ASX RELEASE

15 May 2023

NOVA MINERALS

Robust Phase 2 Scoping Study for the Estelle Gold Project

Study delivers robust economic metrics, increasing annual production and mine life, while decreasing the pre-production capital expenditure

The Phase 2 Scoping Study confirms the potential for a commercially robust mining operation at the Estelle Gold Project with an 11 month payback period and improved financial and mining metrics, while also highlighting the impact of increasing the LOM average mill feed grade, which is now the core focus for the company in the upcoming 2023 drill program.

Cautionary Statements: Robust Phase 2 Scoping Study for the Estelle Gold Project

The Scoping Study referred to in this ASX release has been undertaken for the purpose of initial evaluation of a potential development of the Estelle Gold Project in Alaska. The Scoping Study is a preliminary technical and economic study of the potential viability of the Estelle Gold Project. The Scoping Study outcomes, production target and forecast financial information referred to in this release are based on low level technical and economic assessments that are insufficient to support estimation of Ore Reserves. The Scoping Study is presented in US dollars to an accuracy level of +/- 35% with a 90% level of confidence. While each of the JORC modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the production target itself will be realized. Further exploration and evaluation work and appropriate studies are required before Nova will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case. The production target stated in this announcement is based on Nova's current expectations of future results or events and should not be relied upon by investors when making investment decisions. Further evaluation work and studies are required to establish sufficient confidence that the production target will be met. Accordingly, given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Given that the results of the Scoping Study are subject to the qualifications above (including assumptions as to accuracy and confidence tolerances) any results reported in this release should be considered as approximates and subject to variances having regard for the assumptions referred to in this release.

Of the Mineral Resources scheduled for extraction in the Scoping Study production plan approximately 74% are currently classified as Measured and/or Indicated and 26% as Inferred over the life of mine. The Company has concluded that it has reasonable grounds for disclosing a production target which includes a proportion of Inferred material. However, there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realized. Measured and/or Indicated Resources comprise 79% of the production schedule during the payback period of the project and an average of 74% over the life of the operation. Nova confirms that the financial viability of the Estelle Gold Project is not dependent on the inclusion of Inferred Resources in the production schedule.

The Mineral Resources underpinning the production target in the Phase 2 Scoping Study have been prepared by a Competent Person in accordance with the requirements of the JORC Code (2012) and the Competent Person's Statement is found on page 64 of this ASX release. For full details of the Mineral Resources estimate, please refer to Nova's ASX release dated 11th April 2023, released to ASX under the title "*Estelle Global Gold MRE Increases to 9.9 Moz Au*" with a competent person sign-off from Mr Jon Abbott of Matrix Resource consultants. Nova confirms that it is not aware of any new information or data that materially affects the information included in that release and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not been changed.

To achieve the potential mine development outcomes indicated in the Scoping Study, funding in the order of US$400 million will likely be required. Investors should note that there is no certainty that the Company will be able to raise funding when needed, however the Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes that it has a "reasonable basis" to expect it will be able to fund the development of the Project. It is also possible that such funding may only be available on terms which are dilutive to, or otherwise affect the value of, Nova's existing shares. It is also possible that Nova could pursue other 'value realization' strategies such as sale, partial sale or joint venture of the project. If it does, this could materially reduce Nova's proportionate ownership of the project.

Nova has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this release. This includes a reasonable basis to expect that it will be able to fund the development of the Estelle Gold Project upon successful delivery of key development milestones as and when required. The detailed reasons for these conclusions are outlined throughout this ASX release. While Nova considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

A summary of the Scoping Study highlights is shown in the Summary in the body of this announcement. All financials are provided in US dollars unless stated otherwise.

Highlights

- The Phase 2 Scoping Study, based on a mining scenario which focuses on the higher grade, confirms the technical and financial robustness of a commercial mining operation at the Estelle Gold Project, with (Table 1):

  - **Financial Metrics**

    - Net Present Value ($NPV_{5\%}$) of US$654M (~ A$981M) pre-tax
    - Internal Rate of Return (IRR) of 53% pre-tax
    - 11 month payback period
    - Undiscounted net free cashflow of US$945M pre-tax
    - Annual free cash flow after the payback period of ~ US$56M pre-tax
    - All in Sustaining Costs (AISC) 1st year US$510/oz and Life of Mine (LOM) US$1,149/oz
    - Pre-production capital of US$385M for a central processing plant and infrastructure

  - **Mining Metrics**

    - Annual production 1st year 363 Koz Au and LOM average increased to 132 Koz pa
    - Total production increased to 2.25 Moz Au over a longer LOM of 17+ years
    - Early production driven by the higher grade RPM resources with 2.02 g/t Au material

- Scoping Study only includes 3 of the 4 resource deposits currently defined within the Estelle Gold Project - The 2.01 Moz Au Inferred resource at Cathedral is not included in this study

- All deposits are from surface suitable for open pit truck and shovel mining methods. Test work has indicated that the gold is easily liberated with an average recovery of 88.3% using conventional processing methods (Figure 13)

- The Scoping Study envisages mining commencing at RPM, targeting a higher grade starter pit initially, and then has factored the optimum mine sequencing throughout the LOM

- The Scoping Study is based on a solid foundation with reputable engineering firms, detailed and conservative geological modelling, extensive test work and front-ended high grade ore

- Study provides great exploration upside and a solid platform for growth and has identified clear opportunities for immediate improvement of metallurgical test works that would add to the bottom line

- Nova intends to undertake fines by-pass test work which has the potential to further increase the LOM production schedule and most importantly also reduce waste

- The proposed West Susitna Access Road, which is situated on State land within the Matanuska-Susitna Borough and has considerable support from both the community and the State government, has progressed to the permitting stage, with construction proposed to start in 2025 (Figure 2).

CEO, Christopher Gerteisen, explains the robust economic metrics of the Phase 2 Scoping Study
To watch the video commentary please click here

Significant Potential Upside Drivers for the PFS

- Estelle has all the hallmarks of a world-class gold district with a 9.9 Moz Au resource which has grown from green fields to 2.5 Moz Au in 2018 and from then kept an average growth rate of ~75% over the last 4 years, evidencing the deposit scale. Additional exciting targets, across the Estelle Gold Project also offer the potential to continue growing the global resource inventory

- The study production and cash flow profiles (Figures 3 & 4), along with the NPV sensitivity analysis (Figure 5), show that even a 10% increase in the LOM average mill feed grade above the current 0.73 g/t Au increases the NPV by ~ US$277M. The core focus now is to define more minable resources above this grade to potentially improve the project economics further in the PFS. We already know where to look with targets established at:

  - **RPM**

    - 2023 drill program focused on infill and expansion of the high-grade resource
    - 600m high priority continuous target area linking RPM North to RPM South which intersected a 2nd large mineralized intrusive in the lower part of holes RPM-037 (ASX Announcement: 21 December 2022) and RPM-025 (ASX Announcement: 4 October 2022), with results including:

      - RPM-037: 103m @1.0 g/t Au, incl 30m @ 1.9 g/t Au, 21m @ 2.5 g/t Au from 325m
      - RPM-037: 79m @ 1.0 g/t Au from 471m, incl. 30m @ 2.0 g/t Au from 501m
      - RPM-025: 76m @ 1.2 g/t Au from 440m, incl 43m @ 1.5 g/t Au from 474m

  - **Train**

    - 2023 drill program focused on exploration and resource definition drilling to target the RPM-style mineralization at both Train and Trumpet (ASX Announcement: 16 January 2023), and in the 1.5 km strike length between the 2 prospects, with the aim to define a 3rd gold resource in the area in 2023

  - **Cathedral**

    - Cathedral 2.01 Moz Au Inferred resource was not included in the Phase 2 Scoping Study with a potential high-grade target zone remaining to be drill tested (ASX Announcement: 9 March 2023)

- Advanced exploration programs in 2023 to be focused on the RPM and Train areas, as well as at the highly prospective 3km long polymetallic Au-Ag-Cu system at the Stoney prospect

- PFS level trade-off and optimization studies, including but not limited to:

  - Mine fleet size optimization
  - Mill capacity optimization
  - Option of leasing mining fleet
  - Particle ore sorting at RPM
  - Stockpile optimization
  - Fines grade testing
  - Processing plant/s location
  - Mining operating strategy (Owner / Contractor / Hybrid)
  - Mine to mill materials handling (Road layouts / Slurry / Conveyor / IPCC / Plant at RPM)

- Power generation alternatives (Grid transmission / Diesel / Gas pipeline / LNG or CNG trucks / Nuclear)
- Plant throughput capacity
- TSF options
- Autonomous / Traditional fleet

- Independent economic study prepared for the Alaska Industrial Development and Export Authority (AIDEA), and fully supported by the Alaska State Governor, recommends the West Susitna Access Road begins the permitting process with construction proposed to start in 2025

Upcoming Milestones

- Material PFS test work and trade-off studies as they become available
- Drill planning for 2023, focusing on the RPM and Train areas
- Drilling and assays results from the 2023 drill program
- Updated global MRE following the assay results return
- Results from the ongoing geological exploration program
- Metallurgical test work ongoing
- Environmental test work ongoing
- The company is fundamentally running on schedule to unlock the Estelle Gold Project, which sits within the much larger Estelle Gold Trend, in a Tier 1, safe jurisdiction

Nova CEO, Mr Christopher Gerteisen commented: "Completion of the Phase 2 Scoping Study marks a major milestone for the Company, providing a robust foundation as we move towards the PFS, and exceeded our expectations in many regards with a from surface high-grade starter pit at RPM offering a quick 11 month payback period and a 53% internal rate of return that we aim to continue to improve with further optimization.

With such a positive outcome and baseline to work from, we are now targeting additional near surface mineable resources to increase the average LOM mill feed grade, where the slightest increase should improve the project's economic metrics. We have those resource targets ready to drill this year, particularly at RPM. It's all upside from here.

Key drivers for these robust returns are the geometry and nature of mineralization within these massive IRGS ore bodies, which start at surface to allow open pit mining with a very low strip ratio, particularly important in the early payback, as well as being readily amenable to ore sorting in the later years allowing for significant upgrading of ore feed to the mill. This combined with excellent metallurgy where our proven flowsheet can easily liberate and recover gold. Following the initial high grade early years, particularly the 11 month starter pit at RPM, additional key areas and opportunities have already been identified that have the potential to further improve the project's economics.

With the project now essentially de-risked from a capital perspective with the 11 month payback period, Nova can be viewed as having a two tier upside. Development, and most importantly exploration, as any new discoveries and increases to the resource base will now go straight to the bottom line improving the projects economic metrics.

The Train area prospects which represent an RPM style target, are next in line for drilling to commence this year in the hopes of delineating a 3rd resource deposit.

With long-term opportunity and the prospect of multiple mining complexes across the single district scale project, we continue on our path to becoming a world class, tier 1 global gold producer."

Nova Minerals Limited (**Nova** or the **Company**) (**ASX: NVA, OTC: NVAAF, FSE: QM3**) is pleased to announce the results from its Phase 2 Scoping Study (the Study) on the Estelle Gold Project (Project), located in Alaska's prolific Tintina Gold Belt. Key outcomes of the Study highlight the technical and financial robustness for Estelle to support a large open pit mining operation, with ideal ore body geometry that allows mining high-grade ore in the early years for a quick payback from RPM, and bulk tonnage mining from Korbel at a low strip ratio in the later years.

Executive Summary

Project Overview

Nova has assessed the potential to develop an initial gold mining and processing operation at the Estelle Gold Project which contains multiple mining complexes across a 35km long mineralized corridor of over 20 identified gold prospects, including two already defined multi-million ounce resources across four deposits containing a combined 9.9 Moz Au (See Table 8). The Project which comprises of 450km^2 of unpatented mining claims located on State of Alaska public lands is situated on the Estelle Gold Trend in Alaska's prolific Tintina Gold Belt, a province which hosts a 220 million ounce (Moz) documented gold endowment and some of the world's largest gold mines and discoveries including Victoria Gold's Eagle Mine and Kinross Gold Corporation's Fort Knox Gold Mine (Figure 1).

Located approximately 150 km (93 miles) northwest of the major US city of Anchorage, the Project is a year-round operation, near a large labour force and all essential services with a base site which hosts a fully winterized 80-person camp, including an on-site sample processing facility and the 4,000-foot Whiskey Bravo airstrip, which can facilitate large capacity DC3 type aircraft. Easy access is currently available to the Project via a winter road and by air, and recently the proposed West Susitna Access Road, which is situated on State land within the Matanuska-Susitna Borough and has considerable support from both the community and the State government, has progressed to the permitting stage, with construction proposed to start in 2025 (Figure 2).

Various power options are being considered for the Project as part of the PFS trade-off studies currently underway, including an offtake from the proposed Donlin gas pipeline which runs 10-15 miles north of the site. This Study assumes power for the Project is obtained from power transmission lines which would feed into the State electricity grid, and the assumption has been made that the electricity supplier would provide the transmission lines to the Project site given the long length of the contemplated power purchase agreement.

The scoping study was completed with the assistance of a highly experienced and reputable group of independent consultants, based in Australia and Canada, including:

- ABH Engineering – Mine optimization and planning, process and infrastructure design and estimates, economic and mining analysis, capital and operating cost estimates
- Matrix Resource Consultants – Resource estimation
- Various – Geology

- Jade North – Environmental and permitting

The Study was completed in compliance with the JORC Code and provides a preliminary assessment of the potential viability of the Project based on a technical and economic accuracy of +/-35% with a 90% level of confidence.

Figure 1. Estelle Gold Project location with proximate mines in detail

Figure 2. Estelle Gold Project infrastructure solutions

The Study considers a development based on multiple open pit mines at the Korbel Main, RPM North and RPM South deposits feeding a 6 Mtpa Estelle central processing plant located in the Korbel Mining Complex area of the Project and producing an average of 132 Koz of gold per annum and a total gold production over the LOM of 2.25 Moz Au. The 2 Moz Au Inferred resource at Cathedral is not included in this study.

Key Study Outcomes and Assumptions

The Study has confirmed that an initial gold mining and processing operation at the Project presents a technically and commercially viable development opportunity with positive financial metrics over an initial mine life of 17+ years, with capital payback in the first year (11 months) of the Project. A summary of the initial mining and financial evaluation is provided in Table 2 below.

Production Physicals			
	Units	Phase 1 Scoping Study	Phase 2 Scoping Study
Life of Mine (LOM)	Years	15	17+
Ore Mined	Mt	195	231
Mine Grade	Au g/t	0.41	0.40
Strip Ratio	W:O	1.97	1.90
Ore Milled	Mt	86	108
Mill Grade	Au g/t	0.70	0.73
Gold Recovery	%	88.3	88.3
Avg. Annual Au Production	Koz	122	132
Total Au Production	Koz	1,956	2,253
Financials and Key Assumptions in USD$			
Capital Payback	Yrs	3	0.9
$NPV_{5\%}$	$M	381	654
IRR	%	20.4	53.3
Pre-Production Capital Costs	$M	424	385
Sustaining Capital Costs	$M	59	126 **
Gold Price	$/oz	1,750	1,800
Revenue	$M	3,423	4,055
Operating Costs	$/t	11.23	11.20
AISC – Year 1	$/oz	879	510
AISC - LOM	$/oz	1,120	1,149
Free Cash Flow	$M	716	945

Table 1: Phase 2 Scoping Study outcomes and assumptions

*All financials pre-tax and royalties and in US dollars

** Sustaining capital will be in years 1, 10, and 11 (See table 6 for details)

Production Projection

The production profile of the Estelle Gold Project demonstrates production of 363,000 oz Au in year 1, with an average annual production of 132,000 oz Au over the full 17+ year life of mine evaluation period. Production in Year 1, the payback period, is sourced from 79% Measured and Indicated Resources (21% Inferred). Production over the first three years is 85% Indicated (15% Inferred), over the first five years 80% Indicated (20% Inferred), over the first ten years 75% Indicated (25% Inferred) and over the LOM period 74% Measured and Indicated resources (26% Inferred).

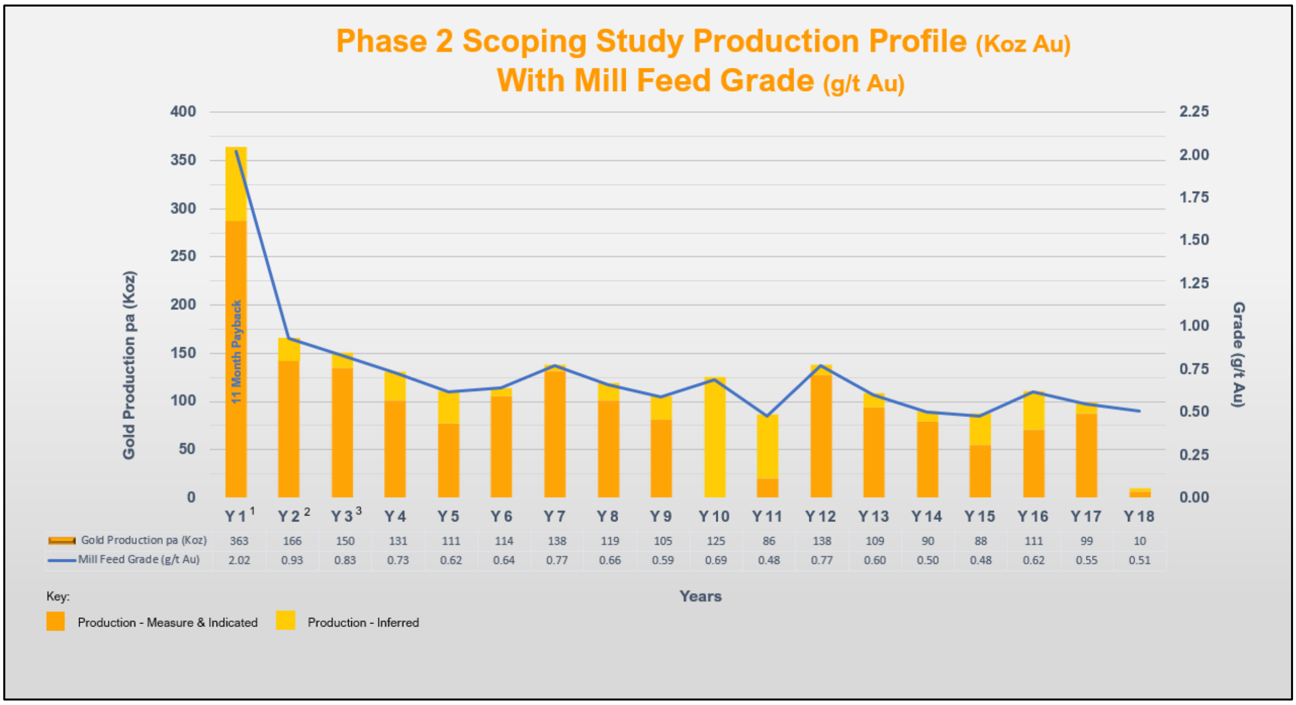

Figure 3. Annual production profile

Optimization studies on the Estelle Gold Project MRE indicate the potential for a high value open pit project extending approximately 200m below surface on average at RPM and 300m below surface on average at Korbel. The optimized pits represent 23% of the total Estelle Gold Project MRE (cut-off 0.15g/t Au) to produce 2.25 Moz of gold at a recovery rate of 88.3%, which is going through additional metallurgical optimization to potentially further increase the gold recoveries.

The optimization studies also demonstrated the economic potential of larger open pits extending below the current pit levels which could be mined at a higher strip ratio. This was not adopted for this study as the optimized pit shell focused on the higher grade near surface material. Nova intends to undertake fines by-pass test work which has the potential to further increase the LOM production schedule and most importantly also reduce waste.

Cash Flow Projection

The cash flow profile demonstrates a quick capital payback period of 11 months with annual free cash flow (undiscounted) of ~ US$56M per annum after the payback period and total free cash flow (undiscounted) over the LOM of US$0.95B.

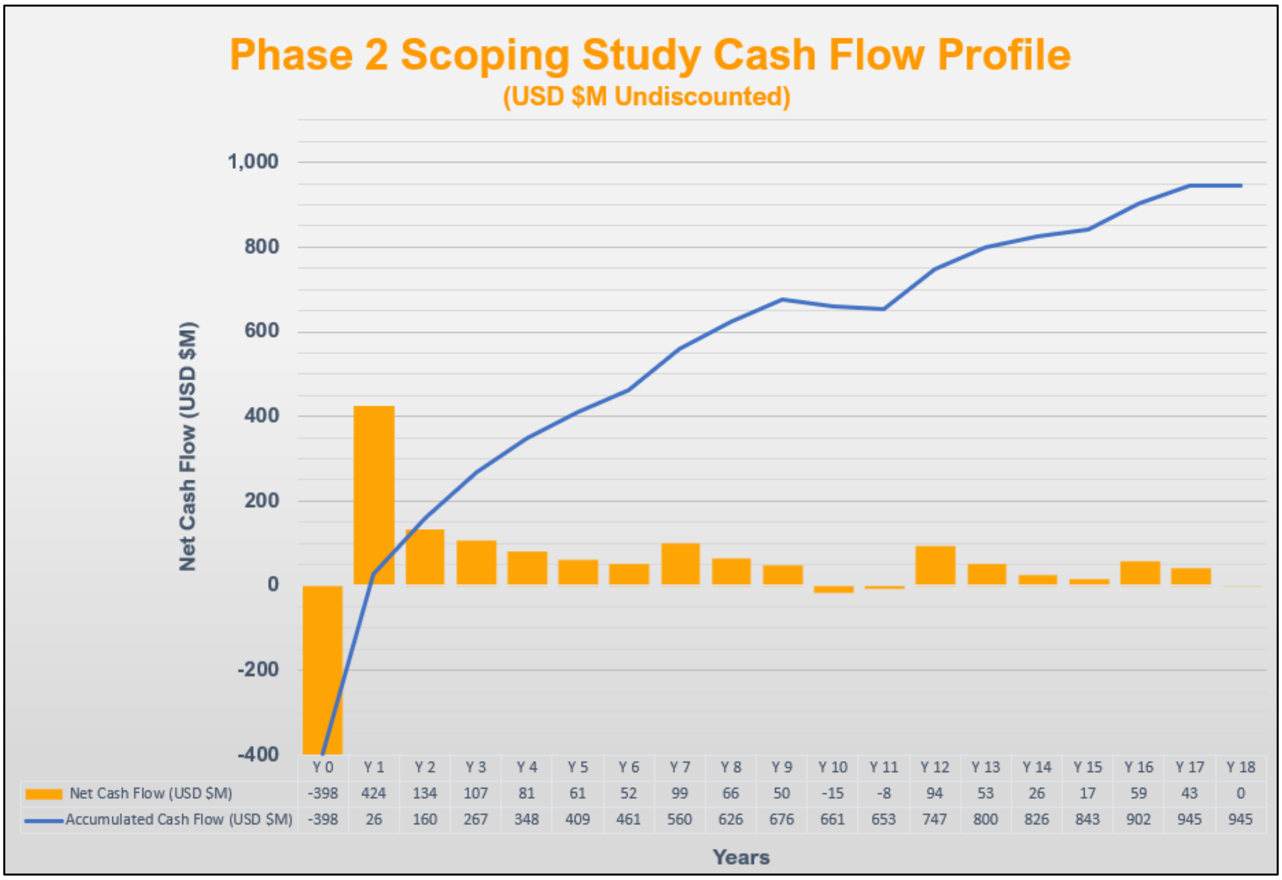

Figure 4. Annual net cash flow profile (Undiscounted) - Re-fleeting the mine haul equipment in years 10 and 11.

Sensitivity Analysis

A sensitivity analysis was conducted to investigate which factors have the greatest impact on the NPV and payback period when acting independently of other cost and revenue factors. The parameters studied for this analysis are the CAPEX, OPEX, gold price, mill feed grade, mill recovery, and discount rate. Some of the variables that were examined fluctuated with a range of variation from -10% to +10% at five different points including the base case. The mill recovery and discount rate percentages were altered by a value of ±2%. Figure 5 below shows the sensitivity analysis tornado chart for all six parameters along with the range of variation examined.

The analysis shows that the gold price has the highest effect on the NPV, and changes in project CAPEX has the least effect. An increase of 10% in gold price (US$1,980) would lead to a potential increase in NPV to US$942M. On the other hand, a 10% increase in project CAPEX or OPEX has a lesser effect on the NPV lowering it to US$606M and US$479M respectively.

A ±2% change in value for the mill recovery and discount rate tend to have a relatively small effect on the NPV like the effect of the change in CAPEX.

Mill feed grade and gold price have a similar effect on the project economics since both parameters are directly linked to revenue.

