

United Kingdom | Resources | Mining & Commodities | GEM LN | Market Cap  
£217.2m | 04 April 2022<sup>^</sup>

## Gemfields\*

# Another record auction result



**Ben Davis**  
+44 (0) 20 3100 2083  
ben.davis@liberum.com

**Tom Price**  
+44 (0) 20 3100 2085  
tom.price@liberum.com

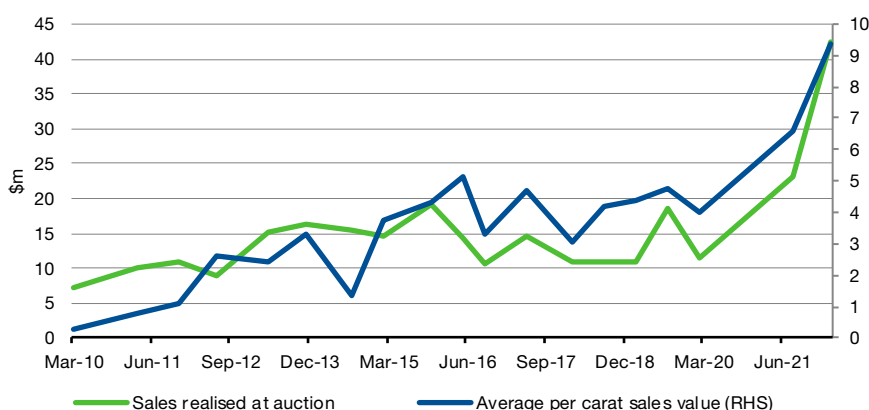
**Yuen Low**  
+44 (0) 20 3100 2091  
yuen.low@liberum.com

Gemfields rich run of form continues with another record auction result. This time, in commercial emeralds with \$42.3m at \$9.37/ct, versus the next best result last summer of \$23.1m at \$6.61/ct and Liberum est. of \$13.7m at \$5/ct. Whilst not directly comparable, as quality mixes differ, it is clearly a standout result. More so, given that the auction occurred between 15 March to 1 April, after the war in Ukraine had begun. It shows that the market's appetite has not deteriorated. A promising outlook for the year.

## Not just a restocking event

We had slight concerns that the strength in Gemfields auction results last year were propelled by restocking action after an awful 2020. It is now clear that market demand remains very strong, with a record \$42.3m at \$9.37/ct achieved. This is far ahead of our estimate of \$13.7m at \$5/ct. Whilst the company is quick to point out that auction results are not directly comparable, it is clear from the graphs below that the trends are excellent.

**Figure 1: Commercial quality emerald auction results – sales & prices**



Source: company

Competitive tension is alive and well, with the most ever companies bidding and the number of bids per lot.

**BUY**

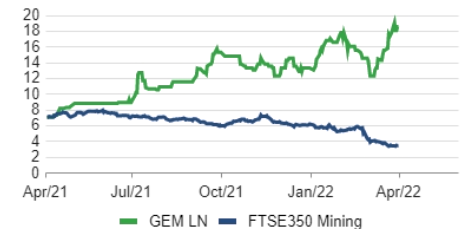
**TP 33.0p (from 32.0p)**  
Publication price 18.5p

\*Corporate Broking Client of Liberum

## Next events

Operating update	30 July 2022
Interim results	22 Sept 2022

## Stock performance



## Summary financials & valuation (\$m)

### Calendar year

EV (CY)	21A	22E	23E	24E
Market Cap	285	285	285	285
Net Debt/(Cash)	(63.0)	(113.2)	(100.8)	(101.0)
Pension & other adj.	79.7	95.8	112.1	126.2
EV	302	267	296	310

Valuation (CY)	21A	22E	23E	24E
P/E (x)	5.9	5.9	5.8	6.7
Div Yield (%)	6.7	8.2	9.8	11.8
EV/Sales (x)	1.2	1.0	1.0	0.9
EV/EBITDA (x)	2.3	1.9	2.0	2.1
EV/EBIT (x)	2.8	2.4	2.6	3.2
FCFe Yield (%)	31.6	25.9	5.1	11.0
Price / book (x)	0.6	0.6	0.6	0.5

