required vote or action required to be approved by the Required Lenders or by any other number, percentage or class of Lenders hereunder.

(d) If any Lender does not consent (a "Non-Consenting Lender") to a proposed amendment, waiver, consent or release with respect to any Loan Document that requires the consent of each Lender and that has been approved by the Required Lenders, the Borrowers may replace such Non-Consenting Lender in accordance with Section 11.13; provided that such amendment, waiver, consent or release can be effected as a result of the assignment contemplated by such Section (together with all other such assignments required by the Borrowers to be made pursuant to this paragraph).

(e) No Loan Party will, directly or indirectly, pay any remuneration or other thing of value, whether by way of additional interest, fee or otherwise, to any Lender or its Affiliates as consideration for agreement by such Lender to any amendment, waiver, consent or release with respect to any Loan Document, unless such remuneration or value is concurrently paid, on the same terms, on a ratable basis to all Lenders providing their agreement. Notwithstanding the terms of this Agreement or any amendment, waiver, consent or release with respect to any Loan Document, Non-Consenting Lenders shall not be entitled to receive any fees or other compensation paid to the Lenders in connection with any amendment, waiver, consent or release approved in accordance with the terms of this Agreement by the Required Lenders.

(f) IN NO EVENT SHALL THE REQUIRED LENDERS, WITHOUT THE PRIOR WRITTEN CONSENT OF EACH LENDER, DIRECT THE ADMINISTRATIVE AGENT TO ACCELERATE AND DEMAND PAYMENT OF THE LOANS HELD BY ONE LENDER WITHOUT ACCELERATING AND DEMANDING PAYMENT OF ALL OTHER LOANS OR TO TERMINATE THE COMMITMENTS OF ONE OR MORE LENDERS WITHOUT TERMINATING THE COMMITMENTS OF ALL LENDERS. EACH LENDER AGREES THAT, EXCEPT AS OTHERWISE PROVIDED IN ANY OF THE LOAN DOCUMENTS AND WITHOUT THE PRIOR WRITTEN CONSENT OF THE REQUIRED LENDERS, IT WILL NOT TAKE ANY LEGAL ACTION OR INSTITUTE ANY ACTION OR PROCEEDING AGAINST ANY LOAN PARTY WITH RESPECT TO ANY OF THE OBLIGATIONS OR COLLATERAL, OR ACCELERATE OR OTHERWISE ENFORCE ITS PORTION OF THE OBLIGATIONS. WITHOUT LIMITING THE GENERALITY OF THE

FOREGOING, NO LENDER MAY EXERCISE ANY RIGHT THAT IT MIGHT OTHERWISE HAVE UNDER APPLICABLE LAW TO CREDIT BID AT FORECLOSURE SALES, UCC SALES OR OTHER SIMILAR SALES OR DISPOSITIONS OF ANY OF THE COLLATERAL EXCEPT AS AUTHORIZED BY THE REQUIRED LENDERS. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH IN THIS SECTION OR ELSEWHERE HEREIN, EACH LENDER SHALL BE AUTHORIZED TO TAKE SUCH ACTION TO PRESERVE OR ENFORCE ITS RIGHTS AGAINST ANY LOAN PARTY WHERE A DEADLINE OR LIMITATION PERIOD IS OTHERWISE APPLICABLE AND WOULD, ABSENT THE TAKING OF SPECIFIED ACTION, BAR THE ENFORCEMENT OF OBLIGATIONS HELD BY SUCH LENDER AGAINST SUCH LOAN PARTY, INCLUDING THE FILING OF PROOFS OF CLAIM IN ANY INSOLVENCY PROCEEDING.

11.02 Notices; Effectiveness; Electronic Communication.

(a) Notices Generally. Except in the case of notices and other communications expressly permitted to be given by telephone or in the case of notices otherwise expressly provided herein (and except as provided in subsection (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopier or electronic mail as follows, and all notices and other communications expressly permitted hereunder to be given by telephone shall be made to the applicable telephone number, as follows:

(i) if to a Loan Party, the Administrative Agent, the Letter of Credit Issuer or the Swing Line Lender, to the address, telecopier number, electronic mail address or telephone number specified for such Person on Schedule 11.02, as changed pursuant to subsection (d) below, and

(ii) if to any other Lender, to the address, telecopier number, electronic mail address or telephone number specified in its Administrative Questionnaire, as changed pursuant to subsection (d) below (including, as appropriate, notices delivered solely to the Person designated by a Lender on its Administrative Questionnaire then in effect for the delivery of notices that may contain material non-public information relating to the Borrowers).

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by telecopier shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through electronic communications to the extent provided in subsection (b) below, shall be effective as provided in such subsection (b).

For the avoidance of doubt, any notice or other communication to be delivered to any Borrower by the Administrative Agent, the Letter of Credit Issuer or any Lender hereunder shall be delivered to such Borrower via notice to the Borrower Agent.

(b) Electronic Communications. Notices and other communications to the Lenders and the Letter of Credit Issuer hereunder may be delivered or furnished by electronic communication (including e-mail and Internet or intranet websites) pursuant to procedures approved by the Administrative Agent, provided that the foregoing shall not apply to notices to any Lender or the Letter of Credit Issuer pursuant toArticle II if such Lender or the Letter of Credit Issuer, as applicable, has notified the Administrative Agent that it is incapable of receiving notices under such Article by electronic communication. The Administrative Agent or the Borrowers may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it, provided that approval of such procedures may be limited to particular notices or communications.

Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), provided that if such notice or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient, and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor.

(c) The Platform. THE PLATFORM IS PROVIDED "AS IS" AND "AS AVAILABLE." THE AGENT PARTIES (AS DEFINED BELOW) DO NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE BORROWER MATERIALS OR THE ADEQUACY OF THE PLATFORM, AND EXPRESSLY DISCLAIM LIABILITY FOR ERRORS IN OR OMISSIONS FROM THE BORROWER MATERIALS. NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY RIGHTS OR FREEDOM FROM VIRUSES OR OTHER CODE DEFECTS, IS MADE BY ANY AGENT PARTY IN CONNECTION WITH THE BORROWER MATERIALS OR THE PLATFORM. In no event shall the Administrative Agent or any of its Related Parties (collectively, the " Agent Parties") have any liability to any Borrower, any Lender, the Letter of Credit Issuer or any other Person for losses, claims, damages, liabilities or expenses of any kind (whether in tort, contract or otherwise) arising out of a Borrower's or the Administrative Agent's transmission of Borrower Materials through the Internet, except to the extent that such losses, claims, damages, liabilities or expenses are determined by a court of competent jurisdiction by a final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Agent Party; provided, however, that in no event shall any Agent Party have any liability to any Borrower, any Lender, the Letter of Credit Issuer or any other Person for indirect, special, incidental, consequential or punitive damages (as opposed to direct or actual damages).

(d) Change of Address, Etc. Each of the Borrowers, the Administrative Agent, the Letter of Credit Issuer and the Swing Line Lender may change its address, telecopier or telephone number for notices and other communications hereunder by notice to the other parties hereto. Each other Lender may change its address, telecopier or telephone number for notices and other communications hereunder by notice to the Borrower Agent, the Administrative Agent, the Letter of Credit Issuer and the Swing Line Lender. In addition, each Lender agrees to notify the Administrative Agent from time to time to ensure that the Administrative Agent has on record (i) an effective address, contact name, telephone number, telecopier number and electronic mail address to which notices and other communications may be sent and (ii) accurate wire instructions for such Lender.

(e) Reliance by Administrative Agent, Letter of Credit Issuer and Lenders The

Administrative Agent, the Letter of Credit Issuer and the Lenders shall be entitled to rely and act upon any notices (including telephonic Committed Loan Notices and Swing Line Loan Notices) purportedly given by or on behalf of the Borrowers even if (i) such notices were not made in a manner specified herein, were incomplete or were not preceded or followed by any other form of notice specified herein, or (ii) the terms thereof, as understood by the recipient, varied from any confirmation thereof. The Borrowers shall indemnify the Administrative Agent, the Letter of Credit Issuer, each Lender and the Related Parties of each of them from all losses, costs, expenses and liabilities resulting from the reliance by such Person on each notice purportedly given by or on behalf of the Borrowers. All telephonic notices to and other telephonic communications with the Administrative Agent may be recorded by the Administrative Agent, and each of the parties hereto hereby consents to such recording.

