24 July 2023

South32 Limited
(Incorporated in Australia under the *Corporations Act 2001* (Cth))
(ACN 093 732 597)
ASX / LSE / JSE Share Code: S32; ADR: SOUHY
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HERMOSA PROJECT – MINERAL RESOURCE ESTIMATE UPDATE AND EXPLORATION RESULTS

South32 Limited (ASX, LSE, JSE: S32; ADR: SOUHY) (South32) reports an update to the Mineral Resource estimate for the Taylor deposit, as well as Exploration Results for the Peake prospect, which form part of our 100% owned Hermosa Project located in Arizona, USA (Annexure 1 – Figure 1).

The Hermosa Project is a polymetallic development option located in Santa Cruz County, Arizona. It comprises the Taylor zinc-lead-silver deposit, the Clark battery-grade manganese deposit, and an extensive, highly prospective land package with potential for the discovery of polymetallic and copper mineralisation.

The Taylor Mineral Resource estimate (Table A) is reported in accordance with the JORC Code (2012 edition)[1] at 153 million tonnes, averaging 3.53% zinc, 3.83% lead and 77 g/t silver. The upgrade includes a 41% increase in the Measured Mineral Resource, providing a compelling base to underpin future production. The deposit remains open in several directions, offering the potential for further growth.

Separately, we have today released exploration drilling results from our Peake copper-lead-zinc-silver prospect, a lateral zone prospective for copper mineralisation, located south of the Taylor deposit.

The results include our best intercept at Peake to date, with diamond drill hole HDS-813 returning a downhole intersection of 139m @ 1.88% copper, 0.51% lead, 0.34% zinc and 52g/t silver at 2.49% CuEq[2] including 58.2m @ 3.1% copper, 0.6% lead, 0.24% zinc, 74g/t silver and 0.015% molybdenum at 3.84% CuEq. Further detail is shown in Annexure 1 – Sections 1 and 2.

We consider the results to be supportive of future exploration potential, with the Peake prospect remaining open in several directions. Further exploration drilling at Peake is planned in H1 FY24.

Full details of this update are contained in this announcement.

[1] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012.

[2] Detailed assumption on commodity prices and metallurgical recoveries to derive Copper equivalent (CuEq) values are included in Annexure 1-Section 2 under Data aggregation methods.

Competent Person Statement

Mineral Resource estimate

The information in this report that relates to the Mineral Resource estimate for the Taylor deposit is based on information compiled by Paul Richardson, a Competent Person who is a registered member of Society for Mining, Metallurgy & Exploration, a 'Registered Professional Organisation' included in a list that is posted on the ASX website from time to time. Mr. Richardson is a full-time employee of South32 and has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Richardson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Exploration Results

The information in this report that relates to Exploration Results for the Peake prospect is based on information compiled by David Bertuch, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr. Bertuch is a full-time employee of South32 and has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Bertuch consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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 commodities including bauxite, alumina, aluminium, copper, silver, lead, zinc, nickel, metallurgical coal and manganese from 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.

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Approved for release to the market by Graham Kerr, Chief Executive Officer
JSE Sponsor: The Standard Bank of South Africa Limited
24 July 2023

Table A: Mineral Resource estimate for the Taylor deposit in 100% terms[2]

As of 30 June 2023

Ore Type	Measured Mineral Resources				Indicated Mineral Resources				Inferred Mineral Resources				Total Mineral Resources			
	Mt[2]	% Zn	% Pb	g/t Ag	Mt[2]	% Zn	% Pb	g/t Ag	Mt[2]	% Zn	% Pb	g/t Ag	Mt[2]	% Zn	% Pb	g/t Ag
UG Sulphide[1,3]	**41**	**4.22**	**4.25**	**67**	**83**	**3.38**	**3.91**	**76**	**28**	**2.96**	**2.97**	**93**	**153**	**3.53**	**3.83**	**77**

Million dry metric tonnes[2], % Zn- Percent zinc, % Pb- Percent lead, g/t Ag- grams per tonne of silver.

As of 30 June 2022

Ore Type	Measured Mineral Resources				Indicated Mineral Resources				Inferred Mineral Resources				Total Mineral Resources			
	Mt[2]	% Zn	% Pb	g/t Ag	Mt[2]	% Zn	% Pb	g/t Ag	Mt[2]	% Zn	% Pb	g/t Ag	Mt[2]	% Zn	% Pb	g/t Ag
UG Sulphide[1]	29	4.10	4.05	57	82	3.65	4.45	88	23	3.62	3.82	93	133	3.74	4.26	82
UG Transition[1]	-	-	-	-	3.7	6.11	4.21	60	1.4	5.55	3.91	64	5.1	5.95	4.13	61
Total	**29**	**4.10**	**4.05**	**57**	**86**	**3.76**	**4.44**	**86**	**24**	**3.73**	**3.82**	**91**	**138**	**3.82**	**4.25**	**81**

Million dry metric tonnes[2], % Zn- Percent zinc, % Pb- Percent lead, g/t Ag- grams per tonne of silver.

Notes:

1. Cut-off grade: NSR of US80$/dmt for UG Sulphide. Input parameters for the NSR calculation are based on South32's long term forecasts for Zn, Pb and Ag pricing; haulage, treatment, shipping, handling and refining charges. Total metallurgical recovery assumptions differ between geological domains and vary from 85% to 92% for Zn, 89% to 92% for Pb, and 76% to 83% for Ag.
2. All masses are reported as dry metric tonnes (dmt). All tonnes and grade information have been rounded to reflect relative uncertainty of the estimate, hence small differences may be present in the totals.
3. UG Transition no longer reported separate from UG Sulphide due to change in modelling methodology.

MINERAL RESOURCE ESTIMATE FOR THE TAYLOR DEPOSIT

South32 confirms reporting of the updated Mineral Resource estimate as at 30 June 2023 for the Taylor deposit and comparison to the previously reported Mineral Resource estimate as at 30 June 2022 (Table A).

The Mineral Resource estimate is reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition).

The breakdown of the total estimates of Mineral Resource into the specific JORC Code categories is contained in Table A. This announcement summarises the information contained in the JORC Code Table 1 which is included in Annexure 1.

Geology and geological interpretation

The Taylor deposit is predominantly hosted in Permian carbonates of the Pennsylvanian Naco Group of south-eastern Arizona (Annexure 1 – Figure 3). It is a CRD (Carbonate Replacement Deposit) style Zn-Pb-Ag massive sulphide deposit. The deposit comprises upper Taylor Sulphide and lower Taylor Deeps domains that have a general northerly dip of 30º and are separated by a low angle thrust fault. Mineralisation within the stacked profile of the thrusted host stratigraphy extends 1,200m from near-surface and is open at depth. Mineralisation is modelled for multiple litho-structural domains for an approximate strike of 2,500m and width of 1,900m. (Annexure 1 – Figures 5 and 6).

Drilling techniques

All recent drilling was conducted from the surface using HQ (95.6mm) diameter core and reducing to NQ (75.3mm) at depth. PQ (122.6mm) core has also been used to collect bulk metallurgical samples. Older Reverse Circulation (RC) drilling exists for the Taylor deposit and is being replaced by core drilling as infill drilling progresses.

The Taylor estimation domains are based on data from 273 surface diamond drill holes.

Since August 2018, holes have been drilled between 60º and 85º dip to maximise the angle at which mineralisation and structures are intersected. Oriented drilling was introduced in October 2018 to incorporate structural measurements into geological modelling for stratigraphy and fault interpretation.

Sampling and sub-sampling techniques

The interpreted geology, geometallurgy and geotechnical modelling is based on 507,550m of drilling.

The mineralised intersections were verified by geologists throughout each drilling program and reviewed independently against core photos by an alternate geologist prior to geological interpretation.

The drill half cores were sampled at regular 1.5m intervals or broken at geologic/structural intervals as needed. Samples were submitted for preparation at Australian Laboratory Services (ALS), in Tucson, an external ISO 17025 certified laboratory. Preparation involved crushing to 2mm, a rotary split to 250g and pulverisation to 85% passing 75µm to create a 250g pulp.

Sample analysis method

Samples of 0.25g taken from the 250g pulp were processed at ALS in Vancouver where samples were digested using a four-acid leach method. This was followed by an Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP-AES) determination for 33 elements.

A range of Certified Reference Materials (CRM) were routinely submitted to monitor assay accuracy. Low failure rates were within expected ranges for this deposit style, demonstrating reliable laboratory accuracy.

Results of routinely submitted field duplicates to monitor sample representativity, coarse crush and laboratory pulp duplicates to quality control sample preparation homogeneity, and certified blank submissions to detect cross-contamination were all within an acceptable range for resource modelling.

Estimation methodology

Resource estimation was performed using two passes of ordinary kriging and a final outer pass of inverse distance squared interpolation for four elements of economic interest (Zn, Pb, Ag, Cu), two potentially deleterious elements (Arsenic (As), Manganese (Mn)) and four tonnage estimation elements (Iron (Fe), Calcium (Ca), Sulphur (S), Magnesium (Mg)).

Search estimation criteria are consistent with geostatistical models developed for each estimation domain according to the appropriate geological controls.

Validation includes statistical analysis, swath plots and visual inspection.

Specific gravity measurements from drill cores were used as the basis for estimating dry bulk density in tonnage calculations for both mineralised and non-mineralised material.

Mineral Resource classification

Mineral Resource classification criteria are based on the level of data informing both the geological model and grade estimation.

Measured Resources are reported for blocks with a nearest three-hole average distance of 60m or less and require a minimum of three holes (nine samples).

Indicated Resources require an average of nearest three-hole drillhole spacing of approximately 110m.

Inferred Resources are constrained by the reporting of estimates to within 300m beyond data and require a minimum of one hole.

Mining and metallurgical methods and parameters

Reasonable prospects for eventual economic extraction have been determined through assessment of the Mineral Resource at a pre-feasibility study level, ranging from stope optimisation and mine scheduling through to mineral processing and detailed financial modelling.

Underground mining factors and assumptions for longhole stoping on a sub- or full-level basis with subsequent paste backfill are made based on industry benchmark mining production and project related studies.

Cut-off grade

The Taylor deposit is a polymetallic deposit which uses an equivalent Net Smelter Return (NSR) value as a grade descriptor.

Input parameters for the NSR calculation are based on South32’s long term forecasts for Zn, Pb and Ag pricing; haulage, treatment, shipping, handling and refining charges.

Total metallurgical recovery assumptions differ between geological domains and vary from 85% to 92% for Zn, 89% to 92% for Pb, and 76% to 83% for Ag.

A dollar equivalent cut-off of NSR US$80/dmt is supported by studies and forms the basis of assessment of reasonable prospects for eventual economic extraction.

Additional information is detailed in Annexure 1.