## Financial year (December year end)

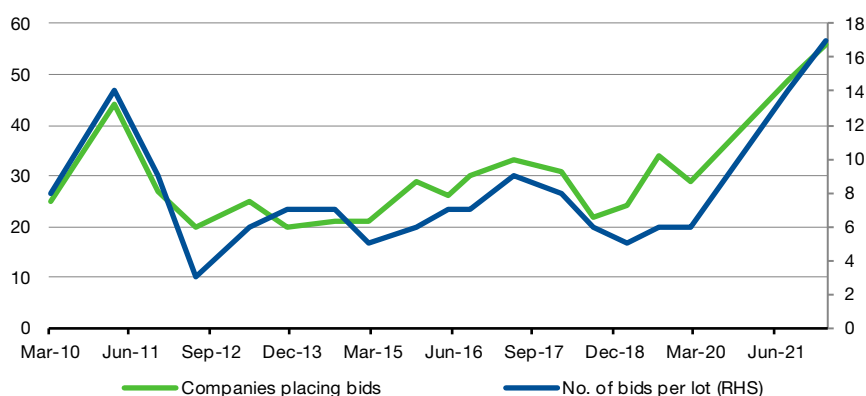
Financials (FY)	21A	22E	23E	24E
Sales	258	280	301	360
EBITDA	133	144	146	145
EBIT	107.9	111.5	112.0	96.7
EBIT Margin (%)	41.8	39.8	37.2	26.9
Net Interest	(3.2)	(2.7)	(1.8)	(1.4)
PBT	104.7	108.8	110.2	95.4
FD EPS (\$)	0.0	0.0	0.0	0.0
DPS (p)	1.2	1.5	1.8	2.2

Leverage (FY)	21A	22E	23E	24E
Net Debt/(Cash)	(63.0)	(113.2)	(100.8)	(101.0)
Net Debt/EBITDA (x)	(0.5)	(0.8)	(0.7)	(0.7)
Net Debt/Mkt Cap (x)	(0.2)	(0.4)	(0.4)	(0.4)

Source: Liberum, Bloomberg

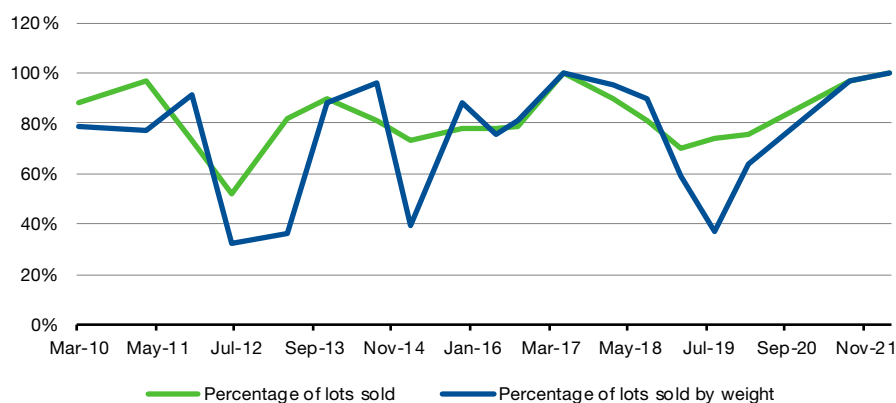
All numbers are on a post-IFRS 16 basis (e.g. net debt includes operating leases)

This document is a marketing communication and has been prepared and distributed by Liberum Capital Limited. It is not independent research prepared in accordance with legal requirements designed to promote the independence of investment research and is not subject to a prohibition on dealing ahead of the dissemination of investment research. For Reg-AC certification, see the end of the text. Liberum does and seeks to do business with companies covered in this communication. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. <sup>^</sup>Completed when first distributed.

**Figure 2: Commercial quality emerald auction results - companies & bids**

Source: company

100% of the lots offered were sold, which has happened only once before.

**Figure 3: Commercial quality emerald auction results - % of sold**

Source: company

## Excellent outlook for 2022

Gemfields have kicked the year off with a maiden dividend and are looking to invest in growth at Montepuez with a 200% increase in wash plant capacity that management hope will drive a c.100% increase in revenues from the operation.

With the strength of the market in emerald and rubies, we believe that Gemfields can offer both attractive growth and yields. There are also positive catalysts, including the potential IPO of Sedibelo and the subsequent disposal of its stake. It is held at a value of \$37m on Gemfields balance sheet. We believe it could go for \$55m.

