# NI 43-101 Technical Report on the Blanket Gold Mine, Zimbabwe




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This Report titled "NI 43-101 Technical Report on the Blanket Gold Mine, Zimbabwe" was prepared by Caledonia Mining Plc. The Report is compliant with National Instrument 43-101 and Form 43-101 F1. The effective date of this Report is 1 March 2024.

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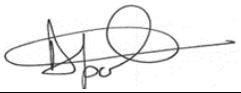
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# LIST OF UNITS AND ABBREVIATIONS

The following units were used in this Report, and are in metric terms:

| Unit | Definition |
|---|---|
| % | Percent |
| / | Per |
| ± or ~ | Approximately |
| ° | Degrees |
| °C | Degrees Celsius |
| a | Year |
| cm | Centimetre |
| d | Day |
| g | Grammes |
| $g/cm^3$ | Grammes per cubic centimetre |
| g/t | Grammes per tonne |
| Ga | Billion years (1,000,000,000 years) |
| ha | Hectares |
| hr | Hour |
| kg | Kilogram (1,000 g) |
| kL | Kilolitres (1,000 l) |
| km | Kilometre (1,000 m) |
| $km^2$ | Square kilometres |
| koz | Kilo ounces (1,000 oz) |
| kt | Kilo tonnes (1,000 t) |
| ktpm | Kilo tonnes per month |
| kV | Kilovolt (1,000 volts) |
| kVA | Kilovolt ampere |
| kW | Kilowatt (1,000 W) |
| l | Litre |
| m | Metre |
| $m^2$ | Square metres |
| $m^3$ | Cubic metres |
| mm | Millimetre |
| Moz | Million ounces (1,000,000 oz) |
| Mt | Million tonnes (1,000,000 t) |
| Mtpa | Million tonnes per annum |
| MVA | Megavolt ampere |
| oz | Troy Ounces |
| t | Tonne |
| $t/m^3$ | Tonnes per cubic meter |
| tpd | Tonnes per day |
| V | Volts |
| x | By / Multiplied by |

The following abbreviations were used in this Report:

| Abbreviation | Description |
|---|---|
| 2022 Report | National Instrument 43-101 Technical Report on the Blanket Mine, Gwanda Area, Zimbabwe (Effective 1 September 2022) |
| AC | Asbestos Cement |
| amsl | Above Mean Sea Level |
| BETS | Employee Trust for the benefit of the present and future employees of Blanket Mine |
| BIF | Banded Iron Formation |
| Blanket Mine Company | Blanket Mine (1983) (Pvt) Ltd |
| Blanket or the Mine | Blanket Gold Mine |
| BQR | Blanket Quartz Reef |
| Caledonia or the Company | Caledonia Mining Corporation Plc |
| CAPM | Capital Asset Pricing Model |
| CBDZ | Colleen Bawn Deformation Zone |
| CIL | Carbon-in-Leach |
| CIM | Canadian Institute of Mining, Metallurgy and Petroleum |
| CMS | Central Main Shaft |
| CPI | Consumer Price Indices |
| CRM | Certified Reference Material |
| DCF | Discounted Cash Flow |
| DSR | Disseminated Sulphide Reefs |
| DSR | Disseminated Sulphide Reefs |
| EIA | Environmental Impact Assessment |
| EM Act | Environmental Management Act (Chapter 20:27) No. 13/2002 |
| EMA | Environmental Management Agency |
| Epoch | Epoch Resources (Pty) Ltd |
| FCFE | Free Cash Flow to Equity |
| FCFF | Free Cash Flow to Firm |
| Fidelity | Fidelity Printers and Refiners Limited |
| Fremiro | Fremiro Investments (Private) Limited |
| FW | Footwall |
| G&A | General and Administrative |
| GCSOT | Gwanda Community Share Ownership Trust |
| GGB | Gwanda Greenstone Belt |
| GMS | Greenstone Management Services (Pty) Limited |
| HG | High Grade |
| HW | Hanging Wall |
| IL | Intensive Leach |
| Kinross | Kinross Gold Corporation |
| KNA | Kriging Neighbourhood Analysis |
| LG | Low Grade |
| LIMS | Laboratory Information Management System |
| LoM | Life of Mine |
| ML40 | Mining Lease with registered number 40 |
| MMA | Mines and Minerals Act (Chapter 21:05) of 1961 |

| Abbreviation | Description |
|---|---|
| MMCZ | Minerals Marketing Corporation of Zimbabwe |
| MSO | Geovia Stope Shape Optimiser |
| NI 43-101 | National Instrument 43-101, Form 43-101 F1 and the Companion Policy Document 43-101CP |
| NIEEF | National Indigenisation and Economic Empowerment Fund |
| NIR | Not-In-Reserve |
| NMD | Nominal Maximum Demand |
| NPV | Net Present Value |
| NSR | Net Smelter Royalty |
| NWGDZ | North West Gwanda Deformation Zone |
| OHL | Overhead Powerlines |
| PEM | Prospectivity Enhancement Multiplier |
| PPE | Personal Protective Equipment |
| PSA | Pressure Swing Absorption |
| QAQC | Quality Assurance and Quality Control |
| QP | Qualified Person |
| RoM | Run of Mine |
| RoR | Rate of Rise |
| SG | Specific Gravity |
| SGDZ | South Gwanda Deformation Zone |
| SoR | Slope of Regression |
| The Act | Indigenisation and Economic Empowerment Act |
| this Report | NI 43-101 Technical Report on the Blanket Gold Mine, Zimbabwe with an effective date of 1 March 2024 |
| TSF | Tailings Storage Facility |
| WACC | Weighted Average Cost of Capital |
| ZESA | Zimbabwe Electricity Supply Authority |
| ZINWA | Zimbabwe National Water Authority |
| ZMDC | Zimbabwe Mining Development Corporation |

**ROUNDING:** It is noted that throughout the Report, tables may not compute due to rounding.

# ITEM 1 EXECUTIVE SUMMARY

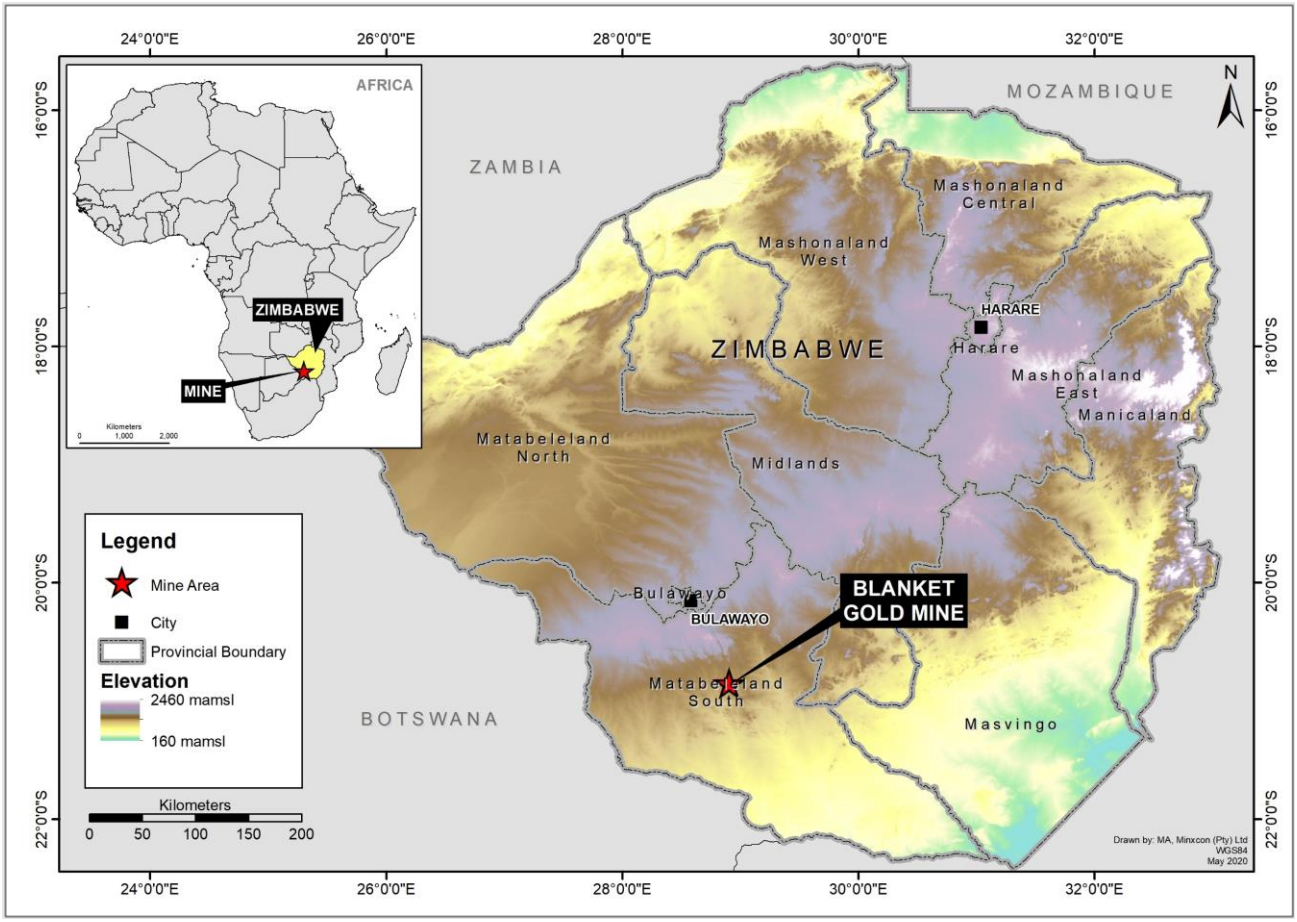
Caledonia Mining Corporation Plc) compiled a National Instrument 43-101 Technical Report on behalf of Blanket Mine (1983) (Pvt) Ltd (or Blanket Gold Mine (or Blanket or the Mine), situated in the Gwanda area, Zimbabwe.

The Report is prepared in compliance with the National Instrument 43-101, Form 43-101 F1 and the Companion Policy Document 43-101CP (or NI 43-101). This Report follows the guidelines as prescribed by NI 43-101. Only terms as defined by The Canadian Institute of Mining, Metallurgy and Petroleum (or CIM) have been utilised in this Report. The Mineral Resources and Mineral Reserves have been estimated in conformity with the accepted CIM Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines (2019) and are reported in accordance with the Canadian Securities Administrators' NI 43-101.

## Item 1 (a) Property Description

The Blanket Mine is an operating underground gold mine situated on the Gwanda Greenstone Belt targeting shear zone hosted gold mineralisation. It is located in the southwest of Zimbabwe, approximately 15 km northwest of Gwanda, the provincial capital of Matabeleland South. Gwanda is located 147 km southeast of Bulawayo, 197km northwest of the Beitbridge Border post with South Africa, and 560km from Harare.

*Figure 1: General Location of Blanket Mine*




***Source:*** *Blanket (2023)*

The Mine complex comprises a cluster of mines extending from Lima in the north, through Eroica, Sheet, AR Main, AR South, Feudal, Blanket Section (Blanket 1 to Blanket 6) and Jethro over a total strike length of some 3 km. Gold has been commercially mined at the Project Area from several closely spaced orebodies defining a mineralised trend via several shafts since the early 1900s. The Mine covers the operating claims of Jethro, Blanket, Feudal, Harvard, Mbudzane Rock, Oqueil, Sabiwa, Sheet, Eroica and Lima, largely encompassed in a 2,120 ha Mining Lease. Ore is processed at an on-site plant.

## Item 1 (b) Ownership of the Property

The Blanket Mine operates under a mining lease ML40 issued to Blanket Mine (1983) (Pvt) Ltd, which is incorporated in Zimbabwe and a 64% owned, indirect subsidiary of Caledonia Mining Corporation Plc. The mine's claims under the lease cover an area of 2,120ha. The mining lease details are provided below.

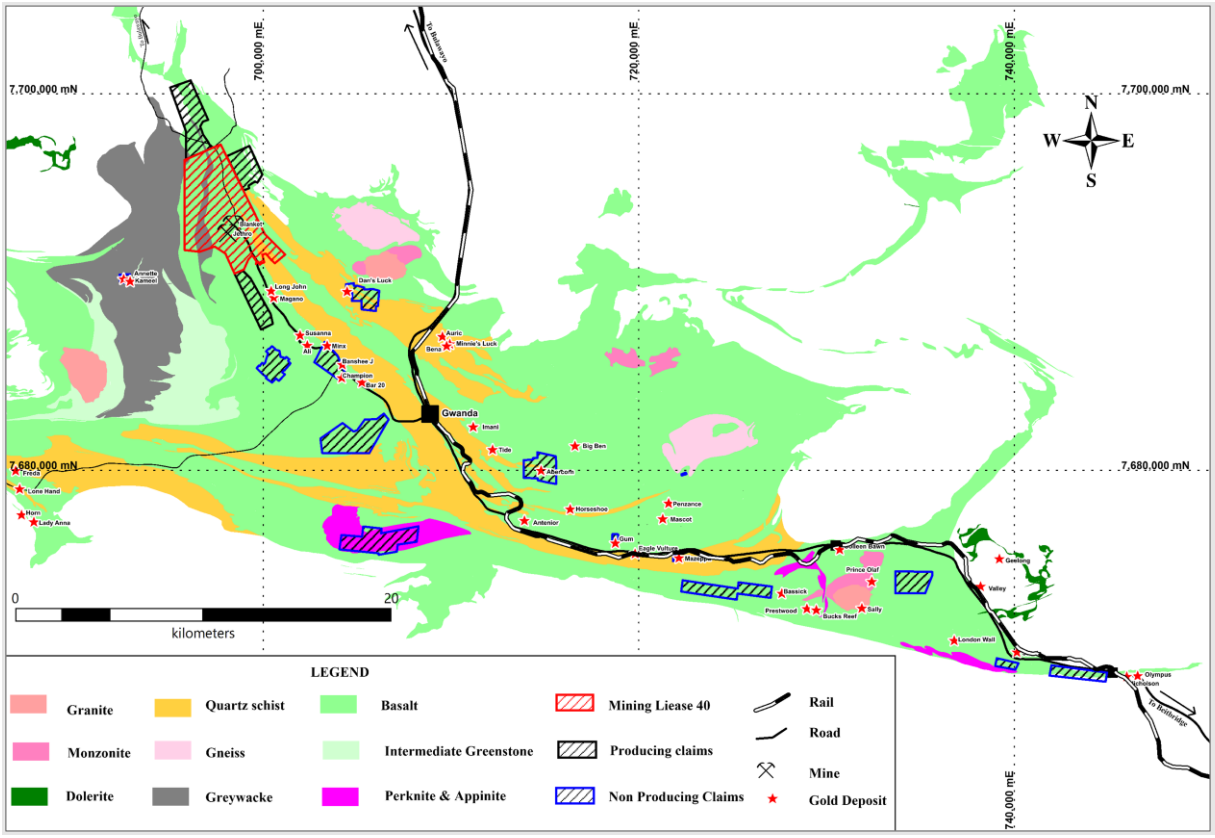
*Table 1: Mining Lease Details*

| Mining Lease Number | Holder | Mining District | Area ha | Principal Mineral | Other Minerals | Date of Issue | Validity Period |
|---|---|---|---|---|---|---|---|
| ML40 | Blanket Mine (1983) (Pvt) Ltd | Matabeleland South | 2,120.00 | Gold | Silver, Copper, Arsenic | 25 May 2023 | 1 year, renewable.<br>Current tenure period expires on 24 May 2024 |

## Item 1 (c) Geology and Mineral Deposit

The Blanket Mine is situated on the north-western limb of the Archaean Gwanda Greenstone Belt in south-western Zimbabwe, along strike from several other gold deposits. The Gwanda Greenstone Belt is approximately 7km in length (west to east) and 15 km wide (north to south). The belt is typical of greenstone belts of the Zimbabwe Craton consisting of mafic to felsic volcanics with intercalated sedimentary units. Repeated strong deformation affected all lithologies. Structurally, the Gwanda Greenstone Belt is dominated by a major periclinal synform, plunging 60° NW in the western half of the belt and flanked on both sides by major deformation zones. Gwanda Greenstone Belt metamorphism reaches upper greenschist to amphibolite facies and is higher than in the typical Zimbabwean greenstone belts.

*Figure 2: Geology of the Gwanda Greenstone Belt*




***Source**: Blanket (2023)*

In the Blanket Mine area, lithologies comprise non-mineralised basal felsic schists of igneous or sedimentary origin in the east. The felsics are overlain by a metabasaltic ultramafic to mafic unit with pillow basalts remnants. This Mafic Unit is subdivided into a lower zone and upper zone. Ultramafics and BIFs comprise the lower zone, while massive to pillowed lavas with intercalated interflow sediments (cherty argillites) comprise the upper zone (or Black Markers). Blanket mineralisation occurs in the overlying mafics. Regionally, the rock is a fine-grained massive amphibolite with localised shear planes. A low angle transgressive shear zone characterised by biotite and a well-developed fabric, cuts through the mafic zone is the locus of the gold ore shoots. The shear zone may be up to 50m wide.

Mining at Blanket occurs over a 3 km strike that includes from north to south, the deposits of Lima, Eroica, Sheet, AR Main, AR South, Feudal, Blanket Section (Blanket 1 to Blanket 6) and Jethro. The main Blanket underground workings are connected to Lima by a 2km long haulage which follows the strike of the main fabric. Mineralisation occurs in near vertical shoots aligned along an approximately N-S axis. The ore shoots vary in shape from the tabular-lensoidal quartz reefs to the massive to pipe-like disseminated sulphide reefs (or DSR). Gold is deposited at crustal levels within and near the brittle-ductile transition zone. The deposits may have a vertical extent of up to 2km, demonstrate extensive down-plunge continuity, and lack pronounced zoning. The ore mineralogy is dominated by gold, pyrite and arsenopyrite.

Two quartz-filled shear zones are mined, namely the Blanket Quartz Reef (or BQR) and the Eroica Reef, which have long strike lengths but are not uniformly mineralised although continuous pay shoots of over 100 m on strike are seen. Gold grade fluctuations are more extreme in the quartz reefs than in the DSR type reefs but on average these quartz shears have higher grades.

## Item 1 (d) Status of Exploration

Blanket Mine is continuing with the down-dip exploration drilling (below 750 m Level) as the underground infrastructure / development is put in place. This drilling has been shown to provide confirmation on the continuity of the various orebodies at depth, and at closer intersection spacings may upgrade previously Inferred Mineral Resources to Indicated Mineral Resources. An electromagnetic survey may be considered, potentially delineating additional surface structural features and targets, which can be used in conjunction with the drilling and other geological data to refine the geological concept being proposed.

The combination of the exploration drilling, geophysical surveys, and conceptual geological model revisions (based on the sampling database) may increase the exploration targets and ultimately assist in increasing the Mineral Resource.

## Item 1 (e) Mineral Resource and Mineral Reserve Estimates

**Mineral Resources**

All data sources have been verified to be suitable for the establishment of a 3D geological model and Mineral Resource Estimation. A new conceptual geological model has been proposed and as a result Blanket 1, 2 and 3 have been remodelled. ARS extension has also been modelled as a result. This geological model can be used as a framework for additional target generation as well as targeted exploration programs.

The resource estimates generally show good reconciliation to data. It is apparent that as more data becomes available in the various orebodies, further sub-domaining may improve the quality of the estimates.

Measured, Indicated and Inferred Mineral Resources, based on Ordinary Kriging and Inverse Distance Squared interpolation techniques, can be declared for Blanket due to the continuity of the geology and grade as well as a long history of proven historical mining. The Inferred resources show geological continuity, while grade continuity requires improvement through additional drilling.

The 2023 estimate is a completely 3D digital estimate, marking the complete transition from manual resource estimation to a 3D geological and resource environment. The 2023 resource estimation has included the recently announced results from the Long Hole Exploration Drilling Program. In addition, underground Run of Mine drilling and underground in ore development improved during the period and has generated a significant number of new underground sample sections. The Measured, Indicated and Inferred Mineral Resources are shown in the table to follow.

*Table 2: Mineral Resource Tabulation for Blanket Mine as of 31 December 2023*

| *Mineral Resource Tabulation at 31 December 2023* | | | | | |
|---|---|---|---|---|---|
| *Mineral Resource Classification* | *Orebody* | *Tonnes* | *Au Grade* | *Au Content* | |
| | | *Kt* | *g/t* | *Kg* | *Koz* |
| *Measured (2.5% Geological Loss)* | *ARM* | *1 031* | *3.12* | *3 214* | *103* |
| | *ARS* | *803* | *3.62* | *2 904* | *93* |
| | *ARS_Ext* | *50* | *2.56* | *128* | *4* |
| | *BF* | *275* | *3.43* | *943* | *30* |
| | *BLK1* | *407* | *3.43* | *1 398* | *45* |
| | *BLK2* | *234* | *3.66* | *856* | *28* |
| | *BLK3* | *281* | *3.41* | *959* | *31* |

| | | | | | |
|---|---|---|---|---|---|
| | *BLK4_5* | *765* | *3.26* | *2 492* | *80* |
| | *BLK6* | *76* | *3.78* | *287* | *9* |
| | *BQR* | *1 227* | *4.36* | *5 345* | *172* |
| | *ERC* | *473* | *5.21* | *2 466* | *79* |
| | *Jethro* | *84* | *3.11* | *260* | *8* |
| | *Lima* | *317* | *3.94* | *1 247* | *40* |
| | *Sheet* | *138* | *2.99* | *414* | *13* |
| ***Measured Total*** | | ***6 161*** | ***3.72*** | ***22 912*** | ***737*** |
| *Indicated (5% Geological Loss)* | *ARM* | *984* | *2.78* | *2 734* | *88* |
| | *ARS* | *682* | *3.48* | *2 373* | *76* |
| | *ARS_Ext* | *295* | *2.93* | *865* | *28* |
| | *BF* | *321* | *2.99* | *960* | *31* |
| | *BLK1* | *1 036* | *3.21* | *3 319* | *107* |
| | *BLK2* | *690* | *4.98* | *3 441* | *111* |
| | *BLK3* | *295* | *2.91* | *857* | *28* |
| | *BLK4_5* | *196* | *3.05* | *599* | *19* |
| | *BLK6* | *43* | *3.99* | *171* | *6* |
| | *BQR* | *2 951* | *3.61* | *10 658* | *343* |
| | *ERC* | *926* | *4.76* | *4 410* | *142* |
| | *Jethro* | *450* | *3.34* | *1 500* | *48* |
| | *Lima* | *179* | *3.73* | *669* | *22* |
| | *Sheet* | *65* | *2.60* | *167* | *5* |
| ***Indicated Total*** | | ***9 112*** | ***3.59*** | ***32 725*** | ***1 052*** |
| ***Measured + Indicated Total*** | | ***15 273*** | ***3.64*** | ***55 638*** | ***1 789*** |

*Notes:*
1. *Cut-off applied 1.5 g/t.*
2. *Geological loss applied: Measured 2.5%, Indicated 5.0%, Inferred 10.0%*
3. *Commodity price utilised: USD2,150/oz.*
4. *Mineral Resources are stated inclusive of Mineral Reserves.*
5. *Mineral Resources are reported as total Mineral Resources and are not attributed.*
6. *All orebodies are depleted for mining.*

*Table 3: Inferred Mineral Resource Tabulation for Blanket Mine as at 31 December 2023*

| **Mineral Resource Tabulation at 31 December 2023** | | | | | |
|---|---|---|---|---|---|
| **Mineral Resource Classification** | **Orebody** | **Tonnes** | **Au Grade** | **Au Content** | |
| | | **Kt** | **g/t** | **Kg** | **Koz** |
| Inferred (10% Geological Loss) | *ARM* | *467* | *2.87* | *1 343* | *43* |
| | *ARS* | *265* | *3.88* | *1 029* | *33* |
| | *ARS_Ext* | *106* | *3.48* | *368* | *12* |
| | *BF* | *234* | *3.05* | *714* | *23* |
| | *BLK1* | *1 361* | *3.20* | *4 352* | *140* |
| | *BLK2* | *913* | *4.91* | *4 476* | *144* |
| | *BLK3* | *114* | *3.33* | *380* | *12* |
| | *BLK4_5* | *421* | *3.32* | *1 395* | *45* |
| | *BLK6* | *130* | *3.57* | *463* | *15* |
| | *BQR* | *2 969* | *3.71* | *11 009* | *354* |
| | *ERC* | *1 451* | *4.30* | *6 233* | *200* |
| | *Jethro* | *169* | *3.28* | *553* | *18* |

| | | | | | |
|---|---|---|---|---|---|
| | *Lima* | *148* | *3.41* | *506* | *16* |
| | *Sheet* | *73* | *2.52* | *185* | *6* |
| **Inferred Total** | | ***8 821*** | ***3.74*** | ***33 007*** | ***1 061*** |

*Notes:*
1. *Cut-off applied 1.5 g/t.*
2. *Geological loss applied: Measured 2.5%, Indicated 5.0%, Inferred 10.0%*
3. *Commodity price utilised: USD2,150/oz.*
4. *Mineral Resources are stated inclusive of Mineral Reserves.*
5. *Mineral Resources are reported as total Mineral Resources and are not attributed.*
6. *All orebodies are depleted for mining.*

### Mineral Reserves

Mineral Resources in the Measured and Indicated Mineral Resource classifications have been converted into Proven and Probable Mineral Reserves respectively, by applying the applicable modifying factors. The Mineral Reserve estimate for the Blanket Mine is detailed in the table below.

*Table 4: Blanket Mine Mineral Reserve Estimate as at 1 March 2024*

| Mineral Reserve Classification | Tonnes | Grade | Au Content | |
|---|---|---|---|---|
| | kt | g/t | kg | oz |
| Proved | 2 129 | 3.21 | 6 838 | 220 |
| Probable | 5 555 | 3.31 | 18 409 | 592 |
| **Total** | *7 684* | *3.29* | *25 247* | *812* |

*Notes:*
1. *Mineral Reserve cut-off of 2.1 g/t applied.*
2. *The gold price that has been utilised in the economic analysis to convert diluted Measured and Indicated Mineral Resources in the LoM plan to Mineral Reserves is an average real term price of USD1,877/oz over the LoM.*
3. *Mineral Reserves are reported as total Mineral Reserves and are not attributed.*

An uneconomical tail containing 212.5koz of gold has been excluded from the Mineral Reserve, since it is not economical on its own. The LoM as reported in the economic analysis is based on Measured and Indicated Mineral Resources (Proven and Probable Mineral Reserves) and runs to 2034.

## Item 1 (f) Development and Operations

### Mining

Blanket Mine employs two mining methods that are well suited to the nature of the of the mineral deposits. The extreme variation within the Blanket Mine mineral deposits necessitates modification of the exact mining methods that suit the specific characteristics of each deposit. The general practice on the Mine is to implement one of two tailored mining methods, determined mainly by the width of the mineral deposit.

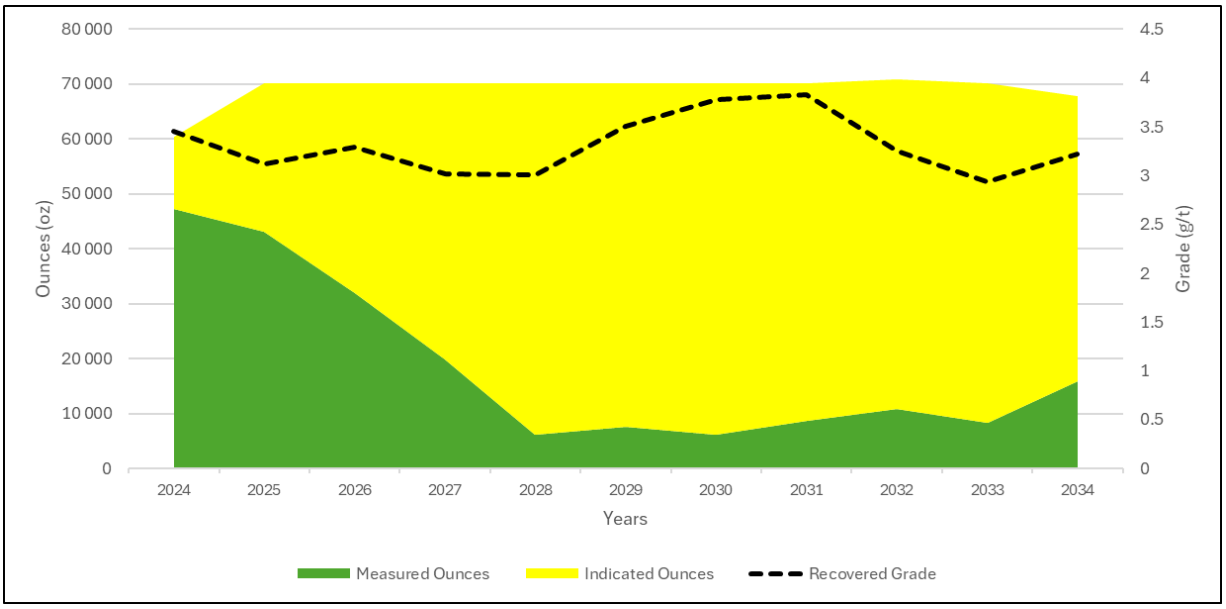
The two mining methods utilised are:

- Long-hole stoping in wider mineral deposits (orebody widths generally more than 3m); and
- Underhand stoping in narrow mineral deposits (orebody widths generally less than 3m).

The planned thrust in development is aimed at opening up ground below 750 m Level which will be the primary production areas, as well as create the necessary exploration drilling platforms. In the Lima, ARS, Blanket and Blanket Feudal areas some mining activities will take place above 750 m Level.

Blanket mine plans to produce 74 - 80 koz (recovered) of gold per year. The Blanket Mine production profile targeting Measured and Indicated Mineral Resources only (Proven and Probable Mineral Reserve) is illustrated in Figure 3.

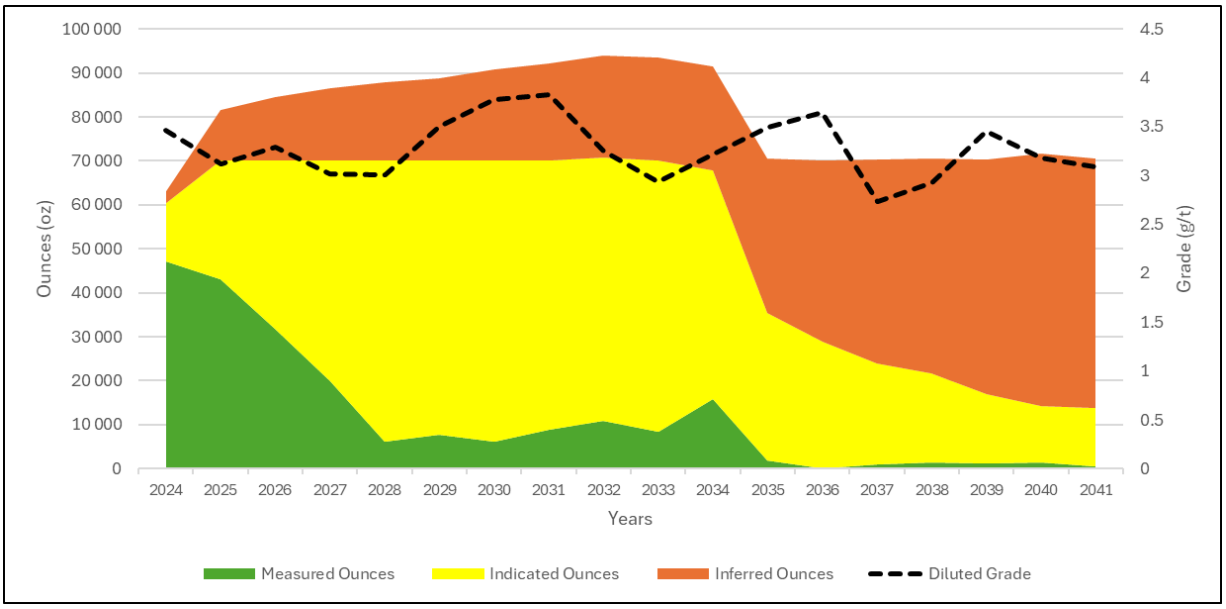
*Figure 3: Blanket Mine Mineral Reserve Production Profile*




Due to the nature of the mining methods employed in a vertical orebody, mining commences from the lowest point of access to the orebody and proceeds in an upward direction. This results in areas where the Inferred Mineral Resources are mined before and concurrent with the Measured and Indicated Mineral Resources. These Inferred Mineral Resources are typically converted as part of the mining process to Measured and Indicated Mineral Resources by means of orebody access development and RoM drilling.

Inferred Mineral Resources included in the LoM, but not included in the DCF calculation, or part of any economic analysis are shown in the interests of clarity and transparency in Figure 4.

*Figure 4: Blanket Mine Mineral Reserve Production Profile inclusive of Inferred Mineral Resources*



It is recommended that the current Long Hole Exploration drilling program be maintained to increase the level of confidence of the Mineral Resources from the Inferred classification to an Indicated classification for potential conversion to Probable Mineral Reserves.

**General Infrastructure**

Blanket Mine is an operational mine with well-established infrastructure and no major modifications or upgrades are necessary to sustain mining and processing operations. Sufficient capital has been allowed for the completion of Central Main Shaft as well as the associated development, equipment, and infrastructure. An upgrade of the ore handling infrastructure between Central Shaft and the Blanket Gold Plant is planned which will entail the construction of a 152-meter long overland conveyor belt to replace the current trucking scenario and further reduce costs.

Power and water supply allocation to the total Blanket operation, including the Central Main Shaft expansion project, is deemed to be sufficient.

**Processing**

The Blanket Gold Plant consists of crushing, milling, carbon-in-leach and batch elution electro-winning circuits. The plant has been treating an average of 64ktpm at a recovery of 93.8% for the past 12 months. The recovery performance is expected to be maintained. Deposition at a new TSF at Blanket commenced during December 2023 and was fully commissioned during February 2024. A Phase 1B is scheduled to be completed by 2024 with the final Phase 2 scheduled for completion in 2025. Once fully constructed and commissioned, the new TSF will provide depositional capacity to Blanket for a further 20 years until 2044.

## Item 1 (g) Economic Analysis

The company performed a mineral asset economic analysis on the Blanket Mine and the diluted Indicated and Measured Resources in the LoM plan, for conversion to Mineral Reserves. The Discounted Cash Flow, or DCF, is based on the production schedule and all costs and capital associated to develop, mine and process the orebody. Relevant taxation and other operating factors, such as recoveries and stay-in-business costs were incorporated into the economic analysis to produce a cash flow over the life cycle of the Mine. USD commodity prices for the period 2024-2029 have been converted from nominal to real terms. The table below illustrates the forecasts for these six years as well as the long-term forecast used in the financial model. The price forecasts are based on the median of various banks, brokers and analyst forecasts and are in real-terms throughout the life of mine. The average price over the LoM equates to USD1,877/oz. The inflation rate was sourced from the World Economic Outlook.

*Table 5: Macro-economic Forecasts (Real Terms)*

| Item | Unit | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | Long-Term |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | |
| Gold | USD/oz | 2,205 | 2,167 | 2,093 | 1,987 | 1,852 | 1,731 | 1,731 |

***Source**: Consensus Economic Inc. & World Economic Outlook January 2024.*

**Financial Cost Indicators**

The operating costs in the financial model were subdivided into different categories:

- Adjusted Operating Cost (Cash cost incurred at each processing stage, from mining through to recoverable metal delivered to market and includes government royalty payments);
- All-in Sustainable Cost (AISC) (sum of operating costs, SIB Capital and corporate general and administrative costs); and
- All-in Cost (AIC) (sum of the AISC, Non-current Operational Costs and non-sustaining Capital Costs).

Costs reported for the Blanket Mine, which consists of mining, plant and other operating costs, as well as government royalty payments are displayed in the table to follow. Other costs in the Adjusted Operating Costs category include the central and technical services, general and administration, human resources, and other services costs. Other costs for the AISC category include corporate management costs. The costs are displayed per milled tonne as well as per recovered gold ounce in Table 6.

*Table 6: Project Cost Indicators*

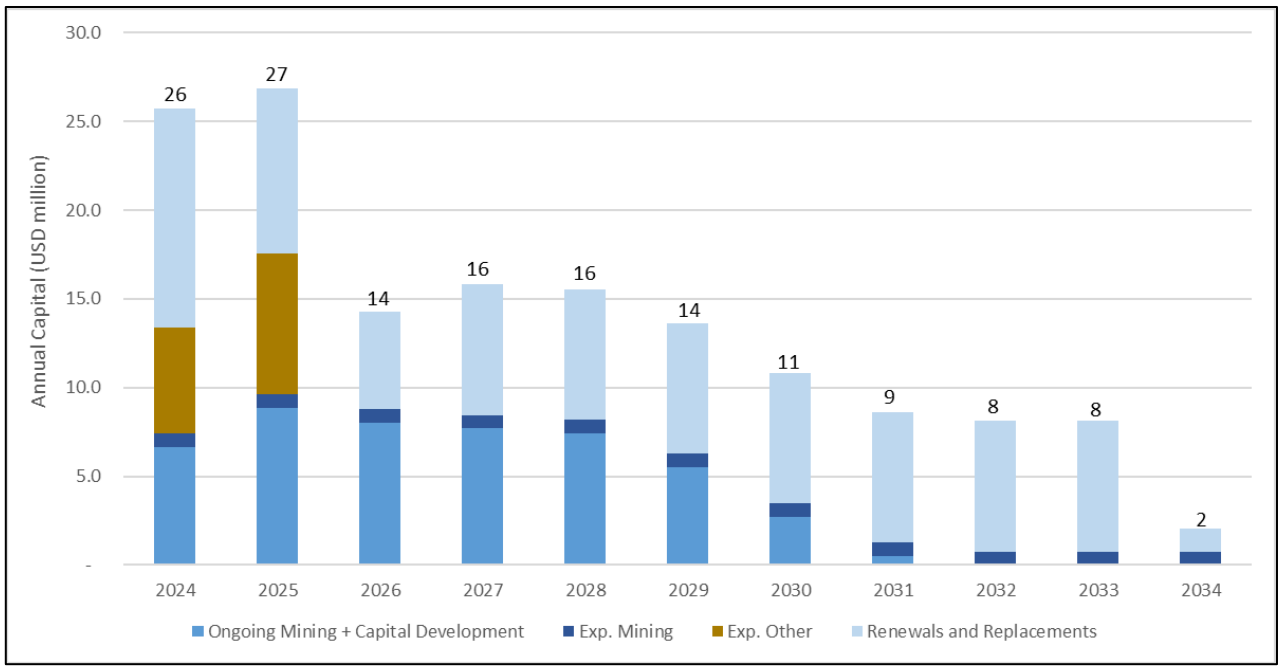
| Item | Unit | Blanket Mine |
|---|---|---|
| **Net Turnover** | **USD/Feed tonne** | 171 |
| Mine Cost | USD/Feed tonne | 31 |
| Plant Costs | USD/Feed tonne | 17 |
| Other Costs | USD/Feed tonne | 48 |
| **Operating Costs** | **USD/Feed tonne** | 96 |
| SIB | USD/Feed tonne | 18 |
| Royalties | USD/Feed tonne | 9 |
| Reclamation | USD/Feed tonne | 0 |
| Other Costs | USD/Feed tonne | 7 |
| **All-in Sustainable Costs (AISC)** | **USD/Feed tonne** | 130 |
| Capital | USD/Feed tonne | 2 |
| Other Cash Costs | USD/Feed tonne | 0 |
| **All-in Costs (AIC)** | **USD/Feed tonne** | 132 |
| **All-in Cost Margin** | **%** | 23% |
| EBITDA[1] | USD/Feed tonne | 76 |
| EBITDA Margin | % | 44% |
| Gold Recovered | oz | 757 238 |
| **Average Gold Price** | **USD/Gold oz** | 1,877 |
| **Net Turnover[2]** | **USD/Gold oz** | 1,739 |
| Mine Cost | USD/Gold oz | 311 |
| Plant Costs | USD/Gold oz | 171 |
| Other Costs | USD/Gold oz | 485 |
| **Operating Costs** | **USD/Gold oz** | 967 |
| SIB Capex | USD/Gold oz | 179 |
| Royalties | USD/Gold oz | 93 |

| | | |
|---|---|---|
| Reclamation | USD/Gold oz | 1 |
| Other Costs | USD/Gold oz | 72 |
| **All-in Sustainable Costs (AISC)** | **USD/Gold oz** | 1,312 |
| Capital | USD/Gold oz | 18 |
| Other Cash Costs | USD/Gold oz | 0 |
| **All-in Costs (AIC)** | **USD/Gold oz** | 1,330 |
| EBITDA* | USD/Gold oz | 771 |

***Notes: *Earnings before interest, tax, depreciation and amortisation (excludes CAPEX).***

The capital costs over the life of mine are described in Figure 5. The total capital including the sustaining capital and contingencies amounts to USD149.6 million over the project life.

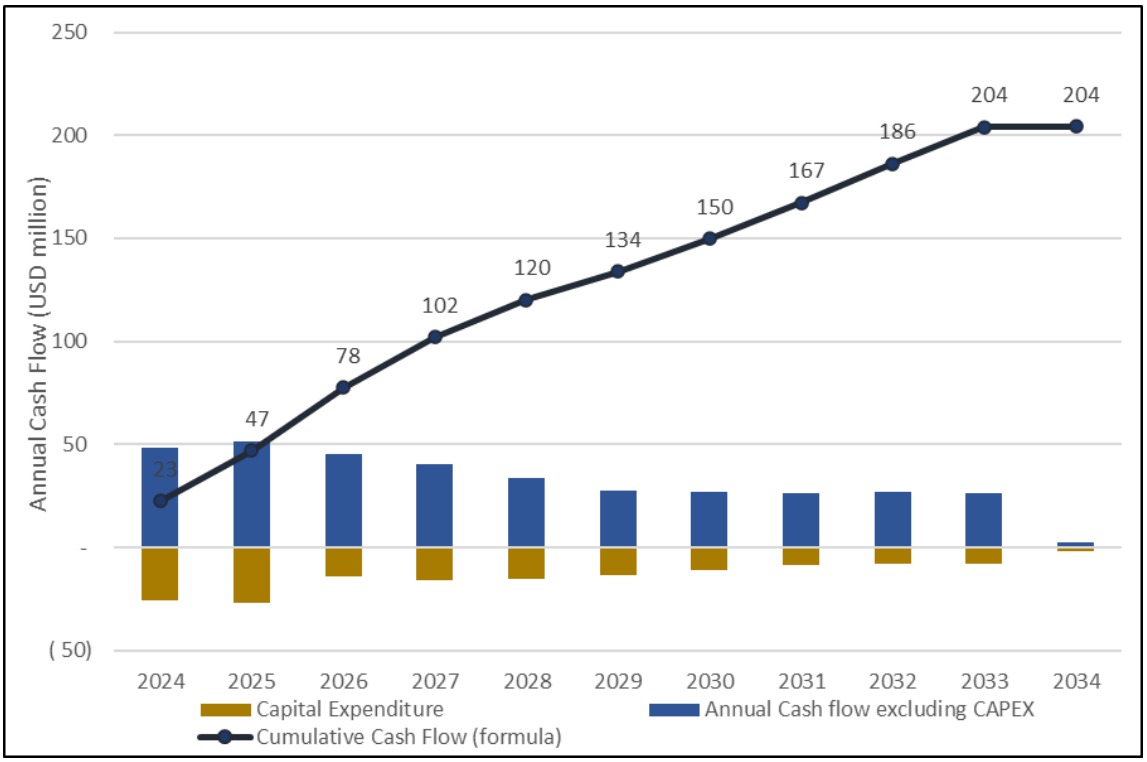
*Figure 5: Capital Schedule*




**Economic Analysis Summary**

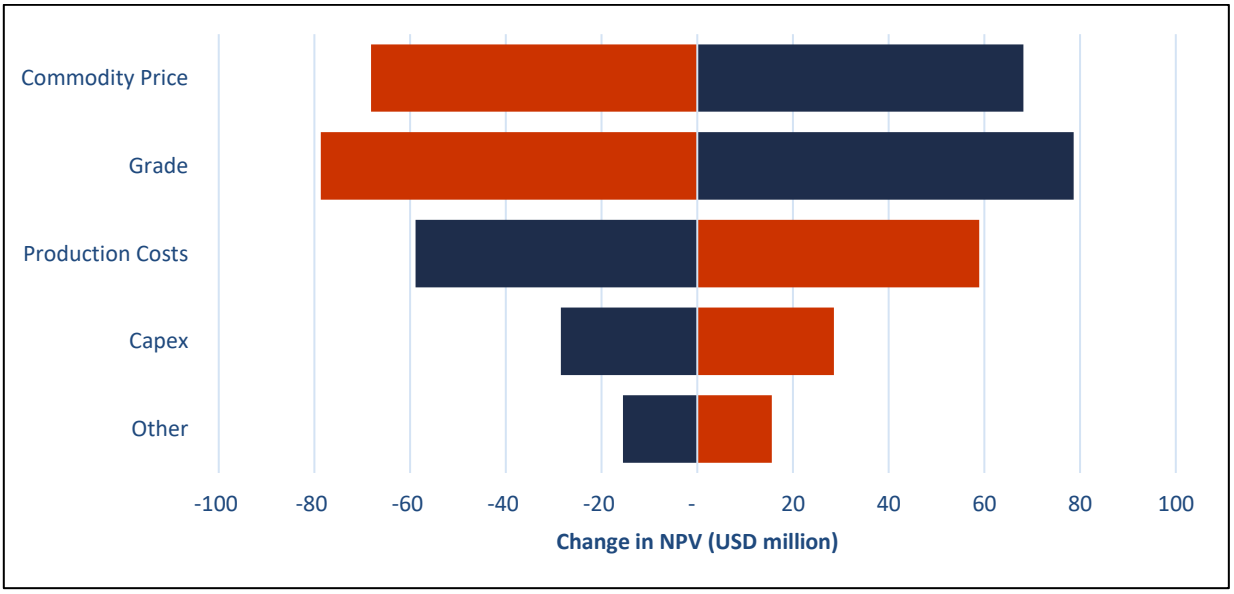
The annual and cumulative cash flow forecast is displayed in the figure to follow. The Blanket Mine will be self-funded, as it has long been in operation and generates sufficient cash flows. The cash flow dips in the final year when the current Mineral Reserve tonnes are depleted, and a large portion of the rehabilitation costs are incurred.

*Figure 6: Undiscounted Cash Flow*




The DCF, the gold price and grade have the most significant impact on the sensitivity of the Blanket Mine cash flows followed by the operating costs. The Project is least sensitive to capital.

*Figure 7: Project Sensitivity (NPV $_{15.4\%}$)*



The value derived for the income approach only reflects the diluted Indicated and Measured Resources in the LoM plan, for conversion to Mineral Reserves. The Mineral Reserve is economically viable with a best estimated NPV of USD107 million at a real discount rate of 15.4%. No IRR could be calculated as Blanket is already in operation and no initial investment is required. The following table shows a summary of the economic analysis.

*Table 7: Blanket Mine Economic Analysis Summary – Real Terms*

| Item | Unit | Blanket Gold Mine | Caledonia Attributable |
|---|---|---|---|
| NPV @ 0% | USDm | 204 | 158 |
| NPV @ 2.5% | USDm | 181 | 140 |
| NPV @ 5% | USDm | 161 | 125 |
| NPV @ 7.5% | USDm | 145 | 112 |
| NPV @ 10% | USDm | 131 | 101 |
| NPV @ 12.5% | USDm | 119 | 92 |
| NPV @ 15.0% | USDm | 109 | 84 |
| **NPV @ 15.4%** | **USDm** | 107 | 83 |
| NPV @ 17% | USDm | 102 | 79 |
| IRR | % | N/A | N/A |
| All-in Cost Margin | % | 23% | 23% |
| Break-even Gold Price (AIC) | USD/oz. | 1 330 | 1 330 |

## Item 1 (h) Qualified Person's Conclusions and Recommendations

**Conclusions**

*Mineral Resources*

Over the past few years Blanket Mine have been in the process of upgrading their Mineral Resource estimation system from a historical manual block listing methodology to a fully digital estimation process. The historical sampling database has been captured and can be used for more sophisticated interpolation in the 3D environment. In addition to this, the historical mining voids and development have been captured and can be utilised for the Mineral Resource depletions and mine planning for Mineral Reserve purposes.

The 3D digital environment allows for the scrutiny and review of the geological data in a holistic fashion that was previously not possible. By doing so, geological trends and patterns can be identified for the development of geological concepts that can be utilised in the exploration targeting and the planning of drilling programmes.

*Mining*

The life of mine plan is logical and the planned production rates are achievable. The mining strategy is focused on a thrust in development to open up ground for planned mining areas below 750 m Level in line with the planned production targets. Blanket mine plans to produce 74 - 80 koz (recovered) of gold per annum.

*Engineering and Infrastructure*

Existing and planned infrastructure at the Blanket Mine and Central Main Shaft extension projects are sufficient to sustain the current production profile and the planned increased production.

*Processing*

The process plant has been operating at a consistent recovery of 93.8% for the past two years as a result of the new oxygen plant which was installed during the first quarter of 2020. The plant has demonstrated a throughput of 64 ktpm for the past 12 months.

A new TSF was successfully commissioned during December 2023. The TSF was constructed and commissioned as a Phase 1A with the Phase 1B construction currently underway and scheduled for completion during 2024. The final Phase 2 has been budgeted for and is scheduled for completion and commissioning during 2025. The new TSF, once completed, will provide depositional capacity at current production levels to Blanket for a further 20 years until 2044.

*Economic Analysis*

The Blanket Mine plan including only the diluted Indicated and Measured Resources in the LoM plan, for conversion to Mineral Reserves is financially feasible. The updated Mineral Reserve can therefore be declared. The DCF value of USD107 million for the Blanket Mine was calculated at a real discount rate of 15.4% on a 100% attributable basis. No IRR could be calculated since the mine is in operation and no initial investment is required.

Blanket Mine financials are most sensitive to commodity prices, and grade. The Mine financials are least sensitive to capital expenditure.

The all-in sustaining costs for the Blanket Mine amount to USD130/milled t, which equates to USD1,312/oz. The all-in costs for the Blanket Mine were calculated as USD132/milled t, which equates to USD1,330/oz. The Mine therefore has a break-even gold price of USD1,330/oz including capital with an all-in cost margin of 24%, which is comparable to similar mines.

**Recommendations**

*Mineral Resources*

It is recommended that Blanket Mine continue with enhancements to the Mineral Resource estimation process to investigate potential increases in the Mineral Resources in areas above current infrastructure and enhance the planning down-dip. These digital modelling systems should be incorporated into the monthly planning system to ensure the Mineral Resource remains active and updated.

The QAQC data indicates an improvement in the QAQC of the sampling database but still requires additional focus on immediate remedial action as required, especially for the exploration drilling as this directs the Mineral Resources and thus requires the highest integrity.

As evidenced by the LoM plan inclusive of Inferred Mineral Resources, a continuation of sufficient long hole exploration drilling may convert portions into an Indicated Mineral Resource which would further increase the Mineral Reserves.

*Mining*

It is recommended that additional drilling be conducted to determine the upside potential of Inferred Mineral Resources and Exploration Targets along the trends of the main orebodies. A geotechnical study should be conducted to determine the geotechnical parameters for pillar extraction.

# ITEM 2 INTRODUCTION

## Item 2 (a) Issuer Receiving the Report

This National Instrument 43-101 Technical Report ("Report") on the Blanket Gold Mine ("Blanket" or the "Mine"), situated in the Gwanda area, Zimbabwe was prepared by Caledonia Mining Corporation Plc ("Caledonia" or "the Company") on behalf of Blanket Mine (1983) (Pvt) Ltd ("Blanket Mine").

## Item 2 (b) Terms of Reference and Purpose of the Report

This Report on the Blanket Gold Mine is prepared in compliance with the National Instrument 43-101, Form 43-101 F1 and the Companion Policy Document 43-101CP (collectively "NI 43-101"). The Report follows the guidelines as prescribed by NI 43-101. Only terms as defined by The Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") have been utilised in this Report. The Mineral Resources and Mineral reserves have been estimated in conformity with the accepted CIM Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines (2019) and are reported in accordance with the Canadian Securities Administrators' NI 43-101.

In 2023, Caledonia Mining published a NI 43-101 Technical Report on the Mine titled National Instrument 43-101 Technical Report on the Blanket Mine, Gwanda Area, Zimbabwe with an effective date of 1 September 2022 and an issue date of 13 March 2023. The purpose of this Report is to provide an update of the Mineral Resources and Mineral Reserves and developments of the Blanket Mine and property when referenced to the 2023 report document.

The scope of work to complete the NI 43-101 technical report is to:

- review past reports.
- produce key plans and maps for the Report.
- describe topography and climate.
- document legal aspects and security of tenure.
- review project data which includes:
- sampling governance,
- sample method, collection, validation, preparation & storage,
- document the geological modelling, interpretation and estimation,
- perform a Mineral Resource estimation,
- compile and document mining plans and scheduling,
- document processing and test work,
- review Mineral Resource and Mineral Reserve classification,
- document cost and capital associated with the operation; this includes:
- operational,

- governmental,
- environmental aspects,
- social obligations,
- perform a valuation, and
- review market studies.

The Mineral Resources are stated at the effective date of 31 December 2023 and Mineral Reserves are stated at the effective date of 1 March 2024. All monetary figures in this Report are expressed in United States Dollars, unless stated otherwise.

## Item 2 (c) Sources of Information and Data Contained in the Report

The following sources of information were used to compile this Report:

Legal aspects and tenure: Mr Curtis van Heerden and Mr Patrick Hill.

The Mineral Resource estimate: Mr Craig Harvey, Ms Sego Mashego and Ms Elizabeth van Tubbergh.

The Mineral Reserve estimate: Mr Craig Harvey, Mr Moses Matimba, Mr Ettienne de Villiers and Mr Martiens van Staden.

The life of mine ("LoM") plan and supporting information that forms the basis of the revised plan: Mr Craig Harvey, Mrs Sego Mashego, Mrs Elizabeth van Tubbergh, Mr Ettienne de Villiers, Mr Martiens van Staden, Mr Elton Gwatidzo and Mr Caxton Mangezi.

Metallurgical information: Mr Gibson Kadzikano.

Engineering information: Mr Deon Niemand and Mr Martiens van Staden, Mr Dirk Bleeker, Mr Nico Spies and Mr Pieter Greyling.

Environmental information: Ms Colleen Parkins; and

Financial information: Mr Chester Goodburn, Ms Anja Grobler, Yolandi van den Berg, Mr Darlington Mabvoro and Mr Duncan Mpofu.

Further details are provided throughout the document and referenced in Item 27.

## Item 2 (d) Qualified Persons' Personal Inspection of the Property

The Qualified Persons ("QPs", as such term is defined by the NI 43-101 Standards of Disclosure for Mineral Projects) responsible for the compilation this Report is Mr Craig Harvey. Mr Harvey is responsible for the Mineral Resources section. Mr Martiens van Staden is a QP as defined and is responsible for the Mineral Reserves section.

Mr C Harvey and Mr M van Staden have visited the operation on several occasions in 2023 which has included underground visits to observe the development operations, the shaft hoisting systems, underground reticulation systems and all aspects relating to the gathering of geological information, underground surveying, and exploration drilling activities. Surface visits have included the new and old

TSF's, the mineral processing plant, on-site analytical laboratory, exploration core logging yard, and the technical service departments.

The authors of this Report are members in good standing of appropriate professional institutions. The following persons are Qualified Persons, as defined by the compliance reporting requirements for NI 43-101, and are responsible for the preparation of the report:

Craig Harvey has been active in the global mining and exploration industry for over 32 years, working on locations across various continents. He has held various geological positions within Southern African operations including Ore Resource Manager at various operations, Group Mineral Resource Manager and Exploration as well as Technical Services Manager. Craig spent approximately 3 years as a Principal Consultant based in Perth, Western Australia. He has been an integral part of mine reopening's and start-ups, both in Southern Africa and Europe, across both the underground and open pit space. Craig has significant experience in the geological and exploration management, Mineral Resource and Mineral Reserve estimations, project valuation, short-term and long-term strategic planning. He has worked within the gold, uranium, platinum, iron ore and copper, lead, zinc commodity fields.

Martiens van Staden has more than 45 years' experience in the mining industry. This includes more than 12 years as General Manager across various properties. In addition, Martiens has gained expert experience during the last 15 years in Project Management, Mine Design, and has gathered extensive experience in different levels of Technical Studies, Contracts Management and Shaft Sinking. Martiens has been with CMSA since 01 September 2016 until 28 February 2019 and re-joined the company on 01 November 2021 as Technical Services Manage, after spending time in Kazakhstan on shaft sinking management. At CMSA Martiens has been heavily involved in the sinking and completion of the Central Shaft Project at Blanket Mine together with long-term planning and mine designs for optimisation during the difficult economic climate in Zimbabwe

# ITEM 3 RELIANCE ON OTHER EXPERTS

This Report was compiled internally, and no external consultants were used in the compilation of this report.

# ITEM 4 PROPERTY DESCRIPTION AND LOCATION

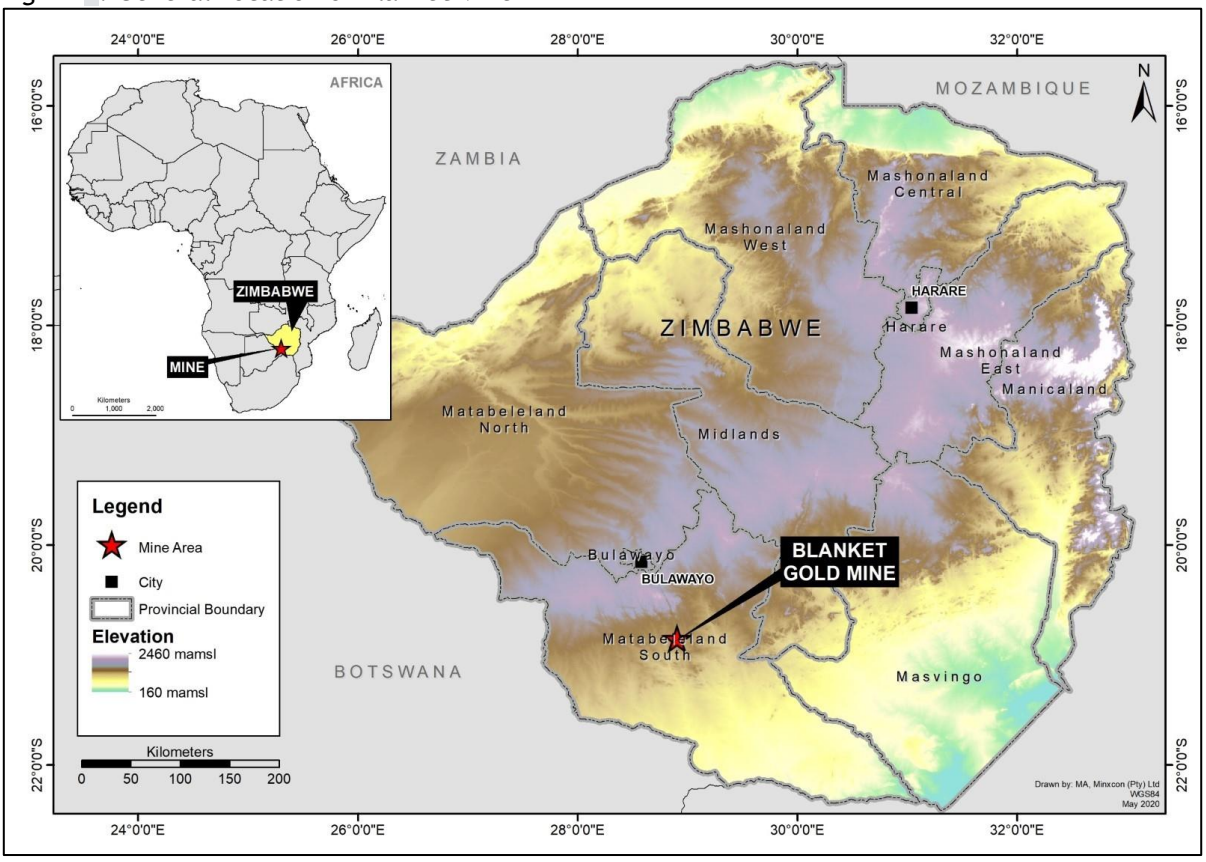
## Item 4 (a) Area of the Property

The Blanket Mine is an operating underground gold mine situated on the Gwanda Greenstone Belt ("GGB") targeting shear zone hosted gold mineralisation. The Mine complex comprises a cluster of mines extending from Lima in the north, through Eroica, Sheet, AR Main, AR South, Feudal, Blanket Section (Blanket 1 to Blanket 6) and Jethro over a total strike length of some 3km. Gold has been commercially mined at the Project Area from several closely spaced orebodies defining a mineralised trend via several shafts since the early 1900s. The Mine covers the operating claims of Jethro, Blanket, Feudal, Harvard, Mbudzane Rock, Oqueil, Sabiwa, Sheet, Eroica and Lima, largely encompassed in a 2,120ha mining lease. Ore is processed at an on-site processing plant.

## Item 4 (b) Location of the Property

As illustrated in Figure 7, the Mine is located in the southwest of Zimbabwe, approximately 15 km northwest of Gwanda, the provincial capital of Matabeleland South. Gwanda is located about 150 km southeast of Bulawayo, 196 km northwest of the Beitbridge Border post with South Africa, and 560 km from Harare, Zimbabwe's capital city.

*Figure 7*: General Location of Blanket Mine




***Source:** Minxcon (2020)*

The mine is centred at the following coordinates:
Latitude: 20° 52' S Longitude: 28° 54' E

## Item 4 (c) Mineral Deposit Tenure

**Zimbabwe's Mining Industry**

The issuing and control of mineral rights in Zimbabwe is regulated by the Mines and Minerals Act (Chapter 21:05) of 1961 as amended (MMA), administered by the Minister of Mines and Mining Development with powers of the same delegated to the Secretary and Mining Commissioners. The Mineral Resources are vested in the State through the President of Zimbabwe.

The Government of Zimbabwe does not participate in managing the projects of local or foreign firms in the private sector. Presently, government participation in mining is through Zimbabwe Mining Development Corporation (ZMDC) and through the Minerals Marketing Corporation of Zimbabwe (MMCZ). The ZMDC was formed in 1982 for government to participate in the mining sector and to save companies that were being threatened to close. It is active in exploration, mining and giving assistance to cooperatives and small-scale miners.

The MMCZ was formed in 1992 and is responsible for marketing all the country's minerals and metal products except gold and silver which are sold through Fidelity Gold Printers and Refiners (Pvt) Ltd a subsidiary of the Reserve bank of Zimbabwe (RBZ). It finances its operations by a commission charge of 0.875% on sales conducted for its clients.

**Mining Titles**

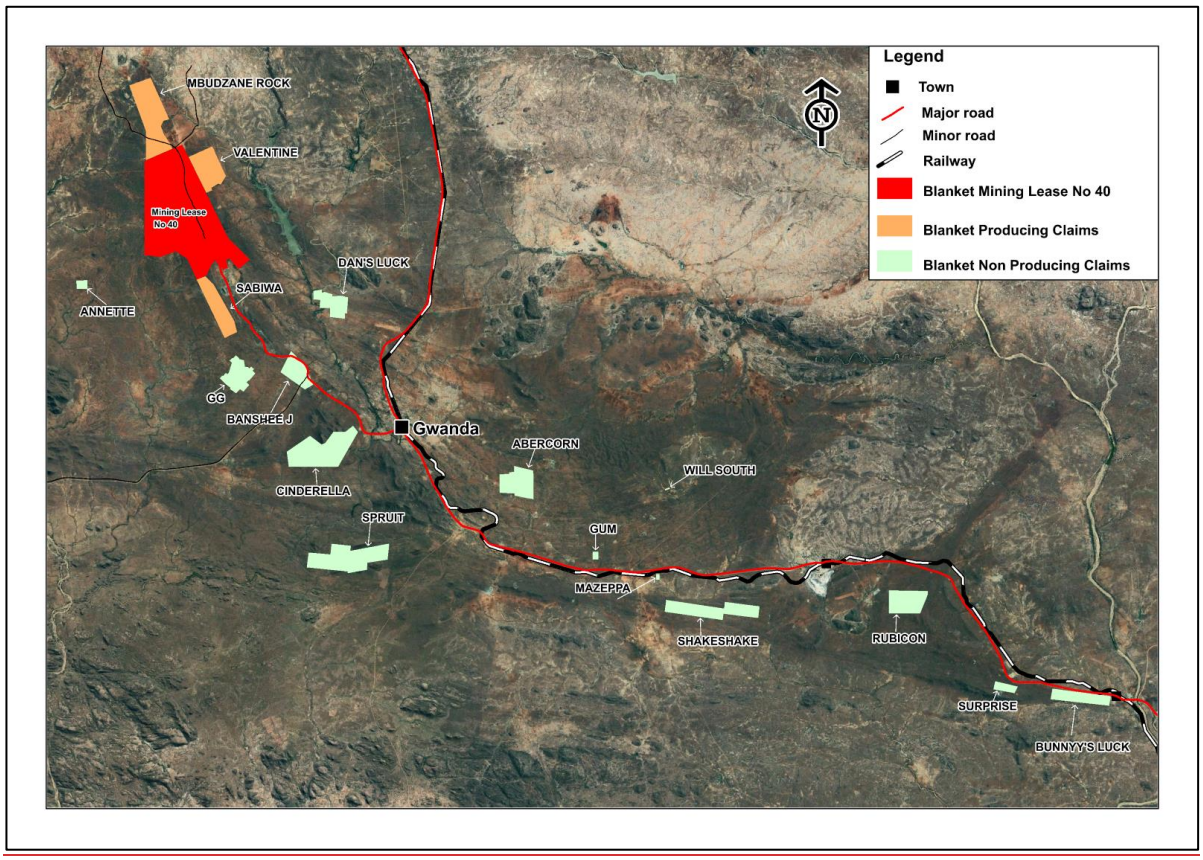
In Zimbabwe, mining and mine development may be conducted with a mining claim, mining lease , special mining lease and special grant. A mining claim covers a small area, thus usually several claims are grouped to form a block of claims. The claim confers on the holder the exclusive right to mine the Mineral Resource for which the claim was registered. Mining claims are dependent on the claim holder applying to the Mining Commissioner for and obtaining an inspection certificate on an annual basis; failure to do so can result in the forfeiture of the relevant claim(s).

A block of claims may be transformed into a mining lease for simplicity of administration.

**Blanket Mining Lease and Claims**

The Blanket Mine's interests in Zimbabwe include a mining lease, operating claims (i.e. on-mine), non-operating claims and a portfolio of brownfields exploration projects (satellite projects), as illustrated in Figure 8 as blocks of claims.

*Figure 8: Location of Blanket Mining Lease and Claims*




The Blanket Mine operates under a mining lease with registered number 40 ("ML40") which was issued under the MMA to Blanket Mine Company as detailed in Table 8. The Mine's claims under the lease cover an area of 2,120 ha and include Lima, Sheet, Oqueil, Feudal, Sabiwa, Jethro, Harvard and Blanket claims.

*Table 8: Mining Lease Details*

| Mining Lease Number | Holder | Mining District | Area ha | Principal Mineral | Other Minerals | Date of Issue | Valid Period |
|---|---|---|---|---|---|---|---|
| ML40 | Blanket Mine (1983) (Pvt) Ltd | Matabeleland South | 2,120.00 | Gold | Silver, Copper, Arsenic | 25 May 2023 | 1 year, renewable. Current tenure period expires on 24 May 2024 |

Blanket Mine has been issued with an inspection certificate, valid until 20 May 2024.

Blanket Mine also has several registered claims not incorporated under the lease. The 90 claims contiguous to the mining lease comprise a total area of approximately 998 ha. The registration numbers, area, number of claims and number of blocks for the individual claims are listed in Appendix 1.

In addition, Blanket Mine holds several non-operating claims located away from ML40 and the adjoining claims described above, that form a portion of the Gwanda portfolio. The names of each claim, as well as registration numbers and type of minerals are listed in Appendix 2. These non-producing claims (satellite projects) consist of 184 blocks of registered base metal (Ni, Cu and As) and precious metal claims covering a total area of 2,443ha.

A summary of the Blanket mineral titles is provided in Table 9 and corresponds to Figure 8: Location of Blanket Mining Lease and Claims.

*Table 9: Blanket Mineral Title Areas and Status*

| Claim Block | Status |
|---|---|
| ML40 | Operating |
| Valentine | Operating |
| Sabiwa | Operating |
| Mbudzane Rock | Operating |
| GG | Non-operating<br>(was under development for gold mining, currently on hold) |
| Annette | Non-operating |
| Cinderella | Non-operating |
| Dan's Luck | Non-operating |
| Gum | Non-operating |
| Banshee J | Non-operating |
| Mazeppa | Non-operating |
| Will South | Non-operating |
| Spruit | Non-operating |
| Shakeshake | Non-operating |
| Rubicon | Non-operating |
| Surprise | Non-operating |
| Bunny's Luck | Non-operating |
| Abercorn | Non-operating |

A number of claims are subject to active tribute agreements between the Mine and local small-scale miners as part of the Company's Corporate Social Responsibility. This is further discussed in Item 20 (d).

**Surface Rights**

In accordance with paragraph 178(2)(a)(b)(c) of the MMA, the owners of the claims of this project possess the following respective surface rights:

- use of any surface within the boundaries for all necessary mining purposes;
- the right to use, free of charge, soil, waste rock or indigenous grass situated within the claims boundaries for all necessary mining purposes;
- the right to sell or dispose of recovered waste rock.

It is the belief of Caledonia that this clause provides sufficient rights to use the surfaces of the claim blocks that have been consolidated into the ML40.

The MMA Amendment Bill makes instruction for landowner compensation in case of land loss due to mining activities in the form of land reallocation or outright purchase. Blanket Mine activities have not triggered this compensation and are not foreseen to do so.

## Item 4 (d) Issuer's Title to / Interest in the Property

The Indigenisation and Economic Empowerment Act ("The Act"), which was enacted in 2007, required that 51% of the equity of all commercial enterprises in Zimbabwe must be owned by indigenous Zimbabweans.

On February 20, 2012, Caledonia announced it had signed a Memorandum of Understanding with the Minister of Youth, Development, Indigenisation and Empowerment of the Government of Zimbabwe pursuant to which 51% of Blanket would be sold for a paid transactional value of USD30.09 million. The various transactions were implemented with effect from 5 September 2012 on the following basis:

16% was sold to the National Indigenisation and Economic Empowerment Fund ("NIEEF");

10% was sold to an Employee Trust for the benefit of the present and future employees of Blanket Mine ("BETS");

15% was sold to Fremiro Investments (Private) Limited ("Fremiro"), which is owned by indigenous Zimbabweans; and

10% was donated to the Gwanda Community Share Ownership Trust ("GCSOT"). Blanket also made a non-refundable donation of USD1 million to the Trust as soon as it was established and paid advance dividends of USD4 million before the end of April 2013. Pursuant to an arrangement agreed in February 2020, the Trust receives 20% of its dividends declared by Blanket and the remaining 80% is set off against the advance dividends. Previously, all dividends were applied against the advanced dividends. The advance dividends have since been fully repaid and GCSOT is now entitled to unencumbered dividends.

Caledonia facilitated the vendor funding of these transactions: i.e. indigenous Zimbabweans who have purchased their interest in Blanket will repay their outstanding facilitation loan by sacrificing 80% of their future entitlement to Blanket dividends. Outstanding balances on the facilitation loans attracts interest at LIBOR plus 10% up to 31 December 2016, subject to moratoria on interest accrual during periods when Blanket did not pay dividends. From 1 January 2017, interest was reduced to the lower of a fixed rate of 7.25% per annum, payable quarterly, or 80% of the dividend that is attributable to Blanket's indigenous shareholders paid in a quarter by Blanket. The reduction in the interest rate reflects the general lowering of interest rates in Zimbabwe.

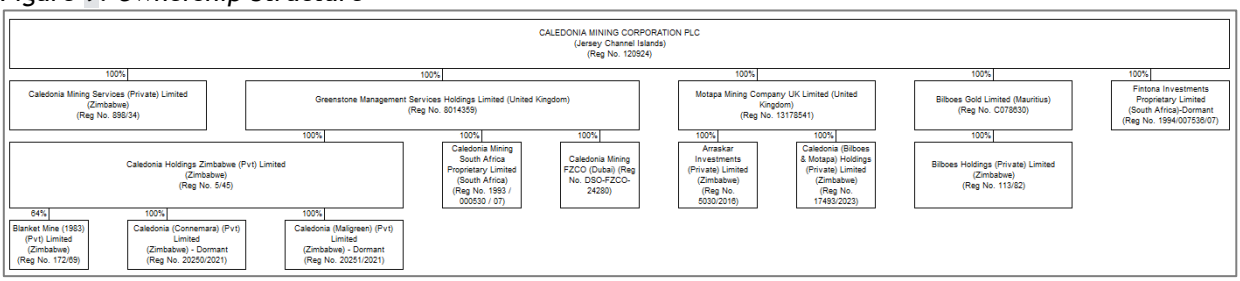
Following the implementation of indigenisation, Caledonia received a Certificate of Compliance from the Government of Zimbabwe which confirmed that Blanket was fully compliant with the Indigenisation and Economic Empowerment Act.

Following the appointment of a new President of Zimbabwe in late 2017 the requirement for gold mining companies to be indigenised was removed by a change in legislation with effect from March 2018.

On 5 November 2018 Caledonia and Fremiro entered into a sale agreement for Caledonia to purchase Fremiro's 15% shareholding in Blanket Mine in exchange for the issue of 727,266 shares in Caledonia at USD7.15 per share and the cancellation of their facilitation loan which stood at USD11,467 as at 30 June 2018. On 21 January 2020 Caledonia announced that all regulatory approvals had been obtained and the transaction became effective thereby increasing Caledonia's indirect shareholding in Blanket Mine to 64%.

The current ownership structure of Blanket Mine is illustrated in Figure 9. In addition to the effective total 36% shareholdings of NIEEF, BETS and GCSOT as described above, Blanket Mine (1983) (Pvt) Ltd is held 64% by Caledonia Holdings Zimbabwe (Pvt) Ltd, which is a wholly owned subsidiary of Greenstone Management Services Holdings Limited ("GMS"), which in turn is wholly owned by Caledonia. Caledonia is a Jersey-registered company with its shares listed on NYSE American, depositary receipts listed on the Victoria Falls Stock Exchange and depositary interests admitted to trading on AIM of the London Stock Exchange plc, each with the trading symbol CMCL. Blanket Mine Company is incorporated in Zimbabwe and is the owner and operator of Blanket Mine.

*Figure 9: Ownership Structure*




The ML40, in which boundaries all current mining activities occur, is issued to Blanket Mine Company. A number of claims were held under option agreements between Blanket Mine Company and the claim holders. Blanket Mine Company has exercised all its options and purchased the claims under conditions outlined in the option agreements. Each of these has a net smelter royalty ("NSR") associated with it. The remainder of claims are 100% held by Blanket Mine Company. A summary of the ownership of each claims area is provided in Table 10.

*Table 10: Blanket Mineral Title Areas and Ownership*

| Claim Block | Ownership | Royalty Condition |
|---|---|---|
| ML40 | Blanket Mine (1983) (Pvt) Ltd | |
| Valentine | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 3.0% NSR |
| Sabiwa | Blanket Mine (1983) (Pvt) Ltd | |
| Mbudzane Rock | Blanket Mine (1983) (Pvt) Ltd | |
| GG | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 2.5% NSR |
| Annette | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 3.0% NSR |
| Cinderella | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 3.0% NSR |
| Dan's Luck | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 2.5% NSR |
| Gum | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 3.0% NSR |
| Banshee J | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 3.0% NSR |
| Mazeppa | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 2.5% NSR |
| Will South | Blanket Mine (1983) (Pvt) Ltd – Option exercised | 2.5% NSR |
| Spruit | Blanket Mine (1983) (Pvt) Ltd | |
| Shakeshake | Blanket Mine (1983) (Pvt) Ltd | |
| Rubicon | Blanket Mine (1983) (Pvt) Ltd | |
| Surprise | Blanket Mine (1983) (Pvt) Ltd | |
| Bunny's Luck | Blanket Mine (1983) (Pvt) Ltd | |
| Abercorn | Blanket Mine (1983) (Pvt) Ltd | |

## Item 4 (e) Royalties and Payments

Government Royalties

Mining royalties are charged in terms of the MMA. The royalties are collectable from all the minerals or mineral-bearing products obtained from any mining location and disposed of by a miner or on his behalf. The royalties are chargeable whether the disposal is made within or outside Zimbabwe.

In terms of Zimbabwean tax laws, where gold produced exceeds 0.5kg, a 5% royalty is applicable. For primary gold producers a two-tier system that is based on gold prices is applicable. For gold prices below US$1,200/oz, the rate is 3%, and for gold prices above US$1,200/oz, the rate is 5% of the gross revenue from gold mining.

## Item 4 (f) Net Smelter Royalties

Blanket Mine does not have any net smelter royalties applicable to its current operations.

## Item 4 (g) Environmental Liabilities

Operating mines in Zimbabwe are required to set aside money as part of the closure plan and fulfilment of the provisions of the MMA and Environmental Management Act (Chapter 20:27) ("EM Act"). The Ministry of Mines is working on amendments to the MMA in which there will be conditions for protection of the environment through the Safety, Health and Rehabilitation Fund.

At the time of writing, no statutory instrument has been gazetted implementing an environmental fund as yet, thus no fees are currently due. As such, no environmental rehabilitation trusts and guarantees have been established for Blanket Mine in terms of Zimbabwean law. In addition, the author is not aware that the liabilities have been calculated or budgeted for. However, a closure liability has been calculated (although not currently provided for) and is presented in Item 20 (d). The closure report for Blanket Mine (which has been undertaken independently by Knight Piesold) was updated at the end of 2023, and closure costs are accounted for as a contingent liability internally in terms of the accounting standard IAS 37 (Provisions, Contingent Liabilities and Contingent Assets).

## Item 4 (h) Permits to Conduct Work

The permits relating to the mining operations at Blanket are described in the sections to follow. Apart from administrative delays relating to COVID-19, the Mine is compliant in terms of authorisations and adheres to all government protocols and regulations as required.

*Water Agreement*

Water for the operations is sourced from the Blanket Dam that is situated on the Mtshabezi River and owned by the Zimbabwe National Water Authority ("ZINWA"). The use of this water is authorised through a contract agreement between Blanket Mine Company and ZINWA in terms of the Zimbabwe National Water Authority Act (Chapter 20:251).

In terms of this agreement, Blanket Mine Company is allowed to extract 1,200,000 m3 of water for the period 1 April 2023 to 31 March 2024. The agreement is valid for one-year periods and is renewed annually. ZINWA sends the renewable agreement for signing to Blanket on an annual basis.

Blanket continues to extract water in the interim at a rate of USD $0.17/m3.

*Environmental Impact Assessment Certificates*

In Zimbabwean mining legislation, an Environmental Impact Assessment ("EIA") is not required in order to issue a mining licence, and in terms of the EM Act and its First Schedule is only required prior to commencement of mining and forms part of the planning process. Blanket Mine was established in the early 1900s, long prior to the implementation of governing mining and environmental laws. As such, it appears that an EIA is not required for the Blanket Mine. However, the Company is in constant communication with the Environmental Management Agency ("EMA") regarding environmental permitting requirements and an EIA was completed for the Mine in 1995. Should the EMA communicate that an EIA certificate for the Mine be obtained, the Company will submit all relevant and associated applications to obtain such and remain fully compliant.

Blanket Mine holds EIA certificates as issued by the EMA for the solar plant, both the old and new TSF's and development of the additional GG and Abercorn gold mines, which do not form subject of this Report but are detailed in Table 11 for completeness.

*Table 11: EIA Certificates*

| Licence Number | Activity | Valid Period |
|---|---|---|
| 8000120641 | EIA Certificate - Abercorn Mine | 15 June 2023 – 14 June 2024 |
| GC0094/2020 | Solar Plant Licence (generation licence) | 25 years (from 2020) |
| 8000120642 | GG Mine – Gold Mining Development | 15 June 2023 – 14 June 2024 |
| 8000124691 | EIA Certificate – new TSF | 10 October 2023 – 9 October 2024 |

The new TSF is currently operating under the authorisation granted through the approval of the Environmental Impact Assessment, and a licence will be issued by the Zimbabwean Environmental Management Agency (EMA).

*Additional Environmental Permits*

In order for operations to continue, the EMA has issued a number of additional environmental licences to Blanket Mining Company, including:

- air emissions (clinic incinerator, blacksmith shop, laboratory, smelter house and power plant generators);
- solid waste (landfill and tailings);
- effluent disposal (sewerage and car wash bay);
- hazardous substances (importation, transportation and storage); and
- hazardous waste generation (oils and clinical waste).

These licences are listed in Table 12.

*Table 12: Environmental Permits*

| Licence Number | Activity | Valid Period |
|---|---|---|
| L0000010451 | Diesel generator | 18 Mar 2024 – 31 Dec 2024 |
| L0000010449 | Clinic incinerator | 18 Mar 2024 – 31 Dec 2024 |
| L0000010452 | Blacksmith Licence | 18 Mar 2024 – 31 Dec 2024 |
| L0000010453 | Assay laboratory | 18 Mar 2024 – 31 Dec 2024 |

| | | |
|---|---|---|
| L0000010450 | Smelter Licence | 18 Mar 2024 – 31 Dec 2024 |
| L0000010455 | Washbay effluent disposal | 18 Mar 2024 – 31 Dec 2024 |
| L0000010454 | Sewage effluent disposal | 18 Mar 2024 – 31 Dec 2024 |
| L0000010463 | Hazardous substance generation | 18 Mar 2024 – 31 Dec 2024 |
| L0000010457 | Solid waste Disposal (Landfill) | 18 Mar 2024 – 31 Dec 2024 |
| L0000010458 | TSF Licence (old TSF) | 18 Mar 2024 – 31 Dec 2024 |
| L0000010462 | TSF Licence (new TSF) | 18 Mar 2024 – 31 Dec 2024 |
| L0000010456 | Workshops and oil separators | 18 Mar 2024 – 31 Dec 2024 |

**Other Significant Factors and Risks**

Caledonia is not aware of any factors or risks that may affect access, title or the ability to perform work on the property.

# ITEM 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

## Item 5 (a) Topography, Elevation and Vegetation

The area around the Blanket Mine is hilly and lies at an altitude of about 1,000 m to 1,300 m above mean sea level ("amsl"). Drainage is to the northeast, into the Mtshabezi River on which the Sheet Dam and the Blanket Dam are located (some 5 km to the east of the Mine).

The indigenous vegetation is dominated by savannah with Marula (Sclerocarya birrea), a variety of Combretum species, Terminalia sericea, Mopane groves and patches of grassland. Around the mine and local settlements, vegetation has been cut down and invaded by secondary thorny scrub dominated by Dichrostachys cinerea. Agriculture is limited to subsistence farming of maize and vegetables.

The main natural water sources include the Tuli River, with its main tributaries (in the east bank running in a north-south direction) being the Mnyabetsi River in the Dibilashaba Communal Area, the Sengezane River in the Garanyemba Communal Area, and the Ntswangu and Pelele Rivers in the Gwanda Bolamba Communal Area.

## Item 5 (b) Access to the Property

Access to the Blanket Mine is by an all-weather single lane tarred road from Gwanda. Gwanda is linked by national highways to Bulawayo, Harare and the Beitbridge Border post. Earlier, Zimbabwe had good road infrastructure. However, lack of investment over the past ten to fifteen years resulted in its deterioration; substantial investment is required country wide. Blanket Mine assists on an ad-hoc basis in maintaining the single strip from Gwanda to the mine. The railway line connecting the Zimbabwean national network to South Africa passes through Gwanda. An airstrip for light aircraft is located 5 km to the northwest of the town.

## Item 5 (c) Proximity to Population Centres and Nature of Transport

Gwanda Town is the provincial capital of Matabeleland South Province and district capital of Gwanda District. The village of Vubachikwe lies immediately adjacent to the southeast of ML 40. Blanket Mine labourers and their families are accommodated in a mine village about 1 km from the Mine. Gwanda offers several lodges and alternative accommodation options.

Major economic activities in the district include gold mining, cement production, livestock production, game ranching and tourism. Several dams and irrigation schemes are established. The population in the district is mostly rural, with most employed people servicing the agriculture and related industries.

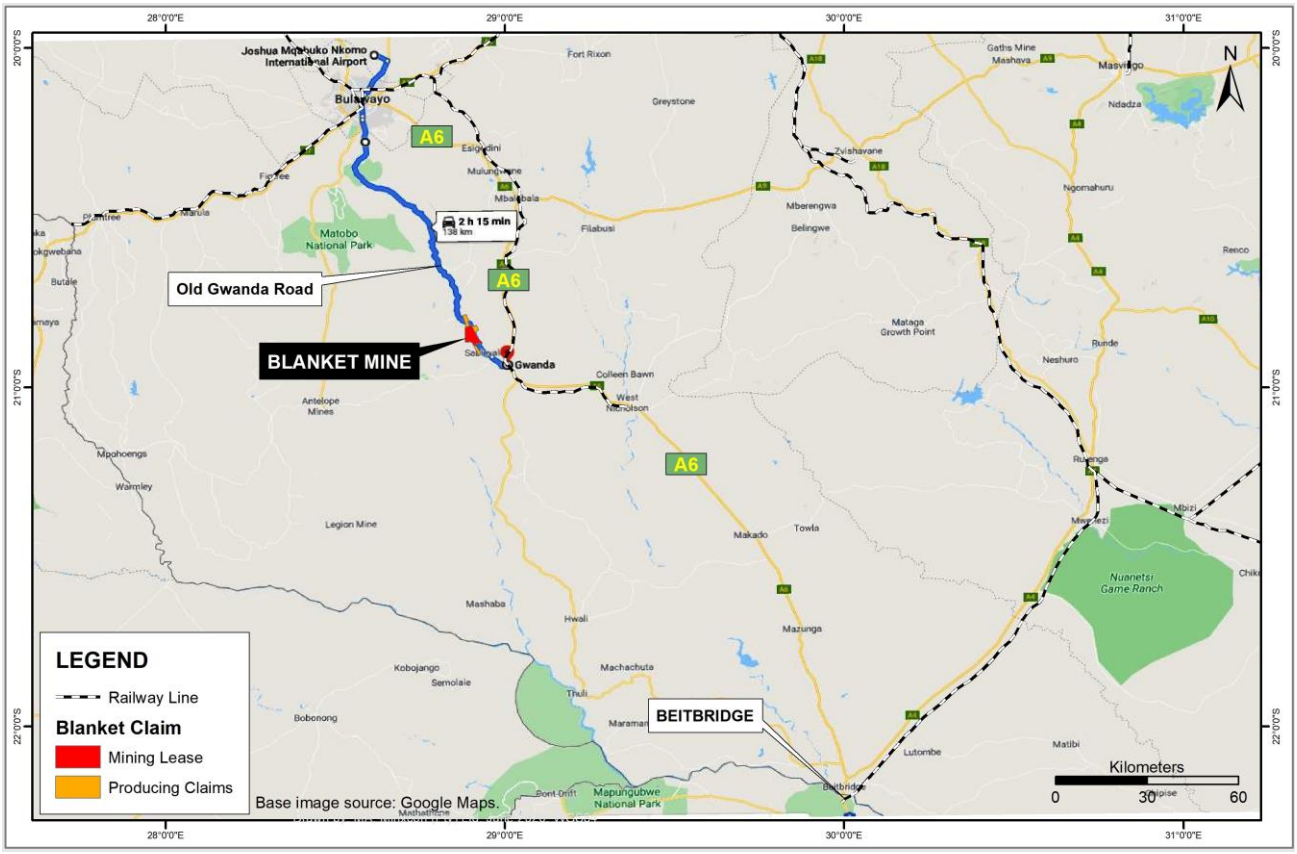
Gwanda offers limited hospitals and medical services, business and financial services, educational facilities, shops, recreational facilities, and amenities. Larger hospitals and establishments are offered in Bulawayo, in addition to more skilled service industries. Neighbouring towns and villages to the Mine provide skilled and unskilled labour.

The district is serviced by telecommunication services, and Blanket Mine provides its own Wi-Fi and communication systems.

The A6 highway, forming part of the Trans-African Highway network, is orientated roughly northwest-southeast and links Bulawayo with the Beitbridge border post and Musina in South Africa. The highway runs through the town of Gwanda. A major sealed road, the Old Gwanda Road, branches off from the A6 in Gwanda and runs directly through the ML 40 to Bulawayo, as shown in Figure 8. The Blanket claims are all located along these major roads and are thus easily accessible. The roads are sealed and although potholing is frequent, the surfaces are navigable by all vehicles. The Beitbridge Bulawayo Railway runs roughly parallel to the A6 through Gwanda Town.

An airstrip and informal airport building are located in Gwanda along the A6. The Joshua Mqabuko Nkomo International Airport is located in Bulawayo. The Mine can be accessed either via the Beitbridge-Bulawayo Road, or by flying into Bulawayo and driving two hours via the Old Gwanda Road or the A6 to the site (Figure 8).

*Figure 8: Access Routes*




## Item 5 (d) Climate and Length of Operating Season

The climate in Gwanda is hot and semi-arid, classified as BSh type by the Köppen climate classification system. BSh is characterised by a hot to extremely hot summers and warm to cool winters, with minimal precipitation.

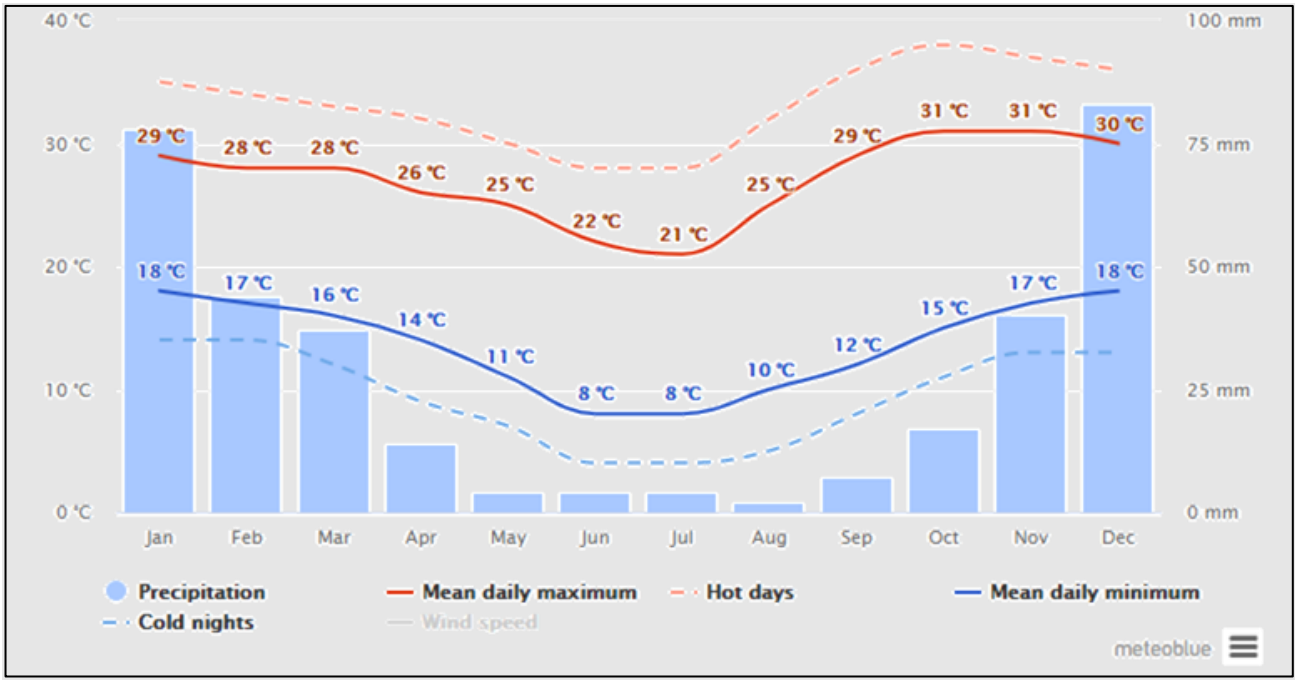
Temperatures are as high as 40ºC during summer months of November to February and average 13ºC during winter (May to August). The climatic conditions make the area vulnerable to meteorological hazards such as droughts, floods, gusty winds, as well as lightening during the wet and hot season.

The region experiences short, variable rainfall seasons (averaging generally below 400 mm per year), and long, dry winter periods. Rainfall is usually associated with thunderstorms, producing rainfall of short duration and high intensity. The rainfall, in general, is less than half of the potential evaporation which has necessitated irrigation development and infield rainwater harvesting to improve crop production which complements animal husbandry as well as reclaims open access areas such as grazing lands. It also induces underground water recharge as part of improving the environment.

A chart depicting the average temperatures and precipitation for Gwanda annually is provided in Figure 9.

No appreciable mine production downtime is expected owing to unfavourable climatic or weather conditions. The mine is able to operate year-round.

*Figure 9: Gwanda Average Annual Temperatures and Precipitation*




***Source** : https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/gwanda_zimbabwe_890516*

## Item 5 (e) Infrastructure

**Regional Infrastructure**

*Power Supply*

The Blanket mine area is supplied with power through the national grid operated by the Zimbabwe Electricity Transmission and Distribution Company. Power is supplied from the grid to the operations via three overhead powerlines ("OHLs") energized at 11 kV and 33 kV supplying 18MVA and Mtshabezi line adding another 7MVA. This totals to a maximum demand supply 25MVA. The Zimbabwe Electricity Supply Authority ("ZESA") currently allocates a capacity of 18MVA to the operations.

*Water Supply*

Water supply to the Blanket Mine area is sourced from the Blanket Dam located 5 km east of the Mine, as well as groundwater. The Blanket Dam has a capacity of 15 $Mm^3$ and all water rights are held by ZINWA. Water users including Blanket Mine purchase all service and domestic / potable water from ZINWA.

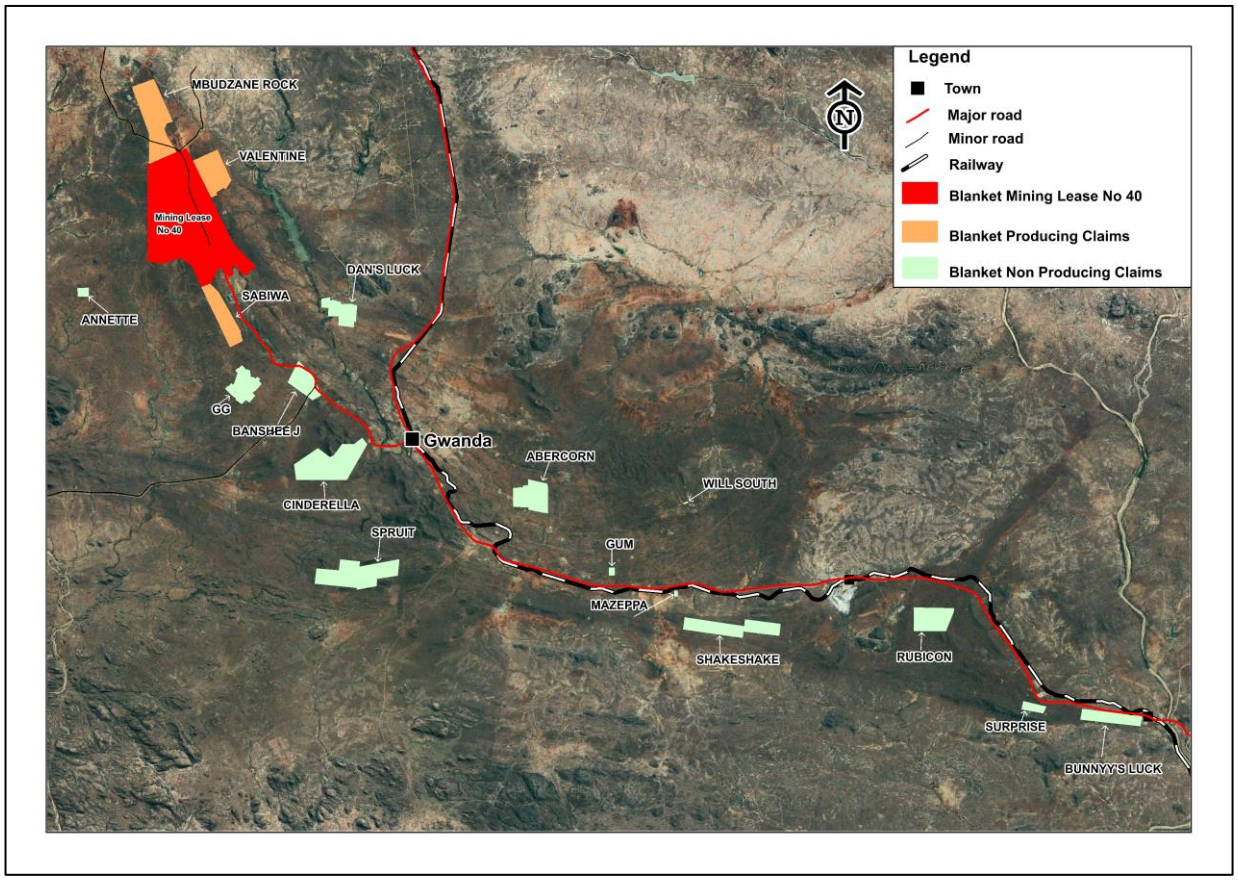
*Logistics*

Logistics infrastructure in the Blanket Mine area consists mainly of the local road network, national rail network and an airstrip located northwest of the town of Gwanda. All the above-mentioned infrastructure is easily accessible from Blanket Mine.

*Mine Infrastructure*

Mine infrastructure comprises of underground workings, various shaft with head gear and hoisting facilities, a process plant, workshops and a new tailings storage facility ("TSF") commissioned during December 2023. Stores, workshops and offices, as well as an assay laboratory, are located adjacent to the mine shafts. There is adequate surface area for any potential future expansion. The general location and surrounding infrastructure are indicated in.

*Figure 10: General Location and Infrastructure*



# ITEM 6 HISTORY

## Item 6 (a) Prior Ownership and Ownership Changes

The Blanket Mine is part of the Sabiwa group of mines within the GGB from which gold was first extracted in the 19th century. The Blanket Mine is a cluster of mines extending some 3 km from Jethro in the south through Blanket itself, Feudal, AR South, AR Main, Sheet, and Eroica, to Lima in the north. Blanket Mine has produced over a million ounces of gold during its lifetime.

Following sporadic artisanal working, the Blanket Mine was acquired in 1904 by the Matabele Reefs and Estate Company. Mining and metallurgical operations commenced in 1906 and between then and 1911, 128,000 t were mined. From 1912 to 1916 mining was conducted by the Forbes Rhodesia Syndicate who achieved 23,000 t. There are no reliable records of mining for the period between 1917 and 1941 and it is possible that operations were adversely affected by political instability during World Wars I and II. In 1941 F.D.A. Payne produced some 214,000 t before selling the property to Falconbridge in 1964 (Blanket Mine, 2009). Under Falconbridge, production increased to 45 kg per month and the property yielded some 4 Mt of ore up until September 1993. Kinross Gold Corporation ("Kinross") then took over the property and constructed a larger Carbon-in-Leach ("CIL") plant with a capacity of 3,800tpd. This was designed to treat both run of mine ("RoM") ore and an old TSF.

Caledonia completed the purchase of the Blanket Mine from Kinross on 1 April 2006. The Mine re-started production in April 2009 after a temporary shut-down due to the economic difficulties in Zimbabwe. In late 2010, The Mine successfully completed an expansion project which increased production capacity from 24,000 oz of gold per annum to 40,000 oz of gold per annum.

More recently, the Central Shaft was sunk to a depth of 1201.3 metres below surface elevation and the permanent rock handling facilities commissioned during April 2023. Minor infrastructure construction work is continuing on the the water handling system. The Central Shaft system has allowed Blanket Mine to reach production of 80,000 oz of gold during 2022 and 77,000 of gold in 2023.

## Item 6 (b) Historical Exploration and Development

Exploration was conducted between 1997 and 2006 around the GG and Mascot areas with follow-up exploration drilling in 2013 around these same areas. Currently, there are exploration shafts at these two sites.

## Item 6 (c) Historical Mineral Resource Estimates

Historical Mineral Resources are defined as having been declared by previous owners, i.e. Kinross. Mineral Resources were stated by Kinross in late 2005 as provided in Table. The Mineral Resources were prepared and signed off by Caledonia's 'Qualified Person' Dr T Pearton (PhD, FGSSA.), in accordance with NI 43-101 guidelines. The previous Mineral Resources are stated here for completeness purposes as information to the reader and are not intended to be treated as current Mineral Resources.

*Table 8: Historical Mineral Resources as of 31 December 2005 as per Kinross*

| Mineral Resource Category | Tonnes | Grade | Gold Content | Gold Content |
|---|---|---|---|---|
| | t | Au g/t | kg | oz |
| Indicated | 431,000 | 4.06 | 1,750 | 56,200 |
| Inferred * | 2,064,000 | 6.31 | *Incomplete* | *Incomplete* |

***Source** : www.investegate.co.uk/caledonia-mining-crp--cmcl-/rns/acquisition-of-gold-mine/20060201300058747E/*

Due to the complexities of the geology and relatively small Mineral Resource blocks above 22 Level, these areas were historically calculated manually. Below 22 Level, AR Main and Blanket Sections were calculated digitally. Other areas below 22 Level were also calculated manually.

## Item 6 (d) Historical Mineral Reserve Estimates

Historical 2005 Mineral Reserves exclusive of Mineral Resources as prepared by Dr Pearton and stated by Kinross are provided in Table 9.

The previous Mineral Reserves are stated here for completeness as information to the reader and are not intended to be treated as current Mineral Reserves.

*Table 9: Historical Mineral Reserves as of December 2005 as per Kinross*

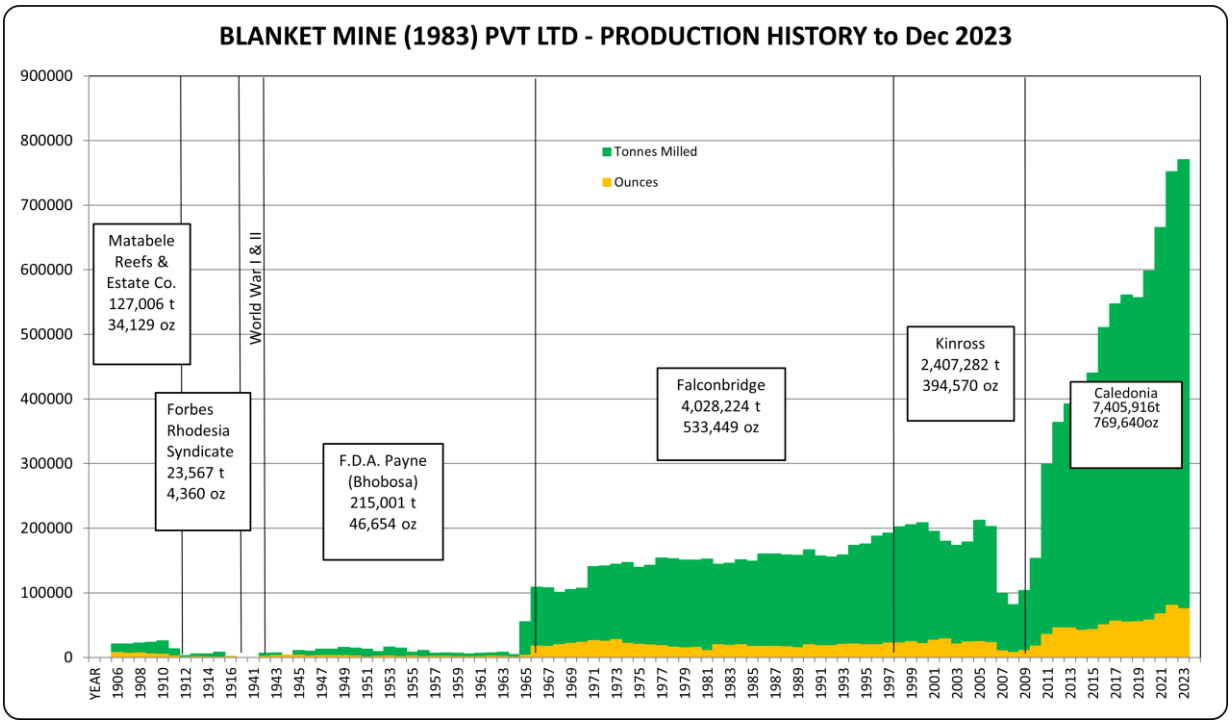
| Mineral Reserve Classification | Tonnes | Grade | Au Content | |
|---|---|---|---|---|
| | t | g/t | kg | oz |
| Proved | 1,118,000 | 4.19 | 4,684 | 150,700 |
| Probable | 2,105,000 | 4.27 | 8,988 | 288,900 |
| **Total** | **3,223,000** | **4.24** | **13,673** | **439,600** |

***Source*** *:* www.investegate.co.uk/caledonia-mining-crp--cmcl-/rns/acquisition-of-gold-mine/20060201300058747E/

## Item 6 (e) Historical Production

Production from Blanket Mine was first recorded in 1906. The production history for Blanket under various owners up to the end of December 2023 is illustrated in Figure 11 showing RoM tonnes as well as gold ounces produced. Over its life to December 2023, the Mine produced some 1.78 Moz gold from 14.21 Mt ore milled.

