

March 23, 2023

LARGO INC.

(NasdaqGS: LGO, TSX: LGO)

Based in Toronto, Ontario, Largo is a dual-listed mining and battery energy storage system company that we view as among the world's leading high-quality and low-cost vanadium suppliers, sourced from its Maracás Menchen Mine in Brazil. Recently, the Company established a U.S.-based clean energy unit that develops and sells vanadium-based electrical energy storage battery systems to support the global deployment of long duration, renewable energy solutions. Largo has also established a separate public entity that is designed to lower the costs of Largo's battery customers, while also giving investors direct exposure to vanadium, which never existed before.

COMPANY HIGHLIGHTS

- * LGO: Serving Global Vanadium and Renewable Energy Markets
- * Largo is among the lowest cost producers of naturally occurring element Vanadium, a key input in steel construction and used in industries including aerospace, chemicals and renewable energy. We expect vanadium demand to exceed supply for the foreseeable future, which should support sustained higher prices above the commodity's historical average, with premium, high purity products used in non-steel markets expected to support robust cash flow and profitability for the company.
- * In our view, the company's Maracás Menchen Mine in Brazil is poised to improve yield and efficiency in the coming years, as Largo moves past operational challenges that dampened 2022 results, including a change in mining contractors and higher than average rainfall that resulted in atypical operational downtime. We are encouraged by Largo's decision to advance several planned maintenance projects, including the upgrading of its pumping system, that were performed during the down period.
- * Beginning in 2024, we expect results to benefit from the production of ilmenite, which is a by-product of its existing vanadium production, and should incur

(continued on next page)

KEY STATISTICS

Key Stock Statistics

Recent price (3/21/23)	\$4.86
Fair Value Estimate	\$9.00
52 week high/low	\$13.96 - \$4.75
Shares outstanding (M)	64.0
Market cap (M)	\$311.0
Dividend	NA
Yield	NA

Sector Overview

Sector	Materials
Sector % of S&P 500	2.8%

Financials (\$M, as of 12/31/22)

Cash & Mkt Securities	54.5
Debt	40.0
Working Capital (\$M)	115.2
Current Ratio	4.0
Total Debt/Equity (%)	15.3
Payout Ratio (%)	NA
Gross Revenue (M) TTM	229.3
Net Income (M) TTM	NM
Net Margin	NM

Risk

Beta	1.64
Inst. ownership	23%

Valuation

P/E forward EPS	162.0
Price/Sales (TTM)	1.4
Price/Book	1.2

Top Holders

Arias Resource Capital Management LP
 West Family Investments Inc.
 Grantham Mayo Van Otterloo & Co. LLC

Management

Interim CEO	Mr. Daniel Tellechea
CFO	Mr. Ernest Cleave
VP, Commercial (LGO), Pres/CEO (LPV)	Mr. Paul Vollant
Company website	https://largoinc.com

PRICE CHART



COMPANY SPONSORED REPORT. SEE LAST PAGE FOR DISCLOSURES.

modest incremental production costs. We expect the ilmenite plant to be commissioned around the middle of 2023. We also see potential for Largo to produce another by-product, titanium, though this project has been delayed, as Largo works to finance it. Still, we favorably view a late 2021 technical report on the site that suggested more than 20 years of remaining mine life for the Brazil operation, including these additional revenue sources, with a projected NPV of more than \$2 billion that compares favorably to the current market capitalization of approximately \$310 million.

- * We also view positively Largo's foresight to diversify its business to capitalize on long-term growth trends. In 2020, the company acquired 12 patent assets that provided entry into the nascent long duration vanadium battery (VRFB) storage market, which we see benefiting from global economic shifts towards a lower carbon footprint. Largo Clean Energy's VCHARGE VRFBs offer an efficient, safe system that is fully recyclable at the end of its expected more-than-25-year lifetime. Over time, we expect Largo Physical Vanadium, a partially owned but separately listed entity on the TSX Venture Exchange that will own the vanadium element to be used in these battery projects, to lower the upfront capex of that battery system by 40%-50%.
- * Although we see Largo's diversification into the renewable energy space requiring capital investment and adding an element of risk to Largo's investment thesis, we view the outlook for sustained long-term demand for vanadium and pricing strength in a more normalized, post-COVID-19 world as not fully valued by investors.
- * As of December 31, 2022, Largo had \$54.5 million in cash, and \$115.2 million in working capital. The company has entered into new debt agreements totaling \$40 million, which we anticipate will enable it to weather near-term operational challenges and internally fund projects including the ilmenite production plant that we expect to begin contributing to revenues and EBITDA by 2024.
- * Largo's stock declined 42% in 2022, and we think its current valuation does not adequately reflect the company's strong underlying fundamentals. Based on our EV/NPV analysis, we arrive at a fair value estimate of \$9, well above its current price near \$5.