## Financial model

Figure 4: Income statement (\$m)

December year-end	2018A	2019A	2020A	2021A	2022E	2023E
Total sales	206.2	212.6	34.7	258.1	280.2	301.1
Sales growth (%)	8.8	3.1	(83.7)	644.5	8.5	7.5
Gross margin (%)	28.6	38.0	(86.8)	51.6	51.4	48.6
Cost of sales	(147.3)	(131.8)	(64.7)	(125.0)	(136.1)	(154.6)
Gross profit	58.9	80.9	(30.1)	133.1	144.1	146.5
Operating expenses	0.0	0.0	0.0	0.0	0.0	0.0
Administrative expenses	0.0	0.0	0.0	0.0	0.0	0.0
Share based payments	0.0	0.0	0.0	0.0	0.0	0.0
<b>Underlying EBITDA</b>	<b>58.9</b>	<b>80.9</b>	<b>(30.1)</b>	<b>133.1</b>	<b>144.1</b>	<b>146.5</b>
Depreciation	32.1	20.5	32.7	27.6	32.5	34.5
Amortisation (not acquired)	0.0	0.0	0.0	0.0	0.0	0.0
Underlying EBIT (pre JVs)	(45.1)	71.9	(93.4)	107.9	111.5	112.0
EBIT (pre JVs) margin (%)	(21.9)	33.8	(269.4)	41.8	39.8	37.2
Revenue	0.0	0.0	0.0	0.0	0.0	0.0
PBT	0.0	0.0	0.0	0.0	0.0	0.0
Tax	0.0	0.0	0.0	0.0	0.0	0.0
JV post tax profit	0.0	0.0	0.0	0.0	0.0	0.0
JV contribution	0.0	0.0	0.0	0.0	0.0	0.0
Profit on disposal	0.0	0.0	0.0	0.0	0.0	0.0
<b>Underlying EBIT</b>	<b>(45.1)</b>	<b>71.9</b>	<b>(93.4)</b>	<b>107.9</b>	<b>111.5</b>	<b>112.0</b>
<b>EBIT Margin (%)</b>	<b>(21.9)</b>	<b>33.8</b>	<b>(269.4)</b>	<b>41.8</b>	<b>39.8</b>	<b>37.2</b>
Amortisation of acquired intangibles	0.0	0.0	0.0	0.0	0.0	0.0
Exceptional / extraordinary costs	0.0	0.0	0.0	0.0	0.0	0.0
Reported EBIT	(45.1)	71.9	(93.4)	107.9	111.5	112.0
Non-operating exceptional costs	0.0	0.0	0.0	0.0	0.0	0.0
Interest income	(3.8)	(6.6)	(2.8)	(0.1)	1.0	1.2
Interest costs	(5.0)	(4.1)	(3.0)	(3.1)	(3.7)	(3.0)
Pension credit / (cost)	0.0	0.0	0.0	0.0	0.0	0.0
Net Interest	(8.8)	(10.7)	(5.8)	(3.2)	(2.7)	(1.8)
<b>Underlying PBT</b>	<b>(53.9)</b>	<b>61.2</b>	<b>(99.2)</b>	<b>104.7</b>	<b>108.8</b>	<b>110.2</b>
Reported PBT	(53.9)	61.2	(99.2)	104.7	108.8	110.2
Underlying tax rate (%)	0.0	0.0	0.0	0.0	0.0	0.0
Exceptional tax rate (%)	0.0	0.0	0.0	0.0	0.0	0.0
Reported tax rate (%)	12.0	(46.2)	(6.0)	(39.5)	(40.8)	(40.8)
Underlying tax	0.0	0.0	0.0	0.0	0.0	0.0
Exceptional tax	0.0	0.0	0.0	0.0	0.0	0.0
Reported tax	(6.5)	(28.2)	6.0	(41.4)	(44.4)	(45.0)
<b>Underlying PAT</b>	<b>(60.4)</b>	<b>32.9</b>	<b>(93.2)</b>	<b>63.3</b>	<b>64.4</b>	<b>65.2</b>
Discontinued operations (net)	0.0	0.0	0.0	0.0	0.0	0.0
Profit on disposal	0.0	0.0	0.0	0.0	0.0	0.0
<b>Reported PAT</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Preference dividends	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	73.9	84.7	70.4	79.7	95.8	112.1
<b>Underlying net income</b>	<b>(60.4)</b>	<b>32.9</b>	<b>(93.2)</b>	<b>63.3</b>	<b>64.4</b>	<b>65.2</b>
Reported net income	(62.0)	24.6	(82.3)	48.4	48.3	48.9
Weighted average number of shares (basic) (m)	1,317.7	1,289.6	1,169.0	1,173.5	1,173.5	1,173.5
Weighted average number of shares (diluted) (m)	0.0	0.0	0.0	0.0	0.0	0.0
Number of shares at period end (basic) (m)	0.0	0.0	0.0	0.0	0.0	0.0
Underlying EPS (basic) (\$)	(4.7)	1.9	(7.0)	4.1	4.1	4.2
Underlying EPS (basic) growth (%)	(308.3)	(140.6)	(468.0)	(158.5)	(0.2)	1.2
<b>Underlying EPS (diluted) (\$)</b>	<b>(0.0)</b>	<b>0.0</b>	<b>(0.1)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Underlying EPS (diluted) growth (%)</b>	<b>(308.3)</b>	<b>(140.6)</b>	<b>(468.0)</b>	<b>(158.5)</b>	<b>(0.2)</b>	<b>1.2</b>
<b>Pro-forma EPS (diluted) (\$)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
DPS (Ordinary) (p)	0.0	0.0	0.0	1.2	1.5	1.8
DPS (Total) (p)	0.0	0.0	0.0	1.2	1.5	1.8
Dividend growth (%)	n.a.	n.a.	n.a.	n.a.	22.9	19.8
Dividend cover (x)	n.a.	n.a.	n.a.	2.5	2.1	1.7

