Superior Resources | ASX Announcement

18 January 2021

First assays from Stage 2 drilling deliver spectacular results up to 184 g/t Au at Steam Engine

HIGHLIGHTS:

- **First batch of assays from Stage 2 drilling at Steam Engine Gold Project have been received**
- **Modelled Mineral Resource low-grade zone upgraded to highest grade zone at Steam Engine Lode as a result of spectacular results from two drill holes:**
  - **5m @ 38 g/t Au** from 49m (SRC077)
    - incl **1m @ 184 g/t Au** from 51m
  - **7m @ 20.6 g/t Au** from 54m (SRC076)
    - incl **1m @ 135 g/t Au** from 55m
- **The results, together with an earlier reported ounce per tonne intersection[1], identify a very high grade ore shoot with potential to materially increase total ounces at Steam Engine Lode**
- **Other significant results from first batch of assays include:**
  - **15m @ 2.3 g/t Au** from 33m (SRC067)
    - incl **3m @ 7.5 g/t Au** from 43m
  - **17m @ 2.0 g/t Au** from 22m (SRC069)
  - **10m @ 2.0 g/t Au** from 36m (SRC071)
    - incl **5m @ 3.0 g/t Au** from 37m
  - **7m @ 2.2 g/t Au** from 34m (SRC072)
    - incl **4m @ 3.5 g/t Au** from 34m
  - **13m @ 1.9 g/t Au** from 48m (SRC079)
    - incl **3m @ 3.7 g/t Au** from 57m
- **Results from Stage 2 drilling are not factored into the December 2020 Revised Mineral Resource Estimate of 1,600,000 tonnes @ 2.2 g/t Au for 112,000 ounces[2]. Stage 2 drilling results to be incorporated into the planned Pre-Feasibility Study, which will commence immediately after expected finalisation of the Scoping Study in early February 2021**
- **First batch of assays are reported from approximately 30% of total samples from Stage 2 program.**

Superior Resources Limited (ASX:SPQ) announced today spectacular results from the first batch of assays from the recently completed Stage 2 drilling program at the Company's Steam Engine Gold Deposit, located 210 kilometres west of Townsville, Queensland.

[1] Refer to ASX announcement dated 30 September 2020

[2] Refer to ASX announcement dated 14 December 2020

T +61 7 3847 2887
E manager@superiorresources.com.au
A Unit 8, 61 Holdsworth Street, Coorparoo, QLD 4151
PO Box 189, Coorparoo, QLD 4151

The results are from the first 15 of 40 reverse circulation (**RC**) drill holes drilled in the Stage 2 program representing approximately 30% of the samples submitted from the program.

Each of the 15 drill holes targeted a large modelled low-grade zone of the Revised Mineral Resource (reported to the ASX on 14 December 2020) and were designed to upgrade the zone.

The remaining 25 holes are designed to extend the mineralisation envelope at the Steam Engine and Eastern Ridge Lodes and identify additional high grade ore shoots. Results for these holes are yet to be received. The Stage 2 drilling results will be incorporated into a planned Pre-Feasibility Study, which will commence immediately after the delivery of the Steam Engine Project Scoping Study, expected in early February 2021.

Superior's Managing Director, Peter Hwang, commented:

"*We are very pleased to have met one of the objectives of the Stage 2 program in the first batch of Stage 2 assays, which was to identify new high-grade ore shoots in the Steam Engine Lode. Infill drilling from the Stage 1 program showed potential to convert a large low-grade zone to high grade. This has clearly been achieved with the results delivering the two best holes drilled to date at the Project.*

"*The spectacular grade intercepts reported from these two holes together with an ounce and a half-grade intercept reported in September 2020, confirm the presence of a very high grade ore shoot. This latest development together with the recent realisation of the size magnitude of the new Dinner Creek Lode, demonstrate that we are only just beginning to uncover the Project's potential.*"

He added: "*With the resources outlook extremely bright, 2021 promises to be an eventful year for Superior. Activities at Steam Engine will be ramping up with an accelerated resource and mining assessment program in conjunction with further resource expansion drilling programs and drilling to test the recently identified Dinner Creek Lode*.

