Superior Resources

ASX Announcement

11 April 2022

Material upgrade in Steam Engine Resource to 196,000 oz Au with 80.6% increase to Measured and Indicated categories

KEY POINTS:

- 2021 resource drilling program results in a material upgrade to the Steam Engine Mineral Resource (JORC, 2012):

  Lower Grade Owner Operated Processing Plant Model (lower cut-off grade of 0.25 g/t Au)[1]

  - 60.7% increase in total Measured, Indicated and Inferred Resource to: **4.18 Mt @ 1.5 g/t Au for 196,000 oz Au**
  - 80.6% increase in total Measured and Indicated Resource to: 2.22 Mt @ 1.7 g/t Au for 121,000 oz Au

  High Grade Toll Treatment Model (higher cut-off grade of 1.0 g/t Au)[2]

  - 40.2% increase in the total Measured, Indicated and Inferred Resource to: **2.72 Mt @ 2.0 g/t Au for 171,000 oz Au**
  - 65.7% increase in total Measured and Indicated Resources to: 1.61 Mt @ 2.2 g/t Au for 111,000 oz Au

- **Resource envelope developed to shallow depths along 1.3 kms** of lode strike: **at least 14 kms of additional lode potential identified by recent studies**
- 2022 drilling programs to target Resource expansion

Superior Resources Limited (**ASX:SPQ**) (**Superior**, the **Company**) is pleased to announce a substantial Mineral Resource upgrade for its 100%-owned Steam Engine Gold Project, located 210kms west of Townsville, Queensland (Figure 1). On an owner-operated processing plant basis, incorporating lower grade ore than considered under a toll treatment model, the Mineral Resource stands at **4.18 million tonnes @ 1.5 g/t Au for a total of 196,000 ounces Au**, representing a 60.7% increase in total Resources and an 80.6% increase in the total Measured and Indicated categories (JORC, 2012). The revised Mineral Resource reflects the highly positive effect of infill and expansion drilling completed during 2021, focussed mainly on the Steam Engine Lode. Conversion of lower confidence Resources to Indicated and Measured was the primary objective of the 2021 program.

The Company recently reported[3] significant upside potential for the project, expanding the total additional lode potential to over 14 kilometres in areas surrounding the known lodes and within a 6 km corridor between Steam Engine and the Bottletree Prospect. Considering that the upgraded Resource has been developed over only 1.3 kilometres of lode strike, the Company will focus on aggressively drilling the lode extension zones during 2022.

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[1] Comparison is made at a **lower block grade cut-off of 0.25 g/t Au** compared to the previous (March 2021) Mineral Resource Estimate, which applied a block grade cut-off of 0.5 g/t Au.

[2] Comparison is made at a **higher block grade cut-off of 1.0 g/t Au** compared to the previous (March 2021) Mineral Resource Estimate, which applied a block grade cut-off of 0.5 g/t Au.

[3] Refer ASX announcement "*Rock chip assays up to 65.9 g/t Au and mapping at new Windmill East/Origin Prospects confirm expanded, very large-scale gold potential for Steam Engine Project*", dated 18 January 2022.

Superior's Managing Director, Peter Hwang, said:

"This latest upgrade is a significant outcome, considering that the 2021 drilling comprised predominantly infill holes. The Resource has more than doubled since we started resource definition drilling in mid-2020, when it stood at 94,000 ounces. The robust and continual growth of the Resource has prompted us to undertake high-level conceptual mining studies as part of a pre-feasibility and strategy development process.

"The updated Resource relates to 1.3 kilometres of lode strike. Recent mapping, soil geochemistry and ground magnetics have identified at least another 14 kilometres of additional strike potential with mineralised lode cropping out at surface in several places.

"Together with the continued Resource expansion at the Steam Engine and Eastern Ridge lodes, we will shortly commence an aggressive program to drill out potential lode extensions in the newly identified areas.

"As demonstrated over the course of 2021, Steam Engine shows significant deposit potential and the options that are opening up for us in terms of its development sit well in supporting the advancement of several additional porphyry copper and nickel-copper-PGE prospects that we aim to bring on-line this year. In addition to technical and planning work on Bottletree, a substantial amount of geological and preparatory work is being undertaken to establish drill programs on three other porphyry prospects that are showing enormous potential. These are Cockie Creek, Galah Dam and Wyandotte.

"We are fully funded to make significant advances this year on several high potential prospects across our expanded Greenvale Project. We look forward to releasing full details of the programs in due course."

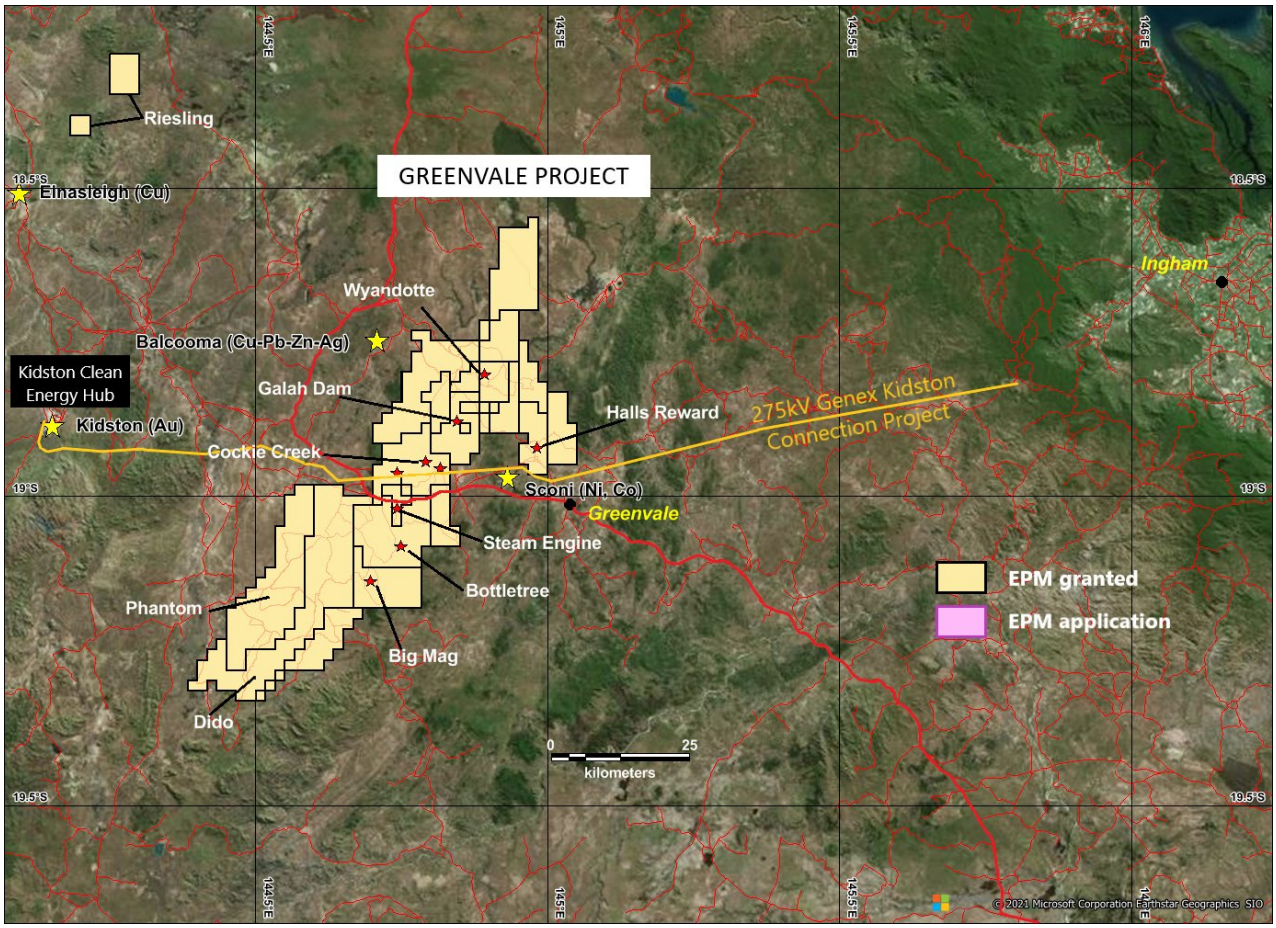

Figure 1. Map showing the locations of the Greenvale Project tenements and select Greenvale Prospects. The Steam Engine Project, Gregory Highway, Kidston Clean Energy Hub and associated power corridor infrastructure are also indicated.

Mineral Resource Upgrade

The updated JORC, 2012-compliant Mineral Resource Estimate (**MRE**) for the Steam Engine Gold Project (**Project**) incorporates data from all reverse-circulation (**RC**) and diamond drill holes completed by Superior during 2020 and 2021, including data from historic RC holes. The total drilling comprises 314 holes for 22,733 metres, with the Steam Engine Lode accounting for 16,182 metres and the Eastern Ridge Lode, 3,983 metres.

The estimation process considered two scenario models, requiring the modelling of two separate MREs:

1. High Grade Model – Toll treatment model; and
2. Low Grade Model – Owner operated processing plant model.

The two scenarios were selected on the basis of preliminary studies indicating that lode intersections of 1.0 g/t gold and above would likely be viable for a toll treatment operation and that lode intersections of 0.3 g/t gold and above would likely be viable for a SPQ owned and operated processing plant operation. The low-grade model would only be viable if a sufficient amount of additional open-pit ounces can be defined from further drilling. The purpose for assessing the two scenarios was to assist in determining the most beneficial development pathway for the Project. A project strategy study that is examining a range of scenarios, including Mineral Resource targets for the low-grade model, is currently in progress.

The upgraded JORC, 2012 Measured, Indicated and Inferred MREs total (Table 1):

- **4.18 Mt @ 1.5 g/t Au for 196,000 oz Au** (Low Grade Model; 0.25 g/t Au cut-off); and
- **2.72 Mt @ 2.0 g/t Au for 171,000 oz Au** (High Grade Model; 1.0 g/t Au cut-off).

Table 1. Steam Engine Gold Project updated JORC, 2012 Mineral Resource Estimates

Model	Classification	Tonnes	Grade (g/t Au)	Ounces (Au)
OWNER OPERATOR MODEL (0.25 g/t Au block grade cut-off)	MEASURED	800,000	2.1	53,000
	INDICATED	1,420,000	1.5	68,000
	INFERRED	1,960,000	1.2	75,000
TOTAL		**4,180,000**	**1.5**	**196,000**
TOLL TREATMENT MODEL (1.0 g/t Au block grade cut-off)	MEASURED	590,000	2.6	49,000
	INDICATED	1,020,000	1.9	62,000
	INFERRED	1,110,000	1.7	60,000
TOTAL		**2,720,000**	**2.0**	**171,000**

Compared to the March 2021 MRE, the upgraded MRE represents an 80.6% increase in total Measured and Indicated Resources under the low-grade model and a 65.7% increase in total Measured and Indicated Resources under the high-grade model (Figure 2).

The Resource estimations were conducted using inverse distance-weighted block modelling of the gold mineralisation zones.

Grade top-cutting of greater than 50% was applied to three multi-ounce per tonne intersections (135 g/t Au, 184 g/t Au and 115.2 g/t Au) for the purpose of normalising the very high grade intersection values to 60 g/t Au. These very high-grade ounce per tonne assays suggest a new high-grade population that is likely to indicate the existence of high grade gold shoots within the mineralisation zone.

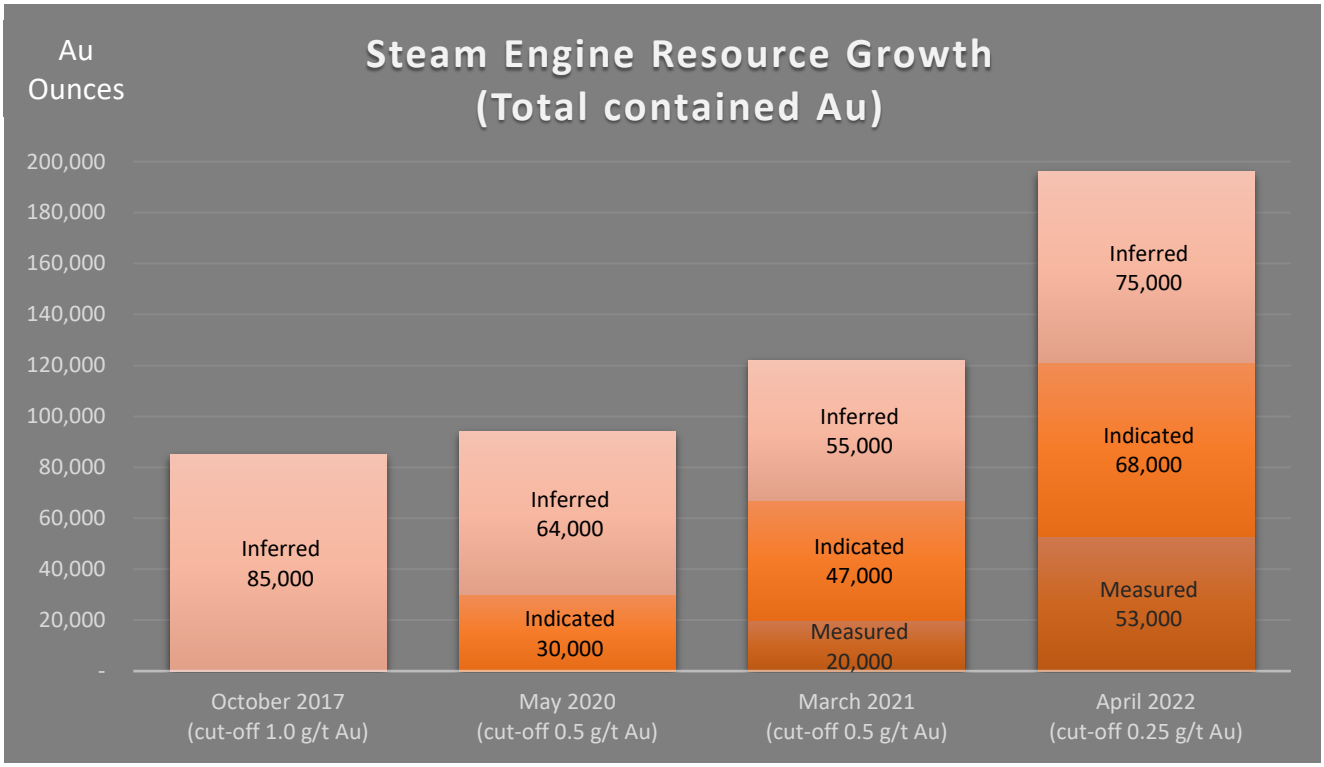

Figure 2. Chart showing growth of total contained Au metal from Resource Estimations of the Steam Engine Gold Project.