*Figure 11: Blanket Mine Historical Production (1906 to 2023)*



# ITEM 7 GEOLOGICAL SETTING AND MINERALISATION

## Item 7 (a) Regional Geology

The majority of Zimbabwe's known gold mineralisation occurs in host rocks of the Zimbabwe Craton, which is comprised of Archaean-aged basement lithologies. This Archaean basement consists of supracrustal greenstone belts surrounded by granitoid rocks of various ages. The greenstones consist dominantly of meta-basalts with smaller proportions of ultramafic and felsic extrusives and intrusives, and sedimentary rocks. Various combinations of these rock types often occur in association with adjacent granitoid or internal granitoid bodies (Kalbskopf and Nutt, 2003). The Craton is flanked along the northern, eastern, and southern sides by mobile belts of varying ages.

A total of 28 discrete recognised greenstone belts of various ages are hosted on the Zimbabwe Craton. The greenstone belts are subdivided into three main stratigraphic units, namely the Sebakwian, Bulawayan and Shamvaian Groups, with the Bulawayan being further subdivided into Upper and Lower Groups. All of these are bounded by unconformities (Mhlanga, 2002). The stratigraphic units are described as follows:

- Older greenstones called the Sebakwian Group (~3.5 Ga), which are mostly metamorphosed to amphibolite facies. They comprise komatiitic and basaltic volcanic rocks, some banded iron formation (BIF), as well as clastic sediments.
- The Lower Bulawayan Group (~3.1 Ga to 2.9 Ga), which comprises basalts, high-Mg basalts, felsic volcanic rocks and mixed chemical and clastic sediments. The Lower Bulawayan Group forms the Belingwe (Mberengwa) greenstones.
- The Upper Bulawayan Group (~2.7 Ga) consists dominantly of meta-basalts with a basal unit of meta-sediments, including BIF, and komatiites overlain by a further sequence of clastic meta-sediments.
- The Shamvaian Group (~2.6 Ga) is essentially a sedimentary unit interlayered with felsic volcanic rocks.

Extensive sheets of tonalite and potash-rich granites intrude all of these rocks, which effectively end the Archaean in Zimbabwe. The Great Dyke, a mafic-ultramafic layered intrusion that hosts extensive chromite and platinum group mineralisation, was emplaced after these Archaean events. Karoo Supergroup sediments and volcanic rocks of Permian-Triassic-Jurassic age, Cretaceous post-Karoo sediments, and Tertiary to Recent Kalahari sands overlie the Craton in the north, west, south and southeast of Zimbabwe.

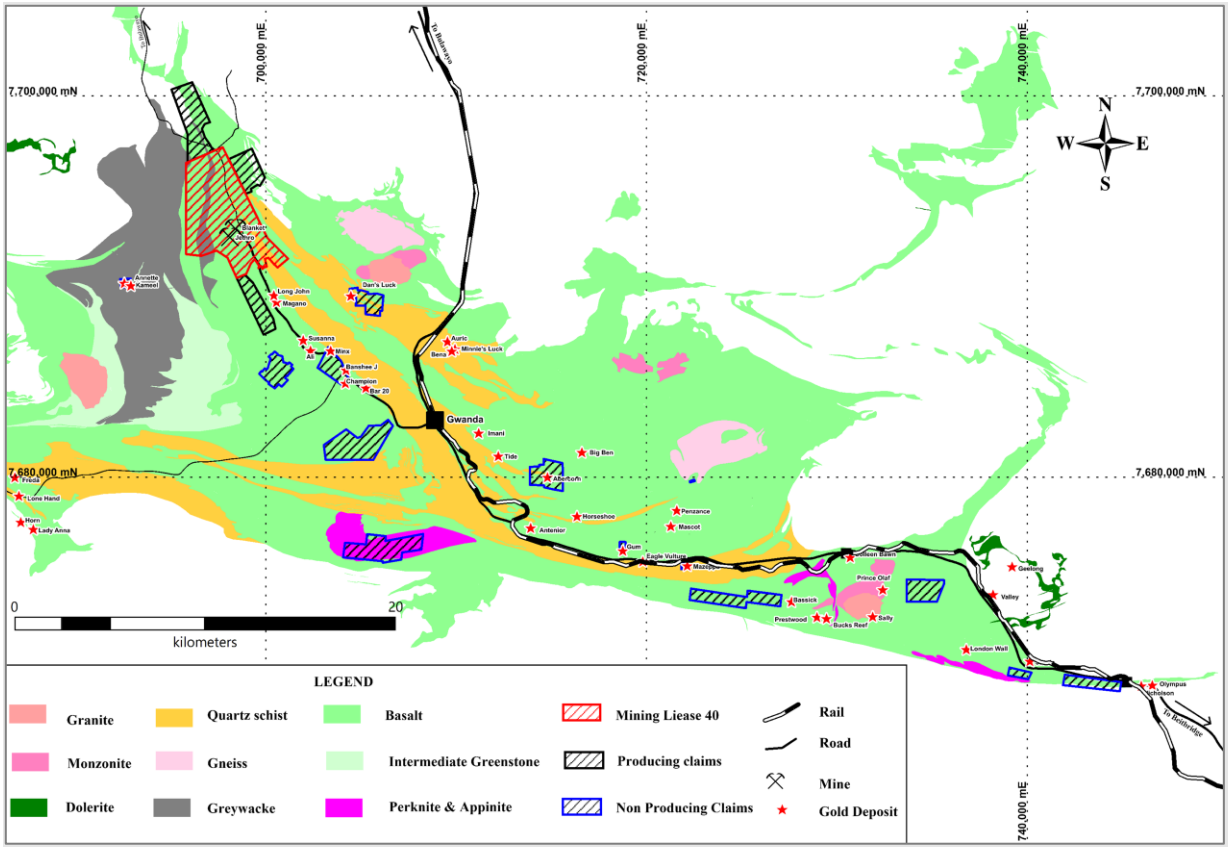
The majority of gold deposits in Zimbabwe are associated with high strain zones cutting through the greenstone belts or in close association with intruding, plutonic gneissic granites or granitoids (Mhlanga, 2002).

## Item 7 (b) Local and Property Geology

**Gwanda Greenstone Belt (GGB) Geology**

The Blanket Mine is situated on the north-western limb of the Archaean GGB in south-western Zimbabwe, along strike from several other gold deposits. The GGB is approximately 70km in length (west to east) and 15km wide (north to south). The belt is typical of greenstone belts of the Zimbabwe Craton consisting of mafic to felsic volcanics with intercalated sedimentary units. The regional geology of the GGB is illustrated in Figure 12.

*Figure 12: Geology of the Gwanda Greenstone Belt*




Repeated strong deformation affected all lithologies. Structurally, the GGB is dominated by a major periclinal synform, plunging 60° NW in the western half of the belt. It is flanked on both sides by two major deformation zones, namely the Northwest Gwanda Deformation Zone (NWGDZ) on the north-western limb and the South Gwanda Deformation Zone (SGDZ) along the southern limb. The SDGZ forms part of a regional structure bounding the southern margin of the belt. In the convergence zone of the NWGDZ and the SGDZ, the Colleen Bawn Deformation Zone (CBDZ) splays off the SGDZ eastwards, following the north-eastern arm of the belt. The NWGDZ is approximately 2km wide and 18km long with a general northwest to north-northwest trend, from the town of Gwanda to the north-western extremity of the belt (Campbell and Pitfield, 1994).

Four phases of deformation have been defined by Fuchter (1990). Repetition of lithological units, particularly in the north-west, is interpreted as evidence of D1 thrusting. The D2 event produced wide zones of intense schistose deformation, considered to be associated with the gold mineralisation. The D1 thrust phase has a coincident trend and may be an early part of the D2 event (AGS, 2006).

The large fold structures of the D3 deformation event dominate the eastern and western ends of the GGB. Blanket Mine mineralisation lies on the northern limb of the large western fold (the Northwest Mineralised Camp). The final D4 deformation event produced major lineaments which dominate the southern margin of the GGB (Fuchter, 1990). Owing to the proximity of the GGB to the high-grade metamorphic Limpopo Mobile Belt, GGB metamorphism reaches upper greenschist to amphibolite facies and is higher than in the typical Zimbabwean greenstone belts.

**Blanket Gold Mine Geology**

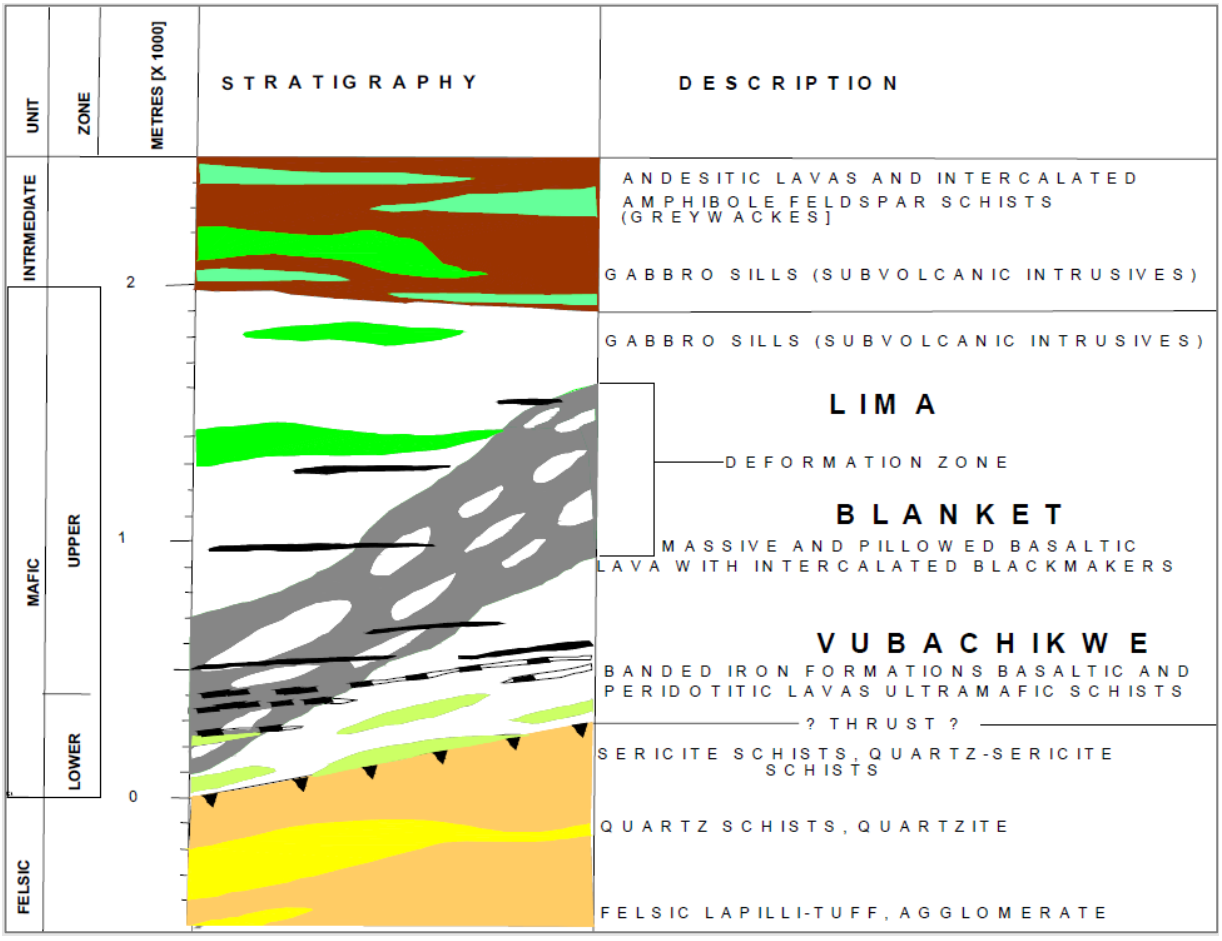
As described by AGS (2006), in the Blanket Mine area, lithologies comprise non-mineralised basal felsic schists of igneous or sedimentary origin in the east. Tailings facilities are generally sited on this felsic unit.

The felsics are overlain by a metabasaltic ultramafic to mafic unit with pillow basalts remnants. This Mafic Unit is subdivided into a lower zone and upper zone. Ultramafics and BIFs comprise the lower zone, while massive to pillowed lavas with intercalated interflow sediments (cherty argillites) comprise the upper zone (or Black Markers; MSA, 2011). Mineralisation at the adjacent Vubachikwe Mine is hosted in the BIF unit, while Blanket mineralisation occurs in the overlying mafics. Regionally, the rock is a fine-grained massive amphibolite with localised shear planes. A low angle transgressive shear zone characterised by biotite and a well-developed fabric, cuts through the mafic zone is the locus of the gold ore shoots. The shear zone may be up to 50m wide (AGS, 2006).

Intruding this package is a younger, barren olivine-gabbro sheet. The entire sequence is capped by andesitic lavas with amphibolite feldspar schists of the Intermediate Unit (MSA, 2011).

The generalised stratigraphic column for the area is shown in Figure 13.

*Figure 13: Stratigraphic Column of the Blanket Mine Area*

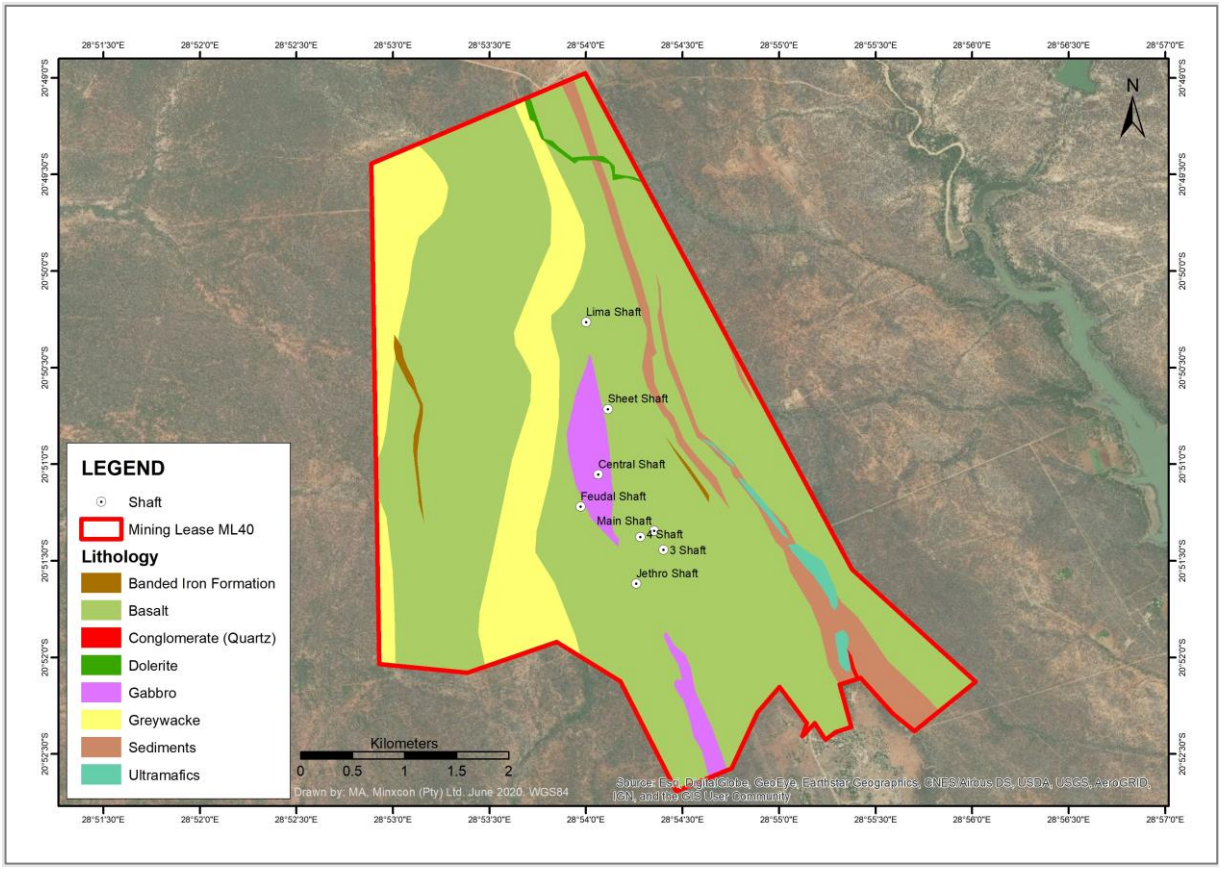



*Source: AGS (2006)*

The entire sequence is cut by a regional dolerite sill from the south at Vubachikwe, through the Blanket Mine, to the Smiler deposit which lies approximately 3km north of the Blanket Mine. Although no significant displacement is caused by the sill, it truncates all the ore shoots, but below the sill continuity of mineralisation is observed (AGS, 2006).

The geology at the Blanket Mine is illustrated in Figure 14. The image also illustrates the location of the various shafts.

*Figure 14: Local Geology of Blanket Mine*




## Item 7 (c) Mineralisation

Mining at Blanket occurs over a 3km strike that includes from north to south, the deposits of Lima, Eroica, Sheet, AR Main, AR South, Feudal, Blanket Section (Blanket 1 to Blanket 6) and Jethro. The main Blanket underground workings are connected to Lima by a 2km long haulage which follows the strike of the main fabric.

Varying strikes are recorded for the deposits. As described by AGS (2006), mineralisation occurs in near vertical shoots aligned along an approximately N-S axis. The ore shoots vary in shape from the tabular-lensoidal quartz reefs to the massive to pipe-like disseminated sulphide reefs (DSR).

Wall rock alteration typically comprises silica–pyrite–muscovite within a broader carbonate alteration halo. Quartz-carbonate altered rock forms the most commonly recognised alteration assemblage.

Gold is deposited at crustal levels within and near the brittle-ductile transition zone at:

- depths of between 6km and 12km;
- pressures between 1 and 3 kilobars; and
- temperatures between 200ºC and 400ºC.

The deposits may have a vertical extent of up to 2km, demonstrate extensive down-plunge continuity and lack pronounced zoning. The ore mineralogy is dominated by gold, pyrite and arsenopyrite. Subordinate minerals such as galena, chalcopyrite, pyrrhotite, sphalerite, tellurides, scheelite, bismuth and stibnite also occur. Sulphide mineralogy commonly reflects the litho-geochemistry of the host rock with arsenopyrite being the most common sulphide mineral in metasedimentary host rocks and pyrite or pyrrhotite being more typical in metamorphosed igneous hosts. The gangue and alteration mineralogy are dominated by quartz and carbonate (ferroan dolomite, ankerite, siderite, calcite) with subordinate albite, fuchsite, sericite, muscovite, chlorite and tourmaline.

Two quartz-filled shear zones are mined, namely the Blanket Quartz Reef (BQR) and the Eroica, which have long strike lengths but are not uniformly mineralised although continuous pay shoots of over 100m on strike are seen. Gold grade fluctuations are more extreme in the quartz reefs than in the DSR type reefs but on average these quartz shears have higher grades and are used as a sweetener of ore to the mill (MSA, 2011).

**Blanket Quartz Reef (BQR)**

The BQR strikes some 500m on surface and is up to 5m wide, diminishing with depth, dipping 55°W. It displaces the DSR type orebodies with an apparent reverse movement of up to 250 m. The reef texture varies from typical quartz reef at depth through sheeted and boudinaged veinlets to ankeritic carbonate in schist and a sulphide replacement ore zone. This is interpreted as a transition from brittle ductile to a more ductile regime with depth. Towards the north of the reef outcrop, a Z-shaped inflection forms the thickest part of the reef, up to 5 m, compared to less than 1m on the limbs. Similar inflections are found elsewhere in the Northwest Gwanda Shear Zone. Subsequent to mineralisation the reef was displaced by the north-striking vertical Wenlock Fault which has a dextral strike-slip component of about 60m. Mineralisation in the BQR is not uniform and comprises native gold with galena. Arsenopyrite is more dominant down-dip. Economic mineralisation is restricted to three 90m pay shoots (MSA, 2011).

**Lima**

Lima is situated 2km north of the Blanket Section and an underground haulage links the two mines. Like the Blanket Section orebodies, the Lima orebodies developed in very high-strain areas. The main shoots are the Hanging Wall and Interlimb. Mineralisation in the Hanging Wall limb comprises pyrite with subordinate arsenopyrite in cleavage planes within pervasive biotite/chlorite alteration. The Interlimb is characterised by a centrally silicified core with pyrite and arsenopyrite constituting the main sulphides (MSA, 2011).

**Eroica**

The Eroica orebody lies approximately 1,300m north of the Blanket Section orebodies and renowned for its high native gold content. It dips at 65°W and has a strike length of 300m in a northerly direction. The Eroica orebody is hosted in a high-strain area where the shear is up to 15m wide. Brown carbonate alteration characterises the shear in strong association with biotite development. The orebody is defined by thin silicified stringers that develop into swells of up to 5m in width. The silicification shows pinch and swell both on strike and down-dip, resulting in a series of dismembered silicified pods developed within a particular shear. The biotite and carbonate alteration, together with the silicified stringers, form marker links between the dismembered pods. Finely disseminated arsenopyrite, pyrite and pyrrhotite are associated with the gold mineralisation (MSA, 2011).

**Sheet**

The Sheet orebody lies about 500m south of Eroica and is a typical example of a fault-controlled mineralisation. It comprises of at least three stepped-out, sinistrally displaced, and highly silicified hornblende-chlorite schist fault blocks. The orebody was subjected to both strike and east-west dip faulting, resulting in major bifurcation of the orebody up-dip into highly fractured North and South orebodies with variable dips. As with the other DSR orebodies at Blanket Mine, the less disturbed Sheet orebody down-dip extension has a 60-65°W dip and a fabric that is sympathetic to the north-northwest regional shear.

The orebody can attain widths and strike lengths of up to 15m and 60m respectively. Mineralisation is associated with finely disseminated arsenopyrite. Pyrite and pyrrhotite occur as accessory minerals and are generally indicative of poor mineralisation. The orebody is encompassed within a ductile metabasalt country rock.

The orebody was mined between 230m Level and 870m Level on separate dismembered shear zones. Further exploration is ongoing to assess the resource growth potential of the down-dip extension.

**AR Orebodies**

AR is a Z-shaped mineralised zone and consists of two separate orebodies (AR Main and AR South) with widths up to 30m as a result of tectonic thickening from faulting and folding. The mineralised zone has no known surface expression and appears to form a 'peak' under the regional dolerite sill just above 9 Level some 500m north of the Blanket Section orebodies. From this point the body splits into two the ore shoots of AR Main and AR South, which plunge 55°W and 58°SW respectively (MSA, 2011).

**AR Main**

AR Main is a DSR-type orebody and occurs within a broad shear envelope in pillowed metabasalts, which is generally irregular in plan and bounded by shears that assist in defining the limits of the mineralisation. At 750m Level, a shear disrupts the bodies causing the plunge to flatten to the west. The orebody strikes between 40m and 60m with an average width of 30m at the centre of the envelope (MSA, 2011).

The ore is a silicified amphibolite predominantly comprised of quartz with minor carbonate and chlorite minerals. Gold mineralisation is associated with arsenopyrite and to a much lesser extent pyrrhotite and pyrite. Finely disseminated arsenopyrite occurs within the orebody which form the high-grade areas. Sulphide minerals seldom amount to more than 5% of the rock by volume. The orebody is massive and is exploited using the long-hole open stoping method (MSA, 2011).

**AR South**

AR South plunges southwest, trending towards the Blanket 2 orebody at depth. AR South is also developed within a broad shear zone and is more pipe-like than AR Main. Its maximum thickness is approximately 50m and high-grade sections are defined by silicification and arsenopyrite (MSA, 2011).

**Feudal**

Occurring in the hanging wall of the Blanket-Lima strike about 900m northwest of Jethro is the almost mined out outlier Feudal orebody. The orebody is interpreted to be located at the focal point of two Blanket-Lima strike transgressing shears, namely the Blanket-Feudal and Jethro-Feudal shears. The rocks consist of intermediate to meta-basalt with hornblende chlorite schist hosting the mineralised quartz- sulphide (disseminated arsenopyrite and pyrrhotite) shear zones.

The known orebody (surface outcrop to 7 Level for a 200m lift) is now mined out. Geological models are being pursued to re-establish the reef down-dip with some success.

**Blanket Section**

The Blanket Section comprises six orebodies, namely Blanket 1 to Blanket 6, which occur some 500m south of the AR orebodies. On average, the orebodies dip 80°SW. Blanket 1 and Blanket 4 are parallel and occur in north-south trending shear segments. Blanket 2 and Blanket 5, which are also parallel, strike northwest southeast. Blanket 3 is cylindrical and lies in a shear segment parallel to Blanket 2 and Blanket 5. On surface, the BQR lies in the footwall of the DSR type orebodies. The reef has a shallower dip than the DSR bodies but plunges in the same direction so that it progressively advances towards them with depth, displacing Blanket 2, 3, 1, 4. Blanket 2 reappears on the footwall of the BQR and is established on the 630m Level through to the 870m Level (MSA, 2011).

Some reinterpretation from the geology team at Blanket has resulted in Blanket 4 and Blanket 5 being combined into a new single domain, Blanket 4_5.

**Jethro**

The Jethro orebody is located some 400m south of the Blanket Section. The north-south striking Jethro orebody dips near vertical in a westerly direction and tends to roll over locally (MSA, 2011).

# ITEM 8 DEPOSIT TYPES

## Item 8 (a) Mineral Deposits Being Investigated

In greenstone belts, gold mineralisation occurs mainly as vein type or shear zone hosted disseminations. Most of the larger deposits are found within the greenstone belts or their contacts with the granitoids. All mineralisation is hydrothermally emplaced and associated with the regionally developed D2 deformation, characterised at Blanket Mine, by areas of high strain wrapping around relatively undeformed remnants of the original basaltic flows. It is within the more ductile tensional high strain areas that the wider of the orebodies are located.

These orogenic gold deposits (also referred to as mesothermal, greenstone, shear zone related or lode gold deposits) are commonly associated with late syntectonic intermediate to felsic magmatism. Vein systems occur as a system of echelon veins on all scales. Tabular veins occur within less competent lithologies while veinlets and stringers forming stock works occur in more competent lithologies. Vein systems are often spatially associated with contacts between lithologies displaying competency contrasts. Lower-grade bulk tonnage styles of mineralisation may develop in areas marginal to veins with gold associated with disseminated sulphides in the host rock. Two broad groups of deposits based on precious metal composition were recognised by Roberts (1996):

- Silver (Ag) rich deposits, in which the concentration of silver exceeds that of gold; and
- Gold (Au) rich deposits, in which the concentration of gold exceeds that of silver.

The gold and silver concentrations of both types are at the parts per million level. These deposits may be subdivided into two styles of mineralisation, namely quartz-carbonate vein-hosted and disseminated sulphide replacement (DSR) type mineralisation.

The Blanket orebodies are the latter i.e. gold rich. The mineralisation is hydrothermally emplaced and associated with the regionally developed D2 deformation characterised by areas of high strain wrapping around relatively undeformed remnants of the original basaltic flows. Wider orebodies occur within the more ductile tensional high strain areas. The localisation of the mineralised shears conforms to a Riedel pattern (AGS, 2006).

Both DSR and quartz-filled shears are recognised at Blanket Mine. These are described to follow after AGS (2006). A third type of mineralisation may be evidenced in the form of auriferous sulphide minerals as a replacement of the iron-rich minerals along the hinges of the folds in banded iron formation, as is present at the neighbouring Vubachikwe Mine.

**Disseminated Sulphide Replacement**

DSRs host higher grades and comprise the majority of the ore shoots. These zones have a silicified core with finely disseminated arsenopyrite. Relatively high grades are found in a package of silicified biotite chlorite schist with irregular quartz stringers and disseminated and stringer arsenopyrite in the fabric planes. Due to lesser silicification, abundant biotite characterises the margins of these mineralised zones and as a result they have a lower gold content. Disseminated sulphide-replacement orebodies can range up to 50m in width with a strike of between 60m to 90m. Free-milling gold may constitute up to 50% of the total metal content with the remainder locked in the arsenopyrite. The ore is not refractory despite its association with arsenopyrite.

**Quartz-Filled Shears**

Two quartz-filled shears are mined at the Blanket Mine, the Blanket Quartz Reef (BQR) and the Eroica Reef. These reefs have long strikes; however, they are not uniformly mineralised. Continuous pay shoots of over 100m on strike are present. The BQR has a surface strike of approximately 500m, but economic mineralisation is restricted to three 90m long shoots.

Quartz-filled reefs display a much wider grade range compared to the DSR deposits but, on average, these shears are of a higher grade and are used in blending the ore to the mill. Dominant ore minerals are native gold and galena although arsenopyrite becomes more prevalent below 470m amsl.

Increasing levels of arsenopyrite association with depth confirm that the quartz shears represent higher level offshoots and splays with brittle deformation relative to the more ductile DSR-type core zone mineralised bodies.

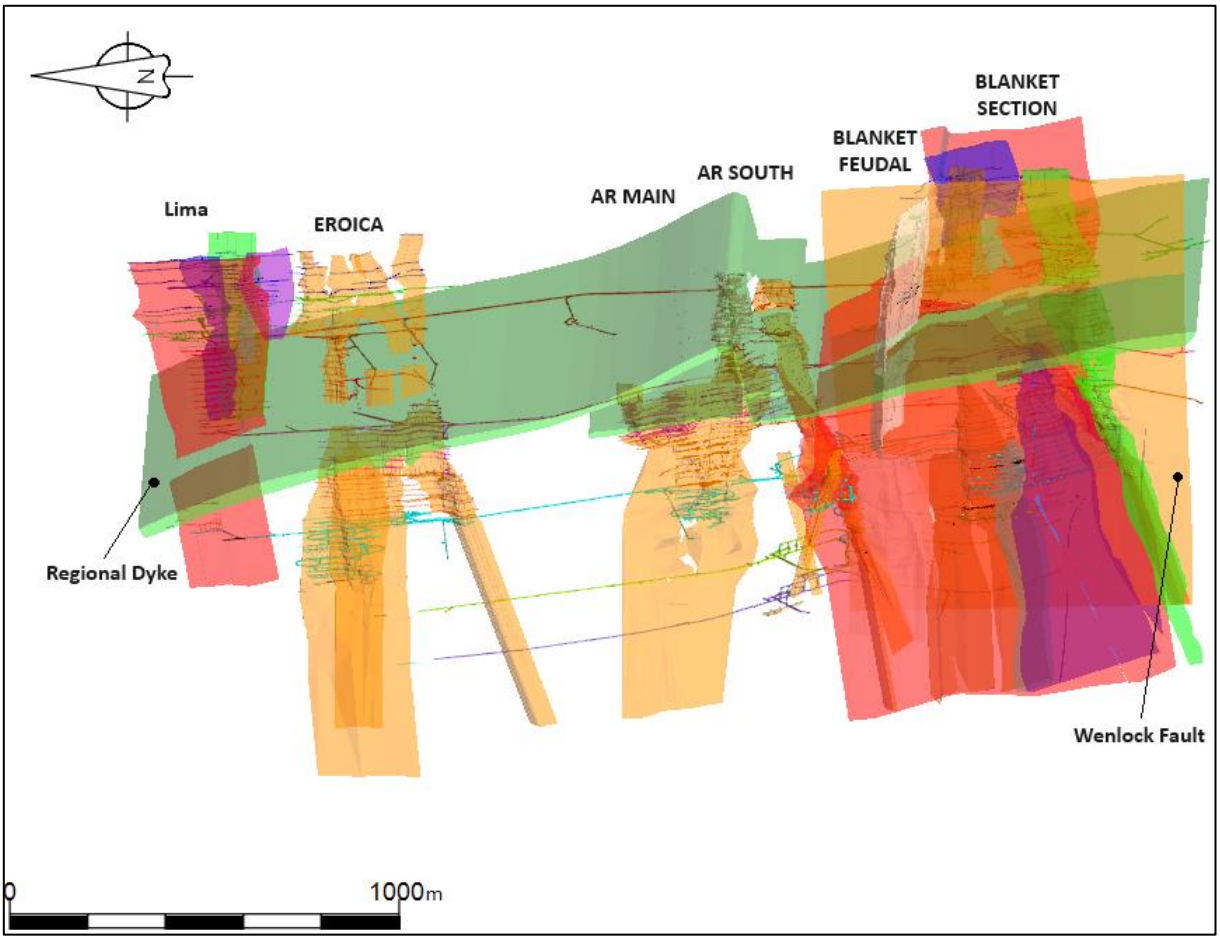
## Item 8 (b) Geological Model

Wireframes have been modelled using explicit modelling techniques in computer software (Leapfrog Geo, Surpac, Datamine Studio RM) using drillhole and development sampling data. Individual grade-shell models were historically constructed using either a cut-off grade of 2.1g/t or 1.5g/t. This has now been standardised to a 1.5g/t cut-off and has had an impact on the overall total volume. An overview of the modelled domains is provided in Figure 15 .

A lithological model is required for a true geological model, but lithological descriptions have historically not always been captured or were not fully collected digitally or present in the drillhole database, and therefore all modelling is of grade-shells performed on grade intersections. Capture of digital mapping and lithological logs was started in 2023 for future modelling.

A summary of model updates is show in Table along with the cut-off grade used per model. The following sub-sections detail the current interpretation of the geological model currently in place.

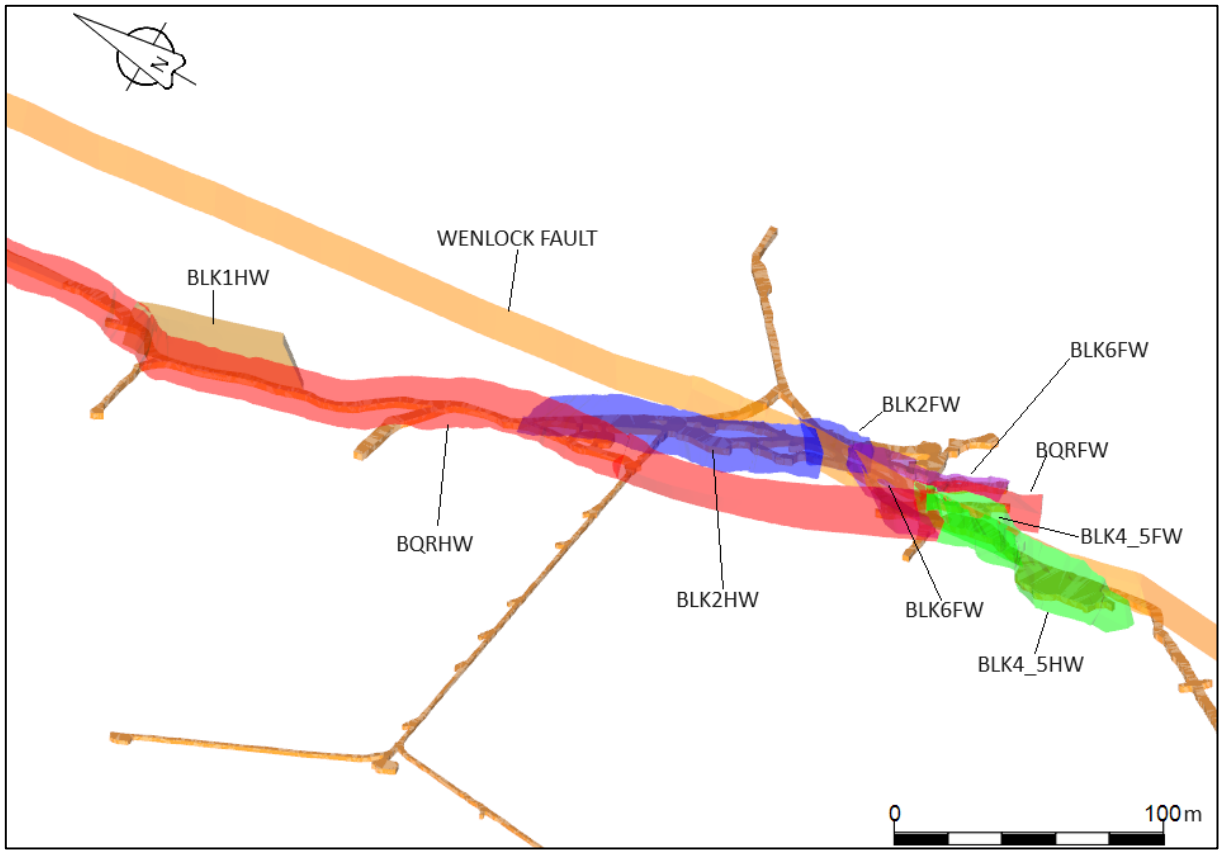
*Figure 15: Blanket Mine All Areas in Long Section, Looking East*




**Blanket Group of Orebodies**

The Blanket Section orebodies consist of several domains extending from north to south, named Blanket 1 through to Blanket 6 (Figure 16). Footwall and hanging wall domains are further named for parts of these orebodies that are displaced in either the footwall or hanging wall of a structural feature. These domains are characterized by disseminated sulphide replacement (DSR) within the same shear zone.

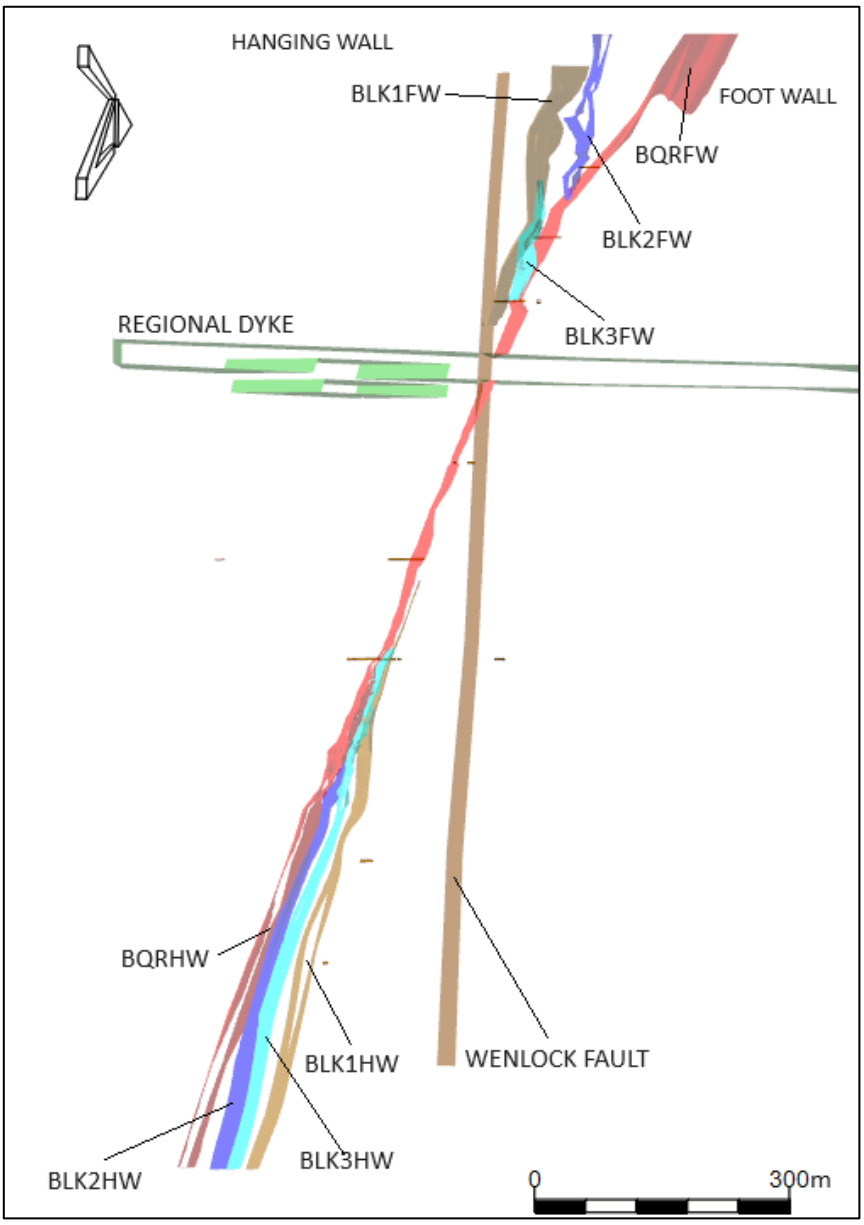
*Figure 16: Blanket Section Orebodies and the Wenlock Fault on 630m Level*




The Wenlock Fault (WF), the youngest fault in the area, exhibits both lateral and vertical displacement of orebodies within the Blanket group. In Figure 16 the lateral displacement between Blanket 2 hanging wall and Blanket 2 footwall on 630m Level is shown, and in this example this displacement measures 30m although this may vary due to differences in rock competency. The general trend of the Wenlock Fault is approximately 345°/84°. Notably, the Wenlock Fault displaces the BQR, which subsequently displaces DSR orebodies Figure 17.

It was observed that there was a consistent trend in Blanket 2 hanging wall, Blanket 2 footwall and Blanket 3. All these orebodies can also be interpreted to splay off of the BQR orebody.

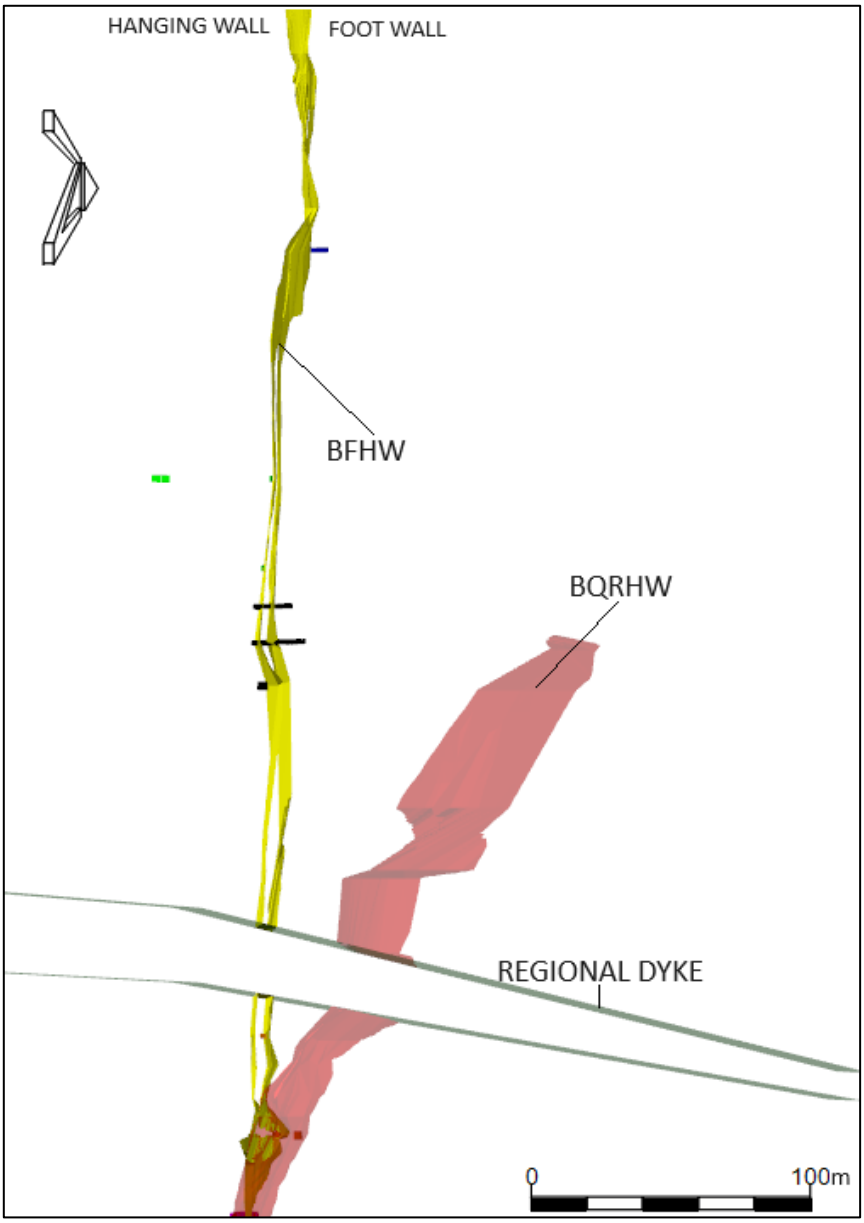
*Figure 17: Blanket Section in Section View, Looking North*




**Blanket Feudal**

The Blanket Feudal system is characterized as a narrow reef occasionally exhibiting swells, and it consists of a nearly vertical ore body that exhibits rolling characteristics (Figure 18). It shares contact with BQR along a significant strike. Unlike the dominant shear system, the Blanket Feudal system possesses a different strike; it serves as a connection between the primary shear system, which hosts numerous ore bodies, and the Jethro shear. Moving towards the northern direction, the Blanket Feudal system deviates from its predominantly near-vertical orientation and transitions to a shallow eastward dip, which is contrary to the westward dipping observed in most ore bodies. Grade tenor averages 3.36g/t (CMC, 2022).

*Figure 18: Section View of Blanket Feudal Hanging Wall in Relation to BQR Hanging Wall, Looking North*




**Blanket Quartz Reef**

Blanket Quartz Reef is a quartz-filled fault, primarily composed of quartz material. It is situated on the footwall of the Blanket DSR orebodies. Notably, this fault exhibits a shallower dip of 57° compared to 72° of the DSR orebodies.

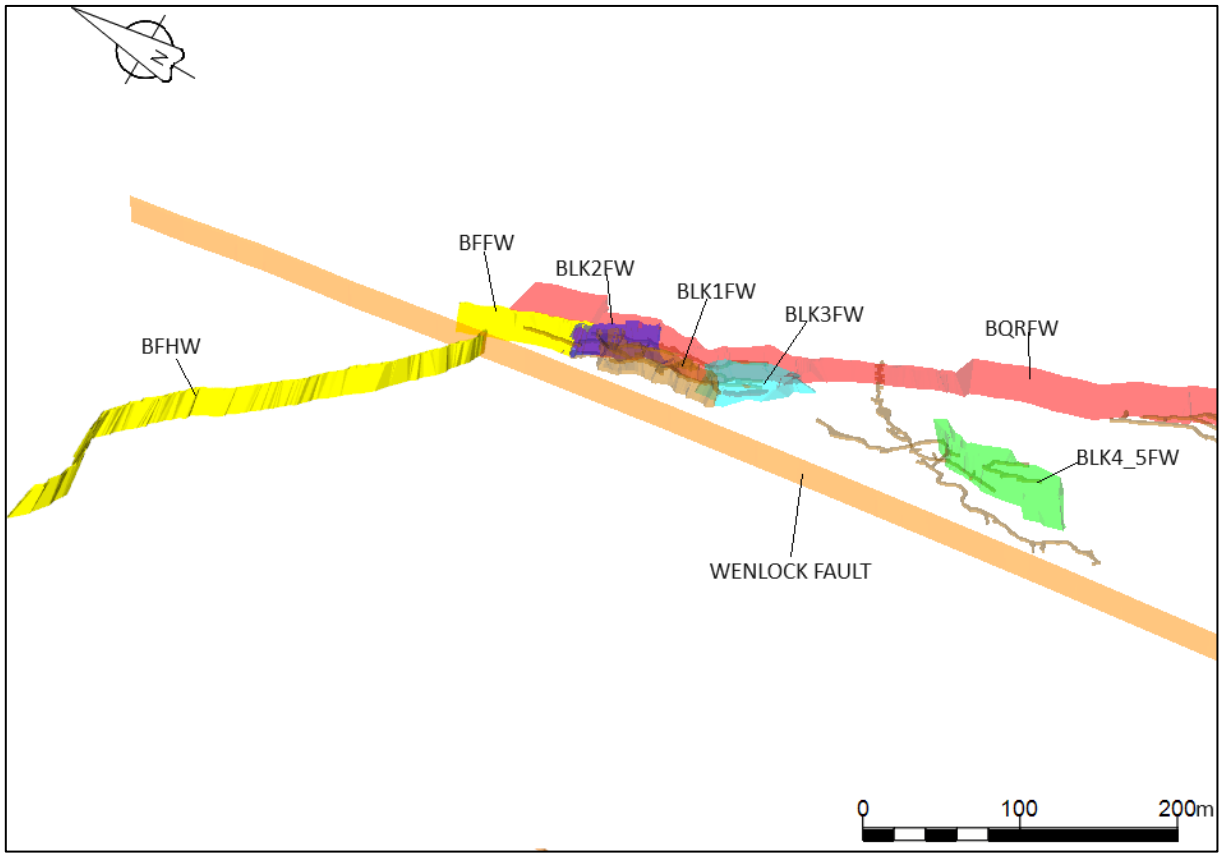
The consequence of this geological arrangement is that the younger BQR structure intersects and truncates the Blanket orebodies, depicted in Figure 2. Additionally, the DSR orebodies terminate where they meet the BQR structure.

The magnitude of displacement along this fault can vary, as described by Fuchter (1990), although it typically averages around 300 meters. The disparity in displacement across various orebodies can be attributed to variations in intersection angles resulting from differences in the observed strike and dip of the affected orebodies.

BQR has pay shoots that are high grade and punctuated by low-grade waste patches.

Blanket Feudal occurs to the west of the BQR while Blanket 1, 2 and 3 all occur to the east (Figure 19). BQR is a continuous unit running through the Blanket section. It has been interpreted that all other Blanket orebodies are closely associated with the BQR.

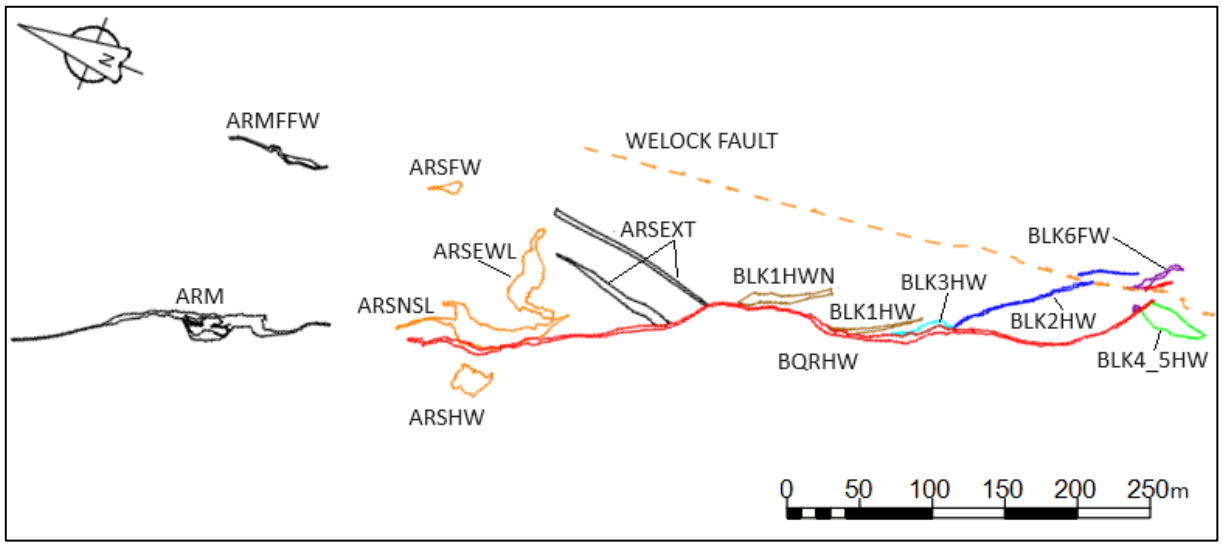
*Figure 19: Blanket Feudal, Blanket Orebodies and BQR at 140m Level*




**AR Main and AR South**

AR Main and AR South occur to the north of the Blanket section. An additional extension to AR South has been modelled that shows a continuous trend with the existing orebody (Figure 20). AR South and AR Main are separated by a dyke, the structural controls of this dyke as well as the possible extension of the BQR into the AR Main and AR South sections need to be tested. The samples used to generate AR South extension show a good correlation of the trend that is interpreted to exist over Blanket Mine.

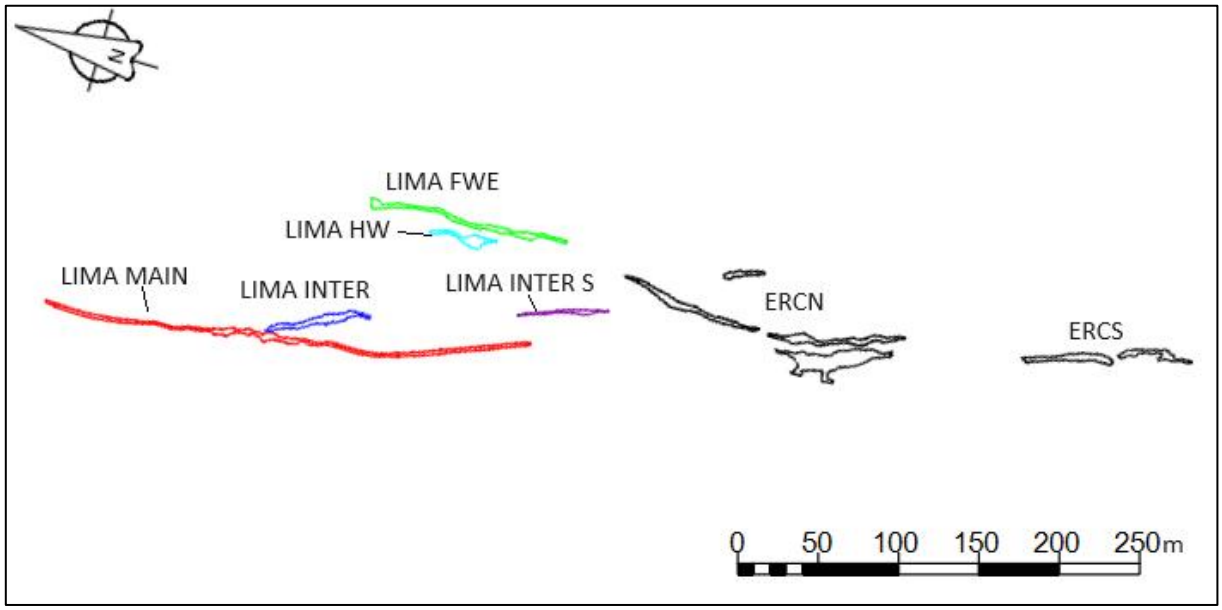
*Figure 20: Blanket, AR South and AR Main Orebodies on 810m Level*




**Lima and Eroica**

Eroica consists of Eroica South and Eroica North, while Lima consists of the main orebody well as a smaller inter-reef orebody and a smaller foot wall body, Figure 21.

*Figure 21: Plan View of Section of 140mL ERC and Lima*




**Geological Model Volume Reconciliation**

Volume reconciliation was performed between the 2022 orebody wireframes and the 2023 orebody wireframes as show in Table 10. The comparison between 2022 and 2023 is on the whole orebody wireframe. The impact of the long hole exploration drilling is seen in the Blanket 1, AR South Extension, BQR (hanging wall) and the Eroica orebodies.

*Table 10: Volume Reconciliation of Orebody Wireframes Between 2022 to 2023*

| Orebody | Volume ($m^3$) | Change from 2022 to 2023 |
|---|---|---|

| | 2022 | 2023 | Volume ($m^3$) | Percent |
|---|---|---|---|---|
| Blanket 1 | 913 100 | 2 533 101 | 1 620 001 | 177% |
| Blanket 2 hanging wall | 1 186 330 | 1 115 323 | -71 007 | -6% |
| Blanket 2 footwall | 632 870 | 542 357 | -90 513 | -14% |
| Blanket 3 | 586 000 | 534 777 | -51 223 | -9% |
| Blanket 4_5 | 1 063 969 | 1 193 080 | 129 111 | 12% |
| Blanket 6 | 198 159 | 233 639 | 35 480 | 18% |
| AR South extension | 314 460 | 647 967 | 333 507 | 106% |
| BQR footwall | 826 640 | 628 118 | -198 522 | -24% |
| BQR hanging wall | 2 851 670 | 3 983 801 | 1 132 131 | 40% |
| Feudal | 419 140 | 478 386 | 59 246 | 14% |
| AR South | 1 956 340 | 1 561 819 | -394 521 | -20% |
| AR Main | 3 573 830 | 3 571 080 | -2 750 | 0% |
| Lima | 571 745 | 727 178 | 155 433 | 27% |
| Eroica | 1 444 330 | 2 439 923 | 995 593 | 69% |
| Sheet | 231 488 | 223 227 | -8 261 | -4% |
| Jethro | 656 090 | 656 090 | 0 | 0% |
| **Total** | **17 426 161** | **21 069 865** | **3 643 704** | **21%** |

**Blanket Mine Conceptual Geological Model**

Often what is seen on a regional or larger scale will be repeated in fractals on a more localised or orebody scale. In this case the trend and associations seen between orebodies is consistently seen between all orebodies. The trend of the mineralisation seen at Blanket is likely resulting from dextral shear, opening fractures (extensional gashes) for vein and mineralisation emplacement.

This zone of shear fractures has also been described as an extensional or contractional duplex by Woodcock and Fischer (1986). These Riedel shears along with the expected structures can be seen inFigure 22, Figure 23 and Figure 24. This could potentially explain why the BQR and Eroica reefs are different to the AR Main and AR South orebodies i.e. The more tabular-lensoidal quartz reefs (BQR), which could be the main shear, to the massive pipe-like disseminated sulphide reefs of AR Main, AR South and Jethro, which could be zones of Riedel shears.

*Figure 22: Mine Scale Geological Interpretation, Plan View*

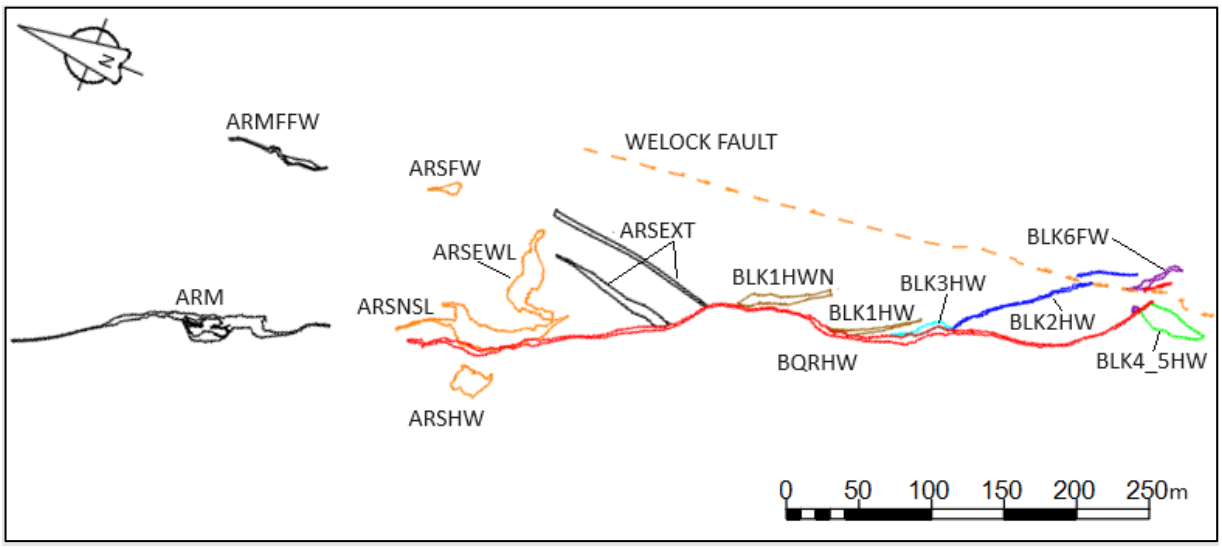


*Figure 23: Interpreted Mine Scale Trends at 810m Level*

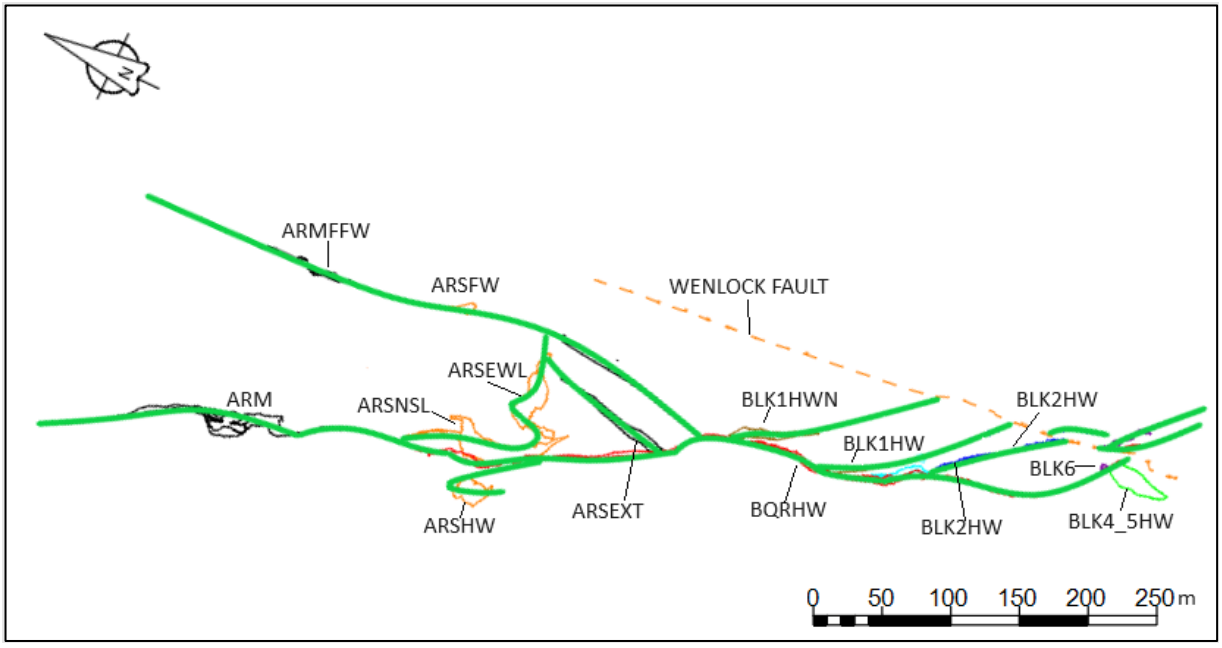
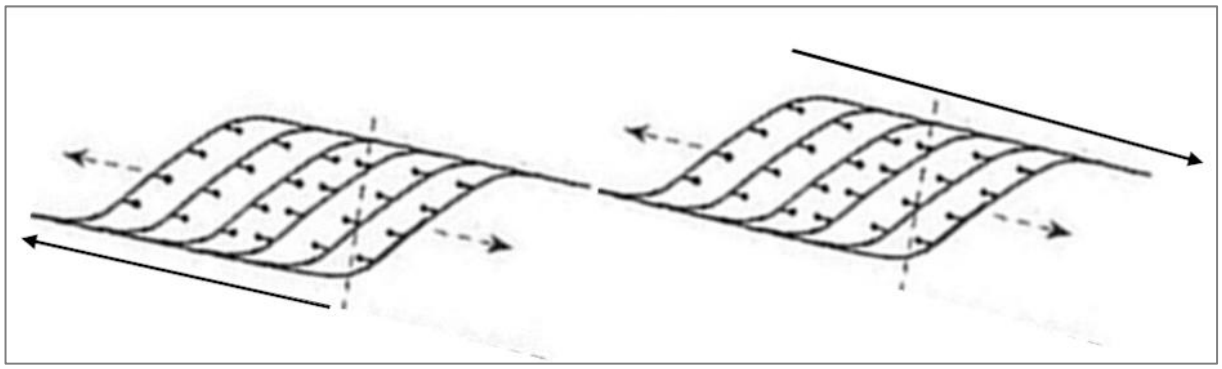



*Figure 24: Riedel Shears Showing Dextral Movement*



*Source: Twiss and Moores (1992)*

Further modelling of the remainder of the Blanket orebodies is required to confirm the trend and association of all other orebodies, in addition, modelling with a mine scale view of these expected Riedel shears will assist with modelling and infer continuity that may aid in the generation of exploration targets. An additional focus with future geological modelling should be on identifying the continuation of the orebodies and structures even where it is not mineralised to create a comprehensive geological model. Domaining prior to Mineral Resource estimation must then be used to separate out high grade and low-grade domains.

**Upside Potential**

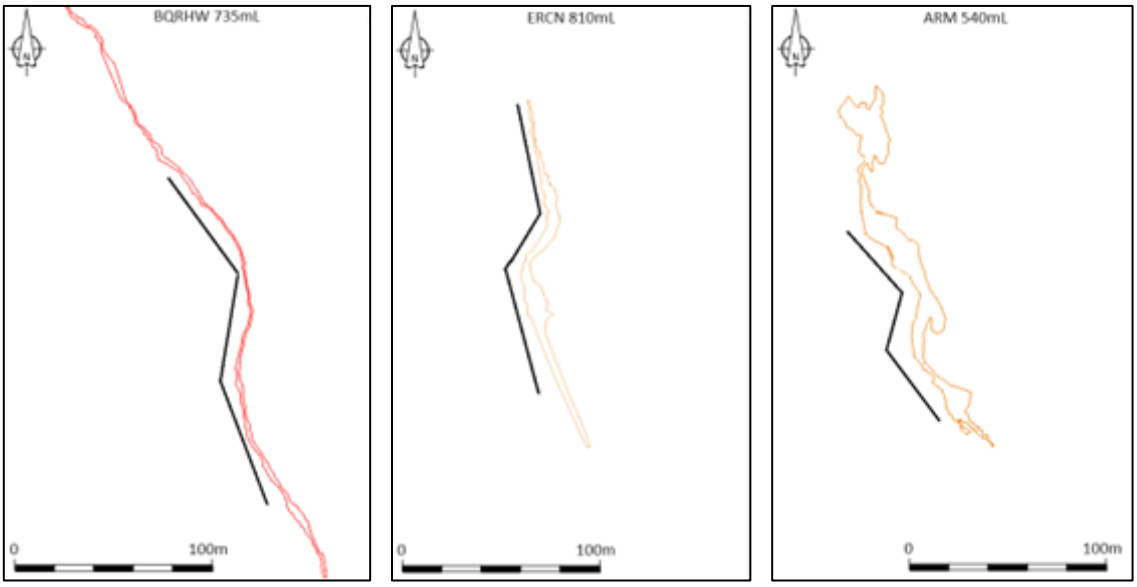
Based on the geological model, there are numerous targets that have been identified that would fit in with the trends identified in the geological model. These targets would also assist in proving or disproving & refining the proposed geological model. At Blanket 4, a very strong trend is observed from the upper levels of blanket all the way into future mine areas, to the south, Jethro falls along the same trend. Connectivity could be established between these two orebodies which could result in potential additional Mineral Resources close to existing infrastructure. In addition, another trend in the data is seen linking Jethro and Feudal that is running subparallel to BQR which also needs to be understood.

Additional targets would include considering the optimisation of existing wireframes, and trends used to define these wireframes. An example of this is Eroica, where a very strong trend is seen at 70-65°. By inferring this trend beyond the boundary of the wireframe there is potential to extend the domain and consequently provide additional targets, if these inferred down-dip trend extensions are seen not to be informed by any samples.

**Z- folds**

The Eroica, BQR, and AR Main ore bodies exhibit a fascinating geological phenomenon known as z-folding, Figure 25. These z-shaped sections within the ore bodies are particularly valuable and serve as sweeteners for the mine. They are rich in free milling or gravity gold.

*Figure 25: Z-Folding observed in the BQR, ERC and ARM Domains*




The origin of this unique feature lies in compressional forces acting upon the rock formations. These forces create the intricate folds, resulting in the concentration of precious metals within these z-shaped segments.

# ITEM 9 EXPLORATION

## Item 9 (a) Survey Procedures and Parameters

Exploration activities to upgrade and generate new resources was confined to underground drilling. There were no surface exploration activities planned for the year 2023 (Table 11). Down-dip drilling commenced in Q2 of 2022 with more than 14 000m drilled in 2023 and will continue in 2024 and 2025.

A short-hole drilling program was instituted in 2023 to expedite the upgrade of Inferred Resources to Measured and Indicated Resources.

*Table 11: Planned Exploration Activities at Blanket*

| Item | Description |
|---|---|
| 1. Deep Drilling<br><br>Drilling metres (K600) | In-house driven drilling to grow and upgrade inferred to indicated resource.<br><br>Upgrade will be between 30m Level and 34m Levels. Drilling will be done from 750m Level at Eroica, 870m Level at Blanket and 990m Level at AR South/Blanket in 2024.<br><br>To create a new resource below the inferred, drilling will be done at 1110m Level AR South/Blanket in 2024.<br><br>Drilling to create a new resource below the inferred at 38m Level will continue into 2025. This will be done from 1110m Level at Blanket. |
| 2. Trenching | No trench work planned |
| 3. Surface Drilling | No surface drilling planned |
| 4. Geophysical work | No geophysical work planned |

**Exploration Drilling**

The current programme of down-dip drilling from underground crosscuts to test depth extensions of the various orebodies has been underway since 2013. To date 387 holes have been drilled comprising 117,552m. The slowdown in drilling began in 2019, with no drilling taking place in 2021, and only recommenced in earnest during Q2 of 2022. This was as a result of delays brought about by the execution of the Central Main Shaft (CMS) project and the need to wait for drill platforms to be developed. See Table 12 for detailed drill lengths.

*Table 12: Exploration (Deep) Drilling Total Lengths by Year*

| Year | Number of Holes | Metres Drilled |
|---|---|---|
| 2013 | 10 | 4 228 |
| 2014 | 25 | 8 685 |
| 2015 | 40 | 14 948 |
| 2016 | 58 | 19 768 |
| 2017 | 54 | 19 035 |
| 2018 | 68 | 18 269 |
| 2019 | 42 | 9 456 |
| 2020 | 17 | 3 396 |
| 2021 | - | - |

| | | |
|---|---|---|
| 2022 | 18 | 5 320 |
| 2023 | 55 | 14 448 |
| **Total** | **387** | **117 552** |

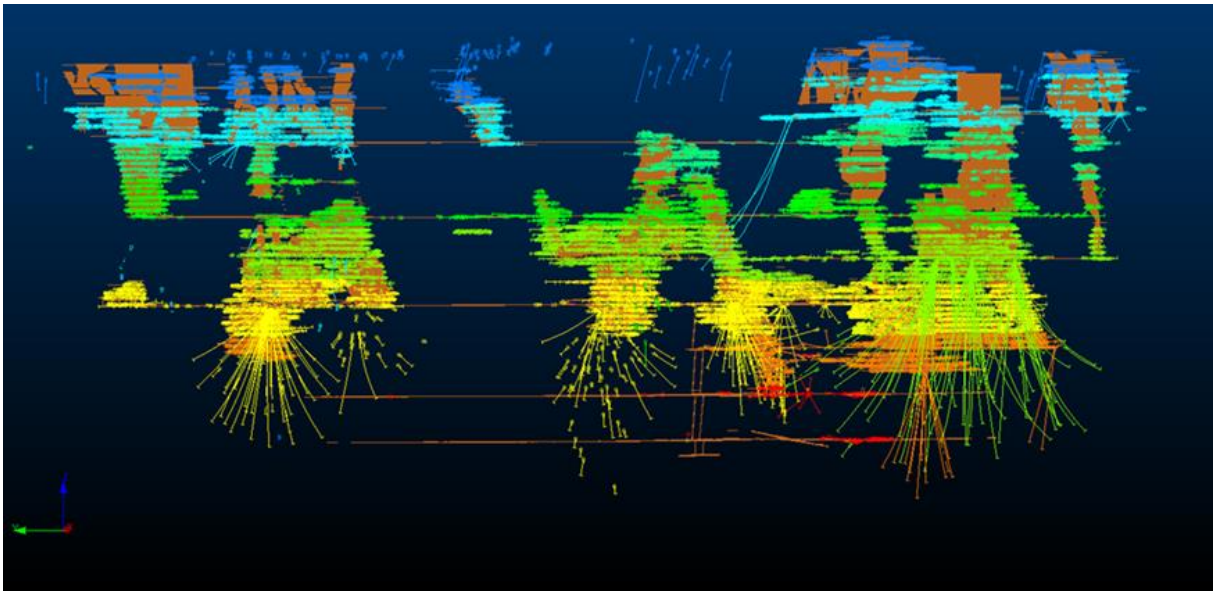
Drilling has been focused on Blanket Section, AR Main, Eroica and AR South (Figure 26). The programme commenced with two refurbished rigs and new rigs were progressively acquired to end with a complement of five. Development of new diamond drilling chambers resumed in 2022 and the first chamber was completed at the end of May of that year.

Drilling commenced in mid-June 2022 on 750mL Eroica North chamber 2. Drilling on Eroica has since been completed at chamber 2 and 3, upgrading inferred into indicated resources down to 990mL and adding inferred down to 1110m Level.

Drilling is planned on 750mL at Eroica on chamber 4 targeting below 1110mL. The second rig will be on 870m Level in Blanket where drilling for Blanket 4-5 and Blanket 6 will cover below 990mL and upgrading inferred into indicated resources. The third rig will be on 1110mL targeting AR South and BQR below 1110m Level. This drilling programme is being done by on-mine Kempe 600 rigs, comprising 3 rigs, operated by on-mine crews. Two rigs acquired in the early nineties are aged and scrapped. For the long-term drilling, a new rig is being motivated for to complement the aging current fleet.

Further upgrading of Mineral Resources to the measured Mineral Resource category using the down-dip exploration drilling is not practical due to the amount of drilling that would be required to reach the required intersection spacing of 7.5m along strike by 15m vertical. Measured Mineral Resource status is typically achieved by development of sub-levels within the orebody at 15m vertical distance with channel and sludge sampling along strike and evaluation drilling every 7.5m along strike together with RoM drilling intersections between main levels. Current exploration drilling coverage is limited by available drilling chambers.

*Figure 26: Long Section of Blanket Section Showing Location of 2023 Drilled Exploration Holes*



Drilling is conducted from chambers on crosscuts developed into the hanging wall. Development to new chambers at Blanket and Lima is planned for 2024. Directional drilling techniques are not employed at Blanket, but holes are planned to incorporate a deviation based on knowledge from previous drilling. While this does not result in a perfectly regular intersection spacing due to irregular and unexpected deviations of holes, the areas are drilled until they are adequately covered. All long hole exploration drillholes are down hole surveyed.

Drilling is carried out primarily by Blanket personnel, producing 36.5mm diameter BQ core.

The management of the drilling process rests with the responsible geologist. A summary of drilling procedures for exploration drilling is outlined as follows:

- Planned hole collar set up information is provided by geologist.
- Hole azimuth is set up by surveyor. Hole dip is set up using the built-in rig clinometer. Set-up is checked by Blanket Mine geologist or geotechnician. Hole collar is surveyed when rig is established in position and drilling.
- Drilling and core are monitored by geologist and geotechnician with checking to ensure core obtained attains a recovery of at least 95%. Hole is stopped based on geological observations.
- Downhole survey is carried out using Icefield Multi-shot MI3 instrument. Survey readings are downloaded and checked for validity using quality assurance and quality control ("QAQC") procedure. If not acceptable, request for resurvey.
- Hole is capped with hole number clearly marked on cap.

Core handling procedures are as follows:

- The drillhole identification number and box number are clearly marked onto the upper left side and face of each core tray.
- All core is packed into core trays as it is recovered from the hole with blocks indicating the depth placed at the end of each 'run' for each 3m drill rod. Core trays are kept secure and guarded against possible mixing. All core boxes are transported to the core yard at the end of the drilling shift where their receipt is entered into a logbook.
- Core boxes are laid out in the correct sequence.
- Drill core is checked as orientated and assembled to ensure that all pieces fit, and that orientation lines are consistent.
- Core recoveries are measured between drill depth markings by the geologist or geotechnician to record the core recovery. The complete length of the hole is metre marked.
- RQD measurements are recorded by the geotechnician.
- Core is photographed as wet, wet using the ScanIT application.
- Logging of core is carried out by the geologist.
- Mineralised zones are identified and selected for sampling. Sample boundaries are marked at 0.6m intervals in nearly homogeneous mineralised zones. Selective sampling intervals are employed on mineralised units with unique features, e.g. colour, concentration of mineralisation, alteration, and mineralogy.
- The core is split into two equal halves with a diamond saw. One half is retained in the core tray.
- Specific Gravity ("SG") measurements are carried out for each sample prior to bagging and submission to mine laboratory for sample preparation and assay (Blanks and Certified Reference Material ("CRMs") are inserted into the sample sequence at this point).
- Split intersections retained in the core tray are photographed wet.

- On receipt of assays, QAQC is carried out. Drilling data is incorporated into the database. Spatial verification is conducted by plotting the drillhole traces and collars.

**Channel Sampling and Sludges**

Underground channel/chip sampling and sludge sampling procedures are outlined as follows:

- The distance from a known survey peg to the first sample section is noted. Subsequent sample sections are marked at 2m intervals on the roof of the drives along strike. Sample sections are taken using a chisel and collection dish starting from the hanging wall to the footwall. Samples are generally taken in 0.6m lengths but may vary depending on geology or the width to be sampled.
- In wider mineralised zones where not all the mineralisation is exposed by the primary development, sidewall sludge holes are drilled to a depth of 1.2m. Sludge holes are drilled into the hanging wall and footwall along the same section line as the channel samples. Drill discharge water is collected in cloth bags and the water seeps out leaving a sludge sample. Samples are taken every 0.6m. The hole is flushed between each sample to reduce contamination.
- A sample weight of about 2 kg is collected in each instance.
- A ticket tagging system is used with sketches drawn at the face showing the ticket numbers corresponding to the samples taken. This assists the data capture in that on receipt from the laboratory, results are plotted on the assay plan against the corresponding ticket numbers.
- Blanks and CRMs are inserted into the sample sequence.
- On receipt of assays, QAQC is carried out. Information for channel and sludge samples is both processed digitally and spatially checked by means of manual plots and sample assay capture sheets.
- 1:250 scale survey plans are generated as ‘base plans’ for assay, stope assay and geology plans for each 15m sub-level. Currently the mine is converting to a digital sample sheet capture system which will reduce the plans plotted in favour of live viewing in the digital environment.

Channel and sludge assay information is plotted manually on 1:250 scale assay plans for every 15m sub-level. Within all the mineralised zones, except the AR Main and AR South wider bodies, only 4.2m is normally sampled (includes 1.8m wide drive and 1.2m of sludge sampling into both the hanging wall and the footwall) across the strike. Evaluation drillholes are placed at 7.5m centres into the hanging wall and footwall to complete the delineation of the orebody. While the accuracy of sludge sampling is debatable, it is considered to give a reliable indication of mineralisation. By the nature of the sampling methodologies the roof chip sampling and sampling of the evaluation drillholes would appear to have a higher confidence than the sludge sampling. However, an analysis of the different sample types has shown a minor decrease in grade (per orebody) with the inclusion of the sludge samples. This is expected as the sludge samples are taken at the periphery of the orebodies to tests the limits of the orebody of acceptable grade. Exclusion of these sludge samples would result in local over estimation as these sludge samples often record the transition from high grade to low grade. In the case of the underground chip sampling the high volume of samples reduces the impact of isolated sampling inaccuracies.

No recent trench, soil sampling or geophysics has been performed and is not considered during geological modelling or Mineral Resource estimation.

## Item 9 (b) Sampling Methods and Sample Quality

Blanket is an operational mine. Only underground Mineral Resource estimation and exploration drilling are currently undertaken.

## Item 9 (c) Sample Data

Only ongoing underground drilling is currently undertaken at Blanket Mine.

## Item 9 (d) Results and Interpretation of Exploration Information

The results of the exploration holes, once checked and validated, were included into the existing database to inform the geological modelling process as well as Mineral Resource estimation.

# ITEM 10 DRILLING

## Item 10 (a) Type and Extent of Drilling

Blanket Mine carries out both exploration drilling; deep-level drilling to extend resources down-dip below current development, and evaluation drilling; near-horizontal short hole drilling along development that is used to define the edges of the grade shell.

Underground mining infrastructure in the form of development drives at 15m vertical intervals within the orebody is required in order to achieve the required spacing of 7.5m along strike by 15m down-dip for the Measured Mineral Resource category. Evaluation drilling is normally only applicable to wider DSR orebodies, while Quartz Reef orebodies are either fully exposed by the actual development drives or can be fully evaluated with sludge holes where required to check for mineralisation in the immediate hanging wall or footwall.

A summary of evaluation drilling parameters and procedures is as follows:

- Sub-level drives are mined within the orebodies along strike at 15m vertical intervals. Drill cubbies are developed every 7.5m for evaluation drilling.
- Planned hole collar set up information is provided by the geologist. Holes are drilled into the hanging wall and footwall of the development drive to establish the extent of the mineralisation. Holes are normally horizontal and drilled perpendicular to strike. Holes are drilled using an air driven “meter eater” machine with an Axt drill bit producing 30.5mm diameter core.
- Drilling and core are monitored by the geologist and geotechnician with checking to ensure core obtained attains a recovery of at least 95%. Hole is stopped based on geological observations.
- Hole collar coordinates, azimuth and dip is surveyed (usually when hole is completed, and rig is off the hole using a drill rod inserted into the hole). Hole number is recorded by painting on the sidewall.
- Handling and processing of core follows a similar procedure as for exploration core as detailed above. However, for evaluation holes whole core is sampled.
- Core is packed into 1m long closable core trays as it is recovered from the hole with blocks indicating the depth placed at the end of each ‘run’ for each 3-meter drill rod. Core trays are kept secure and guarded against mixing.
- All core boxes are transported to the core yard at the end of the drilling shift where their receipt is entered into a logbook.
- Core is carefully repacked into 1.5m long core trays. Drill core is checked as orientated and assembled to ensure that all pieces fit, and that orientation lines are consistent. The drillhole identification number and box number are clearly marked onto the upper left side and face of each core tray.
- Core boxes are laid out in the correct sequence.
- Core recoveries are measured between drill depth markings by the geologist or geotechnician to record the core recovery. The complete length of the hole is metre marked.
- RQD measurements are recorded by the geotechnician.
- Core is photographed wet using the ScanIT system.
- Logging of core is carried out by the geologist.
- Mineralised zones are identified and selected for sampling. Sample boundaries are marked at 0.6m intervals in nearly homogeneous mineralised zones. Selective sampling intervals are employed on mineralised units with unique features, e.g. colour, concentration of mineralisation, alteration and mineralogy.

- Whole core is sampled. SG measurements are carried out for each sample prior to bagging and submission to mine laboratory for sample preparation and assay (blanks and CRMs are inserted into the sample sequence at this point).
- On receipt of assays, QAQC is carried out. Information for channel and sludge samples is both processed digitally and spatially checked by means of manual plots and sample assay capture sheets.
- 1:250 scale survey plans are generated as 'base plans' for assay, stope assay and geology plans for each 15 meter sub-level.
- Drill assay information is plotted manually on 1:250 scale assay plans for every 15-meter sub-level. Assay plans also record the chip and sludge sampling on the surveyed development and are the basis for orebody delineation in conjunction with the geology plans (stope assay plans are generated to show stoping progress and stope assays).
- Geological information for evaluation holes is plotted manually on 1:250 scale geology plans for every 15m level. Geological plans provide the context of the mineralisation and validation of orebody shapes and structural discontinuities.

Results of the long hole exploration drilling, published on July 10, 2023, and January 30, 2024, intersected wider orebodies with better grade than initially expected. These expectations were derived from the 2022 resource modelling as targets for the drilling programs. The drillhole results are provided in Table 13 and the drillhole information in Table 14.

*Table 13: Long Hole Deep Drilling Results at Blanket (2022 - 2023)*

| Holes Identifier | Orebody Name | Orebody Intersection | | Core Length (m) | True width (m) | Grade (g/t) | Orebody Intersection depth from surface (m) | E.O.H (m) |
|---|---|---|---|---|---|---|---|---|
| | | From (m) | To (m) | | | | | |
| ERC750EX2307 | ERCN_HW | 330.45 | 332.25 | 1.80 | 1.50 | 0.72 | 1082.25 | 356.25 |
| ERC750EX2308 | ERCN_HW | 302.60 | 306.80 | 4.20 | 3.50 | 5.97 | 1056.80 | 392.40 |
| ERC750EX2308 | ERCN_FW | 350.00 | 358.40 | 8.40 | 5.80 | 4.95 | 1108.40 | 392.40 |
| ERC750EX2309 | ERCN_HW | 304.80 | 307.80 | 3.00 | 1.66 | 3.62 | 1057.80 | 347.40 |
| ERC750EX2310 | ERCN_HW | 303.60 | 304.20 | 0.60 | 0.48 | 5.49 | 1054.20 | 324.50 |
| ERC750EX2312 | ERC _South | | | Traces | | | | 287.20 |
| ERC750EX2313 | ERC _South | | | Traces | | | | 279.60 |
| BLK870EX2301 | BLK4_5 | 38.20 | 50.20 | 12.00 | 3.58 | 5.10 | 920.20 | 287.40 |
| BLK870EX2302 | BLK4_5 | 34.10 | 40.10 | 6.00 | 3.92 | 7.46 | 910.10 | 272.30 |
| BLK870EX2303 | BLK4_5 | 28.60 | 39.40 | 10.80 | 4.27 | 8.80 | 909.40 | 272.20 |
| BLK870EX2303 | BLK2FW | 241.00 | 242.80 | 1.80 | 1.27 | 4.35 | 1112.80 | 275.50 |
| BLK870EX2304 | BLK4_5 | 26.20 | 40.60 | 14.40 | 7.74 | 4.14 | 910.60 | 275.50 |
| BLK 930EX2301 | BQR_HW | 148.60 | 152.80 | 4.20 | 5.12 | 2.85 | 1082.80 | 299.20 |
| BLK 930EX2301 | BLK3HW | 220.60 | 226.00 | 5.40 | 4.39 | 4.41 | 1156.00 | 299.20 |
| BLK 930EX2302 | BQR_HW | 130.60 | 133.00 | 2.40 | 1.86 | 2.42 | 1063.00 | 299.20 |
| BLK 930EX2303 | BQR_HW | 134.30 | 139.10 | 4.80 | 3.20 | 2.39 | 1069.10 | 233.30 |
| BLK 930EX2304 | BQR_HW | 205.70 | 219.50 | 13.80 | 8.32 | 3.63 | 1149.50 | 251.30 |
| BLK 930EX2305 | BQR_HW | 197.90 | 209.30 | 11.40 | 7.69 | 3.99 | 1139.30 | 259.30 |
| BLK 930EX2305 | BLK1HW | 230.30 | 255.30 | 25.00 | 16.69 | 3.16 | 1185.30 | 259.30 |
| BLK 930EX2306 | BQR_HW | 170.90 | 179.90 | 9.00 | 4.02 | 5.38 | 1109.90 | 275.30 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BLK 930EX2306 | BLK2HW | 181.10 | 203.30 | 22.20 | 8.18 | 3.75 | 1133.30 | 275.30 |
| BLK 930EX2307 | BQR_HW | 157.80 | 169.80 | 12.00 | 6.57 | 4.05 | 1099.80 | 259.30 |
| BLK 930EX2308 | BQR_HW | 176.03 | 200.63 | 24.60 | 13.33 | 5.92 | 1130.63 | 304.25 |
| BLK 930EX2309 | BQR_HW | 205.00 | 210.40 | 5.40 | 2.24 | 12.44 | 1140.40 | 287.30 |
| BLK 930EX2310 | BQR_HW | 165.10 | 170.50 | 5.40 | 3.01 | 10.02 | 1100.50 | 293.50 |
| BLK 930EX2310 | BLK2HW | 181.30 | 217.30 | 36.00 | 16.31 | 6.12 | 1147.30 | 293.50 |
| BLK 930EX2311 | BQR_HW | 247.90 | 261.10 | 13.20 | 6.97 | 4.28 | 1191.10 | 293.40 |
| BLK 930EX2313 | BQR_HW | 152.00 | 159.80 | 7.80 | 4.43 | 2.23 | 1089.80 | 312.95 |
| BLK 930EX2313 | BLK2HW | 202.40 | 238.40 | 36.00 | 20.56 | 2.90 | 1168.40 | 312.95 |
| ARS1110EX2301 | BQR | 3.00 | 9.00 | 6.00 | 4.16 | 4.23 | 1119.00 | 158.20 |
| ARS1110EX2301 | BLK1HW | 104.20 | 106.60 | 2.40 | 1.70 | 4.48 | 1216.60 | 158.30 |
| ARS1110EX2302 | BQR | 6.00 | 12.00 | 6.00 | 4.44 | 7.15 | 1122.00 | 158.30 |
| ARS1110EX2302 | BLK1HW | 43.80 | 61.20 | 17.40 | 12.37 | 8.76 | 1171.20 | 158.20 |
| ARS1110EX2303 | BQR | 6.00 | 9.00 | 3.00 | 2.09 | 8.29 | 1119.00 | 149.00 |
| ARS1110EX2303 | BLK1HW | 25.20 | 32.20 | 7.00 | 3.36 | 5.27 | 1142.20 | 149.00 |
| ARS1110EX2304 | BQR | 3.00 | 18.00 | 15.00 | 8.22 | 3.62 | 1128.00 | 161.00 |
| ARS1110EX2304 | BLK1HW | 65.00 | 78.80 | 13.80 | 7.15 | 6.45 | 1188.80 | 161.00 |
| ERC750EX2201 | ERCN_HW | 183.5 | 193.7 | 10.2 | 7.11 | 4.23 | 812.7 | 248.3 |
| ERC750EX2202 | ERCN_HW | 170.4 | 177 | 6.6 | 6.29 | 1.96 | 810.1 | 254.4 |
| ERC750EX2202 | ERCN_FW | 212.4 | 226.8 | 14.4 | 9.17 | 2.7 | 853.1 | 254.4 |
| ERC750EX2203 | ERCN_HW | 204.45 | 221.45 | 17 | 10.36 | 2.82 | 841.4 | 260.3 |
| ERC750EX2204 | ERCN_HW | 224.95 | 272.95 | 48 | 30.25 | 2.79 | 896.1 | 308.4 |
| ERC750EX2205 | ERCN_HW | 208.3 | 232.9 | 24.6 | 13.48 | 3.63 | 871.1 | 290.5 |
| ERC750EX2205 | ERCN_FW | 268.3 | 272.5 | 4.2 | 2.4 | 3.11 | 922.5 | 290.5 |
| ERC750EX2206 | ERCN_HW | 203.9 | 246.5 | 42.6 | 22.32 | 4.03 | 870.3 | 281.3 |
| ERC750EX2206 | ERCN_FW | 263.9 | 272.3 | 8.4 | 4.37 | 3.5 | 918.5 | 281.3 |
| ERC750EX2207 | ERCN_HW | 218.9 | 223.5 | 4.6 | 3.06 | 10.33 | 864.9 | 290.3 |
| ERC750EX2208 | ERCN_HW | 200.1 | 214.6 | 14.5 | 8.81 | 9.1 | 852.8 | 278.2 |
| ERC750EX2209 | ERCN_HW | 199.5 | 208.3 | 8.8 | 4.49 | 3.64 | 831.0 | 254.1 |
| ERC750EX2210 | ERCN_HW | 205.65 | 208.65 | 3 | 1.92 | 3.24 | 837.0 | 269.1 |
| ERC750EX2211 | ERCN_HW | 232.1 | 233.9 | 1.8 | 1.26 | 2.17 | 849.4 | 287.1 |
| ERC750EX2212 | ERCN_HW | 229.57 | 231.37 | 1.8 | 0.97 | 1.84 | 830.5 | 271.8 |
| ERC750EX2213 | ERCN_HW | 221.2 | 221.8 | 0.6 | 0.30 | 4.47 | 825.7 | 271.8 |
| ERC750EX2214 | ERCN_HW | 269.13 | 275.73 | 6.6 | 5.78 | 8.18 | 909.1 | 401.3 |
| ERC750EX2214 | ERCN_FW | 294.33 | 308.13 | 13.8 | 8 | 7.7 | 933.1 | 401.3 |
| ERC750EX2215 | ERCN_HW | 299.57 | 303.77 | 4.2 | 3.6 | 2.57 | 932.3 | 382.1 |
| ERC750EX2216 | ERCN_HW | 292.6 | 310.9 | 18.3 | 12.9 | 3.76 | 924.5 | 377.0 |
| ERC750EX2216 | ERCN_FW | 318.4 | 329.6 | 11.2 | 9.2 | 3.88 | 964.1 | 377.0 |
| ERC750EX2301 | ERCN_HW | 263.8 | 281.2 | 17.4 | 13.44 | 6.62 | 914.9 | 352.2 |
| ERC750EX2302 | ERCN_HW | 236.1 | 247.2 | 11.1 | 7.51 | 6.33 | 888.7 | 359.1 |
| ERC750EX2303 | ERCN_HW | 262.7 | 278.3 | 15.6 | 8.6 | 15.56 | 891.4 | 356.3 |
| ERC750EX2305 | ERCN_HW | 293.8 | 296.2 | 1.8 | 4.01 | 0.37 | 923.9 | 365.6 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ERC750EX2306 | ERCN_HW | 237.6 | 242.4 | 4.8 | 3.06 | 2.51 | 869.7 | 350.3 |

*ERCN_HW - Eroica North Hanging wall, ERCN_FW - Eroica North Footwall, ERC_STH - Eroica South, BQR - Blanket Quartz Reef, BLK1HW - Blanket 1 Hanging wall, BLK2HW - Blanket 2 Hanging wall, BLK2FW - Blanket 2 Footwall, BLK3HW - Blanket 3 Hanging wall, BLK4_5 - Blanket 4 and 5, ARS EXT - AR South Extension*

*Table 14: Long Hole Deep Drilling Location and Information at Blanket (2022-2023)*

| Hole Identifier | Azimuth (˚) | Dip (˚) | Drilled Length (m) | UTM Easting (m) | UTM Northing (m) | UTM Elevation (m) |
|---|---|---|---|---|---|---|
| ERC750EX2307 | 31 | - 75 | 356.3 | 697 206.3 | 7 694 516.0 | 388.1 |
| ERC750EX2308 | 89 | - 67 | 392.4 | 697 206.0 | 7 694 516.2 | 388.2 |
| ERC750EX2309 | 124 | - 81 | 374.4 | 697 205.5 | 7 694 512.7 | 388.0 |
| ERC750EX2310 | 118 | - 65 | 324.5 | 697 206.6 | 7 694 512.0 | 388.0 |
| ERC750EX2312 | 150 | - 56 | 287.2 | 697 312.7 | 7 694 284.6 | 387.0 |
| ERC750EX2313 | 141 | - 58 | 204.6 | 697 313.2 | 7 694 285.1 | 387.1 |
| BLK870EX2301 | 65 | - 71 | 287.4 | 698 043.0 | 7 692 507.8 | 263.6 |
| BLK870EX2302 | 45 | - 69 | 272.3 | 698 043.0 | 7 692 508.0 | 263.7 |
| BLK870EX2303 | 28 | - 63 | 272.2 | 698 043.0 | 7 692 508.0 | 263.7 |
| BLK870EX2304 | 12 | - 63 | 275.2 | 698 042.2 | 7 692 508.7 | 263.6 |
| BLK930EX2301 | 37 | - 61 | 299.2 | 697 784.1 | 7 692 827.9 | 206.4 |
| BLK930EX2302 | 81 | - 61 | 275.2 | 697 784.0 | 7 692 830.2 | 206.4 |
| BLK930EX2303 | 76 | - 72 | 233.3 | 697 784.4 | 7 692 826.4 | 206.5 |
| BLK930EX2304 | 28 | - 77 | 251.3 | 697 783.2 | 7 692 829.4 | 206.5 |
| BLK930EX2305 | 23 | - 69 | 259.3 | 697 782.9 | 7 692 829.9 | 206.4 |
| BLK930EX2306 | 127 | - 74 | 275.3 | 697 784.5 | 7 692 825.4 | 206.5 |
| BLK930EX2307 | 35 | - 79 | 272.4 | 697 783.5 | 7 692 828.4 | 206.5 |
| BLK930EX2308 | 122 | - 67 | 304.3 | 697 784.8 | 7 692 825.9 | 206.3 |
| BLK930EX2309 | 133 | - 76 | 287.3 | 697 784.5 | 7 692 825.7 | 206.5 |
| BLK930EX2310 | 85 | - 86 | 293.5 | 697 784.2 | 7 692 825.8 | 206.4 |
| BLK930EX2311 | 21 | - 81 | 293.4 | 697 783.4 | 7 692 828.7 | 206.9 |
| BLK930EX2313 | 25 | - 76 | 313.0 | 697 783.2 | 7 692 829.4 | 206.5 |
| ARS1110EX2301 | 93 | - 64 | 158.2 | 697 765.7 | 7 693 020.3 | 25.4 |
| ARS1110EX2302 | 54 | - 65 | 158.3 | 697 761.5 | 7 693 022.4 | 25.2 |
| ARS1110EX2303 | 10 | - 46 | 149.0 | 697 765.5 | 7 693 022.3 | 25.0 |
| ARS1110EX2304 | 125 | - 44 | 161.0 | 697 765.7 | 7 693 019.1 | 25.8 |
| ERC750EX2201 | 28.68 | -65.74 | 248.3 | 697293.97 | 7694520.35 | 387.24 |
| ERC750EX2202 | 122.15 | -71.33 | 254.4 | 697294.02 | 7694518.55 | 387.28 |
| ERC750EX2203 | 134.01 | -66.13 | 260.25 | 697293.43 | 7694515.39 | 387.22 |
| ERC750EX2205 | 64.65 | -82.27 | 290.5 | 697294.22 | 7694518.74 | 387.20 |
| ERC750EX2206 | 80.24 | -82.13 | 281.3 | 697294.15 | 7694518.38 | 387.23 |
| ERC750EX2207 | 25.10 | -79.18 | 290.3 | 697293.05 | 7694519.71 | 387.15 |
| ERC750EX2204 | 126.73 | -81.37 | 308.35 | 697293.68 | 7694518.23 | 387.21 |
| ERC750EX2208 | 21.35 | -73.80 | 278.2 | 697292.55 | 7694520.03 | 387.25 |
| ERC750EX2209 | 16.83 | -63.62 | 254.1 | 697292.54 | 7694520.35 | 386.94 |

| | | | | | | |
|---|---|---|---|---|---|---|
| ERC750EX2210 | 13.81 | -64.94 | 269.1 | 697292.47 | 7694520.36 | 386.96 |
| ERC750EX2211 | 144.29 | -60.21 | 287.05 | 697292.52 | 7694517.26 | 387.03 |
| ERC750EX2212 | 151.74 | -52.44 | 271.8 | 697292.14 | 7694516.75 | 386.99 |
| ERC750EX2213 | 12.70 | -53.74 | 304.9 | 697291.26 | 7694521.81 | 387.18 |
| ERC750EX2214 | 101.48 | -70.97 | 401.3 | 697206.10 | 7694514.52 | 388.00 |
| ERC750EX2215 | 119.61 | -68.33 | 398.1 | 697206.49 | 7694513.08 | 388.04 |
| ERC750EX2216 | 97.17 | -76.86 | 377.2 | 697206.09 | 7694514.30 | 387.98 |
| ERC750EX2301 | 58.43 | -73.25 | 352.2 | 697205.90 | 7694514.12 | 388.05 |
| ERC750EX2302 | 63.22 | -63.51 | 359.1 | 697206.09 | 7694514.99 | 388.10 |
| ERC750EX2303 | 64.05 | -64.99 | 356.3 | 697206.37 | 7694517.17 | 388.10 |
| ERC750EX2304 | 40.08 | -68.88 | 359.3 | 697205.73 | 7694517.32 | 388.14 |
| ERC750EX2305 | 39.47 | -70.26 | 365.5 | 697205.07 | 7694518.30 | 388.22 |
| ERC750EX2306 | 44.84 | -56.80 | 350.3 | 697206.27 | 7694517.19 | 388.00 |

Access to Blanket Mine premises is controlled by security personnel on the first gate. On the second gate, in addition to security, entry is gained by biometric entry system. Diamond drilling is performed by qualified diamond drillers under the supervision of a diamond drill foreperson. Drilled core is routinely brought to surface to the core shed where it is received and laid down. A qualified geological technician performs geotechnical logging while a qualified geologist logs the core and marks the portions for splitting. The core is split in half along the core axis using an electric core cutter equipped with a diamond saw cutter. The geologist marks the sample intervals, put tickets, insert standards and blanks. One half of the sample is put into a plastic sample bag and sealed with cable ties. The sampling information is entered into the database. The other half of the core is marked with sample intervals and sample numbers and returned to the core box and retained for future reference. The samples are put in marked grain bags and tied with cable ties.

Transportation is by road using mine vehicle to a SADCAS accredited testing laboratory (accreditation number TEST-05 0030) in Kwekwe, some 330km from Blanket Mine. A delivery note is signed as proof of dispatch.

Gold is analysed by a 50 grams fire assay with an Atomic Absorption (AA) finish. The laboratory also has internal quality control ("QC") programs that include insertion of reagent blanks, reference materials, and pulp duplicates.

Blanket Mine inserts QC samples (blanks and reference materials) at regular intervals to monitor laboratory performance. When results are received, the assay results are painted against the sample numbers on the core retained.

## Item 10 (b) Factors Influencing the Accuracy of Results

QAQC data prior to 2014 is not available, and therefore data from before this period is subject to some degree of uncertainty. However, more recent samples do cover the areas being considered adequately, thus higher confidence samples are also informing the areas informed by lower confidence samples and this assists in reducing the uncertainty in the database.

## Item 10 (c) Exploration Properties – Drill Hole Details

This section is not applicable to the Blanket Mine as it is an operating gold mine with sufficient drillhole data and underground sampling to declare a measured and indicated Mineral Resource and a Mineral Reserve.

# ITEM 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

## Item 11 (a) Sample Handling Prior to Dispatch

All sample submissions to the laboratory are accompanied with clear instructions on a sample submission sheet regarding sample preparation and assay methodology. The sample submission sheet contains spaces and selections to accommodate all necessary instructions for the laboratory. Each of the items on the sample submission sheet is discussed below.

Quality assurance and quality control (QAQC) procedures are regularly reviewed to ensure that best practices are followed. The sample preparation and analysis procedures outlined below describe the current information handling as sampling and QAQC data are currently captured into a Microsoft Excel workbook. Samples are not released by the Geology department to the assay laboratory that do not satisfy all the required procedures. Each section geologist is responsible for ensuring that this is done for drilling, channel or sludge samples originating from their underground section. Samples are not accepted for assay by the laboratory if they do not satisfy requirements. In the event of such an occurrence, it is reported to the Geology Manager or the Mineral Resource Manager.

## Item 11 (b) Sample Preparation and Analysis Procedures

All samples are analysed by the Blanket Mine assay laboratory, which is not accredited. The process is broadly as follows:

- The sample is crushed to -10 mm and riffle split to produce a portion of approximately 400 g.
- The 400g portion is pulverised in a Rocklabs ring mill. Blank samples are run in the pulveriser after every 10 samples for channel chip and sludge samples as per normal laboratory procedure. For evaluation holes after every five samples and for exploration holes after every sample.
- Pulp is measured into a crucible. For drill core samples, a new crucible is used for every sample. For other samples, it is acceptable for crucibles to be used multiple times but discarded when cracked or showing signs of absorbed impurities.
- A 50g aliquot is used for all drill core samples. A 25g aliquot is used for channel chip samples and sludge hole samples.
- All samples currently undergo fire assay analysis with gravimetric finish.

## Item 11 (c) Quality Assurance and Quality Control

**Blanks**

Blanks are inserted according to the sample type. For exploration drilling samples, two blanks are inserted for every 36 samples (the number of samples processed in a “batch” at one time in the laboratory). Exploration holes include deep drillholes. Evaluation Holes are holes which are used to define the limits of the orebody, generally at 7.5m spacing along strike. The mass of a blank sample needs to be only slightly higher than the weight of the aliquot (50g for drill core samples and 25g for all other samples). Blanks are prepared in advance in sealable card packets to avoid any contamination. Blanks are inserted into the batch in random positions in the sequence within a mineralised zone. For samples submitted directly to the laboratory by the samplers (sludge and chip samples for both grade control and evaluation), blanks are currently inserted by the laboratory until a new procedure is in place. The blanks utilised are sourced from certified AMIS blank standards. The results for the blanks and standards are monitored on a batch-by-batch basis with the blanks treated separately from the standards.