"*We will also be developing a maiden Mineral Resource Estimate at the Wyandotte Copper Deposit and targeting other copper prospects at the Greenvale Project. With copper and nickel being the predominant mineral endowment at Greenvale, the large Big Mag prospect will also be in our sights.*"

Results from Stage 2 drilling

The 2020 Stage 2 drilling program at the Steam Engine Gold Deposit commenced on November 11 and concluded on 12 December 2020. The program was a combination of exploration aimed at increasing the Mineral Resource and additional infill drilling aimed at increasing the Measured and Indicated Resource categories. The program comprised a total of 40 RC drill holes for a total of 3,055 metres. Drill hole depths ranged from 48 to 120 metres.

The objectives of the Stage 2 drill holes were:

- To extend high-grade zones identified during the first campaign beyond the current Mineral Resource;
- To identify new high-grade extensions at both the Steam Engine and Eastern Ridge lodes; and
- To upgrade low-grade zones within the current Resource envelope.

First batch assay results

The first batch of Stage 2 program assay results are from the first 15 RC drill holes, which totaled 1,183 metres of drilling. These holes were infill drill holes located at the southern portion of the Steam Engine Lode with depths ranging from 45 to 108 metres (Figure 1). All samples were submitted to SGS Australia Pty Ltd laboratories in Townsville for gold and multi-element analysis.

The significant intersections from the assaying of the samples are listed in Table 1, which shows all intersections of plus 0.4 g/t gold (refer to Table 2 for the drill hole collar details).

Plans and cross sections of the assay results from the Steam Engine Lode are shown in context with previous drilling intersections in Figures 1 to 4.

Table 1. Significant drill hole intersections from first batch of assays from Steam Engine Lode.

Hole ID		From (m)	To (m)	Interval (m)	Au (g/t)	Lode
SRC065		61	65	4	1.0	Steam Engine Footwall
SRC066		22	25	3	1.2	Steam Engine
		41	46	5	0.8	Steam Engine Footwall
SRC067		17	22	5	1.9	Steam Engine
	Including	33	48	15	2.3	Steam Engine Footwall
		43	46	3	7.5	
SRC068		34	37	3	0.9	Steam Engine
	Including	46	62	16	1.5	Steam Engine Footwall
		47	51	4	3.0	
SRC069		3	6	3	1.1	Steam Engine
		22	39	17	2.0	Steam Engine Footwall
SRC070		31	40	9	0.6	Steam Engine
		52	62	10	1.2	Steam Engine Footwall
	Including	57	59	2	3.3	
SRC071		13	19	6	1.3	Steam Engine
	Including	36	46	10	2.0	Steam Engine Footwall
		37	42	5	3.0	
SRC072	Including	34	41	7	2.2	Steam Engine
		34	38	4	3.5	
		54	62	8	0.7	Steam Engine Footwall
SRC073		1	7	6	1.8	Steam Engine Splay
		13	22	9	1.3	Steam Engine
		28	31	3	2.2	Steam Engine Footwall
SRC074		66	70	4	0.8	Steam Engine
		77	80	3	0.5	Steam Engine Footwall
SRC075		66	79	13	1.1	Steam Engine
		90	93	3	1.0	Steam Engine Footwall
SRC076	**Including**	**54**	**61**	**7**	**20.6**	**Steam Engine**
		55	**56**	**1**	**135.0**	
		64	**67**	**3**	**0.8**	**Steam Engine Footwall**
SRC077	**Including**	**49**	**54**	**5**	**38.0**	**Steam Engine**
		51	**52**	**1**	**184.0**	
		77	**80**	**3**	**1.4**	**Steam Engine Footwall**
SRC078		51	62	11	1.6	Steam Engine
SRC079		48	61	13	1.9	Steam Engine
	Including	57	60	3	3.7	