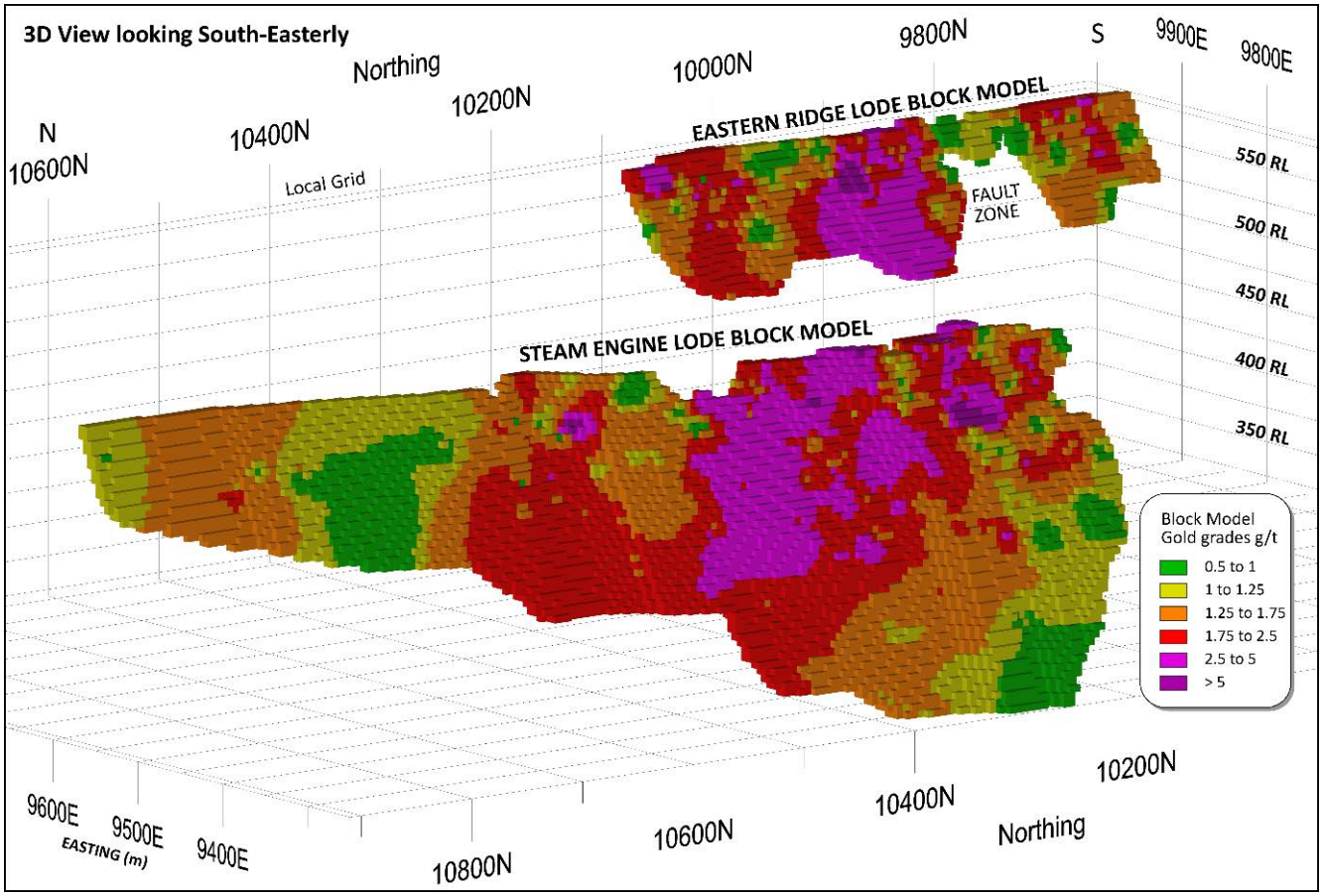

Figure 3. Oblique 3D view (from above GL) of the Steam Engine and Eastern Ridge lode high-grade block models (1.0 g/t Au cut-off) viewed towards grid south easterly showing block grade categories.

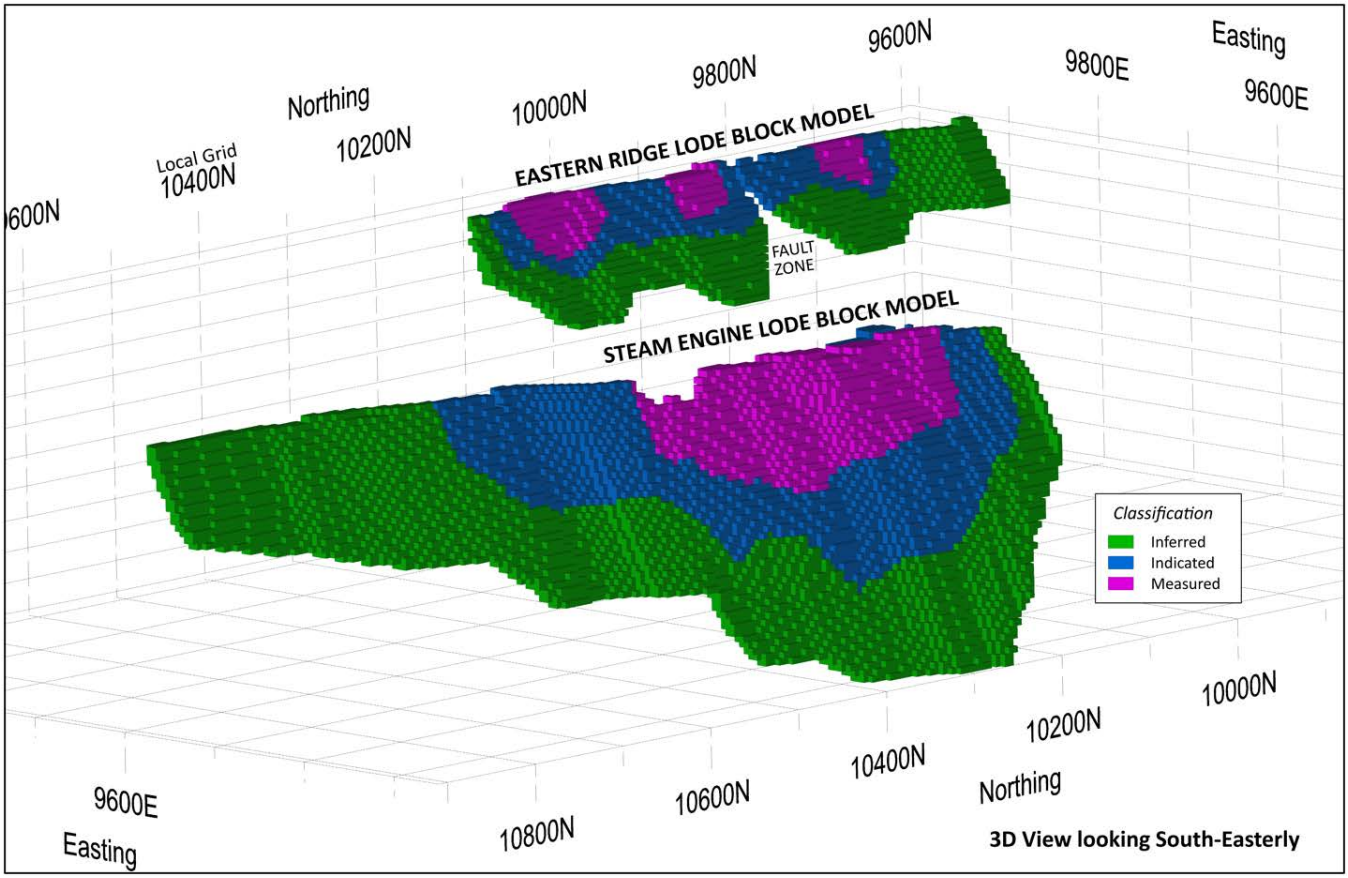

Figure 4. Oblique 3D view (from above GL) of the Steam Engine and Eastern Ridge lode high-grade block models (1.0 g/t Au cut-off) looking towards grid south easterly showing JORC, 2012 Measured, Indicated and Inferred confidence categories.

Figure 5. Aerial view of the Steam Engine Gold Project 2021 Resource drilling program, looking south east.

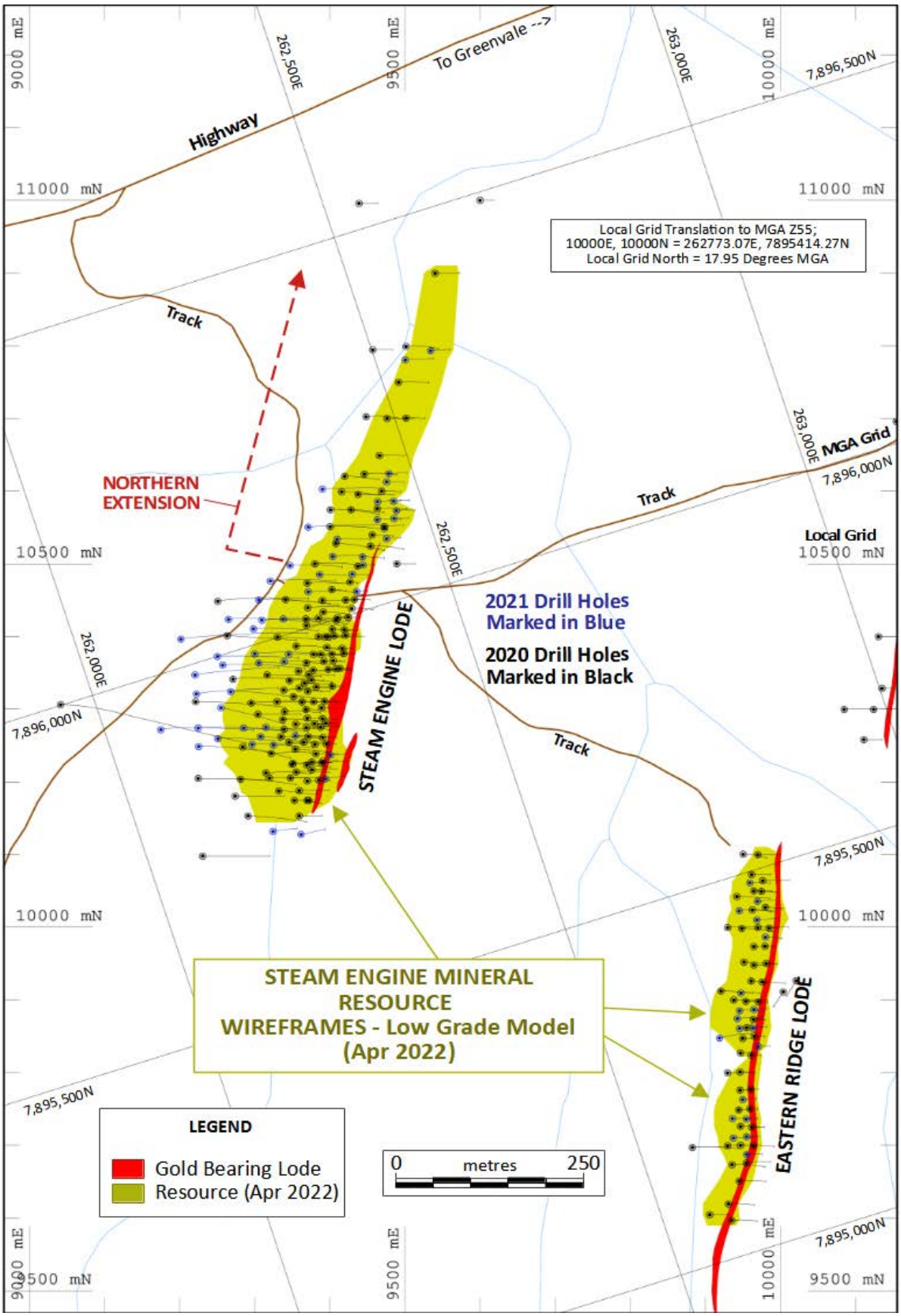

Figure 6. Drill hole location plan showing a plan view of the April 2022 Mineral Resource (olive) and outcropping lodes.

Steam Engine Project Resource expansion potential

The Mineral Resources that have been estimated for the Project relate mainly to infill drilling over a combined 1.3 kilometres of strike length at the Steam Engine and Eastern Ridge lodes and to an average vertical depth of less than 100 metres.

Exploration work conducted by the Company during 2020 and 2022 has identified several corridors totalling over 14 kilometres in length that have significant lode extension and new lode potential (Figure 7).

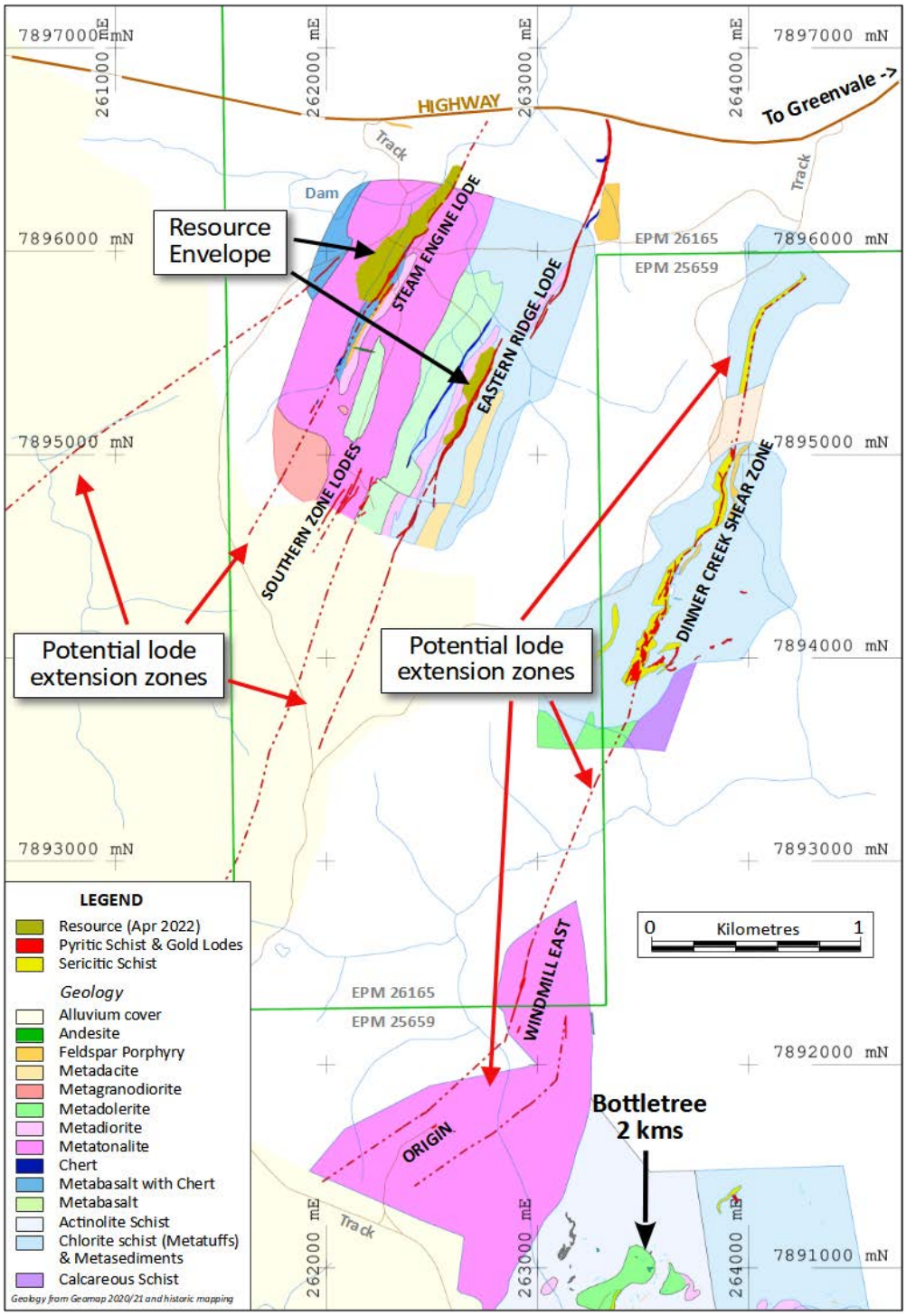

Figure 7. Geology plan showing outcropping gold lodes, Steam Engine and Eastern Ridge Resource envelopes and lode extension corridors as supported by soil geochemistry, historic workings or outcropping lodes.