Annexure 1: JORC Code Table 1: Taylor Mineral Resource estimate and Peake Exploration Results

The following table provides a summary of important assessment and reporting criteria used for the declaration of Mineral Resource estimate for the Taylor deposit and for the reporting of Exploration Results for the Peake prospect, that form part of the Hermosa Project located in South Arizona, USA (Figure 1). Sections 1 and 2 below relate to the assessment and reporting criteria used in respect to both the Taylor deposit and the Peake prospect, whilst Section 3 relates to the declaration of a Mineral Resource estimate for the Taylor deposit. The criteria are in accordance with the Table 1 checklist of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition) on an 'if not, why not' basis. Unless otherwise specifically stated, the response in Table 1 relates to both Taylor deposit and Peake prospect.

Section 1 Sampling techniques and data

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

Criteria	Commentary
Sampling techniques	• The FY23 Taylor deposit Mineral Resource Estimate is based on a database comprising of 776 drill holes, including 282 historical Reverse Circulation (RC), Rotary Air Blast (RAB), or Air Circulation (AC) and 494 Diamond Drilling (DD) drill holes of primarily HQ and NQ sizes. The Taylor deposit is characterised predominantly by DD. 273 holes were used for the Taylor deposit Mineral Resource estimation. • In total, the database features approximately 507,550m of drilling. 140 holes, totalling approximately 56,700m, are excluded from the database where twinned holes were drilled or where the quality of drilling was compromised historically due to deficiencies in logging, lack of assays, or quality assurance/control data. • For the FY23 Mineral Resource Estimate update, 31 holes were added to the database to refine the geological model but could not be used in estimation due to delays in delivery of analytical results. In addition, the geological model reflects inputs from near-surface RC drilling. • The Peake prospect is based on a database comprising 17 diamond drill holes of primarily HQ and NQ sizes. Exploration results from 13 of these holes were previously reported with four new holes reported in this announcement. The Peake prospect is characterised by DD. • A heterogeneity study was undertaken to determine sample representativity. Recommendations to improve duplicate performance included increasing sub-sample and pulverising volumes. • Sampling is predominantly at 1.5m intervals on a half-core basis. • Core is competent to locally vuggy and sample representativity is monitored using half-core field duplicates submitted at a rate of approximately 1:40 samples. Field duplicates located within mineralisation envelopes demonstrate an 80% performance to within 30% of original sample splits. • Core assembly, interval mark-up, recovery estimation (over the 3m drill string) and photography are all activities that occur prior to sampling and follow documented procedures. • Sample size reduction during preparation involves crushing and splitting of PQ (122.6mm), (HQ (95.6mm) or NQ (75.3mm) half-cores.
Drilling techniques	• Data used for estimation is based on logging and sampling of PQ and HQ diamond core. This is reduced to NQ in areas of challenging ground condition as well a historical RC drilling. Triple and split-tube drilling methods are employed in situations where ground conditions require such coring mechanisms to improve core recovery. • Since mid-August 2018, all drill cores were oriented using the Boart Longyear 'Trucore' system. In Q3 FY20, acoustic televiewer data capture was implemented for downhole imagery for most drilling to improve orientation and geotechnical understanding. From September 2021, the acoustic televiewer was the sole drill core orientation method applied. Structural measurements from oriented drilling are incorporated in geological modelling to assist with fault interpretation.

Criteria	Commentary
Drill sample recovery	• Prior to October 2018, core recovery was determined by summation of measurement of individual core pieces within each 3m drill string. Recovery of core has since been measured after oriented core alignment and mark-up. • Core recovery is recorded for all diamond drill holes. Recovery on a hole basis exceeds 90%. • Poor core recovery can occur when drilling through the oxide material and in major structural zones. To maximise core recovery, drillers vary speed, pressure, and composition of drilling muds, reduce PQ to HQ to NQ core size and use triple tube and '3 series' drill bits. • When core recovery is compared to Zn, Pb, Cu and Ag grades for either a whole data set or within individual lithology, there is no discernible relationship between core recovery and grade. • Correlation analysis suggests there is no relationship between core recovery and depth from surface except where structure is a consideration. In isolated cases, lower recovery is observed at intersections of the carbonates with a major thrust structure, locally natural karstic voids have been encountered alongside shallow historic workings.
Logging	• The entire length of core is photographed and logged for lithology, alteration, structure, Rock Quality Designation (RQD) and mineralisation. • Logging is both quantitative and qualitative, of which there are several examples including estimation of mineralisation percentages and association of preliminary interpretative assumptions with observations. • All logging is peer reviewed against core photos. Context of current geological interpretation and information from surrounding drill holes are used when updating geological model. • Geologic and geotechnical logging is recorded on a tablet with inbuilt Quality Assurance and Quality Control (QA/QC) processes to minimise entry errors before synchronising with the site database. • Logging is completed to an appropriate level to support assessment of exploration results and Mineral Resource Estimation.

Sub-sampling techniques and sample preparation	• Sawn half cores and barren whole core samples are taken on predominantly 1.5m intervals for the entire drill hole after logging. Mineralisation is highly visual. Sampling is also terminated at litho-structural and mineralogical boundaries to reduce the potential for boundary/dilution effects on a local scale.
	• Sample lengths vary between 0.75m and 2.3m. The selection of the sub-sample size is not supported by sampling studies.
	• Since the initial discovery of the Taylor sulphide deposit, all sample preparation is performed offsite at an ISO 17025 certified laboratory. This was performed by Skyline until 2012, after which it was performed by ALS. Samples submitted to ALS are generally 4–6kg in weight. Sample size reduction during preparation involves crushing of PQ (122.6mm), HQ (95.6mm) or NQ (75.3mm) half or whole cores, splitting of the crushed fraction, pulverisation and finally splitting of the sample for analysis. The process adopted is as follows:
	  ○ The entire half or whole core samples are crushed and split in preparation for pulverisation.
	  ○ Fine crushing follows until 70% of the sample passes 2mm mesh. A 250g split of finely crushed sub-sample is obtained via rotary or riffle splitter and are pulverised. The sub-sample split was recently increased to 1,000g to address sample heterogeneity study outcomes.
	  ○ The samples are pulverised until 85% of the material is less than 75µm.
	  ○ These 250g pulp samples are taken for assay and a 0.25g split is used for digestion.
	• ALS protocol requires 5% of samples to undergo a random granulometry QC test. Samples are placed on 2mm sieve and completely processed to ensure the passing mesh criteria is maintained. Pulps undergo similar tests with finer meshes. Results are loaded to an online portal for review by the client.

Criteria	Commentary
	• Precision in sample preparation is monitored with blind laboratory duplicates assayed at a rate of 1:50 submissions. • Coarse crush preparation duplicate pairs show that at least 80% of Zn, Pb and Cu report within +/-20% of original samples, Ag reports at 78%. Performance significantly improves for all analytes in higher grade samples to better than 90%. Pulp duplicates reporting to 90% for Zn, Pb and Cu, with Ag reporting at 82% within +/-20%. For higher pulp grade samples, the performance improves to 99% for all elements. • Sub-sampling techniques and sample preparation are adequate for providing quality assay data to analyse exploration results and for Mineral Resource estimation but will benefit from planned studies to optimise sample selectivity and quality control procedures.
Quality of assay data and laboratory tests	• Historical descriptions of the analytical techniques conducted by ASARCO LLC (ASARCO) from 1950-1991 for the original drilling, 113 AC, RAB, RC and DD are not available. ASARCO data does not form part of the Mineral Resource estimate. • Between 2006 and 2009, Arizona Mining Inc. (AMI) used Skyline Laboratories sampling with Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP-AES) with atomic absorption spectrometry (AAS) to test for Cu, Pb, Zn, and Mn after a multi-acid digestion. Ag and Au fire assays were undertaken by Assayers Canada in Vancouver from a split of each pulp using a 30g charge, occasionally reduced in weight for high manganese oxide samples. In 2006, 4,272 ASARCO pulp samples, representing 90% of sampling, were re-analysed to validate the Cu, Pb, Zn, and Mn assay results. For Ag, the reanalysis program represented 77% of the total assays. • Between 2010 and 2012, Arizona Mining Inc. (AMI) changed to Inspectorate in Reno, Nevada laboratories for gravimetric fire assay of Au and Ag, with repeat assays of Ag values greater than 102g/t (3 ounces per US ton). • Between 2014 and 2020, samples of 0.25g from pulps were processed at ALS Vancouver. ME-ICP61 analysis was used where the samples were totally digested using a four-acid method. This was followed by analysis using a combination of Inductively Coupled Plasma – Mass Spectrometry (ICP-MS) and ICP-AES determination for 33 elements. Overlimit values for Ag, Pb, Zn, and Mn utilise OG-62 analysis. In November 2020, the analytical method improved with ME-MS61 for the four-acid 48 element assay for additional elements and improved detection limits alongside the addition of overlimit packages of S-IR07 for S and ME-ICP81 for Mn. Digestion batches of 36 samples plus four internal ALS control samples (one blank, two CRM, and one duplicate) were processed using the four-acid digestion. Industry standard and adequate quality control measures and monitoring are utilised with CRM, duplicates, blanks and internal reference material insertion. • The nature and quality of assaying and laboratory procedures by AMI and South32 are appropriate for review of exploration results and support resource estimation.
Verification of sampling and assaying	• In 2019, South32 completed a pulp re-assay program of 3,071 samples from 16 holes drilled between 2007 and 2012 from the Clark Deposit. This program used 33 suite Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) analysis after four-acid digestion to validate the values for Zn, Mn, Ag, Pb and Cu in the database. This program compared results from the original analytical methods - mixed digestion, spectroscopy and fire assay techniques - with the more established methods employed on the project since 2014 - based on ICP-AES and total digestion. A secondary objective of the re-assay program was to provide a more complete analytical suite for multielement data which had not been analysed in the 2007-2012 drilling. ○ The re-assay results indicate good reproducibility in ICP-OES results for zinc, manganese, silver and lead, from relative percent difference calculated for each original and duplicate sample pair. Gravimetric fire assay results for silver are generally not comparable around low values and issues with these values are known from previous studies. • Core photos of the entire hole are reviewed by geologists to verify significant intersections and to finalise the geological interpretation from core logging.