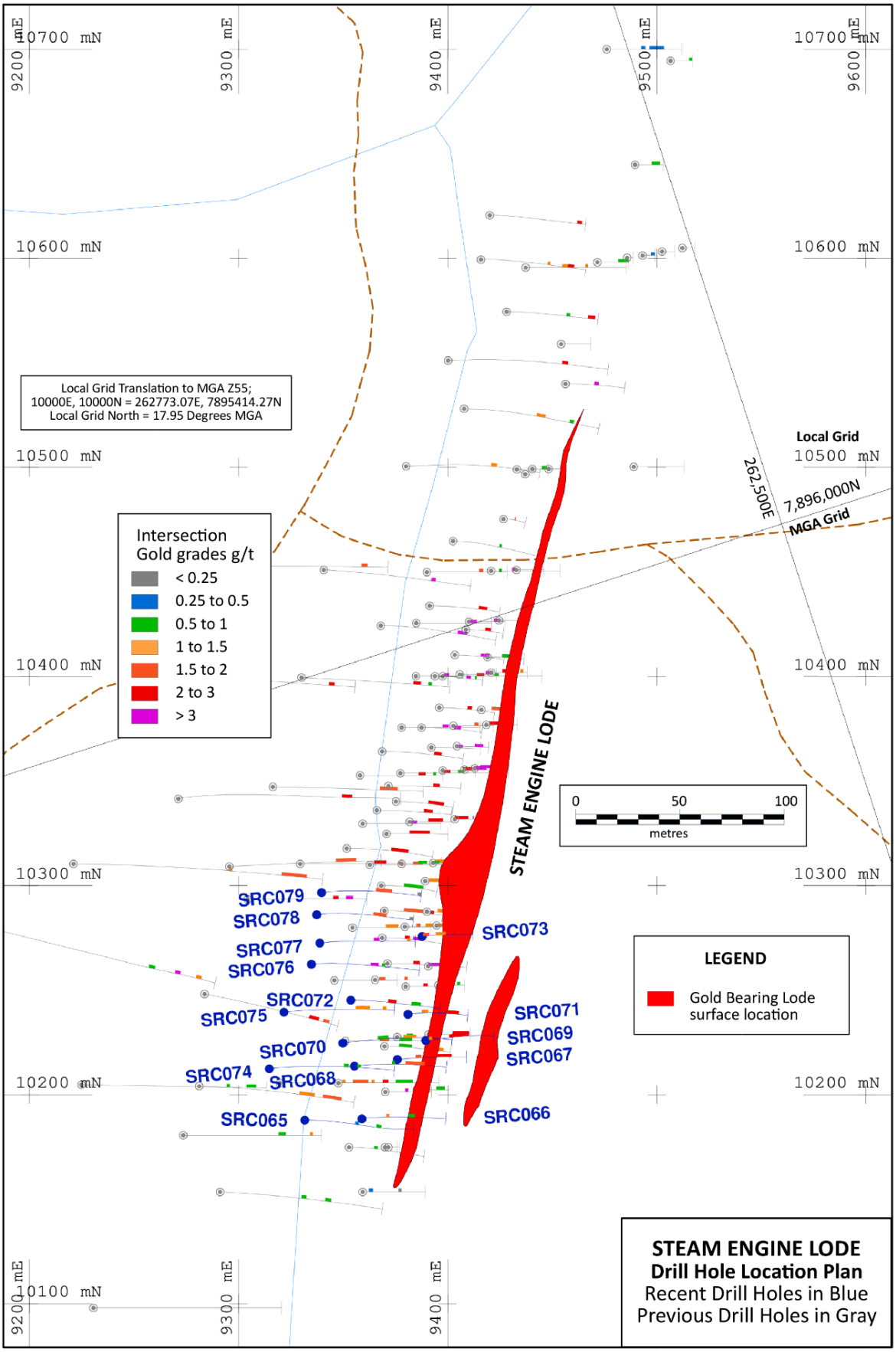

Figure 1. Plan showing the locations of the Stage 2 drill holes (in blue) and previously drilled holes (in black). The Steam Engine gold-bearing Lodes is shown in red.

Multiple-ounce per tonne grade intersections define a high grade ore shoot

Significant very high-grade ore shoot mineralisation was encountered in holes SRC076 and SRC077 from the Stage 2 program. Hole SRC076 returned an intersection of **7 metres @ 20.6 g/t Au** from 54 metres downhole, **including 1 metre @ 135 g/t** (approximately 4 ounces per tonne Au) from 55 metres downhole (Figure 4). Hole SRC077 has returned an intersection of **5 metres @ 38 g/t Au** from 49 metres downhole, **including 1 metre @ 184 g/t** (nearly 6 ounces per tonne gold) from 51 metres downhole (Figure 3).

Superior has previously noted the likelihood of encountering such significant very high grade ore shoots in this type of gold mineralisation. An earlier-reported one metre intersection in drill hole SRC034 of approximately 1.5 ounces per tonne (47.5 g/t) from 7 metres downhole was reported in the Company's ASX report dated 30 September 2020, within an intersection averaging 14 metres @ 4.9 g/t from 0 metres downhole.

