



14 February 2023

ASX CODE: MTB

KIHABE – NXUU PROJECT

CONTRIBUTION OF GALLIUM TO REGIONAL TARGETS

Further to announcements released to the market on 10 January 2023 (Kihabe Deposit) and 12 December 2022 (Nxuu Deposit), the Company has now reviewed assay results to show the Gallium content of regional targets.

The regional targets, generated through geochemical soil sampling for Zn (summarised on Figure 1), have only been subject to limited exploration drilling and include:

- Target 52 (Figures 2 to 8)
- Wanchu West anomaly (Figure 9)
- Wanchu anomaly (Figure 10)
- Tswee Tswee anomaly – not yet assayed for Gallium (Figure 11)

Significant lengths of up to 72m of continuous Ga mineralisation (Refer Figure 6 -Target 52 Drill Line 4) were intersected in T52RC013, when re-assayed for Ga.

Gallium a Metal of the Future

Gallium, a soft metallic element is currently used for semi-conductors, blue ray technology, light emitting diodes (LEDs), mobile phones and as an additive to produce low melting -point alloys.

The Fraunhofer Institute System and Innovation Research expects that by 2030, worldwide demand for Gallium will be six times higher than current production of around 720 tonnes per annum.

Gallium Nitride (GaN) energy saving chips, available at globally competitive costs in the future will allow for:

- Wireless charging of electric vehicles with energy efficiency levels of 96%, compared to current levels, at best, of 93%. The increase of 3% will achieve a reduction of CO₂ emissions of around 1.7 mega-tonnes per annum by 2030. This is equivalent to annual CO₂ emissions from 1 million cars with internal combustion engines.
- Low loss and smooth connection of solar energy to grid storage systems.
- Rapid expansion of cost effective fifth generation (5G) networks requiring Gallium computer chips, being more efficient at higher temperatures than traditional silicon-based chips.

Recently, an international team of scientists led by Professor Konrosh-Zadeh at the University of New South Wales School of Chemical Engineering in Australia, has developed a reactor that uses Gallium and nano-sized silver rods to break down CO₂ into constituent elements.

Quote “Our liquid metal technology offers an unprecedented(ed) process for capturing and converting CO2 at an exceptionally competitive cost” said Kalantar-Zadeh. “We are very hopeful that this technology will emerge as the cornerstone of processes that will be internationally employed for mitigating the impact of greenhouse emissions”. (Metal Tech News 27/09/22).

Gallium is currently trading at US \$602/kg (Kitco Strategic Metals)

Forward Looking Statement

This report contains forward looking statements in respect of the projects being reported on by the Company. Forward looking statements are based on beliefs, opinions, assessments and estimates based on facts and information available to management and/or professional consultants at the time they are formed or made and are, in the opinion of management and/or consultants, applied as reasonably and responsibly as possible as at the time that they are applied.

Any statements in respect of Ore Reserves, Mineral Resources and zones of mineralisation may also be deemed to be forward looking statements in that they contain estimates that the Company believes have been based on reasonable assumptions with respect to the mineralisation that has been found thus far. Exploration targets are conceptual in nature and are formed from projection of the known resource dimensions along strike. The quantity and grade of an exploration target is insufficient to define a Mineral Resource. Forward looking statements are not statements of historical fact, they are based on reasonable projections and calculations, the ultimate results or outcomes of which may differ materially from those described or incorporated in the forward-looking statements. Such differences or changes in circumstances to those described or incorporated in the forward-looking statements may arise as a consequence of the variety of risks, uncertainties and other factors relative to the exploration and mining industry and the particular properties in which the Company has an interest.

Such risks, uncertainties and other factors could include but would not necessarily be limited to fluctuations in metals and minerals prices, fluctuations in rates of exchange, changes in government policy and political instability in the countries in which the Company operates.

Other important Information

Purpose of document: This document has been prepared by Mount Burgess Mining NL (MTB). It is intended only for the purpose of providing information on MTB, its project and its proposed operations. This document is neither of an investment advice, a prospectus nor a product disclosure statement. It does not represent an investment disclosure document. It does not purport to contain all the information that a prospective investor may require to make an evaluated investment decision. MTB does not purport to give financial or investment advice.

Professional advice: Recipients of this document should consider seeking appropriate professional advice in reviewing this document and should review any other information relative to MTB in the event of considering any investment decision.

Forward looking statements: This document contains forward looking statements which should be reviewed and considered as part of the overall disclosure relative to this report.

Disclaimer: Neither MTB nor any of its officers, employees or advisors make any warranty (express or implied) as to the accuracy, reliability and completeness of the information contained in this document. Nothing in this document can be relied upon as a promise, representation or warranty.

Proprietary information: This document and the information contained therein is proprietary to MTB.

Competent Person’s Statement

The information in this report that relates to drilling results at the Kihabe Regional Targets fairly represents information and supporting documentation approved for release by Giles Rodney Dale FRMIT who is a Fellow of the Australasian Institute of Mining & Metallurgy. Mr Dale is engaged as an independent Geological Consultant to the Company. Mr Dale has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)’. Mr Dale consents to the inclusion in this report of the drilling results and the supporting information in the form and context as it appears.