Forward plans

The key objectives for the Steam Engine Project are currently to:

1. Determine the most beneficial strategic development pathway for the Project;
2. Conduct a feasibility study on a mining and toll treatment scenario;
3. Commence an aggressive exploration drilling program to rapidly expand the Mineral Resources; and
4. Progress regulatory approvals processes, which include environmental and native title matters.

The work that is currently being undertaken to achieve those goals is extensive and includes mining studies, exploration planning, environmental studies, commercial and legal matters.

Mining and processing studies

The Company is undertaking pre-feasibility level open pit mining studies including pit optimisation, metallurgical test work and the financial modelling of multiple mining and processing scenarios. This work is being undertaken together with initial discussions with potential toll treatment processing plant operators and logistics contractors. The Company has engaged Australian Mine Design and Development Pty Ltd (AMDAD) for pit design and modelling and feasibility study assistance.

Outcomes from these activities may result in a decision to advance rapidly to mine and toll process the current Resource or to set a Total Resource target with a view to establishing an owner-operated mining and processing operation.

Forward Resource and exploration drilling, geophysics

The planning process for large Resource expansion drilling programs on the Steam Engine and Eastern Ridge lodes has been completed. These programs also include initial drilling of Au-mineralised zones at the new Windmill East and Origin prospects (Figure 7).

Exploration drilling plans targeting extensive lode extension and new lode zones is currently being prepared. Large areas with the potential for new gold lodes and extensions to the currently known lodes are covered by shallow colluvium. To assist with targeting in these areas, a range of electrical geophysical survey methods will be conducted over the Project area during mid-year, when survey crews are available.

Resource expansion drilling is expected to commence during early May.

Regulatory

The early stages of environmental studies and compliance with native title statutory procedures that are required for the grant of a mining lease are progressing.

The Company looks forward to updating the market on the above in due course.

Summary Resource Estimation and Reporting Criteria

Geology and Geological Interpretation

The Steam Engine Gold Deposit is located within the Company's Greenvale Project (Figure 1) and is hosted within a belt of metamorphosed volcanic and sedimentary rocks of probable Cambro-Ordovician age.

Government mapping over the Greenvale Project area is covered by the Burges and Conjuboy 1:100,000 sheets. The Greenvale Project covers an area predominantly mapped as units of the Lugano Metamorphics and the Cockie Spring Tonalite with areas of Cambro-Ordovician Eland Metavolcanics and Permo-Carboniferous Bally Knob volcanics in the north of the project area.

Rocks to the west of the Greenvale township were originally considered to be an easterly extension of the Cambro-Ordovician volcanic belt that contains the Balcooma VMS deposit. However, the Greenvale Project area differs significantly from the Balcooma VMS area such that it should be considered as a separate geological domain (Lucky Creek Domain) of the Cambro-Ordovician belt.

The Lucky Creek Domain is interpreted to contain metamorphosed primitive mantle-derived intrusives, volcanics and related sediments with low levels of uranium, thorium and lead. It is likely that some of the serpentinised ultramafic rocks of the Greenvale area are part of a sea floor volcano-sedimentary package rather than injected or intruded rocks.

At the Steam Engine Gold Deposit, gold is mineralised within a number of north-northeast trending, west-dipping pyritic quartz-muscovite-carbonate schist lodes within metamorphosed intermediate to basic intrusives and metasediments (Figure 7). The metamorphosed host rocks have been intensely chlorite–epidote altered in the vicinity of the mineralised shear zones.

Additionally, the mineralisation appears loosely associated with intense sericite altered zones with variable silicification and are generally mappable when surface exposure is good. Initial observations are that sericite alteration together with visible sulphide content may assisting in the extraction of the lode zones and to help reduce dilution effects.

The gold mineralisation is associated with a sulphide mineral assemblage comprising pyrite, minor arsenopyrite, pyrrhotite, and chalcopyrite (all fine grained). Gold is mineralised within schistose lodes of which, the Steam Engine Lode is currently the most notable. The Steam Engine Lode has an outcrop strike length of approximately 500 metres and a further 800 metres that does not crop out at surface has been identified to the north by drill holes. The Eastern Ridge lode is located approximately 500 metres east of the Steam Engine Lode. The Eastern Ridge lode has a surface strike length of approximately 1,400 metres.

The gold mineralisation is interpreted as mesothermal lode type. The Company considers that the gold mineralisation is most similar to the orogenic style.

The gold bearing lodes are developed within shear zones and show strong continuity and a persistent dip to the west. The Steam Engine lode typically dips from 50° to 60° to the West. The Eastern Ridge lode typically dips from 45° to 55° to the West.

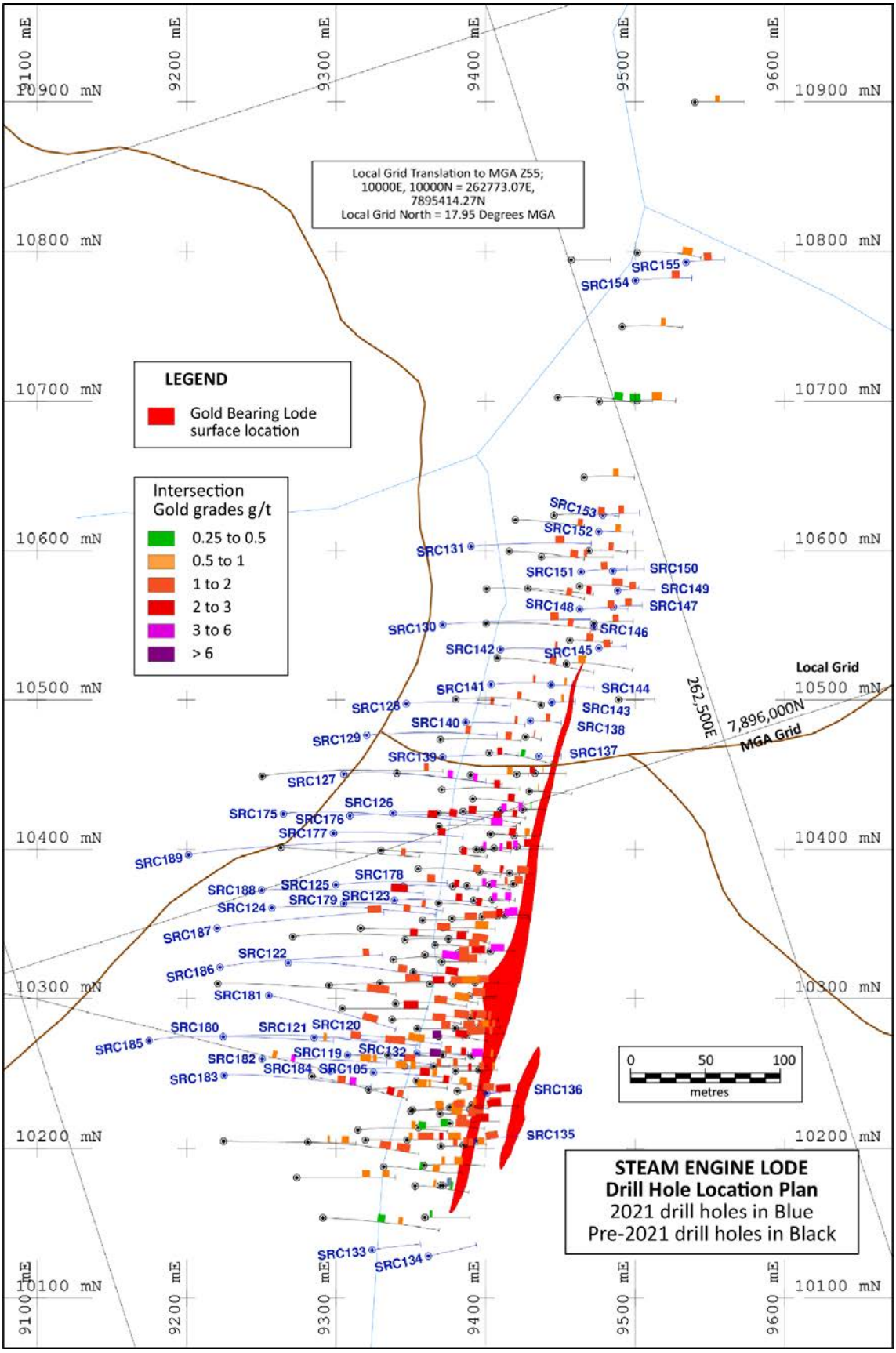

Figure 8. Plan showing the locations of the 2021 drill holes (in blue) and pre-2021 drilled holes (in black) at the Steam Engine Lode.

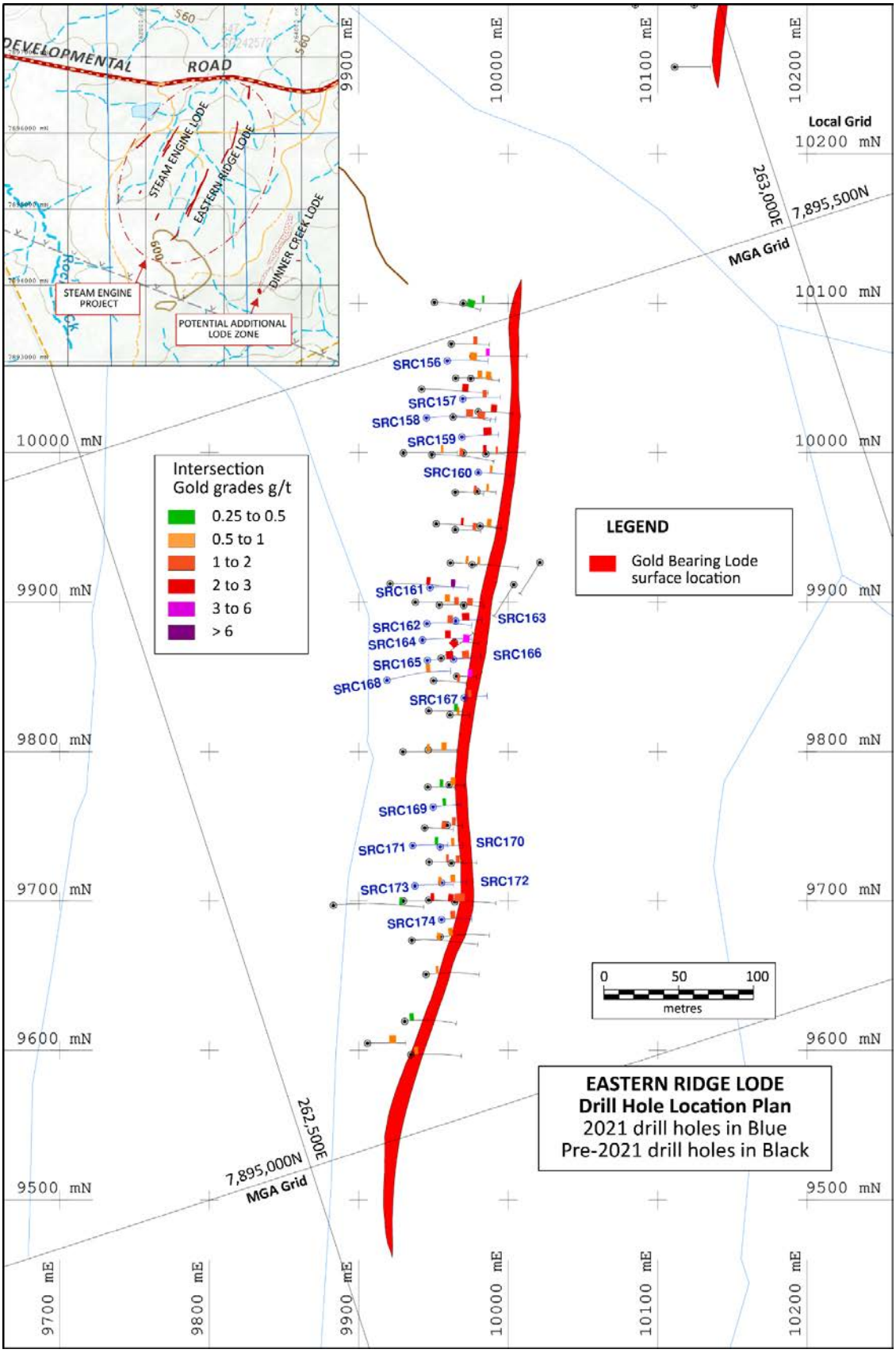

Figure 9. Plan showing the locations of the 2021 drill holes (in blue) and pre-2021 drilled holes (in black) at the Eastern Ridge Lode.

Resource Drilling

A total of 314 recent and historic RC and diamond drill holes for 22,733 total metres have been drilled into the Steam Engine, Eastern Ridge, Southern Zone and Dinner Creek lode zones. Of this drilling, 268 drill holes for a total of 20,165 metres have been drilled into the Steam Engine and Eastern Ridge lodes: 18 diamond holes and 169 RC holes for a total of 16,182 metres at the Steam Engine Lode; and 3 diamond holes and 78 RC holes for a total of 3,983 metres at the Eastern Ridge Lode.

The Mineral Resource relates only to parts of the Steam Engine and Eastern Ridge lodes.

Drilling during 2021 comprised predominantly infill and extension drilling of the March 2021 Mineral Resource at the Steam Engine and Eastern Ridge lodes (Figures 6, 8 and 9; Table 2). The infill holes are concentrated within and adjacent to the March 2021 optimised pit areas. The extension holes are concentrated along strike of the Steam Engine Lode northwards as well as holes further down dip.

A first pass program was carried out on the Dinner Creek Zone confirmed gold mineralisation, but was unsuccessful in identifying any economic near surface mineralisation.

Table 2. Summary of 2021 Steam Engine Project drilling program

Prospect	Lode	No. holes completed	Metres drilled
Steam Engine	Steam Engine	53	6,099.5
	Eastern Ridge	19	901
	Dinner Creek	13	916
Total		**85**	**7,916.5**

The 2021 program at the Steam Engine and Eastern Ridge lodes was undertaken with the following objectives:

- Very high grade ore shoot extension and infill drilling;
- Down-dip Resource expansion drilling of the Steam Engine Lode; and
- Infill drilling for JORC confidence upgrades and further pit optimisation studies.

Resource Drilling - RC

RC drilling was carried out for the shallower holes at the Dinner Creek shear zone using a using an Ausrock 4000 drill rig with a 4-inch drill bit. Drilling at the Steam Engine and Eastern Ridge lodes was carried out using a UDR 650 drill rig using a 5.5-inch drill bit.