**Standards**

Standards are inserted according to the sample type. For exploration drilling samples, three standards are inserted for every 36 samples (the number of samples processed at one time in the laboratory and one batch). The mass of the standard needs to be only slightly higher than the weight of the aliquot (50g for drilling samples and 25g for all other samples). Standards are prepared in advance in sealable card packets to avoid contamination. The main purpose of Standards is to check the accuracy of the assay procedure. There are generally three groups of standards - very low grade (±0.41g/t), low grade (±1.74g/t) and high grade (± 3.50g/t). All three types of standards are used and are inserted into the batch in logical positions in the sequence within a mineralised zone. The standard is included in the number sequence, is not labelled as a standard and is not recorded as a standard on the sample submission sheet. For sludge and chip samples which are submitted directly to the laboratory by the samplers (samples for both grade control and evaluation), standards are currently inserted by the laboratory. Standards for drillholes are inserted by the samplers. The results for the standards are monitored on a batch-by-batch basis and on a standard-by-standard basis.

**Duplicates**

Duplicates are split by the laboratory from pulps as per instructions on the sample submission sheet completed by the geologist. Duplicates are requested for exploration drilling samples only. On the sample submission sheet, the sequential number for the duplicate will be excluded from samples submitted on initial submission. In the Sample Source column, the number of the sample from which the duplicate is sourced, is recorded. The splitting of a sample is carried out by the laboratory and the split fraction allocated the new sample number for the duplicate.

**Assessment Of Results**

A QAQC report for each batch is completed and saved (with the name of the batch) on the server. This report includes graphs showing the results for blanks, standards and duplicates and a short statement concluding whether the results are satisfactory or whether a re-assay is required. QAQC sample data is monitored monthly to ensure that sample batches with control sample data outside of acceptable limits are re-submitted for analysis in a timely manner.

*Blanks*

All blanks with values greater than the detection limit are flagged. A decision is then made by the Geology Manager as to whether to re-assay or not. Results for blanks for all batches are compiled into one table on an ongoing basis, so that the general blank results can be monitored. This is done on a quarterly basis and finalised at the end of every quarter. This is done in MS Excel and includes a table indicating Batch Number., Sample Number and Grade (Au g/t), together with a graph depicting the results for all the blanks. If more than one type of blank is used, then this is done separately for each blank. The report is given the name of the blank in question followed by the year and the quarter number (e.g., AMIS0577_2023Q4) and saved on the Mine's computer server.

For 2023, 20 blanks failed out of 166 total blank samples for this standard. Only blank standards from Amis have been utilised for 2023.

*Standards*

Standards with values greater than two standard deviations are flagged. A decision can then be made by the Geology Manager as to whether to re-assay or not. For all batches, the results for each standard are compiled into one table on an ongoing basis, so that the trend and accuracy of each standard can be monitored over time. This is done on a quarterly basis and finalised at the end of every quarter. This is done in MS Excel and includes a table together with a graph depicting all the results for that standard. A separate report is done for each standard. The report is given the name of the standard in question followed by the year and the quarter number (e.g., AMIS0797_2023Q4) and saved on the Mine's computer server. During the period 2023, eleven different standards were utilised (Table 15), the standards used are representative of the grade seen at Blanket and are thus suitable for QAQC purposes. The standards are sourced from Greenstone belts in South Africa. Care must be taken when selecting samples to ensure the standards relevant to the expected grade is used, particularly as the grade will differ slightly from orebody to orebody.

*Table 15: Standards Utilised at Blanket Mine in 2023*

| Standards | Expected value (g/t) | Count |
|---|---|---|
| AMIS0748 | 1.38 | 34 |
| AMIS0519 | 1.61 | 14 |
| AMIS0718 | 1.33 | 23 |
| AMIS0798 | 11.16 | 9 |
| AMIS0791 | 2.11 | 21 |
| AMIS0790 | 1.52 | 46 |
| AMIS0724 | 2.38 | 72 |
| AMIS0772 | 0.37 | 35 |
| AMIS0792 | 3.55 | 129 |
| AMIS0796 | 3.73 | 22 |
| AMIS0797 | 4.87 | 10 |

The three most used standards for this period are addressed in more detail. AMIS 0792 is shown in Figure 27 versus the expected value. This is a high-grade standard with an expected grade of 3.55g/t. 129 standards were used and 112 fell within accepted two standard deviation range to make a pass rate of 86.8%.

When testing AMIS0790 (Figure 28), 8 out of 46 samples analysed failed the two-standard deviation (2SD). This represents a 82.6% pass rate. The expected grade for AMIS0790 is 1.52g/t. All the samples that failed were below the limits of 2SD.

Seventy-two of AMIS0724 with an expected value of 2.38g/t were analysed in 2023 (Figure 29). This is a low-grade standard. The pass rate was good. Only 9 out of the 72 samples failed making a 87.5% pass rate.

*Figure 27: AMIS0792 Analysed Results vs. Expected Results*

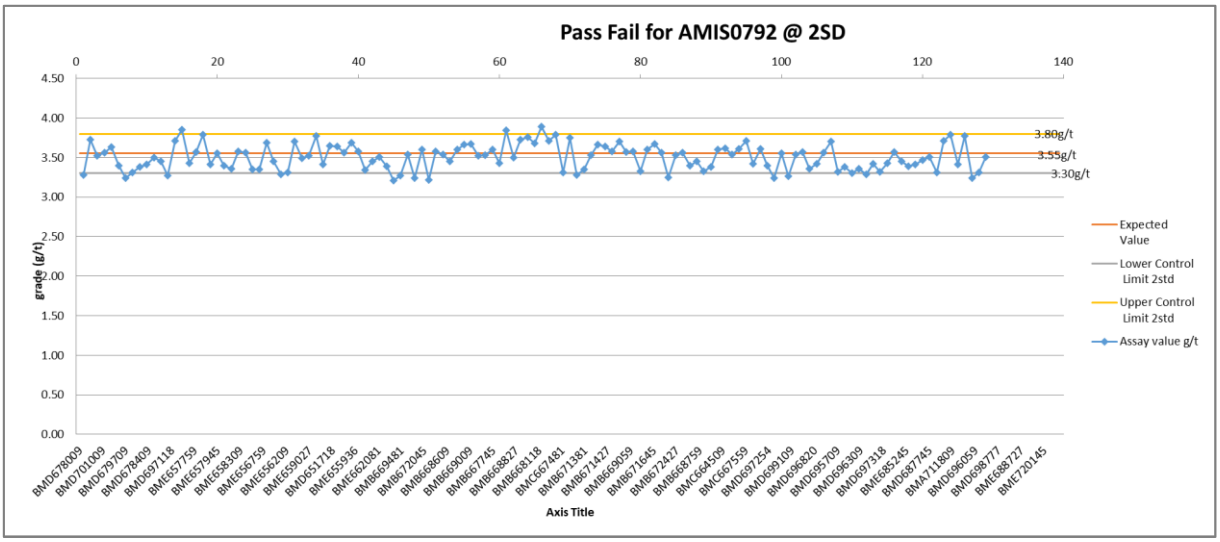



*Figure 28: AMIS0790 Analysed Results vs. Expected Results*

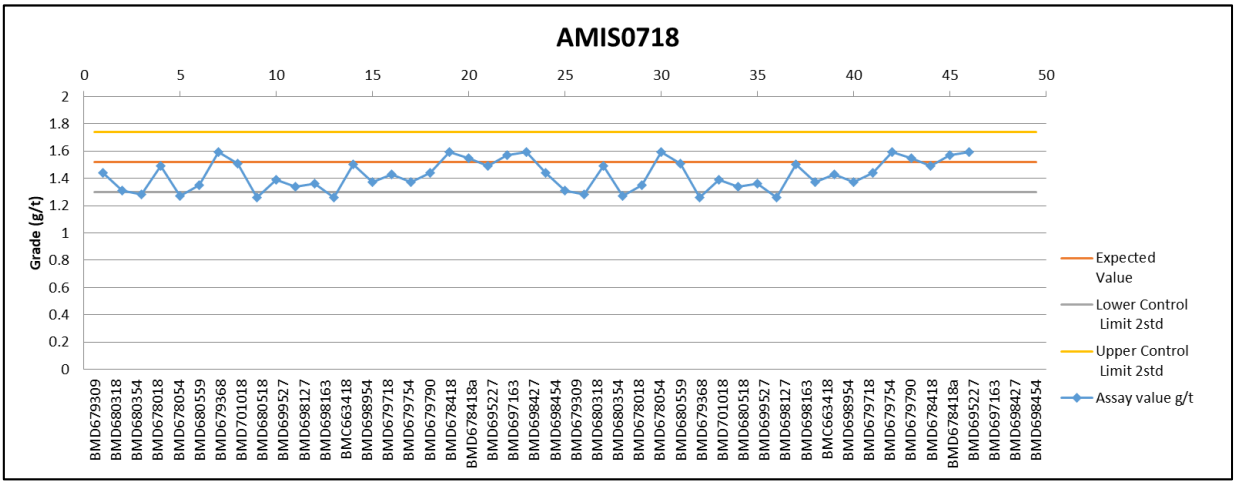
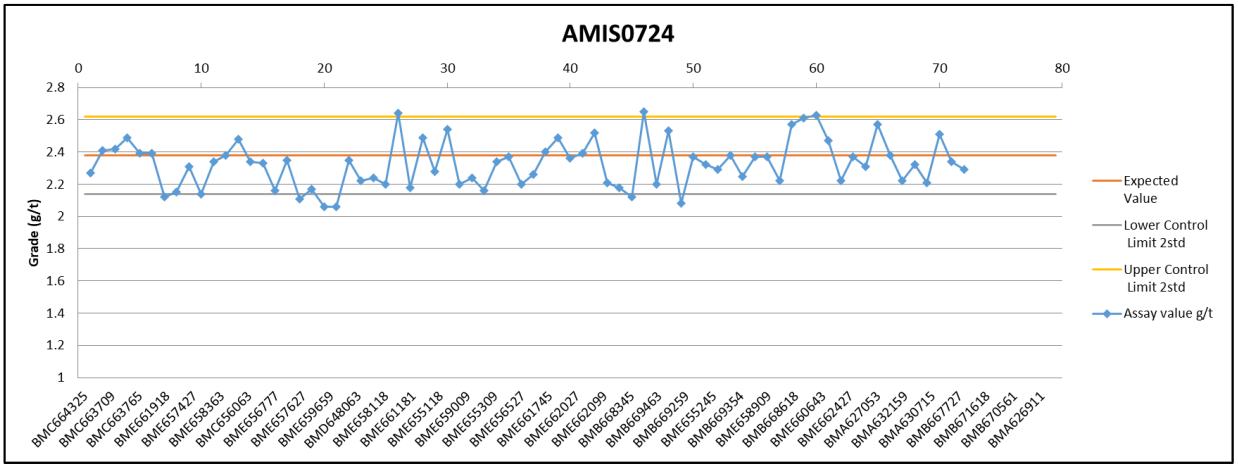



*Figure 29: AMIS0724 Analysed Results vs. Expected Result*



It is recommended that follow up activities are undertaken to identify the source of these failures in the standards and to ascertain if this results from laboratory procedures or sampling activities. In addition, duplicates of the various stages of the sampling and analyses process can be taken. Field duplicates (in the core yard), course duplicates (following crushing) as well as pulp duplicates (following pulverisation). This will eliminate any sources of contamination or identify the potential problem areas.

Where dense sampling exists (Reserve areas), the effect of this is minimised. However, where a larger area is informed by only one or two drillholes (Inferred or Target areas), any uncertainty would have a larger influence. For this reason, QAQC procedures should be stricter for exploration holes and any failures in QAQC followed up with re-assays as well as umpire assays. The mine procedures with regards to inclusion or exclusion of samples due to QAQC results must be implemented to ensure these failures are considered during the course of QAQC.

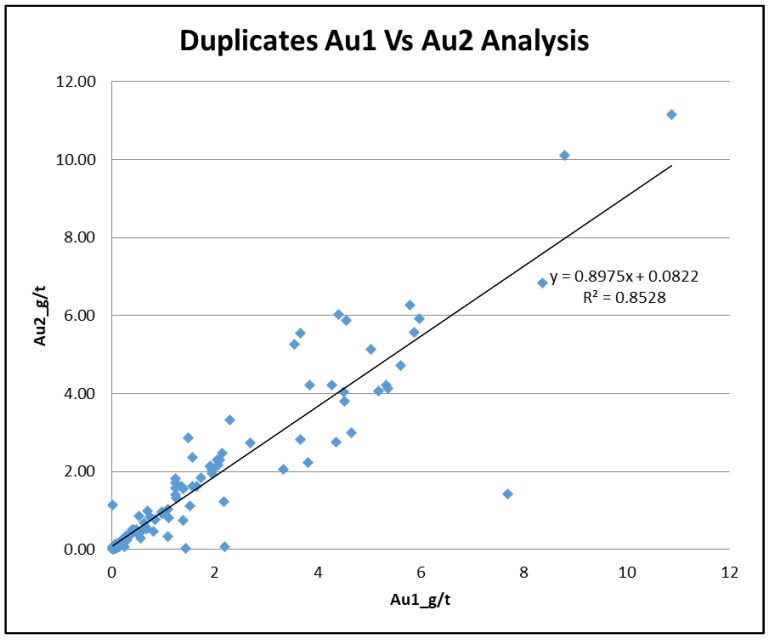
Due to the high sample density the effects of these inconsistencies in results will be minimised, however this accuracy and repeatability of results and standards is most important for exploration areas where one drillhole informs a large area. A focussed study of the QAQC of these exploration holes is recommended.

*Duplicates*

Duplicate results are plotted against each other, and poor correlations are flagged by the QAQC geologist. Appropriate action is then taken when failures are identified. Results for all duplicates for all batches are compiled into one table on an ongoing basis, so that the overall repeatability of duplicates can be monitored. This is done on a quarterly basis and finalised at the end of every quarter. This is done in MS Excel and includes a table indicating Batch Number, Sample Number, Grade (Au g/t), Duplicate Number. and Duplicate Au g/t, together with a XY correlation graph showing all of the results for all the duplicates. The report is given the name "Duplicates" followed by the year and the quarter number and saved on the Mine's computer server.

An example of duplicates for the year 2023 is shown in Figure 30. A good reproducibility of results is seen between the lower grade samples (<4g/t), with some outliers and a bias towards a higher grade in the original samples above 4g/t.

*Figure 30: Duplicate Results for 2023*



**Umpire Analyses**

Umpire analysis and round robins are being run by the assay lab. For umpire analysis, comparison is being made with Zim Labs. Below (Figure 31) is the scatter plot for batches run in 2023. The sample materials comprising of Carbons, plant samples comprising of plant feed (M1s), C.I.L feed (M3s), and C.I.L tails (RM10), geology samples and CRM to check Zim Labs accuracy. The method used for assay by Blanket mine lab was Fire assay method with gravimetric finish and Zimlabs used Fire assay method with AAS finish.

Round robins are run among Turk Mine, How Mine, DGL 5 Mine and Blanket Mine. The comparison is showing a good correlation (Figure 32).

It was noted that the high-grade samples fall outside the confidence limit while the low-grade samples are within range.

*Figure 31: Comparison of Results with Zim Labs*

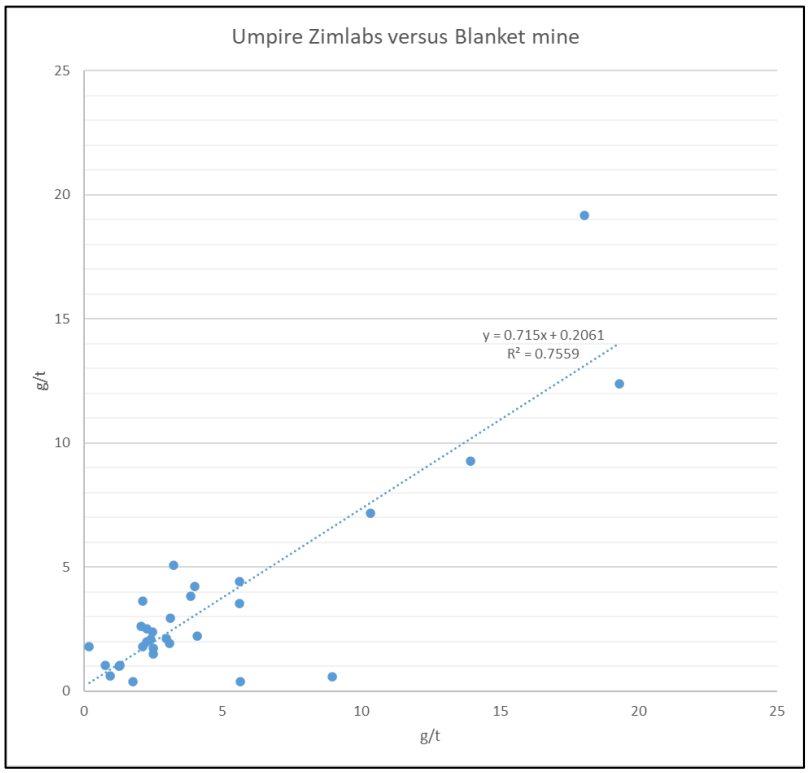
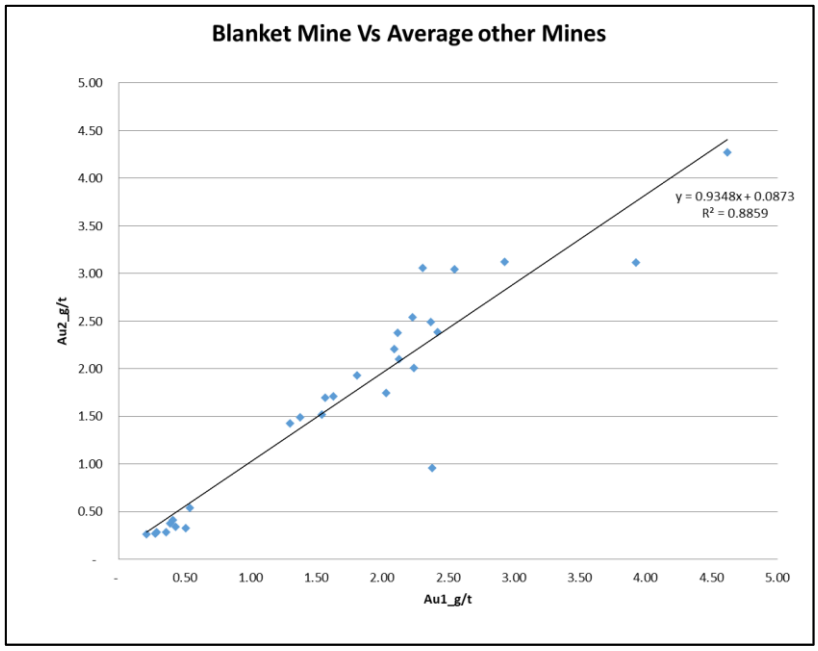


*Figure 32: Results of Round Robin*




**Storage of Pulps**

According to mine procedure, pulps are retained for all drill core samples (both evaluation holes and exploration holes). They are collected by Geology and stored at the facility at the Exploration department offices. Pulps are stored in strong, sealed boxes clearly labelled with the drillhole name, batch number and sample numbers.

**Storage of Coarse Rejects**

Mine procedure is to retain all coarse rejects for all exploration drill core samples. They are collected by Geology and stored at the facility at the Exploration department offices.

## Item 11 (d) Adequacy of Sample Preparation

Even though the mine laboratory is not accredited, a high standard is maintained with good level of housekeeping apparent. Standards and blanks are run as part of the routine procedures. Blind checks are done within a batch of a single sample. If any internal laboratory quality control fails, the batch is repeated automatically.

In addition, as part of its external verification process the mine laboratory sends samples away to Antec laboratory, Duration gold laboratory, Zimlabs, Turk Mine laboratory and Performance Laboratories (accredited), to test their precision and accuracy. The results of the internal laboratory standards were viewed and are within acceptable limits, with minor failures.

An in-house system for sample receipt and sample tracking has been implemented on the mine since 2019. This is to be improved during 2024 with the introduction of a Laboratory Information Management System ("LIMS") which tracks samples from inception to result stage and which can be tracked at any stage up to approval and acceptance to the sample database. This will significantly improve the analytical system and improve the accuracy and tracking of samples in the laboratory.

The sample preparation methodology is considered adequate for Mineral Resource estimation purposes given the good correlation between planned production grades and actual recovered grades in the plant. A further inspection of the mine laboratory by an independent consultant Mr Jeremy Eliot was conducted in June 2016. Conclusions were similar in that improvements could be made, but, overall, the facilities and processes were of a satisfactory standard.

# ITEM 12 DATA VERIFICATION

## Item 12 (a) Data Verification Procedures

Caledonia Mining Plc has reviewed all data types including sampling, orebody wireframes and depletions.

In general, there are four types of samples considered at Blanket.

These are as follows:

- channel "chip" samples (evaluation and grade control);
- sludge hole samples (evaluation and grade control);
- grab samples (grade control);
- evaluation drill core samples; and
- exploration drill core samples.

The evaluation holes were used to define the limits of the orebody, generally at 7.5 m spacing along strike. All other holes are defined as exploration holes.

**Database Validation**

Standard validations were performed on the database to check for errors. Records with identified errors were returned to Blanket Mine for checking and rectification and a final database was returned. The count of database records by year are summarised in Table 16 and by sample type in Table 17.

*Table 16: Sample Database Summarised by Year*

| Year | Total Number of Hole Identifiers |
|---|---|
| Up to 2010 | 13 502 |
| 2011-2020 | 36 873 |
| 2021-2023 | 46 908 |
| **Total** | **97 283** |

For the purposes of estimation, stope and trench samples were excluded from the database. All other hole types were used. Illegible assay values in the capture of historical data are marked as such in the database. For resource estimation purposes, all values with multi decimal low grades were assigned a value equal to half the detection limit (0.0025 g/t), if below the half detection limit. Assigning a 0.0025 g/t value for these intervals is a conservative approach, as the low-grade values form part of the estimation dataset. Alternatively, if these intervals are removed, a possible overestimation may occur from neighbouring high-grade samples.

*Table 17: Sample Database Summarised by Drillhole Type*

| Hole Type | Total Number of Samples | Total Number of ID's |
|---|---|---|
| Channel | 222 369 | 54 859 |
| Evaluation | 211 667 | 5 771 |
| Sludge | 72 198 | 32 351 |
| Exploration | 40 224 | 765 |
| Stope | 30 295 | 3 512 |
| Trench | 1 473 | 25 |

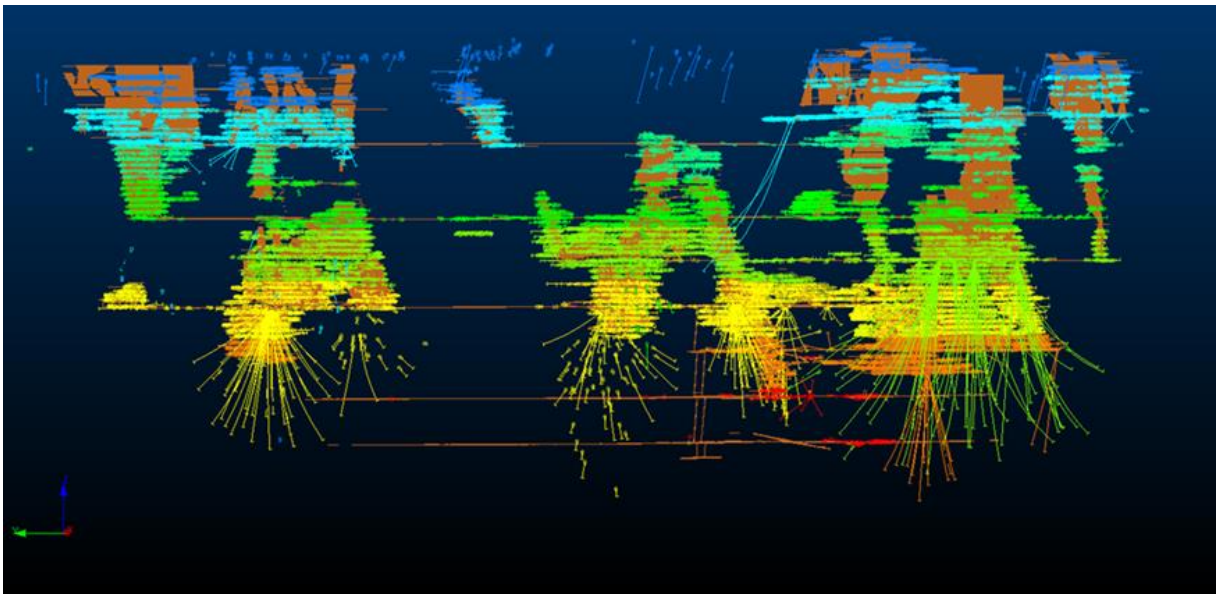
| | | |
|---|---|---|
| **Total** | **578 226** | **97 283** |

All samples noted here include the total database within and outside the orebodies. The individual samples used and clipped per domain is addressed in following sections. The total valid database is shown in Table 18. The total database for Blanket Mine is illustrated in Figure 33. Sludge and channel samples as well as evaluation drillholes are typically located in mining areas, while exploration holes are long, deep drillholes used to inform new areas.

*Table 18: Hole and Sample Count*

| Table | Total Number of ID's | Number of Individual Records |
|---|---|---|
| Collar | 97 283 | 97 283 |
| Survey | 97 283 | 294 110 |
| Assay | 97 283 | 578 224 |

*Figure 33: Long Section of Blanket Mine Showing the Total Database*



## Item 12 (b) Limitations on/Failure to Conduct Data Verification

The data capturing process has been reviewed. All relevant QAQC procedures and error checks were performed on the data.

## Item 12 (c) Adequacy of Data

The QP deems the data to be adequate for the purposes of conducting meaningful Mineral Resource estimations with appropriate Mineral Resource classification in accordance with the guidance as described by NI 43-101. Proof of this statement is validated by the fact that the mine has operated successfully for several years using the current Mineral Resource estimation systems with good historical conversion rates for Inferred Mineral Resources to Indicated and then on to Measured. The QP is of the opinion that the sampling database is acceptable for the Mineral Resource estimation methodology being utilised at the Blanket Mine because of the volume of sampling data and that the mine has been in operation for several years with historical gold recoveries around 3 g/t.

# ITEM 13 MINERAL PROCESSING AND METALLURGICAL TESTING

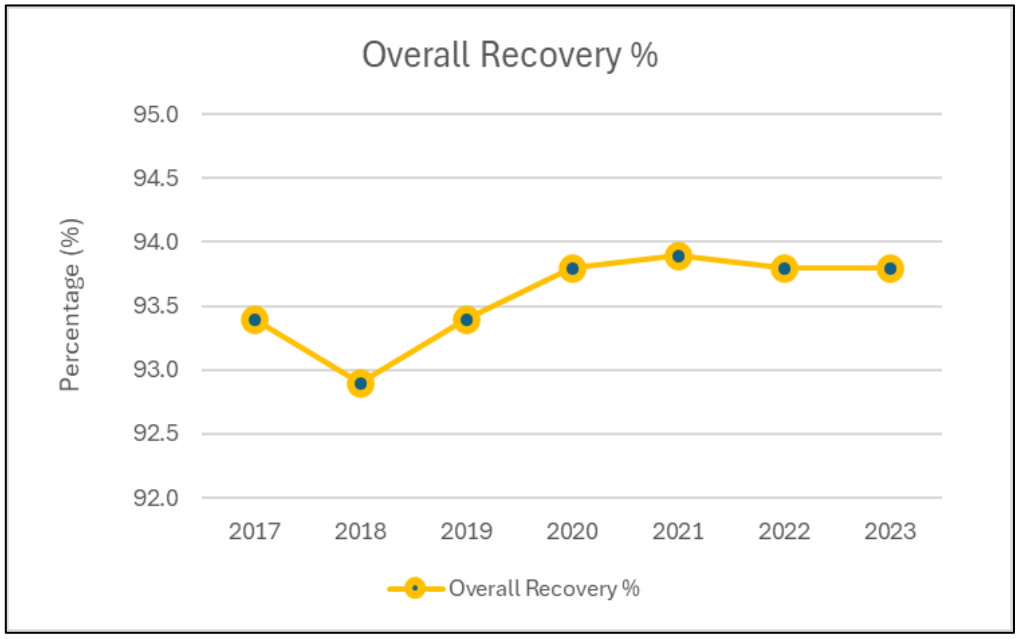
## Item 13 (a) Nature and Extent of Testing and Analytical Procedures

The plant currently treats RoM from the main orebodies. The ore is free milling, and the mineralogy has not changed to a significant degree. Sufficient information from historic production exists to determine the expected production performance with reasonable confidence.

## Item 13 (b) Basis of Assumptions Regarding Recovery Estimates

The expected processing efficiencies are based on historic production, and these are well in line with the budget as seen in Figure 34. The budgeted recovery of 93.8% for 2024 can be assumed to continue and was used for the financial analysis.

*Figure 34: Achieved Recovery and Budget from 2017 to 2023*




***Source** : Blanket Mine*

## Item 13 (c) Representativeness of Samples

The samples measured from historic production are considered reliable and representative. As a result, they can be used to adequately predict future performance.

## Item 13 (d) Deleterious Elements for Extraction

The arsenopyrite content of RoM material currently being treated from Blanket Mine is sufficiently low enough not to pose a risk to economic extraction and deposition of tailings.

Blanket ores are free milling in that 93% of the gold is recovered via direct cyanidation with a further 1% achievable with the use of oxygen pre-treatment injection methods. Arsenic therefore reports to the mine residue deposit in the form of undecomposed arsenopyrite, constituting less than 1% of the ore. The ore contains approximately 35% carbonate minerals which results in the tailings having an alkaline chemistry which inhibits the decomposition of arsenopyrite which is not exposed to the atmosphere. Rainwater run-off from the tailings dam is channelled within bund walls to a sump from where it is returned to the plant as makeup water.

Blanket will be undertaking a pilot plant test work programme on the other more-refractory Mineral Deposits not currently being mined which may have a higher arsenopyrite content. Continuous testing and analysing of arsenic and other potential deleterious elements will be conducted as part of this test programme. Appropriate neutralisation steps will be included in the process design as required.

# ITEM 14 MINERAL RESOURCE ESTIMATES

## Item 14 (a) Assumptions, Parameters and Methods Used for Resource Estimates

**Mineral Resource Estimation Procedures**

*Database Compilation*

The compilation of the database is comprehensively discussed in Item 12 of this Report.

*Geological Modelling*

The construction of the geological models is comprehensively discussed in Item 8 (b) of this Report.

*Statistical Analysis*

Detailed statistics comparing the 2022 and 2023 composite datasets is documented in Table 19. An additional 57 990 composite samples were added between 2022 and 2023, representing a 33% increase in data and shown visually in Figure 35. Data changes affected all orebodies, with major changes being made to BLK1_FW, BLK2_FW, BQR_FW and LIMA_FW. The data changes are due to new sampling, and changes in orebody wireframes mainly due the results of the Long Hole Exploration drilling program. Of note is the 29% overall increase in the average composite grades of the mineralised domains. Figure 36 provides details of data changes per orebody domain.

*Table 19: Statistics for All Domains.*

| Zone Code | Domain | 2022 | | | | 2023 | | | | Change (2022 vs 2023) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Valid Composited Samples | Maximum | Average | Std. Dev | Valid Composited Samples | Maximum | Average | Std. Dev | Valid Samples | Sample Increase | Average | Grade Increase |
| | | | g/t | g/t | | | g/t | g/t | | | % | g/t | % |
| 1.1 | ARM | 31504 | 604.0 | 3.1 | 5.7 | 28781 | 604.0 | 3.4 | 6.1 | -2723 | -9% | 0.3 | 9% |
| 1.2 | ARM_ABV_DYK | 1747 | 35.0 | 3.0 | 3.3 | 143 | 39.1 | 2.7 | 4.3 | -1604 | -92% | -0.4 | -12% |
| 1.3 | ARM_480_615mL | | | | | 9015 | 304.0 | 3.6 | 6.3 | 9015 | 0% | 3.6 | 0% |
| 1.4 | ARM_FFW1 | | | | | 234 | 15.6 | 1.8 | 2.7 | 234 | 0% | 1.8 | 0% |
| 1.5 | ARM_FFW2 | 13174 | 172.0 | 1.5 | 3.5 | 310 | 45.1 | 2.4 | 4.9 | -12864 | -98% | 0.9 | 57% |
| 1.6 | ARM_WASTE | 9599 | 43.0 | 0.6 | 1.4 | 9448 | 43.1 | 0.8 | 1.8 | -151 | -2% | 0.2 | 40% |
| **AR Main** | | **56024** | | **2.3** | | **47931** | | **2.9** | | **-8093** | **-14%** | **0.6** | **26%** |
| 2.1 | ARS_EWL | 31068 | 436.0 | 4.5 | 7.5 | 33095 | 435.6 | 5.0 | 7.7 | 2027 | 7% | 0.5 | 10% |
| 2.2 | ARS_FW | | | | | 119 | 35.3 | 4.4 | 6.4 | 119 | 0% | 4.4 | 0% |
| 2.3 | ARS_HW | 1747 | 35.0 | 3.0 | 3.3 | 2510 | 39.9 | 2.9 | 3.3 | 763 | 44% | -0.1 | -4% |
| 2.4 | ARS_NSL | 5821 | 98.0 | 2.9 | 4.3 | 5159 | 97.6 | 3.3 | 4.5 | -662 | -11% | 0.4 | 14% |
| **AR South** | | **38636** | | **4.2** | | **40883** | | **4.6** | | **2247** | **6%** | **0.4** | **11%** |
| 3.1 | ARS_EXT | 272 | 37.8 | 2.2 | 4.0 | 307 | 40.2 | 2.3 | 4.7 | 35 | 13% | 0.2 | 7% |
| 3.2 | ARS_EXT_990mL | | | | | 549 | 39.3 | 1.1 | 2.8 | 549 | 0% | 1.1 | 0% |
| **ARS South Ext** | | **272** | | **2.2** | | **856** | | **1.6** | | **584** | **215%** | **-0.6** | **-28%** |
| 4.1 | BF_FW | 3696 | 200.0 | 3.9 | 7.6 | 1053 | 118.9 | 3.6 | 7.2 | -2643 | -72% | -0.2 | -6% |
| 4.2 | BF_HW | | | | | 4562 | 200.0 | 3.7 | 6.9 | 4562 | 0% | 3.7 | 0% |
| **Blanket Feudal** | | **3696** | | **3.9** | | **5615** | | **3.7** | | **1919** | **52%** | **-0.1** | **-4%** |
| 5.1 | BLK1_FW | 1596 | 41.1 | 1.1 | 2.8 | 5622 | 272.8 | 6.6 | 10.8 | 4026 | 252% | 5.4 | 481% |
| 5.2 | BLK1_HW | | | | | 1376 | 82.9 | 1.1 | 3.8 | 1376 | 0% | 1.1 | 0% |
| 5.3 | BLK1_HWN | | | | | 1364 | 115.7 | 2.0 | 4.9 | 1364 | 0% | 2.0 | 0% |
| **Blanket 1** | | **1596** | | **1.1** | | **8362** | | **4.9** | | **6766** | **424%** | **3.8** | **334%** |
| 6.1 | BLK2_FW | 2195 | 116.7 | 3.2 | 4.2 | 7271 | 235.0 | 4.8 | 8.2 | 5076 | 231% | 1.6 | 51% |
| 6.2 | BLK2_HW | 6842 | 111.7 | 4.0 | 5.2 | 8756 | 1334.6 | 5.4 | 17.3 | 1914 | 28% | 1.4 | 36% |
| 6.3 | BLK2_HW_LG | 87 | 0.0 | 0.0 | 0.0 | 45 | 0.0 | 0.0 | - | -42 | -48% | 0.0 | -17% |
| **Blanket 2** | | **9124** | | **3.7** | | **16072** | | **5.1** | | **6948** | **76%** | **1.4** | **37%** |
| 7.1 | BLK3_FW | 1920 | 70.7 | 2.8 | 4.0 | 2623 | 132.6 | 4.3 | 7.1 | 703 | 37% | 1.5 | 53% |
| 7.2 | BLK3_HW | | | | | 2563 | 71.3 | 2.8 | 4.5 | 2563 | 0% | 2.8 | 0% |
| **Blanket 3** | | **1920** | | **2.8** | | **5186** | | **3.5** | | **3266** | **170%** | **0.8** | **27%** |
| 8.1 | BLK45_FW(inc 5) | 1949 | 84.6 | 3.7 | 6.5 | 12074 | 274.5 | 4.9 | 7.0 | 10650 | 748% | 1.3 | 34% |
| 8.2 | BLK45_HW | 4756 | 667.6 | 4.0 | 12.4 | 5639 | 505.3 | 4.1 | 11.3 | 883 | 19% | 0.1 | 3% |
| **Blanket 4_5** | | **6705** | | **3.9** | | **17713** | | **4.7** | | **11533** | **187%** | **0.8** | **19%** |
| 9.1 | BLK6_FW | 3108 | 137.8 | 3.5 | 5.1 | 3986 | 1364.2 | 4.8 | 22.9 | 878 | 28% | 1.4 | 40% |
| 9.2 | BLK6_HW | 1821 | 209.2 | 5.8 | 9.0 | 1712 | 209.2 | 6.0 | 9.2 | -109 | -6% | 0.3 | 5% |
| **Blanket 6** | | **4929** | | **4.3** | | **5698** | | **5.2** | | **769** | **16%** | **0.9** | **21%** |
| 10.1 | BQR_FW | 2274 | 87.7 | 2.7 | 5.6 | 6368 | 876.2 | 6.2 | 21.0 | 4094 | 180% | 3.5 | 129% |
| 10.2 | BQR_HWN | 18480 | 546.0 | 3.8 | 8.0 | 27020 | 991.1 | 4.5 | 11.0 | 8540 | 46% | 0.7 | 18% |
| 10.3 | BQR_HWS | 1159 | 91.5 | 3.0 | 6.3 | 1569 | 91.5 | 3.7 | 6.5 | 410 | 35% | 0.8 | 25% |
| **BQR** | | **21913** | | **3.7** | | **34957** | | **4.8** | | **13044** | **60%** | **1.1** | **30%** |
| 11.1 | ERCN | 9594 | 333.0 | 3.9 | 9.4 | 15850 | 1899.9 | 5.9 | 23.4 | 6256 | 65% | 2.1 | 54% |
| 11.2 | ERC_FWN | | | | | 572 | 117.4 | 3.4 | 8.5 | 572 | 0% | 3.4 | 0% |
| 11.3 | ERCS | 8614 | 293.0 | 4.4 | 8.3 | 10592 | 356.4 | 5.2 | 10.5 | 1978 | 23% | 0.7 | 17% |
| **Eroica** | | **18208** | | **4.1** | | **27014** | | **5.6** | | **8806** | **48%** | **1.5** | **35%** |
| 12.1 | JET | 1216 | 58.0 | 2.4 | 4.2 | 54 | 16.3 | 2.1 | 3.0 | -1162 | -96% | -0.3 | -11% |
| 12.2 | JTH_CENTRAL | | | | | 177 | 35.1 | 2.4 | 3.9 | 177 | 0% | 2.4 | 0% |
| 12.3 | JTH_HW1 | | | | | 70 | 57.6 | 3.8 | 6.8 | 70 | 0% | 3.8 | 0% |
| 12.4 | JTH_HW2 | | | | | 6406 | 302.0 | 4.0 | 8.2 | 6406 | 0% | 4.0 | 0% |
| **Jethro** | | **1216** | | **2.4** | | **6707** | | **4.0** | | **5491** | **452%** | **1.6** | **67%** |
| 13.1 | LIMA_FW | 911 | 250.0 | 3.4 | 4.0 | 3364 | 2571.7 | 6.1 | 45.9 | 46 | 269% | 2.7 | 79% |
| 13.2 | LIMA_HW | | | | | 261 | 129.0 | 6.1 | 15.9 | 261 | 0% | 6.1 | 0% |
| 13.3 | INTER | 2033 | 57.0 | 3.4 | 4.0 | 2316 | 56.8 | 3.8 | 4.1 | 283 | 14% | 0.4 | 13% |
| 13.4 | INTER_S | | | | | 180 | 25.0 | 2.2 | 2.8 | 180 | 0% | 2.2 | 0% |
| 13.5 | LIMA_MAIN | 4149 | 62.0 | 3.3 | 4.8 | 6184 | 67.9 | 3.8 | 5.2 | 2035 | 49% | 0.5 | 15% |
| **Lima** | | **7093** | | **3.4** | | **12305** | | **4.5** | | **5212** | **73%** | **1.1** | **33%** |
| 14.1 | SHT_MAIN | 4769 | 134.0 | 3.6 | 5.5 | 4424 | 133.8 | 3.8 | 5.6 | -345 | -7% | 0.3 | 7% |
| 14.2 | SHT_STH | 1714 | 30.0 | 2.9 | 3.5 | 1557 | 29.5 | 3.1 | 3.5 | -157 | -9% | 0.2 | 6% |
| **Sheet** | | **6483** | | **3.4** | | **5981** | | **3.7** | | **-502** | **-8%** | **0.2** | **7%** |
| **Total** | | **177815** | | | | **235280** | | | | **57990** | **33%** | | |
| **Average** | | | | **3.4** | | | | **4.4** | | | | **1.0** | **29%** |

*Figure 35: Data changes : 2022 Data vs 2023 Data*

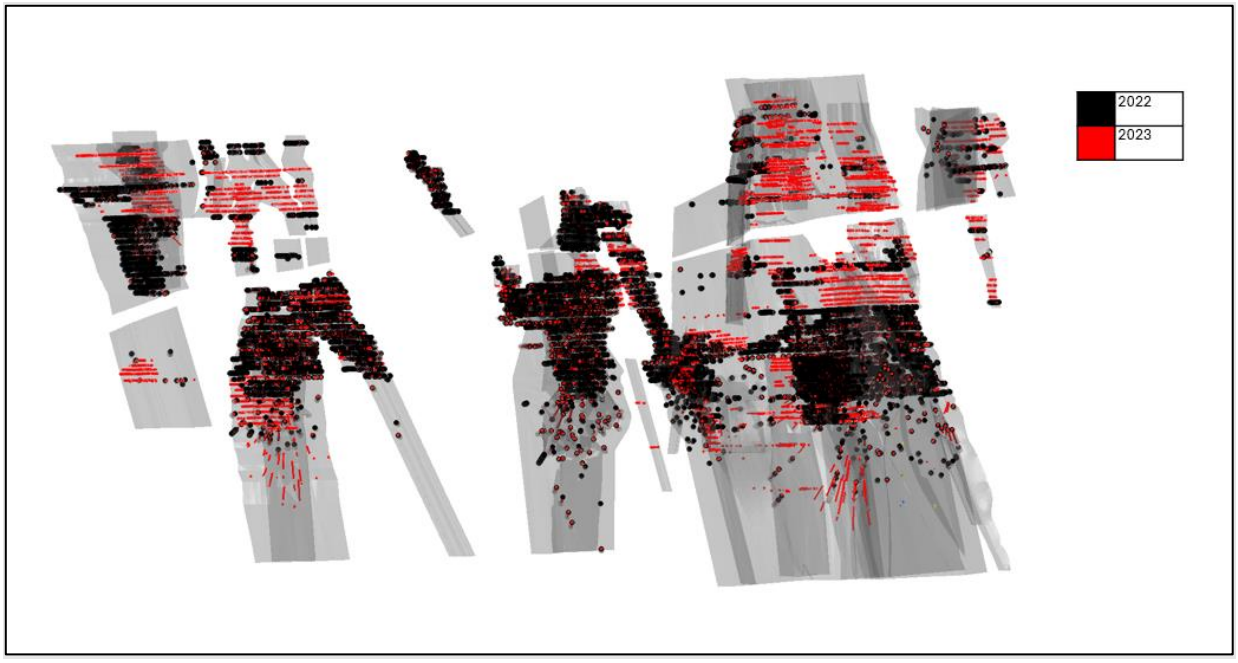
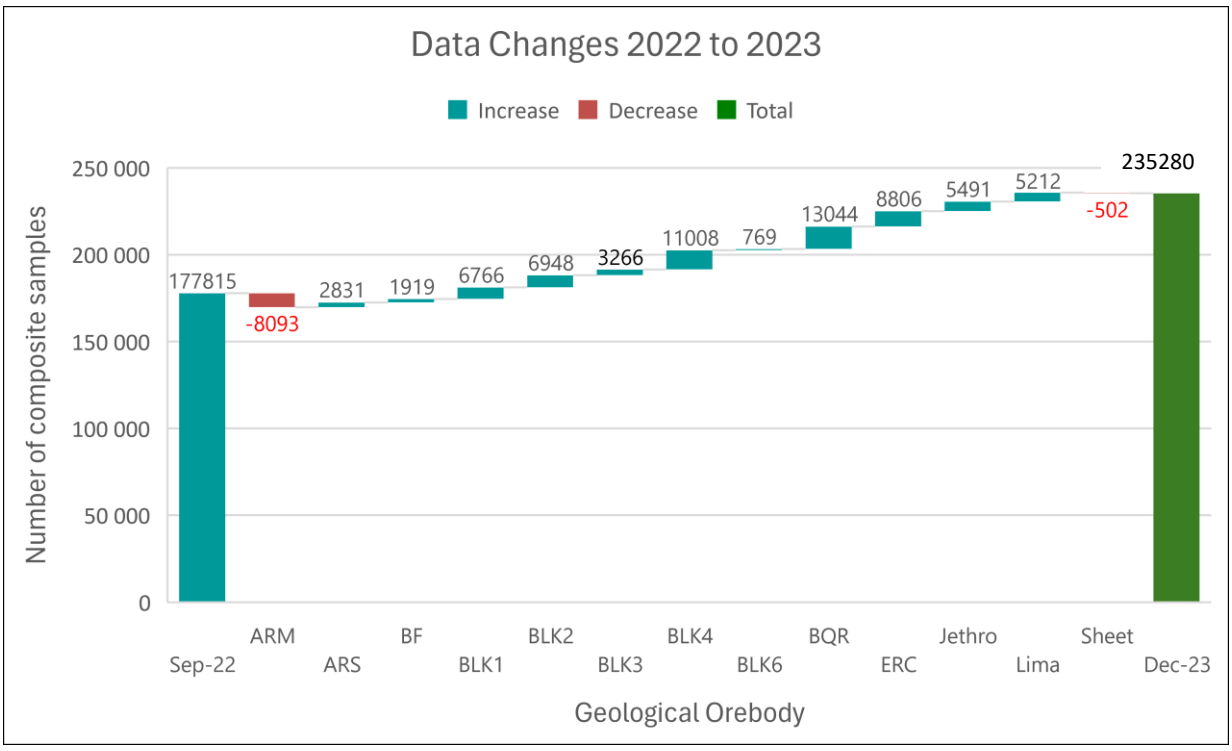



*Figure 36: Waterfall and bar graphs representing the change in data per orebody between 2022 and 2023*




**Domaining**

Wireframes received from Blanket Mine were checked and imported into Datamine for estimation. A requirement for Datamine is that the wireframes are closed and have no cross overs. Fourteen orebodies are defined, each with multiple domains. A total of 29 domains were estimated in 2022 while 43 domains were estimated in 2023. The increase in volumes is due to an increase in the number of domains based on an increase in data and continuous geological modelling.

The data update from 2022 to 2023 is illustrated per domain in Figure 37 to Figure 50. Previous 2022 data is shown in black, while new 2023 samples are depicted in red.

*ARM and ARS*

ARM contains six domains, including an internal waste unit that is clipped out and estimated separately. ARS has four domains; EWL, NSL, HW, and a new FW domain. ARS_Ext includes a 990mL domain which is a target area for further drilling to determine its up and down dip extents.

*Figure 37: Section View of ARM Domain and Data.*

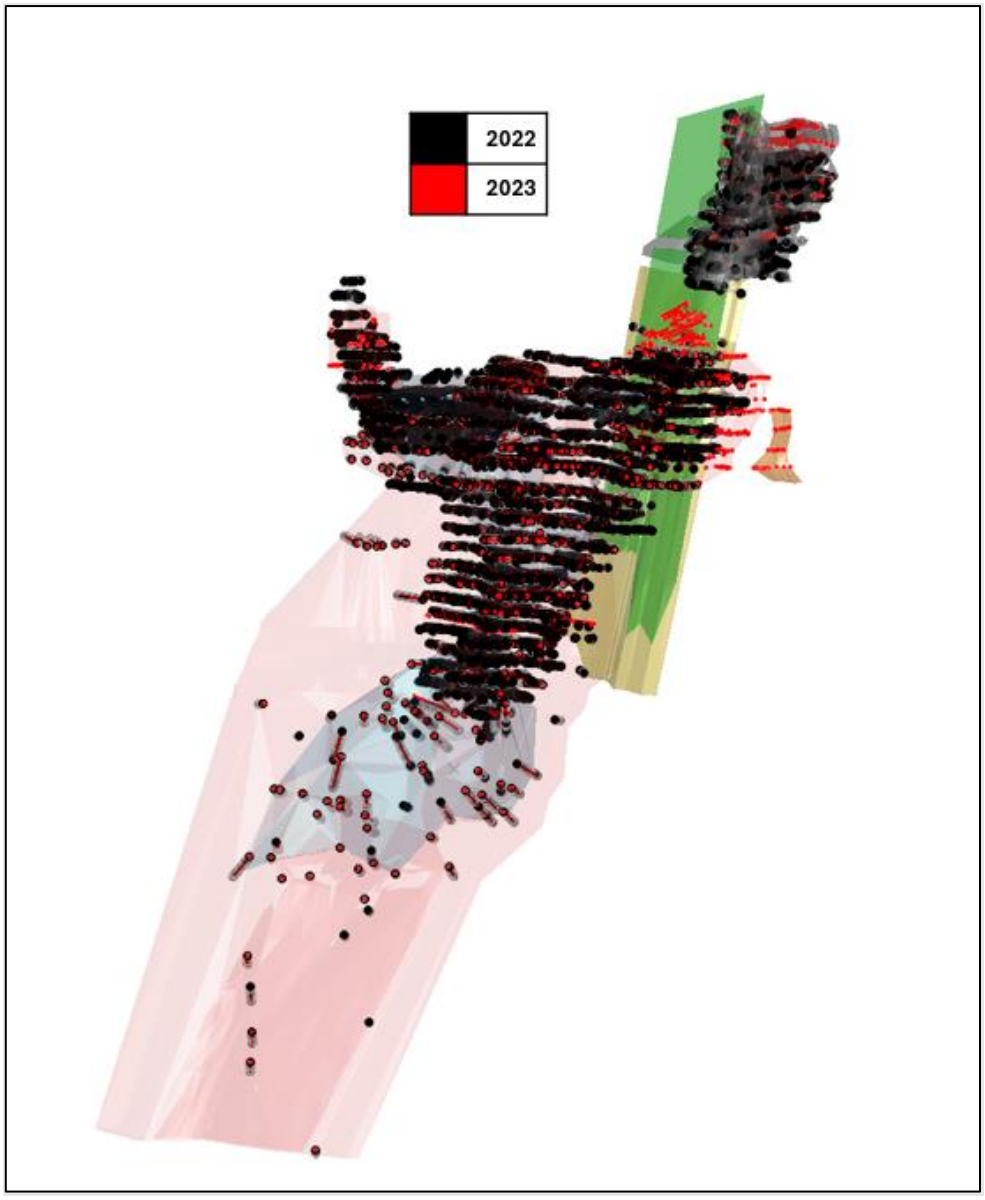


Figure 38: Section View of ARS Orebody and Data

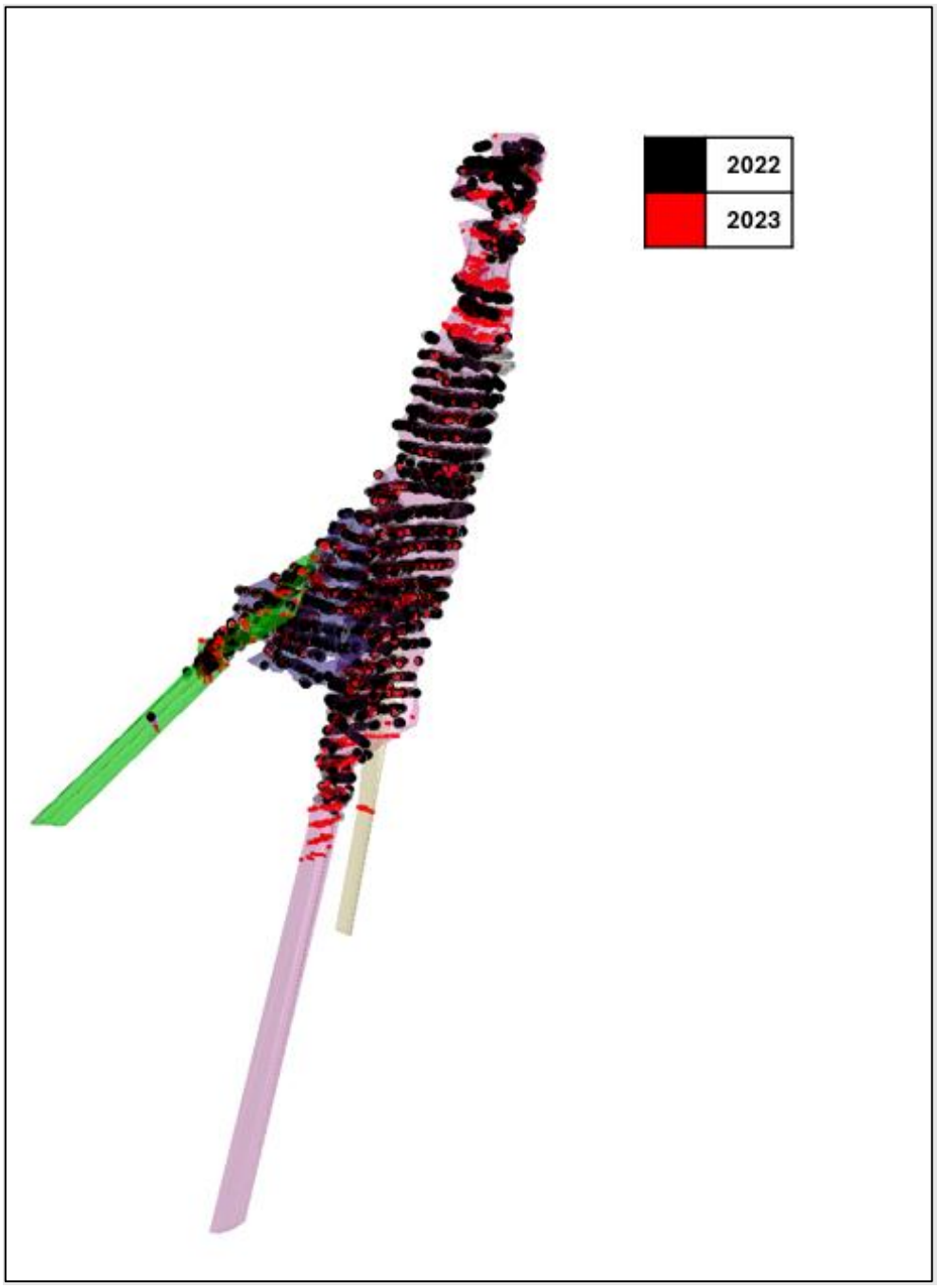
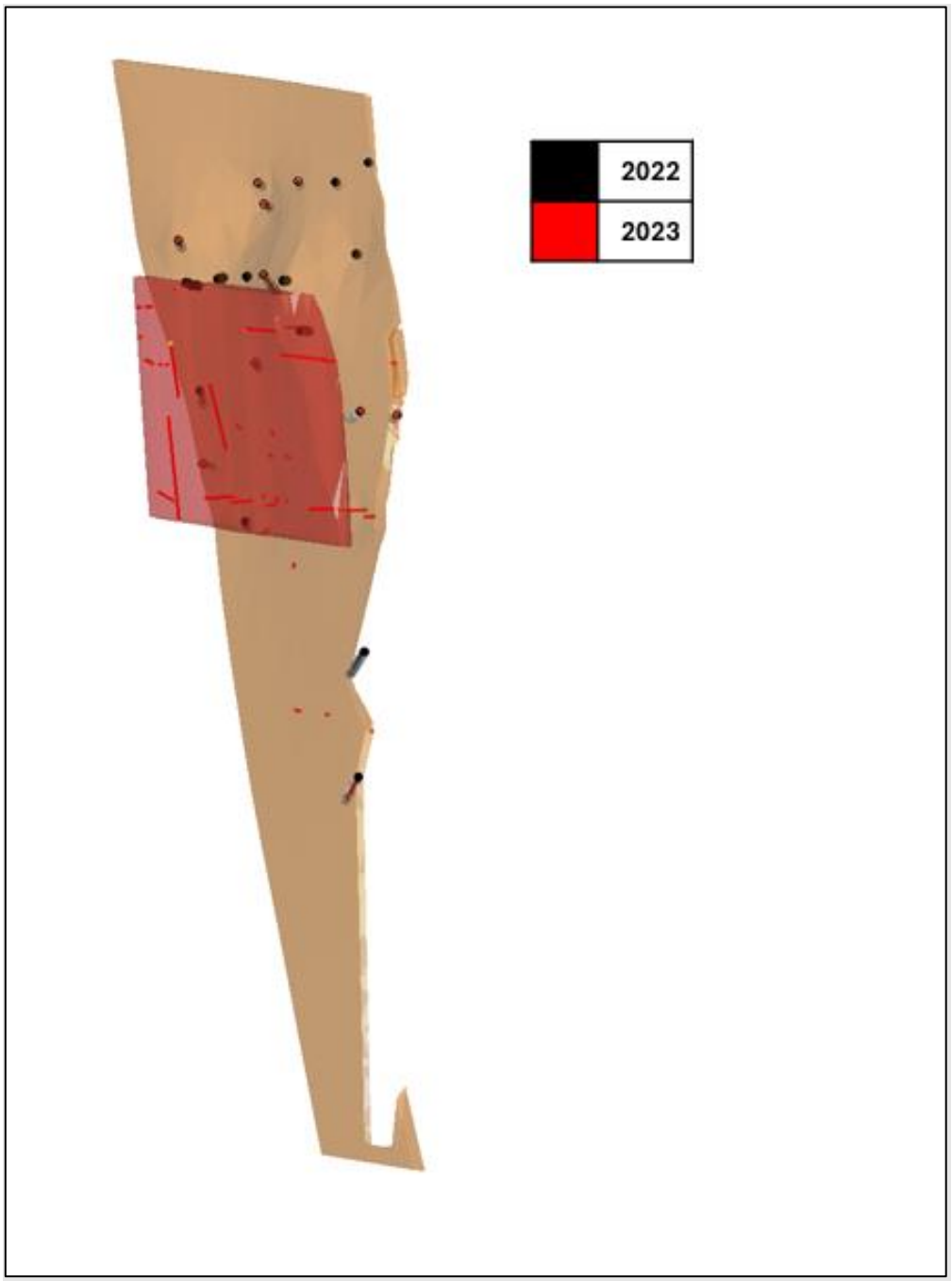


Figure 39: Section View of ARS_EXT Orebody and Data




*Blanket 1, Blanket 2, Blanket 3, Blanket4_ 5 and Blanket 6*

Blanket 1 and Blanket 2 have 3 domains each with Blanket 2 HW subdomained into a higher and a lower grade section. Blanket 3 has been subdomained into FW and HW sections for 2023. Blanket 4 and 5 have been merged to create Blanket4_5 with FW and HW sections. Blanket 6 is also subdomained into FW and HW sections. Blanket 4_5 and Blanket 6 are divided by the Wenlock fault and BQR.

*Figure 40: Section View of BLK1 Orebody and Data.*

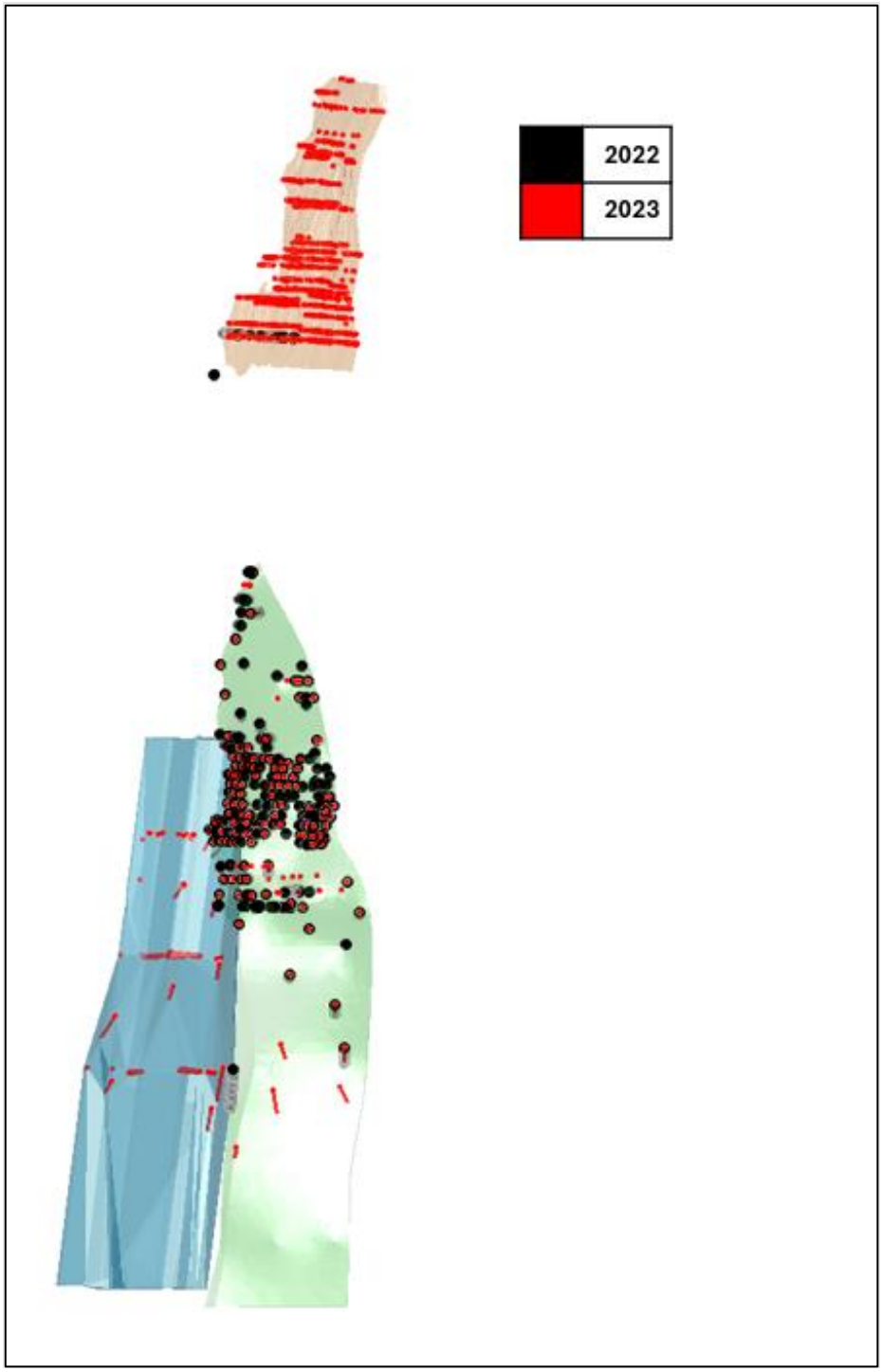


*Figure 41: Section View of BLK2 Orebody and Data.*

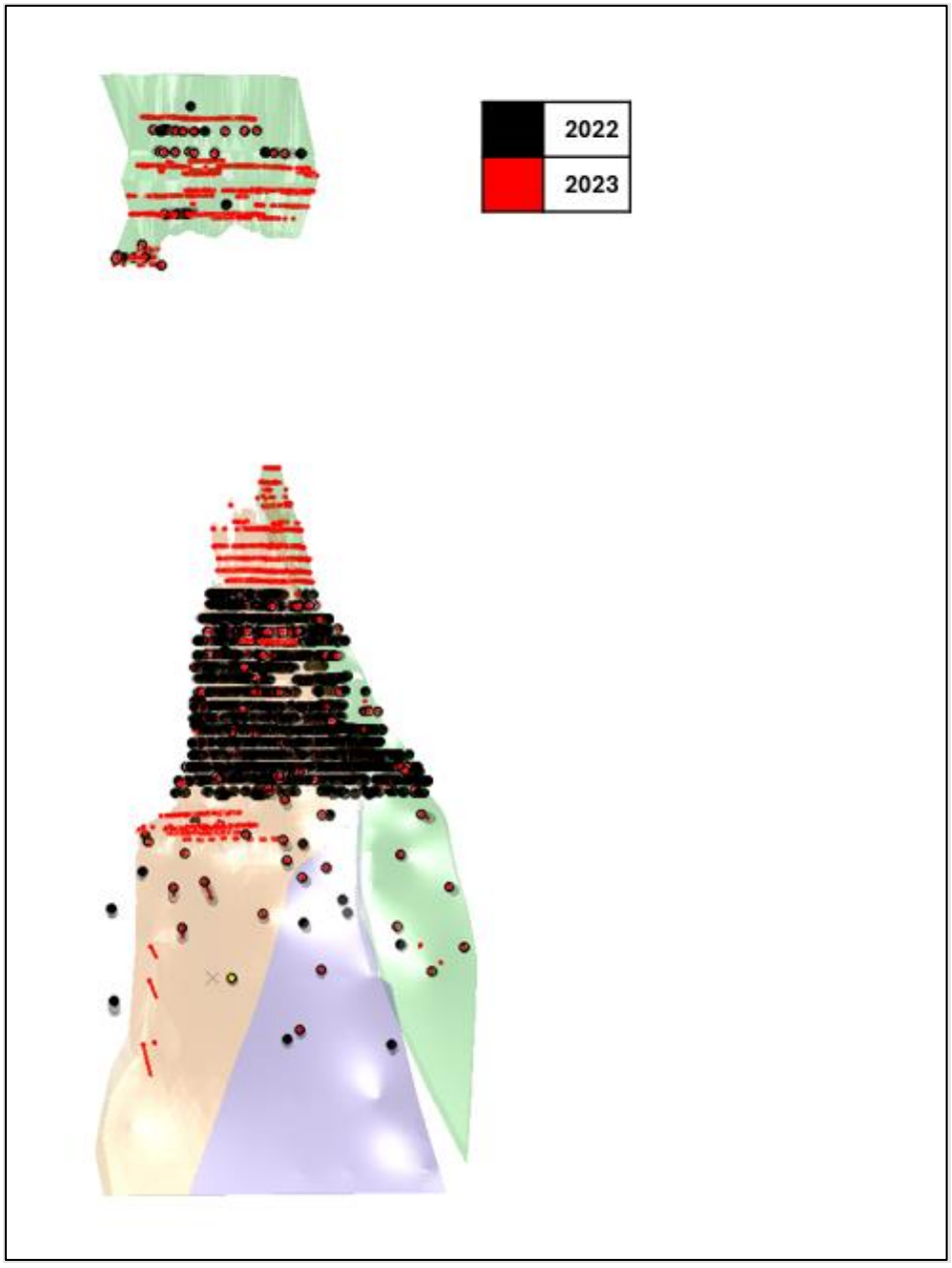


*Figure 42: Section View of BLK3 Orebody and Data.*

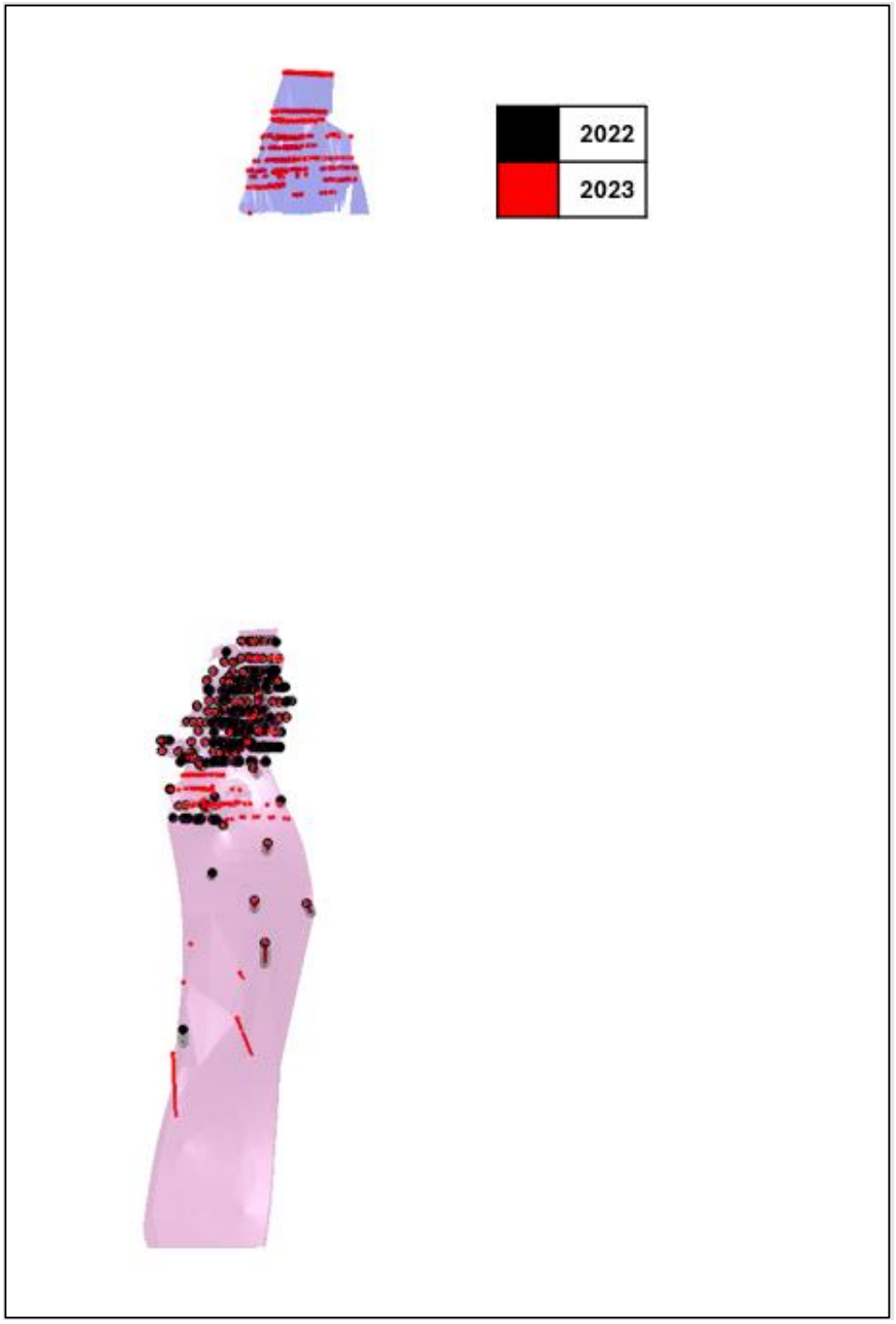


*Figure 43: Section View of BLK4_5 Orebody and Data.*

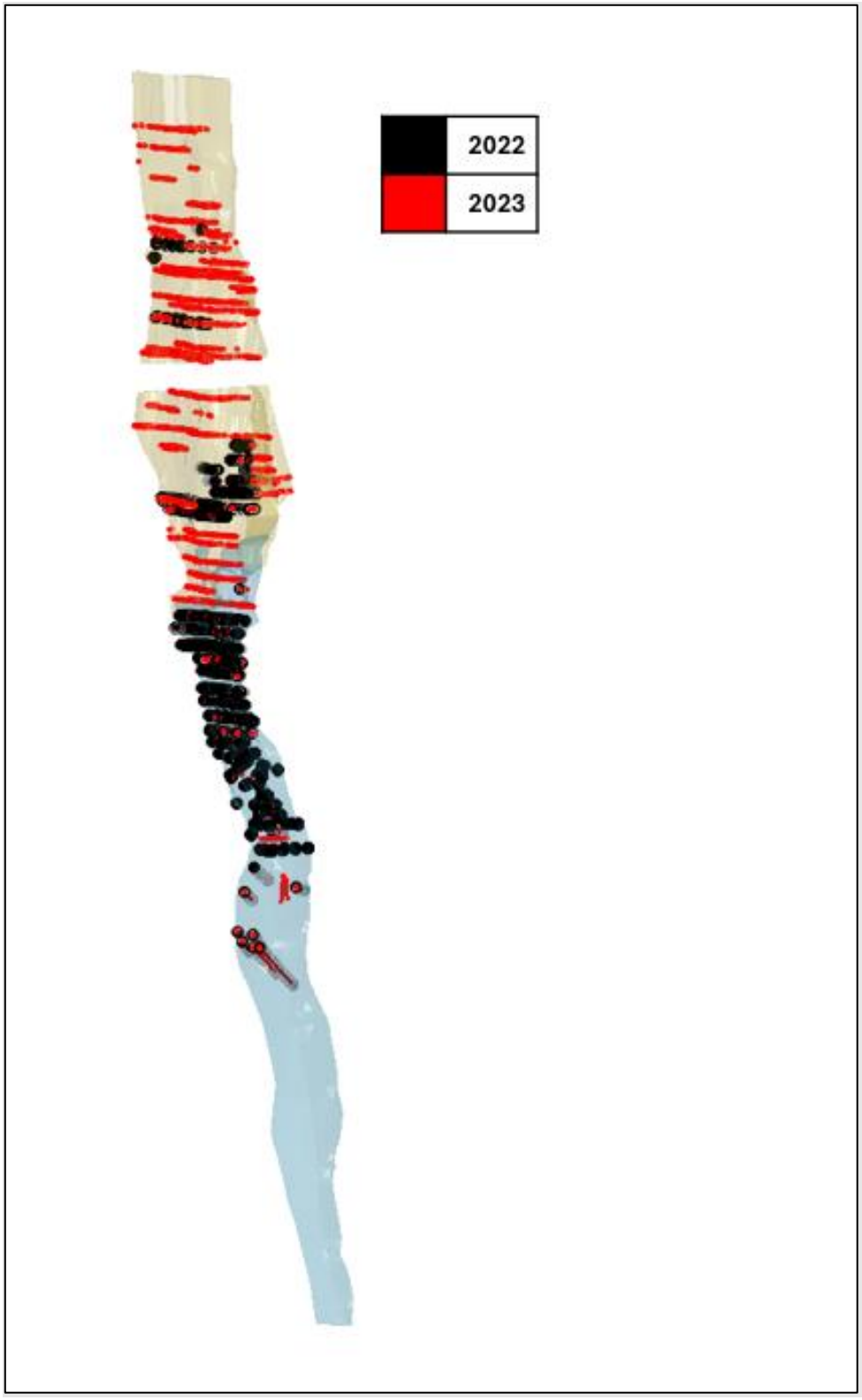
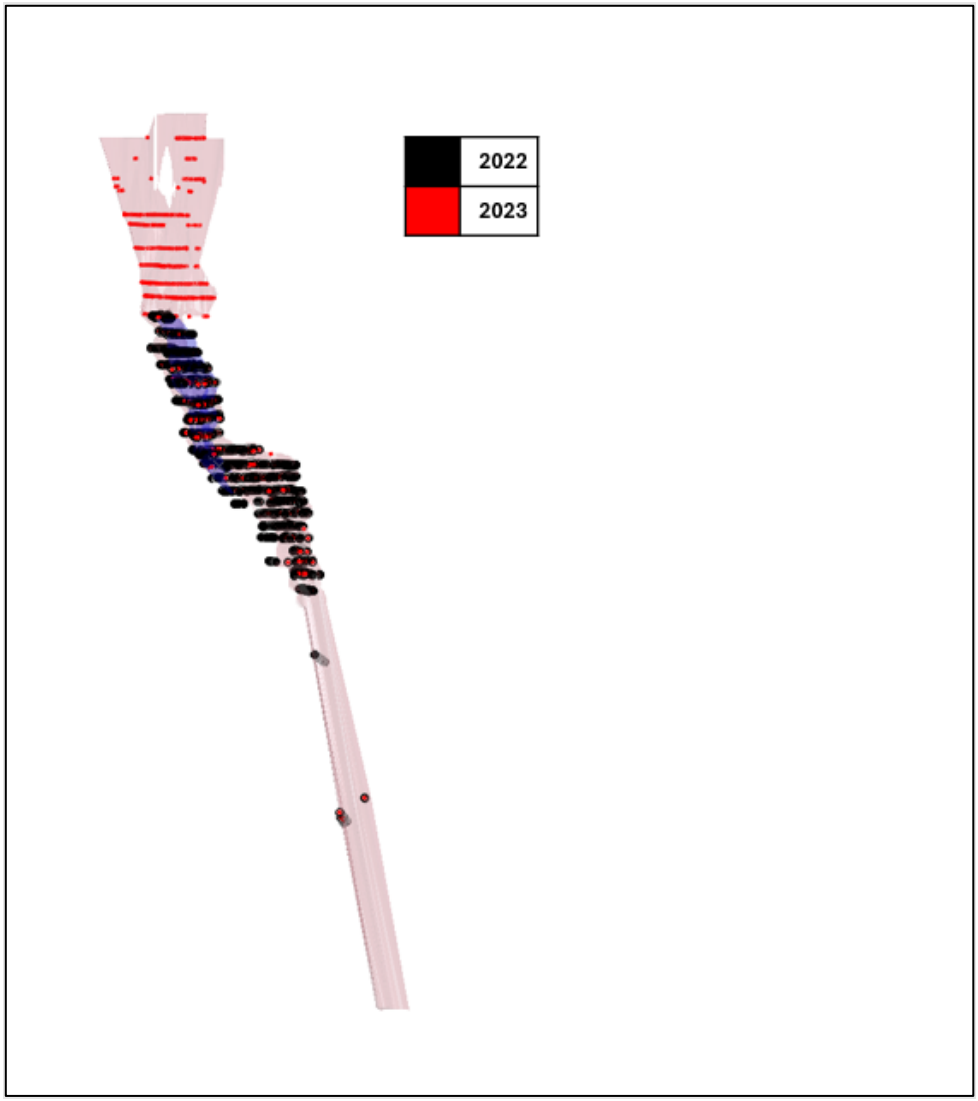


*Figure 44: Section View of BLK6 Orebody and Data.*




*Blanket Feudal and BQR*

BQR includes a FW, and the HW is further divided into a Northern and southern domain based on grade. Blanket Feudal has been subdomained into a HW and FW for 2023.

*Figure 45: Section View of BF Orebody and Data.*

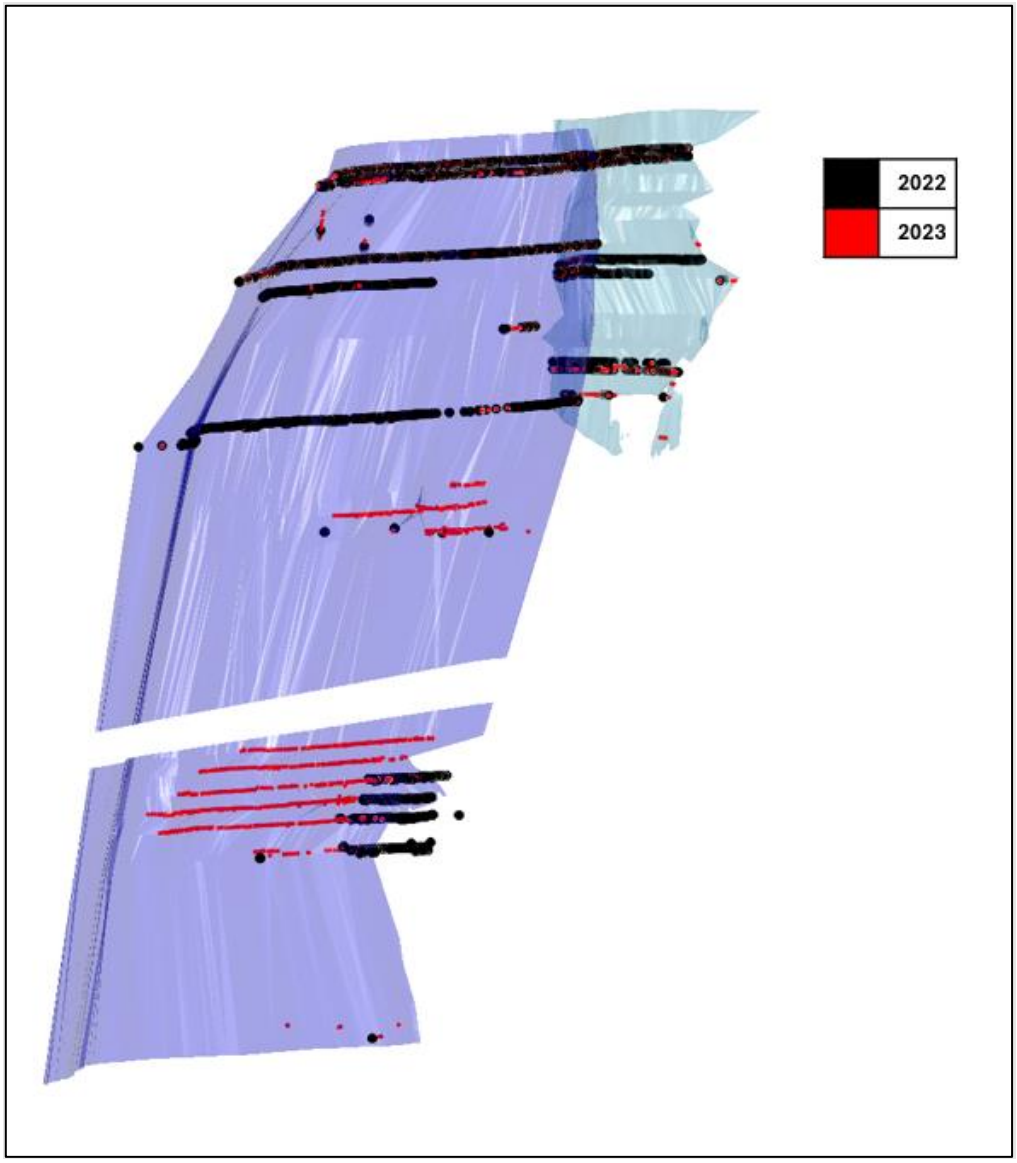
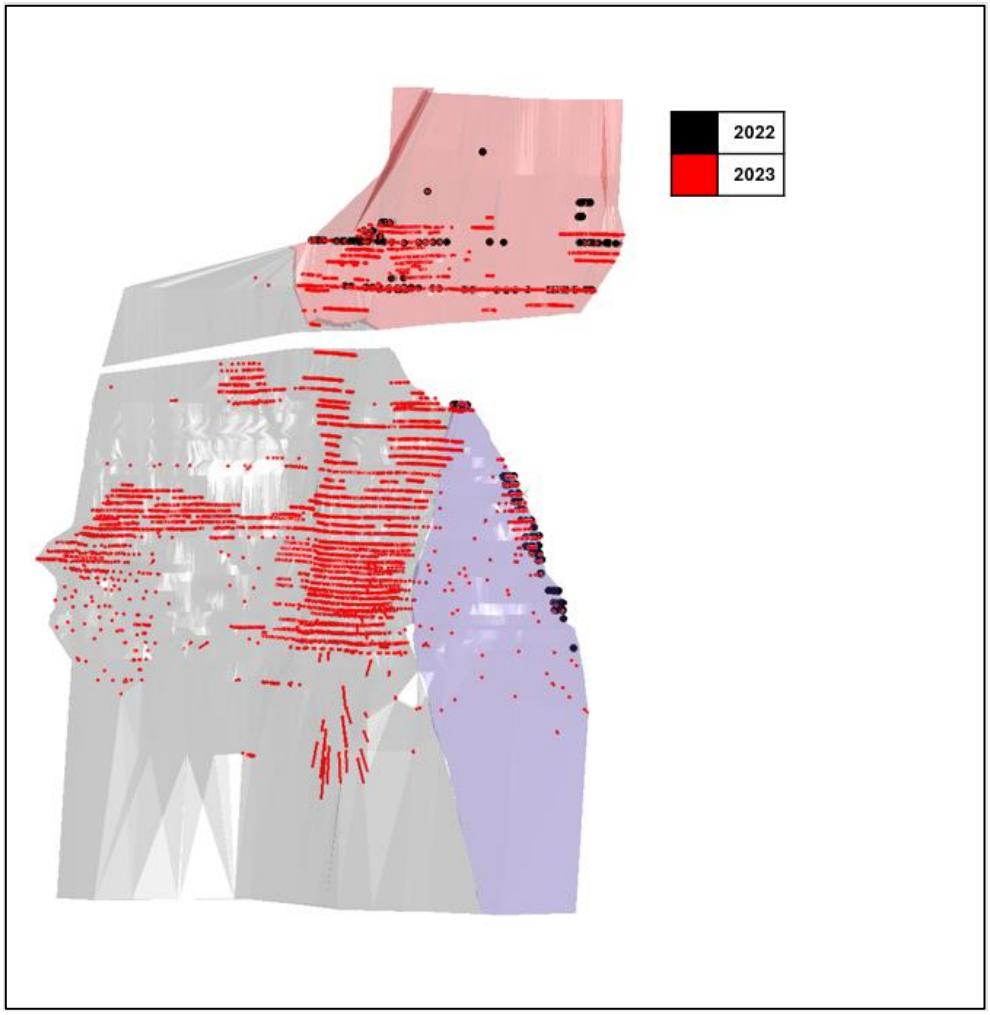


*Figure 46: Section View of BQR Orebody and Data.*




*Lima and Eroica*

Lima is divided into four domains, Main, Inter-reef, Inter-reef South and FW.. Eroica is divided into three domain; ERCN, ERCS and a newly modelled domain ERN_FW

*Figure 47: Section View of LIMA Orebody and Data.*

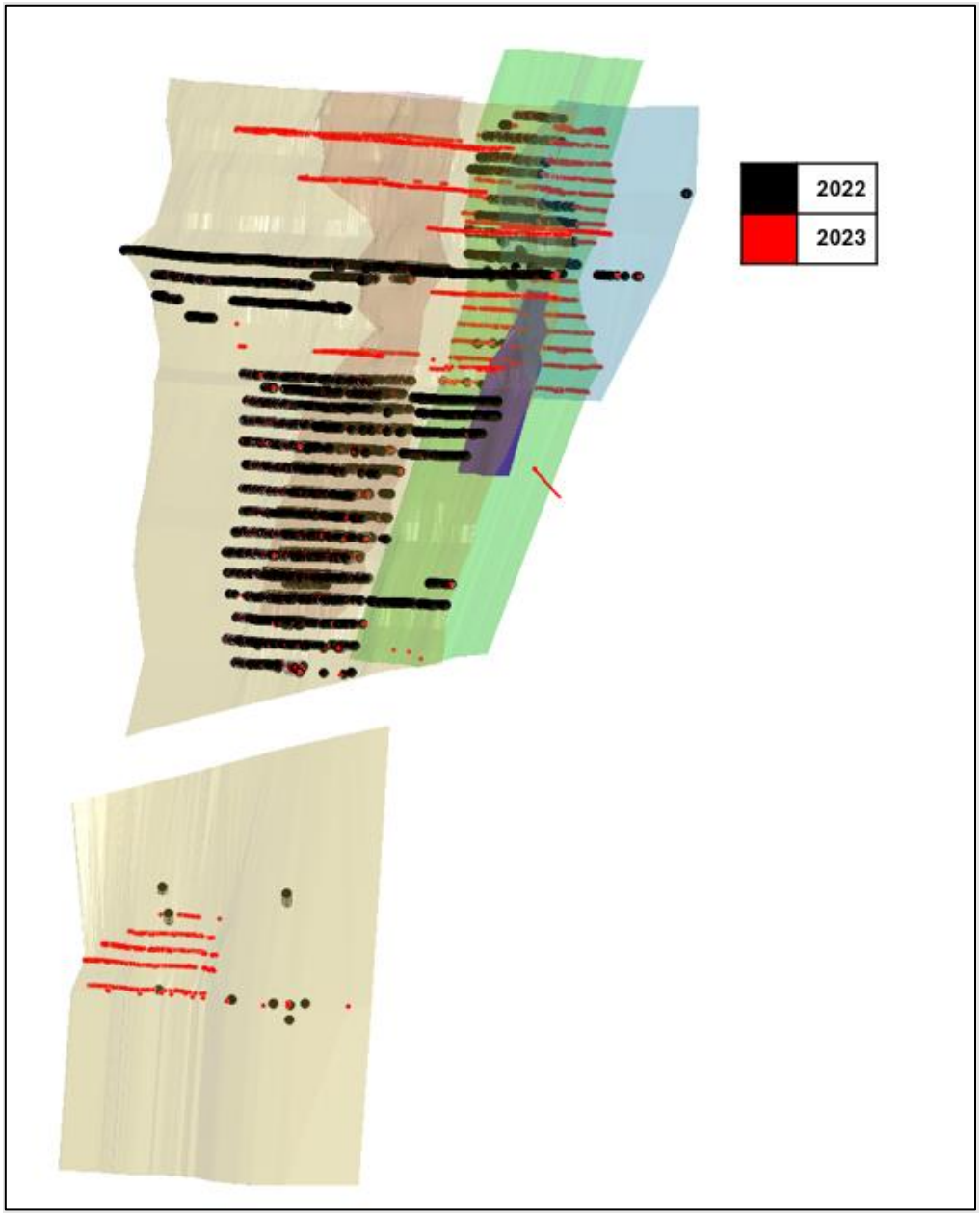
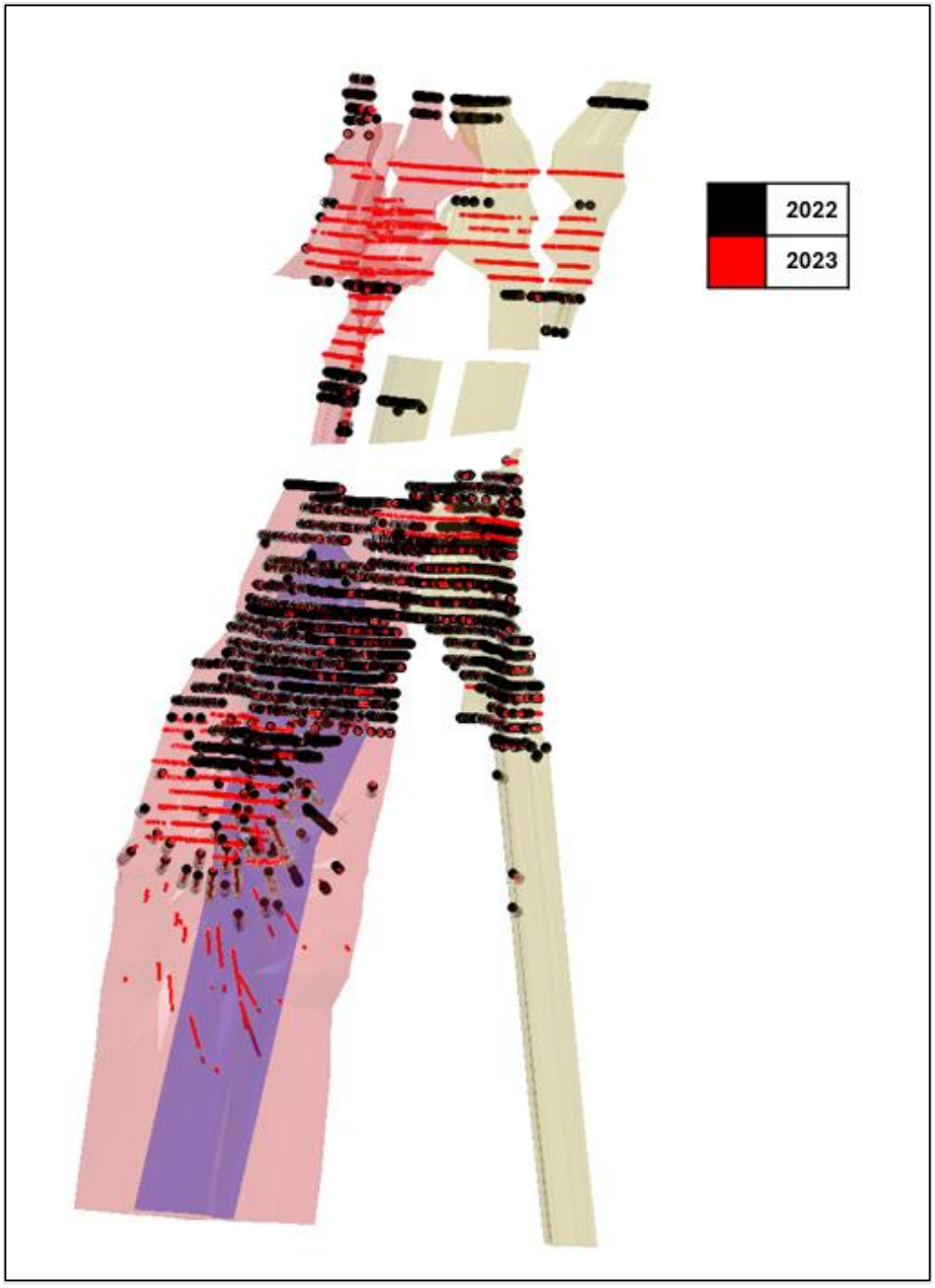


*Figure 48: Section View of ERC Orebody and Data.*




*Jethro and Sheet*

Jethro was subdomained into four units for the 2023 estimation and Sheet remains with a Main and a South domain.

*Figure 49: Section View of JTH Orebody and Data.*

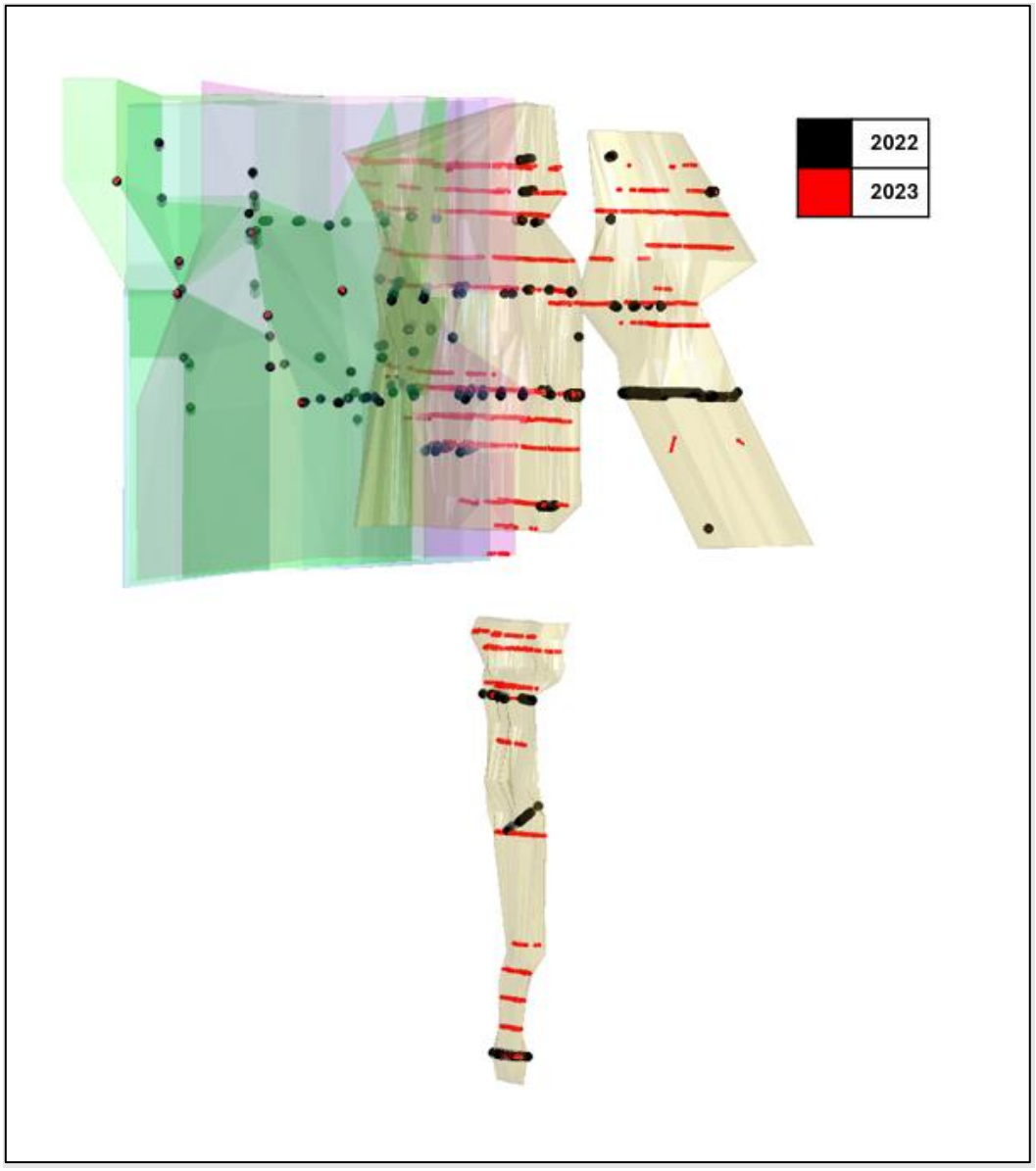
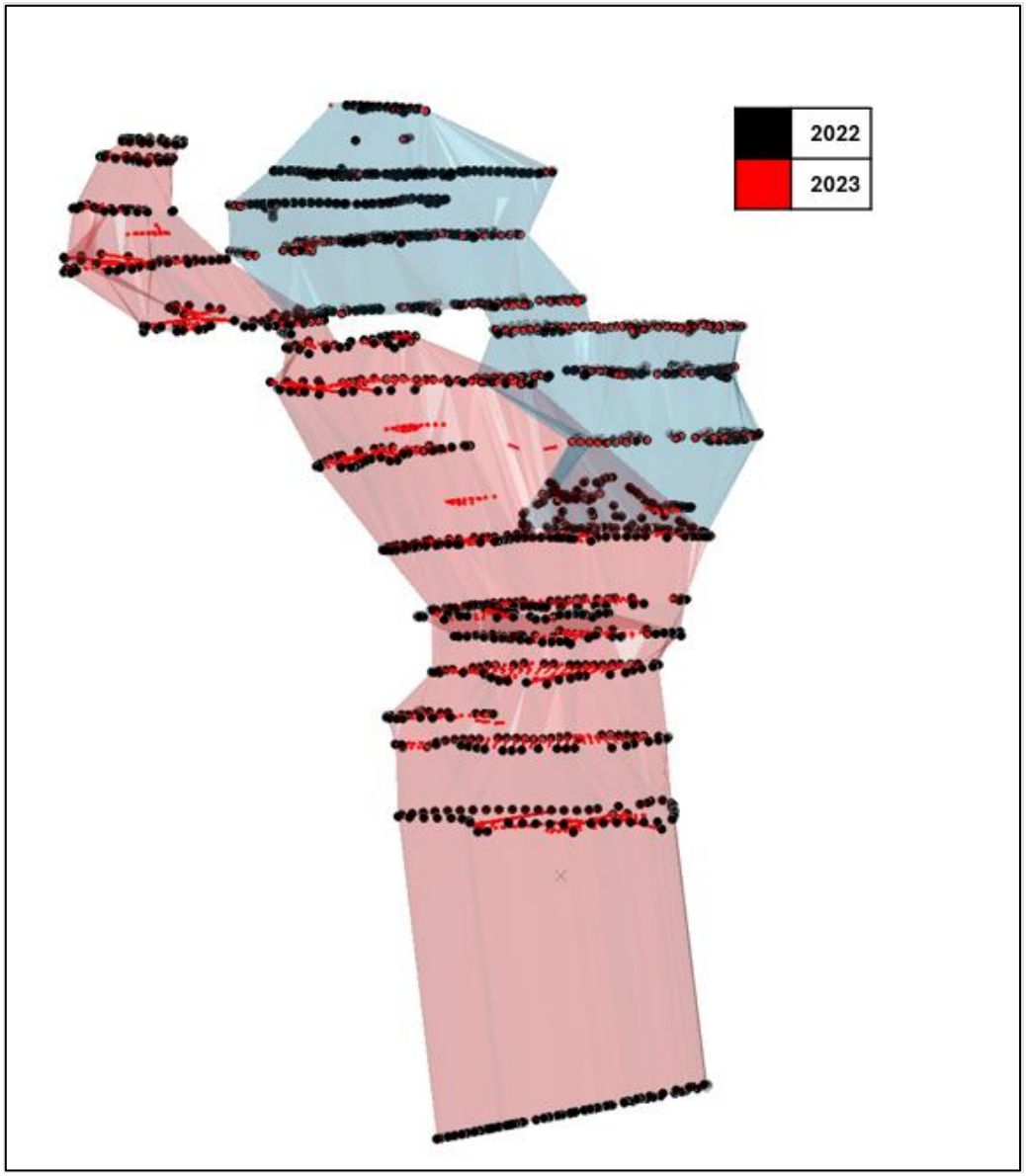


*Figure 50: Section View of SHT Orebody and Data.*



**Outlier Analysis**

Capping is carried out during the kriging stage to limit the influence that anomalously high grades may have during estimation. A top cap was applied in Datamine for variography and estimation. As a capping strategy, the data was divided into quantiles for each domain. The 90$^{th}$ to 100$^{th}$ quantile was further sub-divided into 0.5% percentiles. The metal content represented by each 0.5% percentile is examined and in conjunction with probability plots and histograms, anomalous values are identified.

Additionally, probability plots and histograms were utilised to further examine the percentile capped data for anomalous grade values. An example for ARM Main is illustrated in Figure 51 capped at the 99.5 percentile and the accompanying histogram is illustrated in Figure 52 . The capping values per domain are documented in Table 20.

The top caps are based on the 99$^{th}$ percentile except for the Eroica orebodies which are capped at the 98th percentile.

*Figure 51: Probability Plot for the ARM main Domain*

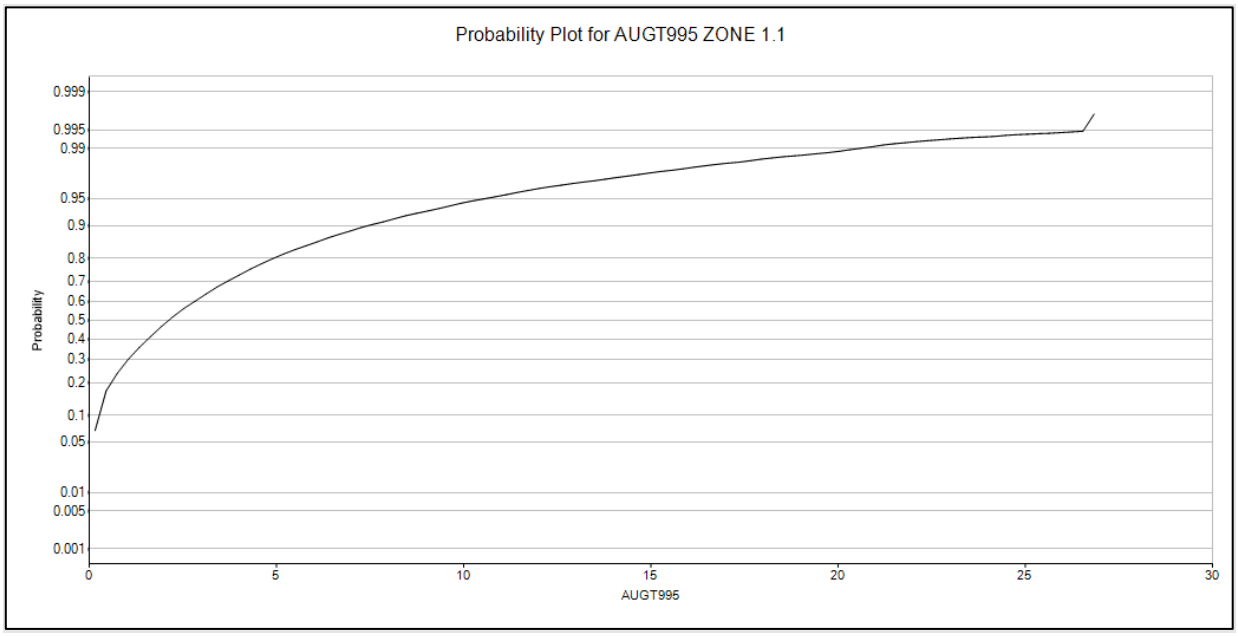


*Figure 52: Histogram for the ARM main Domain*

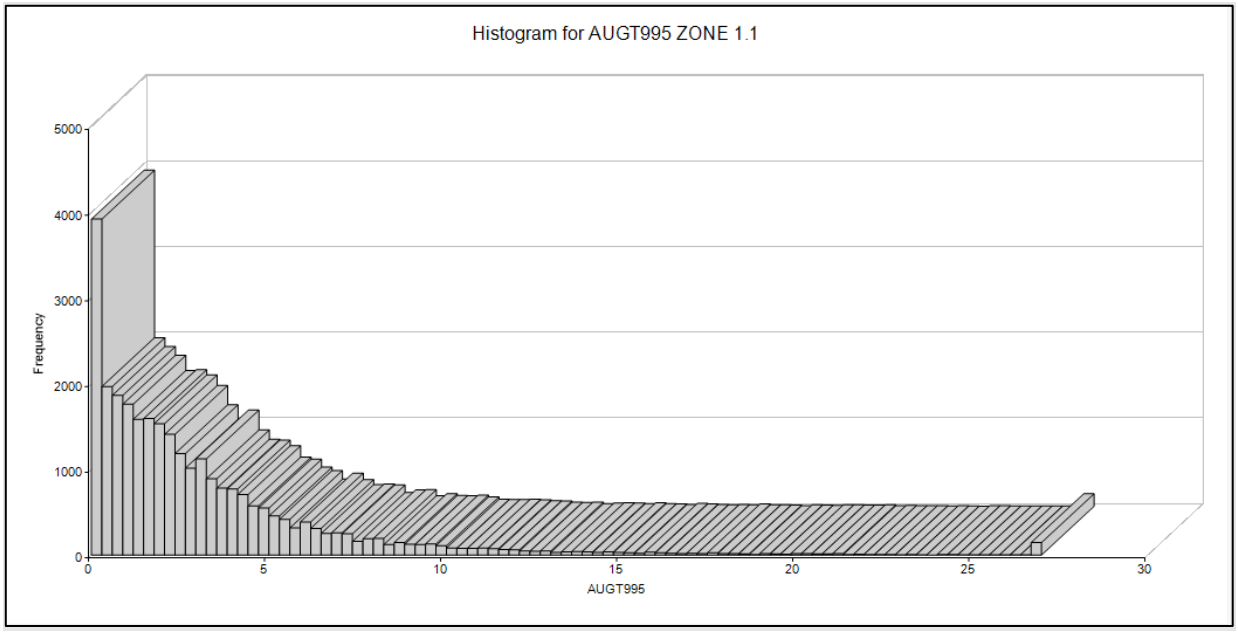



*Table 20: Capping Values Applied per Domain.*

| Domain | 2022 Top Capped Value (g/t) | 2023 Top Capped Value (g/t) |
|---|---|---|
| ARM_MAIN | 75 | 20.5 |
| ARM_480_615mL | - | 13.8 |
| ARM_ABV_DYK | - | 21.68 |
| ARM_FFW1 | - | 13.8 |
| ARM_FFW2 | - | 29.4 |
| ARM_WASTE | 43.1 | 8.77 |
| ARS_EWL | 87 | 32.4 |
| ARS_FW | - | 34 |
| ARS_HW | 17 | 16.07 |
| ARS_NSL | 47 | 19.92 |
| ARS_EXT | 12 | 28.41 |
| ARS_EXT_990mL | - | 12.26 |
| BF_FW | - | 28.5 |
| BF_HW | - | 27.19 |
| BLK1_FW | - | 49.45 |
| BLK1_HW | - | 12.63 |
| BLK1_HWN | - | 19.86 |
| BLK2_FW | - | 32.03 |
| BLK2_HW | - | 39.45 |
| BLK_2HW_LG | 44 | |
| BLK3_FW | - | 20 |
| BLK3_HW | - | 20.79 |
| BLK4_5_FW | - | 29.08 |
| BLK4_5_HW | - | 29.1 |
| BLANKET_6FW | 28 | 32.81 |

| | | |
|---|---|---|
| BLANKET_6HW | 45 | 30 |
| BQR_FW | 39 | 97.04 |
| BQR_HW_NORTH | 76 | 49.1 |
| BQR_HW_SOUTH | 30 | 48.05 |
| ERCN | 56.4 | 39.2 |
| ERCN_FW | - | 27.4 |
| ERCS | 56.4 | 26.9 |
| JET | - | 16.32 |
| JTH_CENTRAL | - | 21.92 |
| JTH_HW1 | - | 57.63 |
| JTH_HW2 | - | 26.59 |
| LIMA_FW | 40 | 53.8 |
| LIMA_HW | - | 115.09 |
| LIMA_INTER | 23 | 18.3 |
| LIMA_INTER_S | | 15.59 |
| LIMA_MAIN | 40 | 25.75 |
| SHT_MAIN | 38 | 20.9 |
| SHT_SOUTH | 15.8 | 17.5 |

**Data Compositing**

Compositing is performed for all orebodies based on the most common sample length of 0.6m.

