

Quarterly Report

31 December 2019

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Summary

Nicholson Project (South32 earning in)

- A total of four diamond core holes totalling 3,175.7m have been completed at two targets: 3 holes at Nicholson West and 1 hole at Kingfisher East.
- Last hole completed (NWDD003) reached a final down-hole depth of 918.4m (-55° angle hole) and is the first of several highest priority holes to be drilled at the Nicholson West target.
- The large high order conductivity anomaly targeted by NWDD003 was modelled to commence at a down-hole depth of about 550m, but the cause of the anomaly was not visually observed in the core. Subject to receiving assay results and further examination of the core, NWDD003 is currently considered not to have intersected the geophysical target, the cause of which remains unexplained.
- The mineralisation observed within all holes other than NWDD003 is in the form of multiple thin horizons of visible stratiform sulphide mineralisation, including pyrite and sphalerite (zinc sulphide) within the Mount Les Siltstone. Subject to further analysis and assaying of the drill core, this mineralisation is considered to possibly represent the outer zones of a SEDEX system.
- Core from all four holes has been processed and sampled by South32 at its Cannington Mine facilities and subsequently submitted to ALS Laboratories (Mount Isa) during January 2020. First core sample assay results expected during February 2020.

Bottletree (Greenvale)

- IP chargeability anomaly 1.4kms in length and open to the north, south and at depth.
- Planning for Year 2020 drilling program targeting a large copper target at depth.
- Land access preparations underway.

Big Mag (Greenvale)

 Initial exploration program planning and land access preparations underway.

Steam Engine Gold Deposit (Greenvale)

 Drilling program planning for the purpose of rapidly building on the maiden mineral resource estimate at the Steam Engine Gold Deposit is being conducted.

Superior Resources Limited

ASX:SPQ

Board

Carlos Fernicola – Chairman Peter Hwang – Managing Director Simon Pooley – Non-Exec Director Carlos Fernicola – Company Secretary

Securities

Ordinary Shares – 745,418,740 Top 20 holders: 47.93% issued capital

Summary

Superior Resources Limited is a Brisbane based ASX-listed mineral explorer with a portfolio of large base metal exploration projects, including a developing portfolio of nickel-cobalt projects in northern Queensland. The projects include large targets for Mount Isa style copper and lead-zinc-silver deposits in north western Queensland and exploration projects in northeast Queensland for VMS and porphyry style copper-gold-lead-zinc-silver deposits. The Company's cobalt projects are located across the northern Queensland region.

Share Registry

Link Market Services Level 15, 324 Queens Street Brisbane, QLD, 4000

Web Site

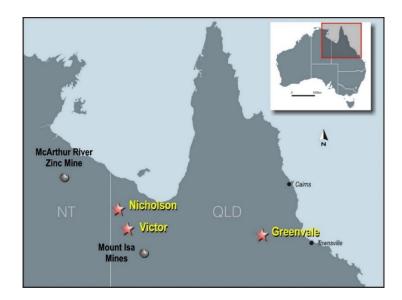
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Contact