FIGURE 1

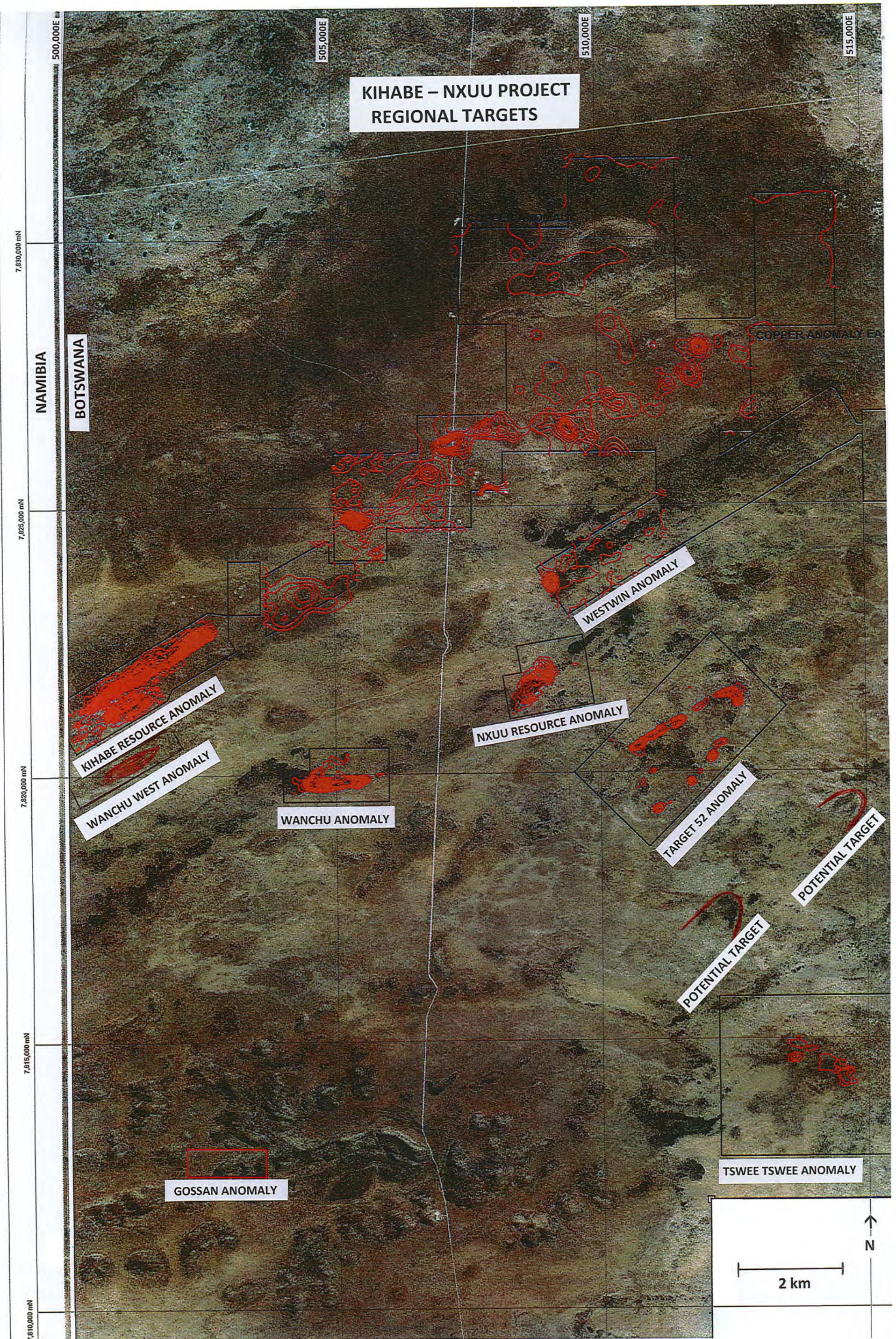


FIGURE 2

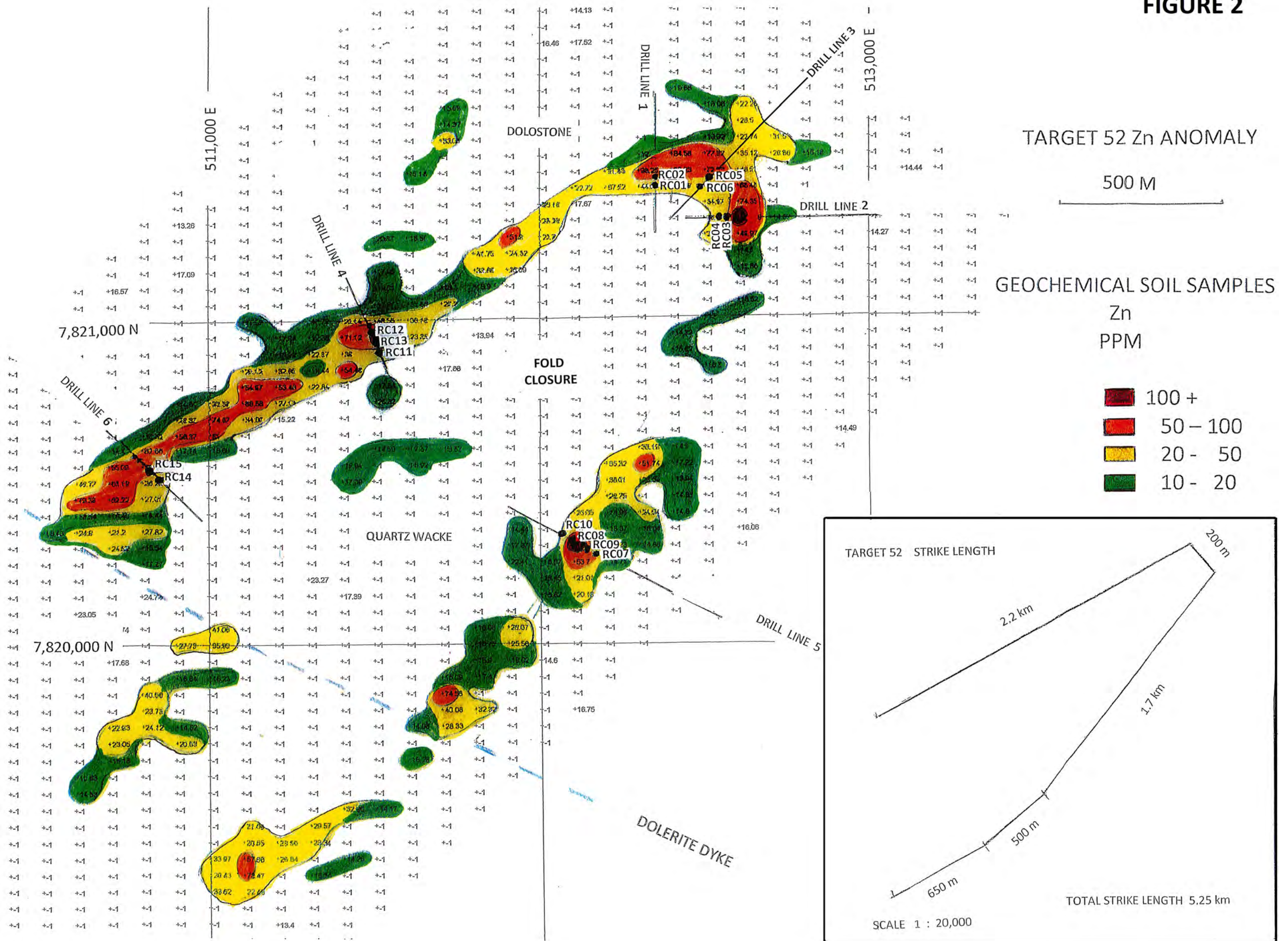


FIGURE 3

TARGET 52
DRILL LINE 1