Deeper holes at the Steam Engine Lode were carried out using a McCullochs DR 950 drill rig with 5.5-inch drill bit. RC sampling for all rigs was via the use of a face-sampling hammer bit. Additional to the UDR 650 and McCullochs DR 950 on-board air compressor, an additional compressed air booster unit was available as necessary via a separate booster truck.

All of the drill rigs used were provided by AED (Associated Exploration Drillers).

Resource Drilling - Diamond

A RC-collared diamond drill hole was carried out using the McCullochs DR 950 drilling rig, set up to drill NQ core. The drill core was oriented to allow for structural measurements. The RC pre-collar was carried out using the same drill rig.

Figure 10. Reverse Circulation drilling and sampling at the Steam Engine Lode

2020 Drilling Program

The 2020 drilling program was a combination of extension drilling aimed at expanding the Mineral Resource and infill drilling aimed at expanding the Measured and Indicated category Resources. The program comprised mainly RC drill holes and also 6 shallow diamond holes, 3 at Steam Engine and 3 at Eastern Ridge. In addition to the shallow diamond holes, two deeper diamond holes with RC pre-collars were also drilled to examine the mineralisation potential and further extension of the gold mineralisation down dip (Table 3). Further details of the 2020 drilling can be found in the March 2021 Mineral Resource report[4].

The drilling located some significant indications of better grades at depth within the core zone of the Steam Engine Lode Mineral Resource. The program also extended the mineralisation zone at the Steam Engine Lode further to the North, and at Eastern Ridge further to the South, although both of these extensions, particularly the Eastern Ridge mineralisation zone, were of lower grades.

Table 3. Summary of 2020 Steam Engine Project drilling program

Prospect	Lode	No. holes completed	Metres drilled
Steam Engine	Steam Engine	71	5,019.6
	Eastern Ridge	38	1,556.9
	Southern Zone	4	235
Total		**113**	**6,811.5**

The above program included 5 diamond drill holes for 586.6 metres at the Steam Engine lode, and 3 diamond drill holes for 109.9 metres at the Eastern Ridge lode

[4] Refer ASX announcement dated 22 March 2022.

Figure 11. 2020 diamond core from the Steam Engine Lode (DDD005, 47-48m, assayed 4.1 g/t Au).

Historic Drilling

Historic drilling at the Project has included 116 drill holes for 8,005 metres. Of these holes 63 holes were drilled at the Steam Engine lode for 5,063 metres and 24 holes were drilled at the Eastern Ridge lode for 1,525 metres.

Superior Resources 2017

6 RC drill holes for 510 metres drilled by Superior in 2017. This included 2 holes at the Steam Engine Lode for 222 metres and 4 holes at the Eastern Ridge Lode for 288 metres.

Beacon Minerals 2007

9 Reverse Circulation (RC) drill holes for 744 metres were carried out by Beacon Minerals in 2007. This included 4 holes at Steam Engine lode for 468 metres, and 5 holes at the Eastern Ridge lode for 276 metres of drilling.

Pancon Drilling 1994

Pancon drilled 14 RC drill holes for 698 metres at various locations including some at the Eastern Ridge Lode, the Southern Zone Lodes and other regional drilling.

Noranda/Pioneer Drilling

The earlier phases of RC and diamond core holes were drilled by Noranda Australia (and subsidiaries) during a series of drilling phases in the 1980's and 1990's. This drilling totalled 87 holes for 6,053 metres.

Logging

All drill holes were logged by Terra Search geologists having sufficient qualification and experience for the mineralisation style expected and observed at each hole.

All RC drill holes were logged in their entirety at 1m intervals for the RC drill holes. A spear was used to produce representative samples for the logging of RC holes. RC chip trays were prepared of each RC drill hole. All chip trays were photographed.

Intact entire diamond drill core was used for the logging of the diamond core. The core was also used to record RQD, as well as structural information and geological logging. The core trays were photographed.

Figure 12. RC drill chips being washed in preparation for logging and chip tray storage.

Sampling and Assaying

Sampling information used in the Resource estimation was derived from both RC and diamond drill holes. Techniques used during various phases of the drilling complied with industry standard procedures. Cross-checking by the Company between the various drilling phases gives consistent results for the different areas drilled.

RC drill Hole Samples

Splitting of the RC sample was carried out via a riffle splitter attached to the drill rig cyclone and collected as 1m riffle split samples. Approximately 1-3kg of sample was collected over each 1m interval. Samples were collected as dry samples.

Diamond Core Drill Hole Samples

Diamond core was halved and then quartered to produce assay samples. Diamond core samples were collected from the quartered core portion over 1 metre intervals. Quartered of NQ core samples is regarded as reliable and representative. Samples were collected as dry samples.

Sample Assaying – 2021

One-metre samples chosen for assay were sent off to Intertek's laboratory in Townsville for analysis for gold by fire assay using a 50 gram charge. Samples were crushed, pulverised to ensure a minimum of 85% pulp material passing through 75 microns, then analysed for gold by fire assay method FA50/OE04 using a 50 gram sample.

Sample assays that returned at or above 0.3 g/t gold were then also submitted for multi-element using a four acid digestion followed by an OES finish using method 4A/OE33 for the following 33 elements: Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Te, Ti, Tl, V, W, Zn.

Sample Assaying – 2020

One-metre samples chosen for assay were sent off to SGS laboratories in Townsville for analysis for gold by fire assay using a 50 gram charge. Sample assays that returned at or above 0.5 g/t gold were then also submitted for multi-element assaying using a four acid digest and ICP emission spectroscopy technique for 38 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sn, Sr, Te, Th, Ti, U, V, W, Y, Zn, Zr).

Data Compilation

Data validation was conducted by the Competent Person by matching of the original field records with the digital information to ensure the information is correct. Data validation for the previous drilling was carried out by the inspection of the previous reports dating back to the earliest phases of drilling.

Further data validation processes were also carried out in Micromine mining software to make the data ready for use. No material inconsistencies were identified, and the data was deemed satisfactory for Mineral Resource estimation purposes.

The recent 2020 and 2021 drilling has contained a few intersections of very high gold assay metre intervals (for further information see ASX Announcements dated 29 September 2021, 18 January 2021 and 30 September 2020). These very high-grade ounce/tonne assays suggest a new high-grade population (i.e. likely high grade gold shoots within the mineralisation zone). A top-cut of 60 g/t has been used on these assays. The top-cut represents an average reduction for the 3 assays that were over 60 g/t by more than 50% from their original assay values. Together with the surrounding assays and an inverse power of 3 in the block modelling the top-cut ensures that the effect of these three individual assays remains significant only in their localised location and that their effect is therefore not excessive. The top-cut will be re-assessed as future drilling is completed.

Sectional Interpretation

Sectional interpretations were made for two different grade levels for all zones of mineralisation displaying good continuity and sufficient grade. These areas included the Steam Engine Lode and a portion of its ancillary Footwall Lode zone as well as parts of the Eastern Ridge Lode zone that has been sufficiently drilled (Figures 13 to 16).

Sectional interpretations on the Steam Engine Lode zone included local grid sections from 10150N through to 10900N and on the Eastern Ridge Lode zone, local grid sections from 9600N through to 10100N.

Two interpreted grade outlines were used for each section. One outline for higher grade values with a general intersectional cut-off of 1.0 g/t or higher that generally used an assay cut-off of around 0.7 g/t gold and the other outline for a lower grade model with a general intersectional cut-off of 0.3 g/t gold or higher that generally used an assay cut-off of 0.25 g/t gold.

These grade outlines were based on preliminary studies indicating that intersections of 1.0 g/t gold and above would likely be viable for a toll treatment operation and that intersections of 0.3 g/t gold and above would likely be viable for an owner-operated processing plant operation provided that sufficient ounces can be identified with further drilling.

Other geological factors, including internal waste intervals within the mineralised zone and a minimum width of the mineralised zone, were used to develop what are considered to be mineable situations and practical mineable widths for the respective targeted grade outlines. Some intersections of less than the targeted grade were also included as necessary in order to maintain mineralisation continuity between zones.

To maximise the inclusion of gold in the higher grade wireframes (i.e. plus 1.0 g/t gold zones) more overall internal mineralised waste was incidentally included in the current high grade sectional interpretations than was the case for the March 2021 MRE.

The sectional outlines are the key to the resource interpretation used. In general, any comparison from section to section may contain some risk as to whether the most obvious interpretation is correct. However, an obvious interpretation will generally be correct for this type of mineralisation. The section-to-section interpretations were made in section and in 3D using Micromine software.

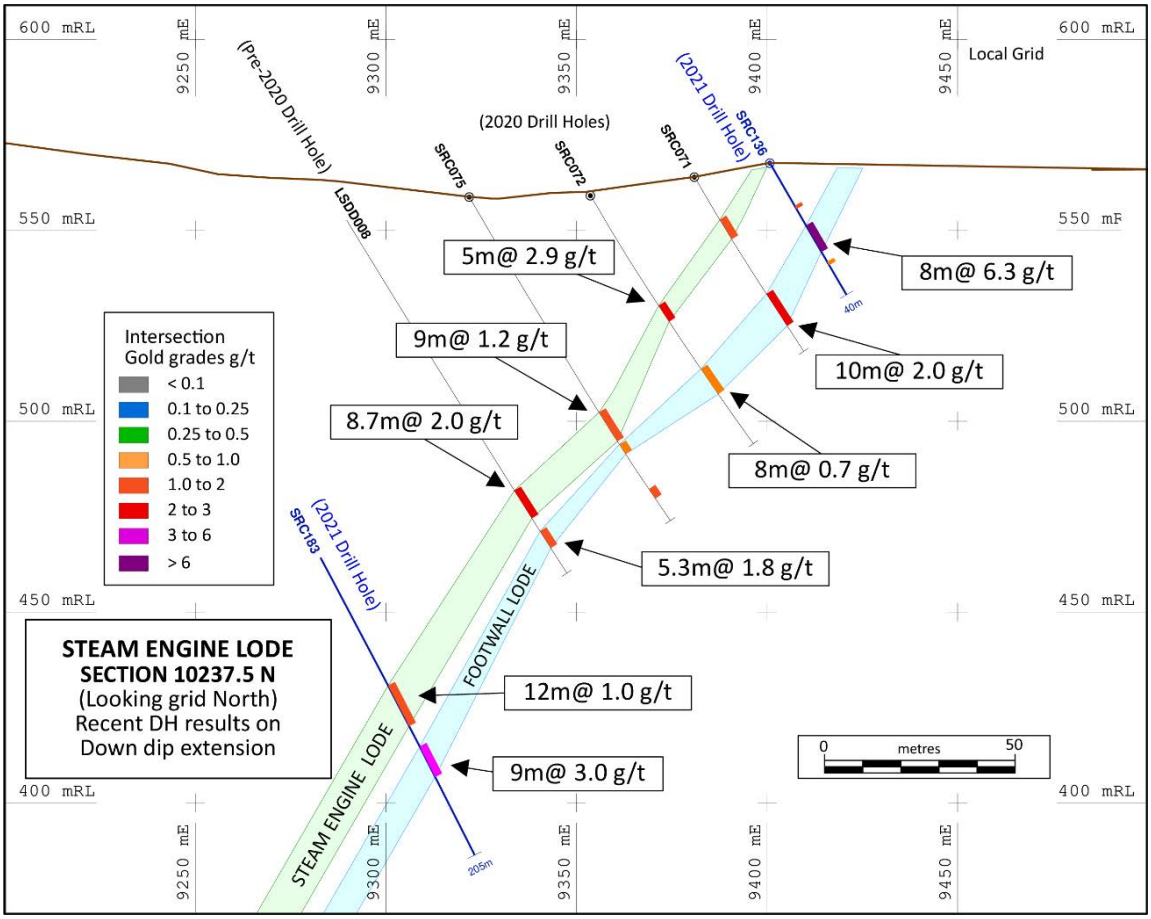

Figure 13. Cross section (10237.5N) showing the Steam Engine Lode and Footwall Lode higher grade outlines (Refer Figure 8 for location).

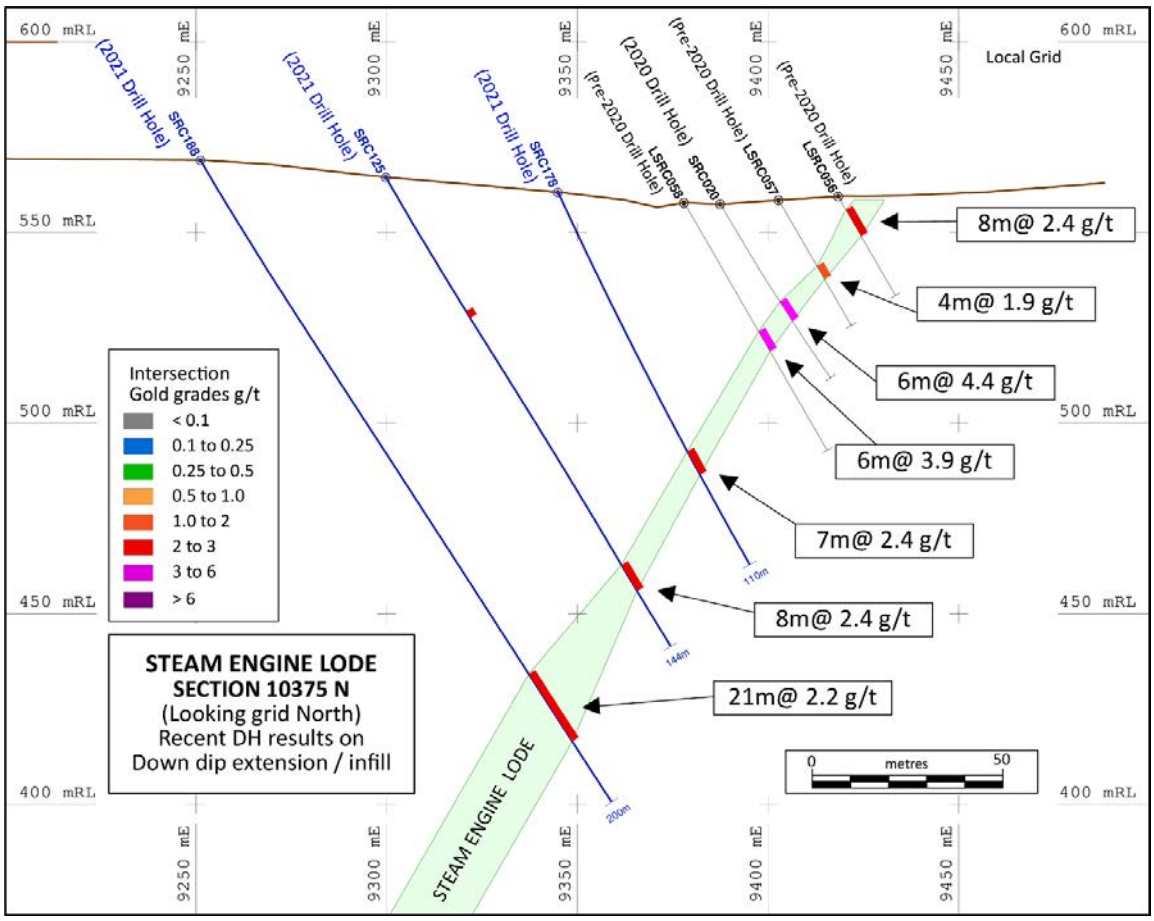

Figure 14. Cross section (10375N) showing Steam Engine Lode higher grade outline.