11.03 No Waiver; Cumulative Remedies. No failure by any Lender, the Letter of Credit Issuer or the Administrative Agent to exercise, and no delay by any such Person in exercising, any right, remedy, power or privilege hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges herein provided are cumulative and not exclusive of any rights, remedies, powers and privileges provided by law.

Notwithstanding anything to the contrary contained herein or in any other Loan Document, the authority to enforce rights and remedies hereunder and under the other Loan Documents against the Borrowers or any other Loan Party or any of them (including enforcement action with respect to any Collateral) shall be vested exclusively in, and all actions and proceedings at law in connection with such enforcement shall be instituted and maintained exclusively by, the Administrative Agent in accordance with Section 9.02 for the benefit of all the Secured Parties; provided, however, that the foregoing shall not prohibit (a) the Administrative Agent from exercising on its own behalf the rights and remedies that inure to its benefit (solely in its capacity as Administrative Agent) hereunder and under the other Loan Documents, (b) the Letter of Credit Issuer from exercising the rights and remedies that inure to its benefit (solely in its capacity as Letter of Credit Issuer) hereunder and under the other Loan Documents, (c) any Lender from exercising setoff rights in accordance with Section 11.08 (subject to the terms of Section 2.14), or (d) any Lender from filing proofs of claim or appearing and filing pleadings on its own behalf during the pendency of a proceeding relative to any Borrower under any Debtor Relief Law but only to the extent the Administrative Agent shall have failed to do so within a reasonable time after notice; and provided further, that if at any time there is no Person acting as Administrative Agent hereunder and under the other Loan Documents, then (i) the Required Lenders shall have the rights otherwise ascribed to the Administrative Agent pursuant to Section 9.02 and (ii) in addition to the matters set forth in clauses (b), (c) and (d) of the preceding proviso and subject to Section 2.14, any Lender may, with the consent of the Required Lenders, enforce any rights and remedies available to it and as authorized by the Required Lenders.

11.04 Expenses; Indemnity; Damage Waiver.

(a) Costs and Expenses. The Borrowers shall pay (i) all reasonable out-of-pocket expenses (including any Extraordinary Expenses) incurred by the Administrative Agent and its Affiliates, (A) in connection with this Agreement and the other Loan Documents, including without limitation the reasonable fees, charges and disbursements of (1) counsel for the Administrative Agent, (2) outside consultants for the Administrative Agent, (3) appraisers, (4) Field Exams, (5) all such out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of the Obligations, and (6) environmental site assessments, (B) in connection with (1) the syndication of the credit facilities provided for herein, (2) the preparation, negotiation, administration, management, execution and delivery of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), (3) the enforcement or protection of their rights in connection with this Agreement or the Loan Documents or efforts to preserve, protect, collect, or enforce the Collateral, or (4) any workout, restructuring or negotiations in respect of any Obligations, and (ii) with respect to the Letter of Credit Issuer, and its Affiliates, all reasonable out-ofpocket expenses incurred in connection with the issuance, amendment, renewal or extension of any Letter of Credit or any demand for payment thereunder; and (iii) all reasonable out-of-pocket expenses incurred by the Secured Parties who are not the Administrative Agent, the Arranger, the Letter of Credit Issuer or any Affiliate of any of them, after the occurrence and during the continuance of an Event of Default; provided that such Secured Parties shall be entitled to reimbursement for no more than one counsel representing all such Secured Parties (absent a conflict of interest in which case the Secured Parties may engage and be reimbursed for additional counsel) (the foregoing, collectively being referred to as "Secured Party Expenses").

(b) Indemnification by the Borrowers. Each Loan Party shall indemnify the Administrative Agent (and any sub-agent thereof), each other Secured Party and each Related Party of any of the foregoing Persons (each such Person being called an "Indemnitee") against, and hold harmless each Indemnitee from, any and all losses, claims, damages, liabilities and related expenses (including the reasonable fees, charges and disbursements of any counsel for any Indemnitee), incurred by any Indemnitee or asserted against any Indemnitee by any third party or by the Borrowers or any other Loan Party arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the performance by the parties hereto of their respective obligations hereunder or thereunder, the consummation of the transactions contemplated hereby or thereby or, in the case of the Administrative Agent (and any sub-agent thereof) and its Related Parties only, the administration of this Agreement and the other Loan Documents (including in respect of any matters addressed in Section 4.01), (ii) any Loan or Letter of Credit or the use or proposed use of the proceeds therefrom (including any refusal by the Letter of Credit Issuer to honor a demand for payment under a Letter of Credit if the documents presented in connection with such demand do not strictly comply with the terms of such Letter of Credit), (iii) any actual or alleged presence or release of Hazardous Materials on or from any property owned or operated by any Loan Party or any of its Subsidiaries, or any Environmental Liability related in any way to any Loan Party or any of its Subsidiaries, (iv) any claims of, or amounts paid by any Secured Party to, a Controlled Account Bank or other Person which has entered into a control agreement with any Secured Party hereunder or (v) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by the Borrowers or any other Loan Party, and regardless of whether any Indemnitee is a party thereto; provided, that, such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee or any Related Party of such Indemnitee.

(c) Indemnification of Administrative Agent by Lenders. To the extent that (i) the Loan Parties for any reason fail to indefeasibly pay any amount required under subsection (a) or (b) of this Section to be paid by it, or (ii) any liabilities, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind or nature whatsoever are be imposed on, incurred by, or asserted against, any Administrative Agent, the Letter of Credit Issuer or a Related Party (an "Agent Indemnitee") in any way relating to or arising out of this Agreement or any other Loan Document or any action taken or omitted to be taken by any Agent Indemnitee in connection therewith (collectively, "Agent Indemnitee Liabilities"), then each Lender severally agrees to pay to the Administrative Agent for the benefit of such Agent Indemnitee, such Lender's Ratable Share (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought) of such Agent Indemnitee Liabilities, so long as the Agent Indemnitee Liabilities were incurred by or asserted against the Administrative Agent (or any such subagent) or the Letter of Credit Issuer in its capacity as such, or against any Related Party of any of the foregoing acting for the Administrative Agent (or any such sub-agent) or Letter of Credit Issuer in connection with such capacity. The obligations of the Lenders under this subsection (c) are subject to the provisions of Section 2.12(d). In no event shall any Lender have any obligation hereunder to indemnify or hold harmless an Agent Indemnitee with respect to any Agent Indemnitee Liabilities that are determined in a final, non-appealable judgment by a court of competent jurisdiction to result from the gross negligence or willful misconduct of such Agent Indemnitee. In the Administrative Agent's discretion, it may reserve for any Agent Indemnitee Liabilities of an Agent Indemnitee, and may satisfy any judgment, order or settlement relating thereto, from proceeds of Collateral prior to making any distribution of Collateral proceeds to the Secured Parties. If the Administrative Agent is sued by any creditor representative, debtor-in-possession or other Person for any alleged preference or fraudulent transfer, then any monies paid by the Administrative Agent in settlement or satisfaction of such proceeding, together with all interest, costs and expenses (including attorneys' fees) incurred in the defense of same, shall be promptly reimbursed to the Administrative Agent by each Lender to the extent of its Ratable Share thereof.

(d) Waiver of Consequential Damages, Etc. To the fullest extent permitted by applicable Law, the Loan Parties shall not assert, and hereby waives, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, any Loan or Letter of Credit or the use of the proceeds thereof. No Indemnitee referred to in subsection (b) above shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

(e) Payments. All amounts due under this Section shall be payable not later than ten Business Days after demand therefor.

(f) Survival. The agreements in this Section shall survive the resignation of the Administrative Agent, the Letter of Credit Issuer and the Swing Line Lender, the replacement of any Lender and the occurrence of the Facility Termination Date.

