



14 October 2021

South32 Limited  
(Incorporated in Australia under the *Corporations Act 2001* (Cth))  
(ACN 093 732 597)  
ASX / LSE / JSE Share Code: S32 ADR: SOUHY  
ISIN: AU000000S320  
south32.net

## SOUTH32 TO ACQUIRE A 45% INTEREST IN THE SIERRA GORDA COPPER MINE

**Conference call at 8:00am Australian Western Standard Time, details overleaf.**

**South32 Limited (ASX, LSE, JSE: S32; ADR: SOUHY) (South32)** is pleased to announce that it has entered into two binding conditional agreements with Sumitomo Metal Mining (TYO: 5713) and Sumitomo Corporation (TYO: 8053) (collectively Sumitomo) to acquire a 45% interest in the Sierra Gorda copper mine in Chile (Sierra Gorda) via the acquisition of a 45% indirect interest in Sierra Gorda S.C.M. (SGSCM) for an upfront cash consideration of US\$1.55B<sup>1</sup> (Transaction). South32 has also agreed to provide Sumitomo with a contingent price-linked consideration of up to US\$500M, payable at threshold copper production rates and prices in the years 2022-25<sup>2</sup>.

Sierra Gorda is an operating mine in the prolific Antofagasta copper mining region, which is expected to produce 180kt of copper, 5kt of molybdenum, 54koz of gold and 1.6Moz of silver in 2021 (100% basis)<sup>3</sup>. The acquisition provides South32 with joint control alongside 55% joint venture partner KGHM Polska Miedz (KGHM), a global miner listed in Poland.

- The Transaction is expected to be immediately earnings accretive, with the upfront purchase consideration benchmarking favourably to historical investment, production and valuation multiples (3.3x FY21 Underlying EBITDA)<sup>4</sup>.
- Funding will be via a combination of cash on hand and an underwritten US\$1B acquisition debt facility that will maintain our balance sheet strength and flexibility. The Group's unaudited net cash balance at the end of September 2021 was US\$660M.
- We expect to use our current strong cash generation to minimise acquisition debt facility utilisation, replacing it with long-term funding following completion, with the intention of maintaining our investment grade credit rating through the cycle<sup>5</sup>.
- We will continue our flexible execution approach with regards to the remaining US\$231M capital management program balance.

South32 Chief Executive Officer, Graham Kerr said "We are actively reshaping our portfolio for a low carbon world and the acquisition of an interest in Sierra Gorda will increase our exposure to the commodities important to that transition. Copper is a critical metal in the decarbonisation of the world's energy networks and has strong long-term market fundamentals.

"Adding Sierra Gorda further improves our portfolio and is expected to immediately lift Group margins and earnings, supporting future shareholder returns while retaining strength and flexibility in our Balance Sheet.

"The transaction expands our operating and development presence in the Americas and provides exposure to a long-life asset with a large resource base. The operation has existing opportunities to unlock further upside through improved production efficiency, resource expansion and exploration.

"Through our extensive due diligence of the opportunity over the past nine months, we believe we have identified an operation that is benefitting from significant historical investment and current, capital efficient de-bottlenecking work. The operation is serviced by excellent infrastructure, including access to renewable power and seawater for processing. Looking ahead we see an opportunity for continued strong performance at Sierra Gorda with our new partner, KGHM, that can deliver substantial value to South32's shareholders."

<sup>1</sup> Subject to customary working capital and net debt adjustments.

<sup>2</sup> 50% of incremental revenue realised above the following copper price thresholds, only where payable copper production exceeds the agreed thresholds: CY22: US\$4.10/lb and 158kt Cu, CY23: US\$3.90/lb and 151kt Cu, CY24: US\$3.85/lb and 166kt Cu, CY25: US\$3.80/lb and 158kt Cu.

<sup>3</sup> Refer to production guidance and production target as outlined in "Foreign Estimates – clarifying statements as required by ASX Listing Rule 5.12" in this announcement. Key facts and material assumptions to support the reasonable basis for disclosing production targets and forecast financial information is provided in Annexure B of this announcement.

<sup>4</sup> Upfront Enterprise Value (EV) refers to the upfront bid EV of US\$1.7B, which comprises US\$1.55B upfront purchase consideration and target net debt of ~US\$150M.

<sup>5</sup> We expect to maintain our current BBB+ and Baa1 credit ratings, with S&P and Moody's respectively.

## Transaction details

Sumitomo has agreed to provide South32 with a tax indemnity in relation to potential changes in the Chilean in-country tax regime as it pertains to SGSCM up to an agreed cap.

The Transaction is subject to the waiver or non-exercise of pre-emption rights held by KGHM under the Joint Venture Agreement. If KGHM exercises its pre-emption rights then the Transaction will not proceed and Sumitomo will instead dispose of the 45% interest to KGHM on the same terms and conditions as the agreement with South32. There will be minimal fees payable by South32 on the acquisition debt facility in this scenario.

Completion of the Transaction is expected around the end of calendar year 2021, subject to conditions including competition and regulatory approvals, for which South32 has agreed to a break fee payable in limited circumstances.

## Sierra Gorda overview

Sierra Gorda is a conventional open pit mine located in the Antofagasta region, at relatively low altitude (1,700m above sea level) in northern Chile. The mine commenced construction in 2011, ahead of commissioning in 2014. The operation benefits from high quality, modern processing equipment, with historical capital investment to CY20 of ~US\$5B (100% basis). It is serviced by established infrastructure, including renewable power and a seawater pipeline, with freight rail and a national highway connecting the operation to the ports of Antofagasta and Angamos.

Sierra Gorda is a large scale operation, with a copper-molybdenum-gold sulphide mineral reserve<sup>6</sup> of more than 1 billion tonnes, and a mine life of more than 20 years<sup>7</sup>. The scale and costs of the operation benchmark favourably with other top Chilean mines of similar scale with the operation on-track to produce copper equivalent production of 214kt in CY21e<sup>8</sup> at Operating unit costs of ~US\$1.29/lb<sup>9</sup>.

There are a range of growth and improvement opportunities available to Sierra Gorda, including the capital efficient de-bottlenecking project that is underway to lift plant throughput by ~6% to ~50Mtpa and copper recoveries by ~2% to 85% in the medium term<sup>10</sup>. A feasibility study is underway for a brownfield Oxide Project which is assessing the opportunity to process material stockpiled at the mine<sup>11</sup>. Potential exists for further exploration upside at the Pampa Lina deposit and across the regional land package.

KGHM is a Polish multinational corporation that employs around 34,000 people around the world and has been a major copper and silver producer for more than 50 years. KGHM has eight mines located in Poland, Canada, the USA and Chile and is actively advancing a further four projects.

### Conference call

South32 will hold a conference call at 8:00am Australian Western Standard Time (11:00am Australian Eastern Standard Summer Time) on 14 October 2021 to provide an overview of the Transaction including Q&A, the details of which are as follows:

#### Conference ID:

Please pre-register for this call at [link](#).

#### Website

A replay of the conference call will be made available on the South32 website.

<sup>6</sup> Prepared in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards.

<sup>7</sup> Refer to "Foreign Estimates – clarifying statements as required by ASX Listing Rule 5.12" in this announcement.

<sup>8</sup> Recovered metal in CuEq terms is calculated using the total revenue divided by the Cu price. Average metallurgical recovery assumptions are 83% for Cu, 57% for Molybdenum and 53% for gold. The prices used are Sierra Gorda's CY20 realised prices excluding the impact of treatment and refining charges.

<sup>9</sup> Operating unit cost is Revenue less Underlying EBITDA, excluding third party sales and TCRCs, divided by sales volumes.

<sup>10</sup> Medium term target is expected average CY22 to CY26.

<sup>11</sup> Stockpiled ore referred to in this announcement is unclassified and South32 cannot confirm whether the estimate has been compiled using an appropriate foreign reporting code.

## Advisers

UBS AG is acting as financial adviser and Herbert Smith Freehills as legal adviser to South32. Cariola Díez Pérez-Cotapos is acting as Chilean legal adviser to South32.

## About us

South32 is a globally diversified mining and metals company. Our purpose is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources. We produce bauxite, alumina, aluminium, metallurgical coal, manganese, nickel, silver, lead and zinc at our operations in Australia, Southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

### Investor Relations

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Further information on South32 can be found at [www.south32.net](http://www.south32.net).

This announcement contains inside information.

Approved for release by Graham Kerr, Chief Executive Officer  
JSE Sponsor: UBS South Africa (Pty) Ltd  
14 October 2021

## Forward-looking statements

This release contains forward-looking statements, including statements about trends in commodity prices and currency exchange rates; demand for commodities; production forecasts; plans, strategies and objectives of management; capital costs and scheduling; operating costs; anticipated productive lives of projects, mines and facilities; and provisions and contingent liabilities. These forward-looking statements reflect expectations at the date of this release, however they are not guarantees or predictions of future performance. They involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this release. Readers are cautioned not to put undue reliance on forward-looking statements. Except as required by applicable laws or regulations, the South32 Group does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance. South32 cautions against reliance on any forward looking statements or guidance, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption arising in connection with COVID-19.