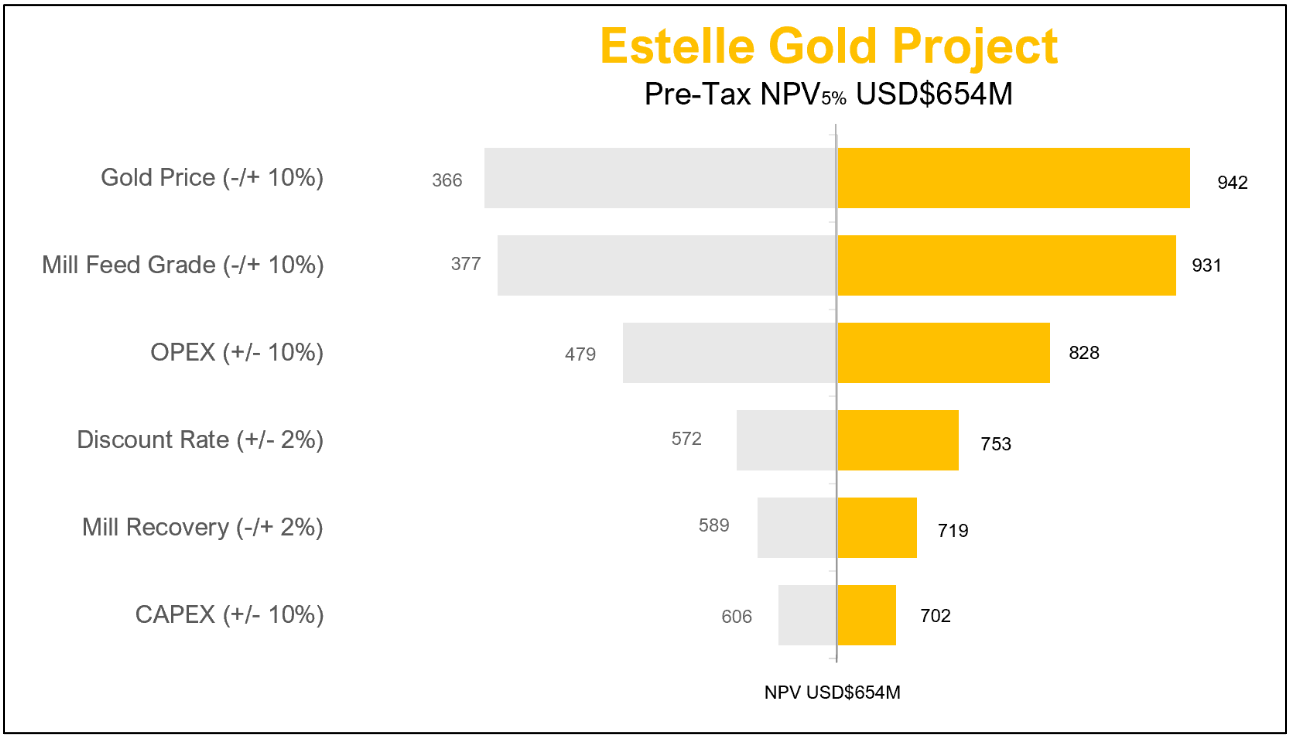

Figure 5. Sensitivity analysis (NPV tornado chart)

The sensitivity analysis shows significant leverage to improved mill feed grade, with even a 10% increase in the average LOM mill feed grade increasing from the current 0.73 g/t Au to 0.8 g/t Au improving the NPV by ~ US$277M. As a result, the company's core focus is to now define more near surface minable resources above the current mill feed grade.

The analysis also looked at changes in the project payback period with the variation of the parameters. In this case, different payback periods are estimated for scenarios that have a negative impact on the economics: a decrease of 10% in gold price, a decrease of 10% in mill feed grade, a 10% increase in CAPEX, and a 10% increase in OPEX. The results are shown in Table 2 below

Parameter Variation	+10% OPEX	+10% CAPEX	-10% Gold Price	-10% Mill Feed Grade
Payback (Months)	12	13	13	13

Table 2. Sensitivity results for the payback period

Cost Estimates

The capital and operating cost estimates presented in this scoping study are based on the development, construction and start-up of an open pit mine, processing plant and tailings management facility to handle a maximum mine production capacity of 39,500,000 tpa. The capital and operating cost estimates for this scoping study were conducted in 2023 US dollars (USD) unless otherwise stated. All costs for the scoping study are estimated as of the effective date of this Technical Report. All cost projections are referenced on a nominal 2023 US dollar basis.

The economic analysis contained in the scoping study is considered preliminary in nature. High confidence Measured and Indicated resources form part of the scoping study, however due to ASX guidelines mineral reserves are not declared. There is no certainty that economic forecasts outlined in the scoping study will be realized. The scoping study may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant factors.

Nova Minerals engaged ABH Engineering Inc. to provide estimates for various cost portions of this project. Mining, tailings management, and closure costs, processing and infrastructure cost estimates were provided by ABH Engineering Inc. All cost information was consolidated to determine the overall capital cost for the project.

The capital cost estimates developed in this scoping study are considered Class 4 estimates per the American Association of Cost Engineers (AACE) requirements and have an accuracy range of -30%/+50%. Estimate accuracy ranges are projections based upon cost estimating methods and are not a guarantee of actual project costs. The capital cost estimate of this scoping study forms the basis for the approval of further project development by means of a PFS and includes all costs to develop and sustain the project at a commercially operable status. This estimate was developed with a base date of first-quarter 2023 and does not take into consideration any escalation beyond this date.

The following are not included in the capital cost estimate:

- Working capital
- Currency fluctuations
- Interest and financing costs
- Project sunk costs (exploration programs, studies, etc.)
- Escalation cost beyond first-quarter 2023
- Supplemental costs due to accelerated or delayed deliveries of equipment, materials or services resulting from a change in project schedule
- Hiring and relocation
- Lost time or risks due to environmental issues (severe weather conditions), permitting delays, labor disputes or force majeure occurrences

General and Administration (“G&A”) items are calculated estimates or have been included as an allowance. Operating costs were estimated using cost models, budgetary quotations from suppliers, laboratory test work, general knowledge, in-house data, and experience of past projects.

The cost estimate was divided into the following major phases:

Pre-Production Capital Costs – comprises all costs incurred to develop the property to production at the designed yearly production of 39,500,000tpa of waste and ore, and maximum mill capacity of 6,350,000 tpa.

Operating Costs – comprises all costs after production begins.

Sustaining Capital Costs – comprises all costs incurred with respect to the addition of the ore sorting grade control system to handle up to 14,900,000 tpa and the partial mining fleet replacement in year 10 of operation

Closure Costs – comprises all costs related to the closure, reclamation, and ongoing monitoring of the mine, at the end of production and are incurred in year 18.

Pre-Production Capital Cost

Capital cost estimates have been estimated for the three key areas of the Project, mining, processing, and administration. The capital cost estimate has been primarily derived using a desktop study approach to an accuracy of ± 35% with a 90% level of confidence, typical of a scoping study level and includes a 10% contingency in each item.

	Pre-Production CAPEX			Sustaining CAPEX			Closing CAPEX	Total
CAPEX (USD $M)	**Phase 1 Scoping Study**	**Changes - / +**	**Phase 2 Scoping Study**	**Year 1**	**Year 10**	**Year 11**	**Year 18**	**CAPEX LOM**
Mine Equipment	57	Reduced mining fleet -23; Moved CAPEX to Year 0 +47	81					81
Grade Control - Particle Sorter & Crusher	52	CAPEX to Yr 1&11 -73; Higher sorter throughput +21	0	Ore sorters +44		Ore sorters +30		74
Process - Grinding & Flotation	125		125					125
Process - Fine Grind & Leach	56		56					56
Mine Infrastructure	42	Reduced mining throughput -1	41					41
Process Infrastructure	92	Removed generator -36	56					56
Road to RPM	0	Road to RPM built +26	26					26
Sustaining	0		0		Replace mining fleet +52			52
Reclamation	0		0				Reclamation +11	11
Total	424		385	44	52	30	11	522

Table 3. 6Mt pa plant and infrastructure capital cost estimate (US$M)

The location of world class infrastructure on the Project's doorstep is a significant advantage in mitigating infrastructure related capital costs.

The capital cost of infrastructure facilities needed for the project was estimated by ABH. The cost of mine infrastructure is estimated at US$41.2M.

The total capital cost of mine equipment is estimated to be US$81.1M

The capital cost of constructing the road from Korbel to RPM is estimated to be US$25.6M.

The design and capital costs of the process plant have largely been based on ABH's experience of recent projects. The processing cost estimates are based on material and equipment costs from take-offs and equipment lists. The equipment list for this project was developed with equipment sizes, capacities, motor power, and corresponding costs adjusted to match the project requirements for the proposed processing facility. Major processing equipment and material pricing were obtained from previous project vendor quotations. All the costs for processing infrastructure and processing capital expenditures were incurred in the pre-production year. The processing capital costs are estimated to be US$125.3M including setup and commissioning costs including a 10% contingency.

A separate capital cost for ore sorters is estimated at US$73.9M including setup, commissioning and a 10% contingency. This cost is split between year 1 and year 11 to reflect the construction and expansion of the facility based on an increasing tonnage coming from Korbel.

The total capital cost of process infrastructure facilities is estimated to be US$55.5M. This includes the tailings management facility and roads.

This Study assumes power for the Project is obtained from power transmission lines which would feed into the State electricity grid, and the assumption has been made that the electricity supplier would provide the transmission lines to the Project site given the long length of the contemplated power purchase agreement.

Operating Cost

Operating cost estimates in this scoping study include the mining, process plant, infrastructure, and general and administrative (G&A) costs. The operating cost estimate was compiled using a combination of quotations, industry factors, database costs, and directly related project experience. The estimate was benchmarked against similar operations.

The total operating unit cost is estimated to be $11.20 per tonne of ore mined for the life of mine. Table 4 summarizes the costs for the total LOM, average annual tonnage through process, and unit operating estimates. All operating costs are expressed in first-quarter 2023 US dollars. No allowance for inflation has been applied.

Operating Costs	$/t Ore Mined	$/t Through Process
Mining	$4.81	$1.65
Particle Sorting	$0.51	$0.73
Milling & Floatation	$3.35	$7.14
Fine Grind & Leach	$0.66	$16.91
Stockpiling	$0.09	$0.20
G&A	$1.30	$1.30
RPM Haul	$0.48	$3.95
Total	**$11.20**	**$31.88**

Table 4. OPEX breakdown

Processing operating costs span the operation and maintenance of processing facilities, including all gold recovery activities to produce gold doré on site. It covers expenses related to process plant labor/personnel, consumables (reagents, grinding media, etc.), power/energy consumption, and process plant equipment maintenance for crushing, grinding, leaching, carbon handling, gold refining, and tailings disposal.

General and Administration Costs

General and Administrative (“G&A”) costs comprise of costs not directly linked to the production of gold. Cost items estimated under G&A were based on previous experience alongside benchmarking with similar projects. G&A costs comprise the following categories:

- Administration, site services, and water treatment plant labor.
- On-site items such as: health and safety, environmental, human resources, insurance (physical plant, earthquake etc.), legal, external consulting, IT, communications, office supplies, site service equipment operation and maintenance, and employee transportation to and from site.

The total G&A unit operating cost is estimated to be $1.30 per tonne of ore mined

Sustaining Capital Cost

Sustaining capital costs will be incurred in year 10 to replace the aging mining fleet with an estimated cost of US$52M. There will be additional sustaining capital cost associated with the purchase of ore sorters in years 1 and 11 which totals to US$74M. Total sustaining capital costs are US$126M.

Indirect Costs

As is characteristic of a scoping level study, lump sum allowances or factors have been used to calculate indirect costs. At this level, most resourcing and contract strategies are not defined, hence rational and conventional assumptions have been made based on experience with similar projects. Cost items covered within this estimate include construction field indirects:

camp and catering, freight and logistics, vendor representatives, capital spares, start-up commissioning, and first fills of plant reagents.

Contingency

Contingency costs refer to any unexpected costs within the scope of work that cannot be clearly quantified when conducting the estimate but may emerge during execution of the project. They do not include any allowance for project risks such as changes to scope of work, schedule delays, weather-related hindrances, and design changes. Contingencies are expected to be spent during project execution.

For a sufficient contingency estimate, ABH reviewed the total capital cost estimate and grouped the major project work items in terms of level of definition and costs. The nature of how the costs were established for labor, materials, and equipment, contingencies were allocated to each of the work items dependent on the level of confidence. The overall contingency cost for the project is estimated at 10% of the project's pre-production capital costs (direct and indirect costs).

Closure Costs

Closure costs will be incurred at the end of mine life in year 18. Closure and reclamation costs include, dismantling of facilities, re-contouring of waste dumps, an allowance for ongoing water quality monitoring, coverage of the tailings facility with a geomembrane, and coverage of tailings facility and waste dumps with soil. These costs are estimated at US$11M.

Mine Design and Schedule

ABH Engineering (ABH) were engaged by Nova to undertake mining engineering studies in relation to the Estelle Gold Project. The scope of the works included the collation of input parameters, open pit optimization studies, open pit designs and mine production scheduling.

The resource models utilized in the mining engineering studies were provided by Matrix Resource Consultants. The Block Models for RPM North, RPM South, and Korbel Main deposits were produced in March 2023. Final input parameters containing processing, operating, fixed and mining costs and recovery were arrived at in consultation with Nova, which included base economic, geotechnical, mining and processing parameters required for the study.

The Open Pit Optimization and Mine Design assumptions are based on the conventional truck and shovel mining method. The program generates economic shells based on input parameters consisting of operating costs (mining and processing costs, selling costs), metallurgical recoveries, geological and geotechnical (slope) considerations. The optimal pit shells derived from the open pit optimization were then used to develop open pit mine plans for the deposit. The models supplied were estimated using a multiple indicator kriging estimation process.

The results of this Scoping Study represents a snapshot in time to assess the Estelle Gold Project and does not include potential resource extensions within the project area that are currently being investigated. It is expected that the resources will continue to increase and be proved-up beyond the current resource models as drilling programs continue to progress. This upside potential will be included, and provide significant benefit, in the next stage PFS currently underway.

The Phase 2 Scoping Study mine plan was based on mineral resources contained in 3 deposits - Korbel Main, RPM North, and RPM South. The 2 Moz Au Inferred resource at Cathedral is not included in this study.

RPM North and RPM South deposits are within 800m of each other and are located 27km south of the Korbel Main deposit. A central processing plant will be located at the Korbel site.

Extraction of economic mineable resources will be done through a conventional open pit truck and shovel operation. The project is planned to achieve a total ore production of 231 Mt at an average grade of 0.4 g/t over the 17+ year Life of Mine.

The Scoping Study mine plan is based on the mineral resource estimate by Matrix Resource Consultants.

The cut-off grades of 0.25 g/t at RPM and 0.15 g/t at Korbel assume a gold price of US$1,800/oz, no royalties, and a metallurgical recovery of 88.3%.

The cut-off grade covers grinding and flotation costs of $7.14/t of processed ore, leaching costs of $16.91/t leached concentrate and G&A costs of $1.30/t of ore.

Mining dilution of 10% was applied to the in-situ mineral resources.

The Korbel Main pit is located in a valley between two mountain ridges. The topography is somewhat steep. The overburden consists of a thin layer of moraine.

The RPM North pit is located partially on the side of a mountain ridge and partially in a valley. There is some overburden on parts of the deposit in the valley consisting of moraines, other parts on the ridgeline consist of bedrock outcrops.

The RPM South pit is located on a mountain ridge, with mineralization outcropping on the surface with little to no overburden.

Both overburden, waste and mineralized material for all deposits and pits will be handled by similar equipment fleets consisting of CAT 6040 hydraulic shovels with 22m3 bucket capacities paired with 20 Caterpillar 785 haul trucks with nominal capacity of 139 tonnes. Material transportation to the Korbel mill from the two RPM pits will be done over a 55km long single-lane haul road built to accommodate the CAT 785 haul trucks. The road will include pull-offs every 300m and haul trucks will be equipped with radios and a dispatch system.

The pits and pit shells were modelled separately for each deposit, and the mining schedules for each deposit were combined to create the combined mining schedule.

Geotechnical Parameters

No geotechnical tests were conducted.

Hydrogeological Parameters

A hydrogeological assessment of the open pits and waste dump/stockpile foundations has commenced and is ongoing for all of the deposits. A hydrogeological study should be integrated with geotechnical investigations of the pits, stockpiles waste dumps and tailings facilities as part of the PFS.

Pit Design

The following inputs were used for mine planning and pit design:

- The resource models are based on the MIK estimated block models provided by the geologist
- The smallest mining unit (SMU) for mining selectivity within the MIK model is 10m x 10m x 5m
- The Korbel resource model used a panel size of 50 x 50 x 10m
- The RPM North resource model uses a panel size of 20 x 10 x 10m
- The RPM South resource model uses a panel size of 60 x 30 x 15m

The MIK resource models contain specific gravities and resource classifications, average mineralized gold grade for the panel, mineralized gold grades at various cutoffs and percentage of panel tonnages meeting the SMU requirements for the various cutoffs

Measured, Indicated, and Inferred class mineral resource estimates are included in pit optimizations and mill feed estimates. The breakdown of in-pit resource classification over the life of mine is 80% Measured and Indicated, and 20% Inferred.

Stockpiles, waste piles, haul roads and other infrastructure were planned to minimize land and water body disturbance

Cut-Off Grades

The economic cut-off grades used for pit design vary between the three deposits. The economic cut-off grade for the RPM South and RPM North deposits is chosen as the grade required to pay for processing, transportation to the mill, and G&A costs. The mill cut-off grade for the Korbel Main deposit is chosen as the grade required to pay for ore sorting, subsequent processing, and G&A costs. The reduced processing costs for Korbel Main reflect the average mass rejected by the sorters. An average sorter recovery was also used. The cut-off grade calculations use the inputs shown below in Table 5 as the inputs.

Deposit	Item	Value	Unit
RPM North & South	Gold Price	1,800	$/oz
	Process Recovery at Cut-off	88.3	%
	Process Costs	9.80	$/t ore
	G & A Costs	1.30	$/t ore
Economic Cut-off		0.22	g/t
Korbel Main	Gold Price	1,800	$/oz
	Process Recovery at Cut-off	88.3	%
	Sorter Costs	0.73	$/t ore
	Process Costs	4.40	$/t ore
	G & A Costs	1.30	$/t ore
Economic Cut-off		0.13	g/t

Table 5. Cut-off grades and economic inputs used as a basis for the cut-off grades

A cut-off grade of 0.25g/t was chosen for the initial mine modelling of RPM North and South, and a cut-off grade of 0.15g/t was chosen for the initial mine modelling of Korbel Main.

Dilution

A 10% mining dilution factor was applied to account for mixing of ore and waste during the mining process.

Pit Slopes

A geotechnical assessment has not yet been completed for the Korbel and RPM deposit areas. To determine the safe slope angles for the pit, benchmarks consisting of nearby properties, research data, internal data were used. An overall slope angle of 45 degrees and a bench face angle of 60 degrees has been selected for all the deposits, and is deemed conservative and sufficient for this preliminary scoping level design.

Pit Optimization

Pit optimization was conducted in the Genesis software using the dressed cones method. This algorithm uses the gold grades, and specific gravity combined with the economic inputs to give each block a cost and revenue from the contained gold. The algorithm then uses the engineering parameter to select an optimal order in which the blocks should be mined.

The pit shells were generated from the ordering of the blocks based on the cumulative economics of all the blocks that must be mined prior to the final block. The pit shell which offers the highest non-discounted cashflow for the contained blocks was chosen and used as a basis for further planning, scheduling, stockpiling, equipment selection and financial modelling.

These economics are only preliminary in nature and were applied for comparative purposes to assist in the creation of an optimum pit shell for further mine design and do not reflect the actual financial results of the mine plan.

A separate pit optimization algorithm was run for each deposit to create an optimized pit shell to suit the unique economic and engineering parameters of each deposit.

Table 6 shows the pit optimization inputs for the three deposits.

Deposit	Value	Unit
RPM North & South		
Mining Cost	1.80	$/t
Satellite Ore Haulage Cost	4.40	$/t
Processing Cost	9.80	$/t
G & A Cost	1.30	$/t
Processing Recovery	88.3	%
Korbel Main		
Mining Cost	1.80	$t
Processing Cost	4.40	$/t
Sorting Cost	0.73	$/t
G & A Cost	1.30	$/t
Processing Recovery	88.3	%

Table 6. Pit optimization inputs

The amount of Measured, Indicated, and Inferred resources is dictated by the pit optimization and subsequent mine design and mine production schedule. Several iterations of pre-scoping study in-house pit optimizations highlighted priority areas within the deposit for infill drilling programs to obtain the required data density necessary for contiguous Measured and Indicated resources as per advice from the resource estimation consultants. This infill drilling was completed and included in the data to generate the April 2023 Estelle Gold Project global resource update (ASX Announcement: 11 April 2023) formed the basis of this scoping study pit optimization, design, and mine schedule.

By definition, Measured and Indicated classified resources contain the highest density of drilling data which deliberately defines the highest grade zones of the deposits. As such, the pit optimization seeks to preferentially sequence these resource higher value resources early in the life of mine production schedule. The reported resource classification as determined from the block model shows a breakdown of 74% Measured and Indicated and 26% Inferred over the life of mine which comes directly from the phased mine production schedule provided to Nova by ABH Engineering.

Mine Roads

Haul roads in-pit and ex-pit around the main Korbel mill were designed to accommodate two-way traffic for the Cat 785 haul trucks. The two-lane haul road width will be 25m with a maximum 10% grade for in-pit haul roads, and 8% for ex-pit haul roads. The operating width of a Cat 785 haul truck is 7.1m, with the two-way road being 3.5 times more than the operating width of a truck meeting the requirements for haul road widths for two-way traffic. Traffic will mostly consist of CAT 785 haul trucks in combination with light support equipment. The roads will be rarely used by the wider CAT 6040 shovels. When the shovels need the roads to be relocated, they will be the only equipment on them during such time. Maximum speed on the in pit haul roads will be 35km/h.

The haul road between the RPM North and South, and the Korbel Mill is designed to accommodate one-way traffic for the Cat 785 haul trucks to minimize construction costs and land disturbance. The haul road width will be 14.5m with a maximum 8% grade. Haul truck synchronization will be done with the assistance of dispatch software and continuous radio contact between drivers. This road will be in operation from the pre-production year until the end of year 3. Figure 6 shows the proposed haul road between RPM deposits and Korbel Mill. Figure 7 shows the layout of the haul roads and infrastructure at RPM, and Figure 8 shows the layout of the haul roads and infrastructure at Korbel. Maximum speed on the RPM – Korbel road will be 45km/h on flat sections.