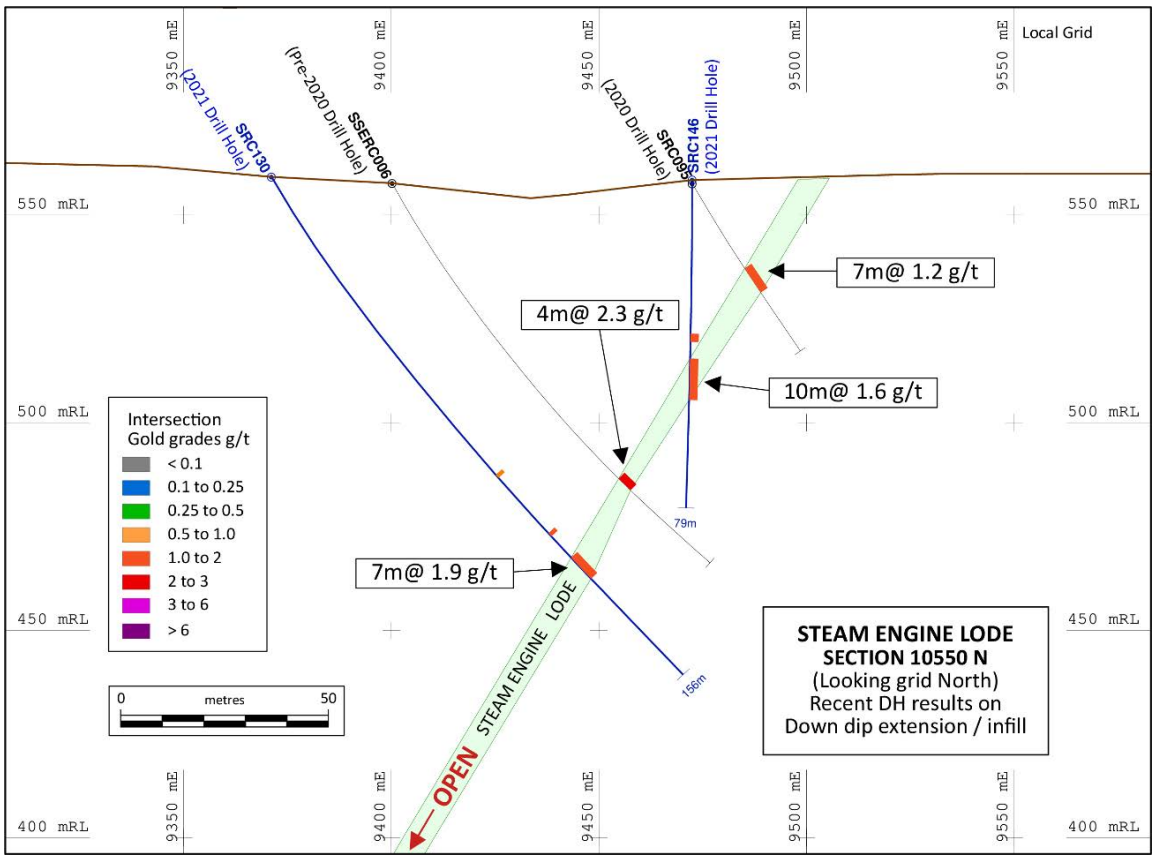

Figure 15. Cross section (10550N) showing Steam Engine Lode (Northern Extension) higher grade outline.

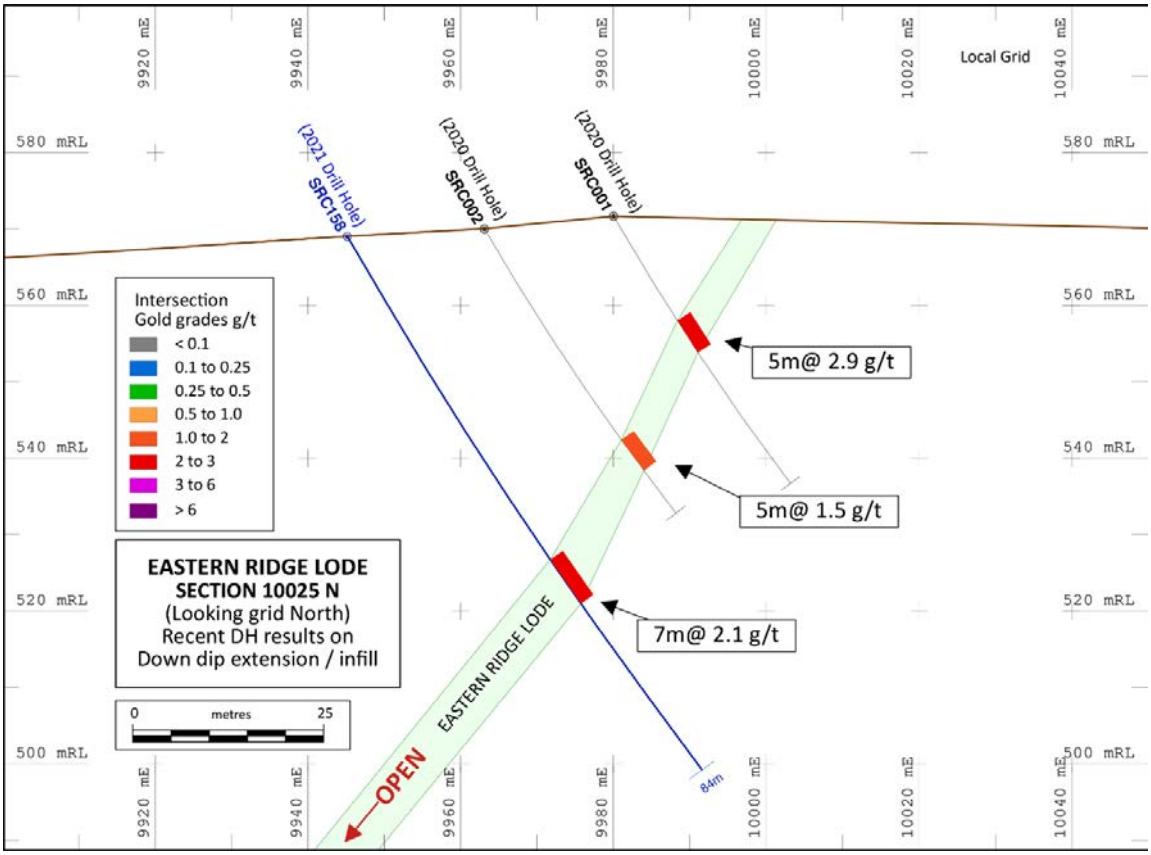

Figure 16. Cross section (10025N) showing Eastern Ridge Lode higher grade outline.

Wireframing

Wireframing is the process of joining the sectional outlines into a 3D interpretation of the Mineral Resource. This process is open to some level of interpretation. Where more than one simple interpretation can be made, the Resource will only be significantly impacted if one of the other interpretations would significantly change the tonnage of the Resource. This uncertainty is greatly reduced by increasing the drilling density.

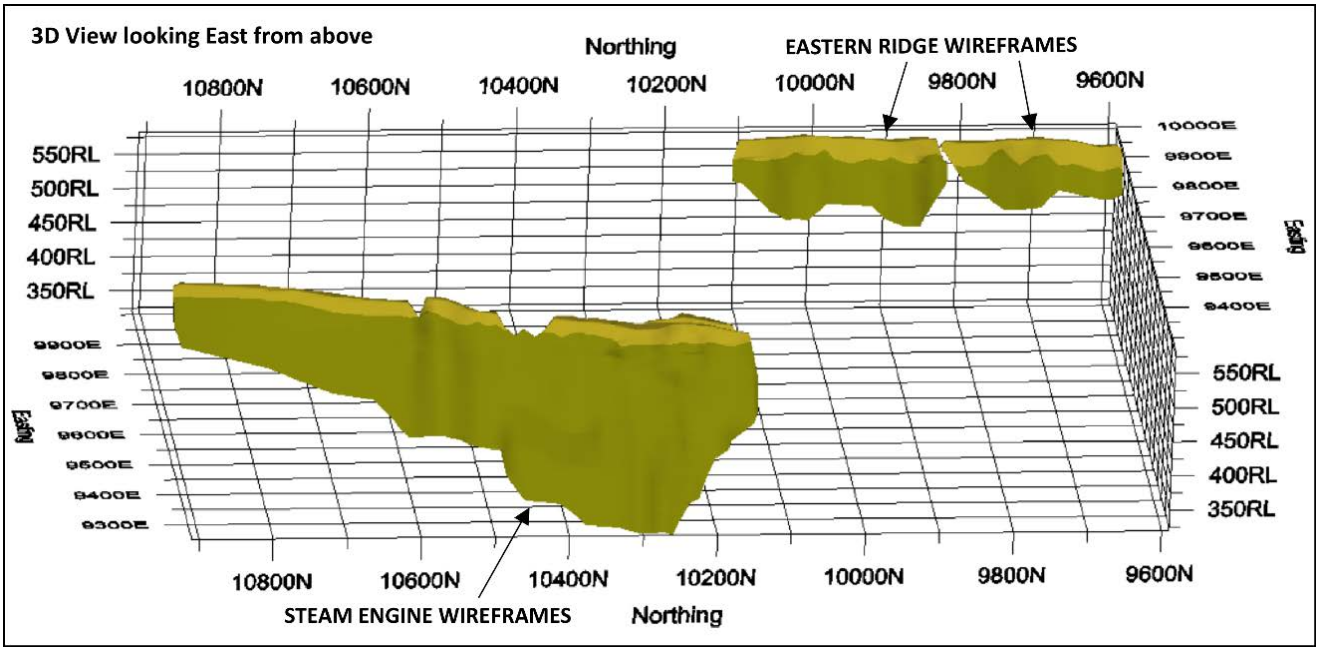

Figure 17. 3D view of the Lower Grade Wireframes for the Steam Engine and Eastern Ridge lodes with the oxide zone shown in the lighter colour.

Two sets of wireframes were developed: one for the higher-grade model (for potential toll treatment); and one for the lower grade model (for a potential owner-operated processing plant operation).

Steam Engine Lode Wireframe

The 3D interpretations of the Steam Engine Lode zone (Figure 18) are similar to the March 2021 wireframes and have included some re-interpretation due to the additional infill and extensional drilling. The main difference being an additional wireframe for a lower grade mineralisation model (Figure 17).

At the northern end of the Steam Engine Lode zone, the 2021 drilling has increased the confidence levels of the estimated Resources contained in the Northern Extension zone. The overall lower grade of the Northern Extension has contributed to a slight decrease of the overall head grade of the Steam Engine MRE when compared to the March 2021 MRE, which used similar cut-off parameters to the higher grade resource model.

The 2021 drilling also identified additional depth extensions to the mineralisation. This has also contributed to some of the increase in the Mineral Resource, particularly around the main zone of mineralisation at the Steam Engine Lode. The Steam Engine Lode remains open ended to the north and at depth.

Regarding the Steam Engine Footwall zone, not all of the mineralisation is economic and only those zones of sufficient grade have been wireframed for this Resource estimation. Some additional drilling of near surface portions of the Footwall Zone was carried out in 2021 to further define the Footwall Zone.

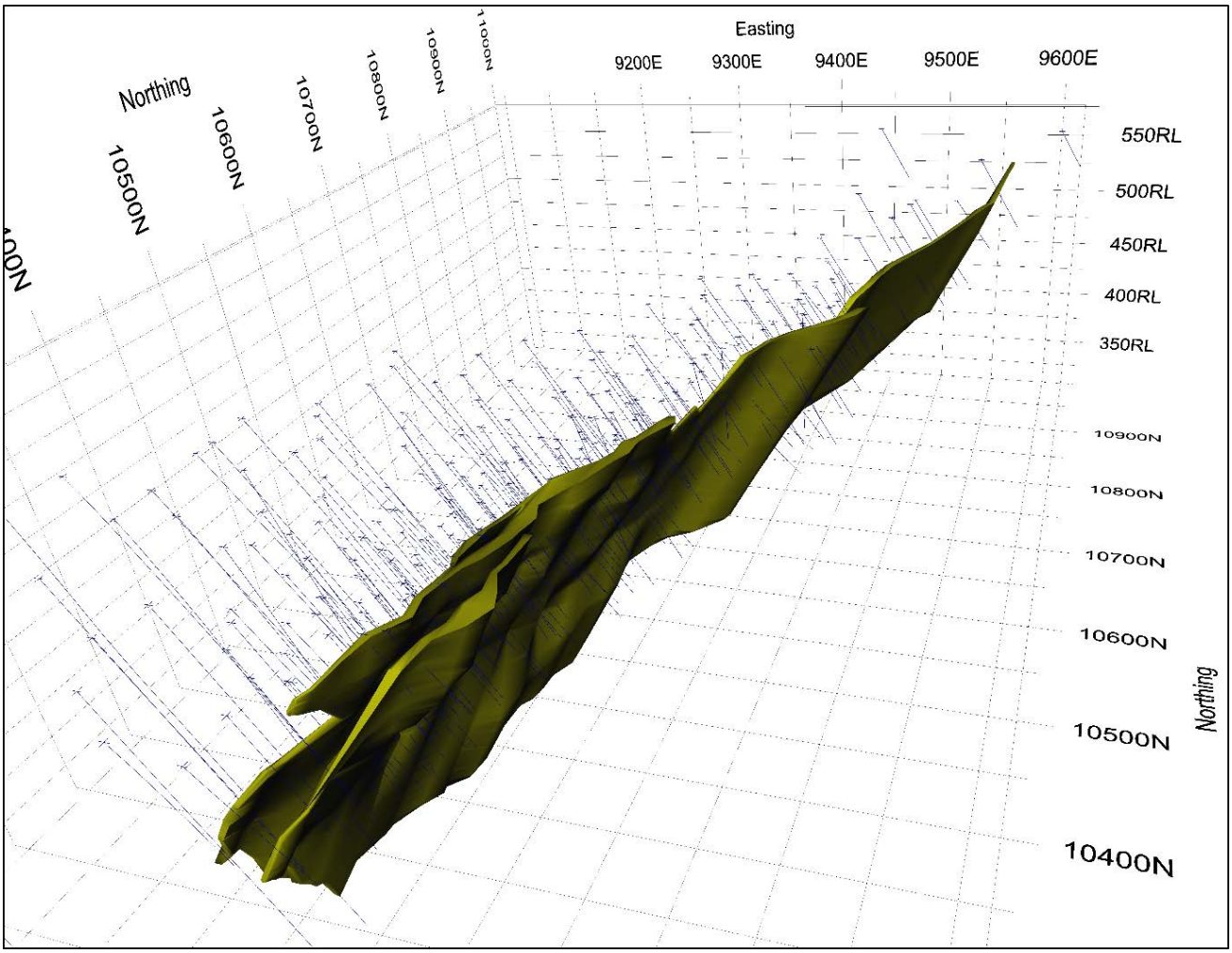

Figure 18. 3D perspective view of the Steam Engine Lode higher grade wireframes looking grid North-Westerly from above surface level.