The very high grades reported in holes SRC076 and SRC077 are on adjacent lines and are located directly down dip of this previously reported ounce per tonne intersection. The three ounce-plus per tonne intersections together with other adjacent intersections define a very high grade ore shoot within a low-grade zone that was modelled in the Revised Mineral Resource Estimate (refer ASX announcement dated 14 December 2020) (Figure 2).

The outcome from the first batch of Stage 2 program assays is an upgrade of the previously modelled low-grade zone to become the highest grade zone of the Steam Engine Lode.

The Company stresses, however, that the nature of such very high-grade gold ore shoots is unpredictable and grade cutting will need to be applied for resource evaluation of these portions of the Mineral Resource.

However, such very high-grade zones will also contribute to significantly raise the total ounces in the deposit. As a result, further drilling on this portion of the resource will be conducted in order to delineate extensions to the high grade ore shoot.

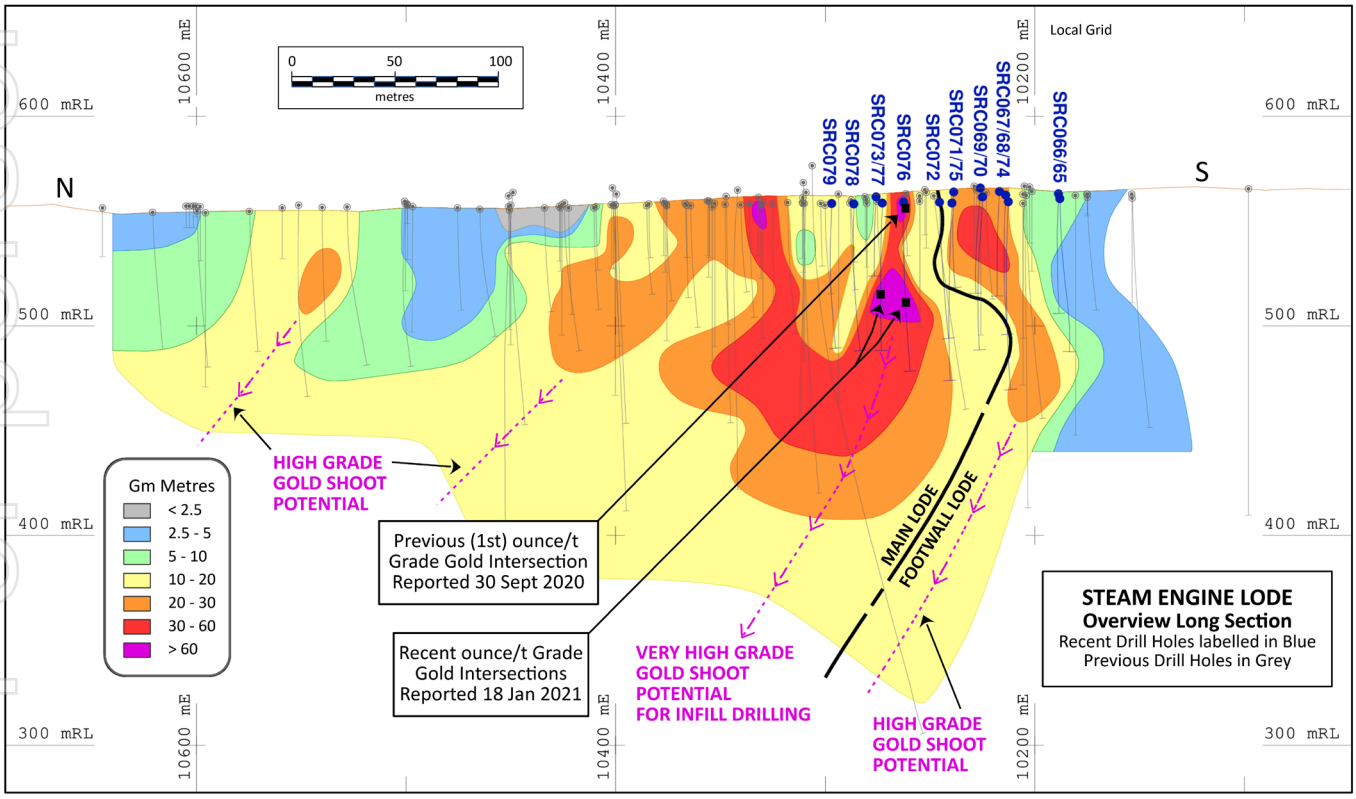

Figure 2. Representative long section through the Steam Engine Lode showing gold grade distribution (in gram/metres) after incorporation of the first batch of assay results from the Stage 2 drilling program. The highest grade (ounce-plus/tonne) zone was previously modelled in the Revised Mineral Resource Estimate as the lowest grade zone within the lode.