Source: Liberum

Figure 5: Cash flow statement (\$m)

December year-end	2018A	2019A	2020A	2021A	2022E	2023E
Reported EBIT	(45.1)	71.9	(93.4)	107.9	111.5	112.0
Profit in associates	(5.3)	(2.6)	0.0	0.0	0.0	0.0
Depreciation	32.1	20.5	32.7	27.6	32.5	34.5
Amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Loss / (profit) on sale of PPE	0.0	0.0	0.0	0.0	0.0	0.0
Share based payments	4.2	1.7	0.9	0.0	0.0	0.0
Increase/(Decrease) in provisions	0.0	0.0	0.0	0.0	0.0	0.0
Loss / (Gain) on business disposal	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
<b>Operating cash flows before movements in working capital</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
(Increase) / decrease in inventories	8.6	(11.5)	(6.2)	2.0	3.5	(25.8)
(Increase) / decrease in receivables	(39.2)	(21.8)	49.8	(51.1)	16.0	(20.7)
(Decrease) / increase in payables	0.9	7.6	(18.2)	21.8	(1.2)	8.7
(Increase) / decrease in working capital	(29.7)	(25.7)	25.5	(27.3)	18.3	(37.8)
<b>Cash generated by operations</b>	<b>29.5</b>	<b>46.4</b>	<b>(5.2)</b>	<b>107.9</b>	<b>163.4</b>	<b>109.9</b>
Tax paid	(24.4)	(9.7)	(15.0)	(9.7)	(44.4)	(45.0)
<b>Net cash flow from operating activities</b>	<b>5.1</b>	<b>36.7</b>	<b>(20.2)</b>	<b>98.1</b>	<b>118.9</b>	<b>64.9</b>
Purchase of PPE	(29.0)	(27.8)	(5.6)	(8.0)	(45.1)	(50.3)
Purchase of other intangibles	0.0	0.0	0.0	0.0	0.0	0.0
Disposals	0.0	0.0	0.0	0.0	0.0	0.0
Net capex	(29.0)	(27.8)	(5.6)	(8.0)	(45.1)	(50.3)
Dividends from associates	5.3	0.0	0.0	0.0	0.0	0.0
Movement in short term investments	0.0	0.0	0.0	0.0	0.0	0.0
Acquisitions	7.7	32.7	(0.5)	1.1	0.0	0.0
(Investments) / disposals of associates	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net cash flow from investing activities</b>	<b>46.6</b>	<b>(1.9)</b>	<b>(13.2)</b>	<b>(17.4)</b>	<b>(45.1)</b>	<b>(50.3)</b>
Net interest received / (paid)	0.7	0.8	0.4	0.1	0.0	0.0
Equity dividends paid	0.0	0.0	0.0	0.0	(19.9)	(23.9)
Share issues / (repurchases)	0.0	0.0	0.0	0.0	0.0	0.0
Increase / (decrease) in borrowings	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net cash flow from financing activities</b>	<b>(26.4)</b>	<b>(19.6)</b>	<b>(1.1)</b>	<b>(26.0)</b>	<b>(29.6)</b>	<b>(32.9)</b>
Increase in cash and cash equivalents	25.3	15.2	(34.4)	54.8	44.2	(18.4)
(Increase) / decrease in borrowings	0.0	0.0	0.0	0.0	0.0	0.0
Repayment of finance leases	0.0	0.0	0.0	0.0	0.0	0.0
Exchange / other	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Increase) / decrease in net debt</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Net cash / (debt) (start)	9.8	25.4	(12.6)	63.0	113.2	100.8
<b>Net cash / (debt) (end) including leases</b>	<b>9.8</b>	<b>25.4</b>	<b>(12.6)</b>	<b>63.0</b>	<b>113.2</b>	<b>100.8</b>