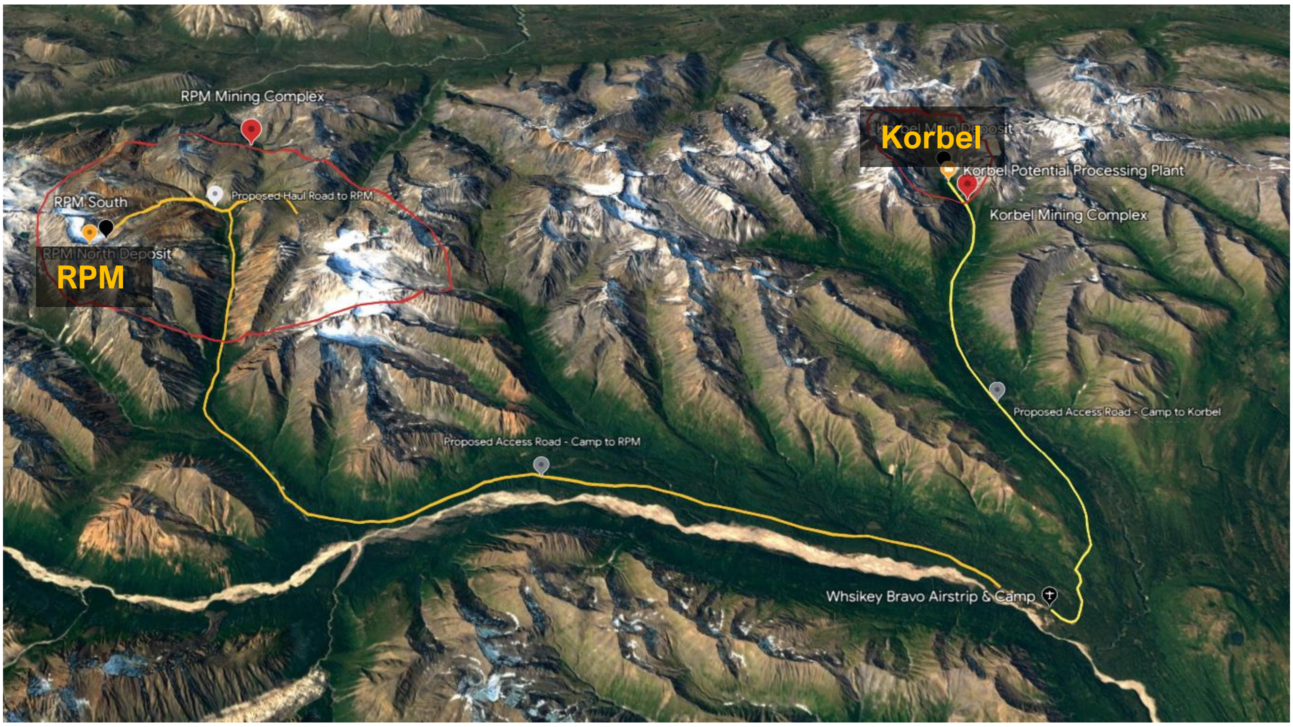

Figure 6. Haul road between RPM and Korbel

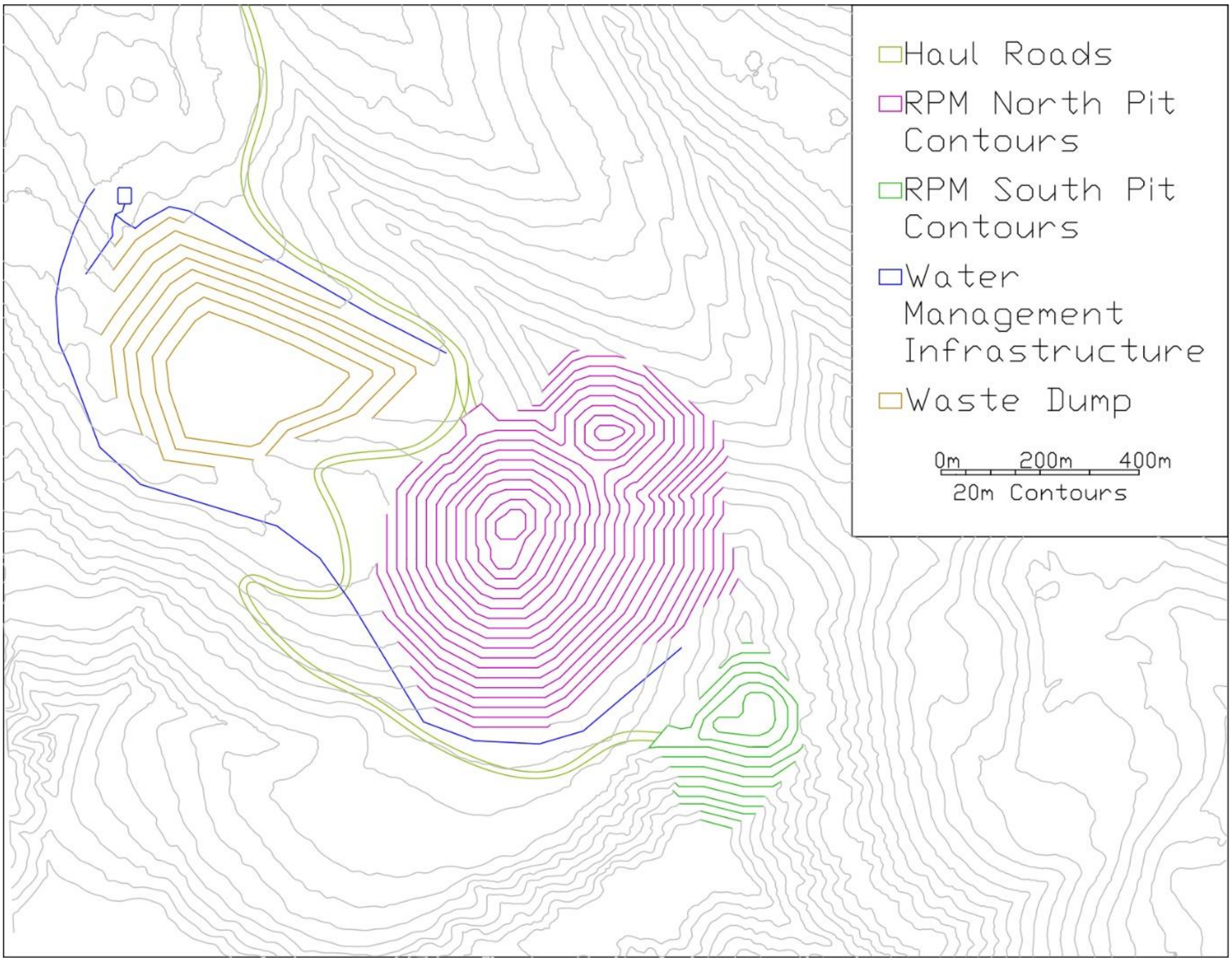

Figure 7. Layout of pits and infrastructure at RPM

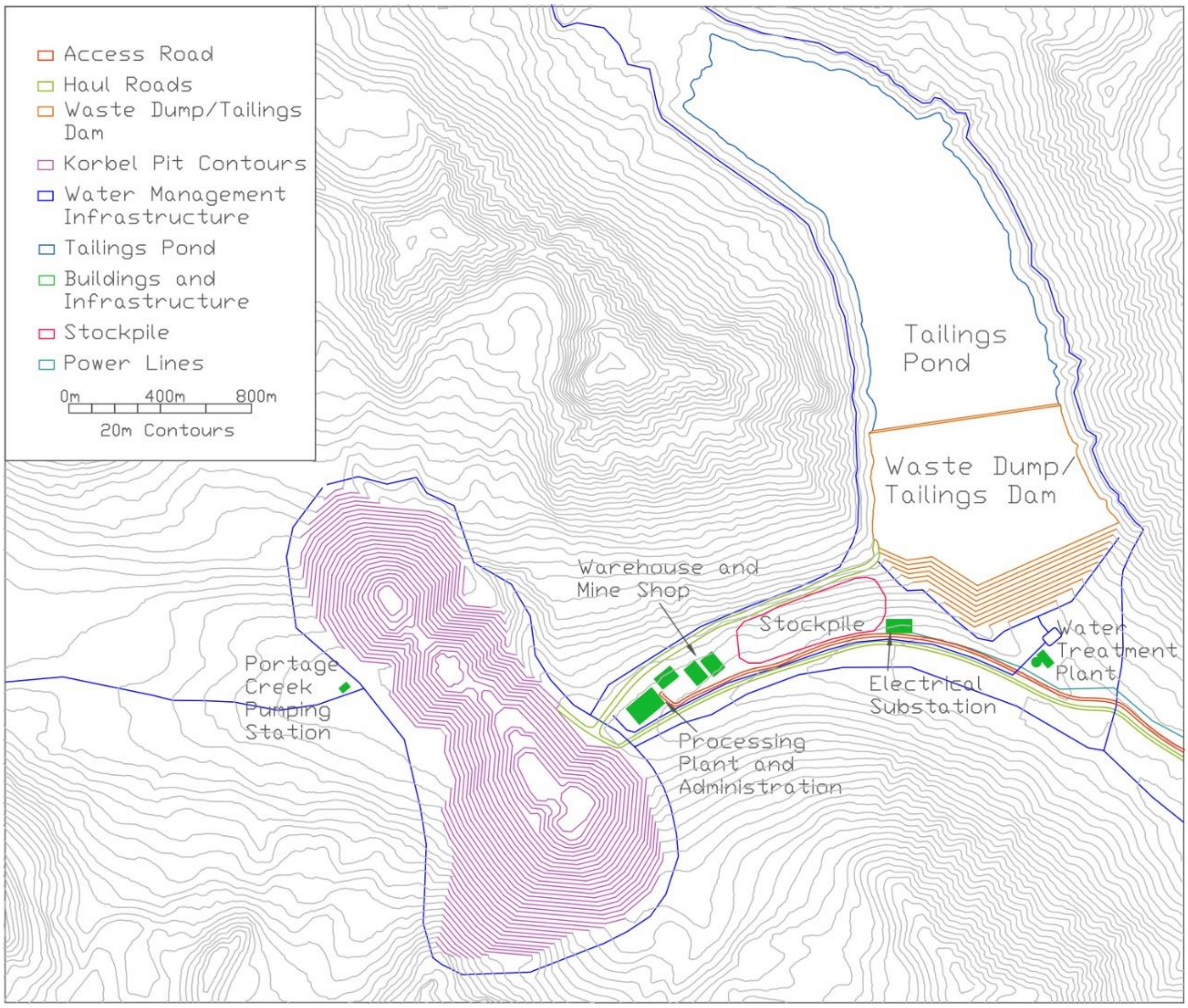

Figure 8. Layout of pit and the Estelle central processing infrastructure at Korbel

Pit Production

A conventional truck-and-shovel open pit operation will be utilized.

Drilling and blasting will be performed utilizing Epiroc DM45 Rotary Drills and Caterpillar 903D Compact Wheel Loader.

The waste, overburden and ore handling will be done by CAT 6040 or equivalent hydraulic shovels. The shovels will be paired with CAT 785 haul trucks which will transfer the material to the appropriate locations: ore to the mill, waste material and overburden to the waste and overburden dumps, and stockpile material to the stockpiles.

Movement of material from RPM North and RPM South to the Korbel mill 27km to the north will be done by the same CAT 785 haul trucks that are loaded in the pit at RPM North and RPM South. The length of distance travelled by the trucks will be 55km one-way.

Mine Production Schedule

Production was scheduled by year and pit phase with mining operations initially starting at the RPM North pit, and has factored the optimum mine sequencing throughout the LOM. This scheduling approach maximizes the mined grades through the LOM, while utilizing mining equipment capacity to the fullest for stockpiling of the lower grade material and conducting pre-stripping for later years. Some pre-stripping will be done over 3 months in the pre-production year.

Custom stockpiles will be implemented where each section of the stockpile represents a planned year in which each block that is mined is stockpiled according to the year it is planned to be processed. This results in the stockpile being subdivided into multiple sections. This approach results in an optimum stockpile to maximize the NPV.

Pit operations will run for 17 years until the ultimate pit shells are reached. This will be followed by less than one year of stockpile feed to the mill.

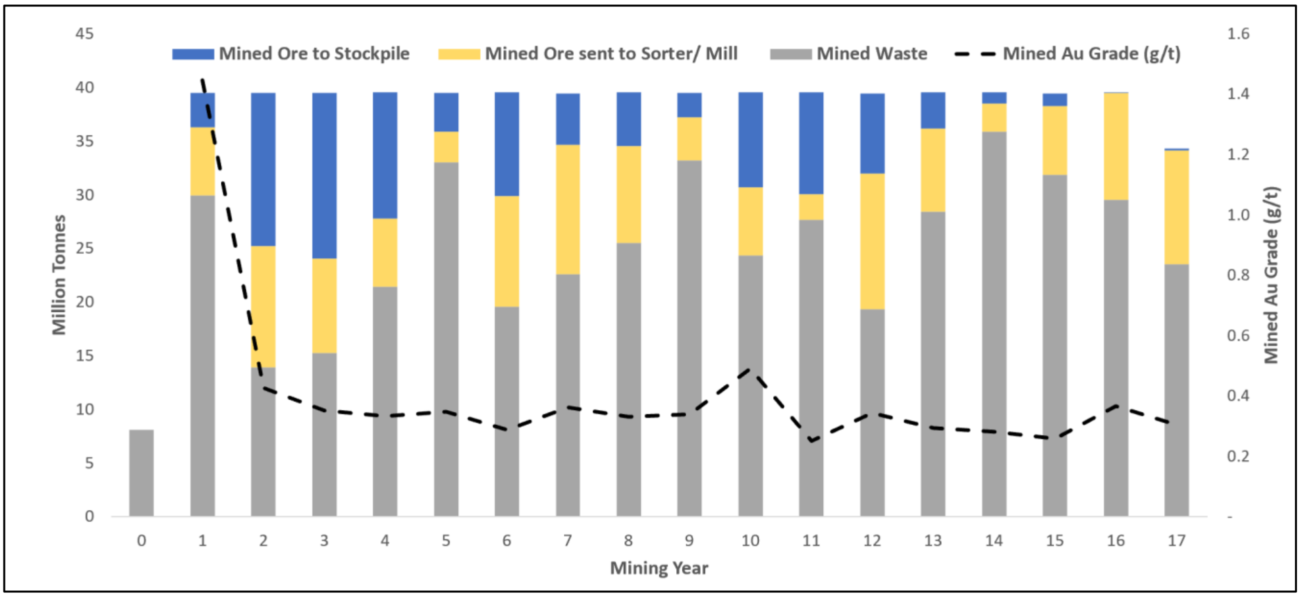

Figure 9. Production schedule by year

The mining schedule was generated by year and pit phase based on the optimized order in which the blocks are mined. The following parameters were used to generate the schedule:

Mill feed rate: 6,350,000 tpa

Mine operating days/year: 365

Mine operating shifts/day: 2

Mine operating hours/shift: 12

Utilizing maximum mining equipment capacity of 39.5Mtpa of mine ore and waste.

Panels are mined in sequence based on the optimized order of mining

Ore produced over the mill capacity is stockpiled.

Stockpiles are used to feed the mill whenever the ore production does not meet mill capacity, with the panels that are headed to the stockpile based on the year that it is most economic to process that panel.

Mine Operation

The pit will be managed and operated by the owner. Mine rock will be drilled and blasted on 10m benches. Double benches will be used wherever possible.

Dilution has been accounted for all in deposits, but will have little impact for ore originating from Korbel, as that material will be sent through the ore sorters which are an effective method of grade control.

A powder factor of 0.28 kg/t will be used in the resource material and waste rock for all deposits.

Blasting will be done by the owner and operator. Bulk blasting materials will be stored on site at a dedicated location consisting of silos for ANFO and delivered as required. An on-site magazine is planned. The magazines and explosive facility will be located at the Korbel deposit, and explosives will be delivered for blasting of the RPM deposits as needed.

Ore will be transported from the pit to the mill via CAT 785 haul trucks. This includes the distance from Korbel to the mill, and from RPM North and South to the Korbel mill. Waste will be transported to the respective waste dumps via CAT 785 haul trucks. Waste from Korbel will be used to reinforce the tailings dam, and will be transported via CAT 785 haul trucks.

Mining operations are based on 365 days/year, two 12-hour shifts per day.

The number of personnel required at the Estelle property is estimated at 52 persons on the mine site and 68 persons at the mill per shift, two shifts per day. A total of 120 persons per shift or 240 persons is required.

Stockpiles

Mined ore from the pit will either be delivered straight to the primary crusher at the processing plant or be sent to the customized stockpile. The stockpiles are located next to the Korbel mill, and will be used to store material from the Korbel and RPM deposits. In those years when the mining schedule exceeds the amount of ore that the mill can be fed, the excess lowest-grade mineralized material will be stockpiled, with each panel directed to a separate location within the stockpile by year it is most economic to process. The stockpiles will be subdivided into a multiple of sections, with each section corresponding to the year when the material will be pulled from the stockpile and processed.

The stockpile will have a maximum tonnage of 15 million tonnes. The stockpiled material is all planned to be re-handled back to the primary crusher during the mine life.

Only stockpiled material from Korbel will be sorted, with stockpiled material from RPM bypassing the sorters as direct mill feed.

Waste Rock and Topsoil Facilities

Storage facilities are planned for all waste materials from the open pits including waste rock and topsoil.

The following design parameters were considered:

- 45 degree slopes for waste rock dumps
- 25 degree slopes for topsoil storage
- Placed density of 2.1 for waste rock
- Waste piles for material coming from the RPM deposits to be located as close to the RPM pits as feasible
- Waste pile for material coming from Korbel deposit to be used as tailings dam reinforcement and construction material.
- Waste rock for Korbel ores sorter rejects will be stored in the same pile as the run of mine waste material coming from Korbel

It is assumed from available test work that the waste rock is non-acid generating/acid neutralizing, and segregation of different rock types was not planned.

Two waste rock dumps are planned, one near RPM North for material originating from RPM North, and one that is being used as tailings dam reinforcement at Korbel for material originating from Korbel Main. Waste rock originating from RPM South, which will commence in the later years, will be partially back filled into the RPM North pit.

Waste rock from pre-production years will be used for construction of roads and infrastructure. Most of this waste rock will originate from RPM North.

Hydrology

Storm water flowing from the west and north of the Korbel Main pit, in addition to waters from Portage Creek have the potential to impact the mining operations. RPM South is located on the crest of a ridge, and water inflows into the pit are expected to be minimal. RPM North is located on the side of a ridge, and water inflows are expected to be moderate.

Mining Equipment

The chosen mining equipment is based on typical surface equipment fleets operated by open pits in North America. A conventional truck and shovel open pit mining method will be employed. The equipment selected was based on a target yearly mill feed rate of 6,350,000tpa, with some excess capacity to be used for creation of stockpiles and pre-stripping.

A partial fleet replacement will be done in year 10. As both RPM deposits will finish mining by then, the fleet replacement will require fewer trucks.

Plant Design and Gold Recovery

- **Primary Crushing**

  The primary crushing circuit is designed for an annual capacity of 18.9 Mt per year. The expected operating hours of the primary crusher is 6,570 hours per year calculated with an availability of 75%.

  Material will be delivered from the pit to the primary crusher via an apron feeder that feeds the crusher at a rate of 2800 t/h. The crushed material will be discharged to a conveyor which will feed into a double-deck screen with the fines (<12.5mm) either being stockpiled or sent to the processing circuit. The coarse material (> 75mm) from the screen will be re-circulated into a cone crusher and the middlings (>12.5mm, < 75mm) will go to the mineral sorting circuit by passing through a surge bin.

- **Grinding Circuit**

  An HPGR (See figure 10) was considered as a replacement for a SAG mill for this project. Although it has more up-front costs than a SAG mill, it is more energy efficient and resultant savings cover the increase in capital costs for this project. An HPGR requires less power per unit processed, the trade-off study resulted in increased savings from power conservation.

Figure 10. HPGR Crusher

The acceptances of the particle sorter will be combined with the previous fines bypass and will go into the HPGR surge bin which will feed the HPGR. The HPGR is designed for an annual capacity of 6.35 million tonnes per annum. The average HPGR feed will have a P80 of 25.1 mm. The product of HPGR will have a P80 of 3500 µm. The HPGR product will be conveyed into a ball mill followed by cyclones in a closed circuit. The ball mill will be fed by HPGR product and cyclone underflow. The cyclone overflow will be 75 µm and will report to the flotation circuit.

- **Flotation Circuit**

  Ore from the cyclones will feed into a 16 m3 pre-flotation conditioning tank with a residence time of 14 minutes. From the conditioning tank the ore will feed into four 300 m3 rougher flotation cells. The flotation circuit will require the addition of 150 g/t copper sulphate, 120 g/t PAX, and 46 g/t of MIBC.

Concentrate will be collected and sent to the concentrate cyclones where the underflow of >22 µm will be recirculated through an IsaMill, and the overflow will report to the leach circuit. Flotation tailings will report to the flotation tailings thickener. The thickener is sized to a diameter of 24 m and will require flocculant addition. It will have a target underflow density of 55% solids.

- **Thickening, Leaching, and Carbon-In-Pulp Circuits**

Cyclone overflow at a P80 of 22 µm, will flow onto a vibrating trash screen for removal of trash material. Oversize material from the trash screen will discharge into a trash bin, while screen undersize will flow by gravity to a 12 m diameter conventional pre-leach thickener. Flocculant solution will be added to the thickener feed to enhance the settling of fine solids. The thickener will increase the slurry density to 45% solids. The thickener overflow will flow by gravity to a process water tank to be utilized in the grinding circuit as make-up water, while the underflow will be pumped to an agitated pre-aeration tank prior to flowing to the leach circuit. Oxygen will be sparged into the bottom of the agitated tank and the slurry will be conditioned to oxidize sulphide minerals.

The oxidized slurry will flow to the leach circuit consisting of four 9.8 m diameter by 9.8 m height agitated tanks, where cyanide and lime are added. The pre-aeration tank will have the same dimensions as the leach tanks. The leach circuit is designed to provide 24 hours of retention time. Sodium cyanide and sodium hydroxide solutions with concentrations of 45 kg/t and 0.44 kg/t respectively, will be added to the agitated leach tanks. The latter is added to maintain the system alkalinity at a pH of 11.0, preventing the formation of hydrogen cyanide gas. Compressed oxygen will be sparged into the bottom of each tank using gas diffusers to optimize the gold leaching rate. Slurry from the leach circuit will then flow by gravity to the Carbon-In-Pulp (CIP) circuit for carbon adsorption.

Leached slurry from the leach circuit will be directed to the first of six 5.5 m diameter by 7 m high CIP tanks. In the CIP circuit, dissolved gold is adsorbed onto activated carbon from the leach slurry in the CIP tanks. Each tank will be installed with an agitator and an inter-stage screen pumpcell for retaining activated carbon in the tank and to allow slurry discharge to the next tank. The average carbon concentration in the CIP circuit is expected to be approximately 50 g/L to maximize adsorption. As slurry moves from one tank to another, the metal values present in the solution will gradually decrease. Carbon will proceed countercurrent to slurry flow to maximize gold recovery. Regenerated carbon containing the highest adsorption capabilities will be directed into the last CIP tank, interacting with slurry containing lowest gold concentration. With this arrangement, loaded carbon with the least adsorption ability will end up in the first CIP tank, interacting with slurry containing the highest gold concentration. Loaded carbon from the first CIP tank will be transferred to the loaded carbon screen once a day. Here, the slurry will be separated with the carbon transferred to the acid wash circuit. Separated slurry will subsequently flow by gravity back to the first CIP tank. Fresh activated carbon, together with regenerated carbon from the regeneration circuit will be transferred into the last CIP tank.

The slurry tailings stream from the CIP circuit will flow by gravity onto the carbon safety screen, where escaped carbon particles from the CIP circuit will be captured. Captured carbon particles will be collected in bins and sold or disposed of depending on the contained gold value. Screen undersize will gravitate to the tailing's thickener for dewatering prior to the cyanide destruction circuit.

- **Acid Wash**

  Loaded carbon from the CIP circuit will gravitate to a 1 tonne capacity acid wash column. A circulating 3% hydrochloric acid (HCl) solution will be used to treat the loaded carbon to remove contaminants such as calcium, magnesium, and other salt deposits that would otherwise reduce the efficiency of elution. This step also helps in reducing the risk of carbon fouling during the regeneration or thermal reactivation process downstream. Organic foulants such as fats and oils are unaffected by the acid and will be eliminated in the regeneration process using an electric kiln.

  In the acid wash stage, carbon will be foremost rinsed with fresh water. Entrained water will be drained from the column and HCl acid will then be pumped from the acid wash circulation tank to the acid wash column, from the bottom up, and overflow back into the circulation tank. The carbon will then be rinsed with fresh water to displace the acid and any residual mineral impurities after which the washed carbon will then be transferred to the elution column for carbon stripping.

- **Carbon Stripping (Elution)**

  The carbon stripping (elution) process will strip the loaded carbon by utilizing barren strip solution, resulting in a pregnant gold solution. This pregnant solution will be pumped through the electrowinning cells for precious metal recovery and circulated back to the barren solution tank for reuse in the strip column.

  The strip column will be made of carbon steel with a capacity to hold approximately five tons of carbon. A solution comprising 1% sodium hydroxide (NaOH) and 0.1% sodium cyanide (NaCN) concentrations is pumped upwards through the strip column at a high temperature and pressure of 140oC and 450 kPa respectively during the strip cycle. Solution exiting the top of the vessel is cooled below its boiling point by the heat recovery heat exchanger; the heat from the outgoing hot pregnant solution being transferred to the incoming cold barren solution. This will be done prior to the barren solution being heated further by the solution heater. The primary heating source will be an electric boiler. From the elution column, the carbon will be transferred to the kiln for regeneration.

- **Carbon Regeneration**

  The carbon regeneration process thermally reactivates the carbon pores in a kiln and removes any organic fouling agents such as fats and oils. To make up for any lost carbon during the adsorption-desorption cycle, fresh activated carbon is continuously added as needed.

  Prior to being fed to the kiln, the stripped carbon from the elution column is first transferred to the kiln feed dewatering screen. This dewatering screen doubles as a carbon sizing screen to remove fine carbon particles. Oversize carbon from the screen gravitates to the carbon regeneration kiln feed hopper while undersize carbon will gravity discharge into the carbon fines tank for subsequent filtration and disposal. The screen oversize carbon from the feed hopper is fed into the regeneration kiln where four tons of carbon is treated per day. This is equivalent to 100% regeneration of stripped carbon. Carbon discharged from the kiln will flow by gravity into the carbon quench tank, where it is cooled in water, prior to being pumped back to the CIP circuit.

As required, fresh carbon, along with fresh water for carbon activation, will be added to the carbon attrition tank to make up for loss of attritted carbon. The fresh carbon will then be transferred to the quench tank together with the regenerated carbon back to the CIP circuit.

- **Electrowinning and Refining**

  Strip circuit pregnant solution reports to the refinery for electrowinning to produce a gold sludge. The sludge will then undergo a process of filtration, drying and refining in a furnace to produce gold doré bars.

  Pregnant strip solution will be pumped through electrowinning cells with stainless steel mesh cathodes. Gold will be deposited on the cathodes and the resulting barren solution will flow by gravity back into the barren solution tank for reuse or transferred to the leach circuit. Using high pressure water, the gold-rich sludge will then be periodically washed off the stainless-steel cathodes in the electrowinning cells into the sludge holding tank. Upon getting filled, the tank's containment, which is the sludge, will be drained, filtered, dried, and then melted with flux in an induction furnace to produce gold doré. The electrowinning and refining process will be conducted in a highly secure and supervised environment. The gold doré bars will be stored while awaiting sale and shipment.