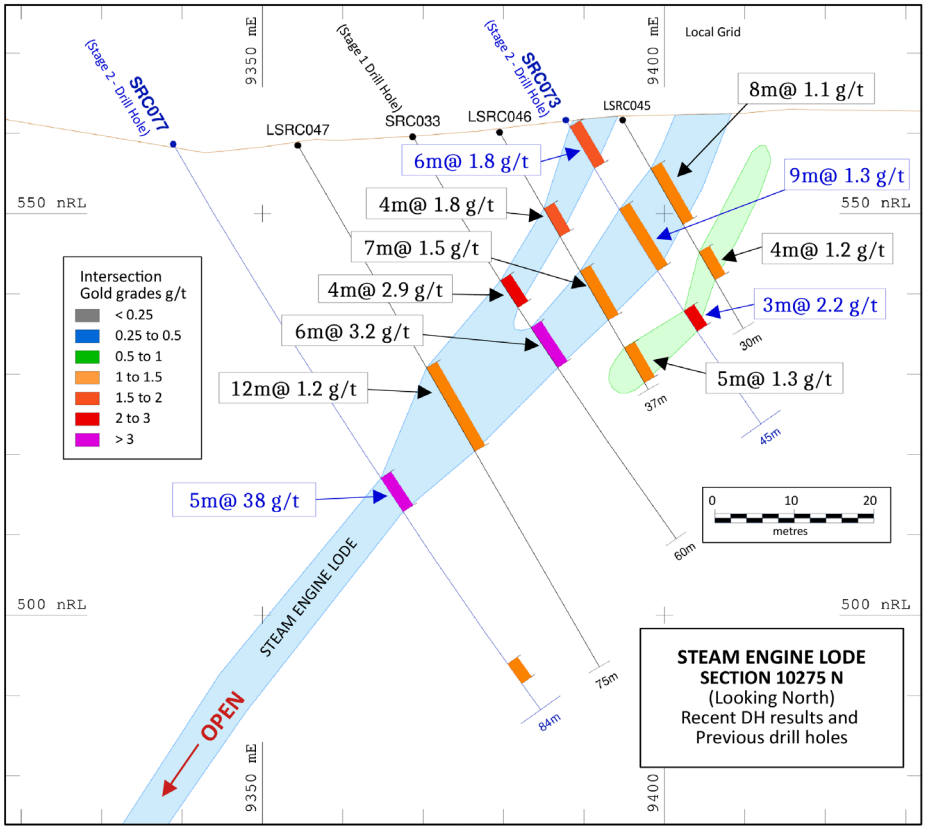

Figure 3. Cross Section 10275 N (local grid) on the Steam Engine Lode showing the significant intersections (Stage 2 drill hole intersections shown in blue).