INVESTMENT THESIS

Toronto-based Largo Inc., is among the world's lowest cost producers and leading high-quality suppliers of Vanadium, a naturally

occurring element primarily used as an alloy to strengthen steel while reducing its required weight. Vanadium enhanced steels are primarily used for reinforcing steel bars ("rebar"), and in automobiles and transport infrastructure. Largo's VPURE™ and premium VPURE+™ products are sourced from the Company's Maracás Menchen Mine in Brazil, which commenced operations in 2014.

Vanadium use in steel applications accounts for more than 90% of its global consumption. The balance is used for high quality aerospace master alloys, chemical catalysts and other specialty applications, such as renewable energy and use in vanadium redox flow batteries (VFRB). Among its key attributes, Vanadium is harder than most metals, retains its malleability, is corrosion-resistant, and has high melting and boiling points.

We estimate that the global market for V2O5 vanadium is a modest 205,000 tons in annual production. As such, vanadium is a lesser known and speculated commodity than many other precious metals. Nearly 70% of globally milled vanadium production originates in China and Russia, as a by-product of steel manufacturing, and is thus not largely tied to commodity supply dynamics. Approximately 18%-20% of its production comes from miners for whom vanadium is the primary commodity produced, including Largo and peers Glencore, a diversified firm that operates globally, and Bushveld Minerals, which mines in South Africa. The balance of the market is tied to various recycling enterprises.

Largo's annual V2O5 production capacity is approximately 12,000 - 13,000 tons, and it plans to expand capacity to approximately 16,000 tons by 2030 based on its latest NI 43-101 technical report, issued in late 2021. Current production represents approximately 6 - 7% of the global market supply. However, while demand for steel may be volatile given its reliance on China manufacturing and the potential for economic recessions globally, we see sustained deficits in vanadium supply through the end of this decade, as battery demand is expected to absorb a growing portion of the global supply.

We are encouraged by the recent strengthening of vanadium demand, which we attribute to robust demand from the aerospace industry and new VRFB deployments, particularly in China. Additionally, we note that vanadium use in emerging economies such as India could represent an additional demand driver for the traditional use of vanadium in steel, as more countries raise their "rebar" standards, similar to China's undertaking in 2018.

Although the aerospace industry was severely impacted by the COVID-19 pandemic, we anticipate a gradual recovery in demand over the coming years. Moreover, we expect new applications in the long duration energy storage industry, which demands high

(continued on next page)

PEER COMPARISON

Company	Ticker	Recent Price (\$)	52-Week High (\$)	52-Week Low (\$)	Mkt. Cap (\$ML)	1-yr Price Change (%)	1-yr Rev Growth (%)	1 YR EPS Growth (%)	P/E Ratio	Beta	Yield (%)
LARGO INC.	NASDAQ: LGO	4.86	13.96	4.75	311	-61	16	NM	NM	1.64	NA
GLENCORE PLC	LSE: GLEN	4.52*	5.85*	3.95*	56710*	-10	26	NM	4.2	1.28	8.0
ADVANCED METALLURGICAL GROUP N.V.	ENXTAM:AMG	34.66**	42.32**	21.40**	1107**	-9	36	1202	6.5	1.88	2.4
BUSHVELD MINERALS LTD	AIM: BMN	0.04*	0.13*	0.04*	56*	-65	45	NM	NM	1.23	NA

* Stock Statistics in British Pound (GBP)
** Stock Statistics in Euros

purity vanadium content and currently represents less than 5% of existing consumption, to drive incremental demand in the coming years.

Importantly, Largo and Glencore are the only two large-scale producers that can supply high purity vanadium. While standard grade vanadium is typically used in steel, high purity vanadium can supply premium markets, including aerospace and chemicals. In our view, this is underappreciated by investors, as we expect Largo to seek to optimize its product mix towards markets where it can leverage its high-grade product at a premium price that can range from \$1.00-\$1.50 per pound above the spot rate. We note that as vanadium prices increase, steelmakers can substitute niobium for vanadium in standard applications, where quality is less of an issue for the end-user. Under such a scenario, we would expect Largo to benefit from the scarcity value of its premium-grade vanadium.