Eastern Ridge Lode Wireframe

The Eastern Ridge Lode Resource appears to be faulted and slightly displaced by the fault zone. As a result, separate wireframes have been developed for the mineralisation on each side of the fault zone (Figure 19).

The 2021 infill drilling has shown that the lode exhibits significant localised thickening in some areas. These bulges have increased the overall Resource and improved the depth potential of the northern portion of the Eastern Ridge Lode. By contrast, the 2021 infill drilling has reduced the overall grade of the southern portion of the Eastern Ridge Lode. The lode remains open ended along strike and at depth.

The Eastern Ridge Lode lower grade wireframe extends significantly further to the south (to just south of Grid Section 9600N) than that of the higher grade wireframe (ending just south of Grid Section 9675N). The lower grade mineralisation remains open ended to the South.

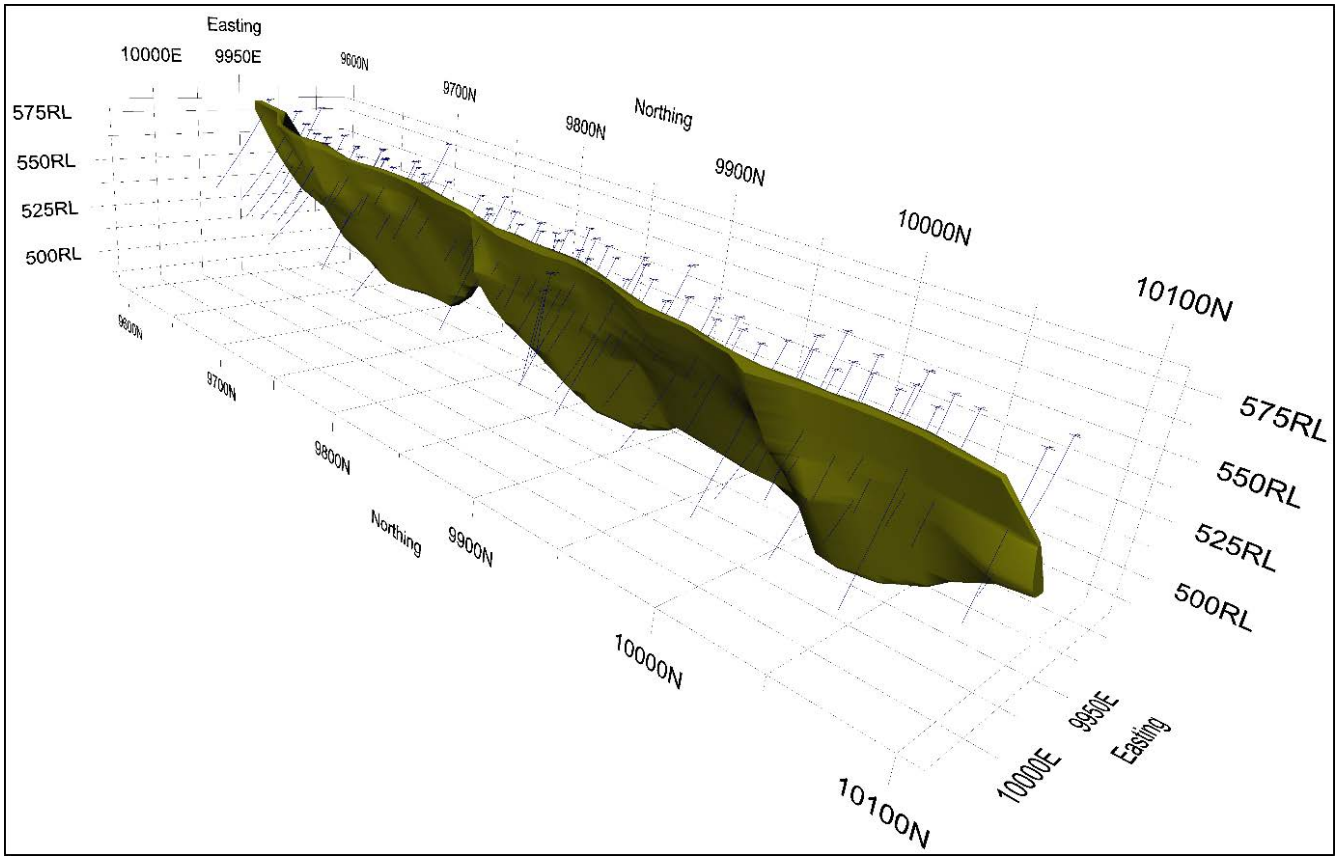

Figure 19. 3D Perspective view of the Eastern Ridge Lode lower grade wireframes looking grid South-Westerly from above surface level.

Block Modelling

Block models were used to make the Resource estimates of the wireframed gold mineralisation (Figures 3 and 20 to 23). The block models consisted of 5x5x5 metre blocks.

Consideration was given to adopting an anisotropic ellipsoidal model for the block modelling. However, due to the nature of the mineralisation, the IDW (power of 3) circular model is considered to provide the most representative model.

Overall tonnes and grade comparisons between anisotropic ellipsoid and standard IDW averaging models showed very similar results. For the time being the IDW block model using a power of 3 has been adopted as was used in the previous Resource estimates. This method allows for good contouring of the grade distributions

in 3D to closely reflect the grade fluctuations within the zones near the drill holes while still resulting in adequate averaging of the zones between drill holes where additional infill drilling may still be desirable.

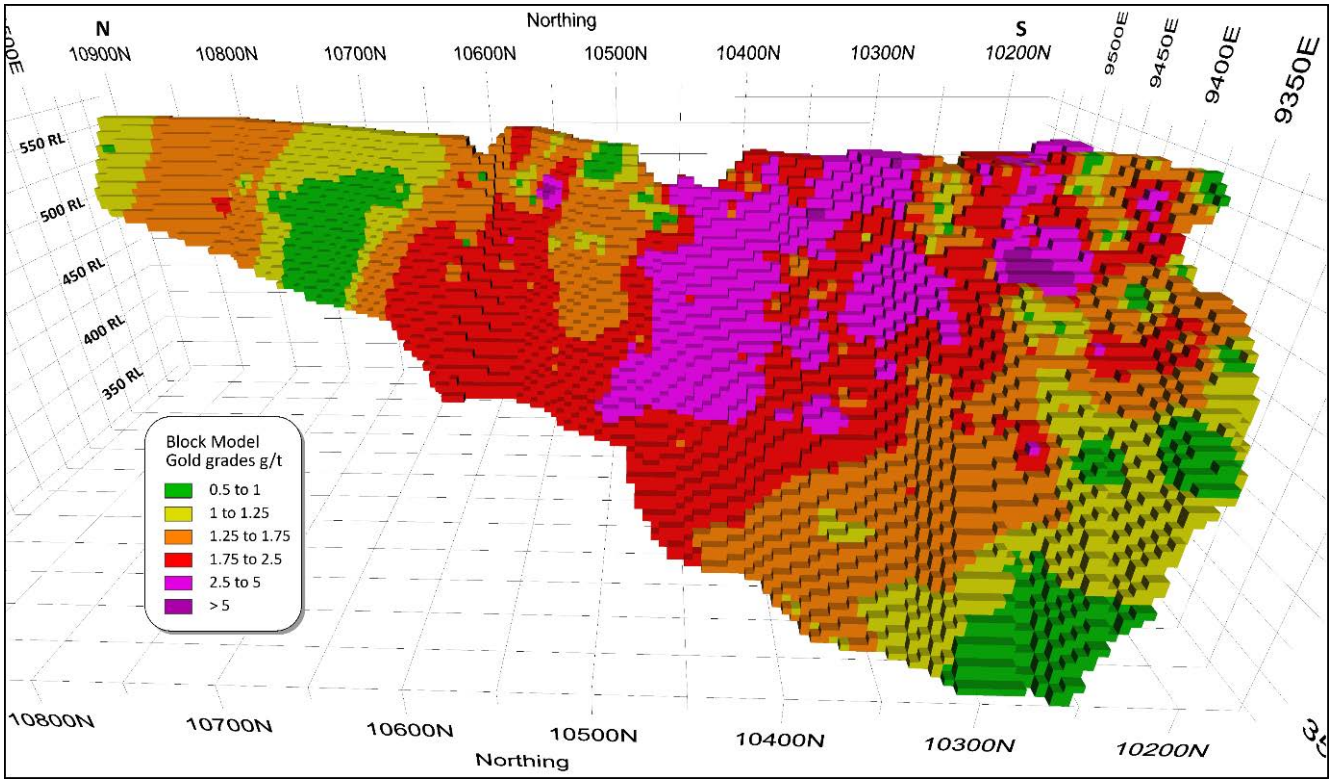

Figure 20 - 3D perspective view of the Steam Engine lode block model (higher grade model) looking from looking Eastwards.

The higher grade wireframe model ("Toll Treatment Model"), has similar intersectional cut-offs to the earlier block models for the Project. These being a general intersectional cut-off of 1.0 g/t or higher that generally used an assay cut-off of 0.7 g/t gold but included some internal waste. Lower intersectional zones where needed for continuity. The only difference from the earlier block models is that a block model grade cut-off of 1.0 g/t was used (based on estimated toll treatment criteria) instead of the 0.5 g/t block model grade cut-off that was applied for the earlier models. As the intersection cut-off for the Resource was generally of 1.0 g/t or better, tonnages removed using this higher block model grade cut-off are relatively low and therefore allows for it to be used in a valid comparison between this model and the earlier models.

The lower grade wireframe model ("Owner Plant model") used a general intersectional cut-off of 0.3 g/t gold (based on owner-operated treatment plant criteria) that used an assay cut-off of 0.25 g/t gold. This lower grade model will allow scope for including additional gold ounces, however the effectiveness of the inclusion of this additional mineralisation can only be fully assessed in the pit optimisation studies.

Assays were filtered from within the wireframed zones for the Resource estimations. A top cut of 60 g/t was implemented on values above this amount (refer Data Compilation section). The block modelling was run on the two separate grade wireframe model sets (i.e., Higher Grade and Lower Grade models) as mentioned above.

The Resource model wireframes were used to allocate the proportion (the fraction) of each block that lies within the wireframe to allow for accurate estimates of the tonnes and grade for both model sets. A Resource classification was assigned to every block within each block model based on the drilling densities and confidence levels of the various portions of the block models.

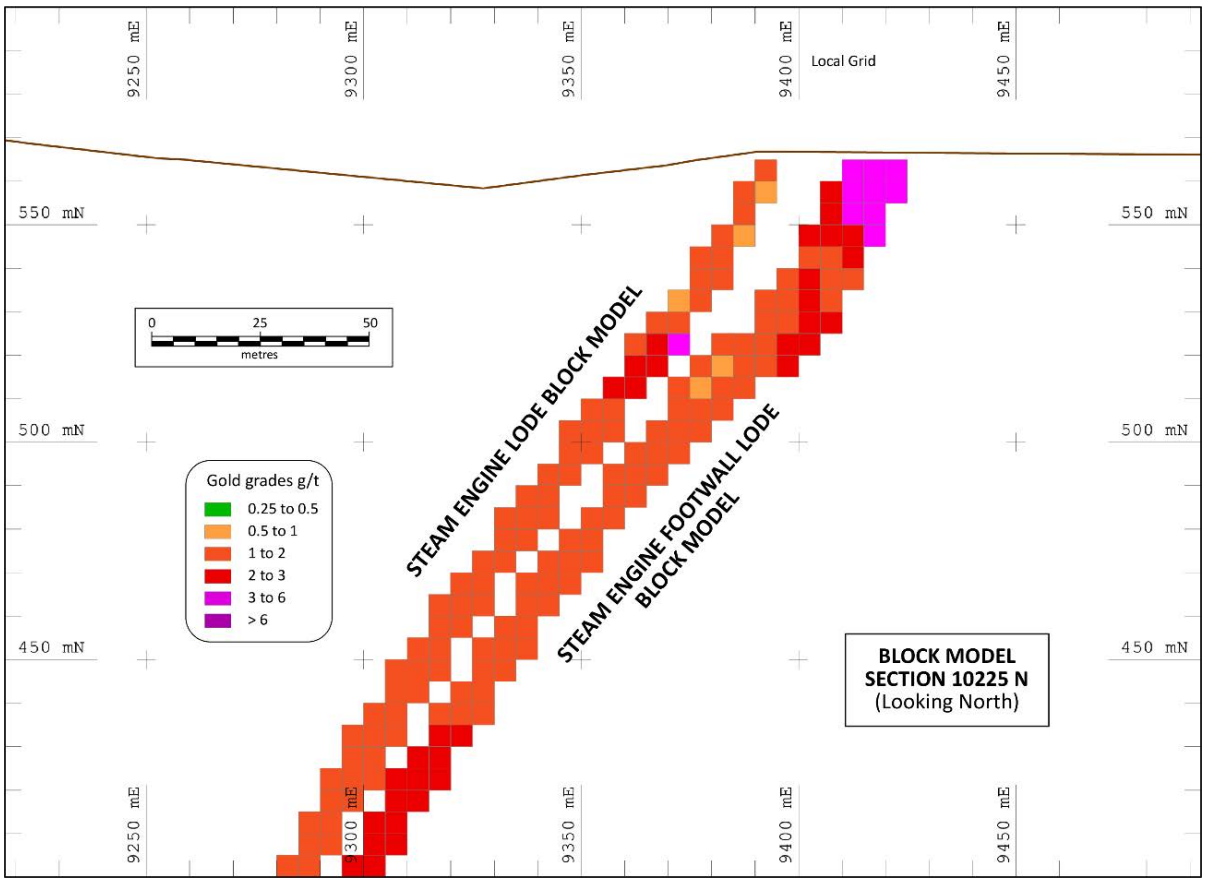

Figure 21. Cross sectional view of the Steam Engine Lode (higher grade) block model for Section 10225N.

