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Initiation of Coverage

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Century Lithium (TSX-v:LCE, OTCQX: CYDVF, FSE: C1Z) Strategy: LONG

| Key Metrics | - |
|--|---------------|
| Price (CAD) | \$1.03 |
| 12-Month Target Price (CAD) | \$2.38 |
| Upside to Target | 131% |
| 12mth hi-low | \$0.84-\$1.53 |
| Market Cap (CAD mn) | \$151.82 |
| Shares Outstanding (millions) | 147.40 |
| Options & Warrants (millions) | 27.80 |
| Fully Diluted (millions) | 175.20 |

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Century Lithium

In the Hotspot of US Lithium Development

- + The company has secured what is probably the best address in the rapidly evolving Lithium zone in the Clayton Valley
- + The Clayton Valley Lithium project is immediately adjacent to the US's only production lithium operation, the Silver Peak facility of Albemarle
- + The company is collaborating with a part of the Koch empire, Koch Technology Solutions (KTS), to utilize their Li-Pro[™] process for Direct Lithium Extraction (DLE) at the project
- + Water rights permit and geothermal assets for cheap power generation secured
- + Nevada is, by most measures, regarded as the best jurisdiction in the US for the extractive industries
- + Cash balance as at Q4 2022 was a very healthy CAD\$27.7mn
- + Despite the recent retreat of Lithium spot prices have been the firmest aspect of the minerals' universe in recent months as almost everything else has retreated in the face of weak equity markets and higher interest rates
- + Under the Defense Production Act, the US Federal Government is providing Grants and Loans for US critical mineral projects, notably in Nevada
- The retracing of Lithium spot prices, in China, from ludicrous levels has taken down valuations in almost the whole Lithium complex, when <u>no-one</u> was using the high prices as a benchmark
- There is a proliferation of Lithium development at the current time and getting a correlation between new supply being added and the still unknown level of demand at any given point is a challenge
- The environment for funding Lithium project builds through capital markets alone is challenging

Lithium Rising

Before the Biden Administration launched its curiously named Inflation Reduction Act as a vehicle to kickstart the Green Revolution in the US, the global playing field was fairly even but with US-based projects mainly disadvantaged by the torturous permitting process. That most of the Lithium projects were in Nevada (excepting a notable exception in the Carolinas) helped mitigate concerns on permitting due to Nevada's long-term status as a mining-friendly jurisdiction. However, US-based projects did not have much of a home team advantage, but that is now radically altered.

With Lithium in short supply, at least for now, the investment and development dollars are heading for the US jurisdiction that provides most opportunities at the least degree of hassle, which is Nevada. Century Lithium (until recently called Cypress Development) has positioned itself next to Silver Peak, the only producing Lithium mine in the US (belonging to Albemarle). In a few short years they have brought

the project up to Feasibility stage and are now advancing on development having secured water rights and geothermal rights in the vicinity. Most recently they have partnered up with the mighty Koch Industries on the processing technology.

In this initiation of coverage we shall look at the project, its prospects, its technology partner, the road to production and the Lithium outlook.

The Clayton Valley Lithium Project

The project is located in west central Nevada, some 220 miles southeast of Reno, Nevada. The regional town of Tonopah is 41 miles northeast of the project, and the small community of Silver Peak lies six miles west of the project. Access from Tonopah, Nevada, is by traveling 22 miles south on US Highway 95, then 19 miles west on Silver Peak Road.



The original project package was comprised of 129 unpatented placer mining claims and 212 unpatented lode mining claims. The claims are 100% owned by Century and cover 5,430 acres and provide Century with the rights to access all brines, placer, and lode minerals on the claims.

Then in February of 2022 the company announced that it had cut a deal with Enertopia Corporation (OTCQB: ENRT) to acquire its Clayton Valley Lithium Claystone project, located immediately adjacent (to the northeast) to Century's own Clayton Valley Project.

Century (Cypress at the time) paid US\$1.1mn in cash and issued 3,000,000 common shares to purchase 100% ownership interest in Enertopia's project. The claims are subject to a 1% NSR royalty to a third party.

The Enertopia package consisted of 17 unpatented mining claims totaling 160 contiguous acres. The map showing this "sliver" can be seen below.



A NI 43-101 compliant technical report on Enertopia's project was prepared by Bradley C. Peek, of Peek Consulting, Inc and was published in March of 2020.

This report estimated that the property has an Indicated resource of 82mn tonnes of 1,121 ppm Li and an Inferred resource of 18mn tonnes of 1,131 ppm Li (using a cutoff grade of 400 ppm Li). The resource was calculated using assay data from four core holes drilled on the property in 2018.



Above can be seen a drill at work on the Enertopia piece.

The Enertopia piece was a strategic addition to the Century's holdings as it will be noticed from later discussion that the proposed pitshell runs up to the northeast border of Century's original claim block, so this acquisition adds what is likely to be the area of likely extension of the pit. Moreover, the price was a bargain considering the strategic nature of the package and the fact that it had a recent extant resource.

Local Context

The valley has a total watershed area of about 1,430 km² and the floor of the valley lies at an altitude of 4,320 ft above sea level. The surrounding mountains rise several thousand feet above the valley floor, with the highest surrounding mountain, Silver Peak at 9,380 ft asl. The valley is bounded to the west by the Silver Peak Mountain Range, to the south by the Palmetto Mountains, to the east by Clayton Ridge and the Montezuma Range, and to the north by the Weepah Hills.

