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29 September 2020

ASX/TSX-V: JRV
OTC: JRVMF

Jervois releases BFS for Idaho Cobalt Operations

HIGHLIGHTS

- Jervois Mining ("Jervois") announces positive Bankable Feasibility Study (the "BFS") from its 100%-owned Idaho Cobalt Operations ("ICO") in the United States, based on processing 1,200 short tons per day ("stpd") of mined cobalt-copper-gold ore.
- Net Present Value ("NPV"), at an 8% (real) discount rate, of US$113.4 million on pre-tax cash flows and US$95.7 million on post-tax cash flows; nominal Internal Rates of Return ("IRR") of 45.2% pre-tax and 40.6% post tax based on annual inflation of 2.5%.
- Updated Ore Reserve of 2.5M metric tonnes ("mt") @ 0.55% Co, 0.80% Cu and 0.64 g/t Au; approximate average annual contained production of 1,915mt cobalt, 2,900mt copper and 6,700oz gold, with operations starting in Q2 2022.
- At a cobalt price of US$25.00/lb, average annual EBITDA in real terms projected to be US$54.8 million over life of mine at an operating (EBITDA) margin in excess of 50%.
- Forecast life of mine cash costs of US$7.45/lb payable cobalt on a post by-product basis (assuming copper and gold prices of US$3.00/lb and US$1,750/oz respectively).
- Total project capital cost of US$78.4 million to produce a bulk concentrate; post-tax payback of all capital by 2.8 years from technical completion.
- ICO represents a low capital, high return investment and will be the only cobalt mine in the United States upon forecast commissioning in mid-2022. Operations are permitted and all infrastructure required for final construction of the mine and processing facilities is in place.
- Negotiations with potential lenders and off-take partners continue to advance; today's announcement of Jervois' agreement to acquire the São Miguel Paulista nickel and cobalt refinery in Brazil provides additional marketing flexibility and allows Jervois to further beneficiate ICO concentrate internally and deliver customers refined cobalt. This optionality enhances its current negotiations with customers on concentrate sales.

Jervois Mining Limited (the "**Company**" or "**Jervois**") (ASX: JRV) (TSX-V: JRV) (OTC: JRVMF) is pleased to announce successful completion of an updated Bankable Feasibility Study (the "**BFS**") for its 100%-owned Idaho Cobalt Operation ("**ICO**") in the United States. Since acquiring ICO in mid-2019, Jervois has increased confidence in its ability to successfully bring the site into commercial production. The technical quality, rigour and conservatism applied in the BFS has confirmed the uniqueness of ICO in its ability to become the only source of domestic cobalt supply in the United States.

The BFS confirms the potential of ICO to establish a near term, low cost cobalt-copper-gold mine, with significant opportunity to increase the mineral resource and extend mine reserves once mining commences. Jervois' January 2020 updated Mineral Resource Estimate ("**MRE**") was integrated into a revised mine plan and mining reserve, together with design of the metallurgical plant and final infrastructure requirements.

Key drivers for development of ICO was Jervois' recognition that incorporating flexibility in design to enable a final investment decision to be undertaken on either bulk or separated cobalt and copper concentrates, together with potential concentrate roasting or calcination, had the greatest potential to enhance off-take negotiations and underpin an economically optimised operation.

The BFS is based upon design of a concentrator producing a cobalt-copper bulk concentrate with gold credits. Jervois also completed engineering design and costing, flowsheets to produce separated cobalt and copper concentrates, and calcined (roasted) cobalt concentrate as part of the BFS. It has received off-take offers from potential customers for a variety of products to support economic trade offs between flowsheet alternatives.

In the context of Jervois' agreement to acquire the São Miguel Paulista nickel and cobalt refinery in Brazil ("**SMP Refinery**") together with existing off-take negotiations, Jervois now has significant flexibility and optionality in terms of how it moves forward to convert ICO concentrates into refined products for customer delivery. At this time the preferred path forward is via refining a bulk concentrate at its new refinery in Brazil. Now that Jervois' SMP Refinery acquisition can be disclosed to customers, specific discussions on appropriate physical form and pricing of ICO product can take place.

The BFS was managed by a joint team of DRA Global ("**DRA**") and M3 Engineering ("**M3**"), with the latter headquartered in Tucson, Arizona. Input was obtained from specialized North American contractors across mineral resource and reserve estimation and audit, mine design and scheduling including mine rock waste and underground paste fill pump and placement / scheduling, metallurgical testwork and laboratory management, process plant and engineering

design including site infrastructure and dry stack tailings, together with capital and operating costing. The study was prepared in accordance with both the Australian JORC Code 2012 Edition ("**JORC**") and Canadian National Instrument 43-101 ("**NI 43-101**"), the latter of which Jervois is required to publish on SEDAR within 45 days of this news release.

Key Operating Parameters and Economics

Key technical outputs from the BFS are summarized in Table 1 below.

Table 1: Key ICO Parameters

Parameter	Input	Parameter	Result
Production rate	1,200 stpd ore 1,090 mtpd ore	NPV (@ 8% real post-tax) [1]	US$95.7 million
Mine life	7 years	IRR (nom. post-tax) [1]	40.6%
Capital cost [1]	US$78.4 million	EBITDA[2,5]	US$54.8 million per annum
Operating cost[2]	US$7.45/lb payable Co (post credits)	EBITDA margin[2]	52%
Cobalt price[3]	US$25.00/lb	Cobalt in conc. (contained)[2]	1,915 metric tonnes per annum
Copper price[4]	US$3.00/lb	Copper in conc. (contained)[2]	2,900 metric tonnes per annum
Gold price	US$1,750/oz	Gold in conc. (contained)[2]	6,700 oz per annum

1. Based upon current BFS selling a bulk concentrate; capital is in real 2020 dollars and is in accordance with NI 43-101 requirements which must exclude potential cash collatorisation of environmental bonding, and only include actual cash environmental expenditure.
2. Average life of mine, in real 2020 dollars (as applicable, margin in percentage, unit cost in US$ per lb).
3. Metal Bulletin Standard Grade ("SG") in real 2020 dollars.
4. LME Cash in real 2020 dollars.
5. EBITDA is a non-IRFS measure but is commonly used in evaluating financial performance. While the common definition of EBITDA is "Earnings Before Interest Expense, Taxes, Depreciation and Amortization" as used in the BFS, EBITDA means revenue less mining, processing costs and haulage expenses. EBITDA used in this news release may not be comparable to EBITDA presented by other companies.

The BFS is based on extracting 2.5M metric tons of ore at an average grade of 0.55% Co, 0.80% Cu and 0.64 g/t Au. Initial mine life within the revised BFS is 7 years, as Jervois sought to maximise initial operating margins, economics and IRR's. Once underground access has been established and drilling can occur more cost effectively than from surface, unconstrained by

seasonality, Jervois has confidence that further resource will be converted to mine reserves (only 60% of the Measured and Indicated Resource has been included in the mining reserve at this time, and none of the Inferred Resource). In addition to known mineralisation, there exists significant potential for additional tonnes along strike and at depth.

The BFS mine plan does not incorporate any uplift in ultimate metallurgical recoveries associated with processing concentrate at SMP Refinery, and consequential impacts on reserve cut off and potential extensions to life of mine. Historical cobalt recoveries at SMP Refinery have averaged 96% over its operating life.

The process route at ICO is well defined and tested using standard existing technologies. Projected metallurgical recoveries to bulk concentrate once operations are ramped up and stabilized are 91.1% for cobalt, 95.5% for copper and 84.9% for gold. Recoveries are dependent on the feed grades, feed grade ratios of Cu:Co, and targeted concentrate grade quality (with 10% cobalt being targeted).

Operating costs will be extremely competitive (US$7.45/lb of payable cobalt after by-product credits), with the mine being the first and only United States supplier of ethically sourced cobalt units into the North American market.

Background

ICO is a high grade cobalt-copper-gold deposit in an established mining camp (the Idaho Cobalt Belt) with well understood geology. The proposed mine and mill are located on United States National Forest lands, and activities must adhere to federal United States Environmental Protection Agency ("**EPA**") requirements. Jervois has an approved Plan of Operations and is environmentally permitted to proceed into construction and operation. The facility will meet the latest EPA standards and all other Idaho State and local environmental and regulatory requirements.

The site is unique in having approximately US$100 million invested thus far on defining the mineralization and civil engineering including site grading and roads, installation of grid connectivity, construction of environmental systems (including the water treatment plant, dry stack tailings facility, groundwater pump-back system and water management ponds), other site infrastructure and equipment purchases. This significantly de-risks and reduces go forward capital for Jervois, and also compresses final development and mine commissioning timeframes.

Location

ICO consists of 243 contiguous unpatented lode mining claims located in east central Idaho, approximately 40km west of the town of Salmon in Lemhi county, as shown on the location map provided below. All mineral claims are staked on Federal land under the administration of the United States Forest Service ("USFS").

The property covers an area of approximately 4,475 acres. The mine portal is located at an elevation of approximately 2,150 meters above sea level, and the processing plant and most of the site infrastructure is located above the mine at 2,440 meters elevation.

Figure 1: Site Location

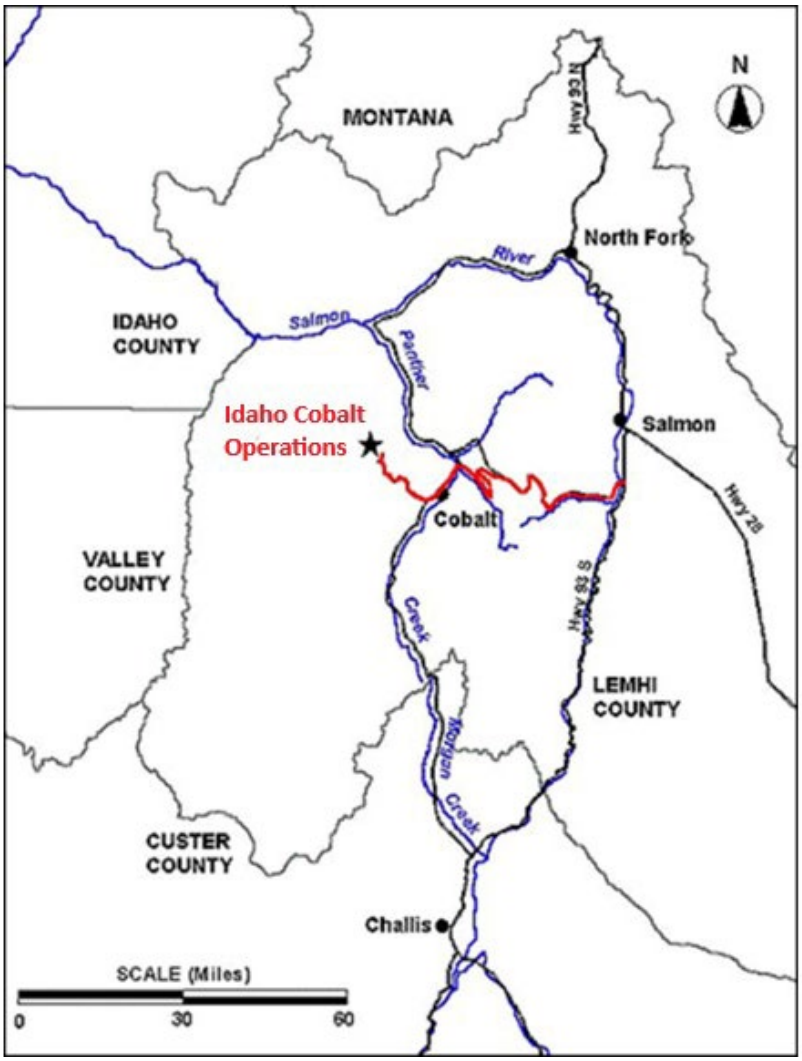

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Figure 2: Site Layout

Geology

ICO is hosted in Proterozoic age meta-sediments that are part of a 50 to 55km-long linear belt characterized by stratiform/tabular copper-cobalt deposits and known as the Idaho Cobalt Belt. The structure of the host formation is dominated by a regional rift structure. Cobalt-copper-gold mineralization occurs along a northwest-southeast trending structure parallel to and west of the central axis of the rift.

The Ram deposit, which is the focus of the proposed mine development, is proximate to the historic Blackbird mine (owned by Glencore) and two undeveloped deposits on Jervois claims to the south west.

Stratigraphically, the Ram deposit is subdivided into three zones: Hanging-wall, Main and Footwall zones, with each zone containing distinct mineralized horizons.

The Main zone horizons contain fine- to coarse-grained disseminations, bands, blebs, and stringers of cobaltite, chalcopyrite, and minor pyrite. This mineralization is dominantly concordant with bedding, but locally has been remobilized into thin quartz veins and/or crosscutting structures. The Main zone is up to 21 feet in true thickness and represents the bulk of the potentially economic mineralization identified in the Ram deposit to date.

The Ram deposit has been tested by 120 diamond drill holes totaling 24.3km or 79,683 ft. from 1997 through 2019. Although drilling has been intermittent over the years, there has been continuity over the campaigns. The Ram deposit comprises several sub-parallel horizons which generally strike N15°W and dip 50°-60° to the northeast and were drill tested to depths of 1,200 ft. vertically. The Main Zone horizons, which are the most extensive, were drill tested over 3,000 ft. in strike extent, and 500 ft.-1,200 ft. in vertical extent.

Mineral Resource Estimate ("MRE")

An updated mineral resource estimate with an effective date of January 20, 2020[1] was prepared by Orix Geoscience, Inc. ("**Orix**") for incorporation into the BFS. CSA Global Consultants Canada Ltd. ("**CSA**") audited and validated the Orix estimation procedures.

Compared to previous resource models, the 2020 model is rotated with smaller parent cell sizes of 12 x 12 x 4ft (3.66 metres x 3.66 meters x 1.22 meters). Prior block models used a minimum

[1] ASX Announcement January 22, 2020 - Increase of contained Idaho Measured cobalt resource by 22%. In accordance with listing rule 5.23.2, the Company confirms it is not aware of any new information or data that materially affects the information included in this market announcement referred to above and that all material assumptions and technical parameters continue to apply and have not materially changed.

block width of 1.8 meters. The rotation is -14° around the Z axis (dominant strike of mineralization is 346°), and -58° around the Y axis. Twenty-four (24) ID^2 interpolations were performed to populate the final grades into the block model.

The ore intercepts are best characterized as containing a single very high grade (>1% Co) interval of ~0.6m length with one to two intervals above cut off grade on either side resulting in a true width of 2.0 to 2.4 meters. Block rotation to the orientation of the main Ram zone and a reduced cell size has allowed a better reflection of grade distribution within the orebody.

The 2020 updated mineral resources for the Ram deposit as presented in Table 2 below. The mineral resources in this table are reported at a cut-off grade of 0.15% Co; the copper and gold resources are those resources carried within the resource blocks which attain the cobalt cut-off grade.