In addition, we see few new sources of primary vanadium production coming online over the next few years, as many potential market entrants remain underfinanced. We note that once a project is financed, it usually takes four to five years of development before commissioning and production.

Historically, Largo's cash flows have been closely tied to vanadium commodity prices, which has historically traded around \$7 per pound, but have ranged between \$5 and \$30 since 2018, and more recently, close to \$11 per pound. During 2018, Largo achieved operating cash flows above \$300 million, well above historical averages, which enabled the company to repay all of its debt at that time. The company should also be able to weather downturns in vanadium prices due to its low-cost profile, which we estimate to be approximately \$3.00-3.50 per pound. However, we note that 2022 results exceeded these levels due to increasing inflationary pressures on key consumables and several operational challenges that we expect to continue into 2023, but be transient in nature.

Since commencing operations in 2014, Largo's mining activities have supported a profitable business. Upon the expiration of an offtake agreement with Glencore in 2020, Largo established its own sales and trading channel for its products. The plant is currently operating at a production capacity level of approximately 12,000 – 13,000 tons annually, and has achieved more than 80% recovery of identified resource at a steady state.

Largo has identified plans to increase its production to 16,000 tons by 2030, as it expands into two other on-site deposits. As such, we view the company as well positioned to generate solid cash flows, given favorable market characteristics from a post-pandemic recovery in both demand and vanadium pricing, and its prospects for expanded production accompanied by increased demand from additional markets.

The company is also developing additional potential revenue streams from the same mine deposit. It plans to sell ilmenite concentrate and, longer-term, titanium pigment that are sourced from current mining operations. Processing these by-products will require only modest incremental production costs, thus likely improving the site's operating margin profile over time.

The ilmenite plant is fully funded and is designed to produce initially 150,000 tons annually for sale beginning in the second half of 2023. Longer-term, the ilmenite is planned for use to enhance the product profile of the titanium pigment. To that end, Largo's

recent NI 43-101 technical report outlines plans to commence additional expansion to reach a capacity of 425,000 tons by 2029. Titanium production is expected to be 30,000 tons, expanding to 120,000 tons at full capacity. In our view, Largo would likely be able to sell titanium well above its production costs, which should further enhance mining margins over time. That said, Largo will require additional capital to finance the titanium project, and recently announced it would postpone plans to develop the project's plant until adequate funding is secured.

In October 2021, the company announced the results of a pre-feasibility study technical report that confirmed the mine as one of the world's highest-grade vanadium deposits, with at least 11 years of life estimated at the primary Campbell Pit before depletion. The report identified two other deposits at the site that could add an additional 10 years of mine life based on proven and probable mineral reserves. The report yielded a net present value of cash flow in excess of \$2 billion, which assumed what we view as conservative commodity prices at a 7% discount rate and an approximate \$8.50 commodity price. Thus, we see the potential for the ilmenite and titanium processing to lower the true cost of the vanadium extraction, as more by-product is produced, and for the titanium operation potentially to be more profitable than vanadium over the long-term.

In December 2020, the Company acquired proprietary IP from VionX Energy Corporation for \$4.4 million in equity and warrants, and launched its Largo Clean Energy subsidiary. VionX had invested more than \$150 million in capital to develop flow battery technology for use in large scale energy grid storage solutions. Vanadium battery technology has been around since the 1970's, but has not been commercialized at scale because of the inherent commodity cost volatility and the long-term nature of development and commercialization contracts, in addition to the nascency of the long duration energy storage market.

However, the long-duration energy storage market is growing, with expected maturity around 2030-2035. According to a study by McKinsey & Company, long duration energy storage will have to be scaled up to approximately 400-times present day levels by 2040, and that up to 10% of all electricity generated would need to be stored in long duration energy systems at some point. In addition, Guidehouse Insights has estimated that VRFB deployments will require around 39 gigawatt hours (GWh) by 2031, which equates to approximately 180 kilotons of vanadium, which is nearly double today's current consumption.

Besides China, we expect strong demand from North America and Europe, as utility companies and developers expand renewable energy assets onto aging electricity transmission systems pursuing low carbon goals, and industrial customers enhance their power infrastructure, while being mindful of sustainable environmental considerations. Thus, we expect sustained high demand for vanadium to supply this market, which we expect to continue to grow at a rate of more than 25% annually over the next five years.