## Foreign Estimates – clarifying statements as required by ASX Listing Rule 5.12

The estimates of mineral resource and mineral reserve for Sierra Gorda Cu-Mo-Au deposit are qualifying foreign estimates under the ASX Listing Rules and stated by KGHM as being classified in accordance with National Instrument 43-101 and CIM Standard for Disclosure (NI 43-101) as at 31 December 2014 and published by KGHM Polska Miedz on their website on 25 June 2015 ([https://kghm.com/sites/kghm2014/files/mrmmr\\_english.pdf](https://kghm.com/sites/kghm2014/files/mrmmr_english.pdf)). The mineral resource estimates are reported inclusive of mineral reserves. These qualifying foreign estimates have not been updated since 1 January 2015. South32 is representing the mineral resource and mineral reserve estimates on a 100% basis and in million tonnes for tonnage whereas information on mineral resource and mineral reserve published by KGHM Polska Miedz on their website on 25 June 2015 are presented on a 55% basis and in kilo tonnes for tonnage. South32 Competent Persons converted the mineral resource and mineral reserve estimate to a 100% basis and in million tonnes by dividing the tonnage by 550 in discussion with the SGSCM Technical Team. In discussion with SGSCM Technical Team, contained metals were also converted using factors provided in footnote c) of Table 2. South32 confirms that no additional estimation or assumptions were considered in the tonnage conversion to represent the estimates on a 100% basis. Production depletion to date would likely result in approximately 18% reduction in the reported mineral resource and approximately 20% reduction in the reported mineral reserve for sulphide ore. In addition, approximately 110Mt of oxide mineral reserves have been stockpiled on surface.

The categories of mineral resource classification used are in accordance with NI 43-101 and the CIM Standards. NI 43-101 is a 'qualifying foreign estimate' (Chapter 19, ASX Listing Rules) and has similar categories of resource classification as the JORC Code (Appendix 5A, ASX Listing Rules). Similarly, the categories used for Ore Reserve classification is similar as the JORC Code but is named differently. Ore Reserve is referred as mineral reserve, Proved Ore Reserve is referred as proven mineral reserve and Probable Ore Reserve is referred as probable mineral reserve under NI 43-101. In accordance with NI 43-101 and CIM Standards, mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of mineral resources will be converted to mineral reserves. Additional drilling may be required to verify geological and mineralisation continuity, and there is no certainty that all the inferred resource will be converted to measured and indicated resource. Quantity and grades are estimates and are rounded to reflect that the estimates are an approximation.

South32 considers these estimates to be both material and relevant to South32 given that Sierra Gorda has the potential to be a material mining project to South32.

Reliability of estimate: The estimates of mineral resources and mineral reserves were reported in accordance with NI 43-101 in the technical report "Mineral Resources and Mineral Reserves Report" dated 25 June 2015. South32's key technical and operational personnel conducted site visits as part of the due diligence process. South32 has been provided information on mining and processing parameters and operational performance to date. Sierra Gorda is an operating mine and infrastructure is in place to run the mine in its stated capacity. All legislative approvals are in place to enable extraction of the stated mineral reserves.

To the extent known, the mineral resource estimate was completed using 1,352 drill holes and the mineral reserves were estimated assuming an open pit mine with conventional sulphide flotation facility to produce copper and molybdenum concentrates.

South32 is not in possession of any new information or data relating to the foreign estimate that materially impacts on the reliability of the estimates. The assessment of reliability using criteria in Table 1 of Appendix 5A (JORC Code) is provided in Annexure A of this announcement.

This announcement contains information in relation to the Sierra Gorda deposit, financial forecasts and assumptions as provided to South32 by Sumitomo Metal Mining Co. Ltd and Sumitomo Corporation, as part of our due diligence with respect to the Transaction. All material assumptions (including economic) upon which this information and financial forecasts are based are contained in this market announcement.

Following completion of the Transaction, it is South32's intention to conduct a work program to report resources in accordance with the JORC Code. Additionally, a resource optimisation study will be conducted to convert the Mineral Resources to Ore Reserves and report Ore Reserves in accordance with the JORC Code (2012). The work program is anticipated to be completed within three years and will be funded using internal cash reserves.

## Cautionary statement

- The estimates of mineral resources and mineral reserves for Sierra Gorda are qualifying foreign estimates under the ASX Listing Rules and are not reported in accordance with the JORC Code.
- Competent Persons have not done sufficient work to classify the qualifying foreign estimates as Mineral Resources and Ore Reserves in accordance with the JORC Code.
- It is uncertain, that following evaluation, the foreign estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code.

## Competent Persons' statements

In accordance with ASX listing rule 5.12, Matthew Readford, a Competent Person, employee of South32 and Member (Chartered Professional) of the Australasian Institute of Mining and Metallurgy, confirms the information in this market announcement that relates to the Sierra Gorda NI 43-101 mineral resource foreign estimate published by KGHM Polska Miedz on their website on 25 June 2015 is an accurate representation of the available data and studies for Sierra Gorda Mine provided to South32 by Sumitomo Metal Mining Co. Ltd and Sumitomo Corporation, Joint Venture owners of Sierra Gorda S.C.M. Matthew Readford has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person for the reporting of Mineral Resources in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code). Mr Readford consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

In accordance with ASX listing rule 5.12, Quinton de Klerk, a Competent Person, employee of Cube Consulting Pty Ltd and Fellow of the Australasian Institute of Mining and Metallurgy, confirms the information in this market announcement that relates to the Sierra Gorda NI 43-101 mineral reserve foreign estimate published by KGHM Polska Miedz on their public website on 25 June 2015 is an accurate representation of the available data and studies for Sierra Gorda Mine provided to South32 by Sumitomo Metal Mining Co. Ltd and Sumitomo Corporation, Joint Venture owners of Sierra Gorda S.C.M. Quinton de Klerk has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity being undertaken to qualify as competent person for the reporting of Ore Reserves in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code). Mr de Klerk consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

**Table 1: mineral resource and mineral reserve as at 31 December 2014 (55% basis)<sup>(a)</sup>**

		Mineral resource				Contained metal		
Type	Classification	Tonnes (kt)	Cu (%)	Au (g/t)	Mo (%)	Cu (t)	Au (kg)	Mo (t)
Sulphide	Measured	200,503	0.41	0.07	0.03	818,053	13,835	58,146
	Indicated	683,135	0.40	0.06	0.02	2,712,045	40,305	129,796
	<b>Measured &amp; indicated</b>	<b>883,638</b>	<b>0.40</b>	<b>0.06</b>	<b>0.02</b>	<b>3,530,098</b>	<b>54,140</b>	<b>187,942</b>
	Inferred	46,036	0.35	0.04	0.01	161,127	1,749	2,762
	<b>Total mineral resource</b>	<b>929,674</b>	<b>0.40</b>	<b>0.06</b>	<b>0.02</b>	<b>3,691,225</b>	<b>55,889</b>	<b>190,704</b>
Oxide	Measured	13,241	0.38			50,579		
	Indicated	39,052	0.33			129,262		
	<b>Measured &amp; indicated</b>	<b>52,292</b>	<b>0.34</b>			<b>179,841</b>		
	Inferred	540	0.26			1,403		
<b>Total mineral resource</b>	<b>52,833</b>	<b>0.34</b>			<b>181,244</b>			
		Mineral reserve				Contained metal		
Type	Classification	Tonnes (kt)	Cu (%)	Au (g/t)	Mo (%)	Cu (t)	Au (kg)	Mo (t)
Sulphide	Proven	189,135	0.41	0.07	0.03	775,454	13,239	56,741
	Probable	610,669	0.40	0.06	0.02	2,442,674	36,640	122,134
	<b>Total mineral reserve</b>	<b>799,804</b>	<b>0.40</b>	<b>0.06</b>	<b>0.02</b>	<b>3,218,128</b>	<b>49,879</b>	<b>178,875</b>
Oxide	Proven	12,884	0.38			49,300		
	Probable	37,378	0.33			124,307		
	<b>Total mineral reserve</b>	<b>50,263</b>	<b>0.35</b>			<b>173,607</b>		
	Stockpiled ore	24,687	0.33			81,009		

### Notes:

- a) The mineral resource and mineral reserve estimates represent the 55% ownership of KGHM as a proportion of the actual total mineral resource and mineral reserve estimates. Tables may not add due to rounding.