Source: Liberum

**Figure 6: Balance sheet (\$m)**

December year-end	2018A	2019A	2020A	2021A	2022E	2023E
Goodwill	0	0	0	0	0	0
Other intangible assets	52	55	51	50	50	50
PPE	365	377	363	343	355	371
Trade and other LT receivables	10	11	11	14	14	14
Deferred tax asset	0	0	0	0	0	0
Investments in JVs / Associates	6	7	3	3	3	3
Retirement benefit asset	0	0	0	0	0	0
<b>Fixed assets</b>	<b>510</b>	<b>507</b>	<b>458</b>	<b>446</b>	<b>459</b>	<b>475</b>
Inventories	99	111	118	116	112	138
Trade and other receivables	62	88	33	84	68	89
Cash & cash equivalents	63	78	44	98	142	124
Financial assets	0	0	0	0	0	0
<b>Current assets</b>	<b>224</b>	<b>277</b>	<b>199</b>	<b>298</b>	<b>322</b>	<b>350</b>
<b>Total Assets</b>	<b>734</b>	<b>784</b>	<b>657</b>	<b>744</b>	<b>781</b>	<b>825</b>
Trade payables	28	30	17	39	38	47
Borrowings	23	25	33	25	25	25
Tax liabilities	1	16	4	21	21	21
Provisions	0	0	0	0	0	0
Other current liabilities	0	0	0	0	0	0
<b>Current liabilities</b>	<b>61</b>	<b>75</b>	<b>60</b>	<b>90</b>	<b>89</b>	<b>98</b>
<b>Total assets less current liabilities</b>	<b>673</b>	<b>709</b>	<b>597</b>	<b>654</b>	<b>692</b>	<b>727</b>
<b>Net current assets</b>	<b>164</b>	<b>202</b>	<b>139</b>	<b>208</b>	<b>233</b>	<b>253</b>
Long-term borrowings and finance leases	30	28	24	10	4	(2)
Provisions	6	6	4	6	6	6
Other payables	0	0	0	0	0	0
Other non-current liabilities	88	96	87	94	94	94
<b>Net Assets</b>	<b>550</b>	<b>579</b>	<b>483</b>	<b>544</b>	<b>589</b>	<b>630</b>
Total equity	550	579	483	544	589	630
Minority interests	74	85	70	80	96	112
<b>Shareholders' equity</b>	<b>476</b>	<b>494</b>	<b>413</b>	<b>465</b>	<b>493</b>	<b>518</b>

Source: Liberum

## Disclaimer

This communication has been issued in the UK by Liberum Capital Limited (LCL) which is authorised and regulated by the Financial Conduct Authority ("FCA") and is a member of The London Stock Exchange PLC. The registered address of Liberum Capital Limited is Ropemaker Place, 25 Ropemaker Street, London EC2Y 9LY. Telephone: 020 3100 2000.

This report has been prepared by its author(s) as non-impartial research in relation to Company (the "Company"), as such that it is inappropriate to characterise it as independent investment research, as it has not been prepared in accordance with UK legal requirements designed to promote the independence of investment research. Therefore, even if it contains a research recommendation, it should be treated as a marketing communication. The individuals who prepared this communication may be involved in providing other financial services to the company or companies referenced herein or to other companies who might be said to be competitors of the company or companies referenced herein. As a result, both Liberum Capital Limited ("LCL") and the individual employees who prepared this communication may have responsibilities that conflict with the interests of the persons who receive this communication and information may be known to LCL or persons connected with it which is not reflected in this communication.

LCL may provide or may have provided corporate services to the issuers of securities mentioned in this communication and recipients of this document should not therefore rely on this report as being an impartial document. Accordingly, information may be known to LCL or persons connected with it which is not reflected in this material.

LCL has put in place procedures, systems and controls to identify, to prevent (where this is possible) conflicts of interest and also has a conflicts management policy relating to its research and marketing communication activities, which is available on its website, [www.liberum.com](http://www.liberum.com). In addition, a list of items which could create a conflict of interest and other material interests in relation to research material is set out on LCL's website (see "Disclosures" below).