For long-duration storage needs, vanadium batteries are a superior storage option over lithium-ion and other short-duration conventional storage sources. We see LCE's patented VCHARGE vanadium battery technology as well positioned to supply this market, given the more efficient and fully recyclable source vana-

dium that never degrades. At the end of a battery's lifespan upon degradation of the consumable materials (that can span 25-30 years), vanadium electrolyte can be re-used in a new battery.

Although LCE's solution includes many "off the shelf" components, its intellectual property mainly covers the stack—the part of the battery where the active electrolyte sits and is purified. The efficiencies of LCE's technology enables the use of fewer stacks, which can reduce the battery's entire footprint and use much less material.

In July 2021, LCE entered into its first VCHARGE sales contract with Spain's Enel Green Power España, under which LCE will deliver a 6.1 MWh VCHARGE system. LCE expects the project to receive provisional acceptance by the middle of 2023. In our view, successful deployment and implementation would serve as a proof-of concept and attract additional commercial opportunities. Similarly, LCE has also signed a non-binding memorandum of understanding with Italy's Ansaldo Green Tech to negotiate the formation of a joint venture for the manufacturing and commercial deployment of VRFBs in the European, African and Middle East power generation markets. We see the potential to partner with Ansaldo, a large company partly owned by the Italian government that is currently transitioning from gas turbines to more renewable energy solutions, which would represent a growth opportunity for LCE over time.

In our view, the LCE business, while representing an attractive long-term diversification story for Largo, has created some investor skepticism due to its more nascent market dynamics and near-term capital requirements to build infrastructure. We also believe that the long-term nature of contract negotiations for VRFB's, which can take 24-48 months, may have complicated Largo's investment thesis, compared with its straighter forward mining operation.

However, we are encouraged by the increasing pace of new VRFB projects globally, which we see absorbing vanadium supply from the market, that should support rising prices over time, validating the industry broadly, in addition to creating another revenue stream for Largo from the sale of its vanadium battery components.

In our view, the company has taken steps to minimize barriers to entry that could limit its success in the VRFB market, including the difficult bidding process for such projects resulting from vanadium price volatility and the 12–48-month negotiation cycle. To address this, in September 2022, Largo created a new and separate public entity—Largo Physical Vanadium Corp. (TSXV: VAND), to serve as a new source of demand that will buy vanadium on the spot market, and maintain ownership of the vanadium, while it is used in future Largo battery projects. LPV will give investors a method to own vanadium indirectly, which was not previously available. Largo Physical Vanadium commenced trading on the TSX Venture Exchange in September 2022.

Under this model, battery customers will pay only a modest usage fee rather than incurring the cost of directly owning the vanadium. Thus, LCE will have a significant cost advantage in negotiating long-term contracts due to the cost certainty of its customers, which we think will enhance the adoption of this model.

We also view the formation of LPV positively for Largo investors, given that the vanadium used in VRFB projects will

be owned by LPV, and not rest on Largo's balance sheet. To date, LPV has raised \$30 million and is approximately 65% owned by Largo. In order for Largo to sell vanadium directly to LPV without having to consolidate its financials, LPV would need to commence additional financings for itself, so that Largo's stake is reduced to less than 50%. As LPV raises additional capital, it will be able to buy more vanadium, which we believe will raise its profile and build a competitive moat around its battery business, while LPV's investors own the vanadium, which never degrades, while it is used.

In our view, Largo is well positioned to secure some non-dilutive funding for its clean energy initiatives as many world governments and utility companies pursue a greener economy and lower carbon policies. For example, in September 2021, the United States Department of Energy announced funding for research and development projects to scale up American manufacturing of flow battery and long duration storage systems. This project provided Largo Clean Energy with \$4.2 million to develop and demonstrate highly efficient manufacturing processes for affordable, grid-scale flow batteries. In addition, clean energy was earmarked for funding of approximately \$90 billion in the US Government's Inflation Reduction Act, enacted in September 2022.

In recent years, Largo has focused on improving transparency in communicating its progress towards integrating sustainability across its business. The company issues an annual sustainability report, which has highlighted the company's commitment to such "green" practices as a 19% renewable energy mix, the reusing of over 90% of water used in processing, and highlighting vanadium's potential role in reducing greenhouse gas (GHG) emissions, and thus contributing to efforts to minimize climate change. We also see the fully recyclable nature of the source vanadium to be used in its VRFB batteries contributing to its efficiency by using less material than other systems, and also contributing to our thesis that we expect it to appeal to ESG investors over time.