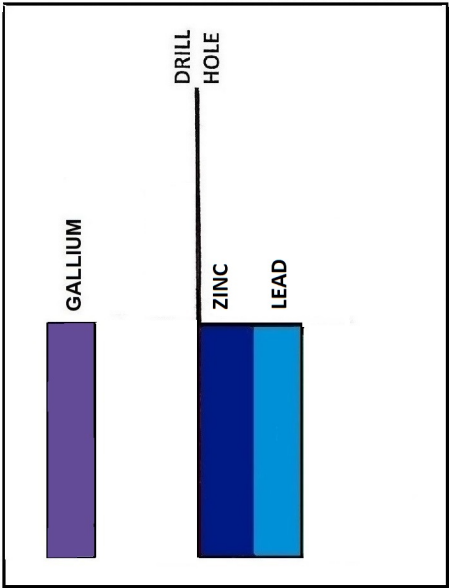
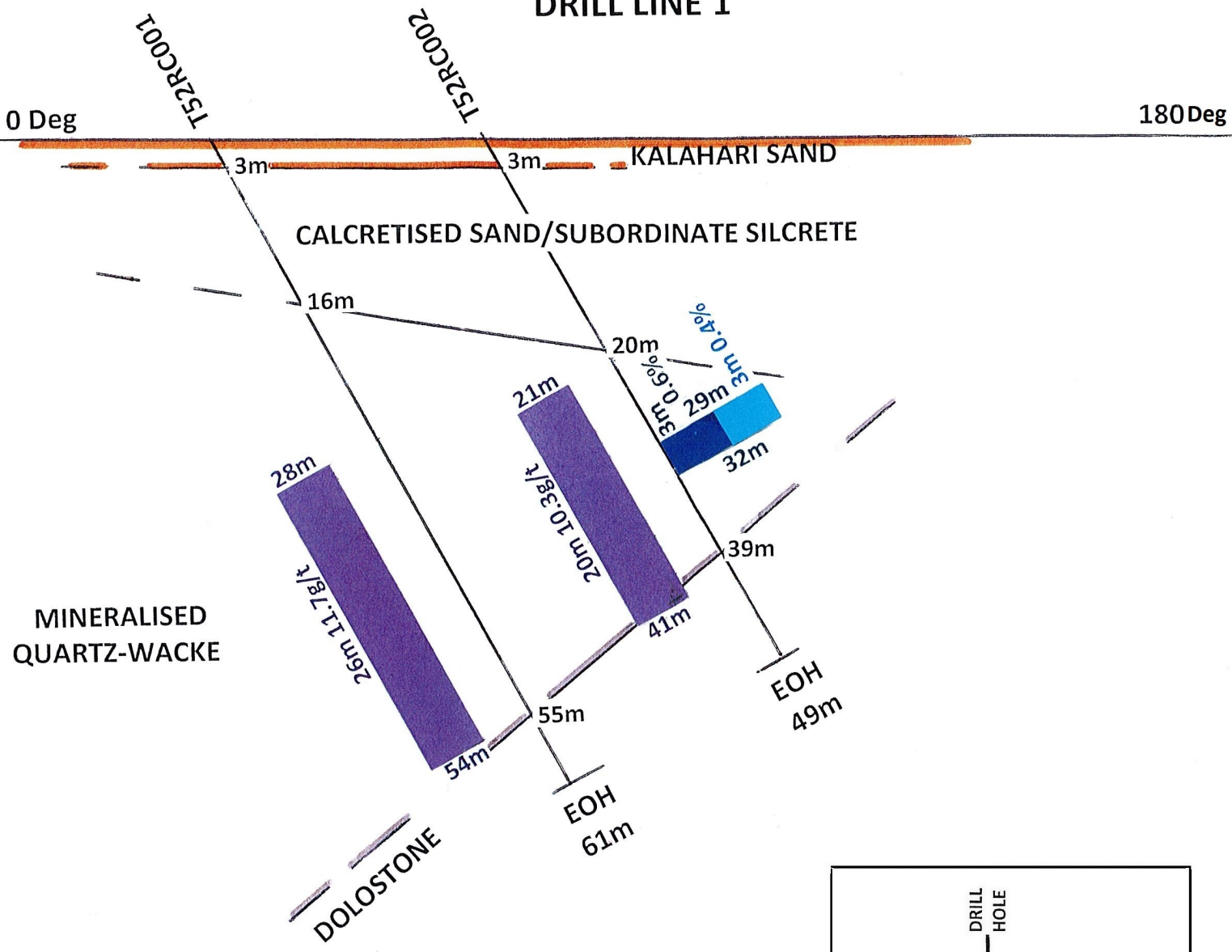
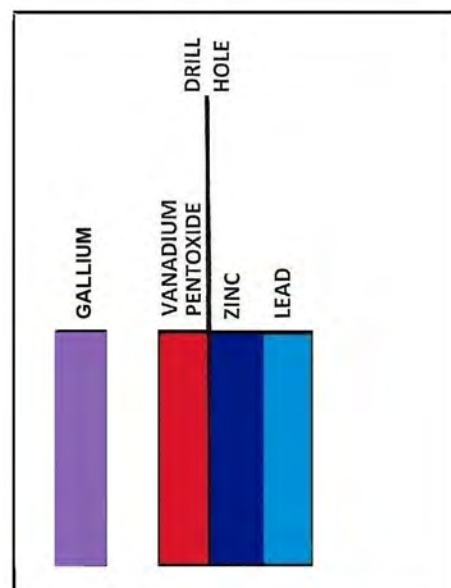
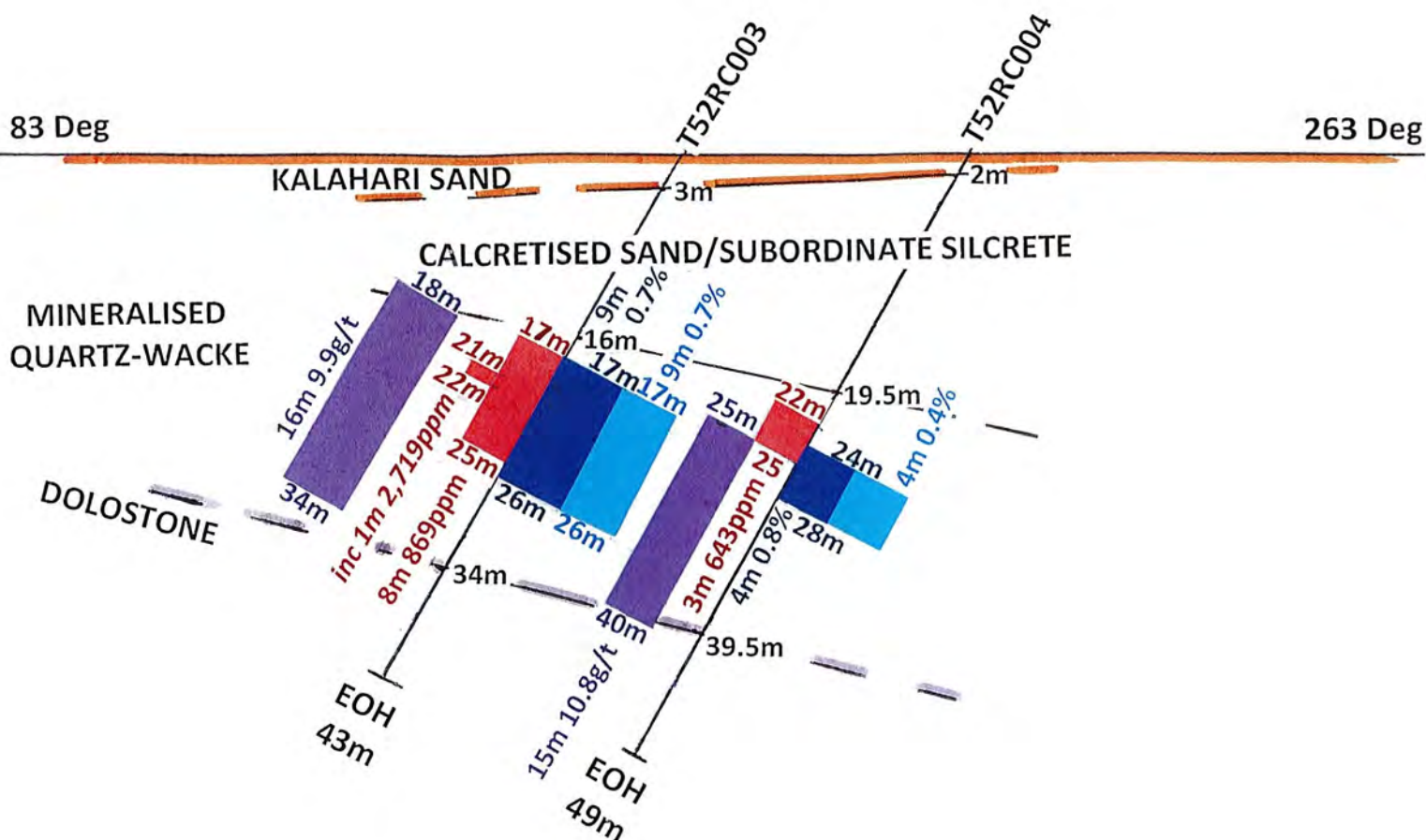