There is no permanent surface water in the Clayton Valley watershed, all watercourses are ephemeral and only active during periods of intense precipitation. At the project itself, the terrain is dominated by mound-like outcrops of mudstone and claystone, cut by dry gravel washes across a broad alluvial fan.



View of the project from flanks of Angel Island looking East

Geology

The project is in the Great Basin physiographic region, within the Walker Lane province of the western Great Basin. The Clayton Valley is a closed basin near the southwestern margin of the Basin and Range geo-physiographic province of western Nevada.

The Clayton Valley is the lowest in elevation of a series of local playa filled basins, with a playa floor of about 100 km² which collects surface drainage from an area of about 1,300 km². The valley is faultbounded on all sides, delineated by the Silver Peak Range to the west, Clayton Ridge and the Montezuma Range to the east, the Palmetto Mountains and Silver Peak Range to the south, and Big Smokey Valley, Alkali Flat, Paymaster Ridge, and the Weepah Hills to the north.

The western portion of the project area is dominated by the uplifted basement rocks of Angel Island which consist of metavolcanic and clastic rocks, and colluvium. The southern and eastern portions are dominated by uplifted, lacustrine sedimentary units of the Esmeralda Formation. Within the project area, the Esmeralda Formation is comprised of fine grained sedimentary and tuffaceous units, with some occasionally pronounced local undulation and minor faulting. Elevated Lithium concentrations, generally greater than 600 ppm, are encountered in the local sedimentary units of the Esmeralda Formation from surface to at least 142 meters below surface grade.

The Lithium-bearing sediments primarily occur as silica-rich, moderately calcareous, interbedded tuffaceous mudstone, claystone, and siltstone.

Formation

The valley lies within an extensional half-graben system between a young metamorphic core complex and its breakaway zone.

Multiple wetting and drying periods during the Pleistocene resulted in the formation of lacustrine deposits, salt beds, and Lithium-rich brines in the Clayton Valley basin. Extensive alteration of vitric material to zeolites and clay minerals has taken place in the tuffaceous sandstone and shale of the Esmeralda Formation, and anomalously high Lithium concentrations accompany the alteration.

The lacustrine sediment near the center of pluvial lakes in Clayton Valley is generally green



to black calcareous mud. According to (Davis, et al., 1986), about half of the sediments, by weight, are smectite and illite, which are present in nearly equal amounts, with the remaining half composed of calcium carbonate (10-20%), kaolinite, chlorite, volcaniclastic detritus, traces of woody organic material, and diatoms.

These tuffaceous lacustrine facies of the Esmeralda Formation contain up to 1,300 ppm Lithium and an average of 100 ppm Lithium. Lithium bearing clays in the surface *playa* sediments contain from 350 to 1,171 ppm Lithium. More recent work in 2012 confirmed elevated Lithium concentrations in the range of 160-910 ppm from samples collected on the northeast side of Clayton Valley. Miocene silicic tuffs and rhyolites along the basin's eastern flank have Lithium concentrations up to 228 ppm.

Closeology

There are three known Lithium clay projects that are advancing toward potential commercial production in the Clayton Valley. Some of the projects have completed extensive metallurgical testing.

The *playa* in the center of Clayton Valley was mined for salt as early as 1906, and later explored for potash during World War II. Lithium was noted during the 1950s. In 1964, Foote Minerals acquired leases and began production of Lithium carbonate at Silver Peak by 1967. Production of Lithium carbonate from brine has continued to the present under several companies, currently under Albemarle Corporation.

The only Lithium mine in production in North America is in Silver Peak, Nevada, and is owned and operated by the Albemarle Corporation, based in North Carolina, USA.

During World War II the area was explored for other minerals and the American Potash Corporation leased the Clayton Marsh. In the 1950s Leprechaun Mining picked up the leases and determined that Lithium was present. In 1964 Leprechaun Mining reached an agreement with Foote Minerals to have Foote reconfigure the silver mill and started Lithium production in 1967.

In 1988 Cyprus Minerals acquired the Foote operation and became Cyprus Foote Minerals. In 1998 Chemetall acquired the operation, and the name was changed to Chemetall Foote Corporation. Then in 2004 Rockwood Holdings acquired the Lithium operation. In 2010 a project funded in part by a \$28.4mn grant from the U.S. Department of Energy doubled the Lithium production. Albemarle Corporation purchased Rockwood Holdings for \$6.2bn in 2014.

The table below shows the players in the Clayton Valley, in some ways the table also represents the North to South distribution of the projects, with clearly less work having been done by those farther away from the motherlode of Albemarle's operation.

| Nevada Lithium Project | ts | | |
|--------------------------|----------------|----------------|--------------------------|
| Clayton Valley | Project | Mineralisation | Status |
| Albemarle | Silver Peak | Brine | Producing |
| Schlumberger/Pure Energy | Clayton Valley | Brine | PEA, Pilot Plant |
| Century Lithium | Clayton Valley | Clay/Claystone | PFS, Pilot Plant |
| Noram Lithium | Zeus | Clay/Claystone | PEA |
| Sienna Resources | Clayton Valley | Brine | |
| Spearmint Resources | McGee | Clay/Claystone | Resource |
| Cruz Battery Metals | Clayton Valley | Brine | |
| Other - Nevada | | | |
| loneer | Rhyolite Ridge | Clay/Claystone | Feasibility, Pilot Plant |
| Lithium Americas | Thacker Pass | Clay/Claystone | FS, POO, Pilot Plant |

Lithium Brines Formation

Lithium (from Greek: $\lambda i \partial \sigma \zeta$, romanized: *lithos*, lit. 'stone') is a chemical element with the symbol Li and atomic number 3. It is a soft, silvery-white alkali metal. Under standard conditions, it is the least dense metal and the least dense solid element. Lithium ranks 27th in

rank of elemental abundance.