To date, the company's ESG efforts have resulted in scoring by such agencies as MSCI (improved from BBB to A rating) and S&P Global (increasing its score by 38% from 2021 to 2022). In 2021, the company received a Silver sustainability ranking by Ecovadis, and a 'Company of the Year in the Mineral Sector' for its work in Social Governance from Brasil Mineral magazine and 'Company of the Year' from Companhia Baiana de Pesquisa Mineral ("CBPM") awards in 2022.

RECENT DEVELOPMENTS

Largo's shares are listed on the Toronto Stock Exchange (TSX) and on Nasdaq, both under symbol "LGO". Its Nasdaq listing became effective in April 2021. In 2022, the stock declined by more than 40%, versus a decline of 19% for the S&P 500. Year-to-date in 2023, the stock has declined by 11%, versus an increase of 5% for the S&P 500.

In March 2023, the company reported financial results for the full-year 2022, highlighted by 16% revenue growth to \$229.3 million, supported by strengthening vanadium prices. Due to higher costs related to operations at the Maracas Menchan mine, the company reported a net loss of \$0.03 in 2022, compared with EPS of \$0.35 in 2021.

In February 2023, Largo announced that Mr. Daniel Tellechea, a Company Director since 2015, would serve as interim Chief Executive Officer, to oversee the transition to a new CEO, while focusing on the return of the Maracás Menchan mine to normalized operations.

In January 2023, Largo reported a target for 11,000-12,000 tons of vanadium production from its Maracás Menchen Mine in 2023, which would compare favorably with approximately 10,400 tons in 2022.

In August 2022, LCE signed a non-binding memorandum of understanding with Ansaldo Green Tech to negotiate the formation of a joint venture for the manufacturing and commercial deployment of VRFBs in the European, African and Middle East power generation markets and subsequently extended its exclusivity agreement until March 31, 2023 to finalize negotiations.

In February 2022, Largo announced the creation of Largo Physical Vanadium Corp., which intends to establish a publicly listed physical vanadium holding company that will purchase and hold physical vanadium, amongst other things, for use in Largo's VCHARGE batteries.

In July 2021, Largo Clean Energy entered into its first VCHARGE VRFB sales contract with Enel Green Power España, under which LCE will deliver a 6.1 MWh VCHARGE system for a project in Spain with expected commissioning during 2023.

EARNINGS & GROWTH ANALYSIS

Over the next few years, we expect most of the company's revenues to be generated from the sale of its VPURE+™ and VPURE™ vanadium products to end-users from its core mining operation, with initial contribution to revenues from ilmenite production occurring by early 2024. Over the longer-term, we see sales of its VRFB systems from its Largo Clean Energy unit and the potential sale of titanium dioxide from its existing mining division diversifying its top-line mix.

We forecast 2023 revenues of \$245 million and 2024 revenues of \$307 million, which would represent 7% growth and 26% growth respectively over the previous years. We note that 2022 production was impacted by several operational challenges, including the transition to a new mining contractor, and rain-related impacts on its mining operations that caused approximately 16 days of operational downtime in December 2022. These issues contributed to lower resource recovery and higher operating costs, which we expect to impact 2023 results, particularly during the first half, but to ease over the course of the year.

Despite a softer expected first half, we are encouraged by Largo's full-year 2023 production target between 11,000-12,000 tons, which would reflect growth over 2022 levels (10,400 tons). We also expect revenues to continue to be supported by an enhanced product mix aimed towards premium markets, and are encouraged by its record production of high purity vanadium, which reached 33% of 3Q22 production.

Over the next few years, we expect Largo's vanadium production to move closer to its 13,000-ton capacity, from the 10,000-11,000 tons produced over the past few years. We think that vanadium prices, while volatile, should average approximately \$10 per pound, with the company realizing up to a \$1.50 premi-

um per pound of product sold into premium markets. We assume ilmenite production will commence in mid-2023 and that Largo will begin recognizing revenue from it in 2024. Our assumptions will not include the potential vanadium plant expansion until the project is financed.

Historically, Largo has seen cash operating mining costs in the \$3.00-\$3.50 per pound range. We note that 2022 resulted in mining costs of \$4.10-\$4.50 per pound, and the company has guided for 2023 to be even higher at \$4.85-\$5.25 per pound, thus pressuring margins. As conditions normalize and benefit from recent maintenance system upgrades, we expect recovery levels to return to increase above 80%, compared with 79.1% and 79.7% in 2022 and 2021, respectively. We also see near-term costs reflecting Largo Clean Energy's additional infrastructure, primarily related to related headcount and fees.