11.05 Marshalling; Payments Set Aside. None of the Administrative Agent or Lenders shall be under any obligation to marshal any assets in favor of any Loan Party or against any Obligations. To the extent that any payment by or on behalf of any Loan Party is made to a Secured Party, or a Secured Party exercises its right of setoff, and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by such Secured Party in its discretion) to be repaid to a trustee, receiver, interim receiver, receiver and manager, monitor, or any other party, in connection with any proceeding under any Debtor Relief Law or otherwise, then (a) to the extent of such recovery, the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such setoff had not occurred, and (b) each Lender and the Letter of Credit Issuer severally agrees to pay to the Administrative Agent upon demand its applicable share (without duplication) of any amount so recovered from or repaid by the Administrative Agent, plus interest thereon from the date of such demand to the date such payment is made at a rate per annum equal to the applicable Overnight Rate, in the applicable currency of such recovery or payment. The obligations of the Loan Parties under clause (a) of this section and the Lenders and the Letter of Credit Issuer under clause (b) of this section shall survive the occurrence of the Facility Termination Date.

11.06 Successors and Assigns.

(a) Successors and Assigns Generally. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that no Loan Party may assign or otherwise transfer any of its rights or obligations hereunder (except in connection with the joinder of a Loan Party in accordance with Section 7.12) without the prior written consent of the Administrative Agent and each Lender and no Lender may assign or otherwise transfer any of its rights or obligations hereunder except (i) to an Eligible Assignee in accordance with the provisions of subsection (b) of this Section, (ii) by way of participation in accordance with the provisions of subsection (d) of this Section, or (iii) by way of pledge or assignment of a security interest subject to the restrictions of subsection (f) of this Section (and any other attempted assignment or transfer by any party hereto shall be null and void). Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in subsection (d) of this Section and, to the extent expressly contemplated hereby, the Related Parties of each of the Secured Parties) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Assignments by Lenders. Any Lender may at any time assign to one or more assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitment(s) and the Loans (including for purposes of this Section 11.06(b), participations in Letter of Credit Obligations and in Swing Line Loans) at the time owing to it); provided that any such assignment shall be subject to the following conditions:

(i) Minimum Amounts. Except in the case of (A) an assignment of the entire remaining amount of the assigning Lender's Commitment under any Facility and the Loans at the time owing to it under such Facility or (B) an assignment to a Lender, an Affiliate of a Lender or an Approved Fund, the aggregate amount of the Commitment (which for this purpose includes Loans outstanding thereunder) or, if the Commitment is not then in effect, the principal outstanding balance of the Loans of the assigning Lender subject to each such assignment, determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date, shall not be less than $5,000,000, in the case of any assignment in respect of the Revolving Credit Facility, unless each of the Administrative Agent and, so long as no Event of Default has occurred and is continuing, the Borrower Agent otherwise consents (each such consent not to be unreasonably withheld or delayed); provided, however, that concurrent assignments to members of an Assignee Group and concurrent assignments from members of an Assignee Group to a single Eligible Assignee (or to an Eligible Assignee and members of its Assignee Group) will be treated as a single assignment for purposes of determining whether such minimum amount has been met.

(ii) Proportionate Amounts. Each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Loans (including, without limitation, its obligation to make Loans to the Canadian Borrower, in Dollars and Canadian Dollars) or the Commitment assigned, except that this clause shall not apply to the Swing Line Lender's rights and obligations in respect of Swing Line Loans. No Lender shall assign all or a portion of its rights and obligations among separate Facilities on a non-pro rata basis.

(iii) Required Consents. No consent shall be required for any assignment to an Eligible Assignee except to the extent required by subsection (b)(i)(B) of this Section and clause (c) of the definition of "Eligible Assignee"; provided that the Borrower Agent shall be deemed to have given the consent required in the definition of "Eligible Assignee" to such assignment if Borrower Agent has not, on behalf of all Borrowers, responded in writing within ten (10) Business Days of a request for consent.

(iv) Assignment and Assumption. The parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption, together with a processing and recordation fee in the amount of $3,500; provided, however, that the Administrative Agent may, in its sole discretion, elect to waive such processing and recordation fee in the case of any assignment. The assignee, if it is not a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire.

(v) No Assignment to Certain Persons. No such assignment shall be made (A) to any Loan Party or Subsidiary or Affiliate thereof, (B) to any Defaulting Lender or any of its Subsidiaries, or any Person who, upon becoming a Lender hereunder, would constitute any of the foregoing Persons described in this clause (B), or (C) to a natural person.

(vi) Certain Additional Payments. In connection with any assignment of rights and obligations of any Defaulting Lender hereunder, no such assignment shall be effective unless and until, in addition to the other conditions thereto set forth herein, the parties to the assignment shall make such additional payments to the Administrative Agent in an aggregate amount sufficient, upon distribution thereof as appropriate (which may be outright payment, purchases by the assignee of participations or subparticipations, or other compensating actions, including funding, with the consent of the Borrower and the Administrative Agent, the applicable pro rata share of Loans previously requested but not funded by the Defaulting Lender, to each of which the applicable assignee and assignor hereby irrevocably consent), to (x) pay and satisfy in full all payment liabilities then owed by such Defaulting Lender to the Administrative Agent or any Lender hereunder (and interest accrued thereon) and (y) acquire (and fund as appropriate) its full pro rata share of all Loans and participations in Letters of Credit and Swing Line Loans in accordance with its Applicable Percentage. Notwithstanding the foregoing, in the event that any assignment of rights and obligations of any Defaulting Lender hereunder shall become effective under applicable Law without compliance with the provisions of this paragraph, then the assignee of such interest shall be deemed to be a Defaulting Lender for all purposes of this Agreement until such compliance occurs.

(vii) Subject to acceptance and recording thereof by the Administrative Agent pursuant to subsection (c) of this Section, from and after the effective date specified in each Assignment and Assumption, the assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Sections 3.01, 3.04, 3.05 and 11.04 with respect to facts and circumstances occurring prior to the effective date of such assignment). Upon request, the Borrower (at its expense) shall execute and deliver a Note to the assignee Lender. Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this subsection shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with Section 11.06(d).

(c) Register. The Administrative Agent, acting solely for this purpose as an agent of the Borrowers (and such agency being solely for tax purposes) (in such capacity, subject to Section 11.17), shall maintain at the Administrative Agent's Office a copy of each Assignment and Assumption delivered to it and a register for the recordation of the names and addresses of the Lenders, and the Commitments of, and principal amounts (and stated interest) of the Loans and Loan Obligations owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive, and the Borrowers, the Administrative Agent and the Lenders may treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. In addition, the Administrative Agent shall maintain on the Register information regarding the designation, and revocation of designation, of any Lender as a Defaulting Lender. The Register shall be available for inspection by the Borrower Agent and any Lender at any reasonable time and from time to time upon reasonable prior notice. In addition, at any time that a request for a consent for a material or substantive change to the Loan Documents is pending, any Lender may request and receive from the Administrative Agent a copy of the Register.

(d) Participations. Any Lender may at any time, without the consent of, or notice to, any Borrower or the Administrative Agent, sell participations to any Person (other than a natural person, a Defaulting Lender, or any Loan Party or Subsidiary or Affiliate thereof) (each, a "Participant") in all or a

portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Revolving Credit Commitment and/or the Loans (including such Lender's participations in Letter of Credit Obligations and/or Swing Line Loans) owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Borrowers, the Administrative Agent, the Lenders and the Letter of Credit Issuer shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement.

Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, waiver or other modification described in the first proviso to Section 11.01 that affects such Participant. Subject to subsection (e) of this Section, the Borrowers agree that each Participant shall be entitled to the benefits of Sections 3.01, 3.04 and 3.05 to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to subsection (b) of this Section. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 11.08 as though it were a Lender, provided such Participant agrees to be subject toSection 2.13 as though it were a Lender.

If any Lender (or any assignee thereof) sells a participation, such Lender (or such assignee) shall, acting solely for this purpose as an agent of the Borrowers, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Loans or other obligations under the Loan Documents (the "Participant Register"); provided that no Lender (nor any assignee thereof) shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any commitments, loans, letters of credit or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such commitment, loan, letter of credit or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender (or such assignee) shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary. For the avoidance of doubt, the Administrative Agent (in its capacity as Administrative Agent) shall have no responsibility for maintaining a Participant Register.