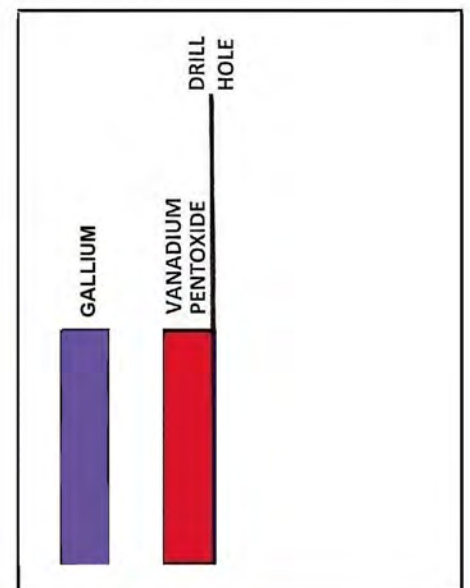
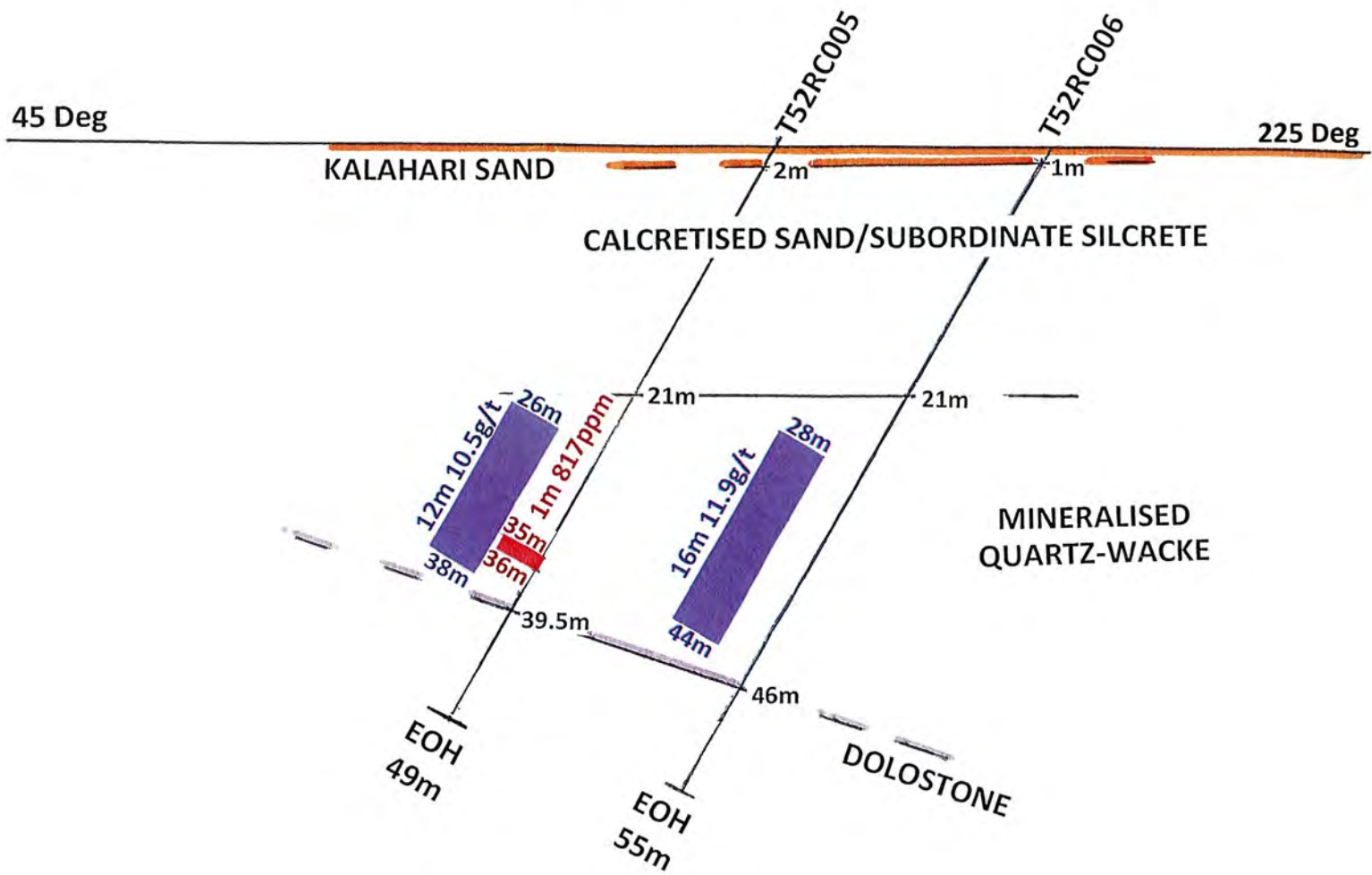
FIGURE 4

