

MANAGEMENT'S DISCUSSION AND ANALYSIS

NEO PERFORMANCE MATERIALS INC.

FOR THE THREE-MONTH AND SIX-MONTH PERIODS ENDED JUNE 30, 2020

Management's Discussion and Analysis

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MANAGEMENT'S DISCUSSION AND ANALYSIS

Unless otherwise noted, all amounts in this discussion are expressed in United States dollars

The following Management's Discussion and Analysis ("**MD&A**") for Neo Performance Materials Inc. ("**Neo**") should be read in conjunction with the MD&A and the audited consolidated financial statements for the year ended December 31, 2019, dated March 11, 2020, available on Neo's website at www.neomaterials.com and on SEDAR at www.sedar.com. Unless otherwise stated, references in this section to "Neo", "our", "we" or "Group", refer to Neo Performance Materials Inc. and its consolidated subsidiaries.

The financial results presented in this MD&A are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). "Adjusted EBITDA", "Adjusted EBITDA Margin", "Adjusted Net Income or Loss", "Adjusted OIBDA", "Adjusted OIBDA Margin", "Adjusted Earnings per Share", "EBITDA", "Free Cash Flow", "Free Cash Flow Conversion" and "OIBDA" are not measures recognized under IFRS and do not have any standardized meaning prescribed by IFRS. These measures may differ from those used by other companies, and are not necessarily comparable to similar measures presented by other companies. There are no directly comparable IFRS measures to any of these measures. These measures are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. See "Management's Discussion and Analysis - Non-IFRS Financial Measures" below.

This discussion contains forward-looking statements and information. The actual results, performance and achievements could differ materially from those implied by these forward-looking statements as a result of various factors, including those discussed in the MD&A dated March 11, 2020 under "*Risk Factors*". See "*Forward-Looking Information*".

The discussion and analysis in this MD&A are based upon information available to management as of August 7, 2020. This MD&A should not be considered all-inclusive, as it excludes changes that may occur in general economic, political and environmental conditions. Additionally, other events may or may not occur that could affect Neo in the future.

1. Forward-Looking Information

The following discussion and analysis contains "forward-looking information" within the meaning of applicable securities laws in Canada. Forward-looking information may relate to future events or future performance of Neo. All statements in this disclosure, other than statements of historical facts, with respect to Neo's objectives and goals, as well as statements with respect to its beliefs, plans, objectives, expectations, anticipations, estimates, and intentions are forward-looking information. Specific forward-looking statements in this discussion include, but are not limited to the following: expectations regarding certain of Neo's future results and information, including, among other things: revenue, expenses, revenue growth, capital expenditures, and operations; statements with respect to expected use of cash balances; continuation of prudent management of working capital; source of funds for ongoing business requirements and capital investments; expectations regarding sufficiency of the allowance for uncollectible accounts and inventory provisions; analysis regarding sensitivity of the business to changes in exchange rates; impact of recently adopted accounting pronouncements; risk factors relating to intellectual property protection and intellectual property litigation; risk factors relating to national or international economies (including the impact of COVID-19), and other risks present in the jurisdictions in which Neo, its customers, its suppliers, and/or its logistics partners operate, and; expectations concerning any remediation efforts to Neo's design of its internal controls over financial reporting and disclosure controls and procedures. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates" or "believes", or variations of, or the negatives of, such words and phrases, or can state that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved. This information involves known and unknown risks and uncertainties and other factors that may cause actual results or events to differ materially from those anticipated

in such forward-looking information. Neo believes the expectations reflected in such forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking information included in this discussion and analysis should not be unduly relied upon. For more information on Neo, investors should review Neo's continuous disclosure filings that are available under its profile at www.sedar.com.

The forward-looking information is only provided as of the date of this MD&A, August 7, 2020, and is subject to change as a result of new information, future events or other circumstances, as discussed above, in which case the forward-looking information will be updated by Neo as required by law.

2. Overview

Neo manufactures the building blocks of many modern technologies that enhance efficiency and sustainability. Neo's advanced industrial materials, magnetic powders and magnets, specialty chemicals, metals, and alloys are critical to the performance of many everyday products and emerging technologies. Neo's products help to deliver the technologies of tomorrow to consumers today.

Neo has approximately 1,830 employees and has a global platform that includes 11 manufacturing facilities located in China, the United States ("U.S."), Germany, Canada, Estonia, Thailand and South Korea, as well as two dedicated research and development ("R&D") centres in Singapore and the United Kingdom ("UK"). Since 1994, Neo has leveraged its processing expertise to innovate and grow into a leading manufacturer of advanced industrial materials for specialty end markets. Neo has established itself as a leading commercial partner to some of the world's largest customers in the automotive, semiconductor, advanced electronic and specialty chemical industries. As a result, Neo is well positioned in markets that are forecast to see robust, long-term growth driven by multiple global macro trends, such as vehicle electrification, industrial automation, consumer electronics, energy efficient lighting, air and water pollution control, and superalloys. Neo identifies growth markets driven by global macro trends such as these, and produces highly engineered industrial materials that are critical to the performance of applications in those markets.

Neo is organized along three business segments: Magnequench, Chemicals & Oxides ("C&O") and Rare Metals, as well as the Corporate segment.

Magnequench

The Magnequench segment, with more than 30 years of manufacturing experience, is the world leader in the production of permanent magnetic powders used in bonded and hot-deformed, fully dense neodymium-iron-boron ("NdFeB" or "neo") magnets. These powders are formed through Magnequench's market-leading technology related to the development, processing, and manufacturing of neo magnetic powders. Magnequench uses a proprietary process to manufacture Magnequench powder using a blend of various inputs. Magnequench also manufactures magnets using these bonded magnetic powders. These powders and bonded permanent magnets are used in micro motors for household applications like vacuum cleaners, refrigerators, hair dryers, air conditioners and residential heating and cooling circulation pumps, industrial and other sensors, motors used in various automotive applications for hybrid, electric, and internal combustion engine ("ICE") vehicles, and other applications requiring high levels of magnetic strength, improved performance, and reduced size and weight.

C&0

The C&O segment manufactures and distributes a broad range of advanced industrial materials that have become an indispensable part of modern life. Neo's world-class processing and advanced materials manufacturing capabilities enable Neo to meet increasingly demanding specifications from manufacturers that need custom engineered materials. Applications from these products include automotive catalysts, permanent magnetics, consumer electronics, petroleum refining catalysts, medical devices, and wastewater treatment.

Rare Metals

The Rare Metals segment sources, reclaims, produces, refines, and markets high-value specialty metals and their compounds. These products include both high-temperature metals (tantalum, niobium, hafnium and rhenium) and electronic metals (gallium and indium). Applications from products made in this segment primarily include superalloys for jet engines, medical imaging, wireless technologies and LED lighting. Other applications include flat panel displays, solar, steel additives, batteries and electronics applications.

Corporate

Neo's global head office is in Toronto, Ontario, Canada, with additional corporate offices in Greenwood Village, Colorado, U.S.; Singapore; and Beijing, China. The functions of this group include finance, administration, information technology, accounting, and legal.

3. Selected Financial Highlights

(\$000s, except volume)		Three M	Mon	ths Ended J	une	30,		Six M	ont	hs Ended Ju	ne 3	0,
		2020		2019		2018		2020		2019		2018
Revenue												
Magnequench	\$	30,267	\$	41,473	\$	56,229	\$	68,793	\$	89,028	\$	111,963
C&O		25,320		38,534		36,698		58,858		82,107		81,854
Rare Metals		13,529		25,027		21,321		33,979		46,558		44,092
Corporate / Eliminations		(1,382)		(3,298)		(3,815)		(3,199)		(7,427)		(7,291)
Consolidated Revenue	\$	67,734	\$	101,736	\$	110,433	\$	158,431	\$	210,266	\$	230,618
Operating (Loss)/Income												
Magnequench	\$	3,421	\$	6,164	\$	11,432	\$	8,960	\$	15,645	\$	24,773
C&O		(37,748)		3,696		3,808		(34,774)		10,322		5,925
Rare Metals		(24,728)		(371)		1,160		(24,905)		(214)		3,639
Corporate / Eliminations		(5,938)		(3,639)		(4,131)		(9,267)		(3,664)		(8,563)
Consolidated Operating (Loss)/Income	\$	(64,993)	\$		\$	12,269	\$	(59,986)	\$	22,089	\$	25,774
Adjusted EBITDA ⁽¹⁾												
Magnequench	\$	5,565	\$	8,255	\$	13,408	\$	13,280	\$	19,184	\$	28,883
C&O	Ψ	(1,462)	Ψ	4,924	Ψ	5,180	Ψ	2,951	Ψ	11,912	Ψ	8,700
Rare Metals		376		1,813		2,472		1,287		2,988		6,268
Corporate / Eliminations		(3,288)		(2,988)		(3,202)		(6,682)		(5,594)		(6,705)
Consolidated Adjusted EBITDA	\$	1,191	\$	12,004	\$	17,858	\$	10,836	\$	28,490	\$	37,146
-	*	-,	*	,	*		*		*	,	*	- ,
Volume (in mt) Magnequench		1,024		1 267		1,554		2,295		2,812		3,081
e i		,		1,367		· · ·		,		-		<i>,</i>
		1,466		2,053		1,776		3,401		4,188		3,783
Rare Metals		90		154		139		232		272		274
Corporate / Eliminations		(35)		(84) 3,490		(73) 3,396		(80) 5,848		(175) 7,097		(143) 6,995
		,		,		,		,		·		, í
Net (Loss)/Income	\$	(63,364)	\$	2,293	\$	19,138	\$	(62,846)	\$	14,520	\$	27,990
Attributable to:												
Equity holders of Neo		(60,936)		2,090		19,174		(60,573)		14,337		27,841
Non-controlling interest		(2,428)		203		(36)		(2,273)		183		149
(Loss) Earnings per share attributable to equit	y ho	lders of Neo										
Basic	\$	(1.62)	\$	0.05	\$	0.48	\$	(1.61)	\$	0.36	\$	0.70
Diluted	\$	(1.62)	\$	0.05	\$	0.47	\$	(1.61)	\$	0.36	\$	0.69
Adjusted Net (Loss)/Income ⁽²⁾	\$	(5,578)	\$	5,234	\$	12,489	\$	(4,709)	\$	13,374	\$	22,757
Attributable to:		(5.417)		5 021		10.505		(4 702)		12 101		22 (00
Equity holders of Neo		(5,417)		5,031		12,525		(4,703)		13,191		22,608
Non-controlling interest		(161)		203		(36)		(6)		183		149
Adjusted (Loss)/Earnings per Share attributab					¢	0.21	¢	(0.10)	¢	0.22	¢	0.57
Basic	\$	(0.14)		0.13	\$	0.31	\$	(0.12)		0.33	\$	0.57
Diluted	\$	(0.14)	\$	0.13	\$	0.31	\$	(0.12)	\$	0.33	\$	0.56
Capital expenditures	\$	1,527	\$	1,973	\$	3,929	\$	3,029	\$	4,638	\$	6,234
Cash taxes paid	\$	2,960	\$	4,258	\$	3,089	\$	5,558	\$	6,159	\$	5,985
Dividends paid to shareholders	\$	2,695	\$	2,891	\$	2,945	\$	5,531	\$	5,741	\$	5,958
Repurchase of common shares under Normal Course Issuer Bid	\$	309	\$	6,559	\$	484	\$	1,259	\$	7,493	\$	708
								June 30,		Decem		31
								2020		2019	501	2018
Cash and cash equivalents							\$	78,693	\$	84,735	\$	71,015
Debt							\$ \$.0,075	\$	54	\$ \$	3,970
Notes:							*		*	51	~	2,270

Notes:

Neo uses references to Adjusted OIBDA and Adjusted EBITDA interchangeably as the use of adjustments in each measure provides the same calculated outcome of operating performance. See "Non-IFRS Financial Measures" and details of computation of Adjusted OIBDA.
 See "Non-IFRS Financial Measures" and details of computation of Adjusted OIBDA.