(e) Limitations upon Participant Rights. A Participant shall not be entitled to receive any greater payment under Section 3.01 or 3.04 than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant, unless the sale of the participation to such Participant is made with the Borrower Agent's prior written consent. A Participant that would be a Foreign Lender if it were a Lender shall not be entitled to the benefits of Section 3.01 unless the Borrower Agent is notified of the participation sold to such Participant and such Participant agrees, for the benefit of the Borrowers, to comply with Section 3.01(e) as though it were a Lender.

(f) Certain Pledges. Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement (including under its Note, if any) to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank; provided that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(g) Electronic Execution of Assignments. The words "execution," "signed," "signature," and words of like import in any Assignment and Assumption shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or

enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

(h) Resignation as Letter of Credit Issuer and/or Swing Line Lender after Assignment. Notwithstanding anything to the contrary contained herein, if at any time BMO assigns all of its Revolving Credit Commitment, Revolving Credit Loans, pursuant to subsection (b) above, it may, (i) upon 30 days' notice to the Borrower Agent and the Lenders, resign as Letter of Credit Issuer and/or (ii) in the case of BMO, upon 30 days' notice to the Borrower Agent, resign as Swing Line Lender. In the event of any such resignation as Letter of Credit Issuer, or Swing Line Lender, the Borrower Agent shall be entitled to appoint from among the Lenders willing to serve in such capacity a successor Letter of Credit Issuer or Swing Line Lender hereunder, as the case may be; provided, however, that no failure by the Borrower Agent to appoint any such successor shall affect the resignation of such Person as Letter of Credit Issuer or Swing Line Lender, as the case may be. If BMO resigns as Letter of Credit Issuer, it shall retain all the rights, powers, privileges and duties of the Letter of Credit Issuer hereunder with respect to all Letters of Credit outstanding as of the effective date of its resignation as Letter of Credit Issuer and all Letter of Credit Obligations with respect thereto (including the right to require the Lenders to make Base Rate Loans or fund risk participations in Unreimbursed Amounts pursuant to Section 2.03(c)). If BMO resigns as Swing Line Lender it shall retain all the rights of the Swing Line Lender provided for hereunder with respect to Swing Line Loans made by it and outstanding as of the effective date of such resignation, including the right to require the Lenders to make Base Rate Loans or fund risk participations in outstanding Swing Line Loans pursuant to Section 2.04(c). Upon the appointment of a successor Letter of Credit Issuer, or Swing Line Lender (a) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Letter of Credit Issuer or Swing Line Lender, as the case may be, and (b) the successor Letter of Credit Issuer shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such successor or make other arrangements satisfactory to the retiring Letter of Credit Issuer to effectively assume the obligations of such Letter of Credit Issuer with respect to such Letters of Credit.

11.07 Treatment of Certain Information; Confidentiality. Each of the Secured Parties agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates and to its and its Affiliates' respective partners, directors, trustees, officers, employees, agents, advisors and representatives (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent requested by any regulatory authority purporting to have jurisdiction over it (including any self-regulatory authority, such as the National Association of Insurance Commissioners), (c) to the extent required by applicable Laws or regulations or by any subpoena or similar legal process, (d) to any other party hereto, (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder, (f) subject to an agreement containing provisions substantially the same as those of this Section, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights or obligations under this Agreement or (ii) any actual or prospective counterparty (or its advisors) to any swap or derivative transaction relating to the Borrowers and their obligations, (g) with the consent of the Borrower Agent or (h) to the extent such Information (x) becomes publicly available other than as a result of a breach of this Section or (y) becomes available to the Secured Parties or any of their respective Affiliates on a nonconfidential basis from a source other than the Loan Parties.

For purposes of this Section, "Information" means all information received from any Loan Party or any Subsidiary relating to a Loan Party or any Subsidiary or any of their respective businesses, other than any such information that is available to any Secured Party on a nonconfidential basis prior to

disclosure by a Loan Party or any Subsidiary, provided that, in the case of information received from a Loan Party or any Subsidiary after the date hereof, any information not marked "PUBLIC" at the time of delivery will be deemed to be confidential; provided that any information marked "PUBLIC" may also be marked "Confidential". Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Each of the Secured Parties acknowledges that (a) the Information may include material non-public information concerning a Loan Party or a Subsidiary, as the case may be, (b) it has developed compliance procedures regarding the use of material non-public information and (c) it will handle such material nonpublic information in accordance with applicable Law, including federal and state securities Laws.

Each of the Loan Parties hereby authorizes the Administrative Agent to publish the name of any Loan Party and the amount of the credit facility provided hereunder in any "tombstone" or comparable advertisement which the Administrative Agent elects to publish. The Administrative Agent reserves the right to provide to industry trade organizations information necessary and customary for inclusion in league table measurements.

11.08 Right of Setoff. If an Event of Default shall have occurred and be continuing, each Lender, the Letter of Credit Issuer and each of their respective Affiliates is hereby authorized at any time and from time to time, only after obtaining the prior written consent of the Administrative Agent, to the fullest extent permitted by applicable Law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in whatever currency) at any time held and other obligations (in whatever currency) at any time owing by such Lender, the Letter of Credit Issuer or any such Affiliate to or for the credit or the account of the Borrowers against any and all of the obligations of the Borrowers now or hereafter existing under this Agreement or any other Loan Document to such Lender or the Letter of Credit Issuer, irrespective of whether or not such Lender or the Letter of Credit Issuer shall have made any demand under this Agreement or any other Loan Document and although such obligations of the Borrowers may be contingent or unmatured or are owed to a branch or office of such Lender or the Letter of Credit Issuer different from the branch or office holding such deposit or obligated on such indebtedness; provided that in the event that any Defaulting Lender or any Affiliate thereof shall exercise any such right of setoff, (x) all amounts so set off shall be paid over immediately to the Administrative Agent for further application in accordance with the provisions of Section 2.17 and, pending such payment, shall be segregated by such Defaulting Lender or its Affiliate (as applicable) from its other funds and deemed held in trust for the benefit of the Administrative Agent and the Lenders, and (y) the Defaulting Lender or its Affiliate shall provide promptly to the Administrative Agent a statement describing in reasonable detail the Obligations owing to such Defaulting Lender or its Affiliates as to which such right of setoff was exercised. The rights of each Lender, the Letter of Credit Issuer and their respective Affiliates under this Section are in addition to other rights and remedies (including other rights of setoff) that such Lender, the Letter of Credit Issuer or their respective Affiliates may have. Each Lender and the Letter of Credit Issuer agrees to notify the Borrower Agent and the Administrative Agent promptly after any such setoff and application, provided that the failure to give such notice shall not affect the validity of such setoff and application.

11.09 Interest Rate Limitation. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (the "Maximum Rate"). If the Administrative Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Borrowers. In determining whether the interest contracted for, charged, or received by the Administrative Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent

permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof, and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Loan Obligations hereunder.

Without limiting the generality of the foregoing provisions of this Section 11.09, if any provision of any of the Loan Documents would obligate any Loan Party to make any payment of interest with respect to the Obligations in an amount or calculated at a rate which would be prohibited by applicable Law or would result in the receipt of interest with respect to the Obligations at a criminal rate (as such terms are construed under the Criminal Code (Canada)), then notwithstanding such provision, such amount or rates shall be deemed to have been adjusted with retroactive effect to the maximum amount or rate of interest, as the case may be, as would not be so prohibited by law or so result in a receipt by the applicable recipient of interest with respect to the Obligations at a criminal rate, such adjustment to be effected, to the extent necessary, as follows: (i) first, by reducing the amount or rates of interest required to be paid by the Loan Parties to the applicable recipient under the Loan Documents; and (ii) thereafter, by reducing any fees, commissions, premiums and other amounts required to be paid by the Loan Parties to the applicable recipient which would constitute interest with respect to the Obligations for purposes of Section 347 of the Criminal Code (Canada). Notwithstanding the foregoing, and after giving effect to all adjustments contemplated thereby, if the applicable recipient shall have received an amount in excess of the maximum permitted by that section of the Criminal Code (Canada), then the Loan Parties shall be entitled, by notice in writing to Administrative Agent, to obtain reimbursement from the applicable recipient in an amount equal to such excess, and pending such reimbursement, such amount shall be deemed to be an amount payable by the applicable recipient to the applicable Loan Party. Any amount or rate of interest with respect to the Obligations referred to in this Section 11.09 shall be determined in accordance with generally accepted actuarial practices and principles as an effective annual rate of interest over the term that any Revolving Credit Loans to the Canadian Borrowers remain outstanding on the assumption that any charges, fees or expenses that fall within the meaning of "interest" (as defined in the Criminal Code (Canada)) shall, if they relate to a specific period of time, be pro-rated over that period of time and otherwise be pro-rated over the period from the Closing Date to the date of Payment in Full of the Obligations, and, in the event of a dispute, a certificate of a Fellow of the Canadian Institute of Actuaries appointed by Administrative Agent shall be conclusive for the purposes of such determination.