**Table 2: mineral resource and mineral reserve as at 31 December 2014 (100% basis)<sup>(a)</sup>**

Mineral resource						Contained metal <sup>(c)</sup>		
Type	Classification	Tonnes (Mt)	Cu (%)	Au (g/t)	Mo (%)	Cu (Mt)	Au (t)	Mo (kt)
Sulphide	Measured	365	0.41	0.07	0.03	1.49	25.2	105.7
	Indicated	1,242	0.40	0.06	0.02	4.93	73.3	236.0
	<b>Measured &amp; indicated</b>	<b>1,607</b>	<b>0.40</b>	<b>0.06</b>	<b>0.02</b>	<b>6.42</b>	<b>98.4</b>	<b>341.7</b>
	Inferred	84	0.35	0.04	0.01	0.29	3.2	5.0
	<b>Total mineral resource</b>	<b>1,690</b>	<b>0.40</b>	<b>0.06</b>	<b>0.02</b>	<b>6.71</b>	<b>101.6</b>	<b>346.7</b>
Oxide	Measured	24	0.38			0.09		
	Indicated	71	0.33			0.24		
	<b>Measured &amp; indicated</b>	<b>95</b>	<b>0.34</b>			<b>0.33</b>		
	Inferred	1	0.26			0.00		
	<b>Total mineral resource</b>	<b>96</b>	<b>0.34</b>			<b>0.33</b>		
Mineral reserve						Contained metal <sup>(c)</sup>		
Type	Classification	Tonnes (Mt)	Cu (%)	Au (g/t)	Mo (%)	Cu (Mt)	Au (t)	Mo (kt)
Sulphide	Proven	344	0.41	0.07	0.03	1.41	24.1	103.2
	Probable	1,110	0.40	0.06	0.02	4.44	66.6	222.1
	<b>Total mineral reserve</b>	<b>1,454</b>	<b>0.40</b>	<b>0.06</b>	<b>0.02</b>	<b>5.85</b>	<b>90.7</b>	<b>325.2</b>
Oxide	Proven	23	0.38			0.09		
	Probable	68	0.33			0.23		
	<b>Total mineral reserve</b>	<b>91</b>	<b>0.35</b>			<b>0.32</b>		
	Stockpiled ore <sup>(b)</sup>	45	0.33			0.15		

## Notes:

- a) Tables may not add due to rounding.  
b) Stockpiled ore referred to in this announcement is unclassified and South32 cannot confirm whether the estimate has been compiled using an appropriate foreign reporting code.  
c) The contained metals were converted using the following: Cu(t) to Cu(Mt) - Dividing by 0.55 million; Au (kg) to Au(t) - Dividing by 550; and Mo(t) to Mo(kt) - Dividing by 550.

## Annexure A: Reliability of Foreign Estimate

### Section 1: Sampling Techniques and Data

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

Criteria	Comments
Sampling techniques	<ul style="list-style-type: none"> <li>• Samples have been obtained from Reverse Circulation (RC) cuttings and diamond drill (DD) cores.</li> <li>• For RC drilling, samples were routinely collected on 2m intervals. The entire 2m interval was riffle split at three stages to obtain a 4 to 8kg representative sample for preparation and analysis.</li> <li>• For diamond drilling, core samples are split with a diamond saw and half core on 2m intervals were prepared for sample preparation and analysis.</li> <li>• Drilling has been completed on an irregular grid to maximum depths of about 1,000m below surface.</li> <li>• In total, the Sierra Gorda database for drilling up to and including 2014 contains:             <ul style="list-style-type: none"> <li>○ 1,682 drill holes of which 1,352 are in the mineral resource area</li> <li>○ A mineral resource is reported for the Catabela Deposit of the Sierra Gorda Project</li> </ul> </li> <li>• Drilling from Outokumpu, Quadra and SGSCM, has sufficient supporting quality control information, making a total of 1,132 holes suitable for use in resource estimation.</li> <li>• The split in drilling types for approximately 357,000m of drilling is 55% diamond drill core and 45% RC.</li> <li>• Samples range from 5cm to 11.5m with majority of samples at 2m.</li> <li>• All samples since 2005 have been assayed by Inductively Coupled Plasma Analysis (ICPA) or Atomic Absorption Spectroscopy (AAS) following 4-acid digest or fire assay in the following laboratories:             <ul style="list-style-type: none"> <li>○ Chemex in La Serena</li> <li>○ ACME in Santiago</li> <li>○ Andes Analytical Assay Labs (Andes) in Santiago</li> <li>○ ALS in Antofagasta &amp; in La Serena</li> <li>○ Geoassay in Antofagasta for exploration</li> <li>○ Bureau Veritas in Calama for infill drilling</li> <li>○ SGS in Calama for Blast Holes</li> </ul> </li> <li>• Sampling and assaying details are not available for the pre-Quadra sampling and accordingly have not been used for development of the mineral resource model. The only exception is that of the Outokumpu drilling where a check assay program conducted by Quadra proved the sample assays to be of appropriate quality for use in mineral resource estimation.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• All drilling has been completed using diamond and RC drilling.</li> <li>• Diamond drill holes have been drilled using HQ (63.5mm) and NQ (47.6mm).</li> <li>• RC holes were drilled at different diameters of 136.5mm and 139.7mm to 146mm up to 2006 and to 139.7mm from then on.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• Core recovery is recorded as part of geotechnical logging and measured for each drill run.</li> <li>• Recovery from RC drill holes is also calculated using the average rock density and compared to the actual sample weights recorded in the field.</li> <li>• Average core recovery for sulphide material is 98% and is considered to be sufficiently high not to raise any sample bias concerns.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• Logging was conducted for all drill holes, at a level of detail considered to support appropriate mineral resource estimation and mining studies.</li> <li>• SGSCM geologists used the same template for logging both types of drill holes.</li> <li>• Lithology, alteration, mineralogy and mineral types are routinely logged using abbreviations and brief descriptions.</li> <li>• Logging was performed on 2m intervals for RC samples and variable intervals for diamond core.</li> </ul>

Criteria	Comments
	<ul style="list-style-type: none"> <li>Alteration styles were noted with their intensities. Relative or absolute concentrations of mineral species were also noted.</li> <li>Logging is qualitative in nature for lithology, alteration and mineralogy but also quantitative in terms of concentration of mineral species.</li> </ul>
<p>Sub-sampling techniques and sample preparation</p>	<ul style="list-style-type: none"> <li>Diamond core and RC samples taken since 2006, were transported by truck twice a day to SGSCM's secure storage facility on site, where core was geotechnically logged, photographed, and both drill types geologically logged and sampled.</li> <li>Drill cores were sampled and split on site with a diamond saw, using a 2m average sampling interval.</li> <li>RC cuttings samples were collected every 2m, being first split at three stages into three components, labelled "A", "B" and "C" of 4 to 8kg. Component "A" is the sample used for analysis. Component "B" is stored at the Sierra Gorda site. Component "C" remains for a period of a year at the drill site.</li> <li>For quality control/quality assurance (QAQC) purposes, Quadra and SGSCM included one standard reference sample, one blank, one field duplicate and one pulp duplicate for about 20 core or RC samples. The use of pulp duplicates is noted only until 2012.</li> <li>During the 2005 drill program, samples were normally picked up at the Sierra Gorda site by ACME laboratory personnel. In 2006, Andes installed a preparation facility on site within a fenced compound. All preparations have occurred on site since 2006 by various certified laboratories.</li> <li>Half core and RC chip samples are crushed and split by Jones splitter in preparation for pulverisation. Fine crushing occurs until 70% of the sample passes -10 mesh. Pulverisation occurs until 85% of the material passing -150 mesh. 250g pulp samples are prepared for assay.</li> <li>Sample preparation precision was monitored until 2012 with duplicates at different stages of crushing and pulverisation assayed at a rate of 1:20 submissions. Results indicate acceptable homogenisation of samples is achieved in sample preparation.</li> <li>The Quality Control and check assays completed to date indicate that the Sierra Gorda assay data is sufficiently accurate, precise and free of contamination, consistent with industry standard and is considered of sufficient quality to be used in resource estimation.</li> </ul>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li>Pre Quadra samples (pre 2004): Insufficient explanation exists regarding the drilling and sampling approach by explorers. However, Quadra performed several stages of re-sampling and/or resubmission of old Outokumpu drill holes. The re-sampling and re-assaying established a good basis for confidence in Outokumpu assay data.</li> <li>Pre-Quadra samples: With the exception of Outokumpu drilling, pre-Quadra drilling has been excluded from this mineral resource estimate. Insufficient details exist for other pre-Quadra samples.</li> <li>Quadra and SGSCM samples: Samples were analysed for CuT (Total Copper), CuS (Sulphuric Copper), CuSc (Citric Sulphuric Copper), Quick Leach (QLT), MoT (Total Molybdenum), MoS (Sulphuric Molybdenum), Au (gold) and FeT (Total Iron). Plus, another 27-elements (up to 2004) or 35-elements (post 2004) suite using Fire Assay, ICPA or AAS after a four-acid digest. These analytical procedures are considered appropriate for the elements and style of mineralisation.</li> <li>Primary assay laboratories since 2004 have been: Chemex in La Serena, ACME in Santiago, Andes in Santiago, ALS Chemex (ALS) in La Serena, ALS in Antofagasta and Geoassay in Antofagasta.</li> <li>Check assays were submitted routinely until 2012 to ALS Chemex (ALS) in La Serena. No significant bias has been determined.</li> <li>No geophysical tools have been used.</li> <li>The nature and quality of assaying and laboratory procedures are appropriate for supporting grade estimation of the Catabela deposit at the Sierra Gorda Project.</li> </ul>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <li>Quadra performed a significant relogging and resampling programme to validate Outokumpu historical data. No significant issues were noted with historical sampling and assaying based on this work and as such the Outokumpu data has been included as part of the mineral resource estimation for the Catabela deposit.</li> </ul>