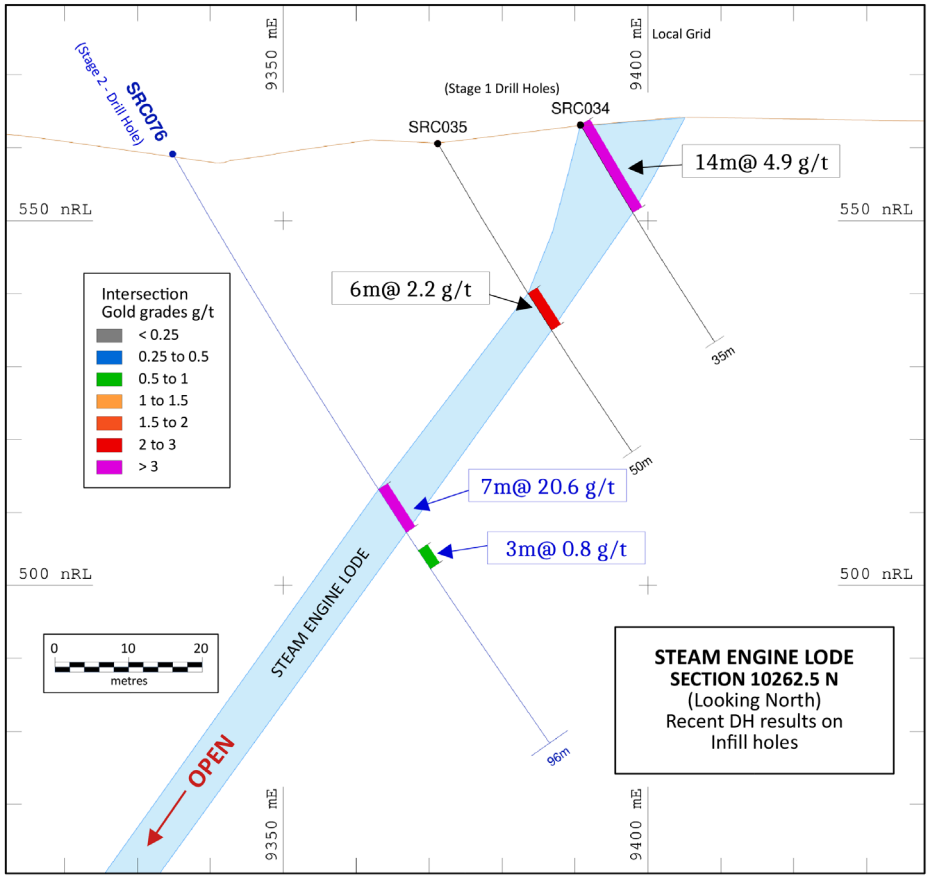

Figure 4. Cross Section 10262.5 N (local grid) on the Steam Engine Lode showing the significant intersections (Stage 2 drill hole intersections shown in blue).

Table 2. Collar details for the reported holes, MGA Zone 55.

Holes	Easting (m)	Northing (m)	RL (m)	Depth (m)	Azimuth°	Dip°
SRC065	262195	7895799	561	90	108	-60
SRC066	262221	7895791	563	70	102	-60
SRC067	262246	7895813	564	60	102	-60
SRC068	262226	7895816	563	80	102	-60
SRC069	262262	7895817	566	60	102	-60
SRC070	262224	7895828	562	90	102	-60
SRC071	262258	7895832	564	54	102	-60
SRC072	262234	7895847	559	78	108	-60
SRC073	262276	7895865	562	45	102	-60
SRC074	262187	7895828	559	108	102	-60
SRC075	262202	7895851	559	100	102	-60
SRC076	262221	7895869	559	96	102	-60
SRC077	262228	7895877	559	84	102	-60
SRC078	262231	7895891	558	84	102	-60
SRC079	262236	7895900	558	84	102	-60

<ENDS>

For more information:
Peter Hwang Tel: +61 7 3847 2887
Managing Director www.superiorresources.com.au / manager@superiorresources.com.au

About Superior Resources Limited

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large lead-zinc-silver, copper, gold and nickel-copper-cobalt deposits in northern Queensland which have the potential to return maximum value growth for shareholders. The Company has a dominant exploration position within the Carpentaria Zinc Province and the Greenvale Ordovician rock sequences. The Carpentaria Zinc Province is one of the world's richest mineral producing regions and the Company is focused on multiple Tier-1 equivalent exploration targets. At Greenvale, the Company holds ground covering the majority of the Ordovician sequences in the region, which includes at least three significant copper-gold porphyry and VMS prospects, an advancing high-grade gold deposit and a regionally large magmatic sulphide nickel-copper-cobalt prospect.

About Greenvale Project

The Greenvale Project covers a region of volcanic and intrusive rocks of Ordovician Age that are similar in type and age to the porphyry copper belt in New South Wales. The New South Wales belt of rocks host the large Cadia and North Parkes porphyry copper mines. The sequence of rocks in the Greenvale area are likely to be the northern-most extension of the remnant New South Wales Ordovician Macquarie Arc rocks.

Superior's Greenvale Project is highly prospective for VMS and porphyry copper, gold, zinc and silver deposits and contains at least ten mineral prospects. The project is located within an area of notable economic significance, being proximal to the Kidston, Balcooma, Surveyor and Dry River South deposits.

About Steam Engine Gold Deposit

The Steam Engine Gold Deposit is an extensive mesothermal gold lode system on which a Measured, Indicated and Inferred Mineral Resource Estimate of 1.6 million tonnes at 2.2 g/t for 112,000 ounces of gold has been established (refer ASX announcement 14 December 2020). The Resource has been modelled on only 30 percent of at least 2.5 kilometres of strike length of outcropping lode and only modelled to relatively shallow depths.