11.10 Counterparts; Integration; Effectiveness. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement and the other Loan Documents constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Except as provided in Section 5.01, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto. Delivery of an executed counterpart of a signature page of this Agreement by telecopy shall be effective as delivery of a manually executed counterpart of this Agreement.

11.11 Survival. All representations and warranties made hereunder and in any other Loan Document or other document delivered pursuant hereto or thereto or in connection herewith or therewith shall survive the execution and delivery hereof and thereof. Such representations and warranties have been or will be relied upon by the Secured Parties, regardless of any investigation made by any Secured Party or on their behalf and notwithstanding that any Secured Party may have had notice or knowledge of any Default at the time of any Credit Extension, and shall continue in full force and effect as long as any Loan or any other Loan Obligation hereunder shall remain unpaid or unsatisfied or any Letter of Credit shall remain outstanding.

Further, the provisions of Sections 3.01, 3.04, 3.05 and 11.04 and Article X shall survive and remain in full force and effect regardless of the repayment of the Obligations, the expiration or termination of the Letters of Credit and the Commitments or the termination of this Agreement or any provision hereof. In connection with the termination of this Agreement and the release and termination of the security interests in the Collateral, the Administrative Agent may require such indemnities and collateral security as they shall reasonably deem necessary or appropriate to protect the Secured Parties against (x) loss on account of credits previously applied to the Obligations that may subsequently be reversed or revoked, and (y) any obligations that may thereafter arise with respect to Credit Product Obligations.

11.12 Severability. If any provision of this Agreement or the other Loan Documents is held to be illegal, invalid or unenforceable, (a) the legality, validity and enforceability of the remaining provisions of this Agreement and the other Loan Documents shall not be affected or impaired thereby and (b) the parties shall endeavor in good faith negotiations to replace the illegal, invalid or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the illegal, invalid or unenforceable provisions. The invalidity of a provision in a particular jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. Without limiting the foregoing provisions of this Section 11.12, if and to the extent that the enforceability of any provisions in this Agreement relating to Defaulting Lenders shall be limited by Debtor Relief Laws, as determined in good faith by the Administrative Agent, the Letter of Credit Issuer or the Swing Line Lender, as applicable, then such provisions shall be deemed to be in effect only to the extent not so limited.

11.13 Replacement of Lenders. If any Lender requests compensation under Section 3.04, if the Borrowers are required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 3.01, if any Lender is a Defaulting Lender, or if any Lender fails to approve any amendment, waiver or consent requested by Borrower Agent pursuant to Section 11.01 that has received the written approval of not less than the Required Lenders but also requires the approval of such Lender, then in each such case the Borrower Agent may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in, and consents required by, Section 11.06), all of its interests, rights and obligations under this Agreement and the related Loan Documents to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment), provided that:

(a) the Borrower Agent shall have paid to the Administrative Agent the assignment fee specified in Section 11.06(b) (unless waived by the Administrative Agent);

(b) such Lender shall have received the following, as applicable:

(i) if such Lender is not a Defaulting Lender, both (A) payment of an amount equal to the outstanding principal of its Loans and Letter of Credit Advances, accrued interest thereon, accrued fees and all other amounts payable to it hereunder and under the other Loan Documents (including any amounts under Section 3.05) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower Agent (in the case of all other amounts) and (B) evidence that the obligations and liabilities of each Loan Party or their Affiliates under all Credit Product Arrangements shall have been fully, finally and irrevocably paid and satisfied in full and the Credit Product Arrangements shall have expired or been terminated, or other arrangements satisfactory to the counterparties shall have been made with respect thereto; or

(ii) if such Lender is a Defaulting Lender, payment of an amount equal to the outstanding principal of its Loans and Letter of Credit Advances, accrued interest thereon, accrued fees and all other amounts payable to it hereunder and under the other Loan Documents (including

any amounts under Section 3.05) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower Agent (in the case of all other amounts).

(c) in the case of any such assignment resulting from a claim for compensation under Section 3.04 or payments required to be made pursuant to Section 3.01, such assignment will result in a reduction in such compensation or payments thereafter;

(d) in the case of any such assignment resulting from the refusal of a Lender to approve a requested amendment, waiver or consent, the Person to whom such assignment is being made has agreed to approve such requested amendment, waiver or consent; and

(e) such assignment does not conflict with applicable Laws.

A Lender shall not be required to make any such assignment or delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Borrowers to require such assignment and delegation cease to apply.

11.14 Governing Law; Jurisdiction; Etc.

(a) **THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK (INCLUDING, WITHOUT LIMITATION, SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW) WITHOUT REGARD TO ANY OTHER CONFLICTS OF LAW RULES OR PRINCIPLES.**

(b) **PURSUANT TO SECTION 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW, EACH LOAN PARTY IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF NEW YORK SITTING IN THE BOROUGH OF MANHATTAN AND OF THE UNITED STATES DISTRICT COURT OF THE SOUTHERN DISTRICT OF NEW YORK, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE COURT OR, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR IN ANY OTHER LOAN DOCUMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT, ANY LENDER OR THE LETTER OF CREDIT ISSUER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AGAINST THE LOAN PARTIES OR THEIR PROPERTIES IN THE COURTS OF ANY JURISDICTION.**

(c) **EACH LOAN PARTY IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT IN ANY COURT REFERRED TO IN PARAGRAPH (B) OF THIS SECTION.**

EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT. EACH PARTY HERETO HEREBY WAIVES, TO THE MAXIMUM EXTENT NOT PROHIBITED BY LAW, ANY RIGHT THAT IT MAY HAVE TO CLAIM OR RECOVER IN ANY LEGAL ACTION OR PROCEEDING REFERRED TO IN THIS SECTION 11.14 ANY SPECIAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES.

(d) **EACH PARTY HERETO IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 11.02. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY HERETO TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY APPLICABLE LAW.**

11.15 Waiver of Jury Trial. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

11.16 Electronic Execution of Assignments and Certain Other Documents. The words "execution," "signed," "signature," and words of like import in any Assignment and Assumption or in any amendment or other modification hereof (including waivers and consents) shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

11.17 USA PATRIOT Act Notice. Each Lender that is subject to the PATRIOT Act and the Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Borrowers that pursuant to the requirements of the PATRIOT Act, it is required to obtain, verify and record information that identifies the Borrowers, which information includes the name and address of the Borrowers and other information that will allow such Lender or the Administrative Agent, as applicable, to identify the Borrowers in accordance with the PATRIOT Act.

Each Loan Party acknowledges that, pursuant to the Proceeds of Crime Act and other applicable anti-money laundering, anti-terrorist financing, government sanction and "know your client" laws (collectively, including any guidelines or orders thereunder, "AML Legislation"), the Lenders may be required to obtain, verify and record information regarding the Loan Parties and their respective directors, authorized signing officers, direct or indirect shareholders or other Persons in control of the Loan Parties, and the transactions contemplated hereby. Each Loan Party shall promptly provide all such information, including supporting documentation and other evidence, as may be reasonably requested by any Lender or any prospective assignee or participant of a Lender, any Letter of Credit Issuer or Administrative Agent, in order to comply

with any applicable AML Legislation, whether now or hereafter in existence. If the Administrative Agent has ascertained the identity of any Loan Party or any authorized signatories of the Loan Parties for the purposes of applicable AML Legislation, then the Administrative Agent:

(i) shall be deemed to have done so as an agent for each Lender, and this Agreement shall constitute a "written agreement" in such regard between each Lender and the Administrative Agent within the meaning of the applicable AML Legislation; and

(ii) shall provide to each Lender copies of all information obtained in such regard without any representation or warranty as to its accuracy or completeness.