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NICHOLSON PROJECT

Summary

- Diamond core drilling program demobilised during November 2019, prior to the onset of the northern Australian wet season.
- A total of four diamond core holes totalling 3,175.7m have been completed at two targets: 3 holes at Nicholson West and 1 hole at Kingfisher East.
- Last hole completed (NWDD003) reached a final down-hole depth of 918.4m (-55° angle hole) and is the first of several highest priority holes to be drilled at the Nicholson West target.
- The large high order conductivity anomaly targeted by NWDD003 was modelled to commence at a down-hole depth of about 550m (-55° angle hole), but the cause of the anomaly was not visually observed in the core. Subject to receiving assay results and further examination of the core, NWDD003 is currently considered not to have intersected the geophysical target, the cause of which remains unexplained.
- The mineralisation observed within all holes other than NWDD003 is in the form of multiple
 thin horizons of visible stratiform sulphide mineralisation, including pyrite and sphalerite
 (zinc sulphide) within the Mount Les Siltstone. Subject to further analysis and assaying of
 the drill core, this mineralisation is considered to possibly represent the outer zones of a
 SEDEX system.
- Assay results from samples taken from the RC pre-collars of all holes were received late
 December 2019. As the pre-collar samples generally represent the top 200m of each hole,
 the results will be reported after the receipt of the assay results from the core samples.
- Core from all four holes has been processed and sampled by South32 at its Cannington Mine facilities and subsequently submitted to ALS Laboratories (Mount Isa) during January 2020.
 First core sample assay results expected during February 2020.
- Initial drilling program comprising up to 11 diamond core holes, systematically targeting up to eight large high priority geophysical conductivity targets to test for the presence of large SEDEX base metal deposits. Targets considered to have potential to deliver world-class discoveries similar to McArthur River, Century and Mount Isa lead-zinc-silver deposits.



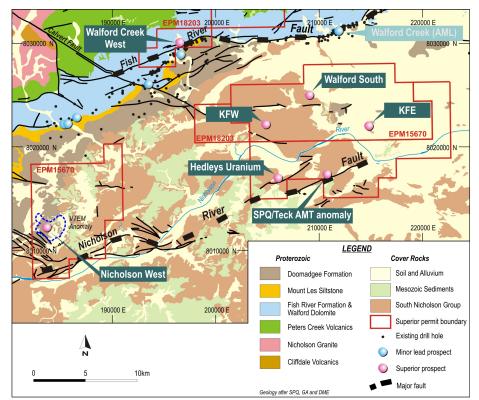


Figure 1. Nicholson Project tenements and key prospect locations overlain on regional geology.

Four of up to eleven planned diamond core holes have been completed during the first drilling program in the region designed to systematically test for the presence of large SEDEX (McArthur River style) base metal deposits. The program is targeting up to eight large geophysical conductivity targets (refer Figures 1 and 2 and Table 1).

Drilling operations demobilised from the Nicholson Project during November 2019, ahead of the northern Australian monsoon season. The program has been fully funded by global miner South32 as part of an earn-in and joint venture arrangement.

The project, covering 312 km2 of the prospective Hedleys Graben, contains several large geophysical conductivity targets. The current program has so far resulted in the drilling of two target areas with three holes at Nicholson West and one hole at Kingfisher East, for a total of 3,175.7 metres.

Drilling to date has confirmed the presence of SEDEX mineralising deposit systems developed in thick (up to 340m) Mount Les Siltstone, which is the prospective target horizon that is known within the area to host Mount Isa style deposits.

The last hole drilled, NWDD003, was collared at the southern part of the Nicholson West target near the Nicholson River Fault zone, which is considered to be the likely "feeder zone" to a SEDEX system. NWDD003 is the first of several highest priority holes and reached a final down-hole depth of 918.4 metres (drilled as an angled hole at -55°). Deformed Mount Les Siltstone was intersected from 814m to 906m. The large high order conductivity anomaly targeted by NWDD003 was modelled to be commence at a down-hole depth of about 550m, but the cause of the anomaly was not visually observed in the core. NWDD003 appears not to have intersected the targeted anomaly. Further examination of the core, final assay results and geophysical modelling will be conducted in order to determine a follow-up drilling plan.

The mineralisation observed within all holes other than NWDD003 is in the form of multiple thin horizons of visible stratiform sulphide mineralisation, including pyrite and sphalerite (zinc sulphide) within the Mount Les Siltstone. Subject to further analysis and assaying of the drill core, this mineralisation is considered to possibly represent the outer zones of a SEDEX system.