Table 2: 2020 Mineral Resource Estimate – Imperial and Metric[(3)(4)]

Category	Resource (M Tons)	Resource (M tonnes)	Co (%)	Co (M lbs)	Cu (%)	Cu (M lbs)	Au (oz/Ton)	Au (g/tonne)	Au (oz)
Measured[(1)]	2.92	2.65	0.45	26.2	0.59	34.4	0.013	0.45	38,000
Indicated[(1)]	2.85	2.59	0.42	23.8	0.80	45.7	0.018	0.62	51,000
M+I	5.77	5.24	0.44	50.1	0.69	80.1	0.015	0.53	89,000
Inferred[(2)]	1.73	1.57	0.35	12.0	0.44	15.2	0.013	0.45	23,000

1. Mineral Resources are not Mineral Reserves and by definition do not have demonstrated economic viability. The Mineral Resources in this news release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council (2014).
2. This MRE includes Inferred Mineral Resources that are normally considered too speculative geologically to have economic considerations applied to them and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
3. The Cobalt cut-off grade for inclusion in the resource is 0.15%, no consideration of copper or gold content was used in determination of cut-off grade.
4. Contained metal values and totals may differ due to rounding of figures.
5. The MRE was prepared by Scott Zelligan, P.Geo., who is an independent resource geologist.
6. The effective date of the MRE is January 20, 2020.
7. The MRE was based on the results of 111 drill holes completed at the Ram Property.
8. The model was domained using newly modelled constraining wireframes. These were prepared based on a new compilation of all available data and a thorough review of the geological interpretation, including new structural modelling. This included 9 "zone" wireframes as well as multiple offsetting "fault surface" wireframes.
9. The block model used to estimate the MRE has a block size of 12 ft x 12 ft x 4 ft and was rotated -14° around the Z-axis and -58° around the Y axis. These parameters were chosen in order to better represent the deposit with regards to potential mining methods.
10. Drill hole data was composited to 2 ft lengths based on the statistical review of sample lengths.

11. In the main zone Co grades were capped at 4% and Cu grades were capped at 4%. In surrounding zones, Co grades were capped at 0.7% and Cu grades were capped at 2%.
12. Inverse-distance-squared was chosen as the estimation method after a thorough statistical and iterative review of different methods, as it reproduced the grade distribution of the input data best.
13. Maximum search distances in the main zone were 320 ft, and 240 ft in the surrounding zones. Three search passes were used in order to best honour the grade distribution of input data.
14. Resource categorization has been made in consideration of drill spacing, statistical continuity, deposit type, and consideration of the CIM definition standards.

The Ram deposit resource remains open at depth and along strike offering opportunities for expansion. Additional prospects in the vicinity of the Ram infrastructure include Blacktail North and Sunshine. Neither Blacktail North nor Sunshine have yet been drilled sufficiently to generate a JORC or NI 43-101 compliant resource.

Mining and Mineral Reserves

The revised reserve estimate based on the 2020 MRE is set out below.

Table 3: 1,200stpd Mine Plan Reserve for 2020 Mineral Resource Estimate - Imperial[(3)(4)]

Category	Reserve (M short tons)	Co (%)	Co cont (M lbs)	Cu (%)	Cu cont (M lbs)	Au (oz / short ton)	Au cont (oz)
Proven[(1,2)]	1.59	0.56	17.9	0.67	21.2	0.015	24,633
Probable[(1,2)]	1.16	0.53	12.3	0.96	22.3	0.023	26,758
Total	**2.75**	**0.55**	**30.1**	**0.80**	**43.6**	**0.019**	**51,391**

Table 4: 1,200stpd Mine Plan Reserve for 2020 Mineral Resource Estimate - Metric[(3)(4)]

Category	Reserve (M tonnes)	Co (%)	Co cont (Tonnes)	Cu (%)	Cu cont (Tonnes)	Au (g/tonne)	Au cont (oz)
Proven[(1,2)]	1.44	0.63	8,100	0.67	9,600	0.53	24,633
Probable[(1,2)]	1.05	0.53	5,600	0.96	10,100	0.80	26,758
Total	**2.49**	**0.55**	**13,650**	**0.80**	**19,800**	**0.64**	**51,391**

1. Mineral Reserves are based on Measured and Indicated Mineral Resources which have demonstrated economic viability. The Mineral Reserves were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.
2. Mineral Reserves are reported as diluted recovered tons with grades considering those Mineral Resource blocks above Resource cut off grade within the dilutive material as contributing to metal content.

3. The cobalt equivalent cut off grade for inclusion in the reserve is 0.24% payable equivalent cobalt grade. This includes consideration of copper and gold content as well as recoveries and payability of each commodity. The calculation is:
Co-Eq = [Co]*0.6375 + [Cu]*0.09808 + [Au]*1.5539
where [Co] and [Cu] are mass percent fractions (grades) and [Au] is oz/st. The metal recoveries used are 91.1% for cobalt, 95.5% for copper and 84.9% for gold and pricing of US$25/lb Co, US$3/lb Cu and US$1450/oz Au.
4. Contained metal figures and totals may differ due to rounding of figures.

The current mine plan envisages twin adits primarily to provide the regulatory dual initial access points. The mining methods proposed for ICO are overhand longitudinal short-hole back stoping from 12ft high sills spaced 36ft vertically.

The selection of these mining methods for the deposit was determined primarily by the geometry of the mineralized horizons, including factors such as its continuity, dip and width, and the geotechnical parameters of the rock mass.

ICO is composed of numerous parallel mineralized horizons, with thickness ranging from one foot to more than 12ft, at an average dip of 55° (Orix 2020). Currently, only the main mineralized horizon ("MMH") contains the majority of the mineralization is considered in the mine design, plan and mineral reserve as all of the measured and indicated resource lies within this zone of mineralization.

The sills and backstopes will be completely filled with waste rock and cementitious paste fill. Mining sequencing will be overhand with fully paste filled sills forming crowns to terminate the overhand back stoping in a final retreat blind back stope. The mining method significantly reduces the risk of variability in the orebody through detail mapping and sampling of the orebody from the sills to be developed under geologic control. The ratio of mineral reserve that will be extracted through short-hole back stoping and sill mining methods is 62% and 38% respectively. In combination, these two mining methods provide a production capacity in the underground mine that is higher than the nominal mill capacity (1200 stpd). The proposed mine working schedule is two 11 hours shifts, seven days a week to provide blast fume clearance between shifts. The mine operating cost estimates have been based on the life of mine schedule, created in Deswik supplied to contractors for tender.

Paste prepared from mill tailings will be utilized as backfill material in combination with waste rock fill arising from mine development. Development has been scheduled to maximize waste available for fill during stope fill cycles while providing sufficient development ahead of mining to ensure adequate workplaces should adverse conditions be encountered in a stope.

Excavated material, ore and excess waste, will be hauled by 30 tonne payload ejector bed trucks to the portal area, and then loaded by a contractor into 30 tonne articulated surface haul trucks for final transportation to the ROM pad and TWSF.

Ground support is based on the nominal rock conditions from both rock quality assessments from core drilling confirmed by a geo-tech hole perpendicular to bedding in 2018 and inspection of the adjacent Blackbird mine. Basic support will consist of friction bolts and mesh for skin and near opening control. Historically ground condition problems were associated with fault crossings. A 10% allowance for additional support in the form of heavier and longer bolts as well as spot shotcrete was provided in the cost estimate. The introduction of a lithologic and structural model has allowed the new design to better estimate the need for additional support and plan infrastructure development to avoid high hazard areas.

Mine operations will be conducted by a mine contractor responsible for all aspects of underground production and development under the technical guidance of Jervois mine planning and management including safety oversight. Cost estimates are based on quotes provided by a contractor in a tender process.

The mine design and production schedule were created in Deswik to allow use of dynamic, resource based scheduling to best estimate ore feed grades based on the resource model, stope geometry and equipment availability and productivity. The schedule is based on stoping blocks of two rounds (6 meters) each to minimize smearing of grade within the schedule. Ramp development rates are constrained to below maximum achievable advance rates to minimize pre-production development costs and mitigate development schedule risk. Stope haul distances are limited to 150 meters on strike and drove the location of the three ramp systems developed sequentially during the life of mine.

Metallurgy and Mineral Processing

Metallurgical test work programs comprising batch and locked cycle flotation tests have been completed using representative samples of the Ram deposit with varying copper and cobalt mineralization that support the development of a geo-metallurgical model and BFS process flowsheet. The main test work programs completed to date have focused on confirmation of the configuration of the comminution circuit and production of both bulk and separated copper and cobalt sulphide concentrates. The current 1,200 stpd (1,090 mtpd) process flowsheet and lay-out has been developed by Jervois and DRA Global / M3 Engineering based on test work conducted by SGS Lakefield in 2005, Q4 2019 and Q1 2020. This updated design was commissioned to utilize existing equipment and infrastructure purchased in 2011-12 for the prior 800 stpd bulk concentrate design as much as practicable.

Jervois' developed and tested to BFS standard multiple products, of which samples were sent to customers and indicative off-take terms obtained. BFS testwork was completed on separated concentrates, a calcined separated concentrate, and bulk concentrate.

The final BFS metallurgical performance was based upon locked cycle testing, with the targeted cobalt grade in either bulk or separated concentrate of 10.0%. The plant performance predictions for this single, combined bulk product were based upon the locked cycle testwork results conducted at SGS-Lakefield in 2005 and Center for Advanced Mineral and Metallurgical Processing in 2001. Comprehensive milling, dewatering and flotation testwork in support of a separated copper and cobalt concentrate was conducted in the 2019 – 2020 under the supervision of DRA Global.

The proposed flow sheet to produce a combined bulk product has the following elements and is illustrated below in Figure 3:

- Crushing and grinding;
- Bulk copper and cobalt flotation rougher and cleaner and cleaner scavenger cells;
- Concentrate dewatering, filtration and packaging;
- Tails dewatering, paste production and dry stack tailings; and
- The comminution circuit is proposed to be a conventional crush / SAG / ball mill circuit with a target product size (p80) of 75 microns feeding the flotation circuit. The flotation circuit utilizes standard tank cell technology to produce a bulk concentrate which is thickened and filtered prior to being conveyed into a concentrate handling shed where it is bagged for shipment. The tailings are dewatered with a vacuum disc filter where filtered cake is either sent directly to the dry-stack tailings or is re-pulped to be pumped back underground as cemented backfill.

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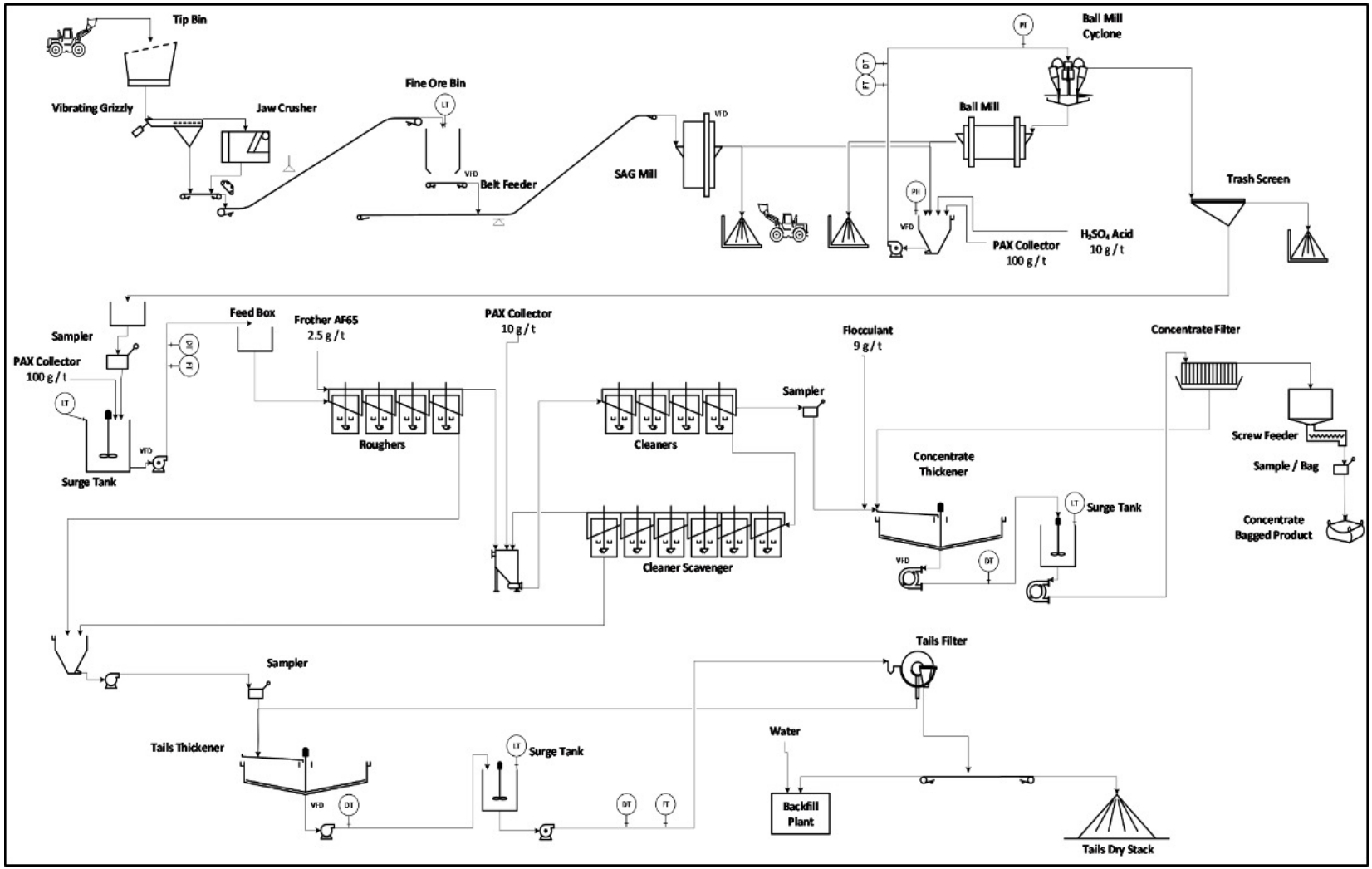
Figure 3: Proposed Flowsheet



Tailings Disposal

Tailings are disposed of by two means; either to the mine in the form of a cemented paste backfill (approximately 60% of tailings) or as a filtered dry stack material to the approved Tailings and Waste Rock Storage Facility ("TWSF"). The TWSF is partially constructed to a design approved by the USFS and described in the Plan of Operations. The lined facility will store the waste rock and tailings with precipitation outflow directed to the process water streams. On closure the facility will be covered with HDPE liner, capped with soil cover and revegetated.

The TWSF has a capacity which exceeds the total waste rock and tailings anticipated for the life of mine in four separate storage cells. The first of the four is under construction.

Infrastructure

Power

Site power is supplied from the United States grid at 69kV via Idaho Power, a publicly regulated power provider producing energy generated 45% from hydroelectric dams with an additional 20% from wind, solar and other renewables. Current rates for commercial customers are 5.5 USc/kWhr including capital recovery charges. Power to site was upgraded by the utility to exceed the demands (5.5 MW continuous) of the mining and processing activities projected in 2018. Site power distribution (13.8 kV) was installed in 2018 and transformers for lighting and powering site facilities as completed is installed and partially connected. The transformers to power the underground mine and concentrator operations are owned but not yet installed.