Currently, three gold lode zones have been identified: (1) the Steam Engine Lode; (2) the Eastern Ridge Lode; and (3) the Southern Zone of lodes. The deposit has the potential to contain significant greater tonnages high-grade gold ore shoots that may extend to significant depths. The mineralisation is hosted within structures that are sheared to a greater extent than many similar lode gold deposits, which increases the potential for significant thicknesses of gold lode mineralisation.

The Eastern Ridge Lode zone, being the longest lode structure, potentially represents the primary ore conduit. Although the lode has been mapped at surface to be at least 1.4 kilometres long, gold surface soil geochemistry indicates that the structure is closer to at least 4 kilometres long. Many shorter structures exist on the hanging wall side of the Eastern Ridge lode zone, such as the Steam Engine lode and numerous other zones have mainly only been identified from historic gold soil sampling.

Large portions of the world's economic deposits of gold are found in vein systems of this kind and they can hold impressive amounts of valuable ore. The veins and shoot zones typically can extend to significant depths with gold grades typically higher than other types of gold deposits.

Reporting of Exploration Results and Mineral Resources: *The re-statement of previously reported exploration results in this report reflects information that was originally reported in market announcements as referenced in various parts of this report. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant original market announcement.*
Other information contained in this report that relates to exploration results 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.
Information contained in this report that relates to Exploration Activities is based on information evaluated by Mr Peter Hwang, an executive director and shareholder of Superior Resources Limited and a Member of the Australian Institute of Geoscientists. Mr Hwang has sufficient experience which is relevant to this style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person under the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Hwang consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Forward looking statements: *This document may contain forward looking statements. Forward looking statements are often, but not always, identified by the use of words such as "seek", "indicate", "target", "anticipate", "forecast", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Indications of, and interpretations on, future expected exploration results or technical outcomes, production, earnings, financial position and performance are also forward-looking statements. The forward-looking statements in this presentation are based on current interpretations, expectations, estimates, assumptions, forecasts and projections about Superior, Superior's projects and assets and the industry in which it operates as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made. The forward-looking statements are subject to technical, business, economic, competitive, political and social uncertainties and contingencies and may involve known and unknown risks and uncertainties. The forward-looking statements may prove to be incorrect. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results expressed or implied by any forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements.*

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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.*	• 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 and 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 SGS laboratories in Townsville. • Samples with assays of 0.5 g/t Au and above were also submitted for multi-element assaying using a four-acid digest. • Assaying for gold was via fire assay of a 50-gram charge. • Sample preparation at SGS laboratories in Townsville for all samples is considered to be of industry standard procedure.
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.).*	• Drilling from surface was performed using standard Reverse-Circulation (**RC**) drilling techniques. • Drilling was conducted by Associated Exploration Drillers (AED) using a UDR 650 drill rig and 5.5 inch drill bit. Additional to the on-board air compressor of the drill rig, additional compressed air was available as necessary via a separate booster truck. • Sampling was by the use of a face-sampling hammer bit.

Criteria	JORC Code explanation	Commentary
		• All holes were surveyed using a Reflex Gyro north-seeking gyroscopic instrument to obtain accurate down-hole directional data.
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.*	• Sample recovery was performed and monitored by Terra Search contractor and Superior Resources' representatives. • The volume of sample collected for assay is considered to be representative of each 1m interval. • The 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.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geological logging 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. A spear was used to produce representative samples for logging. • All logging data is digitally compiled and validated before entry into the Superior database. • The level of logging detail is considered appropriate for resource drilling. • The RC Chip trays were photographed.
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.*	• The sample collection methodology is considered appropriate for RC drilling and was conducted in accordance with standard industry practice. • The RC drill hole samples are split with a riffle splitter at 1m intervals as drilled. Split 1m 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.

Criteria	JORC Code explanation	Commentary
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The sample sizes are considered appropriate to the style of mineralisation being assessed.
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.*	• All samples were submitted to SGS laboratories in Townsville for gold. Gold assays at or above 0.5 g/t were additionally assayed for a full suite of 38 additional elements 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 GO_FA50V10 using a 50-gram sample. • Multi-element analyses were conducted on assays of 0.5 g/t gold or above using a four-acid digestion followed by an ICP-AES finish using method GO_ICP41Q100 for 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. • Certified gold, multi-element standards and blanks were included in the samples submitted to the laboratory for QAQC. • Additionally, SGS used a series of its own standards, blanks, and duplicates for the QC of the elements assayed.
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.*	• The reported significant intersections have been verified by Terra Search geologists against representative drill chips collected and the drill logs. • No 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.
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.*	• Drill hole collars have been recorded in the field using handheld GPS with three metre or better accuracy. The collar locations have been further defined using DGPS to give sub-one metre accuracy.