Criteria	Commentary
	• Sampling is recorded digitally and uploaded to an Azure SQL project customised database (Plexer) via an API provided by the ALS laboratory and the external Laboratory Information Management System (LIMS). Digitally transmitted assay results are reconciled once uploaded to the database. • No adjustments of assay data were made.
Location of data points	• Drill hole collar locations are surveyed by registered surveyors using a GPS Real Time Kinematic (RTK) rover station correlating with the Hermosa project RTK base station and Global Navigation Satellite Systems which provide up to 1cm accuracy. • Downhole surveys prior to mid-August 2018 were undertaken with a 'TruShot' single shot survey tool every 76m and at the bottom of the hole. Between 20 June 2018 and 14 August 2018, downhole surveys were undertaken at the same interval with both the single shot and a Reflex EZ-Gyro, after which the Reflex EZ-Gyro was used exclusively. • The Hermosa project uses the Arizona State Plane (grid) Coordinate System, Arizona Central Zone, International Feet. The datum is NAD83 with the vertical heights converted from the ellipsoidal heights to NAVD88 using GEOID12B. • All drill hole collar and downhole survey data were audited against source data. • Survey collars have been compared against a one-foot topographic aerial map. Discrepancies exceeding 1.8m were assessed against a current aerial flyover and the differences attributed to surface disturbance from construction development and/or road building. • Survey procedures and practices result in data location accuracy suitable for mine planning.
Data spacing and distribution	• Drill hole spacing ranges from 10m to 500m. The spacing supplies sufficient information for geological interpretation and mineral resource estimation. • Drill holes were composited to nominal 1.5m downhole composites.

Orientation of data in relation to geological structure	• Mineralisation varies in dip between:
	  ○ 30°NW in the upper Taylor Sulphide.
	  ○ 20°N and 30°N in the lower Taylor Deeps and Peake Sulphide domains.
	• Drilling is oriented at a sufficiently high angle to allow for accurate representation of grade and tonnage using three-dimensional modelling methods.
	• There is an indication of sub-vertical structures (possibly conduits for or offsetting mineralisation) which have been accounted for at a regional scale through the integration of mapping and drilling data. Angled, oriented core drilling introduced from October 2018 is designed to improve understanding of the relevance of structures to mineralisation, as well as the implementation of acoustic televiewer capture.

Sample security	• Samples are tracked and reconciled through a sample numbering and dispatch system from site to the ALS sample distribution and preparation facility in Tucson or other ALS preparation facilities as needed. The ALS LIMS assay management system provides an additional layer of sample tracking from the point of sample receipt. Movement of samples from site to the Tucson distribution and preparation facility is currently conducted through contracted transport. Distribution to other preparation facilities and Vancouver is managed by ALS dedicated transport. • Assays are reconciled and results are processed in an Azure SQL project customised database (Plexer) which has password and user level security. • Core is stored in secured onsite storage prior to processing. After sampling, the remaining core, returned sample rejects and pulps are stored at a purpose-built facility that have secured access. • All sampling, assaying and reporting of results are managed with procedures that provide adequate sample security.

Criteria	Commentary
Audits or reviews	• The FY23 Mineral Resource and database supporting exploration results has been externally audited by Golder Associates Pty Ltd. The audit concluded, in general, that modelling has been conducted in a manner consistent with industry standards and supporting documentation has been adequate. • The ALS laboratory sample preparation and analysis procedures were audited by internal South32 Geoscientists during the drilling campaign. No significant issues were identified. Outcomes of the audit were shared with ALS for them to implement recommendations. • Recent changes have been implemented to improve duplicate performance by increasing the size of sub-sample splits and pulverising volumes.

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary

Mineral tenement and land tenure status	• The Hermosa Project mineral tenure (Figures 1 and 2) is secured by 30 patented mining claims, totalling 228 hectares that have full surface and mineral rights owned fee simple. These claims are retained in perpetuity by annual real property tax payments to Santa Cruz County in Arizona and have been verified to be in good standing until 31 December 2023.
	• The patented land is surrounded by 2,505 unpatented lode mining claims totalling 19,225.82 hectares. These claims are retained through payment of federal annual maintenance fees to the Bureau of Land Management (BLM) and filing record of payment with the Santa Cruz County Recorder. Payments for these claims have been made for the period up to their annual renewal on or before 1 September 2024.
	• Title to the mineral rights is vested in South32's wholly owned subsidiary South32 Hermosa Inc. No approval is required in addition to the payment of fees for the claims.
	• AMI purchased the project from ASARCO and no legacy royalties, fees or other obligations are due to ASARCO or its related claimants (i.e. any previous royalty holders under ASARCO royalty agreements). At present, four separate royalty obligations apply to the project:
	    ○ Ozama River Corporation: A 2% NSR royalty payable by AMI to Ozama River Corporation (Ozama) for the future sale of all production minerals from certain identified claims.
	    ○ Osisko Gold Royalties Ltd.: A 1% NSR royalty to Osisko Gold Royalties Ltd. (Osisko) on all sulphide ores of lead and zinc in, under, or upon the surface or subsurface of the Hermosa project. This royalty also applies to any copper, silver or gold recovered from the concentrate from such ores.
	    ○ Bronco Creek Exploration, Inc.: A 2% of production returns from those claims to Bronco Creek claims.
	    ○ Allis Holdings Arizona, LLC: A 1.5% NSR royalty on all production minerals extracted from three patented mining claims consisting of approximately 60.94 acres (24.66 hectares(ha)).
	• In addition to the 30 patented mining claims with the surface and mineral rights owned fee simple, South32 Hermosa Inc. also owns other fee simple properties totalling approximately 3,120.09 acres (1,263.65 ha) which are not patented mining claims, and which are a mix of residential and vacant properties.

Criteria	Commentary
Exploration done by other parties	• ASARCO acquired the property in 1939 and completed intermittent drill programs between 1940 and 1991. ASARCO initially targeted silver and lead mineralisation near historical workings of the late 19th century. ASARCO identified silver-lead-zinc bearing manganese oxides in the manto zone of the overlying Clark deposit between 1946 and 1953. • Follow up rotary air hammer drilling, geophysical surveying, detailed geological and metallurgical studies on the manganese oxide manto mineralisation between the mid-1960's and continuing to 1991, defined a heap leach amenable, low-grade manganese and silver resource reported in 1968, updated in 1975, 1979 and 1984. The ASARCO drilling periods account for 113 drill holes in the database. • In March 2006, AMI purchased the ASARCO property and completed a re-assay of pulps and preliminary SO_2 leach tests on the manto mineralisation for a Preliminary Economic Assessment (PEA) in February 2007. Drilling of RC and diamond holes between 2006 and 2012 focused on the Clark deposit (235 holes) and early definition of the Taylor deposit sulphide mineralisation (16 holes), first intersected in 2010. Data collected from the AMI 2006 campaign is the earliest information contributing to estimation of the Taylor deposit Mineral Resource. • AMI drill programs between 2014 and August 2018 (217 diamond holes) focused on delineating Taylor deposit sulphide mineralisation, for which Mineral Resource estimates were reported in compliance to NI 43-101 (Foreign Estimate) in November 2016 and January 2018.

Geology	• The regional geology is set within Lower-Permian carbonates, underlain by Cambrian sediments and Proterozoic granodiorites. The carbonates are unconformably overlain by Triassic to late-Cretaceous volcanic rocks (Figures 3 and 4). The regional structure and stratigraphy are a result of late-Precambrian to early-Palaeozoic rifting, subsequent widespread sedimentary aerial and shallow marine deposition through the Palaeozoic Era, followed by Mesozoic volcanism and late batholitic intrusions of the Laramide Orogeny. Mineral deposits associated with the Laramide Orogeny tend to align along regional NW and NE structural trends.
	• Cretaceous-age intermediate and felsic volcanic and intrusive rocks cover much of the Hermosa project area and host low-grade disseminated silver mineralisation, epithermal veins and silicified breccia zones that have been the source of historic silver and lead production.
	• Mineralisation styles in the immediate vicinity of the Hermosa Project include:
	    ○ the Carbonate Replacement Deposit (CRD) style zinc-lead-silver base metal sulphides of the Taylor deposit;
	    ○ the lateral skarn-style copper-lead-zinc-silver Peake prospect; and
	    ○ an overlying manganese-zinc-silver oxide manto deposit of the Clark deposit (Figures 4, 5, 6, and 7).
	• The Taylor deposit comprises the overlying Taylor Sulphide and Taylor Deeps domains separated by a thrust fault. Approximately 600–750m lateral and south of the Taylor Deeps domain, the Peake prospect copper-skarn sulphide mineralisation is identified in older lithological stratigraphic units along the continuation of the thrust fault (Figures 5 and 6).
	• The north-bounding edge of the thrusted carbonate rock is marked by a thrust fault where it ramps up over the Jurassic/Triassic 'Older Volcanics' and 'Hardshell Volcanics'. This interpreted pre-mineralising structure that created the thickened sequence of carbonates also appears to be a key mineralising conduit. The thrust creates a repetition of the carbonate formations below the Taylor Sulphide domain, which host the Taylor Deeps mineralisation.
	• The Taylor Deeps mineralisation dips 10°N to 30°N, is approximately 100m thick and is primarily localised near the upper contact of the Concha Formation and unconformably overlying Older Volcanics. Some of the higher-grade mineralisation is also accumulated along a westerly plunging lineation intersection where the Concha Formation contacts the Lower Thrust. Mineralisation has not been closed off down-dip or along strike.
	• Lateral to the Taylor Deeps mineralisation, skarn sulphide mineralisation of the Peake prospect is identified in older lithological stratigraphic units along the continuation of the

Criteria	Commentary
	thrust fault. This creates a continuous structural and lithological controlled system from the deeper skarn Cu domain into Taylor Deeps, Taylor Sulphide and associated volcanic hosted mineralisation and the Clark oxide deposit. • The Peake prospect is comprised of a series of stacked horizons that have a general north-westerly dip of 30^0 hosting disseminated to semi-massive sulphide. The upper and lower extents of the horizons tend to have polymetallic mineralisation with the central component dominated by copper sulphides, predominantly chalcopyrite. Mineralisation within the stacked profile is approximately 130m thick, for an approximate 450m strike and 300m width.
Drill hole Information	• The Taylor deposit and Peake prospect drill hole information, including tabulations of drill hole positions and lengths, is stored, within project data files created for this estimate and exploration results review, on a secure server. • A drill hole plan view (Figure 4) provides a summary of drilling collar locations that support the Peake prospect exploration results and surface geology. Figure 5 provides the Peake prospect exploration drill holes relative to the mineralisation domains. Figure 6 provides the drill hole plan in cross section relative to the FY23 Taylor deposit and FY22 Clark deposit Mineral Resource domains and simplified lithologies, and the Peake prospect. Figure 6 shows a cross sectional view of the mineralisation domains and Figure 7 shows a level plan of the Peake prospect relative to drilling and current mineralisation envelope. • Table 1 summarises new drill holes to dates from Peake prospect exploration. • Table 2 summarises selective Peake prospect exploration result significant intersections to date, both previously reported and new for balanced reporting. All previous drill hole information is provided in the 17 January, 2022, Hermosa Project Update announcement released to Australian Securities Exchange (ASX) and can be found in www.south32.net. • Hole depths vary between 15m and 2,075m.
Data aggregation methods	• Data is not aggregated other than length-weighted compositing for grade estimation. • Significant assay intercepts are reported as length-weighted averages exceeding either 2% ZnEq or 0.2% Cu to report exploration results. • No top cuts are applied to grades for intercept length-weighted average calculations when assessing and reporting exploration results. • Capping was undertaken for the updated Taylor deposit Mineral Resource estimate. • Percentage zinc equivalent (% ZnEq) accounts for combined value of Zn, Pb and Ag. Metals are converted to % ZnEq via unit value calculations using long-term consensus metal price assumptions and relative metallurgical recovery assumptions. Total metallurgical recoveries differ between geological domains and vary from 85% to 92% for Zn, 89% to 92% for Pb and 76% to 83% for Ag. Average payable metallurgical recovery assumptions are 90% for Zn, 91% for Pb, and 81% for Ag. Metals pricing assumptions are South32's long-term consensus prices as at the April 2023 quarter. The formula used for calculation of zinc equivalent is ZnEq (%) = ZnEq (%) = Zn (%) + 0.5859 * Pb (%) + 0.01716 * Ag (g/t). • Percentage copper equivalent (% CuEq) accounts for combined value of Cu, Zn, Pb and Ag. Metals are converted to % CuEq via unit value calculations using long-term consensus metal price assumptions and relative metallurgical recovery assumptions. Total metallurgical recoveries differ between geological domains and vary from 85% to 92% for Zn, 89% to 92% for Pb, 76% to 83% for Ag and 80% for Cu. Average payable metallurgical recovery assumptions are 90% for Zn, 91% for Pb, 81% for Ag and 80% for Cu. Metals pricing assumptions are South32's long-term consensus prices as at the April 2023 quarter. The formula used for calculation of copper equivalent is CuEq (%) = Cu (%) + 0.3965*Zn (%) + 0.2331 * Pb (%) + 0.0068 * Ag (g/t).
Relationship between mineralisation widths and	• Vertical (90-85° dip) drilling is used to create the geology model. Where drilling intersects the low-to-moderately dipping (30°) stratigraphy, the intersection length can be up to 15% longer than true width. • Since August 2018, drilling has been intentionally angled between 60° and 85° to maximise the angle at which mineralisation is intersected.