Water

Site process water is managed to minimise pollution from sedimentation of non-process water from precipitation through a general stormwater permit managed by the USFS and Idaho Department of Environmental Quality ("IDEQ"). Process water management is managed through plans and permits in the Plan of Operations to capture all process contact waters in the 90M litre water retention ponds. The mine, site activity and processing are anticipated to generate 15 litres per minute ("lpm") of excess water on average which would be treated in the 560 lpm water treatment plant periodically. The water management system was sized for a worst-case scenario storm event during peak spring runoff loading. Backup process water can be obtained from the groundwater capture well system if needed during dry years through water rights obtained from the Idaho Department of Water Resources ("IDWR").

Site potable water is provided via a fresh water well with local filtration planned. The system during operation will include a storage tank for fire water supply as well as sanitary needs. Onsite filtration and aeriation will be required to achieve potable levels. A backup well has been completed on site and will be available to truck water to the facilities if the primary well fails.

Site Access

Access to site is by means of public roads from Salmon, Idaho, through the national forest and maintained by Lemhi County. The roads serve multiple uses including access for reclamation of the adjacent Blackbird mine, logging and recreational uses as well as access to private landholding within the forest. From the public roads access to the site passes through the former Blackbird mine site under a road use and maintenance agreement that is a part of the Plan of Operations and the Blackbird site reclamation plan. Jervois maintains roads within the Ram claim block to access future production facilities and water monitoring infrastructure. There is a secondary access route for emergency egress and for personnel transport from Challis, Idaho, for employees who may live in that community. All transportation is managed under a Road Use permit in the Plan of Operations, which establish standards of practice to minimize vehicle traffic impacts.

Site Accommodation

A camp facility is planned for the construction and operations of the site and will provide a reduction in vehicle traffic over moving up to 100 employees daily on the transportation route. Jervois has a strong emphasis on local hiring and relocation of new employees to Salmon and Challis areas, and rotational schedules will be short to make travel to a home remote from the local area undesirable.

Project Execution and Logistics

The project is intended to be executed as a managed construction project by Jervois coordinating well experienced firms utilizing local and regional sources of labor and materials where appropriate. Project execution has been significantly de risked due to site access, grid power installation, site communication, bulk earthworks and terracing being completed.

The execution timeline is expected to be short given the amount of infrastructure construction completed to date. From project financing it is estimated there will be 3 months of seasonal work to complete project infrastructure followed by 12 months of assembly of the processing plant and development of the underground mine before commissioning with ore begins. The

plant assembly and mine development work is insensitive to weather delays as it will be within completed structures or underground.

Construction and mining projects in Idaho are designated essential business and as such remain open during the COVID-19 pandemic. Construction contractors in the area continue to seek and execute projects whilst maintaining appropriate safety measures. Safety protocols will be established based on CDC guidelines and rigorously followed during project execution.

Construction and operation logistics are governed by the permitted transportation plan on USFS lands and United States and Idaho Department of Transportation rules on public roads. Within USFS lands, all heavy or oversize construction deliveries must be piloted along roads. During operations all concentrate produced will be dispatched to potential off take customers via road, with product in lined bags within 20 ft shipping containers. Supplies including fuel, cement, explosives and reagents will use the permitted transportation route and be piloted if long or heavy. Other loads are subject to a per-trip fee by vehicle size.

The concentrate is expected to be delivered in the 20 ft containers (average 4 per day) to Salmon Idaho for transfer to a single B-train of 3 containers (7 per week) for transport to an intermodal facility in Idaho Falls or Blackfoot where access to the United States rail network and interstate highway system is available. Each B-train will pick up 3 empty containers for backhaul to Salmon. Each 20 ft container will be a shipping unit of 18 individually assayed 1 ton bags. The containers can be manifested and sealed for shipment from Salmon once assays of critical metals are received.

The Salmon warehouse will be used to consolidate loads for transport to site in the containers to be used for concentrate haul, reducing empty loads on the USFS route. The Salmon warehouse will house all critical spares as well as general supplies and repair parts. Site satellite storage of materials is intended to be limited to 3-4 days supply as there will be daily deliveries to site. The Salmon warehouse will maintain an inventory of containers to mitigate disruptions to concentrate movement due to container availability.

Environment and Permitting

ICO developed a comprehensive Environmental Impact Statement which served as the basis for project approval by the key United States government regulator, the USFS. The approved Plan of Operations includes detailed programs for environmental management, reclamation and closure. More than US$20 million has been invested on water treatment and environmental management systems, an amount that is unprecedented for a project of this relatively small

scale and footprint, at this early stage of development. At ICO, Jervois will set a new standard of industry environmental stewardship in the State of Idaho.

Environmental compliance is overseen by the USFS representing a multi-agency group that contributed to the EIS and approved Plan of Operations, including key stakeholders such as the Nez Perce and Shoshone Bannock Tribes. Jervois is active in engaging with local conservation groups such as the Idaho Conservation League, water quality is also monitored by the IDEQ.

As there are no significant changes to the mining methods, milling and concentrating procedures (and resulting impacts on the surface or waterways) from the Plan of Operation approval, the existing record of decision at the ICO mine and mill remains unchanged. The status of current permits was audited by the Wood Group when Jervois took over eCobalt Solutions in mid 2019.

Capital Cost

Mine and mill capital costs have been estimated for both a bulk and dual concentrate process operating at 1,200 stpd (1,090 mtpd), with the capital cost for a roaster to process cobalt concentrate also designed to BFS level certainty.

Bulk Concentrate

Capital for the production of bulk concentrate is outlined below.

Table 5: Capital Cost Estimate

	US$ million (real 2020 dollars)
Mine	18.6
Plant Direct	25.5
Infrastructure	10.8
Indirect (owners)	23.5
Total Capex	**78.4**

Sustaining capital will be expended from start of operations, with US$6.3 million estimated in 2022 and US$26.6 million in 2023, and then US$23.1 million (in real 2020 dollars) over the remainder of the initial life of mine.

Consistent with NI 43-101 the above capital cost ignores environmental bonding and captures actual cash outflows as projected to be incurred. Jervois will deposit a bond with the USFS to

access underground; with the release of this BFS the Company will now advance negotiations with potential providers and place the instrument by mid 2021.

Separated Cobalt and Copper Concentrates

Independent of this published BFS on bulk concentrate, capital cost to produce separated cobalt and copper concentrates was assessed in the context of assessing marketing alternatives. The total project capital cost to produce separated concentrates was estimated to be US$83.2 million. The additional US$4.8 million capital is associated with the flowsheet and procurement of additional flotation equipment, concentrate tickening, concentrate filtration and product handling equipment. Metallurgical recoveries and concentrating unit costs would also fall and rise marginally respectively. Whilst this flowsheet was engineered to BFS level certainty, it does not form part of this published study nor will it be part of the NI 43-101 Feasibility Study released on SEDAR.

In a future scenario, distinct from the finalized BFS on bulk concentrate, whereby Jervois decided that the operation should be constructed on the basis of separated concentrate production, the copper concentrate, as a blended feed with traditional copper concentrates, has the potential to be accepted at reasonable valuation due to its high copper content (>30%) and gold values, despite containing up to 2% arsenic.

Calcined Cobalt Concentrate

To support off-take negotiations with certain customers, and once Jervois' SMP Refinery due diligence identified the potential of processing a calcined concentrate in Brazil, at the start of 2020 Jervois commissioned M3 to conduct a separate BFS for a potential roaster based in Blackfoot, Idaho. Blackfoot is 300km from Salmon and Jervois owns an existing industrial site where the plant can be located. The final capital cost estimate for a roaster based in Blackfoot to process ICO cobalt concentrate based on the BFS production rates was US$17.1 million. Forecast conversion costs within the United States for a calcined product were approximately US$1.00/lb. Again these figures do not form part of the finalised BFS which is basis sale of uncalcined bulk concentrate.

Operating Cost

Based on design of a bulk concentrate process operating at 1,200 stpd (1,090 mtpd) the BFS operating cost estimate in real 2020 dollars is set out below.

Table 6: Operating Cost Estimate (life of mine)

	US$/st	US$/mt
Mining	74.22	81.81
Mill / Concentrator	18.27	20.14
G&A	12.92	14.24
Direct Site Costs	105.41	116.20
Transport, TC/RC	6.33	6.98
By Product Credits	(55.89)	(61.61)
Total Operating Cash Costs	**55.85**	**61.56**

This unit BFS operating cost estimate equates to US$7.45/lb payable cobalt (after by product credits).

Marketing

Jervois' plan for ICO is to produce a bulk concentrate, containing annual production of approximately 1,915 metric tonnes of cobalt, 2,900 metric tonnes of copper and 6,700 oz of gold. The concentrate will be low in deleterious elements, with the exception of arsenic as the cobalt is contained in the mineral cobaltite (CoAsS).

To retain marketing flexibility, BFS level engineering (including metallurgical testwork and physical product sample generation) has also been completed on separated concentrates and a calcined cobalt product.

ICO's concentrate has been marketed to a variety of customers including nickel and cobalt refineries, precursor and battery manufacturers, and OEM (vehicle manufacturers) directly. Representative samples were sent to customers, indicative off-take offers have been received and negotiations are ongoing.

Commercial terms that underpin the BFS are approximately 75% of the payable metal value in concentrate.

The concurrent announcement of this BFS with SMP Refinery acquisition creates significant marketing flexibility. It introduces Jervois' 'Base Case' whereupon the Company shall further beneficiate ICO concentrate internally and deliver customers refined cobalt. In recent months Jervois has been selectively broaching the concept of delivering refined cobalt to key strategic customers (largely battery makers and OEM's that cannot physically consume concentrate in their industrial facilities). The reception has been very positive, and now that Jervois' SMP Refinery acquisition is publicly disclosed, Jervois is initiating a formal process to determine how best to

market refined cobalt, whilst also addressing funding requirements at both sites. Magma Capital, the current debt adviser for ICO project financing will assist the Company in this process. Now that potential concentrate customers are aware that Jervois has an internal processing option, Jervois' negotiating leverage on concentrate sales also improves. Whilst Jervois' current expectation is the bulk concentrate from ICO will be converted at SMP Refinery, the Company retains an ability to divert to multiple customers should this be commercially advantageous.

Economic Evaluation

The economic assessment of ICO is based on a discounted 100% equity financed cashflow model, from which the NPV, IRR, payback and other key metrics were determined. Key economic assumptions used in the economic evaluation are presented in Table 8 below.

Commodity prices used in the BFS are based on long-term forecast pricing data from leading global investment banks and commodity market experts.

Table 7: Key Macro Economic Assumptions and Outcomes

	Unit	Value
Cobalt (Metal Bulletin Standard Alloy Grade)	USD/pound	25.00
Copper (LME)	USD/pound	3.00
Gold	USD/oz	1,750
Real discount rate	%	8.0
Annual Inflation rate	%	2.5
Corporate tax rate (Idaho / United States)	%	26.5
NPV (pre tax)	USD millions	113.4
NPV (post tax)	USD millions	95.7
IRR (pre tax, nominal)	%	45.2
IRR (post tax, nominal)	%	40.6
IRR (pre tax, real)	%	41.8
IRR (post tax, real)	%	37.6
Payback (pre tax)	Years	2.6
Payback (post tax)	Years	2.8

As previously noted the BFS has a pre-tax NPV of US$113.4 million at a discount rate of 8.0% (real); post-tax NPV is US$95.7 million on the same basis. The pre-tax and post-tax nominal IRR's are 45.2% and 40.6% respectively. Post-tax payback of all capital is forecast at 2.8 years from technical completion after commissioning ('simple payback').

Due to its United States domicile, ICO has significant leverage to higher commodity prices. Should higher future prices eventuate than applied in the BFS base case, the economic impacts are greatly improved. Sensitivity to commodity prices, together with capital and operating cost variances are outlined below in Tables 8 to 10.