## Item 14 (b) Geostatistical Analysis and Variography

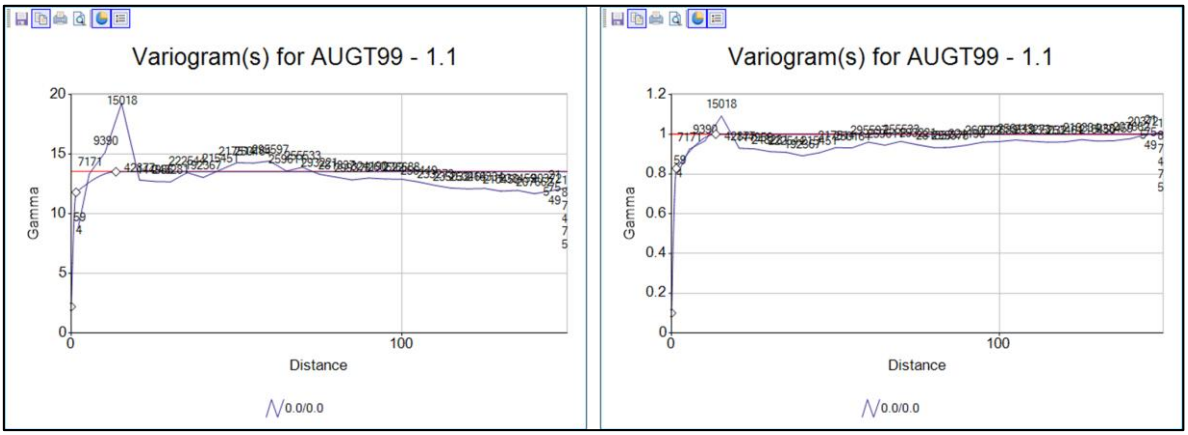
All variography was carried out in Datamine. The variogram parameters are summarised in Table 21. An example of a variogram model on the transformed Normal Score and the back transformed equivalent is illustrated in Figure 53 for ARS_NSL. All variograms were recalculated in 2023 due to a material change in data. Variogram analysis was done in a transformed normal score space with the variograms being back transformed for resource estimation purposes. Orientations previously determined were generally maintained unless there was a major change to the domain's wireframes.

Table 21: Variogram and Search Parameters.

| | | Direction | | | Model | | | Structure 1 | | | | Structure 2 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Domain | Interpolant | Dip (◦) | Dip Azimuth (◦) | Pitch (◦) | Model space | Nugget | Structure | C1 | Major (m) | Semi-major (m) | Minor (m) | C2 | Major (m) | Semi-major (m) | Minor (m) |
| ARM_MAIN | OK | 64 | 242 | 34 | Tran NS | 5.39 | 2 | 5.61 | 5.7 | 1.5 | 1.7 | 2.56 | 74.7 | 13.5 | 5.8 |
| ARM_480_615mL | OK | 64 | 242 | -26 | Tran NS | 5.96 | 2 | 6.23 | 5.7 | 1.5 | 1.7 | 2.84 | 74.7 | 13.5 | 5.8 |
| ARM_WASTE | OK | 50 | 248 | 30 | Tran NS | 1.83 | 1 | 0.23 | 23.7 | 19.6 | 2.9 | 0 | 0 | 0 | 0 |
| ARS_EWL | OK | 56 | 263 | -15 | Tran NS | 15.08 | 2 | 15.88 | 6.7 | 3 | 1.8 | 1.93 | 60.1 | 27.8 | 17.9 |
| ARS_FW | OK | 80 | 283 | -13 | Tran NS | 13.51 | 1 | 25.85 | 6.2 | 2.6 | 3.7 | 0 | 0 | 0 | 0 |
| ARS_HW | OK | 89 | 283 | -13 | Tran NS | 5.68 | 2 | 1.31 | 2.6 | 9.8 | 3.7 | 1.59 | 14.5 | 34.5 | 6.2 |
| ARS_NSL | OK | 72 | 237 | 12 | Tran NS | 4.6 | 1 | 7.34 | 11.2 | 3.5 | 4.2 | 0 | 0 | 0 | 0 |
| ARS_EXT | OK | 89 | 205 | 12 | Tran NS | 2.69 | 2 | 7.99 | 49.1 | 14.2 | 4.6 | 5.48 | 83 | 34 | 5 |
| ARS_EXT_990mL | OK | 74 | 260 | 13 | Tran NS | 0.72 | 2 | 1.84 | 49.1 | 14.2 | 4.6 | 1.55 | 120 | 80 | 5 |
| BF_FW | OK | 75 | 230 | 0 | Tran NS | 8.08 | 2 | 11.88 | 8.7 | 5.6 | 2 | 1.36 | 40 | 50 | 4.5 |
| BF_HW | OK | 75 | 240 | 0 | Tran NS | 6.6 | 2 | 10.22 | 8.7 | 5.6 | 2 | 1.27 | 40 | 50 | 4.5 |
| BLK1_FW | OK | 72 | 247 | -20 | Tran NS | 32.24 | 2 | 36.37 | 12.1 | 3.9 | 2.5 | 9.31 | 45 | 16 | 9 |
| BLK1_HW | OK | 72 | 230 | 25 | Tran NS | 1.17 | 2 | 2.22 | 19.4 | 7.8 | 3.7 | 0.7 | 120 | 35 | 11 |
| BLK1_HWN | OK | 73 | 589 | 4 | Tran NS | 2.58 | 2 | 5.65 | 19.4 | 7.8 | 3.7 | 2.18 | 120 | 35 | 11 |
| BLK2_FW | OK | 81 | 225 | 17 | Tran NS | 12.74 | 2 | 12.27 | 7.4 | 6.1 | 2 | 3.77 | 55 | 55 | 8 |
| BLK2_HW | OK | 71 | 225 | 17 | Tran NS | 13.03 | 1 | 26.11 | 19.5 | 3.4 | 1.4 | 0 | 0 | 0 | 0 |
| BLK2_HW_LG | OK | 0 | 270 | 0 | Tran NS | 14.63 | 2 | 20.25 | 7.9 | 3.7 | 3 | 5.17 | 75 | 21 | 4 |
| BLK3_FW | OK | 82 | 278 | -32 | Tran NS | 3.19 | 2 | 11.56 | 33.2 | 30 | 3.5 | 5.21 | 66.4 | 60 | 7 |
| BLK3_HW | OK | 82 | 278 | -32 | Tran NS | 5.02 | 2 | 7.39 | 7.9 | 3.7 | 3 | 1.92 | 75 | 21 | 4 |
| BLK45_FW | OK | 82 | 265 | -23 | Tran NS | 4.15 | 2 | 14.93 | 10.9 | 3.2 | 2.1 | 8.9 | 33.3 | 46.6 | 9.8 |
| BLK45_HW | OK | 75 | 238 | 41 | Tran NS | 11.85 | 2 | 13.61 | 8.9 | 4.3 | 3.7 | 1.76 | 80 | 28 | 7 |
| BLK6_FW | OK | 75 | 238 | 14 | Tran NS | 11.07 | 2 | 14.22 | 20.5 | 2.3 | 2 | 4.79 | 118 | 40 | 7 |
| BLK6_HW | OK | 75 | 238 | 0 | Tran NS | 17.44 | 2 | 21.85 | 15.7 | 1.3 | 1.7 | 11.65 | 35 | 14 | 8 |
| BQR_FW | OK | 63 | 265 | -7 | Tran NS | 22.14 | 2 | 31.04 | 44.6 | 3.6 | 1.9 | 31.7 | 80 | 40 | 7 |
| BQR_HWN | OK | 65 | 265 | 7 | Tran NS | 17.97 | 2 | 16.56 | 14.7 | 3.2 | 2.9 | 3.61 | 122 | 87 | 10 |
| BQR_HWS | OK | 65 | 267 | -25 | Tran NS | 7.53 | 2 | 16.72 | 5.3 | 2.8 | 1.3 | 3.78 | 80 | 21 | 3.5 |
| ERCN | OK | 88 | 229 | -20 | Tran NS | 50.59 | 2 | 28.15 | 17 | 3.7 | 1.7 | 1.8 | 63 | 18 | 3 |
| ERCN_FW | OK | 85 | 420 | 25 | Tran NS | 3.96 | 2 | 22.19 | 23.3 | 16.2 | 3.9 | 11.73 | 72.7 | 65 | 6.1 |
| ERCS | OK | 87 | 417 | 25 | Tran NS | 24.22 | 2 | 8.81 | 23.9 | 3.9 | 1.4 | 7.58 | 68.9 | 7.5 | 4 |
| JET | OK | 75 | 245 | 11 | Tran NS | 3.52 | 2 | 5.01 | 11.5 | 3.7 | 1.5 | 0.92 | 43.1 | 10.9 | 6.4 |
| JTH_CENTRAL | OK | 61 | 264 | 10 | Tran NS | 6.78 | 2 | 0.98 | 33.8 | 25.4 | 2.4 | 3.48 | 73.4 | 52.1 | 1.6 |
| JTH_HW1 | OK | 60 | 264 | 5 | Tran NS | 14.79 | 2 | 21.06 | 37.7 | 13.1 | 2.6 | 2.01 | 60.7 | 40.4 | 6.4 |
| JTH_HW2 | OK | 58 | 254 | 10 | Tran NS | 9.52 | 2 | 8.71 | 35.9 | 8.1 | 1.5 | 1.04 | 60 | 45.3 | 6.4 |

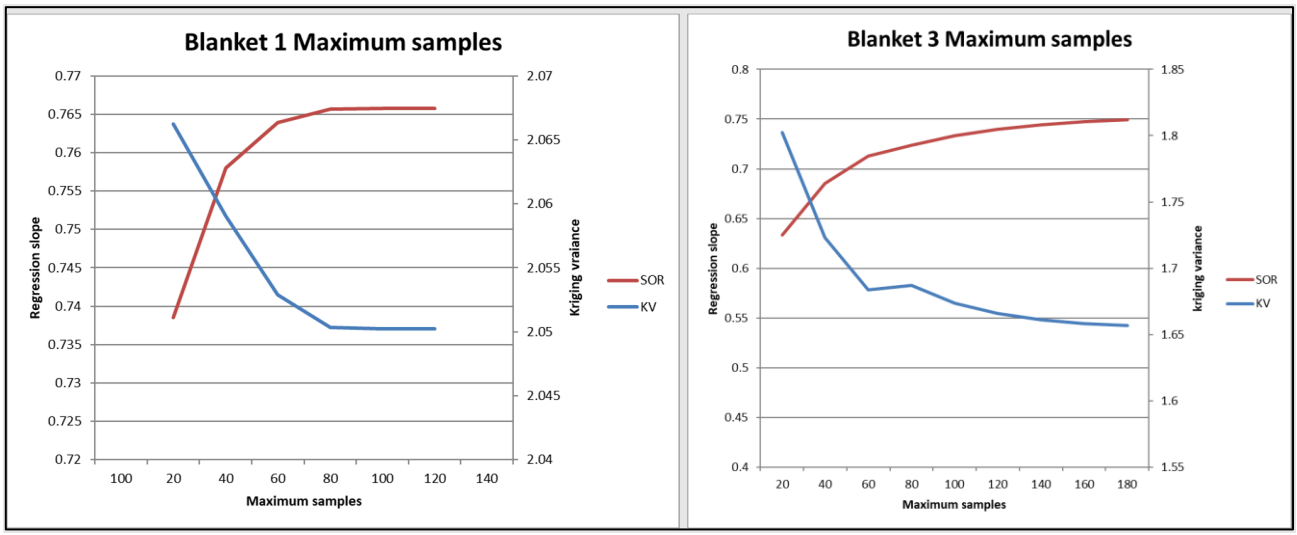
| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LIMA_FW | OK | 62 | 252 | 10 | Tran NS | 36.34 | 1 | 33.86 | 16.6 | 5.3 | 2 | 0 | 0 | 0 | 0 |
| LIMA_HW | OK | 62 | 257 | -18 | Tran NS | 136.48 | 2 | 76.96 | 14.7 | 5.2 | 1.9 | 14.11 | 30.1 | 11.3 | 4 |
| LIMA_INTER | OK | 55 | 205 | 22 | Tran NS | 7.37 | 1 | 6.16 | 25.7 | 9.4 | 1.4 | 0 | 0 | 0 | 0 |
| LIMA_INTER_S | OK | 53 | 221 | -23 | Tran NS | 3.36 | 1 | 2.5 | 25.7 | 9.4 | 1.4 | 0 | 0 | 0 | 0 |
| LIMA_MAIN | OK | 0 | 270 | 0 | Tran NS | 10.02 | 2 | 7.2 | 8.3 | 3.5 | 1.9 | 3.71 | 27.4 | 17.1 | 2 |
| SHT_MAIN | OK | 0 | 270 | 0 | Tran NS | 5.97 | 2 | 7.53 | 11.7 | 5.2 | 2.8 | 1.93 | 72.2 | 51.4 | 4 |
| SHT_STH | OK | 0 | 270 | 0 | Tran NS | 4.72 | 2 | 5.04 | 21.5 | 8.7 | 1.4 | 1.16 | 59.3 | 28.6 | 2.1 |

*Figure 53: Experimental Back Transformed Variogram Created for ARM*




Kriging neighbourhood analysis ("KNA") was undertaken to assess the optimal parameters for estimation in each of the separate domains. Different scenarios of minimum and maximum samples are run and the results plotted to define the estimation parameters that will obtain the highest quality estimates. The quality is measured by the Slope of Regression ("SoR"), and kriging variance. Blanket 1 and Blanket 3 are shown for reference (Figure 54).

*Figure 54: KNA Analysis for Blanket 1 and Blanket 3*




The estimation parameters utilised are shown in Table 22 below. At lower search volumes, more samples are available (typically mining areas), and a higher minimum and maximum can be used, while further from the well-informed areas, the minimum and maximum samples will decrease to ensure more weighting is applied to nearby samples. An ordinary krige was employed in all domains except for ARM_480_615ml, ARM_FFW1 and ARM_FFW2 as coherent variograms could not be obtained mainly due to scarcity of sample data points. The distance from samples and search volume used to inform the block model is reflected in the Mineral Resource Classification Criteria.

*Table 22: Estimation Parameters for all Domains*

| | | | | | Ellipsoid Ranges | | | Ellipsoid Directions | | | Number of Samples | | Drillhole Limit | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Orebody | Domain | Zone | Interpolant | SVOL | Max. (m) | Inter. (m) | Min. (m) | Dip (◦) | Dip Azimuth (◦) | Pitch (◦) | Min. | Max. | Max Samples per Hole | Min. Drillholes | Discretisation (X : Y : Z ) |
| AR Main | ARM_MAIN | 1.1 | OK | 1 | 75 | 14 | 6 | 64 | 242 | 34 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 113 | 21 | 9 | 64 | 242 | 34 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 150 | 28 | 12 | 64 | 242 | 34 | 6 | 40 | 3 | 3 | 5x5x2 |
| | ARM_ABV_DYK | 1.2 | ID2 | 1 | 40 | 13 | 5 | 66 | 244 | 0 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | ID2 | 2 | 60 | 20 | 8 | 66 | 244 | 0 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | ID2 | 3 | 80 | 26 | 10 | 66 | 244 | 0 | 6 | 40 | 3 | 3 | 5x5x2 |
| | ARM_480 | 1.3 | OK | 1 | 74 | 14 | 5 | 66 | 244 | 0 | 18 | 60 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 111 | 20 | 8 | 66 | 244 | 0 | 9 | 50 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 148 | 27 | 10 | 66 | 244 | 0 | 6 | 30 | 3 | 3 | 5x5x2 |
| | ARM_FFW1 | 1.4 | ID2 | 1 | 50 | 25 | 4 | 74 | 265 | -5 | 18 | 60 | 3 | 6 | 5x5x2 |
| | | | ID2 | 2 | 75 | 38 | 6 | 74 | 265 | -5 | 9 | 50 | 3 | 3 | 5x5x2 |
| | | | ID2 | 3 | 100 | 50 | 8 | 74 | 265 | -5 | 6 | 30 | 3 | 3 | 5x5x2 |
| | ARM_FFW2 | 1.5 | ID2 | 1 | 50 | 25 | 4 | 65 | 251 | -10 | 18 | 60 | 3 | 6 | 5x5x2 |
| | | | ID2 | 2 | 75 | 38 | 6 | 65 | 251 | -10 | 9 | 50 | 3 | 3 | 5x5x2 |
| | | | ID2 | 3 | 100 | 50 | 8 | 65 | 251 | -10 | 6 | 30 | 3 | 3 | 5x5x2 |
| | ARM_WASTE | 1.6 | OK | 1 | 95 | 59 | 5 | 64 | 242 | -26 | 18 | 100 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 143 | 89 | 8 | 64 | 242 | -26 | 9 | 80 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 190 | 118 | 10 | 64 | 242 | -26 | 6 | 40 | 3 | 3 | 5x5x2 |
| AR South | ARS_EWL | 2.1 | OK | 1 | 60 | 28 | 18 | 67 | 179 | 20 | 18 | 100 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 90 | 42 | 27 | 67 | 179 | 20 | 9 | 80 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 120 | 56 | 36 | 67 | 179 | 20 | 6 | 40 | 3 | 3 | 5x5x2 |
| | ARS_FW | 2.2 | OK | 1 | 34 | 25 | 8 | 75 | 248 | -5 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 50 | 37 | 12 | 75 | 248 | -5 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 67 | 49 | 16 | 75 | 248 | -5 | 6 | 30 | 3 | 3 | 5x5x2 |
| | ARS_HW | 2.3 | OK | 1 | 34 | 25 | 8 | 50 | 248 | 30 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 50 | 37 | 12 | 50 | 248 | 30 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 67 | 49 | 16 | 50 | 248 | 30 | 6 | 30 | 3 | 3 | 5x5x2 |
| | ARS_NSL | 2.4 | OK | 1 | 44 | 21 | 6 | 56 | 263 | -15 | 18 | 80 | 3 | 6 | 5x5x2 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | OK | 2 | 66 | 32 | 9 | 56 | 263 | -15 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 88 | 42 | 12 | 56 | 263 | -15 | 6 | 30 | 3 | 3 | 5x5x2 |
| AR South Ext | ARSEXT | 3.1 | OK | 1 | 83 | 34 | 5 | 80 | 283 | -13 | 12 | 40 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 125 | 51 | 8 | 80 | 283 | -13 | 9 | 40 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 166 | 68 | 10 | 80 | 283 | -13 | 9 | 30 | 3 | 3 | 5x5x2 |
| | ARSEXT990 | 3.2 | OK | 1 | 83 | 34 | 5 | 89 | 283 | -13 | 12 | 40 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 125 | 51 | 8 | 89 | 283 | -13 | 9 | 40 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 166 | 68 | 10 | 89 | 283 | -13 | 9 | 30 | 3 | 3 | 5x5x2 |
| Blanket Feudal | BF_FW | 4.1 | OK | 1 | 50 | 25 | 5 | 72 | 237 | 12 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 75 | 38 | 8 | 72 | 237 | 12 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 100 | 50 | 10 | 72 | 237 | 12 | 6 | 30 | 3 | 3 | 5x5x2 |
| | BF_HW | 4.2 | OK | 1 | 50 | 40 | 5 | 89 | 205 | 12 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 75 | 60 | 8 | 89 | 205 | 12 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 100 | 80 | 10 | 89 | 205 | 12 | 6 | 30 | 3 | 3 | 5x5x2 |
| Blanket 1 | BLK1_FW | 5.1 | OK | 1 | 45 | 16 | 9 | 74 | 260 | 13 | 6 | 50 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 68 | 24 | 14 | 74 | 260 | 13 | 6 | 30 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 90 | 32 | 18 | 74 | 260 | 13 | 3 | 15 | 3 | 3 | 5x5x2 |
| | BLK1_HW | 5.2 | OK | 1 | 80 | 30 | 6 | 75 | 230 | 0 | 6 | 50 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 120 | 45 | 9 | 75 | 230 | 0 | 6 | 25 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 160 | 60 | 12 | 75 | 230 | 0 | 3 | 20 | 3 | 3 | 5x5x2 |
| | BLK1_HWN | 5.3 | OK | 1 | 95 | 60 | 5 | 75 | 240 | 0 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 143 | 90 | 8 | 75 | 240 | 0 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 190 | 120 | 10 | 75 | 240 | 0 | 6 | 40 | 3 | 3 | 5x5x2 |
| Blanket 2 | BLK2_FW | 6.1 | OK | 1 | 55 | 55 | 8 | 72 | 247 | -20 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 83 | 83 | 12 | 72 | 247 | -20 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 110 | 110 | 16 | 72 | 247 | -20 | 6 | 30 | 3 | 3 | 5x5x2 |
| | BLK2_HW | 6.2 | OK | 1 | 110 | 20 | 5 | 72 | 230 | 25 | 6 | 50 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 165 | 30 | 8 | 72 | 230 | 25 | 6 | 30 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 220 | 40 | 10 | 72 | 230 | 25 | 3 | 20 | 3 | 3 | 5x5x2 |
| | BLK2_HW_LG | 6.3 | OK | 1 | 58 | 31 | 5 | 73 | 229 | 4 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 87 | 46 | 8 | 73 | 229 | 4 | 6 | 30 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 116 | 62 | 10 | 73 | 229 | 4 | 3 | 20 | 3 | 3 | 5x5x2 |
| Blanket 3 | BLK3_FW | 7.1 | OK | 1 | 75 | 21 | 5 | 81 | 225 | 17 | 6 | 50 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 113 | 32 | 8 | 81 | 225 | 17 | 6 | 40 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 150 | 42 | 10 | 81 | 225 | 17 | 3 | 20 | 3 | 3 | 5x5x2 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BLK3_HW | 7.2 | OK | 1 | 91 | 47 | 5 | 71 | 225 | 17 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 137 | 71 | 8 | 81 | 225 | 17 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 182 | 94 | 10 | 81 | 225 | 17 | 6 | 30 | 3 | 3 | 5x5x2 |
| Blanket 4 & 5 | BLK45_FW | 8.1 | OK | 1 | 34 | 45 | 10 | 82 | 278 | -32 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 51 | 68 | 15 | 82 | 278 | -32 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 77 | 101 | 23 | 82 | 278 | -32 | 6 | 30 | 3 | 3 | 5x5x2 |
| | BLK45_HW | 8.2 | OK | 1 | 80 | 28 | 7 | 82 | 278 | -32 | 6 | 50 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 120 | 42 | 11 | 82 | 278 | -32 | 6 | 40 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 160 | 56 | 14 | 82 | 278 | -32 | 3 | 20 | 3 | 3 | 5x5x2 |
| Blanket 6 | BLK6_FW | 9.1 | OK | 1 | 80 | 35 | 7 | 70 | 225 | -25 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 120 | 53 | 11 | 70 | 225 | -25 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 160 | 70 | 14 | 70 | 225 | -25 | 6 | 40 | 3 | 3 | 5x5x2 |
| | BLK6_HW | 9.2 | OK | 1 | 35 | 14 | 8 | 82 | 265 | -23 | 6 | 60 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 53 | 21 | 12 | 82 | 265 | -23 | 6 | 40 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 70 | 28 | 16 | 82 | 265 | -23 | 3 | 30 | 3 | 3 | 5x5x2 |
| BQR | BQR_FW | 10.1 | OK | 1 | 80 | 40 | 7 | 75 | 238 | 41 | 18 | 60 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 120 | 60 | 11 | 75 | 238 | 41 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 160 | 80 | 14 | 75 | 238 | 41 | 6 | 40 | 3 | 3 | 5x5x2 |
| | BQR_HWN | 10.2 | OK | 1 | 110 | 80 | 10 | 75 | 238 | 14 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 165 | 120 | 15 | 75 | 238 | 14 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 220 | 160 | 20 | 75 | 238 | 14 | 6 | 40 | 3 | 3 | 5x5x2 |
| | BQR_HWS | 10.3 | OK | 1 | 75 | 18 | 4 | 75 | 238 | 0 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 113 | 27 | 6 | 75 | 238 | 0 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 150 | 36 | 8 | 75 | 238 | 0 | 6 | 40 | 3 | 3 | 5x5x2 |
| Eroica | ERCN | 11.1 | OK | 1 | 63 | 18 | 3 | 65 | 265 | 5 | 18 | 100 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 95 | 27 | 5 | 65 | 265 | 5 | 9 | 80 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 126 | 36 | 6 | 65 | 265 | 5 | 9 | 40 | 3 | 3 | 5x5x2 |
| | ERC_FWN | 11.2 | OK | 1 | 72 | 30 | 6 | 65 | 265 | 7 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 108 | 45 | 9 | 65 | 265 | 7 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 144 | 60 | 12 | 65 | 265 | 7 | 6 | 40 | 3 | 3 | 5x5x2 |
| | ERCS | 11.3 | OK | 1 | 69 | 7 | 4 | 67 | 265 | -25 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 104 | 11 | 6 | 67 | 265 | -25 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 138 | 14 | 8 | 67 | 265 | -25 | 9 | 40 | 3 | 3 | 5x5x2 |
| Jethro | JTH_Dom1 | 12.1 | OK | 1 | 43 | 11 | 6 | 88 | 229 | -20 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 65 | 17 | 9 | 88 | 229 | -20 | 9 | 60 | 3 | 3 | 5x5x2 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | OK | 3 | 86 | 22 | 12 | 88 | 229 | -20 | 6 | 40 | 3 | 3 | 5x5x2 |
| | JET_Dom2 | 12.2 | OK | 1 | 55 | 30 | 4 | 85 | 60 | 25 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 83 | 45 | 6 | 85 | 60 | 25 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 110 | 60 | 8 | 85 | 60 | 25 | 6 | 40 | 3 | 3 | 5x5x2 |
| | JET_Dom3 | 12.3 | OK | 1 | 61 | 41 | 6 | 87 | 57 | 25 | 9 | 40 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 92 | 62 | 10 | 87 | 57 | 25 | 6 | 30 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 122 | 82 | 13 | 87 | 57 | 25 | 3 | 24 | 3 | 3 | 5x5x2 |
| | JET_Dom4 | 12.4 | OK | 1 | 36 | 30 | 9 | 75 | 245 | 11 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 54 | 45 | 14 | 75 | 245 | 11 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 72 | 60 | 19 | 75 | 245 | 11 | 6 | 40 | 3 | 3 | 5x5x2 |
| Lima | LIMA_FWE | 13.1 | OK | 1 | 55 | 35 | 5 | 61 | 264 | 10 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 83 | 53 | 8 | 61 | 264 | 10 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 110 | 70 | 10 | 61 | 264 | 10 | 6 | 40 | 3 | 3 | 5x5x2 |
| | LIMA_HW | 13.2 | OK | 1 | 32 | 10 | 2 | 60 | 264 | 5 | 9 | 50 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 48 | 15 | 3 | 60 | 264 | 5 | 6 | 30 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 64 | 20 | 4 | 60 | 264 | 5 | 6 | 15 | 3 | 3 | 5x5x2 |
| | INTER | 13.3 | OK | 1 | 71 | 59 | 4 | 58 | 254 | 10 | 9 | 50 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 107 | 89 | 6 | 58 | 254 | 10 | 6 | 40 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 142 | 118 | 8 | 58 | 254 | 10 | 6 | 30 | 3 | 3 | 5x5x2 |
| | INTER_S | 13.4 | OK | 1 | 71 | 59 | 4 | 62 | 252 | 10 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 107 | 89 | 6 | 62 | 252 | 10 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 142 | 118 | 8 | 62 | 252 | 10 | 6 | 40 | 3 | 3 | 5x5x2 |
| | LIMA_MAIN | 13.5 | OK | 1 | 27 | 17 | 2 | 62 | 257 | -18 | 18 | 60 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 41 | 26 | 3 | 62 | 257 | -18 | 9 | 40 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 54 | 34 | 4 | 62 | 257 | -18 | 6 | 30 | 3 | 3 | 5x5x2 |
| Sheet | SHT_MAIN | 14.1 | OK | 1 | 60 | 43 | 4 | 55 | 205 | 22 | 60 | 160 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 90 | 65 | 6 | 55 | 205 | 22 | 40 | 100 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 120 | 86 | 8 | 55 | 205 | 22 | 20 | 60 | 3 | 3 | 5x5x2 |
| | SHT_STH | 14.2 | OK | 1 | 61 | 35 | 3 | 53 | 221 | -23 | 18 | 80 | 3 | 6 | 5x5x2 |
| | | | OK | 2 | 91 | 53 | 5 | 53 | 221 | -23 | 9 | 60 | 3 | 3 | 5x5x2 |
| | | | OK | 3 | 121 | 70 | 6 | 53 | 221 | -23 | 6 | 40 | 3 | 3 | 5x5x2 |

### Block Model Creation and Grade Interpolation

Parent cell estimation with sub-celling was applied. The parent cell size is 3 m(X) by 10 m(Y) by 10 m(Z). Sub-celling was applied to capture the resolution that exists in the geological models. The Y direction is approximately along strike and the Z direction is approximately down-dip, the smallest parent cell size in the X direction (3 m) is orientated along the thinnest direction of the orebody.

Datamine software was utilised for running the estimates. Individual orebodies were domained to reflect high and low-grade areas. The domain wireframes were used as hard boundaries during estimation. This ensures that only samples falling within the domain wireframe's extents were utilised during estimation. Variograms could be generated for most of the domains allowing for ordinary kriging to be performed. This is detailed per domain along with the estimation parameters employed.

### Bulk Density

Between May 2016 and February 2020, 32 633 SG samples were taken for Blanket Mine. The breakdown per orebody is detailed in Table 23. All orebody domains were assigned the relevant density.

*Table 23: SG Samples per Orebody.*

| Orebody | Valid Samples | SG (g/cm$^3$) |
|---|---|---|
| ARM | 6,222 | 2.90 |
| ARS | 8,629 | 2.88 |
| Feudal | 67 | 2.97 |
| Blanket | 6,266 | 2.84 |
| Eroica | 2,849 | 2.87 |
| Lima | 712 | 2.95 |
| Sheet | 515 | 2.88 |
| **Grand Total** | **25,260** | **2.88** |

### Grade Estimation

The estimation results were compared visually to the data to confirm continuity between the data and block models. All the estimates are depicted in Figure 55 to Figure 67 and reflects the data well. The figures illustrate undepleted models with no additional filters applied.

*Figure 55: ARM Estimates*

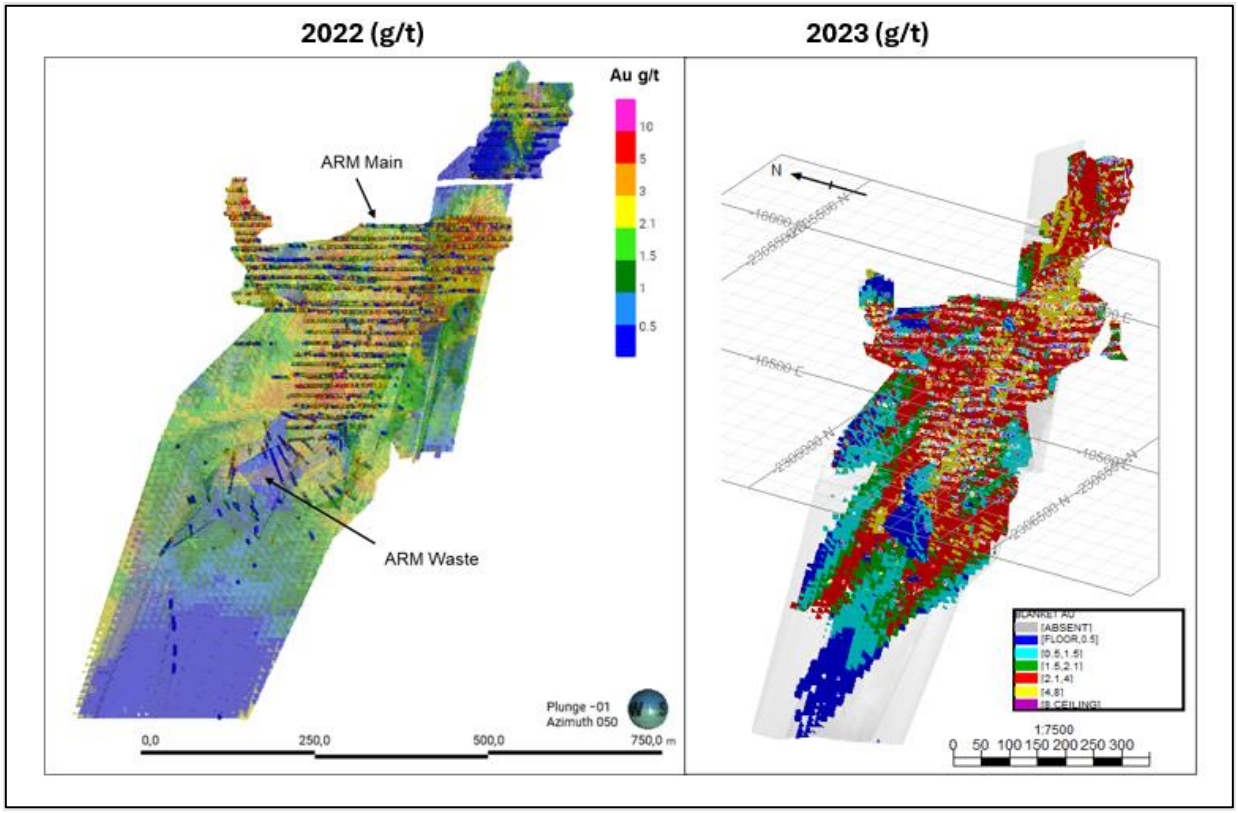



*Figure 56: ARS  Estimates (including ARS_Ext)*

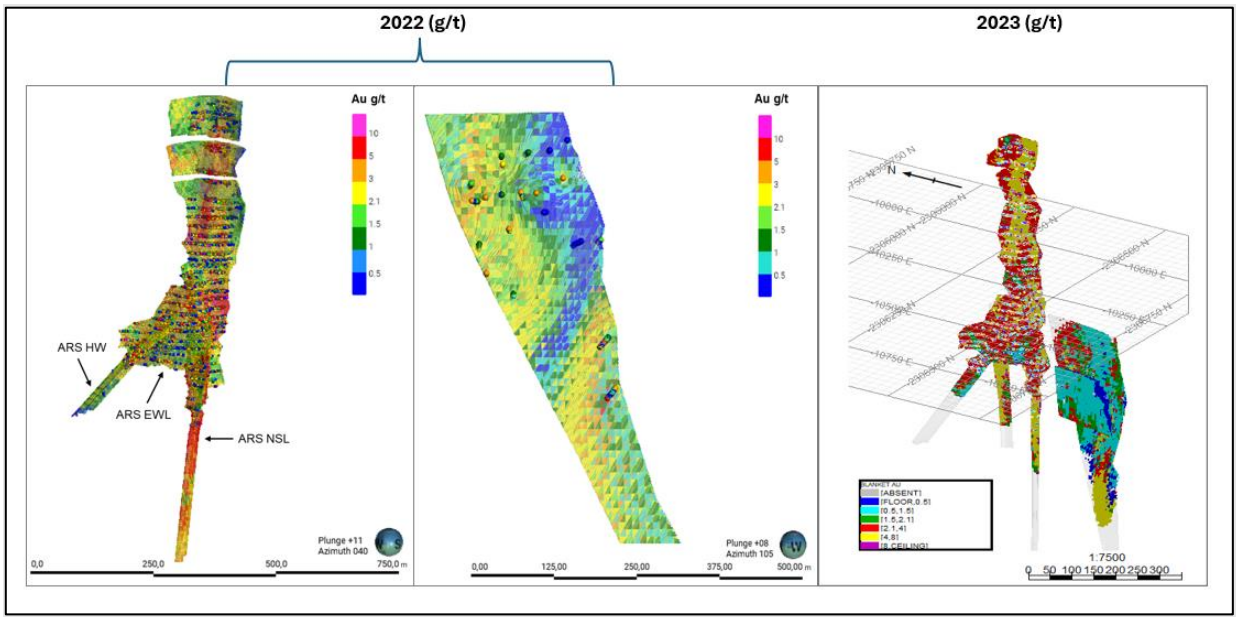


*Figure 57: BLK1 Estimates*

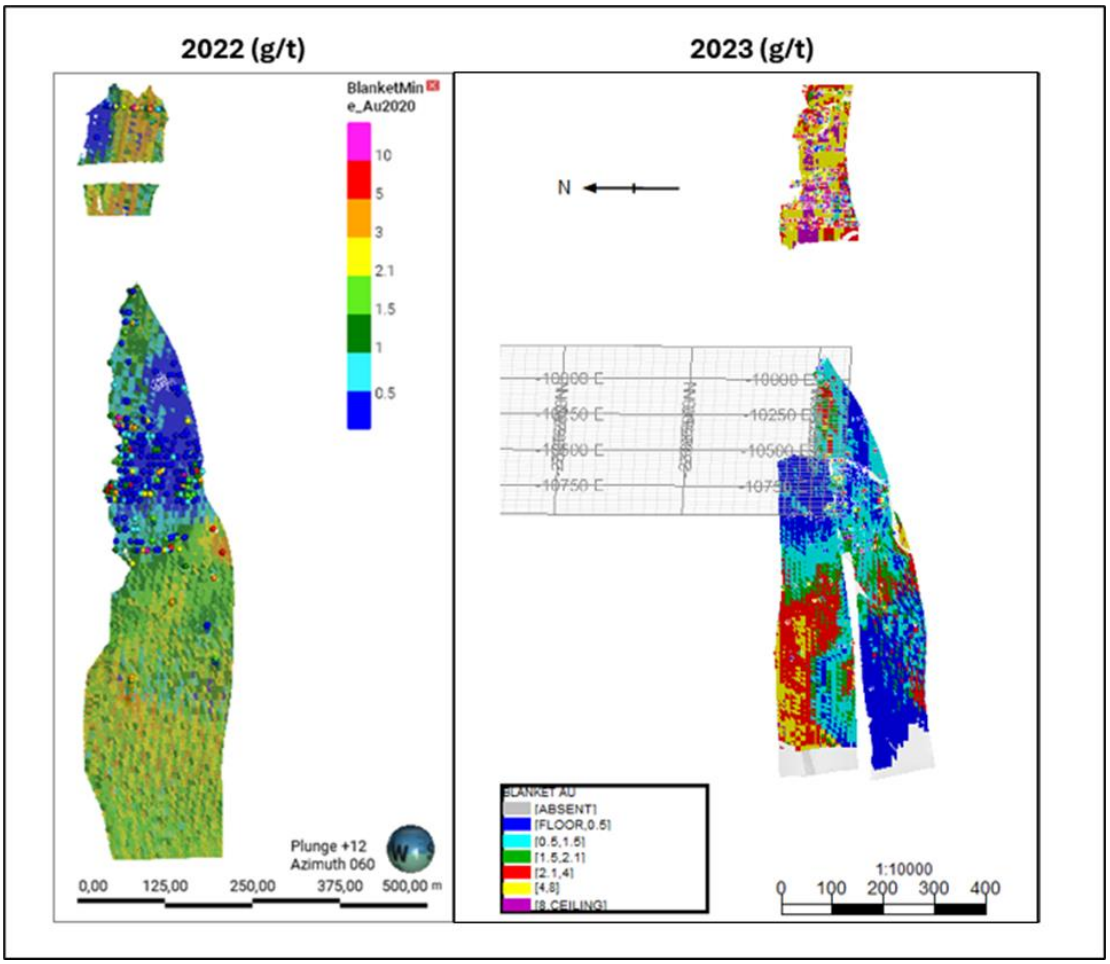



*Figure 58: BLK2 Estimates*

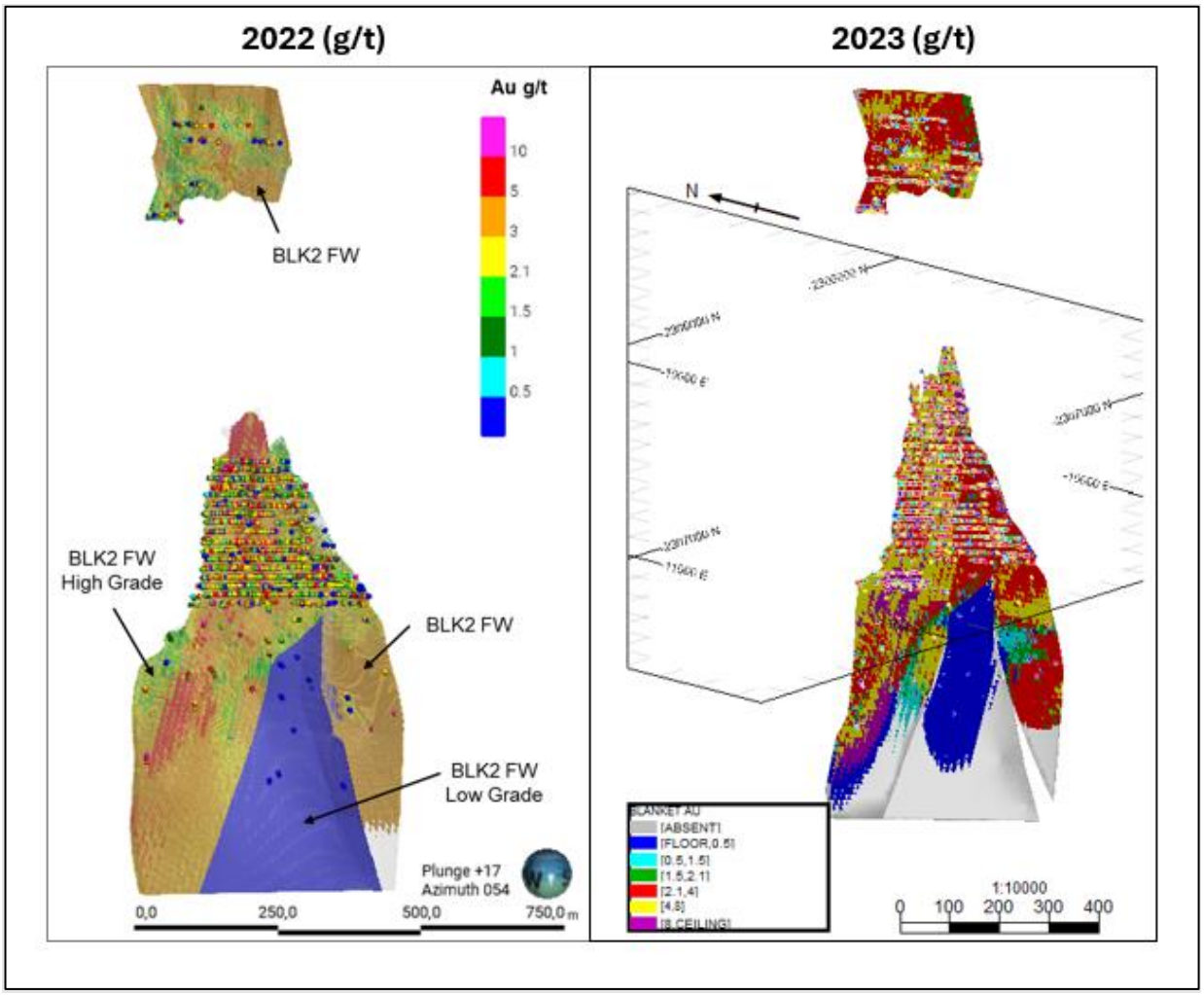

2022 (g/t)
2023 (g/t)
Au g/t
10
5
3
2.1
1.5
1
0.5
BLK2 FW
BLK2 FW
High Grade
BLK2 FW
BLK2 FW
Low Grade
Plunge +17
Azimuth 054
0,0
250,0
500,0
750,0 m
N
BLANKET AU
[ABSENT]
[FLOOR,0.5]
[0.5,1.5]
[1.5,2.1]
[2.1,4]
[4,8]
[8,CEILING]
1:10000
0
100
200
300
400

*Figure 59: BLK3 Estimates*

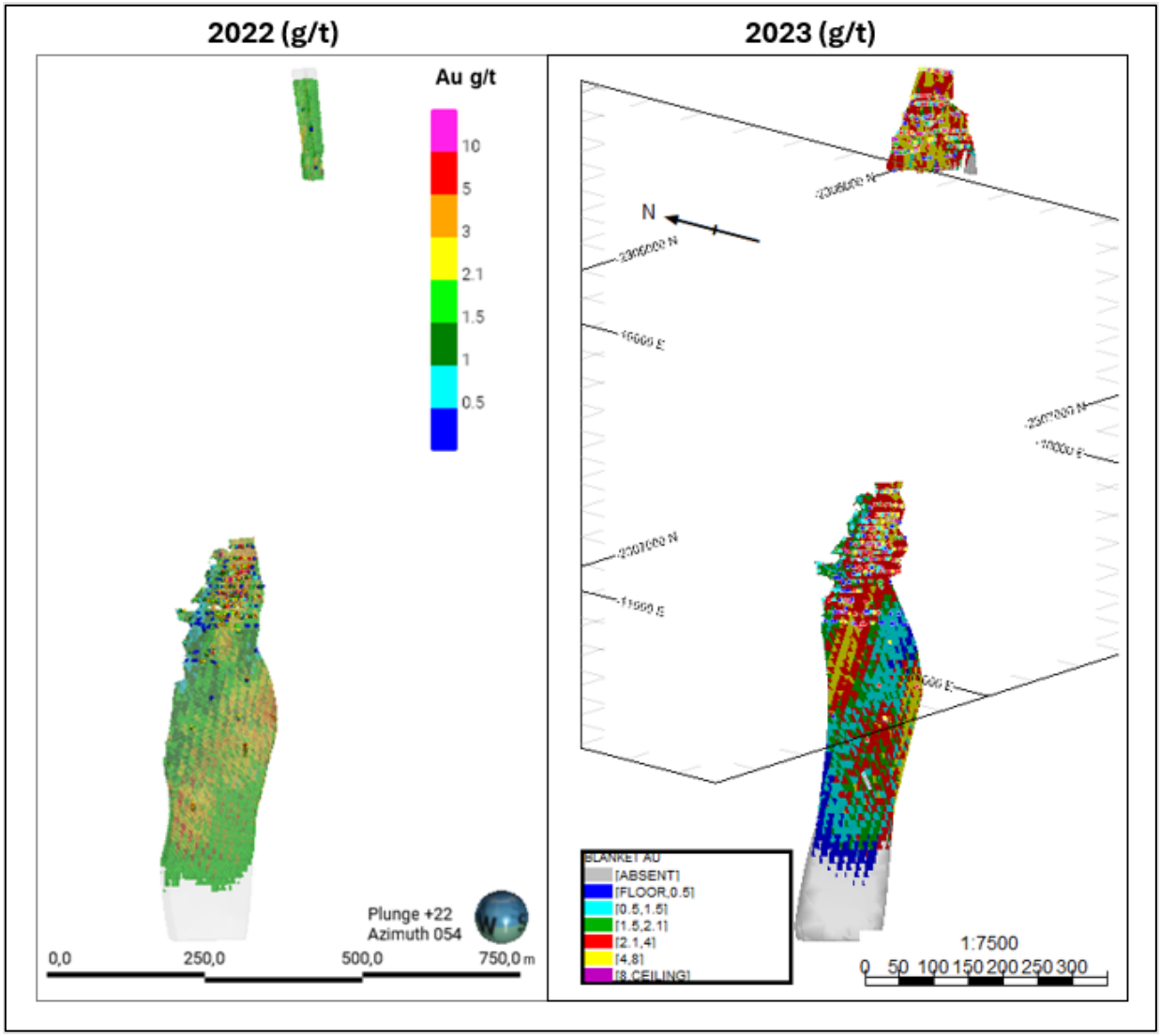


*Figure 60: BLK4_5 Estimates*

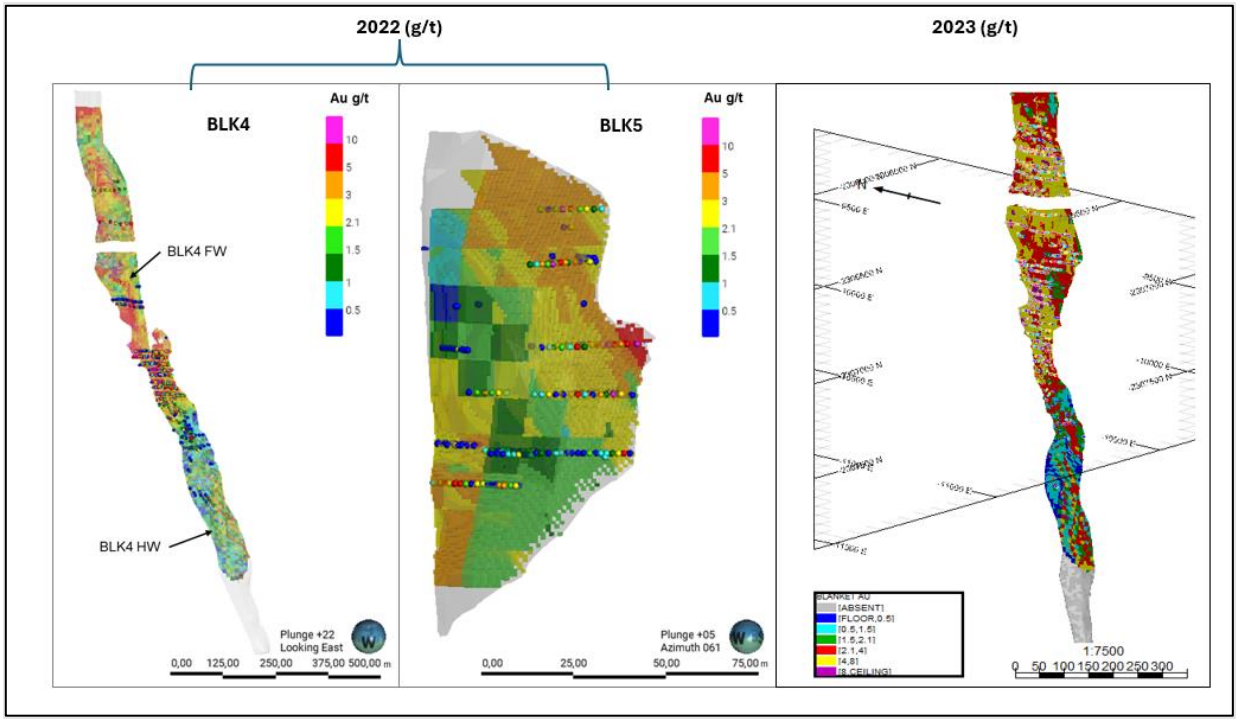



*Figure 61: BLK6 Estimates*

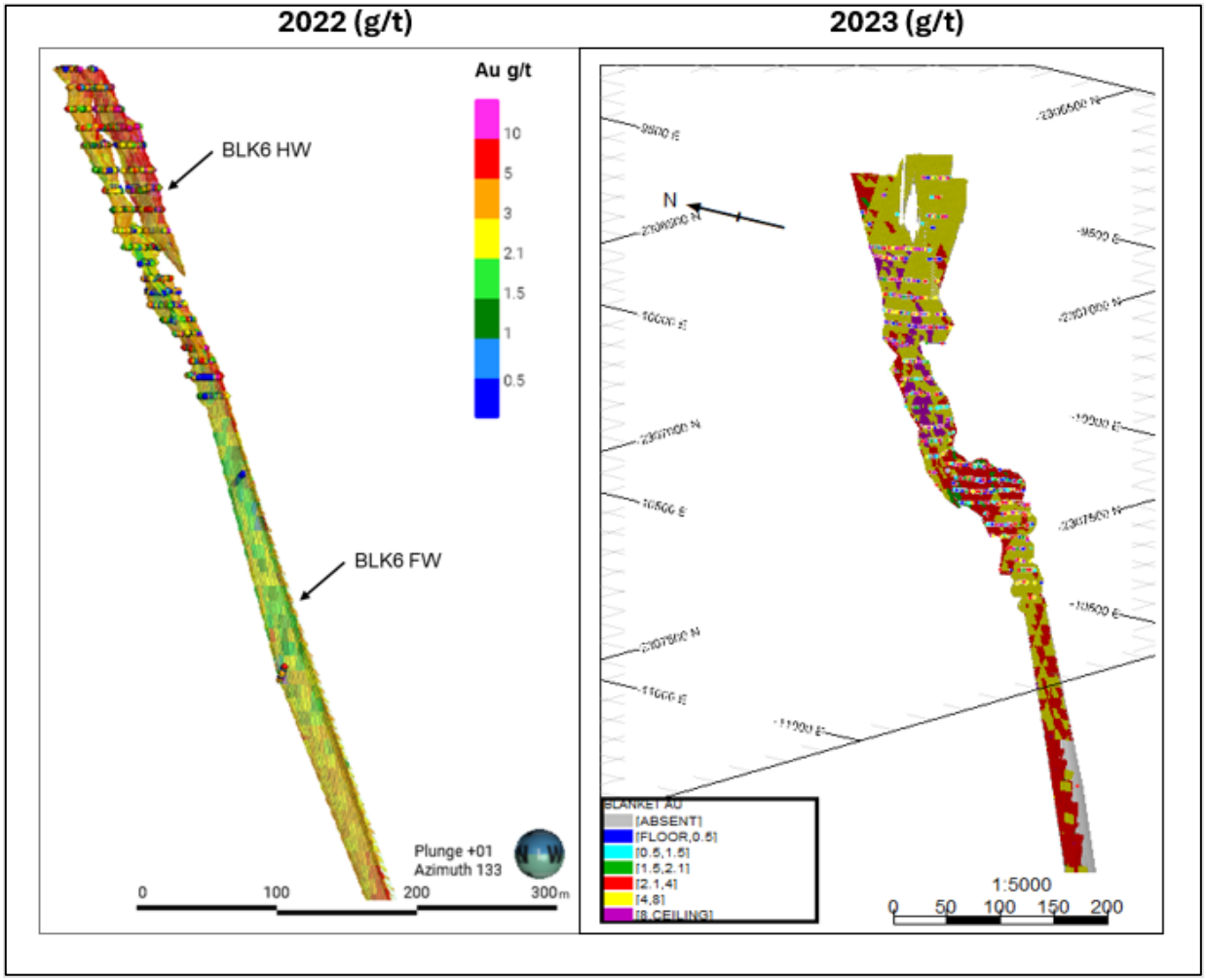


*Figure 62: BF Estimates*

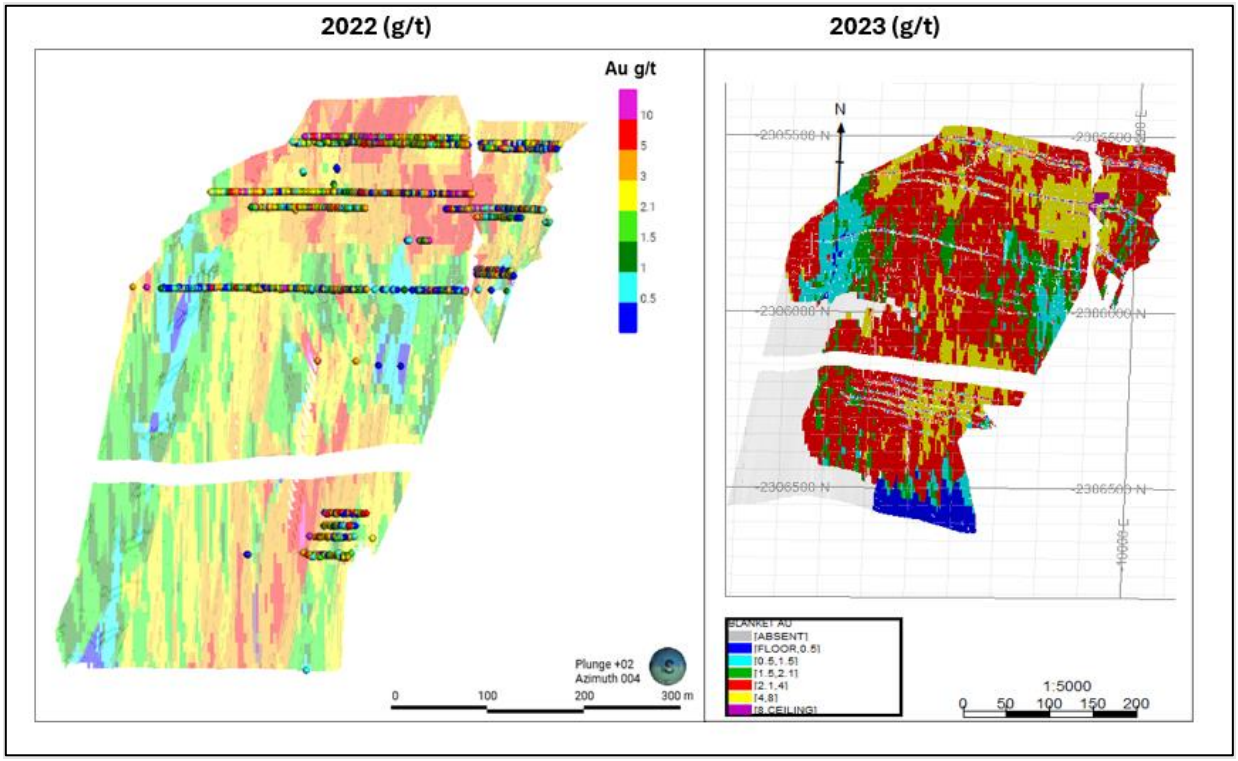



*Figure 63: BQR Estimates*

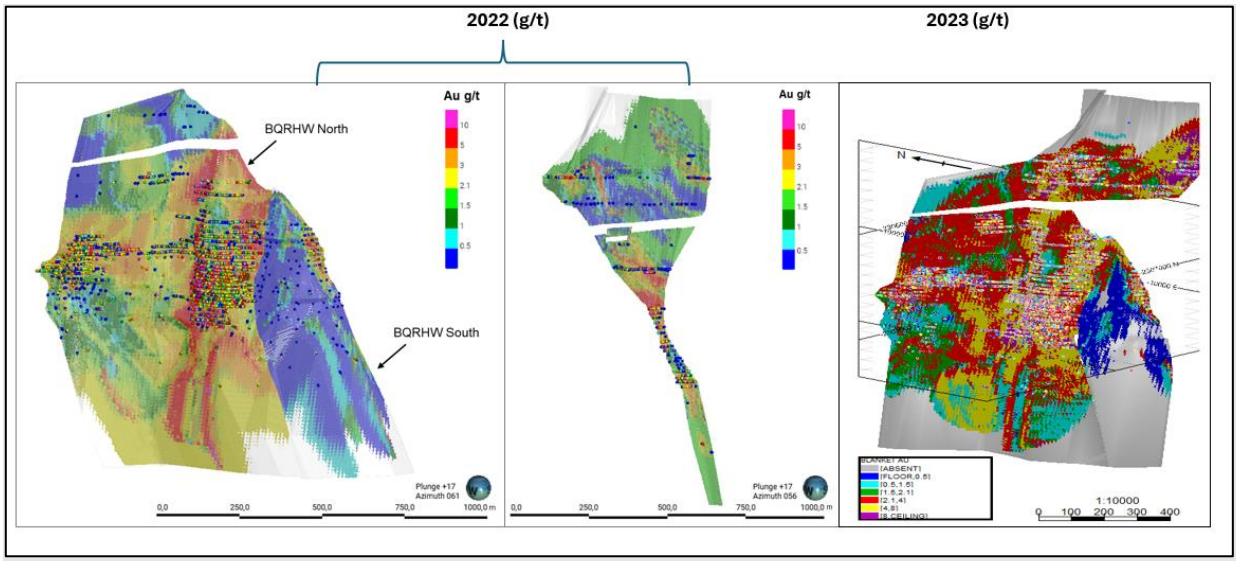


*Figure 64: LIMA Estimates*

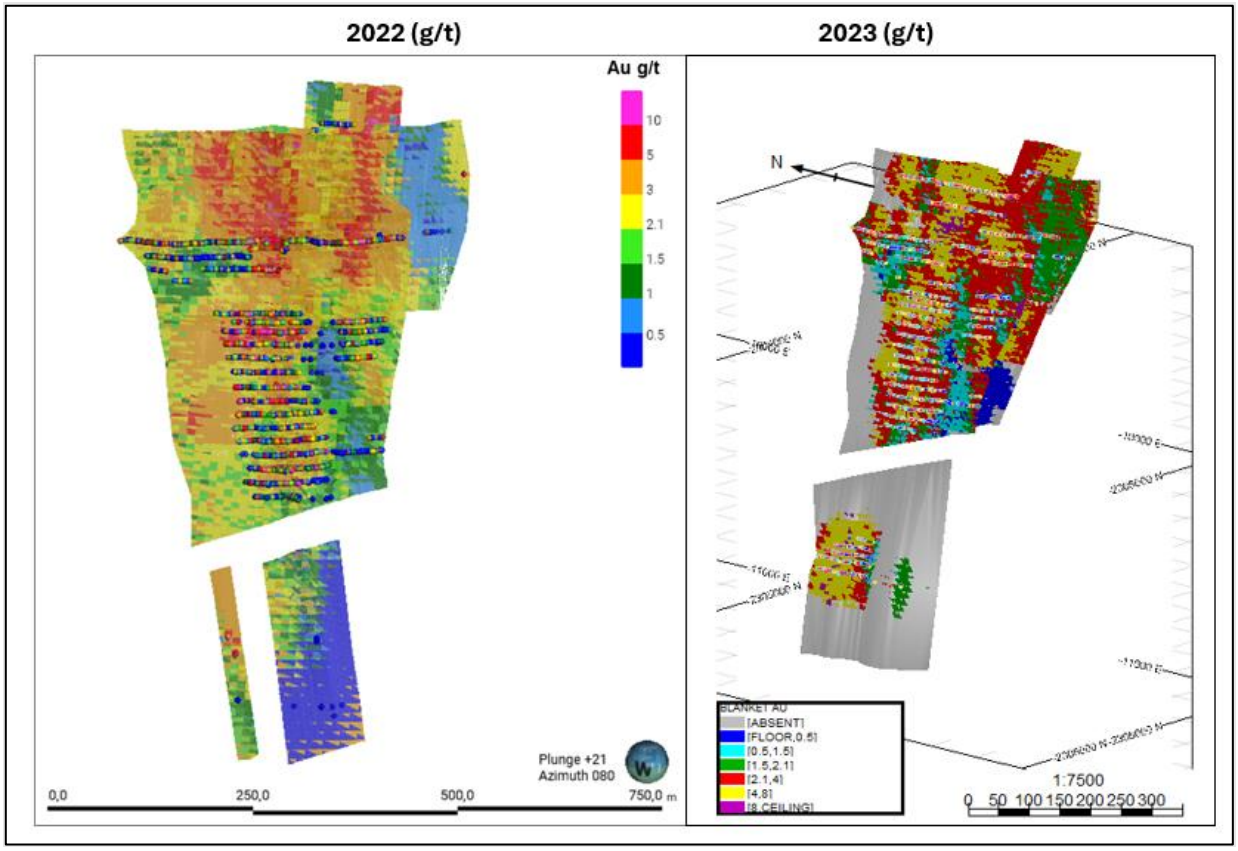



*Figure 65: ERC Estimates*

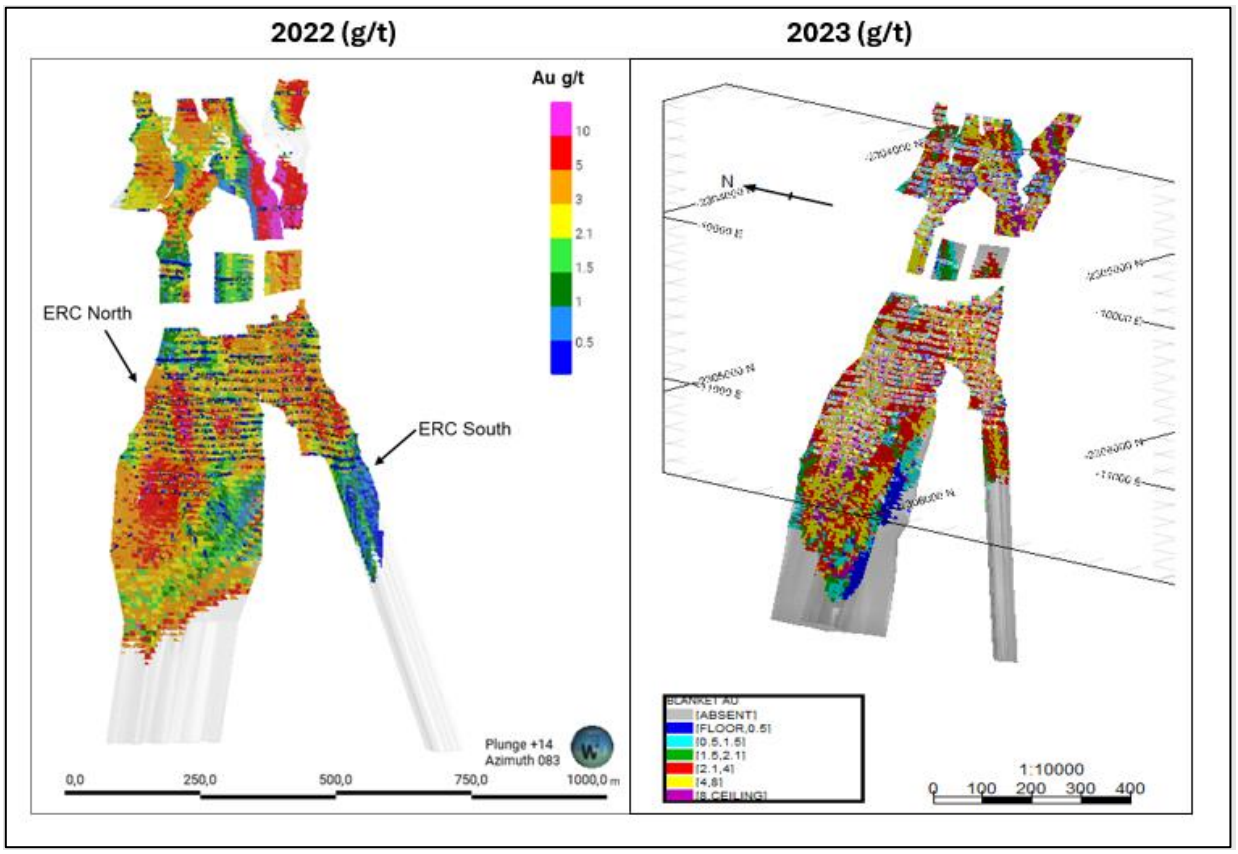


*Figure 66: JTH Estimates*

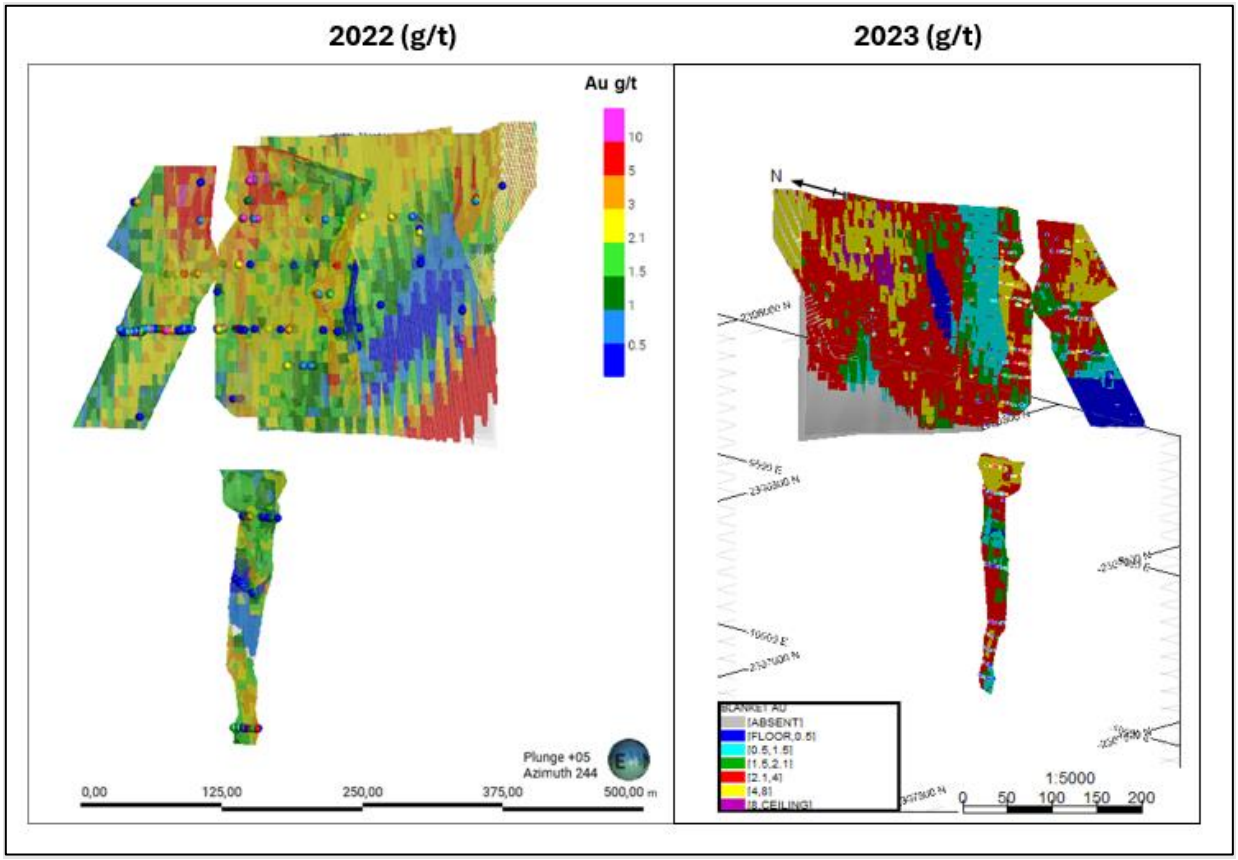
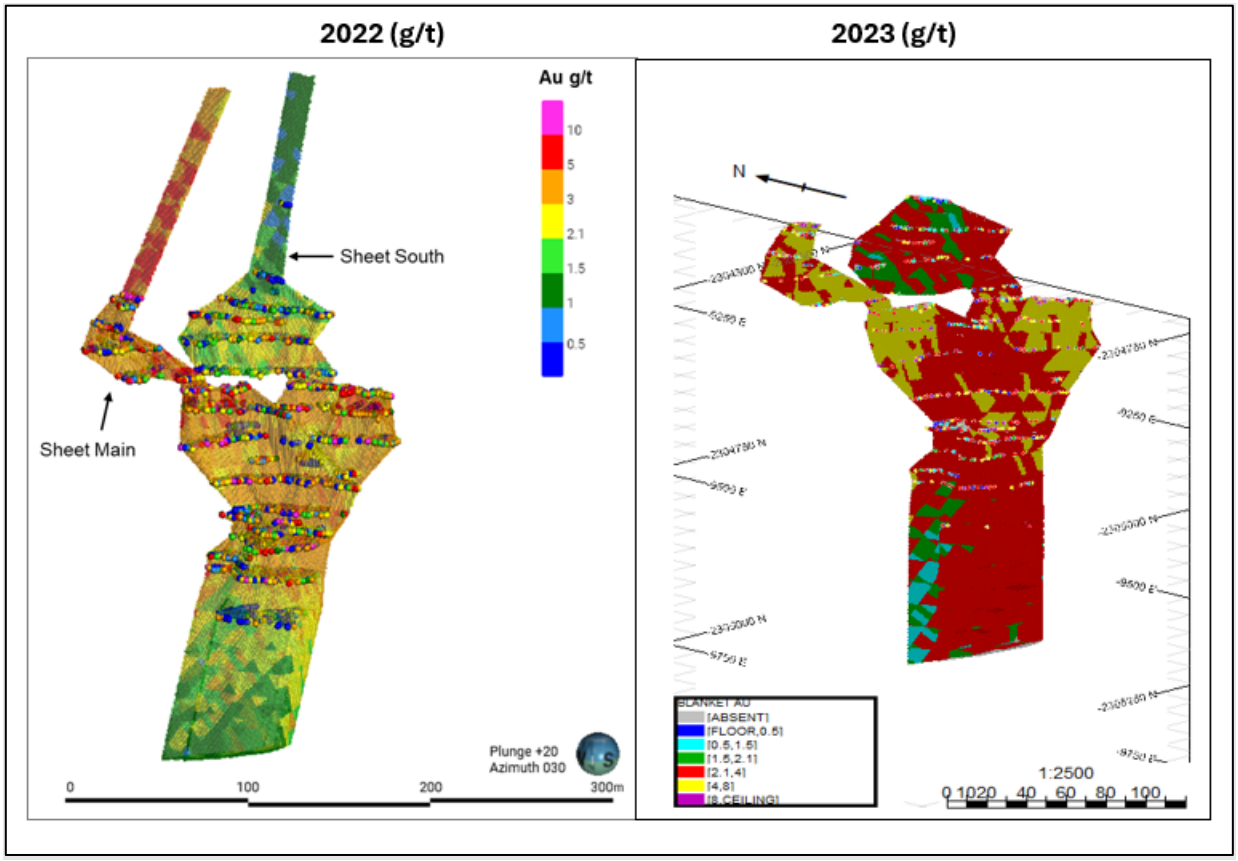


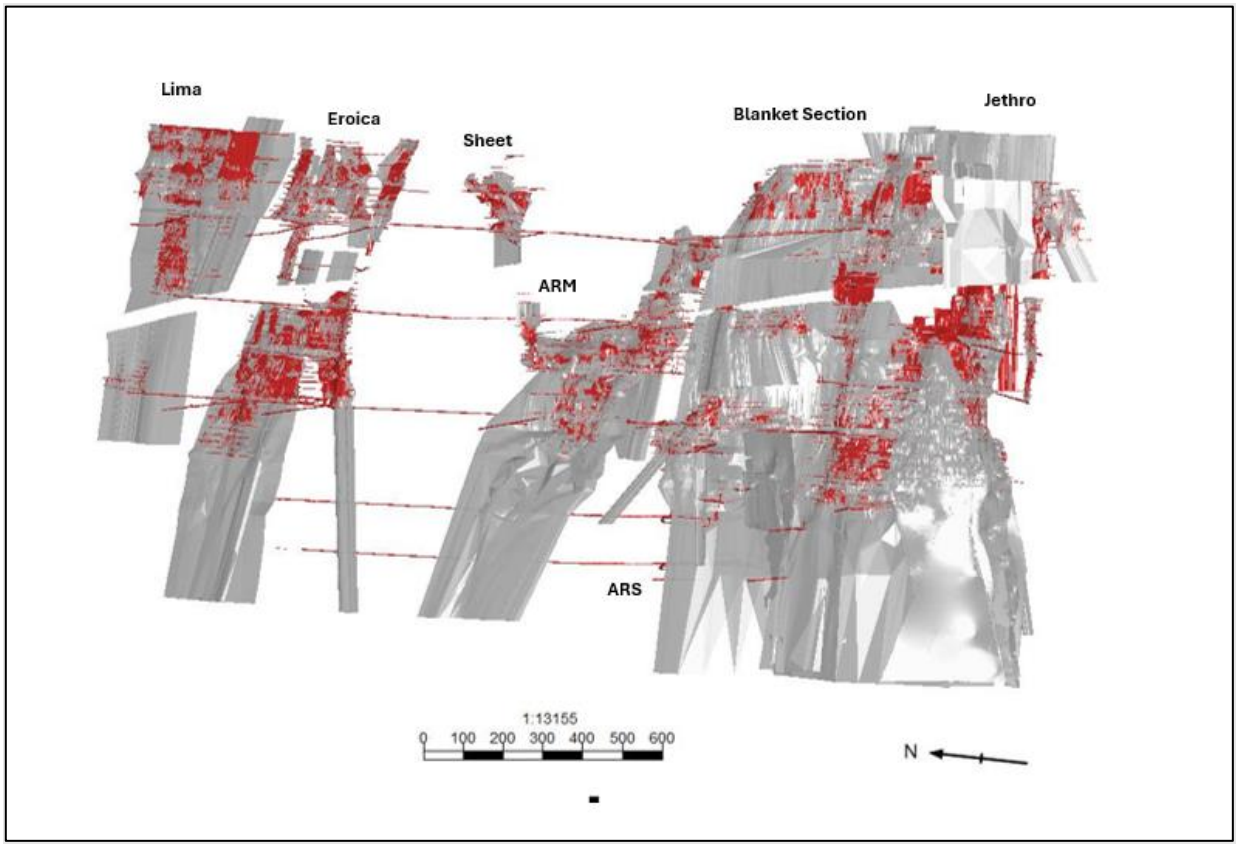

*Figure 67: SHT Estimates*



### Mining Depletions

Depletions are correct as of 31 December 2023. All haulages, development and stoping are accounted for in the block models. Mineral Resource tabulations exclude all development and stoping. An image of all stoping and development is illustrated in Figure 68 with the depletions in red.

*Figure 68: Long Section of Blanket Mine showing Stopes, Drives, Haulages and Shafts*




### Cut-off Parameters

Economic, metallurgical, and mining parameters were used to derive the cut-offs. The parameters are tabulated in Table 24 below. The gold price used is the gold price as per the annual budget plan increased by 10% while the total operating cost as per on mine budgets is the cost supplied by Blanket Mine (USD96/t) with a 10% improvement, for potential operational improvements, for reasonable prospects of eventual economic extraction. The plant recovery and mine call factor are also based on the Blanket Mine historical production figures. Reasonable prospects of eventual economic extraction are based on a 10-to-15-year view for precious metals.

*Table 24: Cut-off Derivation Factors*

| Parameter | Unit | Quantity |
|---|---|---|
| Metal price | USD/oz | 2 150 |
| Total operating cost (Mining and Processing) | USD/t | 86.4 |
| Dilution | % | 8 |
| Plant recovery factor | % | 95 |

| Parameter | Unit | Quantity |
|---|---|---|
| Mine call factor | % | 100 |

**Block Model Validation**

The purpose of swath plots is to verify the estimate versus the original input data. Swath plots show the average of the samples versus the average of the estimate within the same perimeter (swath) that is spaced a regular distance apart. This is repeated in X, Y and Z space to get a representative view of the correlation in all orientations. For Blanket, swaths in Y are generally across strike and swaths in X are along strike, swaths in Z represent the down-dip direction. This is typically displayed with an additional estimation technique, an inverse distance estimate in this instance. This aids in determining if any variance is due to the estimation technique. In all instances, the inverse distance weighting and ordinary kriging estimates compare well.

In addition, all swath plots compare well with the data. Better-informed domains show the best swaths, with sparsely sampled domains less so.

Examples of swath plots for the Eroica domains (ERCN, ERCN_FW and ERCS) are provided in Figure 69 to Figure 71 respectively.

*Figure 69: Swathe Plot of ERCN Domain in X, Y and Z Directions*

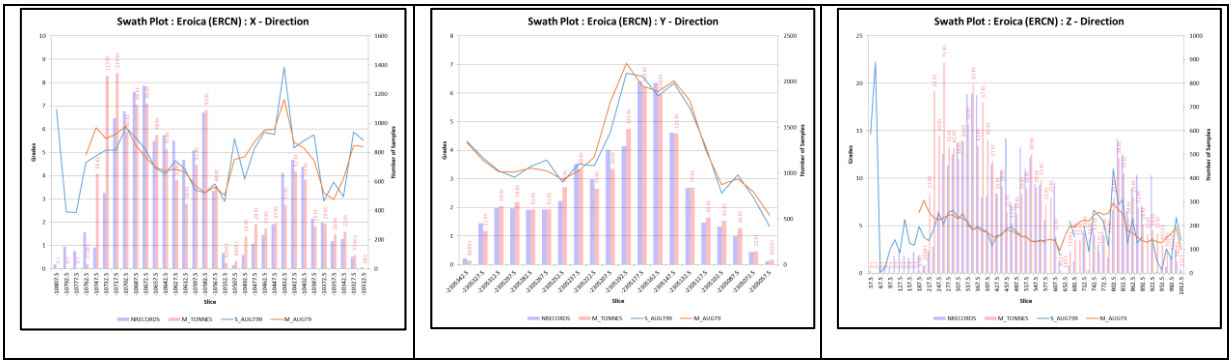



*Figure 70: Swathe Plot of ERCN_FW Domain in X, Y and Z Directions*

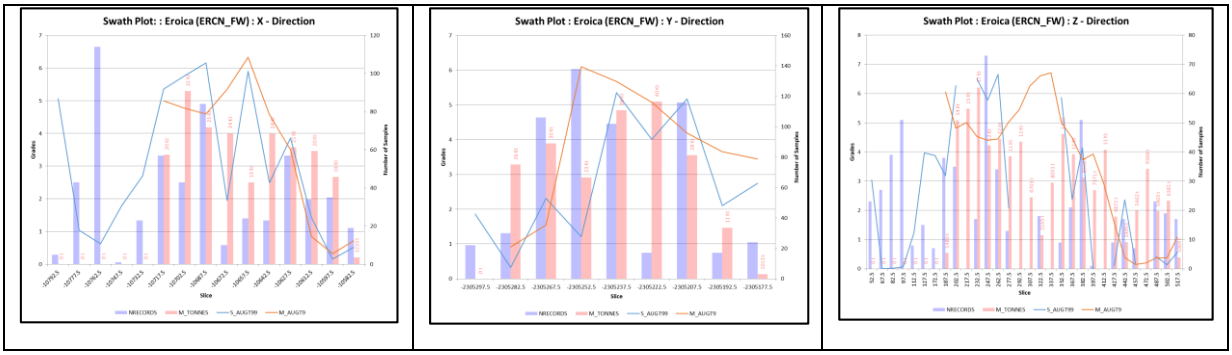
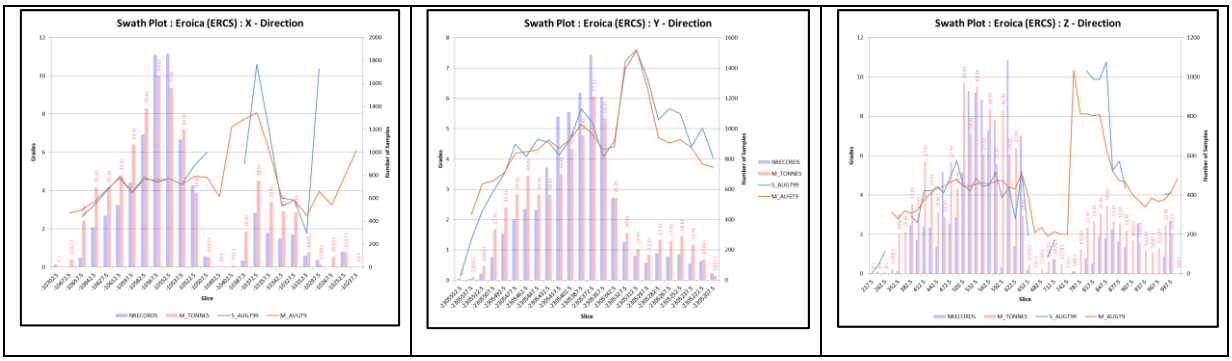


*Figure 71: Swathe Plot of ERCS Domain in X, Y and Z Directions*




**Mineral Resource Classification**

Mineral Resources have been reported separately in the Measured, Indicated and Inferred Mineral Resource categories. Inferred Mineral Resources have been reported separately and have not been incorporated with the Measured and Indicated Mineral Resources. Inferred Mineral Resources have a lower level of confidence and while it would be reasonable to expect that the majority of the Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will occur.

For classification of Mineral Resources, search volume indices, distance to samples, number of samples and the Slope of Regression were used to define Mineral Resource classification. The classification has in part been more restrictive when compared to the 2022 classification criteria. The standardised classification criteria are summarised in Table 25.

*Table 25: Mineral Resource Classification Criteria for Blanket Mine.*

| Domains | Mineral Resource Categories | | |
|---|---|---|---|
| | Measured | Indicated | Inferred |
| Blanket 1_HW | SVOL = 1 : MinD <=20 : SR >=0.5 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<200 |
| Blanket 1_HWN | SVOL = 1 : MinD <=20 : SR >=0.5 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<200 |
| Blanket 1_FW | SVOL = 1 : MinD <=20 : SR >=0.5 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<200 |
| Blanket 2 FW | SVOL = 1 : MinD <=20 : SR >=0.5 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<250 |
| Blanket 2 HW | SVOL = 1 : MinD <=20 : SR >=0.5 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<200 |
| Blanket 2 HW LG | SVOL = 1 : MinD <=20 : SR >=0.5 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<200 |
| Blanket 3_FW | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<250 |
| Blanket 3_HW | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| Blanket 4_5 HW | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<250 |
| Blanket 4_5 FW | SVOL = 1 and MinD<=20 | (SVOL = 1 or 2) : MinD<=40 : SR>=0.5 | (SVOL = 1 or 2 or 3) and MinD<175 |
| Blanket 6 HW | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<200 |
| Blanket 6 FW | SVOL = 1 and MinD<=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<200 |
| BQR FW | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<200 |
| BQR HW NORTH | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<250 |
| BQR HW SOUTH | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<200 |
| ARM Main | SVOL = 1 : MinD <=20 : NSamp >=80 | (SVOL = 1 or 2) : MinD<=40 : SR>=0.5 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARM Waste | SVOL = 1 : MinD <=20 : NSamp >=80 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARM_480L | SVOL=1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARS_ABV_DYK | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARM_FFW1 | SVOL = 1 : MinD <=20 : NSamp >=40 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARM_FFW2 | SVOL = 1 : MinD <=20 : NSamp >=40 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| BF_FW | SVOL = 1 : MinD <=20 : NSamp >=80 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<250 |
| BF_HW | SVOL = 1 : MinD <=20 : NSamp >=80 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<250 |
| ERC_N | SVOL = 1 : MinD <=20 : NSamp >=60 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ERC_NFW | SVOL = 1 : MinD <=20 : NSamp >=60 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ERC_S | SVOL = 1 : MinD <=20 : NSamp >=60 | (SVOL = 1 or 2) : MinD<=40 : NSamp>=20 | (SVOL = 1 or 2 or 3) and MinD<175 |
| JETHRO_MAIN | SVOL = 1 : MinD <=20 : NSamp >=80 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |

| | | | |
|---|---|---|---|
| JETHRO_CENTRAL | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| JETHRO_HW1 | SVOL = 1 : MinD <=20 : NSamp >=80 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| JETHRO_HW2 | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| LIMA MAIN | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| LIMA_FWE | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| LIMA _HW | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| LIMA INTER | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| LIMA INTERS | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| SHEET MAIN | SVOL = 1 : MinD <=20 : NSamp >=40 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| SHEET SOUTH | SVOL = 1 : MinD <=20 : NSamp >=40 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARS EWL | SVOL = 1 : MinD <=20 : SR >=0.7 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARS HW | SVOL = 1 : MinD <=20 : NSamp >=40 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARS_FW | SVOL = 1 : MinD <=20 : NSamp >=40 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARS NSL | SVOL = 1 : MinD <=20 : NSamp >=40 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARS_EXT | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |
| ARS_EXT_990 | SVOL = 1 and MinD <=20 | (SVOL = 1 or 2) and MinD<=40 | (SVOL = 1 or 2 or 3) and MinD<175 |

The minimum distance to samples measures the minimum distance to the nearest samples for a block being estimated. In mining areas, this distance is typically less than five to ten metres. The distance to samples increasing as you move further away from a mining area. The distance between sub-levels is typically 15.0 meters vertical so for Measured Resources, the area between two sub-levels can be classified as such. Indicated Resources would encompass up to three sub-levels while for Inferred, the criteria was relaxed for up to a maximum of between 1.5X-5.0X the variogram range to aid in long term planning. This is considered suitable for the Blanket orebodies as geological and grade continuity is observed from mined-out areas, and the down-dip continuity of orebodies is informed by exploration drillholes. Therefore, there is sufficient confidence in geological continuity for Inferred Resources.