Even with this relative scarcity there are a fairly large number of both Lithium mineral and brine deposits, but only comparatively a few of them are of actual or potential commercial value.

The deposits have been formed because of Lithium's higher solubility in hot water than most other cations, so it sometimes has concentrated in flowing and cooling magma and/or its accompanying aqueous fluids, as well as in evaporating brines. Thus, hydrothermal fluids may be an important Lithium source.



The high-Lithium brines usually have obtained most of their Lithium from geothermal waters, with perhaps some of the Lithium coming from surface leaching of volcanic ash, clays or other rocks.

However, Lithium is very difficult to leach from the lattice structure of all rocks and minerals, so little is dissolved unless the water is very hot.

Exploration

The occurrence of Lithium in sediments of Clayton Valley was reported as early as the 1970s by the United States Geological Survey.

After the company (in its Cypress guise) obtained control of its Clayton Valley project, it launched two successive drill campaigns at the project, one from Fall 2017 through Spring 2018, and a second in Spring 2019. These ultimately fed into the MRE dating from August 2020 used in the March 2021 PFS.

From 2017 through 2019 Century drilled a total of 29 vertical, NQ-size (1.87-inch diameter) core holes with hole depths from 33 to 142.3 meters (108-467 feet), totalling 2,574.9 meters (8,448 feet) drilled. In 2018, four HQ-size (2.5-inch) core holes were drilled on claims contested in a lawsuit. Century defended title and acquired the complete, whole core from these drill holes in 2020. These holes range in depth from 88.8 to 124.3 meters (291.5-408 feet), totalling 397.4 meters (1,304.5 feet) drilled.

The drilling results indicated a favourable section of claystone extending from surface to depths of approximately 120 meters, where a strong, apparently planar, alternating oxidation/unaltered zone exists. The Lithium content through these zones appears consistent, as do other geochemical factors found within these mineralized lithological units.

Work in 2022

During the 2022 drill season (May 2022), Century undertook a sonic drilling campaign at its existing project and the newly acquired Enertopia claims. The results thereof were announced in August of 2022. A total of 580 meters were drilled in eight holes. The hole depths were limited to intersect lithiumbearing claystone to a depth of 61 to 76 meters and to obtain approximately 15 tonnes of material for metallurgical testing at the company's pilot plant in Amargosa Valley, Nevada.

Four holes, CSV1 through CVS4, were drilled in the central portion of the project in the vicinity of the planned starter-pit. CVS2 was located outside of the reserve pit outline from the 2021 Prefeasibility Study, nearest the location of the anticipated plant site for the feasibility study. CVS3 is located adjacent to a reclaimed test pit where 500-tonnes of claystone were collected in April 2022.

Four additional holes, CVS5 through CVS8, were drilled in the northeast portion of the project on and near the parcel of property acquired from Enertopia.

Features of the results were:

- Best intersection of 70.1 meters of 1,336 parts ppm Lithium
- Successful use of sonic drilling to obtain six- and four-inch diameter cores
- Completed 580 meters in eight drill holes ranging from 61 to 76 meters in depth

The assay results were in line with Lithium grades predicted at all eight locations by the resource block model developed by Global Resource Engineering (GRE). The overall estimated lithium grade for all eight locations from the model of GRE was 1,060 ppm. This compares to the compiled weighted-average lithium grade from all eight holes drilled of 1,080 ppm.

Management deemed that the results not only confirmed the resource model built by GRE, but also

verified the drill data obtained with the acquisition of the Enertopia claims.

Resource & Reserves

The effective date of the Mineral Resource Estimate is August 5, 2020. The QP for the estimate is Ms. Lane of Global Resource Engineering (GRE).

| Mineral Resource - Cl | ayton Valley | | |
|-----------------------|-----------------------------|-------------------|---------------------------|
| Domain | Mineralised Tonnes (mns) | Li Grade (ppm) | Li Contained kgs (mns) |
| Indicated | | | |
| Tuffaceous mudstone | 91.4 | 656.8 | 60.1 |
| Claystone all zones | 956.9 | 973.9 | 932 |
| Siltstone | 255.8 | 734.2 | 187.8 |
| Total | 1304.2 | 904.7 | 1179.9 |
| Inferred | | | |
| Tuffaceous mudstone | 39.9 | 560.2 | 22.3 |
| Claystone all zones | 146.2 | 792.5 | 115.9 |
| Siltstone | 50.3 | 821.9 | 41.4 |
| Total | 236.4 | 759.6 | 179.6 |

The pit constrained Mineral Resource totals 1,304.2 million tonnes averaging 904.7 ppm Li in the Indicated Resource. Lithium contained in the pit-constrained Indicated Resource totals 1,179.9 million kg of Li, or 6.28 million tonnes of Lithium carbonate equivalent (LCE).