Criteria	Commentary
intercept lengths	• The mineralisation is modelled in three dimensions (3D) to appropriately account for sectional bias or apparent thickness issues which may result from two dimensional (2D) interpretations.
Diagrams	• Relevant maps and sections are included with this announcement.
Balanced reporting	• Exploration results for Peake prospect are reported as an update to previous disclosed Exploration Results. All new drill hole intersections are considered in this assessment for balanced reporting, alongside proximal drillholes that have been previously reported. A list of drill holes is included as an annexure and previous drill hole information is provided in the 17 January, 2022, Hermosa Project Update announcement released to ASX and can be found in www.south32.net.
Other substantive exploration data	• Aside from drilling, the geological model is developed from local and regional mapping, geochemical sampling and analysis and geophysical surveys. Metallurgical test work, specific gravity sampling and preliminary geotechnical logging have contributed to evaluating the potential for reasonable prospects for eventual economic extraction of the Mineral Resource at a prefeasibility study level. • Magneto-telluric (MT) and Induced Polarisation (IP) surveys were conducted with adherence to industry standard practices by Quantec Geosciences Inc. In most areas, the MT stations were collected along N–S lines with 200m spacing. Spacing between lines is 400m. Some areas were collected at 400m spacing within individual lines. IP has also been collected, both as 2D lines and as 2.5D swaths, collected with a variable spacing of data receivers. • Quality control of geophysical data includes using a third-party geophysical consultant to verify data quality and provide secondary inversions for comparison to Quantec interpretations.
Further work	• Planned elements of the resource development strategy include extensional and infill drilling, orientation and logging for detailed structural and geotechnical analysis, comprehensive specific gravity sampling, further geophysical and geochemical data capture and structural and paragenesis studies. • Additional drilling of the Peake prospect is planned for FY24 and is guided by outcomes of a detailed assessment of recent drilling and geophysical surveys in the area.

Section 3 - Estimation and Reporting of Mineral Resources
(Applies only to the Taylor Mineral Resource estimate)
(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
Database integrity	• Drill hole data is stored in a Plexer database. Collar, survey, sample dispatch data and analytical results are uploaded from .csv files as they become available. The upload process includes validation checks for consistency and anomalous values. • Drill logs have been entered directly into Fusion from paper-based records. This process was improved by the introduction of digital logging in October 2018 whereby this data is generated as .csv files for upload and validation.
Site Visits	• The Competent Person has reviewed the Taylor deposit Mineral Resource Estimate, visits the site regularly and is a full-time employee of South32. • The objectives of the site visit are to understand all inputs and processes contributing to the FY23 Mineral Resource estimate, including core drilling, changes in core logging procedures, digital core logging, database audits and resampling programs to improve confidence in geological interpretation, density estimation and geometallurgical inputs. • The Competent Person discussed sample preparation and laboratory procedures with ALS representatives to ensure that these procedures are applied.

Criteria	Commentary
	• The findings of site visits indicate the data and procedures are of sufficient quality for Mineral Resource estimation and reporting. Review and required improvement are continuously discussed and any required changes are implemented.
Geological interpretations	• 'Mineralisation domains' are created within bounding lithologies using indicator modelling methods of the cumulative in-situ value of metal content. The metal content descriptors, termed 'Metval' and 'Oxval' are calculated by summing the multiplication of economic analyte grades for Mn, Zn, Pb, Cu and Ag, price and recovery. Metval and Oxval cut-off ranges for mineralisation domains ranged from US$6 to US$17 for the different litho-structural domains. Material above the Metval and Oxval cut-off is modelled utilising the indicator numerical model function in Leapfrog Geo™ to create volumes. • Indicator models are guided using geologic trends based on modelled lithologic contacts and structures within a post mineralisation fault block model. Constraints on these domains include known bounding structures, stratigraphy and manually digitised limits on the extents of mineralisation. In addition to drill hole data, historic underground mine plans and mapping and surface geologic mapping is used to help extend geologic features to the topography. The purpose of these domains is to provide mineralised volumes within the larger lithologic boundaries and to ensure relevant geological controls and constraints are considered. Indicator cut-offs are selected to create continuous volumes consistent with the overall modelling approach for CRD-style mineralisation. • Mineralised domains are evaluated against multiple indicator scenarios for parameters such as inherent dilution, exclusion and volumetric changes. These evaluations aim to balance the parameters with the understood continuity of mineralisation from site geological staff interpretation. • Alternate geological interpretations have not been used; however, the model is continually evolving as new data is collected.
Dimensions	• The mineralising system is yet to be fully drill tested in multiple directions. The Taylor sulphide mineralisation is constrained up-dip where it transitions to oxide mineralisation, representing a single contiguous mineralised system. Taylor is open in multiple directions. • The north-bounding edge of the thrusted carbonate rock is marked by a thrust fault where it ramps up over the Jurassic/Triassic 'Older Volcanics' and 'Hardshell Volcanics'. This interpreted pre-mineral structure that created the sequence of carbonates also appears to be a key conduit for mineralisation. • The Taylor deposit has an approximate strike length of 2,500m and width of 1,900m. The stacked profile of the thrusted host stratigraphy extends 1,200m from near-surface and is open in several directions. (Figure 5 and Figure 6).

Estimation and modelling techniques	• Geologic modelling was performed using Leapfrog Geo™ 2022.1.0 and grade estimations using Maptek Vulcan.
	• Elemental estimation includes Zn, Pb, Ag and Cu. As and Mg are estimated as potential deleterious analytes and Fe, Ca, S, and Mg are estimated as tonnage inputs.
	• The specific gravity is also estimated using a restricted search guided by geologic trends.
	• Estimation and modelling techniques reflect the interpreted structural and lithological controls on mineralisation apparent in the core and in data. These align with the current understanding of the formation of CRD style mineralisation. Key assumptions include:
	  ○ The relative importance of structure and lithology in either facilitating or constraining the deposition of mineralisation.
	  ○ Geological domaining according to these controls; and
	  ○ All boundaries are considered "hard."
	• Search orientations are aligned with mineralised structures and lithological contacts using locally varying anisotropy to assign directions on a block-by-block basis. Search distances and variography parameters are interpolated into 'parent' blocks of 9m by 9m by 4.5m from 3D geological wireframes taken from the geological model.

Criteria	Commentary
	• Assay data is composited to a nominal interval of 1.5m within mineralisation domains for the purpose of exploratory data analysis to derive estimation parameters for ordinary kriging. • To manage the risk of local grade overestimation, high-grade outliers in the drill holes are capped prior to compositing. Cap values are determined using log probability plots for each domain. Selected thresholds are typically above the 99.5 percentile where the distribution or sample support deteriorates and to reduce the coefficient of variation. No bottom caps are applied. • The outputs of geostatistical analysis, including variography and Quantitative Kriging Neighbourhood Analysis (QKNA), are used to optimise grade estimation parameters such as search distances, sample selection criteria, and block dimension. A parent block size of 9m by 9m by 4.5m is selected relative to a data spacing of between 25m and 150m. However typically a data spacing of approximately 50m within the core of mineralisation is used to support mining study selectivity within the minimum Selective Mining Unit (SMU) dimension. • Sub-cells to a minimum of 1.5m are built along the contacts of the estimation domains to reduce the volume variance between wireframe models and the orthogonal block model. • The dimensions of the anisotropic search ellipses for each estimation pass are generally matched to the ranges of the first and second structures of the variograms per domain using ranges of the overall structure of grade continuity for the zinc variogram models. The search ellipse ranges vary between estimation domains but remain the same for all elements within individual domains. While related elements (e.g. Pb-Ag, Pb-Zn, Ag-Zn) are not co-kriged, their correlated nature is validated and confirmed that the relationship is preserved in block estimates. • Minimum and maximum sample criteria, an octant search strategy and a restriction of the number of samples used from each drill hole are applied to assist with reduction of local grade bias. A second search pass, set at the entire range of the zinc variogram, is used to estimate lower confidence areas of the model. • Kriging tests with visual and statistical validation of results indicate whether it is appropriate to apply an initial top cap, which is then adjusted up or down to counter any global bias introduced. The degree of grade smoothing between data and block values is analysed through a comparison of mean differences, histograms, q-q plots and swath plots. • Classification criteria constrain the reporting of estimates to within demonstrated grade and geological continuity ranges. As all estimation passes rely on at least two holes to inform the estimate, there is no extrapolation from single holes in any classified material. • The appropriateness of estimation techniques contributes to the high confidence estimation outcome achieved in areas of data spacing within the full ranges of grade continuity. • The grade estimations are compared against previous estimates and reviewed locally for differences in data/interpretation and globally using graded tonnage plots and waterfall analysis. • The Mineral Resource is reported for Zn, Pb and Ag without any assumptions relating to recovery of by-products. • Resource estimation is well established and reasonable for the deposit.
Moisture	• Moisture content of the core appears to be minimal, based on logging observations and pre-and post-dried sample weights tested by ALS on assay samples from July 2019 to February 2022 on over 50,000m. A dry bulk density is assumed for estimation purposes.
Cut-off parameters	• NSR reporting cut-off values are based on relevant project study operational costs and pricing scenarios. Application of a nominal lower limit of breakeven economics from these costs is considered as the reasonable prospects for eventual economic extraction under current economic modelling. • The calculations for each block are used to determine resource block cut-off according to variability of physical costs such as logistics, treatment costs, refining costs and economic factors such as metal pricing.