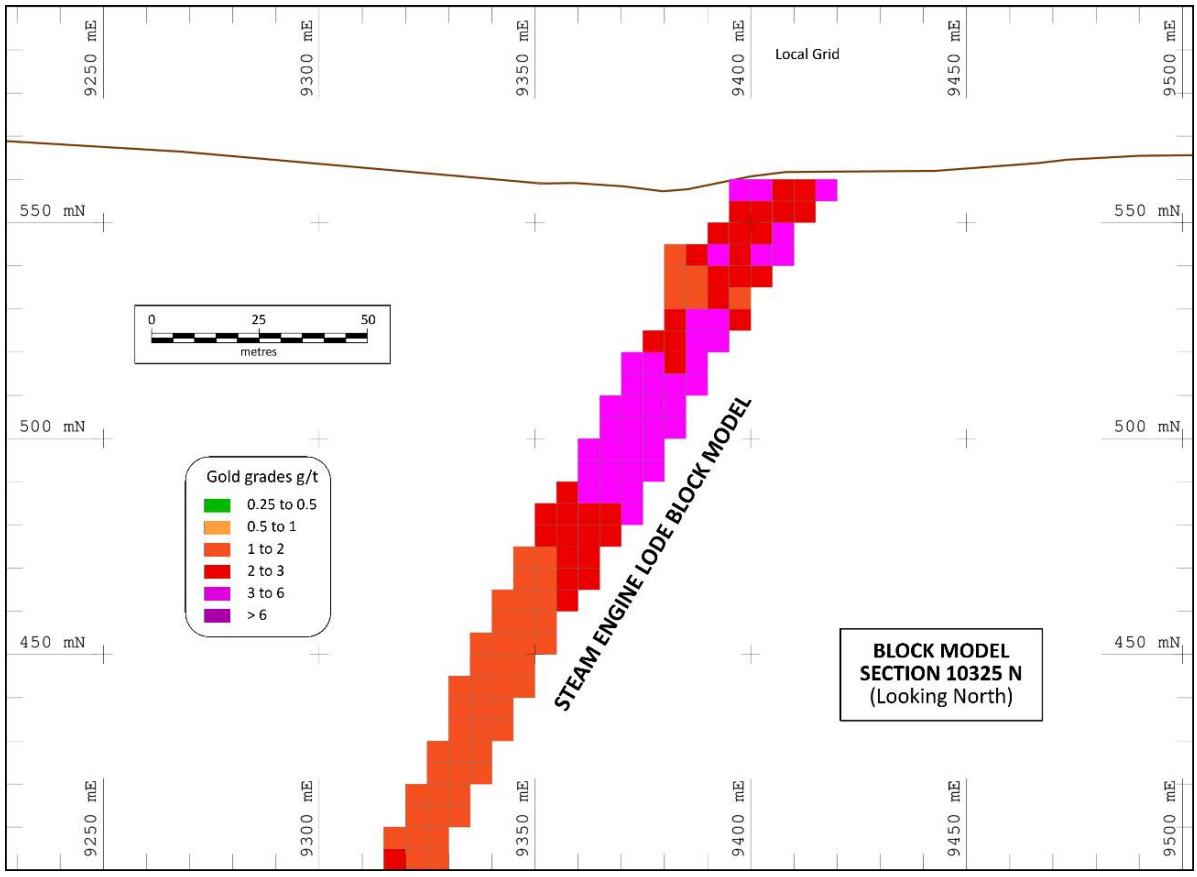

Figure 22. Cross sectional view of the Steam Engine Lode (higher grade) block model for Section 10325N.

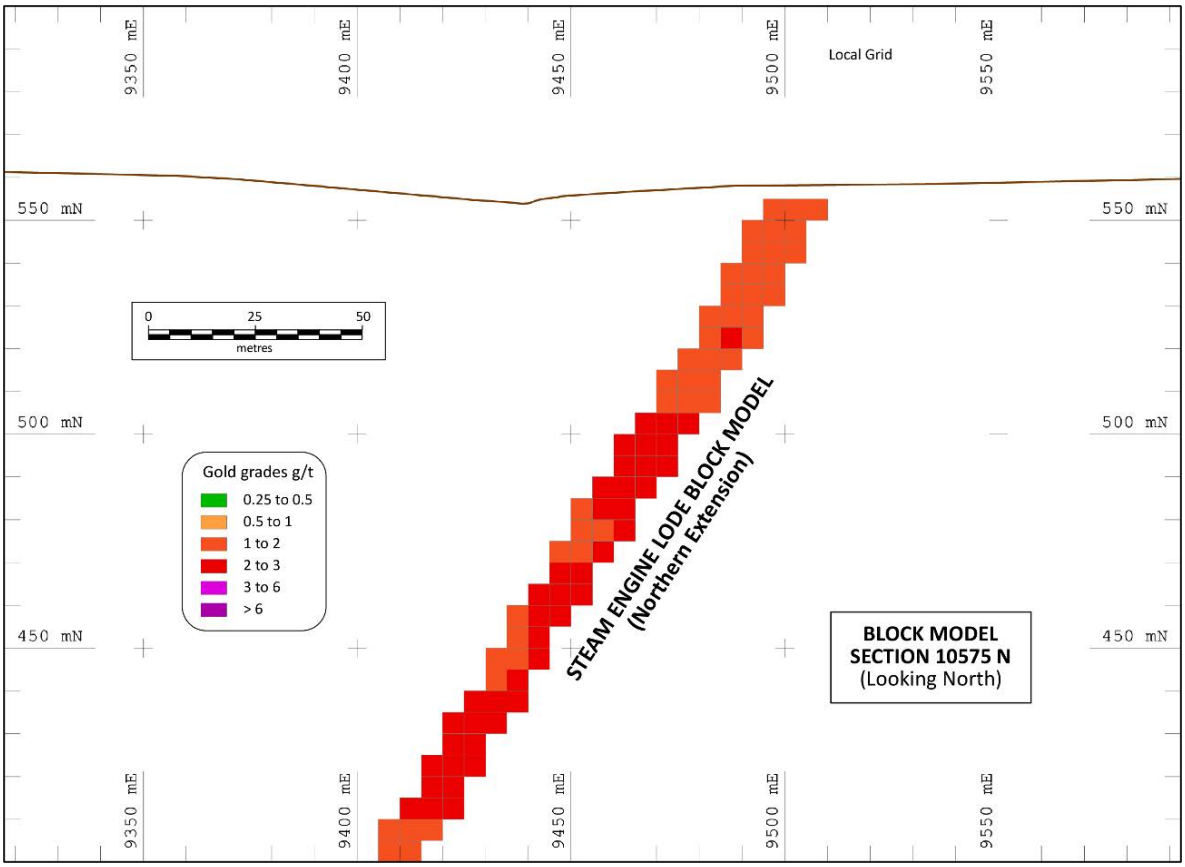

Figure 23. Cross sectional view of the Steam Engine Lode (higher grade) block model for Section 10575N

A wireframe was made for the oxide to sulphide boundary based on the drill log information. Based on the specific gravity (SG) testing on oxide and sulphide core samples, the oxide mineralisation was assigned an SG of 2.7 and the sulphide mineralisation an SG of 2.9. Every block in each of the block models was then assigned the SG for the zone in which it is located so that tonnages would reflect the material types, being oxide or sulphide.

As part of the cross checking for the block modelling, inspections of the created grade blocks against the sectional and long section views reflected a close fit with the grade fluctuations in the drilling. As any block model is essentially 'black box' technology a range of block model scenarios were run to confirm 'ball-park' tonnage and grade based on similar interpretations and different IDW type estimations.

As a final check, wireframe estimates were used to cross check the overall block model Resource figures. The comparison shows the volumes to be near exact matches.

Resource Classification

Drill Hole spacing criteria for the material classifications at the Steam Engine and Eastern Ridge lodes were determined as:

- Measured – holes up to 20 metres (along strike) by 20 metres, or less;
- Indicated – holes up to 40 metres (along strike) by 40 metres, or less; and
- Inferred – holes up to 100 metres (along strike), or less.

Equivalent drill hole density was also factored for those holes not conforming to regular grid spacings.

The JORC, 2012 Inferred category also includes stand-alone holes for an extension if it conforms with the current geological interpretation. Interpolation for inferred resources has allowed for up to approximately 100 metres along strike between drill holes in some cases. Extrapolation for Inferred Resources outside of the drilling extents has allowed for up to approximately 70 metres of extension, predominantly on dip, where holes either side along strike have indicated the continuation of the mineralisation. However, extension down dip has also been moderated by the width of the mineralisation and if that mineralisation was considered wide enough to be feasible for future extraction.

The estimated Measured, Indicated, and Inferred portions are summarised in Table 1 and a 3D representation of the confidence categories is shown in Figure 4.

For more information:
Peter Hwang
Managing Director
Tel: +61 7 3847 2887

www.superiorresources.com.au
manager@superiorresources.com.au

About Superior Resources

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large lead-zinc-silver, copper, gold and nickel-copper-cobalt-PGE deposits in northern Queensland which have the potential to return maximum value growth for shareholders. The Company is focused on multiple Tier-1 equivalent exploration targets and has a dominant position within the Carpentaria Zinc Province in NW Qld and Ordovician rock belts in NE Qld considered to be equivalents of the NSW Macquarie Arc. For more information, please visit our website at www.superiorresources.com.au.

Reporting of Mineral Resources: *Information contained in this report that relates to Mineral Resources is based on information compiled by Mr Kevin Richter, an employee of Superior Resources Limited, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Richter 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 of Exploration Results, Mineral Resources and Ore Reserves'. Mr Richter consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

Reliance on previously reported information: *In respect of references contained in this report to previously reported Exploration Results or Mineral Resources, Superior confirms that it is not aware of any new information or data that materially affects the information, results or conclusions contained in the original reported document. In respect of previously reported Mineral Resource estimates, all originally reported material assumptions and technical parameters underpinning the estimates continue to apply and have not been materially changed or qualified. The form and context in which the relevant Competent Person's findings are presented have not been materially modified from the original document.*

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APPENDIX 1

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of 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 pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	Current Sampling • Reverse Circulation (**RC**) drill samples are collected as drilled via a riffle splitter attached to the drill rig cyclone and collected as 1m riffle split samples. Approximately 1-3kg of sample was collected over each 1m interval used for assaying. • Diamond core drill samples are collected by quartering of the NQ core from Diamond drilling. Approximately 1 to 1.5 kg of sample was collected over each one metre interval used for assaying. • The drill bit sizes used in the drilling were consistent in size and are considered appropriate to indicate the degree and extent of mineralisation. • 1m representative samples were assayed for gold at laboratories in Townsville. Assaying for gold was via fire assay of a 50 gram charge. • Samples of the gold mineralisation were also submitted for multi-element assaying using a four-acid digest. • The sample preparation at Intertek (2021) and SGS (2020) laboratories in Townsville for all samples is considered to be of industry standard. Historic Sampling • Information relating to historic results relies on data contained in reports submitted to the Queensland Department of Natural Resources and Mines as part of the Company Report System attaching to granted Exploration Permits. • The sampling techniques, where reported, used standard industry approaches. These include: 1. splitting off a sample of material delivered to the top of the hole during RC drilling to produce a sample for assay accompanied by geological logging of the sample. 2. Halving of drill core from diamond drilling to produce an assay sample accompanied by geological logging of the core.

Criteria	JORC Code explanation	Commentary
		• Assaying of samples was completed by commercial laboratory methods that were appropriate at the time the samples were collected. Sample intervals of 4m were commonly used for initial determination of the presence of gold by a geochemical method followed by more detailed sampling of mineralised intervals at usually 1m intervals using a more precise method. • Whilst it is not possible to determine the reliability of historic assay results, no issues arose during compilation and interpretation of the results that would suggest that the assay results were not reasonable. Additional to this, the recent sampling and assaying completed during 2020 and 2021 by Superior shows that the various previous drilling phases have given consistently similar results when compared to those of the more recent sampling.
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.).*	Current Drilling • Drilling from surface was performed using standard RC and diamond core drilling techniques as applicable to the hole drilled. • RC Drilling was conducted by AED (Associated Exploration Drillers) using a UDR 650 or McCulloch's DR 950 drilling rig using a 5.5 inch drill bit. Additional to the on-board air compressor of the drilling rig being used, additional compressed air was available as necessary via a separate booster truck. Sampling was by the use of a face-sampling hammer bit. • Diamond drilling was conducted by AED (Associated Exploration Drillers) using a UDR 650 or McCulloch's DR 950 drilling rig and NQ drill rods and wireline to retrieve the core. Drill core was oriented to allow structural measurements. The deeper drill holes were first pre-collared using the RC Drilling methods outlined above. • All holes were surveyed using a Reflex Gyro north-seeking gyroscopic instrument to obtain accurate down-hole directional data. Historic Drilling • RC and diamond drilling are the only drilling techniques relied on in the historic drilling. Historic open hole percussion and RAB holes have only been used in terms of constraining the extent of the mineralisation, where applicable, and not for any estimation purposes (Note: Where recent drilling is available this has been used

Criteria	JORC Code explanation	Commentary
		instead of historical open hole percussion and/or RAB holes in determining the extents of the mineralisation).
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	Current Drilling • Sample recovery was performed and monitored by Terra Search contractor and Superior's representatives. • The volume of sample collected for assay is considered to be representative of each 1m interval. • RC drill rod string delivered the sample to the rig-mounted cyclone which is sealed at the completion of each 1m interval. The riffle splitter is cleaned with compressed air at the end of each 1m interval and at the completion of each drill hole. • For diamond core drilling a wireline was used to retrieve core samples that are then placed in core trays. Historic Drilling • Recoveries for the historic RC drill holes were not recorded. • Recoveries for historic diamond drill core samples were recorded for most holes drilled at Steam Engine. These recoveries were usually of the order of 100% indicating that recoveries should not be an issue if the results are used for estimating resources. • No relationship is evident between sample recovery and grade.
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.*	Current Drilling • Geological logging was conducted during the drilling of each hole by a Terra Search geologist having sufficient qualification and experience for the mineralisation style expected and observed at each hole. • All holes were logged in their entirety at 1m intervals for the RC drill holes. A spear was used to produce representative samples for the logging of RC holes. • Intact entire diamond drill hole core was use for the logging of diamond core. The core was used to record RQD, as well as structural information and the geological logging. • All logging data is digitally compiled and validated before entry into the Superior database.

Criteria	JORC Code explanation	Commentary
		• The level of logging detail is considered appropriate for resource drilling. • The RC chip trays and diamond core trays were all photographed. Historic Drilling • Geological logging of most of the historic drill holes is available in the Company Report System. Logs for holes drilled at the infill 25m sections have not been located at this stage. The available logging is of a good standard. No geotechnical logs have been reported and it is assumed that these were not done. Diamond drill hole logs usually include structural data that has been compiled in digital form. • The logging is generally of a qualitative nature. No core or chip photography is available in the reports. • Available logging of all material has been completed.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Current Sampling • The sample collection methodology is considered appropriate for RC and diamond core drilling and was conducted in accordance with standard industry practice. • RC drill hole samples are split with a riffle splitter at 1m intervals as drilled. Split 1 metre samples are regarded as reliable and representative. Approximately 1-3kg of sample was collected over each 1m interval. Samples were collected as dry samples. Duplicate samples are taken and assayed in each batch processed for assaying. • Diamond core drill hole samples were collected from quartered core over 1 metre intervals. Approximately 1 to 1.5 kg of sample was collected over each one metre interval used for assaying. Quartered NQ core samples are regarded as reliable and representative. Samples were collected as dry samples. • The sample sizes are considered appropriate to the style of mineralisation being assessed. Historic Sampling • The diamond drill core hole samples were collected from halved core. • Details of the approach taken for sampling of RC drill holes are not available, but it is expected to be of industry standard for the time.