The Mineral Reserve for the Clayton Valley Lithium project is:

| Mineral Reserve - | Clayton Valle | y Lithiun | n Project |
|-------------------|-----------------------------|-------------------|------------------------------|
| | Mineralised Tonnes (mns) | Li Grade (ppm) | Li Contained tonnes (mns) |
| Probable | 213 | 1129 | 1.28 |

GRE constrained the Mineral Resource to a Whittle generated "ultimate" pit shell that extends to most property boundaries and is bounded by Angel Island rocks in the west, as shown on the following page.



The ultimate pit shell was generated using the break-even parameters detailed in the PFS, including a Lithium carbonate base price of US\$9,500/t and an operating cost of \$3,387/t of material. The ultimate pit shell uses the slope angles of 23 to 43 degrees depending on lithological unit with no set-back from

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property lines. The area around and beneath the tail facility is excluded from the pit constrained Mineral Resource.

The Preliminary Feasibility Study

This study was completed in May 2020 and amended in March 2021. Continental Metallurgical Services (CMS) and GRE prepared the pre-feasibility study report for the Clayton Valley lithium project.

GRE provided the mineral resource estimate, while NORAM Engineering and Constructors, and CMS designed and tested the flow sheet for the lithium recovery for the project.

| Key Metrics of PFS | | |
|-----------------------------------|-------------|---------|
| Mining Cost- ore | \$/t | \$1.98 |
| Mining Cost - waste | \$/t | \$1.98 |
| Processing Cost | \$/t milled | \$14.27 |
| Process Recovery | % | 83% |
| G & A Cost | \$/t milled | \$0.65 |
| Material Density | g/cm3 | 1.505 |
| Pit Slope – Overburden and Clay 1 | | 23° |
| Pit Slope – Clay 2 | | 32° |
| Pit Slope – Clay 3 | | 43° |
| Lithium Price – Base Price | \$/t LCE | \$9,500 |

Mining

An open-pit mining method is envisaged for the project, with an initial mining plan based on a daily mill feed rate of 15,000 tpd.

The mine will not require any drilling or blasting operations. The stripping ratio will be 0.15:1, and the waste material will be hauled to a waste dump using scrapers, while the low-grade claystone is moved to a stockpile for future processing.

The ore material will be extracted by a 12m³ hydraulic track excavator and removed from the pit using semi-mobile feeder-breaker and conveyors. The extracted ore will be sent to a nearby processing plant where it will be leached with dilute acid leach followed by filtration, solution purification, concentration, and electrolysis to produce Lithium hydroxide.

Processing

A 2,500 tpd acid plant to produce sulphuric acid by burning elemental sulphur was to be built on-site as part of the project. However, the Feasibility Study is now oriented towards using hydrochloric acid,

produced in a chlor-alkali plant built on-site. The steam generated in the conversion process will be used to help heat the leach tanks.

The other facilities for the project will include a tailings storage facility located to the south of the plant site, as well as an administration building, laboratory, warehouse, reagent storage, mine shop, and fuel and reagent storage facilities.

| Clayton Valley - PFS - CapEx | |
|-------------------------------|------------|
| | US\$ (mns) |
| Facilities | \$5.89 |
| Mine | \$34.77 |
| Plant | \$306.86 |
| Infrastructure | \$25.91 |
| Owners Costs | \$24.99 |
| Contingency & Working Capital | \$94.70 |
| Total Capital Cost | \$493.12 |

Next Steps – a Definitive Feasibility Study

Key to financing the eventual build of the full project is the completion of a Feasibility Study, which commenced in March 2022 under the direction of Wood PLC, with support from Global Resource Engineers, Continental Metallurgical Services, WSP USA Environment & Infrastructure Inc., and Century's own team.

The FS has pivoted to a process using Hydrochloric Acid instead of Sulphuric Acid.

Management have reported that progress on the Feasibility Study is advancing as planned, with an expected delivery date in 2Q23. Wood and the supporting teams have completed or are near completion of several key items, including revised resource and reserve estimates, a mine plan, processing plant design, and tailings and waste storage facilities.

The Chlor-Akali Plant

In October of 2022, the company announced that it had chosen thyssenkrupp nucera USA, Inc. to provide the design and engineering for the chlor-alkali plant as part of the Feasibility Study. The chlor-alkali plant will allow the project to self-generate two key reagents required for processing Lithium-bearing claystone through to a Li₂CO₃ (Lithium carbonate) product.

Thyssenkrupp nucera is well-known for its technology in high-efficiency electrolysis plants, including

chlor-alkali electrolysis, HCl electrolysis, and alkaline water electrolysis.

The contractor's scope of work will include the development of a facility concept for treatment of the recovered brine stream from Century's process and ensure compatibility with the membrane electrolysis cells of a chlor-alkali plant. Standardized and proprietary e-BiTACv7 BiPolar type membrane cell electrolyzers are the key elements of the chlor-alkali plant, to generate the key reagents HCl (hydrochloric acid) and NaOH (sodium hydroxide) required to process the Lithium ore. The NaCl (sodium chloride) and H₂O (water) molecules present in the recovered brine are electrolyzed to produce Cl₂ (chlorine), H₂ (hydrogen) and the sodium hydroxide, where then outside of the cells, the chlorine and hydrogen molecules are combined to produce hydrochloric acid.