Table 8: Sensitivities NPV Post Tax - +/- 10%

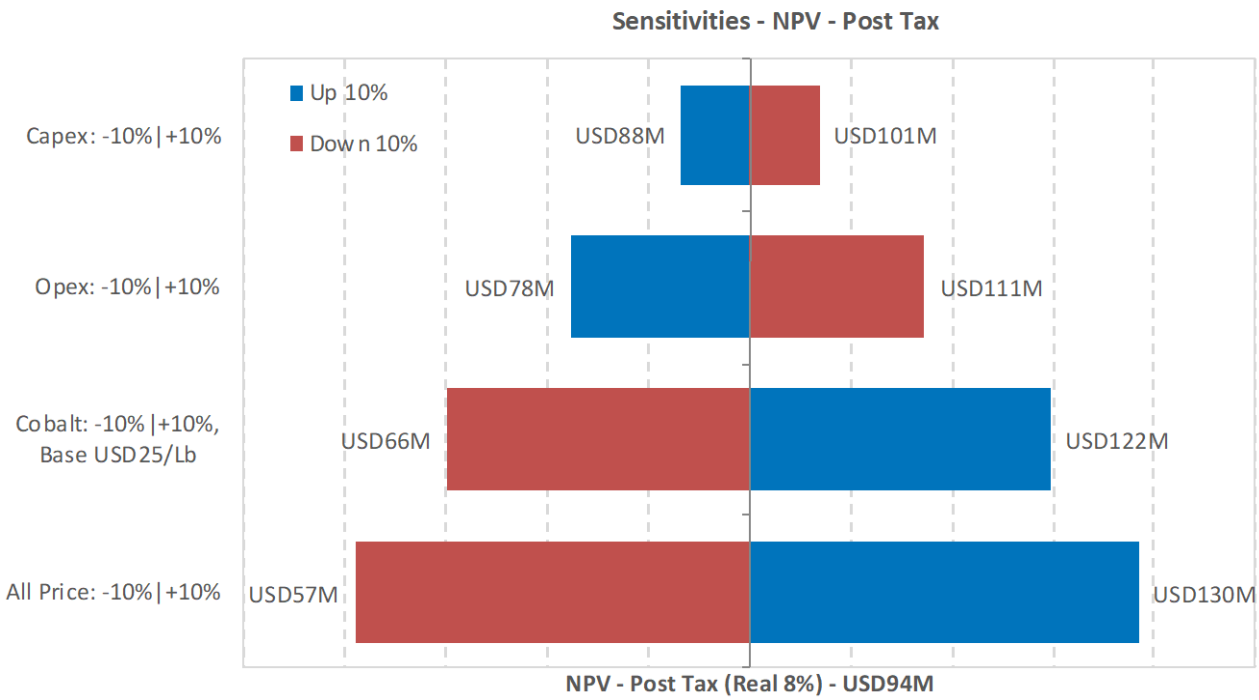


Table 9: Sensitivities NPV Post Tax - +/- 20%

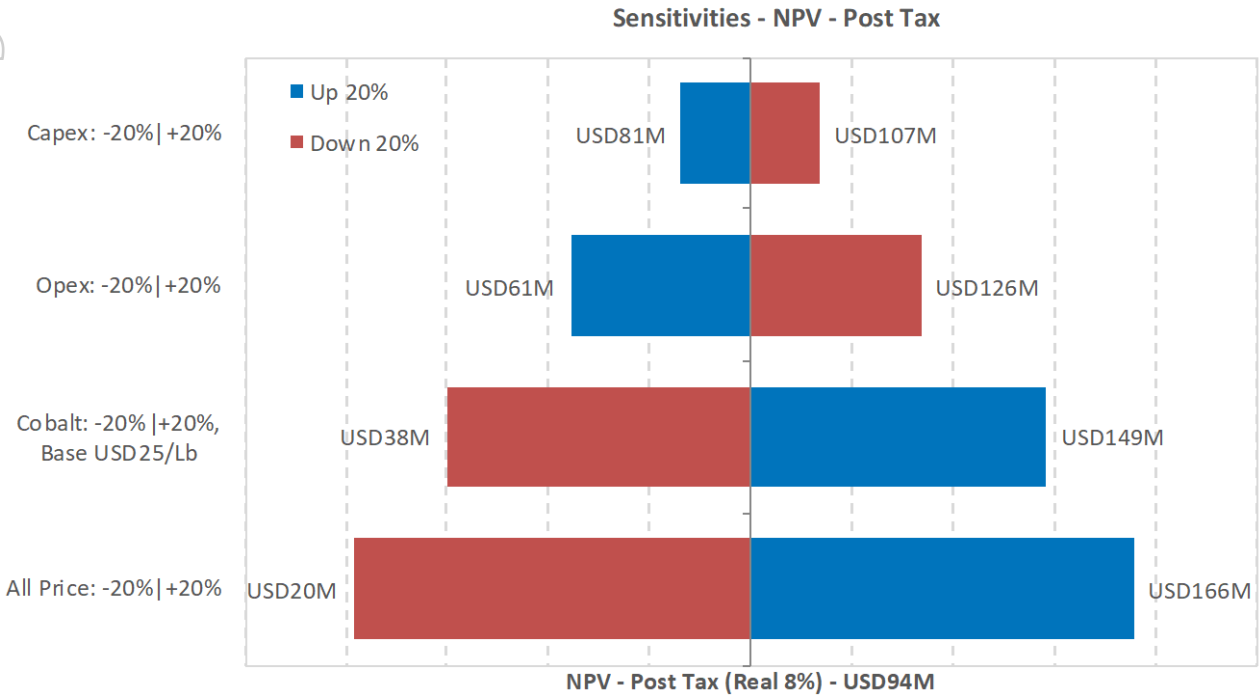
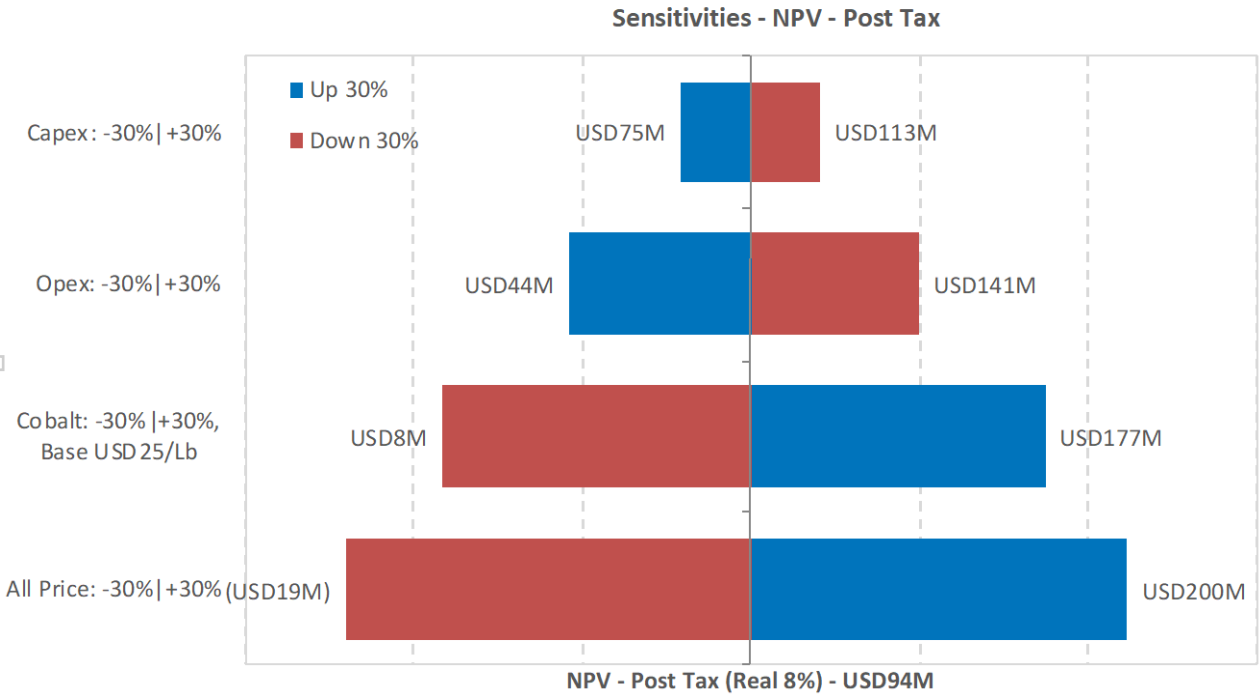


Table 10: Sensitivities NPV Post Tax - +/- 30%



United States Government Discussions

Jervois is proud to be an Australian company, with Australia and the United States sharing exceptionally close security and intelligence ties. The mutual support at the heart of these ties define the ethos that Jervois is bringing to ICO. The level of profile and attention from political leadership in both the United States and Australia for ICO is high. Jervois was invited back to Washington, DC in early December 2019 to present to the key United States government executive group dealing with raw material security – the United States Cross Executive Branch Critical Mineral Sub-Committee, co-chaired by the White House and the Department of Energy. In the United States, where Jervois Chief Executive Officer Bryce Crocker is temporarily based, the Company is actively engaged with key political and regulatory leaders across both Washington, DC and Boise, Idaho.

Cobalt Refining within the United States

The Company engaged Wood to undertake a scoping study on a cobalt refinery based at its Blackfoot industrial site in Idaho, United States. Whilst Jervois is optimistic that ultimately a domestic United States refinery will prove commercially viable, based on current mine reserves, the facility is uneconomic. Jervois needs to access underground via initial mine development in order to drill effectively to expand and prove up the known mine reserve. Associated with improving the economics of a future United States cobalt refinery, in partnership with Idaho National Laboratories (part of the United States Department of Energy), the Company has been invited to apply to the United States Critical Materials Institute for a research grant to unlock domestic cobalt production through process innovation.

Project Financing Update

Now that the BFS for ICO and Jervois' SMP Refinery acquisition have been publicly announced, Jervois can re-engage with lenders that submitted indicative term sheets in January 2020 on the basis of current marketing plans. RPM Global's work as Independent Engineer was paused initially due to Covid-19, and now prior to finalizing lender appointments. Subject to final lender confirmation it is expected that their work to prepare an Independent Technical Expert report in a form suitable for debt financiers of the project will recommence in Q4 2020.

Current construction schedule requires long lead item orders (SAG mill, tailings filters) to be placed by calendar year end, and detailed engineering to commence in January 2021. Upon snow melt in Q2 2021 early works execution will occur at site encompassing completion of the water treatment system, installation of camp, TWSF preparation and civils mobilization. Full site

construction is anticipated to restart in mid 2021, and the portal will be opened in Q3 2021. First commercial production remains forecast for mid 2022.

Investor and Analyst Conference Call Details

Jervois will hold an investor webinar on Tuesday, 29 September at 10:15am AEST to discuss its Bankable Feasibility Study for ICO and acquisition of the São Miguel Paulista nickel and cobalt refinery in Brazil.

The webinar will feature Chief Executive Officer Bryce Crocker, General Counsel Ken Klassen, ICO BFS Project Director Russell Bradford and EGM Technical Services Michael Rodriguez.

Investors are invited to send questions prior to the webinar to:
nathan.ryan@nwrcommunications.com.au

Register for the investor webinar at the link below:
https://us02web.zoom.us/webinar/register/WN_nsnyD1v5Q4OWMQ5XUn1BdA

After registering, you will receive a confirmation email containing information about joining the webinar.

To join the webinar via telephone, please use one of the following numbers and enter the
Webinar ID: 853 5011 7205

Australia	USA
+61 861 193 900	+1 669 900 9128
Canada	United Kingdom
+1 778 907 2071	+44 203 901 7895

For higher quality, dial a number based on your current location:
International numbers available: https://us02web.zoom.us/u/kvsfa5uem

A recording will be made available shortly after the conclusion of the webinar at the same link.

On behalf of Jervois Mining Limited,

Bryce Crocker, Chief Executive Officer

Jervois MINING LIMITED

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Forward-Looking Statements

This news release may contain certain "Forward-Looking Statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. When used in this news release, the words "anticipate", "believe", "estimate", "expect", "target, "plan", "forecast", "may", "schedule" and other similar words or expressions identify forward-looking statements or information. These forward-looking statements or information may relate to construction and operations to be undertaken at ICO, off-take terms and agreements, future metal prices, cashflow assumptions, timing assumptions for commercial operations, metal recoveries, projected capital and operating costs, life of mine productions rates and the financial results of ICO, the reliability of third party information and certain other factors or information. Such statements represent the Company's current views with respect to future events and are necessarily based upon a number of assumptions and estimates that, while considered reasonable by the Company, are inherently subject to significant business, economic, competitive, political and social risks, contingencies and uncertainties. Many factors, both known and unknown, could cause results, performance or achievements to be materially different from the results, performance or achievements that are or may be expressed or implied by such forward-looking statements. The Company does not intend, and does not assume any obligation, to update these forward-looking statements or information to reflect changes in assumptions or changes in circumstances or any other events affections such statements and information other than as required by applicable laws, rules and regulations.

This news release also contains references to estimates of Mineral Resources and Mineral Reserves. The estimation of Mineral Resources and Mineral Reserves is inherently uncertain and involves subjective judgments about many relevant factors. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgements used in engineering and geological interpretation, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral Resource or Mineral Reserve estimates may have to be re-estimated based on, among other things: (i) fluctuations in cobalt or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed mining operations, including dilution; (v) the evaluation of mine

place subsequent to the date of any estimates; and (vi) the possible failure to receive or maintain required permits, approvals and licenses.

Competent Person's Statements

The information in this release that relates to Mineral Resources is based on information compiled by Jervois' Geological consultants, Orix Geoscience, and analysed by Scott Zelligan, P.Geol who is an independent consultant to Jervois. The information has been reviewed by David Selfe who is full time employee of the company and a Fellow of the Australasian Institute of Mining and Metallurgy. David Selfe has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. David Selfe consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.

The information in this release that relates to metallurgy and metallurgical test work has been reviewed by Mr David Frost, FAusIMM, B. Met Eng.Mr Frost is a full time employee of DRA Global Limited. Mr Frost is a Fellow of the Australasian Institute of Mining and Metallurgy, he has sufficient experience with the style of processing response and type of deposit under consideration, and to the activities undertaken, to qualify as a competent person as defined in the 2012 edition of the "Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves" (The JORC Code). Mr Frost consents to the inclusion in this report of the contained technical information in the form and context as it appears.

The information in this report that relates to Ore Reserves underpinning the Production Target has been prepared by Mr Nick Yugo, P.Eng who is a consultant to the Company and who is a member of the Professional Engineers Ontario which is a Recognised Professional Organisation. Mr Yugo has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Yugo consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Disclosure required for TSX-V Regulations

Qualified Person's Statement

The technical content of this news release that relates to Mineral Resources has been reviewed and approved by Scott Zelligan, P.Geol who is an independent consultant to Jervois and a Qualified Person as defined by National Instrument 43-101.

The technical content of this news release that relates to metallurgy and metallurgical test work has been reviewed and approved by David Frost, FAusIMM, B. Met Eng who is a full time employee of DRA Global Limited and a Qualified Person as defined by National Instrument 43-101.

The technical content of this news release that relates to Mineral Reserve has been reviewed and approved by Nick Yugo, P.Eng who is a consultant to the Company and each are a Qualified Person as defined by National Instrument 43-101.

The technical content of this news release that relates Tailings Storage Facility has been reviewed and approved by David Cameron, P.E who is a full time employee of KC Hervey Environmental LLC and a Qualified Person as defined by National Instrument 43-101.

The financial content of this news release that relates operating cost estimates has been reviewed and approved by David Frost, FAusIMM, B. Met Eng who is a full time employee of DRA Global Limited and a Qualified Person as defined by National Instrument 43-101.

The financial content of this news release that relates capital cost estimates has been reviewed and approved by Matthew Sletten, PE who is a full time employee of M3 Engineering and a Qualified Person as defined by National Instrument 43-101.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Appendix 1 - Mining and Mineral Reserves Technical Summary

The revised reserve estimate based on the 2020 MRE was completed by Jervois' technical staff with input from Jervois' consultants as stated in the Qualified Persons statements accompanying this announcement.

The 2020 MRE has been previously reported and also contains the detail on Geology for the ICO, refer to ASX release January 22, 2020 – "Increase of contained Idaho Measured cobalt resource by 22%". There is no new information or data that materially affects the information included in this market announcement referred to above and that all material assumptions and technical parameters continue to apply and have not materially changed.

Mineral Reserve Estimates

For the ICO, the Measured and Indicated mineral resource from the main mineralised horizon was considered in the mine plan for conversion into a mineral reserve. Measured resources were, where above cut off grade on a diluted basis in stope shapes, converted to Proven Reserves. Indicated resources were, where above cut off grade on a diluted basis in stope shapes, converted to Probable Reserves.

Conversion of the mineral resource estimates to mineral reserve was inclusive of the modifying factors, diluting material and allowances for losses which are to be expected when the material is mined or extracted.

Cut-Off Grade (CoG) Criteria And Estimate

The mineral reserve was based on the mineral resource model's tonnages and grades, reported in blocks meeting or exceeding the CoG of cobalt. The CoG value used in the mine design was based on the operating costs, metallurgical recovery estimates, net payable value of the contained metal and market prices that resulted from this study.

The stope outlines and mineable tonnages and grades for short-hole back stoping and sill mining methods were defined based on a CoG of 0.32% and 0.30% contained Co respectively to generate a mine plan further restricted by metal recoveries and net payable values.

Each stope block was assessed for total recovered value , primarily 86% Cobalt to Co Concentrate and 89% Copper to Cu Concentrate and payable values of approximately 75% on an equivalent cobalt content basis across a range of cobalt prices to determine the best value CoG. Only stope Blocks achieving Equivalent recoverable and payable cobalt grades above 0.24% were included in the reserve to support economic mining at the target prices of US$25.00/lb cobalt, US$3.00 copper and US$1,450/oz gold used for mine plan preparation.

Stope Outline

The stope outlines were designed using the Deswik Stope Optimizer to represent the planned extraction of the mineralised zones together with any internal or adjoining waste rock which cannot be left in-situ. The tonnage and grade contained within these stope outlines are reported as whole blocks only with no grade being attributed to material not meeting a measured or indicated resource classification.

Stope blocks include 0.5 ft overbreak on the footwall and hanging wall (1' total rib dilution) and align to resource block orientations wherever possible.