Table 1. Nicholson Project – Initial Drilling Program summary

Target (approximate area)	Drill Hole drilled / planned	Assays Received	Preliminary Comments		
	NWDD001 (vertical hole)	Pre-collar only. Core samples submitted to ALS.	Intersected thick Mount Les Siltstone.		
			Multiple thin horizons of visible stratiform sulphide mineralisation within the Mount Les Siltstone.		
Nicholson West			Possible outer apron of a more substantial zone of mineralisation. Any more substantial zone of mineralisation possibly located closer to the Nicholson River (Nicholson River Fault Zone).		
(10 km²)		Pre-collar only. Core samples submitted to ALS.	Intersected thick Mount Les Siltstone.		
	NWDD002 (vertical hole)		Multiple thin horizons of visible stratiform sulphide mineralisation within the Mount Les Siltstone.		
			Possible outer apron of a more substantial zone of mineralisation. Any more substantial zone of mineralisation possibly located closer to the Nicholson River (Nicholson River Fault Zone).		
	NWDD003 (-55º angle hole)	Pre-collar only. Core samples submitted to ALS.	High priority hole.		
			Adjacent to Nicholson River Fault Zone.		
			Conductivity anomaly not visually explained in the core. Geophysical review and vertical follow-up hole required.		
Nicholson West		-	High priority hole.		
(River)	Not yet drilled		Adjacent to Nicholson River Fault Zone.		
	Not yet drilled	-	High priority hole.		
			Adjacent to Nicholson River Fault Zone.		
			High priority hole.		
	Not yet drilled	-	Adjacent to Nicholson River Fault Zone.		
			Intersected thick Mount Les Siltstone.		
Kingfisher East (15 km²)	NEDD001 (vertical hole)	Pre-collar only. Core samples submitted to ALS.	Multiple thin horizons of visible stratiform sulphide mineralisation within the Mount Les Siltstone. Possible outer apron of a more substantial zone of mineralisation.		
Hedleys South (15 km²)	Not yet drilled	-			
Teck/SPQ AMT Target	Not yet drilled	-			
Nicholson West	Not yet drilled	-			
(North)	Not yet drilled	-			



Assay Results

Assay results from samples taken from the RC pre-collars of all holes were received late December 2019. As the pre-collar samples generally represent the top 200m of each hole, the results will be reported after the receipt of the assay results from the core samples.

Drill core from all four holes were processed and sampled by South32 at its Cannington Mine facilities and subsequently submitted to ALS Laboratories (Mount Isa) during January 2020. First core sample assay results expected during February 2020.

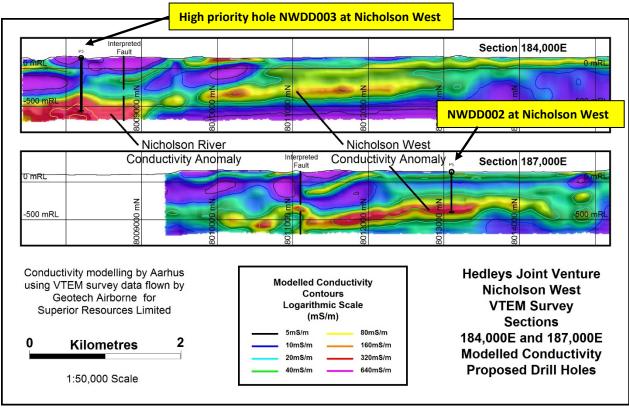


Figure 2. VTEM Aarhus modelled conductivity sections on lines 184,000E and 187,000E showing the Nicholson West and Nicholson River conductivity anomalies and interpreted major southwest-trending fault. Proposed drill holes P3 and P5 are also shown.



Figure 3. Logging of diamond drill core from the Nicholson West VTEM target.



High priority conductivity targets

An airborne VTEM (Versatile Time Domain EM) survey over 260-line kilometres of part of the Nicholson Project was completed by Geotech Airborne Pty Ltd in 2007. The original data was recently remodelled and interpreted by geophysical consultants — Aarhus Geophysics. The applied Aarhus method is designed for detection and delineation of subsurface contrasts in conductivity and resistivity. In particular, the responses can be interpreted from the collected data to detect sub surface accumulations of massive sulphide deposits.