This communication is provided for information purposes only and should not be regarded as an offer or solicitation to buy or sell any security or other financial instrument. This communication has no regard for the specific investment objectives, financial situation and needs of any specific person or entity. LCL and/or its officers, directors and employees may have or take positions in securities of companies mentioned in this communication (or in any related investment) and may from time to time dispose of any such positions and may also provide corporate finance or underwriting services for or relating to those companies, for which it is remunerated. LCL analysts, including the author of this report, receive compensation based on a number of factors including the quality of research, client feedback, firm profitability and normal competitive factors. This communication is based on materials and sources that are believed to be reliable; however, they are not independently verified and are not guaranteed as being accurate. All expressions of opinions, projections, forecasts and estimates constitute a judgment and are those of the author and the research department of LCL only, and should not be relied upon and are subject to change without notice. The content of this communication may have been disclosed to the company referenced herein prior to dissemination in order to verify factual accuracy, however the Company takes no responsibility for the accuracy or otherwise of any opinion, projection, forecast or estimate contained within this report. While LCL endeavours to update its research reports from time to time it is under no obligation to do so. LCL shall not be liable for any direct or indirect damages, including lost profits, arising in any way from use of all or any of the information contained in this communication.

LCL may have issued other reports or communications that are inconsistent with and reach different conclusions from, the information contained

in this communications. Those communications reflect the different assumptions, views and analytical methods of the individuals that prepared them.

This communication is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to therein. No representation or warranty either expressed or implied, is made nor responsibility of any kind is accepted by LCL, its directors, officers, employees or agents either as to the accuracy or completeness of any information contained in this communication nor should it be relied on as such.

This communication is provided with the understanding that LCL is not acting in a fiduciary capacity and it is not a personal recommendation to you.

The investments discussed in this communication may not be eligible for sale in some states or countries and may not be suitable for all investors. Investors should make their own investment decisions based upon their own financial objectives and financial resources and, if in any doubt, should seek advice from an investment advisor.

Past performance is not necessarily a guide to future performance. The stated price of any securities mentioned herein will generally be as at the end of the business day immediately prior to the publication date on this communication unless otherwise stated and is not a representative that any transaction can be effected at this price.

This communication is confidential and may not be re-distributed, retransmitted or disclosed, in whole or in part, or in any manner, without the express written consent of LCL.

For more information on models, please contact the Analyst.

### In the United Kingdom

This communication is for the use of (a) Professional Clients and Eligible Counterparties (such terms as defined by the rules of the FCA) of LCL and (b) other persons who are not clients of LCL who have expressed interest in receiving it and who are Qualified Investors (as defined below) and either investment professionals (persons having professional experience in matters relating to investments, as defined in Article 19(5) or Article 49(2)(a) to (d) (high net worth companies, unincorporated associations etc) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 (as amended) or any other persons to whom this communication for the purposes of section 21 of the Financial Services and Markets Act 2000 can otherwise lawfully be communicated).

For the purpose of clarity, this communication is not intended for and should not be relied upon by Retail Clients (as defined by the rules of the Financial Conduct Authority).

The content includes data provided by FTSE International Limited ("FTSE") © FTSE 2013. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE under licence. All rights in the FTSE indices and / or FTSE ratings vest in FTSE and / or its licensors. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE indices and / or FTSE ratings or underlying data. No further distribution of FTSE data is permitted without FTSE's express written consent.

### For EU investors

This communication is being distributed to and is directed only at persons in member states of the European Economic Area ("EEA") who are Qualified Investors within the meaning of Article 2(e) of EU Regulation 2017/1129 (as amended or superseded). Any person in the EEA who receives this communication will be deemed to have represented and agreed that it is a Qualified Investor. LCL and its affiliates, will rely upon the truth and accuracy of the foregoing representations and agreements. Any person in the EEA who is not a Qualified Investor should not act or rely on this communication or any of its contents.

### For US Investors

Analyst Certification: The analyst(s) who prepared this report hereby certifies that all of the views expressed in this report accurately reflect his / her personal views about the subject securities or issuers. No part

of his/her compensation was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this report.

The analyst(s) responsible for preparing research report received compensation that is based upon various factors, including total revenues of Liberum Inc. and its affiliates, a portion of which are or have been generated by investment banking activities of Liberum Inc. and its affiliates. LCL may make a market in the securities of the issuer and may act as principal with regard to sales and purchases of this security.

Any U.S. recipient of this report that is not a registered brokerdealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with Liberum Inc.