The stope outlines were generated from 12 ft vertical level interval shells, honouring the cobalt CoG of 0.24% on a recovered and Payable equivalent basis. Each stope block represents two production rounds.

Dilution And Losses

Two types of dilution values were applied in determining the mineral reserve, depending on the dip angle of the deposit, the configuration of the minimum mining width and the mining methods:

- Planned or internal dilution: including all the mineralised, low grade and waste material contained in the whole block and the stope outline.
- Unplanned or external dilution: accounting for additional zero grade waste material being included for the proposed mining methods due to the physical configuration of the horizons and mining widths.

The total planned volumetric dilution is approximately 16%, based on the difference of a 0.30% Co grade shell and designed ore mining shapes. This includes 0.5 ft overbreak included in the planned ore shapes. The unplanned dilution sources are:

- Additional possible stope overbreak in certain areas due to local geotechnical conditions.
- Tunnel overbreak, as practical penalties for tunnel underbreak (re-drill and re-blast) are typically higher than slight overbreak.

The weighted average unplanned dilution is calculated to be approximately 5%. The total planned and unplanned dilution together is approximately 22%.

Mining Recovery

Mineralised material losses arise because of the difficulty of loading and mining mineralised material from the excavated stopes. This includes losses due to fines and pillars left behind during mining.

Sill mats are constructed of high strength paste backfill material poured into lead stopes and as a cap in fill of back stopes to minimise the amount of mineralised material lost as pillars or sill pillars. Much consideration was done during the mine sequencing for the placement and location of the high strength

backfill, to reduce the amount of mineralised material abandoned in the mine or left for extraction towards the latter years of the mine life.

Losses accounted for also include a 1-inch layer of fines in the sill drive of a long-hole stope, as well as a 1 ft skin pillar at the top of each column of stopes in a bottom-up sequence. The average recoveries are 95% of the diluted stope material.

Mineral Reserve Estimate

Stope outlines were generated from two types of 12 ft vertical level interval shells, one being a minimum 15 ft width sill drift and the second being a minimum 6 ft width back stope for the two twelve ft level intervals immediately above the sills. Each stope shape represents production rounds. A base cut off grade of 0.30% Co was used to create the sill shapes eligible for conversion to reserve and a cut off grade of 0.32% was used for the back stope shapes. These shapes were then further filtered to accept only those diluted shapes for which a recovered, and payable cobalt equivalent grade of 0.24% was achieved. Recoveries used in the calculation were derived from test work conducted as part of this study. Payable values were based on indicative terms from prospective off-takers. Table 4 in the main release summarises the mineral reserve estimate for the Idaho Cobalt Operation.

Mining Methods

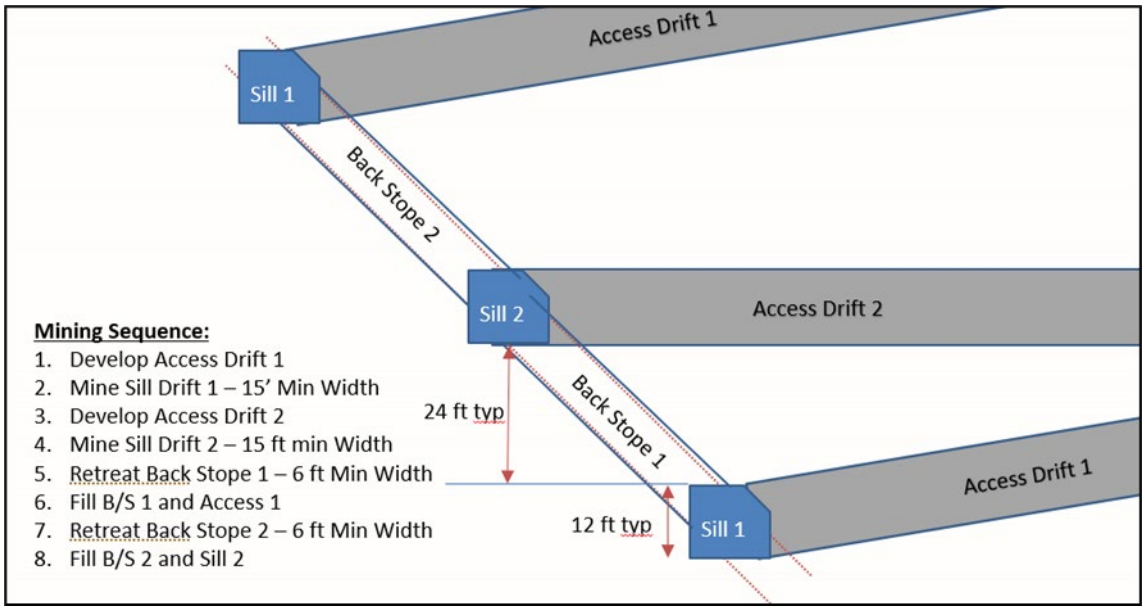
The mining methods proposed for the ICO are overhand longitudinal short-hole back stoping from 12 ft high sills spaced 36 ft vertically.

The selection of these mining methods for the deposit was determined primarily by the geometry of the mineralised horizons, including factors such as its continuity, dip and width, and the geotechnical parameters of the rock mass.

The ICO is composed of numerous parallel mineralised horizons, with thickness ranging from one foot to more than 12 ft, at an average dip of 55° (Orix 2020). Currently, only the main mineralised horizon (MMH) contains the majority of the mineralisation is considered in the mine design, plan and mineral reserve as all of the measured and indicated resource lies within this zone of mineralisation.

The sills and backstopes will be completely filled with waste rock and cementitious paste fill. Mining sequencing will be overhand with fully paste filled sills forming crowns to terminate the overhand back stoping in a final retreat blind back stope. The mining method significantly reduces the risk of variability in the orebody through detail mapping and sampling of the orebody from the sills to be developed under geologic control.

Figure A- 1: Typical Mining Sequence



The ratio of mineral reserve that will be extracted through short-hole back stoping and sill mining methods is 62% and 38% respectively. In combination, these two mining methods provide a production capacity in the underground mine that is higher than the nominal mill capacity (1,200 st/d). The proposed mine working schedule is two 11 hours shifts, seven days a week to provide blast fume clearance between shifts. The mine operating cost estimates have been based on the life of mine schedule, created in Deswik supplied to contractors for tender.

Paste prepared from mill tailings will be utilised as backfill material in combination with waste rock fill arising from mine development. Development has been scheduled to maximise waste available for fill during stope fill cycles while providing sufficient development ahead of mining to ensure adequate workplaces should adverse conditions be encountered in a stope.

Excavated material, ore and excess waste, will be hauled by 30-t payload ejector bed trucks to the portal area, and then loaded by a contractor into 30T articulated surface haul trucks for final transportation to the ROM pad and TWSF.

Mine Design Parameters

The following bullet points summarise the mine design parameters and criteria for the Ram deposit.

- Cut-off Grade of 0.24% Cobalt Equivalent on a recovered and payable basis derived from a population of stope blocks created in Deswik at 0.30% and 0.32% Co grade cut off.
- Longitudinal Short-hole back stopes at a minimum width of 6 ft. to be cast into the sill drift below and mucked before the subsequent blast to minimise ore loss.

- Sill stopes at a minimum width of 15 ft with a shanty back to allow mechanised mining with the selected fleet. Sills to be spaced at nominal 35 ft centres vertically.
- Stope vertical level intervals set at 70 ft between sub-levels and stope blocks generated in Deswik at 24 ft along strike and 12 ft height.
- Only Measured and Indicated mineral resource from the MMH are considered in the mineral reserve estimate.
- Sill Production Advance Rates volumetrically capped at 2,100 ft^3 per day per available heading.
- Backstope Production Rates volumetrically capped at 5,000 ft^3 per day per available stope.
- Paste Fill Rates capped at 7,500 ft^3 per day.

Geotechnical Considerations

Dr Woo Shin, PhD, P.Eng., an independent rock mechanics specialist was engaged to review previous work and data summarised in the Technical Report which largely drew on work in 2006 by Minefill. Data from the 2004 Ram drill program was largely utilised for rock mass classification. The findings were summarised in March 2020 and encompassed:

- Geotechnical data review and summary.
- Ground support standards development for main ramp and production drifts.
- Ground support and developing sequence recommendation for production drifting for wide zones.
- Recommendations of ground support QA/QC.
- Longhole mine stope stability analysis and support recommendation in different ground conditions.
- Backfill design recommendations.

Risks

A relatively conservative design approach was applied for tunnel support including the use of inflatable friction bolts for all ground classified as “poor” even when split sets may be sufficient for such spans. Furthermore, a pull test program has been recommended to ensure ground support elements perform in accordance with design assumptions. In addition, quality control and assurance measured are prescribed for shotcrete application.

Nevertheless, it is possible the ground conditions encountered during mining differ from design assumptions in this report. As a result, ongoing joint mapping and assessment of ground conditions is recommended, in particular during the first few months of mining in concert with pull testing. Further observation and assessment is particularly recommended during stoping as well as exposing backfill material.

It is anticipated that if undesirable geotechnical conditions are encountered, revised ground support and sequencing methods may be required. If extremely poor quality ground is encountered locally, that region may need to be extracted using Cut and Fill rather than stoping excavation. Similarly, if extremely poor ground is encountered in planned wide excavations, narrower excavations with “side-drifts” may need to be substituted.

While there may be requirements to alter the local ground support or mining method, it is not expected that ground conditions poor enough to preclude excavation would be required. Rather, varying geotechnical parameters may require local economic re-assessment to determine if increased ground support costs are warranted by the mineral value of that zone.

Mining Cut-Off Grade And Specifications

The mining sill and backstope stope shapes are generated based on a CoG of 0.30% and 0.32% cobalt, respectively, which takes into account recoveries and cost estimates values for a resulting ore value of not less than 0.24% Co equivalent on a recovered and payable basis.

Stope outlines were generated at 12 ft vertical interval, transformed into solid and sectioned by 12 ft H by 24 ft L generating individual mining stopes. Details on the CoG criteria is presented in the section "Cut-Off Grade (COG) Criteria And Estimate" above.

Selectivity, Dilution And Recovery

Mining Selectivity

Stope shapes were developed from the resource model blocks oriented on a best-fit basis to the orebody strike and dip to minimise grade smearing. The stope shapes cut the resource at mining geometries relevant for equipment selection. The Deswik stope optimiser generated shapes based on a minimum width criteria and capturing all ore grade material until the total stope block is at the reserve cut off grade limit. Variable minimum mining widths based on sill drift or back stope profiles of a minimum width of 15 ft and 6 ft respectively provide access to the mineralised resource while maintaining value sufficient for the economic recovery of the ore body.

The stope widths, based on the resource model, will be further refined during operations through infill drilling as well as face and back mapping with chip samples during operations. Operational budget has been provided for beat geology to map and sample every sill round as well as continuous infill drilling by a crew of 2 during the life of mine operations. Back stope widths and extraction plans will be informed by sill production drifting with the mapping of the 24 ft vertical back stope from above and below in addition to infill drilling to minimise dilution and capitalise on wider than expected zones.

These proposed mining methods will provide the mine with the flexibility necessary for economic operations.

Dilution

Planned dilution accounts for all the material which is contained within blocks having centroids that lie within the design stope boundaries and anticipated 0.5 ft overbreak, which are determined by the

selectivity of the mining methods and the continuity of the orebody. The total value of the planned dilution is approximately 16%. This value was estimated from a comparison of the undiluted grades with diluted block grades for those blocks lying within the stope boundaries.

Unplanned dilution, however, arises primarily due to imprecision of the mining operation. The sources of unplanned dilution include waste rock extracted from the walls of the cut, the percentage depending on the variance on strike, dip and width of the ore from the model. This was assigned a total of 5.0% additional dilution.

The average total of planned and unplanned dilution for the ICO project is approximately 22%.

Mining Recovery

The mining recovery was estimated based on the difficulty of mining, loading or recovery of the blasted material from the mining stopes. Losses can occur as material left in the floor of stopes during mucking or which was retained in back stopes due to the relatively low dip angle of the deposit. Loss mitigation was planned into the operation by utilising a top fill paste method and creation of a paste cap on fill to provide efficient recovery of ore in overhand mining. In addition, the relatively short vertical length of the backstops combined with the conservative extraction rates will allow blasting to be planned so ore clears the back stope and is cast into the sill below for optimum recovery. The average estimated recoveries from mining operation are 95%.

Mine Design

The mine design was developed to support a mine production rate of 1,200 stpd feed to a milling operation for the proposed mining methods. High-grade stopes were given priority during the mine production scheduling. The Central ramp system was prioritised as it contains over half of the total tons of ore and highest net value ore. The South Ramp system was assigned a second priority based on equivalent recovered and payable value due to its high copper and gold value and the North ramp zone lowest priority. A small pod of above reserve cut off grade resource exists further to the north but was not included in the reserve mine plan in consideration of incremental development costs to access.

Underground Excavation Dimensions

The main underground development was designed to a cross-section area of 15 ft H x 15 ft W to allow 30T haulage fleet to operate with minimal impact on ventilation safely. The stope access and Vent raise connections drifts are 14 ft H x 14 ft W. Main ventilation raises will be excavated by drop raise methods (drilling and blasting) a 9X9 profile. Raises will be fitted with ladder ways and landings to comply with escapeway requirements.

The current mine development design represents a 42% reduction of waste development compared to previous published feasibility level designs by use of direct stope access from main haulage ramps rather

than extensive lateral development. Table A-1 summarises the estimated Life of Mine ("LoM") development length and the proposed excavation dimensions.

Table A-1: Estimated LoM Development Length and Proposed Excavation Dimensions

Estimated Development Footage	Dimension (H ft x W ft)	Total LoM (ft)
Ramps including Decline, Re-muck & Safety Bays	15 x 15	20,872
Access Drive	14 x 14	19,815
Ventilation Drift	14 x 14	2,282
Ventilation Raise	9 x 9	2,368
Sub-Total Hor. Dev.		42,969
Sub-Total Vert. Dev.		2,368
Total		45,337

Mine Access

The main decline and a system of ramps provide access to the underground workings and production areas. There are two portals into the mine: one as the main decline giving access into the mine production heading, and the other acting as the ventilation tunnel.