The conductivity remodelling has significantly improved the quality of modelled information at depth and has also improved the vertical resolution of conductive formations. In particular, the results have upgraded the Company's original high priority Nicholson West conductivity target as well as identified a new high priority and highly conductive target, Nicholson River target (Figure 2), both of which are located within the same geological strata (refer ASX announcement dated 10 July 2019).

The Nicholson River and Nicholson West targets are interpreted to dip shallowly to the south (parallel to the regional stratigraphy), which is consistent with field observations made to the north of the prospect area. A southwest-northeast trending fault structure is interpreted to be developed between the two anomalies.

Importantly, the Nicholson River and Nicholson West targets can be interpreted in vertical conductivity sections to be coincident with the Mount Les Siltstone, which is the prospective mineralisation host that is known in the region to host Sedimentary Exhalative (SEDEX) style deposits (e.g. the Walford Creek Cu-Pb-Zn-Co-Ag – Aeon Metals).

Most of the conductivity targets that are planned to be drilled in the current program are of sufficient size to be similar to a McArthur or Century-sized deposit.

Earn-in and Joint Venture Agreement

The Company finalised and executed a comprehensive earn-in and joint venture agreement with South32 Group Operations Pty Ltd (**South32**) on 28 May 2019.

The agreement with South32 is structured in three stages. Stage 1 requires South32 to fully fund \$2 million or 4,000 metres of drilling (whichever comes first) within 12 months of the commencement of the first drill hole. No interest is earned at the completion of Stage 1. South32 may elect to proceed to Stage 2 by sole-funding a further \$4 million on exploration within the following four years to earn a 70% interest in the Nicholson Project. South32 may earn an additional 10% in Stage 3 by sole-funding a feasibility study.

Superior will be the Joint Venture Operator until South32 completes the Stage 2 earn-in requirements and has earned a 70% interest in the project.



GREENVALE PROJECT

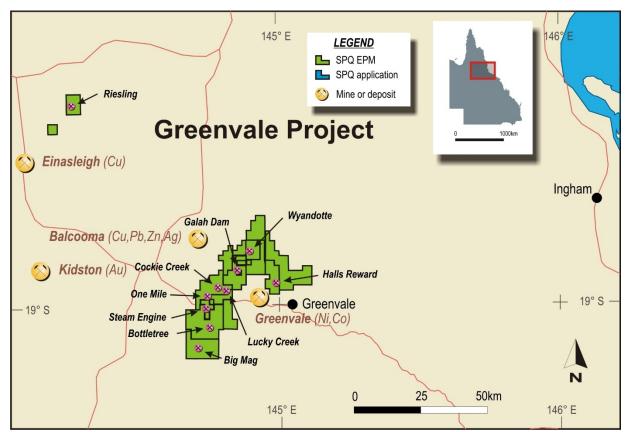


Figure 4. Map of an area north west of Townsville showing Superior's Greenvale Project tenements and the Bottletree Prospect location.

GREENVALE PROJECT – BOTTLETREE

Summary

- IP chargeability anomaly 1.4kms in length and open to the north, south and at depth.
- August 2018 drilling confirmed¹:
 - high grade copper mineralisation intersected in hole SBTRD006 of 18.7m @ 1.12% copper
 (328.0m to 346.7m); and
 - a broad zone of copper mineralisation intersected in hole SBTRD006 totalling 292m @
 0.22% copper (148.0m to 440.0m).
- Planning for 2020 drilling program targeting a large copper target at depth and to the immediate south of 2018 diamond drilling.

The Company continued to progress preparations for a Phase 2 diamond drilling program targeting a large IP chargeability target, to be conducted during the 2020 field season. Preparatory work focussed on obtaining landholder access agreements.