The Pilot Plant

The company has been operating a Lithium Extraction facility at Amargosa Valley, Nevada, for some seventeen months now. Positive results have been achieved from test work conducted at Saltworks Technologies Inc., where high purity Lithium carbonate was made at Saltworks from concentrated Lithium solutions produced at Century's (below):



Saltworks has since completed a second phase of testing which examined the production of Lithium from the blowdown-brine stream collected during the Lithium carbonate concentration in the first stage of testing. Century reported that these results were positive and confirmed the viability of an increase in

Lithium recovery via re-concentration of the blowdown-brine and production of additional Lithium carbonate solids.

This step has the potential to significantly reduce the volume required to be recycled back to the upstream direct Lithium recovery (DLE) plant and reduce size and capital cost of the DLE plant.

Century has been the first public company, globally, to achieve 99.94% purity from claystone, with the output exceeding the standard for battery grade (99.5%).

Based on the progress and results from Saltworks, Century has pivoted to a focus on Lithium carbonate as the end-product for the Feasibility Study and has engaged Saltworks to provide the engineering and design for the final steps in producing Lithium carbonate on site.

Based on timelines for the major components and cost analysis, as well as to allow thyssenkrupp nucera sufficient time to complete its design and optimization studies, Century's management expects the Feasibility Study to be completed in the second quarter of 2023.

Direct Lithium Extraction (DLE)

Century is pursuing a DLE processing path rather than the more traditional (and time-consuming) evaporative process for Lithium extraction from brines, which can take 18 months at the least and often over two years.

In June 2022, the company completed the purchase of a license in perpetuity to the Lionex DLE process. Also, in June, Koch Separation Solutions (a division of Koch Industries) acquired exclusive rights to the Lionex technology from the previous vendor, which is now part of KTS' Li-Pro[™] process.

The process developed by the Lionex process offers a fast-track production process, with Lithium brines produced in under three hours with very high purity and with minimal environmental impact.

The process is graphically depicted below with the DLE step taking place in the 'Lithium Recovery' area shown in the overall extraction process:



The Koch Connection

In February of 2023, the company announced that it was collaborating with Koch Technology Solutions (KTS) in the application of LTS's Li-Pro[™] process for DLE at Century's Lithium Extraction Facility in Nevada.

Under the deal, key components of the Li-Pro[™] process will be tested at Century Lithium's Pilot Plant.

- KTS will also provide engineering design and cost data for the full-scale DLE portion of the processing plant for Century Lithium's Project.
- Independent from the Project's ongoing Feasibility Study and will begin upon delivery of KTS equipment to the Pilot Plant.
- Century Lithium will fund the study, installation, and operation of the equipment at the Pilot Plant, and KTS will provide training and technical support.

In mid-April, Century announced that it had received delivery of the equipment for KTS' Li-Pro[™] process and that this had been installed, and was now operating, at the pilot plant in Amargosa Valley

Now begins a field trial of the Li-Pro[™] equipment to treat the process solutions generated at the pilot plant in the leaching of bulk sample claystone collected from the Clayton Valley Lithium project. Following successful installation, operation of KTS' equipment went very well throughout an initial seven-day start-up.

Results from the program will enable KTS to provide engineering and cost data for a full-scale installation of the DLE plant at the project.

Koch – A Major Player in the Making

Koch Industries, Inc. is based in Wichita, Kansas and is one of the largest private companies in the USA, with estimated annual revenues that have exceeded US\$125bn. It has a presence in more than 70 countries and employs more than 120,000 people worldwide (with about half of those in the United States).

Its interests span industrial manufacturing, agriculture, building materials, glass, automotive components, refining, renewable energy, chemicals and polymers, pulp and paper, packaging, consumer products, electronics, enterprise software, data analytics, medical products, engineered technology, project services, recycling, supply chain and logistics, global commodities trading, and investments.

The Koch group had already invested, in September of 2022, around US\$252mn into Compass Minerals (NYSE:CMP) to support development of the Great Salt Lake Lithium brine project in Utah. In the wake of this transaction, KM&T owns approximately 17% of Compass Minerals' outstanding shares of common stock and will have the ability to appoint two members to the expanded board of directors at Compass Minerals.

It is too early to posit an eventual move by Koch upon Century, but certainly the Compass deal shows that not only is Koch intensely interested in the evolving battery metals space, but that it is also willing and able to mobilize substantial funds in that direction. Koch has also invested around US\$100mn in the petroleum brine player in the US South East, Standard Lithium (TSX-v:SLI, NYSE:SLI, FSE:S5L).

Timeline to Production



Water Rights

The water requirement for the project will be sourced from a potential wellfield approximately 17km away from the project site.

Century acquired a water rights permit from Intor Resources Corporation, a subsidiary of Nevada Sunrise Gold Corp., in December of 2021. The permit allows for the appropriation of the public waters of the State of Nevada in the amount of 1,770 acre-feet of groundwater per year for mining, milling and domestic use. This amount represents the largest single volume of permitted water available in the

Clayton Valley, which is a fully appropriated hydrogeographic basin.

The Geothermal Asset

Century holds a geothermal lease with the U.S. Bureau of Land Management that was acquired in 2019. The lease totals 640 acres in all and is located five miles north of the project near Pearl Hot Springs and Paymaster Canyon. The annual holding cost is US\$3,000 and is due and payable on or before October 1st of each year. The lease is subject to U.S. Federal royalties upon production.