(2) See "Non-IFRS Financial Measures" for computations of Adjusted Net Income or Loss and Adjusted Earnings per Share.

Highlights for the three and six months ended June 30, 2020

Consolidated Results

- For the three and six months ended June 30, 2020, revenues were 33.4% and 24.7% lower, respectively, than in the corresponding periods of 2019. All three segments experienced significant decreases in revenue as volumes were adversely affected by slower economic activities due to the COVID-19 pandemic.
- Neo reported operating losses and net losses for the three and six months ended June 30, 2020, mainly from the \$59.1 million impairment of assets in the C&O and Rare Metals segments. Operationally, the most significant impact to financial performance is from lower volumes across all three business units, which can largely be attributed to COVID-19 and the impact to customer demand across the supply chain. All three business units engaged in various cost-cutting initiatives including shortening shifts, temporarily idling certain facilities, reduced project costs and executing on other working capital reduction initiatives.
- Aside from the volume impact from COVID-19, the Magnequench segment saw growth and progress in its strategy to increase magnet-making capability and sales. The C&O segment was adversely affected by lower spot sales, a LCM (lower-of-cost-or-market) charge on certain products where demand and pricing were adversely affected by COVID-19, and increased legal cost provisions for ongoing intellectual property legal disputes. The Rare Metals segment saw improved product margins in its Tantalum products having worked through much of the previous higher-cost inventory that was affecting previous results.
- Neo recorded a \$59.1 million impairment charge for the three and six months ended June 30, 2020, with \$35.1 million attributable to C&O and \$24.0 million attributable to Rare Metals. No impairment was recorded against Magnequench. The impairment charge against the C&O and Rare Metals segments was largely triggered by the economic impacts of COVID-19 on the future cash flows of the business segments causing the recoverable amount to be less than the pre-adjusted carrying values of certain segments in the financial statements. This non-cash impairment charge largely relates to non-productive assets whose value was adjusted as a result of purchase price accounting applied in September 2016, upon emergence from bankruptcy of the predecessor company.
- Adjusted EBITDA for the three and six months ended June 30, 2020 were \$1.2 million and \$10.8 million, respectively; a decrease of \$10.8 million and \$17.7 million compared to the same periods in 2019.
- Neo continues to see longer-term growth in demand for many of its key products driven by several global macro trends, including increased electrification of automobiles, which increases the need for Neo's functional materials on a per-vehicle basis; greater demand for precision and efficient motors across multiple sectors, which encourages higher utilization of Neo's magnetic materials; growth in hybrid and electric vehicles; more stringent government regulation with respect to air and water emissions; and trends toward greater utilization of lighter-weight materials in industries such as aerospace and consumer electronics. Neo's advanced industrial materials are integral to technologies in all these end markets.

Magnequench Segment

• For the six months ended June 30, 2020, volumes in the Magnequench segment were adversely affected by extended customer shutdowns and slowdowns. The slowdown of volumes was seen across most applications, with some stability in the HDD segment and other factory automation applications. Magnequench continued to see growth in its magnet-making capacity and magnet sales, particularly with respect to sales from the magnet business purchased in 2019. The current magnet product line services laptop computers and consumer electronics and has been on a growth trajectory and gaining market share since the purchase by Magnequench. In addition, Magnequench benefited from various cost-cutting initiatives including reducing production shifts at manufacturing locations.

• For the three months ended June 30, 2020, Adjusted OIBDA was \$5.6 million, a decrease of \$2.7 million compared to the same period of the prior year. For the six months ended June 30, 2020, Adjusted OIBDA in the Magnequench segment was \$13.3 million, compared to \$19.2 million in the corresponding period in 2019; a decrease of \$5.9 million. Sales volumes, and their impact on margins and overhead absorption, were the largest contributor to the decrease in Adjusted OIBDA with other impacts from mix, price reductions, timing of certain operational activities, changes in foreign exchange rates, and timing of pricing pass-through mechanics on material inputs.

Chemicals & Oxides ("C&O") Segment

- For the three and six months ended June 30, 2020, the C&O segment reported operating losses of \$37.7 million and \$34.8 million, respectively, compared to operating income of \$3.7 million and \$10.3 million, respectively, in the corresponding periods in 2019. The operating loss in the three and six months ended June 30, 2020 was mainly from the \$35.1 million impairment charge recorded during the quarter.
- Operationally, C&O was impacted by lower volumes and sales in the three and six month periods ended June 30, 2020, largely due to the COVID-19 pandemic, where most customers experienced slowdowns and shutdowns causing impacts throughout the supply chain. These slowdowns impacted all major serviceable end markets, including auto-catalysts, rare earth separations, and water treatment. Water treatment in particular has slowed down after growing sequentially for the past several years. C&O recorded a LCM (lower-of-cost-or-market) charge in the quarter related to COVID-19 and the view on timing of recovery of certain products and pricing considerations. C&O did not record any meaningful spot sales in the quarter whereas the prior year periods had significant spot sales. In the three month period ended June 30, 2020, C&O recorded an increase in its SG&A costs related to potential legal costs associated with on-going patent disputes (see "*Other Expenditures and Legal Contingencies*"). In addition, C&O implemented both cost-cutting initiatives and initiatives to reduce working capital including idling certain production facilities for a period of time.

Rare Metals Segment

- For the three and six months ended June 30, 2020, the Rare Metals segment reported operating losses of \$24.7 million and \$24.9 million, respectively, compared to operating losses of \$0.4 million and \$0.2 million, respectively, in the corresponding periods in 2019. The operating loss in the three and six months ended June 30, 2020 was mainly from the \$24.0 million impairment charge recorded during the quarter.
- Operationally, the Rare Metals segment was impacted by lower volumes and sales in the three and six month
 periods ended June 30, 2020 compared to the prior year comparable periods. These lower volumes and sales
 were largely a result of the impact of COVID-19 impacting customer demand and the related supply chains.
 This decline was across most of the Rare Metals end markets; with the largest end market being aerospace
 applications. Apart from lower volumes and sales, the Rare Metals segment did see improvements in product
 margins, primarily in its tantalum products, supplemented by cost-savings initiatives such as head count
 reductions, project cost savings, and temporarily idling some production centers.

Cash and Other Highlights for the six months ended June 30, 2020

- Neo continues to have a strong financial position. As at June 30, 2020, Neo had \$78.7 million in cash and no debt.
- Neo invested \$3.0 million in capital expenditures and paid \$5.6 million in cash taxes in the six months ended June 30, 2020.
- For the six months ended June 30, 2020, Neo paid dividends to its shareholders of \$5.5 million and \$3.5 million to non-controlling interest partners. As part of the Normal Course Issuer Bid (the "**Bid**") program, Neo purchased and canceled 175,900 shares with an aggregate disbursement of \$1.3 million.

4. Consolidated Results of Operations

(\$000s)	Three Mor Jun	nths E e 30,	Inded	Six Months Ended June 30,					
	2020		2019	20)20		2019		
Revenue	67,734]	101,736	15	8,431		210,266		
Costs of sales									
Costs excluding depreciation and amortization	51,180		74,782	11	7,429		153,171		
Depreciation and amortization	2,715		2,353		5,435		4,763		
Gross profit	13,839		24,601	3	5,567		52,332		
Expenses									
Selling, general and administrative	14,690		11,249	2	6,651		18,545		
Share-based compensation	170		694		(57)		304		
Depreciation and amortization	2,018		2,014		4,054		3,999		
Research and development	2,870		3,780		5,821		6,381		
Impairment of assets	59,084		1,014	5	9,084		1,014		
	78,832		18,751	9	5,553		30,243		
Operating (loss) income	(64,993)		5,850	(5	9,986)		22,089		
Other income (expense)	221		(468)		27		(594)		
Finance cost, net	(2,318)		(309)	((3,263)		(1,691)		
Foreign exchange gain (loss)	138		(401)		(312)		(308)		
(Loss) income from operations before income taxes and equity income (loss) of associates	(66,952)		4,672	(6	53,534)		19,496		
Income tax benefit (expense)	3,229		(2,360)		387		(5,195)		
(Loss) Income from operations before equity income (loss) of associates	(63,723)		2,312	(6	3,147)		14,301		
Equity income (loss) of associates (net of income tax)	359		(19)		301		219		
Net (loss) income	\$ (63,364)	\$	2,293	\$ (6	52,846)	\$	14,520		
Attributable to:									
Equity holders of Neo	(60,936)	\$	2,090	(6	0,573)	\$	14,337		
Non-controlling interest	(2,428)		203	((2,273)		183		
	\$ (63,364)	\$	2,293	\$ (6	52,846)	\$	14,520		
(Loss) Earnings per share data attributable to equity holders of Neo:									
Basic	\$ (1.62)	\$	0.05	\$	(1.61)	\$	0.36		
Diluted	\$ (1.62)	\$	0.05	\$	(1.61)	\$	0.36		

Comparison of the three and six months ended June 30, 2020 to the three and six months ended June 30, 2019

Revenue

Neo's consolidated revenue for the three months ended June 30, 2020 was \$67.7 million compared to \$101.7 million in the prior year, for a decrease of \$34.0 million or 33.4%. For the six months ended June 30, 2020, consolidated revenue was \$158.4 million, compared to \$210.3 million for the same period in the prior year; a decrease of \$51.8 million or 24.7%.

The Magnequench segment revenue decreased to \$30.3 million in the three months ended June 30, 2020 compared to \$41.5 million in the same period of the prior year; a decrease of \$11.2 million or 27.0%. For the six months ended June 30, 2020, Magnequench segment revenue was \$68.8 million, compared to \$89.0 million in the prior year; a decrease of \$20.2 million or 22.7%. The Magnequench segment represented 43.4% of consolidated revenue in the six months ended June 30, 2020.

The C&O segment revenue, including inter-segment revenue, decreased to \$25.3 million in the three months ended June 30, 2020 compared to \$38.5 million in the same period of the prior year; a decrease of \$13.2 million or 34.3%. For the six months ended June 30, 2020, C&O segment revenue, was \$58.9 million, compared to \$82.1 million for the same period in the prior year; a decrease of \$23.2 million or 28.3%. The C&O segment represented 37.2% of consolidated revenue in the six months ended June 30, 2020.

The Rare Metals segment revenue decreased to \$13.5 million in the three months ended June 30, 2020 compared to \$25.0 million in the same period of the prior year; a decrease of \$11.5 million or 45.9%. For the six months ended June 30, 2020, Rare Metals segment revenue was \$34.0 million, compared to \$46.6 million for the same period in the prior year; a decrease of \$12.6 million or 27.0%. The Rare Metals segment represented 21.4% of consolidated revenue in the six months ended June 30, 2020.

Inter-segment revenue for the three and six months ended June 30, 2020 was \$1.4 million and \$3.2 million, respectively, compared to \$3.3 million and \$7.4 million in the three and six months ended June 30, 2019, respectively. These have been eliminated on consolidation from C&O segment revenue as C&O sold product to Magnequench in the respective periods. The products sold to Magnequench are potential marketable third-party sales and are generally sold at fair market value.

Further commentary on the revenue changes in each segment are included in the discussion under the heading "Discussion and Analysis of Reportable Segments" below.

Costs of sales

Consolidated costs of sales, excluding depreciation and amortization, was \$51.2 million and \$117.4 million in the three and six months ended June 30, 2020, respectively, compared to \$74.8 million and \$153.2 million in the corresponding period in 2019, respectively; a decrease of \$23.6 million or 31.6% quarter-over-quarter, and a decrease of \$35.7 million or 23.3% year-over-year. Costs of sales, excluding depreciation and amortization, decreased as a result of lower revenue in the three and six months ended June 30, 2020, in addition to the impacts of product cost, product mix, and operational changes in the business segments.

Consolidated depreciation and amortization in costs of sales were \$2.7 million and \$5.4 million for the three and six months ended June 30, 2020, respectively, compared to \$2.4 million and \$4.8 million in the three and six months ended June 30, 2019, respectively.