Criteria	Commentary
	• The NSR cut-off values for reporting the FY23 Taylor deposit Mineral Resource is US$80/dmt for material considered extractable by underground open-stope methods. • The input parameters for the NSR calculation include South32 long-term forecasts for Zn, Pb and Ag pricing, haulage, treatment, shipping, handling and refining charges.
Mining factors or assumptions	• Underground mining factors and assumptions are based on pre-feasibility level project studies and are calibrated against South32's Cannington zinc, lead and silver mine production. Longhole stopes on a sub- or full-level basis with subsequent paste backfill is the assumed mining method. • Reasonable prospects for eventual economic extraction are determined through assessment of the model at Prefeasibility Study (PFS) levels using processes ranging from stope optimisation and mine scheduling through to detailed financial modelling. • The NSR block value incorporates metallurgical recovery based on test work for composite and individual mineralisation domains.
Metallurgical factors or assumptions	• Total metallurgical recovery assumptions vary for sulphide geological domains from 87% to 94% for zinc; 94% to 95% for lead; and 87% to 92% for silver. These assumptions have been verified through extensive metallurgical test work.
Environmental factors or assumptions	• Pre-Feasibility level environmental assumptions, including possible waste and process residue disposal options, are factored into physical and financial models that are used to evaluate reasonable prospects for eventual economic extraction.
Bulk density	• Dry bulk density is estimated for mineralisation domains where data density is sufficient to estimate Zn on the first pass. Zn variograms and first pass search criteria are applied to density measurements. The current database records 25,272 Specific Gravity (SG) measurements. • SG was originally calculated beyond the range of the first pass using Zn, Pb, Ag, Fe, Ca and Mg using a regression formula. Measurements from previous campaigns, low numbers of which were taken from sulphide and oxide mineralisation in carbonates, are excluded from the analysis because assaying did not include the full complement of elements used for the regression formulae. • A final pass of assigned average density values is applied to fill blocks on the outskirts without grade. • Historically SG measurements were taken from an approximate 20cm representative section of competent core within a 1.5m sample interval. Since May 2021, to improve the SG regression analysis, SG measurements are broken out with an associated assay interval of approximately >60cm. The measurement technique determines a specific gravity using the core weight in air and weight immersed in water. Routine calibration of scales and duplicate measurements are undertaken for quality control. • The core is not oven dried or coated to prevent water ingress prior to immersion unless porosity is noted in the sample. If porosity is noted, the core was coated in plastic film. • Lithology outside of mineralisation domains have an average bulk density assigned by rock type.

Criteria	Commentary

Classification	• Mineral Resource classification criteria is based on the level of data informing both the geological model and grade estimation.
	• Classification is ultimately achieved by manual selection of blocks within a triangulation designated by the Competent Person. The triangulation is a smoothed version of a model calculation field.
	• The calculation used to guide the Competent Person's creation of the triangulation, overlays grade estimation confidence indicators (such as kriging variance) on block estimation conditions relating to the number and distance of data informing the estimate in relation to semi-variogram models for Zn, Pb and Ag.
	• Classification criteria is determined on an individual estimation domain basis:
	    ○ Measured Mineral Resource classification approximates an area of high geological modelling confidence, with block grades for Zn, Pb and Ag informed by a high number of data sourced within first pass search radii. The block is also interpolated from data within a range equivalent to 'two-thirds' of the variogram range.
	    ○ Indicated Mineral Resource classification meet similar conditions to Measured, except data spacing criteria is expanded to ranges that match the final variogram range. Search ranges constraining this classification are typically around 150m for Sulphide.
	• Estimated blocks exceeding prior criteria are classified as an Inferred Mineral Resource, up to a maximum average distance of approximately 300m from the contributing data.

Audits or reviews	• The FY23 Mineral Resource has been independently audited by Golder Associates Pty Ltd. The audit concluded, in general, that modelling has been conducted in a manner consistent with industry standards and supporting documentation has been adequate.
Discussion of relative accuracy/ confidence	• Geological modelling is such that there is a moderate-to-high degree of predictability in the position and quality of mineralisation where infill drilling is being conducted. Geostatistical analysis indicates a low nugget effect and ranges of grade continuity are beyond drill spacing in Measured and Indicated areas of the deposit. • Measured Resources of the FY23 Taylor deposit Mineral Resource global estimate is expected to be within 15% accuracy for tonnes and grade when reconciled over any quarterly production volume using mining assumptions matched to the determination of reasonable prospects for eventual economic extraction. Indicated Mineral Resource uncertainty should be limited to ±30% quarterly and ±15% annually. It is expected that Inferred Mineral Resources will be converted to higher confidence classifications prior to extraction. • The Competent Person is satisfied that the accuracy and confidence of Mineral Resource estimation is well established and reasonable for the deposit.