- **Cyanide Destruction**

  Process plant tailings from the tailings thickener and process spills within contained areas will be detoxified to a weak acid dissociable cyanide of low concentration. This will be done prior to deposition in the tailings management facility (TMF).

  The cyanide destruction circuit will consist of two mechanically agitated tanks. The process used for cyanide destruction will be the SO2/Air process. The treated slurry from this circuit will report to a final tailings tank prior to being pumped to the TMF. Process air will be sparged from the tank bottom area under the agitator impeller. If required, lime slurry will be added to maintain an optimum pH where copper sulphate (CuSO4) will be added as catalyst. Liquid SO2 will be added as sodium metabisulphite (SMBS).

- **Particle Sorting**

  Particle sorting is a grade control process of separating valuable rocks from waste rocks. In this project, it is applied during the early stages of the mineral beneficiation process – after the primary crushing circuit and initial screening, to bypass the fines. This reduces the amount of material being fed to the ore sorting circuit, which decreases ore sorter size, and leads to increased ore sorting accuracy, resulting in an increase in profit. The rejection of coarse waste material before milling reduces mill size, material handling requirements, overall operational expenses, and tailing production.

  In particle sorting, each individual rock is classified as valuable or waste using real-time online sensors. The sensor data is quickly analyzed allowing individual particles to be sorted by Au concentrations, removing ore uneconomical to process. Typically, a crushing and wet screening stage is required to prepare size-bound (3:1 top size to bottom size ratio) material with a clean surface for particle sorting. The sorting process requires a feeding system which presents a monolayer of spaced particles for sensing. Once the value of each rock is analyzed using the sensing algorithm, the waste rocks are removed from the system through a physical diversion mechanism. The max throughput of a single particle sorting system for this project is limited to approximately 120 tonnes per hour.

Figure 11. Standard Tomra XRT particle sorter

In the Project an XRT sorting is used, utilizing an electric X-Ray tube which can handle high-tonnage feeds. It uses a dual energy imaging source to identify waste from ore based on the specific atomic density of the material. During XRT scans, rocks are subjected to high-energy X-Rays, allowing the sensor to capture image data (Figure 12). The X-Ray image data is dependent on the atomic density and material thickness, providing information regarding the internal composition of the tested sample. The XRT images are processed using TOMRA’s proprietary image analysis software which estimates the percentage area of high- or low-density pixels depending on the changes in X-ray intensity passing through the rock. The high-density areas are correlated with the sensor’s response. The test details and results are provided in the bench-scale test report provided by TOMRA.

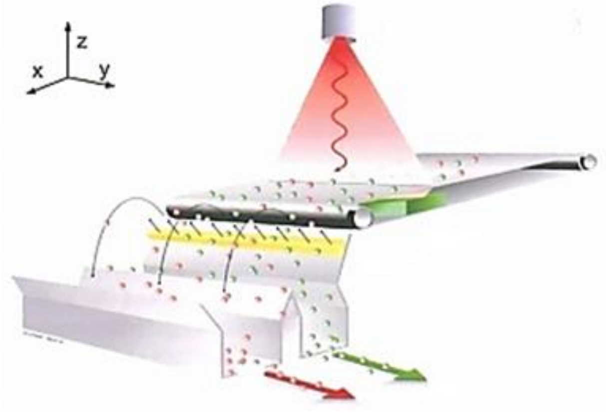

Figure 12. XRT sensor system

The mineral sorting circuit will consist of ten XRT particle sorting systems working in parallel. The material from the primary crushing circuit will report to a surge bin, where it will be split and fed into the ten particle sorting systems. The sorting systems classify material as either ore or waste and divert it to their respective conveyors. The particle sorting systems over the life of mine is expected on average to accept 23.3% of feed mass into the ore stream bound for the mill and grinding circuit. Only material originating from Korbel will be sorted, either ROM or from Stockpiles. In this Project, the processing plant will operate without sorting systems for the first 2 years, with the sorters being incorporated in year 3.

Equipment Throughput and Recovery

The throughputs of each of the equipment throughout the processing circuit was estimated by utilizing ABH's past project experience and scaled to match the requirements of this project. The 3 main phases of throughput in the Scoping Study level are the ore to the primary crushing, the material sent to the ore sorter, the material processed to float, the resultant of the float that needs leaching (See Table 7). The numbers shown are estimates, and will be expanded on in further studies.

Equipment	Quantity	Designated Max Throughput (tpa)
Primary Gyratory Crusher	1	18.90 Mt
Secondary Cone Crusher	1	~2.84 Mt
Ore Sorter	14	14.90 Mt
HPGR	1	6.35 Mt
Ball Mill	1	6.35 Mt
Pre-Flotation Cyclone Cluster	1	6.35 Mt
Conditioning Tank	1	6.35 Mt
Flotation Cells	4	6.35 Mt
Isa Mill	1	~0.806 Mt
Post-Flotation Cyclone Cluster	1	0.806 Mt
Pre-Leach Thickener	1	0.806 Mt
Leach Tanks	4	0.806 Mt

Table 7. Equipment throughputs and quantities

Based on metallurgical test work flotation recovery is expected to be 95.4% recovery from leaching and CIP circuits is expected to result in a recovery of 92.5%. The recoveries from Grade Control by particle sorting are heavily dependent on the grade of the material being fed into the ore sorting circuit, which is dynamic on a year-by-year basis. The average percentage of gold rejected in the form of low-grade tonnages by the ore sorters LOM is 11.5% of total contained gold in the ore.

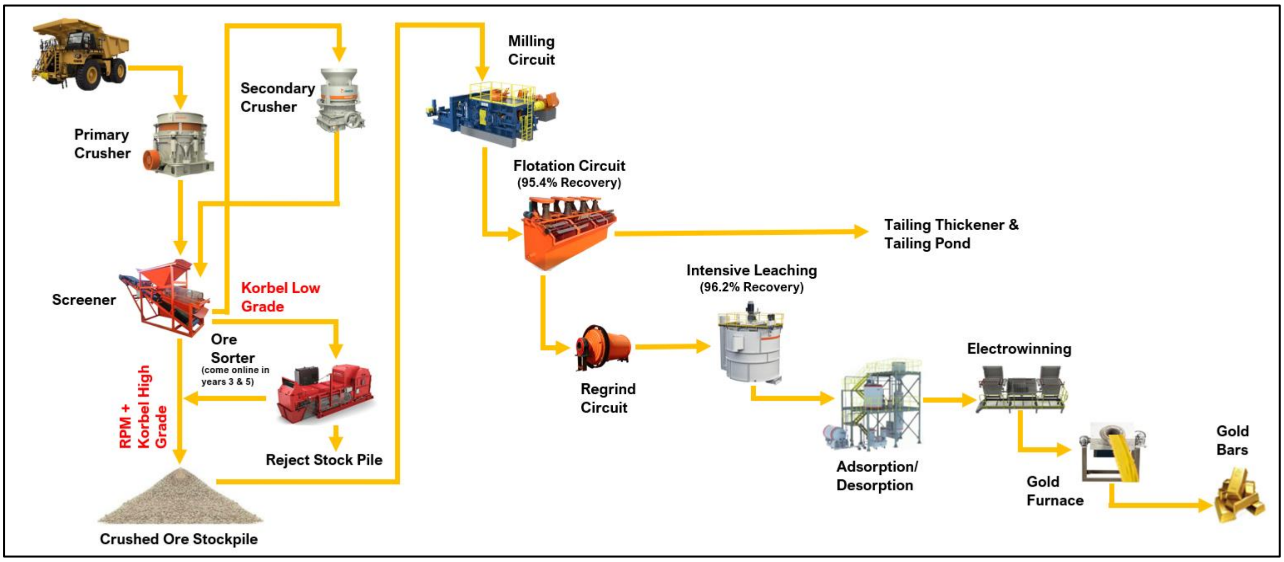

Figure 13. Simplified process flowsheet

Geology and Resource Estimation – Global Resource

Extensive diamond and RC drilling programs have been undertaken to test the extent of all deposits and infill, in support of a Mineral Resource Estimate of 9.9 Moz across the Estelle Gold Project, as released to the market on 11 April 2023. This Mineral Resource contains a proportion of Measured and Indicated classified material to support future studies and an eventual Ore Reserve. Future targeted drilling programs are planned to upgrade both the size and confidence of the resource estimate. There have been no changes since the date of this MRE.

Deposit	Cutoff	Measured			Indicated			Inferred			Total		
		Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz
RPM North	0.20	1.4	4.1	**0.18**	3.3	1.5	**0.16**	26	0.6	**0.48**	31	0.8	**0.82**
RPM South (Maiden)	0.20							31	0.4	**0.42**	31	0.4	**0.42**
Total RPM Mining Complex		1.4	4.1	**0.18**	3.3	1.5	**0.16**	57	0.5	**0.90**	62	0.6	**1.24**
Korbel Main	0.15				320	0.3	**3.09**	480	0.2	**3.55**	800	0.3	**6.64**
Cathedral (Maiden)	0.15							240	0.3	**2.01**	240	0.3	**2.01**
Total Korbel Mining Complex					320	0.3	**3.09**	720	0.2	**5.56**	1,040	0.3	**8.65**
Total Estelle Gold Project		1.4	4.1	**0.18**	323	0.3	**3.25**	777	0.3	**6.46**	1,102	0.3	**9.89**

Table 8. Global Mineral Resource Estimate, Estelle Gold Project

General

Resources were estimated for the Korbel Main, RPM North and South deposits by Multiple Indicator Kriging with block support correction to reflect open pit mining selectivity, a method that has been demonstrated to provide reliable estimates of resources recoverable by open pit mining for a wide range of mineralisation styles.

The estimates are based on information from RC and diamond drilling data supplied by Nova in February and March 2023 and are reported below a triangulation representing natural surface provided by Nova. Nova specified that Matrix were not required to review the reliability of the supplied information, or consider the potential for economic extraction of the estimates, with Nova nominating Competent Persons to take responsibility for these aspects of the estimates. With the exception of modifying comparatively few erratic down-hole survey entries and some adjustments to give drill hole collars more consistent with the supplied topographic triangulation, Matrix used the sampling data on an as-supplied basis.

Micromine software was used for data compilation, domain wire framing and coding of composite values and GS3M was used for resource estimation. The resulting estimates were imported into Micromine for resource reporting. The estimation methodology is appropriate for the mineralisation style.

The MIK modelling is based on 3.048 metre (10 foot) down-hole composited gold grades from RC and diamond drilling. The selected composite length represents the dominant sample length.
Modelling of each deposit area incorporated a generally low gold grade background domain and between one and three mineralised domains interpreted by Matrix which capture composites with gold grades of generally greater than 0.1 g/t and delineate zones within which the tenor and spatial trends of mineralisation are similar.

For each deposit, grade continuity was characterized by indicator variograms modelled at 14 indicator thresholds. For determination of variance adjustment factors a variogram was modelled from composite gold grades. The modelled variograms are consistent with geological interpretations and trends shown by composite gold grades.

Class grades used for MIK modelling were derived from class mean grades with the exception of upper bin grades which were generally derived from the class median, class mean excluding a small number of outlier composites or rarely the bin threshold grade.

For each deposit area, the MIK modelling utilized between and three and six progressively relaxed search passes which were selected on the basis of the drill hole spacing and mineralisation trends to inform a reasonably large proportion the mineralised domains while allowing blocks to be estimated by reasonably close data where possible.

The estimates include a variance adjustment to give estimates of recoverable resources above gold cut-off grades for comparatively large scale open pit mining with selectivity of around 10 by 10 by 5 metres for Korbel and Cathedral and around 5 by 10 by 5 metres for the RPM North and South deposits. The Mineral Resource estimates can be reasonably expected to provide appropriately reliable estimates of potential mining outcomes at the assumed selectivity without application of additional mining dilution or mining recovery factors.

The estimates include densities of 2.65 tonnes per bank cubic metre (t/bcm) reflecting the average of calliper density measurements undertaken by Nova on diamond drill core.

Korbel Mining Complex

Korbel Main Modelling

Modelling of the Korbel Main deposit includes a main, northwest trending, sub-vertical mineralised domain and two subsidiary mineralised domains designated as Block C and Block D respectively (Figure 14). The Main zone domain trends northwest over around 2.6 kilometres with an average width of around 370 metres. The Block C and D domains have extents of around 140 by 180 and 400 by 370 metres respectively. The modelling also included a surface representing the base of unmineralized overburden interpreted from drill hole geological logging which averages around 7 meters thick.

The estimation dataset comprises 20,126 composites with gold grades ranging from 0.001 g/t to 14.1 g/t and averaging 0.19 g/t.

The block model, which is rotated 40o from north south, aligning model axes with the mineralised trends and drill traverses, comprises panels with dimensions of 50 by 50 by 10 metres
One set of indicator variograms modelled from the main domain composites was used for the modelling.

Estimates for mineralisation tested by drilling spaced at around 100 metres, including some more broadly sampled areas to give a consistent distribution are classified as Indicated. Estimates for more broadly sampled mineralization, extrapolated up to around 120 meters from general drilling areas are classified as Inferred. The estimates extend to around 820 meters depth with around 80% from depths of less than 500 meters.

Cut-off Au g/t	Measured			Indicated			Inferred			Total		
	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz
0.10				430	0.25	3.46	790	0.19	4.83	1,220	0.21	8.3
0.15				320	0.30	3.09	480	0.23	3.55	800	0.26	6.6
0.20				230	0.34	2.51	250	0.28	2.25	480	0.31	4.8
0.30				110	0.43	1.52	66	0.40	0.85	176	0.42	2.4
0.40				53	0.54	0.92	23	0.53	0.39	76	0.54	1.3
0.50				26	0.64	0.53	11	0.62	0.22	37	0.63	0.75

Table 9. Korbel Main Mineral Resource Estimate at various cutoff grades

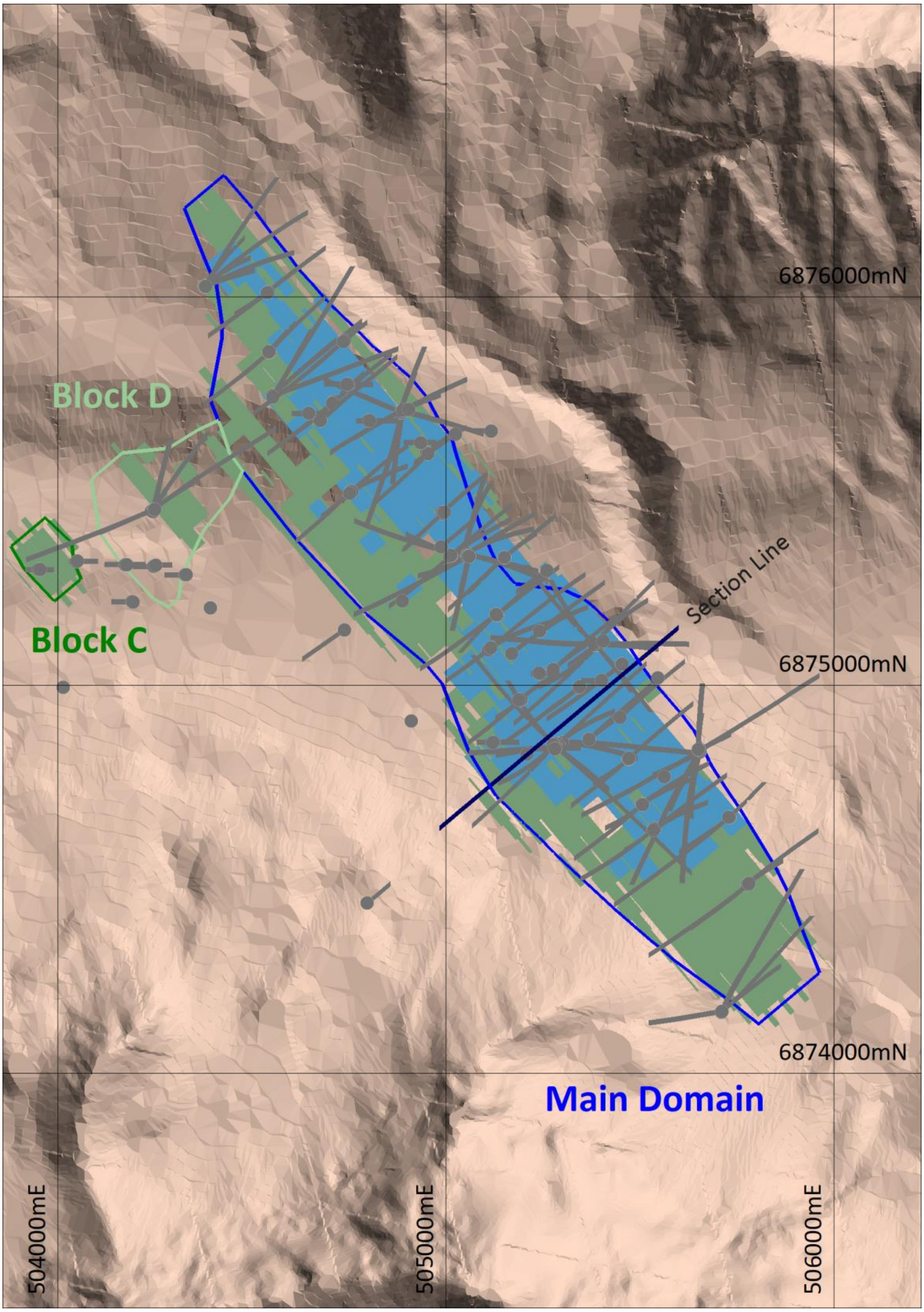

Figure 14. Plan view map of drillhole traces and modelling domains with Indicated (blue) and Inferred (green) Resource Estimate block model of the Korbel Main gold deposit

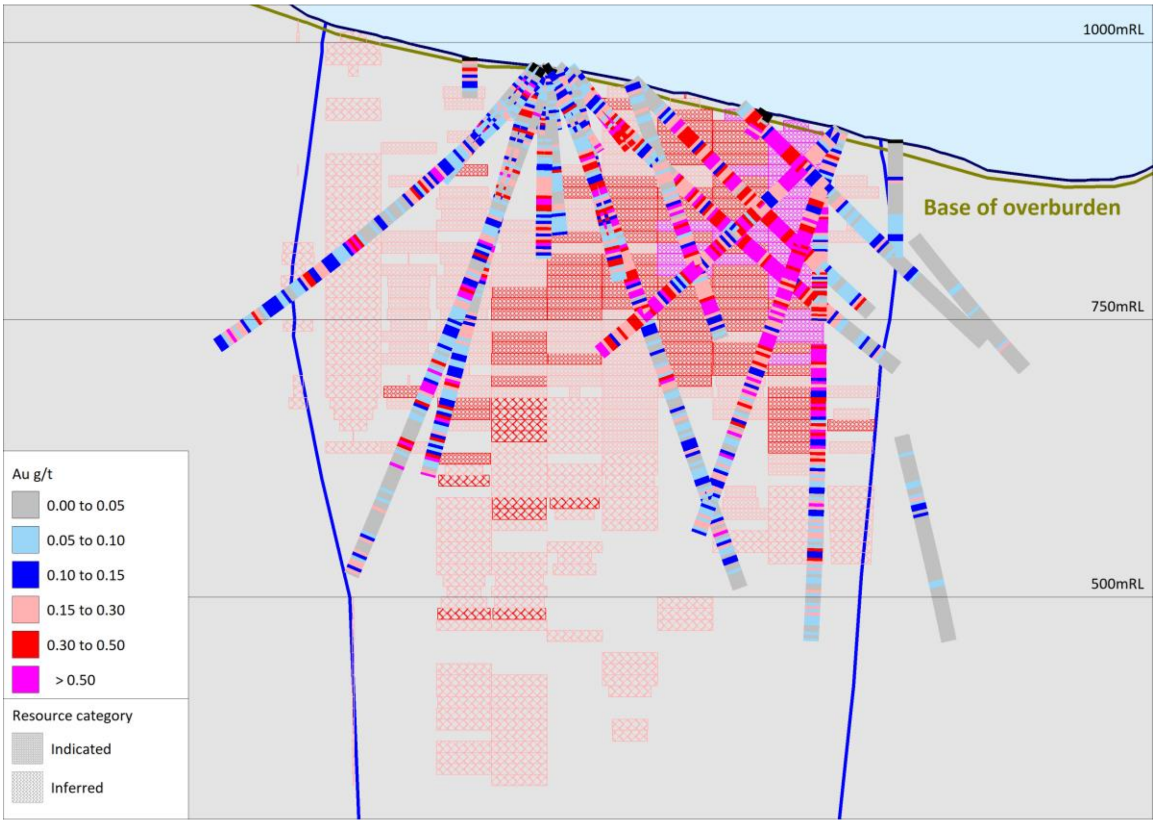

Figure 15. Type Section on 1900 line (See Figure 2) showing drillholes (grade) and resource block model (grade, category) at Korbel Main.

RPM Mining Complex

RPM North Modelling

RPM North modelling utilized three, subvertical east-west trending mineralised domains (Figure 16) comprising a subsidiary southern domain of comparatively lower gold grades, and a northern domain with an internal core of notably higher composite gold grades.

The northern zone is interpreted over around 550 metres of strike with an average width of around 75 metres, encompassing the high grade core domain which comprises an ovoid shaped zone around 130 by 60 metres in plan extending to around 250 metres depth. The southern domain trends over around 600 metres of strike averaging approximately 120 meters thick.

The available drilling comprises 30 fan holes from three drill pads, including 21 from the eastern most pad, giving locally closely spaced drilling within the high grade core domain. The drilling provides an estimation dataset of 3,336 composites with gold grades ranging from 0.0004 to 79.15 g/t and averaging 0.82 g/t.

One set of indicator variograms modelled from the combined northern domain composites was used for the modelling. The block model comprises 20 by 20 by 10 metre panels reflecting the drill spacing for closely drilled portions of the deposit.

The estimates include a bulk density of 2.65 t/bcm, which is consistent with the density applied to estimates for the Korbel deposit.

Estimates for the RPM North deposit area classified as Measured, Indicated, and Inferred utilizing a set of plan-view polygons outlining areas of relatively consistent drill spacing. These polygons classify estimates tested by drilling spaced to around 25 metres and 50 metres respectively as Measured and Indicated, and estimates for more broadly sampled mineralisation extrapolated to around 120 metres from drilling as Inferred.

Model estimates extend to around 360 metres depth with around 90% from vertical depths of less than 280 metres.

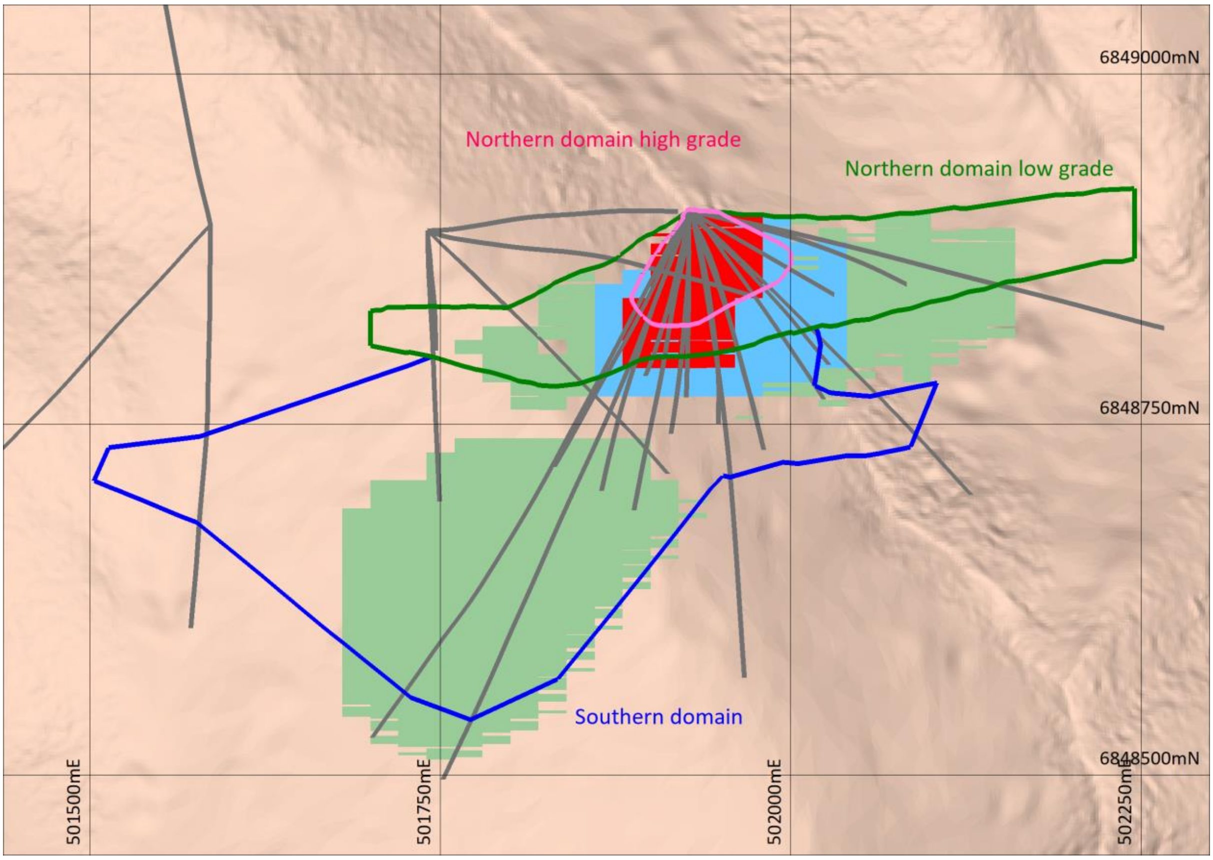

Figure 16. Plan view map of drillhole traces and modelling domains with Measured (red), Indicated (blue), and Inferred (green) Resource Estimate block model of the RPM North deposit.