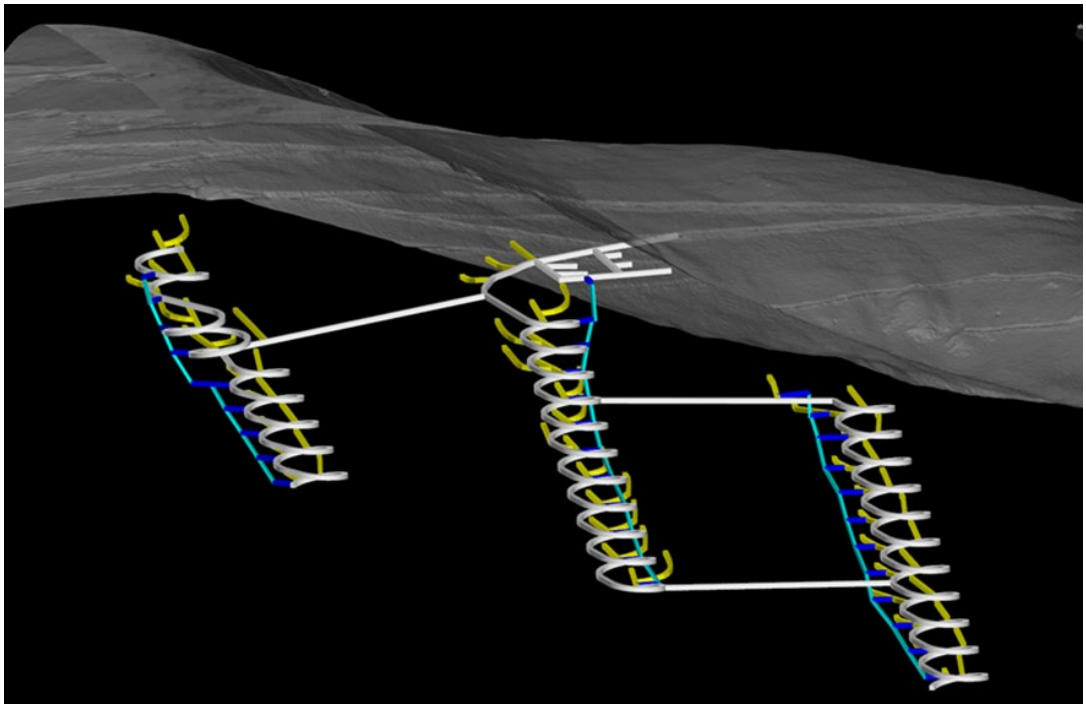
The service tunnel provides access to main underground services and storage areas such as the mechanics shops, ventilation intake raise, main sump, and explosive. The service areas are located in lateral drifts connecting the main decline to the service tunnel. Ventilation and fire doors or bulkheads are placed to prevent short-circuiting of the ventilation system and for fire control. Both portals are located at approximately 7,080 ft elevation.

The decline is designed at a maximum -15% grade with reduced gradients between levels for access and ventilation drift intersections. Muck bays of 50 ft L are located at approximately every 400 ft along the ramp system. These bays will be converted into safety bays, drill bays, staging sumps or vehicle passing bays during operation.

Underground Mine Layout

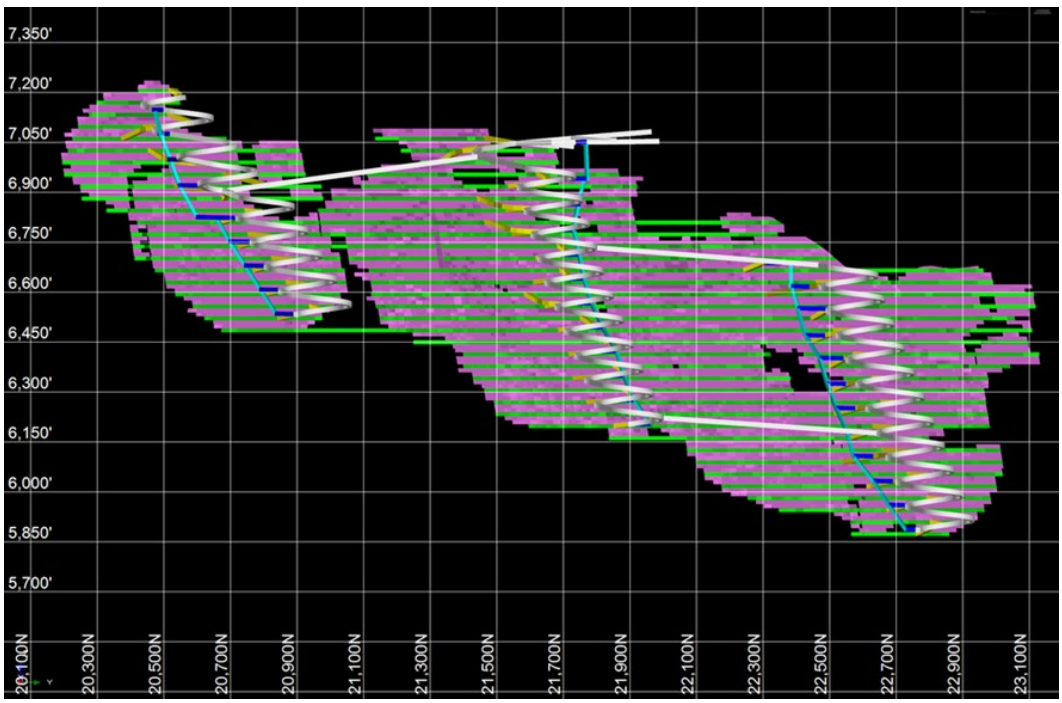
Currently, all the underground development and access into the stope is located in the hanging wall, enabling a better location for additional exploration drilling to be carried out and facilitating definition drilling.

Figure A- 2: ICO Mine Development Layout



Access into the production stopes will be from hanging wall and will be through two access drives connecting the decline or the ramp to the ore zone every 70 ft sublevel.

Figure A- 3: ICO Stope Layout



Mine Development and Production Schedule

Mine development and production schedules were generated in Deswik utilising resource limitations identified in Table A.2 for an overall rate of ore production matched to the nominal mill capacity of 1,200 stpd.

Table A-2: Mine Schedule Resource Constraints

Activity Task	Rate
Ramp/Acc Max (ft/d)	14
Still Max (ft3/d)	2,100
BS Max (ft3/d)	5,000
URF Fill (ft3/d)	7,500
Raise Vrt (ft/d)	6
Resource	
Max Lateral (ft/d)	70
Max Ore Hauling (ft3/d)	20,000

The mine development and production from pre-production through operations is based on a proposal by Small Mine Development (SMD), an underground mining contractor. The mining sequence commences with the extraction of sill drifts from the bottom of the sequence. The first sill acts as a sill pillar where a sill mat of high strength pastefill will be constructed and placed. The second sill provides the working area to mine the back stope below the initial sill of the sublevel above. All fill above the first sill will be a combination of waste rock from development and paste fill for elimination of voids and to provide a net neutralising potential for groundwater protection.

Mine Development

The mine development commences during the pre-production Y -1, focusing on the excavation of the primary access to the central ramp system. Ramp sub-levels at nominally 70 ft vertical intervals will be connected to the intake portal vial a series of raises excavated by drop raise drill and blast methods between sublevels and fitted with prefabricated escapeway ladder and landing systems. The mine ventilation raises will serve as secondary escape-ways.

Over the life of the mine, underground development generates approximately 1,051,000 st of waste of which about 747,000 st will be used as backfill to reduce transportation and paste fill costs. The remaining 304,000 st of waste material will be transported to the tailings and waste management facility.

Production Schedule

Mining will commence with an initial extraction of sills in high-grade zones of the Central Ramp, followed by the mining of back stopes in a bottom-up sequence.

A sill mat of strength paste fill placed into the lead sills enable higher recovery of the mineralised horizons and safer working area during the extraction of stopes beneath the initial sills. An allowance of 28 days backfill curing days for mining beneath sills is planned.

Mechanised mining methods will be applied in areas with widths ranging from 15-29 ft. Longitudinal Back stoping will be used to extract stope blocks above the sills, drilling and mucking from the sill below at minimum 6 ft widths.

The stopes are designed at 70 ft H by 500 ft L sublevels each side of the ramp access. Sills will be mined by horizontal lifts of 12 ft H, with an advance rate of 12 ft per round. Two sills will be driven on each sub-level. A backstope lift of 24 ft will be taken above each sill. Each set of sill and back stope will be filled as a single fill cell, two per sub-level. Back stope drilling, production blasting and mucking are carried out from the sills.

Mine ore production starts in Year 1 with 2,000 st in the 2nd quarter, 40,000 st in the 3rd quarter and 86,000 st in the 4th quarter. The mine ramps up to a full production rate of 1,200 stpd (437,500 stpa) in the 1st quarter of Year 2 to the end of mine life. Table A.3 presents the mine production schedule.

The number of active headings and stopes vary depending on the mining horizons, widths of the horizons and mining methods. A minimum of 8 active production faces are required to meet the daily production target.

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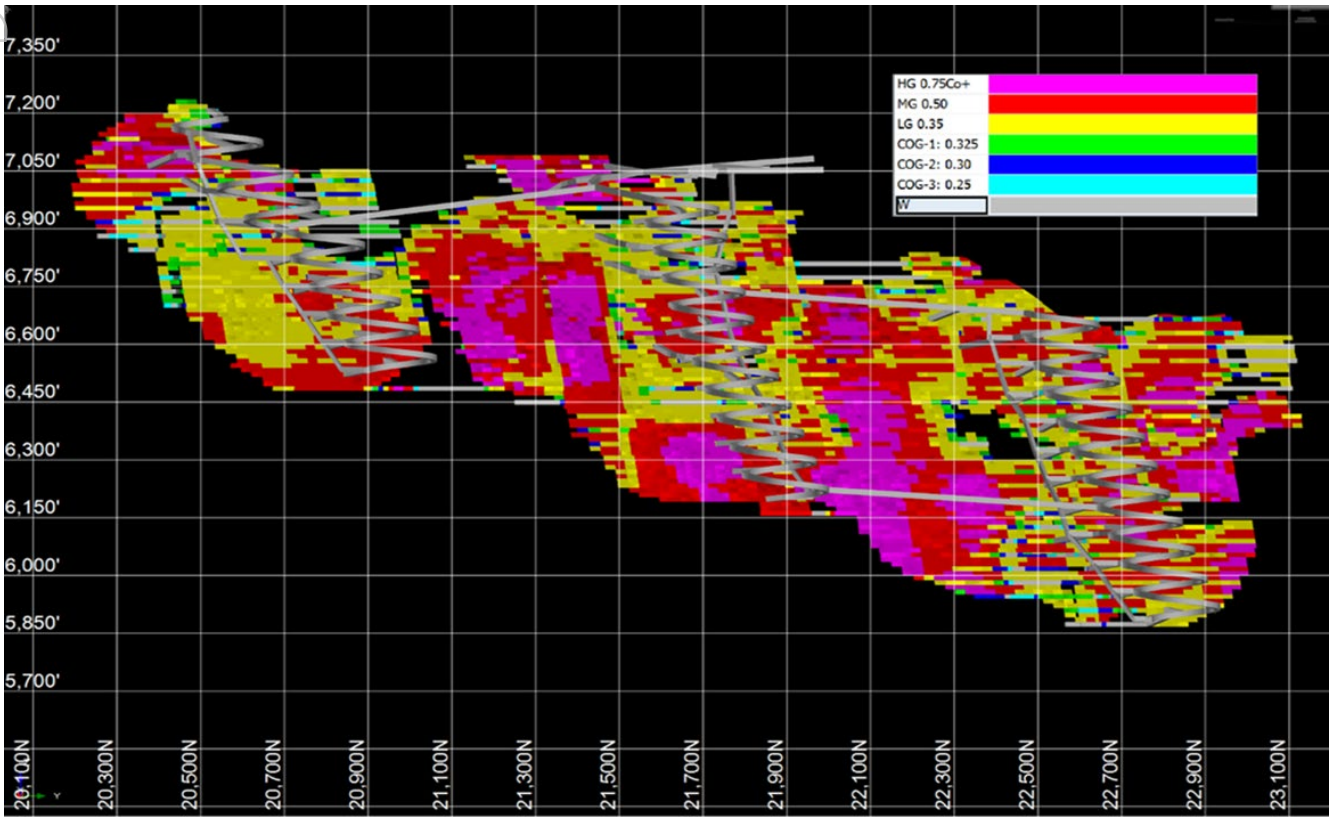
Table A-3: Mining Development and Production Schedule

	LOM	2021	2022	2023	2024	2025	2026	2027	2028
Ore ST	2,741,520	-	129,252	439,293	438,539	439,317	438,633	438,400	418,085
Co lbs	30,133,351	-	1,597,119	5,836,025	4,745,583	4,545,920	4,039,378	4,860,635	4,508,691
Co grade	0.55%	-	0.62%	0.66%	0.54%	0.52%	0.46%	0.55%	0.54%
Cu lbs	43,600,305	-	1,368,080	9,114,625	7,737,686	7,689,779	10,747,609	3,828,843	3,113,684
Cu grade	0.80%		0.53%	1.04%	0.88%	0.88%	1.23%	0.44%	0.37%
Au oz	51,418	-	2,512	9,516	7,022	8,645	12,079	6,053	5,591
Au grade oz/st	0.0188	-	0.0194	0.0217	0.0160	0.0197	0.0275	0.0138	0.0134
Paste Placed ST	1,145,510	-	16,353	93,218	123,020	223,995	245,456	199,169	244,300
Dev Feet	42,969	3,701	10,543	15,231	9,479	4,015	-	-	-
% Dev Ft		9%	25%	35%	22%	9%	0%	0%	0%
Tails to TWSF	1,917,138	-	112,928	360,169	343,428	281,703	268,827	296,599	253,484
Waste to TWSF	218,789	59,083	215,022	152,153	91,328	(67,882)	(63,674)	(55,898)	(111,343)
Cum total TWSF	10,110,316	59,083	387,034	899,356	1,334,112	1,547,933	1,753,085	1,993,786	2,135,927
Total Ft Dev Drift 15x15	20,873	2,103	5,492	7,013	4,608	1,656	-	-	-
Total Ft Dev Drift 14x14	21,853	775	5,245	7,752	4,687	2,337	413	388	255
Total Ft Dev Raise	2,368	-	644	765	628	331	-	-	-
Total Raises	34	-	9	11	9	5	-	-	-
Total Sill Tons Including non	1,131,294	-	105,882	170,830	196,325	131,977	191,779	212,308	122,193
Total B/S Tons	1,702,041	-	31,827	263,619	259,175	324,212	257,321	245,889	319,997
Waste Haul to/from TWSF	816,384	59,083	215,022	152,153	91,328	67,882	63,674	55,898	111,343
Ore Haul to Mill	2,752,746	-	131,177	440,431	439,957	442,236	439,927	439,865	419,153
Paste Backfill Tons Tails	1,145,510	-	16,353	93,218	123,020	223,995	245,456	199,169	244,300
Cement Use Paste (tons)	45,820	-	654	3,729	4,921	8,960	9,818	7,967	9,772
Total Tons Mined	3,792,311	59,083	376,326	767,084	670,608	546,959	457,654	466,229	448,368

Figure A- 4: Mine and Stope Layout with Co Grades



Manpower Requirements

The workforce and mine labour requirement are supplied by SMD during the life of mine development and production. ICO will also have limited mine staff during this period working with and supervising the work carried out by the contractor. Specifically, ICO will staff a Mine Manager, Tech Services Manager who will rotate to provide contractor oversight as well as Geology staff for updating of the resource model with detailed mapping, assay and infill drilling information. The workforce requirements were estimated based on productivities, capacities and availabilities of the equipment.

Equipment Selection

The mining contractor will supply all the required mining equipment and workforce during the mine development and production operations.

Ventilation

The East Portal via the Central Fresh Air Raise will mainly supply fresh air into the development and production areas. Ram deposit ventilation network will be composed of a series of ventilation drifts connecting underground development to the ventilation shafts and raises. Ventilation along lateral

development and in production areas will be supplied and controlled by a combination of regulators, ducting and auxiliary fans.