Figure 1: Regional location plan

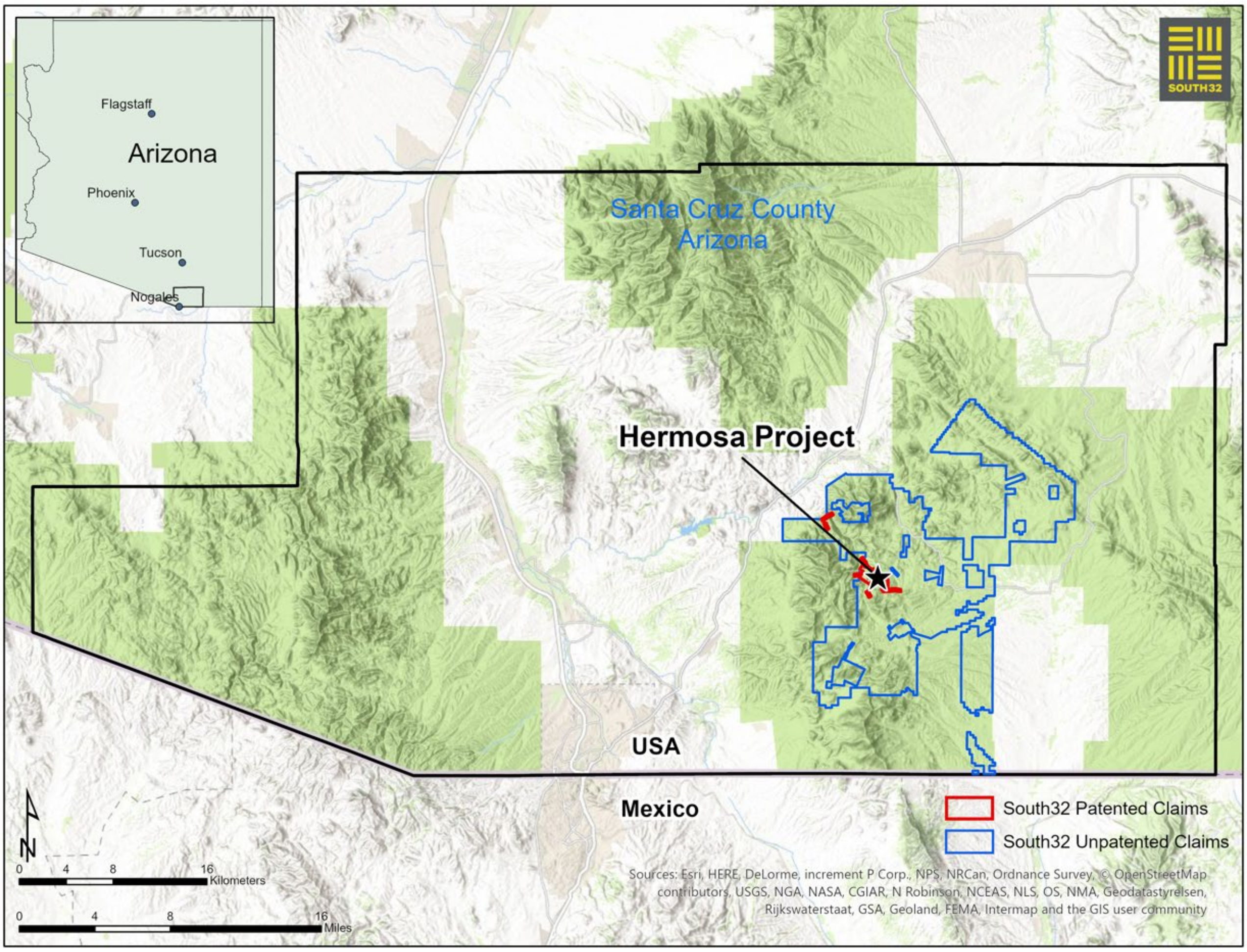


Figure 2: Hermosa project tenement map

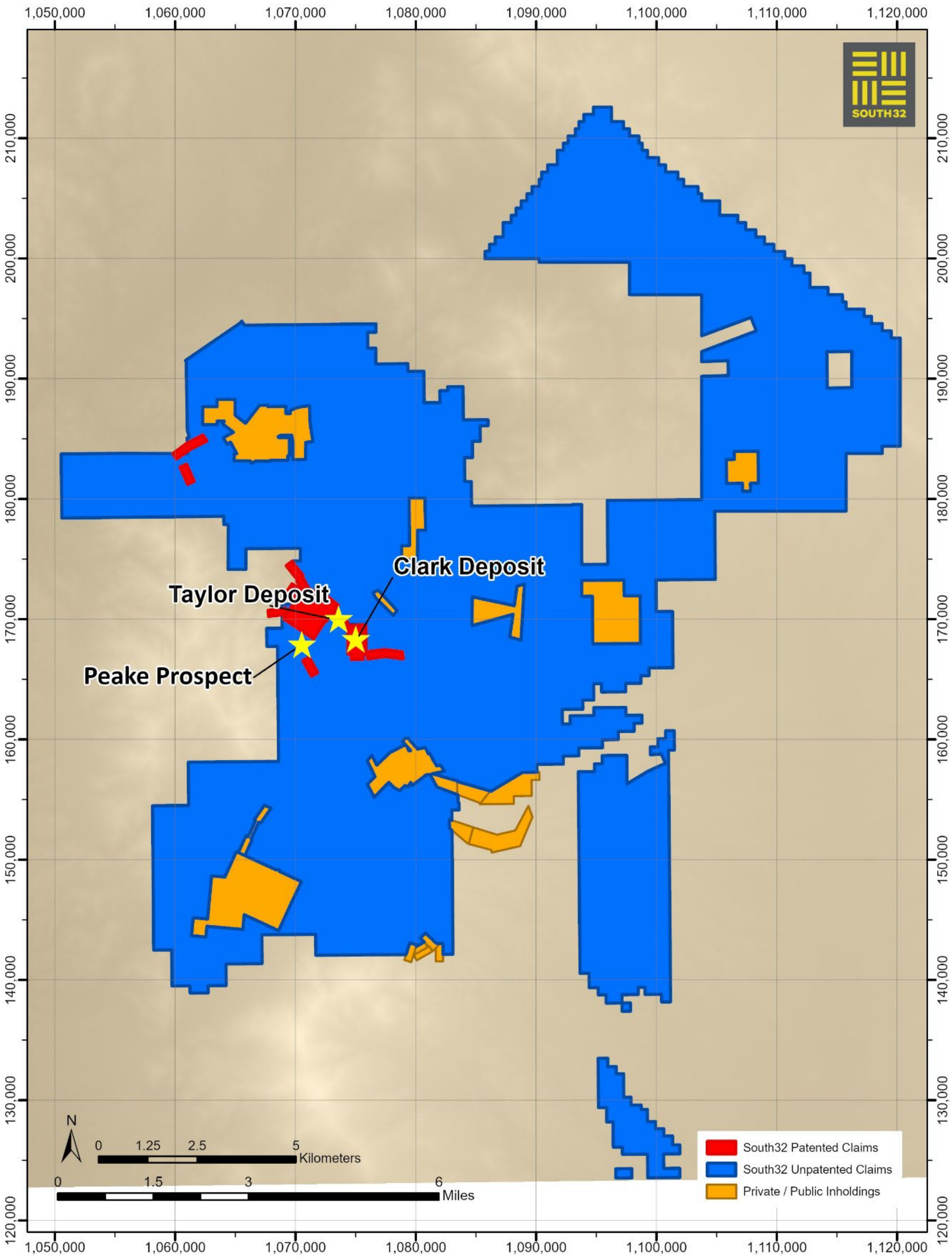
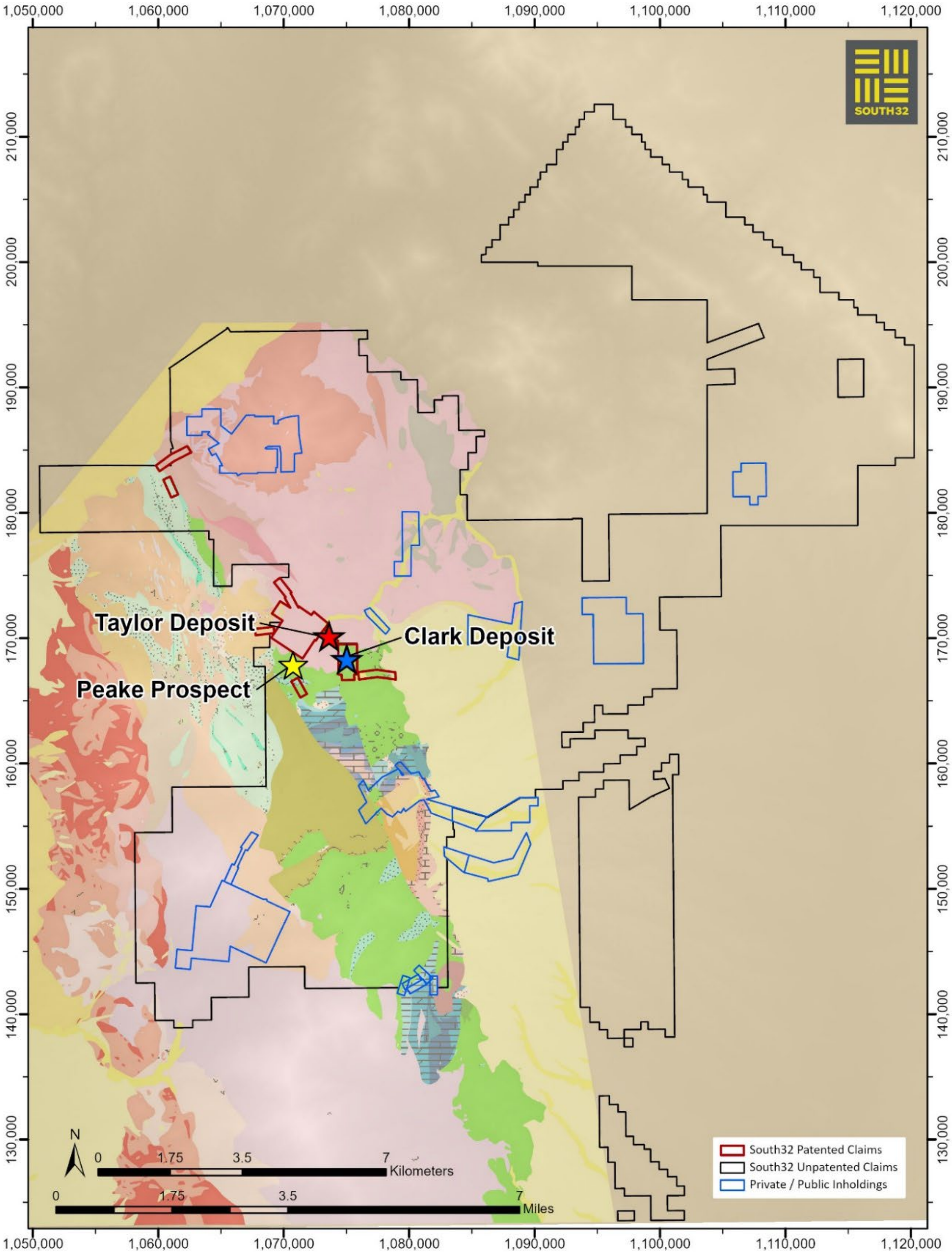


Figure 3: Hermosa project regional geology



Map units

Symbol, Unit name

- Qal—Younger alluvium and talus
- QTal—Older alluvium
- QTg—Gravel and conglomerate
- Tl—Limestone
- Tt—Biotite rhyolite tuff
- si—Silicification
- Tv—Volcaniclastic rocks of middle Alum Gulch
- Tib—Intrusive breccia of middle Alum Gulch
- Tqp—Quartz feldspar porphyry of middle Alum Gulch
- Tqpx—Xenolithic quartz feldspar porphyry of middle Alum Gulch
- Tqmp—Quartz monzonite porphyry, in granodiorite of the Patagonia Mountains
- Tqmpb—Breccia, in quartz monzonite porphyry (unit Tqmp) of granodiorite of the Patagonia Mountains
- Tg—Granodiorite, in granodiorite of the Patagonia Mountains
- Tgb—Breccia, in granodiorite (unit Tg) of granodiorite of the Patagonia Mountains
- Tlp—Latite porphyry, in granodiorite of the Patagonia Mountains
- Tbq—Biotite quartz monzonite, in granodiorite of the Patagonia Mountains
- Tbqb—Breccia, in biotite quartz monzonite (unit Tbq) of granodiorite of the Patagonia Mountains
- Tbg—Biotite granodiorite, in granodiorite of the Patagonia Mountains
- Tibx—Intrusion breccia, in granodiorite of the Patagonia Mountains
- Tsy—Syenodiorite or mangerite, in granodiorite of the Patagonia Mountains
- Tag—Biotite augite quartz diorite, in granodiorite of the Patagonia Mountains
- Tmp—Quartz monzonite porphyry of Red Mountain
- TKr—Rhyolite of Red Mountain
- TKggt—Gringo Gulch Volcanics
- Ka—Trachyandesite
- r—Rhyolite or latite, in trachyandesite (unit Ka)
- Km—Pyroxene monzonite
- Kl—Biotite quartz latite(?)
- Kv—Silicic volcanics
- la—Biotite latite(?), in silicic volcanics (unit Kv)
- Kpg—Porphyritic biotite granodiorite
- Kb—Bisbee Formation
- Kbc—Conglomerate, in Bisbee Formation (unit Kb)
- Jtg—Granite of Three R Canyon, in granite of Cumero Canyon
- Jtgb—Breccia, in granite of Three R Canyon (unit Jtg) of granite of Cumero Canyon
- Jcm—Porphyritic granite, in granite of Cumero Canyon
- Jcs—Equigranular alkali syenite, in granite of Cumero Canyon
- Jcsb—Breccia, in equigranular alkalik syenite (unit Jcs) of granite of Cumero Canyon
- Jcg—Equigranular granite, in granite of Cumero Canyon
- Jcgb—Breccia, in equigranular granite (unit Jcg) of granite of Cumero Canyon
- Jhm—Hornblende monzonite of European Canyon
- JTRv—Volcanic rocks, in silicic volcanic rocks
- ha—Hornblende andesite dike and (or) plug, in volcanic rocks (unit JTRv)
- b—Volcanic breccia, in volcanic rocks (unit JTRv)
- s—Sedimentary rocks, in volcanic rocks (unit JTRv)
- cg—Limestone conglomerate, in volcanic rocks (unit JTRv)
- qz—Quartzite, in volcanic rocks (unit JTRv)
- ls—Exotic blocks of upper Paleozoic limestone, in volcanic rocks (unit JTRv)
- w—Rhyolitic welded(?) tuff, in volcanic rocks (unit JTRv)
- lp—Latite(?) porphyry, in volcanic rocks (JTRv)
- JTRvs—Volcanic and sedimentary rocks, in silicic volcanic rocks
- TRm—Mount Wrightson Formation
- q—Quartzite, in Mount Wrightson Formation (unit TRm)
- a—Biotite(?)-albite andesite lava(?), in Mount Wrightson Formation (unit TRm)
- t—Coarse volcaniclastic beds, in Mount Wrightson Formation (unit TRm)
- TRms—Sedimentary rocks, in the Mount Wrightson Formation (unit TRm)
- Pcn—Concha Limestone
- Ps—Scherrer Formation
- Pe—Epitaph Dolomite
- Pc—Colina Limestone
- PPe—Earp Formation
- Ph—Horquilla Limestone
- Me—Escabrosa Limestone
- Dm—Martin Limestone
- Ca—Abrigo Limestone
- Cb—Bolsa Quartzite
- pCq—Biotite or biotite-hornblende quartz monzonite
- pCh—Hornblende-rich metamorphic and igneous rocks
- pCm—Biotite quartz monzonite
- pCd—Hornblende diorite

Figure 4: Taylor deposit and Peake prospect local geology and Exploration Results collar locations