Capital Evolution

In early February of 2022, the company completed a bought deal offering (with PI Financial Corp. as the sole underwriter and bookrunner), raising aggregate gross proceeds of \$18,138,720. Originally the deal

had been announced as only \$12mn, but it was upsized due to very strong demand.

As a result, the company issued a total of 9,058,000 units at a price of \$2.00 per Unit and 142,000 Warrants at a price of \$0.1598 per Warrant. Each Unit consisted of one common share and one common share purchase warrant, entitling the holder to acquire one common share at a price of \$2.65 with a Warrant expiry date of February 4, 2024.

The total issued included 1,058,000 Units and 142,000 Warrants upon partial exercise of the overallotment option granted to the Underwriter. As consideration for its underwriting services, PI Financial received a cash commission equal to 6% of the gross proceeds, including any proceeds realized from the exercise of the overallotment option granted to the Underwriter (and they were issued a total of 543,480 compensation warrants, with each such compensation warrant on the same exercise terms).

Otherwise, no other financing has been undertaken by the company in the last year.

Royalties

The portion of the property which contains the Mineral Reserves is subject to a 3% net smelter return (NSR) royalty. The royalty can be brought down to a 1% NSR in return for US\$2mn in payments to the original property vendor.

Nevada as a Mining Jurisdiction

The continual high ranking of Nevada in the Fraser Institute surveys reinforced to investors (particularly in North America that things closer to home can be not only more convenient but safer. So during the period when the gold price was languid (2012-19) investors preferred to focus their dollars on Canada and "friendly parts" of the US with Nevada at the top of that list. US investors, in particular, have been most highly-disposed towards projects in that country, with Nevada way ahead of other states in investors' perceptions and affections.

The latest mining survey from the Fraser Institute (the independent, non-partisan Canadian policy thinktank) was that for 2021. However, as the data set went up to November of 2021, the survey came out in the second half of 2022 and represents the latest version. The survey remains the most respected (though flawed) survey of the fluctuating fortunes of the world's mining jurisdictions.

In 2021, the top jurisdiction in the world for investment based on the Investment Attractiveness Index was Western Australia, pushing Nevada back into the 3rd place position which it last held in 2019.

The state ranked 5th in terms of Policy Perception and 2nd in terms of Mineral Potential in 2021. The state also came second in Best Mineral Practices (after Arizona).

In particular the timeliness of dealing with exploration and drilling permits was cited by respondents amongst Nevada's attractions (only matched by Quebec). The state scored ninth best amongst taxation regimes. In the important infrastructure category, it ranked eleventh.





* Between 5 and 9 responses

Nevada is a jurisdiction that combines geological attractiveness (ranked 5th in the Best Practices Mineral Potential Index) with investment-friendly policies (ranked 6th based on policy alone). Only 5% of respondents to the Fraser survey indicated that trade barriers deter investment and just 7% claimed that the state's infrastructure and political stability discouraged investment. The average negative response by survey respondents for the state was only 14%.

Nevada in 2021 was rated the third most attractive jurisdiction globally for mining investment. Policy factors driving this attractiveness include permitting systems that provide legal and regulatory stability. There is no corporate or personal income tax, no inventory tax, no franchise tax, no unitary tax, and no special intangible tax.

Board & Management

Cassandra Joseph, Esq., non-executive chairperson, is a U.S. attorney with more than 20 years of legal experience with a focus on mining and metals, environmental and corporate law. She has diverse experience delivering practical legal advice in both the public and private sectors. She previously served as a Senior Deputy Attorney General for the Nevada Attorney Generals' Office, representing the Nevada Division of Environmental Protection, Division of Water Resources and other agencies within the Department of Natural Resources. She joined Nevada Copper Corp. as Senior Vice President, General Counsel and Corporate Secretary in 2019 and previously served as VP Associate General Counsel, Corporate Secretary and Chief Compliance Officer for Tahoe Resources Inc. Ms. Joseph holds a J.D. from Santa Clara University School of law and a B.A. from U.C. Berkeley.

William Willoughby, PhD, President, Chief Executive Officer & Director, is a mining engineer with over 40 years of experience in all aspects of natural resources development. Since 2014, he has been principal and owner of consulting firm Willoughby & Associates, PLLC. Prior to that, he was President and COO of International Enexco Ltd., which was acquired by Denison Mines in 2014. He previously held various positions with Teck (Cominco). Dr. Willoughby has been a Professional Engineer since 1985 and received his Doctorate in Mining Engineering & Metallurgy from the University of Idaho in 1989.

Ken Owen, non-executive director, has over 40 years of experience in the mining industry, holding management positions at De Beers, and Anglo American, including Senior Vice President of Anglo American South Africa. He also held positions as associate consultant with SRK Consulting, Technical Director of Mwana Africa PLC and non-executive director of Firestone Diamonds Plc. He holds a M.Sc. in Minerals Production Management from Imperial College, London.

Bryan Disher, non-executive director, is a retired partner from PwC Canada and has 37 years of experience with the firm's practices in Canada, Australia, and Ukraine. He has assisted companies with public offerings in Canada and the United States, acquisitions, financial reporting, regulatory compliance, and governance. He served on the Board of Directors of PwC Canada for eight years, including a term as Chair. He has previously served as non-executive Director for Rubicon Organics Inc., Minds + Machines Group Limited and Balmoral Resources Ltd. He is a CPA, CA and holds a Bachelor of Business Administration from the University of New Brunswick.