Criteria	Comments
	<ul style="list-style-type: none"> <li>• South32 representatives visited site in 2021 and verified the logging and mineralisation interpretations from two representative diamond holes of the Catabela deposit (SGDD006 and QSG09-621).</li> <li>• A number of closed spaced holes exist but with no specific twinning objective.</li> <li>• SGSCM maintains a set of procedure documents detailing the protocols and steps involved in drilling, geological and geotechnical logging, sampling, sample reduction, sample preparation, QAQC, and assaying as well as the data entry and storage.</li> <li>• Individual sample numbers are generated and matched on site with down hole depths. Sample numbers are then used to match assays when received from the laboratory.</li> <li>• Each component of the primary data is currently maintained in a separate Microsoft Excel file before is imported to an SQLServer database. Regular full backup of the database is carried out weekly and monthly with incremental backup taking place daily.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• Drill hole collars were surveyed by Quadra or SGSCM surveyors and downhole deviation measurements were taken upon completion of each drill hole.</li> <li>• A number of audits checked collar location using hand-held GPS and identified no systematic bias.</li> <li>• Drill holes inclinations are mainly measured every 10m with some intervals over 30m.</li> <li>• A North Finder Device (Gyromaster model SPT), is used for downhole surveying. The instrument is capable of measuring at any inclination allowing data to be obtained for both the azimuth and inclination. As a check, approximately 5% of the holes are also measured with another instrument. The measured error has been less than 5% in deviation.</li> <li>• SGSCM uses a local coordinate system converted from PSAD56 coordinate system. The conversion is based on the following; <ul style="list-style-type: none"> <li>○ Easting: PSAD56 East – 300209.406</li> <li>○ Northing: PSAD56 North – 3002081</li> <li>○ RL: PSAD56 RL – 4</li> </ul> </li> <li>• The topographical surface was defined based on surveyed topographic points, with a horizontal and vertical accuracy considered suitable for the purposes of open pit mineral resource estimation.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• Exploration results are not reported.</li> <li>• Drilling is oriented to intersect the mineralisation at a high angle and the majority of holes drilled into significant Cu-Mo-Au mineralisation of the Catabela deposit are within 50m to 100m spacing. In shallower areas of less than 300m depth drill spacing is at 30m to 60m.</li> <li>• With the exception of peripheral mineralisation, the drill hole spacing is considered sufficient to establish geological and grade continuity for mineral resource estimation for this style of mineralisation.</li> <li>• The drill hole data was composited to 8m lengths (for sulphide copper and gold), 10m lengths (for oxide copper and gold) and 4m lengths (for molybdenum), retaining majority codes for lithology, alteration, and weathering. Sample intervals with missing or negative assay results were treated as absent.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>• The mineralisation is contained within east to north east dipping units. Drill holes are mostly oriented east-west at variable dips to intersect significant Cu-Mo-Au mineralisation in the Catabela deposit.</li> <li>• The drill orientation and significant quantity of closed spaced holes within the Catabela deposit are at appropriate angles and spacing to allow for unbiased sampling and good representation of grade and tonnage using three-dimensional modelling methods.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>• Quadra and SGSCM had a strong chain of custody process that ensured core and RC sample areas under the supervision of the site staff. During the 2005 drill program, samples were normally picked up at the Sierra Gorda site by ACME laboratory personnel. Since 2006, Andes installed a preparation facility on site within a fenced</li> </ul>

Criteria	Comments
	<p><i>compound. Samples are tracked and reconciled through a sample numbering and dispatch system to the preparation and chemical laboratory.</i></p>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>• <i>Quadra commissioned MQEs in 2004 to independently check and validate drill hole data for every sample on every assay certificate that was available at the time. MQEs identified a number of issues in the database and made some corrections. MQEs also did some checks of the digital database for evidence of down-hole contamination in Outokumpu's RC drill holes. They did not find any conclusive evidence of down-hole contamination.</i></li> <li>• <i>In 2005 MDA was commissioned to check the database. Considerable time and effort were devoted to checking the digital database to be used for the resource estimate. MDA also checked:</i> <ul style="list-style-type: none"> <li>○ <i>Location of 75 drill holes using hand-held GPS</i></li> <li>○ <i>Down-hole survey data file by comparing the digital file against original record</i></li> <li>○ <i>Drill hole collar location and elevation against topographic model (DTM)</i></li> </ul> </li> <li>• <i>In 2007 MDA re-checked the available database. Checks between the 2005 and 2007 databases indicated much improved practices, resulting in a more robust database. MDA's checks however indicated a lack of density data measurements for the Quadra drilling and incorrect recording for the water-level in the holes for the 2004 drilling, which were subsequently corrected.</i></li> <li>• <i>The database is considered to be of industry standard for data quality and integrity. Sample preparation, security and analytical procedures are considered adequate to support resource estimation.</i></li> </ul>

## Section 2: Reporting of Exploration Results

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

Criteria	Comments
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>• SGSCM is owned by KGHM International (55%), Sumitomo Metal Mining (31.5%), and Sumitomo Corporation (13.5%) and is the result of a Joint Venture between the Polish company KGHM Polska Miedz, through its subsidiary KGHMI, and the Japanese Sumitomo Metal Mining and Sumitomo Corporation.</li> <li>• Past production records indicate that secure tenure was held by SGSCM at the time of reporting.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>• Drilling within the Sierra Gorda field commenced in 1966 with the first drill surveys by ITT, Cima Mines, and Chevron.</li> <li>• In 1991, Outokumpu began the first formal exploration campaign that lasted until 1996. In 1997, RTZ drilled some exploration holes but did not continue with the project. The most significant drill campaigns were by Quadra from 2004 to 2012.</li> <li>• SGSCM completed all subsequent campaigns from 2013 to 2014.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>• All known mineralisation within the district appears to be related to porphyry copper hydrothermal systems. Within the project concession, there are several distinct zones of copper molybdenum gold mineralisation. This hypogene sulphide mineralisation occurs in breccia and porphyry intrusive complexes; as well as disseminated and stockwork vein mineralisation in volcanic rocks, crystalline rocks of the batholith, and the late stage intrusions.</li> <li>• Outcrops of crystalline rocks ranging in composition from monzodiorite to granodiorite to granite are part of a complex multiphase batholith extending over tens of kilometres in the region.</li> <li>• At Sierra Gorda, a large volume of hypogene copper sulphide mineralisation is accompanied by oxide copper and lesser supergene sulphide copper mineralisation, which are the result of Tertiary weathering processes acting on the earlier hypogene mineralisation.</li> <li>• Hypogene sulphide mineralisation forms the bulk of the known mineralisation and consist dominantly of chalcopyrite, although bornite has been locally recognised as an accessory. Chalcopyrite mineralised rock exists from below the leached zone to the current limits of drilling. Hypogene molybdenite occurs in distinct bodies at the Catabela and Salvadora deposits; elsewhere it is weak to absent. Gold typically accompanies the copper.</li> <li>• Fault patterns appear to have played a fundamental role in the development of the Sierra Gorda mineralisation as a major factor in localising intrusions, breccia bodies, and subsequent hydrothermal alteration and mineralisation. Post mineral movement on faults has created numerous rubbly zones, evident in Sierra Gorda drill core, and to some degree has rearranged the original geometry of rock units and mineralised zones. Faulted and fractured ground naturally has facilitated the infiltration of meteoric waters and consequent oxidation of the hypogene mineral resource and influenced the development of supergene copper mineralisation.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• Exploration results are not being reported.</li> <li>• A drill hole location plan (Figure 3) provides a summary of exploration relative to the mineral resource.</li> <li>• All drill hole data information, including tabulations of drill hole positions and lengths for this mineral resource, is stored within project data files created for this estimate on a secure company server.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• Data is not aggregated other than length-weighted compositing for grade estimation.</li> <li>• Metal equivalent values are not reported for exploration results.</li> </ul>

<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>Mineralisation envelopes at the Catabela and Salvadorita deposits form a series of broad large bodies where the down-hole length and its orientation are not considered a major concern.</i></li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Maps of project location (Figure 1), regional geology (Figure 2), drill hole location (Figure 3) and Sierra Gorda Property Claim Map (Figure 4) are included with this market announcement.</i></li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Exploration results are not specifically reported as part of the foreign estimate.</i></li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Aside from drilling, the geological model is compiled from local and regional mapping, geochemistry sampling and analysis, and geophysical surveys.</i></li> <li>• <i>Metallurgical test work, specific gravity sampling and preliminary geotechnical logging have contributed to evaluating the reasonable prospect for eventual economic extraction at a feasibility study level.</i></li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>Infill resource definition drilling and grade control drilling is planned to improve mining selectivity.</i></li> </ul>