Notwithstanding the preceding sentence and except as may otherwise be agreed in writing, each of the Lenders agrees that the Administrative Agent does not have any obligation to ascertain the identity of the Loan Parties or any authorized signatories of the Loan Parties on behalf of any Lender, or to confirm the completeness or accuracy of any information it obtains from any Loan Party or any such authorized signatory in doing so.

11.18 No Advisory or Fiduciary Responsibility. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Loan Document), each Loan Party acknowledges and agrees, and acknowledges its Affiliates' understanding, that: (i) (A) the arranging and other services regarding this Agreement provided by the Secured Parties are arm's-length commercial transactions between each Loan Party, on the one hand, and the Secured Parties, on the other hand, (B) each Loan Party has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (C) each Loan Party is capable of evaluating, and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby and by the other Loan Documents; (ii) (A) each Secured Party is and has been acting solely as a principal and, except as expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for any Loan Party or any of its Affiliates or any other Person and (B) no Secured Party has any obligation to any Loan Party or any of its Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Loan Documents, (iii) the Secured Parties may be engaged in a broad range of transactions that involve interests that differ from those of the Loan Parties and their Affiliates, and no Secured Party has any obligation to disclose any of such interests to any Loan Party or its Affiliates and (iv) the Secured Parties have not provided and will not provide any legal, accounting, regulatory or tax advice with respect to any of the transactions contemplated hereby (including any amendment, waiver or other modification hereof or of any other Loan Document) and each of the Loan Parties has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate. To the fullest extent permitted by law, each Loan Party hereby waives and releases any claims that it may have against any Secured Party with respect to any breach or alleged breach of agency or fiduciary duty in connection with any aspect of any transaction contemplated hereby.

11.19 Attachments. The exhibits, schedules and annexes attached to this Agreement are incorporated herein and shall be considered a part of this Agreement for the purposes stated herein; except, that, in the event of any conflict between any of the provisions of such exhibits and the provisions of this Agreement, the provisions of this Agreement shall prevail.

11.20 Acknowledgement and Consent to Bail-In of Affected Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Affected Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of a Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by a Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an Affected Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any Resolution Authority.

11.21 Acknowledgement Regarding Any Supported QFCs. To the extent that the Loan Documents provide support, through a guarantee or otherwise, for any Swap Obligation or any other agreement or instrument that is a QFC (such support, "QFC Credit Support", and each such QFC, a "Supported QFC"), the parties acknowledge and agree as follows with respect to the resolution power of the Federal Deposit Insurance Corporation under the Federal Deposit Insurance Act and Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together with the regulations promulgated thereunder, the "U.S. Special Resolution Regimes") in respect of such Supported QFC and QFC Credit Support (with the provisions below applicable notwithstanding that the Loan Documents and any Supported QFC may in fact be stated to be governed by the laws of the State of New York and/or of the United States or any other state of the United States):

(a) In the event a Covered Entity that is party to a Supported QFC (each, a "Covered Party") becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of such Supported QFC and the benefit of such QFC Credit Support (and any interest and obligation in or under such Supported QFC and such QFC Credit Support, and any rights in property securing such Supported QFC or such QFC Credit Support) from such Covered Party will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if the Supported QFC and such QFC Credit Support (and any such interest, obligation and rights in property) were governed by the laws of the United States or a state of the United States. In the event a Covered Party or a BHC Act Affiliate of a Covered Party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under the Loan Documents that might otherwise apply to such Supported QFC or any QFC Credit Support that may be exercised against such Covered Party are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Supported QFC and the Loan Documents were governed by the laws of the United States or a state of the United States. Without limitation of the foregoing, it is understood and agreed that rights and remedies of the parties with respect to a Defaulting Lender shall in no event affect the rights of any Covered Party with respect to a Supported QFC or any QFC Credit Support.

(b) As used in this Section 11.21, the following terms have the following meanings:

"BHC Act Affiliate" of a party means an "affiliate" (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

"Covered Entity" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

"Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

"QFC" has the meaning assigned to the term "qualified financial contract" in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

11.22 Intercreditor Agreement. The Loan Parties, the Administrative Agent, the Lenders and the other Secured Parties agree and acknowledge that the exercise of certain of the Administrative Agent's rights and remedies hereunder shall, upon the effectiveness of the Secured Note Intercreditor Agreement, be subject to, and restricted by, the provisions of the Secured Note Intercreditor Agreement. Each of the Loan Parties, the Administrative Agent, the Lenders and the other Secured Parties agree that, upon the effectiveness of the Secured Note Intercreditor Agreement (a) in the event of any conflict between the terms of this Agreement and the Secured Note Intercreditor Agreement, the terms of the Secured Note Intercreditor Agreement shall govern and control; and (b) it shall be bound by the terms and conditions of the Secured Note Intercreditor Agreement.

ARTICLE XII
CONTINUING GUARANTY

12.01 Guaranty. Each Loan Party hereby absolutely and unconditionally guarantees, as a guaranty of payment and performance and not merely as a guaranty of collection, prompt payment when due, whether at stated maturity, by required prepayment, upon acceleration, demand or otherwise, and at all times thereafter, of any and all of the Obligations (other than Excluded Swap Obligations), whether for principal, interest, premiums, fees, indemnities, damages, costs, expenses or otherwise, of the Borrowers to the Secured Parties, arising hereunder or under any other Loan Document (including all renewals, extensions, amendments, refinancings and other modifications thereof and all costs, attorneys' fees and expenses incurred by the Secured Parties in connection with the collection or enforcement thereof) (the "Guarantied Obligations"). The Administrative Agent's books and records showing the amount of the Guarantied Obligations shall be admissible in evidence in any action or proceeding, and shall be binding upon each Loan Party, and conclusive for the purpose of establishing the amount of the Guarantied Obligations. This Guaranty shall not be affected by the genuineness, validity, regularity or enforceability of the Guarantied Obligations or any instrument or agreement evidencing any Guarantied Obligations, or by the existence, validity, enforceability, perfection, non-perfection or extent of any collateral therefor, or by any fact or circumstance relating to the Guarantied Obligations which might otherwise constitute a defense to the obligations of any Loan Party under this Guaranty, and each Loan Party hereby irrevocably waives any defenses it may now have or hereafter acquire in any way relating to any or all of the foregoing.

12.02 Rights of Lenders. Each Loan Party consents and agrees that the Secured Parties may, at any time and from time to time, without notice or demand, and without affecting the enforceability or continuing effectiveness hereof: (a) amend, extend, renew, compromise, discharge, accelerate or otherwise change the time for payment or the terms of the Guarantied Obligations or any part thereof; (b) take, hold, exchange, enforce, waive, release, fail to perfect, sell, or otherwise dispose of any security for the payment of this Guaranty or any Guarantied Obligations; (c) apply such security and direct the order or manner of sale thereof as the Administrative Agent, the Letter of Credit Issuer and the Lenders in their sole discretion may determine; and (d) release or substitute one or more of any endorsers or other guarantors of any of the Guarantied Obligations. Without limiting the generality of the foregoing, each Loan Party consents to the taking of, or failure to take, any action which might in any manner or to any extent vary the risks of any

Loan Party under this Guaranty or which, but for this provision, might operate as a discharge of any Loan Party.

12.03 Certain Waivers. Each Loan Party waives (a) any defense arising by reason of any disability or other defense of the Borrowers or any other guarantor, or the cessation from any cause whatsoever (including any act or omission of any Secured Party) of the liability of the Borrowers; (b) any defense based on any claim that any Loan Party's obligations exceed or are more burdensome than those of the Borrowers; (c) the benefit of any statute of limitations affecting any Loan Party's liability hereunder; (d) any right to proceed against the Borrowers, proceed against or exhaust any security for the Guarantied Obligations, or pursue any other remedy in the power of any Secured Party whatsoever; (e) any benefit of and any right to participate in any security now or hereafter held by any Secured Party; and (f) to the fullest extent permitted by law, any and all other defenses or benefits that may be derived from or afforded by applicable Law limiting the liability of or exonerating guarantors or sureties. Each Loan Party expressly waives all setoffs and counterclaims and all presentments, demands for payment or performance, notices of nonpayment or nonperformance, protests, notices of protest, notices of dishonor and all other notices or demands of any kind or nature whatsoever with respect to the Guarantied Obligations, and all notices of acceptance of this Guaranty or of the existence, creation or incurrence of new or additional Guarantied Obligations.