Drilling during 2018 intersected extensive copper mineralisation averaging 0.22% copper over 292m, including 18.7m at 1.12% copper.

¹ Refer to ASX announcement, dated 25 October 2018 for more comprehensive information regarding the drilling results.



The geophysical modelling results together with the 2018 drill hole assay data indicate that higher grade copper mineralisation may exist within the main chargeable target zone, which is located to the south of the 2018 drilling and also at deeper levels.

A second phase diamond drilling program is currently envisaged to comprise up to four diamond core holes (Figure 5).

Bottletree - Background

Bottletree is a large (2km x 1km) soil copper anomaly located in the southern part of the Greenvale Project (Figure 5). Coincident with the soil anomaly is a large and high order chargeability anomaly.

A two-hole diamond drilling program totalling 1,102 metres was completed during August 2018. This drilling followed up earlier shallow reverse-circulation (**RC**) drilling and confirmed extensive copper mineralisation extending to depths in excess of 300 metres.

The objective of the diamond drilling program was to determine whether large and high order chargeability anomalies identified from a MIMDAS IP geophysical survey completed in May 2018 (ASX Announcement - 16 May 2018) are caused by significant copper and gold mineralisation.

The deep drilling program represents the first deep drilling to have been undertaken at Bottletree.

Assay results show copper mineralisation present in SBTRD006 over a broad interval²:

- Average grade: **292m @ 0.22% Cu (148.0m to 440.0m)** (Cut-off of 0.1% Cu but with some narrow intervals of less than 0.1% Cu included); and
- High grade zones, including: 18.7m @ 1.12% Cu (328.0m to 346.7m).

Advanced 3D modelling of the MIMDAS survey results indicate a close correlation between the copper grades and chargeability.

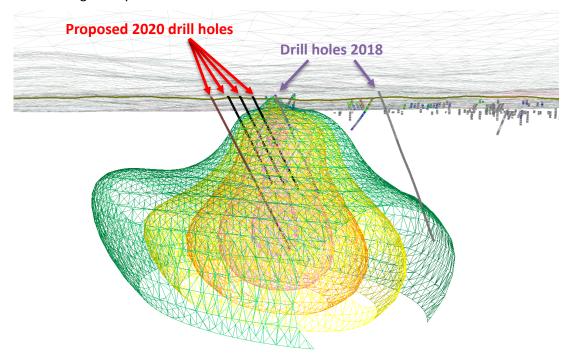


Figure 5. 3D modelling of Bottletree MIMDAS IP survey results presented in wireframe, showing locations of 2018 drill holes and proposed 2020 drill holes.

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 $^{^{2}}$ Refer to ASX announcement, dated 25 October 2018 for more comprehensive information regarding the drilling results.



GREENVALE PROJECT – BIG MAG

Desktop data review, land access preparations and initial exploration program planning was conducted during the Quarter on the Big Mag Prospect.

Big Mag is a regionally large and intense magnetic feature that appears to be a large mafic or ultramafic intrusion, or several such intrusions. Consequently, it has the potential to host nickel-cobalt-copper mineralisation, either as sulphides or in a laterite weathering profile. The Company is of the view that the Big Mag feature is developed within the same geological sequence as the "old Greenvale Nickel Mine" (now part of the SCONI Project).

The Big Mag magnetic feature is regionally significant and under-explored and is covered by a recently granted exploration permit (EPM26751, Twelve Mile Creek) (Figure 6).