*Figure 72: ARM Mineral Resource Classification*

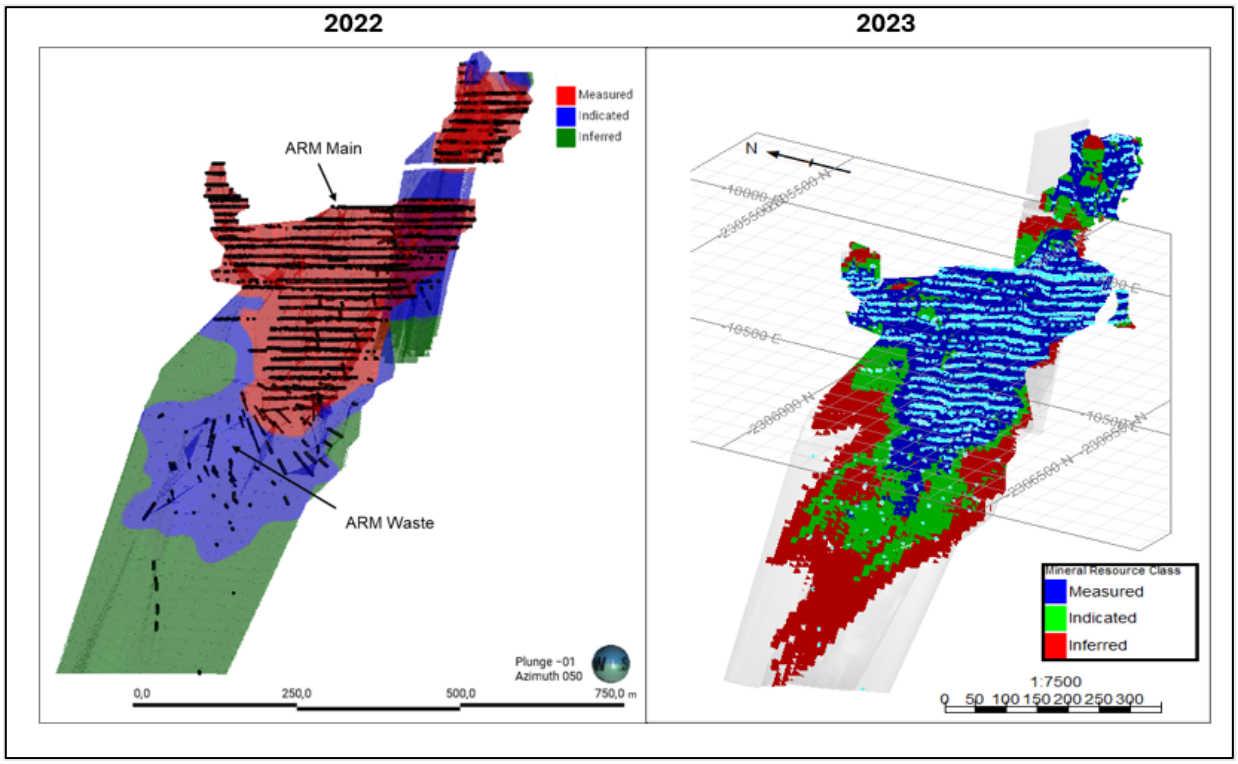


*Figure 73: ARS Mineral Resource Classification (Including ARS_Ext)*

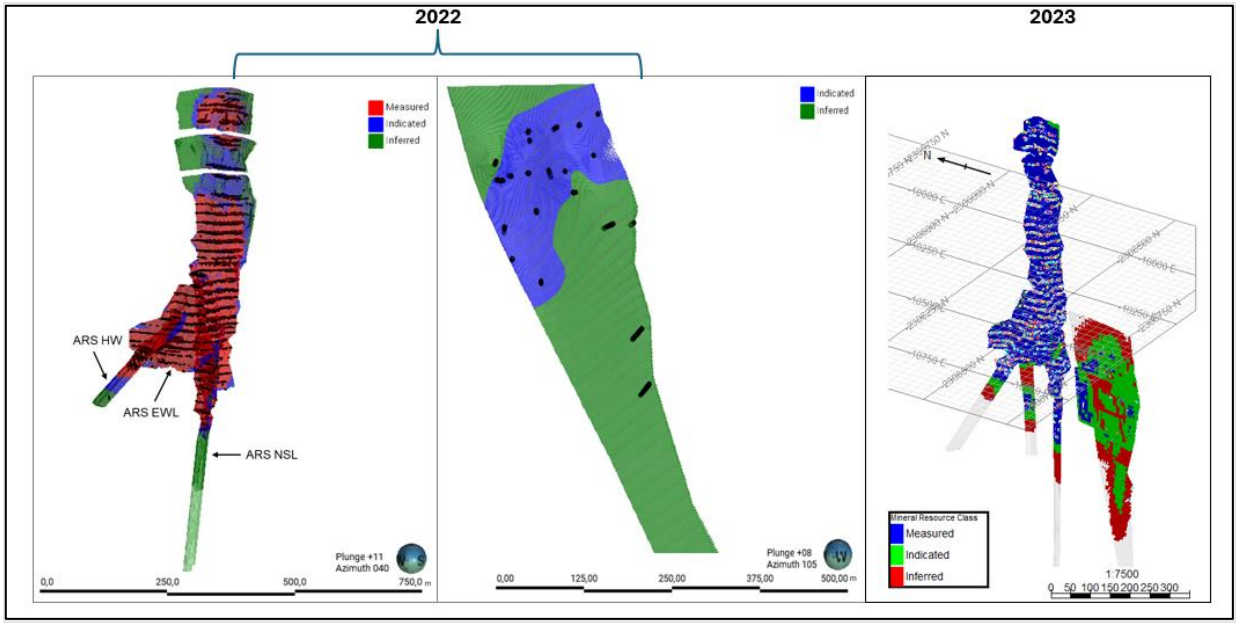


*Figure 74: BLK1 Mineral Resource Classification*

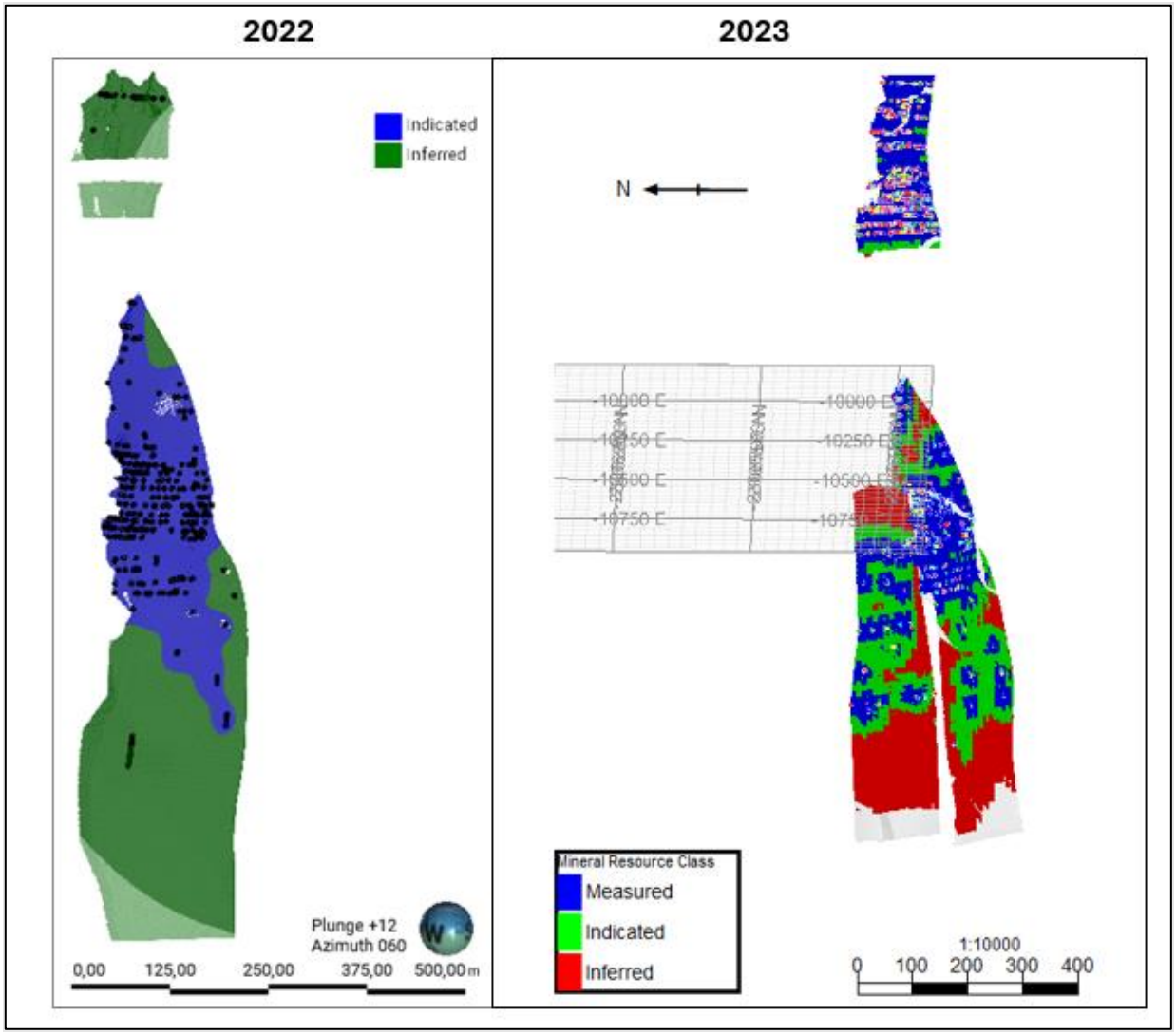


*Figure 75: BLK2 Mineral Resource Classification*

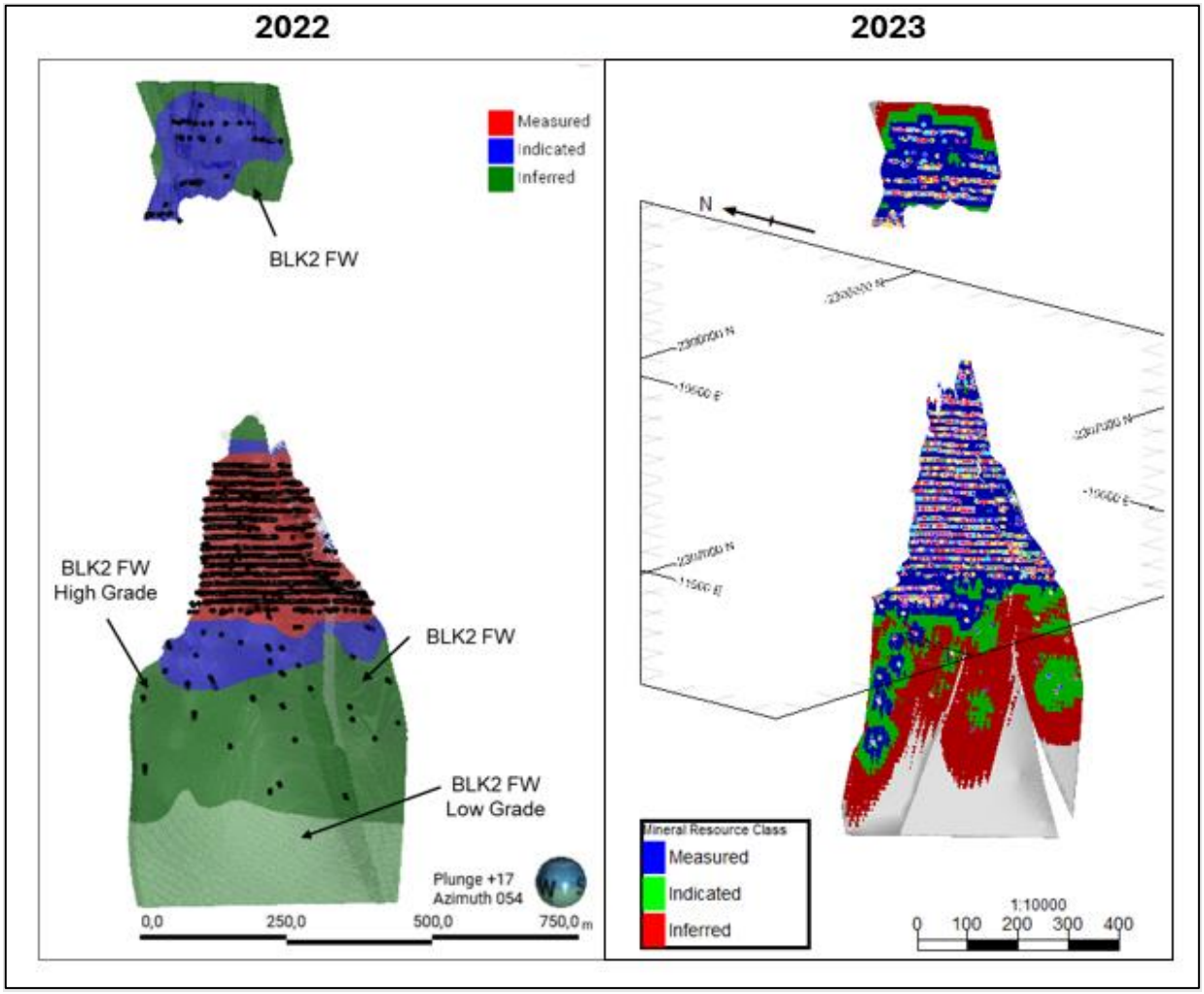


*Figure 76: BLK3 Mineral Resource Classification*

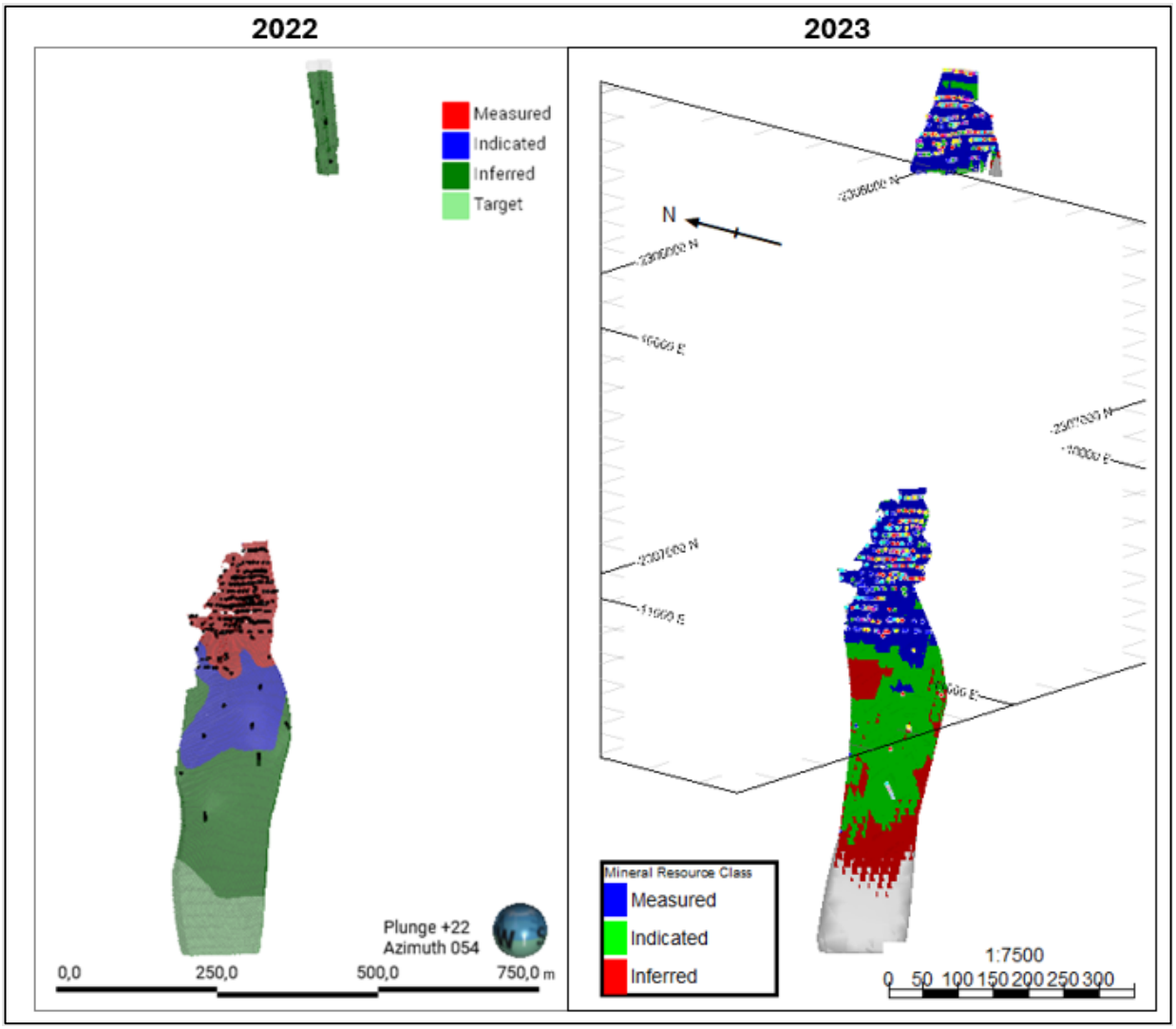


*Figure 77: BLK4_5 Mineral Resource Classification*

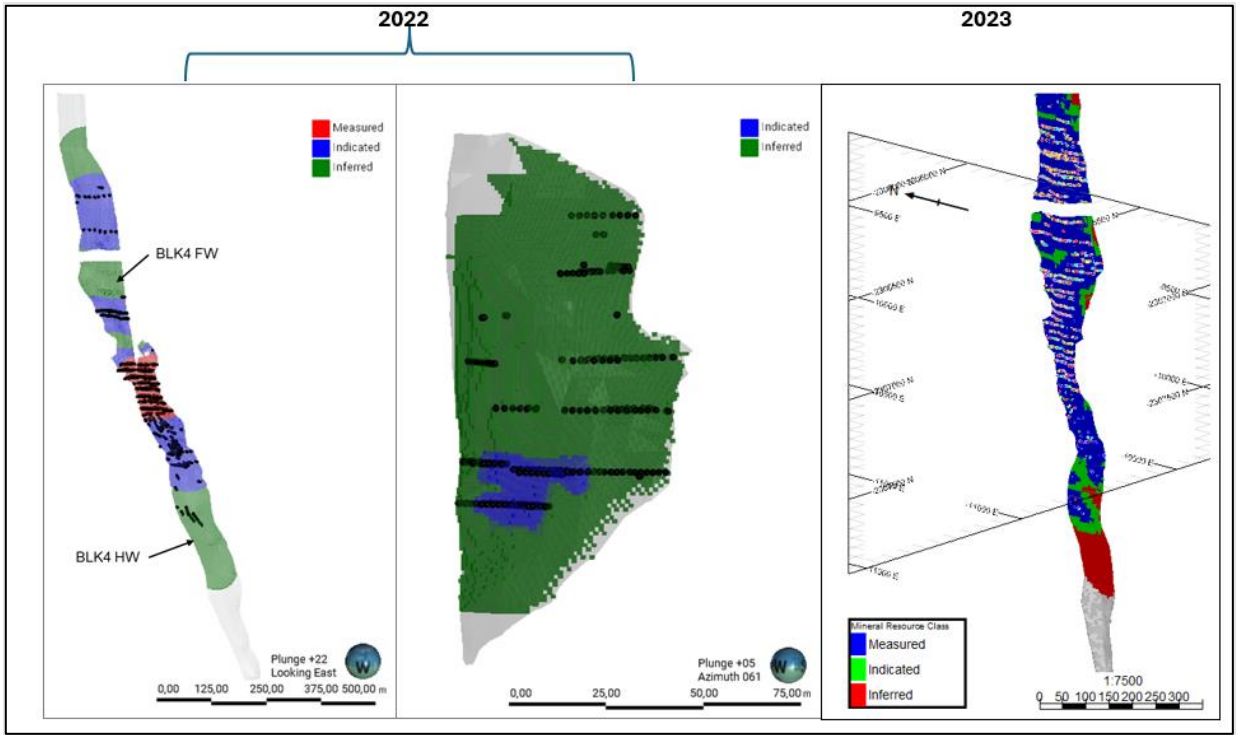



*Figure 78: BLK6 Mineral Resource Classification*

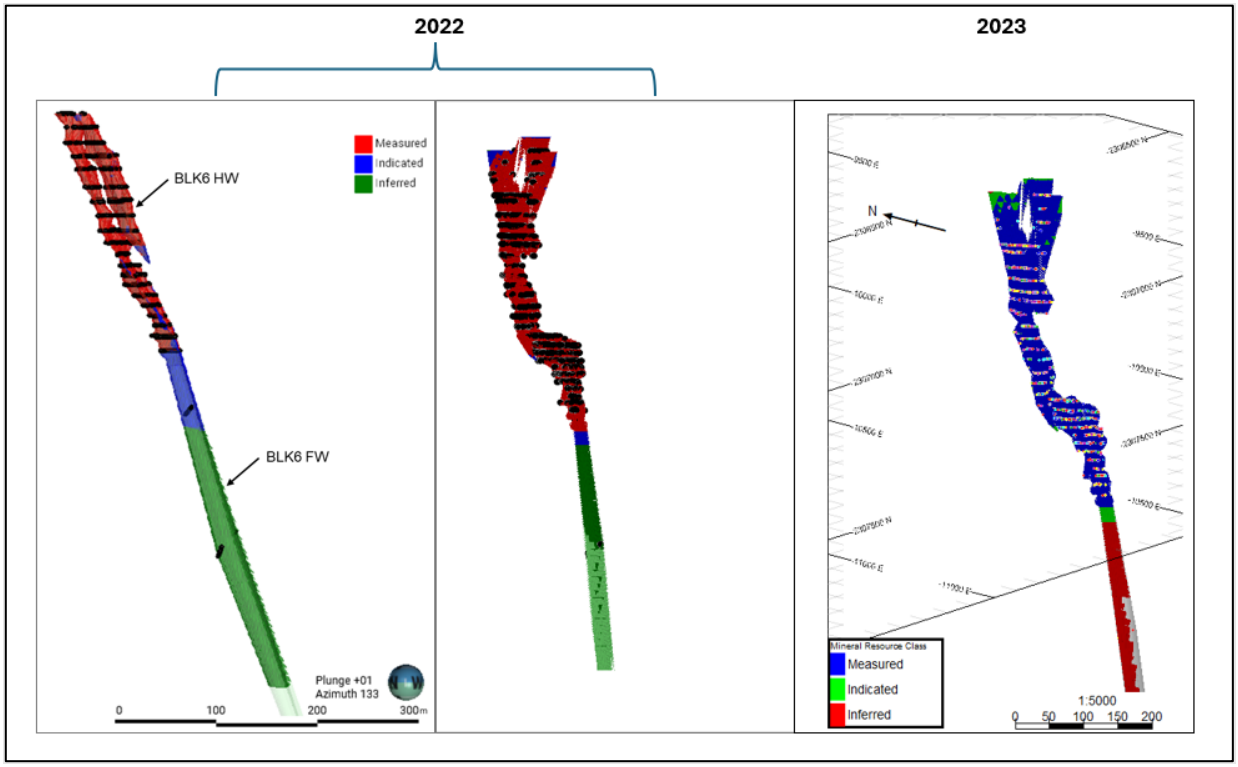


*Figure 79: BF Mineral Resource Classification*

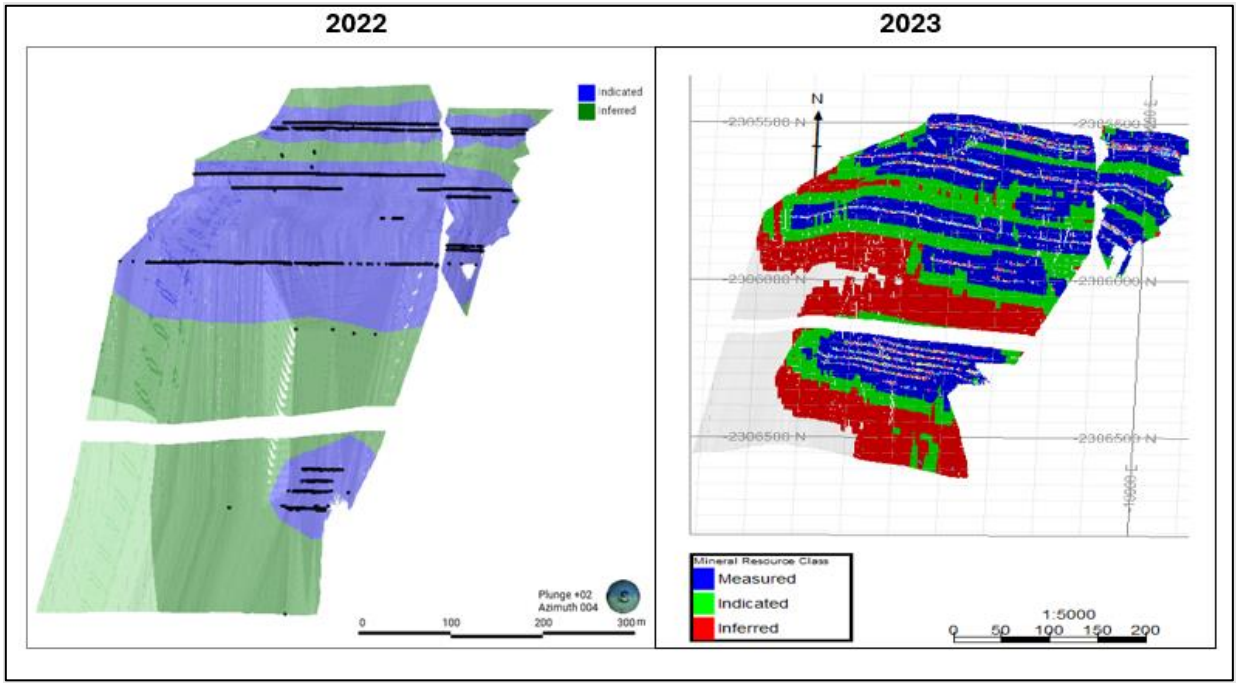



*Figure 80: BQR Mineral Resource Classification*

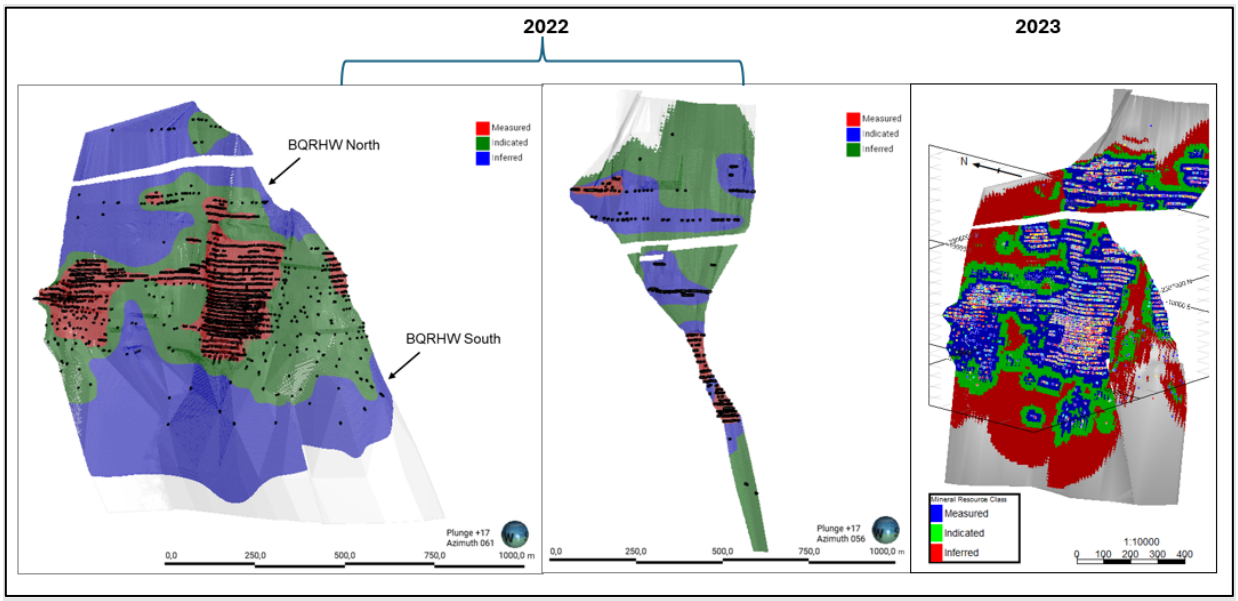


*Figure 81: LIMA Mineral Resource Classification*

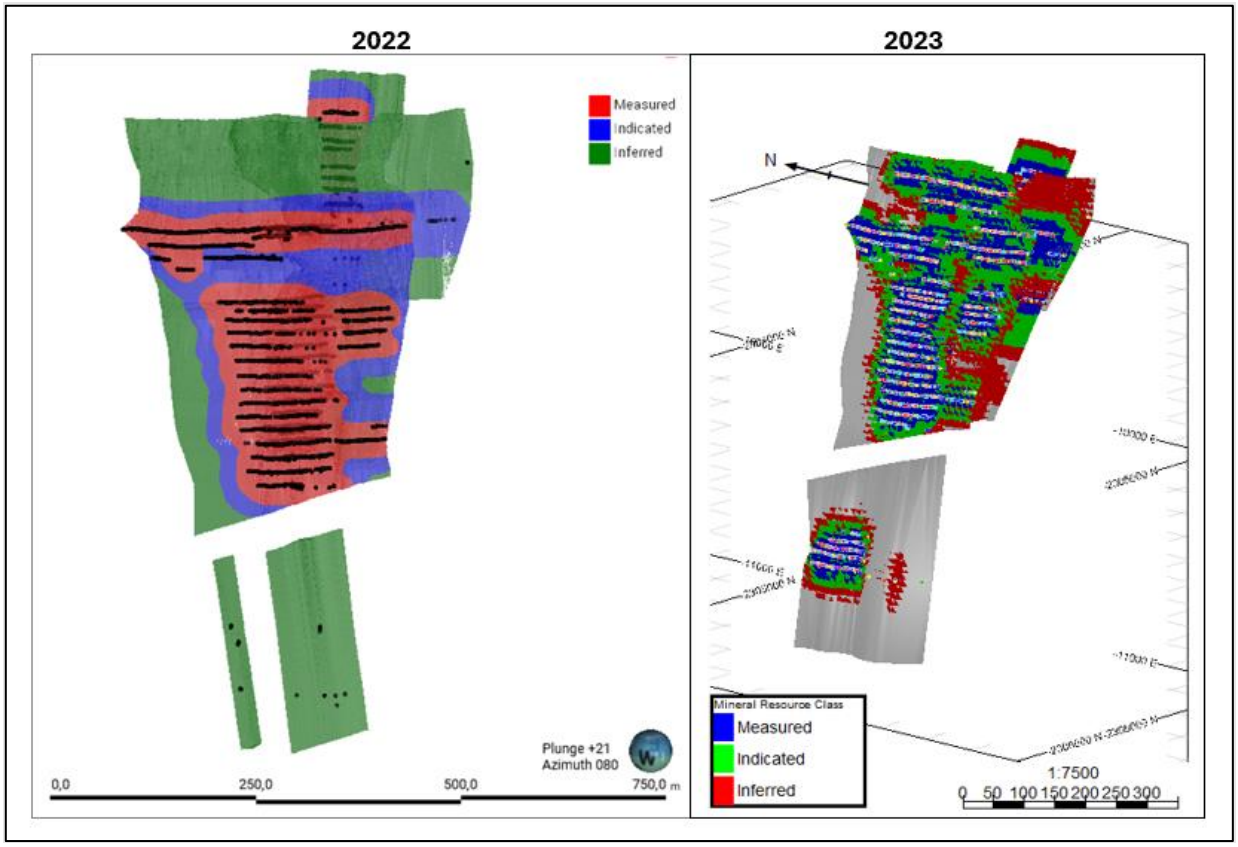


*Figure 82: ERC Mineral Resource Classification*

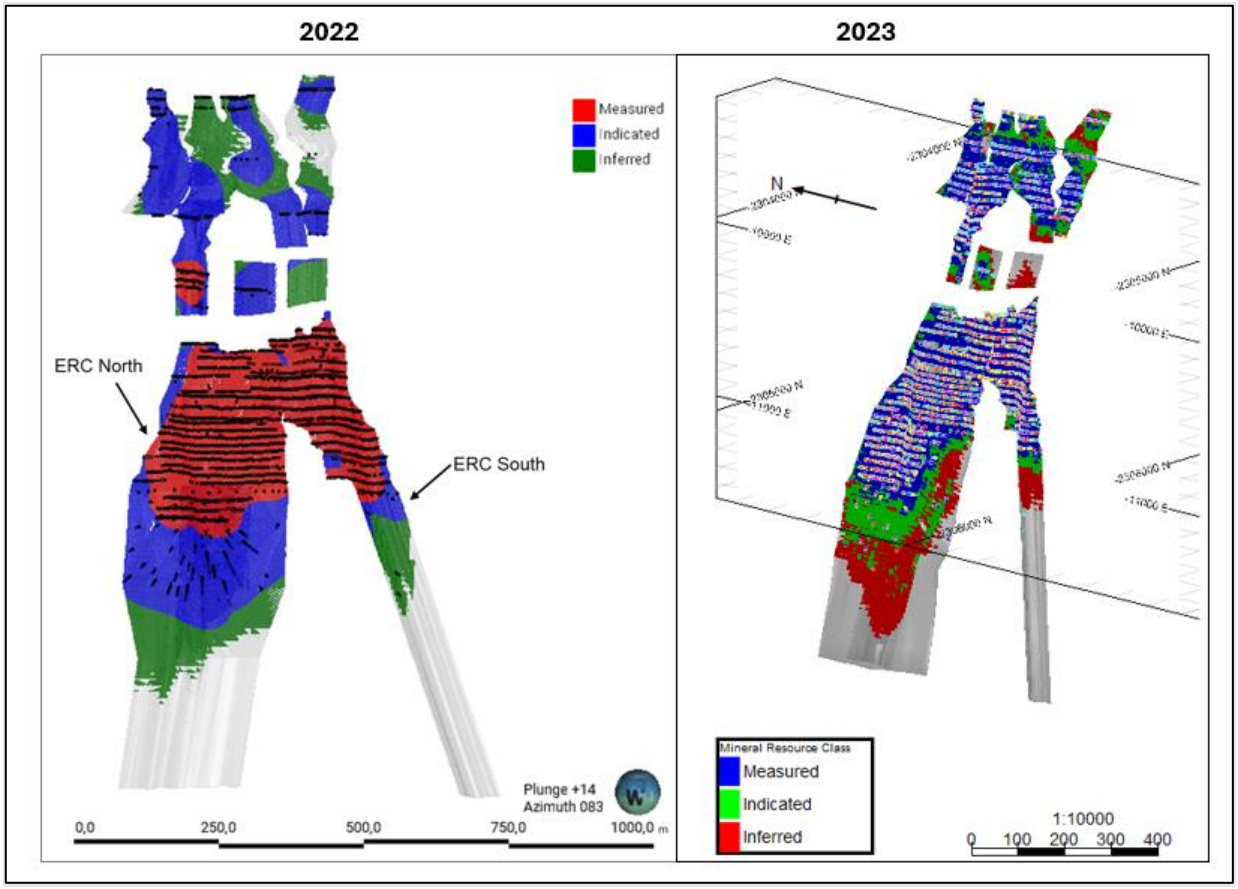



*Figure 83: JTH Mineral Resource Classification*

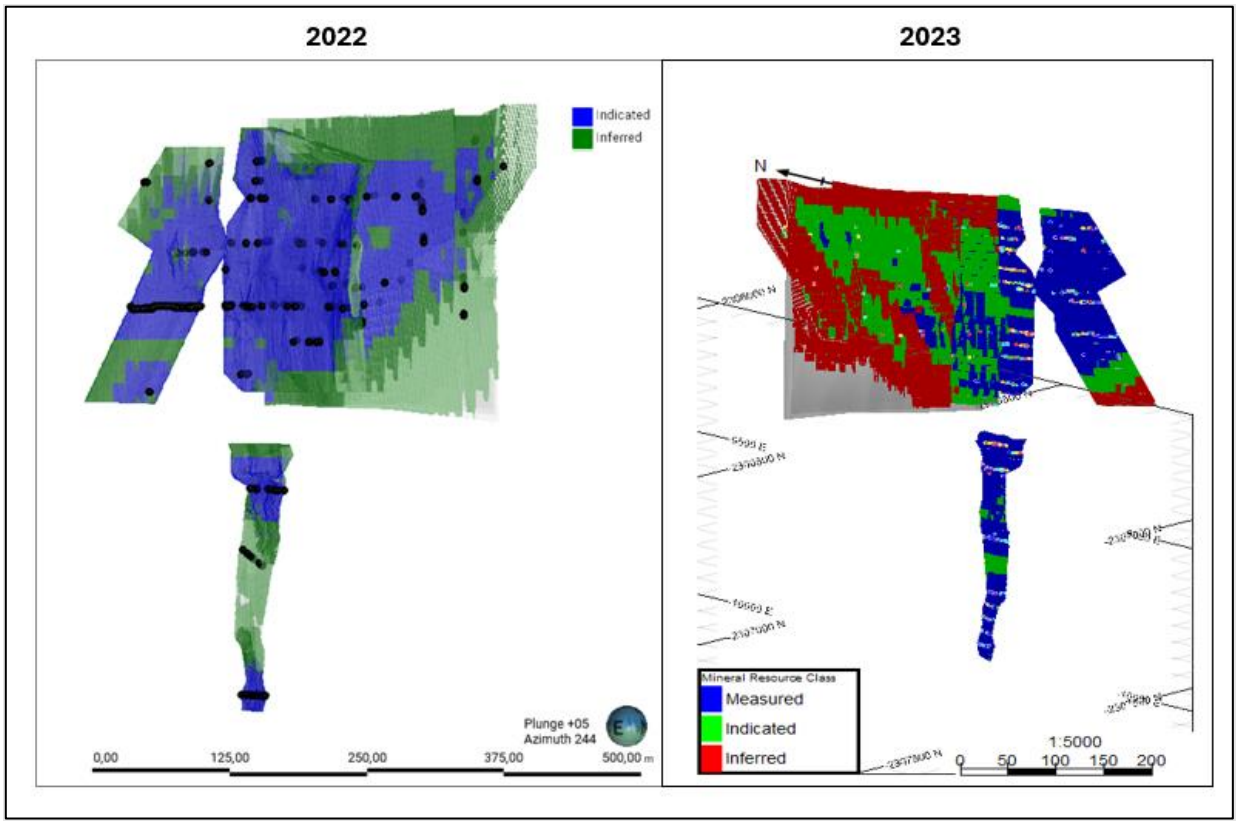
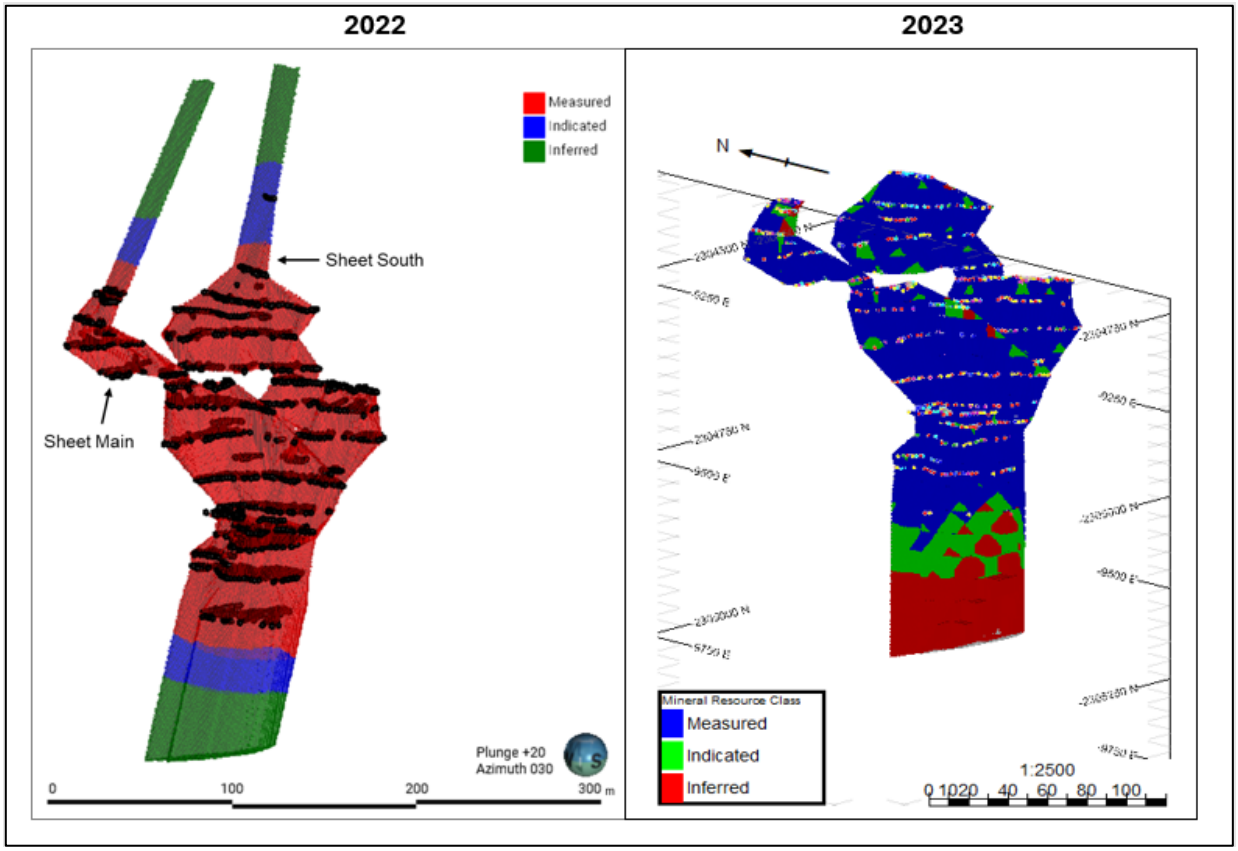


*Figure 84: SHT Mineral Resource Classification*




## Item 14 (c) Mineral Resource Statement

The Combined Measured and Indicated Mineral Resources declared for the Blanket operations are illustrated in Table 28 while the Inferred Resources are depicted in Table 29. A cut-off of grade of 1.5 g/t is utilised for all Resource declarations. A 2.5 % geological loss was applied for Measured, 5% for Indicated and 10% for Inferred Mineral Resources.

*Table 26: Measured and Indicated Mineral Resources for Blanket Mine as of 31 December 2023*

| Mineral Resource Tabulation at 31 December 2023 | | | | | |
|---|---|---|---|---|---|
| **Mineral Resource Classification** | **Orebody** | **Tonnes** | **Au Grade** | **Au Content** | |
| | | **Kt** | **g/t** | | **Koz** |
| *Measured (2.5% Geological Loss)* | *ARM* | *1 031* | *3.12* | *3 214* | *103* |
| | *ARS* | *803* | *3.62* | *2 904* | *93* |
| | *ARS_Ext* | *50* | *2.56* | *128* | *4* |
| | *BF* | *275* | *3.43* | *943* | *30* |
| | *BLK1* | *407* | *3.43* | *1 398* | *45* |
| | *BLK2* | *234* | *3.66* | *856* | *28* |
| | *BLK3* | *281* | *3.41* | *959* | *31* |
| | *BLK4_5* | *765* | *3.26* | *2 492* | *80* |
| | *BLK6* | *76* | *3.78* | *287* | *9* |
| | *BQR* | *1 227* | *4.36* | *5 345* | *172* |
| | *ERC* | *473* | *5.21* | *2 466* | *79* |
| | *Jethro* | *84* | *3.11* | *260* | *8* |
| | *Lima* | *317* | *3.94* | *1 247* | *40* |
| | *Sheet* | *138* | *2.99* | *414* | *13* |
| ***Measured Total*** | | ***6 161*** | ***3.72*** | ***22 912*** | ***737*** |
| *Indicated (5% Geological Loss)* | *ARM* | *984* | *2.78* | *2 734* | *88* |
| | *ARS* | *682* | *3.48* | *2 373* | *76* |
| | *ARS_Ext* | *295* | *2.93* | *865* | *28* |
| | *BF* | *321* | *2.99* | *960* | *31* |
| | *BLK1* | *1 036* | *3.21* | *3 319* | *107* |
| | *BLK2* | *690* | *4.98* | *3 441* | *111* |
| | *BLK3* | *295* | *2.91* | *857* | *28* |
| | *BLK4_5* | *196* | *3.05* | *599* | *19* |
| | *BLK6* | *43* | *3.99* | *171* | *6* |
| | *BQR* | *2 951* | *3.61* | *10 658* | *343* |
| | *ERC* | *926* | *4.76* | *4 410* | *142* |
| | *Jethro* | *450* | *3.34* | *1 500* | *48* |
| | *Lima* | *179* | *3.73* | *669* | *22* |
| | *Sheet* | *65* | *2.60* | *167* | *5* |
| ***Indicated Total*** | | ***9 112*** | ***3.59*** | ***32 725*** | ***1 052*** |
| ***Measured + Indicated Total*** | | ***15 273*** | ***3.64*** | ***55 638*** | ***1 789*** |

*Notes:*
1. *Cut-off applied 1.5 g/t.*
2. *2.5 % geological loss applied for Measured, 5% for Indicated and 10% for Inferred.*
3. *Gold price: USD2,150/oz.*
4. *Mineral Resources are stated inclusive of Mineral Reserves.*
5. *Mineral Resources are reported as total Mineral Resources and are not attributed (100%).*
6. *All orebodies are depleted for mining.*

*Table 27: Inferred Mineral Resources for Blanket Mine as of 31 March 2022*

| Mineral Resource Tabulation at 31 December 2023 | | | | | |
|---|---|---|---|---|---|
| **Mineral Resource Classification** | **Orebody** | **Tonnes** | **Au Grade** | **Au Content** | |
| | | **Kt** | **g/t** | | **Koz** |
| Inferred (10% Geological Loss) | *ARM* | *467* | *2.87* | *1 343* | *43* |
| | *ARS* | *265* | *3.88* | *1 029* | *33* |
| | *ARS_Ext* | *106* | *3.48* | *368* | *12* |
| | *BF* | *234* | *3.05* | *714* | *23* |
| | *BLK1* | *1 361* | *3.20* | *4 352* | *140* |
| | *BLK2* | *913* | *4.91* | *4 476* | *144* |
| | *BLK3* | *114* | *3.33* | *380* | *12* |
| | *BLK4_5* | *421* | *3.32* | *1 395* | *45* |
| | *BLK6* | *130* | *3.57* | *463* | *15* |
| | *BQR* | *2 969* | *3.71* | *11 009* | *354* |
| | *ERC* | *1 451* | *4.30* | *6 233* | *200* |
| | *Jethro* | *169* | *3.28* | *553* | *18* |
| | *Lima* | *148* | *3.41* | *506* | *16* |
| | *Sheet* | *73* | *2.52* | *185* | *6* |
| **Inferred Total** | | ***8 821*** | ***3.74*** | ***33 007*** | ***1 061*** |

*Notes:*
1. *Cut-off applied 1.5 g/t.*
2. *2.5 % geological loss applied for Measured, 5% for Indicated and 10% for Inferred.*
3. *Gold price: USD2,150/oz.*
4. *Mineral Resources are stated inclusive of Mineral Reserves.*
5. *Mineral Resources are reported as total Mineral Resources and are not attributed (100%).*
6. *All orebodies are depleted for mining.*

## Item 14 (d) Mineral Resource Reconciliation

The largest changes between 2022 and 2023 are a result of:

- Additional new data since the 2022 estimates (Table 19);
- Updates to domain orebody wireframes due to the deep drilling and RoM drilling campaigns, additional development sampling information; and continuous geological modelling.

A reconciliation between 2022 and 2023 estimates for Measured and Indicated is provided in Table 26 while the reconciliation for Inferred Resources is provided in Table 27.

.

*Table 28: Measured and Indicated Mineral Resources 2022 to 2023 Reconciliation at 1.5 g/t Cut-off.*

| | | 2022 | | | 2023 | | | 2022 vs 2023 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Resource Classification | Orebody | Tonnes | Gold Grade | Gold Content | Tonnes | Gold Grade | Gold Content | Tonnes | Gold Grade | Gold Content |
| | | Kt | g/t | Koz | Kt | g/t | Koz | % change | % change | % change |
| Measured | ARM | 1 356 | 2.81 | 123 | 1 031 | 3.12 | 103 | -24% | 11% | -16% |
| | ARS | 1 342 | 3.27 | 141 | 803 | 3.62 | 93 | -40% | 11% | -34% |
| | ARS_Ext | - | - | - | 50 | 2.56 | 4 | 100% | 100% | 100% |
| | BF | - | - | - | 275 | 3.43 | 30 | 100% | 100% | 100% |
| | BLK1 | - | - | - | 407 | 3.43 | 45 | 100% | 100% | 100% |
| | BLK2 | 328 | 3.49 | 37 | 234 | 3.66 | 28 | -29% | 5% | -26% |
| | BLK3 | 113 | 2.49 | 9 | 281 | 3.41 | 31 | 149% | 37% | 243% |
| | BLK4 | 99 | 3.61 | 12 | 765 | 3.26 | 80 | 673% | -10% | 568% |
| | BLK6 | 136 | 3.65 | 16 | 76 | 3.78 | 9 | -44% | 4% | -42% |
| | BQR | 1 057 | 3.95 | 134 | 1 227 | 4.36 | 172 | 16% | 10% | 28% |
| | Eroica | 253 | 3.96 | 32 | 473 | 5.21 | 79 | 87% | 32% | 148% |
| | Jethro | - | - | - | 84 | 3.11 | 8 | 100% | 100% | 100% |
| | Lima | 195 | 3.29 | 21 | 317 | 3.94 | 40 | 62% | 20% | 91% |
| | Sheet | 185 | 2.9 | 17 | 138 | 2.99 | 13 | -25% | 3% | -22% |
| **Measured Total** | | **5 065** | **3.32** | **541** | **6 161** | **3.72** | **737** | **22%** | **12%** | **36%** |
| Indicated | ARM | 877 | 2.38 | 67 | 984 | 2.78 | 88 | 12% | 17% | 31% |
| | ARS | 664 | 2.75 | 59 | 682 | 3.48 | 76 | 3% | 26% | 29% |
| | ARS_Ext | - | - | - | 295 | 2.93 | 28 | 100% | 100% | 100% |
| | BF | 233 | 3.49 | 26 | 321 | 2.99 | 31 | 38% | -14% | 19% |
| | BLK1 | 121 | 1.98 | 8 | 1 036 | 3.21 | 107 | 756% | 62% | 1234% |
| | BLK2 | 502 | 3.23 | 52 | 690 | 4.98 | 111 | 38% | 54% | 113% |
| | BLK3 | 185 | 2.55 | 15 | 295 | 2.91 | 28 | 59% | 14% | 84% |
| | BLK4_5 | 208 | 2.51 | 17 | 196 | 3.05 | 19 | -6% | 20% | 12% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2 | 2.78 | 0.2 | | | | | | |
| | BLK6 | 44 | 2.95 | 4 | 43 | 3.99 | 6 | -2% | 35% | 38% |
| | BQR | 1 201 | 3.36 | 130 | 2 951 | 3.61 | 343 | 146% | 7% | 164% |
| | Eroica | 1 043 | 3.75 | 126 | 926 | 4.76 | 142 | -11% | 27% | 13% |
| | Jethro | 409 | 2.64 | 35 | 450 | 3.34 | 48 | 10% | 26% | 38% |
| | Lima | 112 | 3.14 | 11 | 179 | 3.73 | 22 | 60% | 19% | 96% |
| | Sheet | 59 | 2.4 | 5 | 65 | 2.60 | 5 | 9% | 8% | 8% |
| **Indicated Total** | | **5 659** | **3.04** | **554** | **9 112** | **3.59** | **1 052** | **61%** | **18%** | **90%** |
| **Measured + Indicated Total** | | **10 724** | **3.18** | **1 095** | **15 273** | **3.64** | **1 789** | **42%** | **15%** | **63%** |

*Notes:*

1. *Cut-off applied 1.5 g/t.*
2. *0% Geological loss applied for Measured, 5% for Indicated and Inferred Resources in 2022*
3. *2.5 % Geological loss applied for Measured, 5% for Indicated and 10% for Inferred for 2023.*

*Table 29: Inferred Mineral Resources 2022 to 2023 Reconciliation at 1.5 g/t Cut-off.*

| | | 2022 | | | 2023 | | | 2022 vs 2023 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Resource Classification | Orebody | Tonnes | Gold Grade | Gold Content | Tonnes | Gold Grade | Gold Content | Tonnes | Gold Grade | Gold Content |
| | | Kt | g/t | Koz | Kt | g/t | Koz | % change | % change | % change |
| Inferred | ARM | 334 | 2.4 | 26 | 467 | 2.87 | 43 | 40% | 20% | 66% |
| | ARS | 678 | 3.03 | 66 | 265 | 3.88 | 33 | -61% | 28% | -50% |
| | ARS_Ext | - | - | - | 106 | 3.48 | 12 | 100% | 100% | 100% |
| | BF | 425 | 3.29 | 45 | 234 | 3.05 | 23 | -45% | -7% | -49% |
| | BLK1 | 1 302 | 2.41 | 101 | 1 361 | 3.20 | 140 | 5% | 33% | 39% |
| | BLK2 | 1 465 | 3.64 | 172 | 913 | 4.91 | 144 | -38% | 35% | -16% |
| | BLK3 | 729 | 2.68 | 63 | 114 | 3.33 | 12 | -84% | 24% | -81% |
| | BLK4 | 344 | 2.87 | 32 | 421 | 3.32 | 45 | 16% | 14% | 32% |
| | BLK5 | 20 | 2.62 | 2 | | | | | | |
| | BLK6 | 180 | 2.89 | 17 | 130 | 3.57 | 15 | -28% | 23% | -12% |
| | BQR | 2 765 | 2.74 | 243 | 2 969 | 3.71 | 354 | 7% | 35% | 46% |
| | Eroica | 223 | 3.87 | 28 | 1 451 | 4.30 | 200 | 551% | 11% | 616% |
| | Jethro | 238 | 2.87 | 22 | 169 | 3.28 | 18 | -29% | 14% | -19% |
| | Lima | 218 | 3.11 | 22 | 148 | 3.41 | 16 | -32% | 10% | -26% |
| | Sheet | 72 | 2.61 | 6 | 73 | 2.52 | 6 | 2% | -3% | -1% |
| **Indicated Total** | | **8 993** | **3.04** | **845** | **8 821** | **3.74** | **1 061** | **-2%** | **23%** | **26%** |

*Notes:*
1. *Cut-off applied 1.5 g/t.*
2. *0% Geological loss applied for Measured, 5% for Indicated and Inferred Resources in 2022*
3. *2.5 % Geological loss applied for Measured, 5% for Indicated and 10% for Inferred for 2023.*

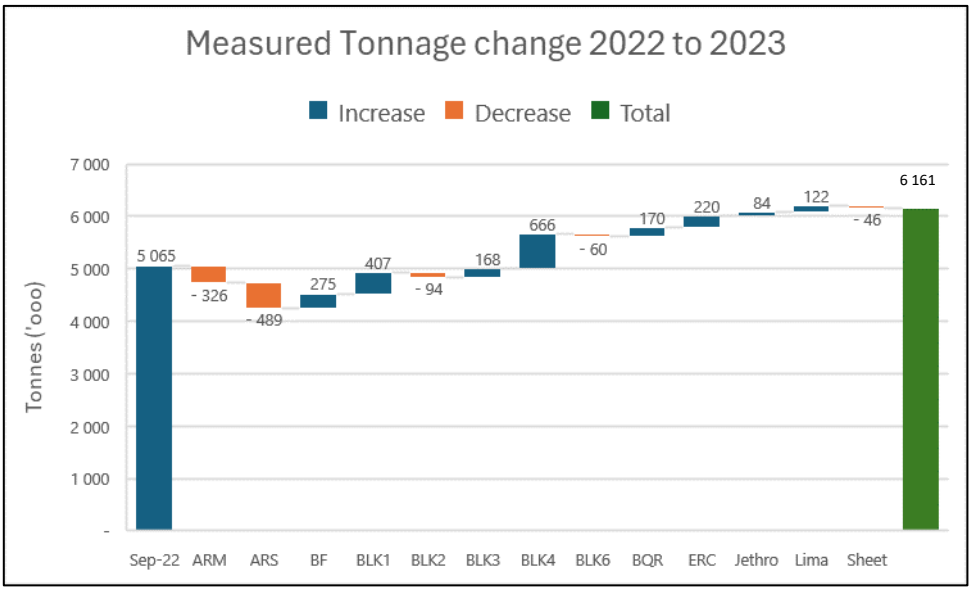
Waterfall graphs compare the contribution of each orebody to the total change, this was constructed for Measured (Figure 85), Indicated (Figure 86) and Inferred (Figure 87) Mineral Resources.

The largest changes to the Measured Resource between 2022 and 2023 can be attributed to five orebodies, namely ARM, ARS, BLK1, BLK4 and BQR.

The significant changes to the Indicated Resource between 2022 and 2023 can be attributed to three orebodies, namely BLK1, BQR and Eroica. This is as a direct result of the long hole exploration drilling program.

The largest changes to the Inferred Resource between 2022 and 2023 can be attributed to four orebodies, namely BLK2, BLK3, BQR and Eroica. This is as a direct result of the long hole exploration drilling program (BQR and ERC) and as a result of reinterpretation of domains (BLK2 and BLK3).

*Figure 85: Waterfall Graphs Illustrating the Change in Tonnage and Ounces Per Orebody in the Measured Resource Category*



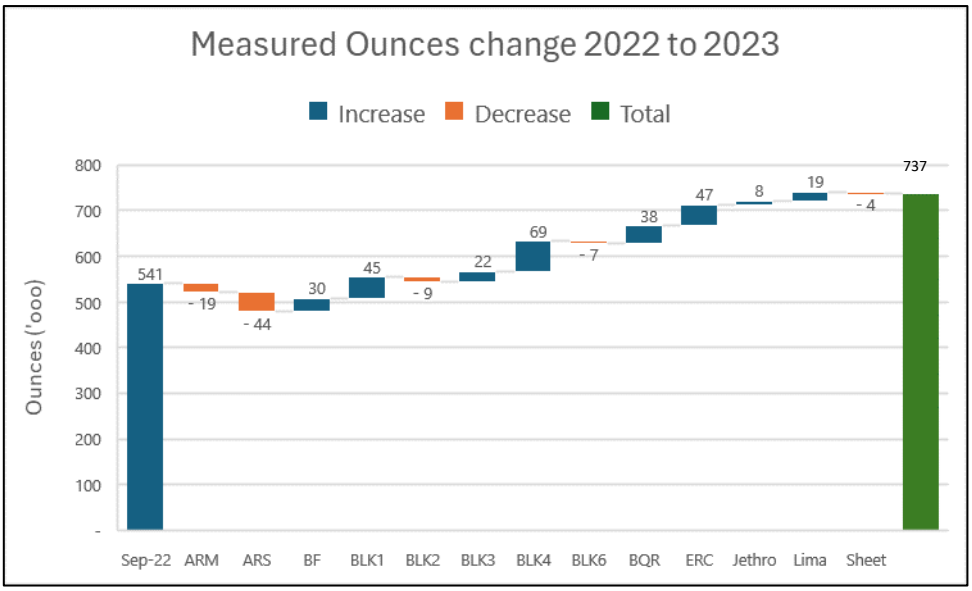



*Figure 86: Waterfall Graphs for Grade, Tonnage and Ounces of Indicated Mineral Resources.*

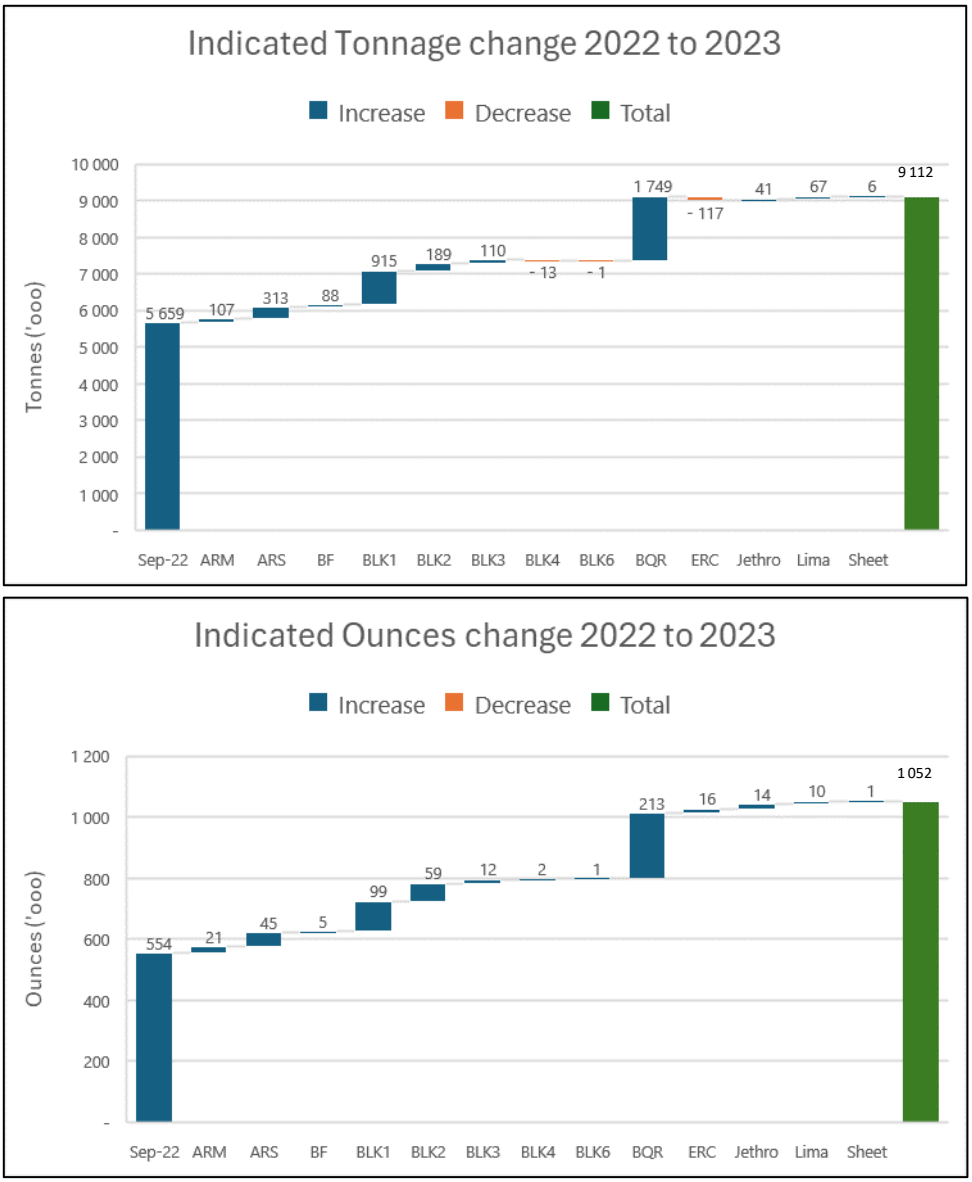
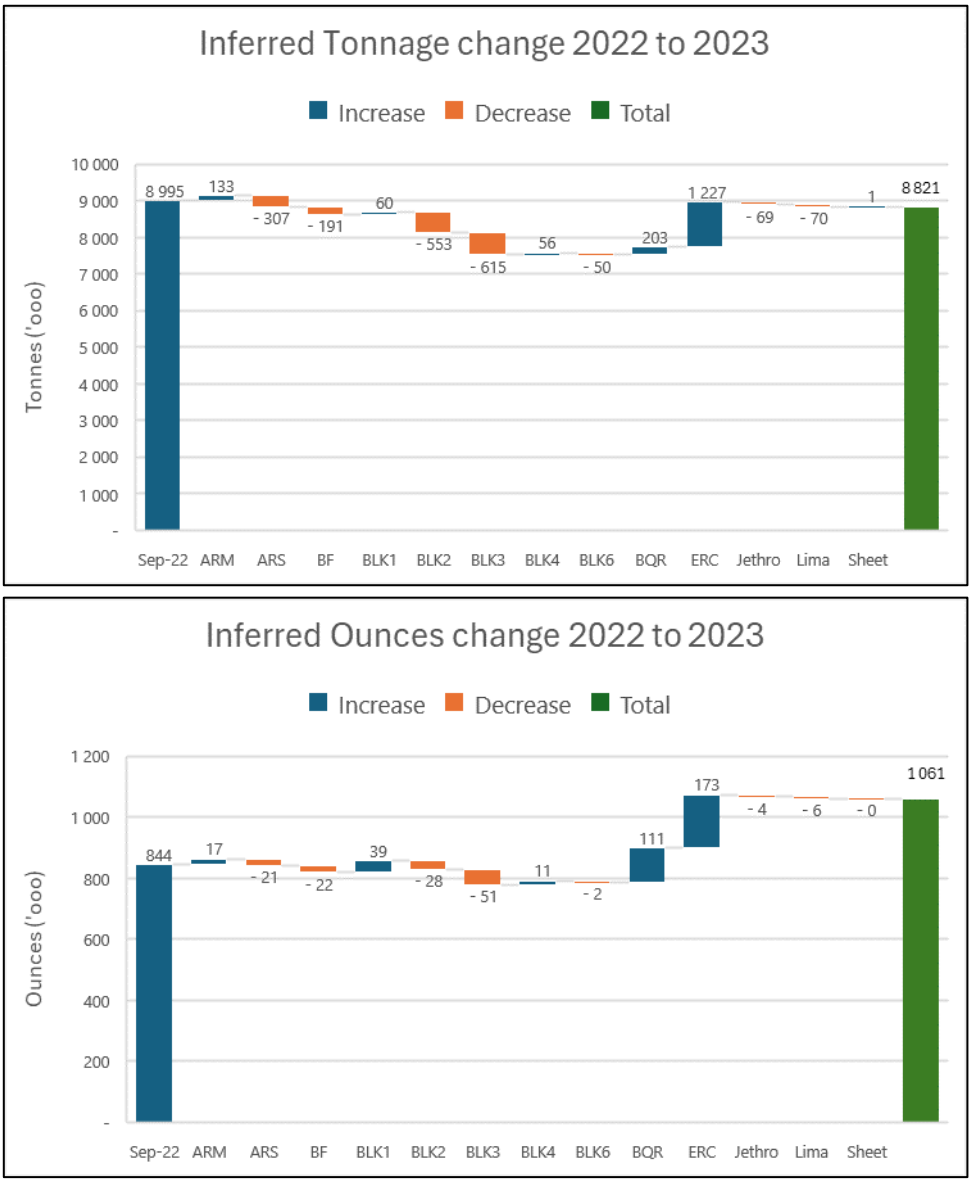


*Figure 87: Waterfall Graphs for Grade, Tonnage and Ounces of Inferred Mineral Resources*




## Item 14 (e) Disclosure Requirements for Resources

All Mineral Resources have been categorised and reported in compliance with the definitions embodied in the CIM Definition Standards on Mineral Resources and Mineral Reserves (6 May 2019). As per CIM specifications, Mineral Resources have been reported separately in the Measured, Indicated and Inferred Mineral Resource categories. Inferred Mineral Resources have been reported separately and have not been incorporated with the Measured and Indicated Mineral Resources. Inferred Mineral Resources have a low level of confidence and while it would be reasonable to expect that most of the Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration. However, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will occur.

## Item 14 (f) Individual Grade of Metals

Mineral Resources for gold have been estimated for the Blanket Gold Mine. No other metals or minerals have been estimated for the Project.

## Item 14 (g) Factors Affecting Mineral Resource Estimates

No socio-economic, legal, or political modifying factors have been taken into account in the estimation of Mineral Resources for Blanket Mine. Caledonia Mining Plc is not aware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other factors that will materially affect the Mineral Resource estimates.

All underground Mineral Resources are stated at a cut-off grade 1.5 g/t.

# ITEM 15 MINERAL RESERVE ESTIMATES

## Item 15 (a) Key Assumptions, Parameters and Methods

### Background

The Blanket Mine is an operational mine and the LoM planning was completed in line with current operational planning guidance to produce 74-80koz of gold per year. Only diluted Indicated and Measured Resources in the LoM plan were considered for conversion to Mineral Reserves.

Inferred Mineral Resources have been excluded from the economic assessment for Mineral Reserve estimates. The LoM plan aims to produce 74-80koz of gold per year from Measured and Indicated Mineral Resources only.

### Mineral Resource Model

The LoM plan was developed utilising the 3D Mineral Resource model, estimates as reviewed and updated (Item 14 (a)).

### Cut- Off Grade

The cut-off grade calculation for the Blanket Mine is detailed in Table 30.

*Table 30: Cut-Off Grade Calculation*

| Description | Unit | Value |
|---|---|---|
| Gold Price | USD/oz | 1,877 |
| Dilution | % | 8 |
| Mine Call Factor | % | 100 |
| Recovery | % | 93.6 |
| Metal price | USD/g | 60.35 |
| Total Operating Cost | USD/t | 96 |
| Cut-off Grade (calculated) | g/t | 1.62 |
| Reserve Cut-off Grade (in use) | g/t | **2.10** |

Blanket Mine utilises a 2.1g/t planning cut-off grade based on historical value. The mine design and schedule were completed using the accepted 2.1 g/t cut-off grade.

### Modifying Factors

The NI 43 – 101 incorporates the CIM definition standards for Mineral Resources, Mineral Reserves and Mining Studies. The CIM defines modifying factors as considerations used to convert Mineral Resources to Mineral Reserves, which include but are not restricted to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

### Mineral Reserve Conversion Factors

Mineral Reserve conversion factors are the consideration of mining factors used to convert Mineral Resources to Mineral Reserves. These factors are applied to adjust the in situ Mineral Resources in the LoM planning to realistic and accurate mill feed, volumes, and grade.

The Mineral Reserve conversion factors applied to the Mineral Resources in the LoM plan, are detailed in Table 31.

*Table 31: Mineral Reserve Conversion Factors Summary*

| Description | Unit | Value |
|---|---|---|
| **Geological Losses** | | |
| Measured | % | 2.5 |
| Indicated | % | 5 |
| Inferred | % | 10 |
| **Other Dilution Factors** | | |
| Pillar Extraction | % | 50 |
| Dilution | % | 8 |
| Mine Call Factor | % | 100 |

### Processing and Metallurgical Factors

The conventional CIL recovery method is well proven and has been used consistently on this orebody. The recovery used was 93.6% and no other metallurgical factors are known that may impact the Mineral Reserve.

### Infrastructure Factors

Infrastructure required for the planned production is either in place or planned for. Sufficient capital provision has been made for all planned infrastructure required for the planned production.

### Economic and Marketing Factors

The gold price that has been utilised for the Mineral Reserve estimate is a real term forecast taken as the median of various bank and analyst forecasts. The average gold price over the LoM is USD1,877/oz.

An uneconomical tail has been cut from the first negative cashflow year and has been excluded from the Mineral Reserve. The tail contains 212.5 koz of gold and runs for a further 6 years but is not economically viable on its own.

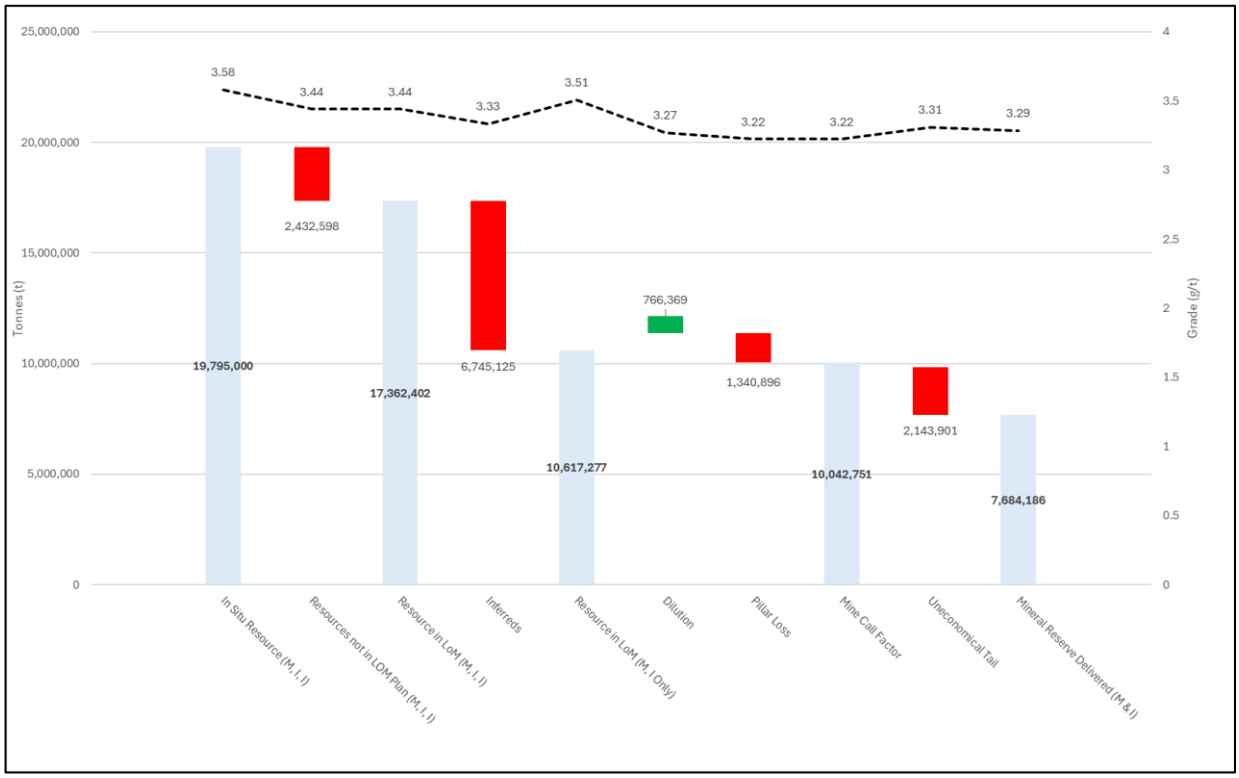
### Legal, Environmental, Social and Governmental Factors

There are no legal, environmental, social, or governmental factors that are deemed to be classified as modifying factors applied to the Mineral Reserves.

### Mineral Resource to Mineral Reserve Conversion

The Mineral Resource to Mineral Reserve conversion is illustrated in Figure 88.

*Figure 88: In Situ Mineral Resource to Mineral Reserve Conversion - Ore Tonnes and Grade*




*Notes:*
1. *The purpose of the waterfall chart is to illustrate the in situ Mineral Resources to Mineral Reserve conversion.*
2. *A portion of Inferred Mineral Resources are included in the LoM plan, as it is required to mine through Inferred portions to access Measured and Indicated Mineral Resources. These Inferred Mineral Resources have, however, been excluded in the Mineral Reserve estimation and in the economic analysis.*
3. *Only Measured and Indicated Mineral Resources in the LoM plan have been included for the conversion to Mineral Reserves.*

Only Measured and Indicated Resources in the LoM plan were considered for conversion to Mineral Reserves. Inferred Mineral Resources have been excluded from the LoM plan for economic assessment for Mineral Reserve estimates. Only diluted Measured and Indicated Mineral Resources have been converted into Proved and Probable Mineral Reserves, respectively.

Pillar loss discounts tonnes and content equally. Dilution increases the tonnage, subsequently diluting the grade. The mine call factor influences only the content.

The LoM plan contains 812 koz of gold in the Measured and Indicated Mineral Resource classifications which have been converted to Mineral Reserves. An uneconomical tail has been cut from the first negative cashflow year and has been excluded from the Mineral Reserve. The tail contains 212.7 koz of gold but is not economically viable on its own.

The Mineral Reserve estimate for the Blanket Mine as of 1 March 2024 is detailed in Table 32.

*Table 32: Blanket Mine Mineral Reserve Estimate as of 1 March 2024*

| Mineral Reserve Classification | Tonnes | Grade | Au Content | |
|---|---|---|---|---|
| | kt | g/t | kg | koz |
| Proved | 2129 | 3.21 | 6,838 | 220 |
| Probable | 5555 | 3.31 | 18,409 | 592 |

| | | | | |
|---|---|---|---|---|
| **Total** | **7,684** | **3.29** | **25,247** | **812** |

*Notes:*
1. *Mineral Reserve cut-off of 2.1 g/t applied.*
2. *The gold price that has been utilised in the economic analysis to convert diluted Measured and Indicated Mineral Resources in the LoM plan to Mineral Reserves is an average real term price of USD1,877/oz over the LoM.*
3. *Mineral Reserves are reported as total Mineral Reserves and are not attributed.*

Mineral Resources from the Measured and Indicated Mineral Resource Classifications were converted into Proved and Probable Mineral Reserves. The Blanket Mine Mineral Reserve estimate consists of 27% Proved and 73% Probable Mineral Reserves.

**Balance of Resources**

The balance of Mineral Resources not in the LoM plan is detailed in Table 33.

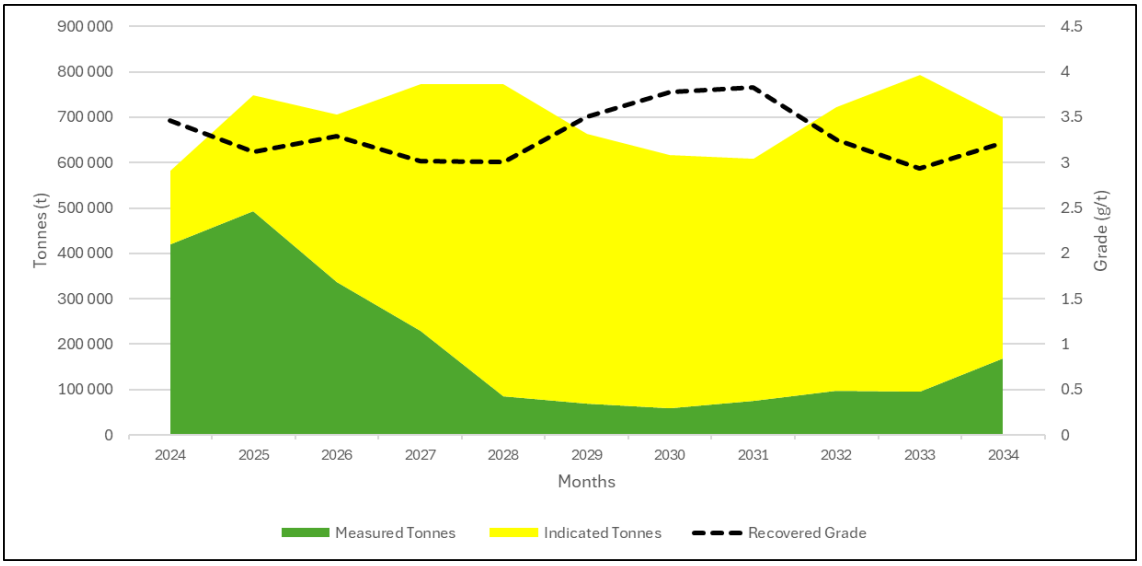
*Table 33: Blanket Mine Mineral Resource Balance*

| Balance of Mineral Resources | Tonnes | Grade | Au Content | |
|---|---|---|---|---|
| | kt | g/t | kg | oz |
| **Mineral Resource** | | | | |
| Measured | 6 161 | 3.72 | 22 912 | 737 |
| Indicated | 9 112 | 3.59 | 32 725 | 1 052 |
| **Total M&I** | 15 273 | 3.64 | 55 638 | 1 789 |
| Inferred | 8 821 | 3.74 | 33 007 | 1 061 |
| **Mineral Resource in LoM (undiluted)** | | | | |
| Measured | 1 942 | 3.73 | 7 234 | 233 |
| Indicated | 4 854 | 3.90 | 18 953 | 609 |
| **Total M&I** | 6 795 | 3.85 | 26 187 | 842 |
| Inferred | 1 715 | 4.21 | 7 215 | 232 |
| **Balance of Mineral Resource** | | | | |
| Measured | 4 219 | 3.72 | 15 678 | 504 |
| Indicated | 4 259 | 3.23 | 13 772 | 443 |
| **Total M&I** | 8 478 | 3.47 | 29 451 | 947 |
| Inferred | 7 107 | 3.63 | 25 792 | 829 |

Only 45% of the Measured and Indicated Mineral Resources have been included in the LoM plan. The majority of these resources are in the secondary, newer, domains of the orebodies and require further detailed planning on extraction methods.

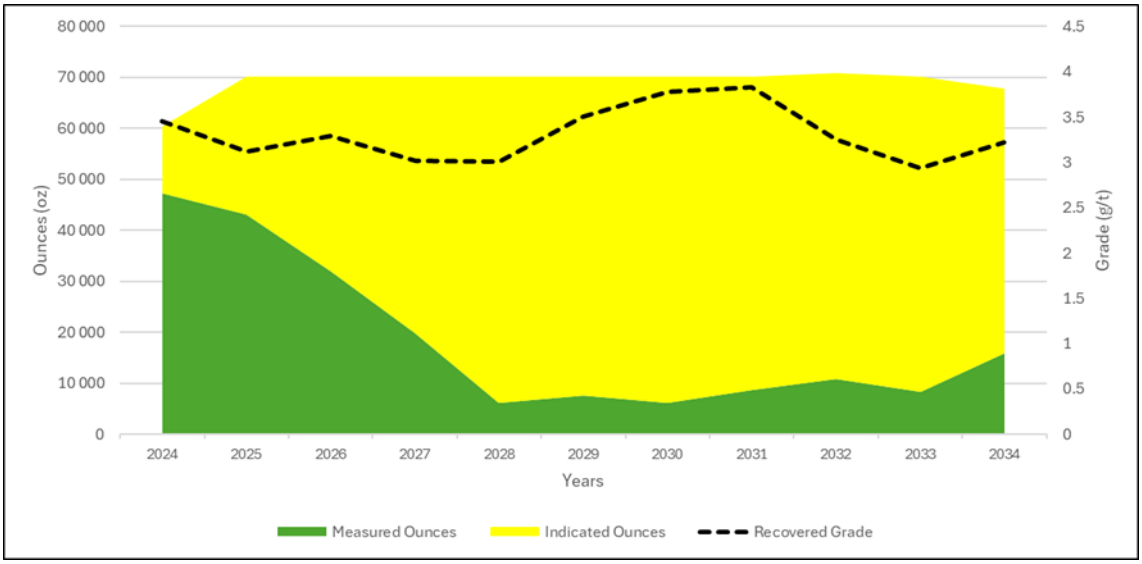
The diluted production schedule for the Blanket Mine is illustrated in Figure 89.

*Figure 89: Blanket Mine Mineral Reserve Production Profile Based on Measured and Indicated Mineral Resources only*




A total of 2,129 kt Measured Mineral Resources at a grade of 3.21 g/t and 5,555 kt Indicated Mineral Resources at a grade of 3.31g/t is included in the LoM plan. A LoM of 10 years and 10 months is envisaged for the Blanket Mine. The content delivered to the plant from the Blanket Mine is illustrated in Figure 90.

*Figure 90: Blanket Mine Content Delivered to the Plant*



# Item 15 (b) Mineral Reserve Reconciliation - Compliance with Disclosure Requirements

### Compliance

All Mineral Reserves have been categorised and reported in compliance with the definitions embodied in the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by the CIM Council (incorporated into NI 43-101). As per CIM Code specifications, Mineral Reserves have been reported separately in the Proved and Probable Mineral Reserve categories. Inferred Mineral Resources have not been incorporated with the Proven and Probable Mineral Reserves.

### Mineral Reserve Reconciliation

In 2022 a Mineral Reserve estimate for the Blanket Mine was completed by Minxcon. The Blanket Mine Mineral Reserve estimate as at 1 September 2022 is detailed in Table 34.

*Table 34: Blanket Mine Mineral Reserve Estimate as at 1 September 2022*

| Mineral Reserve Classification | Tonnes | Grade | Au Content | |
|---|---|---|---|---|
| | kt | g/t | kg | koz |
| Proved | 1,978 | 3.30 | 6,534 | 210 |
| Probable | 1.964 | 2.94 | 5,763 | 185 |
| **Total** | 3,942 | 3.12 | 12,298 | 395 |

The reconciliation between the Mineral Reserve statements for 2022 and 2024 is detailed in Table 35. The previous Mineral Reserve estimate was stated at similar mining dilution factors applied.

*Table 35: Mineral Reserve Reconciliation between 2021 and 2023*

| Description | Units | 2022 Minxcon Mineral Reserve Estimate | 2024 Blanket Mineral Reserve Estimate | Variance | Variance (%) |
|---|---|---|---|---|---|
| Proved | | | | | |
| Tonnes | kt | 1,978 | 2,129 | 151 | 8% |
| Au Grade | g/t | 3.30 | 3.21 | -0.09 | -3% |
| Au Content | kg | 6,534 | 6,838 | 304 | 5% |
| Au Content | koz | 210 | 220 | 10 | 5% |
| Probable | | | | | |
| Tonnes | kt | 1,964 | 5,555 | 3,591 | 182% |
| Au Grade | g/t | 2.94 | 3.31 | 0.37 | 13% |
| Au Content | kg | 5.763 | 18,409 | 12,646 | 219% |
| Au Content | koz | 185 | 592 | 407 | 219% |
| Total | | | | | |
| Tonnes | kt | 3,942 | 7,684 | 3,742 | 95% |
| Au Grade | g/t | 3.12 | 3.29 | 0.17 | 5% |
| Au Content | kg | 12,298 | 25,247 | 12,949 | 105% |
| Au Content | koz | 395 | 812 | 417 | 105% |

## Item 15 (c) Multiple Commodity Reserve (Prill Ratio)

Gold is the only commodity within the Blanket mining areas that is present in significant concentrations.

## Item 15 (d) Factors Affecting Mineral Reserve Estimation

No socio-economic, legal, or political modifying factors have been considered in the estimation of Mineral Reserves for the Blanket Mine. Caledonia Mining Plc is not aware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other factors that will materially affect the Mineral Reserve estimates. No material issues have been identified for the Blanket Mine.

The Mineral Reserve conversion factors detailed in Table 31 have been applied to the Mineral Resource for conversion to Mineral Reserves.

An uneconomical tail has been cut from the first negative cashflow year and has been excluded from the Mineral Reserve. The tail contains 212.5koz of gold but is not economically viable on its own.

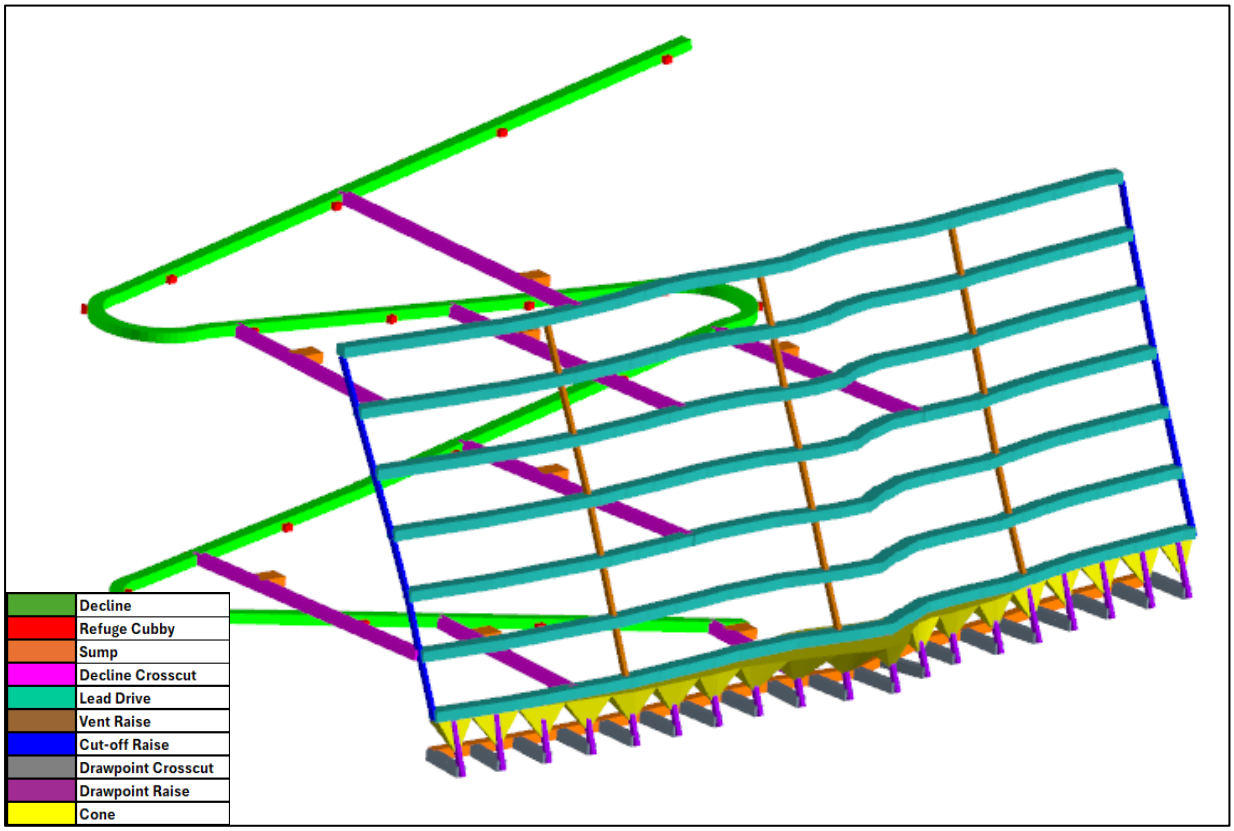
# ITEM 16 MINING METHODS

## Item 16 (a) Extraction Methods

There are two extraction approaches currently employed at Blanket mine namely the Mechanized Mining approach which utilizes the Decline system and trackless mobile machinery, and the Conventional mining method which utilizes track bound equipment.

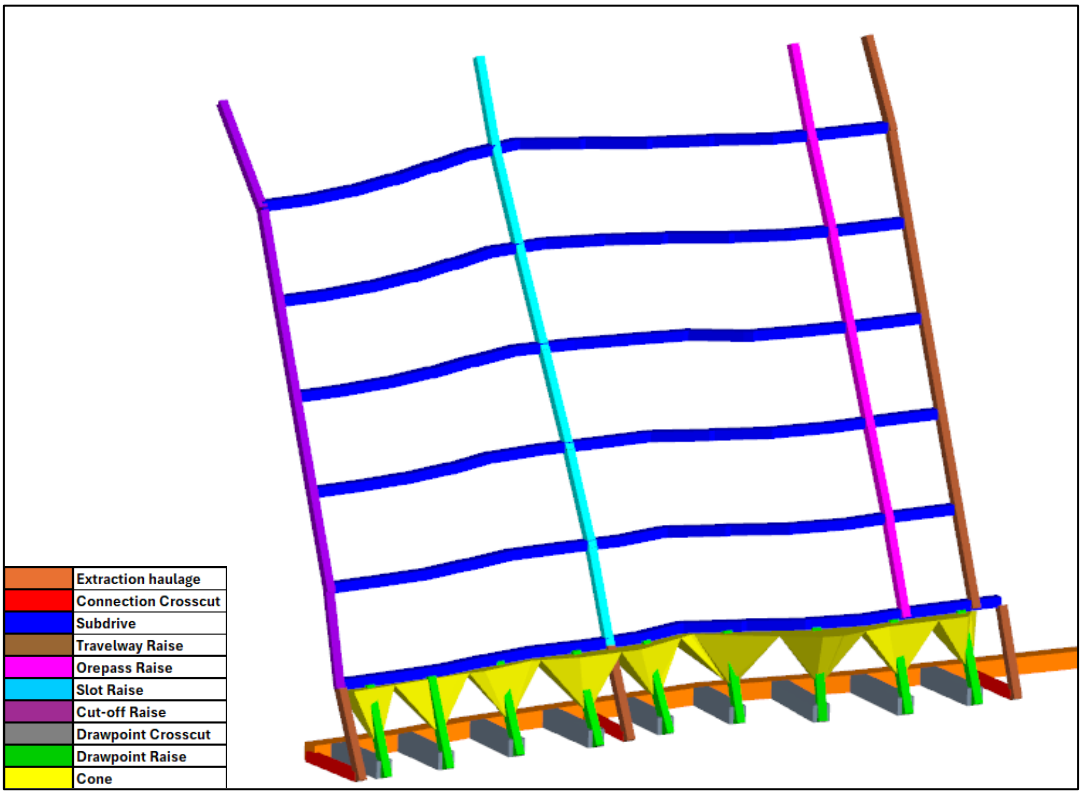
The mechanized mining method utilizes decline development to access lower orebodies in a top-down approach contrary to the normal bottom-up approach which is dependent on shaft sinking. In this method declines are developed at a gradient of -9 degrees in the footwall of the orebody over a 120m lift. At every 15m height interval, access cross-cuts are developed to intersect the orebody. The subsequent intra-orebody development will be used to define orebody strike extent at each 15m interval. Normal link up raise system will also be developed and will comprise of cut off and ventilation raises serving the Decline area. Main level extraction haulage will be developed at the lowest level of the 120m lift to facilitate draw point crosscut and raise development for subsequent coning and production mining. Mid-level extraction haulage can also be developed on the 4th level of the 120m lift to facilitate draw point crosscut and raise development for subsequent coning and production mining. The Decline system utilizes trackless mobile mining equipment such as Dump trucks and LHDs. In the figure below a basic layout of the mechanized mining method is displayed. Stoping is then done on the sublevel above the coning level through the creation of the slot at the ore pass raise immediately above and then subsequently carrying out stoping using either long hole or conventional underhand.

*Figure 91: Extraction Method: Mechanized*



In conventional mining approach, the bottom-up approach is used where main access level development is done at 120m intervals. The main haulages are developed in the footwall to access the major orebodies of the mine. The orebodies are accessed from the main haulage via extraction haulages which facilitates exploitation of the ore from the respective orebodies. Most of the extraction haulages are developed to the footwall of the orebody at a minimum distance of 15.0m. Draw point crosscuts at 15m and 20m (depth and rock type dependant) intervals along strike are developed to access the relevant orebody. Draw point raises reaching the next sublevel will be developed to facilitate coning for production. Sublevel drive development in the Blanket mine setup is done within the confines of the orebody. The Sublevel drives are developed at either 10m or 15m intervals and are interlinked by a system of raises namely travelling way, ore pass, slot, and cut off raises. This series of raises is mined to a vertical distance of 120 meters and ultimately provides link between the lower and upper main levels of the respective block. Each block will be defined by travelling way and ore pass raises separated by 60m while ore pass, and waste pass raise distances will be at 10-15 m depending on sublevel interval distance. Production mining commences through establishment of cones on the sublevel immediately above the main level. Stoping is then done on the sublevel above the coning level through the creation of the slot at the ore pass raise immediately above and then subsequently carrying out stoping using either long hole or conventional underhand.

*Figure 92: Extraction Method: Conventional*



## Item 16 (b) Long-hole Stoping

Blanket mine uses long-hole stoping in the orebodies with a width greater than 3 m. It can also be applied in instances where the geotechnical challenges such as jointing and faulting are experienced to be mined using conventional underhand stoping method. Long-hole stoping is a selective and highly productive mining method that provides good ore recovery. The method is flexible and allows for practical modifications to the mining sequence and configuration to suit the characteristics of the orebody. Long Hole drilling entails using drifter machines to drill holes which cover the full span of the sublevel interval and then blasting them. When the block has been delineated and made ready for production mining cones are created at the lowermost level above the main extraction haulage. These cones will be linked to the draw point system established at the main level. Once the third cone has been established a slot is then created on the sublevel immediately above the coning level, which opens the sub drive face for subsequent drilling and blasting. Holes parallel to the slot face spanning the full length of the sublevel interval are then drilled and depending on the width of the slot will make up what is known as a ring. These holes are then blasted after completion and this cycle will continue until the full strike of the orebody on the sublevel is exhausted. Long hole drilling and blasting is done in a vertical retreat fashion maintaining a lead 72-degree angle between the lower and upper stopes, with lead lags not more than 10m between panels where ground conditions allow.

It is an overhand, vertical stoping method utilising drifter machines for long-hole drilling and blasting carried out from sub-levels. Mining the orebody creates a void or “open-stope” that is unsupported, however sill pillars are left between tramming haulage levels and Dip pillars along strike for regional support. Figure 93 illustrates a schematic of the long-hole stoping mining method.

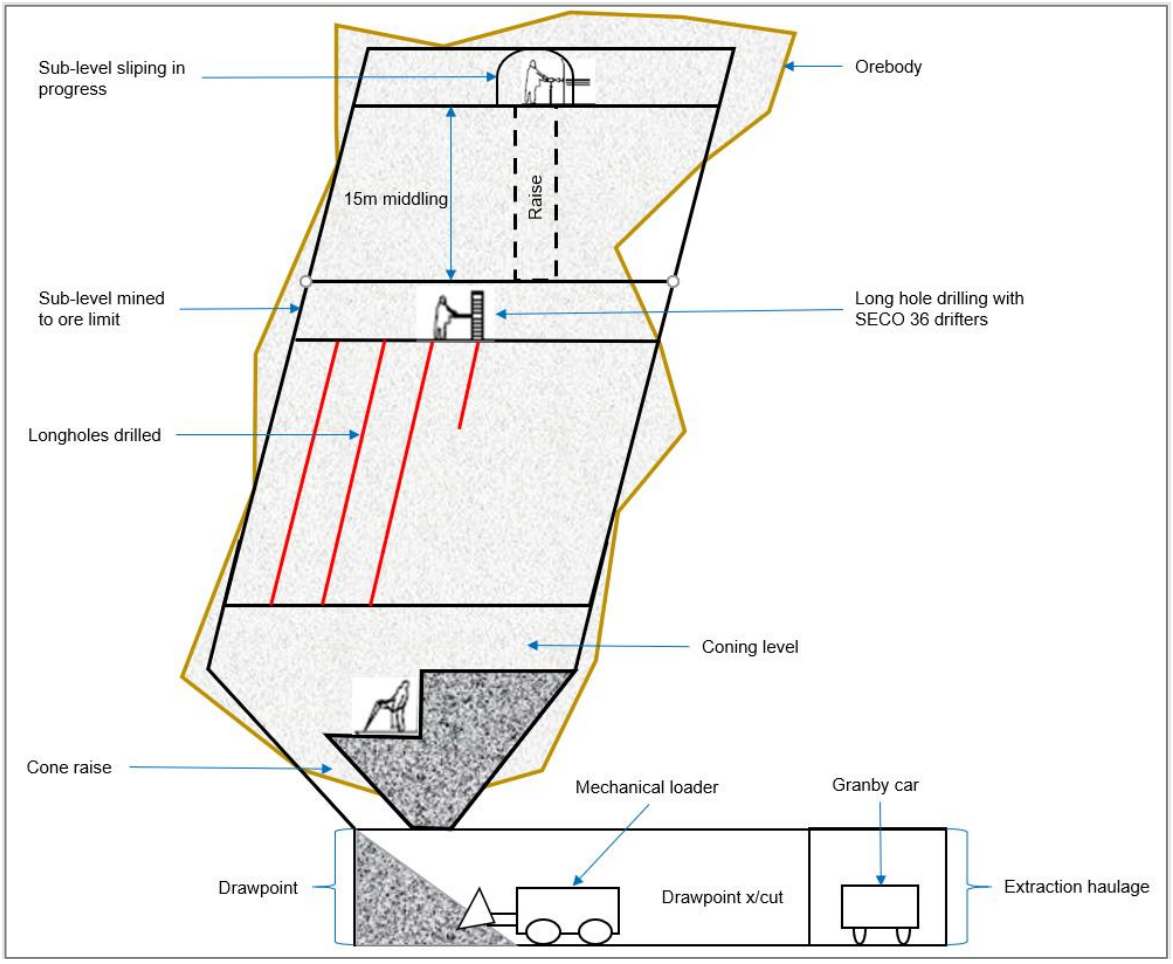
To access the orebody, crosscuts are developed from the tramming haulage to the extraction haulage which is located approximately 15 m from the orebody. Draw point crosscuts are developed at 15 m intervals along the extraction haulage at 990m level and above while below 990m level a 20m interval spacing is utilized which provide access to the draw points. A twin raise system is developed upwards to establish a sliping point for the development of the sub-drive. One raise serves as an access raise, while the other serves as an ore pass to handle ore from the sub-drive development. The twin raise system is developed from one sub-drive to the next for the entire 120 m or 60 m lift.

Coning is done from the coning level and can only commence once sufficient raises for access and ore handling have been developed and holed into the sub-drive. Once coning starts, the raise can no longer be used as an access way. As a rule of thumb, three cones are established before any production may commence.

Production drilling is done in a retreat fashion from the orebody limit and drilling is done top down with Seco 36 drifter machines. The use of mechanical props and mesh as a temporary support are used to safeguards the workers during the drilling process. Depending on production requirements, multiple sub-levels may be mined simultaneously. The orebody width will ultimately determine the width of the stoping panel.

Ore will then be extracted from the stope drawpoints via the lower extraction haulage using mechanical loaders or mechanized machinery. The ore is then loaded onto granby cars or dump trucks for transportation to the station orepasses.

*Figure 93: Schematic Representation of Long-hole Stoping Mining Method*



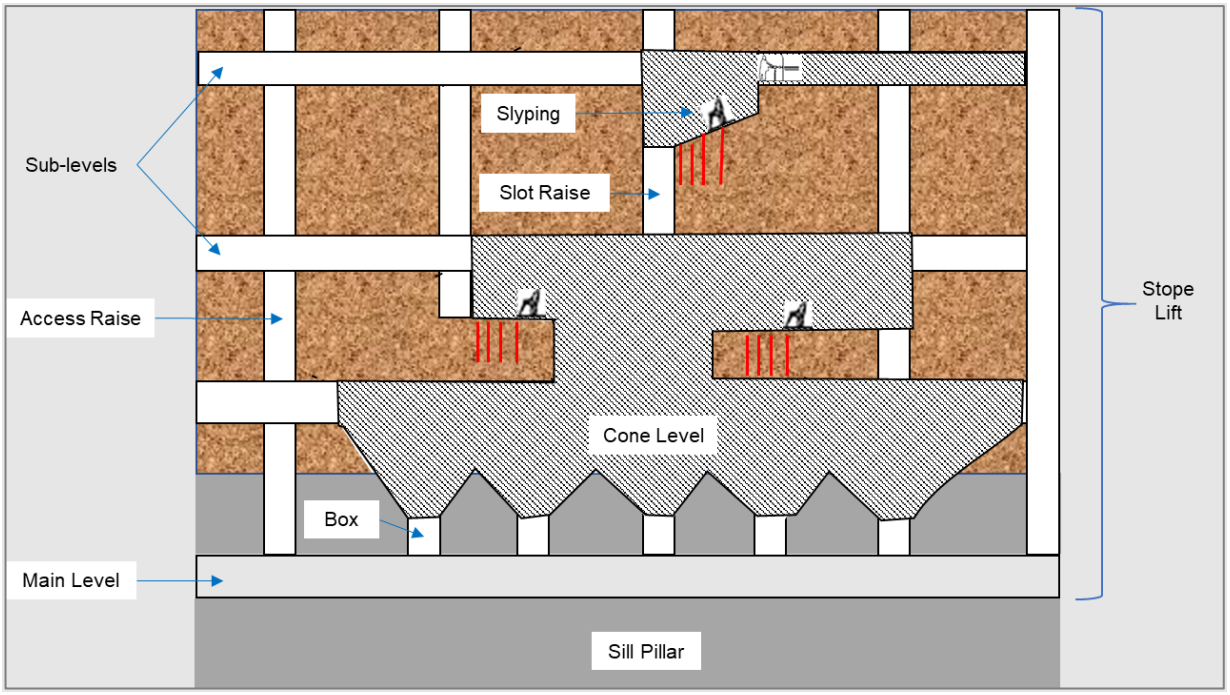

## Item 16 (c) Underhand Stoping

Conventional underhand stoping is used in orebodies with a width less than 3 m. Underhand stoping is particularly suitable for steeply dipping, narrow orebodies and allows for better control of the stoping width and dilution. The sublevel spacing and coning arrangement is similar to the long hole mining approach, the only difference is that in the conventional underhand the extraction haulage can be established within the orebody. Box raises are established instead of draw points in instances where the extraction haulage only services a single orebody and will have no interference with tramming from other orebodies. Once box raises have been established coning can take place on the coning sublevel. A slot is created on the sublevel above the coning level once the third cone has been established. Underhand jackhammer drilling and blasting cycle commences once slot has been created and temporary support are installed. Whereas in long hole the holes cover the full span of the sublevel in underhand drilling 2m bench lifts are drilled and blasted at each cycle until the bench holes onto the sublevel below and the sequence continues over the strike of the orebody panel until it is exhausted. Retreat direction on a panel is dependent on the number of slot -raises established within the panel. In some cases in a 60-70m panel a slot raise system is established midway which allows for retreat from the central slot is two directions.

Stoping preparations commence by mining ore handling raises at 15 m intervals along the extraction haulage from the footwall of the orebody. Development within the orebody is the same as in the long-hole stoping sections, with the difference being that boxes can be mined instead of draw points.

Upon establishment of sufficient ore handling raises, production commences with slyping around the ore handling raise to establish faces. Mining is done in both directions on strike with one face leading the other. Extreme end raises are equipped to serve as access raises for men, material and ventilation. The lower level is equipped with boxes at set intervals from which ore will be drawn. A schematic representation of the mining method is illustrated in Figure 94.

Figure 94: Schematic Representation of Underhand Stoping Mining Method




The sequence is repeated and as the stope extends horizontally, new stopes are established to maintain the required production rates. The stope is mined up to the extents of the orebody.

## Item 16 (d) Parameters Relevant to Mine Design

### Rock Engineering, Geotechnical and Hydrological Parameters

Blanket Mine has employed a rock engineering department as of February 2020 for the required geotechnical inspections and designs of the underground workings. All legal appointments pertaining to rock engineering requirements are in place. The geotechnical model for Blanket Mine is being revised & with this in mind support standards are continually reviewed and rock mechanics recommendations for the current mining operations are in place.

Rock mass conditions are simulated with Flack 3D numerical modelling program on a quarterly basis and were deemed necessary. Rock strength testing that was conducted by Groundwork consulting and laboratory testing done by Rock lab in South Africa to gain a better understanding of the rock mass failure mechanisms. The poisons ratio, Youngs modulus, friction angles and intact rock strengths were tested and is now followed up with intact rock strength and core samples being tested with point load tested on mine to corelate and indicate anomalies for the use in new layouts and designs. New geotechnical information is gained via borehole logging and mapping by the geological department and placed on plans and into the electronic model. A hydrological area was intersected at 850 level which halted the development area where 46l/hr was measured and was drained successfully which enabled development to continue. Rock engineering work has been conducted for the newly targeted mining areas below 1100m Level. The studies and work associated with these parameters will be addressed by the rock engineering department as data is generated and access is obtained through development. This will further inform the geotechnical model which will be constructed as information become available and be placed into the electronic model.

Two secondary support crews have been trained by specialist in the installation of wire-mesh, lacing, gunniting and mechanical anchors. They are deployed to planned areas where high stresses are expected from the numerical modelling or in life of mine excavations to safeguard the areas for the future accesses.

**Underground Access, Ore Flow and Material Handling**

The Blanket Mine consists of several small shafts that provide access to the various orebodies in which mining operations take place. With CMS being completed and providing access to Mineral Resources from 750 m Level up to 1,110 m Level and beyond. Mining activities will be focused on Mineral Resources below 750 m Level. Production below 1110 m Level is planned to be accessed through declines from the respective mining areas. The hoisting capacity and current utilisation of the shafts are detailed in Table 36.

*Table 36: Shaft Utilisation and Hoisting Capacity*

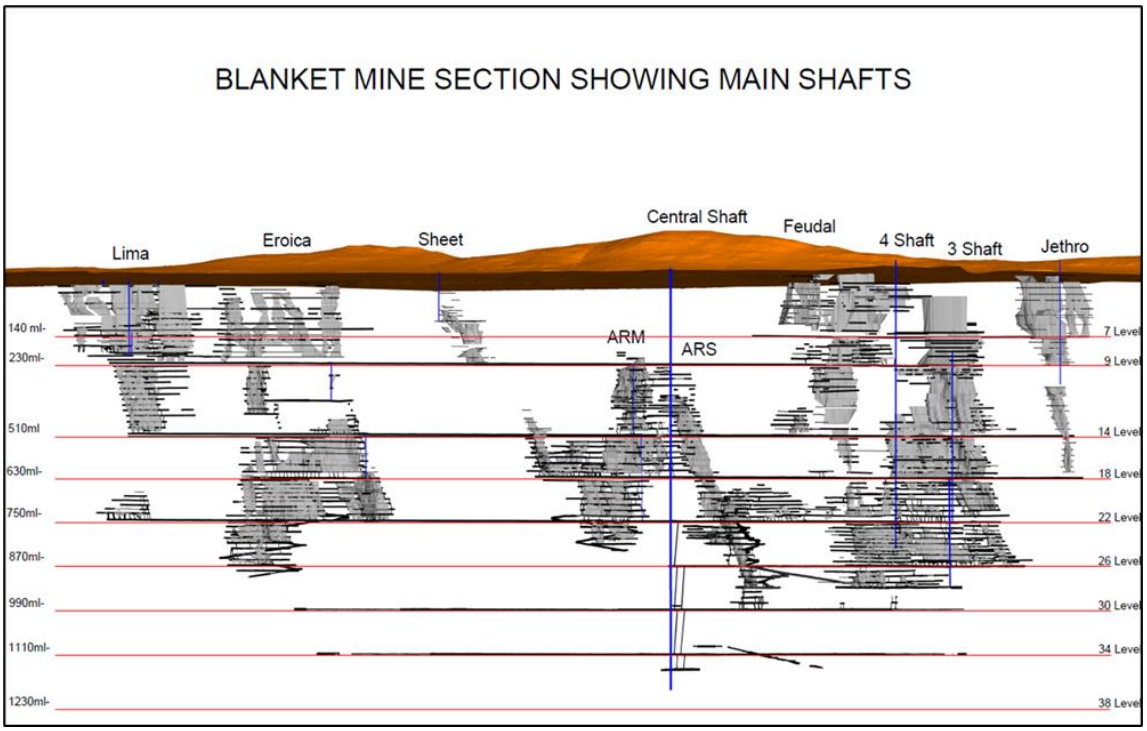
| Shaft | Access Description | Utilisation | Hoisting Capacity |
|---|---|---|---|
| Central Shaft | Surface to 35 Level | Ore, men and material | 2 x 10 tonne skips |
| No. 4 Shaft | Surface to 825 mL | Ore and material | 2 x 5 tonne skips |
| Jethro Shaft | Surface to 7 Level | Men and material | Single deck cage |
| Lima Shaft | Surface to 8 Level | Ore, men and material | 1 x 2 tonne skip |
| Incline Shaft | Surface to 7 Level | Material | 1 x 2 tonne skip |
| 5 Winze | 7 Level to 22 Level | Men and material | Double deck cage |
| Eroica Shaft | 14 Level to 675 mL | Men and material | Single deck cage |
| No. 6 Shaft | 22 Level to 900 mL | Ore, men and material | 2 x 3 tonne skip |

The main Blanket Mine shaft infrastructure is illustrated in Figure 95 and Figure 96.

*Figure 95: Main Blanket Mine Shaft Infrastructure: Plan View (update picture – show active shaft above in different colour to historical shafts)*




*Figure 96: Blanket Mine Shaft Infrastructure: Section View*



**Ventilation**

Blanket Mine ventilation system is designed with common intakes and several exhaust shafts. Intake air is directed to the lowest active mining workings where the air then ascends along the working faces to the main returns by means of Natural Ventilation Pressure (NVP) and mechanical ventilation.

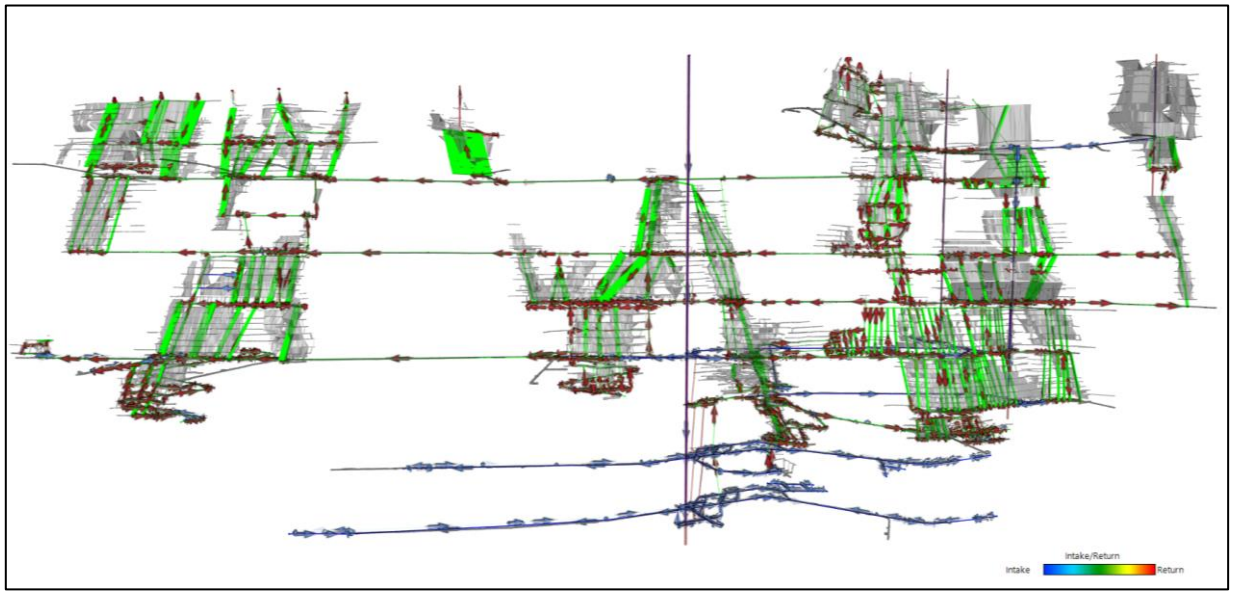
The majority intake air is through Central Shaft and distributed via 22,26,30,34 and 35 Level to the workings, with additional intakes from Jethro Shaft.

The mechanised decline sections are ventilated mechanically with force exhaust overlap system, and each layout is approved by the ventilation officer, underground manager and general manager.

The ventilation system is constructed and simulated with the use of electronic software (VUMA) to develop a plan to ensure Blanket mine can be ventilated effectively and assist with any major ventilation changeover that can be micro modelled with fan and column selection to ensure compliance. Figure 97 below indicates the simulated ventilation system for Blanket Mine at December 2023.

The Caledonia group employs a full time Group Ventilation Engineer to advise on changes in the ventilation strategy and design.

*Figure 97: Blanket Mine Simulated Ventilation airflow*




The current Blanket Mine ventilation system limit is reached with NVP at 26 level. Mechanical ventilation systems installed on 30,34 and 35 Level. To alleviate the limit of the NVP and to reduce the underground ventilation installations, an alternative solution was investigated and determined. The solution coincides with the current district ventilation system, which entails the equipping of several exhaust shafts with surface fans. The following shafts are earmarked for a bifurcated fan installation:

- Blanket 1 Shaft
- Blanket 2 Shaft
- Eroica 2 Shaft
- Sheet Shaft and
- Lima 3 Shaft

The exhaust shaft installations are planned to exhaust volume of 320m$^3$/s when completed. This is a significant investment into the LOM of Blanket Mine.

## Item 16 (e) Production Rates, Expected Mine Life, Mining Unit Dimensions, and Mining Dilution

### Shift Cycle

The production days may vary from month to month and are dictated by the public holidays in each month where this calendar is shared by the plant manager to all HODs. Development and underhand stoping drilling and blasting operations are conducted on day shift while night shift conducts cleaning operations. Long Hole drilling operations are conducted both on day and night shift with blasting only on day shift. Tramming is conducted on both morning and night shift.

The Blanket Mine shift system is detailed in Table 37.

*Table 37: Blanket Mine Shift System*

| Shift | Activity | Duration |
|---|---|---|
| Day Shift | Drilling and blasting | 8 Hours |
| Blasting and Re-entry | Blasting and Re-entry | 4 Hours |
| Night Shift | Lashing and cleaning | 12 Hours |

### Production Rates

The planned development rates for the Blanket Mine are detailed in Table 38.

*Table 38: Blanket Mine Development Rates*

| Development Type | Unit | Value |
|---|---|---|
| Box Raise | m/d | 1.3 |
| Cut off Raise | m/d | 1.3 |
| Connection Crosscut | m/d | 1.3 |
| DD Cubbies | m/d | 1.3 |
| DD Chamber | m/d | 1.7 |
| DD Crosscut | m/d | 1.7 |
| Decline | m/d | 1.7 |
| Decline Connection | m/d | 1.7 |
| Decline Crosscut | m/d | 1.7 |
| Decline Chairlift | m/d | 1.7 |
| Decline Conveyor | m/d | 1.7 |
| Drawpoint Raise | m/d | 1.3 |
| Drawpoint Crosscut | m/d | 1.7 |
| Subdrive | m/d | 1.3 |
| Dump Truck Access Bay | m/d | 1.7 |
| Extraction Haulage | m/d | 1.7 |
| Haulage | m/d | 1.7 |
| Laybye | m/d | 1.7 |
| Loading Bay | m/d | 1.7 |
| Lead Drive | m/d | 1.7 |
| LHD Access Bay | m/d | 1.7 |
| Muck Bay | m/d | 1.7 |
| Orepass Raise | m/d | 1.3 |
| Raisebore | m/d | 1.2 |
| Refuge Cubby | m/d | 1.7 |
| Shunting Bay | m/d | 1.7 |
| Sub Station Crosscut | m/d | 1.7 |
| Slot Raise | m/d | 1.3 |
| Sump | m/d | 1.7 |
| Service Raise | m/d | 1.3 |

| | | |
|---|---|---|
| TW Raise | m/d | 1.3 |
| Vent Raise | m/d | 1.3 |

Blanket Mine plans to produce 70-80 koz of gold per year. The LoM plan reflects 70 koz of gold production from Mineral Reserves only. The planned production rates from the different orebodies are detailed in Table 39.