Further commentary on the costs of sales changes in each segment are included in the discussion under the heading "*Discussion and Analysis of Reportable Segments*" below.

Selling, general and administrative ("SG&A") expense

Neo's SG&A expense consists primarily of personnel and related costs, including freight, legal, accounting and other professional fees, and information technology costs. For the three and six months ended June 30, 2020, SG&A expense was \$14.7 million and \$26.7 million, respectively, compared to \$11.2 million and \$18.5 million in the corresponding periods last year. In the three month period ended June 30, 2020, Neo SG&A costs were increased due to the costs associated with the departure of a former member of Neo's executive management team, and an increase in the provision for legal contingencies (see "*Other Expenditures and Legal Contingencies*") offset by certain government assistance amounts related to COVID-19.

In December 2018, Neo entered into an arrangement agreement with Luxfer Holdings plc ("Luxfer") and 2671219 Ontario Inc. (the "Purchaser"), a wholly-owned subsidiary of Luxfer, pursuant to which, the Purchaser would acquire the issued and outstanding common shares for a combination of cash and stock (the "Luxfer Transaction"). On March 10, 2019, Luxfer and Neo mutually agreed to terminate the Luxfer Transaction. The lower SG&A costs in 2019 relate primarily to a recovery of \$1.9 million for expenses Neo incurred related to the termination of the Luxfer Transaction (\$3.5 million receivable from Luxfer less costs incurred in the first quarter of 2019), and a recovery of value bonus expenses (cumulative expense adjustment based on the impact of the termination of the arrangement agreement).

Share-based compensation

For the three and six months ended June 30, 2020, share-based compensation expense/(recovery) was \$0.2 million and \$(0.1) million, respectively, compared to \$0.7 million and \$0.3 million for the corresponding three and six months ended June 30, 2019. During the first quarter of 2019, there was a revision of the vesting period from the previous estimate for Share Options and Restricted Share Units ("**RSUs**") pursuant to the termination of the Luxfer Transaction. Neo subsequently revised and adjusted the recognized share-based compensation expense cost on a cumulative basis. This resulted in a share-based compensation recovery in the first quarter of 2019.

Depreciation and amortization

Depreciation and amortization unrelated to production for the three and six months ended June 30, 2020 and 2019 were consistent at \$2.0 million and \$4.1 million, respectively.

R&D

For the three and six months ended June 30, 2020, R&D expense was \$2.9 million and \$5.8 million, respectively, compared to \$3.8 million and \$6.4 million in the corresponding periods in 2019. Neo continues to prioritize making strategic and appropriate investments in R&D to develop new applications for its products and to strategically position Neo to meet customers' needs for technical solutions. Certain R&D costs are project-based and may be higher or lower in any given period.

Impairment of assets

The negative economic impacts of COVID-19 were determined to be an impairment indicator as of June 30, 2020 for all Neo's Cash Generating Units ("CGUs"). In accordance with IAS 36 Impairment of Assets, the recoverable amount of Neo's CGUs was determined based on fair value less cost of disposal for the Magnequench segment and value in use for the C&O and Rare Metals segments. As a result of the impairment test, Neo recognized an impairment charge of \$59.1 million for the three and six months ended June 30, 2020, with \$35.1 million attributable to the C&O segment and \$24.0 million attributable to the Rare Metals segment. No impairment was recorded against the Magnequench segment. The impairment charge against the C&O and Rare Metals segments was allocated as follows:

	 emicals & Oxides	Ra	re Metals	Total
Goodwill	\$ 16,668	\$	16,283	\$ 32,951
Intangible assets	6,339		3,121	9,460
Property, plant and equipment	12,057		4,616	16,673
Total	\$ 35,064	\$	24,020	\$ 59,084

For the three and six months ended June 30, 2019, Neo reported impairment charges of \$1.0 million in the Rare Metals segment related to the closure of NRM Utah, which consists of impairment of property, plant and equipment of \$1.0 million and a nominal amount of write-off of prepaid expenses that will not be utilized as a result of the closure.

Other income (expense)

For the three months ended June 30, 2020, Neo reported consolidated other income of \$0.2 million, and a nominal amount for the six months ended June 30, 2020, compared to other expense of \$0.5 million and \$0.6 million for the three and six months ended June 30, 2019, respectively. In the three and six months ended June 30, 2019, Neo recorded \$0.8 million of restructuring costs related the closure of NRM Utah.

Finance cost, net

Finance cost, net, for the three and six months ended June 30, 2020 was \$2.3 million and \$3.3 million, respectively, compared to \$0.3 million and \$1.7 million in the corresponding period in 2019. Neo's finance cost in both years were primarily related to the derivative liability, which is comprised of a put option issued to the non-controlling interest of a consolidated subsidiary Buss & Buss. This liability is re-measured at each reporting period with the change in fair value recorded to finance cost, net. For the three and six months ended June 30, 2020, Neo also recorded a dividend of \$1.1 million and \$3.3 million, respectively, paid to the non-controlling interest subject to the put option as a finance cost in accordance with IAS 32. Neo had nominal amounts of debt outstanding during the respective periods.

Income tax benefit (expense)

For the three and six months ended June 30, 2020, Neo had an income tax benefit of \$3.2 million and \$0.4 million, respectively, on loss from operations before taxes of \$67.0 million and \$63.5 million. For the three and six months ended June 30, 2019, Neo an income tax expense of \$2.4 million and \$5.2 million, respectively, on income from operations before taxes of \$4.7 million and \$19.5 million.

Neo's effective tax rate was 4.8% and 0.6% for the three and six months ended June 30, 2020, respectively, and 50.5% and 26.6% for the three and six months ended June 30, 2019.

During the three months ended June 30, 2020, Neo recognized an impairment of goodwill of \$33.0 million, which is not deductible for tax purposes. In addition, Neo recognized a \$8.5 million impairment of intangible assets and property, plant and equipment in a jurisdiction for which there is no tax benefit. The above two items increased the loss from operations without any corresponding tax benefit, resulting in a reduction to the effective tax rate.

During the three months ended June 30, 2019, Neo incurred \$1.8 million of costs from the restructuring and impairment of assets related to the closure of NRM Utah. The tax benefit related to these costs has not been recognized. This impairment reduced the income from operations without any corresponding tax benefit, resulting in an increase to the effect tax rate.

Other Expenditures and Legal Contingencies

Capital Expenditures

Neo capitalized expenditures of \$1.5 million and \$3.0 million for the three and six months ended June 30, 2020, respectively, compared to \$2.0 million and \$4.6 million for the three and six months ended June 30, 2019. These capital projects included a combination of maintenance capital to assist with the continuing development and operations of Neo, growth capital to assist in adding new capacity or new products and strategic capital tied to longer-term strategic planning initiatives.

Legal contingencies

Neo operates in a high technology and advanced engineering product environment in which many patents have been issued over time. The subsidiaries of Neo are currently, and may in the future become, involved in legal proceedings alleging patent infringement. At present, Neo is defending against patent infringement legal proceedings filed in Germany, the United Kingdom, and the People's Republic of China. Additionally, Neo has initiated proceedings to invalidate certain patents of Neo's competitors issued in these same jurisdictions.

There are many factors that make it difficult to estimate the impact of a particular lawsuit on Neo, including, among others, being in the early stage of a proceeding when the claimant is not required to specifically identify the manner in which the patent has allegedly been infringed; damages sought that are unspecified, unsupportable, unexplained or uncertain; discovery not having been started or still incomplete; the complexity of the facts that are in dispute (e.g., the analysis of the patent and a comparison to the activities of Neo is a labor-intensive and highly technical process); the difficulty of assessing novel claims or legal arguments, and; the parties not having engaged in any meaningful settlement discussions. Management is required to apply judgment with respect to estimating the potential impact of the ongoing patent litigation on Neo. Potential impacts to Neo include, but are not limited to, the possibility of an injunction prohibiting Neo from manufacturing, distributing, marketing or selling products that are found to infringe on an unexpired patent; potential damages, attorney's fees and costs that Neo could be ordered to pay if it is found to have infringed on a patent, and; damage to Neo's reputation with key customers, or prospective customers, from a finding of patent infringement.

Of the various lawsuits initiated and underway, the German Courts have ruled that certain of Neo Chemicals & Oxides (Europe) Ltd.'s ("**Neo C&O (Europe**)") products infringed four expired patents of Rhodia Chimie ("**Rhodia**"): European patent #0735984 B1 ("**984**"), European patent #0863846 B1("**846**"), European patent #0605274 ("**274**"), and European patent #0955267 B1 ("**267**"). Neo C&O (Europe) filed an appeal in each of the four infringement actions and the appeals are still pending with respect to 846, 274 and 267. Neo C&O (Europe) withdrew its appeal of the 984 infringement judgment after Rhodia withdrew part of its infringement claim in this case. Neo C&O (Europe) was ordered to provide information related to the calculation of damages, but as yet there has been no determination of damages in any of the German infringement lawsuits.

Neo C&O (Europe) challenged the validity of patents 984, 846 and 274 before the German Federal Patent Court, which upheld patents 984 and 846, but invalidated patent 274. Both Neo C&O (Europe) and Rhodia appealed the rulings of the German Federal Patent Court to the German Supreme Court. The German Supreme Court has upheld the validity of patents 984, 846 and 274 but narrowed the scope of all three patents. Neo C&O (Europe) also filed actions in the German Federal Patent Court challenging the validity of 267, European patent #1527018 ("018") and European patent #2007682 ("682"). The German Federal Patent Court upheld the validity of 267, but that ruling is still subject to Neo's right to file an appeal. Neo's lawsuits to invalidate 018 and 682 are still pending.

Rhodia has filed actions in Germany alleging that Neo C&O (Europe) has infringed three unexpired patents: 018, 682, and European patent #2523907 ("907"). The 018 and 682 infringement cases went to trial in early July 2020, and a ruling in those cases is expected in late August 2020. The 907 action was initiated at the beginning of July 2020, and is scheduled to go to trial in September 2021.

In December 2017, the Regional Court of Mannheim (Germany) determined that certain of Neo C&O (Europe)'s products infringed a German patent (European & UK patents #1435338 B1 ("**338**")), and an injunction prohibiting the sale of affected products into Germany was granted. Neo C&O (Europe) has appealed the decision. In January 2019, the Federal Patent Court in Munich revoked the German designation of patent 338. The Higher Regional Court of Karlsruhe granted Neo C&O (Europe)'s request for a stay of the injunction, subject to the requirement that Neo provide financial security. Rhodia has appealed the invalidation of patent 338 by the German Federal Patent Court and the appeal is pending.

In April 2018, the UK Court determined that certain of Neo C&O (Europe)'s products infringed the equivalent UK patent 338. Neo C&O (Europe) appealed the trial court judgment of infringement but in October of 2019 the judgment of infringement was affirmed. A trial on Rhodia's claim for damages in the UK is scheduled for January 2022.

On April 18, 2018, the Patent Reexamination Board of the State Intellectual Property Office of China ("**PRB**") ruled in favor of ZAMR, a Chinese subsidiary of Neo, by invalidating all claims associated with Chinese patent ZL 03817110.4, held by Rhodia Operations S.A.S., an affiliate of Brussels-based Solvay ("**Rhodia Operations**"). On May 23, 2018, the Intermediate People's Court of Zibo, China, dismissed the pending lawsuit by Rhodia Operations alleging infringement of Chinese patent ZL 03817110.4. Rhodia Operations has appealed the decisions of the PRB and the Intermediate People's Court of Zibo concerning Patent ZL 03817110.4.

On September 26, 2018, the PRB again ruled in favor of ZAMR by invalidating all product claims associated with patent ZL 200710146613.6, held by Daiichi Kigenso Kagaku Kogyo Co. ("**DKKK**"). The PRB upheld the validity of Claim 4, which is a method claim. On October 24, 2018, the Intermediate People's Court of Zibo, China, dismissed the pending lawsuit by DKKK and Rhodia Operations alleging infringement of patent ZL 200710146613.6. On November 22, 2019, the Shandong Higher Court reversed the ruling of the Zibo Intermediate Court and ordered that the case be transferred to the Ji'nan Intermediate Court for a trial on alleged infringement of Claim 4.