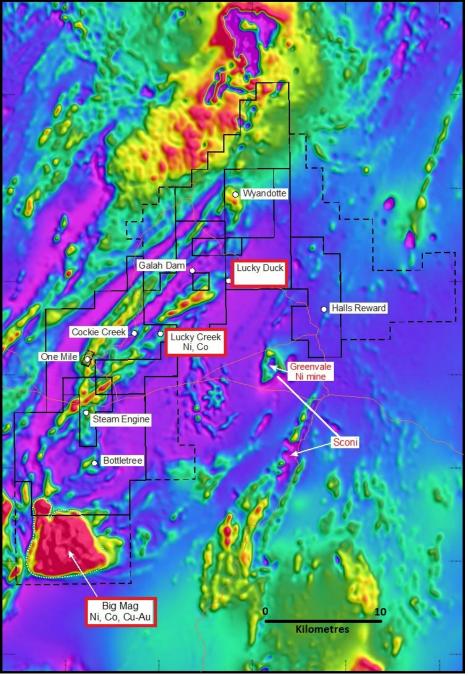


Figure 6. Airborne magnetics (RTP) processed image over the Greenvale Project area and surrounds. The "Big Mag" magnetic feature is visible in the lower left part of the image.



GREENVALE PROJECT – STEAM ENGINE

Planning of a drilling program for the purpose of rapidly building on the maiden mineral resource estimate at the Steam Engine Gold Deposit is being conducted.

The current inferred mineral resource estimate is **1.0Mt @ 2.5g/t gold (1.0 g/t cut-off) for a total of 85,000 ounces gold** (refer to ASX announcement, dated 19 October 2017 for details relating to the Steam Engine mineral resource estimate).

The gold lodes at Steam Engine are developed in a series of shear zones with a total strike extension of at least 2.5 kilometres at surface. The mineral resource estimate is based on 400 metres of the known strike length.

The company is expediting plans to:

- identify further high-grade and thicker gold zones; and
- rapidly increase the inferred mineral resource.

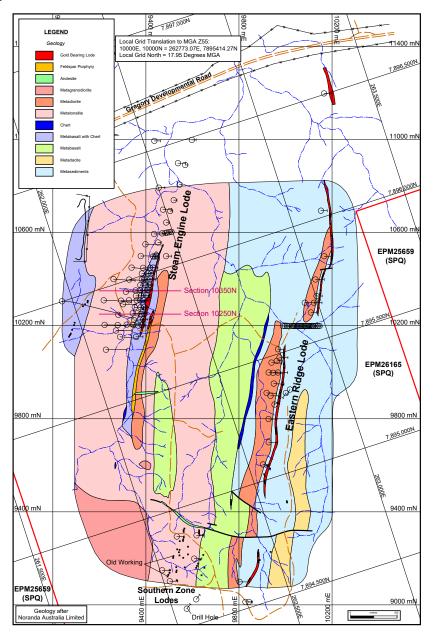


Figure 7. Steam Engine – Interpreted geology showing known gold bearing lodes at surface and drill holes.



CORPORATE and COMMERCIAL

BOARD CHANGES

Resignation of Mr Ken Harvey (Non-Executive Director)

Mr Ken Harvey, Non-Executive Director of the Company, retired from the Board at the conclusion of the 2019 Annual General Meeting held on 28 November 2019.

Mr Harvey is a founding director of Superior Resources Limited and has been a director since incorporation in February 2005. During this time Ken was responsible for compiling the Company's first-rate exploration tenement portfolio.

Mr Harvey is a substantial shareholder of the Company.

Appointment of Mr Simon Pooley as Non-Executive Director

Mr Simon Pooley was appointed as an interim Non-Executive Director of the Company on 28 November 2019.

Mr. Pooley is a geologist with over 30 years of broad international experience encompassing roles in the corporate, mine development, operations, and exploration areas. He has held senior industry positions that have demonstrated leadership and management of base and precious metal exploration and mining operations, development of project assessment types including definitive/bankable feasibility studies and their conversion into mining operations and managed teams undertaking exploration evaluations and valuations.