*Table 39: Blanket Mine Production Rates*

| Type | Unit | Value |
|---|---|---|
| LH Stoping | tpd | 100 |
| UH Stoping | tpd | 40 |
| Pillar | tpd | 80 |
| Draw point | tpd | 40 |

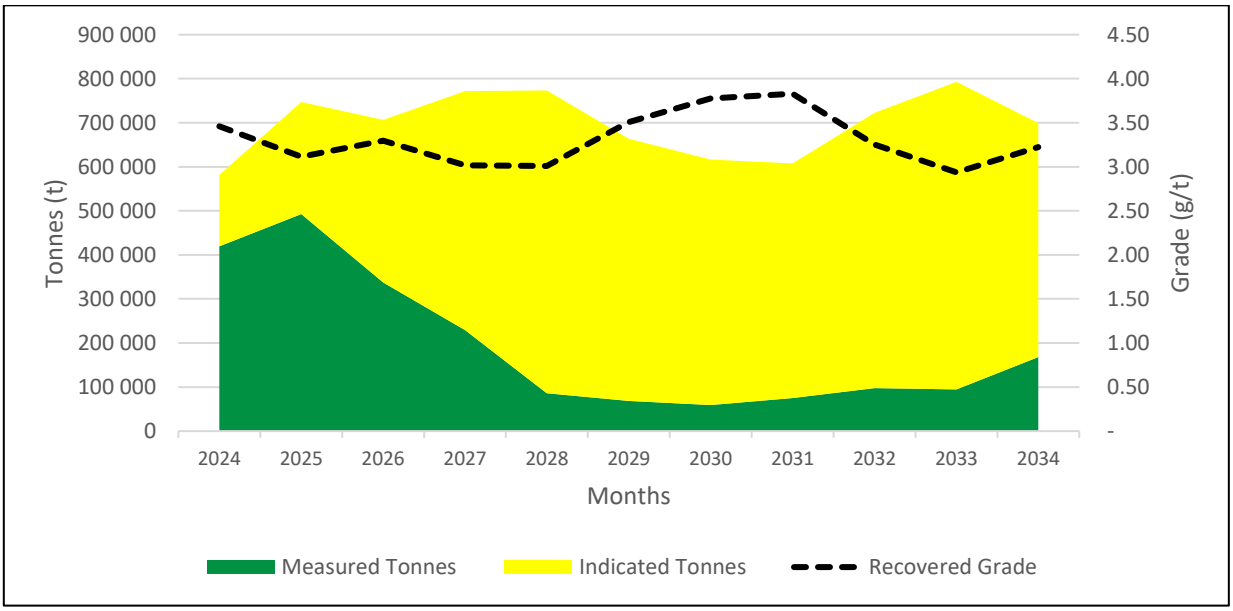
**Life of Mine Plan**

The Blanket LoM plan commences on 1 March 2024. The LoM plan includes Measured, Indicated and Inferred Mineral Resources, however only diluted Measured and Indicated Mineral Resources in the LoM plan were considered for conversion to Mineral Reserves.

The mining strategy targets primarily the Mineral Resources below 750 m Level. Mining in the Lima orebody targets Mineral Resources above 750 m Level. In the ARS, Blanket and Blanket Feudal orebodies, some mining will take place above 630 m Level.

The diluted production schedule based on Measured and Indicated Mineral Resources only for the Blanket Mine is illustrated in Figure 98.

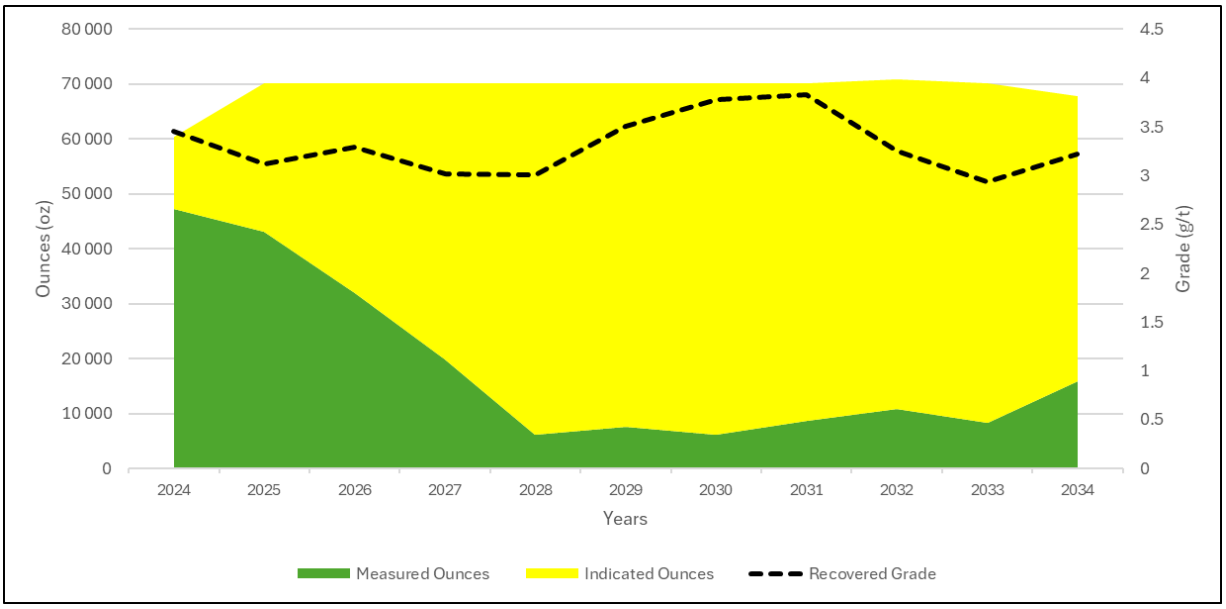
*Figure 98: Diluted Annual Life of Mine Production Schedule on Measured and Indicated Mineral Resources only*




A total of 2,129 kt Measured Mineral Resources at a grade of 3.21 g/t and 5,555 kt Indicated Mineral Resources at a grade of 3.31g/t is included in the LoM plan. A LoM of 10 years and 10 months on Mineral Reserves (diluted Measured and Indicated Mineral Resources only) is envisaged for the Blanket Mine.

The content delivered to the plant from the Blanket Mine is illustrated in Figure 99.

*Figure 99: Annual Blanket Mine Content Delivered to the Plant*




The LoM plan includes a total of 220 koz and 592 koz of gold from the Measured and Indicated Mineral Resource Classifications, respectively.

The monthly ore tonne production is illustrated in Figure 100 and Figure 101.

*Figure 100: Monthly Stope Ore Tonne Production*

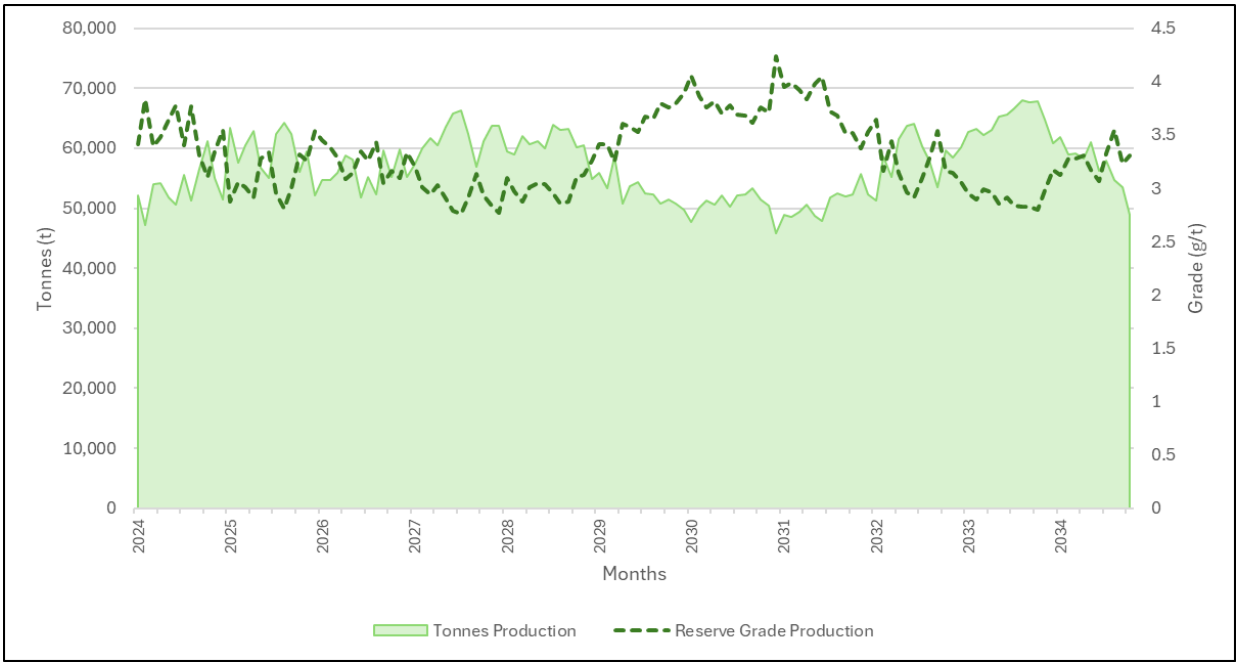
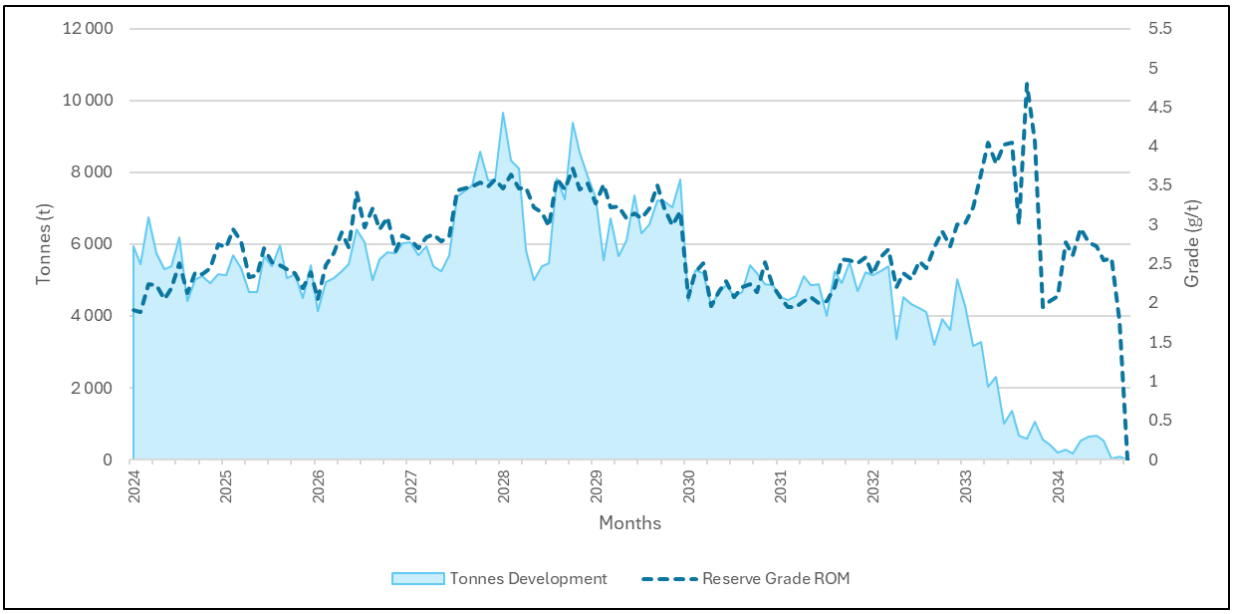


*Figure 101: Monthly Development Ore Tonne Production*




Development ore tonnes are produced from on reef development including lead drives, raises, subdrives and draw point raises.

Due to the nature of the mining methods employed in a vertical orebody, mining commences from the low point and proceeds in an upward direction. This results in areas where the Inferred Mineral Resources are mined before the Measured and Indicated Mineral Resources, a matter of accessibility. These Inferred Mineral Resources are typically converted as part of the mining process to Measured and Indicated Mineral Resources by means of orebody access development and RoM drilling.

Inferred Mineral Resources included in the LoM, but not included in the DCF calculation are shown for clarity in Figure 4.

*Figure 102: Blanket Mine Mineral Reserve Production Profile inclusive of Inferred Mineral Resources on Tonnes*

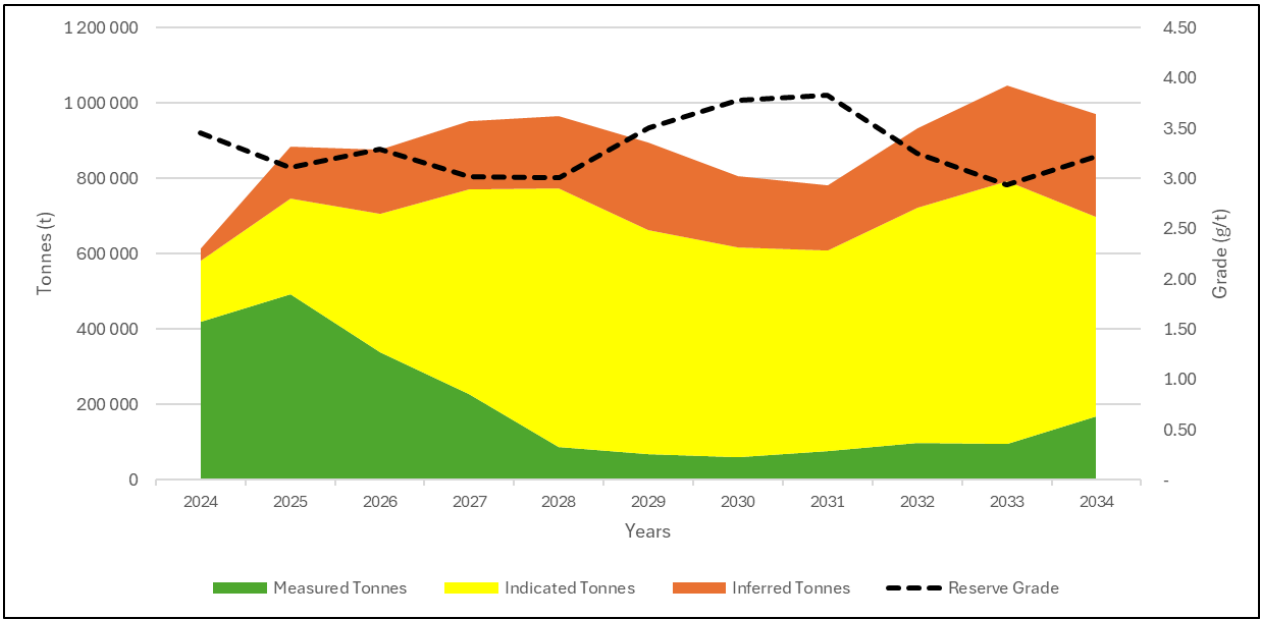
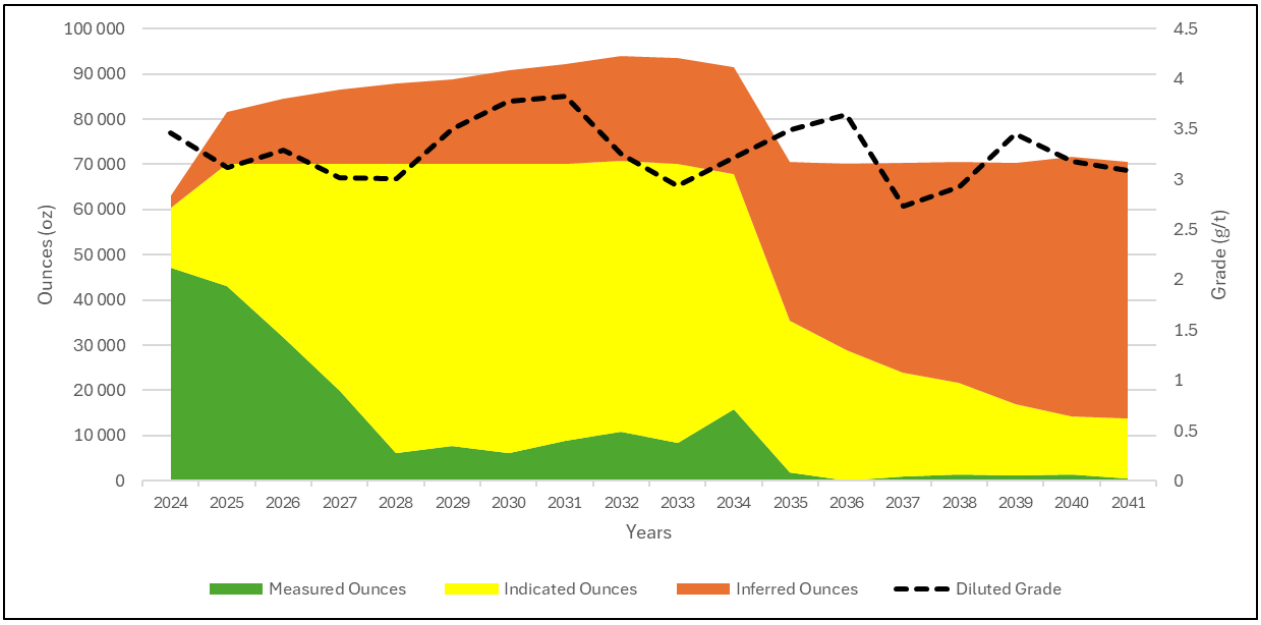


*Figure 103: Blanket Mine Mineral Reserve Production Profile inclusive of Inferred Mineral Resources on ounces*




**Mining Unit Dimensions**

The planned dimensions for development are detailed in Table 40.

*Table 40: Development Dimensions*

| Description | Width | Height |
|---|---|---|
| | m | m |
| Box Raise | 1.5 | 1.5 |
| Cut off Raise | 1.5 | 1.5 |
| Connection Crosscut | 1.6 | 1.8 |
| DD Cubbies | 1.6 | 1.8 |
| DD Chamber | 6.0 | 7.0 |
| DD Crosscut | 2.5 | 2.0 |
| Decline | 4.0 | 3.0 |
| Decline Connection | 3.0 | 3.0 |
| Decline Crosscut | 3.0 | 3.0 |
| Decline Chairlift | 5.5 | 3.0 |
| Decline Conveyor | 4.0 | 3.0 |
| Drawpoint Raise | 1.5 | 1.5 |
| Drawpoint Crosscut | 3.0 | 3.0 |
| Subdrive | 1.6 | 1.8 |
| Dump Truck Access Bay | 4.0 | 3.0 |
| Extraction Haulage | 3.0 | 3.0 |
| Haulage | 3.0 | 3.0 |
| Laybye | 3.0 | 3.0 |
| Loading Bay | 4.0 | 3.0 |
| Lead Drive | 4.0 | 3.0 |
| LHD Access Bay | 4.0 | 3.0 |
| Muck Bay | 5.5 | 3.0 |
| Orepass Raise | 1.5 | 1.5 |
| Raisebore | 2.0 | 2.0 |
| Refuge Cubby | 2.5 | 2.0 |
| Shunting Bay | 3.0 | 3.0 |
| Sub Station Crosscut | 3.0 | 3.0 |
| Slot Raise | 1.5 | 1.5 |
| Sump | 5.5 | 3.0 |
| Service Raise | 1.5 | 1.5 |
| TW Raise | 1.5 | 1.5 |
| Vent Raise | 1.5 | 1.5 |

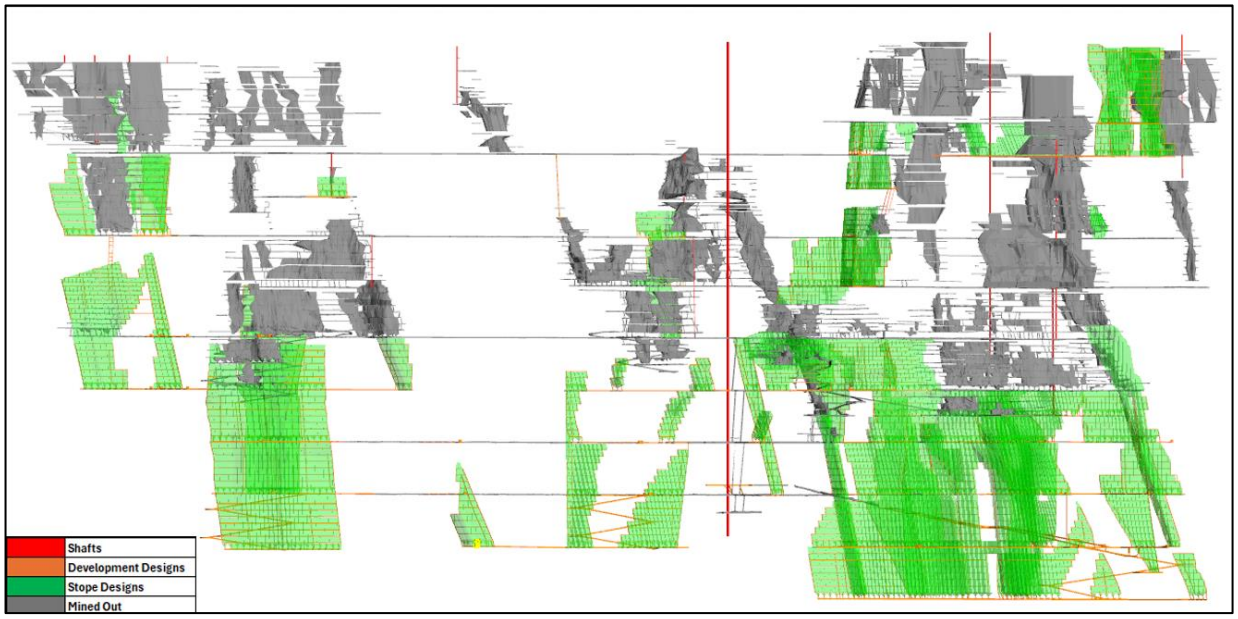
The mine design criteria for the Blanket Mine is detailed in Table 41.

*Table 41: Mine Design Criteria for Blanket Mine*

| | Unit | Unit |
|---|---|---|
| **Level Parameters** | | |
| Main Level Spacing | m | 120 |
| Sub-level Spacing (Middling) | m | 15 |
| Draw point Crosscut Spacing | m | 15 |
| Diamond Drilling Crosscut Spacing (Along sub drives and lead drives) | m | 7.5 |
| Extraction Haulage Spacing from Orebody | m | 15 |
| Development Lead Angle | Degrees | 45 |
| Production Lead Angle | Degrees | 72 |
| **Pillars** | | |
| Sill Pillar Thickness | m | 15 |
| Crown Pillar Thickness | m | 15 |
| Sill Pillar Spacing | m | 90 |

The Blanket Mine design is illustrated in Figure 104.

*Figure 104: Blanket Mine Design*




**Mineral Reserve Conversion Factors**

Mineral Reserve conversion factors are applied to convert the Mineral Resources to Mineral Reserves. The applied Mineral Reserve conversion factors are detailed in this section.

*Pillar Extraction*

A pillar extraction of 50% has been applied to account for pillars which will be extracted on retreat when a block has been mined out. The pillar extraction accounts for the extraction of sill pillars (including pillars between draw points) which will be extracted.

A detailed rock engineering recommendation, risk assessment involving Mining, MRM, Ventilation is required to determine which pillars are eligible for partial or total extraction.

*Mining Losses*

Ore losses occur when mined material containing grade, is mixed with waste material, and can be attributed to several different causes. Different ore losses have been applied to account for ore to waste losses during mining of the various orebodies. It was assumed that the entire thickness of the reef is taken out, with negligible ore lost to waste.

*Dilution*

Dilution is defined as a percentage value representing a certain amount of waste material that is mixed with the ore during the mining process. This results in increased ore tonnages, but due to waste material containing no or very little grade, the overall grade delivered to the plant is decreased.

The thickness of the orebodies mined at the Blanket Mine vary significantly and are in some instances very irregularly shaped. The Blanket Mine applies an accepted dilution of 8.0%, derived from actual production figures.

Dilution of 15 cm in the hanging wall and footwall was applied to orebodies which are mined using the conventional underhand mining method and dilution of 30 cm was applied to orebodies which are mined using long-hole stoping. It has been assumed that drilling with shorter drill steels in conventional mining results in less overbreak than drilling with long drill steels used in long-hole stoping.

The average dilution calculation is detailed in Table 42.

*Table 42: Blanket Mine Average Dilution Calculation*

| Orebody | Mining Method | Average Orebody Thickness | HW and FW Dilution | Dilution |
|---|---|---|---|---|
| | | cm | cm | % |
| BLK1HW | Underhand | 300 | 30 | 10.00 |
| BLK2FW | Underhand | 270 | 30 | 11.11 |
| BLK2HW | Underhand | 800 | 30 | 3.75 |
| BLK3 | Underhand | 380 | 30 | 7.89 |
| BLK45 | Underhand | 700 | 30 | 4.29 |
| BLK6FW | Underhand | 1050 | 30 | 2.86 |
| BLK6HW | Underhand | 820 | 30 | 3.66 |
| BQRHWN | Long-hole | 700 | 30 | 4.29 |
| BFHW | Underhand | 400 | 30 | 7.50 |
| ARS | Long-hole | 1500 | 60 | 4.00 |
| ARS EXTENSION | Long-hole | 450 | 60 | 13.33 |
| ARM | Long-hole | 1200 | 60 | 5.00 |
| ARMFFW1 | Underhand | 120 | 30 | 25.00 |
| LIMA MAIN | Underhand | 200 | 30 | 15.00 |
| ERCN | Underhand | 500 | 30 | 6.00 |
| **Average Dilution** | | | | **8.00** |

*Mine Call Factor*

MCF is the ratio, expressed as a percentage, which the specific product accounted for in recovery plus residues bears to the corresponding product called for by, the Mine's measuring methods. The MCF was calculated from historic and current figures.

The MCF calculation from 2015 to 2023 is detailed in Table 43.

*Table 43: Blanket Mine - Mine Call Factor Calculation 2015 to 2023*

| Year | Milled Tonnes | Gold Recovered | Gold in Tails | Gold Accounted For | Total Mined Tonnes | Mined Grade | Gold Called For | MCF |
|---|---|---|---|---|---|---|---|---|
| | t | oz | oz | oz | t | g/t | oz | % |
| 2015 | 440,057 | 42804 | 3,243 | 46,047 | 442,451 | 3.25 | 42,574 | 108% |
| 2016 | 510,662 | 50,351 | 3,794 | 54,145 | 506,086 | 3.3 | 50,903 | 106% |
| 2017 | 547,060 | 56,133 | 3,941 | 60,074 | 547,060 | 3.41 | 56,826 | 106% |
| 2018 | 560,913 | 54,512 | 4,166 | 58,678 | 545,267 | 3.25 | 56,626 | 104% |
| 2019 | 556,746 | 55,182 | 3,902 | 59,084 | 556,440 | 3.3 | 57,248 | 103% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2020 | 597,962 | 57,899 | 3,845 | 61,744 | 571,061 | 3.21 | 59,854 | 103% |
| 2021 | 665,627 | 67,476 | 4,409 | 73,844 | 667,342 | 3.36 | 72,631 | 102% |
| 2022 | 752,033 | 80,775 | 5,343 | 86,118 | 756,478 | 3.5 | 80,235 | 98% |
| 2023 | 770,421 | 75,416 | 5,003 | 80,419 | 751,087 | 3.25 | 80,272 | 94% |
| Average MCF | | | | | | | | 103% |

*Notes: A MCF of 100% has been used for the Blanket Mine, derived from the actual MCF calculations from 2015 to 2023.*

## Item 16 (f) Requirements for Stripping, Underground Development and Backfilling

### Underground Development

The existing development forms part of the mine plan to provide access to the underground workings and the targeted mining areas.

Additional development is required for opening sufficient ground and to provide access to the mining areas below 750 m Level. Different development requirements exist for the orebodies included in this study.

The naming convention used in the development designs are detailed in Table 44.

*Table 44: Development Designs Naming Convention*

| Design Naming Convention | Definition |
|---|---|
| CON | Draw point Cone. Refers to the cone that is established for each draw point. |
| CTO | Cut off Raise. Refers to the raises developed connection the economic limits of an orebody along strike. |
| HLG | Diamond Drill Crosscut. Refers to crosscuts that are developed along declines and haulages from which exploration drilling is typically done. |
| DXT | Diamond Drill Chamber. Refers to a cubby that has been slyped to required size for Diamond Drilling activities. |
| DEC | Decline. Refers to the development of the declines to provide access to the different areas in the Blanket Mine. |
| CHL | Decline Chairlift. Refers to the development of the declines to provide access for Men and material. |
| CON | Decline. Refers to the development of the declines to provide exacation for conveyor belt and return air. |
| DXT | Decline Crosscut. Refers to the access crosscuts which offramp from the declines to the main haulages and extraction haulages. |
| HLE | Drawpoint Crosscut. Provides access from the extraction haulage or main haulage to the draw point. |
| RSE | Drawpoint Raise. Refers to the raises developed from the lower main level to the first sub-level as a starting point for coning. |
| HLE | Extraction Haulage. Refers to horizontal off-reef development which services tramming activities for individual orebodies. |

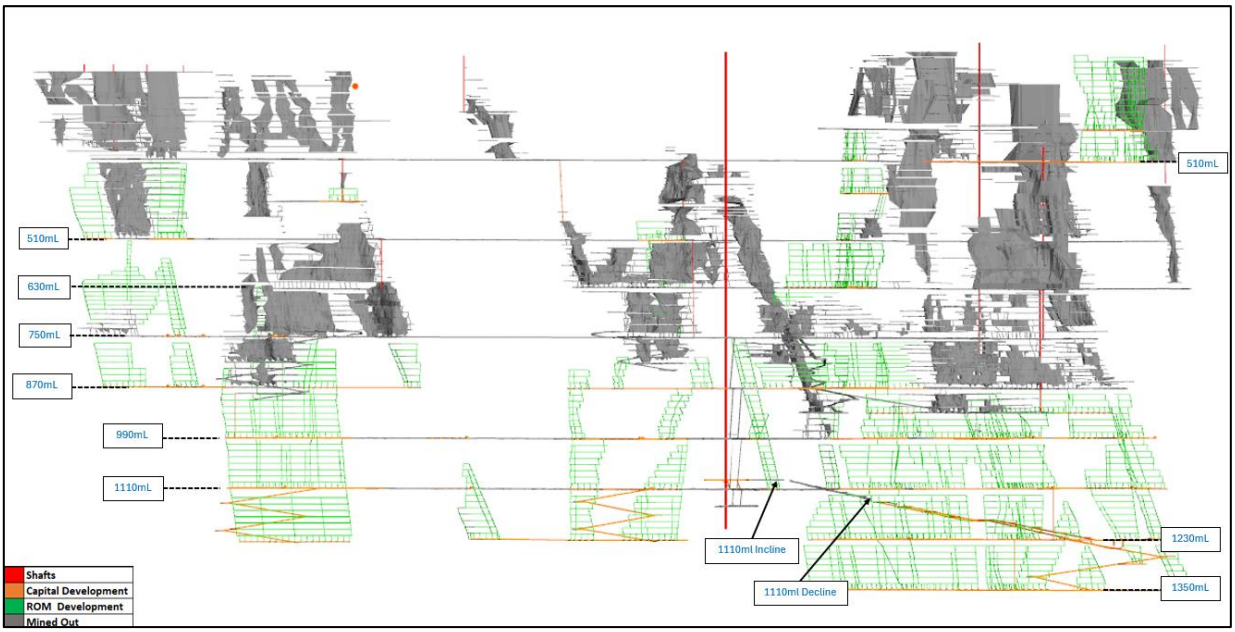
| Design Naming Convention | Definition |
|---|---|
| HLG | Haulage. Refers to horizontal off-reef development along the strike of the orebody. Also called the tramming haulage. |
| LDR | Lead Drive. Refers to the main level drive that are developed first and leads the sub-level development. |
| OPS | Orepass Raise. Refers to the raises developed to facilitate ore movement from in-ore development activities. |
| RBR | Raisebore. Refers to Raisebore drilling done to support ventilation requirements. |
| DRV | Subdrive. Refers to horizontal on-reef development along the strike of the orebody. |
| TWA | Travelway Raise. Refers to the raises developed to faciliate initial orebody access per level. |
| VNT | Ventilation raises. Refers to the raises that are developed between levels for ventilation purposes. |

The Blanket Mine will focus on key development ends to open ground on 30, 34 and 38 Level. The planned capital development consists of:

- 30 Level North and South to the full extent of the orebody limits
- 34 Level North and South to the full extent of the orebody limits
- Decline from 34 to 38 level
- Diamond Drill crosscuts for exploration purposes

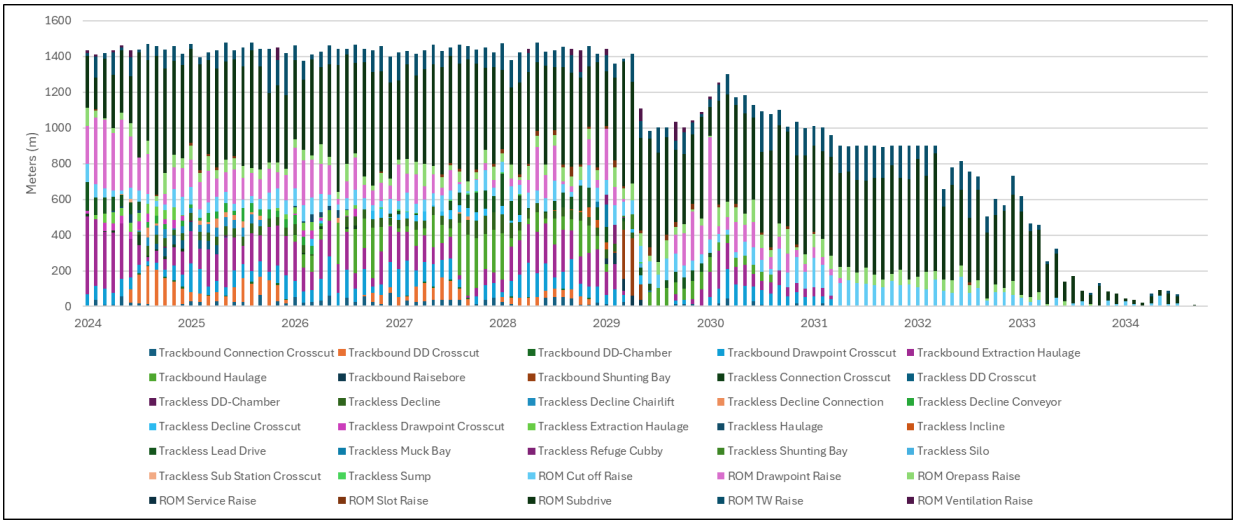
The planned capital development is in line with the No. 4 Shaft and Central Shaft capacity constraints. The Blanket Mine development design is illustrated Figure 105.

*Figure 105: Blanket Mine Development Design*



Development meters are high throughout the first 5 years of the LoM plan with the focus on opening up Mineral Resources below 870 m. The development profile for the Blanket Mine is illustrated in Figure 106.

*Figure 106: Blanket Mine Development Profile*




### Backfilling

The Blanket Mine currently does not have any requirements for backfilling within any of the mining areas. If future depth extensions are planned, it may require an investigation into backfill requirements.

## Item 16 (g) Required Mining Fleet and Machinery

The underground mining fleet consists of rail-bound and trackless equipment. Production and development drilling is done by using a combination of Seco 25 jackhammers in conventional underhand mining areas while Seco 36 drifters are used in long-hole stoping areas.

The underground rail-bound and trackless fleet is detailed in Table 45.

*Table 45: Blanket Mine Current Mining Fleet*

| Fleet | Quantity |
|---|---|
| **Rail-bound Fleet** | |
| Air loaders | 33 |
| Battery operated locomotives | 27 |
| Cars (Material & Hoppers) | 192 |
| **Trackless Fleet** | |
| Dump trucks | 13 |
| LHDs | 18 |
| Bobcat | 1 |
| Utility vehicles | 1 |
| Rock breakers | 3 installed (Eroica 740mL, 870mL,990mL) |

# ITEM 17 RECOVERY METHODS

## Item 17 (a) Flow Sheets and Process Recovery Methods

The Blanket gold plant consists of a conventional crushing, milling, CIL, batch elution and smelting configuration current running at 66 ktpm. A process flow diagram is shown in Figure 107.

The plant consists of the following circuits:

- Primary crushing - jaw crushers
- Secondary crushing - cone crushing in closed circuit with a screen.
- Primary Milling - rod mills in open circuit
- Regrind - ball mills in closed circuit with cyclones.
- Gravity Concentration – Knelson concentrators and Gemini table
- Intensive leach for gravity concentrate.
- Thickening - Dewatering cyclones
- Leaching - Carbon in Leach (CIL)
- Elution and electrowinning – Combined in batch mode
- Casting - smelt house
- Carbon regeneration - Re-activation kiln
- Tailing Deposition – Tailing Storage Facility (TSF)

*Figure 107: Crushing and Milling Process Flow Diagram*

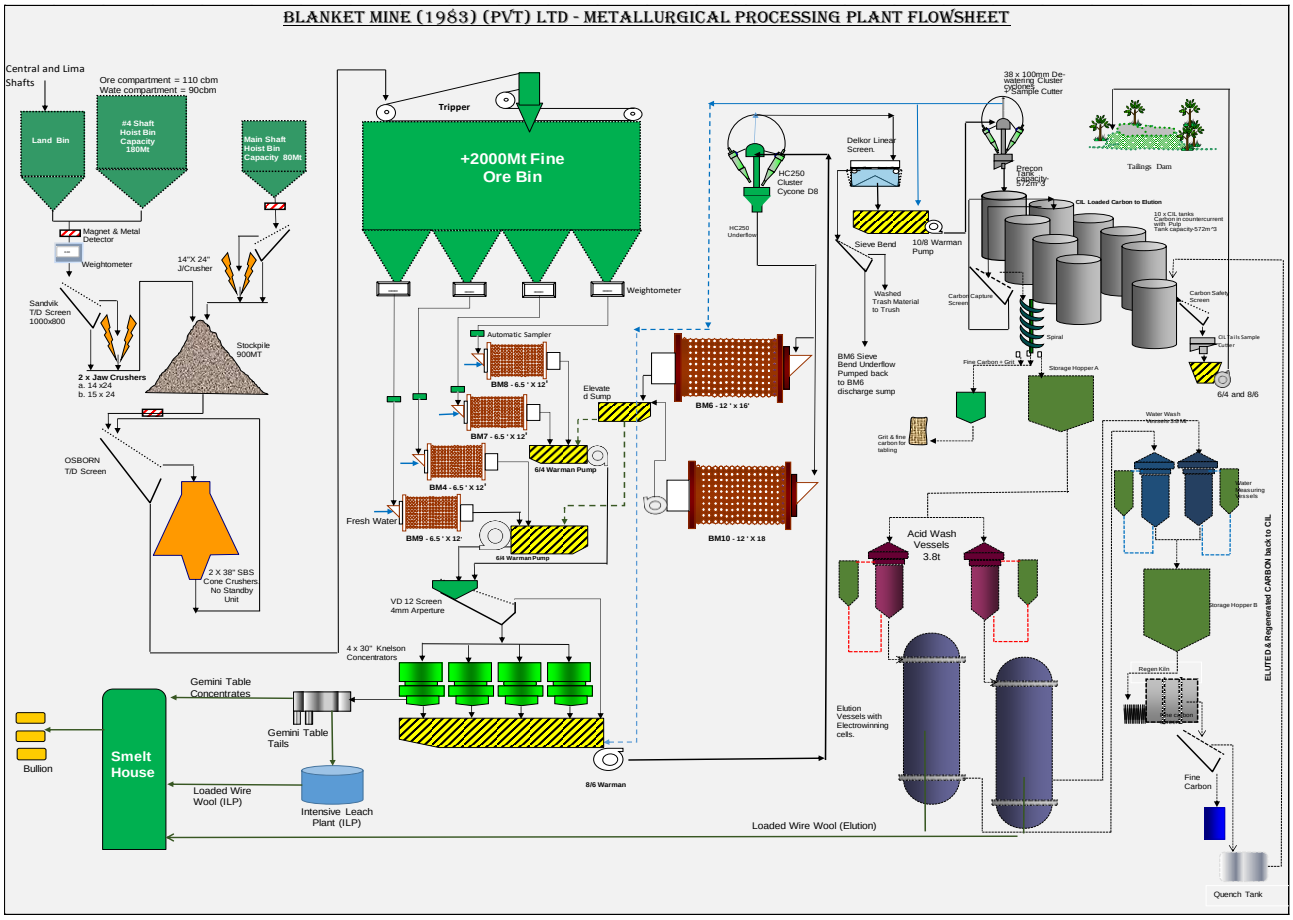


*Table 46: Historic Production from 2014 to 2023*

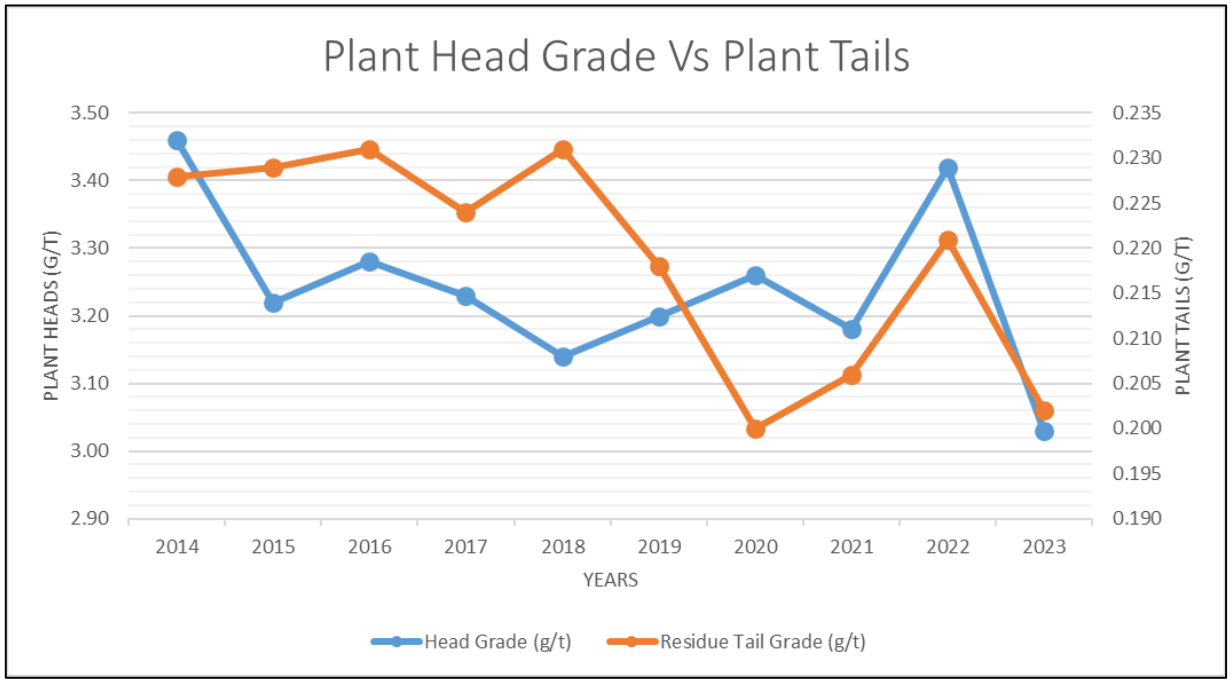
| Historic Production from 2014 to 2023 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Year | Tons Milled (t) | Head Grade (g/t) | Build-Up-Head (g/t) | Gravity Recovery (%) | CIL Recovery (%) | Overall Recovery (%) | Production (Ounces) | Residue Tail Grade (g/t) |
| 2014 | 390734 | 3.46 | 3.55 | 50.70 | 86.70 | 93.40 | 41769 | 0.228 |
| 2015 | 440057 | 3.22 | 3.25 | 46.40 | 86.70 | 93.00 | 42804 | 0.229 |
| 2016 | 510662 | 3.28 | 3.30 | 49.70 | 86.00 | 93.00 | 50351 | 0.231 |
| 2017 | 547206 | 3.23 | 3.41 | 51.50 | 85.70 | 93.40 | 56133 | 0.224 |
| 2018 | 560913 | 3.14 | 3.25 | 48.00 | 85.90 | 92.90 | 54512 | 0.231 |
| 2019 | 556746 | 3.20 | 3.30 | 58.10 | 83.80 | 93.40 | 55182 | 0.218 |
| 2020 | 597962 | 3.26 | 3.21 | 56.40 | 85.90 | 93.80 | 57899 | 0.200 |
| 2021 | 665628 | 3.18 | 3.36 | 56.60 | 85.10 | 93.90 | 67476 | 0.206 |
| 2022 | 752033 | 3.42 | 3.56 | 50.20 | 87.00 | 93.80 | 80775 | 0.221 |
| 2023 | 770421 | 3.03 | 3.25 | 46.50 | 87.60 | 93.80 | 75415 | 0.202 |

There was a gradual increase in milled tonnes from per year from 2014 to 2023 at a rate of 42,200 tonnes per year. The tonnes milled in 2023 was the highest at 770,421 tonnes from 390,734 in 2014. This gradual ramping up of tonnage saw a corresponding increase in production at a rate of 3,738 ounces per year with the highest in 2022 when 80.77k ounces were achieved.

It is worth noting that the use of oxygen improved CIL recovery from an average of 85.0% to 87.6% from the time the Oxygen Plant was commissioned in the fourth quarter of 2019. This has led to an increased overall recovery from 93.0% to the current 93.8%. The gravity gold recovery was varying between 46.50% and 58.10% over the 10-year period with no significant trend pattern.

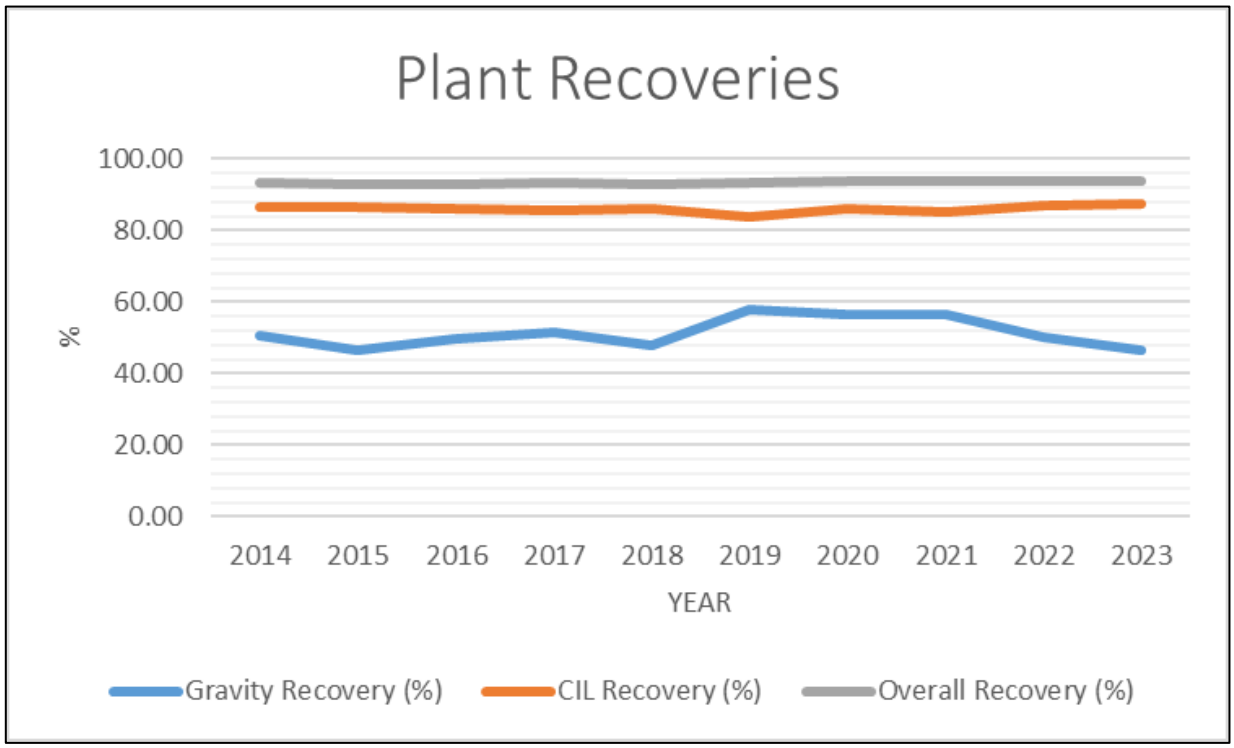
The plant is expected to achieve a similar recovery in future when treating current Blanket RoM material. RoM material from other sources may be more refractory and will have to be tested before being treated in the Blanket plant.

*Figure 108: Historic Milled Tonnes Plant Feed Grade against Plant Final Tails from 2014 to 2023*




*Source: Blanket Mine*

*Figure 109: Historic Recoveries and Gold Production from 2014 to 2023*




A new TSF has been commissioned on Blanket during February 2024. The engineer of record has been appointed and the latest report will be available after each quarter. The decommissioned TSF, available for use, if necessary, has been equipped with electronic piezometers that can be monitored live. The current phreatic surface does not pose any risk of planar or wedge failure as the dam is relatively dry and well drained. The new TSF was designed as per latest Global Industry Standards of TSF Management.

The new TSF, Phase 1A commenced with deposition during December 2023 as planned and fully commissioned during February 2024. The Phase 1B is currently under construction for completion in by Q4 2024. A final Phase 2 is planned to commence and be completed in 2025. The completion of the new TSF will provide a further 20 years of depositional life at current production rates until 2044, sufficient for the LoM based upon Mineral Reserves. The appropriate liner as per the GSTIM is being used and all the necessary documentation on the design and implementation is available.

## Item 17 (b) Plant Design, Equipment Characteristics and Specifications

This section details the process flow. Refer to in Figure 107 for the process flow schematic diagram.

The plant was designed and constructed by Kinross Mining Company to treat RoM ore from the Blanket mine. The ore is fed over 14" x 24" jaw crushers to reduce the top size from -300 mm to less than 80 mm. The ore from No. 4 Shaft is crushed to -135 mm underground. Tramp iron magnets (located ahead of the crushers) remove scrap iron before it enters the cone crushers. The crushed ore is stored on a 900 t open stockpile from where material is fed to the cone crushers (Figure 110 and Figure 111).

*Figure 110: Cone Crusher Building*




The cone crushers were upgraded recently and replaced with two 38" hydraulically adjusted Nordberg crushers (Figure 111). The crushers can operate independently and feed Osborn vibrating screens. The screened product which is smaller than 10 mm is delivered to the mill feed bin. The equipment quality is good and good maintenance is applied (an observation made during the site visit).

*Figure 111: Cone Crushers*



There are three 6.5 ft. x 12 ft. rod mills which operate in parallel. Each feed belt has a mill feed mass meter which is used to control and measure the mill feed rate. The foundations of the previous mills were in the process of being demolished which leaves adequate space for future expansion. The rod mill feed bin live capacity is small which, in turn, requires that the crushers operate on a three-shift cycle to ensure that the rod mills have adequate feed for continuous operation.

The regrind duty is performed by BM6 (12 ft x 16 ft) and BM3 (6.5 ft x 12 ft) which are operated in parallel and closed circuit. BM3 was originally configured for primary duty in parallel with the primary mills (BM4, BM7 and BM8) but was reconfigured for as a regrind mill early in 2019. Another 12 ft x 16 ft mill has been installed and will be commissioned in April 2021.

*Figure 112: Rod Mills*



Approximately 50% to 60% of the gold production is recovered as gravity gold. Knelson Gravity Concentrators are fed from the primary mills and their concentrate is stored and processed further on a Gemini shaking table every 24 hours with the tailings recycled back into the circuit. Gemini table concentrates are taken for direct smelting whilst the tailings are sent to an Intensive Leach ("IL") circuit. The tails from the IL are sent back to milling.

The tails of the Knelson gravity concentrator are pumped to a cyclone cluster with the coarse product (U/F) going for regrind and the fine product (O/F) sent to the Carbon in Leach (CIL) plant. The CIL consists of one pre-aeration tank and seven leach tanks where alkaline-cyanide leaching and simultaneous absorption of dissolved gold onto granular activated carbon takes place (Figure 113).

*Figure 113: CIL Circuit*



Oxygen generated from a Pressure Swing Absorption ("PSA") oxygen plant is added into the first CIL tank; liquid oxygen is also available in the event of the oxygen plant being out of circuit for maintenance or breakdowns. There is a TAC 1000 cyanide online analyser which measures and controls cyanide addition. This process control system, in conjunction with oxygen injection, has reduced cyanide consumption.

Elution of the gold from the loaded carbon and subsequent electro-winning is done on site. There are two 2.5 tonne elution columns which operate in parallel. The design of the columns is unique in that the elution and the electro-winning processes take place in the same pressurised vessel. The advantage of this is that there is no circulation of solution outside the vessel which requires heat exchangers for heating and cooling. The overall effect is that the system is very energy efficient and cost effective.

During electrowinning (Figure 114) the gold is deposited on steel wool cathodes within the elution column, and the loaded cathodes are removed on a planned cycle and acid digested. The resultant gold solids from acid digestion and the re-dressed gold concentrate from Knelson Concentrators are smelted into bars. The granular activated carbon is regenerated in a kiln before it is recirculated back to the CIL section. Loaded carbon is not acid treated to reduce reagent costs. Carbon reactivation has remained acceptable although the acid treatment can be re-introduced if required. The gold bullion, in the form of doré bars, is delivered, as required by Zimbabwean gold-mining law, to the Government-operated Fidelity Printers and Refiners for sampling and refining.

*Figure 114: Elution and Electrowinning Vessels*



Power is supplied from the national grid, but a fully automated diesel driven power plant is available when power trips occur. The diesel power generation sets have a capacity of 10 Megawatts and can service both the mine and the plant when required.

The plant tailings from CIL are reduced in cyanide content and deposited on two licensed tailing impoundment areas located close to the plant. The maximum amount of tailings water is pumped back to the metallurgical plant for re-use. Daily management and operation of the tailing deposition area is contracted out to the Zimbabwean subsidiary of Fraser Alexander.

## Item 17 (c) Energy, Water and Process Materials Requirements

### Labour Requirements

Table 47 summarises the current labour complement for the Blanket Gold Plant.

*Table 47: Plant Labour Complement*

| Section | Position | Number |
|---|---|---|
| **Plant Senior Staff** | Mill Superintendent | 1 |
| | Asst. Mill Superintendent | 1 |
| **Plant Staff** | Plant Metallurgist | 1 |
| | Plant Foreman | 1 |
| | Metallurgical Technician | 1 |
| | Plant Operators | 3 |
| | Mill Clerk | 1 |
| | Elution Supervisor | 1 |
| | Senior Smelting Assistant | 1 |
| | Senior Lab. Assistant | 1 |
| **Primary Crusher** | Senior Crusher Attendants | 2 |

| Section | Position | Number |
|---|---|---|
| | Crusher Attendants | 13 |
| **Secondary Crusher** | Senior Crusher Attendants | 1 |
| | Crusher Attendants | 5 |
| | Crusher Attendants | 1 |
| | Gravity &Smelting Assistants | 3 |
| **Milling** | Mill Attendants | 4 |
| | Mill Attendants | 10 |
| **Elution** | Senior Elution Assistant | 1 |
| | Elution Assistants | 2 |
| | Elution Attendants | 3 |
| **Tailings** | Supervisor | 1 |
| | Slimes Dam Attendants | 3 |
| | Pump Attendants | 3 |
| **CIL** | CIL Attendants | 4 |
| | CIL Attendants | 6 |
| | CIL Attendants | 1 |
| **Water** | Water Works Attendant | **1** |
| | Water Works Attendant | **2** |
| | Water Works Attendant | **1** |
| **Metallurgical Lab and Sample preparation** | Laboratory Assistants | 2 |
| | Laboratory Assistants | 4 |
| **Wet Assay** | Supervisor | 1 |
| | Lab Assistants | 1 |
| **Sub Total** | | **87** |
| **Engineering** | Mechanical Engineer | 1 |
| | Foreman | 1 |
| | Fitter | 5 |
| | B/Maker | 4 |
| | Plumber | 1 |
| | Rubber Liner | 1 |
| | Assistant Fitter | 5 |
| | B/maker Assistant | 4 |
| | Lubricator | 1 |
| | R/Liner Assistant | 1 |
| | Plumber's Assistant | 1 |
| | Electrician | 1 |
| | Assistant Electricians | 1 |
| **Sub Total** | | **27** |
| **Total** | | **114** |

***Source:*** *Blanket Mine*

The Electrical Engineer is not included in the above table as he is shared between the plant and the mine. All the plant employees are adequately trained and from observation around the plant, as well as the condition of equipment, it is clear that management is of a high standard. The higher labour complement is in part due to the manual control nature of the plant.

The laboratory personnel account for an additional ten people. The laboratory is used for plant analysis as well as management of mine and exploration samples. The plant does not have a central process control system, but there are local controls in the important areas such as mill feed control cyanide addition and level controls in relevant areas.

**Reagents and Consumables**

The reagent and consumable consumptions are shown in Table 48. The forecasted consumptions are not expected to change significantly.

*Table 48: Reagent and Consumable Consumptions*

| Item | Unit | Average Past Year |
|---|---|---|
| **Grinding Media and CIL Reagents** | | |
| Rods | kg/t | 0.68 |
| Balls- 40 mm | kg/t | 0.89 |
| Total Steel Media | kg/t | 1.57 |
| Lime | kg/t | 1.68 |
| Carbon | kg/t | 0.07 |
| Sodium Cyanide | kg/t | 0.85 |
| PSA Oxygen | kg/t | 3.42 |
| **Elution Consumables** | | |
| Steel Wool | kg/t C | 0.244 |
| Caustic Soda | kg/t C | 42.91 |

***Source** : Blanket Mine*

Some of the higher consumptions of reagents was due to the high retention times of approximately 72 hours in the CIL circuit. This mainly affects carbon consumption due to the long exposure to agitation and abrasion in the CIL tanks, as well as cyanide consumption.

# ITEM 18 PROJECT INFRASTRUCTURE

**Mine Layout and Operations**

The Blanket Mine consists of a series of small shafts providing access to the underground workings of the various orebodies that are being mined.

**Jethro Shaft**

The shaft has dimensions of 3m x 2m and is mainly utilised for the transport of men and material from surface to 7 Level. The shaft is equipped with a single drum winder with a 22 mm rope and capacity of 10 men.

**5 Winze (Sub-Shaft)**

5 Winze has dimensions of 2 m x 2 m and is a sub-shaft and is mainly used to transport men and materials between 7 Level and 22 Level. This shaft is similarly to Jethro shaft equipped with a single drum winder with a 20 mm rope and a capacity of 14 men.

**6 Winze (Sub-Shaft)**

6 Winze has dimensions of 3 m diameter and is a sub-shaft used mainly for the hoisting of ore from 26 Level to 22 Level from where ore is transported to No. 4 Shaft for hoisting to surface. This shaft is equipped with a 117 kW single drum winder with a 24 mm rope and a capacity of 3 t skip or 500 tpd. At the bottom of 6 Winze shaft is a 12kW spillage pump.

**Blanket Shaft (No. 4 Shaft)**

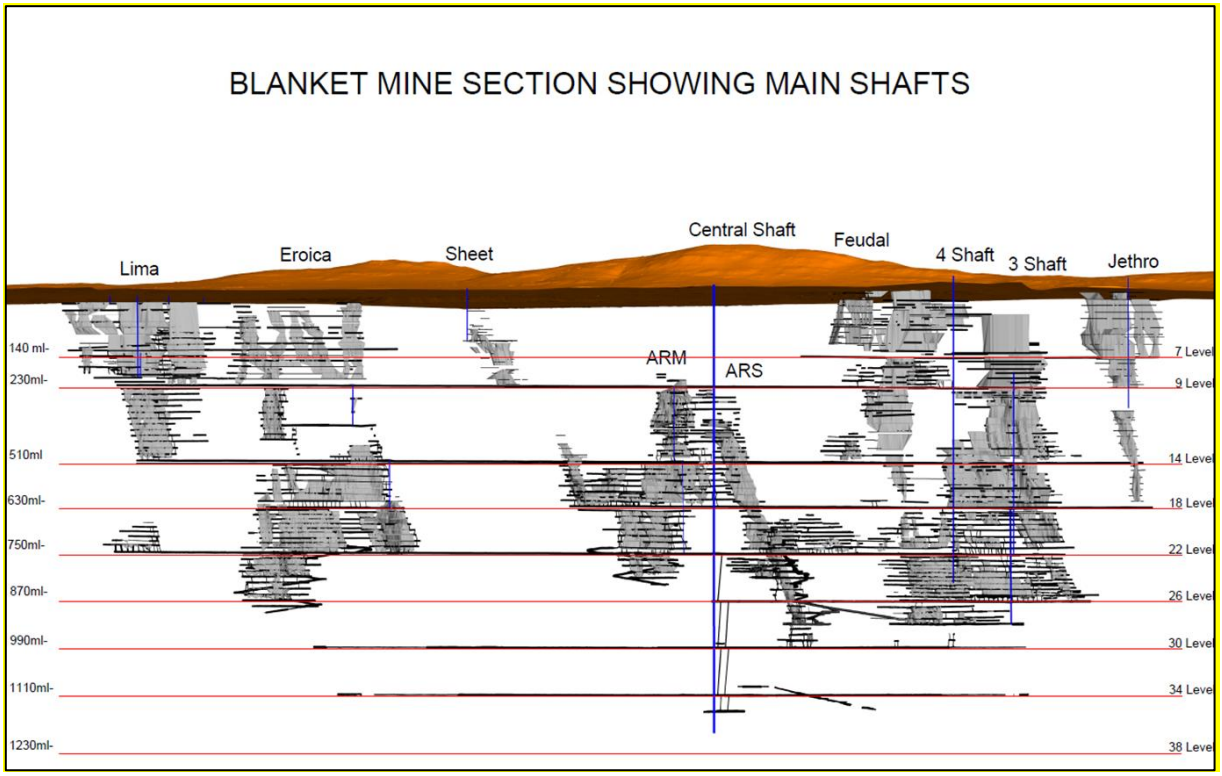
No. 4 Shaft was historically the main production shaft of Blanket Mine. No. 4 Shaft has dimensions of 4 m x 2 m with two compartments. This shaft is mainly used for the hoisting of ore and waste rock from 22 Level to surface. The shaft is equipped with a 500kW thyristor driven double drum winder with a 34 mm rope and capacity of 5t per skip or 2,000 tpd. The No. 4 Shaft Headgear and Winder Room are shown in Figure 115.

*Figure 115: No. 4 Shaft Headgear and Winder Room*



The current access infrastructure is detailed in Figure 116.

*Figure 116: Current Shaft Infrastructure – Blanket Mine*




Several expansion projects have either been completed or are planned for the Blanket mining operations in order to increase production. The majority of the expansion projects will consist of the below 750 m Level (22 Level) expansion projects.

The first project includes the sinking and construction of the new CMS in-between the AR Main and AR South / Blanket orebodies from surface to below 1,201.3 m Level (just above 38 Level) and its associated infrastructure. Sinking and equipping of the shaft has been completed with the construction of the associated ore pass system and loading station.

Further projects include the development of various decline shaft infrastructure targeting specific mining areas in order to increase production. The planned shaft infrastructure development declines planned are listed in Table 49.

*Table 49: Planned Shaft Infrastructure Development*

| Description | Target Area | From (Level / Area) | To (Level / Area) |
|---|---|---|---|
| Decline 2 | AR Main | 750 mL / ARM | Below 870 mL / ARM |
| Decline 3 | Eroica | 750 mL / Eroica | 990 mL / Eroica |
| Decline 4 | AR South / Blanket | 870 mL / ARS(Blanket) | 930 mL / ARS(Blanket) |
| Decline 5 | AR South / Blanket | 885 mL / ARS(BL Blanket) | 930 mL / ARS(Blanket) |
| Decline 6 | AR South / Blanket | 930 mL / ARS(Blanket) | 990 ml / ARS(Blanket) |

# Item 18 (a) Infrastructure

### Surface Infrastructure

Surface infrastructure comprises mine offices, change houses, mine headgears, workshops, storerooms, a processing plant, hospital, tailings facility and an assay laboratory.

Production shafts on surface consist of the No. 4 Shaft, Lima Shaft, Sheet Shaft and the Jethro Shaft. Sub-shaft infrastructure in the form of the No 5 Winze connects Jethro to the underground workings. Other shafts and raise bore holes on surface, primarily used for ventilation purposes, include Blanket 2, Blanket 3, Lima, Eroica and Sheet. A total of 11 hoists are installed at the mine, four of which are used for ore handling (No. 2 Main Incline Shaft, the No. 4 Vertical Shaft, 6 Winze shaft and Lima Shaft). The surface infrastructure at the Blanket Mine is illustrated in Figure 117.

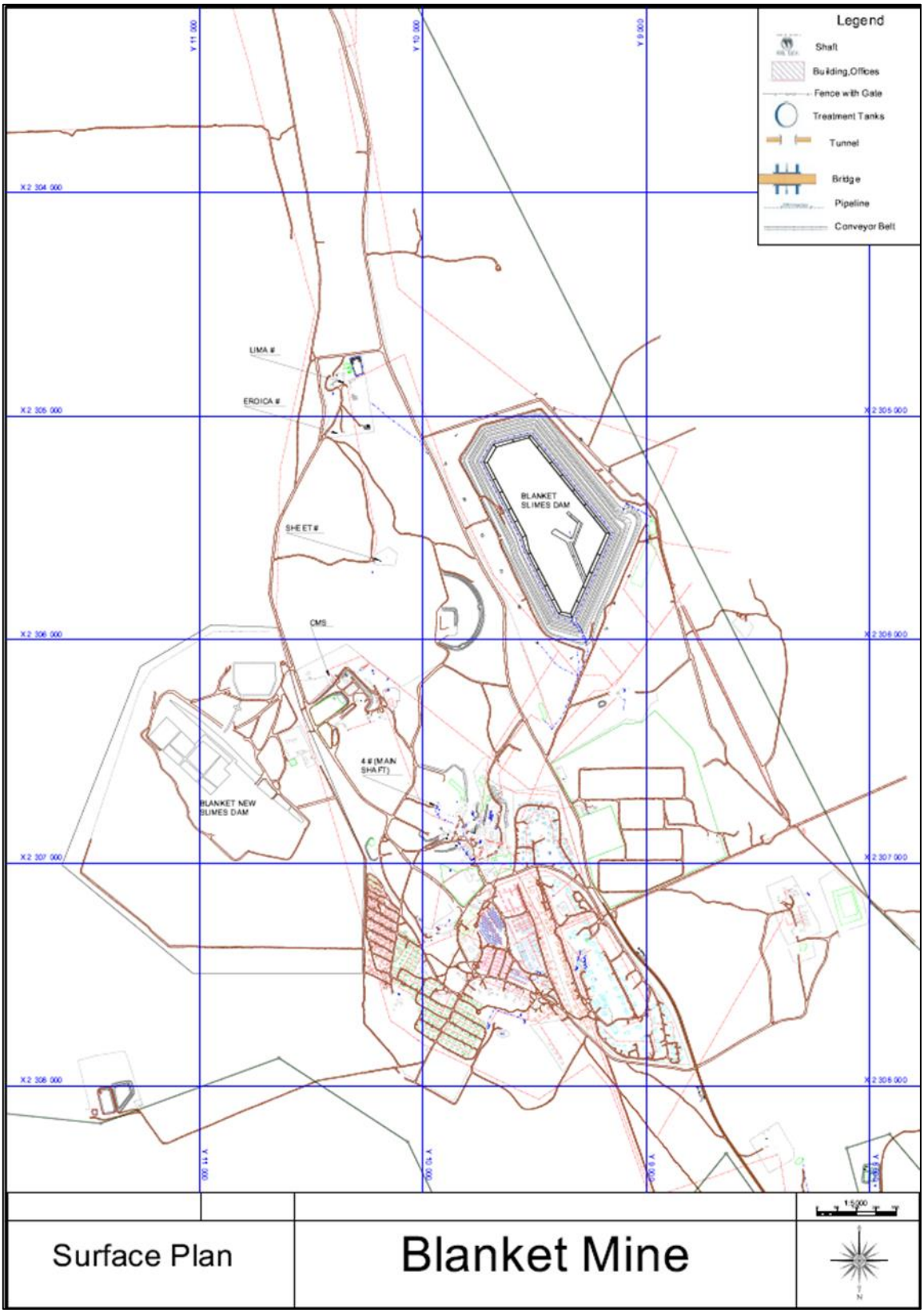
The existing infrastructure at the Blanket mine will be utilised in parallel with new infrastructure which is specifically aimed at targeting the Below 750 m Level mining areas. The extensions entail the sinking of the new CMS from surface down to 1,201.3 m Level (just above 38 Level). 6 Winze sub-shaft located close to 5 Winze sub-shaft is used to access the Blanket complex below 750 m Level and will provide secondary access to the new CMS.

The new CMS is not lined and has a four-compartment, 6 m diameter layout, equipped with 2 x 3,132 kW double-drum winders, one rock and the other men and material. Once fully equipped and commissioned, this shaft will be used as the main route for the transport of men, material, and rock.

On surface, a 1050 mm wide, 152 m long overland ore conveyor will transport the hoisted rock at CMS to the primary crusher and then to a ore dump. Additional supporting surface infrastructure will include shaft offices, change rooms, lamp rooms, etc. New housing for both senior and junior staff is also planned in anticipation of the increased production profile.

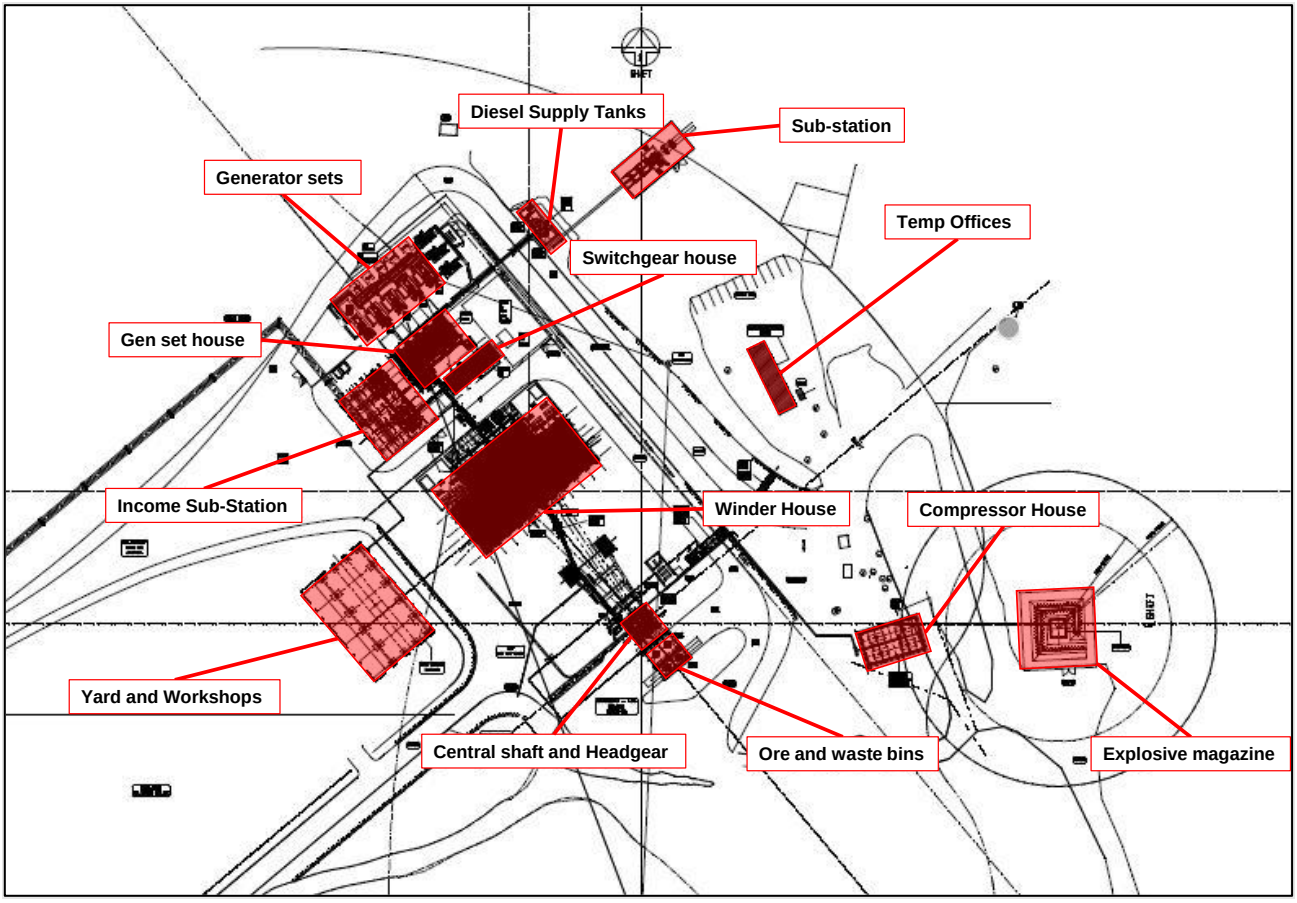
A TSF is also located near the Project Area. The labour force and their families reside within a kilometre of the mine in accommodation provided by the Mine.

*Figure 117: Surface Infrastructure Arrangement*



The planned surface infrastructure layout and general arrangement of the CMS is illustrated in Figure 118.

*Figure 118: Surface Infrastructure Arrangement – Central Main Shaft*



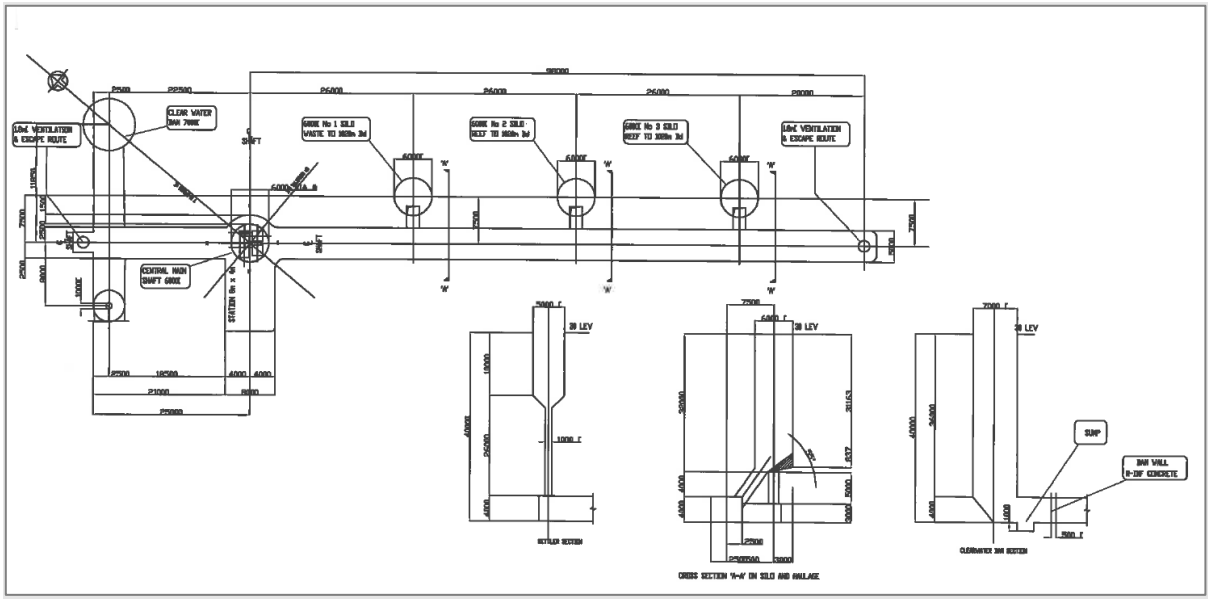

*CMS Winder and Shaft Layout*

The 5 Winze currently extends from 140 m Level down to the 750 m Level, while 6 Winze currently extends down to 870 m Level. Men and materials are hoisted via the Jethro vertical shaft, 5 Winze and 6 Winze to the new underground mining areas, as well as through CMS since its commissioning in July 2021.

Development waste and ore are hoisted with two 5t skips at No. 4 Shaft and two 10 t auto discharging rock skips through the CMS. The loading level at CMS is equipped with a loading station as well as ore bins. The loading arrangement is equipped with loading flasks and spillage bins similar to the current arrangement at 789 - 813 m Level at No. 4 Shaft, which was fully automated by end of 2023.

The CMS loading station included two silos, 1 x waste and 1 x reef with bulkheads on 35 level feeding into the loading bin utilising a 1 050 mm conveyor belt. The loading and pump level layout is only for illustrative purposes and not to convey any technical information, illustrated in Figure 119.

*Figure 119: CMS Load and Pump Level Layout*



CMS is equipped with 2 x 3,132 kW double drum winders; with one winder being the rock winder equipped with two 10 t skips attached to 44 mm diameter ropes. The other winder is a men/material winder with a double deck cage and 44 mm diameter ropes. The double deck cage has a capacity of 40 persons per deck. The surface infrastructure arrangement for CMS is provided in Figure 120. The shaft layout is, only for illustrative purposes and not to convey any technical information, illustrated in Figure 121.

*Figure 120: Surface Infrastructure Arrangement - Central Main Shaft*

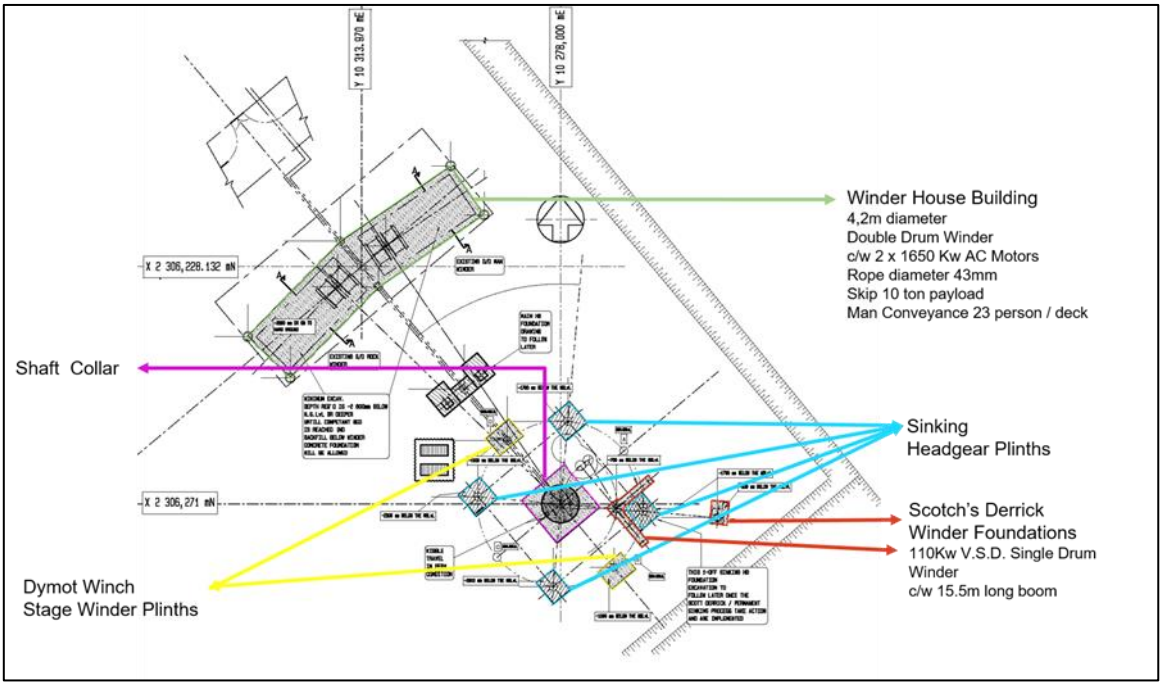
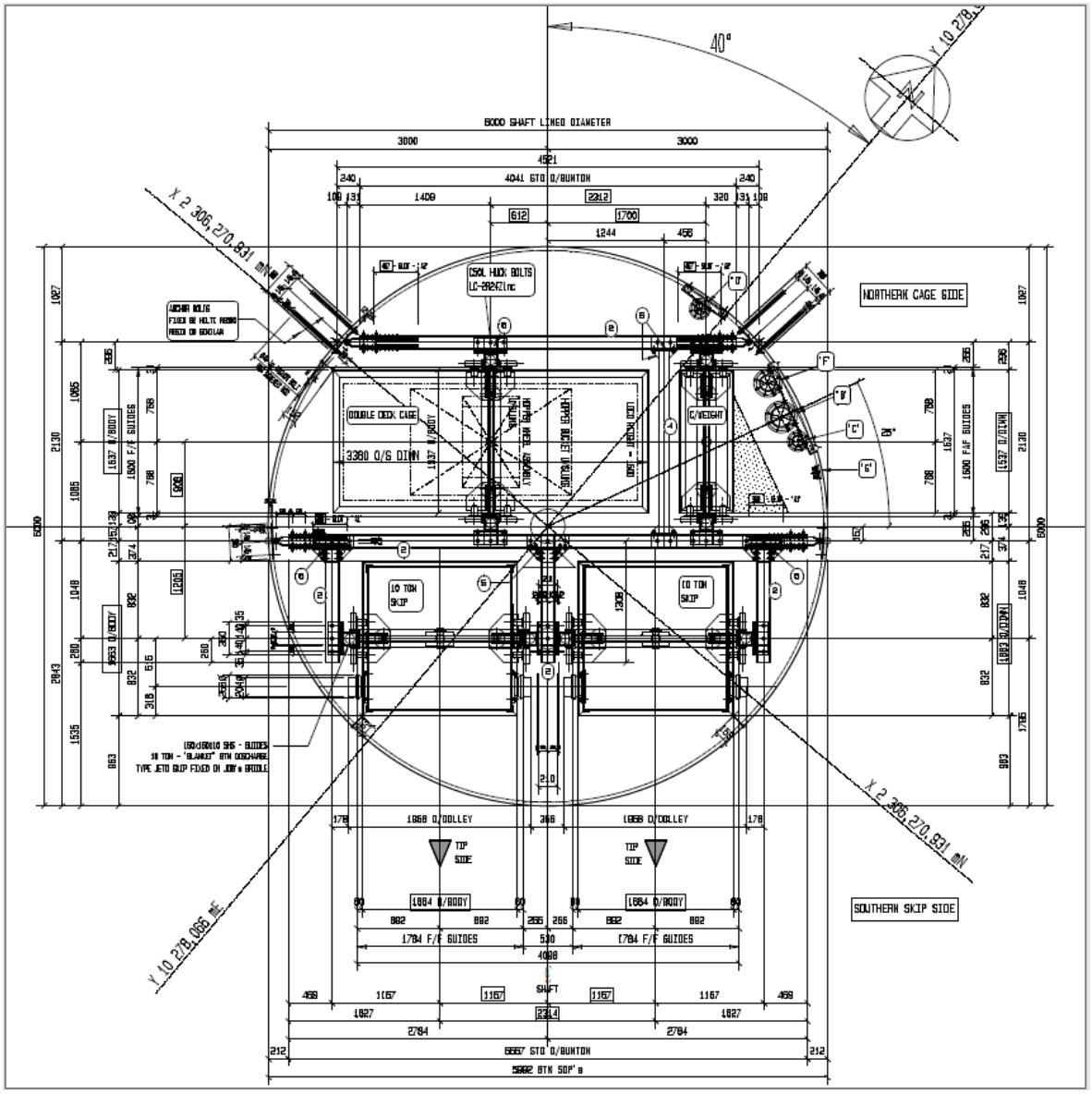


*Figure 121: CMS Layout Complete with Conveyances and Service Infrastructure*




**Underground Mining Fleet**

Underground tramming is done by the aid of compressed air operated loaders, granby cars, and battery-operated locomotives, which tip the ore or waste into station tips which gravitate ore or waste to 35 level and loaded by conveyor belt into the skips for hoisting.

Developments ends and draw point lashing is done by LM56/57 air loaders which load onto different sizes of hoppers and granby cars. In main levels, loading is done from steel boxes into granby cars.

In addition to this infrastructure, bin chutes and conveyors fed by vibrating feeders have been allowed for on 765 m Level to assist in the transport of reef and waste from the bins to the shaft for hoisting.

The underground fleet is listed in Table 50.

*Table 50: Underground Rail-bound Fleet*

| Section | Locomotive Number | Locomotive Size | Number of cars | Car Size | No Of Batteries | Air Loaders |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Eroica 750 | 2 | 6t | 9 | 4t | 2 | 1 |
| | 11 | 6t | 9 | 4t | 2 | 1 |
| | 22 | 6t | 9 | 4t | 2 | 1 |
| | 10 | 6t | 9 | 4t | 2 | 1 |
| **Total** | **4** | | **36** | | **8** | **4** |
| 750 Blanket (6 #) | 7 | 6t | 6 | 4t | 2 | 0 |
| **Total** | **1** | | **6** | | **2** | **0** |
| ARS 750/BQR 750 | 3 | 6t | 6 | 4t | 2 | 3 |
| **Total** | **1** | | **6** | | **2** | **3** |
| 870 2OB | 1 | 6t | 6 | 4t | 2 | 1 |
| | 20 | 6t | 6 | 4t | 2 | 1 |
| | 16 | 2.5t | | | 1 | 1 |
| **Total** | **3** | | **12** | | **5** | **3** |
| ARM 630 | 5 | 6t | 9 | 4t | 2 | 1 |
| | 8 | 6t | 9 | 4t | 2 | 2 |
| | 9 | 6t | 8 | 4t | 2 | 2 |
| **Total** | **3** | | **26** | | **6** | **5** |
| 1 OB (9L) | 6 | 6t | 10 | 2t | 2 | 2 |
| | 14 | 2.5t | 3 | 2t | 2 | 1 |
| | 17 | 2.5t | 0 | 2t | 1 | |
| **Total** | **3** | | **13** | | **5** | **3** |
| 510 BF/Lima | **18** | 6t | 8 | 3t | 2 | 2 |
| | 19 | 6t | 8 | 3t | 2 | 2 |
| | 21 | 6t | 8 | 3t | 2 | 1 |
| **Total** | **3** | | **16** | | **6** | **5** |
| 5OB (14L) | 31 | 6t | 8 | 4t | 2 | 2 |
| | 15 | 2.5t | 3 | 2t | 2 | |
| **Total** | **2** | | **11** | | **4** | **2** |
| CMS 30L | 4 | 6t | 8 | 4t | 2 | 2 |
| | **23** | 6t | 8 | 4t | 2 | 2 |
| | **25** | 6t | 8 | 4t | 2 | 2 |
| | **26** | 6t | 8 | 4t | 2 | |
| | **29** | 10t | 8 | 4t | 2 | |
| **Total** | **5** | | **40** | | **10** | **6** |
| CMS 34L | 27 | 6t | 8 | 4t | 2 | 1 |
| | **28** | 6t | 8 | 4t | 2 | 1 |
| **Total** | **2** | | **16** | | **4** | **2** |
| **Grand Total** | **27** | | **182** | | **52** | **33** |

The current fleet utilised at the operational sections of Blanket Mine is also spreading to new levels of CMS with some additional quantities to allow for the planned increase in production. In addition to the rail bound fleet of the Blanket Mine, selected areas of CMS will be mined with trackless machinery. These areas mainly consist of development ends that are drilled and blasted conventionally but loaded and trammed with trackless equipment. The rail-bound fleet is listed in Table 50 and the trackless fleet in Table 51.

*Table 51: Underground Trackless Fleet*

| Machine Type & Description | Quantity |
|---|---|
| Fermel MK 3 Liberator Articulated Dump Truck (14T) | 11 |
| Bird Articulated Dump Truck (12T) | 2 |
| Aardvark Low Profile LHD | 10 |
| Fermel TM400 Low Profile LHD | 4 |
| GHH LF3 Low Profile LHD | 3 |
| Bobcat | 1 |
| Utility Vehicle | 1 |
| Rock Breakers | 3 |

**Mining Section**

Underground drilling is conducted with Seco 25, Seco 215 rock drills and Seco 36 (Konkola) drifters. The rock drills are used mainly for development and the drifters for production, *i.e.* long-hole drilling. The drilling equipment is listed in Table 52.

*Table 52: Mining Section Drilling Machines*

| Machine Type & Description | Quantity |
|---|---|
| Seco 25 /215 Rock Drills | 250 |
| Seco 36 (Konkola) drifters | 25 |

**Dewatering**

Currently, underground water is pumped to surface from the 7 Level pump station at a rate of between 70 $m^3$ and 100 $m^3$ per hour. The pump station has a maximum pumping capacity of 150 $m^3$ per hour to handle excess water inflow (especially during the rainy seasons). Pumping is done in stages on different major levels: 7, 9, 14, 22 and 26, and all declines below 22L which include Decline 3, Decline 4 and Decline 5. CMS sections pump from 35L to 34L to 30L to 26L to 22L where all the water is combined before being pumped to 14L. All shafts have submersible pumps at the bottom of the shafts (Jethro, 5 Winze, 6 Winze shaft, No. 4 vertical shaft and CMS) which pump to the nearest major pump station. The pumps and dams throughout the section is listed in Table 53.

*Table 53: Blanket Complex Pumping Information*

| Pump Station | Installed Pumps | Level Pumped to |
|---|---|---|
| (N° 4 shaft bottom) | 2125 Flygt pump | 22 Level |
| 6 Winze bottom | 11 kW Tsurumi pump | 26 Level |
| 5 Winze Bottom | 2125 Flygt pump | 22 Level |
| 26 Level Dam (870mL 6 Shaft) | 2 x MCH16 x 8 stage pumps | 22 Level |
| 26 Level Dam (Decline 4 & CMS) | 2 x 65-315 Stork pumps | 22 Level |
| 840mLevel Dam (Decline 3) | 2 x 65-315 Stork pumps | 22 Level |
| 885mLevel sumps (Decline 3) | 2 x CEN 50/250 | 840mLevel Dam (Decline 3) |
| 900mLevel Dam (Decline 4) | 2 x 65-315 Stork pumps | 26 Level |
| 30 Level Dam (CMS) | 2 x MCH16 x 8 stage pumps | 34 Level |
| 34 Level Dam (CMS) | 2 x MCH16 x 8 stage pumps | 26 Level |
| 35L (CMS) | 11 kW Tsurumi pump | 34 Level |
| CMS Shaft Bottom | 11 kW Tsurumi pump | 35 Level |
| 22 Level sumps | 3 x CEN 50/250 | 22 Level Dam |
| 22 Level Dam | 2 x 80-100 Curo x 3 Stage pumps | 14 Level |
| 14 Level Dam | 2 x 80-100 Curo x 3 Stage pumps | 9 Level |
| 9 Level | 6 x CEN 50/250 single stage stork | 7 Level |
| 7 Level | 4 x 80-100 Curo x 3 Stage pumps | Surface |

The CMS main pump station located at 35Level (belt and pump level) will be equipped with a 5 m diameter high-rate clarifier settler as well as a 7 m diameter vertical dam with a capacity of 1.5 Ml. Clear water will overflow from the settling arrangement into the clear water dam and the settler underflow will be pumped directly to surface with a positive displacement pump.

## Item 18 (b) Services

### Power Supply and Reticulation

ZESA supplies power to Blanket Mine from their main Eagle Vulture 132KV/33KV substation about 17km out of Gwanda. The main supplies are the 33 kV and the 11 kV overhead lines. The 33 kV supply feeds Lima, Reclamation, the main substation at No. 4 Shaft (and adjacent to the processing plant) and Central Shaft and New Compressors. The 11 kV supply feeds slimes dam, Smiler shaft and the village. The 11 kV is further transformed to 550 V supply at Smiler and at Slimes dam. The ZESA power allocation to No. 4 Shaft, Central Shaft, Jethro Shaft, 5 Winze and 6 Winze Complex is 18MVA with a current nominal maximum demand ("NMD") of 18MVA. An additional (Mtshabezi line) feeder is installed with a current nominal maximum demand ("NMD") of 7 MVA.

Blanket Mine has investigated and approved the option of employing a solar power plant to supplement existing power supply to the Blanket Mine. The solar plant has been installed and commissioned by February 2023. The solar plant supplies 12 MW AC to the Blanket Mine power supply during daytime.

Blanket also has 4 x 2.5 MVA generators at No. 4 Shaft with total installed capacity of 10 MVA. Additional standalone diesel generators with suitable switchgear, transformers, and controls were also installed at CMS to ensure that the mine can stay operational during power interruptions. This additional installation has a total installed capacity of 8 MVA and is illustrated in Figure 122 Figure 122. Total installed generator capacity at Blanket is 18 MVA

*Figure 122: Diesel Genset Unit and Transformers*





At the Blanket main substation, the 33 kV line terminates into 2 x 3 MVA and 2 by 6MVA, 33 kV/2.2 kV transformers, and all 4 transformers are active. The 2.2 kV supply from one transformer feeds the main Blanket compressors and the underground reticulation feeder through an 1250A vacuum circuit breaker. The other 2.2 kV supply from the second transformer feeds the ROM section of the processing plant (on 2.2 kV and 550 V supply) through a 1250A vacuum circuit breaker.

The third transformer feeds the 2.2 kV No. 6 Ball Mill, CIL section and elution plant which operates on 400 V supply.

The main substation has a maximum demand of 15MVA at a calculated power factor of 0.85. The acquisition and installation of a power factor correction unit in 2022 improved the power factor to the required 0.99.

All equipment underground, i.e., winders, pumps and fans operate on 550 V. The 2.2 kV underground feeder is therefore transformed at different levels to run the relevant equipment on those levels.

The 33 kV ZESA supply at Lima terminates into a 2.5 MVA 33 kV/550 V transformer which supplies mainly the Lima hoist. The 2 x GA250 and 1 x GA160 screw compressors which used to be at Lima were moved to the new compressor shed at CMS. A power factor correction unit has been installed in this substation.

The 33 kV supply at reclamation terminates into a 1 MVA 33 kV/400 V transformer, which feeds the raw water supply pumps for the Central shaft.

Power to the new CMS complex is supplied via a 2.5 km 33 kV overland powerline leading to the shaft sub-station. Power is distributed through 2 x 6.3 MVA 33 kV/ 6.6 kV/525 V transformers and its associated switchgear. For the underground environment 250 kVA 6.6 kV/550 V transformers are used to drive larger components such as conveyors and larger portions of the production sections. 50 kVA 550 V/110 V transformers are used to step power down from 550 V for lighting purposes.

The expected NMD for CMS is 8MVA. Metering of the actual NMD is only 7.5 MVA, while the current ZESA total allocation to CMS is up to 12 MVA. The additional 4MVA is supplied from the Mtshabezi feeder.

### Water Supply and Reticulation

ZIMWA holds all water rights in Zimbabwe and Blanket subsequently purchases process and domestic water from ZIMWA. Water for the mine, metallurgical plant and the mine village is obtained from the Blanket dam which is located 5 km east of the Mine. The Blanket Dam has a total capacity of 15 $Mm^3$. In addition to this water source, the mine has equipped several boreholes to alleviate water shortages during the dry season and droughts.

An average of 120,000 $m^3$ per month is pumped from the dam using 2 x 80/250 CEN stork pumps which are installed at the dam.

Two x 80/250 CEN stork pumps are also installed halfway between the dam and the mine. One of the pumps supplies water to the domestic water tanks where the water treatment plant is installed and the other pumps to the processing plant. The domestic water is purified at the water treatment plant, pumped to storage tanks and then gravitated to all the houses on the mine.

Most of the processing plant water is recycled from the new tailings facility and the old slimes dam and underground. However, besides additional water from the Blanket dam, as stated above, five boreholes have been drilled to augment the processing plant supply.

Capital is allowed for new pumps, valves and pipelines to be used for the reticulation of water on surface. Service water will be transported through these pipelines separate from potable water. Water on surface will be used for fire suppression and will service the ablution facilities of the shaft offices and change houses.

Additional water is pumped through to CMS for cooling the winders and compressors, with a smaller portion treated for potable use at CMS.

### Ventilation

Ventilation at the Blanket Mine is largely natural with the No. 2 Main Incline shaft, Jethro shaft, 5 Winze shaft and 6 Winze sub-vertical shaft down-casting. Shafts such as Lima, Sheet and Jethro Winze are used for up-casting ventilation. A single booster fan as well as several other fans are installed at development ends to aid ventilation.

Once mining operations expand to the below 750 m Level the operation will remain naturally ventilated with the assistance of a number of booster fans, specifically in development ends. Ventilation throughout the workings is deemed to be sufficient for the current and planned production rates.

### Compressed Air

Underground drilling and lashing is aided by compressed air. This creates a significant compressed air demand and subsequently a total compressed air capacity of 44 450 cfm is installed on the mine.

Compressed air is fed underground at Blanket via an 12" pipeline with an additional 4" line feeding the plant. The air supply at Lima is fed underground via a 6" pipeline, although currently there is no compressor installed at Lima.

A new compressor shed, complete with a 16t overhead gantry crane, was constructed and commissioned in 2023 at CMS to house the new TA6000 Ingersoll Rand 7000cfm compressor and all the other smaller compressors that were installed at CMS. Provision has been made in the new shed for a second TA6000 compressor to be installed at a later stage. This new battery of compressors supply CMS through a 12-inch column that runs from surface to 35L, branching off at every station from 22L.

This additional compressed air supply complements the existing compressed air infrastructure in order to sustain the increased tonnage profile and subsequent increase in drilling equipment. The compressors available at the Blanket No. 4 Shaft and CMS are listed in Table 54 and Table 55. respectively.

*Table 54: Compressors at Blanket Mine*

| Item | Description | Voltage Rating | Rated Current | Avg Running Current | Power KW | CFM | CFM/KW |
|---|---|---|---|---|---|---|---|
| 1 | ER8 No. 1 | 550 | 388 | 354 | 380 | 2,200 | 5.79 |
| 2 | ER8 No. 2 | 2,200 | 105 | 89 | 380 | 2,200 | 5.79 |
| 3 | Sullair No. 1 | 2,200 | 276 | 223 | 185 | 1,000 | 5.41 |
| 4 | Sullair No. 2 | 550 | 276 | 220 | 185 | 1,000 | 5.41 |
| 5 | Sullair No. 3 | 550 | 276 | 217 | 185 | 1,000 | 5.41 |
| 6 | Centac No. 1 | 2,200 | 328 | 318 | 1,100 | 6,900 | 6.27 |
| 7 | Centac No. 2 | 2,200 | 328 | 318 | 1,100 | 6,900 | 6.27 |
| 8 | GA200 | 550 | 325 | 290 | 250 | 1,250 | 5.00 |
| 9 | GA160 | 550 | 325 | 290 | 250 | 1,000 | 4.00 |
| 10 | GA250 @ Plant | 380 | 325 | 290 | 250 | 1,500 | 6.00 |
| 11 | GA250 @ Plant | 380 | 325 | 290 | 250 | 1,500 | 6.00 |
| 12 | GA250 @ Plant | 380 | 325 | 290 | 250 | 1,500 | 6.00 |
| | Total Installed | | | | 4,765 | 27,950 | 5.87 |

*Table 55: Compressors at Central Main Shaft*

| Item | Description | Voltage Rating | Rated Current | Avg Running Current | Power KW | CFM | CFM/KW |
|---|---|---|---|---|---|---|---|
| 1 | GA250 No. 3 | 550 | 325 | 290 | 250 | 1,500 | 6.00 |
| 2 | GA250 No. 4 | 550 | 325 | 290 | 250 | 1,500 | 6.00 |
| 3 | GA250 No. 9 | 550 | 325 | 290 | 250 | 1,500 | 6.00 |
| 4 | GA250 No. 1 | 550 | 325 | 290 | 250 | 1,500 | 6.00 |
| 5 | GA250 No. 2 | 550 | 325 | 290 | 250 | 1,500 | 6.00 |
| 6 | GA160 No. 1 | 550 | 216 | 204 | 250 | 1,000 | 4.00 |
| 7 | GA160 No. 3 | 550 | 216 | 203 | 250 | 1,000 | 4.00 |
| 8 | TA6000 No. 1 | 6,600 | 328 | 318 | 1,250 | 7,000 | 5.60 |
| | Total Installed | | | | 3,000 | 16,500 | 5.50 |

# ITEM 19 MARKET STUDIES AND CONTRACTS

## Item 19 (a) Market Studies and Commodity Market Assessment

The following sections provide an overview of the gold market. The QPs have reviewed these studies and analyses and are satisfied that the results support the assumptions in the Report.

### Gold Commodity Overview - 2023

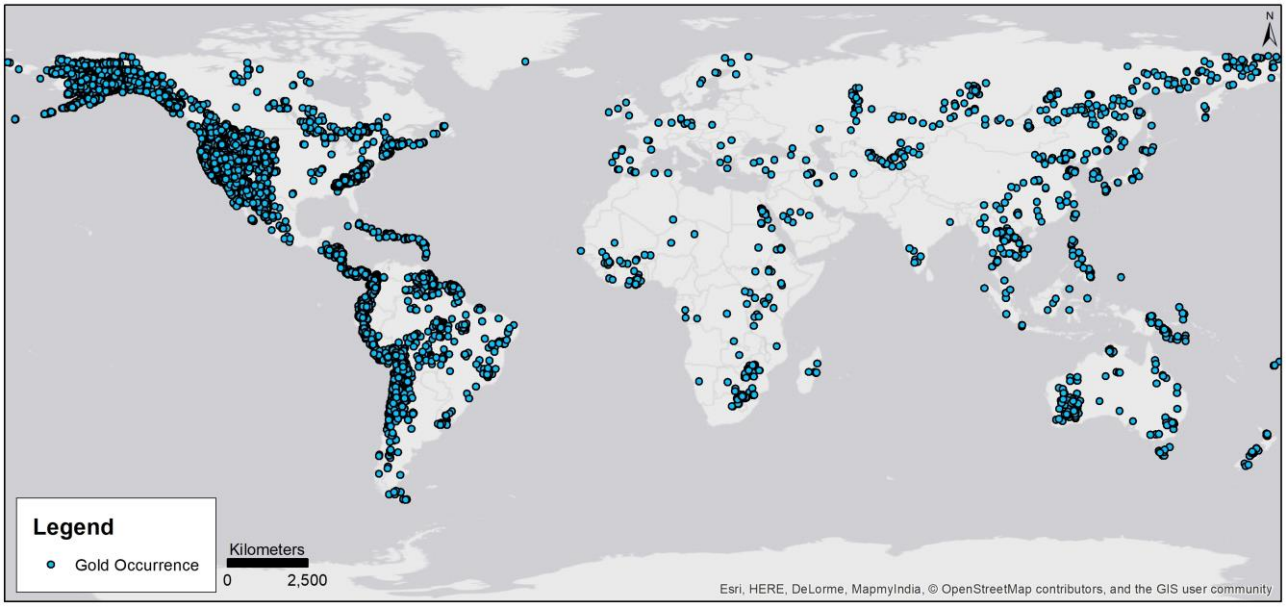
The following gold market conditions for the year of 2023 have been identified by the World Gold Council, as extracted from their Gold Demands Trends report and other World Gold Council data.

- Annual gold demand (excluding over-the-counter ("OTC") demand) fell by 5% year-on-year ("y-o-y").
- Inclusive of significant OTC and stock flows (450t), total gold demand in 2023 was the highest on record at 4,899t.
- Global central bank buying maintained a breakneck pace,
- Global gold exchange traded finds ("ETFs") saw a third consecutive annual outflow.
- Annual bar and coin investment saw a mild contraction (-3% y/y) as divergent trends in key Western and Eastern markets offset one another.
- Annual jewellery consumption held steady at 2,093t, even in the very high gold price environment.
- Despite a Q4 recovery in electronics, the annual volume of gold used in technology fell below 300t for the first time in the data series.
- Global central bank gold reserves swell by more than 1,000t for the second successive year.
- Total gold supply in 2023 increased by 3% y-o-y as mine supply and recycling both posted growth.
- The gold price averaged USD1,941/oz in 2023 compared to 1,825/oz in 2022. The gold price ended the year at USD2,078/oz, a record high year end close.

### World Gold Deposits and Reserves

According to the USGS minerals commodity database, there are almost 66,000 identified deposits in the world where gold features as the primary mineral. The geographical distribution of these is illustrated in Figure 123.

*Figure 123: Global Distribution of Gold Deposits*

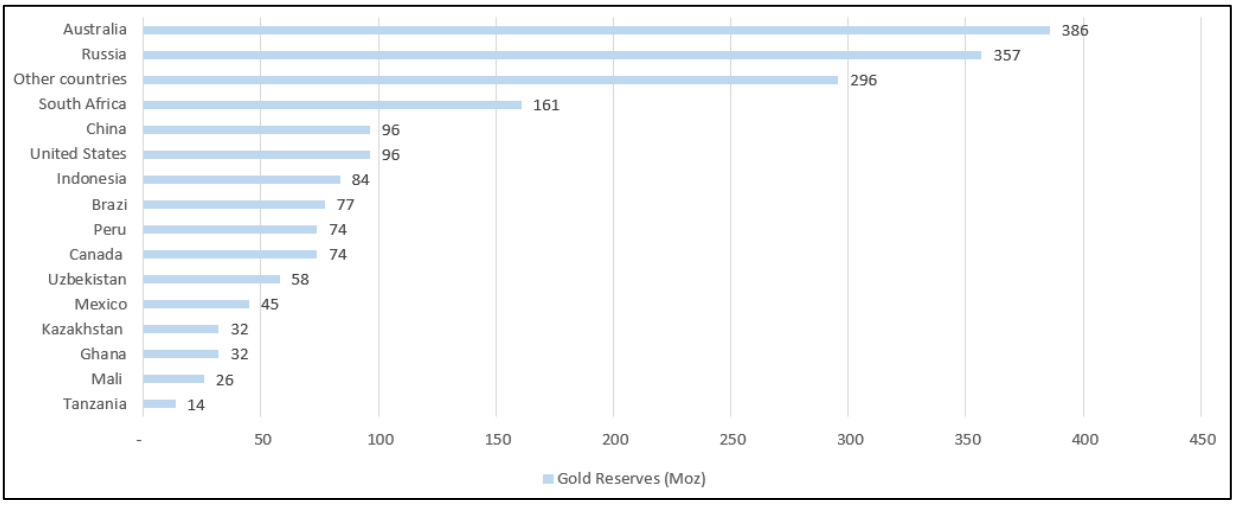



*Notes: May be skewed towards availability of North American data*
*Source: USGC (2022)*

From the image it can be seen that the majority of occurrences are concentrated in North America. The global minable gold reserves, however, are dominated by Australia, Russia and South Africa due to the higher-grade deposits found in these regions, with averages generally well above the global average of 1.01 g/t. Africa continues to be home to some of the highest grade (and highest risk) projects in the world. The average grade differs significantly (33%) between producing and undeveloped deposits. This has important implications on future gold production, and at a gold price reaching low levels, many of these projects will simply not be economically feasible.