In January 2019, the PRB ruled in favor of ZAMR by invalidating all patent claims associated with patent ZL 97195463.1. On February 28, 2019, the Intermediate People's Court of Zibo, China, dismissed the pending lawsuit by Rhodia Operations and DKKK alleging infringement of patent ZL 97195463.1. Rhodia Operations and DKKK have appealed these decisions. In April, 2020, the Beijing IP Court upheld the PRB's ruling that invalidated all patent claims. Rhodia Operations has appealed this ruling to the Supreme People's Court.

On March 4, 2019, the PRB ruled in favor of ZAMR by invalidating all patent claims associated with patent ZL 02822106.0, which is equivalent to European Patent 338. Solvay Japan has appealed this decision.

Patent Reference	Jurisdiction of Claim	Specified Damages by Claimant
Chinese patent ZL 03817110.4	China	\$2.8 million
Chinese patent ZL 200710146613.6	China	\$2.1 million
European patent 0863846 B1	Germany	
European patent 0735984 B1	Germany	\$8.7 million
European patent 0605274 B1	Germany)
Chinese patent ZL 97195463.1	China	\$0.7 million
European & UK patents 1435338 B1	UK	Not specified
European & UK patents 1435338 B1	Germany	Not specified
European patent 0955267	Germany	Not specified
European patent 1527018	Germany	Not specified
European patent 2007682	Germany	Not specified
European patent 2523907	Germany	Not specified

The following infringement proceedings are ongoing. These proceedings are at various stages of court proceeding including being at pre-trial stage, within infringement proceedings, as well as invalidity proceedings.

Management has made an assessment, based on its interpretation of the claims as to the quantum of the appropriate provision for certain claims. Such a provision is based on management's best estimate, as damages are uncertain and are subject to judicial determination. Management's assessment, based on its interpretation of the claims, the limited facts available at this time and independent legal advice, is that for all other claims it is not probable that an outflow of resources will be required in settling these claims and no provision has been made. Future developments in these cases could cause management to change its assessment.

Management does not have sufficient information to comment on the quantum or methodology of the damages sought by the claimants including with respect to potential duplicity of the parts affected. Management's view on specified damages could be materially different than those proposed by the claimant in each case.

Neo intends to defend itself vigorously in all cases. In light of the inherent uncertainties in litigation there can be no assurance that the ultimate resolution of these matters will not significantly exceed the reserves currently accrued for those cases for which an estimate can be made. Losses in connection with any litigation for which management is not presently able to reasonably estimate any potential loss, or range of loss, could be material to Neo's results of operations and financial condition.

5. Non-IFRS Financial Measures

This MD&A makes reference to certain non-IFRS financial measures. These measures are not recognized measures under IFRS, do not have a standardized meaning prescribed by IFRS, and may not be comparable to similar measures presented by other companies. Rather, these measures are provided as additional information to complement IFRS financial measures by providing further understanding of Neo's results of operations from management's perspective. Neo's definitions of non-IFRS measures used in this MD&A may not be the same as the definitions for such measures used by other companies in their reporting. Non-IFRS measures have limitations as analytical tools and should not be considered in isolation nor as a substitute for analysis of Neo's financial information reported under IFRS. Neo uses non-IFRS financial measures, including "Adjusted EBITDA", "Adjusted EBITDA Margin", "Adjusted Net Income or Loss", "Adjusted OIBDA", "Adjusted OIBDA Margin", "EBITDA", "Adjusted Earnings per Share", "Free Cash Flow", "Free Cash Flow Conversion" and "OIBDA" to provide investors with supplemental measures of its base-line operating performance and to eliminate items that have less bearing on operating performance or operating conditions, thus highlighting trends in its core business that may not otherwise be apparent when relying solely on IFRS financial measures. Neo believes that securities analysts, investors and other interested parties frequently use non-IFRS financial measures in the evaluation of issuers. Neo's management also uses non-IFRS financial measures in order to facilitate operating performance comparisons from period to period. Neo defines such financial measures as follows:

"Adjusted EBITDA" is defined as EBITDA before equity income (loss) in associates, other income (expense), foreign exchange (gain) loss, share and value-based compensation, impairment of long-lived assets, and other non-recurring costs (recoveries);

"Adjusted EBITDA Margin" is defined as Adjusted EBITDA divided by revenue;

"Adjusted Net Income or Loss" is defined as net income or loss before foreign exchange (gain) loss, share and value-based compensation, impairment of long-lived assets, other non-recurring costs (recoveries), and non-recurring items included in other expense (income), net of the related tax effects;

"Adjusted OIBDA" is defined as OIBDA before share and value-based compensation, impairment of long-lived assets, and other non-recurring costs (recoveries);

"Adjusted OIBDA Margin" is defined as Adjusted OIBDA divided by revenue;

"EBITDA" is defined as net income (loss) before finance costs (income), net, income tax expense, depreciation and amortization included in cost of sales, and depreciation and amortization included in operating expenses;

"Adjusted Earnings or Loss per Share" is defined as Adjusted Net Income or Loss attributable to equity holders of Neo divided by the weighted average number of common shares outstanding;

"Free Cash Flow" is defined as Adjusted EBITDA less capital expenditures;

"Free Cash Flow Conversion" is defined as Free Cash Flow divided by Adjusted EBITDA; and

"OIBDA" is defined as operating income before depreciation and amortization.

Neo uses references to Adjusted OIBDA and Adjusted EBITDA interchangeably as the adjustments in each measure provides the same calculated outcome of operating performance. Management believes that the use of these adjustments (as defined in Adjusted EBITDA and Adjusted OIBDA) provides a more consistent measure of underlying operating performance, with comparability among periods that investors may find useful. The exclusion of certain adjustments does not imply that they are non-recurring.

The following tables illustrate the comparison of the Adjusted OIBDA for the three and six months ended June 30, 2020 and 2019:

(\$000s, except volume)	Three Months Ended June 30,					Six Mont Jun	hs Ended e 30,			
	2020	2019	Change		%	2020	2019	Change		%
Operating (loss) income .	\$ (64,993)	\$ 5,850	\$	(70,843)	(1,211%)	\$ (59,986)	\$ 22,089	\$	(82,075)	(371.6%)
Add back:										
Depreciation and amortization included in Costs of Sales	2,715	2,353		362		5,435	4,763		672	
Depreciation and amortization included in operating expenses	2,018	2,014		4		4,054	3,999		55	
OIBDA	(60,260)	10,217		(70,477)	(690%)	(50,497)	30,851		(81,348)	(263.7%)
Impairment of assets (1)	59,084	1,014		58,070		59,084	1,014		58,070	
Share and valued-based compensation ⁽²⁾	(153)	773		(926)		(271)	(1,426)		1,155	
Other non-recurring costs (recoveries) ⁽⁵⁾	2,520			2,520		2,520	(1,949)		4,469	
Adjusted OIBDA	\$ 1,191	\$ 12,004	\$	(10,813)	(90.1%)	\$ 10,836	\$ 28,490	\$	(17,654)	(62.0%)
Adjusted OIBDA margin	1.8%	11.8%				6.8%	13.5%			
Revenue	\$ 67,734 2,545	\$ 101,736 3,490	\$	(34,002) (945)	(33.4%) (27.1%)	\$ 158,431 5,848	\$ 210,266 7,097	\$	(51,835) (1,249)	(24.7%) (17.6%)

Notes:

- (1) The negative economic impacts of COVID-19 were determined to be an impairment indicator as of June 30, 2020 for all Neo's CGUs. In accordance with IAS 36 Impairment of Assets, the recoverable amount of Neo's CGUs was determined based on fair value less cost of disposal for the Magnequench segment and value in use for the C&O and Rare Metals segments. As a result of the impairment test, Neo recognized an impairment charge of \$59.1 million for the three and six months ended June 30, 2020, with \$35.1 million attributable to the C&O segment and \$24.0 million attributable to the Rare Metals segment. No impairment was recorded against the Magnequench segment. For the three and six months ended June 30, 2019, the \$1.0 million impairment in the Rare Metals segment represents impairment of property, plant and equipment and other assets related to the closure of NRM Utah that will not be utilized as a result of the closure.
- (2) Represents share and value-based compensation expense in respect of the Legacy Plan, the LTIP and the long-term value bonus plan, which has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Value-based compensation (recovery) of \$(320) and \$(213) are included in selling, general, and administration expenses for the three and six months ended June 30, 2020, respectively, expense/(recovery) of \$79 and \$(1,729) and for the three and six months ended June 30, 2019, respectively. Neo has removed both the share and value-based compensation expense from OIBDA to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.
- (3) These represents primarily legal, professional advisory fees and other transaction costs incurred/(recovered) with respect to non-operating capital structure related transactions and restructuring costs related to management team changes. Neo has removed these charges to provide comparability with historic periods.

Adjusted OIBDA was \$1.2 million or 1.8% of revenue for the three months ended June 30, 2020 compared to \$12.0 million or 11.8% of revenue for the corresponding period in 2019; a decrease of \$10.8 million or 90.1%. For the six months ended June 30, 2020, Adjusted OIBDA was \$10.8 million or 6.8% of revenue, compared to \$28.5 million or 13.5% of revenue for the six months ended June 30, 2019; a decrease of \$17.7 million or 62.0%.

Further commentary on the operating performance changes in each segment are included in the discussion under the heading "*Discussion and Analysis of Reportable Segments*" below.

Reconciliation of Net (Loss) Income to EBITDA, Adjusted EBITDA and Free Cash Flow:

(\$000s)		nths Ended 1e 30,	Six Months Ended June 30,				
	2020	2019	2020	2019			
Net (loss) income	\$(63,364)	\$ 2,293	\$(62,846)	\$ 14,520			
Add back (deduct):							
Finance cost, net	2,318	309	3,263	1,691			
Income tax (benefit) expense	(3,229)	2,360	(387)	5,195			
Depreciation and amortization included in Costs of Sales	2,715	2,353	5,435	4,763			
Depreciation and amortization included in operating expenses	2,018	2,014	4,054	3,999			
EBITDA	(59,542)	9,329	(50,481)	30,168			
Adjustments to EBITDA:							
Equity (income) loss in associates	(359)	19	(301)	(219)			
Other (income) expense ⁽¹⁾	(221)	468	(27)	594			
Foreign exchange (gain) loss ⁽²⁾	(138)	401	312	308			
Impairment of assets ⁽³⁾	59,084	1,014	59,084	1,014			
Share and value-based compensation recovery ⁽⁴⁾	(153)	773	(271)	(1,426)			
Other non-recurring costs (recoveries) ⁽⁵⁾	2,520		2,520	(1,949)			
Adjusted EBITDA	\$ 1,191	\$ 12,004	\$ 10,836	\$ 28,490			
Adjusted EBITDA Margins	1.8%	11.8%	6.8%	13.5%			
Less:							
Capital expenditures	1,527	1,973	3,029	4,638			
Free Cash Flow	\$ (336)	\$ 10,031	\$ 7,807	\$ 23,852			
Free Cash Flow Conversion ⁽⁶⁾	(28.2%)	83.6%	72.0%	83.7%			

Notes:

(1) Represents other expenses resulting from non-operational related activities. These costs and recoveries are not indicative of Neo's ongoing activities.