TARGET 52 DRILL LINE 2



TARGET 52 DRILL LINE 3

FIGURE 5



TARGET 52
DRILL LINE 4

FIGURE 6

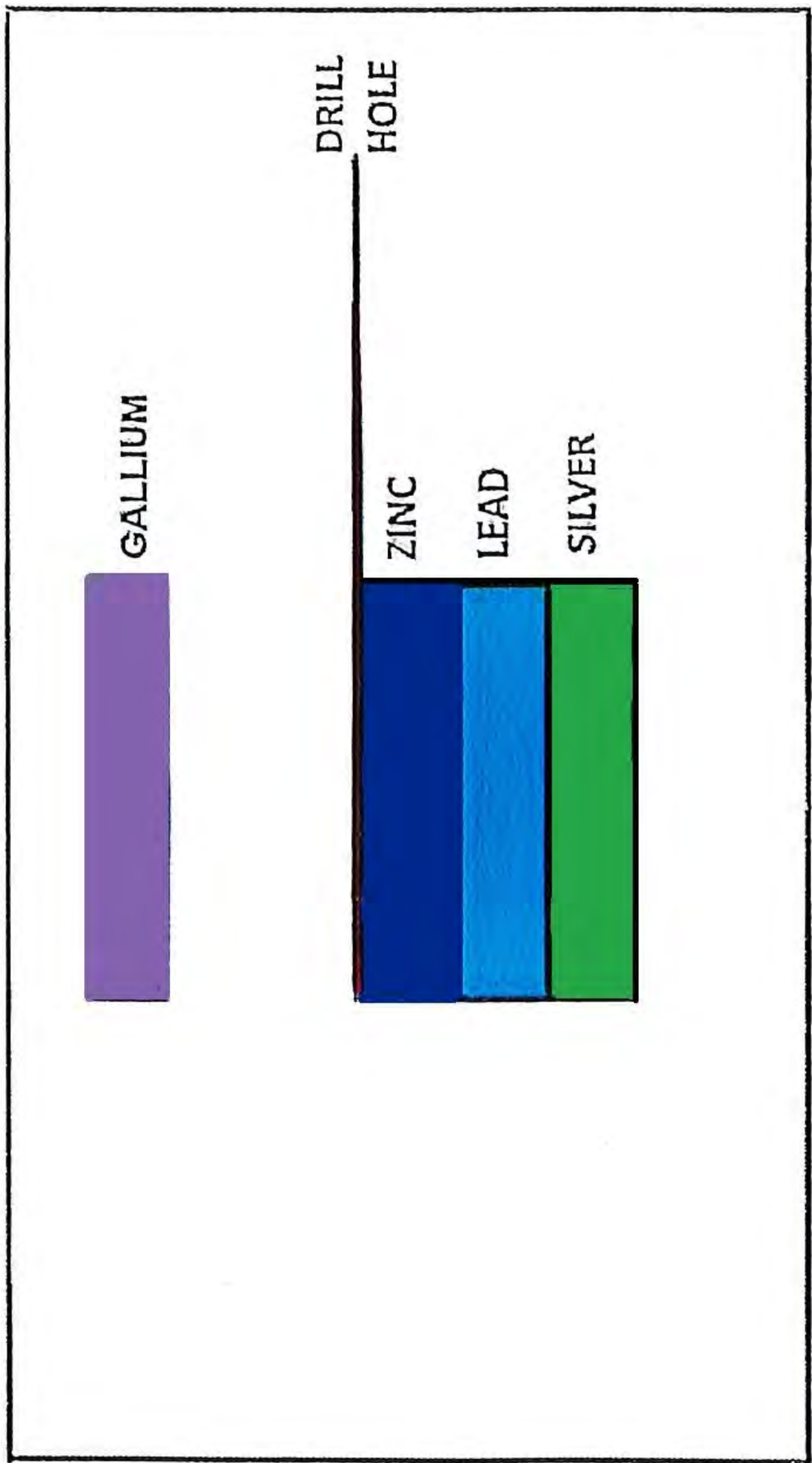
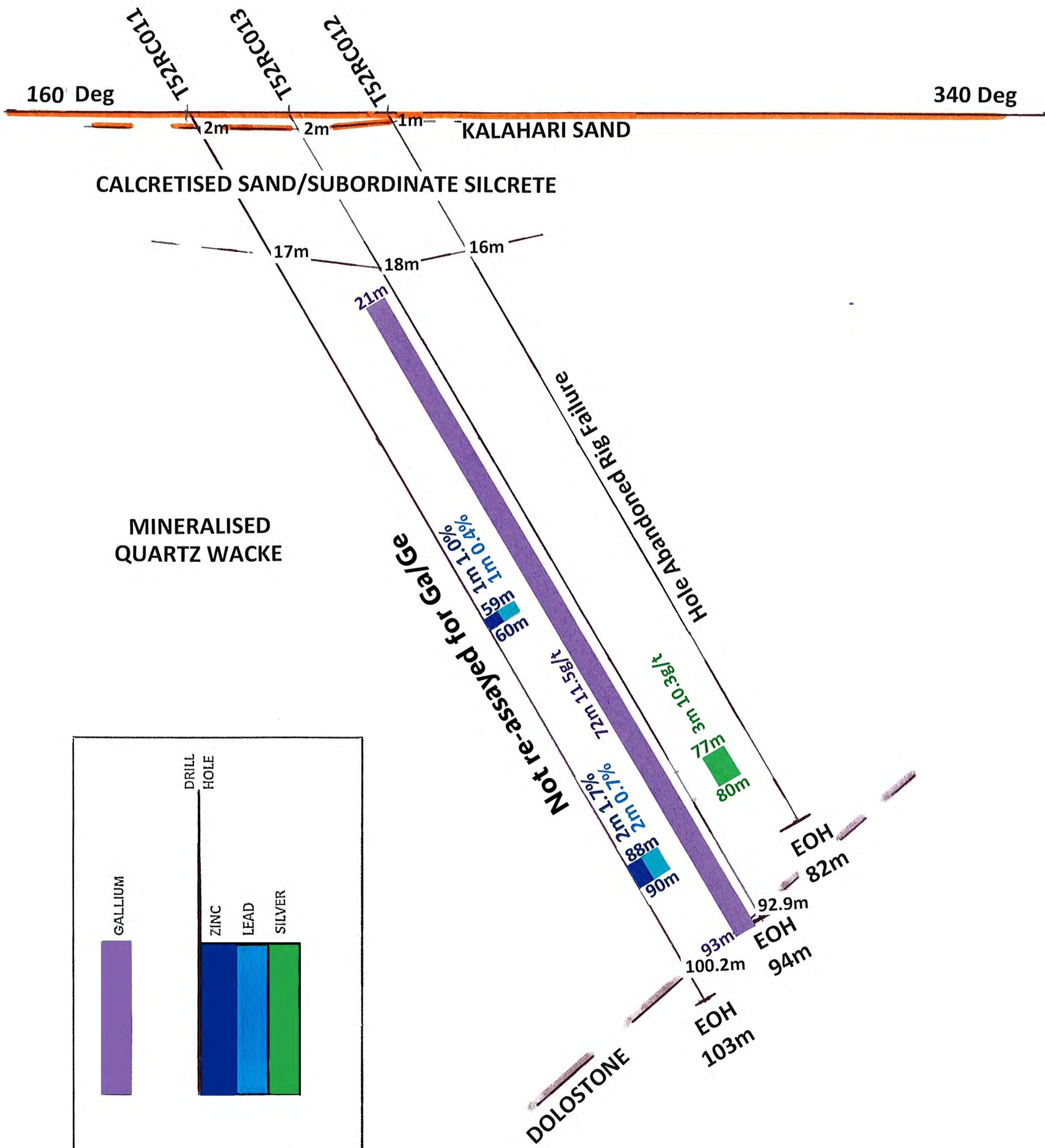
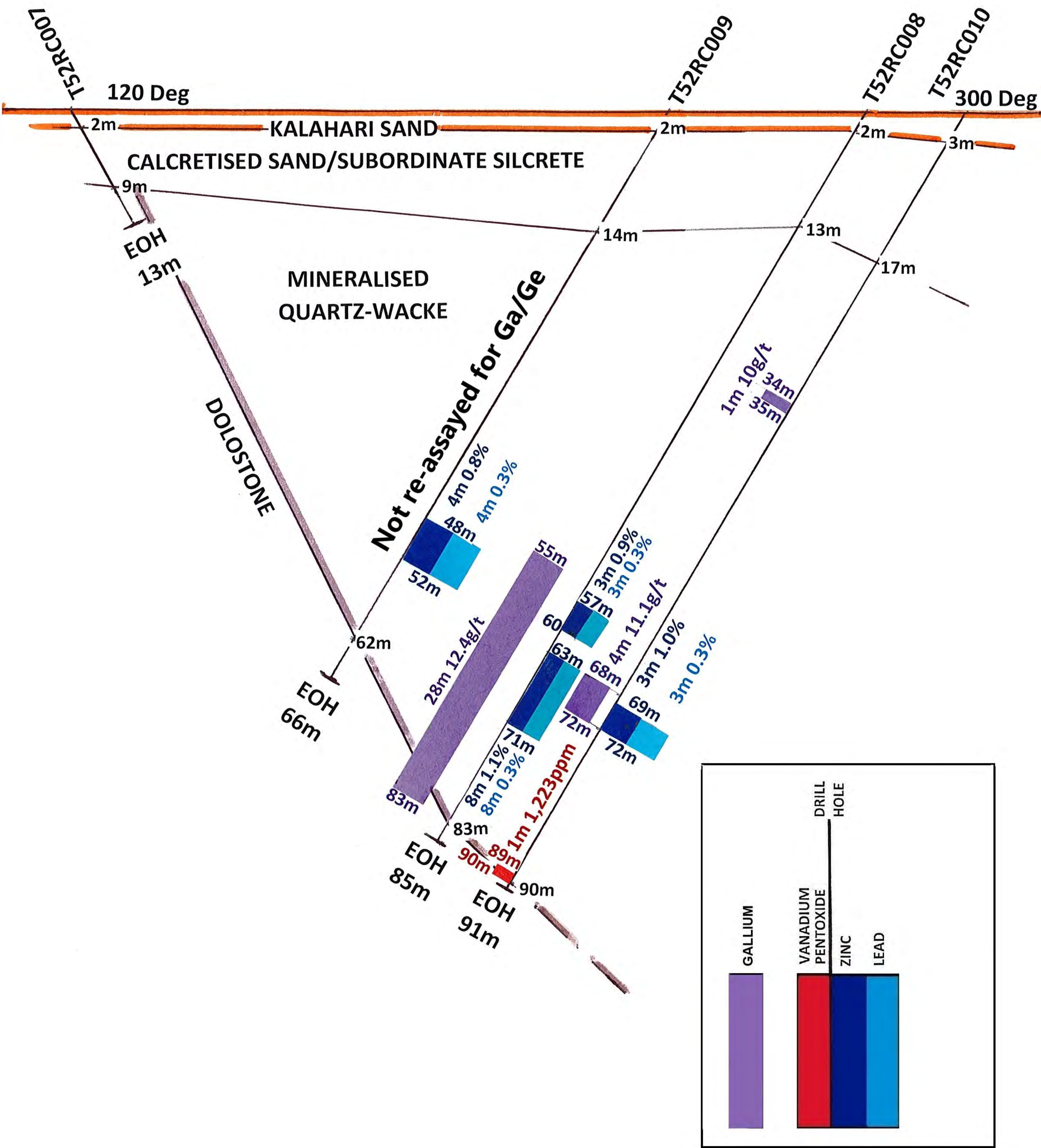