There are three main ventilation shafts into the Ram deposit: the main Central Zone connected to the East Portal Access, and two secondary shafts situated in the South and North Zones. The baseline study envisions no vertical shafts directly breaking to surface. An alternate design, Stage II Raise Option, consists of the South Ventilation Shaft breaking to surface at 7285 elevation.

Backfill System

The principal method of backfill at ICO is paste fill with in combination with waste material generated from the mine development.

The paste fill prepared in the backfill plant located at the processing plant is routed through an overland pipeline along the pump back system pipeline route corridor to approximately elevation 7445 ft. From there, the backfill material is directed within a cased boreholes into the Main Ramp. Paste fill is then routed into the mines through piping in the raise system to the stope accesses. Currently, a single main delivery line and two cased boreholes, (one standby) are proposed for the backfill system at ICO. The mine development schedule provides ample additional mining horizons should backfill be delayed by the anticipated rare problems with the surface pipeline portion of the paste delivery system.

Mine Dewatering

The groundwater inflow estimate was based on a preliminary estimate documented by Telesto Solutions, Inc. (Telesto) in 2006 for the development of the ICO Ram deposit. The estimate ranges from 33 to 66 gpm which Telesto considered to be over-estimated and in the opinion that a flow rate of 43 gpm is a more accurate estimate for the ICO deposit at full excavation.

The mine could be dry during the development and pre-production stages where water will be recycled and reuse for the initial development until water wells are established for the mine. Supplemental process makeup water can be obtained from onsite groundwater well under existing water rights. In accordance with the USFS Record of Decision, the groundwater capture system will be installed prior to mine development.

Compressed Air

Compressed air will be supplied by means of 200 hp rotary screw, air-cooled air compressor capable of delivering 1,075 scfm @ 125 psig maximum discharge pressure. Compressed air will be distributed via 4 and 6-inch HDPE lines.

Power Requirements And Distribution

The mine electrical power demand is approximately 1.1 MW to 1.3 MW with approximately half of the power demand is from mine dewatering, ventilation and air compressors. Variable frequency drives installed on the fans, the strategic location of the dewatering pumps and regulating the air compressor to on-demand basis can reduce the power consumption.

Other Material Modifying Factors

The ICO has been maintained in compliance with its operating licenses, permits and approvals issued by the State of Idaho and the US Government under the published Environmental Impact Statement, Record of Decision and Plans of Operation. Certain operating plans and permits are in a draft state within the Plan of Operations pending completion of construction drawings and detailed operating schedules.

There are no royalties on future production from the ICO.

The Mine Site is being maintained in a state ready to resume construction activities suspended in late 2018 due to market conditions. The site's infrastructure of roads, buildings, power, water, and environmental management systems have been maintained in operable condition.

There is sufficient land for construction and operations of the ICO within the claims holdings.

The site is accessible year round on an all-weather surfaced roads maintained by the county (Lemhi) and the US Forest Service through road use fees included in the project budget. There are two routes of access to the site, one for normal course of business and a second access of equal quality intended for use in the event of problems with the primary access.

Mine staff will be sourced from the surrounding communities of Challis and Salmon Idaho where possible. Challis has had a long and recent history of mining with the recent closure of a large Molybdenum mine and mill. The Salmon community has a resource based workforce with recent history of construction, forestry and past association with mining up to the late 1990's. Further, workers will be recruited to relocate from regional mining hubs in north Idaho, southeast Idaho and northern Nevada, all within 2-5 hrs drive of Salmon.

Site personnel accommodation will be provided via a catered and fully serviced camp. In the local communities there are existing housing options as well as several plated sub-divisions for new housing.

All ICO mineral claims are 100% owned by Jervois and are in good standing.

Competent Person Statement

The information in this report that relates to Ore Reserves underpinning the Production Target has been prepared by Mr Nick Yugo, P.Eng who is a consultant to the Company and who is a member of the Professional Engineers Ontario which is a Recognised Professional Organisation. Mr Yugo has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Mr Yugo consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Qualified Person Statement

The technical content of this report that relates to Mineral Reserve has been reviewed and approved by Nick Yugo, P.Eng who is a consultant to the Company and each are a Qualified Person as defined by National Instrument 43-101.

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JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralization that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (eg submarine nodules) may warrant disclosure of detailed information.*	• The data used for Resource estimation is based on the logging and sampling of DD completed over several campaigns since 1997. The Competent Person believes the data used for the estimate has been done to a reasonable standard. • A nominal 2 to 3 ft sample interval was used throughout most campaigns. • Historic samples were typically sent to Chemex labs and ALS laboratories in Nevada USA. For the 2019 drill program, ALS and SGS were used (Reno, Nevada and Lakefield, Ontario, respectively) for analysis using aqua regia digest with an AAS or ICP-AES finish.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• All drilling used in the estimate consisted of inclined DD holes drilled to a wide range of depths, but not exceeding 512m (~1600 ft). • Drill core size intended for exploration varied in size between NQ and PQ, whilst metallurgical testing holes were drilled at PQ size. • The average hole depth is ~210 m (~690 ft).
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Little and sparse sample recovery information exists in the historical, pre-2019 data. Some of it, exists in the form of handwritten notes in pdfs. However, the 2019 drilling program has recorded core recovery and RQD details. • At this time, it is not possible to assess whether a significant relationship between sample

Criteria	JORC Code explanation	Commentary
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	recovery and grade exists.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geological logging of drillhole samples was done with enough detail to meet the requirements of resource estimation and mining studies. • Core is photographed and core trays retained, with the only exception being a small fraction of material consumed completely for metallurgical tests. • No geotechnical logging has been sighted by the Competent Person.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• DD samples meant for analysis were typically cut in half using a diamond blade core saw. One half was to remain in the core tray/box and the other half to be collected in plastic bags, labeled and submitted to the lab. In the case of metallurgical testing, half core was sent for metallurgy, quarter core sent for lab analysis, and the remaining quarter kept in the box/tray. • Samples are received at the laboratory: Bar codes are scanned and logged; samples are weighed and dried; samples are crushed to 70% less than 2mm, riffle split off 250g, pulverize split to better than 85% passing 75 microns; all samples are analyzed for 35 elements using ICP-AES and gold using 30 gram Fire assay for core, both with an AA finish. Any samples with over-limits specific to base metals or gold are re-analyzed. • For core sampling the same side is consistently sampled, half-core is retained in the tray for HQ for PQ quarter core is retained and half core is reserved for metallurgical test sample. The assay sub- sample is placed into sample bags labelled with the assigned sample number. • One in 20 samples is duplicated where the core is quartered and a quarter cut sample is analysed as a duplicate. The remaining quarter samples is retained in the tray. • Sample sizes of 2-3 kg are appropriate for the grain size of material. The sample preparation technique and sample sizes are considered appropriate to the material being sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument*	• Orix and Scott Zelligan's analysis of the QC data based on historical reports, as well as the 2019 QC samples, determined that any identified issue has been addressed and corrected therefore the data is suitable for resource estimation purposes. • Handheld XRF was only used for mineral identification. No handheld XRF analysis were used in the drilling database.

Criteria	JORC Code explanation	Commentary
	make and model, reading times, calibrations factors applied and their derivation, etc. • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Three different Standard samples (Low, medium and high Co%) were inserted in the sequence in approximately (1 in every 20 sample numbers). • Blanks made of brick material were inserted in approximately (1 in every 40 sample numbers) and specifically after the end of any given interval were visible strong Co mineralization was present. Orix and Scott Zelligan recommended the use of brick to be discontinued and to be replaced by a certified quartz blank. • QAQC samples (standards, blanks and duplicates) represent 7.8% of all samples collected during the 2019 program. • Duplicates, repeats and blanks generally fall within an acceptable level of accuracy for key economic elements. Excursions are re-assayed by the lab and confirmed. Laboratory QAQC included the use of CRMs, blanks, splits and duplicates.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Scott Zelligan reviewed the drilling data and visited site in late 2019 to review and approve standard of procedures applied during the 2019 drill program. • The historic drilling database was supplied by Jervois as a Microsoft Access database created by MDA in 2010. The database was reviewed, corrected, and completed by Orix Geoscience prior to the start of the 2019 drilling campaign. The new compiled drillhole database exists as an excel sheet with multiple tabs. • The new database was validated by Scott Zelligan prior to the Resource estimation. • No adjustments to assay data were performed. • Adjustments to the database included for the most part, corrections to discrepancies in lithology between detailed logs and quick logs, as well as adding missing drillholes from later campaigns.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drillhole collars were surveyed by Wade Surveying, a group of licensed surveyors in Idaho. • Downhole surveying predominantly used reflex EZ shot for all campaigns, however, the 2019 drill program used a TN14 unit for azimuth and dip line up of the rig in addition to the downhole reflex surveys. • The drilling and topography survey coordinates are recorded in both the local mine grid in feet, as well as UTM NAD83 Z11N in metric units. • An aerial light detection and ranging (LiDAR) survey was performed in 2018. This data was

Criteria	JORC Code explanation	Commentary
		used to create a surface digital terrain model (DTM).
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The drilling was completed along a set of northeast-southwest trending sections perpendicular to the strike of the mineralization. Drill spacing ranges from ~15-20 m (~50-70 ft) near the center of the deposit to an average of ~75-90 m (~250-300 ft) along strike. • The section spacing is sufficient to establish the degree of geological and grade continuity necessary to support the resource classifications that were applied. • All samples were composited to 2 ft, as the majority of samples were 2 or 3 feet. Rather than force samples to exactly 2 feet, the compositing process approximated as closely to 2 feet as possible within each drillhole interval without excluding any samples.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The location and orientation of the drilling is appropriate, given the strike and morphology of the mineralization. • The location and orientation of the drilling is unlikely to introduce any material sample bias
Sample security	• *The measures taken to ensure sample security.*	• Samples are cut and bagged on the ICO site by Jervois staff. The samples are placed in plastic bags with a uniquely numbered sample tag. The sample number is also written on the outside of the bag. Two or more samples up to a weight of approximately 20kg are placed in a larger plastic bag which is then zip tied. The corresponding sample numbers are also written on this bag. The combined samples are then transported by Jervois staff to the Salmon warehouse. Sample bags are then loaded onto pallets for transfer to a courier by Jervois office/warehouse staff. Sample number details and weights are recorded along with dispatch dates. Corresponding sample submission forms are completed and sent to the analytical lab. The courier provides consignment notes and dispatch documentation to Jervois office/warehouse staff. Upon arrival at the analytical lab the consignment details are notified to Jervois and online tracking of the assaying process begins. Results are delivered under electronic encryption. All pulps and rejects are returned to Jervois' warehouse in Salmon and stored for future reference.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The most recent audit was by CSA Global Consultants Canada (CSA Global) in December 2019/January 2020 which reviewed the procedures, methodology and geology data. The audit did not include a site visit. • The audit identified some areas for future improvement including the capture of bulk density data, drill logging consistency and domaining. All recommendations are being or have been adopted for future work programs and MRE generation.

Section 2 Reporting of Exploration Results

(Where relevant to reporting Mineral Resources)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Idaho Cobalt Operations consists of 243 unpatented mineral claims totalling 5990 acres. The claims are 100% owned by Jervois subsidiary Formation Capital LLC and are in good standing. • Unpatented Mineral Claims: • Ownership of unpatented mining claims in the U.S. is in the name of the holder, with ownership of the minerals belonging to the United States of America, under the administration of the U.S. Bureau of Land Management. Under the Mining Law of 1872, which governs the location of unpatented mining claims on federal lands, the locator has the right to explore, develop and mine minerals on unpatented mining claims without payments of production royalties to the federal government. Annual claim maintenance and filing fees paid before September 1st each year are the only federal encumbrances to unpatented mining claims. Exploration plans are permitted and administered by the Unites States ForestrService (USFS). The Record of Decision (ROD) describing the decision by USFS to approve a Plan of Operations for mining, milling and concentrating mineralized material from the ICO was issued in 2009. The ICO Plan of Operations was modified in accordance with the ROD and subsequently approved by USFS allowing for the commencement of construction. . The approved ICO Plan of Operations and the ROD remain in place. There are no known encumbrances.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The ICO came under Jervois management following the merger with eCobalt in 2019. Prior to this merger, the area has a long history of copper and cobalt exploration and mining. Copper mineralization in the Blackbird Creek area was discovered in 1892, and the area was soon explored as both a copper and gold prospect. The area was first mined by Union Carbide at the Haynes-Stellite Mine located south of the present ICO claim block, during World War I. Union Carbide mined approximately 4,000 tons of cobalt-bearing ore before ceasing operations. From 1938 to 1941, the Uncle Sam Mining and Milling Company operated a mine at the south end of the present Blackbird mine and reportedly mined about 3,600 tons of ore. Calera Mining Company, a division of Howe Sound Company, developed and mined the Blackbird deposit between 1943 and 1959 under a contract to supply cobalt to the U.S. government. Calera stopped mining when the government contract was terminated in 1960. Machinery Center Inc. mined from the district between 1963 and 1966, when Idaho Mining Company (owned by Hanna Mining Company) purchased the property. Noranda optioned the property from Hanna in 1977 and carried out extensive exploration, mine rehabilitation and metallurgical testing. In 1979 Noranda and Hanna formed the Blackbird Mining Company (BMC) to develop the property. BMC completed an internal feasibility study of their property at the time, including material from the Sunshine deposit in 1982. BMC allowed perimeter claims to lapse in 1994, and eCobalt restaked much of that ground. From 1995 to the present, eCobalt completed surface geochemical sampling and drilled 158 diamond drill holes on the ICO ground.
Geology	• *Deposit type, geological setting and style of mineralization.*	• The Ram deposit is a metasedimentary stratabound Co-Cu deposit, of the lehmni sub basin of the Mesoproterozoic Belt-Purcell basin. Although still under some debate, this deposit has been previously interpreted as a variation of a Beshi VMS as well as an IOCG deposit type more recently. • Mineralization occurs in hydrothermally biotized/chloritized lenses in a metamorphic succession of siltite, greywacke, and argillites.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole*	• No Exploration data is being reported in this release.

Criteria	JORC Code explanation	Commentary
	○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• In previous reports weighted averaging has been used in reported composite intervals and individual results are also listed, no grade truncations etc. has been used. • Aggregate intercepts are reported using a grade metre calculation. For example: ((assay x meter interval sampled) + (assay x meter interval sampled) + (assay x meter interval sampled) / divided by total number of meters in the interval). Individual sample intercepts are also shown. • No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Downhole lengths are reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• No exploration results are stated in this report.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• No exploration results are stated in this report.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations;*	• There is no other substantive exploration data.

Criteria	JORC Code explanation	Commentary
	geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Jervois plans to undertake infill drilling to upgrade resource categories as well as to test the footwall horizons discovered during the 2019 drill program.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• The data has been compiled and collated by Orix Geoscience. Extensive data validation was undertaken as part of that process, including a complete review of all original data sources (where available) to eliminate any and all transcription and keying errors. That validation has been reviewed by the author. • The author used standard 3D modeling software procedures to check the database for any overlaps or contradictory lithological or assay intervals.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Scott Zelligan visited site during the period of October 4-6 2019. Scott Zelligan viewed the logging and sampling facilities and drilled areas while drilling and sampling was being undertaken at the time of the visit. • David Selfe visited site twice during the drilling program of 2019 for periods longer than 3 weeks at a time and viewed the logging and sampling facilities and drilled areas while drilling and sampling was being undertaken at the time of the visit.