We forecast earnings per share (EPS) of \$0.04 in 2023 and \$0.79 for 2024.

FINANCIAL STRENGTH & DIVIDEND

Our financial strength rating for Largo is Medium. At December 31, 2022, the Company had \$54.5 million in cash, \$40 million in debt and a working capital surplus of \$115.2 million, representing a current ratio of 4.0.

In 2018, Largo generated over \$300 million in operating cash flow, as it had benefitted from strong vanadium prices. This enabled the retirement of approximately \$300 million in debt, which was completed in July 2019. The company has approximately 64 million shares outstanding and less than 3 million shares reserved for issuance for the vesting of restricted stock units, warrants and stock option exercise.

Largo's cash flows tend to be quite variable, as it has addressed operational issues, while investing for future growth. In 2022, net cash provided by operating activities was \$3.5 million (\$39.8 million provided in 2021, \$59.5 million used in 2020). Cash provided by financing activities in 2022 was \$26.4 million (\$6.9 million used in 2021, \$30.2 million provided in 2020). Cash used in investing activities in 2022 was \$60.1 million (\$27.4 million in 2021 and \$18.1 million in 2020).

In our view, Largo is in an elevated capital expenditure phase, as it grows its business. We see the company as being able to fund its 2023 capex program, estimated at approximately \$50.5 million. This includes growth components made up of the completion of its ilmenite plant, clean energy business needs, as well as sustained costs, including capitalized resource stripping. We note that a key component of Largo's long-term growth strategy is to produce titanium sourced from its Maracás Menchen mine, which will require funding that we estimate to exceed \$100 million that has not yet been secured.

In our view, the company will be reliant on sustained high vanadium prices over the coming years, as well as normalized mining conditions, to fund its growth plans. The late 2021 life of mine plan for Maracas Menchen that yielded an after-tax net present value (NPV) of \$2 billion, assumed a price per pound around \$8 for the majority of the mine life, but also projected total capex of more than \$350 million by 2027 to be able to commence the production and sale of titanium. We also note that the patented

technology underpinning LCE's battery systems are subject to royalty payments of 7.5% of net sales for each VRFB system using the licensed technology.

Largo does not pay a cash dividend. Over the coming years, we expect it to invest cash flows into the expansion of the business. Once production of ilmenite and titanium have commenced, and the clean energy operations begin to drive enhanced margins and cash flows, we see the potential for the initiation of a dividend program.

MANAGEMENT

Mr. Daniel Tellechea is Largo's interim chief executive officer, succeeding Paulo Misk in February 2022. Mr. Tellechea has served as a director since 2015 and has extensive experience in international mining, most recently serving as president and CEO of Sierra Metals, Inc. from 2007 to 2014, a Toronto based mining company listed on both the Toronto Stock Exchange with assets in Mexico and Peru. Prior to Sierra Metals, Mr. Tellechea had been the president and CEO of Asarco LLC from 2003 to 2005, and also served as the managing director of finance and administration for Asarco's parent, Grupo Mexico from 1994 to 2003. Mr. Tellechea also served as Asarco's CFO and as vice president of finance for Southern Copper Corporation, which was majority owned by Grupo Mexico. Mr. Tellechea earned a Bachelor of Science in Accounting and a Master's Degree in Business Administration from Tecnológico de Monterrey.

Mr. Ernest Cleave is the chief financial officer (CFO) and has more than 25 years of experience in finance strategy, compliance, financial reporting, internal control and strategic planning. Prior to joining the company, Mr. Cleave had served as a director, CFO and corporate controller and in senior finance positions for large, multi-national companies in the mining, manufacturing and retail sectors, including Goldcorp Inc. and Falconbridge Limited. Mr. Cleave started his career with PricewaterhouseCoopers.

The ARC Funds directly own approximately 44% of Largo's outstanding Common Shares, and its owner serves as Largo's chairman of the board, which we view as challenging from a corporate governance perspective. That said, we view positively that the Largo board is otherwise comprised of five independent directors.