(2) Represents unrealized and realized foreign exchange losses (gains) that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

- (3) The negative economic impacts of COVID-19 were determined to be an impairment indicator as of June 30, 2020 for all Neo's CGUs. In accordance with IAS 36 Impairment of Assets, the recoverable amount of Neo's CGUs was determined based on fair value less cost of disposal for the Magnequench segment and value in use for the C&O and Rare Metals segments. As a result of the impairment test, Neo recognized an impairment charge of \$59.1 million for the three and six months ended June 30, 2020, with \$35.1 million attributable to the C&O segment and \$24.0 million attributable to the Rare Metals segment. No impairment was recorded against the Magnequench segment. For the three and six months ended June 30, 2019, the \$1.0 million impairment in the Rare Metals segment represents impairment of property, plant and equipment and other assets related to the closure of NRM Utah that will not be utilized as a result of the closure.
- (4) Represents share and value-based compensation expense in respect of the Legacy Plan, the LTIP and the long-term value bonus plan, which has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Value-based compensation (recovery) of \$(320) and \$(213) are included in selling, general, and administration expenses for the three and six months ended June 30,

2020, respectively, expense/(recovery) of \$79 and \$(1,729) and for the three and six months ended June 30, 2019, respectively. Neo has removed both the share and value-based compensation expense from EBITDA to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.

- (5) These represents primarily legal, professional advisory fees and other transaction costs incurred/(recovered) with respect to non-operating capital structure related transactions and restructuring costs related to management team changes. Neo has removed these charges to provide comparability with historic periods.
- (6) Calculated as Free Cash Flow divided by Adjusted EBITDA.

Reconciliation of Net (Loss)/Income to Adjusted Net Income or Loss:

(\$000s)	T	Three Mon June		Ended	Six Months Ended June 30,						
		2020		2019		2020		2019			
Net (loss) income	\$	(63,364)	\$	2,293	\$	(62,846)	\$	14,520			
Adjustments to net (loss) income:											
Foreign exchange (gain) loss ⁽¹⁾		(138)		401		312		308			
Impairment of assets ⁽²⁾		59,084		1,014		59,084		1,014			
Share and value-based compensation recovery ⁽³⁾		(153)		773		(271)		(1,426)			
Other non-recurring costs (recoveries) ⁽⁴⁾		2,520				2,520		(1,949)			
Other items included in other expense ⁽⁵⁾		(120)		756		_		756			
Tax impact of the above items		(3,407)		(3)		(3,508)		151			
Adjusted net (loss)/income	\$	(5,578)	\$	5,234	\$	(4,709)	\$	13,374			
Attributable to:											
Equity holders of Neo	\$	(5,417)	\$	5,031	\$	(4,703)	\$	13,191			
Non-controlling interest	\$	(161)	\$	203	\$	(6)	\$	183			
Weighted average number of common shares outstand	ling	:									
Basic	37	7,665,686	39	,200,803	37	7,702,492	39	,420,123			
Diluted	37	7,665,686	39	,346,274	37	7,702,492	39	,653,011			
Adjusted earnings or loss per share attributable to equ	uity I	holders of	Neos	:							
Basic	\$	(0.14)	\$	0.13	\$	(0.12)	\$	0.33			
Diluted	\$	(0.14)	\$	0.13	\$	(0.12)	\$	0.33			

Notes:

(1) Represents unrealized and realized foreign exchange losses (gains) that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

- (2) The negative economic impacts of COVID-19 were determined to be an impairment indicator as of June 30, 2020 for all Neo's CGUs. In accordance with IAS 36 Impairment of Assets, the recoverable amount of Neo's CGUs was determined based on fair value less cost of disposal for the Magnequench segment and value in use for the C&O and Rare Metals segments. As a result of the impairment test, Neo recognized an impairment charge of \$59.1 million for the three and six months ended June 30, 2020, with \$35.1 million attributable to the C&O segment and \$24.0 million attributable to the Rare Metals segment. No impairment was recorded against the Magnequench segment. For the three and six months ended June 30, 2019, the \$1.0 million impairment in the Rare Metals segment represents impairment of property, plant and equipment and other assets related to the closure of NRM Utah that will not be utilized as a result of the closure.
- (3) Represents share and value-based compensation expense in respect of the Legacy Plan, the LTIP and the long-term value bonus plan, which has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Value-based compensation (recovery) of \$(320) and \$(213) are included in selling, general, and administration expenses for the three and six months ended June 30, 2020, respectively, expense/(recovery) of \$79 and \$(1,729) and for the three and six months ended June 30, 2019, respectively. Neo has removed both the share and value-based compensation expense from net income to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.

- (4) These represents primarily legal, professional advisory fees and other transaction costs incurred/(recovered) with respect to non-operating capital structure related transactions and restructuring costs related to management team changes. Neo has removed these charges to provide comparability with historic periods.
- (5) Represents certain other transactions that Neo has removed from net income to provide comparability with historic periods.

6. Discussion and Analysis of Reportable Segments

The analysis of Neo's reportable segments, which follows the discussion of its consolidated results, presents operating results on a gross basis (i.e., before intercompany eliminations).

6.1 Magnequench

(\$000s, except volume)		Three Months Ended June 30,						Six Months Ended June 30,						
	2020		2019		Change		%		2020		2019	<u> </u>	hange	%
Operating income	\$	3,421	\$	6,164	\$	(2,743)	(44.5%)	\$	8,960	\$	15,645	\$	(6,685)	(42.7%)
Add back:														
Depreciation and amortization included in costs of sales		783		557		226			1,571		1,126		445	
Depreciation and amortization included in operating expenses		1,413		1,400		13			2,838		2,773		65	
OIBDA		5,617		8,121		(2,504)	(30.8%)		13,369		19,544		(6,175)	(31.6%)
Share and value-based compensation ⁽¹⁾		(52)		134		(186)			(89)		(360)		271	
Adjusted OIBDA	\$	5,565	\$	8,255	\$	(2,690)	(32.6%)	\$	13,280	\$	19,184	\$	(5,904)	(30.8%)
Adjusted OIBDA margin		18.4%		19.9%					19.3%		21.5%			
Revenue	\$	30,267 1,024	\$	41,473 1,367	\$	(11,206) (343)	(27.0%) (25.1%)	\$	68,793 2,295	\$	89,028 2,812	\$	(20,235) (517)	(22.7%) (18.4%)

Notes:

(1) Represents share and value-based compensation expense in respect of the Legacy Plan, the LTIP and the long-term value bonus plan, which has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Value-based compensation (recovery) of \$(108) and \$(72) are included in selling, general, and administration expenses for the three and six months ended June 30, 2020, respectively, expense/(recovery) of \$25 and \$(554) and for the three and six months ended June 30, 2019, respectively. Neo has removed both the share and value-based compensation expense from OIBDA to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.

For the three months ended June 30, 2020, revenue in the Magnequench segment was \$30.3 million, compared to \$41.5 million in the three months ended June 30, 2019; a decrease of \$11.2 million or 27.0%. For the six months ended June 30, 2020, revenue in the Magnequench segment was \$68.8 million, compared to \$89.0 million in the six months ended June 30, 2019; a decrease of \$20.2 million or 22.7%. Volume decreased to 1,024 tonnes compared to 1,367 tonnes in the three months ended June 30, 2019. For the six months ended June 30, 2020, volume decreased to 2,295 tonnes, compared to 2,812 tonnes in the same period in 2019; a decrease of 18.4%. Generally, the differing rates of change for revenue and volumes are primarily attributed to changes in commodity input material prices and, to a lesser extent, product mix. Magnequench has material pass-through agreements with the vast majority of its customers, which enables Magnequench to pass through changes in material input costs into selling price on a lagged basis.

Operating income for the three and six months ended June 30, 2020 was \$3.4 million and \$9.0 million, respectively, a decrease of \$2.7 million and \$6.7 million when compared to the three and six months ended June 30, 2019.

For the six months ended June 30, 2020, volumes in the Magnequench segment were adversely affected by extended customer shutdowns and slowdowns. The slowdown of volumes was seen across most applications, with some stability in the HDD segment and other factory automation applications. Magnequench continued to see growth in its magnet-making capacity and magnet sales, particularly with respect to sales from the magnet business purchased in 2019. The current magnet product line services laptop computers and consumer electronics and has been on a growth trajectory and gaining market share since the purchase by Magnequench. In addition, Magnequench benefited from various cost-cutting initiatives including reducing production shifts at the manufacturing locations.

For the three months ended June 30, 2020, Adjusted OIBDA was \$5.6 million, a decrease of \$2.7 million compared to the same period of the prior year. For the six months ended June 30, 2020, Adjusted OIBDA in the Magnequench segment was \$13.3 million, compared to \$19.2 million in the corresponding period in 2019; a decrease of \$5.9 million. Sales volumes, and their impact on margins and overhead absorption, were the largest contributor to the decrease in Adjusted OIBDA with other impacts from mix, price reductions, timing of certain operational activities, changes in foreign exchange rates, and timing of pricing pass-through mechanics on material inputs.

(\$000s, except volume)	Three Months Ended June 30,						Six Months Ended June 30,						
	2020		2019		Change	%		2020		2019	Change		%
Operating (loss) income . Add back:	\$ (37,748)	\$	3,696	\$	(41,444)	(1,121%)	\$	(34,774)	\$	10,322	\$	(45,096)	(437%)
Depreciation and amortization included in costs of sales	966		786		180			1,963		1,564		399	
Depreciation and amortization included in operating expenses	384		388		(4)			771		774		(3)	
OIBDA	(36,398)		4,870		(41,268)	(847%)		(32,040)		12,660		(44,700)	(353%)
Impairment of assets ⁽¹⁾ .	35,064		—		35,064			35,064		—		35,064	
Share and value-based compensation ⁽²⁾	(128)		54		(182)			(73)		(748)		675	
Adjusted OIBDA	\$ (1,462)	\$	4,924	\$	(6,386)	(130%)	\$	2,951	\$	11,912	\$	(8,961)	(75.2%)
Adjusted OIBDA margin	(5.8%)		12.8%					5.0%		14.5%			
Revenue	\$ 25,320 1,466	\$	38,534 2,053	\$	(13,214) (587)	(34.3%) (28.6%)	\$	58,858 3,401	\$	82,107 4,188	\$	(23,249) (787)	(28.3%) (18.8%)

6.2 Chemicals & Oxides

Notes:

(1) The negative economic impacts of COVID-19 were determined to be an impairment indicator as of June 30, 2020 for all Neo's CGUs. In accordance with IAS 36 Impairment of Assets, the recoverable amount of Neo's CGUs was determined based on fair value less cost of disposal for the Magnequench segment and value in use for the C&O and Rare Metals segments. As a result of the impairment test, Neo recognized an impairment charge of \$59.1 million for the three and six months ended June 30, 2020, with \$35.1 million attributable to the C&O segment.

(2) Represents share and value-based compensation expense in respect of the Legacy Plan, the LTIP and the long-term value bonus plan, which has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Value-based compensation (recovery) of \$(136) and \$(90) are included in selling, general, and administration expenses for the three and six months ended June 30, 2020, respectively, expense/(recovery) of \$34 and \$(740) and for the three and six months ended June 30, 2019, respectively. Neo has

removed both the share and value-based compensation expense from OIBDA to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.

For the three months ended June 30, 2020, revenue in the C&O segment was \$25.3 million, compared to \$38.5 million in the same period in 2019; a decrease of \$13.2 million or 34.3%. For the six months ended June 30, 2020, revenue in the C&O segment was \$58.9 million, compared to \$82.1 million in 2019; a decrease of \$23.2 million or 28.3%.

For the three and six months ended June 30, 2020, the C&O segment reported operating losses of \$37.7 million and \$34.8 million, respectively, compared to operating income of \$3.7 million and \$10.3 million, respectively, in the corresponding periods in 2019. The operating loss in the three and six months ended June 30, 2020 was mainly due to the \$35.1 million impairment charge recorded during the quarter.

Operationally, C&O was impacted by lower volumes and sales in the three and six month periods ended June 30, 2020, largely due to the COVID-19 pandemic, where most customers experienced slowdowns and shutdowns causing impacts throughout the supply chain. These slowdowns impacted all major serviceable end markets, including auto-catalysts, rare earth separations, and water treatment. Water treatment in particular had slowed down after growing sequentially for the past several years. C&O recorded a LCM (lower-of-cost-or-market) charge in the quarter related to COVID-19 and the view on timing of recovery of certain products and pricing considerations. C&O did not record any meaningful spot sales in the quarter whereas the prior year periods had significant spot sales. In the three month period ended June 30, 2020, C&O recorded an increase in its SG&A costs related to potential legal costs associated with on-going patent disputes (see "*Other Expenditures and Legal Contingencies*"). In addition, C&O implemented both cost-cutting initiatives and initiatives to reduce working capital including idling certain production facilities for a period of time.