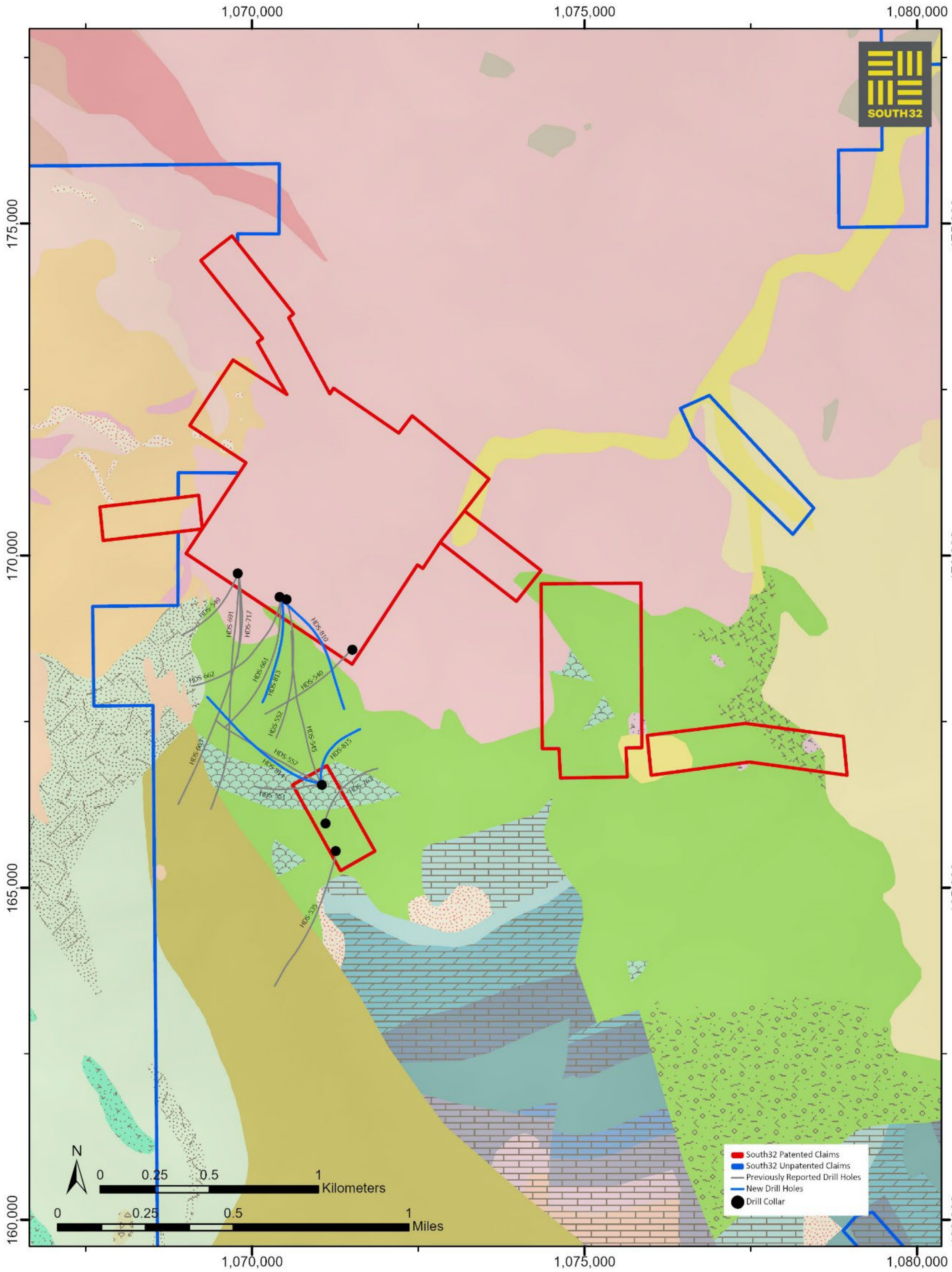


Figure 5: Plan view of the Taylor, Clark, and Peake Mineralisation Domains with exploration drill holes

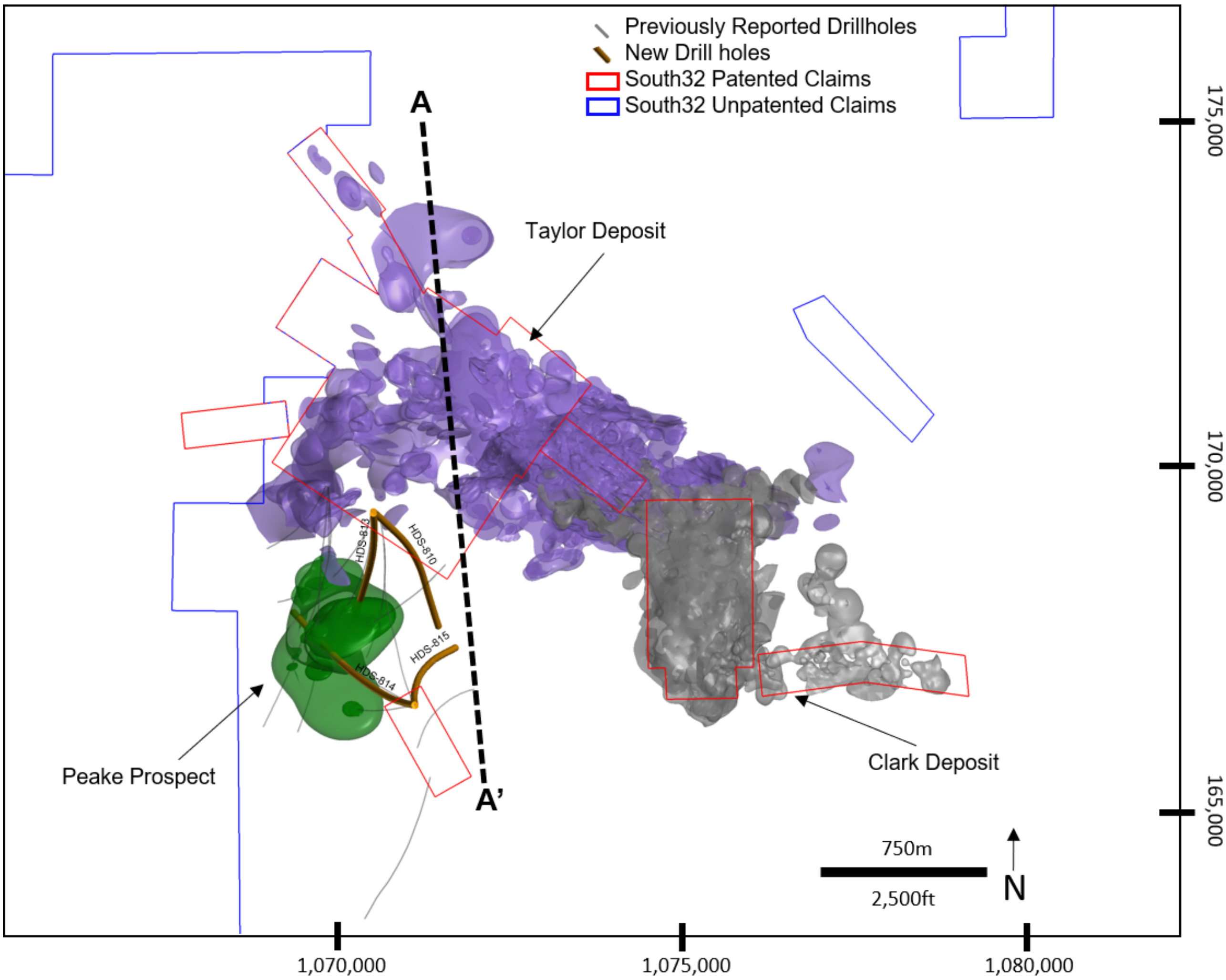


Figure 6: Cross-section through the Taylor, Clark, and Peake mineralisation domains showing the previously reported and new exploration holes, simplified geology, and Taylor Thrust – looking east 2000 m wide.

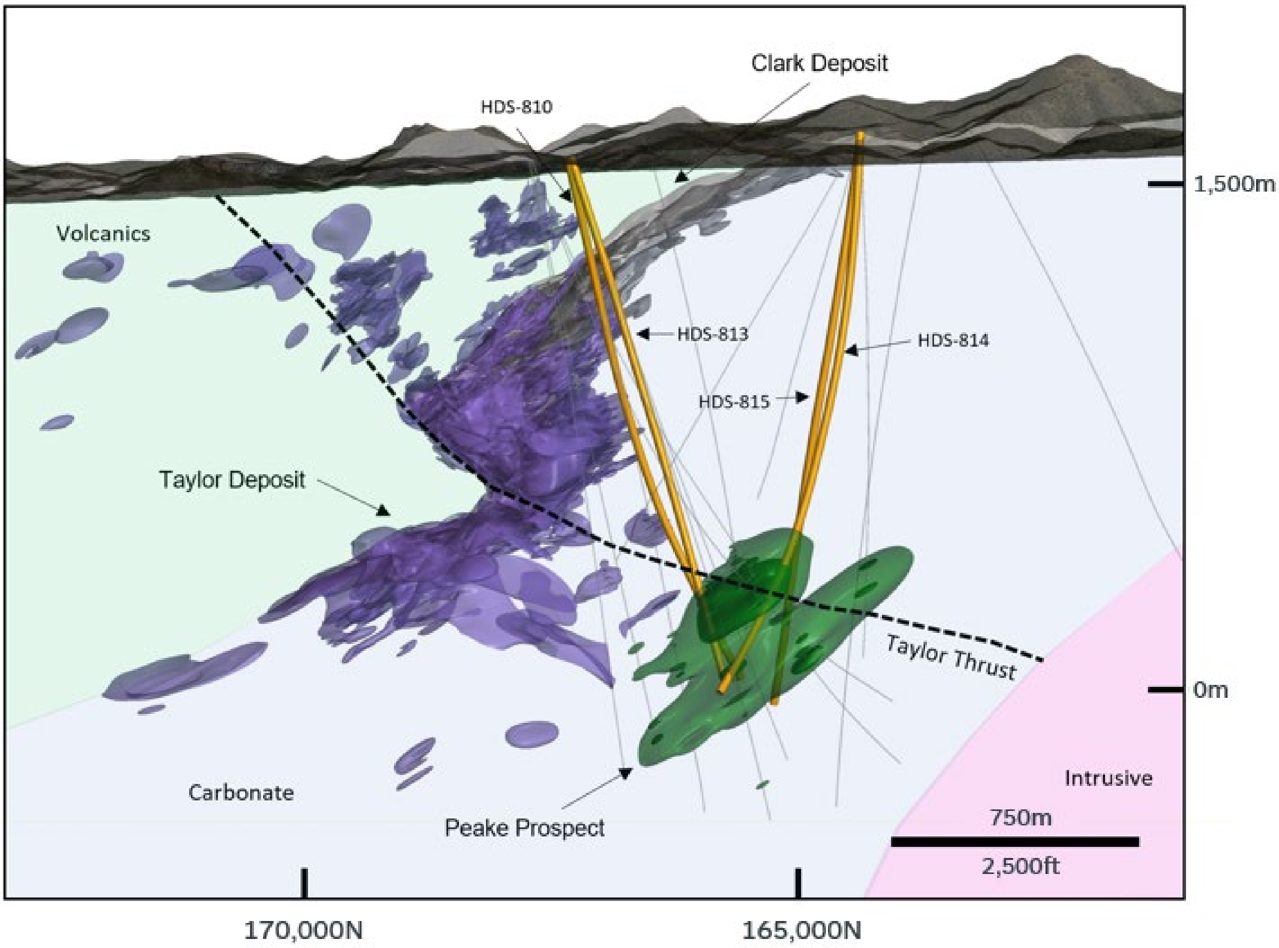


Figure 7: Level plan map at 370m elevation showing Peake drillholes, and mineral domains of the Peake prospect. Newly reported hole IDs are blue.