Gold reserves are distributed globally as graphically portrayed in Figure 124, for some 1,907Moz Au.

*Figure 124: Country Listing of Gold Reserves as at End 2023*




***Data Source:*** US Geological Survey, Gold Data Sheet - Mineral Commodity Summaries 2024, January 2024

**Gold Supply and Demand Fundamentals**

*Gold Supply*

Total gold supply increased by 3% to y-o-y in the 2023 to 4,899 t - largely due to an increase in both mine production and recycling.

*Mine Production*

According to the World Gold Council (2023), mine production posted another gain, up 1% to 3,644 t. This total fell just short of the 3,656t record set in 2018.

Table 56 shows the top 20 gold mining countries for the years 2021to 2022. China is the largest producer followed by Russia and Australia. South Arica occupies the 14th position, while Ghana is the largest producer in Africa.

*Table 56: Top 20 Gold Mining Countries*

| Country | Mine Production (t) | | Change % |
|---|---|---|---|
| | 2021 | 2022 | year-on-year |
| China | 332 | 375 | 13% |
| Russia | 330.9 | 324.7 | -2% |
| Australia | 307.2 | 313.9 | 2% |
| Other | 211.4 | 215.3 | 2% |
| Canada | 192.9 | 194.5 | 1% |
| United States | 186.8 | 172.7 | -8% |
| Ghana | 124.7 | 127 | 2% |
| Peru | 127.3 | 125.7 | -1% |
| Indonesia | 116.4 | 124.9 | 7% |
| Mexico | 124.8 | 124 | -1% |
| Uzbekistan | 104.9 | 110.8 | 6% |
| Mali | 99.3 | 101.7 | 2% |
| Burkina Faso | 102.7 | 96.2 | -6% |
| South Africa | 113.6 | 92.6 | -18% |
| Brazil | 93.1 | 86.7 | -7% |
| Kazakhstan | 76.6 | 81.9 | 7% |
| Sudan | 85.1 | 80.1 | -6% |
| Guinea | 65 | 63.5 | -2% |
| Colombia | 59.9 | 60.4 | 1% |
| Bolivia | 45.7 | 53.4 | 17% |
| Rest of World | 680.6 | 702.7 | 3% |
| **World Total** | **3580.9** | **3627.7** | **1%** |

***Source:*** World Gold Council (2023)

*Net Producer Hedging*

The industry aggregate producer hedge book is estimated to have increased 17t to 190t in 2023 (World Gold Council, 2023). Record high spot gold prices and attractive forward premiums for gold (due to much higher interest rates around the world) have made forward selling appear much more attractive than has been the case over the past decade when interest rates were essentially zero.

*Recycling*

The supply of recycled gold increased 9% y/y to 1,237t in 2023 as gold moved to record highs in almost every currency. Recycling rose y/y in all four quarters, with the largest increase (+13% y/y) in Q2'23 when the US dollar gold price surged to a new quarterly average high. (World Gold Council, 2023).

*Gold Demand*

Gold demand dipped 5% y-o-y from a strong 2022 (World Gold Council, 2023).

It has been another year of blistering central bank buying, together with resilient jewellery consumption that offset sizable ETF outflows.

Central bank buying maintained a breakneck pace. Annual net purchases of 1,037t almost matched the 2022 record, falling just 45t short.

Global gold ETFs saw a third consecutive annual outflow, losing 244t. The pace of outflows slowed markedly into year-end, but October's hefty outflows dominated the Q4 picture.

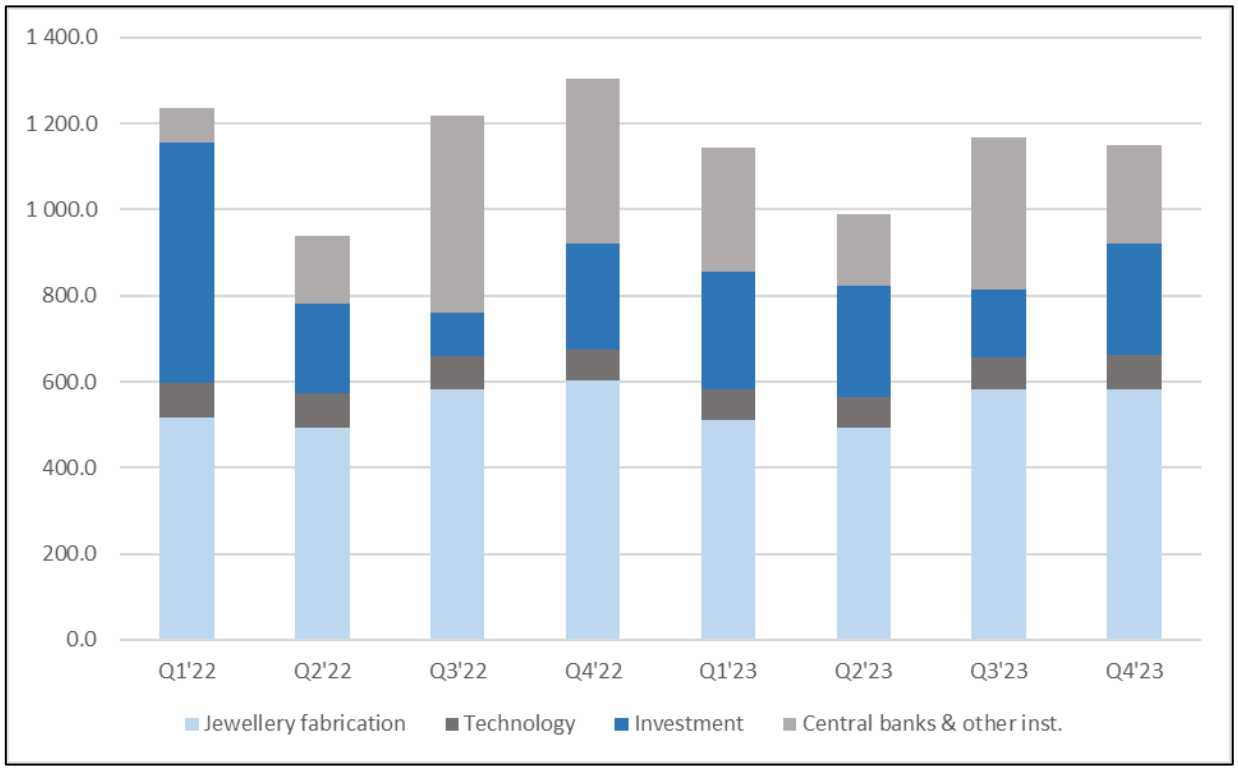
Annual bar and coin investment saw a mild contraction (-3% y/y) as divergent trends in key Western and Eastern markets offset one another.

Annual jewellery consumption held steady at 2,093t, even in the very high gold price environment. China's recovery supported the robust global total.

Despite a Q4 recovery in electronics, the annual volume of gold used in technology fell below 300t for the first time in our data series.

A breakdown of quarterly gold demand by sector is detailed in Figure 125.

*Figure 125: Gold Demand 2022 vs. 2023*



*Investment*

Gold exchange-traded products are traded on the major global stock exchanges including Zurich, Mumbai, London, Paris and New York and most funds are physically backed by vaulted gold. According to the World Gold Council (2023), total investment demand declined to a 10-year low of 945t in 2023 driven by the ETF outflows and the modest decline in bar and coin demand.

The 2023 full-year global investment demand (including bars, coins and ETF's) was the lowest since 2014. Gold ETFs contributed to much of the decline, as global outflows continued. Holdings of global gold ETFs fell by 244t in 2023 (-7%) with outflows of US$15bn.

Bar and coin demand softened by 3% in 2023, to 1,190t.

*Technology*

Application of gold in the technology sector remains relatively small. According to the World Gold Council (2023), demand rose by 12% y-o-y to 81t during Q4, driven by a recovery in electronics (+14% y-o-y to 66t). The full-year demand was down 4% to 298t. Consumer electronics demand has suffered throughout the year but there is optimism that the late recovery will continue into 2024.

*Jewellery*

According to the World Gold Council (2023), the annual gold jewellery consumption was only fractionally higher y-o-y even though the gold price set new records.

*Central Banks*

Central banks added more than 1,000 t to official gold reserves in 2023. Demand totalled 229 t in Q4, 35% lower q-o-q. This lifted the full year net purchases to 1,073 t, 4% lower than 2022. Sales were primarily from Uzbekistan and Kazakhstan.

Gold is politically independent and bears no credit risk. Some central banks have been pursuing an overt policy of dedollarisation. In response to the pressure of financial sanctions from the West, the Bank of Russia has been actively dedollarising their reserves, purchasing some 274 t of gold in 2019 (slowed sharply in 2020), and equally substantially decreasing the country's holdings of US Treasuries. Gold is a safe haven as the international monetary system shifting towards multipolarity, thus will continue to be an important reserve asset for central banks.

The top 40 countries' official gold holdings as at December 2023 are displayed in Table 57.

*Table 57: Top 40 Countries Official Gold Holdings at December 2023*

| Rank | Country | Tonnes | | Rank | Country | Tonnes |
|---|---|---|---|---|---|---|
| 1 | United States | 8 133 | | 21 | Lebanon | 287 |
| 2 | Germany | 3 352 | | 22 | Spain | 282 |
| 3 | IMF | 2 814 | | 23 | Austria | 280 |
| 4 | Italy | 2 452 | | 24 | Thailand | 244 |
| 5 | France | 2 437 | | 25 | Singapore | 232 |
| 6 | Russian Federation | 2 330 | | 26 | Belgium | 227 |
| 7 | China, P.R.: Mainland | 2 257 | | 27 | Algeria | 174 |
| 8 | Switzerland | 1 040 | | 28 | Venezuela, Republica Bolivariana de | 161 |
| 9 | Japan | 846 | | 29 | Philippines | 157 |
| 10 | India | 817 | | 30 | Iraq | 143 |

| | | | | | |
|---|---|---|---|---|---|
| 11 | Netherlands, The | 612 | 31 | Brazil | 130 |
| 12 | Turkey | 556 | 32 | Egypt, Arab Rep. of | 126 |
| 13 | ECB | 507 | 33 | Sweden | 126 |
| 14 | Taiwan Province of China | 422 | 34 | South Africa | 125 |
| 15 | Portugal | 383 | 35 | Mexico | 120 |
| 16 | Uzbekistan, Rep. of | 369 | 36 | Libya | 117 |
| 17 | Poland, Rep. of | 359 | 37 | Greece | 114 |
| 18 | Saudi Arabia | 323 | 38 | Korea, Rep. of | 104 |
| 19 | United Kingdom | 310 | 39 | Romania | 104 |
| 20 | Kazakhstan, Rep. of | 306 | 40 | Qatar | 103 |

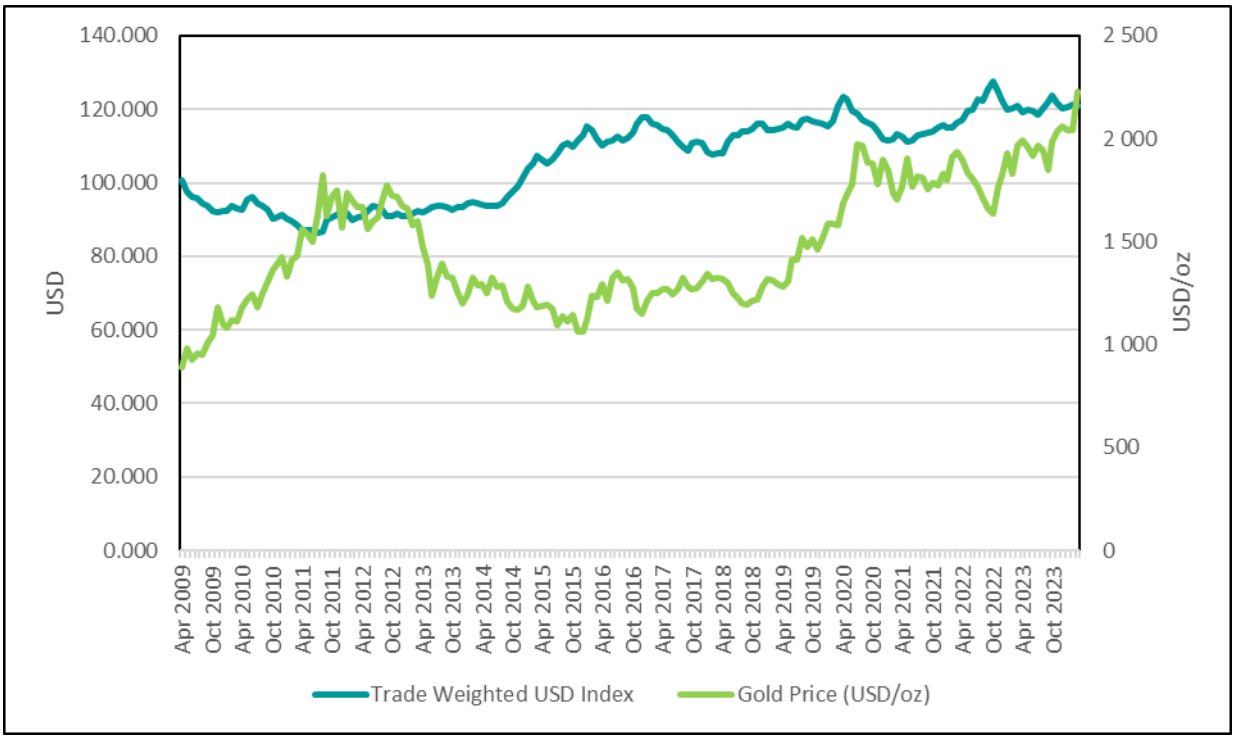
***Source:*** *World Gold Council (2024)*

**Currency**

As gold is usually traded relative to its USD price, the value of the dollar has a meaningful impact on gold. More importantly, gold is viewed as a natural hedge to the USD as it is not directly linked to the monetary or fiscal policies of a particular government. This characteristic strengthens their inverse relationship. Because the USD is also the primary currency used in global transactions and is seen as a stable and reliable unit of exchange, countries aim to have ample reserves to be able to meet their USD denominated liabilities. As such, the dollar forms the lion's share of foreign reserve portfolios. However, governments need to manage the concentration risk in their reserves by diversifying into high quality, liquid assets that lack credit risk – like gold.

Gold is often seen as a currency that provides a natural alternative to money. Gold satisfies many criteria that define a currency, including its use as convertibility, store of value and medium of exchange. Through the years gold has the evolving nature of the relationship with the USD, its geological scarcity and its physical/chemical qualities as a non-corrosive, durable metal make it a natural hedge to paper currencies. Because fiat money can be printed as a result of monetary policies, part of gold's value as a hard asset is derived from its lack of supply growth. Gold is a highly liquid asset, with daily trading volumes comparable to major currency pairs such as the USD-pound sterling and is eclipsed only by USD-Yen and USD-Euro transactions. The trade weighted US dollar index, which compares the US dollar to 23 different world currencies, can be compared to the gold price to demonstrate the relationship between the gold price and world currencies (Figure 126).

*Figure 126: Gold Price vs Trade Weighted U.S. Dollar Index*




While gold is considered a commodity by many, in practice, its role as a currency stands out. It is used by central banks as part of their foreign reserves, accepted in exchange for goods in parts of the world, and traded alongside other currencies in the financial system. According to the Bank for International Settlements' 2013 annual report, "gold is to be dealt with as a foreign exchange position rather than a commodity because of its volatility (which is almost consistently lower than commodities) is more in line with foreign currencies, and banks manage it in a similar manner to foreign currencies".

An allocation to gold, denominated in USD, represents an implicit exposure to a foreign currency, providing international investors with protection against falls in their local currency.

Further, when evaluating a portfolio's exchange risk in light of its foreign currency denominated holdings, gold can be used as a cost-effective and better-rounded complement to other hedging strategies. For example, for a US investor trying to hedge currency risk stemming from emerging market exposure, gold has been historically less costly than a basket of currencies and including gold as part of the hedging strategy has significantly reduced drawdowns.

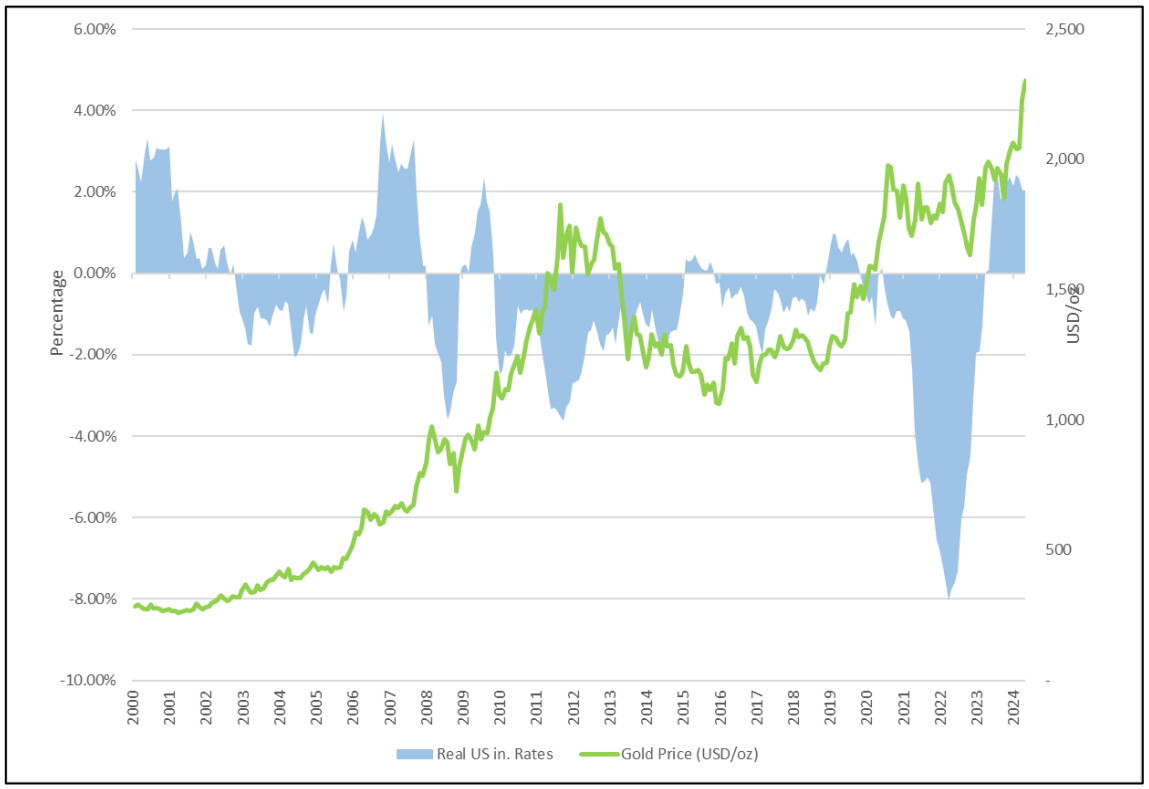
Driven by China's desire to increase its financial influence, the Chinese Renminbi is likely to emerge gradually as a genuine international currency as Beijing eases restrictions on its use in transactions and investments abroad. It is expected that during the coming period of uncertainty and transition between different reserve currencies, official central bank asset managers around the world are likely to increase their interest in gold as a result of doubts about the overall strength of global monetary arrangements. This has been prominent since the economic downturn in 2008.

### US Inflation and Interest Rates

A common argument for buying gold is that it is seen as an inflation hedge. Consumer price indices ("CPI") measure 'representative' baskets of goods that may well reflect a general price trend, but these will likely not reflect everyone's experience of inflation. The reason for the US CPI being the measure most widely used to measure gold's effectiveness as hedge, is due to the fact that gold is traded by the USD and that real interest rates create an opportunity cost for holding gold make US inflation a logical candidate to use as a reference in long-term pricing.

Real US rate is the lending interest rate adjusted for inflation, as measured by the gross domestic product deflator. From Figure 127 when the real US rate becomes negative, the gold price increases, which indicates that investors start investing in gold rather than the banks to receive better returns. The change in real interest rates since 2018 has been a supportive driver of the gold price.

*Figure 127: Gold Price vs. Real USD Rate*




### Gold Pricing

Gold was one of the best performing assets in the year. The gold price ended 2023 at USD2,078/oz – a record high year end close. The average gold price for the year of USD1,941/oz was also a record and 8% higher y-o-y.

The gains were primarily driven by investors turning to gold as a safe-haven investment amid the COVID-19 pandemic uncertainties, the Ukraine and Gaza wars as well as the very low interest rate environment. As economies have started recuperating, gold prices have declined while still remaining relatively high.

Gold's price forecast for Q1 2024 at Bloomberg Terminal is between USD1,913.63 - USD2,224.22. Commodity analysts expect the potential upside of the gold price to be closely tied to changes in US interest rates and dollar movements, leading them to raise the gold price target for 2024 to USD2,050 an ounce. Figure 128 shows the gold price since 2000, with the impact of COVID-19 and the above-mentioned wars clearly reflected in 2020 and 2023.

*Figure 128: Gold Yearly Prices*




Consensus opinion has the real gold price remaining relatively constant (and high) over the short term and reducing over the medium to long term.

*Table 58: Gold Price Forecast (Nominal Terms)*

| | Unit | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | Long-term (Constant) |
|---|---|---|---|---|---|---|---|---|
| Gold | USD/oz | 2,205 | 2,195 | 2,054 | 2,024 | 1,852 | 1,982 | 1,982 |

*Source: Consensus Economics Inc.*

**Gold Outlook**

The World Gold Council, said in its annual gold outlook research that Central Bank buying and geopolitical tensions may provide support for the gold price in 2024. Their outlook for 2024 presents a variety of scenarios depending on how the economy fares, and how that could affect the gold price. If the economy contracts (recession) gold tends to rise because people look to put their assets in a safe-haven investment while markets are volatile. If the economy grows, gold may coast along with little growth as investors seek returns elsewhere.

Whatever the actual performance of the economy in 2024, the World Gold Council believes there is support for gold from the volatility caused by geopolitical tensions and more Central Bank demand.

Gold's price forecast for Q1 2024 at Bloomberg Terminal is between USD1,913.63 - USD2,224.22. Commodity analysts expect the potential upside of the gold price to be closely tied to changes in US interest rates and dollar movements, leading them to raise the gold price target for 2024 to USD2,050 an ounce.

The Office of Australia's chief economist (2024) is forecasting gold prices to remain elevated in 2024.

The latest Energy Quarterly report from the Australian Department of Industry, Science and Resources (DISR) expects gold to average about US$2,020/oz in 2024 – a 6% upward revision to its previous estimate.

It is expected that once monetary easing commences, gold prices are expected to receive a further boost leading into 2025 as the US dollar eases and investors gain greater clarity on the pace and scale of further rate cuts.

Gold prices are forecast to average US$2,030/oz in 2025, supported by monetary easing and continued strength in demand. World gold consumption is forecast to grow by 2.7% a year from 2026 to reach 4,700 tonnes in 2029.

## Item 19 (b) Contracts

On 28 January 2014 Caledonia announced that as a result of new regulations introduced by the Zimbabwe Ministry of Finance, all gold produced in Zimbabwe must now be sold to Fidelity Gold Refinery (Private) Limited ("Fidelity"), a company which is controlled by the Zimbabwean authorities, and which is now responsible for the final refining and marketing of all gold produced in Zimbabwe. Blanket produces doré bullion which is processed at ("Fidelity), a subsidiary of the Reserve Bank of Zimbabwe ("RBZ"). Fidelity processes Blanket's bullion in accordance with requirements of the Zimbabwe government for in-country refining and to allow the Zimbabwe authorities full visibility over the bullion sold to Fidelity or exported by Caledonia.

25% of the Blanket bullion ounces is sold to Fidelity. A 5% royalty is levied on 100% of bullion ounces sold by Blanket and is collected by Fidelity on behalf of the Zimbabwean government. Fidelity collects half of the 5% royalty in physical bullion and reduces 100% of the bullion proceeds on a 75:25 USD to RTGS$ basis. The remaining 71.25% per cent of the bullion ounces (i.e. 75% of the ounces after deducting the USD royalty portion (75%*5%)) are refined at Fidelity on a toll-treatment basis and then exported by Caledonia using Fidelity's gold dealing licence to a refiner outside Zimbabwe which undertakes final refining and purchases the bullion.

Revenue for each RTGS$ delivery to Fidelity is measured at the previous day's London Bullion Market Association afternoon fix of the day of packing for bullion export and the quantities are determined on local lodgement date. Per the contract, settlement on precious metal sales to Fidelity should occur within 14 days.

Revenue for each USD export delivery is measured at the London Bullion Market Association price post-delivery less a refining fee and the quantities are determined on Export lodgment date. On average settlement occurs within two days of delivery.

# ITEM 20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

## Item 20 (a) Relevant Environmental Issues and Results of Studies Done

Blanket Mine has an Environmental Management Plan (EMP) in place authorised by the Zimbabwean Environmental Management Agency (EMA). An updated EMP was authorised by the EMA in 2023. A full Environmental Impact Assessment of the operation was done by SRK in 1995 to identify the potential impacts of the mining operation and recommend remediation measures. Potential for pollution from the old TSF was identified as a risk requiring management, as the dam was not lined prior to deposition. A risk assessment of the dam, undertaken in 2002, examined dam stability and deposition risks. MSA (2011) stated that the potential for seepage would decline as the dam height rises, and it was noted that the seepage is not acidic. A network of groundwater monitoring boreholes was established around the dam, monitoring takes place on a monthly basis according to EMA requirements, and no evidence of a pollution plume has been detected. The results of the groundwater monitoring programme are sent to the EMA on a quarterly basis.

Deposition is being phased out on the old TSF, and it will shortly be decommissioned. The dam continues to be monitored with regard to phreatic levels, stability and groundwater quality, and will be rehabilitated and closed in a responsible manner.

The new Blanket Mine TSF was designed by Knight Piesold and constructed taking the principles of the Global Industry Standard on Tailings Management (GISTM) into account. The EIA was undertaken in 2021 and has been approved. Groundwater monitoring boreholes have been drilled around the new TSF and monitoring has commenced, which is undertaken on a monthly basis. No evidence of pollution has been detected to date. The groundwater monitoring results are sent to EMA on a quarterly basis.

Environmental Impact Assessments (EIAs) are conducted for new activities or developments on the mine which have the potential to have a material impact on the environment. The most recent new developments are the 12MWAC solar plant and the new TSF, both of which have EIAs in place that have been approved by the EMA. The EIA certificates for Blanket Mine are shown inTable 59.

*Table 59: EIA Certificates*

| Licence Number | Activity | Valid Period |
|---|---|---|
| 8000120641 | EIA Certificate - Abercorn Mine | 15 June 2023 – 14 June 2024 |
| 44GC0094/2020 | Solar Plant Licence (generation licence) | 25 years (from 2020) |
| 8000120642 | GG Mine – Gold Mining Development | 15 June 2023 – 14 June 2024 |
| 8000124691 | EIA Certificate – new TSF | 10 October 2023 – 9 October 2024 |

A number of additional environmental licences are described in Table 60 which have been issued by the EMA as required for the continued operation of the mine. These include:

- *Air emissions (clinic incinerator, blacksmith shop, laboratory, smelter and diesel generators)*

- *Solid waste (landfill and TSF)*
- *Effluent disposal (sewerage and car wash bay)*
- *Hazardous substances (importation, transportation and storage); and*
- *Hazardous waste generation (oils and clinic waste).*

*Table 60: Additional Environmental Licenses and Validity*

| Licence Number | Activity | Valid Period |
|---|---|---|
| L0000010451 | Diesel generator | 18 Mar 2024 – 31 Dec 2024 |
| L0000010449 | Clinic incinerator | 18 Mar 2024 – 31 Dec 2024 |
| L0000010452 | Blacksmith Licence | 18 Mar 2024 – 31 Dec 2024 |
| L0000010453 | Assay laboratory | 18 Mar 2024 – 31 Dec 2024 |
| L0000010450 | Smelter Licence | 18 Mar 2024 – 31 Dec 2024 |
| L0000010455 | Washbay effluent disposal | 18 Mar 2024 – 31 Dec 2024 |
| L0000010454 | Sewage effluent disposal | 18 Mar 2024 – 31 Dec 2024 |
| L0000010463 | Hazardous substance generation | 18 Mar 2024 – 31 Dec 2024 |
| L0000010457 | Solid waste Disposal (Landfill) | 18 Mar 2024 – 31 Dec 2024 |
| L0000010458 | TSF Licence (old TSF) | 18 Mar 2024 – 31 Dec 2024 |
| L0000010462 | TSF Licence (new TSF) | 18 Mar 2024 – 31 Dec 2024 |
| L0000010456 | Workshops and oil separators | 18 Mar 2024 – 31 Dec 2024 |
| L0000010451 | Diesel generator | 18 Mar 2024 – 31 Dec 2024 |
| L0000010449 | Clinic incinerator | 18 Mar 2024 – 31 Dec 2024 |
| L0000010452 | Blacksmith Licence | 18 Mar 2024 – 31 Dec 2024 |

Caledonia endeavours to address any newly identified potential environmental impacts through appropriate study work and remain transparent and complaint in terms of required authorisations.

The Competent Person is not aware of environmental issues that could materially impact the issuer's ability to extract the Mineral Resources or Mineral Reserves.

## Item 20 (b) Waste Disposal, Site Monitoring and Water Management

Blanket Mine has two tailings storage facilities as described above for disposal of tailings from the gold processing plant. The old TSF has reached capacity, and deposition is being phased out on this dam. A closure plan will be developed and implemented, and the dam continues to be monitored for stability, phreatic levels and groundwater quality. Rehabilitation of the side slopes of the dam has commenced.

The new TSF was commissioned in December 2023, and deposition of tailings is now taking place into this facility. The new TSF has been classified as Type 3 waste, and the recommended barrier system of a 1.5mm HDPE geomembrane placed over a 300mm compacted clay liner has been put in place. According to the SANS 10286 Safety Classification, the facility is classified as a medium hazard.

Fraser Alexander Zimbabwe manages both of the TSFs at Blanket Mine, and the Engineer of Record is Epoch Resources.

The EMA has stipulated water monitoring parameters in the tailings disposal permits for the TSFs. The parameters to be sampled for the old TSF (red licence) are pH, chemical oxygen demand (COD), cyanide (CN), manganese (Mn), iron (Fe), conductivity, arsenic (As), copper (Cu), lead (Pb) and zinc (Zn). Elevated levels of Mn have been detected in the water samples of the old TSF, but these occur in both the control and TSF boreholes, indicating that the elevated Mn levels are a result of local conditions rather than as a result of tailings disposal. Parameters to be sampled for the new TSF (blue licence) are heavy metals, pH, conductivity, phosphates and nitrates.

Similar monitoring of the sewage disposal area shows that all holes are in the acceptable green category. The sewerage ponds are classified in the red category under the EMA as they are not lined.

Environmental monitoring or sampling requirements are stipulated for a number of the environmental permits issued (shown in Table 12), as listed in Table 64.

*Table 64: Environmental Permits Monitoring and Sampling Requirements*

| Licence | Licence Number | Monitoring/Sampling Requirement | Period |
|---|---|---|---|
| Air Emissions - Diesel generator | L0000010451 | Particulate matter (PM10), NOx, CO, SOx | Quarterly |
| Air Emissions - Clinic incinerator | L0000010449 | Particulate matter (PM10), NOx, CO, SOx | Quarterly |
| Air Emissions - Blacksmith | L0000010452 | Particulate matter (PM10), NOx, CO, SOx | Quarterly |
| Air Emissions - Assay laboratory | L0000010453 | Particulates (lead oxide) | Quarterly |
| Air Emissions - Smelter | L0000010450 | Particulate matter (PM10), NOx, CO, SOx | Quarterly |
| Effluent Disposal - Washbay | L0000010455 | EC, pH, Phosphates, Nitrates, Grease & Oils | Quarterly |
| Effluent Disposal - Workshop | L0000010456 | EC, pH, Phosphates, Nitrates, Grease & Oils | Quarterly |
| Effluent Disposal - Sewage ablution | L0000010454 | Phosphates, Nitrates, BOD, EC, TSS, TDS | Quarterly |
| Solid Waste Disposal - Domestic waste | L0000010457 | Heavy metals, pH, Phosphates, Nitrates, Electrical conductivity | Quarterly |

| | | | |
|---|---|---|---|
| Solid Waste Disposal – old TSF | L0000010458 | Heavy metals, pH, Phosphates, Nitrates, Electrical conductivity | Quarterly |
| Solid Waste Disposal – new TSF | L0000010462 | Heavy metals, pH, Phosphates, Nitrates, Electrical conductivity | Quarterly |

Air emissions sampling exercises are completed annually. Blanket Mine has informed the QP that EMA conducts quarterly site inspections and is satisfied with these procedures.

The TSF borehole monitoring, sewage ponds and car wash monitoring are undertaken quarterly.

## Item 20 (c) Permit Requirements

Permit requirements for the Mine are detailed in Item 4 (g). Blanket Mine remains compliant with legislation and all regulations applicable to the mine site.

## Item 20 (d) Social and Community-Related Requirements

10% of Blanket Mine is owned by the Gwanda Community Share Ownership Trust (GSCOT), whereby local socio-economic development is facilitated through dividends paid to the entity.

In addition to the dividend payments to the GSCOT, Blanket Mine undertakes investment in community and social projects under six pillars, which include education, health, women and youth empowerment, agriculture, environment and charity. Projects undertaken during 2023 included the renovation of and construction of science and computer laboratories at Sitezi Secondary School, upgrading of Sabiwa stadium, upgrades to Sitezi clinic, community boreholes at Gwakwe, funding of attachment students, road repairs, irrigation water supplied to Gwakwe gardens, as well as donations to various charities. Community investment in 2023 was $1,504,000.

Small scale and artisanal gold miners are present within the Project Area. Satellite projects deemed to have limited exploration potential are viewed in terms of their potential to generate goodwill by making them available to local small-scale miners and artisanal groups through 3-year renewable Tribute Agreements as part of the Company's Corporate Social Responsibility. The claims that are being tributed are Mbudzane Rock, Annette, Dan's Luck, Banshee J, Cinderella, Gum, Mazeppa, Will South, Rubicon and Bunny's Luck. Other than for the purpose of the Company's Corporate's Social Responsibility, tributing claims provides Blanket Mine with security of tenure against the "Use it or lose it principle". The tribute agreements do not have any effect on Blanket Mine's exploration/mining plans.

## Item 1(e) Mine Closure Costs and Requirements

The closure plan for Blanket Mine was updated by Knight Piésold in December 2023. The purpose of the report was to update the closure plan assessment undertaken in 2021, and to include material changes to the mine's operations in the closure cost calculation (12MWAC solar plant and the new tailings storage facility). The closure cost for Blanket Mine as at the end of 2023 was $5,113,957.

There are a number of Government of Zimbabwe regulations and guidelines including the Mining General Regulations, the EMA Act and the Waste Disposal Regulations which cover a mine's closure obligations. These are all addressed and costed in the Knight Piésold report. The closure plan aims to ensure site stability and safety from both a physical and chemical perspective, allowing for a post-closure environment that suits current land uses. The plan envisages concurrent closure obligations being carried out, where possible, with mining operations. Focus is placed on minimisation of environmental damage, protection of stream water quality, decrease in public health and safety hazards and provision for domestic livestock use.

# ITEM 21 CAPITAL AND OPERATING COSTS

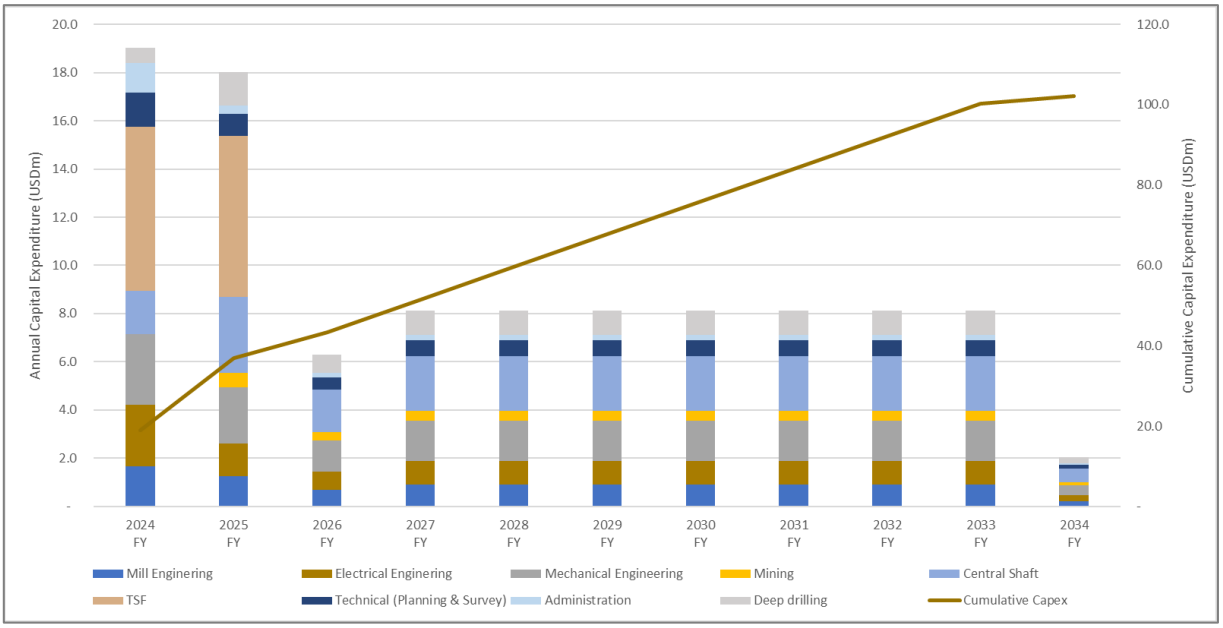
## Item 21 (a) Capital Costs

### Mining and Infrastructure Capital

The project and sustaining capital schedule of the Blanket mining operations for the years 2023 and 2024 is illustrated in Figure 129.

The capital cost includes mainly capital expenditure for the completion of the CMS project as well as the sustaining capital associated with existing infrastructure and equipment. Sustaining capital expenditures are capital expenditures resulting from improvements to and major renewals of existing assets. Such expenditures serve to maintain existing operations, but do not generate additional revenue. Sustaining capital for the operation from 2024 has been allowed for and is based on 12% of total OPEX per annum, in line with the previous report.

*Figure 129: Blanket Operation Mining and Infrastructure Project Capital Schedule*




Off-reef development and infrastructure development has been capitalised from the mining operating cost and is reported as capital development. The capital development is undertaken throughout the LoM and consists mainly of opening-up development and 30 Level, 34 Level and declines to 38 Level infrastructure development. The QPs applied the capital development rates provided by Caledonia in the 2023 budget. The capital development rates are detailed in Table 61.

*Table 61: Capital and Infrastructure Development Costs*

| Capital and Infrastructure Development | Unit | Cost |
|---|---|---|
| Decline | USD/m | 2,150 |
| Haulage | USD/m | 900 |
| Draw point Crosscut | USD/m | 900 |
| Crosscut | USD/m | 900 |
| Shaft | USD/m | 900 |
| Ventilation Raise | USD/m | 478 |
| Access Crosscut | USD/m | 900 |

***Notes:*** *Other development costs have been included in the development operating costs.*

### Capital Summary

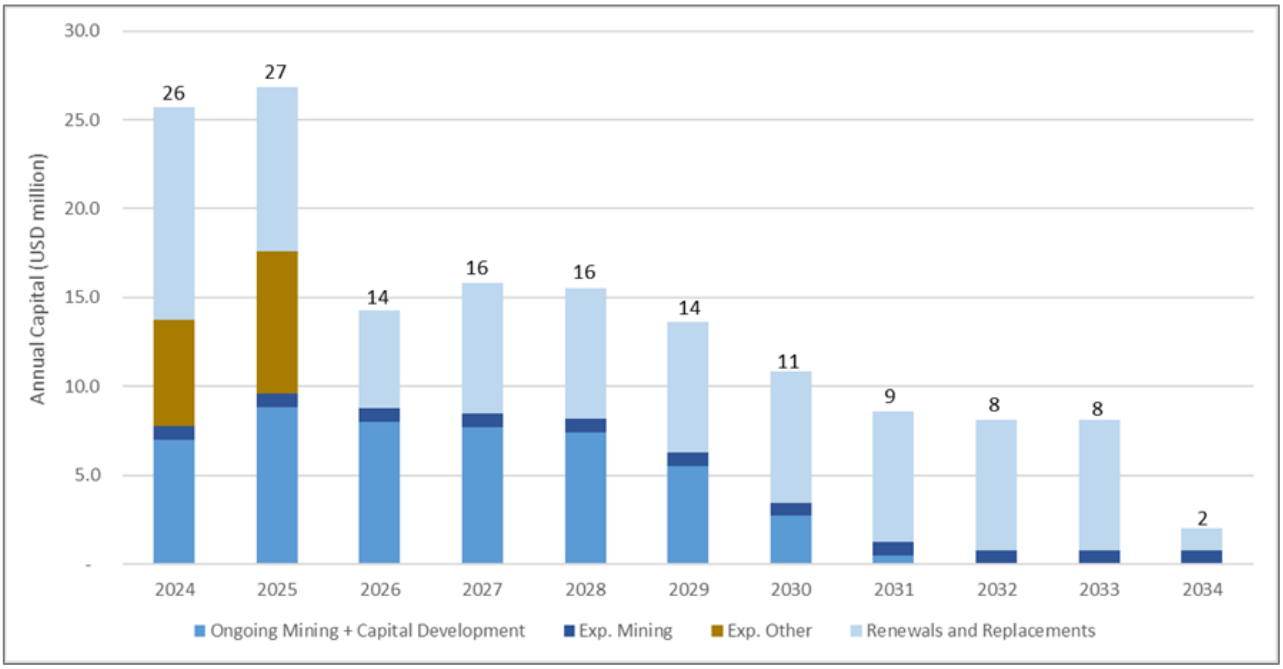
Table 62 details the total capital expenditure over the LoM. Capital expenditure totals USD149.7 million over the LoM, of which USD47.7million is capital development.

*Table 62: Capital Summary*

| Capital Expenditure | Over LoM | Blanket Mine |
|---|---|---|
| **Mining Capital** | **Unit** | |
| Mechanical Engineering | USDm | 18.6 |
| Electrical Engineering | USDm | 11.8 |
| Deep drilling | USDm | 10.0 |
| Central Shaft | USDm | 23.1 |
| Capitalised Development | USDm | 47.7 |
| **Sub-Total Sustaining Mining Capital** | **USDm** | **110.9** |
| **Total Mining Capital** | **USDm** | **110.9** |
| **Plant Capital** | | |
| TSF Phase 1 | USDm | 6.8 |
| TSF Phase 2 | USDm | 6.7 |
| **Sub-Total Expansion Plant Capital** | **USDm** | **13.5** |
| Mill Engineering | USDm | 10.1 |
| Milling | USDm | 4.1 |
| **Sub-Total Sustaining Plant Capital** | **USDm** | **14.2** |
| **Total Plant Capital** | **USDm** | **27.7** |
| **Other Non-Direct Capital** | | |
| Technical (Planning & Survey) | USDm | 7.5 |
| Administration | USDm | 3.5 |
| **Sub-Total Sustaining Other Capital** | **USDm** | **11.0** |
| **Total Other Capital** | **USDm** | **11.0** |
| **Total Expansion Capital** | **USDm** | **13.5** |
| **Total Sustaining Capital** | **USDm** | **136.1** |
| **Total Capital** | **USDm** | **149.6** |

Figure 130 illustrates the capital schedule over the LoM.

*Figure 130: Capital Schedule*




## Item 21 (b) Operating Cost

The Company reviewed Blanket Mine's actual historic costs since 2017. From the information received it is clear that the historic costs remained relatively consistent ranging between USD2.7 million per month and USD3.6 million per month, fluctuating with tonnes from 2017 to June 2021. The cost per milled tonne in the same period typically ranged between USD65/t and USD80/t excluding outliers and ignoring June 2018 and July 2019, where extraordinary cost adjustments on power were applied. Operating costs considerably increased from July 2021 to 2024 due to increased milling capacity, headcount and increased power utility costs, ranging between USD4.2m and USD5.6m per month. Blanket opted to use the conservative twelve-month average 2024 forecast for financial modelling as this is deemed a true reflection of the actual costs on the mine. A sensitivity to the operating cost applied is included in Item 22 (e).

*Figure 131: Historic Operating Cost Summary (Real-terms)*

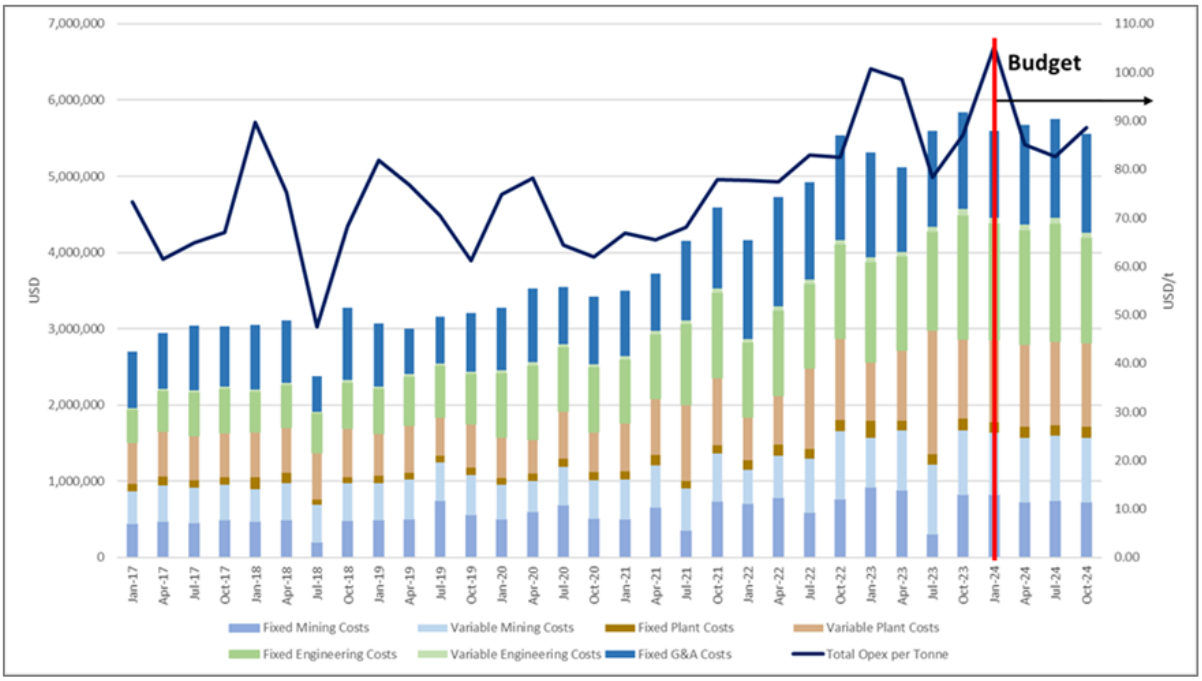



Figure 132 illustrates the mining operating unit costs as split by Blanket Mine for production tonnes along with the tonnes. From the figure it is clear that the costs fluctuate inversely with tonnes produced.

*Figure 132: Ore Mining Costs*

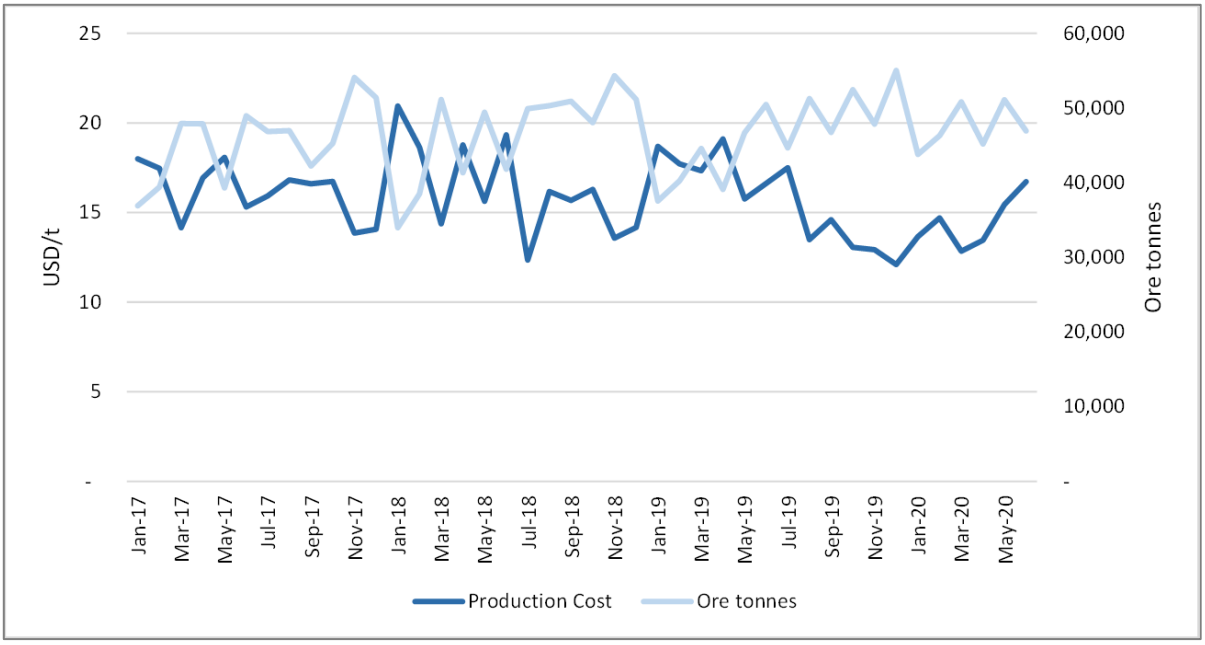


Figure 133 illustrates the mining operating unit costs as split by Blanket Mine for development along with the development meters. Development included in this operating cost is raises, sub-drives, lead drives and diamond drill crosscuts. From the figure it is clear that the costs fluctuate inversely with meters produced. The bump in graph is a result of the change in development type mix, from drawpoint raises to trackless lead drives.

*Figure 133: Development Mining Costs*

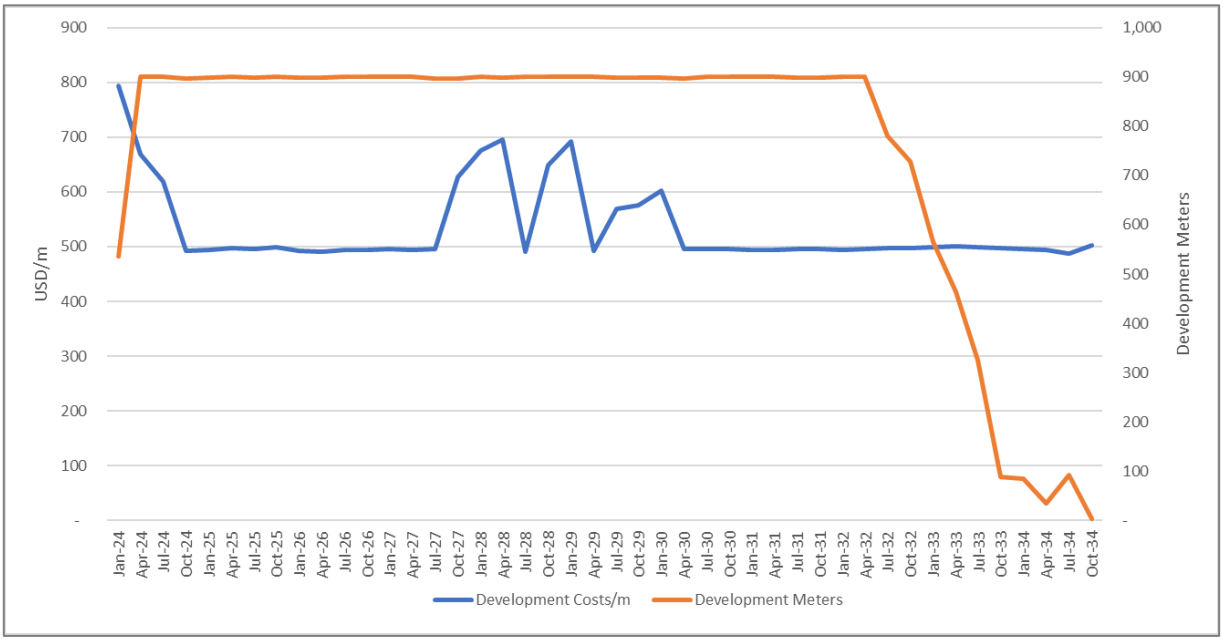



Table 63 details the twelve-month average forecast for 2024 mining operating rates utilised for the financial model.

*Table 63: Mining Rates Summary*

| Mining Costs | Unit | Cost |
|---|---|---|
| Production | USD/t | 18.22 |
| Bypass | USD/m | 506 |
| Raises | USD/m | 478 |
| Sub-drive | USD/m | 506 |
| Lead-drive (TMM) | USD/m | 2,150 |

Table 64 details the plant cost summary utilised for the financial model. The rates reflected are the twelve-month average forecast for 2024. Caledonia Mining Plc made an assumption on the fixed/variable split with regard to grid power, with 10% of the grid power allocated to fixed costs and 90% allocated to variable costs.

*Table 64: Plant Cost Summary*

| Fixed Plant Costs | Unit | Cost |
|---|---|---|
| Labour | USD/month | 73,768 |
| Grid Power | USD/month | 57,337 |
| Other Plant Costs | USD/month | 40,200 |

| | | |
|---|---|---|
| **Total Fixed** | **USD/Month** | **171,305** |
| **Variable Plant Costs** | **Unit** | **USD/t** |
| Consumables | USD/t | 6.81 |
| Power | USD/t | 7.57 |
| **Total Variable** | **USD/t** | **14.38** |

Table 65 details the engineering cost summary utilised for the financial model. The rates reflected are the twelve-month average forecast for 2024.

*Table 65: Engineering Costs Summary*

| **Fixed Engineering Costs** | **Unit** | **Cost** |
|---|---|---|
| Electrical - Labour | USD/month | 52,514 |
| Mechanical - Labour | USD/month | 186,362 |
| Mill Engineering - Labour | USD/month | 44,723 |
| **Total Fixed Engineering Cost** | **USD/month** | **283,599** |
| **Variable Engineering Costs** | | |
| Electrical - Consumables | USD/t | 2.51 |
| Mechanical - Consumables | USD/t | 5.13 |
| Mill Engineering - Consumables | USD/t | 3.15 |
| **Total Variable** | **USD/t** | **10.79** |

Table 66 details the general and administrative ("G&A") cost summary utilised for the financial model. The rates reflected are the twelve-month average forecast for 2024.

*Table 66: G&A Cost Summary*

| **G&A Costs** | **Unit** | **USD** |
|---|---|---|
| Technical / Reserve Drilling | USD/month | 68,015 |
| Technical Services | USD/month | 148,202 |
| Administration | USD/month | 786,273 |
| **Total G&A Cost** | **USD/month** | **1,002,490** |

Table 67 details management and head office costs summary utilised for the financial model. The rates reflected are the twelve-month average forecast for 2024.

*Table 67: Management and shared service costs*

| **Management Costs** | **Unit** | **USD** |
|---|---|---|
| Shares Service Centre South Africa | USD/month | 305,280 |
| Shares Service Centre Zimbabwe | USD/month | 222,300 |
| **Total Management Cost** | **USD/month** | **527,580** |

### Financial Costs Indicators

The operating costs in the financial model were reported into different categories as defined by the World Gold Council. Table 68 illustrates a breakdown off all the costs included in each costing category:

- (Operating) Adjusted Operating Cost;
- AISC; and
- AIC.

*Table 68: Financial Cost Indicators*

<table>
<tr><td rowspan="4">All-in Costs (AIC)</td><td rowspan="3">All-in Sustainable Costs (AISC)</td><td>Adjusted Operating Costs</td><td>On-Site Mining Costs (on a sales basis)<br>On-Site General & Administration costs<br>Royalties & Production Taxes<br>Realised Gains/Losses on Hedges due to operating costs Community Costs related to current operations<br>Permitting Costs related to current operations 3rd party smelting, refining and transport costs<br>Non-Cash Remuneration (Site-Based)<br>Stockpiles/production inventory write down<br>Operational Stripping Costs<br>By-Product Credits</td></tr>
<tr><td colspan="2">Corporate General &/Administrative costs (including share-based remuneration)<br>Reclamation & remediation - accretion & amortisation (operating sites)<br>Exploration and study costs (sustaining)<br>Capital exploration (sustaining)<br>Capitalised stripping & underground mine development (sustaining)<br>Capital expenditure (sustaining)</td></tr>
<tr><td colspan="3">Community Costs not related to current operations<br>Permitting Costs not related to current operations<br>Reclamation and remediation costs not related to current operations<br>Exploration and study costs (non-sustaining)<br>Capital exploration (non-sustaining)<br>Capitalised stripping & underground mine development (non-sustaining)<br>Capitalised stripping & underground mine development (non-sustaining)<br>Capital expenditure (non-sustaining)<br>Construction costs of TSF to be able to cater for and maintain increases in production levels.</td></tr>
</table>

The general definitions of these costs are as follows:

**Adjusted Operating Cost**

The Adjusted Operating Cost represents the cash cost incurred at each processing stage, from mining through to recoverable metal delivered to market, and, if any, less net by-product credits. In addition, royalty taxes are included in Adjusted Operating Costs. Costs are reported as "per oz" of gold. The operating margin is defined as metal price received minus Adjusted Operating Costs.

Adjusted Operating Costs cover:

- mining, ore freight and milling costs.
- ore purchase and freight costs from third parties in the case of custom smelters or mills.
- mine-site administration and general expenses.
- concentrate freight, smelting and smelter general and administrative costs.
- matte freight, refining and refinery general and administrative costs.
- marketing costs (freight and selling).
- community relations costs and
- royalty taxes.

**All-in Sustainable Cost**

AISC is the sum of net Adjusted Operating Costs (Operating), Sustaining Capital, reclamation costs and other non-direct operating costs. The AISC margin is defined as metal price received per ore tonne or gold ounce minus the AISC, over the metal price received. Non-direct operating costs cover:

- the portion of corporate and divisional overhead costs attributable to the operation; and
- research and exploration not attributable to the operation.

**All-in Cost**

AIC is the sum of the AISC, all non-sustaining capital costs and non-current operational costs. The AIC margin is defined as metal price received per ore tonne or gold ounce minus the AIC, over the metal price received.

Costs reported for the Mine on this basis are displayed per plant feed tonne as well as per recovered gold ounce in Table 69. It should be noted that no contingencies have been applied to the operating costs as most of these costs are based on contracts or actuals. A 13% contingency has been applied to the capital expenditure in line with the Caledonia estimates. A sensitivity analysis to increase in OPEX and CAPEX has been included in Item 22 (e).

*Table 69: Project Cost Indicators*

| Item | Unit | Blanket Mine |
|---|---|---|
| **Net Turnover** | **USD/Feed tonne** | 171 |
| Mine Cost | USD/Feed tonne | 31 |
| Plant Costs | USD/Feed tonne | 17 |
| Other Costs | USD/Feed tonne | 48 |
| **Operating Costs** | **USD/Feed tonne** | 96 |
| SIB | USD/Feed tonne | 18 |
| Royalties | USD/Feed tonne | 9 |
| Reclamation | USD/Feed tonne | 0 |
| Other Costs | USD/Feed tonne | 7 |
| **All-in Sustainable Costs (AISC)** | **USD/Feed tonne** | 130 |
| Capital | USD/Feed tonne | 2 |
| Other Cash Costs | USD/Feed tonne | 0 |
| **All-in Costs (AIC)** | **USD/Feed tonne** | 132 |
| **All-in Cost Margin** | **%** | 23% |
| EBITDA[1] | USD/Feed tonne | 76 |
| EBITDA Margin | % | 44% |
| Gold Recovered | oz | 757,238 |
| **Average Gold Price** | **USD/Gold oz** | **1,877** |
| **Net Turnover[2]** | **USD/Gold oz** | 1,739 |
| Mine Cost | USD/Gold oz | 311 |
| Plant Costs | USD/Gold oz | 171 |
| Other Costs | USD/Gold oz | 485 |
| **Operating Costs** | **USD/Gold oz** | 967 |
| SIB Capex | USD/Gold oz | 179 |
| Royalties | USD/Gold oz | 93 |
| Reclamation | USD/Gold oz | 1 |
| Other Costs | USD/Gold oz | 72 |
| **All-in Sustainable Costs (AISC)** | **USD/Gold oz** | 1,312 |
| Capital | USD/Gold oz | 18 |
| Other Cash Costs | USD/Gold oz | 0 |
| **All-in Costs (AIC)** | **USD/Gold oz** | 1,330 |
| EBITDA | USD/Gold oz | 771 |

*Notes:*
1. *Earnings before interest, tax, depreciation and amortisation (excludes CAPEX)*

Blanket Mine has an all-in sustainable cost of USD130/milled t, which equates to USD1,312/oz. The all-in costs for the Blanket Mine amount to USD132/milled t, which equates to USD1,330/oz.

Figure 134 illustrates the annual operating cost per plant feed tonne against the feed tonnes. The increase in costs towards the end of life is due to the depletion of the potential Mineral Reserves.

*Figure 134: Operating Costs vs. Feed Tonnes*

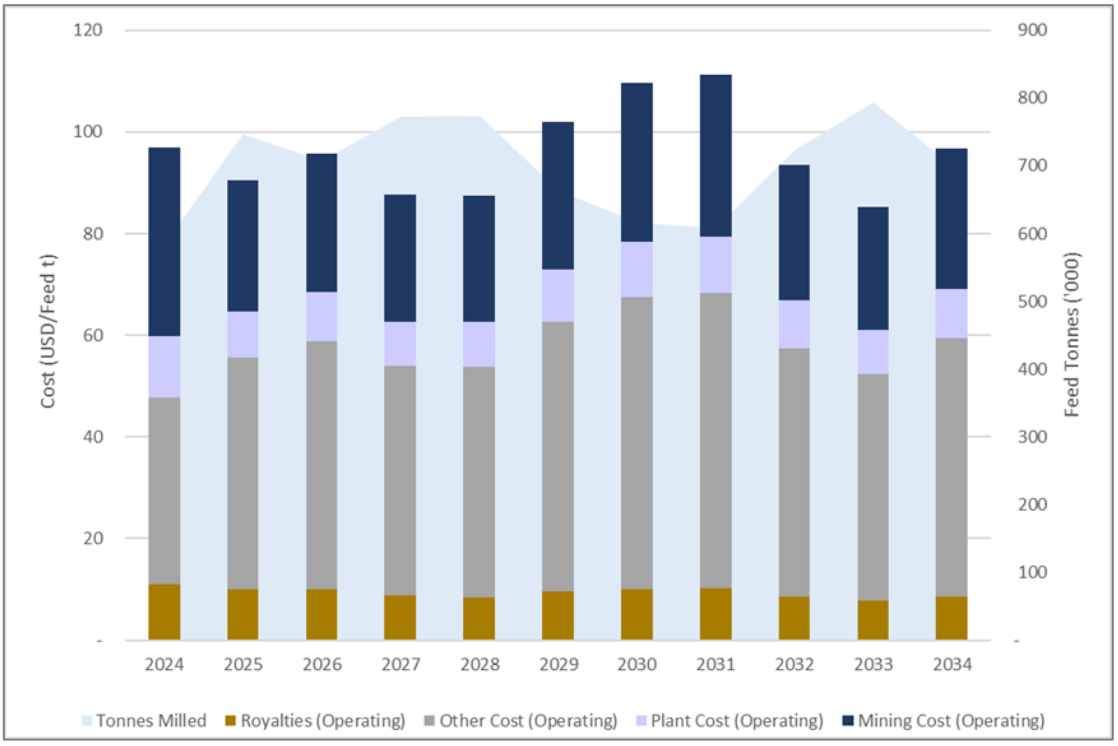
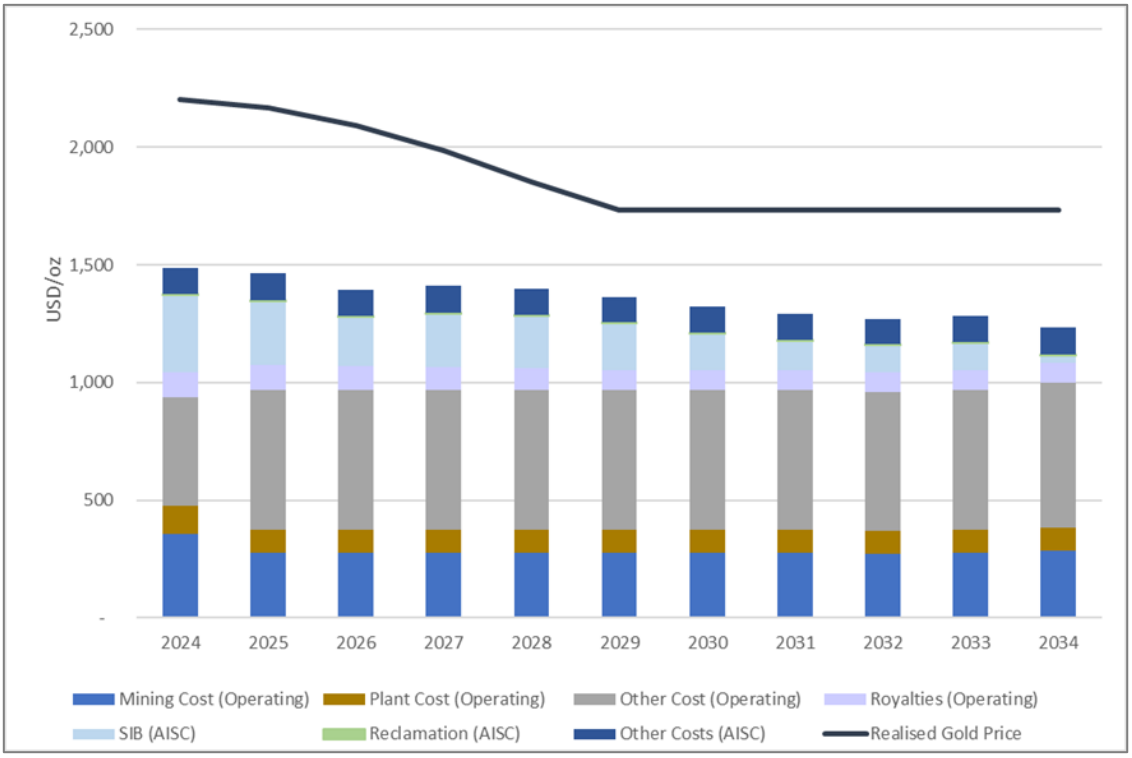



Figure 135 illustrates the all-in costs of the operation along with the realised gold price.

*Figure 135: AIC vs. Realised Gold Price*



# ITEM 22 ECONOMIC ANALYSIS

## Item 22 (a) Introduction and Terms of Reference

The purpose of this section is to demonstrate the economic viability of the Mine Plan in order to declare updated Mineral Reserves.

### Economic Analysis Date

Value relates to a specific point in time. The effective date for the economic analysis is 1 January 2024.

### Economic Analysis Approaches and Methods

The following valuation approaches are three internationally accepted methods of valuing mineral projects, and are illustrated in Table 70:

- **Cost Approach**: used to value early-stage exploration properties. The valuation is dependent on the historical and future exploration expenditure.
- **Market Approach**: used to value exploration and development properties, based on the relative comparisons of similar properties for which a transaction is available, in the public domain. The market approach relies on the principle of "willing buyer, willing seller" and requires that the amount obtainable from the sale of the mineral asset is determined as if in an arm's-length transaction.
- **Income Approach**: used to value development and production properties in the production phase. This method relies on the "value-in-use" principle and requires determination of the present value of future cash flows over the useful life of the mineral asset.

*Table 70: Acceptable Methods of Mineral Project Economic Analysis*

| Valuation Approach | Exploration Properties | Development Properties | Production Properties | Dormant Properties | | Defunct Properties |
|---|---|---|---|---|---|---|
| | | | | Economically Viable | Not Viable | |
| Income | Not generally used | Widely used | Widely used | Widely used | Not generally used | Not generally used |
| Market | Widely used | Less widely used | Quite widely used | Quite widely used | Widely used | Widely used |
| Cost | Widely used | Not generally used | Not generally used | Not generally used | Less widely used | Quite widely used |

### Income Approach

The discounted cash flow ("DCF") economic analysis is based on future free cash flow discounted to present value. This analysis is widely used within investment banking and company economic analysis. The DCF is based on the production schedule and all costs associated to develop, mine and process the Reserve. Relevant taxation and other operating factors, such as recoveries, stay-in-business costs and contingencies are incorporated into the economic analysis to produce a cash flow over the life cycle of the project.

It is generally acceptable to use Mineral Resources in the cash flow (income) approach if Mineral Reserves are also present. These Mineral Resources and Mineral Reserves must be signed off by a Competent Person in accordance with CIM definition standards (or other required Reporting Code). Additionally, Mineral Reserves must be based on a LoM Plan for an operating (going concern) mine, or at least a PFS for a mine project.

### Market Approach

The market approach requires the comparison of the project with relatively recent transactions of resource assets that have similar characteristics to those of the asset being valued. It is generally based upon a monetary value per unit of the resource (where available), or per unit of defined tonnes (Measured, Indicated, and Inferred). Typically, the comparable method uses the transaction price of comparable assets to establish a value for the specific asset to be valued. The difficulty of this approach within the mining industry is that there are no true comparables, as each asset is unique with respect to key factors such as geology, mineralisation, costs, stage of exploration, infrastructure, as well as peripheral issues such as social, political, and environmental aspects and the valuator needs to take that into consideration during the economic analysis.

When transactions of mineral assets do occur, they rarely involve strictly cash, leaving the valuator the task of converting blocks of shares, royalties, or option terms into present-day monetary equivalents. In the first cases, the defined value of the share (inclusive of whether it is transacted at a premium or discount), at the time of the transaction, is applied to convert the share volume into a cash value. The same principle is applied to royalties and option terms to convert these transaction preferences into a cash basis.

### Cost Approach

The cost approach relies on historical and/or future expenditure on the property and involves estimation of the depreciated cost of reproducing or replacing the asset and improvements. Reproduction cost refers to the cost at a given point in time of reproducing a replica asset, whereas replacement cost refers to the cost of reproducing improvements of equal utility. In cases where insufficient confidence exists in the technical parameters of the mineral asset, economic analysis methods rely almost entirely on the principle of historical cost, implying that an asset's value is correlated to the money spent on its acquisition, plus a multiple of expenditures. A prospectivity enhancement multiplier ("PEM") is a factor applied to the total cost of exploration, the magnitude of which is determined by the level of sophistication of the exploration for which positive exploration results have been obtained.

**Methodology Justification**

The evaluator performed an independent economic analysis on the Project's diluted Indicated and Measured Mineral Resources for conversion to Mineral Reserves. Owing to the fact that the Project has a budget plan based on a compliant mine plan with Indicated and Measured Resources, the income approach was applied on the total mineable reserve incorporated in a detailed mine plan as the primary economic analysis methodology in determining the economic viability for conversion to Mineral Reserves.

## Item 22 (b) Principal Assumptions

A company has different sources of finance, namely common stock, retained earnings, preferred stock and debt. Free cash flow is based on either Free cash flow to firm ("FCFF") or Free cash flow to equity ("FCFE"). FCFF is the cash flow available to all the firm's suppliers of capital once the firm pays all operating expenses (including taxes) and expenditures needed to sustain the firm's productive capacity. The expenditures include what is needed to purchase fixed assets and working capital, such as inventory. FCFE is the cash flow available to the firm's common stockholders once operating expenses (including taxes), expenditures needed to sustain the firm's productive capacity, and payments to (and receipts from) debt holders are accounted for. It must be noted that *FCFF minus Nett Debt = FCFE*.

The scope of this economic analysis exercise was to determine the financial viability of the diluted Indicated and Measured Resources in the LoM plan, for conversion to Mineral Reserves. This is illustrated by using the DCF method on a FCFF basis, to calculate the net present value ("NPV") and subsequently, the intrinsic value of the project in real terms.

The NPV is derived from post-royalties and tax, pre-debt real cash flows, after taking into account operating costs, capital expenditures for the mining operations and the processing plant and using forecast macro-economic parameters.

**Basis of Evaluation of the Mining Assets**

In generating the financial model and deriving the economic analysis, the following were considered:

- Only diluted Indicated and Measured Resources in the LoM plan were considered for conversion to Mineral Reserves.
- Any Inferred Mineral Resources in the LoM plan have been excluded from the economic analysis.
- This Report details the optimised cash flow model with economic input parameters.
- The cash flow model is in constant money terms and completed in USD.
- The DCF economic analysis was set up in calendar years from January to December with the mine plan starting in January 2024.
- A hurdle rate of 15.4% (in real terms) was calculated for the discount factor, with an NPV sensitivity to the discount rate also included in the analysis.
- The impact of the Mineral Royalties Act as per the Zimbabwean Mining Regulation.
- Sensitivity analyses were performed to ascertain the impact of discount factors, commodity prices, grade, working costs and capital expenditures.
- Economic analysis of the tax entity was performed on a stand-alone basis.
- The full value of the operation was reported for Blanket as well as attributable values to CMC, i.e., 64% equity holding as well as facilitation loans repayments, management fees, and procurement margins.

**Macro-Economic Forecasts**

The following section includes the macro-economic and commodity price forecasts for the operation over the LoM. Forecast data is based on projections for the different commodity prices and the country-specific macro-economic parameters and is in calendar years from January to December starting January 2024. USD commodity prices for the period 2024-2029 have been converted from nominal to real terms.. Table 71 illustrates the forecasts for the next six years as well as the long-term forecast used in the financial model. The price forecasts are based on the median of various banks, brokers and analyst forecasts and are in real-terms throughout the LoM. The inflation rate was sourced from the World Economic Outlook January 2024.

*Table 71: Macro-economic Forecasts (Real Terms)*

| Item | Unit | Year | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | Long-Term |
| | | 1 | 2 | 3 | 4 | 5 | 6 | |
| US Inflation Rate | % | 2.10% | 1.70% | 1.70% | 1.70% | 1.70% | 1.70% | 1.70% |
| Gold | USD/oz | 2,205 | 2,167 | 2,093 | 1,987 | 1,852 | 1,731 | 1,731 |

***Source: Consensus Economic Inc. & World Economic Outlook January 2024.***

**Working Capital**

The creditors and debtors days were sourced from the client and are based on historic actual numbers. The creditors' days were calculated at 90 days and debtors days at 14 days, which is slightly longer than the off-take agreement stipulates.

**Recoveries**

The ore from the Blanket Mine operation is treated at the existing Blanket Plant. The economic analysis assumed a recovery percentage of 93.60% The recovery is detailed in the processing Section of this Report.

**Discount Rate**

To test the appropriateness of the discount rate for the specific Project, Caledonia Mining Plc used the Capital Asset Pricing Model ("CAPM") to calculate the discount rate. The company has negligible debt, hence the use of CAPM over Weighted Average Cost of Capital ("WACC") Since no Zimbabwe equity risk premiums are available, the project risk was based on South African premiums. The following were considered:

- The US Risk Free Rate (10 years) at 10.80% was considered as an acceptable risk-free rate at the time of the analysis.
- The equity risk premium of 8.0%, a rate generally considered as being the investor's expectation for investing in equity above the risk-free government bond.
- The beta of a stock is normally used to reflect the stock price's volatility over and above other general equity investments in the country of listing – the Beta was calculated at 1.17 as described below.

- A Firm specific risk premium of 2.20% as calculated by Capital IQ, Damodaron, Economist Intelligence Unit and Deloitte Research.
- By using the CAPM, Caledonia Mining Plc calculated a nominal discount rate of 18.20% which translates in a real discount rate of 15.40%.

*Table 72: Capital Asset Pricing Model Discount Rate Calculation*

| Cost of Equity | Discount Rate |
|---|---|
| US Risk free rate | 10.80% |
| Equity Risk premium | 8.00% |
| Firm specific risk premium | 2.20% |
| Operational Risk (Base Beta) | 1.17 |
| Cost of Debt | 5.70% |
| Nominal Cost of equity | 18.20% |
| Real Cost of equity | 15.40% |

## Item 22 (c) Cash Flow Forecast

The saleable product tonnes and ounces are displayed in Table 73. The current mine plan includes 7,684 kt of ore containing 812 koz of gold at an average grade of 3.41 g/t. A total of 757 koz of gold is recovered over the 11-year LoM.

*Table 73: Production Breakdown in Life of Mine*

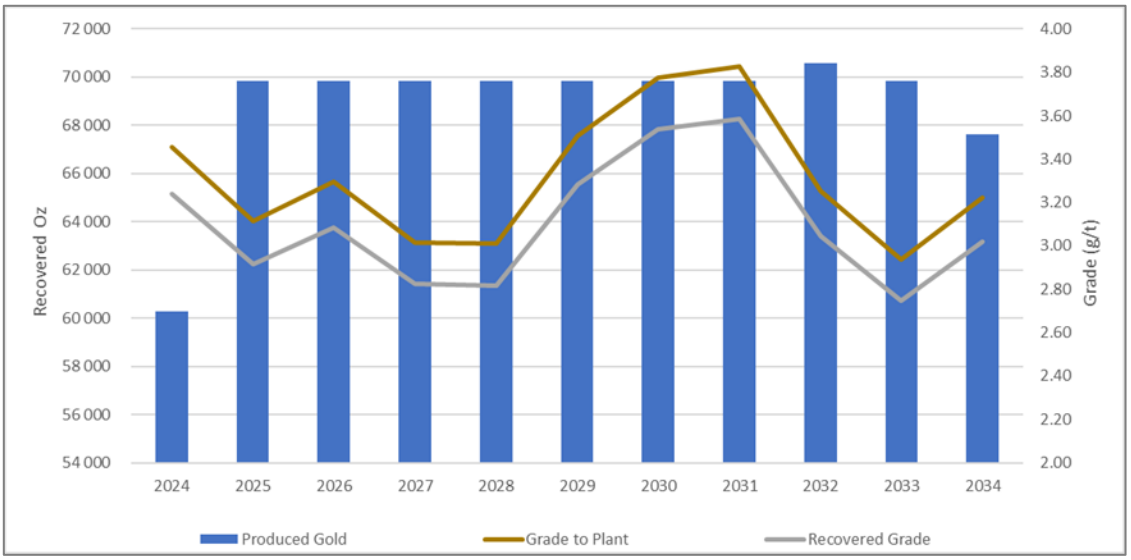
| Item | Project | Blanket Gold Mine | Caledonia Attributable* |
|---|---|---|---|
| Ore Tonnes Mined | kt | 7 684 | 4 918 |
| Total Oz in Mine Plan | oz | 811 718 | 519 500 |
| Grade Delivered to Plant | g/t | 3.41 | 3.41 |
| Recovered grade | g/t | 3.19 | 3.19 |
| Yield/Recovery | % | 93.6% | 93.6% |
| Total Oz Recovered | oz | 757 238 | 484 632 |

**Based on the legal ownership of 64%*

The gold ounces produced along with the mined and recovered grades are illustrated in

Figure 136. The gold production starts decreasing after 2032 as the grade drops in 2032 and 2033, and the tonnes milled decrease in 2034, nearing the end of LoM.

*Figure 136: Recovered Gold*




**Cash Flow Forecast**

The annual cash flow before capital expenditure, total capital expenditure and cumulative cash flow forecast for the mine over the LoM is illustrated in Figure 137.

*Figure 137: Undiscounted Cash Flow*

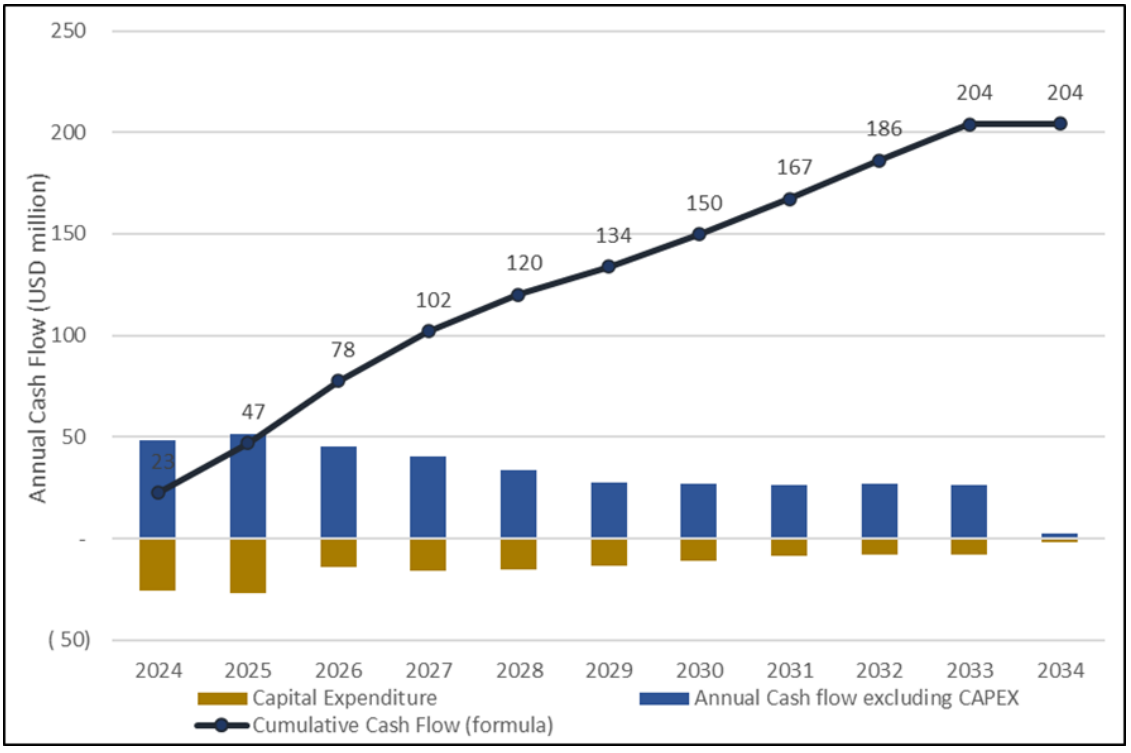



Table 74 and Table 75 to follow illustrate the detailed annual cash flow for the Project in real terms.

*Table 74: Annual Cash Flow – Techno-economic Inputs*

| Blanket Mine valuation | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calander years | | TOTAL | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
| Financial Years | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | | | | | | | | | | | | |
| Macro economic Factors (Real Terms) | Unit | | | | | | | | | | | | |
| Currency | USD | 1 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Gold Price | USD/oz. average | 1,877 | 2,205 | 2,167 | 2,093 | 1,987 | 1,852 | 1,731 | 1,731 | 1,731 | 1,731 | 1,731 | 1,731 |
| | | | | | | | | | | | | | |
| Operating Statistics | Unit | | | | | | | | | | | | |
| Tonnes Produced | | | | | | | | | | | | | |
| ROM | tonnes | 7,684,186 | 581,211 | 747,418 | 706,628 | 771,872 | 773,463 | 663,808 | 616,517 | 608,078 | 722,886 | 792,886 | 699,418 |
| ROM | tonnes/month | 640,349 | 48,434 | 62,285 | 58,886 | 64,323 | 64,455 | 55,317 | 51,376 | 50,673 | 60,240 | 66,074 | 58,285 |
| Mill Head grade | average gold grade g/t | 3.41 | 3.46 | 3.12 | 3.30 | 3.02 | 3.01 | 3.51 | 3.78 | 3.83 | 3.25 | 2.94 | 3.22 |
| Tonnes to mill | tonnes | 7,684,186 | 581,211 | 747,418 | 706,628 | 771,872 | 773,463 | 663,808 | 616,517 | 608,078 | 722,886 | 792,886 | 699,418 |
| Recovered Grade | | 3.19 | 3.24 | 2.92 | 3.08 | 2.82 | 2.82 | 3.28 | 3.54 | 3.58 | 3.05 | 2.75 | 3.02 |
| Gold Recovered | oz | 757,238 | 60,268 | 69,847 | 69,847 | 69,848 | 69,840 | 69,847 | 69,847 | 69,847 | 70,567 | 69,847 | 67,633 |

***2024 is only 10 months starting March 1, 2024 – December 31,2024.*

*Table 75: Annual Real Cash Flow*

| Blanket Mine valuation | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calander years | | TOTAL | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
| Financial Years | Unit | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Revenue | USD | 1,316,879,321 | 123,092,478 | 140,232,769 | 135,465,235 | 128,556,701 | 119,801,776 | 112,021,025 | 112,021,311 | 112,020,538 | 113,176,133 | 112,021,389 | 108,469,964 |
| Fixed and Variable Direct Costs | USD | - 732,929,193 | - 56,395,264 | - 67,672,752 | - 67,653,274 | - 67,690,093 | - 67,680,677 | - 67,694,973 | - 67,654,964 | - 67,614,238 | - 67,620,640 | - 67,626,158 | - 67,626,158 |
| Fixed Indirect costs | USD | - 364,937,795 | - 22,594,673 | - 29,554,621 | - 30,223,757 | - 31,662,811 | - 33,075,832 | - 34,316,350 | - 35,300,922 | - 36,083,969 | - 36,821,648 | - 37,559,388 | - 37,743,823 |
| Earnings before tax | USD | 219,012,333 | 44,102,541 | 43,005,397 | 37,588,204 | 29,203,797 | 19,045,266 | 10,009,701 | 9,065,425 | 8,322,331 | 8,733,845 | 6,835,842 | 3,099,983 |
| Taxation | USD | - 82,616,857 | - 13,211,540 | - 13,297,663 | - 11,936,611 | - 9,778,363 | - 7,162,353 | - 4,835,981 | - 4,592,029 | - 4,399,868 | - 4,523,980 | - 4,037,316 | - 4,841,153 |
| Net Earnings for the period | USD | 136,395,476 | 30,891,001 | 29,707,734 | 25,651,593 | 19,425,435 | 11,882,914 | 5,173,720 | 4,473,396 | 3,922,463 | 4,209,865 | 2,798,526 | - 1,741,170 |
| Non Cashflow items | USD | 235,169,292 | 17,353,080 | 21,608,978 | 19,345,571 | 20,805,349 | 21,780,784 | 22,213,251 | 22,219,329 | 22,229,921 | 22,649,146 | 23,197,088 | 21,766,795 |
| Changes in working Capital | USD | - 17,739,706 | - | - | - | - | - | - | - | - | - | - | - 17,739,706 |
| Expansion Capital | USD | - 22,251,064 | - 6,730,375 | - 8,740,583 | - 753,345 | - 753,345 | - 753,345 | - 753,345 | - 753,345 | - 753,345 | - 753,345 | - 753,345 | - 753,345 |
| Sustaining Capital | USD | - 127,330,998 | - 18,969,765 | - 18,110,568 | - 13,556,699 | - 15,076,241 | - 14,789,895 | - 12,892,351 | - 10,076,946 | - 7,860,168 | - 7,361,132 | - 7,361,794 | - 1,275,440 |
| Net Cash Flow | USD | 204,243,000 | 22,543,941 | 24,465,560 | 30,687,119 | 24,401,198 | 18,120,458 | 13,741,276 | 15,862,434 | 17,538,871 | 18,744,534 | 17,880,475 | 257,134 |

***2024 is only 10 months starting March 1, 2024 – December 31,2024.*

## Item 22 (d) Net Present Value

The highlights of the economic analysis conducted by Caledonia Mining Plc are discussed in the following sections.

Caledonia Mining Plc's in-house DCF model was employed to illustrate the NPV for the Project in real terms. The NPV was derived from post Government royalties and tax, pre-debt real cash flows, using the techno-economic parameters, commodity price and macro-economic projections. This economic analysis is based on a free cash flow and measures the economic viability of the diluted Indicated and Measured Resources in the LoM plan, for conversion to Mineral Reserves under a defined set of realistically assumed modifying factors.

Table 76 illustrates the Project NPV at various discount rates with a best estimated value of USD107 million at a real calculated discount rate of 15.4%. The mine plan is therefore economically viable indicating that an updated Mineral Reserve can be declared on the mine plan.

*Table 76: Project NPV Summary – Real Terms*

| Real Discount Rate | Unit | Blanket Mine | Caledonia Attributable |
|---|---|---|---|
| NPV @ 0% | USDm | 204 | 158 |
| NPV @ 2.5% | USDm | 181 | 140 |
| NPV @ 5% | USDm | 161 | 125 |
| NPV @ 7.5% | USDm | 145 | 112 |
| NPV @ 10.0% | USDm | 131 | 101 |
| NPV @ 12.5% | USDm | 119 | 92 |
| NPV @ 15% | USDm | 109 | 84 |
| **NPV @ 15.4%** | **USDm** | 107 | 83 |
| NPV @ 17% | USDm | 102 | 79 |

Table 77 illustrates the Project profitability ratios. The mine has a break-even gold price of USD1,330/oz. No IRR could be calculated as the mine is already operating with no upfront investment required.

*Table 77: Profitability Ratios*

| Item | Profitability Ratios | Blanket Mine |
|---|---|---|
| Internal Rate of Return (IRR) | % | N/A |
| Total ounces in Mine plan | oz | 811,718 |
| NPV $_{15.4\%}$ per oz in Mine Plan | USD/oz | 132 |
| LoM | Years | 11 |
| Present Value of Income flow* | USDm | 107 |
| Break-even Gold Price (AIC) | USD/oz | 1,330 |

Notes: *Calculated on an EBITDA basis.

Regulatory Items

**Government Royalties**

As described in Item 4 (e), mining royalties are charged in terms of the Mines and Minerals Act (Chapter 21:05). With the gold price exceeding USD1,200/oz, the applicable royalty rate will be 5% of the gross revenue from gold mining. The royalty will be tax deductible, with the tax rate applied on the earnings after royalty deductions.

**Corporate Taxes**

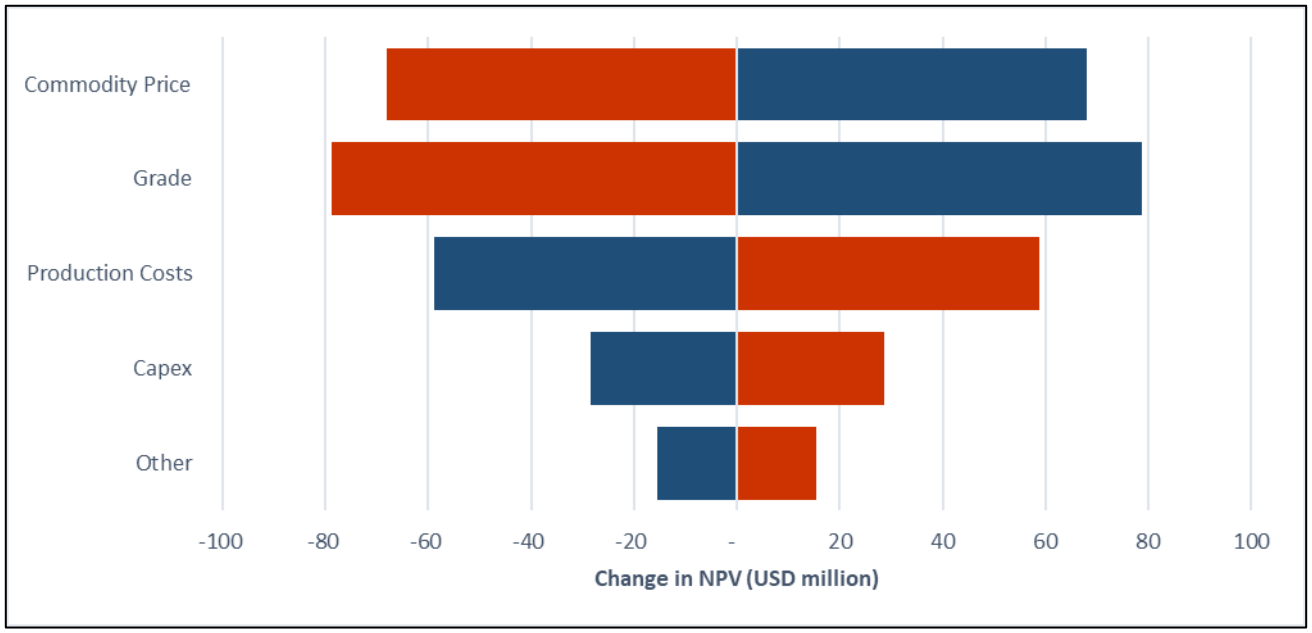
The prevailing taxation regime for mining companies in Zimbabwe includes the following provisions:

- Corporate Income tax at 25.75%. This includes an AIDS levy of 3% on the 25% corporate tax for an effective 25.75% tax rate.
- Exploration, development, and capital costs can be expensed against profit in the year incurred or carried forward to be expensed against the first year of production.
- Tangible and intangible property included in definition of capital expenditure to allow the inclusion of computer software used by the taxpayer in connection with the mining operations.
- Exemptions on customs duty and import taxes on capital items during exploration and development phases.
- Government Royalties are tax deductible.
- Deductions for management fees expenses is limited based on such expenses exceeding 1% of total tax-deductible expenses.
- Withholding tax on dividend payments to non-Zimbabweans and on services provided by foreign suppliers at a rate of 5% to 20%, depending on the location of the payee.

## Item 22 (e) Sensitivity Analysis

Based on the real cash flow calculated in the financial model, the Company performed single-parameter sensitivity analyses to ascertain the impact on the NPV. The bars represent various inputs into the model; each being increased or decreased by 15%. The left-hand side of the graph indicates a negative 15% change in the input while the right-hand side of the graph indicating a positive 15% change in the input. A negative effect to the NPVs represented by red bars and a positive effect represented by blue bars. For the DCF, the gold price and grade have the biggest impact on the sensitivity of the Project followed by the operating costs. The Project is least sensitive to capital.

*Figure 138: Project Sensitivity ($NPV_{15.4\%}$)*




A sensitivity analysis was also conducted on the exchange rate and the commodity prices to better indicate the effect these two factors have on the NPV as well as the total costs and the grade. This is displayed in Table 78 and Table 79.

*Table 78: Sensitivity Analysis of Commodity Prices and Mill Head Grade to NPV15.4% (USDm)*

| | Grade (g/t) | 2.39 | 2.56 | 2.73 | 2.90 | 3.07 | 3.24 | **3.41** | 3.58 | 3.75 | 3.92 | 4.09 | 4.26 | 4.43 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Average Gold Price (USD/oz)** | **Change** | -30% | -25% | -20% | -15% | -10% | -5% | | 5% | 10% | 15% | 20% | 25% | 30% |
| 1,300 | -30.7% | - 174 | - 152 | - 130 | - 108 | - 87 | - 66 | - 46 | - 26 | - 7 | 10 | 27 | 44 | 60 |
| 1,400 | -25.4% | - 151 | - 127 | - 103 | - 80 | - 58 | - 37 | - 16 | 3 | 22 | 40 | 58 | 75 | 93 |
| 1,500 | -20.1% | - 127 | - 102 | - 77 | - 54 | - 31 | - 9 | 11 | 31 | 50 | 69 | 88 | 107 | 126 |
| 1,600 | -14.8% | - 104 | - 77 | - 52 | - 28 | - 5 | 16 | 37 | 57 | 78 | 98 | 118 | 138 | 158 |
| 1,700 | -9.4% | - 81 | - 54 | - 28 | - 4 | 19 | 41 | 62 | 84 | 105 | 127 | 148 | 170 | 191 |
| 1,800 | -4.1% | - 59 | - 31 | - 5 | 19 | 42 | 65 | 88 | 110 | 133 | 156 | 178 | 201 | 224 |
| **1,877** | 0.0% | - 42 | - 14 | 11 | 36 | 60 | 83 | **107** | 131 | 154 | 178 | 202 | 225 | 249 |
| 2,000 | 6.5% | - 17 | 11 | 37 | 62 | 87 | 113 | 138 | 163 | 188 | 213 | 239 | 264 | 289 |
| 2,100 | 11.9% | 3 | 30 | 57 | 84 | 110 | 136 | 163 | 189 | 216 | 242 | 269 | 295 | 322 |
| 2,200 | 17.2% | 21 | 49 | 77 | 105 | 133 | 160 | 188 | 216 | 244 | 271 | 299 | 327 | 354 |
| 2,300 | 22.5% | 39 | 68 | 97 | 126 | 155 | 184 | 213 | 242 | 271 | 300 | 329 | 358 | 387 |
| 2,400 | 27.9% | 57 | 87 | 117 | 148 | 178 | 208 | 238 | 269 | 299 | 329 | 359 | 390 | 420 |
| 2,500 | 33.2% | 74 | 106 | 137 | 169 | 200 | 232 | 263 | 295 | 326 | 358 | 390 | 421 | 453 |

***Note:*** Sensitivity illustrates average gold prices and not constant gold prices.

*Table 79: Sensitivity Analysis of Cash Operating Costs and Capital spend to NPV15.4% (USDm)*

| | Capital | 1.558 | 1.669 | 1.780 | 1.891 | 2.003 | 2.114 | 2.225 | 2.336 | 2.448 | 2.559 | 2.670 | 2.781 | 2.893 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OPEX (USD/Milled t) | Change % | -30% | -25% | -20% | -15% | -10% | -5% | | 5% | 10% | 15% | 20% | 25% | 30% |
| 144.79 | 30.0% | - 21 | - 22 | - 22 | - 23 | - 23 | - 24 | - 24 | - 25 | - 25 | - 26 | - 26 | - 27 | - 27 |
| 139.22 | 25.0% | 3 | 3 | 2 | 2 | 1 | 1 | 0 | - 0 | - 0 | - 1 | - 1 | - 2 | - 2 |
| 133.65 | 20.0% | 25 | 24 | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 21 | 20 | 20 |
| 128.08 | 15.0% | 46 | 46 | 45 | 45 | 44 | 44 | 44 | 43 | 43 | 42 | 42 | 41 | 41 |
| 122.51 | 10.0% | 67 | 67 | 67 | 66 | 66 | 65 | 65 | 64 | 64 | 64 | 63 | 63 | 62 |
| 116.94 | 5.0% | 89 | 88 | 88 | 87 | 87 | 87 | 86 | 86 | 85 | 85 | 84 | 84 | 84 |
| 111.38 | | 110 | 110 | 109 | 109 | 108 | 108 | **107** | 107 | 107 | 106 | 106 | 105 | 105 |
| 105.81 | -5.0% | 131 | 131 | 130 | 130 | 130 | 129 | 129 | 128 | 128 | 127 | 127 | 127 | 126 |
| 100.24 | -10.0% | 153 | 152 | 152 | 151 | 151 | 150 | 150 | 150 | 149 | 149 | 148 | 148 | 147 |
| 94.67 | -15.0% | 174 | 173 | 173 | 173 | 172 | 172 | 171 | 171 | 170 | 170 | 170 | 169 | 169 |
| 89.10 | -20.0% | 195 | 195 | 194 | 194 | 193 | 193 | 193 | 192 | 192 | 191 | 191 | 190 | 190 |
| 83.53 | -25.0% | 216 | 216 | 216 | 215 | 215 | 214 | 214 | 213 | 213 | 213 | 212 | 212 | 211 |
| 77.96 | -30.0% | 238 | 237 | 237 | 236 | 236 | 236 | 235 | 235 | 234 | 234 | 233 | 233 | 233 |

***Note:*** OPEX excludes Royalties in Sensitivity Analysis as the Royalties are dependent on operating margins. Capital excludes renewals and replacement capital as this is dependent on OPEX.

## Item 22 (f) Economic Analysis Conclusions

The value derived for the income approach only reflects the diluted Indicated and Measured Resources in the LoM plan, for conversion to Mineral Reserves. It is noted that Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The Mineral Reserve is economically viable with a best estimated NPV of USD107 million at a real discount rate of 15.4%. No IRR could be calculated as Blanket is already in operation and no initial investment is required. The all-in cost margin is 23% with a break-even gold price of USD1,330/oz. Table 80 shows a summary of the economic analysis.

*Table 80: Project Economic Analysis Summary – Real Terms*

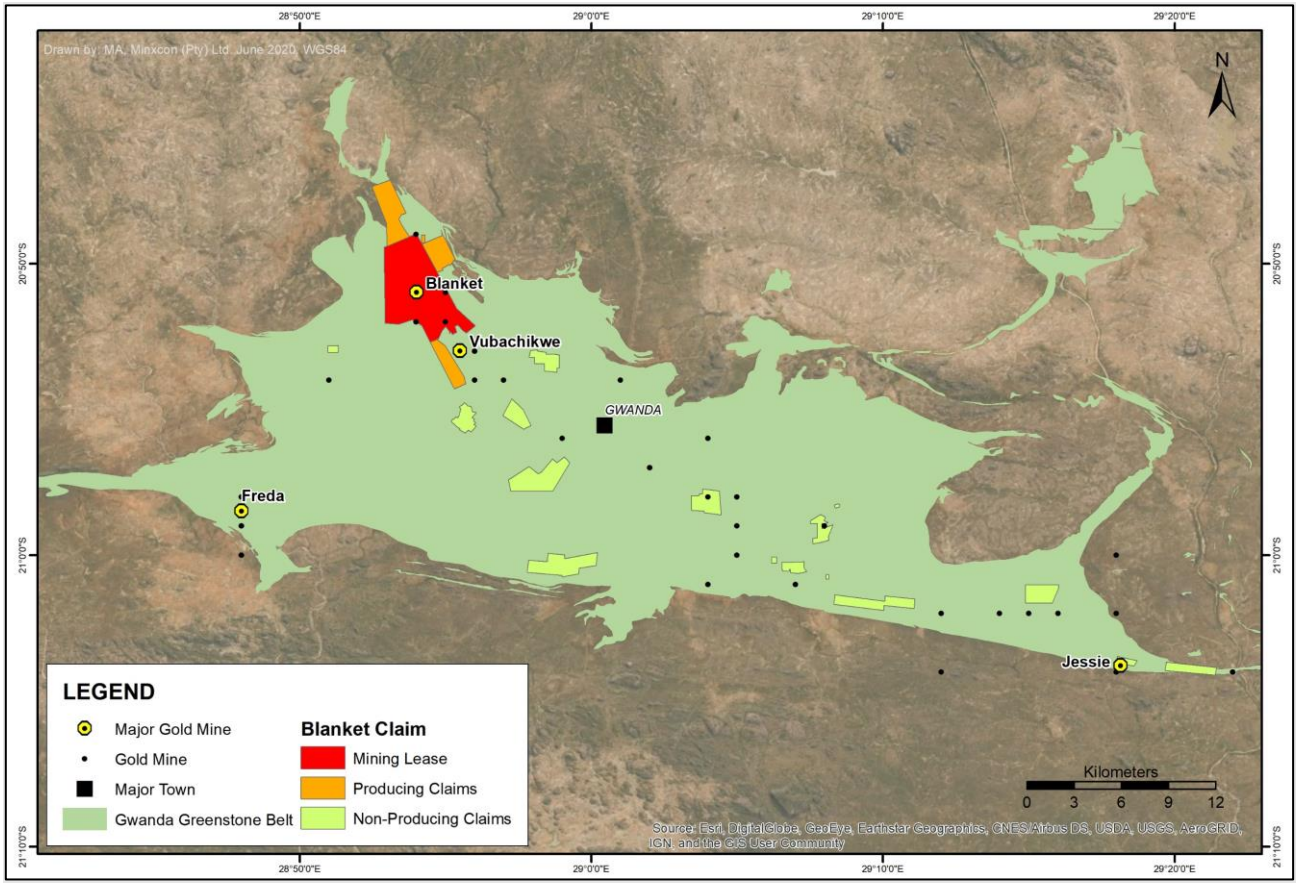
| Item | Unit | Blanket Mine | Caledonia Attributable |
|---|---|---|---|
| NPV @ 0% | USDm | 204 | 158 |
| NPV @ 2.5% | USDm | 181 | 140 |
| NPV @ 5% | USDm | 161 | 125 |
| NPV @ 7.5% | USDm | 145 | 112 |
| NPV @ 10.0% | USDm | 131 | 101 |
| NPV @ 12.5% | USDm | 119 | 92 |
| NPV @ 15% | USDm | 109 | 84 |
| **NPV @ 15.4%** | **USDm** | 107 | 83 |
| NPV @ 17% | USDm | 102 | 79 |
| IRR | % | N/A | N/A |
| All-in Cost Margin | % | 23% | 23% |

# ITEM 23 ADJACENT PROPERTIES

## Item 23 (a) Public Domain Information

The GGB is host to numerous gold occurrences, the majority of which have been worked by large-scale or artisanal miners. At least 268 mines have been operational across the geological terrain, of which only two are currently active. These include Blanket Mine and Jessie Mine at the south-eastern end of the belt near West Nicholson. At the western end of the belt some 22 km west of Gwanda, Freda is mined out. Blanket and Vubachikwe are sometimes referred to as the Sabiwa group of mines or the North Western Mining Camp. The locations of these mines are illustrated in Figure 139. The figure also displays a number of mining occurrences which are adjacent to or coincide with claims held by Blanket Mine Company.