James G. Pettit, a non-executive Director, is currently on the board of directors of six publicly traded companies and offers over 30 years of experience within the industry specializing in finance, corporate governance, executive management, and compliance. He was previously Chairman and C.E.O. of Bayfield Ventures Corp. which was bought by New Gold Inc. in 2015.

Donald G. Myers, a non-executive director, has over 35 years of experience in public company management and has provided corporate communications and investor relations for resource and technology companies listed on the TSX Venture, NASDAQ and Toronto Stock Exchanges.

Lithium – Chronicle of a Shortage Foretold

Far be it for us to reprise the current state of Lithium as it is arguably the most written about mineral of current times, and that includes gold.

The Battery Metal boom has reached a frenzy as the earlier unfulfilled dreams of Lithium developers have morphed into the grim reality that government mandates, with strict timelines, have run into the roadblock of a mining community not ready with producing mines. This was due to the Lithium companies largely having run on empty (financially) until 2021-2. The Lithium, Cobalt and Graphite spaces were largely unfunded from 2011 to 2017, and then had a brief renaissance before erroneous Wall Street projections on "satisfied demand" pulled the rug again. In 2021 the OEMs (and governments) received a massive wake-up call that there was a looming Lithium supply shock.

The traditional long lead time of 5-10 years on major projects across the mining space has had to be jettisoned as majors (end-users/offtakers/processors/battery makers) have jockeyed to get positioned, frequently having to take the reins to ensure timelines are compressed to match the voracious unsatisfied demand for Lithium in particular.

Booms Aborted

Technically we have had three battery metal booms now in the space of twelve years. Late arrivals on the scene do not seem to remember (or care to remember) the previous Messianic comings of the "EV revolution". Each boom has left a legacy and calculating what these legacies are is muddied, particularly if one is/was a shareholder of now-departed Canada Lithium, Altura Mining, Nemaska Lithium or the many fallen in Cobalt space.

The surge of 2009-2010 only brought Lithium to the fore. The previous burnout of Cobalt, before the 2008 Crash, was still too fresh in memories to levitate that metal. Graphite was not yet on the radar but did manage to have a very brief day in the sun in 2013.

Then, in 2017, the market experienced Battery Metal Mark 2 with the conjuncture of Lithium and Cobalt and a plethora of lesser battery metals (e.g. Vanadium and Manganese). Graphite scarcely managed a murmur though. This boom also faded fast. Cobalt collapsed, under the sheer weight of non-serious promotorial activities, while most of the Lithium newcomers scarcely raised enough money to sustain (begin?) their exploration campaigns. That boom died the death but left (like the first one) a residue of projects that had moved forward just enough to survive the three years until 2021 brought Battery Metal Mark 3.

Firing Up Again?

The Great Pause (2017-20) was caused by a combination of a surfeit of non-serious parties (particularly in Cobalt), a sheer lack of money in the mining equity markets and the poor uptake of EV/HEV/BEVs in the Western consumer markets. No-one was going to gear up mega-battery plants (excepting Panasonic disguised as Tesla) just because the Norwegians managed great EV penetration.

Nevertheless, as one can see from the data from Benchmark on the following page, there is a looming deficit in the provision of key Lithium chemicals for the most used battery formulations.

As the fog has cleared the non-Chinese players have finally started to gear up with a massive putsch in Europe and the US (not to mention Korea and Japan) towards creating a EV battery industry that was not China dependent. Much has been achieved, but independence from China is not one of those things. However, the pace of transactions gathered pace during 2022, very much a transition year, and a global EV battery industry is finally appearing from the mist.



Source: Benchmark Minerals Intelligence

Western carmakers are gearing up, led by real demand whereas Chinese carmakers were gearing up based upon subsidies and severe suasion from above.

Is the baton passing to the West (in that we include Japan & Korea)? The big Chinese players in Lithium (and in EV/battery production) seem to be suffering a degree of indigestion from overindulgence/overproduction. On the production side, Tanqi seemed to be suffering serious heartburn. Meanwhile companies like CATL are revising their portfolio of exposures to Lithium plays and either rationalizing or taking profits. This is maybe a sign that economic rationality instead of sheer machismo is moving to the fore.

Does this mean that the Battery Boom Mark 3 will last? It will undoubtedly need to cool off (or is in the process of doing so). The graphite space had a number of crazy valuations amongst the largest players. The Lithium space still has maybe four times more companies than are needed. One should not confuse the entire universe of supposed Lithium plays with the subset of serious developers (with serious partners) that are moving towards the final goal of production. Century has shown itself to be within the latter category.

Whither the EV Boom?

The EV revolution was always predicated upon users paying more for their new vehicles than they had paid for those ICEs being dispatched to the scrapheap. All this seemed rosy in 2019, but not in 2022, as the world slid into a recession (or at least a serious slowdown). However, we still have government mandates dictating that EVs are in by 2030, and ICEs are out, but the hard-pressed consumer is already being ordered to surrender their higher-emission ICEs in major cities, like London, as a *de facto* shakedown by politicians in search of funds. While drivers of Ferraris and Maseratis with infinite disposable income can cruise their old-style vehicles around with impunity the middle and working classes are facing an independent movement-free culture at a rapidly approaching drop-dead deadline. For these economic categories to remain in the car-owning fraternity will require substantially lower prices for EVs. That in turn will require lower EV battery prices, which cannot be achieved in an on-going scenario of tight Lithium supplies and "premium pricing" of EV battery inputs (particularly Cobalt & Lithium).