RISKS

Risks for an investment in Largo include the risk of additional disruptions to its mining production and sales schedule, reliance on the spot price of vanadium, which is largely out of the company's control, exposure to foreign currency rates between the U.S. dollar, Canadian dollar and Brazilian Real; its ability to maximize the mine life of the Maracás Menchen Mine in Brazil, which forms the basis for its technical report and assumes production of titanium, which is not yet financed; maintaining end-user demand for its high-quality vanadium products, which can command premium pricing; and reliance on Largo Physical Vanadium securing sufficient capital enabling the use of vanadium from LPV in its clean energy battery sales.

COMPANY DESCRIPTION

Based in Toronto, Ontario, Largo is a dually listed mining and battery energy storage system company that is among the world's leading high-quality and low-cost vanadium suppliers, sourced from its Maracás Menchen Mine in Brazil. More recently, the Company established a U.S.-based clean energy unit that develops and sells vanadium-based electrical energy storage battery systems to support the global deployment of long duration, renewable energy solutions. Largo has also established a separate public entity that plans to lower the costs for LGO's battery customers while giving LPV's investors indirect exposure to vanadium, which has never existed before. It will purchase vanadium on the open market that can be used in its battery storage projects.

VALUATION

Since the beginning of 2022, Largo has traded in a range of \$14.27 and \$4.75 and traded as high as \$18.71 per share in 2021. The stock is currently trading near the low end of this range and its market capitalization of around \$310 million represents a multiple less than 0.2-times the \$2 billion net present value identified in the late 2021 technical report on its Maracás Menchen Mine in Brazil.

In our view, the discount to this technical report reflects a variety of factors including the recent operational challenges that the mine has faced, and the company's projection for total capex requirements of more than \$350 million by 2027 to bring online the titanium plant, which has been paused until financing has been completed, and additional capital to grow its VFRB business.

While we acknowledge that the valuation gap to the technical report is understandable given the above, we do think that the analysis' assumed \$8.50 per pound vanadium price is likely to prove conservative over the life of the mine, due to expected sustained demand for vanadium amid a supply imbalance that we expect to persist through the end of the decade, as well as Largo's prospects to optimize its product mix towards premium markets that would further enhance the mine's profitability. Thus, we expect the valuation gap to narrow over time, as Largo executes its strategic plan.

To value Largo, we apply an industry average 6.5 multiple to our 2024 EBITDA estimate of \$84 million, which we expect will begin to reflect improved operational efficiencies and the production and sale of ilmenite at the mine. We discount this back one period at 15% to reflect the inherent variability in the timing assumptions for ilmenite sales, as well as the improvements from recent operational challenges that the company has been addressing.

We add \$125 million in value, or approximately \$2 per share to reflect the potential value expected to be created by the Clean Energy unit, which is at a nascent stage of growth. Despite the near-term capital requirements to build infrastructure, we see potential for Largo to report progress in its commercial progress in this new market, which we expect to provide a tailwind to investor sentiment, amid what we see as a positive outlook for strong long-term demand and vanadium scarcity value.

Adjusting for the 64 million shares outstanding, we arrive at a fair value of \$9.00, well above current levels near \$5.00.

Steve Silver,
Argus Research Analyst

INCOME STATEMENT

Growth Analysis (\$MIL)	2021	2022	Q1 2023E	Q2 2023E	Q3 2023E	Q4 2023E	2023E	Q1 2024E	Q2 2024E	Q3 2024E	Q4 2024E	2024E
Revenues	198.3	229.3	47.4	58.6	69.2	69.4	244.6	75.3	76.2	77.5	78.4	307.4
Operating Costs	133.0	169.7					189.0					194.1
SG&A/Other Costs	33.4	56.7					50.9					51.3
EBITDA	54.4	25.4					26.6					84.0
Operating Income	31.9	2.8					4.8					62.0
Finance Costs	0.6	0.5					2.8					4.0
Tax Rate (%)	65	NA					NA					22
Net income	22.7	-15.6					2.5					50.5
Diluted Shares	65.0	65.2					64.3					64.0
EPS	0.35	-0.03	-0.12	0.00	0.07	0.09	0.04	0.18	0.19	0.21	0.21	0.79
Dividend	NA	NA					NA					NA
Growth Rates (%)												
Revenue	NA	16					7					26
Operating Income	NA	NA					11					1,292
Net Income	NA	NA					NA					2,020
EPS	NA	NA					NA					1,975
Valuation Analysis												
Price (\$): High	18.71	14.27					NA					NA
Price (\$): Low	7.86	4.75					NA					NA
PE: High	170.1	40.8					NA					NA
PE: Low	71.5	13.6					NA					NA
PS: High	10.1	4.7					NA					NA
PS: Low	4.3	1.6					NA					NA
Yield: High	NA	NA					NA					NA
Yield: Low	NA	NA					NA					NA
Financial & Risk Analysis (\$MIL)												
Cash/Equivalents	83.8	54.5					NA					NA
Working Capital	118.3	115.2					NA					NA
Current Ratio	3.8	4.0					NA					NA
LTDebt/Equity (%)	0.7	15.3					NA					NA
Total Debt/Equity (%)	6.6	13.6					NA					NA
Ratio Analysis												
Gross Margin	33%	26%					23%					37%
Operating Margin	16%	1%					2%					20%
Net Margin	11%	NM					1%					16%
Return on Assets (%)	6.5	0.5					NA					NA
Return on Equity (%)	8.8	-0.8					NA					NA
Op Inc/Int Exp	NA	NA					NA					NA
Div Payout	NA	NA					NA					NA