### 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	Comments
Database integrity	<ul style="list-style-type: none"> <li>An extract from SGSCM's master database, dated 4 September 2020 was provided to South32 for review which included data checks including the verification of: <ul style="list-style-type: none"> <li>Collar depth with final sample depth</li> <li>Collar RLs with topographic data</li> <li>Overlapping intervals or gaps in downhole data</li> <li>Duplicate drill hole numbers and coordinates</li> </ul> </li> <li>No significant departures were observed for the valid drill holes used in respect of the 2015 mineral resource foreign estimate.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>The South32 Competent Person has not been to site due to prevailing travel restrictions as a result of the current pandemic situation. South32 has undertaken an extensive nine months of due diligence that included site visits from 20 July to 23 July 2021 and 30 August to 3 September 2021.</li> <li>The visits included interviews and discussion with project geologists, mining engineers, grade control specialists, the geotechnical team and the SGSCM qualified persons for the mineral resource and mineral reserve foreign estimates.</li> <li>An inspection of drilling, logging, sampling facilities and methods for both the infill drilling and blast hole drilling was undertaken.</li> <li>Geoassay (Antofagasta) and Bureau Veritas (Calama) laboratories were also visited during the second site visit.</li> <li>No material items were observed or noted by the Competent Person's representatives that would impact on the reliability of mineral resource estimates.</li> <li>The Competent Person has full access to the observations and reports of these site visits and interacted with the site team daily to provide input to the review process and to satisfy that the review was conducted appropriately.</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>The geology model for the Catabela and Salvadora deposits was developed by SGSCM for various geological components including lithology, alteration, oxidation surfaces, and mineralisation zones for Cu, Mo, and Au and based on drilling data.</li> <li>SGSCM creates interpretations for lithology, alteration and oxidation surfaces on 25m to 50m east-west sections in 2D. The east-west sections are then re-interpreted in plan at 16m levels and used for coding the resource block model.</li> <li>Factors affecting the continuity of grade at the Catabela deposit included the weathering state (oxide, transition and fresh) and lithology.</li> <li>Fault patterns appear to have played a role in the development of the Sierra Gorda mineralisation in localising intrusions, breccia bodies, and subsequent hydrothermal alteration and mineralisation. Post mineralisation movement on faults has created numerous zones, evident in Sierra Gorda drill core, and to some degree has rearranged the original geometry of rock units and mineralised zones. Faulted and fractured ground naturally has facilitated the infiltration of meteoric waters and consequent oxidation of the hypogene mineral resource and influenced the development of supergene copper mineralisation.</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>The Catabela deposit has dimensions of approximately 1km E-W and 2km N-S. Depth of mineralisation ranges from around 650m RL to 1,250m RL.</li> </ul>
Estimation and modelling techniques	<ul style="list-style-type: none"> <li>Modelling techniques address, where appropriate, the interpreted controls on mineralisation apparent in data and in geological interpretations.</li> <li>An independent audit in 2020 by Martlet Consultants (Martlet) records that the "inverse distance weighting (IDW) methodology to mineral resource estimation of CuT%, CuS%, Mo% and Au% was established by Mine Development Associates (MDA) for the 2011 feasibility study with the only changes being updates to the geological database with the acquisition of new data from drilling." A description of this methodology is provided below.</li> </ul>

Criteria	Comments
	<ul style="list-style-type: none"> <li>Individual grade estimations for CuT%, CuS%, Mo% and Au g/t have been constrained within a number of domains including mineralisation grade envelopes. All domain estimates have hard boundaries.</li> <li>The influence of high-grade outlier samples has been restricted through capping prior to estimation and spatial restrictions during block grade estimation at variable thresholds and distances.</li> <li>Data used for estimation are composites of 4m (Mo), 8m (sulphide copper and gold) and 10m lengths (oxide copper and gold) from predominantly 2m samples.</li> <li>Minesight software was used to estimate a parent cell size of 15m by 15m by 16m with no sub-celling.</li> <li>The 2011 Feasibility Study documentation indicates that the use of IDW with a power of three was used to minimise smoothing that could bias the grade-tonnage curve.</li> <li>Other estimation parameters comprise a single pass search strategy and ranges in the order of 50m to 100m and minimum/maximum samples ranging between one to four, and 12 to 28 respectively and up to four or six composites from any one drill hole.</li> <li>Along with visual validation of block coding and estimated block grades against composites, the resource estimation is compared with the 2011 Feasibility Study estimate. The Sierra Gorda resource models are compared and validated using a copper equivalent cut-off grade based on their 2011 Feasibility Study long-term metal price forecasts where <math>CuEq = Cu + 5*Mo + 0.55*Au</math>. Modifying factors such as ore loss and dilution, metallurgical recovery and mining costs that vary with depth are not considered for this formula.</li> <li>Subsequent mining and reconciliation of copper production from sulphide ore indicate the methodology produces acceptable mineral resource estimates for long term planning.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>A dry in-situ bulk density is assigned from averages of samples within domains characterised by lithology and oxidation.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>Sulphide resources are reported on a net smelter return (NSR) basis and oxide resources are reported using a recoverable Cu cut-off.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>The mineral resource estimate assumes mining by conventional open pit mining techniques for the deposits.</li> <li>Reasonable prospects for eventual economic extraction have been determined through assessment of the resource model at a feasibility study level utilising Quadra 2011 long term forecasts for copper, molybdenum and gold pricing in open pit optimisation and open pit mine scheduling through to concept level financial modelling.</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>The metallurgical process was developed as part of the Feasibility Study by Fluor in 2011. The study developed a geometallurgical understanding linking geology to the metallurgical performance in domains.</li> <li>Metallurgical performance parameters of hardness and metal recoveries have been modelled based on extensive test work.</li> <li>The processing circuit employs a conventional approach of three stage crushing followed by grinding and flotation to produce separate copper and molybdenum concentrates. Gold and silver are recovered to the copper concentrate.</li> <li>Metallurgical performance is conventional and typical of this style of mineralisation. Within sulphide mineralisation, copper is predominately present as Chalcopyrite. The copper concentrate produced is of high quality for smelting and is not expected to attract any significant penalties.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>SGSCM has in place environmental permits that have approved the construction and operation of different works and activities related to the existing SGSCM complex (mine, plant, tailings storage facility and associated operations).</li> </ul>

Criteria	Comments
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>• <i>Dry bulk density estimates are derived from approximately 6,200 specific gravity measurements by Quadra and SGSCM.</i></li> <li>• <i>Specific gravity samples are selected from competent core approximately every 20m downhole till 2009.</i></li> <li>• <i>The specific gravity measurement technique uses the core weight-in-air, weight-in-water method. Core is generally competent, and no sealing was required. Routine calibration of scales and drying of the sample basket was undertaken for quality control.</i></li> <li>• <i>Density is assigned using the average of specific gravity measurements grouped by oxidation and lithology codes.</i></li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>• <i>The SGSCM classification approach is to produce interim resource classifications on a block-by-block basis independently for Cu, Mo and Au using estimation criteria such as the number of samples, number of holes from which samples were selected and the distance to the closest sample. Final resource classification is based on a combination of the individual classifications and 12 selection criteria.</i></li> <li>• <i>The resource estimate is a foreign estimate under the ASX Listing Rules and is not reported in accordance with the JORC Code. Competent persons have not done sufficient work to classify the foreign estimates as Mineral Resources in accordance with the JORC Code.</i></li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>South32 has conducted extensive due diligence reviews of the Sierra Gorda's historical and current mineral resources including production reconciliation.</i></li> </ul>
<i>Discussion of relative accuracy/confidence</i>	<ul style="list-style-type: none"> <li>• <i>The mineral resources are an estimate of the global in-situ grades.</i></li> <li>• <i>Sierra Gorda is an operating mine that undertakes an annual Life of Mine update that provides the basis for assessing mineral resources on an annual basis.</i></li> <li>• <i>While the qualifying foreign estimates to which this announcement refers were underpinned by a preceding feasibility study, the verification of these resources was achieved by a combination of a comprehensive due diligence process together with actual production records in the years subsequent to the publication of the stated estimates which validated the foreign estimate to the satisfaction of the Competent Person.</i></li> <li>• <i>On acquisition, South32 will define a detailed work program to report resources in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the foreign estimates will be able to be reported as Mineral Resources in accordance with the JORC Code.</i></li> <li>• <i>In accordance with NI 43-101 and CIM standards, mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of mineral resources will be converted to mineral reserves.</i></li> </ul>