He is a member of the Australasian Institute of Mining and Metallurgy and is a graduate of the Australian Institute of Company Directors. His career includes work for Dominion Mining, Ashton Mining and Rio Tinto and more recently, as Chief Operating Officer for Novo Resources Corp. and General Manager Operations for Millennium Minerals Limited, covering commodities as diverse as gold, copper, base metals, diamonds and industrial minerals. He has also helped lead several mining operations from exploration through to construction and production.

INVESTMENTS

Superior maintains an exposure in relation to ASX listed entities, Deep Yellow Limited (ASX:DYL) and Carnaby Resources Limited (ASX:CNB).

As at 31 December 2019, the Company held 74,244 DYL shares with a closing value of \$21,530.76.

As at 31 December 2019, the Company held 2,403,846 CNB shares with a closing value of \$175,480.75.

ASX Listing Rule 5.3.3

Appendix 1 sets out information that is required under ASX Listing Rule 5.3.3 (for exploration entities).

Peter Hwang Managing Director Contact:

Mr Peter Hwang Ph: (07) 3847 2887

Further Information:

www.superiorresources.com.au manager@superiorresources.com.au **Reporting of Exploration Results:** The Exploration Results and interpretations contained in this report that relate to Figures 1 and 2 and regarding the Bottletree Prospect reflect information that has been reported in ASX market announcements dated 10 July 2019 and earlier, as noted within this report. The Company confirms that it is not aware of any new information that materially affects the information included in the relevant original market announcements.

The Steam Engine Maiden JORC Mineral Resource Estimate (MRE) was first announced on the ASX Market Announcements Platform in "Maiden JORC Inferred Mineral Resource Estimate, Steam Engine Deposit (Steam Engine Lode)" on 19 October 2017 (Announcement). The Company confirms that it is not aware of any new information that materially affects the information provided in the Announcement. All material assumptions and technical parameters on which the MRE is based continue to apply and have not materially changed.

Other information in this report that comprises Exploration Results 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 he is undertaking 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

DISCLOSURES REQUIRED UNDER ASX LISTING RULE 5.3.3

• Mining tenements held at the end of the quarter and their location

State	Tenement Name	Tenement ID	Location	Interest	Holder	Comments
QLD	Hedleys 2	EPM15670	Nicholson	100%	SPQ	Granted
QLD	Hedleys South	EPM18203	Nicholson	100%	SPQ	Granted
QLD	Harris Creek	EPM18840	Victor	100%	SPQ	Granted
QLD	Tots Creek	EPM19097	Victor	100%	SPQ	Granted
QLD	Scrubby Creek	EPM19214	Victor	100%	SPQ	Granted
QLD	Cockie Creek	EPM18987	Greenvale	100%	SPQ	Granted
QLD	Cassidy Creek	EPM19247	Greenvale	100%	SPQ	Granted
QLD	Dinner Creek	EPM25659	Greenvale	100%	SPQ	Granted
QLD	Wyandotte	EPM25691	Greenvale	100%	SPQ	Granted
QLD	Tomahawk Creek	EPM25264	Victor	100%	SPQ	Granted
QLD	Cockie South	EPM26165	Greenvale	100%	SPQ	Granted
QLD	Victor Extended	EPM26720	Victor	100%	SPQ	Granted
QLD	Twelve Mile Creek	EPM26751	Greenvale	100%	SPQ	Granted

• Mining tenements acquired and disposed of during the end of the quarter and their location

State	Tenement Name	Tenement ID	Location	Interest	Holder	Comments
QLD	W Creek	EPM25843	Victor	100%	SPQ	surrendered

. Beneficial percentage interests held in farm-in or farm-out agreements at end of the quarter

State	Project Name	Agreement Type	Parties	Interest held at end of quarter by exploration entity or child entity	Comments
QLD	Hedleys Joint Venture	Farm-out JVA	SPQ and South32	100%	EPM15670 and EPM18203 ASX announcement 29/5/19

Abbreviations:

EPM Exploration Permit for Minerals, Queensland

SPQ Superior Resources Limited JVA Joint Venture Agreement