C&O recorded an impairment charge of \$35.1 million for the three month ended June 30, 2020. The impairment charge, triggered, in part by the economic impacts of COVID-19, relates to reduced future cash flows and changes in discount rates causing the recoverable amount to be less than the carrying values of the segment in the financial statements. This non-cash impairment charge largely relates to non-productive assets whose value was adjusted as as result of purchase price accounting applied in September 2016, upon the emergence from bankruptcy of the predecessor company.

For the three months ended June 30, 2020, Adjusted OIBDA in the C&O segment was \$(1.5) million, compared to \$4.9 million in the same period in the prior year. For the six months ended June 30, 2020, Adjusted OIBDA was \$3.0 million, compared to \$11.9 million in 2019; a decrease of \$9.0 million or 75.2%.

6.3 Rare Metals

(\$000s, except volume)	Three Months Ended June 30,						Six Months Ended June 30,								
	2020		2019	0	Change	%		2020 2		2019		2019		hange	%
Operating (loss) income .	\$ (24,728)	\$	(371)	\$	(24,357)	6,565%	\$	(24,905)	\$	(214)	\$	(24,691)	11,538%		
Add back:															
Depreciation and amortization included in costs of sales	966		1,010		(44)			1,901		2,073		(172)			
Depreciation and amortization included in operating expenses	137		141		(4)			277		283		(6)			
OIBDA	(23,625)		780		(24,405)	(3,129%)		(22,727)		2,142		(24,869)	(1,161%)		
Impairment of assets (1)	24,020		1,014		23,006			24,020		1,014		23,006			
Share and value-based compensation ⁽¹⁾	(19)		19		(38)			(6)		(168)		162			
Adjusted OIBDA	\$ 376	\$	1,813	\$	(1,437)	(79.3%)	\$	1,287	\$	2,988	\$	(1,701)	(57%)		
Adjusted OIBDA margin	2.8%		7.2%					3.8%		6.4%					
Revenue	\$ 13,529 90	\$	25,027 154	\$	(11,498) (64)	(45.9%) (41.6%)	\$	33,979 232	\$	46,558 272	\$	(12,579) (40)	(27.0%) (14.7%)		

Notes:

- (1) The negative economic impacts of COVID-19 were determined to be an impairment indicator as of June 30, 2020 for all Neo's CGUs. In accordance with IAS 36 Impairment of Assets, the recoverable amount of Neo's CGUs was determined based on fair value less cost of disposal for the Magnequench segment and value in use for the C&O and Rare Metals segments. As a result of the impairment test, Neo recognized an impairment charge of \$59.1 million for the three and six months ended June 30, 2020, with \$24.0 million attributable to the Rare Metals segment. For the three and six months ended June 30, 2019, the \$1.0 million impairment in the Rare Metals segment represents impairment of property, plant and equipment and other assets related to the closure of NRM Utah that will not be utilized as a result of the closure.
- (2) Represents share and value-based compensation expense in respect of the Legacy Plan, the LTIP and the long-term value bonus plan, which has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Value-based compensation (recovery) of \$(23) and \$(16) are included in selling, general, and administration expenses for the three and six months ended June 30, 2020, respectively, expense/(recovery) of \$8 and \$(164) and for the three and six months ended June 30, 2019, respectively. Neo has removed both the share and value-based compensation expense from OIBDA to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.

For the three months ended June 30, 2020, revenue in the Rare Metals segment was \$13.5 million, compared to \$25.0 million in the same period in the prior year; a decrease of \$11.5 million or 45.9%. For the six months ended June 30, 2020, revenue in the Rare Metals segment was \$34.0 million, compared to \$46.6 million in the prior year; a decrease of \$12.6 million or 27.0%.

For the three and six months ended June 30, 2020, the Rare Metals segment reported operating losses of \$24.7 million and \$24.9 million, respectively, compared to operating losses of \$0.4 million and \$0.2 million, respectively, in the corresponding periods in 2019. The operating loss in the three and six months ended June 30, 2020 was mainly due to the \$24.0 million impairment charge recorded during the quarter.

Operationally, the Rare Metals segment was impacted by lower volumes and sales in the three and six month periods ended June 30, 2020 compared to the prior year comparable periods. These lower volumes and sales were largely a result of the impact of COVID-19 impacting customer demand and the related supply chains. This decline was across most of the Rare Metals end markets; with the largest end market being aerospace applications. Apart from lower volumes and sales, the Rare Metals segment did see improvements in product margins, primarily in its tantalum products, supplemented by cost-savings initiatives such as head count reductions, project cost savings, and temporarily idling some production centers.

Rare Metals recorded an impairment charge of \$24.0 million for the three month period ended June 30, 2020. The impairment charge, triggered in part by the economic impacts of COVID-19, relates to reduced future cash flows and changes in discount rates causing the recoverable amount to be less than the carrying values of the segment in the financial statements. This non-cash impairment charge largely relates to non-productive assets whose value was adjusted as a result of purchase price accounting applied in September 2016, upon the emergence from bankruptcy of the predecessor company.

For the three months ended June 30, 2020, Adjusted OIBDA in the Rare Metals segment was \$0.4 million, compared to \$1.8 million in the same period in 2019; a decrease of \$1.4 million or 79.3%. For the six months ended June 30, 2020, Adjusted OIBDA in the Rare Metals segment was \$1.3 million, compared to \$3.0 million in 2019; a decrease of \$1.7 million or 56.9%.

7. Summary of Consolidated Quarterly Results

(\$000s, except for earnings	20)20		20		2018			
per share information)	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	
Revenue	\$67,734	\$90,697	\$94,553	\$102,645	\$101,736	\$108,530	\$109,361	\$114,216	
Net (loss) income attributable to equity holders of Neo	(60,936)	363	4,639	3,944	2,090	12,247	4,285	8,669	
Basic EPS	(1.62)	0.01	0.12	0.10	0.05	0.31	0.11	0.22	
Diluted EPS	(1.62)	0.01	0.12	0.10	0.05	0.31	0.11	0.21	
Operating (loss) income Add back:	(64,993)	5,007	7,014	8,399	5,850	16,239	6,224	10,890	
Depreciation and amortization included in costs of sales	2,715	2,720	2,656	2,546	2,353	2,410	2,352	2,404	
Depreciation and amortization included in operating expenses	2,018	2,036	2,062	1,971	2,014	1,985	1,716	1,658	
OIBDA Add back:	(60,260)	9,763	11,732	12,916	10,217	20,634	10,292	14,952	
Share and value-based compensation ⁽¹⁾	(153)	(118)	443	153	773	(2,199)	782	1,780	
Impairment of assets ⁽²⁾	59,084	_	_	_	1,014	_	_	_	
Other non-recurring costs (recoveries) ⁽³⁾	2,520		305	(283)		(1,949)	2,161		
Adjusted OIBDA	\$ 1,191	\$ 9,645	\$12,480	\$12,786	\$12,004	\$16,486	\$13,235	\$16,732	
Adjusted OIBDA margin	1.8%	10.6%	13.2%	12.5%	11.8%	15.2%	12.1%	14.6%	

Notes:

- (1) Represents share and value-based compensation expense in respect of the Legacy Plan, the LTIP and the long-term value bonus plan, which has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Neo has removed both the share and value-based compensation expense from OIBDA to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.
- (2) The negative economic impacts of COVID-19 were determined to be an impairment indicator as of June 30, 2020 for all Neo's CGUs. In accordance with IAS 36 Impairment of Assets, the recoverable amount of Neo's CGUs was determined based on fair value less cost of

disposal for the Magnequench segment and value in use for the C&O and Rare Metals segments. As a result of the impairment test, Neo recognized an impairment charge of \$59.1 million for the three months ended June 30, 2020, with \$35.1 million attributable to the C&O segment and \$24.0 million attributable to the Rare Metals segment. No impairment was recorded against the Magnequench segment. For the three months ended June 30, 2019, the \$1.0 million impairment in the Rare Metals segment represents impairment of property, plant and equipment and other assets related to the closure of NRM Utah that will not be utilized as a result of the closure.

(3) These represents primarily legal, professional advisory fees and other transaction costs incurred/(recovered) with respect to non-operating capital structure related transactions and restructuring costs related to management team changes. Neo has removed these charges to provide comparability with historic periods.

8. Liquidity and Capital Resources

Six months ended June 30, 2020 compared to six months ended June 30, 2019:

	Six Months Ended June 30,							
(\$000s)		2020		2019				
Cash flow:								
Cash provided by operating activities	\$	8,441	\$	20,236				
Cash used in investing activities		(2,777)		(4,461)				
Cash used in financing activities		(11,372)		(17,471)				

Financial position - as at		e 30, 2020	December 31, 2019		
Cash and cash equivalents	\$	78,693	\$	84,735	
Restricted cash		3,898		4,185	
Property, plant and equipment		73,610		94,490	
Total assets		440,446		531,231	
Bank advances and other short-term debt				54	

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As of June 30, 2020, Neo had cash and cash equivalents of \$78.7 million plus restricted cash of \$3.9 million, compared to \$84.7 million plus \$4.2 million as at December 31, 2019. Neo paid \$5.5 million in dividends to its shareholders, \$3.5 million to its non-controlling interest, and purchased \$1.3 million of its shares under the Normal Course Issuer Bid program in the six months ended June 30, 2020. In addition, Neo has approximately \$6.2 million available under its credit facilities with no amount drawn. Neo's financial position and ability to generate cash from its operations in the short and long-term remain sound.

The primary cash inflows and outflows contributing to the change from December 31, 2019 were the following:

Inflows

- \$8.3 million cash from operations before net change in working capital; and
- \$5.7 million net change in working capital

Outflows

- \$5.5 million of dividends paid to shareholders;
- \$3.5 million of dividends paid to the non-controlling interest;
- \$3.0 million of other capital spending;
- \$1.3 million on the repurchase of Neo's common shares; and
- \$5.6 million of income taxes paid.

Cash Provided by Operating Activities

Net cash provided by operating activities was \$8.4 million during the six months ended June 30, 2020, compared to net cash provided by operating activities of \$20.2 million for the six months ended June 30, 2019. Lower cash flow from operating activities was primarily due to lower operating performance in the six months ended June 30, 2020.

The \$5.7 million net change in working capital for the six months ended June 30, 2020, was primarily attributable to the decrease in accounts receivable, inventories and prepaid expenses, offset by the decrease in accounts payable and other accrued charges. The decrease in inventory is primarily attributable to operational improvements focused on lowering inventory levels, particularly with a focus on the impact of COVID-19 on lower revenue.

Cash Used in Investing Activities

For the six months ended June 30, 2020, net cash used in investing activities was \$2.8 million, compared to \$4.5 million in the six months ended June 30, 2019. The cash used in investing activities was primarily related to capital projects performed at the Zibo, Tianjin and Silmet facilities. These capital projects included a combination of maintenance capital to assist with the continuing development and operations of Neo, growth capital to assist in adding new capacity or new products, and strategic capital tied to longer-term strategic planning initiatives.

Cash Used in Financing Activities

Net cash used in financing activities during the six months ended June 30, 2020 was \$11.4 million, compared to \$17.5 million in 2019. Neo distributed \$5.5 million in dividends to its shareholders and \$3.5 million to non-controlling interest partners and spent \$1.3 million on the repurchase of common shares and \$1.0 million in lease payments. In the six months ended June 30, 2019, Neo spent \$7.5 million on the repurchase of common shares, distributed \$5.7 million in dividends to its shareholders and \$0.7 million to non-controlling interest partners, repaid \$3.0 million of bank advances in Germany and spent \$0.5 million in lease payments.