#### Section 4: Estimation and Reporting of Ore Reserves

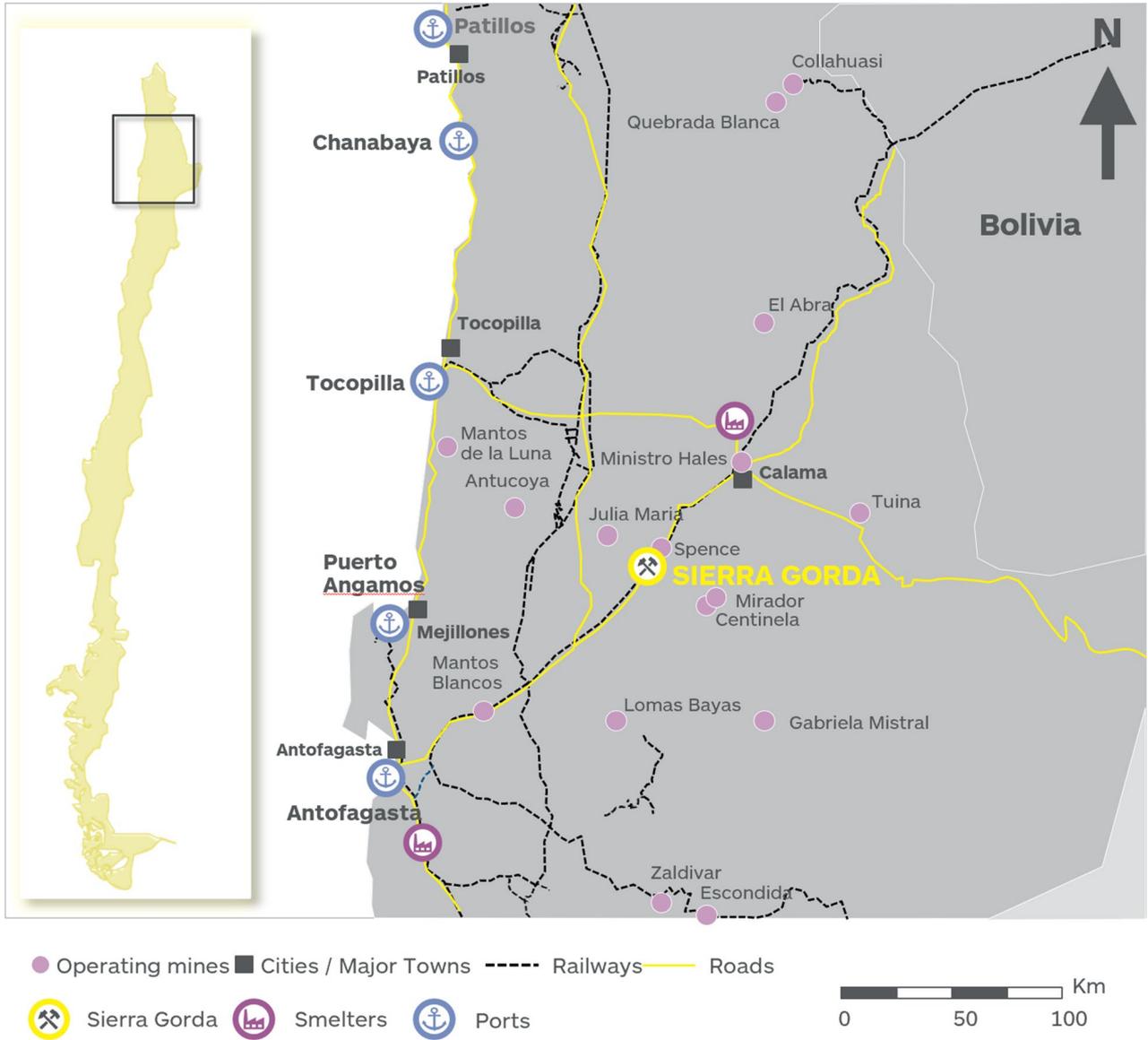
(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	Comments
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> <li>The qualifying foreign estimate mineral resource estimate was reported inclusive of the mineral reserve estimate dated December 2014 and was reported by KGHM on a 55% basis in June 2015: <a href="https://kgmh.com/sites/kgmh2014/files/mrmr_english.pdf">https://kgmh.com/sites/kgmh2014/files/mrmr_english.pdf</a></li> </ul>
Site visits	<ul style="list-style-type: none"> <li>The South32 Competent Person has not been to site due to prevailing travel restrictions as a result of the current pandemic situation. South32 has undertaken an extensive 9 months of due diligence that included site visits from 20 July to 23 July 2021 and 30 August to 3 September 2021.</li> <li>The first site visit comprised 13 technical experts across the following areas: Exploration, Resource and Mine Geology, Operations – Mining, Mine Geotechnical Engineering, Mine Hydrological Engineering, Operations – Processing, Water and Supporting Site Infrastructure, Tailings Storage Facility, HSEC, Closure, Port, and Seawater Pipeline.</li> <li>A second site visit by two technical experts reviewed resource model inputs and estimation processes that have remained similar since the December 2014 reported resource.</li> <li>The Competent Person has full access to the observations and reports of these site visits.</li> </ul>
Study status	<ul style="list-style-type: none"> <li>Sierra Gorda is an operating mine that undertakes an annual Life of Mine update that provides the basis for assessing mineral reserves on an annual basis.</li> <li>While the qualifying foreign estimates to which this announcement refers were underpinned by a preceding feasibility study, the verification of these reserves were achieved by a combination of a comprehensive due diligence process together with reconciliation using actual production records in the years subsequent to the publication of the stated estimates which validated the foreign estimate to the satisfaction of the Competent Person.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>Mineral reserves are based on a value per tonne of ore (NSR) cut-off that considers metal prices, metallurgical recoveries, and costs.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Mineral reserves for the Sierra Gorda deposit were developed by applying relevant economic and engineering criteria to the measured and indicated mineral resource included in the December 2014 mineral resource estimate to define the economically extractable portions (proven and probable reserves). Copper, molybdenum and gold were all included in determining economic value.</li> <li>Open Pit optimisation using a combination of Minesight and Whittle software was completed using only measured and indicated mineral resource whilst inferred mineral resource was considered as waste. Processing costs, mining costs, recoveries, metal prices, offsite costs and general and administration costs are used in the optimisation. A net-value calculation methodology is used to estimate profitability of material in the block model. A net-value is calculated for each of the model blocks based on grades, recovery and estimated costs and prices. The resulting values, stored in the model blocks, are used in generating the ultimate pit shells and determining ore and waste. In the ultimate pit, ramp widths and grades were established to accommodate 360 tonne haul trucks and multiple pit exits were incorporated.</li> <li>Process recoveries and mill throughputs were also estimated based on laboratory and pilot plant test results. Pit slope design criteria was based on on-site tests and geotechnical drilling.</li> <li>Sierra Gorda deposit is a large-scale porphyry deposit and as such the selected open pit mining method is appropriate. Recovery in open pit mines tends to be excellent, particularly with porphyry deposits.</li> <li>There are two different forms of dilution in the evaluation of reserves and mining methods. Internal dilution is material that falls within the mineralised</li> </ul>

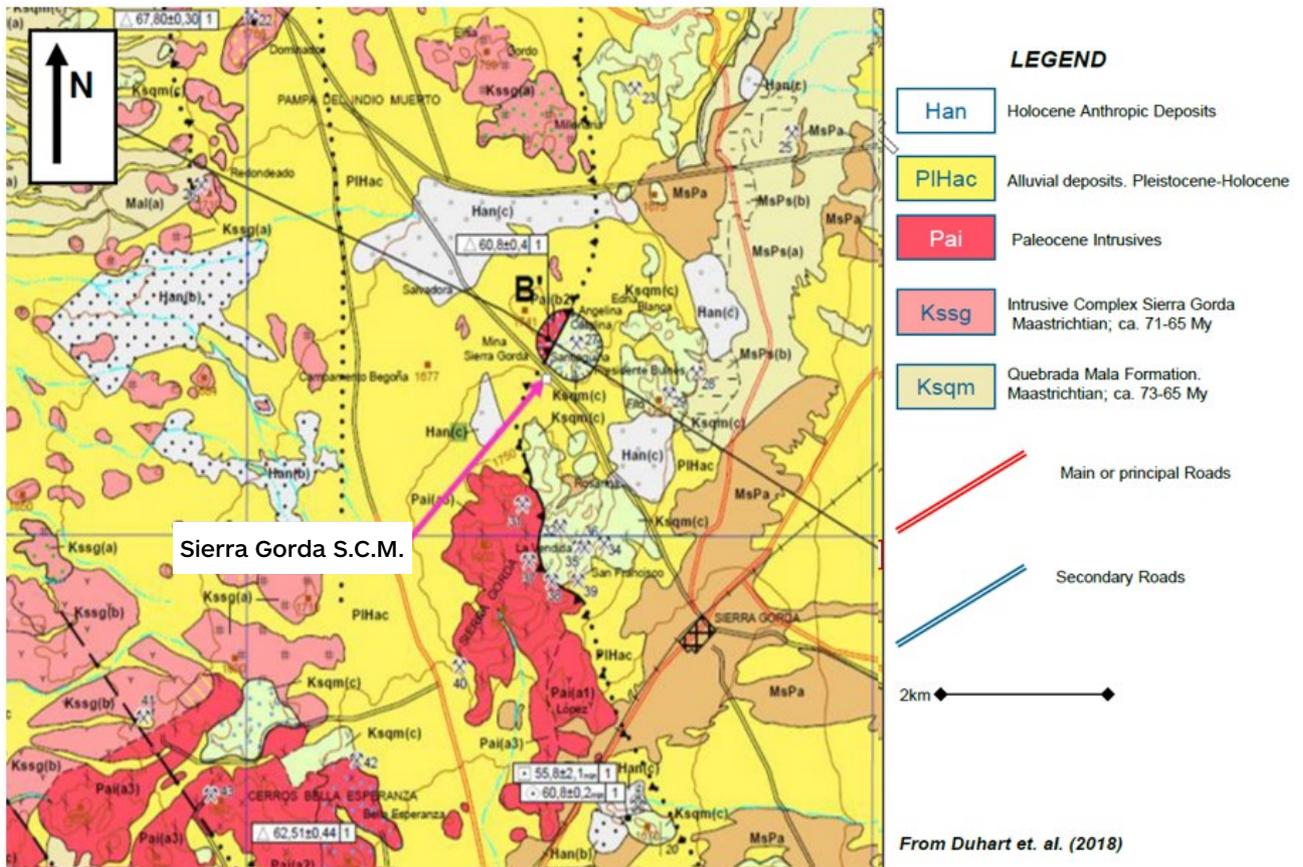
Criteria	Comments
	<p>zones and is considered as waste. Contact dilution occurs at the margin of the ore zones. Contact dilution constitutes a problem in deposits with a strong structural component, where the line between ore and waste can be sharp. Ore-waste contacts at Sierra Gorda tend to be gradational, minimising the potential for contact dilution.</p> <ul style="list-style-type: none"> <li>• The Sierra Gorda mineral resource estimation methodology is considered to generally account for dilution during the estimation. As a result, no further dilution assumptions or factors were applied to the block model.</li> <li>• Grade control is accomplished through conventional sampling from blasthole cuttings. The grade of the blastholes determines the dig-lines and ore-waste contacts.</li> </ul>
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>• The metallurgical process was developed as part of the Feasibility Study by Fluor in 2011. The study developed a geometallurgical understanding linking geology to the metallurgical performance in domains.</li> <li>• Metallurgical performance parameters of hardness and metal recoveries have been modelled based on extensive test work.</li> <li>• The processing circuit employs a conventional approach of three stage crushing followed by grinding and flotation to produce separate copper and molybdenum concentrates. Gold and silver are recovered to the copper concentrate.</li> <li>• Metallurgical performance is conventional and typical of this style of mineralisation. Within sulphide mineralisation, copper is predominately present as Chalcopyrite. The copper concentrate produced is of high quality for smelting and is not expected to attract any significant penalties.</li> </ul>
<p><i>Environmental</i></p>	<ul style="list-style-type: none"> <li>• The operation and all associated activities are fully permitted and compliant to Chilean Regulations.</li> </ul>
<p><i>Infrastructure</i></p>	<ul style="list-style-type: none"> <li>• Access to well established infrastructure and supply secured through long term contracts.</li> <li>• Grid power together with a recently signed renewable power agreement, covers all expected ongoing power requirements. Water is sourced from effluent seawater from a power plant and transported via a 143km pipeline to a storage pond on site. A desalination plant on site provides potable water as well as to the moly plant. The rest of the operations, including the processing plant uses seawater for all operations.</li> <li>• Concentrate is transported via rail and road to ports located in Antofagasta and Angamos.</li> <li>• A camp on site provides accommodation to employees and contractors while working on site. Employees travel to site mostly by bus from nearby towns and cities.</li> </ul>
<p><i>Costs</i></p>	<ul style="list-style-type: none"> <li>• The May 2011 feasibility study capital cost estimate methodology and information sources were suitable for a capital accuracy classification of +/-15% at the summary level. The capital cost estimate was provided for engineering, procurement, material management, construction management, and construction costs for the following activities and facilities: mine equipment, processing plant, tailing storage and disposal, utilities, infrastructure and access roads.</li> <li>• Operating costs are estimated for the life of the mine and include: mining, G&amp;A, processing, shipping and offsite cost, and port costs. Mining costs are based on an owner-operated mine with a maintenance and repair contract (MARC) in place. Processing costs is based on a conventional concentrator using sulphide flotation.</li> <li>• No allowances have been made for the content of deleterious elements. Deleterious elements are at levels well below smelter penalty charge levels.</li> <li>• Chile imposes a Mining Tax and a Corporate Income Tax. No other royalties or encumbrances are payable by Sierra Gorda.</li> </ul>