FIGURE 7

TARGET 52
DRILL LINE 5



TARGET 52
DRILL LINE 6

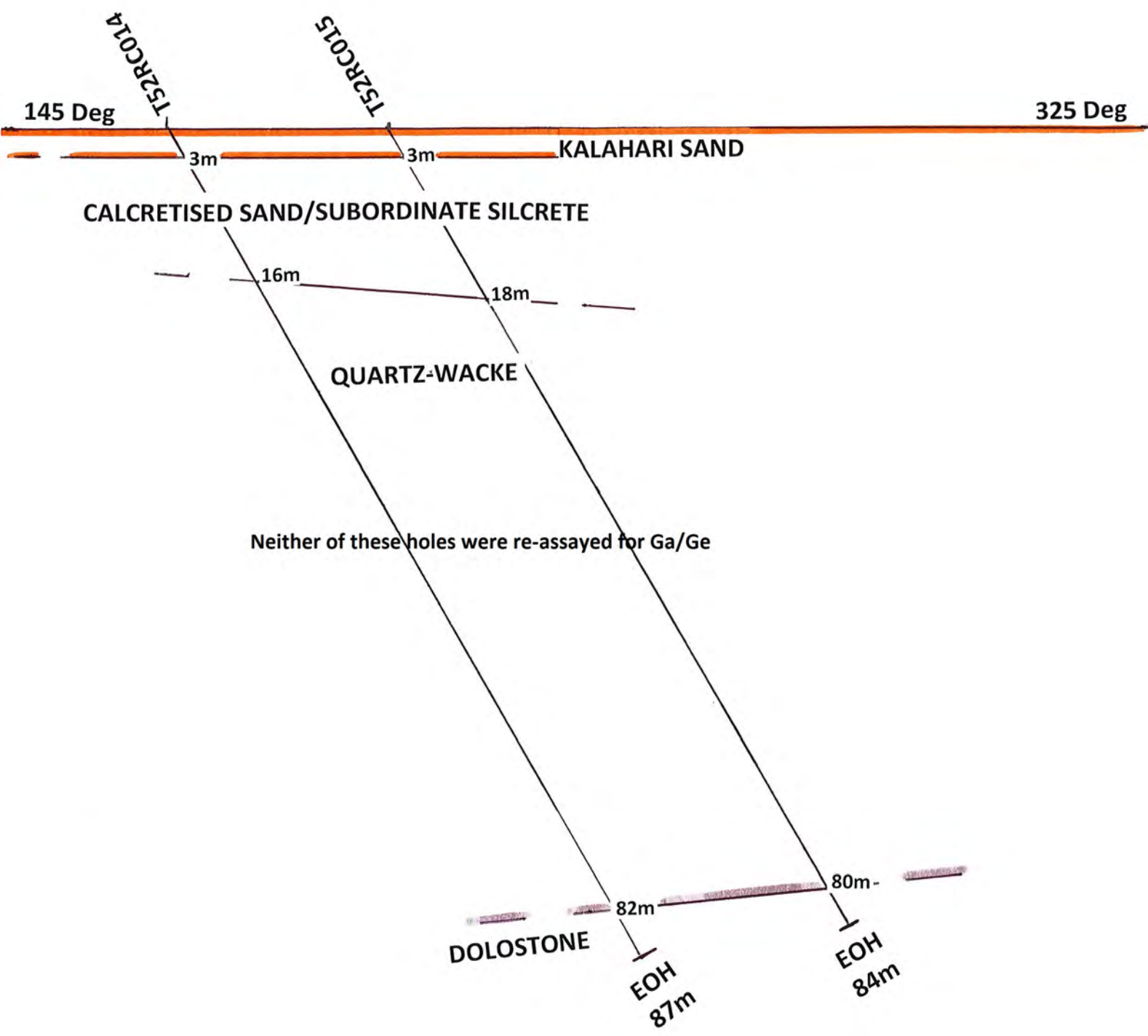


FIGURE 9

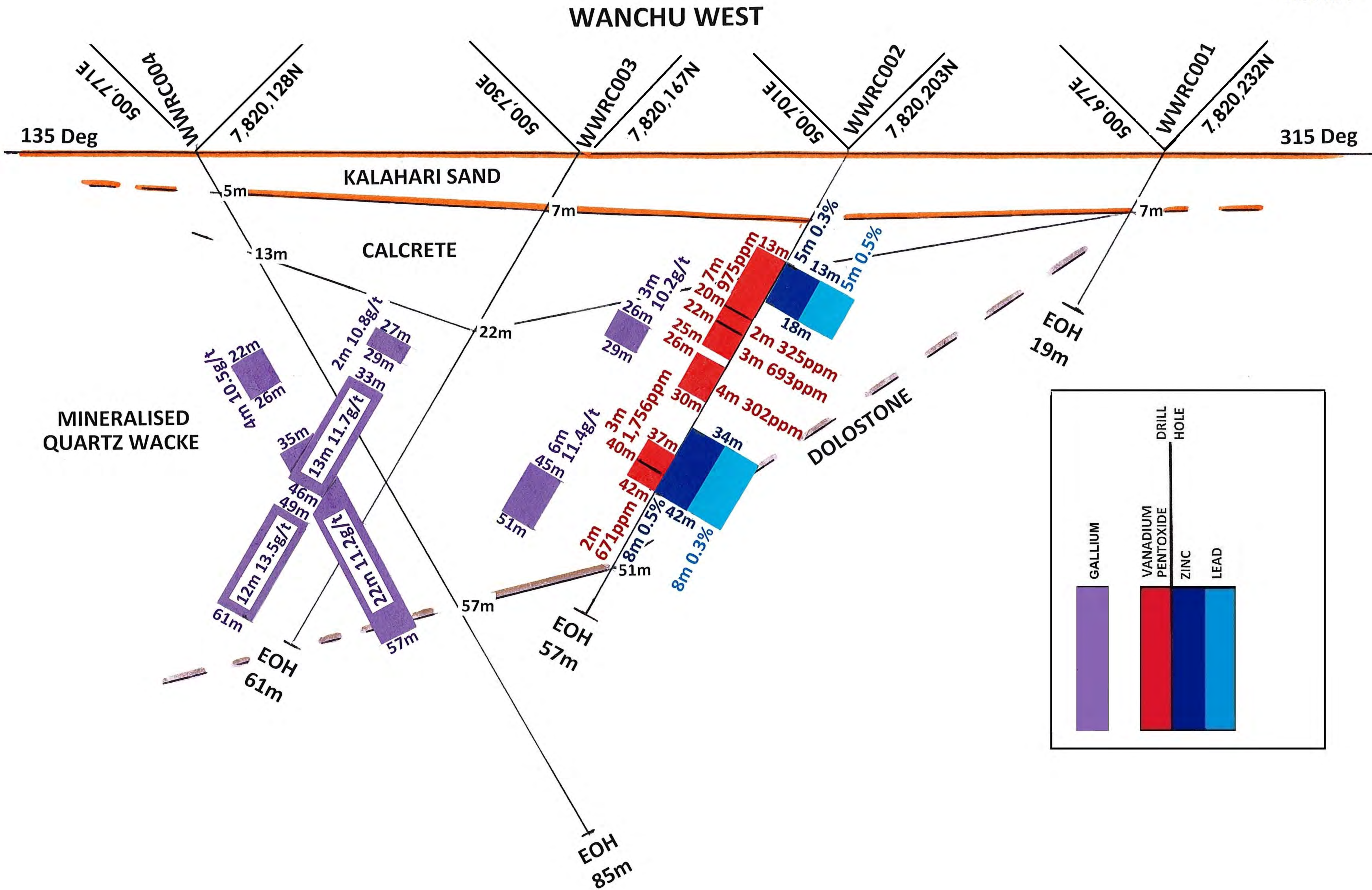
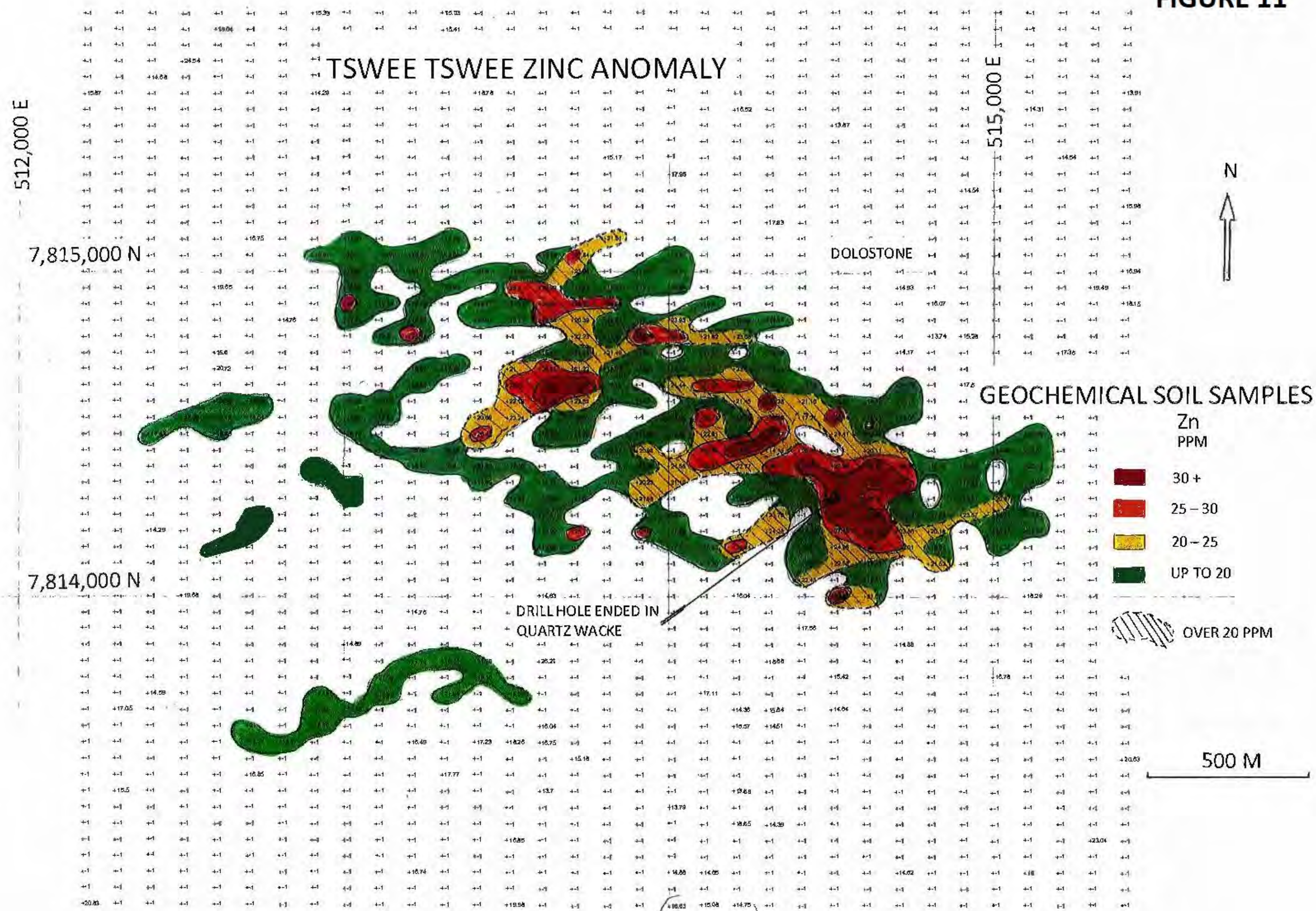
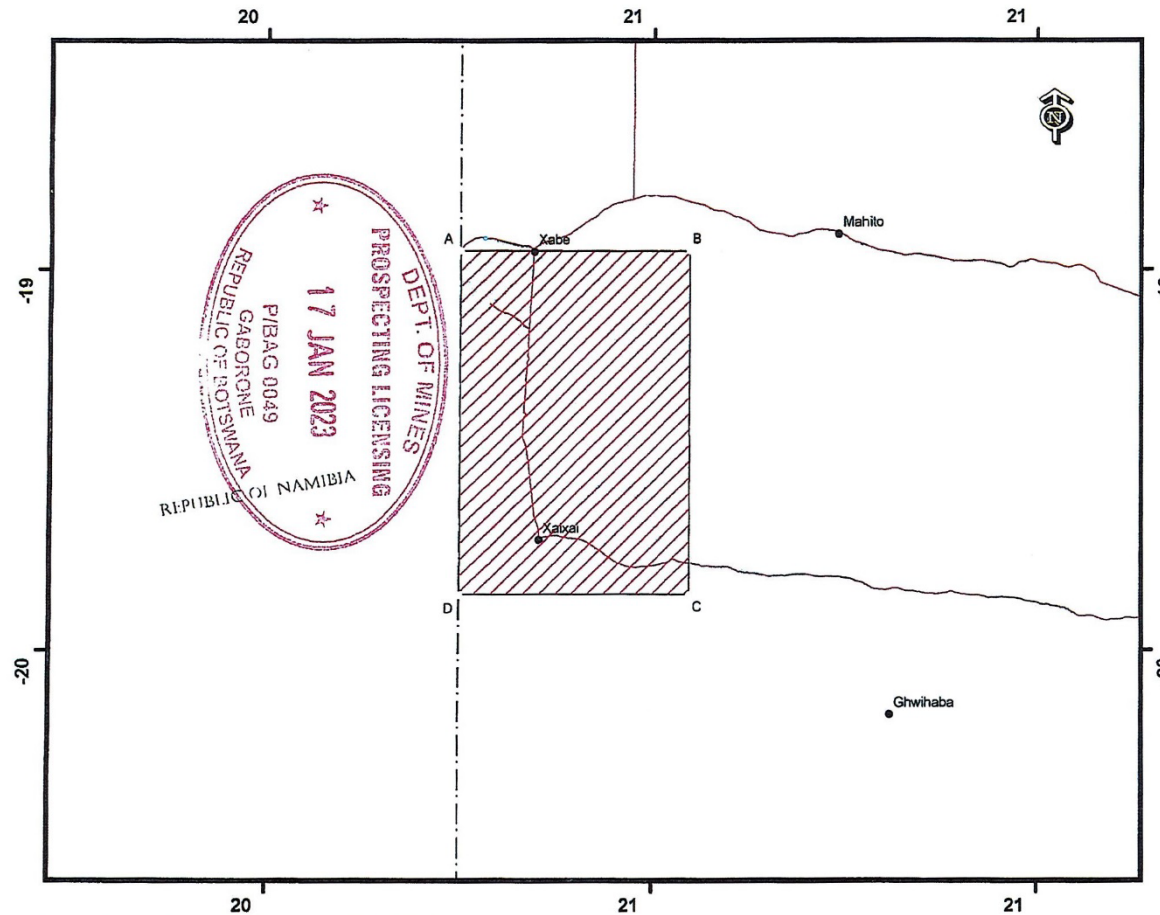


FIGURE 11



MOUNT BURGESS (BOTSWANA) (PTY) LTD
Prospecting Licence No.043/2016



The licence area is nine hundred and ninety five point nine square kilometers (995.9Km²) defined by boundary lines in the North West District, which shall be straight unless otherwise stated, joining successive points at the following coordinates.

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree

POINT	LONGITUDE	LATITUDE
A	20.999710	-19.580740
B	21.237820	-19.580820
C	21.238060	-19.941390
D	20.999700	-19.941390

Total Area =995.9 Km²

Legend

- Settlements
- Road
- ▨ Licence Area
- - - International Boundary
- Points
- Water Body