### For Canadian Investors

This information is not, and under no circumstances is to be construed as, an advertisement or a public offering of the securities described herein in Canada or any province or territory thereof. Under no circumstances is this information to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the registration requirement in the relevant province or territory of Canada in which such offer or sale is made. This information is not, and under no circumstances is it to be construed as, a prospectus, an offering memorandum, an advertisement or a public offering of any securities in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. If you are located in Canada, this information has been made available to you based on your representation that you are an "accredited investor" as such term is defined in National Instrument 45-106 Prospectus Exemptions and a "permitted client" as such term is defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada nor should it be construed as being tailored to the needs of the recipient. Canadian recipients are advised that Liberum Capital Inc., its affiliates and its authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential loss arising from any use of this research report or the information contained herein.

### For Swiss Investors

This communication is intended to be distributed to professional investors in circumstances such that there is no public offer. This communication does not constitute a prospectus within the meaning of Articles 652a and 1156 of the Swiss Code of Obligations.

### For Australian Investors

This communication is distributed in Australia by Liberum Capital Limited which is exempt from the requirement to hold an Australian Financial Services Licence. This communication may only be distributed to a "Wholesale Client" (within the meaning of section 761G of the Corporations Act 2001 (Cth) (the "Act")). Liberum Capital Limited is regulated by the FCA under UK laws, which differ from Australian laws.

### Other countries

Laws and regulations of other countries may also restrict the distribution of this report. Persons in possession of this communication should inform themselves about possible legal restrictions and observe accordingly.

### Disclosures

Please refer to [www.liberum.com/legal](http://www.liberum.com/legal) for regulatory disclosures.



Research

Alternatives

Conor Finn

+44 (0)20 3100 2257  
conor.finn@liberum.com

Shonil Chande

+44 (0) 20 3100 2259  
shonil.chande@liberum.com

Building

Building Materials, Equipment Hire & Housebuilders

Charlie Campbell

+44 (0)20 3100 2090  
charlie.campbell@liberum.com

Consumer

Consumer Discretionary

Adam Tomlinson

+44 (0)20 3100 2174  
adam.tomlinson@liberum.com

Rowan Quill

+44 (0) 20 3100 2074  
rowan.quill@liberum.com

Consumer Goods

Anubhav Malhotra

+44 (0)20 3100 2197  
anubhav.malhotra@liberum.com

Roving

Wayne Brown

+44 (0) 20 3100 2082  
wayne.brown@liberum.com

Financials

Financial & Professional Services

Shailesh Raikundlia

+44 (0)20 3100 2098  
shailesh.raikundlia@liberum.com

James Allen

+44 (0)20 3100 2088  
james.allen@liberum.com

Healthcare

Alistair Campbell

+44 (0)20 3100 2096  
alistair.campbell@liberum.com

Edward Thomason

+44 (0) 20 3100 2092  
edward.thomason@liberum.com

Industrials

Capital Goods

Christian Hinderaker

+44 (0)20 3100 2275  
christian.hinderaker@liberum.com

Leisure & Travel

Leisure

Anna Barnfather

+44 (0)20 3100 2176  
anna.barnfather@liberum.com

Andrew Wilkinson

+44 (0)20 3100 2068  
andrew.wilkinson@liberum.com

Transport

Gerald Khoo

+44 (0)20 3100 2195  
gerald.khoo@liberum.com

Real Estate

Tom Musson

+44 (0)20 3100 2067  
tom.musson@liberum.com

Chris Spearing

+44 (0)20 3100 2169  
chris.spearing@liberum.com

Hugh Carrow

+44 (0)20 3100 2072  
hugh.carrow@liberum.com

Resources

Mining & Commodities

Ben Davis

+44 (0)20 3100 2083  
ben.davis@liberum.com

Yuen Low

+44 (0)20 3100 2091  
yuen.low@liberum.com

Tom Price

+44 (0) 203 100 2085  
tom.price@liberum.com

New Energy

Adam Collins

+44 (0)20 3100 2075  
adam.collins@liberum.com

Strategy, Accounting and Sustainability

Joachim Klement

+44 (0)20 3100 2073  
joachim.klement@liberum.com

Dr Kenneth Lee

+44 (0) 203 100 2069  
kenneth.lee@liberum.com

Susana Cruz

+44 (0) 203 100 2277  
susana.cruz@liberum.com

Katherine Wang

+44 (0) 203 100 2093  
katherine.wang@liberum.com

Support Services

Support Services & Special Situations

Joe Brent (Head of Research)