<b>Criteria</b>	<b>Comments</b>
<i>Revenue factors</i>	<ul style="list-style-type: none"> <li>• <i>The revenue is derived from Sierra Gorda's forecast exchange rate and commodity prices as well as existing marketing and transportation contracts.</i></li> <li>• <i>The prices used are Sierra Gorda 2014 price protocols which exclude the impacts of treatment and refining charges, that are accounted for separately within the NSR calculations.</i></li> </ul>
<i>Market assessment</i>	<ul style="list-style-type: none"> <li>• <i>Sierra Gorda is an operating mine and has an established customer base.</i></li> </ul>
<i>Economic</i>	<ul style="list-style-type: none"> <li>• <i>Cost and price assumptions are considered to arrive at discounted cash flow and NPV is derived from the discounted cash flow. All financial assumptions and outcomes are commercially sensitive and are not included.</i></li> </ul>
<i>Social</i>	<ul style="list-style-type: none"> <li>• <i>The mine and the processing unit is located 5km via road to the nearest community of the Sierra Gorda township.</i></li> <li>• <i>Due to the arid nature of the region, there is no agricultural activity nor raising of livestock. Additionally, no indigenous communities or groups inhabit the area.</i></li> <li>• <i>SGSCM works with nearby mining operations to collectively monitor and regulate air emissions in and around the town of Sierra Gorda.</i></li> </ul>
<i>Other</i>	<ul style="list-style-type: none"> <li>• <i>To the extent known there are no material risks to the estimation and classification of the mineral reserves.</i></li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>• <i>All measured and indicated mineral resources within the ultimate pit design were converted into reserves. Measured and indicated mineral resources was converted to proven and probable reserves, respectively, with the exception that the transition and high acid soluble molybdenum zones were classified as probable only (no proven) due to the lower confidence in the metallurgical behaviour of those materials. All inferred mineral resources were considered waste.</i></li> <li>• <i>The mineral reserve estimate is a qualifying foreign estimate under the ASX listing rules and is not reported in accordance with the JORC Code. The Competent Person has not done sufficient work to classify the foreign estimates as Ore Reserves in accordance with the JORC Code.</i></li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>South32 has conducted extensive due diligence reviews of Sierra Gorda's historical and current ore reserves including production reconciliation.</i></li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>• <i>On acquisition, South32 will define a detailed work program to report Ore Reserves in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the foreign estimates will be able to be reported as Ore Reserves in accordance with the JORC Code.</i></li> </ul>