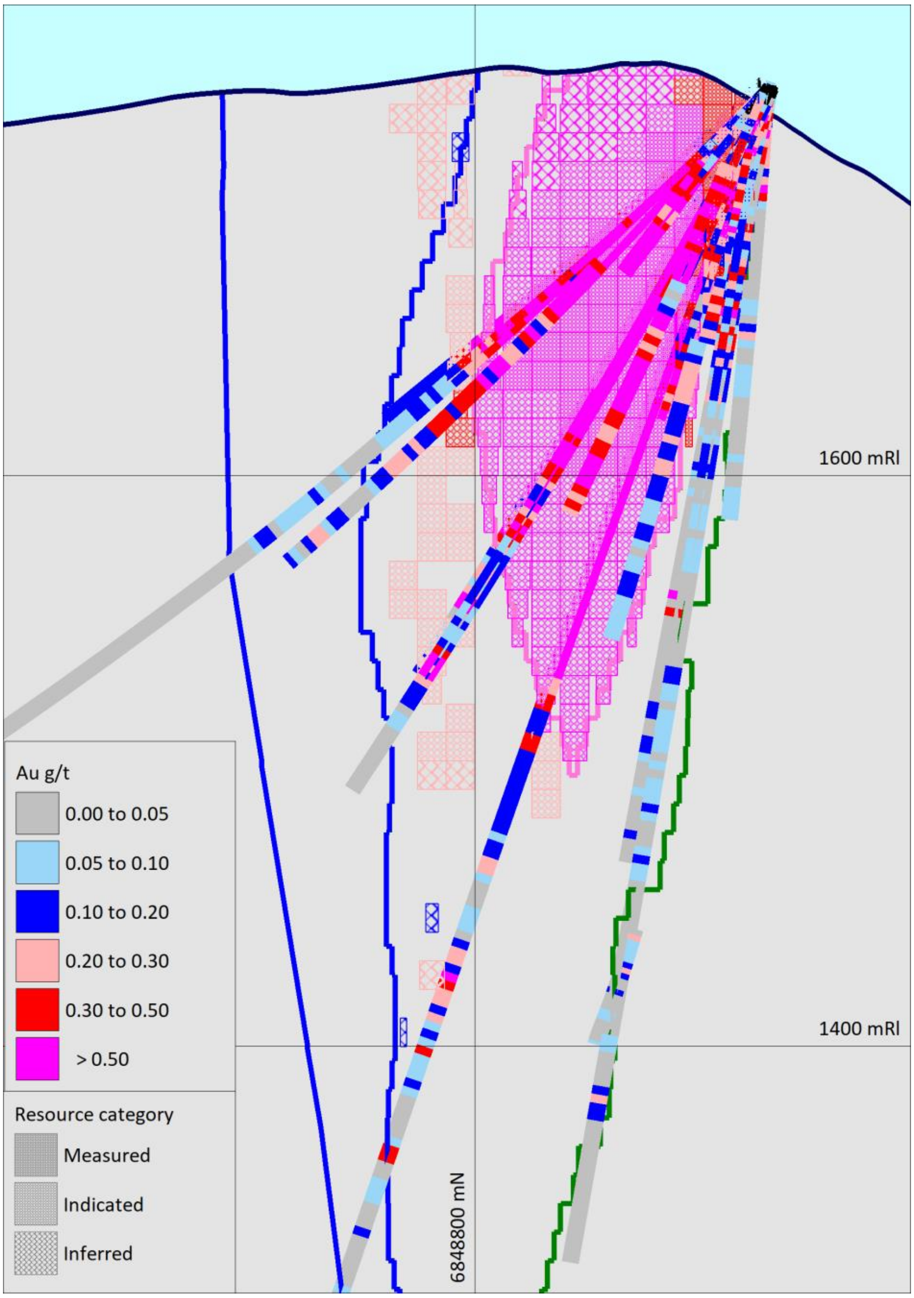

Figure 17. Type Section 501950mE showing drillholes (grade) and resource block model (grade, category) at RPM North

Cut-off Au g/t	Measured			Indicated			Inferred			Total		
	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz
0.10	1.6	3.66	0.19	5.8	0.93	0.17	38	0.44	0.55	45	0.62	0.90
0.20	1.4	4.12	0.18	3.3	1.51	0.16	26	0.58	0.48	31	0.83	0.82
0.30	1.3	4.37	0.18	2.1	2.29	0.16	18	0.72	0.43	21	1.09	0.76
0.40	1.3	4.57	0.18	1.8	2.65	0.15	15	0.82	0.39	18	1.27	0.72
0.50	1.2	4.82	0.18	1.7	2.72	0.15	12	0.91	0.34	15	1.44	0.67

Table 10. RPM North Mineral Resource Estimate at various cutoff grades

RPM South Modelling

Modelling of the RPM South deposit utilized a steeply southerly dipping mineralised domain interpreted over around 360 metres of strike with an average width of around 170 metres. The available drilling which comprises eight fan holes from a single drill pad provides 870 composites with gold grades ranging from 0.003 to 6.26 g/t and averaging 0.40 g/t. There is too few data for reliable variogram modelling and variograms modelled for RPM North were used for the RPM South estimation.

The MIK modelling utilized 60 by 30 by 15 metre panels and four progressively relaxed search passes. The estimates include a bulk density of 2.65 t/bcm, which is consistent with the density applied to estimates for the Korbel deposit.

All estimates for RPM South are classified as Inferred reflecting the comparatively broad and irregularly spaced drilling. The estimates are reported below the supplied topographic wireframe and are extrapolated to generally around 120 from drilling. The mineralisation cross cuts a prominent northerly trending ridge, and outcrops at between 1,775 mRL on the western flank of the ridge to around 1,960 mRL around the ridge crest. Model estimates extend to around 400 metres depth with around 90% from depths of less than 250 meters.

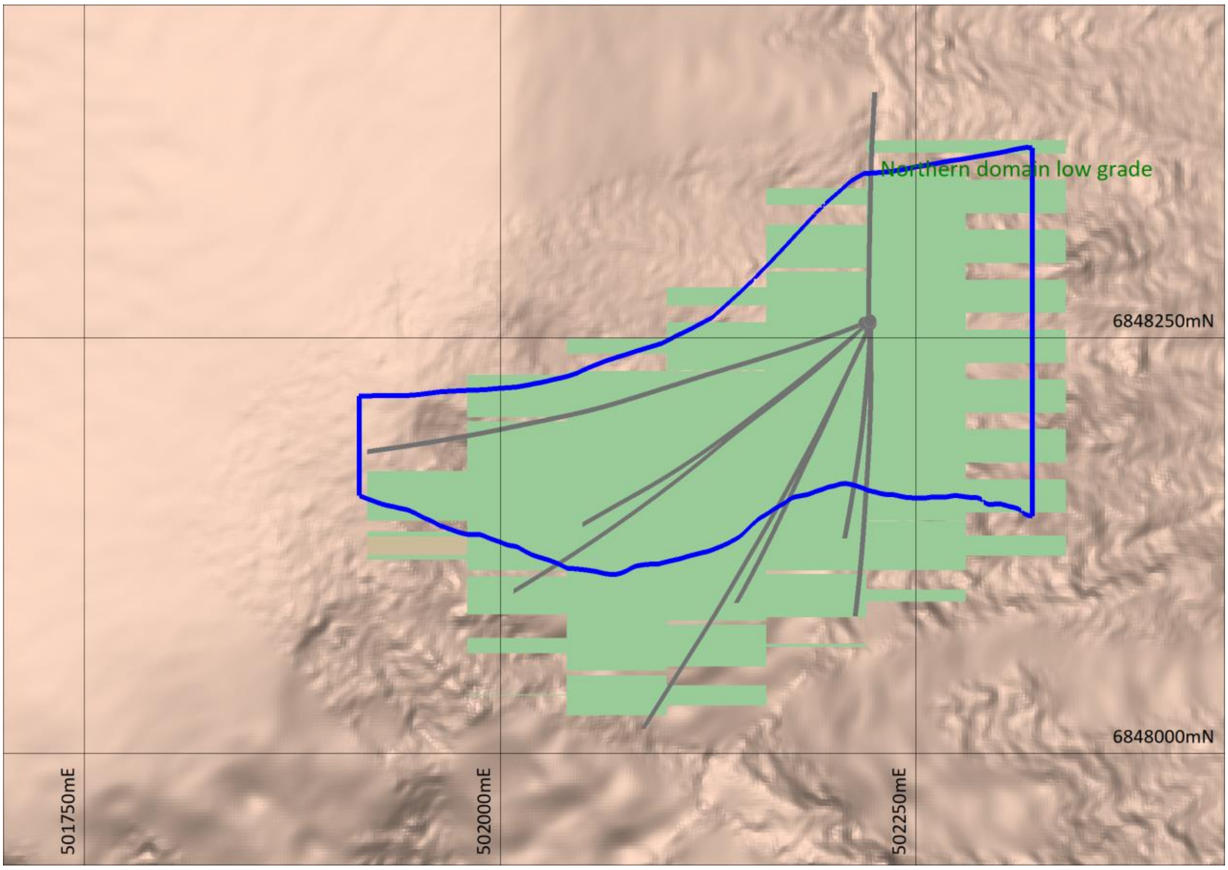

Figure 18. Plan view map of drillhole traces and modelling domains with Inferred (green) Resource Estimate block model of the RPM South deposit.

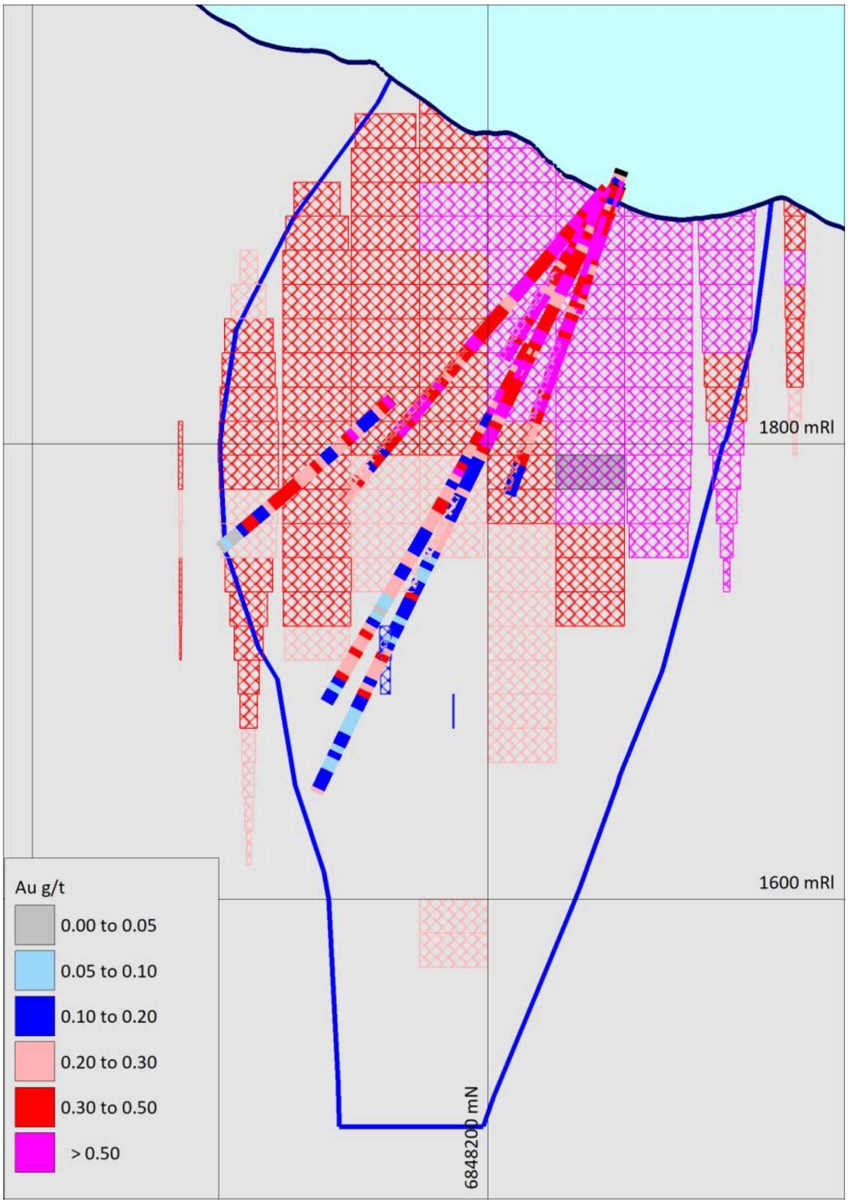

Figure 19. Type Section 502190mE showing drillholes (grade) and resource block model (grade, category) at RPM South

Cut-off Au g/t	Measured			Indicated			Inferred			Total		
	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz	Tonnes Mt	Grade Au g/t	Au Moz
0.10							42	0.35	0.48	42	0.35	0.48
0.20							31	0.42	0.42	31	0.42	0.42
0.30							21	0.50	0.34	21	0.50	0.34
0.40							14	0.59	0.26	14	0.59	0.26
0.50							8	0.68	0.18	8	0.68	0.18

Table 11. RPM South Mineral Resource Estimate at various cutoff grades

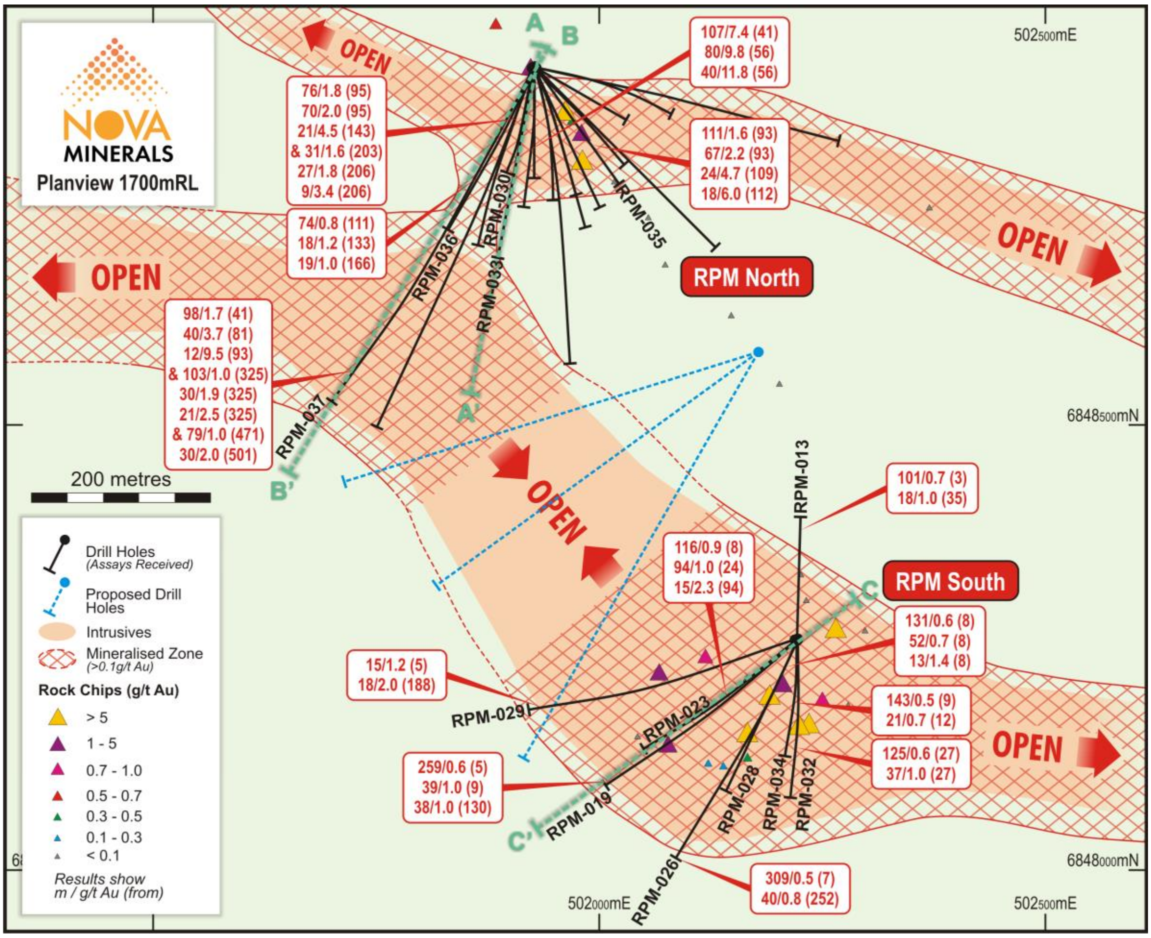

Figure 20. RPM North and South Deposit plan view with current drilling and open drill target zones for resource upside.

Metallurgical Test Results

An extensive metallurgical test program was conducted to support the scoping study. Composite samples representing different gold grades from the Estelle Gold Project deposits were formulated from ½ split core samples for the test programs. In addition, a master composite representing each deposit was also prepared for testing. The scope of the metallurgical study consisted of sample preparation, head sample characterization, gravity concentration, sulfide flotation, and regrinding of concentrates followed by cyanidation. Testing was conducted by Bureau Veritas Commodities Canada Ltd. in Richmond, BC, Canada.

Various aspects of the metallurgical program are presented and discussed in the following sections.

Head Sample Characterization

The average gold grade obtained from the fire assay was 0.636 and 0.504 g/t for HG and LG composites, respectively. The individual gold assays on various splits taken from the same test composite varied slightly from 0.399 to 0.544 g/t for LG composite and from 0.556 to 0.728 g/t for HG composite, indicating the presence of coarse gold but not in a significant amount. Silver contents in the test composites were 1 ppm. Sulfur contents were approximately 0.12% and mainly presented as sulfide sulfur. In general, carbon content was <0.15%, and organic carbon was below the assay detection limit of 0.02%, indicating that preg-robbing might not be anticipated to occur during cyanidation.

The poor gold deportment on the +200-mesh fraction from metallic screen analysis and the similar gold grades in the +200-mesh fraction and -200 mesh fraction further confirmed this finding.

Ore Sorting

The sorting tests were conducted using a four-stage XRT sorting process at different scanner settings. Rock samples with a total mass of 588 kg with particle sizes ranging from 10 to 80 mm (~ ½ to 3 inches) were sorted at TOMRA in April 2021. 20% of the mill feed was assumed to be fines by-pass (- 10 mm) containing 25% gold.

XRT conditions in the first stage were set up to be highly selective to produce the highest-grade concentrate with the least mass pull. Gold, Arsenic, and Tellurium results from the four-stage XRT sorting test are summarized in Table 12. The sorter results indicated that up to 82% of the gold could be recovered at 25.7% sorter accept at a cumulative gold grade of 2.13 ppm, whereas 74.3% of the material was rejected as waste.

Sorted fraction	Cum. weight (%)	Gold		Arsenic		Tellurium	
		Cum. rec. (%)	Cum. grade (%)	Cum. rec. (%)	Cum. grade (ppm)	Cum. rec. (%)	Cum. grade (ppm)
Stage 1 product	4.0	36	6.06	37	8890	42	5.60
Stage 2 product	14.6	74	3.42	60	3938	74	2.70
Stage 3 product	25.7	82	2.13	69	2583	83	1.70
Stage 4 product	**46.5**	**90**	**1.30**	**80**	**1665**	**90**	**1.03**
Stage 4 waste	100	100	0.67	100	967	100	0.53

Table 12. Four stage XRT sorting results

It is critical to consider the generated fines during circuit design as they represent a significant portion of the gold at the mineral sorting stage. The results obtained from the sorting test work might require further refinement and validation to match the mine head grade if the cut-off gold grade is altered.

Comminution

Standard Bond comminution tests were conducted on the HG and LG test composites to determine abrasion index (Ai) for grinding mill consumables calculations, as well as Bond ball mill work index (BBWi) and Bond rod mill work index (BRWi) for grinding specific energy calculations. Both composites were moderately abrasive with an average of 0.4003. BBWi tests were conducted at a closing screen sizing of 106 μm and indicated a medium-hard material.

The test work results are summarized in Table 13. No significant difference was observed between the hardness of the two composites.

Composite id	Ai (Abrasion index)	BRWi (kWh/tonne)	BBWi (kWh/tonne)
HG composite	0.4017	12.2	14.6
LG composite	0.3990	12.1	14.8
Average	**0.4003**	**12.2**	**14.7**

Table 13. Comminution test results

Gravity Concentration

Gravity concentration tests were conducted on the HG, LG, and master composite samples to determine their amenability to gravity gold separation. The HG and LG composite samples were ground to a target P80 of 105 µm while the target P80 of the master composite was 75 µm for the GAT test and 1072 to 77 µm for the EGRG tests.

The scoping gravity tests and the EGRG test achieved encouraging results. However, metallics analysis at the 200-mesh screen showed poor gold deportment on the + 200 mesh fraction, and the gold grade in the + 200 mesh fraction not much higher than the - 200 mesh fraction provided conflicting information.

In addition, no coarse gold particles were observed in the Knelson gravity cleaner concentrate under the microscope. Instead, the Knelson concentrate appeared to be high-grade fine gold particles carried in sulfide minerals instead of coarse gold particles, resulting in poor GRG recovery in the plant. This observation agrees with the QEMSCAN findings, that the sulfide contents increased from around 0.5% to 20.2%, and most of the gold in the Master composite was associated with sulfides. As a result, FLSmidth/Knelson advised dropping the gravity concentration from the process flow circuit. Results from the gravity tests are summarized in Table 14.

Composite ID	Test no.	Test charge	Measured head grade	Calculated head grade	P_{80} size	Gravity rougher concentrate		
		kg	g/t Au	g/t Au	µm	Mass (%)	Grade (g/t Au)	Recovery Au (%)
LG composite	G1	2	0.504	0.388	105	3.0	9.3	71.0
	G4	2	0.504	0.437	200	3.5	9.9	78.8
HG composite	G2	2	0.636	0.660	105	3.2	14.4	70.5
	G3	2	0.636	0.582	200	3.2	13.8	76.7
Master composite	G5	34	0.558	0.557	75	0.5	68.9	61.3
	EGRG-1	20	0.570	0.647	1072, 263, 77	1.2	38.7	73.8
	GAT-1	4	0.570	0.523	75	1.5	20.8	58.4

Table 14. Summary of gravity concentration test results

Flotation

Based on the mineralogical observation that most of the gold in the Master composite is associated with sulfide minerals, flotation was selected as a process alternative. Scoping sulfide flotation with or without gravity pre-concentration was tested on the Master composite at a target grind P80 of 75 µm. The responses of the test samples to the flotation process are summarized in Table 15.

Results showed that the test samples responded well to bulk sulfide flotation with or without gravity pre-concentration. Flotation of ground whole-ore could recover 95.4% gold into a sulfide concentrate representing 5.1% feed mass, grading ~8 g/t Au, resulting in 0.02 g/t Au and <0.02% S flotation tailings for disposal. Flotation of gravity scalped tails could recover over 92% of fine gold left in gravity tailings.