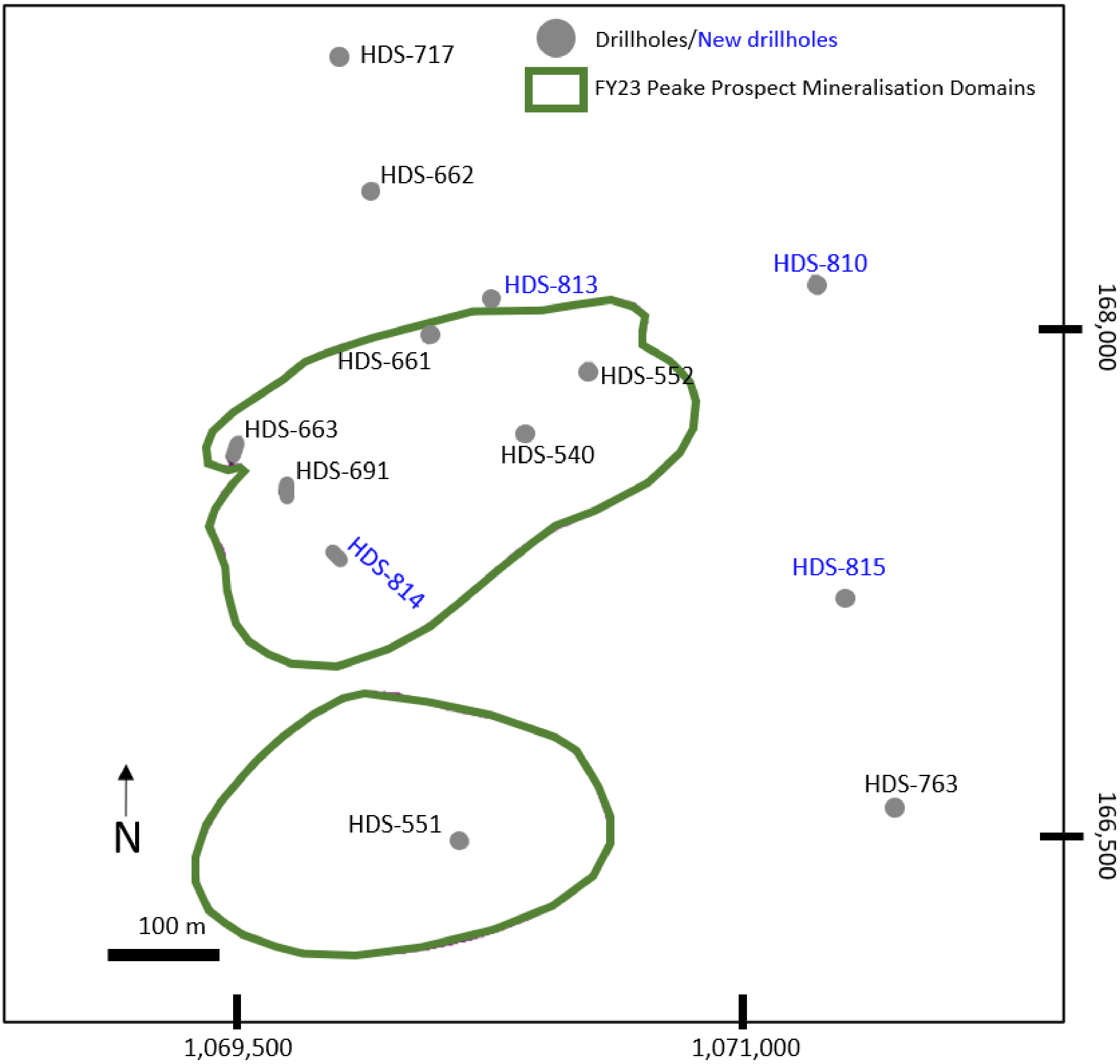


Table 1: Hole ID, collar location, dip, azimuth and drill depth of new drill holes

Hole ID	East (UTM)	North (UTM)	Elevation (m)	Dip	Azimuth	To Depth (m)
HDS-810	525788	3480619	1593.4	-71	132	1618.2
HDS-813	525789	3480611	1593.4	-73	171	1613.0
HDS-814	525961	3479776	1665.5	-77	280	1752.0
HDS-815	525963	3479774	1665.5	-81	353	1683.0

Table 2: Significant intersections – selected previously reported and new drill holes

Hole ID	From (m)	To (m)	Cut Off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)	Molybdenum (%)	CuEq (%)
HDS-540	1279.2	1389	0.2% Cu	109.7	0.1	0.3	15	0.62	-	0.83
	Including									
	1303.6	1309.7	0.2% Cu	6.1	0.2	0.4	61	3.48	-	4.07
	1469.7	1488	0.2% Cu	18.3	0	0	10	0.63	-	0.70
HDS-552	1265.8	1273.9	0.2% Cu	8.1	0.2	0.5	27	0.39	-	0.77
	1308.2	1384.7	0.2% Cu	76.5	0.2	0.4	25	1.52	-	1.86
	Including									
	1309.9	1328.6	0.2% Cu	18.8	0.1	0.2	40	2.77	-	3.13
	And									
	1364.3	1384.7	0.2% Cu	20.4	0.1	0.3	37	2.44	-	2.80
	1478.9	1484.8	0.2% Cu	5.9	1	1.5	57	0.41	-	1.54
	1646.8	1651.4	0.2% Cu	4.6	0.6	0.1	45	0.3	0.02	0.87
HDS-661	1298.4	1305.2	2% ZnEq	6.7	0.6	3.4	249	0.89	-	3.61
	1322.2	1374.6	0.2% Cu	52.4	0.2	0.5	59	1.73	-	2.33
	Including									
	1322.2	1346	0.2% Cu	23.8	0.1	0.8	81	3.32	-	4.10
	Including									
	1322.2	1330.1	0.2% Cu	7.9	0.1	0.4	81	7.89	-	8.57
	1386.8	1460.6	0.2% Cu	73.8	0.5	0.7	67	1.06	-	1.88
	Including									
	1399.6	1410.3	0.2% Cu	10.7	0.7	1.5	227	2.84	-	5.01
	And									
	1424	1446.9	0.2% Cu	22.9	0.5	0.6	45	1.24	-	1.88
	1552	1570	0.2% Cu	18	3	1.4	88	0.39	-	2.50
HDS-662	1316.4	1329.2	0.2% Cu	12.8	3.4	4.4	137	0.95	0.01	4.26
	1540.8	1546.7	2% ZnEq	5.9	5.9	2.1	250	0.45	-	4.98
HDS-663	1580.1	1591.8	0.2% Cu	11.7	0.1	0	16	0.95	0.016	1.10
	1615.9	1651.1	0.2% Cu	35.2	1.1	0.1	27	0.56	-	1.20
HDS-691	1343.6	1353.6	2% ZnEq	10.1	3.8	3.5	61	0.47	0.024	3.21
	1384.7	1395.4	0.2% Cu	10.7	2.7	2.9	38	1.03	-	3.04
	1405.9	1415.2	0.2% Cu	9.3	0.5	0.7	11	0.26	-	0.70
	1421.3	1452.1	0.2% Cu	30.8	0.7	0.8	22	0.59	-	1.20
	1463.6	1509.7	0.2% Cu	46	0.4	0.5	21	0.43	-	0.85

Hole ID	From (m)	To (m)	Cut Off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)	Molybdenum (%)	CuEq (%)
	1540.6	1549.3	0.2% Cu	8.7	0.3	0.9	51	0.61	-	1.29
	1563.9	1581.3	0.2% Cu	17.4	0.2	0.2	23	0.55	-	0.83
	1662.7	1677.9	0.2% Cu	15.2	2.8	1.1	155	1.19	0.011	3.61
	1683.4	1692.6	2% ZnEq	9.1	1.5	0.3	45	0.14	0.038	1.11
	1732	1735.2	2% ZnEq	3.2	6.2	0.3	107	0.18	-	3.44
	1994.6	1997.4	2% ZnEq	2.7	1.7	0.3	54	0.08	-	1.19
HDS-810	No Significant Intersection									
HDS-813	1302.7	1441.7	0.2% Cu	139	0.34	0.51	52	1.88	-	2.49
	Including									
	1315.1	1424	0.2% Cu	109	0.32	0.52	60	2.27	-	2.93
	Including									
	1333.8	1392	0.2% Cu	58.2	0.24	0.6	74	3.1	0.015	3.84
	Including									
	1358.2	1368.9	0.2% Cu	10.7	0.05	0.09	79	5.7	0.011	6.28
	Including									
	1358.2	1362.8	0.2% Cu	4.6	0.06	0.11	112	8.38	-	9.19
	And									
	1381	1390.5	0.2% Cu	9.4	0.07	0.19	94	5.4	-	6.11
	1454.5	1458.6	0.2% Cu	4.1	0.82	0.61	66	0.31	-	1.23
HDS-814	1192.7	1545.6	0.2% Cu	353	0.1	0.2	12.1	0.28	-	0.45
	Including									
	1205.9	1221	0.2% Cu	15.1	0	0.1	22	0.44	-	0.61
	1242.4	1268	0.2% Cu	25.6	0	0	14.3	0.7	-	0.80
	Including									
	1242.4	1250.6	0.2% Cu	8.2	0	0.1	25.5	1	-	1.20
	And									
	1260.3	1265.8	0.2% Cu	5.5	0	0	10.9	0.98	-	1.05
	1279.2	1294.8	0.2% Cu	15.5	0	0.1	8.4	0.39	-	0.47
	1302.4	1312.2	0.2% Cu	9.8	0.1	0.2	9.9	0.33	-	0.48
	1315.8	1326.8	0.2% Cu	11	0.2	0.7	19.3	0.6	-	0.97
	1388.4	1399.8	0.2% Cu	11.43	0.4	1	18.5	0.56	-	1.08
	Including									
	1388.4	1392	0.2% Cu	3.65	0.6	2.4	43.7	1.24	-	2.33
	1408.5	1418.5	0.2% Cu	10.1	0.2	0.4	11.8	0.4	-	0.65
	1442.3	1476.8	0.2% Cu	34.4	0.5	0.5	17.3	0.35	-	0.78
	1526.1	1539.5	0.2% Cu	13.4	0.2	0.3	42.2	0.43	-	0.87
HDS-815	No Significant Intersection									