**Figure 1: Sierra Gorda Project Location Map**

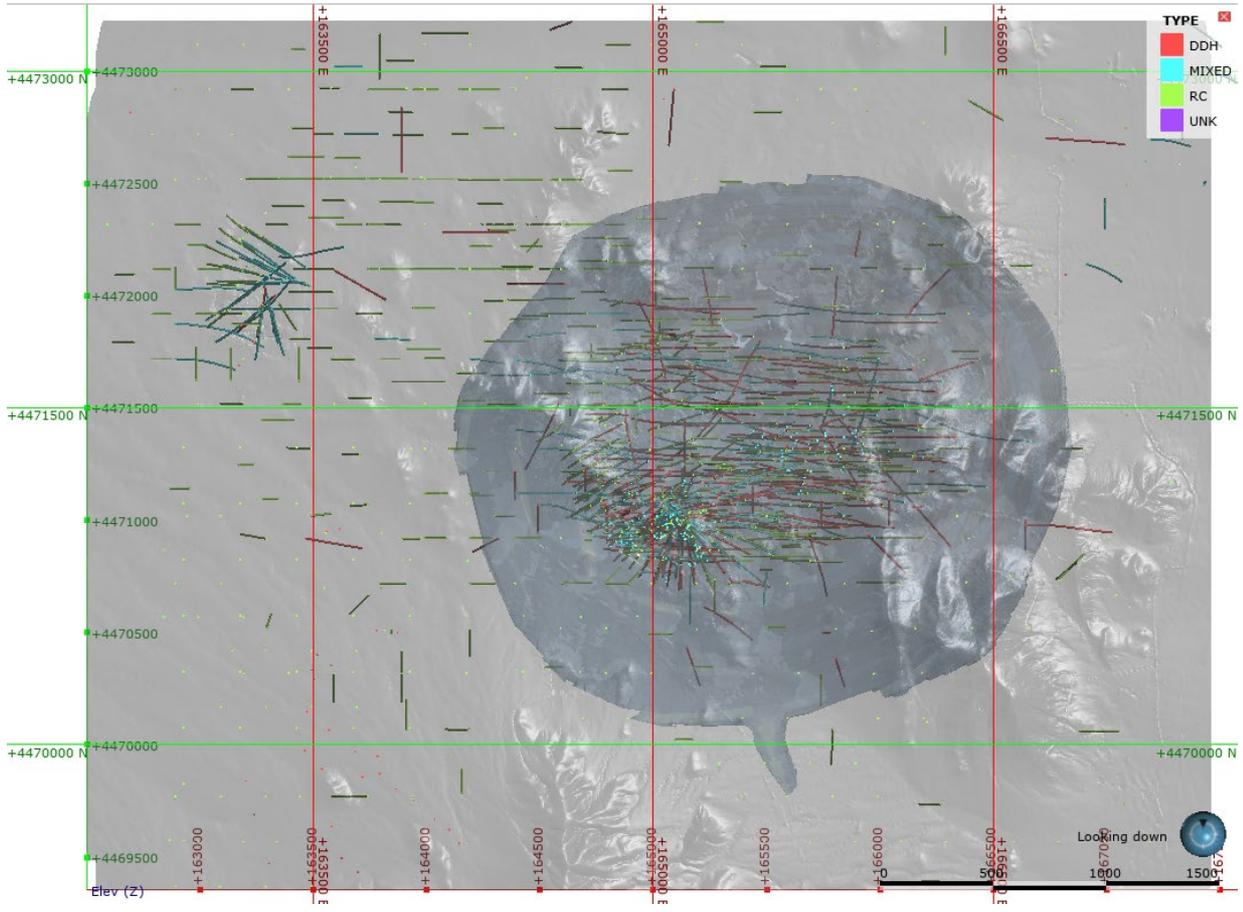


**Figure 2: Sierra Gorda Regional Geology**



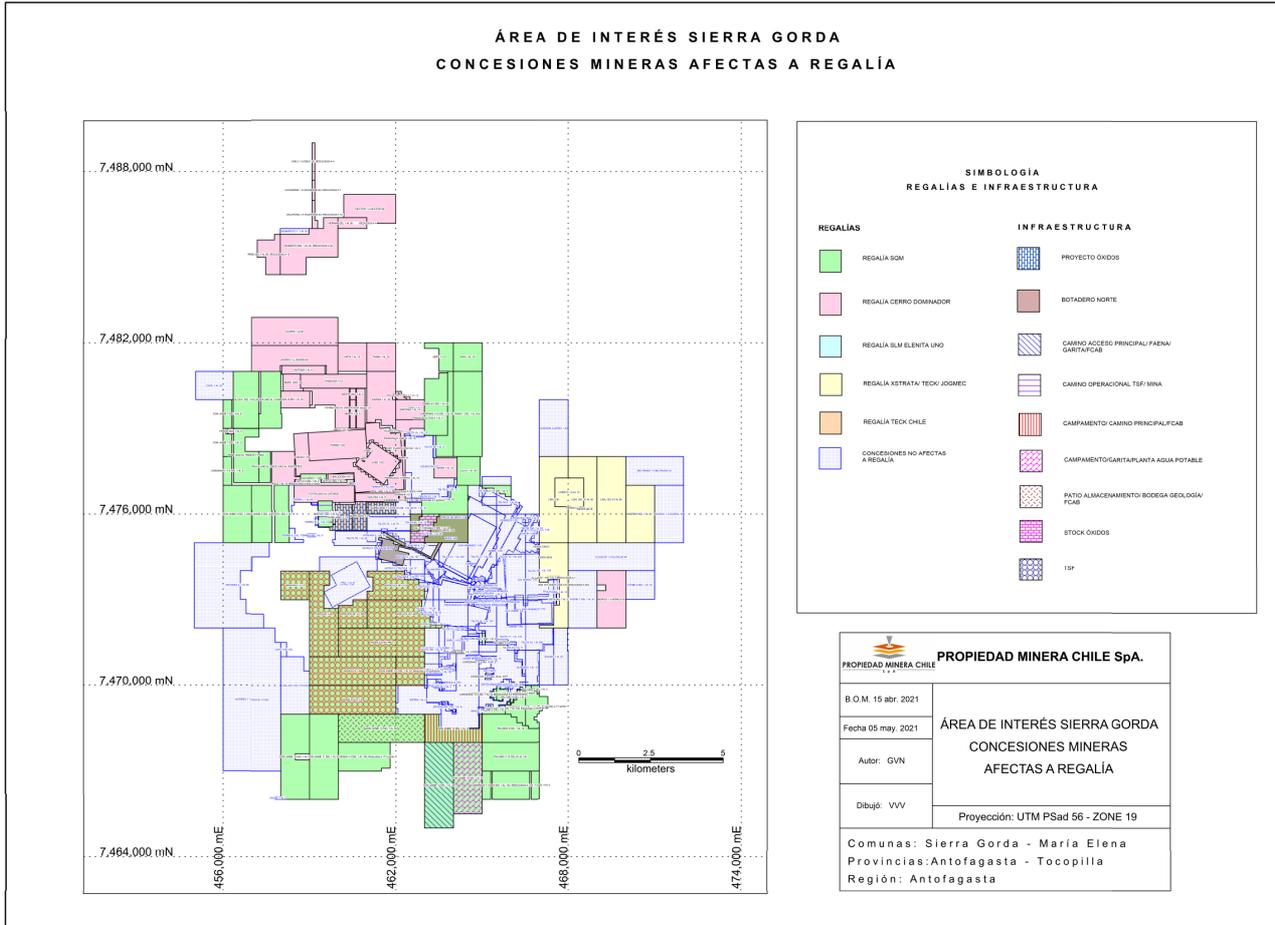
Source: Vendor information

Figure 3: Sierra Gorda Drill Hole Location Plan with Outline of 2014 Life of Mine Pit Design



Source: Vendor information

**Figure 4: Sierra Gorda Property Claim Map**



Source: Vendor information

**Annexure B: Material Assumptions for Production target and forecast financial information for the medium term (CY22 to CY26) (100% basis)**

<b>Criteria</b>	<b>Commentary</b>
<i>Mineral reserves</i>	<i>The medium-term production target of ~50mtpa from CY22 to CY26 is based entirely on proven and probable mineral reserves prepared in accordance with the CIM standards. As these reserves are characterised as a qualifying foreign estimate for the purposes of the ASX Listing Rules, Competent Persons have conducted due diligence of the estimate in order to form a view on their reliability. Further information regarding the reliability of this qualifying foreign estimate, including for the purposes of ASX Listing Rule 5.12, is set out in Annexure A to this announcement.</i>
<i>Study status</i>	<i>Sierra Gorda is currently an operating mine that produces copper and molybdenum concentrate. Development of the Sierra Gorda mine commenced in 2011 following completion of a definitive feasibility study, with commercial production being achieved in CY15. The production target takes into account the experience gathered from mining and processing activities and takes into account the expected improvements to lift plant throughput and recoveries which are scheduled to be completed by CY23.</i>
<i>Cut-off parameters</i>	<i>Current mining activities are based on a valorisation method that considers the added value of copper, molybdenum and gold (including income and costs) providing a value per tonne in each block in the block model. This process helps to define ore, marginal ore and waste and is optimised based on mining over five years.</i>
<i>Mining factors or assumptions</i>	<i>Sierra Gorda is a conventional open pit mine. The current strip ratio is 1.4x with an expected life of operation strip ratio of 2.0x. The selected mining method is a result of the nature (porphyry type) and near surface occurrence of mineralisation. Approximately 76Mt of ore is expected to be mined in CY21 with a medium-term mining rate of ~65Mt. It is expected that the mining grade will be approximately 0.43% Cu in the medium term.</i>
<i>Metallurgical factors or assumptions</i>	<p><i>The processing of Sierra Gorda ore involves three stage crushing followed by grinding and flotation to produce copper and molybdenum concentrates.</i></p> <p><i>Test work was completed during the feasibility study to design the flowsheet. The Sierra Gorda processing facility was constructed and commissioned in CY14, operated and ramped up capacity to achieve 45Mt in CY20 and is expected to process 47Mt of ore in CY21e.</i></p> <p><i>Average metallurgical recovery assumptions considered are 83% for copper, 57% for molybdenum and 53% for gold, with these assumptions taking into account the historical recoveries from the Sierra Gorda processing facility.</i></p> <p><i>The Sierra Gorda mine is expected to produce 214Kt of payable CuEq in CY21 and 200-210kt of payable CuEq in medium term (CY22 to CY26) on an annual basis<sup>12</sup>.</i></p> <p><i>An improvement capital debottlenecking (DBN) project is being implemented over CY22 and CY23 to achieve a medium-term processing capacity of approximately 50Mtpa and improve process recovery of copper by 2% to 85%. The DBN project includes upgrades to the crushers, conveyors, and addition of grinding power. The DBN project also involves increasing the tailings thickener capacity of the Sierra Gorda processing facility. The DBN project has already achieved an increase in ore milled to 47.5Mtpa eight months ahead of the scheduled completion of the project.</i></p>
<i>Environmental</i>	<p><i>All environmental approvals are in place to support the life of mine plan.</i></p> <p><i>A modified design for the tailings storage facility (which lowers the final wall height and increases the footprint) is currently in the permitting phase.</i></p>

<sup>12</sup> Recovered metal in CuEq terms is calculated using the total revenue divided by the Cu price. Average metallurgical recovery assumptions are 83% for Cu, 57% for Molybdenum and 53% for gold. The prices used are Sierra Gorda's CY20 realised prices excluding the impact of treatment and refining charges.

<b>Criteria</b>	<b>Commentary</b>
<i>Infrastructure</i>	<p><i>The operation benefits from high quality, modern processing equipment with historical capital investment to CY20 of ~US\$5B.</i></p> <p><i>Concentrate is transported by truck and rail to the ports of Antofagasta and Angamos for international export to end markets, primarily in Asia. Seawater supply for processing purposes transported to site via a dedicated 143km pipeline, which has excess capacity available for additional processing requirement.</i></p> <p><i>Grid power together with a recently signed renewable power agreement, covers all expected ongoing power requirements. There is the option to increase renewable capacity by 20% from CY24 with the ability to sell excess renewable power back to the grid.</i></p> <p><i>Low profile tailings storage facility (as explained in the Environmental section) design is in place.</i></p>
<i>Costs</i>	<p><i>Costs are derived based on historical operating experience at Sierra Gorda. The unit cost for CY21e: US\$1.29/lb CuEq with a medium-term target of ~US\$1.30-1.50/lb CuEq.</i></p> <p><i>Capital is already planned for improvement initiatives. For CY21, the operation is expected to spend US\$84M on de-bottlenecking and the milling circuit. Further capital expenditure is planned for CY22-23 of ~US\$200-250M for a third tailings thickener and additional grinding mills to increase the concentrate capacity and reduce primary grind size as part of the De-bottlenecking Project.</i></p> <p><i>For safe and reliable operation, US\$309M is included in the current budget which includes deferred stripping, tailings dam wall lifts and adding mining trucks to the fleet. In the medium term, US\$270-310M is planned for ongoing sustaining maintenance of plant and equipment, mining fleet replacement, tailings dam wall lifts and deferred stripping.</i></p>
<i>Revenue factors</i>	<p><i>The revenue is derived using realised commodity price for CY20 and using Sierra Gorda's CY20 budgeted exchange rates, transportation, treatment and refining charges and penalties.</i></p>
<i>Market assessment</i>	<p><i>Sierra Gorda is an operating mine and has an established customer base.</i></p>
<i>Economic</i>	<p><i>Cost and price assumptions are considered to arrive at discounted cash flow and NPV is derived from that discounted cash flow. All financial assumptions and outcomes are commercially sensitive and are not included.</i></p>
<i>Social</i>	<p><i>The mine and the processing unit is located 140km from Antofagasta some 5km from the nearest community of Sierra Gorda. The operation has a good working relationship with communities of Sierra Gorda and Antofagasta.</i></p> <p><i>The workforce is covered by three unions with three collective agreements, each with a three-year term to CY24.</i></p>