Test no.	Sample	Product grade (g/t Au)			Gold recovery	
		Feed	Flotation concentrate	Rougher tails	Mass (%)	Flotation concentrate (Au %)
F1	Whole-ore Master comp. (Rougher 1-3)	0.45	8.36	0.03	5.1	95.4
F2	EGRG tailings from Master comp.	0.12	1.29	0.01	8.90	92.0
F3	G5 tailings from Master comp.	0.22	2.72	0.02	7.40	92.3

Table 15. Summary of floatation tests at P80 of 75 µm

As demonstrated in Figure 21, gold in gravity tailings floated rapidly, and gold and sulfur floated simultaneously. Most of the gold remaining in the gravity tails reported to the first rougher concentrate. It is anticipated that the whole-ore sample would have similar flotation kinetics

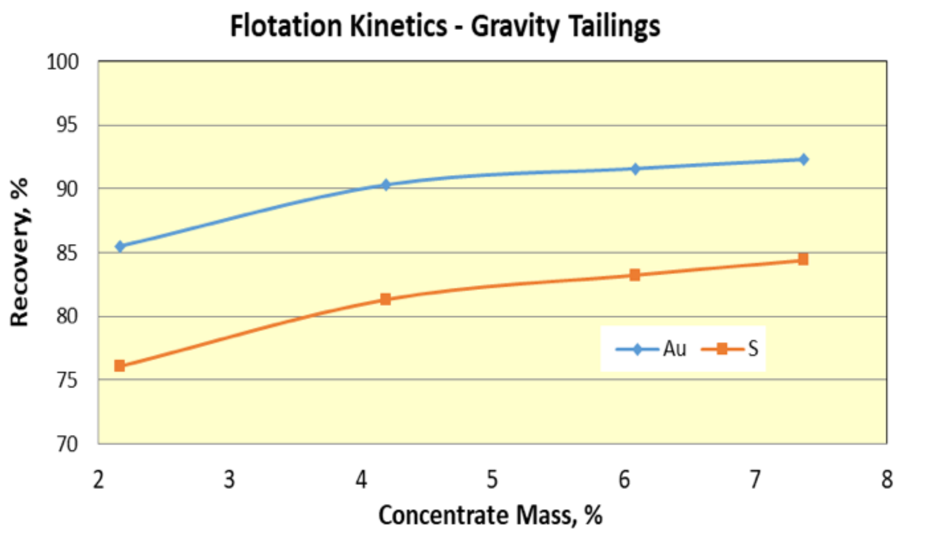

Figure 21. Flotation kinetics

Further flotation study on the Master composite should be conducted to optimize the process, including optimal primary grind size, reagent type, dosages, and regrind size.

Cyanide Leaching

As an alternative process to flotation, cyanidation of ground whole-ore and concentrate generated from gravity and flotation processes were tested. As the primary process variables, various grind sizes, cyanide strength, pulp pH, residence time, d.O2 level, and lead nitrate addition were evaluated. In addition, Carbon-In-Leach (CIL) procedure was also tested.

Gravity Tailings Leach

Two leach tests were conducted on the EGRG gravity tailings. Test conditions and results are summarized in Table 16, and leach kinetics are presented in Figure 22.

Sample id	Test no.	P_{80} (µm)	Pulp density (%)	pH	Aeration	NaCN (g/L)	Meas. head Au (g/t)	Calc. head Au (g/t)	Recovery Au (%)	Residue Au (g/t)	Consumption (kg/t)	
											NaCN	Lime
EGRG tailings from Master composite	CEGRG-T1	77	40	10.5-11.0	Air	1.0	0.150	0.149	79.9	0.030	1.00	0.20
	CEGRG-T2	77	40	10.5-11.0	O_2	1.0	0.150	0.151	80.1	0.030	1.02	0.20

Table 16. Leach results on gravity tailings

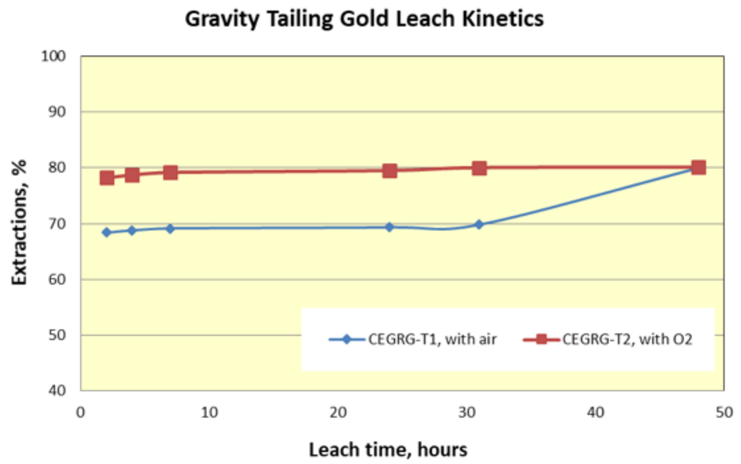

Figure 22. Leach kinetics for gravity tailings

As noted in Table 16, similar gold recovery of ~80% was achieved with aeration and oxygen injection. Leach kinetics, as shown in Figure 22, indicated that gold leached rapidly in the first 2 hours and then slowed down afterward. Oxygen benefited the initial gold dissolution.

Concentrate Intensive

Intensive cyanide leach evaluation was carried out on flotation and gravity concentrate samples generated from the master composites. The intensive leach test conditions and results are summarized in Table 17, and leach kinetics are plotted in Figure 23.

Sample id	Test no.	Regrinding	P_{80} (µm)	Pulp density (%)	pH	NaCN (g/L)	Leach aid (g)	Calculated head Au (g/t)	Recovery Au (%)	Residue Au (g/t)	Consumption (kg/t)	
											NaCN	Lime
F1 Ro concentrate (1-3) from whole-ore master comp.	CF1	Yes	22	14	>11	20.0	1.0	8.36	92.5	0.628	44.85	0.44
F2 Ro concentrate from EGRG tailings	CF-2	Yes	23	13	>11	20.0	1.0	2.45	93.3	0.164	41.54	0.46
G5 Gravity concentrate from whole-ore master comp.	CG5 concentrate	n/a	~80	25	>11	20.0	1.0	68.93	68.5	21.7	25.18	0.18

Table 17. Intensive leach test results on concentrates

These tests demonstrated that gravity concentrate responded to the cyanidation process similar to that of whole-ore at a similar grind of 75 µm. The lower intensive leach recovery from gravity concentrates further supported the fact that the EGRG results are void in using them to predict gravity recovery. Thus, gravity concentration was dropped off from the process flowsheet.

Regrinding of flotation concentrate before cyanidation improved both gold recovery and leach kinetics significantly. Gold recovery of ~93% can be expected by intensive leach of P80 22-23 µm reground flotation concentrate. The unoptimized cyanide leach reagent consumptions were 43.19 kg/t of concentrate tonnage, equating to 2.07 kg/t mill feed. The cyanide consumption averaged 43.19 kg/t flotation rougher concentrate is high but is unoptimized, and the intensive leach tailings could be thickened or filtered and re-utilize the thickener overflow and/or the filtrate free cyanide bearing water back in the process, but this will need more testing and engineering in subsequent phases of work.

Leach kinetics demonstrated that cyanide soluble gold leached rapidly in the first 4 hours. Overall, gold recovery of over 88% Au can be expected from the combined flotation & cyanidation process at a float grind P80 of 75 µm and leach grind of 22 µm. Optimum grind/regrind will ultimately be determined by economics, including grinding costs, expected metal prices, and other engineering factors.

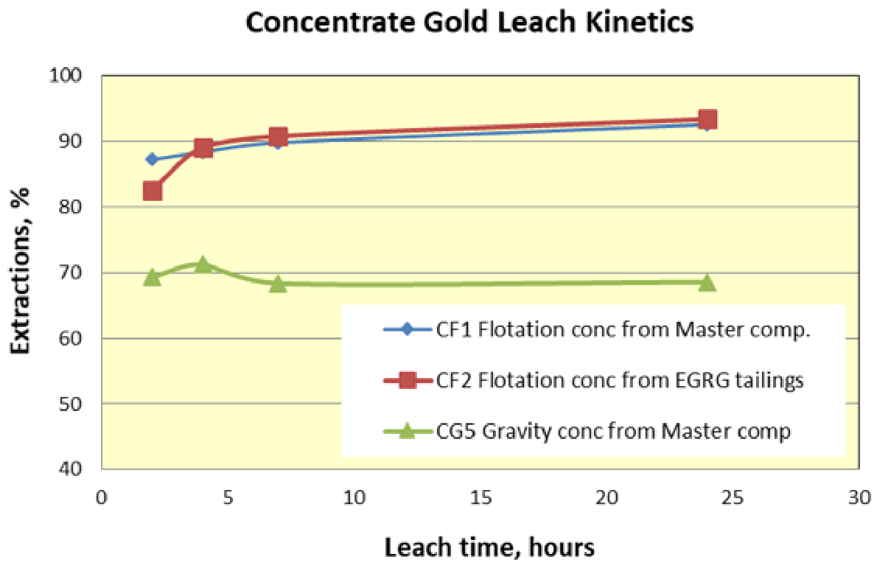

Figure 23. Concentrate leach kinetics

Project Infrastructure

Roads and Access

A new access road (the proposed West Susitna Access Road – Figures 2 & 24) of approximately 146 km leading to the project site will be constructed, its usage will be primarily for transportation of construction materials, equipment, and ongoing operations supplies. This road will meet the American standard as defined by the Government of Alaska. The road will require a width of approximately 8-9 m and maximum gradient of 10% constructed with compacted road base. The access road will cross several shallow rivers and will require construction of bridges. Road construction is planned to be conducted by the Government of Alaska with access being provided on a toll basis. Money has been set aside for tolls for a government-upgraded road.

The access road connects to the onsite roads, which include haul roads, process plant roads, and service roads associated with the facilities on the Project site. The onsite roads will be all-weather unpaved gravel roads that would require dust suppression in the dry months. Haul roads would be designed to accommodate the largest trucks planned. A haul road connecting the Korbel mill with the RPM deposits will need to be constructed.

The Estelle site will have external pit haul roads and service roads (not including the all-weather site access road). Service roads will be used for smaller vehicles (i.e., light trucks) to access ancillary infrastructure such as the airstrip, a storage facility, and camp site. In general, site roads will be constructed with embankment fills using material from earthwork activities or from open pit waste material. The thickness of the roadbed material will be appropriate for existing ground conditions.

West Susitna Access Road Progresses to Permitting

An independent economic study prepared for the Alaska Industrial Development and Export Authority (AIDEA), and fully supported by the Alaska State Governor, recommends the West Sustina Access Road begins the permitting process with construction proposed to start in 2025.

AIDEA has submitted the CWA 404 permit application to the USACE for the West Susitna Access project, initiating the environmental review process through compliance with the National Environmental Policy Act. Field studies will begin this summer with further evaluation of cultural and historical sites, fish and wildlife habitat, engineering refinement, and alternative route analysis. (Figure 24).

Alaska Governor, Mike Dunleavy, who fully supports the roads construction said “The West Susitna Road is important for local residents and gaining fair access to hunting, fishing, and potential jobs.

My administration is constantly looking at ways to grow our economy and this project is a great opportunity for not only south-central Alaska but the entire state. I am committed to this project and unlocking resources that benefit all Alaskans.“

Construction of the road will scientifically decrease the capital and operating cost of a future mine at Estelle thereby allowing the Mineral Resource cut-off grade to be lowered to the Fort Knox and Dublin Gulch cut-off level.

For the full press release see below

https://www.aidea.org/Portals/0/PressReleases/3-21-2023%20West%20Susitna%20Access%20Project%20Announcement%20Press%20Release%20Final.pdf

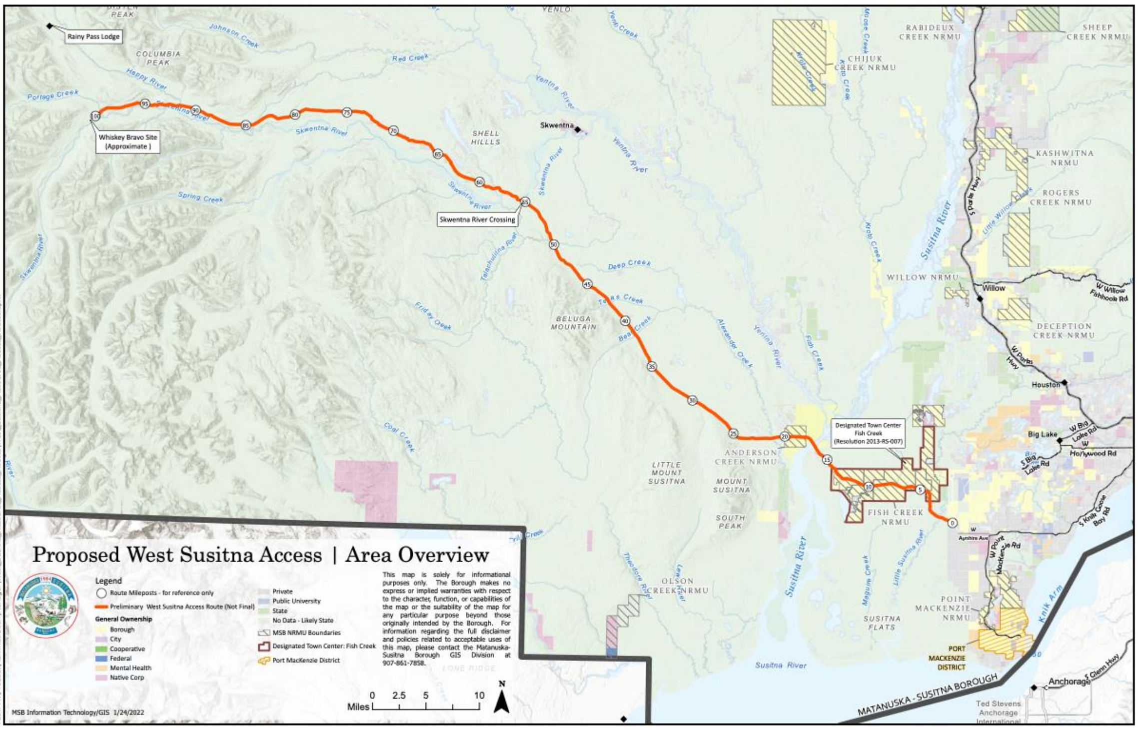

Figure 24. Proposed West Susitna Access Road

Rail, Port, and Airport Facilities

The closest rail facilities are in Talkeetna. The rail lines stretch north to Fairbanks and south to Seward through Anchorage. The Alaska Railroad is 470 miles long and currently does not connect to the rest of the continent. However, A2A Rail has a proposed railway expansion to connect Alaska to Alberta. A master agreement between A2A Rail and Alaska Railroad has been finalized but the project is still in the early stages. The Port Mackenzie rail extension is under construction and will stretch north 32 miles connecting to the Alaska Railroad.

The nearest port facility to the Estelle site is Port Mackenzie located approximately 185 km to the south-east. It is capable of accommodating barges at the 550-foot barge dock and Panamax and Cape Class Vessels at the deep draft dock. The Port of Alaska in Anchorage is located 5 km south across the bay from Port Mackenzie (Figure 25). It has direct, intermodal connections to road and rail. It is equipped with 4 ship berths dredged to minus-35 feet mean lower low water, three general cargo terminals and 2 petroleum product terminals. There is no limit to maximum ship length or breadth.

Figure 25. Ports in proximity to Anchorage

The nearest airstrip to the Estelle site is the Whiskey Bravo airstrip, located 15 km east from the property.

Water Management

Water is plentiful in the region; fresh water supply can be sourced from multiple running rivers and lakes. The climate is moist and precipitation abundant. Most of the water used in the processing plant can be reclaimed from the tailings pond. Due to the abundant precipitation in the region, the reclaimed water will be sufficient in quantity for the mill. To maintain high recoveries, some make up water will be required for the mill. Clean water including potable water may be sourced from Portage Creek as required. The creek will require diversion as it currently runs through the location of the proposed Korbel pit.

The flow rate of the creek was not measured, but it is estimated that the creek is more than sufficient to meet the 314 m^3/h of water required for the processing plant in addition to the potable water requirements. Measurements of creek flow quantities will need to be conducted in further studies. Other sources of water may be considered in further studies. Water permitting has not been investigated and would be required to ensure pipelines infrastructure could be established. Geological surveys of the surrounding area are recommended before a proper estimate is completed. The site itself is just east of the Cook Inlet Basin, which is the largest watershed in Alaska which should provide an ample amount of alternative surface water sources.

Due to the presence of calcific veins within both the Korbel and RPM deposits, initial test work has confirmed that the waste rock and tailings are not acid generating and can be used as mine infrastructure construction material. Further test work and acid base accounting is ongoing.

Runoff from the site, waste rock dumps, and tailings dam seepage including all mine contact water will need to be collected and treated before being discharged.
Riprap armored ditches will need to be constructed around the site to divert rain and meltwater. The water going into the perimeter ditches is not mining effected and will not need to be treated. The water from internal ditches is mine contact water and will need to be treated or used within the process.

Portage creek flows from the north-west through the area of the future location of the Korbel Main pit. Some of the water from this creek will be used as clean water in the process. The rest will need to be diverted around the pit and processing plant. Due to the topography of the region, diversion of portage creek will require the construction of a pumping station, and pumping water up and around Korbel Main pit. Piping for pumping of the water will be lain past the northernmost pit extents.

Ditches with rip rap armoring located along the western perimeter of the pit will carry any collected runoff towards the portage creek pumping station. Ditches located along the north, south and east perimeter of the pit will collect and carry the runoff around the pit and discharge into downstream portage creek along with the diverted water from upstream of portage creek.

All of the ditches and water diversion infrastructure is designed for a 100-year 24-hour storm event and are sized accordingly. The pumping station is designed around 8 m^3/s of flow, The northern perimeter ditch around the pit and mill are designed around 1.3 m^3/s of flow, it is trapezoidal shaped with dimensions of 0.5 m deep, 3 m wide at the top and slopes of 2:1. Internal ditches are designed around 1m^3/s of flow, V-shaped and sized at 0.5 m deep, 2 m wide and slopes of 2:1.

Further water diversion infrastructure will be built around the tailings storage facility, and will are designed around 2.2 m^3/s of flow. The ditches will be trapezoidal shaped, 0.75m deep, 3.5 m wide at the top and slopes of 2:1. A collection ditch at the bottom of the tailings dam/waste pile will collect any seepage from the tailings pond, as well as any runoff from the waste pile.

A projected water balance was created for determining processing water requirements and is shown in Figure 26. At a mill size of 6,350,000 tpa, the processing plant will require 530 m^3/h of water to be reclaimed from the tailings pond, and 209 m^3/h of freshwater input. A further 105 m^3/h of fresh water will be used for other purposes: dust suppression, drinking water, fire suppression systems, etc.

Due to the high influx of rain and meltwater into the tailings pond, there may be enough to dilute the tailings pond enough as to allow the processing plant to not require additional clean water without impacting recoveries. If the tailings water is dilute enough, then entire 759 m^3/h of water required by the processing plant can be reclaimed from the tailings pond. Tests will need to be done to determine the sufficient dilution ratio that does not impact the plant recoveries. 105 m^3/h of clean water will still be required for other uses.

For the purposes of this trade-off study, dilution of the reclaim water was not considered and so the processing plant will require 530 m^3/h (12,720 m^3/day) of water to be reclaimed from the tailings pond, and 209 m^3/h of clean water.

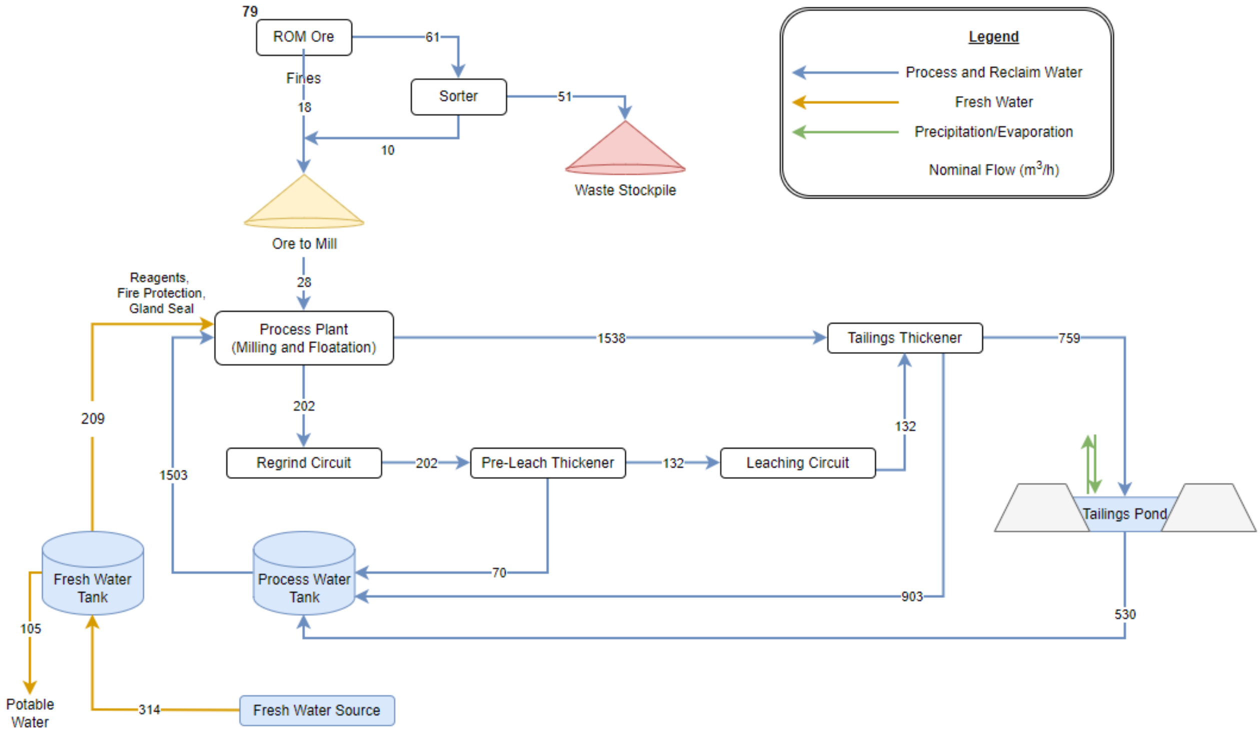

Figure 26. Water balance of the Estelle central plant circuit

For potable water, 200 L of water per person per day for drinking, washing, and other domestic uses is recommended. Considering the current manpower requirements of 240 people living on-site at any given time, the potable water treatment plant will need to be sized to provide at least 48 m^3/day and are included in the 105 m^3/h of fresh water. This amount of water can be further reduced by re-using mine contact water for purposes of dust suppression.

The proposed tailings pond has an estimated catchment area of 10km^2. With expected yearly precipitation of 420 mm, this results in an average yearly water input into the tailings pond of 4,200,000 m^3 (average 64,600 m^3/day) if water is not diverted around it. Diversion of water around the perimeter of the tailings pond to reduce the water influx into the TSF will require the construction of 8km of ditches around the perimeter. With water diversion, the expected yearly water input into the tailings pond as result of precipitation will be 756,000 m^3/year (average 11,600 m^3/day).

Due to the location being underlain by a thin layer of glacial material on top of bedrock, almost all the precipitation will enter the tailings facility via runoff. Little groundwater seepage is expected unless a fault or shear zone are discovered in the bedrock.
The tailings pond is sitting in a valley bound on 3 sides with bedrock. The bottom of the valley consists of a thin veneer of moraine and glacial till. Water seeping from the dam will be collected at the foot of the dam. Unless the bedrock contains significant faults and fractures, it is expected that no un-diverted/uncontrolled seepage into groundwater to be non-existent. Further investigation into the hydrology of the area is warranted.
Process water that is discharged into the tailings pond makes up 18,216 m^3/day. 12,720 m^3/day will be reclaimed and sent back to the processing plant.
If water is not diverted around the perimeter of the tailings pond, then the tailings pond will need to discharge an average of 70,000 m^3 of water per day to maintain constant water levels, all of which will require treatment prior to discharge into the environment. If water is diverted around the perimeter, the diverted water is not mine-affected and can be discharged without requiring treatment. If water is diverted, then the tailings pond will need to discharge an average of 13,200 m^3 of water per day to maintain constant water levels in the tailings pond.

Stockpiles

Stockpiles will be located next to the Korbel processing plant and will be subdivided into multiple high grade, medium grade and low grade piles and used according to year that the stockpile material will be accessed.

Processing Plant

All plant site and infrastructure buildings and structures will be built and constructed to all applicable codes and regulations. The plant will be designed to comply with the requirements of the International Cyanide Management Code (ICMC). The process plant will be equipped with samplers and a metallurgical assay lab will be on site equipped to provide the required analysis of samples.

The process infrastructure will accommodate the following circuits:

- Primary crushing station
- Mineral sorting circuit composed of an on-conveyor bulk sorter, secondary crusher, and XRT particle sorters

- Grinding circuit consisting of
    - Cone Crusher
    - HPGR
    - Ball mill
    - Hydrocyclone cluster
- Flotation circuit and fine grinding
- Thickening, leaching, and CIP circuit
- Acid wash
- Carbon stripping
- Carbon regeneration
- Electrowinning and refining
- Cyanide destruction circuit

Buildings and Yards

Structures will be of modular, pre-fabricated construction placed on precast block concrete foundations where possible.

Structures and facilities to be installed on site include:

- Administration
- Laboratory
- Warehouse
- Maintenance Shop
- Fuel storage
- ANFO storage and explosives magazine
- Processing plant
- Electrowinning plant and vault
- Water treatment plant

The administrative building will contain offices, meeting rooms, lunchroom, washrooms, men's, and women's dry, lockers, a first-aid area and showers.
The assay lab will be located in a structure attached to the processing plant.
The warehouse and maintenance shop will be located east of the processing plant. A laydown and storage area has been reserved next to the warehouse.