DISCLAIMER

Argus Research Co. has received a flat fee from the company discussed in this report as part of a “Sponsored Research” agreement between Argus and the company. No part of Argus Research’s compensation is directly or indirectly related to the content of this assessment or to other opinions expressed in this report. Argus Research provides a suite of Sponsored Research services including but not limited to initial reports with ongoing coverage and updates; proprietary Argus Research earnings estimates; distribution to Argus Research’s clients; a license to enable the company to proactively use and distribute the report ; a press release announcing our initial coverage and updates; and access to the Vickers Research database. The price for this suite of services generally ranges from \$22,000 to \$35,000 depending on the level of services selected. Argus Research receives no part of its compensation in the form of stock or other securities issued by the company discussed in this report, and has no long equity position or short sale position in the company’s stock. Argus Research is not involved in underwriting securities for the subject company, and will receive no proceeds or other financial benefit from any securities offering by the company. Argus Research; its officers, directors, and affiliates; and the author of this report have no financial interest in, or affiliation with, the subject firm. The report is disseminated primarily in electronic form and is made available at approximately the same time to all eligible recipients.

Argus Research Co. (ARC) is an independent investment research provider whose parent company, Argus Investors’ Counsel, Inc. (AIC), is registered with the U.S. Securities and Exchange Commission. Argus Investors’ Counsel is a subsidiary of The Argus Research Group, Inc. Neither The Argus Research Group nor any affiliate is a member of the FINRA or the SIPC. Argus Research is not a registered broker dealer and does not have investment banking operations. The Argus trademark, service mark and logo are the intellectual property of The Argus Research Group, Inc.

The information contained in this research report is produced and copyrighted by Argus Research Co., and any unauthorized use, duplication, redistribution or disclosure is prohibited by law and can result in prosecution. The content of this report may be derived from Argus research reports, notes, or analyses. The opinions and information contained herein have been obtained or derived from sources believed to be reliable, but Argus makes no representation as to their timeliness, accuracy or completeness or for their fitness for any particular purpose. This report is not an offer to sell or a solicitation of an offer to buy any security. The information and material presented in this report are for general information only and do not specifically address individual investment objectives, financial situations or the particular needs of any specific person who may receive this report. Investing in any security or investment strategies discussed may not be suitable for you and it is recommended that you consult an independent investment advisor. Nothing in this report constitutes individual investment, legal or tax advice. Argus may issue or may have issued other reports that are inconsistent with or may reach different conclusions than those represented in this report, and all opinions are reflective of judgments made on the original date of publication. Argus is under no obligation to ensure that other reports are brought to the attention of any recipient of this report. Argus shall accept no liability for any loss arising from the use of this report, nor shall Argus treat all recipients of this report as customers simply by virtue of their receipt of this material. Investments involve risk and an investor may incur either profits or losses. Past performance should not be taken as an indication or guarantee of future performance.

Argus has provided independent research since 1934. Argus Investors’ Counsel (AIC), a portfolio management business based in Stamford, Connecticut, is a customer of Argus Research Co. (ARC), based in New York. Argus Investors’ Counsel pays Argus Research Co. for research used in the management of the AIC core equity strategy and model portfolio and UIT products, and has the same access to Argus Research Co. reports as other customers. However, clients and prospective clients should note that Argus Investors’ Counsel and Argus Research Co., as units of The Argus Research Group, have certain employees in common, including those with both research and portfolio management responsibilities, and that Argus Research Co. employees participate in the management and marketing of the AIC core equity strategy and UIT and model portfolio products.