1:750,000

0 15 30 60 Kilometers

Drawn on the 11/01/2023

By Kelvin Ketshabile

Checked By P. Matlotse

Department of Mines

JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> HQ and PQ diamond Core was marked and collected in sample trays, visually logged and cut in half. Samples were collected as nominal 1m intervals but based on visible geology with minimum samples of 0.3m and maximum samples of 1.3m. Half of each core was retained on site in core trays and the other half was double bagged and sent to Intertek Genalysis Randburg, South Africa where they were crushed. A portion of each intersection sample was then pulverised to p80 75um and sent to Intertek Genalysis in Perth for assaying via ICPMS/OES for Ag/Pb/Zn/V/Ge/Ga. Individual meters of RC drill chips were bagged from the cyclone. These were then riffle split for storage in smaller bags, with selected drill chips being stored in drill chip trays. A trowel was used to select drill chip samples from sample bags to be packaged and sent to Intertek Genalysis, Randburg, South Africa where they were crushed. A portion of each intersection's sample was then pulverised to P80 75um and sent to Intertek Genalysis in Perth for assaying via ICP/OES for Ag/Co/Cu/Pb/Zn. The remainder of the crushed samples were then sent from Intertek Genalysis Randburg to Intertek Genalysis in Perth where they were then collected by the Company for storage. Samples from various intersections from drill holes were selected by the Company for submission for metallurgical test work. Based on the distribution of mineralisation the core sample size is considered adequate for representative sampling.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> HQ and PQ diameter triple tube was generally used for diamond core drilling at Nxuu. RC chips were collected over 1m intervals, and two-stage riffle split to produce a sample for dispatch to the assay laboratory. The remainder of the sample was bagged and kept on site for access pending assay results; with washed chip samples for each metre also collected in chip trays for logging and later reference.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Sample recoveries have in general been good and no unusual measures were taken to maximise sample recovery other than the use of triple tube for diamond core drilling. In the event of unacceptable core loss MTB drills twin holes. MTB believes there is no evidence of sample bias due to preferential loss/gain of fine/coarse material for holes being reported on.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Holes were logged in the field by qualified geologists on MTB's log sheet template and of sufficient detail to support Mineral Resource estimation: qualitative observations covered lithology, grain size, colour, alteration, mineralisation, structure. Quantitative logging included vein percent. SG measurements were obtained at approximately 5m intervals on DD holes. All core is photographed wet and dry. All drill holes are logged in full.
Sub-sampling techniques and	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. 	<ul style="list-style-type: none"> HQ and PQ Core was sawn in half on site. Half of each core was retained on site in core trays and the other

Criteria	JORC Code explanation	Commentary
sample preparation	<ul style="list-style-type: none"> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p>half was double bagged and labelled noting hole number and interval both within the bag and on the bag. Sample bags were then placed in larger bags of ~40 individual samples and the larger bag also labelled describing the contents. Field duplicates were inserted at regular intervals.</p> <ul style="list-style-type: none"> RC chips were collected over 1m intervals, and two-stage riffle split to produce a sample for dispatch to the assay laboratory. The remainder of the sample was bagged and kept on site for access pending assay results; with washed chip samples for each metre also collected in chip trays for logging and later reference. All samples currently being reported on were assayed for Ag/Pb/Zn/V/Ge/Ga.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> Samples prior to 2008 were dispatched to the Ongopolo Laboratory situated in Tsumeb, Namibia. Check samples were also sent to Genalysis in Perth. Samples since 2008, when originally assayed, were sent to Intertek Genalysis Perth, for assaying according to the following standard techniques. Diamond core samples were analysed for: (a) Ore grade digest followed by ICPMD – OES finish for Silver, Lead, Zinc, Vanadium/Germanium/Gallium; (b) Also 4 acid digest for silver, lead, zinc followed by AAS. RC samples were analysed with Ore grade digest followed by ICP-OES for Ag/Co/Cu/Pb/Zn. MTB quality control procedures include following standard procedures when sampling, including sampling on geological intervals, and reviews of sampling techniques in the field. The current laboratory procedures applied to the MTB sample preparation include the use of cleaning lab equipment with compressed air between samples, quartz flushes between high grade samples, insertion of crusher duplicate QAQC samples, periodic pulverised sample particle size (QAQC) testing and insertion of laboratory pulp duplicates QAQC samples according to Intertek protocols. Intertek inserts QA/QC samples (duplicates, blanks and standards) into the sample series at a rate of approx. 1 in 20. These are tracked and reported on by MTB for each batch. When issues are noted, the laboratory is informed and investigation conducted defining the nature of the discrepancy and whether further check assays are required. The laboratory completes its own QA/QC procedures, and these are also tracked and reported on by MTB. Acceptable overall levels of analytical precision and accuracy are evident from analyses of the routine QAQC data.
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> A selection of the original digital assay files from MTB has been checked and verified against the supplied database. Numerous twin, and close spaced holes have been drilled. Results show close spatial and grade correlation. All drilling logs were validated by the supervising geologist. Adjustments to assay data included converting assays recorded in ppm to percent for Zn, Pb, Cu and V; the conversion of V to V2O5 and the conversion of negative or below detection limit values to half detection limit.
Location of data points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource</i> 	<ul style="list-style-type: none"> All drill hole collars were surveyed using DGPS equipment in WGS84 UTM Zone 34S coordinates.

Criteria	JORC Code explanation	Commentary
	<p><i>estimation.</i></p> <ul style="list-style-type: none"> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> Drill holes were routinely down hole surveyed using Eastman single shot magnetic survey instruments, with the dip and azimuth monitored by the driller and site geologist to ensure the hole remained on track within the stipulated guidelines. Readings were obtained at approximately 25m intervals down hole. Topographic control was derived from collar surveys. The Nxuu area is overlain by Kalahari Sand cover and is predominantly flat.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> Data spacing (drill holes) is variable and appropriate to the geology. Sections are spaced at 30m intervals, with hole spacings predominantly 30m on section. The spacing is considered sufficient to establish geological and grade continuity appropriate for a Mineral Resource estimation. Samples were composited to 1m intervals prior to estimation.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> Mineralisation is sub-horizontal, therefore holes were drilled vertically. The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation. Reported intersections are down-hole intervals and are generally representative of true widths.
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Samples were taken by vehicle on the day of collection to MTB's permanent field camp and stored there until transported by MTB personnel to Maun from where they were transported via regular courier service to laboratories in South Africa.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> MTB's exploration geologists continually reviewed sampling and logging methods on site throughout the drilling programs.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i> 	<ul style="list-style-type: none"> The Kihabe-Nxuu Project is located in north-western Botswana, adjacent to the border with Namibia. The Project is made up of one granted prospecting licence PL 43/2016, which covers an area of 1000 sq km. This licence is 100% owned and operated by MTB. The title is current to 31 December 2022 at the time of release of this report, with an extension application until December 2024 lodged with the Department of Mines in September 2022. PL 43/2016 is in an area designated as Communal Grazing Area. The Tenement is current and in good standing.
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> The Geological Survey of Botswana undertook a program of soil geochemical sampling in 1982. As a result of this program, Billiton was invited to undertake exploration and drilling activities in and around the project area. MTB first took ownership of the project in 2003 and has undertaken exploration activities on a continual basis since then.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Kihabe-Nxuu Project lies in the north-western part of Botswana at the southern margin of the Congo craton. The Gossan Anomaly is centred on an exposed gossan within the project. To the north of the project are granitoids, ironstones, quartzites and mica schists of the Tsodilo Hills Group covered by extensive recent Cainozoic sediments of the Kalahari Group. Below the extensive Kalahari sediments are siliciclastic sediments and igneous rocks of the Karoo Supergroup in fault bounded blocks.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The Nxuu deposit mineralisation occurs in a flat-lying quartz wacke unit situated on the contact of a barren dolomite basement unit. The deposit is weathered, with base metal mineralisation occurring as a series of sub-horizontal units overlying the barren dolomite unit.
Drill hole information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Exploration results are not being reported. All information has been included in the appendices. No drill hole information has been excluded.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Exploration results are not being reported. Not applicable as a Mineral Resource is being reported. ZnEq=Zinc equivalent grade, which is estimated based on Kitco prices as of 21st October 2022 and calculated with the formula: <ul style="list-style-type: none"> $\text{ZnEq} = \frac{[(\text{Zn}\% \times 3,000) + (\text{Pb}\% \times 2,000) + (\text{Ag g/t} \times (20.0/31.1035)) + (\text{V}_2\text{O}_5\% \times 16,000)]}{(3,000)}$ MTB is of the opinion that all elements included in the metal equivalent calculation have reasonable potential to be recovered and sold.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Mineralisation at Nxuu is sub-horizontal. Holes are drilled vertically. Reported hole intersections generally represent true width.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Relevant diagrams have been included within the Mineral Resource report main body of text.
Balanced Reporting	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> Maps showing individual hole locations are included in the report. Exploration results are not being reported.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> Results were estimated from drill hole assay data, with geological logging used to aid interpretation of mineralised contact positions. Geological observations are included in the report.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this 	<ul style="list-style-type: none"> Follow up drilling will be undertaken to improve confidence. Drill spacing is currently considered adequate for the current level of interrogation of the Project.

Criteria	JORC Code explanation	Commentary
	<i>information is not commercially sensitive.</i>	

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