Criteria	JORC Code explanation	Commentary
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• It is the author's opinion that the local geology and style of mineralization is well understood as a result of work undertaken by Jervois. • The interpretation used in this estimate is based entirely on a first principles geological approach (no grade data used to develop domains). This was undertaken using a new lithological database compiled by geologists who have logged core at site. • The interpretation used in this estimation was very different from the previous resource estimation, which employed a grade-based domain approach. The results are not materially different. • Continuity appears to be largely controlled by stratification, minor alteration/remobilization, and by structure (both offset faulting and soft-sediment deformation). These factors were all accounted for during the modeling process.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Ram deposit extends over 4200 ft along strike and over 2100 ft across strike, with mineralization present approximately from surface to a maximum vertical depth of 2100 ft. The main zone has a "true" thickness that varies from 10 to 100 ft. • The deposit consists of the main zone ("mmh" zone) and eight other sub-zones, six in the hanging-wall and two in the footwall.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	• The mineralization has been estimated using Inverse-Distance-Squared. • Block modelling and grade estimation was undertaken using Surpac software. • The deposit was last estimated in 2017 and 2018 by Micon. Consideration was made for these results, however the domaining method was reconsidered in favor of a lithology-based approach. • No assumptions were made in terms of potential by-products. • Regional faulting was recorded in the block model, as well as As and S values. • A parent block size of 12 x 12 x 4 ft was used in a rotated model (-14 around the Z axis and -58 around the Y axis). Block size was chosen in consideration of the potential SMU size. • Drill spacing in the best-informed areas varies from 80-200 ft, with wider spacing around the edges.

Criteria	JORC Code explanation	Commentary
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Variography downhole indicated a very short distance of correlation in Co samples perpendicular to the zone, but a distance of 160 ft to the sill in parallel directions. For this reason, a primary search ellipse of 160 x 160 x 8 was used for Co in the main zone (240x240x24 in other zones). • Variography downhole indicated a longer distance of correlation in Cu and Au samples perpendicular to the zone, but a distance of 160 ft to the sill in parallel directions. For this reason, in the main zone a primary search ellipse of 160 x 160 x 40 was used for Cu and 160 x 160 x 20 for Au (in other zones 240 x 240 x 24 for both). • Co and Cu were both capped at 4% in the main zone, in consideration of grade histograms and log probability plots. Au is generally low grade and it was not necessary to cap it. • Where necessary, differing search ellipse dips were employed to account for fault blocks that had been rotated relative to the dominant trend. • The estimates were validated using a visual and statistical comparison of the block grade estimates to the input drillhole composite data.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• All tonnages have been estimated as dry tonnages.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The mineralization was reported using a 0.15% Co grade. This was chosen in consideration of metallurgical and mining factors, as well as forecast Co prices and reporting of similar projects.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• It is assumed the deposit will be mined underground using cut and fill, back slash stoping methods based on completed mining studies.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• It is assumed that one or more cobalt and copper concentrates will be produced by conventional sulphide flotation methods based on completed metallurgical studies.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• It is assumed that most tailings residue and waste rock is returned underground as stope and void fill. Minor amounts will be stored in a small tailings facility on site at the ICO.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• There are two generations of SG results. Both use the wet-weight/dry-weight method. The first generation was measured on-site by core-logging geologists. The second generation was sent to SGS Lakefield laboratory in Ontario, Canada for measurement. • The on-site measurements total 729. The off-site lab measurements total 99. • Consideration was taken to have measurements of varying grades of both Co and Cu. • As would be expected, SG correlated roughly with the Co and Cu assays (~0.3 for Co, Cu, and Co+Cu). • A scatterplot was generated of Co+Cu vs SG, and from this a linear formula was derived to populate the model with density (y = 0.065x + 2.8861)
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant*	• The resources have been classified based on drill spacing and search distance/number of composites.

Criteria	JORC Code explanation	Commentary
	factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The author is confident in the results, with the current estimation representing a "back-to-basics" approach of completely rebuilding the dataset and remodeling the estimation domains based solely on geology. The numbers generated hew closely to those generated in the last two estimates which employed a grade-based domain method, meaning two different approaches produced very similar results, which demonstrates the deposits robustness. • The classification considers views and concerns raised by a number of previous workers. • Jervois believes the estimate appropriately reflects the view of the competent person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The model has been internally reviewed by Jervois and Orix Geoscience. • CSA Global, has been involved as a reviewer through the calculating/modelling process, and conducted an audit of the MRE and associated inputs. Their findings did not identify any fatal flaws or major issues that would materially impact the MRE.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• It is the competent persons view that this Mineral Resource Estimate is accurate and reflects a conservative approach to the deposit. The results have been compared to the 2 prior Resource models for 2017 and 2018 and compare favorably in the context of additional drilling conducted in 2019 and estimation methodology. • This statement relates to the global estimate of the Ram zone and hangingwall and footwall zones. It does not include any other mineralization within the ICO, such as the Sunshine and Sunshine East deposits which are at an insufficient stage of exploration to determine a Resource. • No statistical assessment of estimation error (e.g. using conditional simulation tools) has been undertaken. • There has been no historical mining of the deposit.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Ore Reserve is based on the Mineral Resource estimate previously disclosed in January 2020. • The Mineral resources previously disclosed are inclusive of the Ore Reserve
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person, Nick Yugo P. Eng., Has visited the mine site twice in 2019 and once in 2018 to observe ground conditions visible from the portal excavation, inspect core quality and site access and service as well as meet with the geologic team compiling the Mineral Reserves.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• A Feasibility Study level examination and design of the project was conducted to develop the ore reserves. The study utilized detailed stope modeling and resource based scheduling within a well regarded software package (Deswik) to determine diluted ore grades and develop a mine schedule based on achievable mining rates based on the planned mine equipment fleet and staffing level.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The CoG value used in the mine design was based on the operating costs, metallurgical recovery estimates, net payable value of the contained metal and market prices that resulted from this study. No Inferred classification resource was considered in the Reserve determination.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including*	• Stope outlines and mineable tonnages and grades for short-hole back stoping and sill mining methods were defined based on a CoG of 0.32% and 0.30% contained Co respectively to generate a mine plan further restricted by metal recoveries and net payable values.

Criteria	JORC Code explanation	Commentary
	associated design issues such as pre-strip, access, etc. • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• The underground mining methods are appropriate for the orientation of the orebody, ground conditions, extraction rate and environmental constraints applicable to the RAM deposit at the ICO. • Geotechnical parameters for stope design are derived from a detailed geotechnical report by Dr Woo Shin PhD P.Eng and an environmental permitting requirement to backfill workings with cemented tailings. • Planned and unplanned dilution is accounted for in the mine planning. Planned dilution is estimated using a 0.5ft overbreak at approximately 16% and unplanned due to variances in the orebody at a further 5%. The average total of planned and unplanned dilution for the ICO project is approximately 22% • Mining recovery was estimated based on the difficulty of mining, loading or recovery of the blasted material from the mining stopes. Average estimated recoveries from mining operation are 95%. • A minimum stope mining width for longitudinal short-hole back stopes of 6 feet and sill stopes of 15 feet is applied. • Inferred mineral resources are only used when incidental to mine development and are not reported in the Reserves. • A paste fill plant and hydraulic delivery system is required for the cut and fill stoping. This has been designed using tailings parameter testwork conducted as part of this feasibility study.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and*	• The process was selected based on the mineralogy of both the copper and cobalt. A sulphide flotation process has been selected and through piloting and lock cycle tests has shown economic recovery of each mineral. • The flotation is very standard technology and practiced on majority of sulphide base metal ore bodies. • Metallurgical testwork was conducted on samples selected from various drilling campaigns through out 2019 and is considered representative of the first few years of the mine plan. The tests also included varying head grades to understand variability within the ore body. Recoveries used were 91.1% for cobalt, 95.5% for copper and 84.9% for gold.

Criteria	JORC Code explanation	Commentary
	the degree to which such samples are considered representative of the orebody as a whole. • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• Arsenic in the cobalitite reports to concentrate and has been captured in market assessments and physical sample generation for potential customers. • Lock cycle tests were completed on a bulk sample considered representative of the first few years in the mine plan. • The ore reserve has been calculated using the flotation adjusted recoveries and the mine plan scheduled to deliver a consistent feed grade in cobalt/copper ratio as is practically achievable.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• The USFS evaluated the proposed Plan of Operations for ICO under the authority of the U.S. Mining Law and in accordance with USFS regulations governing locatable mineral activities on National Forest System lands (36 CFR 228A) and Council on Environmental Quality regulations implementing the National Environmental Policy Act (NEPA) (40 CFR 1500-1508). The application for a new National Pollutant Discharge Elimination System (NPDES) discharge permit for ICO was also evaluated according to the NEPA process. The NEPA process required a thorough series of environmental baseline studies and the development of an environmental impact statement that assessed all environmental effects, including impacts on natural, economic, social and cultural resources. • Over the life of the mine, underground development generates approximately 1,051,000 st of waste of which about 747,000 st will be used as backfill to reduce transportation and paste fill costs. The remaining 304,000 st of waste material will be transported to the tailings and waste rock storage facility (TSWF). The TSWF has beenapproved by the USFS. Stage one is partially built and the TWSF is designed to only take a proportion of the waste rock and tailings, as the majority is returned to underground stope fill.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The mine site has been developed to the point a access road is established, mine terracing has been completed. A footprint for the site agreed with the USFS and all infrastructure including power, water, inte6rnet communications is already installed.

Criteria	JORC Code explanation	Commentary
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Bottom up approach including off takes for measurable material and current pricing in the state of Idaho.Three quotations from equipment suppliers and tender adjudication for the selection of the current price. A 3D model was built to size the plant and establish off takes. • Operating costs were calculated based on metallurgical testwork and reagent consumption, power costs, labour rates in Idaho, transport costs and a mining tender for the underground mine operation from three mining contractors in the region. • A full integrated water treatment plant has been installed on site to remove deleterious elements prior to any off site discharge. • Exchange rates have come from bank forward projections. • Transportation charges have been sourced through a tender process. • Royalties payable as per government legislation.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Metal price assumptions were applied based upon consensus analyst prices for each of cobalt, copper and gold. • Commodity prices used in the BFS are based on long term forecast pricing data from leading global investment banks and commodity market experts.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• All cobalt in the United States is initially imported (recycled – but this is originally from outside the US), there is only minor by-products from existing mines. The ICO will be the only primary source of raw cobalt in the US. Cobalt is a commodity in increasing demand in the Electric Vehicle and stationary battery sector. As the world turns to vehicle electrification the demand is likely to increase. • Likely customers for the ICO products are smelters and downstream processors to copper metal and cobalt metal and salts, as well as battery manufacturers and automakers (OEM's).
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount*	• Commodity prices used in the BFS are based on long term forecast pricing data from leading global investment banks and commodity market experts.

Criteria	JORC Code explanation	Commentary
	rate, etc. • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• The key inputs and the economic analysis used and generated are in table 8 • NPV is most sensitive to commodity prices as outlined in tables 9, 10 and 11.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• The USFS Record of Decision approving the ICO Plan of Operations was the based on the findings of the Final Environmental Impact Statement which was completed by USFS after seven years of analysis conducted with USEPA, Tribal, and public participation. Extensive input by Federal and State regulators is also included in the terms of the Record of Decision. Stakeholder engagement continues through direct relationships between ICO personnel and the local communities and through the USFS-led Inter-Agency Task Force comprised of Federal and State agency representatives.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• Material naturally occurring risks including geologic, meterologic and geotechnical variability have been accounted or in the mine design and ore reserve estimation through application of unplanned dilution factors, ore loss factors, allowances for unfavourable ground conditions and sizing of stormwater management systems. • The status of legal and marketing agreements was considered in the development of revenue assumptions. The marketing terms are based on indicative terms and market experience. • The ICO is contained within registered and maintained mineral resource claims on federal lands in good standing under the management of the US Bureau of Land Management. Annual claims fees have been paid through August 2021. • Government agency approval to construct and operate the ICO were granted in 2009 through the USFS Record of Decision and USFS approval of the ICO Plan of Operations. The ICO Plan of Operations contains numerous plans related to construction, operations, and reclamation. Some of these plans necessarily remain in draft form until detailed design is completed. Completion of detailed design documents, post feasibility study, will form the basis of finalizing these draft plansand submittal to USFS for plan and design approvals.

Criteria	JORC Code explanation	Commentary
		• Detailed design documents will also be submitted to Federal and State regulators to support application and approval of contruction and operating permits. • In addition to approval of finalized plans and permit issuances, underground development requires posting of financial assurances for surface reclamation and long term water treatment post-closure. Completion of the groundwater pumpback system and ommissioning of the water treatment plant are required prior to underground development.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• All Proven reserves are composed of resource blocks that are from the Measured resource category. All Probable reserves were derived from stope blocks primarially composed of Indicated resources but may contain some Measured resource. No Inferred resource was used in the determination of reserve. • The resulting reserve reflects the CP's view of the deposit and is in compliance with CIM and AUSIMM guidance. • A minimal amount of Probable resource contains Measured resource blocks where Measured and Indicated resource boundaries did not align with stope block boundaries.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• CSA Global audited the Mineral Resource estimate. • RPM Global have been engaged as Independent Engineer, and are part way through their engagement which was paused due to COVID-19. Their team has not yet visited ICO. • Wood Environment & Infrastructure Solutions, Inc. (Wood) was retained to conduct an Environmental Permitting and Compliance Audit for the ICO. The purpose of the Audit was to review the status of environmental permits and approvals to determine if ICO complies with regulatory requirements for the development and operation of the mine. In addition, the Audit was conducted to identify risks for the project ICO regarding permitting and compliance and to identify areas where certain approvals may be in progress, creating a risk that may impact the project ICO schedule. The Audit focused on the items stipulated in the ROD, current legislation for areas that would require new or renewed permits or authorizations,

Criteria	JORC Code explanation	Commentary
		and project changes being considered as part of the bankable feasibility study. Wood concluded that there were "no significant impediments to moving the project to production."
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Ore Reserve estimate is deemed accurate within the limits of accuracy of the Mineral Reserve estimate based on the following practices: ○ Stope blocks were maintained small, representing two drift rounds, to minimize smearing of grade. ○ Stope blocks were aligned to the general strike and dip of the deposit. ○ Overbreak assumptions reasonable to the mining method were applied to stope blocks to approximate operating dilution ○ Additional dilution of 5%, in conformance with CIM guidance for the mining method, was applied at zero grade for unplanned overbreak. ○ Ore loss of fully diluted tons were assumed at 5% to accurately reflect ore not recovered duing mucking and transport for the mining method. ○ Cut off Grade was based on accurate and conservative estimates of operating costs, metal prices, metallurgical recovery and payability of metals in concentrate. ○ A detailed life of mine mining schedule was developed using accepted productivity rates for the selected mining method and limited by equipment availability.