+44 (0)20 3100 2272  
joe.brent@liberum.com

Sanjay Vidyarthi

+44 (0)20 3100 2278  
sanjay.vidyarthi@liberum.com

Alexandro da Silva O'Hanlon

+44 (0)20 3100 2268  
alex.ohanlon@liberum.com

Roving

Andrew Ripper

+44 (0)20 3100 2086  
andrew.ripper@liberum.com

Technology & Media

Ciaran Donnelly

+44 (0)20 3100 2071  
ciaran.donnelly@liberum.com

William Larwood

+44 (0)20 3100 2097  
william.larwood@liberum.com

Roving

Joseph Pepper

+44 (0) 20 3100 2271  
joseph.pepper@liberum.com

Convertibles

Simon Smith

+44 (0)20 3100 2171  
simon.smith@liberum.com

Richard Tomblin

+44 (0)20 3100 2172  
richard.tomblin@liberum.com

Equity Sales – London

David Parsons (Head of Equities)

+44 (0)20 3100 2125  
david.parsons@liberum.com

Julian Collett (Head of ECM)

+44 (0)20 3100 2113  
julian.collett@liberum.com

Edward Blair (Head of Product Strategy)

+44 (0)20 3100 2117  
edward.blair@liberum.com

Sam Nisser

+44 (0)20 3100 2129  
sam.nisser@liberum.com

Alistair Smallwood

+44 (0)20 3100 2124  
alistair.smallwood@liberum.com

Matt Randall (Head of Distribution)

+44 (0)20 3100 2114  
matt.randall@liberum.com

Oliver Baxendale (Head of UK Sales)

+44 (0)20 3100 2193  
oliver.baxendale@liberum.com

William Game

+44 (0)20 3100 2120  
william.game@liberum.com

Joel Knight

+44 (0)20 3100 2030  
joel.knight@liberum.com

Specialist Sales

Real Estate

John Mozley

+44 (0)20 3100 2115  
john.mozley@liberum.com

New Energy, Mining and Industrials

Simon Fickling

+44 (0)20 3100 2112  
simon.fickling@liberum.com

Alternative Funds

Andrew Davies

+44 (0) 20 3100 2269  
andrew.davies@liberum.com

James Shields

+44 (0) 20 3100 2266  
james.shields@liberum.com

Tom Biltcliffe

+44 (0) 20 3100 2253  
tom.biltcliffe@liberum.com

Equity Sales – New York

Mark Godridge (CEO - USA)

+1 212 596 4823  
mark.godridge@liberum.com

Peter Penha

+1 212 596 4808  
peter.penha@liberum.com

John Churchill

+1 212 596 4807  
john.churchill@liberum.com

Julian Plant (Deputy CEO - USA)

+1 212 596 4824  
julian.plant@liberum.com

Sarah Port

+1 212 596 4818  
sarah.port@liberum.com

Sales Trading

Graham Smith (Head of Execution)

+44 (0)20 3100 2101  
graham.smith@liberum.com

Nina Marsh

+44 (0)20 3100 2109  
nina.marsh@liberum.com

Nick Worthington

+44 (0)20 3100 2106  
nick.worthington@liberum.com

Mark O'Hara (Head of Sales Trading)

+44 (0)20 3100 2061  
mark.o'hara@liberum.com

Scott Briant

+44 (0)20 3100 2118  
scott.briant@liberum.com

David Thompson

+44 (0)20 3100 2062  
david.thompson@liberum.com

Alternative Execution

Dominic Lowres (Head of Execution Strategy)

+44 (0)20 3100 2103  
dominic.lowres@liberum.com

Charles Hancock

+44 (0)20 3100 2107  
charles.hancock@liberum.com

Agency Trading

Simon Warrener

+44 (0)20 3100 2108  
simon.warrener@liberum.com

Matt Hudson

+44 (0)20 3100 2063  
matthew.hudson@liberum.com

Market Making

Giles Johnston (Head of Trading)

+44 (0)20 3100 2203  
giles.johnston@liberum.com

David O'Gram

+44 (0)20 3100 2201  
david.ogram@liberum.com

Marc Wilkinson

+44 (0)20 3100 2206  
marc.wilkinson@liberum.com

James Cass

(Head of Small & Mid Cap Trading)

+44 (0)20 3100 2205  
james.cass@liberum.com

Peter Jennings

+44 (0)20 3100 2207  
peter.jennings@liberum.com

STX 77440

+44 (0)20 3100 2200