12.04 Obligations Independent. The obligations of each Loan Party hereunder are those of primary obligor, and not merely as surety, and are independent of the Guarantied Obligations and the obligations of any other guarantor, and a separate action may be brought against each Loan Party to enforce this Guaranty whether or not any Borrower or any other person or entity is joined as a party.

12.05 Subrogation. No Loan Party shall exercise any right of subrogation, contribution, indemnity, reimbursement or similar rights with respect to any payments it makes under this Guaranty until the Facility Termination Date. If any amounts are paid to any Loan Party in violation of the foregoing limitation, then such amounts shall be held in trust for the benefit of the Secured Parties and shall forthwith be paid to the Secured Parties to reduce the amount of the Obligations, whether matured or unmatured.

12.06 Termination; Reinstatement. This Guaranty is a continuing and irrevocable guaranty of all Guarantied Obligations now or hereafter existing and shall remain in full force and effect until the Facility Termination Date. Notwithstanding the foregoing, this Guaranty shall continue in full force and effect or be revived, as the case may be, if any payment by or on behalf of the Borrowers or any Loan Party is made, or any of the Secured Parties exercises its right of setoff, in respect of the Guarantied Obligations and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by any of the Secured Parties in their discretion) to be repaid to a trustee, receiver, interim receiver, receiver and manager, monitor, keeper or any other party, in connection with any proceeding under any Debtor Relief Laws or otherwise, all as if such payment had not been made or such setoff had not occurred and whether or not the Secured Parties are in possession of or have released this Guaranty and regardless of any prior revocation, rescission, termination or reduction. The obligations of each Loan Party under this paragraph shall survive termination of this Guaranty.

12.07 Subordination. Each Loan Party hereby subordinates the payment of all obligations and indebtedness of the Borrowers owing to each Loan Party, whether now existing or hereafter arising, including but not limited to any obligation of the Borrowers to any Loan Party as subrogee of the Secured Parties or resulting from any Loan Party's performance under this Guaranty, to the Payment in Full. If the Secured Parties so request, any such obligation or indebtedness of the Borrowers to any Loan Party shall be enforced and performance received by any Loan Party as trustee for the Secured Parties and the proceeds

thereof shall be paid over to the Secured Parties on account of the Guarantied Obligations, but without reducing or affecting in any manner the liability of any Loan Party under this Guaranty.

12.08 Stay of Acceleration. If acceleration of the time for payment of any of the Guarantied Obligations is stayed, in connection with any case commenced by or against any Loan Party or the Borrowers under any Debtor Relief Laws, or otherwise, all such amounts shall nonetheless be payable by each Loan Party immediately upon demand by the Secured Parties.

12.09 Condition of Borrowers. Each Loan Party acknowledges and agrees that it has the sole responsibility for, and has adequate means of, obtaining from the Borrowers and any other guarantor such information concerning the financial condition, business and operations of the Borrowers and any such other guarantor as each Loan Party requires, and that none of the Secured Parties has any duty, and no Loan Party is relying on the Secured Parties at any time, to disclose to any Loan Party any information relating to the business, operations or financial condition of the Borrowers or any other guarantor (each Loan Party waiving any duty on the part of the Secured Parties to disclose such information and any defense relating to the failure to provide the same).

12.10 Keepwell. Each Loan Party that is a Qualified ECP hereby jointly and severally absolutely, unconditionally and irrevocably undertakes to provide such funds or other support as may be needed from time to time by each other Loan Party to honor all of its obligations under this Guaranty in respect of Swap Obligations (provided, however, that each Qualified ECP shall only be liable under this Section 12.10 for the maximum amount of such liability that can be hereby incurred without rendering its obligations under this Section 12.10, or otherwise under this Guaranty, voidable under applicable law relating to fraudulent conveyance or fraudulent transfer, and not for any greater amount). The obligations of each Loan Party that is a Qualified ECP under this Section shall remain in full force and effect until the Guarantied Obligations have been paid in full in cash. Each Loan Party that is a Qualified ECP intends that this Section 12.10 constitute, and this Section 12.10 shall be deemed to constitute, a "keepwell, support, or other agreement" for the benefit of each other Loan Party for all purposes of Section 1a(18)(A)(v)(II) of the Commodity Exchange Act.

12.11 Limitation of Guaranty. Notwithstanding anything to the contrary herein or otherwise, the Borrowers, the Administrative Agent and the Lenders hereby irrevocably agree that the Guarantied Obligations of each Loan Party in respect of the guarantee set forth in this Section 12 at any time shall be limited to the maximum amount as will result in the Guarantied Obligations of such Loan Party not constituting a fraudulent transfer or conveyance after giving full effect to the liability under such guarantee set forth in Section 12 and its related contribution rights but before taking into account any liabilities under any other guarantee by such Loan Party.

[Remainder of page is intentionally left blank; signature pages follow.]

IN WITHNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of date first above written.

BORROWERS:

GLOBE SPECIALTY METALS, INC.
GLOBE METALLURGICAL INC.
ALDEN RESOURCES LLC
ARL RESOURCES, LLC
ARL SERVICES, LLC
ALDEN SALES CORP, LLC
CORE METALS GROUP HOLDINGS LLC
CORE METALS GROUP LLC
METALLURGICAL PROCESS MATERIALS, LLC
TENNESSEE ALLOYS COMPANY, LLC
ALABAMA SAND AND GRAVEL, INC.
GSM SALES, INC.
NORCHEM, INC.
GATLIFF SERVICES, LLC
GLOBE METALS ENTERPRISES, LLC
GSM ENTERPRISES LLC
GSM ENTERPRISES HOLDINGS INC.
GBG HOLDINGS, LLC
GSM ALLOYS I INC
GSM ALLOYS II INC.
GSM FINANCIAL, INC.
SOLSIL, INC.
L F RESOURCES, INC.
LAUREL FORD RESOURCES, INC.
WEST VIRGINIA ALLOYS, INC.
ECPI INC.
GBG FINANCIAL, LLC
GLOBE BG, LLC
QSIP CANADA ULC, as a Borrower and Guarantor

By /s/ Brian D' Amico
Name: Brian D' Amico
Title: Vice President

ADMINISTRATIVE AGENT:

BANK OF MONTREAL, as Adminstrative Agent

By: /s/ Elisabeth Izzo
Name: Elisabeth Izzo
Title: Vice President

LENDERS:

BANK OF MONTREAL, as a Lender, Letter of Credit Issuer and Swing Line Lender

By: /s/ Elisabeth Izzo
Name: Elisabeth Izzo
Title: Vice President

By: /s/ Elisabeth Izzo
Name: Elisabeth Izzo
Title: Vice President

LENDERS:

BANK OF MONTREAL, as a Lender, Letter of Credit Issuer and Swing Line Lender

By: /s/ Elisabeth Izzo
Name: Elisabeth Izzo
Title: Vice President

By: /s/ Helen Alvarez-Hemandez
Name: Helen Alvarez-Hemandez
Title: Managing Director

BANK OF MONTREAL
Corporate Finance Division
Cross-Border Banking
First Canadian Place - 100 King St W, 18th Fi
Toronto Ontario M5X 1A1
CANADA