Criteria	JORC Code explanation	Commentary
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Current Assaying • All samples were submitted to Intertek (2021) or SGS laboratories (2020) in Townsville for gold. Samples of the gold mineralisation were also submitted for multi-element assaying using a four-acid digest. • Samples were crushed, pulverised to ensure a minimum of 85% pulp material passing through 75 microns, then analysed for gold by fire assay method FA50/OE04 (Intertek in 2021) or GO_FA50V10 (SGS in 2020) using a 50-gram sample. • Multi-element analyses were conducted on the gold mineralisation using a four acid digestion followed by an OES finish using method 4A/OE33 (Intertek in 2021) or ICP-AES finish using method GO_ICP41Q100 (SGS in 2020). The following 33 elements: Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Te, Ti, Tl, V, W, Zn were assayed for in 2021 and the following 38 elements: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sn, Sr, Te, Th, Ti, U, V, W, Y, Zn, Zr were assayed in 2020. • Certified gold, multi-element standards and blanks were included in the samples submitted to the laboratories for QAQC. Laboratory assay results for these quality control samples are within 5% of accepted values. • Additionally, the laboratories used a series of their own standards, blanks, and duplicates for the QC of the elements assayed. Historic Assaying • Sampling and assaying techniques used during various phases of the previous drilling were done by commercial laboratories using industry standard procedures used at the time of drilling. • Assay data reviewed within the historic reports include some duplicate assaying. It is unknown in detail what other quality control procedures were adopted. • The recent sampling and assaying completed in 2020 and 2021 by Superior shows that the various historical drilling phases show consistent results when compared to those from the recent drilling.

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.*	Current Sampling • The reported significant intersections have been verified by Terra Search and Superior geologists against the representative drill chips and diamond drill core collected and the drill logs. • No Superior holes were twinned. • Logs were recorded by Terra Search field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central database. • Laboratory assay files were merged directly into the database. • The data is routinely validated when loading into the database. • No adjustments to assay data were undertaken. Historic Sampling • Close spaced recent drilling by Superior Resources (2020 and 2021) to the historic drill holes confirms the order of the drill gold intersections obtained by the historic drilling. • To date, no dedicated twinned holes have been drilled by Superior on the historic drill holes, however very close spaced recent drill holes to the historic drilling has resulted in very similar results both in terms of widths and grades. • Most of the historic drill hole data was captured and stored on paper. The compilation of that data in digital form has been completed by the Competent Person. • No adjustments have been made to historic sample assay data as there was no apparent reason for such adjustment.
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.*	Current Drilling • Drill hole collars have been recorded in the field using handheld GPS with three metre or better accuracy. The locations have also been further defined using DGPS to give sub one metre accuracy. • The drill hole spacing and drilling technique are appropriate to establish the degree of geological and grade continuity for the Mineral Resource estimation procedures that have been applied. The gold mineralised system remains open and further infill, depth and strike extension drilling is required to confirm the full extent of the ore bodies.

Criteria	JORC Code explanation	Commentary
		• The area is located within MGA Zone 55. • Topographic control is currently from DGPS pickup that has been merged with RL adjusted contours. This arrangement will be upgraded prior to any possible mining when further definition of the topography would be needed (e.g. a LIDAR survey). Historic Drilling • Noranda Australia (and subsidiaries) controlled exploration of the Steam Engine area using a local grid. As the property was advanced, a surveyor was used to provide a more accurate local grid control with a local height datum being implemented. Their data has been originally compiled using the local grid coordinates. • Drill holes completed by Beacon Minerals Limited were reported using handheld GPS collar coordinates with a likely accuracy of about ± 5m. An accurate translation from GPS coordinates to local grid coordinates has been used to convert the Beacon drill hole data to local coordinates. • Many of the historic drill hole collars are still evident at the prospect. Superior completed surveying of most of the previous drill hole collars using a DGPS system. The DGPS surveying validates the accuracy of Noranda's reported collar locations and provided an additional level of location confidence to the historic drill hole data.
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 hole spacing is variable at the Steam Engine Project area, due to the different stages of the resource evaluation at the Project. • The drill hole spacing is sufficient in the central portions of the Steam Engine and Eastern Ridge lodes to allow estimation of resources when all the necessary information is compiled. • Most intersections reported in this report are weighted composites of smaller sample intervals as is standard practice.
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*	• The orientation of the drill holes is generally ideal for reporting of the intersection results. • No orientation sample bias has been identified at this stage.

Criteria	JORC Code explanation	Commentary
	reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• Sub-samples selected for assaying were collected in heavy-duty polyweave bags which were immediately sealed. • These bags were delivered directly to the Townsville laboratories (Intertek in 2021 and SGS in 2020) by Terra Search and Superior's employees. • Sample security measures within Intertek and SGS laboratories are considered adequate.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of the sampling techniques and data have been undertaken to date.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The areas reported lie within Exploration Permit for Minerals 26165 and is held 100% by Superior. • Superior holds much of the surrounding area under granted exploration permits. • Superior has agreements or other appropriate arrangements in place with landholders and native title parties with respect to work in the area. • No regulatory impediments affect the relevant tenements or the ability of Superior to operate on the tenements.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• All historic drilling reported in this report has been completed and reported in accordance with their current regulatory regime. • Compilation in digital form and interpretation of the results of that work in digital form has been completed by the Competent Person.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Steam Engine and Eastern Ridge gold deposits are hosted within shear zones. • The gold mineralisation occurs within a number of north-northeast trending, west-

Criteria	JORC Code explanation	Commentary
		dipping pyritic quartz-muscovite-carbonate schist lodes within metamorphosed intermediate to basic intrusives and metasediments. Significant chlorite–epidote and sericite type alteration zones exist in the shear zones, with the mineralisation appearing to be mostly linked with heavily sericite altered sections of the host rock. • The gold mineralisation phase consists of a predominant pyrite sulphide assemblage +/- minor arsenopyrite, pyrrhotite, and chalcopyrite (all fine grained). • Several gold bearing lodes occur in the area, of which the Steam Engine Lode zone is the most notable. The Eastern Ridge Lode zone is located about 500m to the east of the Steam Engine Lode zone. • The lodes are typically interpreted as being of the mesothermal lode type. Recent studies undertaken by Superior suggest the Steam Engine mesothermal gold mineralisation is most similar to orogenic style mineralisation. • The important features of the lodes are their continuity and a persistent dip to the west.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• Drill Holes collar tables with significant intersections are included in previous ASX announcements for the drill holes including the announcements dated 22 November 2021, 18 October 2021, 29 September 2021, 1 September 2021, 12 August 2021, 19 February 2021, 11 February 2021, 18 January 2021, 5 November 2020, 15 October 2020, 30 September 2020, 14 September 2020 and 14 August 2017.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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*	• Exploration results are reported as a length weighted average of all the assays of the hole intersections. • No top cutting has been applied to the exploration results. However, the recent addition of some ounce/tonne gold grades in some assays means that grade cutting of very high values has been applied to the resource estimation. The 2020/2021 drilling

Criteria	JORC Code explanation	Commentary
	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.*	has contained a few intersections of very high gold assay metre intervals (for further information see ASX reports dated 29 September 2021, 18 January 2021 and 30 September 2020). These very high-grade plus ounce/tonne assays suggest a new high-grade population (i.e., likely high grade gold shoots within the ore zone). A top cut of 60 g/t has been used on these assays. The top-cut represents an average reduction for the 3 assays that were over 60g/t Au by more than 50% from their original values. Together with the surrounding assays and an inverse power of 3 in the block modelling this top cut ensures that the effect of these three individual assays remains significant only in their localised location and that their effect is therefore not excessive. This top cut will again be re-assessed as future drilling is carried out. • No metal equivalent values are reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• For the Steam Engine lode zone an interpreted westerly dip of approximately 50 to 60° and drill holes which generally dip to the east at around 60° (or less) result in near true widths at or above 0.87 times the intersection lengths as reported. • For the Eastern Ridge lode zone an interpreted westerly dip of approximately 45 to 55° and drill holes that generally dip to the east at around 60° (or less) result in true widths at or above 0.9 times the intersection lengths reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Included. • Further relevant maps and sections are included in previous ASX announcements for the drill holes including the announcements dated 22 November 2021, 18 October 2021, 29 September 2021, 1 September 2021, 12 August 2021, 19 February 2021, 11 February 2021, 18 January 2021, 5 November 2020, 15 October 2020, 30 September 2020, 14 September 2020 and 14 August 2017.
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.*	• Drill Holes collar tables with significant intersections are included in previous ASX announcements for the drill holes including the announcements dated; 22 November 2021, 18 October 2021, 29 September 2021, 1 September 2021, 12 August 2021, 19 February 2021, 11 February 2021, 18 January 2021, 5 November 2020, 15 October 2020, 30 September 2020, 14 September 2020 and 14 August 2017.
Other substantive	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations;*	• Three batches of metallurgical tests from composited samples have been conducted between 2020 to 2022 involving a total of 31 samples (24 for Steam Engine and 7 from

Criteria	JORC Code explanation	Commentary
exploration data	*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.*	Eastern Ridge) • A summary of the metallurgical test work undertaken between concludes an average recovery for the Steam Engine lode of 82% and for the Eastern Ridge lode of 95%.

Further work	• *The nature and scale of planned further work (e.g. 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.*
		• Subsequent to this Mineral Resource estimate additional work programs will now include:
		  • Pit optimisation studies
		  • Further Metallurgical studies
		  • Geotechnical studies
		  • Toll treatment negotiations
		  • Preliminary mining and rehabilitation planning
		  • Preliminary environmental studies

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.*	• This report is based on data compilations from recent Superior drilling (2021) and drilling carried out as reported in previous resource estimations conducted by competent persons working for Superior. • Data validation for the recent drilling (2020/2021) has been carried out by the Competent Person by matching up the original field records with the digital information to ensure the information is correct. Data validation for the previous drilling was carried out by the inspection of the previous reports dating back to the earliest phases of drilling. • Data validation processes were also carried out using mining software to make the data ready for use.
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.*	• Site visits have been undertaken by a competent person to confirm the drill hole locations and to undertake geological and mineralisation interpretations, as well for the additional drilling carried out.

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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.*	• In general, a higher level of confidence exists for the Steam Engine main lode zone, than for the Steam Engine footwall lode zone (due to patchy grades) and for the Eastern Ridge lode zone (due to less drilling). • The geological Interpretations are consistent with the previous interpretation by Noranda. • The data includes drill hole data and surface exposures, but there are no current underground ore exposures. • No alternative interpretations are evident or have been considered. • Lode geology is fundamental to the interpretations. • The lack of underground exposures and the soil cover in the area may obscure crosscutting faults, but significant displacement on these mineralisation zones is not generally apparent in the sectional data except as noted.
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.*	• These are apparent on the various diagrams included with this report.
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 (e.g., sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	• Further detail on the resource estimation process is included in the main body of this announcement. • Inverse distance block modelling was used for the resource estimations. When properly constrained by wireframing, block modelling is a good method for the estimation of this kind of resource. An inverse power of 3 was used to more closely map the grade distributions present in vein zones. An appropriate search radius was used for the lode zones and the estimation method used. • Check estimates were carried out using global estimates from the wireframes. These gave similar tonnages to the global block model estimates. While the wireframe estimate uses weighting of the intersectional grades it does not use any weighting in relation to distance from those intersections. However, as a comparative method it shows that the tonnages are correct and even gave relatively close gold grade values to the block model. • Checks against previous resource estimations also showed similar tonnages and grades

Criteria	JORC Code explanation	Commentary
	• *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	over the portions of the resource that have been previously estimated by Superior. • The estimate is for gold only. No by-products are considered likely. • Incomplete assay data from early drilling does not allow estimation of other elements. Some arsenic occurs within the gold mineralisation where it has been assayed. • The 2020/2021 drilling contained a few intersections containing a very high gold assay metre interval (for further information see ASX reports dated 29 September 2021, 18 January 2021 and 30 September 2020). These very high grade plus ounce/tonne assays suggests a new high grade population (very high grade gold shoot). A top cut of 60 g/t has been used on these assays. The top-cut represents an average reduction for the 3 assays that were over 60g/t Au by more than 50% from their original values. Together with the surrounding assays and an inverse power of 3 in the block modelling this top cut ensures that the effect of these three individual assays remain significant only in the localised location and that their effect it is not excessive. This top cut will again be re-assessed as future drilling is carried out. • Interpolation for inferred resources has allowed for up to approximately 100 metres along strike between drill holes in some cases if it conforms to the current geological interpretation. • Extrapolation for inferred resources (outside of the drilling extents) has allowed for up to approximately 70 metres of extension, predominantly on dip, where holes either side along strike have indicated the continuation of the mineralisation. However, extension down dip was moderated by the width of the mineralisation, and if that mineralisation was considered wide enough to be feasible for future extraction. • No intersection data below 2m true thickness was used in the estimation. • No correlation between variables. • The lode geology was a fundamental element of the modelling and controlled the modelling process. • Validation was carried out by checking each stage of the modelling process against the resource intersections and assay values. As mentioned above global wireframe estimates also gave close values to the block modelling process.

Criteria	JORC Code explanation	Commentary
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The rock types encountered in the drilling are very low porosity/non-porous rocks including metamorphic/magmatic rocks. The SG's have been based on dry core samples weighing between 1 to 4 kgs and tested for SG by ALS laboratories using method OA_GRA08.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• An arbitrary intersection cut-off grade of 1 g/t was used based on a likely cut-off grade required for a toll treatment gold operation in the area.
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 JORC Code explanation Commentary 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.*	• Open cut mining appears to be the most likely extraction method. The depth to which that might be possible is uncertain until further studies have been done. • Internal dilution zones within the mineralised downhole intervals were included in the estimates. • A minimum width of the mineralised zone (including waste as necessary) was used to develop what are hoped to be mine practical widths down to a minimum of 3m in some cases (at the Eastern Ridge lode zone and at the extremities of the Steam Engine Lode). • Further mining dilution effects will need to be considered during the any reserve estimation processes.
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.*	• Three batches of metallurgical tests from composited samples have been conducted between 2020 to 2022 involving a total of 31 samples (24 for Steam Engine Lode and 7 from Eastern Ridge Lode). • A summary of the metallurgical test work undertaken concludes an average recovery for the Steam Engine Lode of 82% and for the Eastern Ridge Lode of 95%.
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,*	• These factors have yet to be studied and some preliminary assumptions for this have been adopted based on the known geology of the ore and waste. Ore and waste characterisation tests are due to be carried out soon and will include acid generation tests.

Criteria	JORC Code explanation	Commentary
	particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
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.*	• Laboratory tests of the SG used diamond core from the oxide and sulphide zones. The tests to date give an average for the oxide ore zone of SG 2.7 and for the sulphide ore zone of SG 2.9 . • The mineralization rock types encountered in the drilling are very low porosity/non-porous rocks including metamorphic/magmatic rocks. The SG's have been based on dry core samples weighing between 1 to 4 kgs and tested for SG by ALS laboratories using method OA_GRA08.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e., 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.*	• Confidence levels for classification were based on similar classifications that have been made on similar deposits and by the degree of continuity of the lode zone, the density of the existing drilling, and the apparent reliability of the historical data (having been confirmed by the recent 2020/2021 drilling). • The additional infill drilling in 2020/2021 has led to an improved level of classification, of the areas previously estimated. Further additional exploration drilling has also led to new resource at the northern end and at depth at the Steam Engine Lode. The drilling continues to confirm the continuity of the additional mineralisation that is being outlined. • The result appropriately reflects the competent person's current view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No audits have been undertaken at this stage.

Criteria	JORC Code explanation	Commentary
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.*	• The factors that could affect the relative accuracy or confidence of the estimates include all drilling data quality issues, data density, modelled grade continuity and the used resource model assumptions. All of these are adequately discussed in the information above. • This approach provides an estimate within any area of the lode that is locally based. • No comparisons with production data are currently possible.