(\$000s)

Cash and cash equivalents by Country as at	June 30, 2020		Dec	ember 31, 2019
China (including Hong Kong)	\$	26,236	\$	35,234
Estonia		3,963		6,569
United States		4,982		11,698
Canada		4,908		9,687
Japan		1,398		2,501
United Kingdom		2,841		4,546
Germany		4,232		3,587
Singapore		4,936		4,122
Barbados		13,342		1,481
Thailand		10,767		4,021
Cayman Islands		19		2
Other		1,069		1,287
Total cash and cash equivalents	\$	78,693	\$	84,735

Approximately \$8.2 million of cash on hand held by Neo's foreign operating subsidiaries relate to earnings that are considered indefinitely reinvested in these foreign subsidiaries. Although substantially all of Neo's cash and cash equivalents can be repatriated, a portion may be subject to withholding taxes under current tax laws. While some of Neo's subsidiaries are subject to local governmental restrictions on the flow of capital into and out of their jurisdictions (including in the form of cash dividends, loans or advances), these restrictions have not had a material impact on Neo's ability to meet its cash obligations. Therefore, Neo does not consider this to be a significant risk on its ability to meet ongoing commitments and fund operations.

In addition to cash on hand, the primary sources of liquidity for Neo's domestic and foreign subsidiaries are cash provided by operations and, in the case of the activities in China and Germany, borrowing under certain bank loans. From time to time, the sources of liquidity for Neo's operating subsidiaries may be supplemented by intercompany loans in the form of unsecured promissory notes. Neo's operating subsidiaries' liquidity generally is used to fund their working capital requirements, investments, capital expenditures and third-party debt service requirements.

9. Contractual Obligations

In the normal course of business, Neo is obligated to make future payments. These obligations represent contracts and other commitments that are known and non-cancellable.

	Payments Due by Period									
(\$000s)		1 year		2 - 3 years		4 - 5 years	The	reafter		Total
Accounts payable and other accrued charges		41,647				_				41,647
Derivative liability ⁽¹⁾		11,803								11,803
Provisions ⁽²⁾		1,949		3,260				_		5,209
Lease obligations ⁽³⁾		1,215		1,909		616		86		3,826
Other liabilities		119		1,629						1,748
Total	\$	56,733	\$	6,798	\$	616	\$	86	\$	64,233

Notes:

(1) Represents the fair value of the put option on shares of the remaining shareholder of Buss & Buss.

(2) Represents management's best estimate of the costs to be incurred by Neo for the disposal of the hazardous NORM currently being stored at the Silmet facility and JAMR facility.

(3) Represents the present value of Neo's lease obligations for office space, land and office equipment.

As at June 30, 2020, Neo had \$78.7 million of cash and cash equivalents and approximately \$3.9 million of restricted cash held as collateral against Letters of Credit and the Silmet NORM provision. Neo believes that the remainder of its cash, in addition to cash from operating activities, is available (or sufficient) to meet Neo's non-cancelable contractual obligations and other commercial commitments and the capital program for the next twelve months. Neo considers cash to be "available" to the extent it can be utilized in operating activities, for capital expenditures, for intercompany loans or for repatriation. Neo also maintains access to credit facilities and short-term borrowings for its working capital needs, capital expenditures, and general corporate purposes.

10. Normal Course Issuer Bid

On May 14, 2020, Neo announced that the TSX has accepted a notice filed by Neo of its intention to make a Normal Course Issuer Bid (the "**Bid**") for up to 1,883,637 of its issued and outstanding common shares. In connection with the Bid, Neo has entered into an automatic share purchase plan with its designated broker to allow for purchases of its shares (the "**Share Purchase Plan**"). The Share Purchase Plan is considered an "automatic plan" for purposes of applicable Canadian securities laws. Under the Share Purchase Plan, Neo's broker may purchase shares on any trading day during the Bid, including during self-imposed trading blackout periods. The price that Neo will pay for any shares purchased under the Bid will be the prevailing market price at the time of purchase. Any shares purchased by Neo will be canceled. The Share Purchase Plan will terminate on May 18, 2021. A previously announced normal course issuer bid expired on March 23, 2020.

For the three and six months ended June 30, 2020, Neo repurchased and canceled 49,700 and 175,900 shares for a total consideration of \$0.3 million and \$1.3 million, respectively. For the three and six months ended June 30, 2019, Neo repurchased and canceled 709,534 and 809,157 shares under a previously announced normal course issuer bid for a total consideration of \$6.6 million and \$7.5 million, respectively.

11. Subsequent Events

Dividends payable to equity holders of Neo

On August 7, 2020, the Board of Directors declared a quarterly dividend of Cdn \$0.10 per common share payable in cash on September 29, 2020, to common shareholders of record at the close of business on September 17, 2020.

Normal Course Issuer Bid

Between July 1 and August 6, 2020, Neo repurchased, for cancellation, 32,424 shares for a total consideration of \$0.2 million.

12. Off-Balance Sheet Arrangements

As of June 30, 2020, Neo's only off-balance sheet arrangements are purchase obligations.

13. Significant Management Judgment in Applying Accounting Policies

The preparation of financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenue and expenses. Actual results could differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. They are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. On adoption of IFRS 16, Neo has applied judgment to determine the lease term for some lease contracts in which it is a lessee that include renewal options.

For a discussion about the significant estimates used in determining the carrying value of inventory, deferred tax assets, useful lives of depreciable assets, provisions, impairment of tangible and intangible assets, defined benefit pension liability, fair value of financial instruments, share-based compensation and expected credit losses, please refer to the MD&A dated March 11, 2020. The estimates used in determining the impairment of tangible and intangible assets have been updated as disclosed in the unaudited interim condensed consolidated financial statements for the three and six month periods ended June 30, 2020. Neo cautions readers that the actual results could differ materially from those estimates and assumptions.

Given the magnitude and duration of the spread of the COVID-19 pandemic and the negative impact it already had on the global economy and financial markets, Neo has reviewed the estimates, judgments and assumptions used in the preparation of its financial statements, including with respect to the determination of whether indicators of impairment exist for its assets and cash generating units, the measurement of its expected credit losses, the net realizable value of inventory, and the fair value of the derivative liability.

For the three and six months ended June 30, 2020, Neo has made revisions to estimates, judgments and assumptions, mainly for impairment testing of goodwill and other non-financial assets. Revisions may be required in future periods if the negative impacts of COVID-19 are greater than currently anticipated. The COVID-19 pandemic, the measures taken by governments of countries affected and the resulting economic impact may adversely affect Neo's financial performance, cash flows, and financial position, as well as that of its customers in future periods.

The outbreak of COVID-19 has caused significant deterioration in the economic conditions and a reduction in market capitalization for Neo and many other listed and non-listed companies globally. This was considered to be an impairment indicator for all CGUs as of June 30, 2020, requiring an impairment test to be performed in accordance with IAS 36 Impairment of Assets. The recoverable amounts for the CGUs was determined based on fair value less cost to sell for the Magnequench segment and value in use for the C&O and the Rare Metals

segments. The calculations used a detailed five-year cash flow projection based on financial forecasts approved by management. Cash flows beyond the five-year period are extrapolated using the estimated annual average growth rates stated below. The forecasted cash flows were then discounted to calculate the present value of the cash flows expected to be derived from each CGU. This approach involves estimates and assumptions about revenue growth rates, operating margins, tax rates and discount rates. When a fair value less cost of disposal calculation was used, the fair value measurement was categorized as a Level 3 fair value based on significant unobservable inputs in the valuation technique used.

- 1. The annual average revenue growth rate is determined based on management's past experience in the industry, and ranged from 0.2% to 4.3% based on Neo's five-year financial plan. The cash flow forecasts at the end of the planning period were extrapolated using estimated long-term growth rates in the range of 1.4% to 4.0%.
- 2. The discount rate is determined in order to calculate the present value of the projected cash flows of the CGUs. A first indication for an appropriate asset-specific discount rate is the weighted average cost of capital ("WACC") of the business. The WACC is adjusted to reflect the specific risk profile of the respective CGUs. Neo has derived the WACC based on capital market data which involves separate analysis of the cost of equity and cost of debt, and taking into consideration the market risk premium related to each CGU. The discount rate ranged from 10.8% to 13.1% for Neo's CGUs at June 30, 2020 and 10.6% to 12.7% at December 31, 2019.

As a result of testing performed, the recoverable amount exceeded the carrying amount of the Magnequench segment. For the C&O and the Rare Metals segments, the carrying amount exceeded the recoverable amount by \$35.1 million and \$24.0 million respectively.

14. Related Party Transactions and Balances

Neo's related parties are its joint venture partners, associates, directors and executive officers.

Neo's related party transactions were made on terms equivalent to those that prevail in arm's length transactions. Unless otherwise stated, none of the transactions incorporate special terms and conditions and no guarantees were given or received. Outstanding balances are usually settled in cash.

Transactions with associates

Neo holds a 33% investment in Toda Magnequench Magnetic Materials Co. Ltd. ("**TMT**"), which produces rare earth magnetic compounds with Magnequench Powders supplied by Magnequench's Tianjin facility in its normal course of business. Magnequench's Tianjin facility will then purchase these compounds back from TMT.

Neo holds a 25% ownership interest in Ganzhou Keli Rare Earth New Material Co., Ltd. ("Keli"), a company which converts rare earth oxides into metals for use in Magnequench Powders.

Neo also holds a 20% ownership interest in GQD Special Materials (Thailand) Co., Ltd. ("GQD"), a company which converts rare earth oxides into metals for use in Magnequench Powders.

On occasion, MQTJ will supply Magnequench Powders to TMT to produce rare earth magnetic compounds. MQTJ will then purchase these compounds back from TMT in its normal course of business. Keli and GQD process rare earth oxides into metals for inclusion in Magnequench Powders.

For the three and six months ended June 30, 2020, Neo purchased \$0.2 million and \$0.6 million worth of compounds from TMT, purchased metals and received services from Keli amounting to \$6.2 million and \$14.7 million, and received services from GQD amounting to \$0.4 million and \$1.1 million, respectively.

For the three and six months ended June 30, 2020, Neo sold Magnequench Powders and performed services, respectively, amounting to \$0.9 million and \$1.6 million to TMT, and sold oxides to Keli amounting to \$0.2 million.

For the three and six months ended June 30, 2019, Neo purchased \$0.4 million and \$0.8 million worth of compounds from TMT, purchased metals and received services from Keli amounting to \$9.2 million and \$19.1 million, and received services from GQD amounting to \$0.2 million and \$0.5 million, respectively.

For the three and six months ended June 30, 2019, Neo sold Magnequench Powders and performed services, respectively, amounting to \$0.9 million and \$2.1 million to TMT, and sold oxides to Keli amounting to \$1.2 million.

Transactions with joint venture partners

Neo, through its sales company in Japan, Neo Japan Inc., has occasionally purchased Gallium from Beijing Jiya Semiconductor Material Co., Ltd. ("**Beijing Jiya**") for resale to third party customers. No purchases were made in the three and six months ended June 30, 2020 and 2019.

Neo also has occasionally purchased and sold products from and to Ganzhou Qian Dong Rare Earth Group Co. Ltd. ("**Qian Dong**") and Toda Kogyo Corp. ("**Toda**"). For the three and six months ended June 30, 2020, there were no purchases from Qian Dong. Sales to Toda for the three and six months ended June 30, 2020 were \$0.1 million and \$0.2 million, respectively.

For the three and six months ended June 30, 2019, purchases from Qian Dong were nominal and \$0.3 million, respectively. Sales to Toda for the three and six months ended June 30, 2019, were \$0.2 million and \$0.3 million, respectively.

Transactions with other related parties

Neo, through one of its subsidiaries in China, Magnequench Magnetics (Chu Zhou) Co., Ltd. ("**MQCZ**"), has occasionally sold products to Atatsu Co., Ltd. ("**Atatsu**") for resale to third party customers. Atatsu is controlled by members of MQCZ's key management personnel. For the six months ended June 30, 2020, sales to Atatsu were \$0.1 million.