The water treatment plant will be located at the foot of the tailings dam/waste rock dump.

Tailings and Waste Disposal

The design of the TSFs and associated water management facilities has accounted for the following:

- No geosynthetic lining of the bottom of the facility to limit seepage
- Staged development of the facility over the life of the Project
- Flexibility to accommodate additional tailings if the resource increases, and
- The increased seismic risks for dam design

- Control, collection, and removal of water from the facility during operations for recycle as process water to the maximum practical extent and discharge to the environment as needed along with water treatment if needed.

The tailings will be a conventional TSF where the tailings are stored behind an embankment. A valley 1.2 km north-east of the proposed mill location was chosen for the TSF. The valley is also located downhill from the mill and pit which will reduce pumping and construction material hauling costs.

The tailings embankment will be a cross-valley downstream type construction in combination with a waste rock pile. This combined construction method takes advantage of the waste rock that is normally generated to construct and reinforce the tailings dam, adding little to the cost that is normally associated with handling of overburden and waste material.
The dam will initially use a 2.5:1 downstream slope.
To fit the 57.1 Mm3 of tailings, the downstream dam at the base case location will need to be 150m high at its highest point. The dam width will be 840m at the end of mine life and will require 110,000 m3 of material for construction of the core, and 19.5 Mm3 of material for the dam itself. However much more material will be stored in front of the dam acting as reinforcement and as a waste pile: 224 Mm3 of material.
There is sufficient waste rock being stripped from the Korbel Main pit to allow for the construction of the dam. Further reinforcement of the dam structure will be provided by the waste rock piles placed at the foot of the dam produced from Korbel Main pit run of mine waste and from the ore sorter rejected material.
Water diversion and treatment facilities are given in more detail above.

Power

The electrical demand site-wide is estimated to be 26.2 MW. Breakdown of the power demands can be seen in Table 18. The site will be powered from the grid which sources most of its power from natural gas.

Equipment	Operating Load	Annual Power Consumption	Total Annual Cost
	MW	MWh/y	$USM
Crushing & Sorting Circuit	3.18	27,900	$4,743,000
HPGR & Ball Mill Circuit	13.74	120,400	$20,468,000
Floatation Circuit	1.20	10,600	$1,802,000
Fine Grinding	1.62	14,200	$2,414,000
Leaching Circuit	0.24	2,200	$374,000
Site Infrastructure	2.74	24,100	$4,097,000
TOTAL inc. 15% factor	**26.2**	**229,512**	**$39,017,040**

Table 18. Estimated power draw of mains components

The power requirement has been broken down to the individual portions of the circuits within the processing plant. This was done due to the significant power draw required in each circuit and the remaining site infrastructure including offices, control rooms, and the tailings management facility (TMF). A final factor of 15% is applied in anticipation of peak loads and surges for the process load, however the power lines should be rated for a total of 40 MW to ensure total connected load is met.

The power was calculated using two main methods:

- Simulation/First Principles - Individual equipment items were selected to fit the design throughput entering each process within the processing plant, with a maximum feed tonnage to the sorters of 14.9 Mtpa and of 6.35 Mtpa tph to the mill. The item design and power draw are sourced from Metso and Tomra, in the primary, secondary, and tertiary crushing circuits.

- Benchmarking - the flotation circuit and other site infrastructure was estimated through benchmarks from industry standards. Site infrastructure includes the tailings management facility (TMF).

A power substation will be built to step down the voltage to 660V.

This Study assumes power for the Project is obtained from power transmission lines which would feed into the State electricity grid, and the assumption has been made that the electricity supplier would provide the transmission lines to the Project site given the long length of the contemplated power purchase agreement.

Gold Price and Marketing

The gold price is currently trading at approximately US$2,000/oz which compares favorably to the project's base case assumption of US$1,800/oz which is also below the 2-year average (Sources: Index Mundi and Macrotrends). The recent improvement in market conditions and an encouraging outlook for the gold market of over US$2,000/oz over a longer period (Source: Bank of America, Wallet Investor research and Long Forecast) enhances the Company's view of the ability to finance the Estelle Gold Project.

Nova's portion of gold production is likely to be sold on the spot market, by marketing experts retained by or on behalf of the company. Gold can be readily sold on numerous markets throughout the world and it is not difficult to ascertain its market price at any particular time. Since there are a large number of available gold purchasers, Nova would not be dependent upon the sale of gold to any one customer. Gold could be sold to various gold bullion dealers or smelters on a competitive basis at spot or contract prices.

Nova expects that terms contained within any sales contract that could be entered into would be typical of, and consistent with, standard industry practices, and be similar to contracts for the supply of gold elsewhere in the world.

Study Team

The Study team, consisting of Nova personnel and external consultants, assessed the environmental impacts, community interaction, technical requirements, and financial robustness of the Estelle Gold Project.

These works were completed with the assistance of a highly experienced and reputable group of independent consultants, based in the USA and Canada, including:

- ABH Engineering
  - Pit Optimizations and Mine Design
  - Process Optimization and Infrastructure Design, Economic Modelling and Assessment
- ABR, Inc.
  - Wetlands and Fish Habitat Studies
- SLR International Corporation
  - Initial Analysis of the Geology and Workplan Preparation
  - Sampling and Testing
  - Ore and Mine Waste Rock Geochemistry
  - Preliminary Engineering Recommendations for the Design of Tailings and Waste Rock Storage Facilities
- Arcadis U.S., Inc.
  - Surface and Groundwater Hydrologic studies
- Matrix Resource Consultants Pty Ltd
  - Resource Estimation
- Jade North
  - Environmental and Permitting
- Sustainability
  - Axiom Environmental
- Yukuskokon
  - Geological, drilling, and technical support
  - Camp management and logistics

Next Steps

The study production and cash flow profiles (Figures 3 & 4), along with the NPV sensitivity analysis (Figure 5), show that even a 10% increase in the LOM average mill feed grade above the current 0.73 g/t Au increases the NPV by ~ US$277M. The core focus now is to define more minable resources above this grade to potentially improve the project economics further in the PFS. We already know where to look with targets established at:

- **RPM**
  - 2023 drill program focused on infill and expansion of the high-grade resource
  - 600m high priority continuous target area linking RPM North to RPM South which interested a 2nd large mineralized intrusive in the lower part of holes RPM-037 (ASX Announcement: 21 December 2022) and RPM-025 (ASX Announcement: 4 October 2022), with results including:
    - RPM-037: 103m @1.0 g/t Au, incl 30m @ 1.9 g/t Au, 21m @ 2.5 g/t Au from 325m
    - RPM-037: 79m @ 1.0 g/t Au from 471m, incl. 30m @ 2.0 g/t Au from 501m
    - RPM-025: 76m @ 1.2 g/t Au from 440m, incl 43m @ 1.5 g/t Au from 474m
- **Train**
  - 2023 drill program focused on exploration and resource definition drilling to target the RPM-style mineralization at both Train and Trumpet (ASX Announcement: 16 January 2023), and in the 1.5 km strike length between the 2 prospects, with the aim to define a 3rd gold resource in the area in 2023
- **Cathedral**
  - Cathedral 2.01 Moz Au Inferred resource was not included in the Phase 2 Scoping Study with a potential high-grade target zone remaining to be drill tested (ASX Announcement: 9 March 2023)

Advanced exploration programs in 2023 to be focused on the RPM and Train areas, as well as at the highly prospective 3km long polymetallic Au-Ag-Cu system at the Stoney prospect

From the Study, the Company has also identified a number of areas that have the potential to further improve the Project's economics through cost reductions, efficiencies, and advancement of environmental/permitting work. Work programs to be undertaken to assess such opportunities include:

- Additional ore sorting and metallurgical testing
  - Improved leach recovery with longer leach time
  - Improved leach recovery with pure O2 addition
  - Optimization of pure O2 addition based on mill feed grade (Particularly year one)
  - Mill feed rate optimization based on tonnage
  - Sufficient Flotation and leach tests based on Gravity tailings, to assess gravity's overall impact on recovery
  - Oversize regrind circuit (Upgrade of original Korbel design)
  - Oversize leach circuit

- Complete RPM flotation optimization by zone
- Rock geochemistry studies
- Site water balance and hydrogeological studies
- Water treatment assessments
- Tailings dam design and option studies
- Geotechnical studies
- Project wide material handling, ore movement and infrastructure/logistics studies
- Power studies (including any licensing / permitting requirements)
- Completion of environmental baseline studies
- Pro-active Community and Government relations
- Submission of application documents to all regulators

Funding

The Estelle Gold Project's Phase 2 Scoping Study technical and economic fundamentals provide a strong platform for Nova to source traditional financing through debt and equity markets, in addition to pursuing other financing strategies should this be to the benefit of shareholders. There is, however, no certainty that Nova will be able to source funding as and when required.

Whilst no formal funding discussions have commenced, the Company has engaged in preliminary discussions with a number of financial institutions on the Project and these financial institutions have expressed a high level of interest in being involved in the funding of the Project.

To achieve the range of outcomes indicated in the Study, pre-production funding of approximately US$400M may be required. Typical project development financing would involve a combination of debt and equity. Nova has formed the view that there is a reasonable basis to believe that requisite future funding for the development of the Estelle Gold Project will be available when required having considered factors which include the following:

- Global debt and equity finance availability for high-quality gold projects remains robust. Recent examples of significant funding being made available for construction of single asset gold developers located in the USA
- The Estelle Gold Project is world-class by scale and quality parameters. Release of the Study results provides a platform for Nova to discuss the outcomes with potential financiers.
- Nova has a significant asset base with minimal debt. The Company has an uncomplicated, clean corporate and capital structure. These are all factors expected to be highly attractive to potential financiers
- The Nova Board, management and advisory team has extensive experience in mine development, financing, and production in the resources industry.
- The Company has achieved a strong track record of raising equity funds as and when required to further the exploration and evaluation of the Estelle Gold Project.

Permitting

The Study has identified all the necessary studies that are required to be undertaken in order to seek both primary and secondary approvals for the Project. The Company has engaged Jade North consultants to assist with navigating Alaska's Large Mine Permitting Process which sets out a clear path and government interdepartmental coordination. The Company is currently gathering long lead time data required to commence the permitting process at the relevant time. These works include:

- Wetlands
- Hydrology and Water Quality
- Air Quality
- Aquatic Resources
- Wildlife
- Cultural Resources
- Visual Resources
- Noise
- Land Use and Recreation
- DNR Plan of Operations, Reclamation Plan Approval, and Mill site Lease
- Reclamation Bond
- DEC Air Quality Permit
- DEC APDES Permit
- DEC Solid Waste Management Permit
- U.S. Army Corps of Engineers Wetlands Permit
- DNR Water Right or Temporary Water Use Authorization
- DNR Materials Sale
- DNR Mining Lease
- DEC Stormwater Plan
- ADFG Fish Passage Permits
- NOAA Fisheries Essential Fish Habitat
- FWS Bald Eagle Protection Act; Migratory Bird Treaty; and Threatened and Endangered Species Act
- U.S. Army Corps or DNR Cultural Resources
- Other DEC Wastewater Permits
- DNR Dam Safety Permit
- Reclamation Plan Approval
- Solid Waste Management Permit
- Dam Safety Certification

Environmental and Social

Nova commits to rigorous standards and governing frameworks, to ensure responsible environmental practices are followed in all its operations. To achieve its objectives, the Company will:

- Implement practices, systems and behaviors that contribute positively to the environment in a sustained manner.
- Responsibly manage our operations to minimize adverse environmental impacts, in line with statutory obligations and community expectations (our social license to operate).

- Instill positive environmental awareness through the education of employees, contractors, and external stakeholders.
- Promote the efficient use of energy, water and other resources, minimizing waste
- Regularly monitor and review environmental performance.

Jade North and Axiom Environmental was engaged by Nova to assess the environmental and social aspects of the Project

https://wcsecure.weblink.com.au/pdf/NVA/02570103.pdf

(ASX Announcement: 20 September 2022)

Conclusion and Recommendations

The Phase 2 Scoping Study includes conventional open pit truck and shovel hard rock mining operations for three of the deposits at the Estelle Gold Project – Korbel Main, RPM North and RPM South. The 2 Moz Au Inferred resource at the Cathedral deposit is not included in this study. Reasonable mine plans and production schedules were developed based on the geological resource model for Korbel Main, RPM North and RPM South. A summary of total in-pit resources are shown in Table 19**.**

		Measured	Indicated	Inferred
RPM North	Ore (t)	1,343,000	2,330,000	11,962,000
	Au (g)	5,726,000	4,725,000	7,785,000
	Average Grade (g/t)	4.26	2.03	0.65
RPM South	Ore (t)			12,320,000
	Au (g)			6,898,000
	Average Grade (g/t)			0.56
Korbel Main	Ore (t)		182,277,000	21,143,000
	Au (g)		59,589,000	5,804,000
	Average Grade (g/t)		0.33	0.27

Table 19. Summary of in-pit resources

Layouts and mine operations are typical of similar hard-rock open pit operations in Alaska with the exception of increased ore transportation requirements of ore originating from RPM North and RPM South.

Processing will be done using a flotation – regrind – leach circuit. Sorting will be incorporated in the process for sorting of Korbel Main ore which has proven to be very effective for increasing the NPV of the project.

The infrastructure for this project includes open pit mines, tailings management facility (TMF), waste rock facilities, mine service and administration facilities, access road, haul roads, and water treatment plant.

Economic analysis and modelling yields positive economic returns for the project with an $NPV_{5\%}$ of US$654M not including taxes or royalties. The project requires US$385 million of pre-production capital investment, and $126 million of sustaining capital. The project has significant potential to provide positive returns with a fast payback period of 11 months.

Key Parameters	Value	Unit
Initial CAPEX	385	US$M
Sustaining CAPEX	126	US$M
Pre-tax $NPV_{5\%}$	654	US$M
IRR	53	%
Payback Period	11	Months

Table 20. Phase 2 Scoping Study economic highlights

The Study provides justification that the Estelle Gold Project is commercially viable and accordingly the Board of Nova has approved and commenced progression of the Project to a PFS.

The PFS has commenced in parallel with ongoing exploration, resource drilling and further metallurgical test work, with results expected to be completed in 2024.

The sensitivity analysis clearly demonstrates the Project to be resilient to changes in capital costs and recoveries, with significant leverage to the gold price, AISC and particularly an improvement in the LOM average mill feed grade above the current 0.73 g/t Au, that the Company will be now working towards.

Figure 27. Unlocking the Estelle Gold Project

For further information regarding Nova Minerals Limited please visit the Company's website www.novaminerals.com.au

This announcement has been authorized for release by the Executive Directors.

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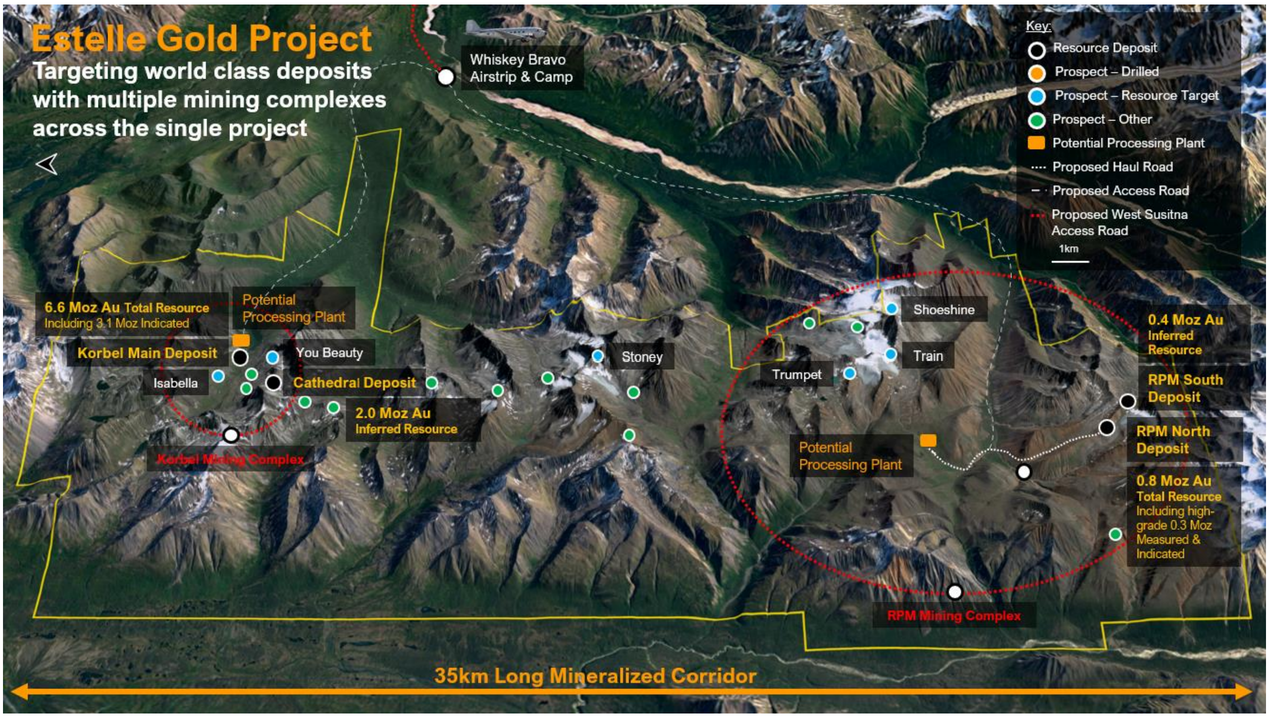
About Nova Minerals

Nova Minerals Limited (ASX: NVA) vision is developing North America's next major gold trend, Estelle, to become a world class, tier-one, global gold producer. Its flagship Estelle Gold Project contains multiple mining complexes across a 35km long mineralized corridor of over 20 identified gold prospects, including two already defined multi-million ounce resources across 4 deposits containing a combined 9.9 Moz Au. The project is situated on the Estelle Gold Trend in Alaska's prolific Tintina Gold Belt, a province which hosts a 220 million ounce (Moz) documented gold endowment and some of the world's largest gold mines and discoveries including Victoria Gold's Eagle Mine and Kinross Gold Corporation's Fort Knox Gold Mine.

Additionally, Nova holds a substantial interest in NASDAQ-listed lithium explorer Snow Lake Resources Ltd (NASDAQ: LITM) and a holding in Asra Minerals Limited (ASX: ASR), a gold and rare earths exploration company based in Western Australia, and a 9.9% interest in privately owned RotorX Aircraft manufacturing (www.rotorxaircraft.com/evtol/) who are seeking to list in the USA in the near future.



Competent Person Statements

QA/QC Checks – Mr Vannu Khounphakdee P.Geo., who is an independent consulting geologist of a number of mineral exploration and development companies, reviewed and approves the technical information in this release and is a member of the Australian Institute of Geoscientists (AIG), which is ROPO accepted for the purpose of reporting in accordance with ASX listing rules. Mr Vannu Khounphakdee has sufficient experience relevant to the gold deposits under evaluation to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Vannu Khounphakdee is also a Qualified Person as defined by S-K 1300 rules for mineral deposit disclosure. Mr Vannu Khounphakdee consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

All QA/QC data that is included in this Resource update was sent to Vannu for review and reporting.

Resource Estimation - The information in this announcement that relates to Mineral Resource estimates is based on information compiled by Mr Jonathon Abbott, who is a Member of The Australian Institute of Geoscientists. Mr Abbott is a director of Matrix Resource Consultants Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves". Mr Abbott consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Core Logging - William J. Burnett, MSc, CPG-11263 has over 25 years of experience in operations and exploration, mine, and project management. He has worked in both surface and underground mines and held positions including General Mine Manager, Exploration Manager, Chief Geologist, Mine Engineer and geologist.

In 2009, Mr. Burnett started a consulting company called Yukuskokon Professional Services, LLC. (YKPS). YKPS had since grown into a full-service exploration company providing project management, environmental permitting, logistics, core drilling support and drill pad construction, core drilling, geological, engineering, and metallurgical support for exploration and mining projects. Yukuskokon owns and operates track mounted and fly core drills with locations in Alaska, Nevada, and Oregon.

Forward-looking Statements and Disclaimers

This ASX announcement ("**Announcement**") has been prepared by Nova Minerals Limited ("**Nova**" or the "**Company**") and contains summary information about Nova holding in Snow Lake Resources Ltd and their activities, which is current as at the date of this Announcement. The information in this Announcement is of a general nature and does not purport to be complete nor does it contain all the information, which a prospective investor may require in evaluating a possible investment in Nova.

By its very nature exploration for minerals is a high-risk business and is not suitable for certain investors. Nova's securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are a number of risks, both specific to Nova and of a general nature which may affect the future operating and financial performance of Nova and the value of an investment in Nova including but not limited to economic conditions, stock market fluctuations, gold provide movements, regional infrastructure constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel and foreign currency fluctuations.

Except for statutory liability which cannot be excluded, each of Nova's, its officers, employees, and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this Announcement and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this Announcement or any error or omission here from. The Company is under no obligation to update any person regarding any inaccuracy, omission or change in information in this Announcement or any other information made available to a person nor any obligation to furnish the person with any further information. Recipients of this Announcement should make their own independent assessment and determination as to the Company's prospects, its business, assets, and liabilities as well as the matters covered in this Announcement.

This Announcement is for information purposes only and does not constitute or form any part of any offer or invitation to sell or issue, or any solicitation of any offer to purchase or subscribe for, any securities in the Company in any jurisdiction. It is not intended to be and is not a prospectus, product disclosure statement, offering memorandum or private placement memorandum for the purpose of Chapter 6D of the Corporation Act 2001. This Announcement and its contents must not be distributed, transmitted, or viewed by any person in any jurisdiction where the distribution, transmission or viewing of this Announcement would be unlawful under the securities or other laws of that or any other jurisdiction. The Company or any of its affiliates, directors, or officers that any recipients invest in the Company, does not consider this Announcement a recommendation nor does it constitute as any investment, accounting financial, legal or tax advice.

This Announcement does not contain all information which may be material to the making of a decision in relation to the Company. Recipients of this document should carefully consider whether the securities issued by the Company are an appropriate investment for them in light of their personal circumstances, including their financial and taxation position. No account has been taken of the objectives, financial situation or needs of any recipient of this document. Any investor should seek independent financial and taxation advice independent assessment and determination as to the Company's prospects prior to making any investment decision, and should not rely on the information in this Announcement for that purpose. Neither the Company nor its related bodies corporate is licensed to provide financial advice in respect of the Company's securities or any financial products. This Announcement does not involve or imply a recommendation or a statement of opinion in respect of whether to buy, sell or hold securities in the Company. The securities issued by the Company are considered speculative and there is no guarantee that they will make a return on the capital invested, that dividends will be paid on the shares or that there will be an increase in the value of the shares in the future.

Certain statements in this document are or may be "forward-looking statements" and represent Nova's 37% held Snow Lake's intentions, projections, expectations, or beliefs concerning among other things, future exploration activities. The projections, estimates and beliefs contained in such forward-looking statements necessarily involve known and unknown risks, uncertainties, and other factors, many of which are beyond the control of Snow Lake and Nova, and which may cause Nova's and Snow Lake's actual performance in future periods to differ materially from any express or implied estimates or projections. Nothing in this document is a promise or representation as to the future. Statements or assumptions in this document as to future matters may prove to be incorrect and differences may be material. Nova does not make any representation or warranty as to the accuracy of such statements or assumptions.

Although all reasonable care has been undertaken to ensure that the facts and opinions given in this Announcement are accurate, the information provided in this Announcement (including information derived from publicly available sources) may not been independently verified.

Appendix 2: **JORC Code, 2012 Edition – Table 1 Estelle Gold Project - Alaska**

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	*• Nature and quality of sampling (eg cut channels, random chips, or specific specialized 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 mineralisation that are Material to the Public Report.* *• In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 Au that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Core is systematically logged from collar to EOH characterizing rock type, mineralization, and alteration. Oriented core measurements of structural features are taken where appropriate. Geotechnical measurements such as recoveries and RQDs are taken at 10-foot (3.05 m) intervals. Samples are taken each 10 feet (3.05m) unless there is a change in lithology, whereby <3.05m selective samples may be taken. In these cases, samples are broken to lithologic boundaries. Samples are then half cut with one of the half cuts being sent to the ALS lab in Fairbanks Alaska for processing. The remaining half core is returned to the box and safely stored as reference material.
Drilling techniques	*• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	• HQ diamond core triple tube, down hole surveys every 150 feet (~50m), using a Reflex ACT-III tool.