The recession, depending on its length, is bound to crimp (if not stall) EV sales across Western economies while the price gap is destined to price many lower income consumers out of car-ownership. But the challenge was always a long-term one, not a short-term story of soaring and plunging prices. What we have seen in 2022-23 was essentially the acclimatization to the growth of an industry where the long-term potential is a great unknown.

Pricing – Chinese Own-Goal?

After steep rises in prices for lithium in 2017 and 2018, prices fell back sharply in 2019. In 2020, prices for lithium carbonate prices slipped by 40% and production remained low as a response to the drop in prices. Indeed, lithium production fell 4.6%, driven mainly by lower Australian output.



Source: Trading Economics

In 2022, lithium prices jumped to their highest levels ever due to an upsurge in electric vehicle sales and depleting stocks of the battery material in the main consumer, China. Most Western companies watched in bemusement as the price of Lithium for delivery in China soared over most of 2022 (as shown on the chart on the preceding page).

The peak Lithium price in Yuan was equivalent to around US\$87,000 per tonne, in an unrealistic and thinly traded market. The real Lithium producers and developers were focusing on the short-term contractual prices, which were US\$45-50,000. Most Western companies were using prices that were a mere fraction of this level in their models for PEAs and PFSs and longer-term prices are still around US\$24-26,000. In the case of Century, the price in its calculations was 80% lower. Even now, the much-wilted price in China is still four times the level of Century's PFS.

Initially, Western companies were pleased to see higher prices but, when prices went into an insane overdrive, concerns were raised that the inevitable pullback would also pull a rug from under the legitimate companies in the West trying to develop Lithium resources to a production phase.

And yet surely as night follows day, the cautious Western Lithium developers have seen their stock prices caught up in the black hole created by feckless Chinese speculation.

Clearly there is further to go as the Lithium price, and moreover the Chinese speculators, have a true Wile E. Coyote moment, finding there is no solid ground under their feet until much, much lower. Clearly there are some very burnt fingers here, and at what point their misery ends remains an unknown. We would expect the price to settle between \$US15,000 -\$30,000 during 2023. These are price levels at which most of the serious developers are still looking to make substantial returns that exceed the projections of their models.

Risks

The whole Lithium industry finds itself in a different world, with some constants from the previous "boom", but also quite a few things have changed. However, it is worth enumerating some of the risks that may be faced:

- A return to weak Lithium prices
- The Lithium market is still dominated by a group of large players, the majority of which were formerly components of the long-standing cartel in the Lithium space
- > Financing difficulties for mine builds facing smaller players
- > Failure of demand to match rising production (i.e. build it and no-one comes)
- Excessive number of competing projects could crowd the scene and investors' attention in the event that Lithium prices remain robust

Prices retreated somewhat in late 2016 and then recovered in 2017 thru into 2018 despite several

projects moving into production. Prices fell back sharply in 2019, then in 2020 prices for lithium carbonate prices slipped by 40%, before the massive rally in 2022. Rising supply is unlikely to suppress prices at this point as demand is expanding with significant vigour and, as in Lithium 1.0, many of the "likely" projects will not be built as they are in the hands of pure promoters.

Financing is not coming from markets but from end-users or processors. In the case of Century Lithium we would see the offtaker being most likely a player in the battery/Gigafactory space allied, or not, with an automaker. Over and beyond that, with the close relations with Koch, a grand consolidation driven by technology partnerships could be the next pivot for the industry.

Conclusion

As we noted at the beginning the Biden Administration's Inflation Reduction Act as a vehicle to kickstart the Green Revolution in the US, has tipped the playing field to advantage US-based projects in a radical alteration to the *status quo* in the global Lithium space.

Over the last decade, since the fading of the first Lithium boom in 2010, the complications of spodumene extraction and processing have created a major pivot towards producers from non-hard rock sources whether they be brine from *salares*, from unconventional sources or from clays.

Lithium developers in Nevada, like Century Lithium, are having their day in sun, pardon the pun, with US investors in particularly seeing an inherent advantage arising from being a Lithium mining operation based not just in North America, but also in the United States. If the Lithium conversion and end-use industries (i.e. batteries) should be the beneficiary of Washington's largesse then it would be illogical to not also officially sponsor the evolution of a greater US sourcing of the raw inputs of the battery value chain. Under the Defense Production Act, the US Federal Government is providing grants and loans for US critical mineral projects e.g. loneer received US\$700mn for its Rhyolite Ridge project and Lithium America received US\$600mn for its Thacker Pass project. Both of these projects are in Nevada.

Century has its water, potential for geothermal energy and solar energy, and has its processing needs licensed and coming together as planned. It has more than enough resources to get going (particularly with the fortuitous addition of the Enertopia asset). Permitting and funding of the mine are the next items on the agenda.... That is, if it isn't taken out first, with Koch being an obvious friendly predator prowling the neighbourhood. One might even conjure with the idea of a consolidation with Compass.

A Koch entry onto the share register would be a pivotal moment, but our price target for the time being should be predicated on the known unknowns (i.e. the progress on development). The unknown unknowns are icing on the cake that could see Century being taken out or a strategic stake being taken that propels Century to \$3 or more.

Thus, we are initiating Century Lithium with a **LONG** rating and propose a 12-month target price of CAD\$2.38.



Important disclosures

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