Exhibit 8.1

SUBSIDARIES OF THE REGISTRANT*

Name	Registered
Alabama Sand and Gravel, Inc.	United States
Alden Resources, LLC	United States
Alden Sales Corp, LLC	United States
ARL Resources, LLC	United States
ARL Services, LLC	United States
Core Metals Group Holdings, LLC	United States
Core Metals Group, LLC	United States
Gatliff Services, LLC	United States
GBG Financial, LLC	United States
GBG Holdings, LLC	United States
Globe BG, LLC	United States
Globe Metallurgical Inc.	United States
Globe Metals Enterprises, LLC.	United States
GSM Alloys I, Inc.	United States
GSM Alloys II, Inc.	United States
GSM Enterprises Holdings, Inc.	United States
GSM Enterprises, LLC	United States
GSM Financial, Inc.	United States
GSM Sales, Inc.	United States
LF Resources, Inc.	United States
Metallurgical Process Materials, LLC	United States
Norchem, Inc.	United States
QSIP Canada ULC	Canada
Quebec Silicon General Partner Inc.	Canada
Quebec Silicon Limited Partnership	Canada
Tennessee Alloys Company, LLC	United States
West Virginia Alloys, Inc.	United States
WVA Manufacturing, LLC	United States
Cuarzos Industriales, S.A.U.	Spain
Ferroatlántica del Cinca, S.L.	Spain
Ferroglobe Mangan Norge AS	Norway
Ferroglobe Manganese France SAS	France
FerroPem, S.A.S.	France
Grupo FerroAtlántica, S.A.U	Spain
Hydroelectricite De Saint Beron, SAS	France
Kintuck (France) SAS	France
Kintuck AS	Norway
Mangshi Ferroatlantica Mining Industry Service Company Limited	China
Rocas, Arcillas y Minerales, S.A.	Spain
Rebone Mining (Pty.), Ltd.	South Africa
Silicon Smelters (Pty.), Ltd.	South Africa
Silicon Technology (Pty.), Ltd.	South Africa
Thaba Chueu Mining (Pty.), Ltd.	South Africa
Cuarzos Industriales de Venezuela (Cuarzoven), S.A.	Venezuela
Emix, S.A.S.	France
ECPI, Inc.	United States
Ferroatlántica de México, S.A.	Mexico
Ferroatlántica de Venezuela (FerroVen), S.A.	Venezuela
Ferroatlántica Deutschland, GmbH	Germany
Ferroatlántica do Brasil Mineraçao Ltda.	Brazil
Ferroglobe Holding Company, LTD	United Kingdom
Ferroglobe Finance Company, PLC	United Kingdom
FerroManganese Mauritania SARL	Mauritania
Ferroquartz Holdings, Ltd (Hong Kong)	Hong Kong
FerroQuartz Mauritania SARL	Mauritania
Ferrosolar OPCO Group SL.	Spain
Ferrosolar R&D SL.	Spain
FerroTambao, SARL	Burkina Faso
Globe Metales S.R.L.	Argentina
Globe Specialty Metals, Inc.	United States
Grupo FerroAtlántica de Servicios, S.L.U.	Spain
GSM Netherlands, BV	Netherlands
Laurel Ford Resources, Inc.	United States
Ningxia Yonvey Coal Industrial Co., Ltd.	China
Photosil Industries, SAS	France
Ferroglobe Innovation, S.L.U	Spain
Solsil, Inc.	United States
Ultracore Energy SA	Argentina

* The names of other subsidiaries that would not constitute a significant subsidiary in the aggregate have been omitted.

Exhibit 12.1

CERTIFICATION

I, Marco Levi, certify that:

1. I have reviewed this annual report on Form 20-F of Ferroglobe PLC;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in U.S. Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in U.S. Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: May 1, 2023

By: /s/ Marco Levi
Chief Executive Officer (Principal Executive Officer)

Exhibit 12.2

CERTIFICATION

I, Beatriz García-Cos, certify that:

1. I have reviewed this annual report on Form 20-F of Ferroglobe PLC;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in U.S. Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in U.S. Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: May 1, 2023

By: /s/ Beatriz García-Cos
Chief Financial Officer and Principal Accounting Officer (Principal Financial Officer)

Exhibit 13.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of Ferroglobe PLC (the "Company") on Form 20-F for the period ended December 31, 2022, as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the U.S. Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 1, 2023

By: /s/ Marco Levi
Chief Executive Officer (Principal Executive Officer)

By: /s/ Beatriz García-Cos
Chief Financial Officer and Principal
Accounting Officer (Principal Financial Officer)

This certification is being furnished to the U.S. Securities and Exchange Commission with this Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by such Act, be deemed filed by the Company for purposes of Section 18 of the U.S. Securities Exchange Act of 1934, or otherwise subject to the liability of that section.

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Ferroglobe and will be retained by Ferroglobe and furnished to the U.S. Securities and Exchange Commission or its staff upon request.

Exhibit 15.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference into (a) Registration Statement No. 333-208911 on Form S-8, (b) Registration Statement No. 333-259445 on Form F-3, (c) Registration Statement No. 333-258254 on Form F-3 and (d) Registration Statement No. 333-255973 on Form F-3, of our reports dated May 1, 2023 relating to the consolidated financial statements of Ferroglobe PLC and the effectiveness of Ferroglobe PLC's internal control over financial reporting (which report expresses an adverse opinion on the effectiveness of the Company's internal control over financial reporting because of material weaknesses), appearing in this Annual Report on Form 20-F of Ferroglobe PLC for the year ended December 31, 2022.

/s/ Deloitte, S.L.

Madrid, Spain
May 1, 2023

Exhibit 16.1

Mine Safety and Health Administration Safety Data

On July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Act") was enacted. Section 1503 of the Act contains new reporting requirements regarding coal or other mine safety.

We are committed to providing a safe workplace for all of our employees. We continue to engage proactively with federal and state agencies in support of measures which can legitimately improve the safety and well-being of our employees.

The operation of our mines located in the United States is subject to regulation by the Federal Mine Safety and Health Administration (MSHA) under the Federal Mine Safety and Health Act of 1977 (the "Mine Act"). MSHA inspects our mines on a regular basis and issues various citations and orders when it believes a violation has occurred under the Mine Act. We present information below regarding certain mining safety and health violations, orders and citations issued by MSHA, as well as related assessments and legal actions with respect to our mining operations. In evaluating this information, consideration should be given to factors such as the following: (i) the number of violations, citations and orders will vary depending on the size of the mine, (ii) the number of citations and orders issued will vary from inspector to inspector and mine to mine, and (iii) violations, citations and orders can be contested and appealed, and in that process, may be reduced in severity and amount, and are sometimes dismissed.

The table below includes references to specific sections of the Mine Act. We are providing the information in the table by mining complex because that is how we manage and operate our business. The information in the table reflects violations, citations and orders issued to us by MSHA and related assessments and legal actions during the year ended December 31, 2022, as reflected in our records. Due to timing and other factors, the data in our system may not agree with the data maintained by MSHA.

For each mine, of which we or one of our Subsidiaries is an operator (number of occurrences, except for proposed assessment U.S. Dollar values).

Mine of Operating Name/MSHA Identification Number	Section 104 S&S Citations (#)	Section 104(b) Orders (#)	Section 104(d) Citations and Orders (#)	Section 110(b)(2) Violations (#)	Section 107(a) Orders (#)	Total Dollar Value of MSHA Assessments Proposed ($)	Total Number of Mining Related Fatalities (#)	Received Notice of Pattern of Violations Under Section 104(e) (yes/no)	Received Notice of Potential to Have Pattern Under Section 104(e) (yes/no)	Legal Actions Pending as of Last Day of Period (#) (A)	Legal Actions Initiated During the Period (#)	Legal Actions Resolved During Period (#)
Alden Resources – Davis Creek - 4003568	-	-	-	-	-	532	-	No	No	0	0	0
Alden Resources – Mosley Gap - 1519894	2	-	-	-	-	1435	-	No	No	0	0	0
Alden Resources – Hubbs Hollow- 1519916	1	-	-	-	-	1546	-	No	No	0	0	0
Alden Resources - Gatliff Plant - 1509938	1	-	-	-	-	2017	-	No	No	0	0	0
Alden Resources - Harps Creek - 1518466	15	-	1	-	-	14,590	-	No	No	1	1	0
Alden Resources Mine #5 Log Cabin - 1518426	19	-	-	-	-	15,786	-	No	No	3	4	1
AS&G – Meadows - 0103517	2	-	-	-	-	1054	-	No	No	0	0	0

(A) The pending legal actions are all contests of citations and orders, which typically are filed prior to an operator's receipt of a proposed penalty assessment from MSHA or relate to orders for which penalties are not assessed (such as imminent danger orders under Section 107 of the Mine Act). This category includes:

- contests of citations or orders issued under section 104 of the Mine Act,
- contests of imminent danger withdrawal orders under section 107 of the Mine Act, and
- emergency response plan dispute proceedings (as required under the Mine Improvement and New Emergency Response Act of 2006, Pub. L. No. 109-236, 120 Stat. 493).