Transactions between Neo and its related parties are summarized in the table below:

	Three Months Ended June 30,			Six Months Ended June 30,				
		2020 2019		2019		2020	2019	
Sale of goods and services to related parties	\$	1,240	\$	2,324	\$	2,130	\$	3,584
Purchase of goods and services from related parties		6,807		9,906		16,448		20,670

(\$000s)	Jun	e 30, 2020	December 31, 2019		
Trade balances:					
from related parties	\$	447	\$	348	
due to related parties		(2,154)		(5,215)	
Total	\$	(1,707)	\$	(4,867)	

Directors and Key Management Compensation

Key management personnel consist of those persons having authority and responsibility for planning, directing and controlling the activities of Neo, directly or indirectly. Key management personnel include Neo's executive officers, vice-presidents and members of its board of directors. Neo's key management compensation expenses include short-term benefits and share-based compensation expenses.

Neo's short-term employee benefits are as follows:

	Т	hree Moi Jun	nths H e 30,	Ended	Six Months Ended June 30,				
		2020		2019		2020		2019	
Directors	\$	99	\$	70	\$	196	\$	141	
Key Executive Management		3,050		973		3,954		1,871	
Total	\$	3,149	\$	1,043	\$	4,150	\$	2,012	

Neo's share-based compensation expenses are as follows:

	Three Months Ended June 30,			Six Months Ended Jun 30,				
	2020		2019		2020		2019	
Directors	\$	126	\$	353	\$	(139)	\$	277
Key Executive Management		39		330		73		30
Total	\$	165	\$	683	\$	(66)	\$	307

For the three and six months ended June 30, 2020, Neo recognized an expense of \$2.1 million associated with the departure of a former member of Neo's executive management team.

In the first quarter of 2019, there was a revision of the vesting period from the previous estimate for Options and RSUs pursuant to the termination of the Luxfer Transaction. Neo subsequently revised and adjusted the recognized share-based compensation expense on a cumulative basis, which resulted in a recovery of share-based compensation expense being recorded in the unaudited interim condensed consolidated statements of profit or loss in the first quarter of 2019.

15. Financial Instruments and Risk Management

The following table presents financial assets and liabilities measured at fair value in the unaudited interim condensed consolidated statements of financial position in accordance with the fair value hierarchy. It does not include financial assets and liabilities not measured at fair value if the carrying amount is a reasonable approximation of fair value. This hierarchy groups financial assets and liabilities into three levels based on the significance of inputs used in measuring the fair value of the financial assets and liabilities. The fair value hierarchy has the following levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The level in which the financial asset or liability is classified is determined based on the lowest level of significant input to the fair value measurement. The financial assets and liabilities measured at fair value in the unaudited interim condensed consolidated statements of financial position as at June 30, 2020, are grouped into the fair value hierarchy as follows:

(\$000s)	Level 1		Level 2	 Level 3
Financial Liabilities:				
Put option issued to non-controlling interest of Buss & Buss	\$ -	- \$	_	\$ 11,803

Neo's derivative liability classified in Level 3 uses the discounted cash flow method to determine the fair value based on significant inputs that are not based on observable market data.

Changing inputs to the Level 3 valuations to reasonably possible alternative assumptions would not significantly change amounts recognized in net income, total assets, total liabilities or total equity.

There have been no transfers between levels for the period ended June 30, 2020.

Neo is exposed to a number of risks in the normal course of business that have the potential to affect its performance. These risk factors include commodity price risk, foreign currency risk, credit risk and liquidity risk.

Commodity price risk

A portion of Neo's current business is conducted in the spot market; therefore, prices can vary with the transaction and individual bids received. Neo's products are primarily marketed to manufacturers as component materials. Prices will vary based on the demand for the end products being produced with the raw materials Neo processes.

Neo's sales and profitability are determined principally by the pricing of the advanced industrial materials it produces, and, to a lesser extent, by the price of natural gas and other supplies used in its production process. The prices of the rare earth products are influenced by the price and demand of the end products that Neo's products support, including automotive, electronics and clean energy technologies. A significant decrease in the global demand for these products may have a material adverse effect on Neo's business. Neo does not have hedging contracts for revenue and costs in place.

Neo's costs and capital investments are subject to market movements in other commodities such as natural gas and chemicals. Neo may enter into derivative contracts for a portion of the expected usage of these products, but it does not currently have any derivative contracts on these commodities, and it does not currently anticipate entering into derivative agreements on commodities.

Foreign currency risk

Neo is exposed to fluctuations of the U.S. dollar against the functional currencies of its foreign subsidiaries, including the Euro, the Canadian dollar, the Renminbi, the Thai baht and the Japanese Yen, when Neo translates its foreign subsidiaries' financial statements into U.S. dollars for inclusion in its consolidated financial statements. Cumulative translation adjustments are recorded in accumulated other comprehensive income (loss) and a separate component of equity. Any increase (decrease) in the value of the U.S. dollar against those foreign currencies results in unrealized foreign currency translation losses (gains) with respect to assets acquired in, liabilities assumed from, intercompany balances with and results of operations from the foreign subsidiaries. Therefore, Neo may experience a negative impact on its comprehensive income (loss) and stockholders' equity with respect to its holdings in those subsidiaries as a result of foreign currency translation. Neo generally does not hedge against the risk that it may incur non-cash losses upon the translation of the financial statements of its foreign subsidiaries into U.S. dollars.

Credit risk

Credit risk refers to the possibility that a customer or counterparty will fail to fulfill its obligations under a contract and as a result, create a financial loss for Neo. Neo has a credit policy that defines standard credit practice. This policy dictates that all new customer accounts are reviewed prior to approval and establishes the maximum amount of credit exposure per customer. Credit worthiness and financial well-being of the customer is monitored on an ongoing basis.

Under IFRS 9, Neo establishes a loss allowance using the expected credit loss impairment model; therefore, the carrying amount of accounts receivable generally represents the maximum credit exposure. As at June 30, 2020, the loss allowance was approximately \$0.2 million. The estimated credit losses is included in selling, general and administrative expenses in the unaudited interim condensed consolidated statements of profit or loss and is net of any recoveries that were provided for in prior periods.

Counterparties to financial instruments may expose Neo to credit losses in the event of non-performance. Counterparties for derivative and cash transactions are limited to high credit quality financial institutions, which are monitored on an ongoing basis. Counterparty credit assessments are based on the financial health of the institutions and their credit ratings from external agencies. As at June 30, 2020, Neo does not anticipate non-performance that would materially impact Neo's financial statements.

Liquidity risk

Neo is exposed to the possibility that it may not be able to meet its financial obligations as they fall due. Neo manages liquidity risk by continuously monitoring actual and projected cash flows, taking into account its sales and receipts and matching the maturity profile of financial assets and liabilities. Neo continues to maintain sufficient cash and certain credit facilities which can be drawn upon to meet its operating and capital expenditure obligations as needed. The Board reviews and approves the annual operating and capital budgets, as well as any material transactions out of the ordinary course of business, including proposals on acquisition and other major investments.

16. Recent Accounting Pronouncements

16.1 Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)

On January 23, 2020, the IASB issued amendments to IAS 1 Presentation of Financial Statements to clarify the requirements for classifying liabilities as current or non-current. More specifically:

- the amendments specify that the conditions which exist at the end of the reporting period are those which will be used to determine if a right to defer settlement of a liability exists,
- the amendments clarify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability; and
- the amendments clarify the situations that are considered settlement of a liability.

The new guidance will be effective for annual periods starting on or after January 1, 2022 and to be applied retrospectively, with earlier application permitted.

16.2 Onerous Contracts - Costs of Fulfilling a Contract (Amendments to IAS 37)

On May 14, 2020, the IASB issued amendments to IAS 37 Onerous Contracts - Cost of Fulfilling a Contract to specify that the 'cost of fulfilling' a contract comprise both:

- incremental costs of fulfilling that contract, for example direct labour and materials; and
- an allocation of other costs that relate directly to fulfilling contracts, for example the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract.

The amendments are effective for annual periods beginning on or after January 1, 2022 and apply to contracts existing at the date when the amendments are first applied. Early adoption is permitted.

16.3 COVID-19-Related Rent Concessions (Amendment to IFRS 16)

On May 28, 2020, the IASB issued amendments to IFRS 16, COVID-19-Related Rent Concessions to

- provide lessees with an exemption from assessing whether a COVID-19-related rent concession is a lease modification;
- require lessees that apply the exemption to account for COVID-19-related rent concessions as if they were not lease modifications;
- require lessees that apply the exemption to disclose that fact; and
- require lessees to apply the exemption retrospectively in accordance with IAS 8, but not require them to restate prior period figures.

The amendment is effective for annual reporting periods beginning on or after June 1, 2020. Earlier application is permitted, including in financial statements not yet authorized for issue at May 28, 2020. The amendment is also available for interim reports.

Neo does not anticipate that any of these amendments will have a material impact on its consolidated financial statements.

17. Internal Control Over Financial Reporting and Disclosure Controls and Procedures

Disclosure controls and procedures

Neo's Chief Executive Officer ("**CEO**") and Chief Financial Officer ("**CFO**") are responsible for establishing and maintaining disclosure controls and procedures for Neo. Neo maintains a set of disclosure controls and procedures designed to provide reasonable assurance that information required to be publicly disclosed is recorded, processed, summarized and reported on a timely basis. The CEO and CFO have evaluated the design and operating effectiveness of Neo's disclosure controls and procedures ("**DC&P**") as at June 30, 2020 and based on the evaluation, the CEO and CFO have concluded that the DC&P were effective.

Internal controls over financial reporting

Neo's internal controls over financial reporting ("ICFR") are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Neo's management is responsible for establishing and maintaining adequate ICFR for Neo. National Instrument 52-109 of the Canadian Securities Administrators requires the CEO and CFO to certify that they are responsible for establishing and maintaining ICFR for Neo and that those internal controls have been designed and are effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS. The CEO and CFO are also responsible for disclosing any changes to Neo's internal controls during the most recent period that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting. There have been no material changes during the quarter ended June 30, 2020. Neo's management, under the supervision of the CEO and CFO, has evaluated the design and operating effectiveness of Neo's ICFR based on the Internal Control - Integrated Framework issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission. As at June 30, 2020, management assessed that Neo's ICFR were effective.

In designing such controls, management, including the CEO and CFO, recognized that due to inherent limitations, any controls, no matter how well designed and operating effectively, can provide only reasonable assurance of achieving the desired control objectives and may not prevent or detect all errors and fraud with respect to the financial statement preparation and presentation. Additionally, management is required to use judgment in evaluating controls and procedures.

On August 26, 2019, Neo's newly formed wholly owned subsidiary, MQCZ had acquired the assets of SAMAG. As of the date of this report, Neo management has not formally documented and evaluated the new entity's internal controls over financial reporting, as Neo is exempt for the first year of acquisition under Part 3.3 of National Instrument 52 - 109. Therefore, management has excluded from their scope a review of the controls, policies and procedures of MQCZ in relation to its certification of Interim Filings, FORM 52-109F2, paragraph 5(b), for the six months ended June 30, 2020. Management expects to complete its formal documentation and evaluation of both the design and operating effectiveness of internal controls over financial reporting of MQCZ by September 30, 2020.

18. Business Risks and Uncertainties

Neo's risk factors are substantially unchanged from and should be read in conjunction with Neo's MD&A dated March 11, 2020 and Neo's 2019 Annual Information Form ("AIF").

19. Outstanding Shares Data

Class of Equity Security	Numbers Outstanding
Common Shares	37,623,056
Stock Options*	1,158,712
Restricted Share Units & Performance Stock Units	1,018,847

*Each stock option can be exercised to purchase one common share.

The number of common shares outstanding as at August 6, 2020 is 37,616,689.

20. Additional Information

Additional information is included in Neo's AIF available on Neo's website at www.neomaterials.com and on SEDAR at www.sedar.com.