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	• Drill hole spacing and drilling technique are appropriate to establish the degree of geological and grade continuity of the mineral resources estimation procedures that will be applied. The mineralised system remains open and further infill and depth and strike extension drilling is required to confirm the full extent of the mineralisation. • The area is located within MGA Zone 55. • Topographic control is from current DGPS point data that has been merged with RL-adjusted contours. This arrangement will be upgraded prior to pre-feasibility when further definition of the topography is planned using a LIDAR survey.
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 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 Lode and the Eastern Ridge Lode to allow estimation of resources when all the necessary information is compiled. The current exploration phase is not yet completed, and an updated resource statement will be carried out at the completion of this current exploration phase. • Most intersections reported in this report are weighted composites of smaller sample intervals, as is standard industry 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 reported if material.*	• The orientation of the drill holes is ideal for reporting of the intersection results. • No orientation sample bias has been identified at this stage.
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 SGS assay laboratory in Townsville by Terra Search and Superior Resources employees. • Sample security measures within SGS laboratories are considered adequate.

Criteria	JORC Code explanation	Commentary
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 on lie within Exploration Permit for Minerals 26165 and 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 the conduct of exploration 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 historical 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 a shear zone. • The gold mineralisation occurs within a number of north-northeast trending, west-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 itself consists of a mainly pyrite sulphide assemblage +/- minor arsenopyrite, pyrrhotite, and chalcopyrite (all fine grained).

Criteria	JORC Code explanation	Commentary
		• 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 some 500m east of the Steam Engine Lode zone. The Southern Lode zone is located approximately 600m South West of the current Eastern Ridge mineral resource area and lies geologically in-between the Steam Engine and Eastern Ridge lodes. • The lodes are typically interpreted as being of the mesothermal lode type. Recent studies undertaken by Superior suggest that the Steam Engine mesothermal gold mineralisation is most similar to orogenic style mineralisation. • The important features of the Steam Engine and Eastern Ridge 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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level) 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.*
		• Drill hole collar and significant intersection tables are included in the main body of the announcement. These tables include information relevant to an understanding of the results reported.

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 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.*	• Exploration results are reported as a length-weighted average of all the assays of the intersections. • No top cutting has been applied to these exploration results. The addition of two ounce/tonne gold grades in this announcement means that grade cutting of these values will need to be applied in the next resource estimation. • No metal equivalent values are reported.

Criteria	JORC Code explanation	Commentary
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.
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.
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.*	• Reporting of all RC drill holes with intersections on the Steam Engine Lode at or above 0.4 g/t gold has been included in tables within the report.
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.*	• Preliminary metallurgical leach test work was undertaken in October and November 2020 by ALS Laboratories to confirm the amenability of the ore to conventional CIP / CIL leaching. Six sample composites were generated from material which was of ore grade and considered representative of the ore to be mined, with two samples of each of the three main ore zones. • Grind size for the test work was P80 (80% passing size of 75 microns). • The leach test conditions comprised sodium cyanide dosage of 1.5 kg/t, density of 40% solids, pH of 10 to 10.5, with dissolved oxygen at 15 to 20 ppm. • Leach tests were run for 48 hours with a sample taken after 24 hours to assist in understanding the leach kinetics. • The results for the Eastern Ridge samples (5223045 and 5223046) were excellent with 97 and 98 percent of the gold being extracted respectively, and with virtually all of this extracted after 24 hours.

Criteria	JORC Code explanation	Commentary
		• The results for the Steam Engine lode were lower with the average grade samples (5223044, 5223042 and 5223043) returning total gold extraction of 84, 80 and 73 percent respectively. • At this stage, no test work has been done to investigate options to improve the gold recovery in the Steam Engine Lode samples.

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.
		• Additional exploration drilling programs are currently being planned for the Steam Engine Project, including the associated nearby Dinner Creek prospect.
		• Additional work for the pre-feasibility phase of the Steam Engine deposit includes:
		  • Metallurgical studies;
		  • Geotechnical studies;
		  • Toll treating negotiations;
		  • Preliminary mining and rehabilitation planning; and
		  • Preliminary environmental studies.