Criteria	JORC Code Explanation	Commentary
Drill sample recovery	*• Method of recording and assessing core and chip sample recoveries and results assessed.* *• Measures taken to maximize sample recovery and ensure representative nature of the samples.* *• 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*	• Core is processed at the on-site certified crush/split prep-lab with ~250g sample being sent of site to the ALS analytical lab in Reno Nevada. Recoveries were recorded for all holes, into a logging database to 3cm on a laptop computer by a qualified geologist using the drillers recorded depth against the length of core recovered. No significant core loss was observed. • Triple tube HQ to maximize core recovery and enable orientation of core. • No known relationship between sample recovery and grade. As no samples have been taken as yet, no assay results are reported, visual results only.
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.*	Core logging is carried out by qualified geologists using a project specific logging procedure. Data recorded includes, but is not limited to, lithology, structure, RQD, recovery, alteration, sulphide mineralogy and presence of visible gold. This is supervised by senior geologists familiar with the mineralisation style and nature. Inspection of the drill core by the site Chief Geologist is monitored remotely using photographs and logs. Rock codes have been set up specifically for the project. Logging is to a sufficient level of detail to support appropriate Mineral Resource estimation and mining studies. • Drill logging is both qualitative by geological features and quantitative by geotechnical parameters in nature. Photographs are taken

Criteria	JORC Code Explanation	Commentary
		of all cores trays, (wet) of whole core prior to cutting.
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 maximize 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.*	• Samples are taken each 10 feet (3.05m) unless there is a change in lithology. In these cases samples are broken to lithologic boundaries. Samples are then half cut with one of the half cuts being sent to the ALS lab in Fairbanks Alaska for processing. Three different types of SRM are inserted each 20 samples. Duplicates of the reject are taken each 20 samples. One blank is inserted each 40 samples. Data is plotted and evaluated to see if the samples plot within accepted tolerance. If any “out of control” samples are note, the laboratory is notified.
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 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.*	• Samples are tested for gold using ALS Fire Assay Au-ICP21 technique. This technique has a lower detection limit of 0.001 g/t with an upper detection limit of 10 g/t. If samples have grades in excess of 10 g/t then Au-AA25 is used to determine the over detect limit. Au-AA25 has a detection limit of 0.01 g/t and an upper limit of 100 g/t. Three different types of SRM are inserted each 20 samples. Duplicates of the reject are taken each 20 samples. One blank is inserted each 40 samples. Data is plotted and evaluated to see if the samples plot within accepted tolerance. If any “out of control” samples are note, the laboratory is notified.

Criteria	JORC Code Explanation	Commentary
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.*	• Assay data intercepts are compiled and calculated by the CP and then verified by corporate management prior to the release to the public.
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.*	• All maps and locations are in UTM grid (NAD83 Z5N) and have been measured by a digital Trimble GNSS system with a lateral accuracy of <30cm and a vertical accuracy of <50cm.
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.*	• Drill holes have been spaced in a radial pattern such that all dimensions of the resource model is tested. Future geo-stats will be run on the data to determine if addition infill drilling will be required to confirm continuity.
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 relationship between the drilling orientation and the orientation of key mineralised structures is confirmed by drill hole data driven ongoing detailed structural analysis by OTS structural consultants.

Criteria	JORC Code Explanation	Commentary
Sample security	*• The measures taken to ensure sample security*	• A secure chain of custody protocol has been established with the site geologist locking samples in secure shipping container at site until loaded on to aircraft and shipped to the secure restricted access area for processing by Nova Minerals staff geologists. • Secure shipping container at site until loaded and shipped to the secure restricted access room at TOMRA who forwarded to bureau veritas Metallurgical facility Adelaide.
Audits or Reviews	*• The results of any audits or reviews of sampling techniques and data.*	• Detailed QA/QC analysis is undertaken on an ongoing basic by Qualitica Consulting.

Section 2 Reporting of Exploration Results

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 license to operate in the area.*	• The Estelle project is comprised of 450km2 State of Alaska mining claims • The mining claims are wholly owned by AKCM (AUST) Pty Ltd. (an incorporated Joint venture (JV Company between Nova Minerals Ltd and AK Minerals Pty Ltd) via 100% ownership of Alaskan incorporate company AK Custom Mining LLC. AKCM (AUST) Pty Ltd is owned 85% by Nova Minerals Ltd, 15% by AK Minerals Pty Ltd. AK Minerals Pty Ltd holds a 2% NSR (ASX Announcement: 20 November 2017) Nova owns 85% of the project through the joint venture agreement. • The Company is not aware of any other impediments that would prevent an exploration or mining activity.
Exploration done by other parties	*• Acknowledgment and appraisal of exploration by other parties.*	• Geophysical, Soil testing, and drilling was completed by previous operators in the past. Nova Minerals has no access to this data.
Geology	*• Deposit type, geological setting and style of mineralisation.*	Nova Mineral is primarily exploring for Intrusion Related Gold System (IRGS) type deposit within the Estelle Gold Project

Criteria	JORC Code Explanation	Commentary
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: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - 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.*	• See Table 3 summary table of drill hole results.
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.*	• Widths are report as core length. Future true widths will be calculated by measuring the distance perpendicular to the dip of the mineralized zone on any given cross section that the intercept appears on. Two holes per section are required to calculate true thickness. No "Top Cap" has been applied to calculation of any intercepts. A "Top Cap" analysis will be completed during a future Resources Study and applied if applicable. Widths of intersection are calculated by applying a weighted average (Sum [G x W] / Sum [W]) to the gold values and reported widths within any given intercepts. The CP will visually select the intercept according to natural grouping of higher-grade assays. Zones of internal dilution my vary depending on the CP discretion as to what is geologically significant. Sub intersection of higher grades

Criteria	JORC Code Explanation	Commentary
		within any given intercepts may be broken out if present. • Core holes used an overall average grade cut-off of 0.1g/t and a maximum of 9 meters of internal dilution. Significant intercepts reported at 0.3g/t cutoff grade with a maximum of 6m of internal dilution. • Gram meters is calculated as g/t x m
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').*	• See above
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.*	• Refer to the body of the announcement, figures 14 – 20
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.*	• Does not apply. All Nova results have been disclosed to the ASX via news releases.

Criteria	JORC Code Explanation	Commentary
Other substantive exploration data	*• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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.*	• No other substantive exploration data has been collected
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.*	• Diamond drilling is ongoing. Project planned is for up to 30,000 metres in 2023 and ongoing into 2024

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.*	•Field data are compiled into Excel spreadsheets. Assay data CSV files are downloaded directly from the ALS Webtrieve server or from emailed CSV files. Various software validation tools are including checking for consistency between and within database tables which showed no significant issues.
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.*	•Competent Person Dale Schultz P.Geo. Managed the 2019 R/C drilling program and stands responsible for data and information collected during that program. All aspects of drilling, sampling and data

Criteria	JORC Code Explanation	Commentary
		collection are considered by the Competent Person to meet or exceed industry standards. • William Burnett, Principal Yukuskokon Professional Services, Visited the project several times during the 2020 diamond drilling campaign and stands responsible for data and information collected during that program. • Mr Abbott has not visited the site. While producing the resource estimates Mr Abbott worked closely with Nova geologists, who have reviewed the estimates and confirmed they are consistent with their geological understanding.
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.*	• Nova's interpretation of the Estelle deposit's geological setting is based on information from geochemical, geochemical, geophysical, and geological datasets including surface mapping and drill hole logging.. These digital data sets include a Landsat Satellite imagery study, geological field mapping, outcrop sampling, re-sampling of historic diamond drill core, recent Reverse Circulation drilling data. Academic, Government and Industry reports pertaining to the history, geology and IRGS mineral deposit type have been reviewed. • Modelling of each deposit area incorporated a generally

Criteria	JORC Code Explanation	Commentary
		low gold grade background domain and between one and three mineralised domains interpreted by Matrix which capture composites with gold grades of generally greater than 0.1g/t and delineate zones within which the tenor and spatial trends of mineralisation are similar. Modelling of the Korbel Main deposit included a surface representing the base of unmineralized overburden averaging around 7 m thick. The modelling domains are consistent with geological understanding.
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.*	▪ Modelling of the Korbel Main deposit includes a main, northwest trending, sub-vertical mineralised domain and two subsidiary mineralised domains designated as Block C and Block D respectively. The Main zone domain extends over around 2.6 km of strike at an average width of around 370 m. The Block C and D domains have extents of around 140 by 180 and 400 by 370 m respectively. Modelled estimates extend from near surface to around 820 m depth with around 80% from depths of less than 500 m. ▪ The two steeply west dipping West and East mineralised domains interpreted for Cathedral are interpreted over around 780 and 420 m of strike respectively with average horizontal widths of around 340 m and 110 m. Estimates extend from surface to around 500 m depth with around 90% from

Criteria	JORC Code Explanation	Commentary
		less than 380 m depth. ▪ The combined RPM North mineralised domains strike east-west over around 740 m and average around 155 m wide. Resource estimates extend from surface to around 360 m depth with around 90% from vertical depths of less than 280 m. ▪ Modelling of the RPM South deposit utilized a steeply southerly dipping mineralised domain interpreted over around 360 m of strike with an average width of around 170 m. Model estimates extend from surface to around 400 m depth with around 90% from less than 250 m.
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 characterization).* • *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.*	• Resources were estimated for the Korbel Main, Cathedral and RPM deposits by Multiple Indicator Kriging with block support correction to reflect open pit mining selectivity, a method that has been demonstrated to provide reliable estimates of resources recoverable by open pit mining for a wide range of mineralisation styles. The modelling technique is appropriate for the mineralisation style, and potential mining method. • The MIK modelling is based on 3.048 m (10 foot) down-hole composited gold grades from RC and diamond drilling. The selected composite length represents the dominant sample length. • Micromine software was used for data compilation,

Criteria	JORC Code Explanation	Commentary
	• *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.*	domain wire framing and coding of composite values and GS3M was used for resource estimation. The resulting estimates were imported into Micromine for resource reporting. • Grade continuity was characterized by indicator variograms modelled at 14 indicator thresholds. Class grades were derived from class mean grades with the exception of upper bin grades which were generally derived from the class median, class mean excluding a small number of outlier composites, or rarely the bin threshold grade. This approach reduces the impact of small numbers of extreme gold grades on estimated resources and in the Competent Person's experience is appropriate for MIK modelling of highly variable mineralisation such as the Estelle gold deposits. • The modelling did not include estimation of any deleterious elements or other non-grade variables. No assumptions about correlation between variables were made. • The model estimates include a variance adjustment to give estimates of recoverable resources above gold cut-off grades for comparatively large scale open pit mining. The variance adjustments were applied using the direct lognormal method and variance adjustment factors derived from

Criteria	JORC Code Explanation	Commentary
		variogram models of gold grades. • Reviews of the block models included visual comparisons of the model with the informing data. **Korbel Main Modelling** • Drilling tests the mineralisation at along strike spacings of generally around 100 to 150 m with sets of fan drill holes and drill holes inclined towards the east and west from drill pads. • Modelling utilized 50 by 50 by 10 m panels rotated 40° from north south, aligning model axes with the mineralised trends and general drill traverses. Estimation included a six pass octant search strategy with ellipsoids aligned with the mineralisation orientation, with radii and minimum data requirements as follows: - Search 1 Radii: 60,60,25m(x,y,z), minimum data/octants:16/4, maximum data:48 - Search 2 Radii: 120,120,50m(x,y,z), minimum data/octants:16/4, maximum data:48 - Search 3 Radii: 120,120,50m(x,y,z), minimum data/octants:8/2, maximum data:48 - Search 4 Radii: 240,240,50m(x,y,z), minimum data/octants:8/2, maximum data:48 - Search 5 Radii: 360,360,75 m(x,y,z), minimum data/octants:8/2, maximum data:48

Criteria	JORC Code Explanation	Commentary
		- Search 6 Radii: 360,360,75m(x,y,z), minimum data/octants:4/1, maximum data:48 • Upper bin grades were derived from the class median for Block C and D domains and the class mean excluding 15 outlier composites for the main domain. • The model estimates include a variance adjustment to give estimates of recoverable resources above for selectivity of around 10 by 10 by 5 m with grade control sampling on a 10 by 20 by 3.0 m pattern. **Cathedral Modelling** • Cathedral drilling comprises fans of variably spaced and oriented holes collared from three drill pads. Along strike spacing between drill hole mineralised intervals averages around 120 m. • MIK modelling utilized 50 by 100 by 40 m panels. Estimation included a three pass octant search strategy with ellipsoids aligned with the mineralisation orientation, with radii and minimum data requirements as follows: - Search 1 Radii: 50,180,180m(x,y,z), minimum data/octants:12/4, maximum data:48 - Search 2 Radii: 100,360,360m(x,y,z), minimum data/octants:12/4, maximum data:48 - Search 3 Radii: 100,360,360m(x,y,z),

Criteria	JORC Code Explanation	Commentary
		minimum data/octants:6/2, maximum data:48 • Class grades were derived from class mean grades with the exception of the West Domain upper bin which was selected from the bin median grade. • Estimates include a variance adjustment reflecting mining selectivity of around 10 by 10 by 5 m with grade control sampling on a 10 by 20 by 3.0 m pattern. **RPM North Modelling** • RPM North drilling comprises 30 fan holes from three drill pads, including 21 from the eastern most pad, giving highly variable drill hole spacing, ranging from closely clustered drill holes spaced at less than 20 m in the high grade core domain to holes spaced at around 120 m and broader in peripheral areas including the southern domain. • MIK modelling utilized 50 by 100 by 40 m panels and a six pass search strategy with ellipsoids aligned with the mineralisation orientation, with radii and minimum data requirements as follows: - Search 1 Radii: 25,10,25 m(x,y,z), minimum data/octants:16/4, maximum data:48 - Search 2 Radii: 50,20,50 m(x,y,z), minimum data/octants:16/4, maximum data:48 - Search 3 Radii: 50,20,50 m(x,y,z), minimum

Criteria	JORC Code Explanation	Commentary
		data/octants:8/2, maximum data:48 - Search 4 Radii: 100,40,100 m(x,y,z), minimum data/octants:8/2, maximum data:48 - Search 5 Radii: 120,48,120 m(x,y,z), minimum data/octants:8/2, maximum data:48 - Search 6 Radii: 120,48,120 m(x,y,z), minimum data/octants:4/1, maximum data:48 • Upper bin grades which were selected as follows: Southern domain: bin mean excluding one high grade outlier composite, Northern low grade domain bin median, Northern High grade domain bin threshold. • Estimates include a variance adjustment reflecting mining selectivity of around 10 by 5 by 5 m with grade control sampling on a 10 by 8 by 3.0 m pattern. **RPM South modelling** • RPM South drilling comprises eight fan holes from one drill pad giving variably spaced drilling, broadening from very tightly spaced proximal the drill pad to 120 m and broader in peripheral areas. • The block model comprises 60 by 30 by 15 m panels. Estimation utilized a four pass octant search strategy with ellipsoids aligned with the mineralisation orientation, with radii and minimum data requirements as follows: - Search 1 Radii: 60,30,60

Criteria	JORC Code Explanation	Commentary
		m(x,y,z), minimum data/octants:16/4, maximum data:48 - Search 2 Radii: 120,60,120 m(x,y,z), minimum data/octants:16/4, maximum data:48 - Search 3 Radii: 120,60,120 m(x,y,z), minimum data/octants:8/2, maximum data:48 - Search 4 Radii: 120,60,120 m(x,y,z), minimum data/octants:4/1, maximum data:48 • Class grades were derived from class mean grades with the exception of the upper bin grade which was derived from the bin median. The model estimates include a variance adjustment reflecting mining with selectivity of around 5 by 10 by 5 m with grade control sampling on a 10 by 8 by 3.0 m pattern. ▪
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 are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The cut-off grades selected for resource reporting reflect Nova's interpretation of potential project economics. The Mineral Resource has been reported at a 0.15 for Korbel and 0.2 g/t Au grade cut-off for the RPM deposit. This cut-off was chosen using current economic parameters applicable for open cut mining for similar deposit types. Similar deposits to Estelle include the Fort Knox and Dublin Gulch Eagle deposits

Criteria	JORC Code Explanation	Commentary
		which have cut-off grades between 0.10 – 0.5 g/t Au. Note: With positive results from Ore-Sorting testing at TOMRA Nova is now confident in dropping the Cut-Off Grade from 0.18 (historic) to 0.15 g/t and reasonable prospects of eventual economic extraction at deeper depths left in inferred and utilizing other mining methods.
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.*	• Estimates for the Korbel Main and Cathedral deposits include a variance adjustment to give estimates of recoverable resources above gold cut-off grades for open pit mining with selectivity of around 10 by 10 by 5 m with grade control sampling on a 10 by 20 by 3.0 m pattern. • Estimates for the RPM North and South deposits include a variance adjustment to give estimates of recoverable resources above gold cut-off grades for open pit mining with selectivity of around 10 by 5 by 5 m with grade control sampling on a 10 by 8 by 3.0 m pattern. The only mining method envisaged over 20 year mine life for the extraction of gold from Korbel, Cathedral, and RPM North and South deposit is anticipated to involve large-scale open pit, truck and shovel mining methods. Grade control of mining blocks will be based on sampling from high quality reverse circulation grade control drilling holes.

Criteria	JORC Code Explanation	Commentary
		Block cave mining method is envisaged for the later years.
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.*	• Extensive test work has shown that gold resources within the RPM and Korbel deposits can be liberated and economically recovered utilizing conventional technology. A robust process flow sheet has been developed through test work whereby crushing-milling-gravity-flotation-leaching are employed. >95% recovery has been achieved through the flotation test work. >96% recovery has been achieved from leach test work. Lower grade portions of the resources have been shown to be amenable to ore sorting through extensive test work at TOMRA. Grade control through ore sorting improves the economic viability of lower grade resources by upgrading ore and rejecting waste. The results of test work have shown the ability to ore sort 0.3 g/t Au material and upgrade up to 6 g/t Au with the optimal upgrade lying somewhere in between and to be determined in upcoming economic 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*	• Economic evaluation of the project is at an early stage. It is assumed that development of the Estelle project would include construction of camp, milling, processing, waste rock and tailings disposal facilities constructed. Power and road access would also likely be required.

Criteria	JORC Code Explanation	Commentary
	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.	Processing operations may utilize a dry stacked tailings storage facility which combines a waste landform with filtered tailings in a lined facility and subsequently covered by mine waste material. Subaqueous settlement beneath a pit lake (water cover) may be used to prevent the oxidation of tailings.
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.*	• Bulk were densities assigned to the estimates on the basis of caliper measurements of drill core, including 105 from Cathedral, 1,359 Korbel and RPM
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant 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.*	• Korbel resource estimates are classified as Indicated and Inferred on the basis of estimation search pass and a set of cross sectional polygons defining volumes of mineralisation tested by generally 100 m spaced drilling. Estimates for mineralisation tested by drilling spaced at around 100 m, including some more broadly sampled areas to give a consistent distribution are classified as Indicated. Estimates for more broadly sampled mineralisation, extrapolated up to around 120 m from general drilling areas are classified as Inferred.

Criteria	JORC Code Explanation	Commentary
		• All Cathedral resource estimates are classified as Inferred reflecting the comparatively broad and irregularly spaced drilling. The estimates are extrapolated to generally around 120 m along strike and below drill holes. Estimated panels extend above drill holes to surface, on the basis of rock chips and geological observations of surface exposures reported by Nova, which show mineralisation extending to surface. • Estimates for the RPM North deposit area classified as Measured Indicated and Inferred utilizing a set of plan-view polygons outlining areas of relatively consistent drill spacing. These polygons classify estimates tested by drilling spaced to around 25 m and 50 m respectively as Measured and Indicated, and estimates for more broadly sampled mineralisation extrapolated to around 120 m from drilling as Inferred. • All RPM South estimates are classified as Inferred reflecting the comparatively broad and irregularly spaced drilling. The estimates are extrapolated to a maximum of generally around 120 m from drilling. • The resource classification accounts for all relevant factors and reflects each Competent Person's views of the deposits and informing information.

Criteria	JORC Code Explanation	Commentary
Audit or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The resource estimates have been reviewed by Nova geologists and are considered to appropriately reflect the mineralisation and drilling data and their understanding of the mineralisation.
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.*	• Confidence in the relative accuracy of the estimates is reflected by the classification of estimates as Measured Indicated and Inferred.

Appendix B: Reasonable Basis for Forward Looking Statements

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the Scoping Study production target and projected financial information are based have been included in this release and disclosed in the table section 4 below.

Consideration of Modifying Factors (in the form of Section 4 of the JORC Code (2012))

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.*	• No Ore Reserve has been declared as part of this report • No Ore Reserve has been declared as part of this report
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.*	• Competent Person Dale Schultz P.Geo. received this data from the drilling program and stands responsible for data and information collected during that program. All aspects of drilling, sampling and data collection are considered by the Competent Person to meet or exceed industry standards. Mr. Schultz visited the project in 2019. • William Burnett, Principal Yukuskokon Professional Services, Visited the project several times during the 2020 diamond drilling campaign and stands responsible for data and information collected during that program • Mr Abbott has not visited the site. While producing the resource estimates Mr Abbott worked closely with Nova geologists, who have reviewed the estimates and confirmed they are consistent with their geological understanding.

Criteria	JORC Code Explanation	Commentary
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.*	• No Ore Reserve has been declared • No Ore Reserve has been declared. • The Study is a scoping level study
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The Mineral Resource has been reported at a 0.15 g/t Au grade cut-off for the Korbel Main Deposit. This cut-off was chosen using current economic parameters applicable for open cut mining for similar deposit types. Similar deposits to Estelle include the Fort Knox and Dublin Gulch Eagle deposits which have cut-off grades between 0.10 – 0.5 g/t Au. Note: With positive results from Ore-Sorting testing at TOMRA Nova is now confident in dropping the Cut-Off Grade from 0.18 (historic) to 0.15 g/t.

Criteria	JORC Code Explanation	Commentary
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 optimization or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including 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 optimization (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 utilized in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• No Ore Reserve has been declared. • Conventional truck and shovel • No recommendations provided by client, so Slope IRA at 45° and Slope OWA at 48° assigned by Forte Dynamics • No recommendations provided by client, so Slope IRA at 45° and Slope OWA at 48° assigned by Forte Dynamics • N/A for this report • N/A for this report • N/A for this report • Of the Mineral Resources scheduled for extraction in this progress update of the Scoping Study production plan 80% are classified as Indicated and 20% are classified as Inferred. • Future potential infrastructure improvements to the district include the Dolin Nature Gas pipeline, Snow Road and the West Susitna Road access. This proposed, buried natural gas pipeline will serve as the energy source for on-site power generation. The 315 mile-long (507 km), 14-inch- diameter (356 mm) steel pipeline would transport natural gas from the Cook Inlet region to the project site. • This natural gas pipeline is a better economic alternative over the life of mine. Operating costs assume a delivered gas pricing which includes importing liquefied natural gas (LNG) to Anchorage; total delivery costs associated with purchase, transportation, and regasification of the LNG; delivery through the Cook Inlet pipeline network (existing 20-inch-diameter (508 mm) natural gas pipeline near Beluga); and operating costs for the Cook Inlet-to-Donlin Gold pipeline.

Criteria	JORC Code Explanation	Commentary
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 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?*	• Refer to the body of this report • Refer to the body of this report • Refer to the body of this report • Refer to the body of this report • N/A • No Ore Reserve has been declared.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization 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*	• Nova Minerals has commenced a robust and accelerated environmental baseline program to characterize the environmental setting and identify potential sensitive aquatic and terrestrial receptors within the Project area. These studies include initial assessment and ongoing monitoring of wetlands, fish habitat, groundwater and surface hydrology, and rock geochemistry / tailings assessment. • The study area for the baseline program includes all land areas within the proposed mine footprint that are expected to be disturbed as a result of mine development and operations. • Upon the completion of the PFS and long lead time environmental data collection which are underway, Nova will begin the mine permitting process.

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.*	• Refer to the body of the report • Refer to the body of the report • N/A • All amounts in USD • Refer to body of the report • N/A • N/A
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.*	• N/A • The product to be sold is gold in the form of dore produced on site and to be sold on the spot market. Reference was made to the spot price of gold and forecast pricing.
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.*	• N/A - the product in the form of gold dore will be sold on the spot market. • N/A • N/A • N/A
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 rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Refer to the body of the report • Refer to the body of the report

Criteria	JORC Code Explanation	Commentary
Other (incl Legal and Governmental)	• *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.*	• No Ore Reserve has been declared • No material naturally occurring risks have been identified. • The project is owned 85% by Nova and there are no marketing agreements in place. • There are currently no governmental agreements in place. The tenements the subject of the Study have been granted and are owned 100% by a Nova Subsidiary of which Nova control's and managers 85% of the JVP . • The Company continues to undertake relevant studies to support necessary government approvals processes. There are reasonable grounds from the studies conducted to date to expect that all necessary Government approvals will be received within the timeframes anticipated. The Company is yet to commence Pre-Feasibility and Feasibility studies.
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).*	• No Ore Reserve has been declared. • No Ore Reserve has been declared. • No Ore Reserve has been declared.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No Ore Reserve has been declared.

Criteria	JORC Code Explanation	Commentary
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 recognized 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*	• No Ore Reserve has been declared. • No Ore Reserve has been declared.