*Figure 139: Gold Mines of the Gwanda Greenstone Belt*




Vubachikwe Mine of Forbes and Thompson (Pvt) Ltd is an underground mine located on the northern limb of a plunging syncline which reached a depth of 1,155 m. Operations ceased on 8 November 2022 following a workers protest over unpaid salaries and has since not recommenced. Gold mineralisation is hosted in mafic and ultramafic greenstones and BIF (MSA, 2011). Ore occurs in 5-40 m thick lenses and up to 200 m down-dip, and are hosted mainly in northwest-plunging, north-south striking BIF which dips 75°SW. Gold occurs as free gold and inclusions in arsenopyrite, as well as disseminated carbonate replacements in the BIF (Spilpunt, 2001; MSA, 2011). The mineralised bodies are folded and boudinaged (Spilpunt, 2001).

Vubachikwe Mine produced almost 21,744 kg of gold to the end of 1991 at an average of 7 g/t (MSA, 2011). Underground workings have reached depths of 1,000 m (AGS, 2006). Blanket Mine purchased the Vubachikwe dump material between 2000 and 2005 treated it through the Blanket metallurgical plant.

Auriferous quartz veins at the underground Jessie Mine are hosted in hornblende schist dipping steeply to the southwest Erratically distributed pyrite, pyrrhotite, chalcopyrite and galena are observed. Ore grades reach up to 10.5 g/t, with production pre-2001 recorded by Spilpunt (2001) at some 11.5 t Au with minor copper. The mine is operated as an underground mine by FA Stewart (Pvt) Ltd.

The Freda Mine commenced production in 1919 targeting surficial oxidised ore as well as underlying ore containing pyrrhotite, pyrite and arsenopyrite, with minor amounts of tetradymite. The vein-type ores are hosted in epidiorite surrounded by grits and quartz-mica schist with the mined-out bodies reaching thicknesses of up to 30 m, striking 115° and inclining steeply to the southwest. Spilpunt (2001) reports that the deposit is mined out, with workings reaching a depth of 1,100 m with 7,550 kg Au recovered at a recovered grade of about 0.8 g/t Au.

## Item 23 (b) Sources of Information


- Applied Geology Services cc (2006). Independent Qualified Person's Report - Blanket Mine, Zimbabwe. Prepared for: Caledonia Mining Corporation. July 2006. 81pp
- Spilpunt. Mineral Commodities and Africa – Gwanda Greenstone Belt (updated 2001). Available from: http://spilpunt.blogspot.com/2007/04/zimbabwe.html. Viewed 3 August 2020.
- The MSA Group (2011). NI 43 101 Technical Report on the Blanket Gold Mine, Zimbabwe. J2225. Prepared on behalf of Caledonia Mining Corporation. 28 June 2011.
- Forensic Report Dashes Hopes for Vumbachikwe Gold Mine's Reopening (miningzimbabwe.com). 8 February 2024


## Item 23 (c) Verification of Information

The information presented in this section was sourced from publicly available sources. The information has not been independently verified by the QP.

## Item 23 (d) Applicability of Adjacent Property's Mineral Deposit to Project

The only nearby property of significance is Vubachikwe Mine. Blanket and Vubachikwe target different gold orebodies but the mineralisation style is similar, implying a structural relationship (AGS, 2006). Economic mineralisation also continues to similar depths. However, although the style of gold mineralisation is similar, the mineralisation of adjacent property is not necessarily indicative of that at Blanket.

## Item 23 (e) Historical Estimates of Mineral Resources or Mineral Reserves

The authors of this Report have been unable to source public information regarding the current or historic Mineral Resources or Mineral Reserves of any of the adjacent or surrounding gold mines mentioned in this Report chapter.

# ITEM 24 OTHER RELEVANT DATA AND INFORMATION

## Item 24 (a) Risk Assessment

A risk assessment to consider and quantify risks associated with the Project was conducted by Minxcon based on a simplified approach. The result is not designed to be a definitive assessment of the risks but is rather a tool to articulate and evaluate those risks as identified by persons present at the risk assessment session.

All items were reviewed and assessed using the risk severity criteria shown below:

- Green – Low risk (score 1-5);
- Yellow – Medium risk (score 6-12);
- Orange - Significant risk (score 13-20); and
- Red – High risk (score greater than 21).

Once a high risk is identified, the project team is required to take remedial action to either resolve or mitigate the risk. The identification and recording of corrective and remedial measures were beyond the scope of this particular risk assessment exercise. The risk matrix table is detailed in Table 81.

The outcome of the risk assessment is provided in Table 82. No major risks have been identified relating to the Blanket Mine operations. The Company has maintained the risk matrix developed by Minxcon for this purpose and where applicable has modified the risks according to action or non-action on the previously identified risks.

*Table 81: Risk Matrix*

| | | | | Consequence | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 1 - Insignificant | 2 - Minor | 3 – Moderate | 4 - Major | 5 - Catastrophic |
| | | | Project Schedule | Less than 1% impact on overall project timeline | May result in overall project timeline overrun equal to or more than 1% and less than 5% | May result in overall project timeline overrun of equal to or more than 5% and less than 20% | May result in overall project timeline overrun of equal to or more than 20% and less than 50% | May result in overall project timeline overrun of 50% or more |
| | | | Cost | Less than 1% impact on the budget of the project | May result in overall project budget overrun equal to or more than 1% and less than 5% | May result in overall project budget overrun of equal to or more than 5% and less than 20% | May result in overall project budget overrun of equal to or more than 20% and less than 50% | May result in overall project budget overrun of 50% or more |
| | | | NPV Change | Less than 1% impact on NPV | Equal to or more than 1% to less than 5% change in NPV | Equal to or more than 5% to less than 20% change in NPV | Equal to or more than 20% to less than 50% change in NPV | Change in NPV of 50% or more |
| | | | Quality and Technical Integrity | No significant impact on quality of deliverables or effect on production | Quality issues that can be addressed prior to handover or could affect production by more than 1% and less than 5% | Quality issues that can be addressed during ramp-up or could affect production by more than 5% and less than 10% | Quality issues that require significant intervention to maintain performance or could affect production by more than 10% and less than 20% | Quality issues that require significant intervention to achieve performance or could affect production by 20% or more |
| | | | Safety/Health | First aid case / Exposure to minor health risk | Medical treatment case / Exposure to major health risk | Lost time injury / Reversible impact on health | Single fatality or loss of quality of life / Irreversible impact on health | Multiple fatalities / Impact on health ultimately fatal |
| | | | Environment | Minimal environmental harm - L1 incident | Material environmental harm - L2 incident remediable short term | Serious environmental harm - L2 incident remediable within LOM | Major environmental harm - L2 incident remediable post LOM | Extreme environmental harm - L3 incident irreversible |
| | | | Legal & Regulatory | Low level legal issue | Minor legal issue; non compliance and breaches of the law | Serious breach of law; investigation/report to authority, prosecution and or moderate penalty possible | Major breach of the law; considerable prosecution and penalties | Very considerable penalties and prosecutions. Multiple law suits and jail terms |
| | | | Reputation/Social/Community | Slight impact - public awareness may exist but no public concern | Limited impact - local public concern | Considerable impact - regional public concern | National impact - national public concern | International impact - international public attention |
| | | | | Risk Level | | | | |
| Likelihood | 90% | Near Certainty: 90% chance | Cannot avoid this risk with standard practices, probably not able to mitigate. | Medium - 11 | Significant - 16 | Significant - 20 | High - 23 | High - 25 |
| | 75% | Highly Likely: 75% chance | Cannot avoid this risk with standard practices, but a different approach may work. | Medium - 7 | Medium - 12 | Significant - 17 | High - 21 | High - 24 |
| | 50% | Possible: 50% chance | May avoid risk, but rework will be required. | Low - 4 | Medium - 8 | Significant - 13 | Significant - 18 | High - 22 |
| | 25% | Unlikely: 25% chance | Have usually avoided this type of risk with minimal oversight in similar cases. | Low - 2 | Low - 5 | Medium - 9 | Significant - 14 | Significant - 19 |
| | 15% | Rare: 15% chance | Will effectively avoid this risk based on standard practices. | Low 1 | Low - 3 | Medium - 6 | Medium - 10 | Significant - 15 |

| Risk Level | Guidelines for Risk Matrix |
|---|---|
| High | A high risk exists that management's objectives may not be achieved. Appropriate mitigation strategy to be devised immediately. |
| Significant | A significant risk exists that management's objectives may not be achieved. Appropriate mitigation strategy to be devised as soon as possible. |
| Medium | A moderate risk exists that management's objectives may not be achieved. Appropriate mitigation strategy to be devised as part of the normal management process. |
| Low | A low risk exists that management's objectives may not be achieved. Monitor risk, no further mitigation required. |

*Table 82: Risk Assessment*

| Risk Category | Risk | Description / Cause | Risk Likelihood | Impact | Risk Rating | Mitigation/Control | Risk Likelihood | Impact | Residual Risk Rating |
|---|---|---|---|---|---|---|---|---|---|
| Metallurgy / Processing | Limited tailings storage capacity | The existing TSF is nearing the end of its life. | 1 | 1 | 1 | A new TSF facility has been commissioned in December 2023 | 1 | 1 | 1 |
| Mining | Potential delay in newly planned mining areas | Detailed ventilation work has not been completed, which may require new ventilation layouts and infrastructure to be established and thus delay mining. | 1 | 2 | 3 | A detailed ventilation study should be completed. | 1 | 1 | 1 |
| Mining | Potential increase in pillar loss | Pillar extraction factor may be reduced to less than 50%. | 2 | 2 | 5 | Geotechnical work required to confirm pillar extraction factor. | 1 | 1 | 1 |

## ITEM 25 INTERPRETATION AND CONCLUSIONS

Caledonia Mining Plc reviewed all the information and has made the following observations regarding the Project:

**Mineral Resources**

- All data sources have been verified to be suitable for the establishment of a 3D geological model and Mineral Resource Estimation. Updates were made to the geological models of multiple orebodies from on mine geological observations and interpretations.
- For all the domains were significant volume or data changes occurred, all geostatistics, variography and estimation parameters were reconsidered and updated where necessary.
- The estimates generally show good reconciliation to data. However, scope may exist to further domain the orebodies and improve the quality of the estimates.
- Some of the newer domains, typically with low data quantities, were interpolated using Inverse Distance Squared
- Measured, Indicated and Inferred Mineral Resources can be declared for Blanket Mine due to the continuity of the geology and grade as well as a history of proven historical mining. The Inferred resources show geological continuity as defined through the extensive Long Hole Drilling program, while grade continuity has been improved by the increase in Run of Mine drilling and the Short Hole Drilling program in areas in the immediate vicinity of mining activities.
- The 31 December 2023 estimate is a completely 3D digital block model estimate undertaken with Datamine Studio RM. The geological orebodies or wireframes outlining the grade shells are completely electronic and utilise the Deswik suite of software for the base maps together with the Deswik Geological Mapper as the interface for capturing geological information.
- There has been a significant increase in the orebody volumes as defined by the geological wireframes. This work has been done on-mine by the relevant geological personnel who keep the structural and orebody models updated on a regular basis.

**Mining**

- The LoM plan includes Measured, Indicated and Inferred Mineral Resources; however, only diluted Measured and Indicated Mineral Resources have been considered for economic assessment for Mineral Reserve estimates and have been converted into Proved and Probable Mineral Reserves respectively.
- A significant portion of Inferred Mineral Resources has been included in the LoM plan for mining practicality. Typically, with a bottom – up mining strategy, the development enters the area to be mined on Inferred Resources and will then proceed to develop the sub-levels upwards to the mining area above which is in Measured or Indicated Mineral Resources. Clearly as development in ore progresses, the areas are sampled and with the new data points, these Inferred Resource areas are converted through development to Measured or Indicated Mineral Resources. In compiling a LOM plan, there will inevitably be an amount of mining taking place in Inferred Resources due to the vertical nature of the Blanket Mine orebodies.
- The mining strategy is focused on opening up ground below 870 m Level and is in line with the planned capital and infrastructure development thrust on 30 Level and 34 Level.
- Mining targets the Mineral Resources below 870 m Level with less mining above 750 m Level in the Blanket, ARS and Blanket Feudal orebodies.

- An uneconomical tail containing 212.5 koz of gold has been excluded from the Mineral Reserve since it is not viable on its own. The tail runs for a further 6 years up to 2041 and is able to be supplemented with Inferred Mineral Resources in order to maintain a production profile of between 74 – 80 Koz per annum.

**Engineering and Infrastructure**

- Existing and planned infrastructure at the Blanket Mine and CMS extension projects are sufficient to sustain the current production profile and the planned production profile.

**Processing**

- The process plant has been operating at a very consistent recovery of 93.5 – 93.8%%, and this can be expected to continue as long as the ore mineralogy does not change.
- The average processing rate for the past 12 months was 64 ktpm, and there are indications that slightly higher processing rates may be achieved with operational improvements.
- A new TSF was commissioned during December 2023 and will provide depositional capacity at current production rates for a further 20 years.
- Plant Operating cost has been consistent at USD15/t ore treated.

**Economic Analysis**

- The Blanket Mine plan including only the diluted Indicated and Measured Resources in the LoM plan, for conversion to Mineral Reserves is financially feasible at an 15.4% real discount rate, and therefore the Mineral Reserve can be declared.
- The DCF value of USD110 million for the Blanket Mine was calculated at a real discount rate of 15.4% based on Proven and Probable Mineral Reserves alone.
- No IRR could be calculated since the mine is in operation and no initial investment is required.
- Blanket Mine has an all-in cost margin of 24%, which is comparable to similar mines.
- The Mine is most sensitive to commodity prices, and grade.
- The Mine has a break-even gold price of USD1,312/oz including capital.
- All-in sustainable costs for the Blanket Mine amount to USD130/milled t, which equates to USD1,312/oz.
- All-in costs for the Blanket Mine amount to USD132/milled t, which equates to USD1,330/oz.

# ITEM 26 RECOMMENDATIONS

The following recommendations are made by Caledonia Mining Plc for implementation at Blanket Mine.

**Mineral Resources**

- A geological loss of 2.5% is applied to Measured Resources, 5.0% applied to Indicated Resources and 10.0% is applied to Inferred Resources. This is higher than previous reports and is well noted.
- Orientated core should be obtained during exploration drilling. Structural information should be collected and utilised to assist in the development of a geological model and construction of orebody wireframes. Not all holes require this, but a number of holes representative of a broad area should be considered for orientated core drilling.
- Predictive mineralisation mapping should be introduced to assist in exploration drilling planning, based on the conceptual geological model.
- The implementation of the digital systems (survey, geology, planning, resource estimation) needs to be completed and fully implemented on the mine.

**Mining**

- It is recommended that a rock engineering study be completed to determine the recommended strategy for pillar extraction.

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# APPENDIX

## Appendix 1: Blanket Mine Producing Claims and Mining Lease

| Name | Block No | Area | Size(ha) | Type |
|---|---|---|---|---|
| Mbudzane Rock A | 36160 | Gda | 10.00 | Au |
| Mbudzane Rock A1 | 36176 | Gda | 9.70 | Au |
| Mbudzane Rock A2 | 36177 | Gda | 10.00 | Au |
| Mbudzane Rock A3 | 36178 | Gda | 10.00 | Au |
| Mbudzane Rock A4 | 36179 | Gda | 10.00 | Au |
| Mbudzane Rock A5 | 36180 | Gda | 10.00 | Au |
| Mbudzane Rock A6 | 36181 | Gda | 3.50 | Au |
| Mbudzane Rock B | 36161 | Gda | 10.00 | Au |
| Mbudzane Rock B1 | 36182 | Gda | 2.25 | Au |
| Mbudzane Rock B2 | 36183 | Gda | 6.50 | Au |
| Mbudzane Rock B3 | 36184 | Gda | 10.00 | Au |
| Mbudzane Rock B4 | 36185 | Gda | 10.00 | Au |
| Mbudzane Rock B5 | 36186 | Gda | 10.00 | Au |
| Mbudzane Rock B6 | 36187 | Gda | 10.00 | Au |
| Mbudzane Rock B7 | 36188 | Gda | 10.00 | Au |
| Mbudzane Rock B8 | 36189 | Gda | 3.20 | Au |
| Mbudzane Rock B9 | 36190 | Gda | 6.50 | Au |
| Mbudzane Rock C | 36162 | Gda | 10.00 | Au |
| Mbudzane Rock C1 | 36191 | Gda | 10.00 | Au |
| Mbudzane Rock C2 | 36192 | Gda | 10.00 | Au |
| Mbudzane Rock C3 | 36193.00 | Gda | 10.00 | Au |
| Mbudzane Rock C4 | 36194 | Gda | 10.00 | Au |
| Mbudzane Rock C5 | 36195 | Gda | 10.00 | Au |
| Mbudzane Rock C6 | 36196 | Gda | 2.25 | Au |
| Mbudzane Rock C7 | 36197 | Gda | 6.00 | Au |
| Mbudzane Rock C8 | 36198 | Gda | 9.40 | Au |
| Mbudzane Rock C9 | 36199 | Gda | 9.40 | Au |
| Mbudzane Rock D | 36163 | Gda | 6.13 | Au |
| Mbudzane Rock D1 | 36200 | Gda | 9.40 | Au |

| | | | | |
|---|---|---|---|---|
| Mbudzane Rock D2 | 36201 | Gda | 9.40 | Au |
| Mbudzane Rock D3 | 36202 | Gda | 9.17 | Au |
| Mbudzane Rock E | 36164 | Gda | 10.00 | Au |
| Mbudzane Rock F | 36165 | Gda | 10.00 | Au |
| Mbudzane Rock G | 36166 | Gda | 10.00 | Au |
| Mbudzane Rock H | 36167 | Gda | 5.83 | Au |
| Mbudzane Rock I | 36168 | Gda | 2.50 | Au |
| Mbudzane Rock J | 36169 | Gda | 3.45 | Au |
| Mbudzane Rock K | 36170 | Gda | 5.10 | Au |
| Mbudzane Rock L | 36171 | Gda | 8.00 | Au |
| Mbudzane Rock M | 36172 | Gda | 10.00 | Au |
| Mbudzane Rock N | 36173 | Gda | 10.00 | Au |
| Mbudzane Rock O | 36174 | Gda | 10.00 | Au |
| Mbudzane Rock P | 36175 | Gda | 6.23 | Au |
| OQUEIL | 35928 | Gda | 1.00 | Au |
| OQUEIL 1 | 35929 | Gda | 2.50 | Au |
| OQUEIL 10 | 35938 | Gda | 5.00 | Au |
| OQUEIL 2 | 35930 | Gda | 7.00 | Au |
| OQUEIL 3 | 35931 | Gda | 9.00 | Au |
| OQUEIL 4 | 35932 | Gda | 10.00 | Au |
| OQUEIL 5 | 35933 | Gda | 10.00 | Au |
| OQUEIL 6 | 35934 | Gda | 10.00 | Au |
| OQUEIL 7 | 35935 | Gda | 10.00 | Au |
| OQUEIL 8 | 35936 | Gda | 10.00 | Au |
| OQUEIL 9 | 35937 | Gda | 10.00 | Au |
| Sabiwa 10 | 10894BM | Gda | 136.00 | As |
| Sabiwa 11 | 10895 Bm | Gda | 99.00 | As |
| Sheet 10 | 35638 | Gda | 10.00 | Au |
| Sheet 6 | 35634 | Gda | 10.00 | Au |
| Sheet 7 | 35635 | Gda | 10.00 | Au |
| Sheet 8 | 35636 | Gda | 10.00 | Au |
| Sheet 9 | 35637 | Gda | 10.00 | Au |
| Valentine 37 | GA2767B | Gda | 7.60 | Au |

| | | | | |
|---|---|---|---|---|
| Valentine 38 | GA2768 | Gda | 8.00 | Au |
| Valentine 39 | GA2769 | Gda | 10.00 | Au |
| Valentine 40 | GA2770 | Gda | 10.00 | Au |
| Valentine 41 | GA2771 | Gda | 10.00 | Au |
| Valentine 42 | GA2772 | Gda | 7.00 | Au |
| Valentine 43 | GA2773 | Gda | 4.00 | Au |
| Valentine 44 | GA2774 | Gda | 10.00 | Au |
| Valentine 45 | GA2775 | Gda | 10.00 | Au |
| Valentine 46 | GA2776 | Gda | 10.00 | Au |
| Valentine 47 | GA2777 | Gda | 10.00 | Au |
| Valentine 48 | GA2778 | Gda | 10.00 | Au |
| Valentine 49 | GA2779 | Gda | 10.00 | Au |
| Valentine 50 | GA2780 | Gda | 10.00 | Au |
| Valentine 51 | GA2781 | Gda | 10.00 | Au |
| Valentine 52 | GA2782 | Gda | 10.00 | Au |
| Valentine 53 | GA2783 | Gda | 10.00 | Au |
| Valentine 54 | GA2784 | Gda | 10.00 | Au |
| Valentine 55 | GA2785 | Gda | 10.00 | Au |
| Valentine 56 | GA2786 | Gda | 10.00 | Au |
| Valentine 57 | GA2787 | Gda | 10.00 | Au |
| Valentine 58 | GA2788 | Gda | 10.00 | Au |
| Valentine 59 | GA2789 | Gda | 10.00 | Au |
| Valentine 60 | GA2790 | Gda | 10.00 | Au |
| Valentine 61 | GA2791 | Gda | 10.00 | Au |
| Valentine 62 | GA2792 | Gda | 4.00 | Au |
| Valentine 63 | GA2994 | Gda | 10.00 | Au |
| Valentine 64 | GA2995 | Gda | 10.00 | Au |
| Valentine 65 | GA2996 | Gda | 10.00 | Au |
| Total | 90.00 | Gda | 994.01 | |
| | | | | |
| Mining Lease | No. 40 | Gda | 2120.00 | Au, Cu, Ag, As |

## Appendix 2: Blanket Mine Non-Producing Claims

| Name | Block No | Area | Size(ha) | Type |
|---|---|---|---|---|
| Abercorn 11 | 11269BM | Gda | 66.00 | Au |
| Annette 10 | GA3259 | Gda | 8.00 | Au |
| Annette 11 | GA3260 | Gda | 8.00 | Au |
| Annette 9 | GA3258 | Gda | 8.00 | Au |
| Banshe J1 | GA48655 | Gda | 7.00 | Au |
| Banshe J10 | GA48664 | Gda | 10.00 | Au |
| Banshe J11 | GA48665 | Gda | 10.00 | Au |
| Banshe J12 | GA48666 | Gda | 10.00 | Au |
| Banshe J13 | GA48667 | Gda | 10.00 | Au |
| Banshe J14 | GA48668 | Gda | 10.00 | Au |
| Banshe J15 | GA48669 | Gda | 10.00 | Au |
| Banshe J16 | GA48670 | Gda | 10.00 | Au |
| Banshe J17 | GA48671 | Gda | 10.00 | Au |
| Banshe J18 | GA48672 | Gda | 10.00 | Au |
| Banshe J19 | GA48673 | Gda | 10.00 | Au |
| Banshe J2 | GA48656 | Gda | 3.00 | Au |
| Banshe J3 | GA48657 | Gda | 10.00 | Au |
| Banshe J4 | GA48658 | Gda | 2.00 | Au |
| Banshe J5 | GA48659 | Gda | 8.00 | Au |
| Banshe J6 | GA48660 | Gda | 3.00 | Au |
| Banshe J7 | GA48661 | Gda | 6.00 | Au |
| Banshe J8 | GA48662 | Gda | 10.00 | Au |
| Banshe J9 | GA48663 | Gda | 10.00 | Au |
| Bunny's Luck A | 48834 | Gda | 10.00 | Au |
| Bunny's Luck B | 48835 | Gda | 10.00 | Au |
| Bunnys Luck C | 48836 | Gda | 6.00 | Au |
| Bunny's Luck D | 48837 | Gda | 10.00 | Au |
| Bunny's Luck E | 48838 | Gda | 10.00 | Au |
| Bunny's Luck F | 48839 | Gda | 6.00 | Au |
| Bunny's Luck G | 48840 | Gda | 10.00 | Au |

| | | | | |
|---|---|---|---|---|
| Bunny's Luck H | 48841 | Gda | 10.00 | Au |
| Bunny's Luck I | 48842 | Gda | 5.00 | Au |
| Bunny's Luck J | 49026.00 | Gda | 10.00 | Au |
| Bunny's Luck K | 48843 | Gda | 10.00 | Au |
| Bunny's Luck L | 48844 | Gda | 5.00 | Au |
| Bunny's Luck M | 48845 | Gda | 8.00 | Au |
| Bunny's Luck N | 48846 | Gda | 8.00 | Au |
| Bunny's Luck O | 48847 | Gda | 4.00 | Au |
| Bunny's Luck P | 48848 | Gda | 10.00 | Au |
| Bunny's Luck Q | 48849 | Gda | 10.00 | Au |
| Bunny's Luck R | 48850 | Gda | 5.00 | Au |
| Bunny's Luck S | 48851 | Gda | 6.00 | Au |
| Cinderella | 11122BM | Gda | 4.00 | Ni |
| Cinderella B1 | 49030 | Gda | 1.00 | Au |
| Cinderella B10 | 49039 | Gda | 10.00 | Au |
| Cinderella B11 | 49040 | Gda | 9.00 | Au |
| Cinderella B12 | 49041 | Gda | 8.00 | Au |
| Cinderella B13 | 49042 | Gda | 10.00 | Au |
| Cinderella B14 | 49043 | Gda | 8.00 | Au |
| Cinderella B15 | 49044 | Gda | 8.00 | Au |
| Cinderella B16 | 49045 | Gda | 10.00 | Au |
| Cinderella B17 | 49046 | Gda | 7.00 | Au |
| Cinderella B18 | 49047 | Gda | 5.00 | Au |
| Cinderella B19 | 49048 | Gda | 5.00 | Au |
| Cinderella B2 | 49031 | Gda | 1.00 | Au |
| Cinderella B3 | 49032 | Gda | 5.00 | Au |
| Cinderella B4 | 49033 | Gda | 6.00 | Au |
| Cinderella B5 | 49034 | Gda | 9.00 | Au |
| Cinderella B6 | 49035 | Gda | 5.00 | Au |
| Cinderella B7 | 49036 | Gda | 10.00 | Au |
| Cinderella B8 | 49037 | Gda | 8.00 | Au |
| Cinderella B9 | 49038 | Gda | 8.00 | Au |
| Cinderella C1 | 49000 | Gda | 9.00 | Au |

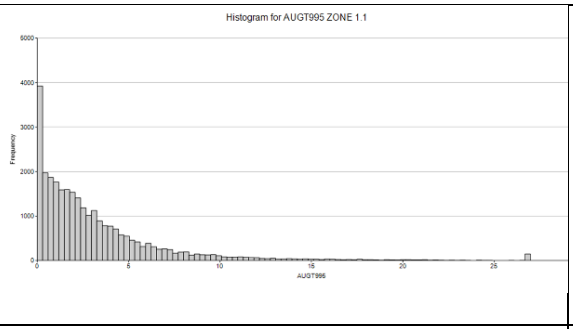
| | | | | |
|---|---|---|---|---|
| Cinderella C10 | 49009 | Gda | 10.00 | Au |
| Cinderella C11 | 49010 | Gda | 9.00 | Au |
| Cinderella C12 | 49011 | Gda | 9.00 | Au |
| Cinderella C13 | 49012 | Gda | 10.00 | Au |
| Cinderella C14 | 49013 | Gda | 10.00 | Au |
| Cinderella C15 | 49014 | Gda | 3.00 | Au |
| Cinderella C16 | 49015 | Gda | 6.00 | Au |
| Cinderella C17 | 49016 | Gda | 10.00 | Au |
| Cinderella C18 | 49017 | Gda | 6.00 | Au |
| Cinderella C19 | 49018 | Gda | 3.00 | Au |
| Cinderella C2 | 49001 | Gda | 10.00 | Au |
| Cinderella C20 | 49019 | Gda | 5.00 | Au |
| Cinderella C3 | 49002 | Gda | 6.00 | Au |
| Cinderella C4 | 49003 | Gda | 1.00 | Au |
| Cinderella C5 | 49004 | Gda | 10.00 | Au |
| Cinderella C6 | 49005 | Gda | 10.00 | Au |
| Cinderella C7 | 49006 | Gda | 8.00 | Au |
| Cinderella C8 | 49007 | Gda | 5.00 | Au |
| Cinderella C9 | 49008 | Gda | 10.00 | Au |
| Cinderella D1 | GA48637 | Gda | 10.00 | Au |
| Cinderella D10 | GA48646 | Gda | 6.00 | Au |
| Cinderella D11 | GA48647 | Gda | 7.00 | Au |
| Cinderella D12 | GA48648 | Gda | 10.00 | Au |
| Cinderella D13 | GA48649 | Gda | 3.00 | Au |
| Cinderella D14 | GA48650 | Gda | 10.00 | Au |
| Cinderella D15 | GA48651 | Gda | 7.00 | Au |
| Cinderella D16 | GA48652 | Gda | 8.00 | Au |
| Cinderella D17 | GA48653 | Gda | 10.00 | Au |
| Cinderella D18 | GA48654 | Gda | 10.00 | Au |
| Cinderella D2 | GA48638 | Gda | 10.00 | Au |
| Cinderella D3 | GA48639 | Gda | 10.00 | Au |
| Cinderella D4 | GA48640 | Gda | 2.00 | Au |
| Cinderella D5 | GA48641 | Gda | 10.00 | Au |

| | | | | |
|---|---|---|---|---|
| Cinderella D6 | GA48642 | Gda | 6.00 | Au |
| Cinderella D7 | GA48643 | Gda | 7.00 | Au |
| Cinderella D8 | GA48644 | Gda | 6.00 | Au |
| Cinderella D9 | GA48645 | Gda | 3.00 | Au |
| Cinderella E1 | 49028 | Gda | 10.00 | Au |
| Cinderella E2 | 49029 | Gda | 4.00 | Au |
| Dan's Luck East | GA537BM | Gda | 88.00 | As |
| Dans Luck N2 | GA3769B | Gda | 8.00 | Au |
| Dan's Luck North | 11268BM | Gda | 27.00 | As |
| Dan's Luck South | GA538BM | Gda | 20.00 | As |
| GG | GA651 | Gda | 10.00 | Au |
| GG 2 | GA942 | Gda | 4.90 | Au |
| GG 5 | GA945 | Gda | 10.00 | Au |
| GG A | GA947 | Gda | 8.00 | Au |
| GG B | GA948 | Gda | 4.00 | Au |
| GG C | GA949 | Gda | 10.00 | Au |
| GG10 | GA3772 | Gda | 10.00 | Au |
| GG11 | GA3773 | Gda | 10.00 | Au |
| GG12 | GA3774 | Gda | 7.00 | Au |
| GG13 | GA3775 | Gda | 9.00 | Au |
| GG18 | GA6597 | Gda | 10.00 | Au |
| GG19 | GA6598 | Gda | 10.00 | Au |
| GG3 | GA943 | Gda | 10.00 | Au |
| GG4 | GA944 | Gda | 10.00 | Au |
| GG6 | GA946 | Gda | 10.00 | Au |
| GG7 | GA3769 | Gda | 10.00 | Au |
| GG8 | GA3770 | Gda | 10.00 | Au |
| GG9 | GA3771 | Gda | 10.00 | Au |
| GGD | GA950 | Gda | 10.00 | Au |
| GGE | GA951 | Gda | 10.00 | Au |
| Gum 1 | GA3060 | Gda | 6.00 | Au |
| Gum 2 | GA3061 | Gda | 6.00 | Au |
| Rubicon C | 34794 | Gda | 10.00 | Au |

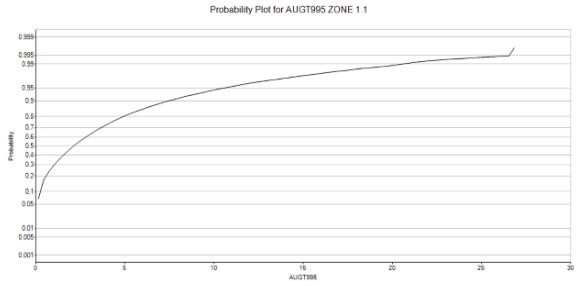
| | | | | |
|---|---|---|---|---|
| Rubicon D | 34795 | Gda | 10.00 | Au |
| Rubicon E | 34796 | Gda | 10.00 | Au |
| Rubicon F | 34797 | Gda | 10.00 | Au |
| Rubicon G | 34798 | Gda | 10.00 | Au |
| Rubicon H | 34799 | Gda | 10.00 | Au |
| Rubicon I | 34800 | Gda | 10.00 | Au |
| Rubicon L | 34803 | Gda | 10.00 | Au |
| Rubicon M | 34804 | Gda | 10.00 | Au |
| Rubicon N | 34805.00 | Gda | 10.00 | Au |
| Rubicon O | 34913 | Gda | 10.00 | Au |
| Rubicon P | 34914 | Gda | 10.00 | Au |
| Rubicon Q | 34915 | Gda | 10.00 | Au |
| Rubicon R | 34916 | Gda | 10.00 | Au |
| Rubicon S | 34917 | Gda | 10.00 | Au |
| Rubicon T | 34918 | Gda | 9.00 | Au |
| Rubicon U | 34919 | Gda | 8.00 | Au |
| Rubicon V | 34920 | Gda | 10.00 | Au |
| Rubicon W | 34921 | Gda | 10.00 | Au |
| Shake Shake | 10625BM | Gda | 108.00 | Ni |
| Shake Shake 2 | 10626BM | Gda | 108.00 | Ni |
| Shake Shake 3 | 10627BM | Gda | 72.00 | Ni |
| Spruit | 10623BM | Gda | 81.00 | Ni |
| Spruit 2 | 10624BM | Gda | 81.00 | Ni |
| Spruit 4 | GA532BM | Gda | 50.00 | Ni |
| Spruit 5 | GA533BM | Gda | 110.00 | Ni |
| Spruit 6 | GA534BM | Gda | 66.00 | Ni |
| Surprise | 10628BM | Gda | 95.00 | Ni |
| Surprise 2 | 10629BM | Gda | 101.00 | Ni |
| Total | 177.00 | Gda | 2414.90 | |
| | | | | |
| Dan's Luck | 32776 | Gda | 10.00 | Gold Dump |
| Abercorn | 32251.00 | Gda | 10.00 | Gold Dump |
| Will South | 33143.00 | Gda | 5.00 | Gold Dump |

| | | | | |
|---|---|---|---|---|
| Mazzeppa | 32769 | Gda | 3.00 | Gold Dump |
| Total | 4.00 | | 28.00 | |
| | | | | |
| GG | 776.00 | Gda | 3.00 | Water Site |

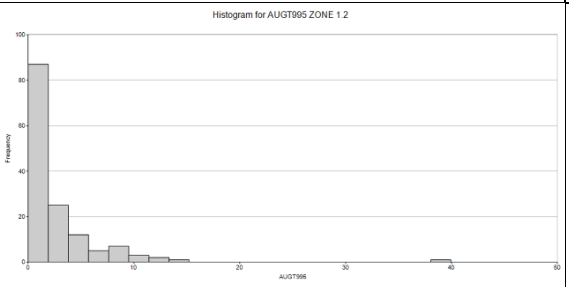
## Appendix 3: Histograms and Probability Plots



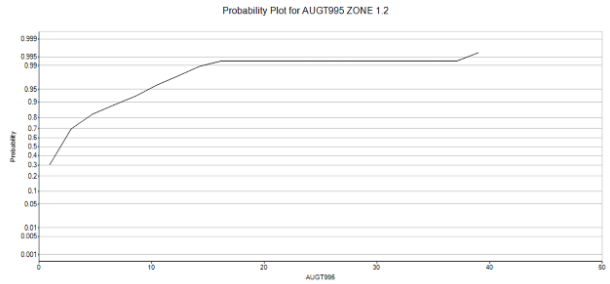

ARM Histogram



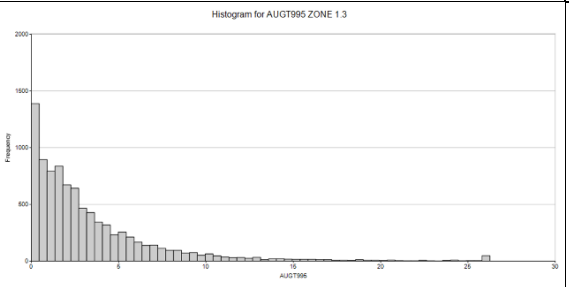

ARM Probability Plot



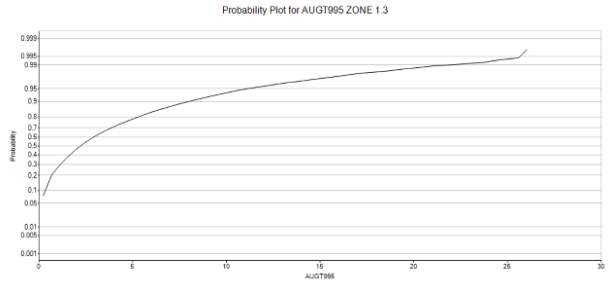

ARM_480ml Histogram



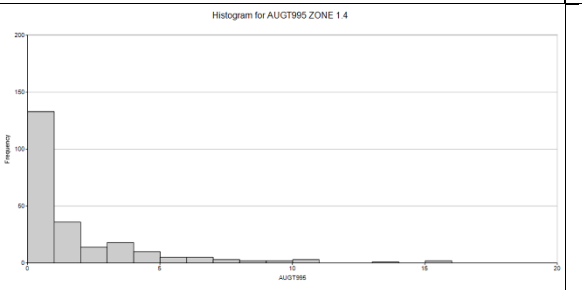

ARM_480ml Probability Plot



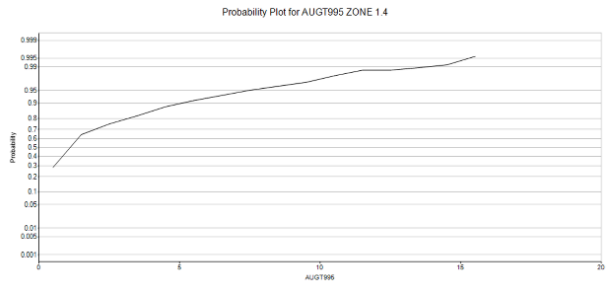

ARM_ABV_DYK Histogram



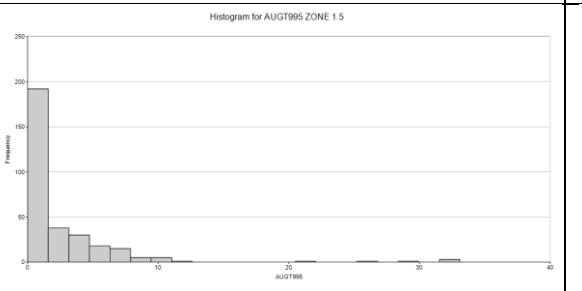

ARM_ABV_DYK Probability Plot

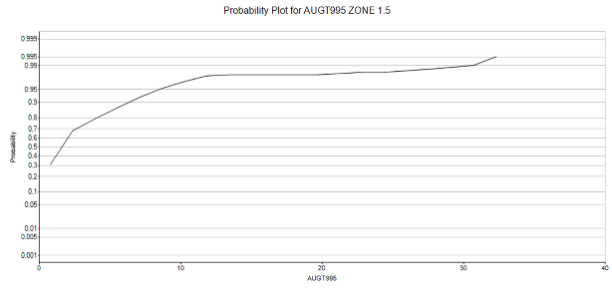


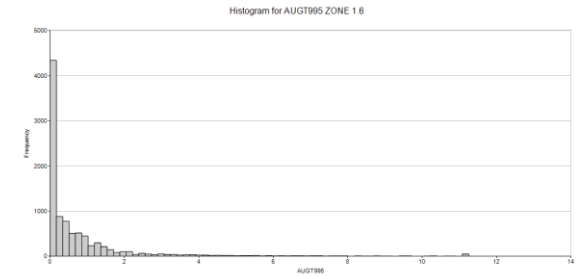
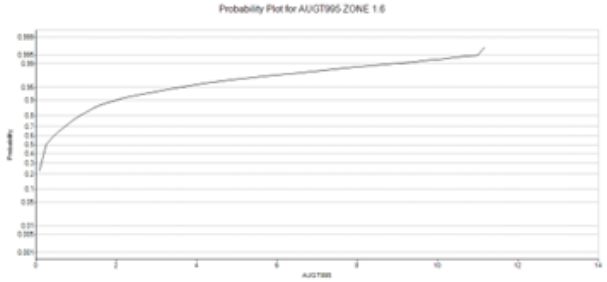
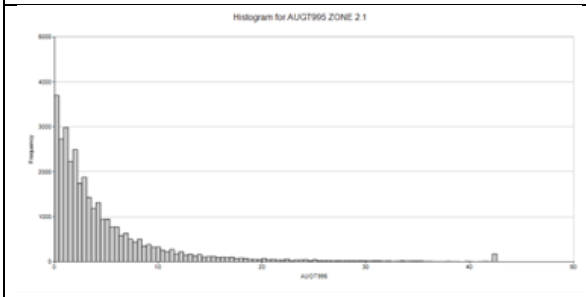
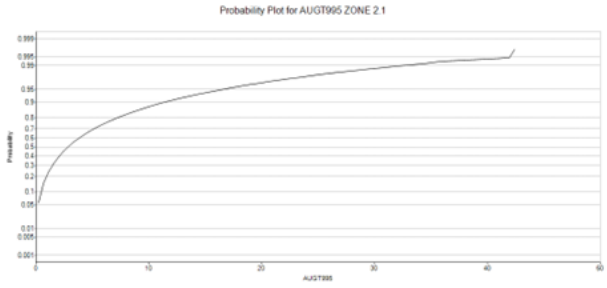
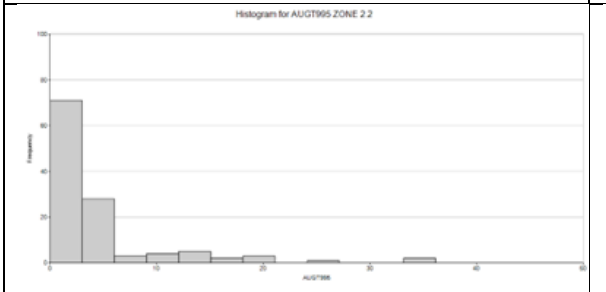
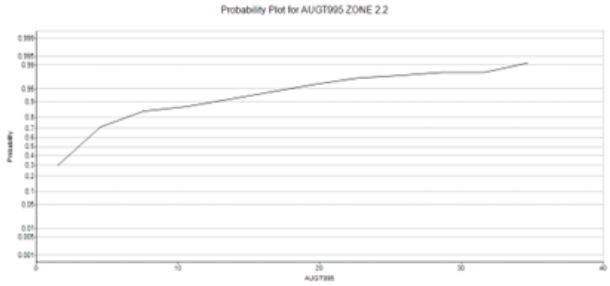
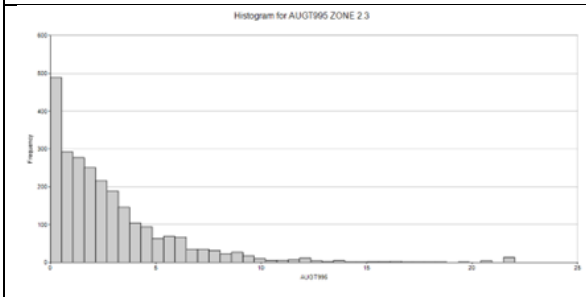
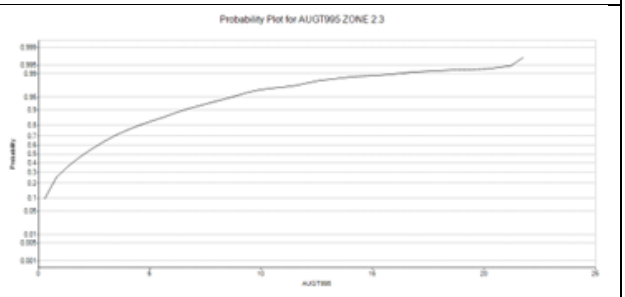

ARM _FAR_FW1 Histogram

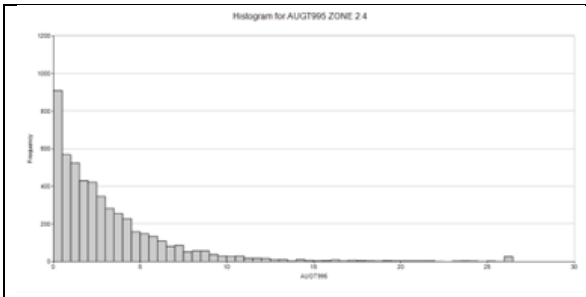
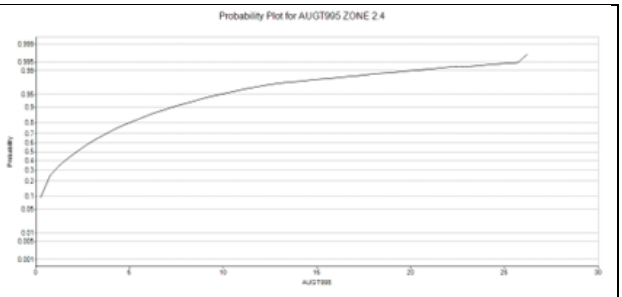


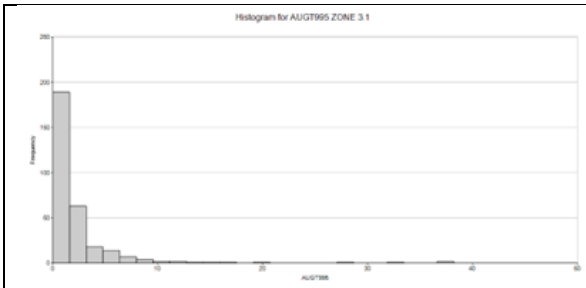
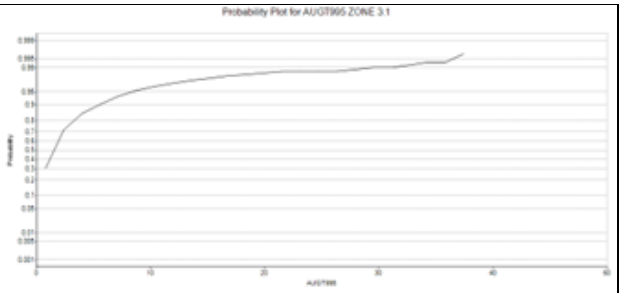
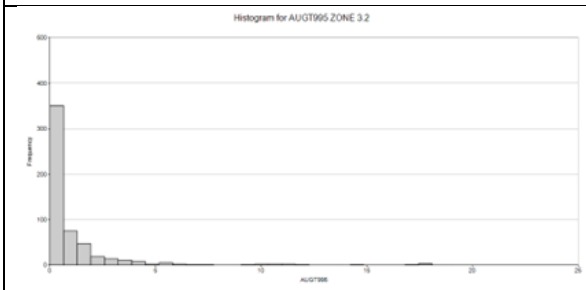
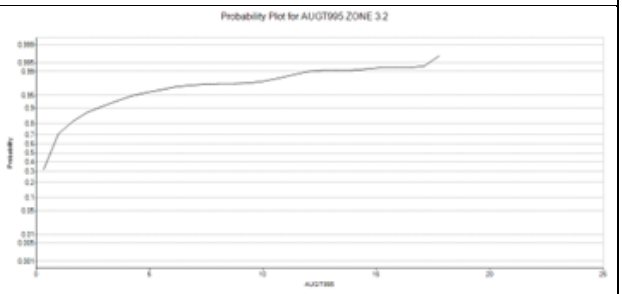
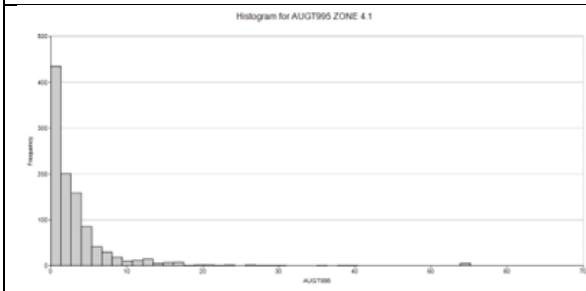
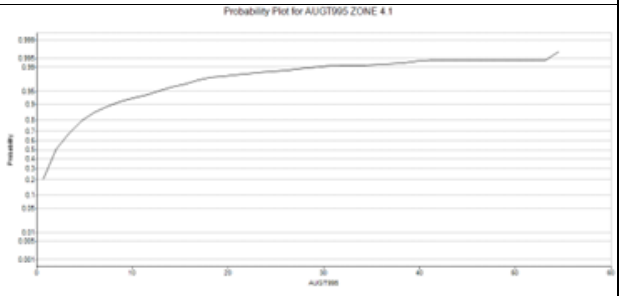

ARM _FAR_FW1 Probability Plot

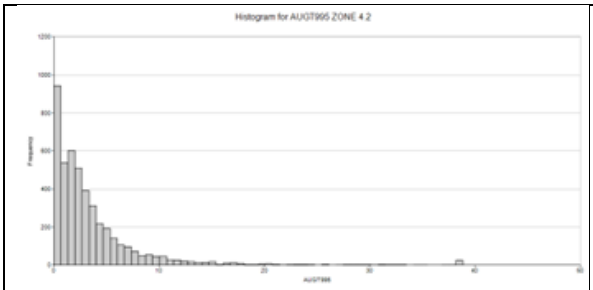


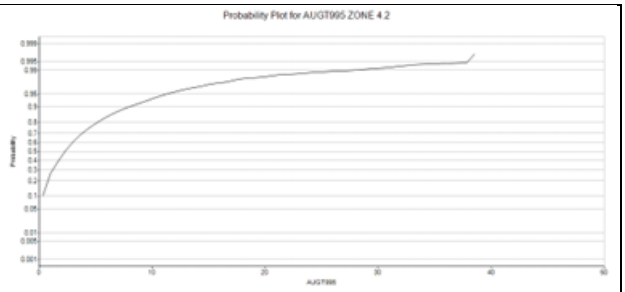



| ARM _FAR_FW2 Histogram | ARM _FAR_FW2 Probability Plot |
|---|---|
|   |   |
| ARM _Waste Histogram | |
|   |   |
| AR South EWL Histogram | |
|   |   |
| AR South FW Histogram | |
|   |   |
| AR South HW Histogram | |

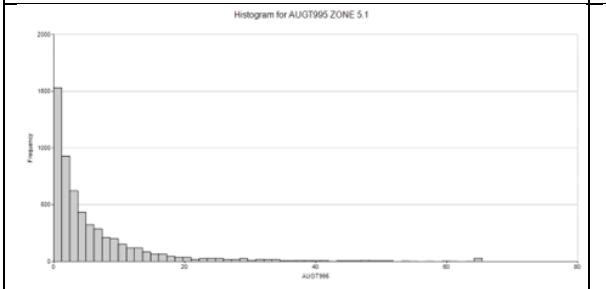
| | |
|---|---|
|  |  |
| AR South NSL Histogram | |

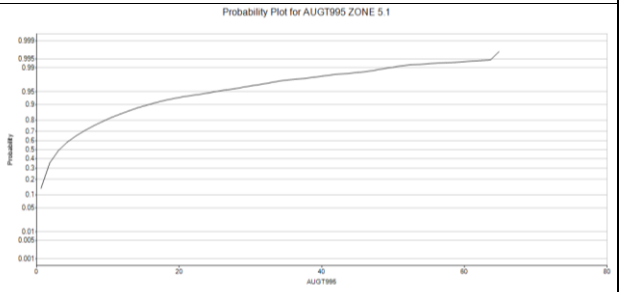
| | |
|---|---|
|  |  |
| AR South Extension Histogram | |
|  |  |
| AR South Extension 990ml Histogram | |
|  |  |
| Blanket Feudal FW Histogram | |



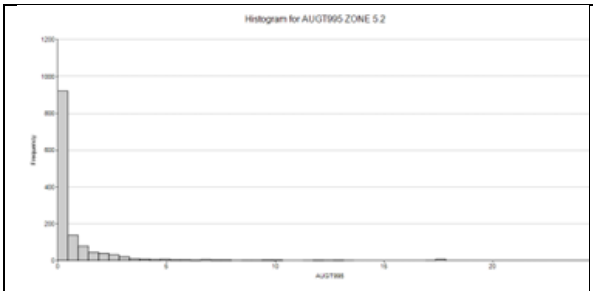



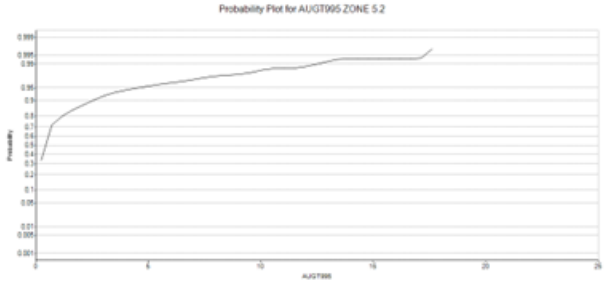

Blanket Feudal HW Histogram



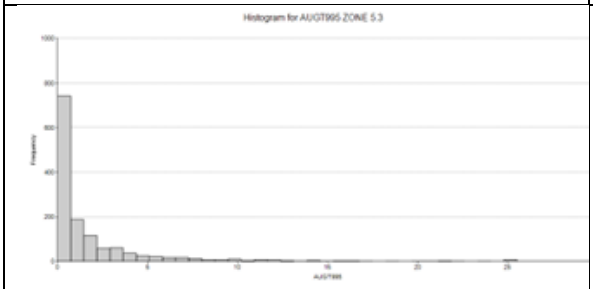



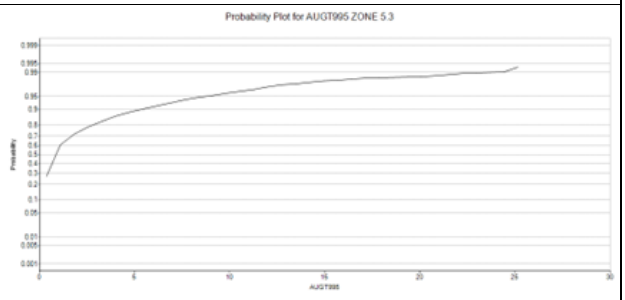

Blanket1 FW Histogram



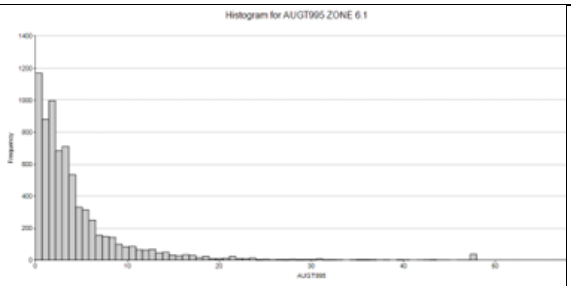
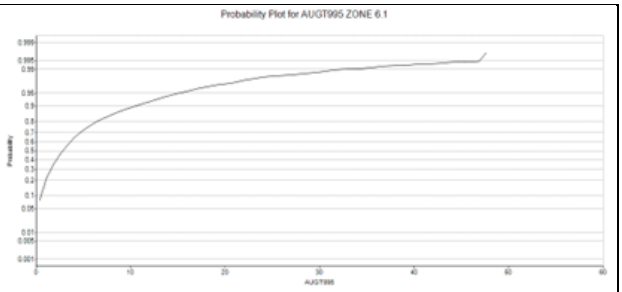
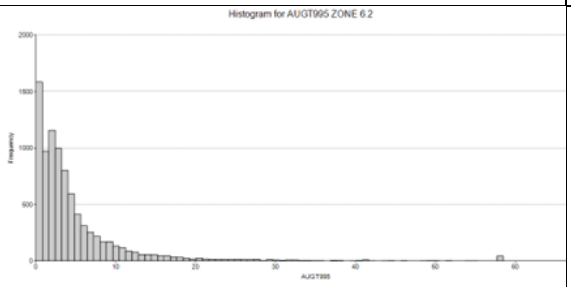
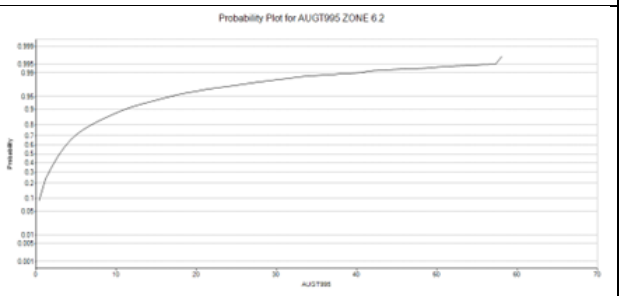
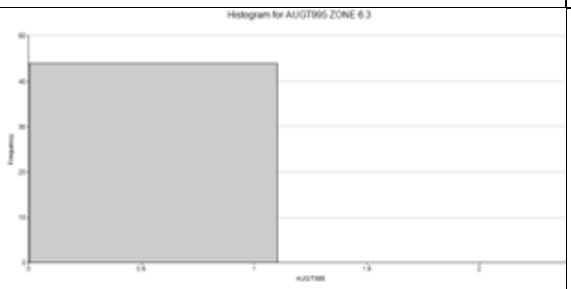
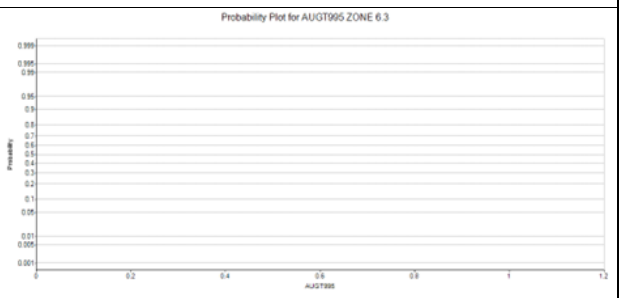



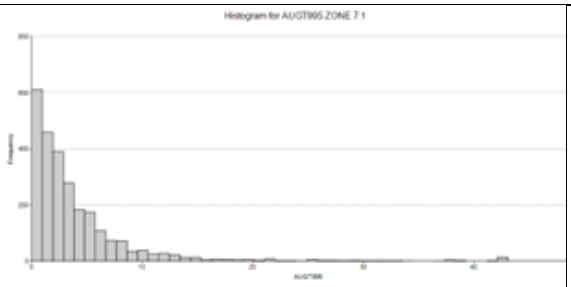
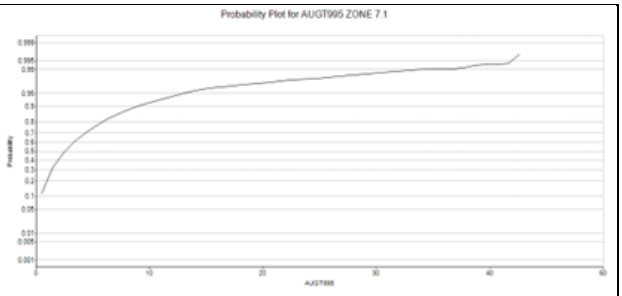

Blanket1 HW Histogram

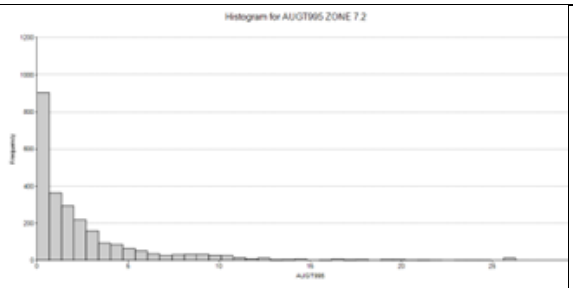
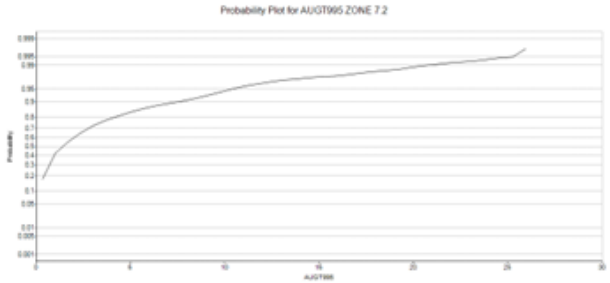
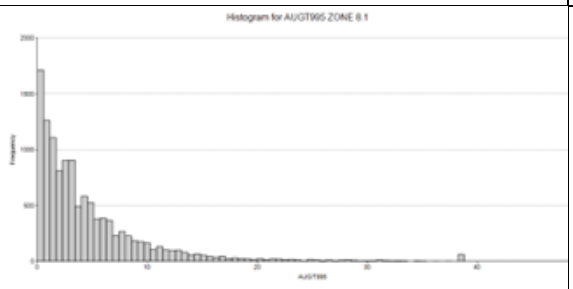
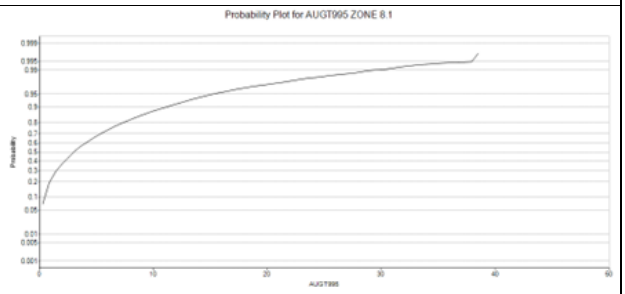
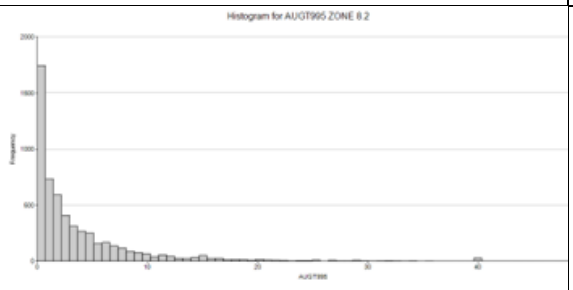
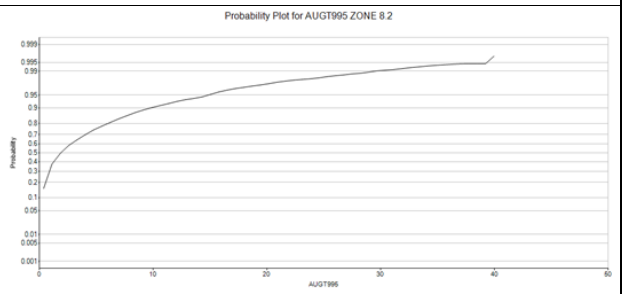
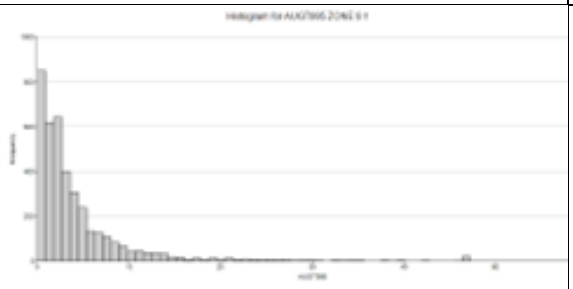
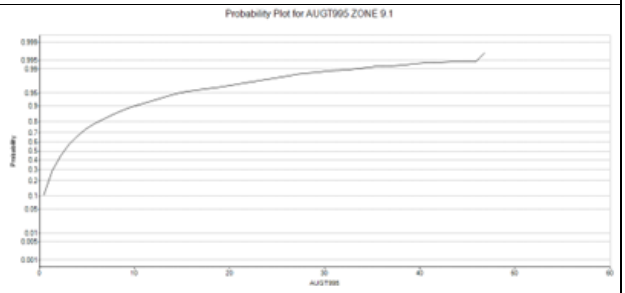


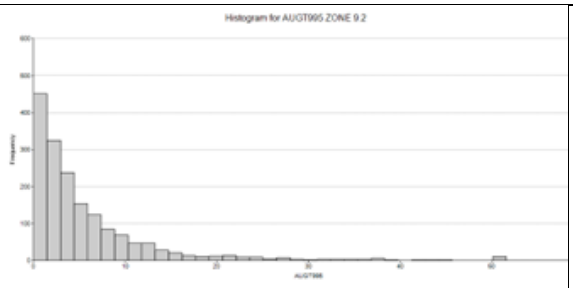
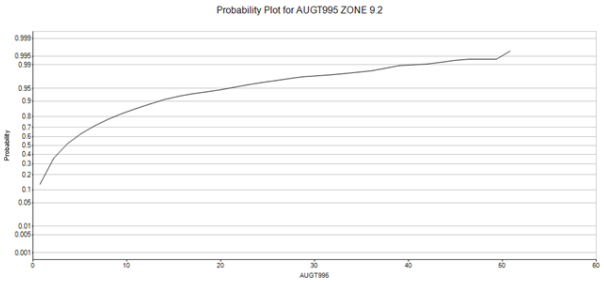
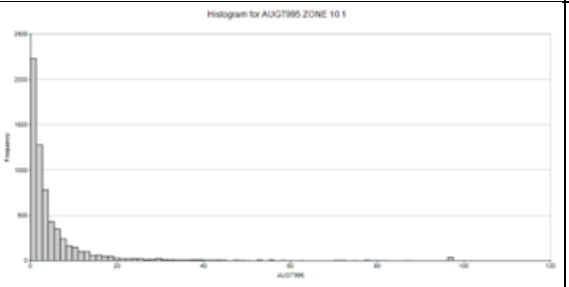
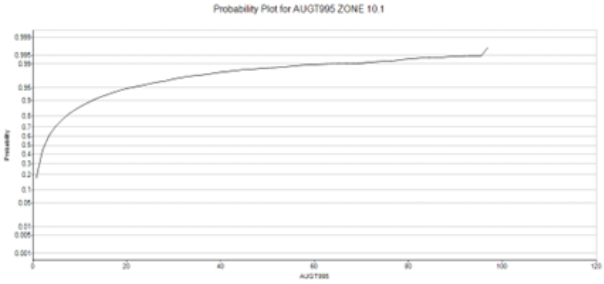
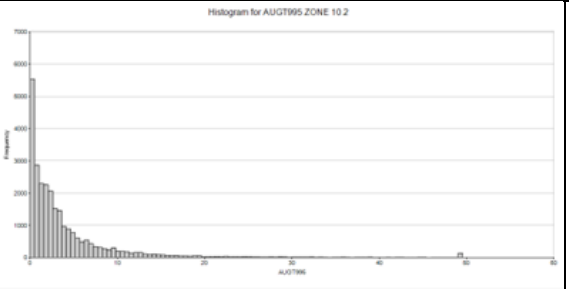
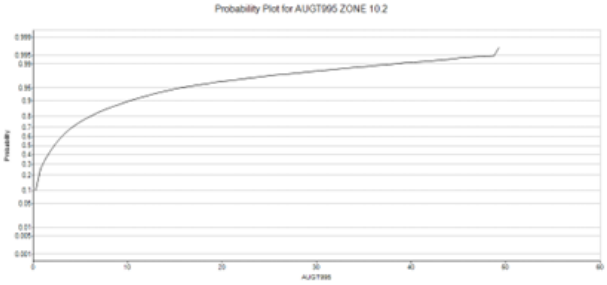
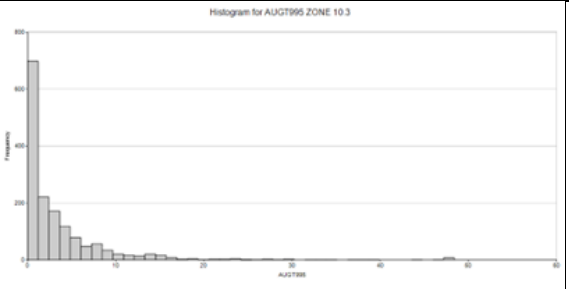
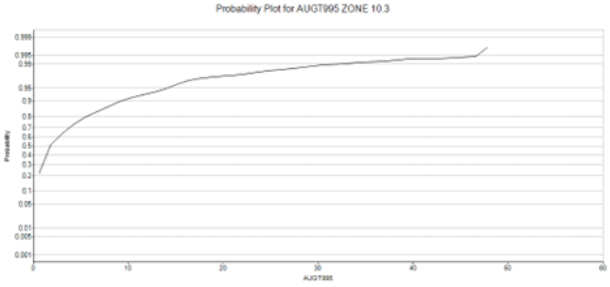
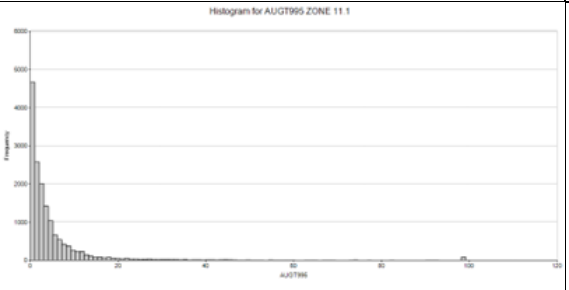
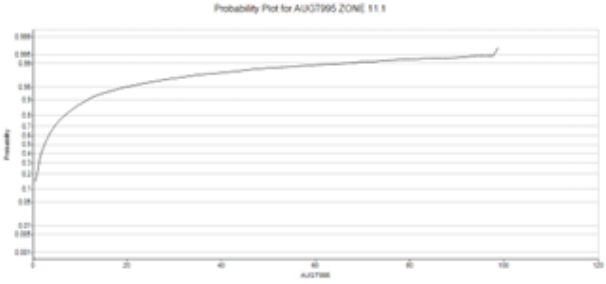




Blanket1 HW North Histogram

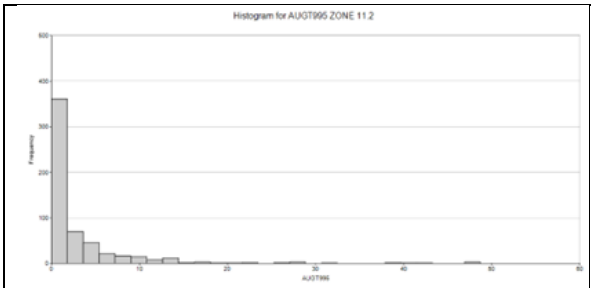
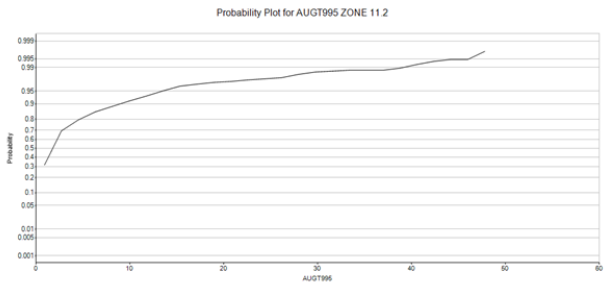
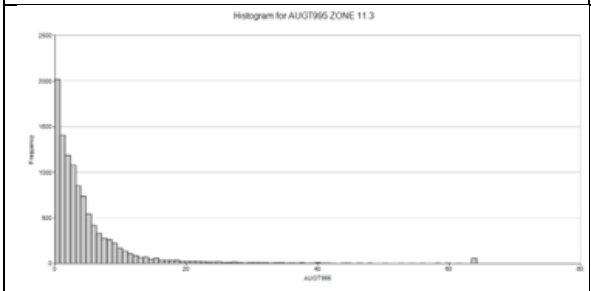
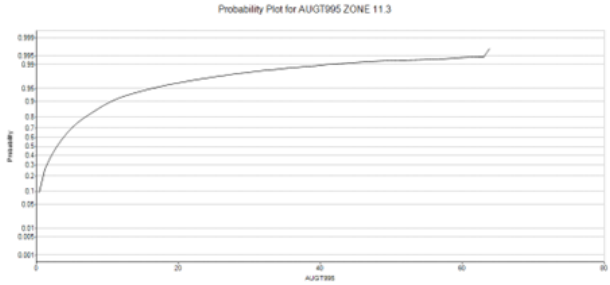
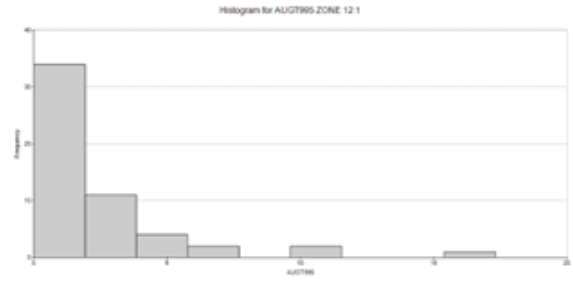
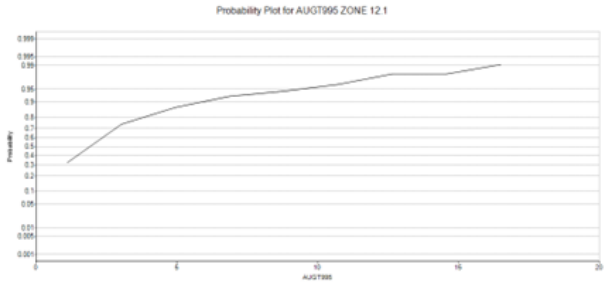
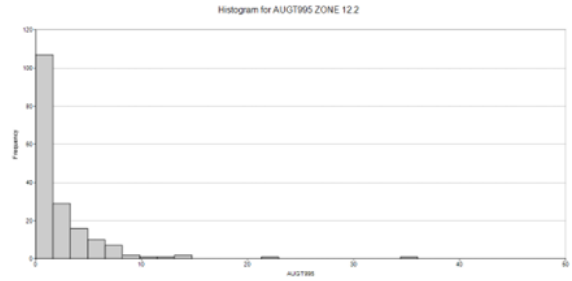
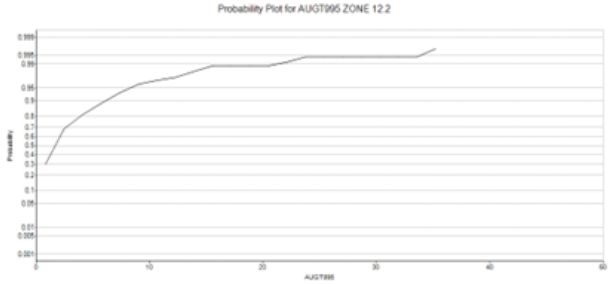
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| Blanket2 HW Histogram | |
|   |   |
| Blanket2 HW LG Histogram | |

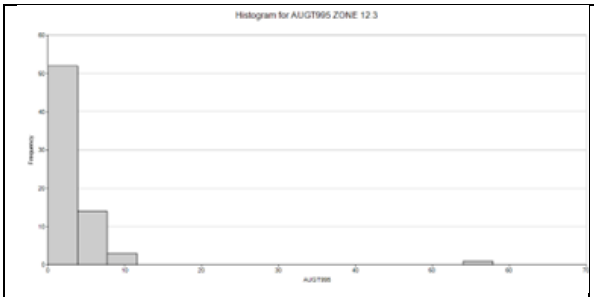
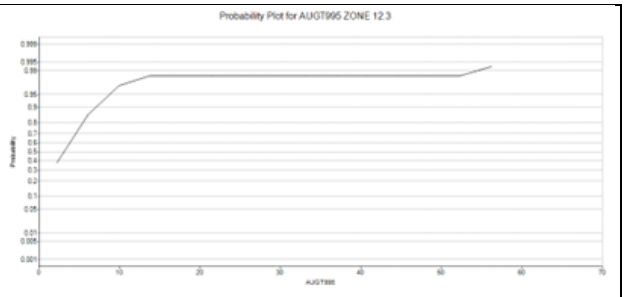
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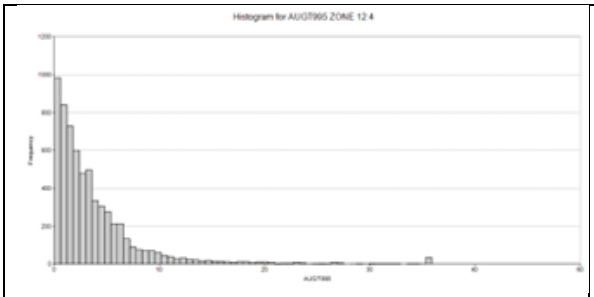
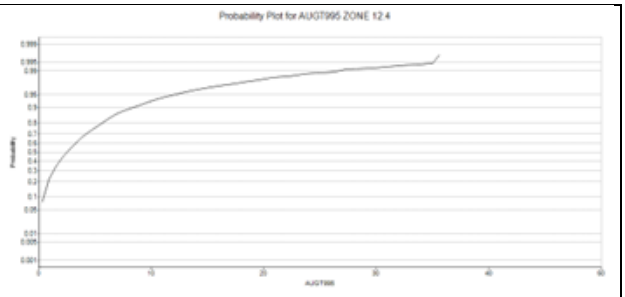
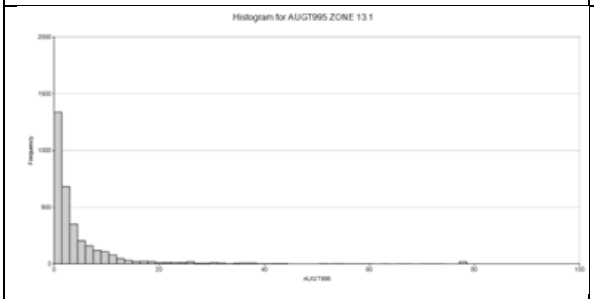
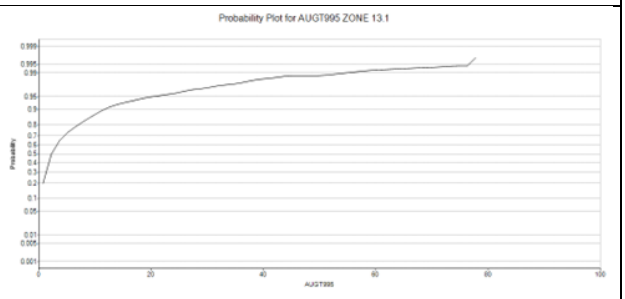
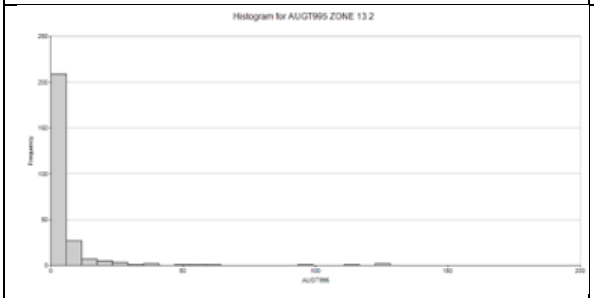
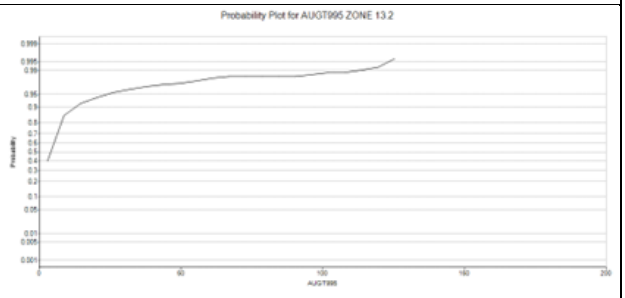
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| Blanket3 HW Histogram | |
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| Blanket4_5 FW Histogram | |
|  |  |
| Blanket4_5 HW Histogram | |
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| Blanket6 FW Histogram | |

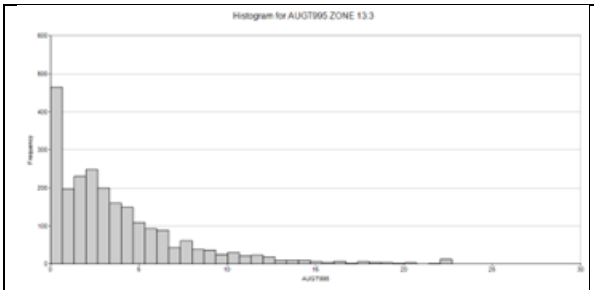
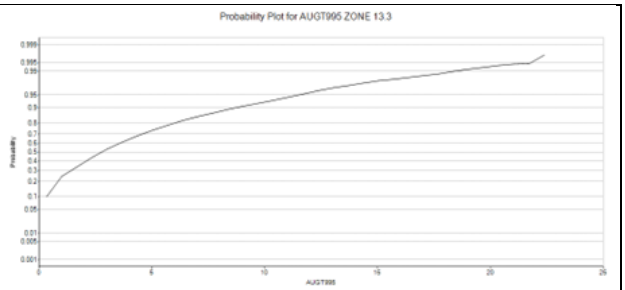
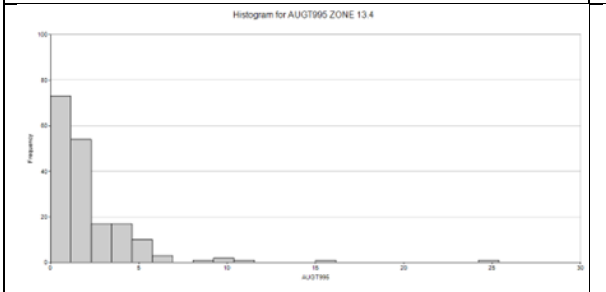
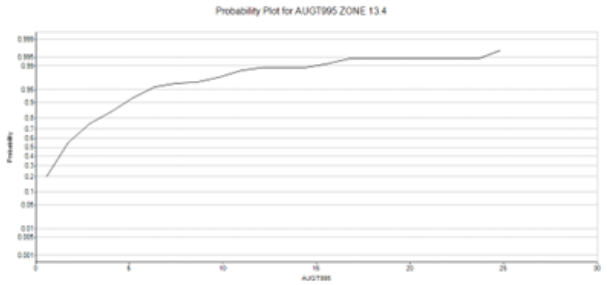
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| Blanket6 HW Histogram | |
|   |   |
| BQR FW Histogram | |
|   |   |
| BQR HW North Histogram | |
|   |   |
| BQR HW South Histogram | |
|   |   |

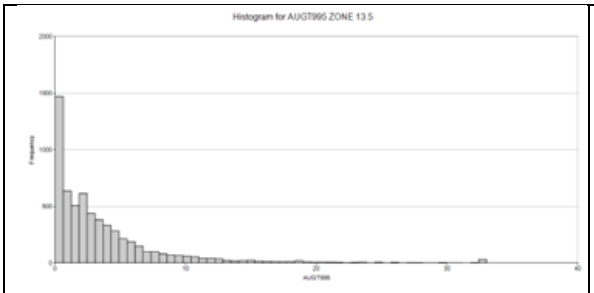
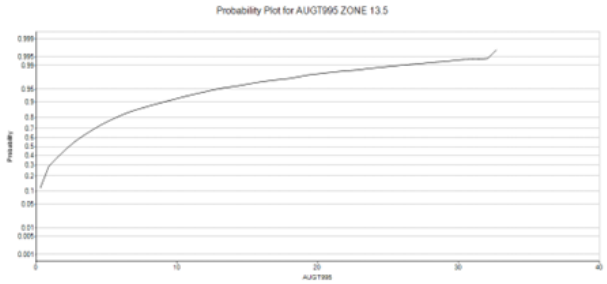
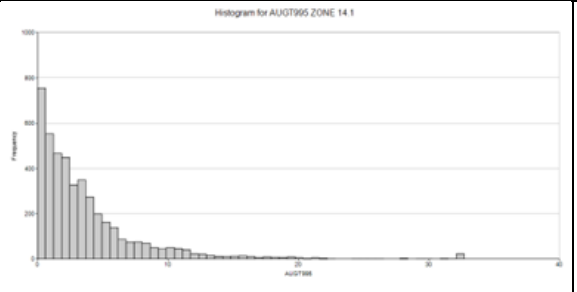
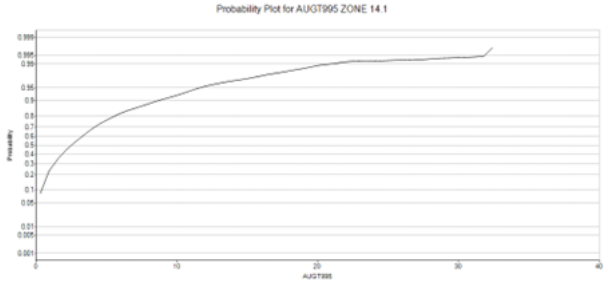
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| EROICA North Histogram | |

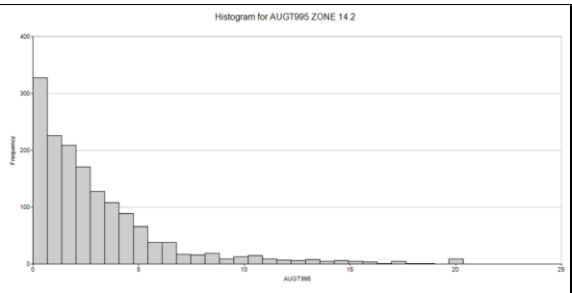
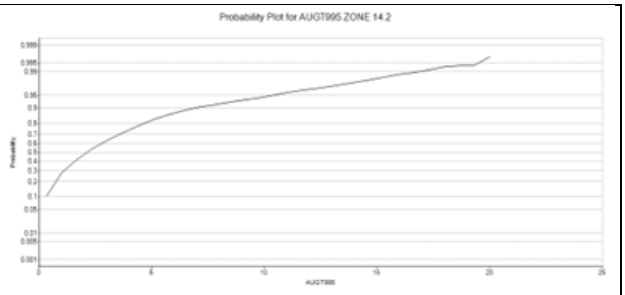
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|---|---|
|  |  |
| EROICA North FW Histogram | |
|  |  |
| EROICA South Histogram | |
|  |  |
| JETHRO Histogram | |
|  |  |
| JETHRO Central Histogram | |

| | |
|---|---|
|  |  |
| JETHRO HW1 Histogram | |

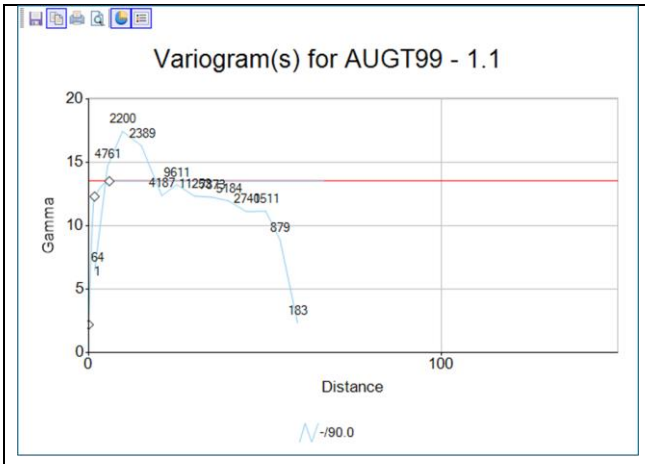
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| JETHRO HW2 Histogram | |
|  |  |
| LIMA FWE Histogram | |
|  |  |
| LIMA HW Histogram | |

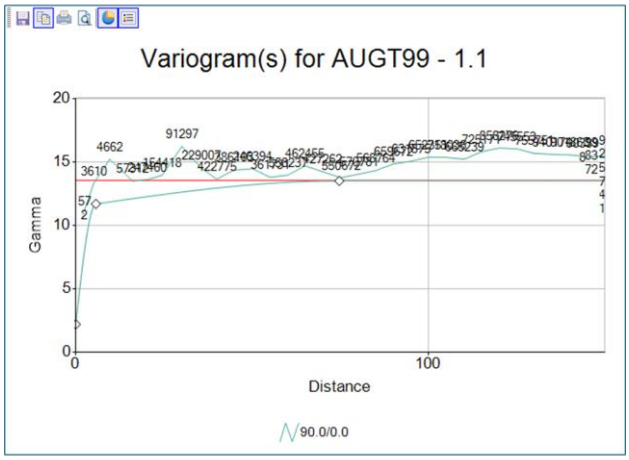
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| LIMA Inter Histogram | |
|   |   |
| LIMA Inter South Histogram | |

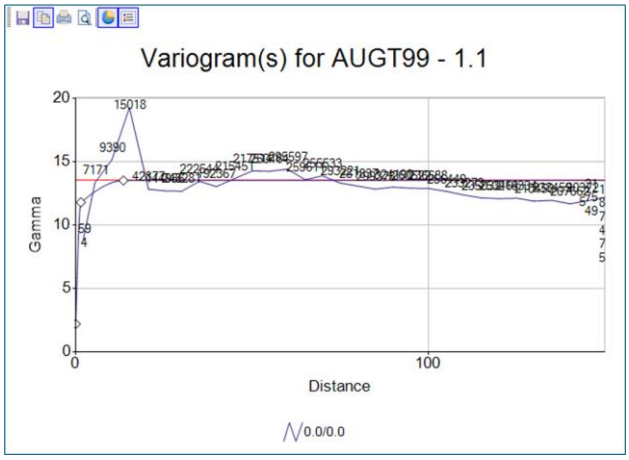
| | |
|---|---|
|   |   |
| LIMA Main Histogram | |
|   |   |
| SHEET Main Histogram | |

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|---|---|
|  |  |
| SHEET South Histogram | |

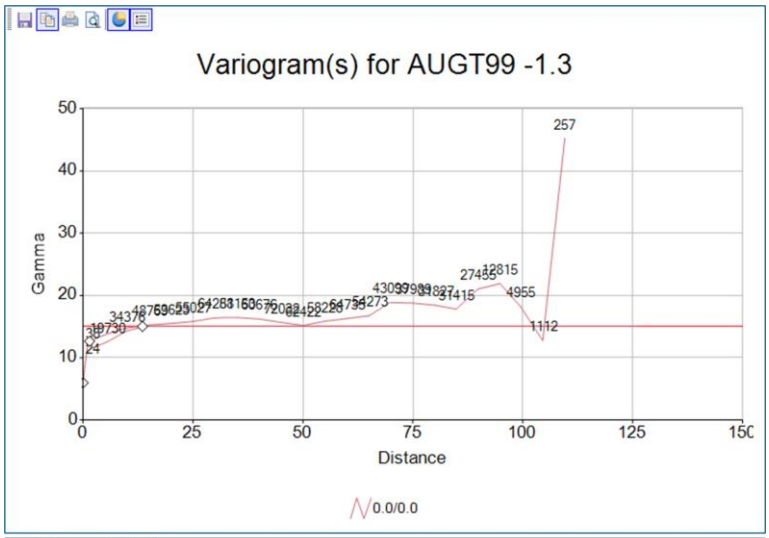
## Appendix 4: Variograms

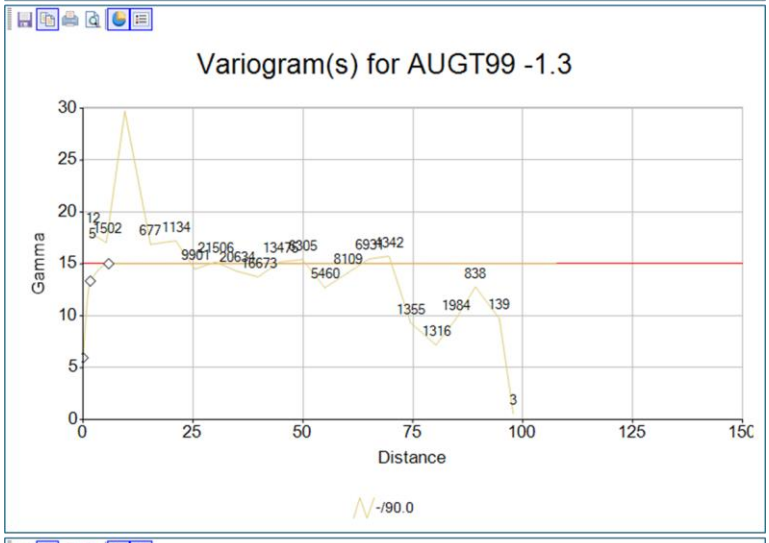


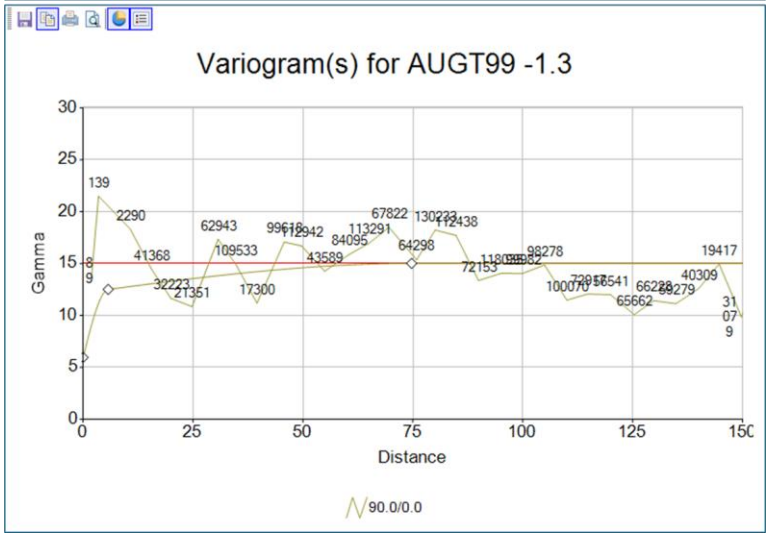



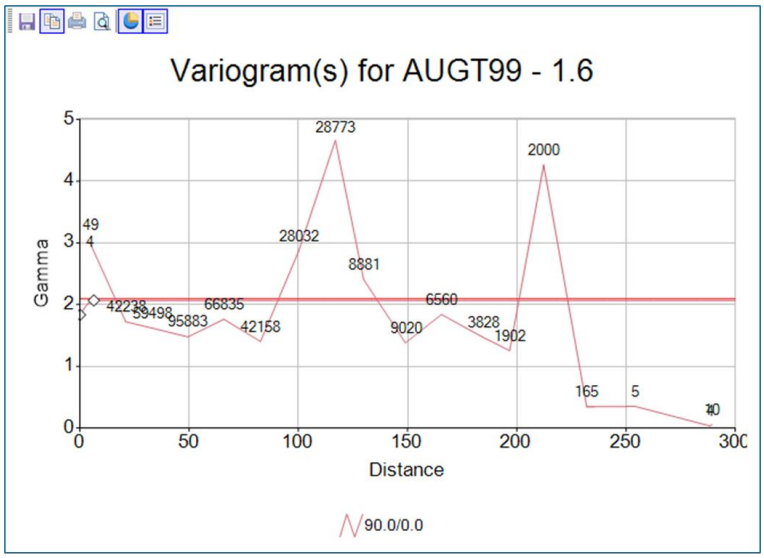

*ARM Variograms*

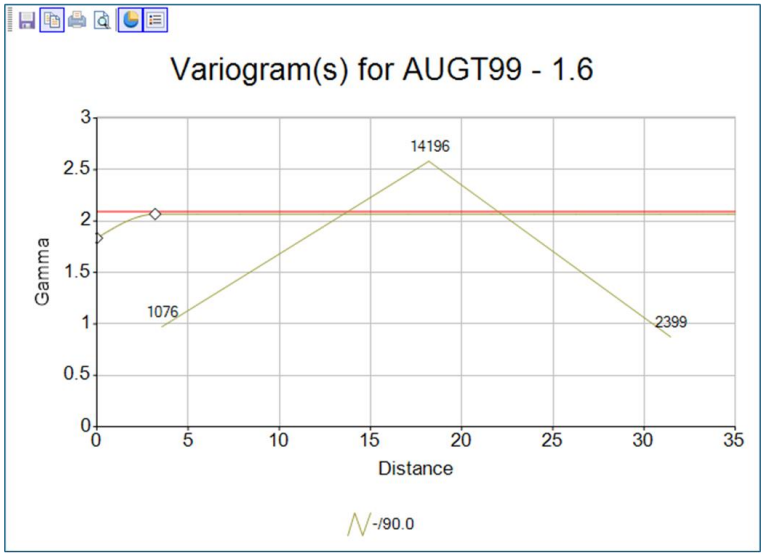


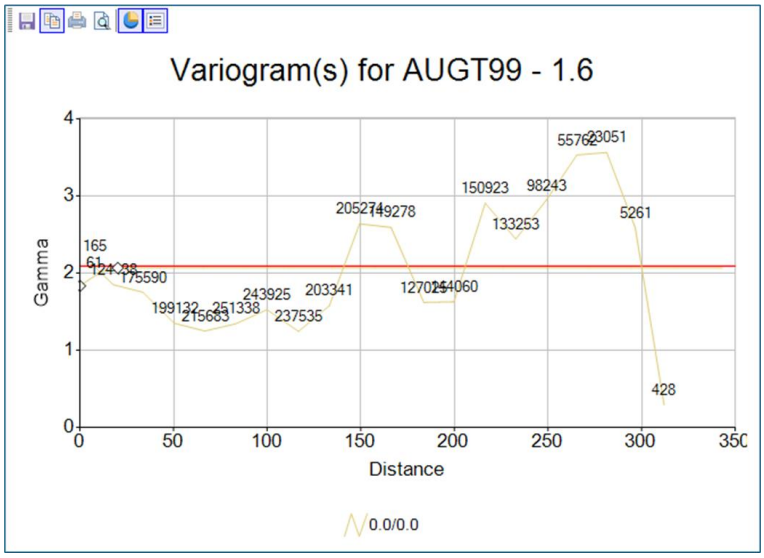



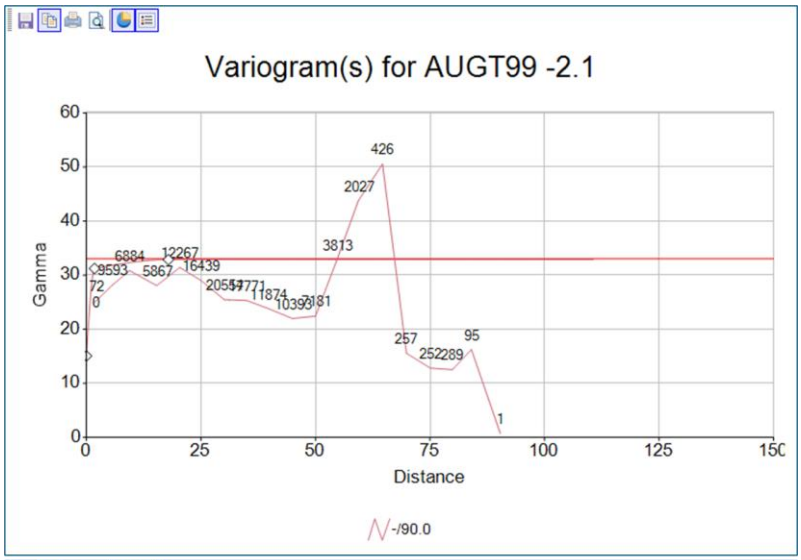

*ARM_ABV_DYK Variograms*

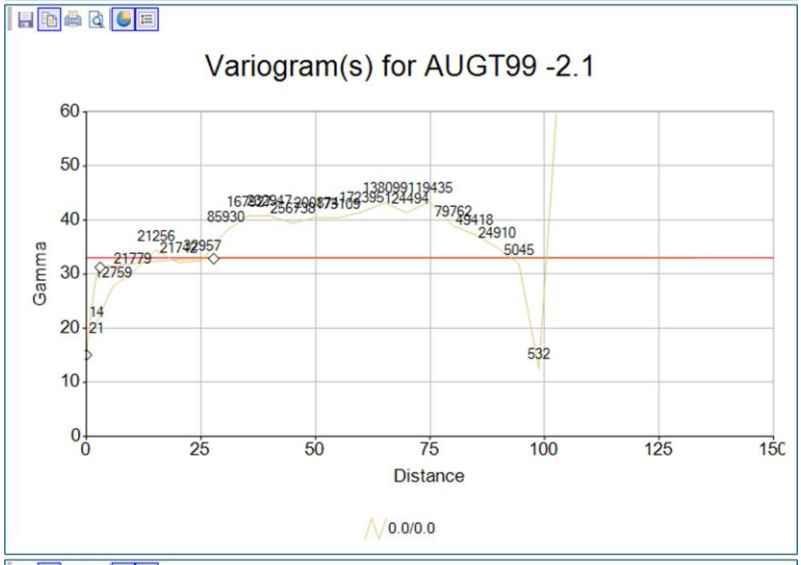


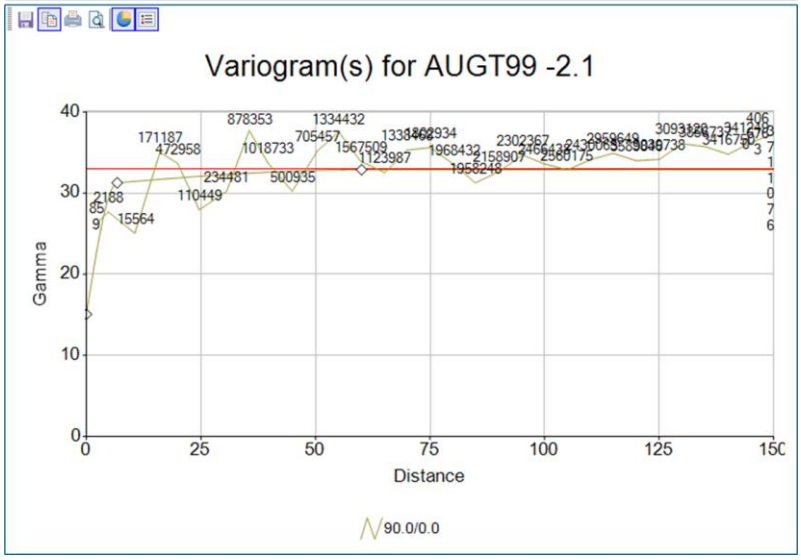



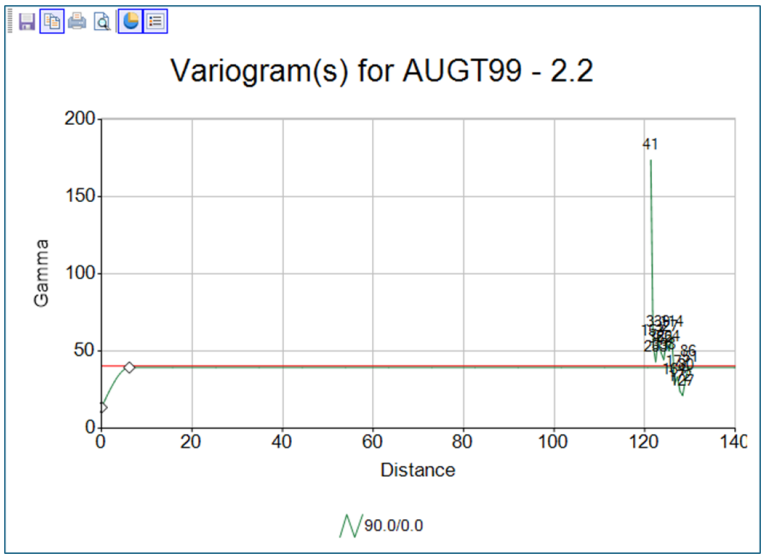

*ARM_Waste Variograms*

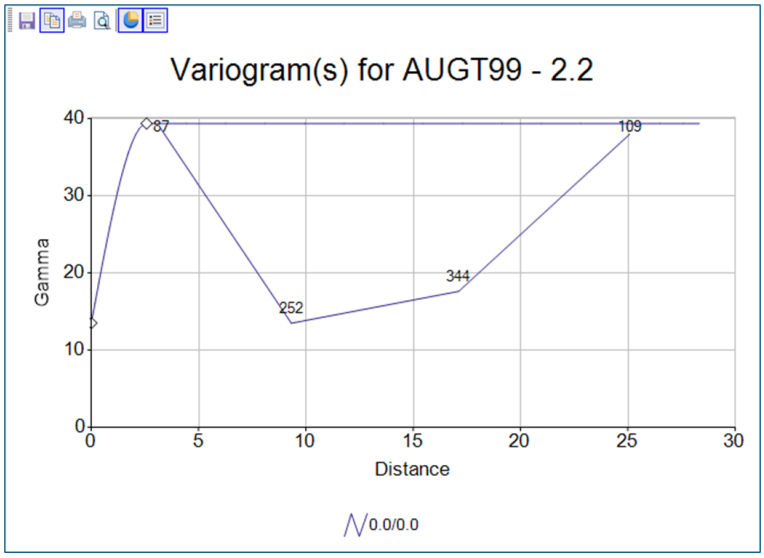


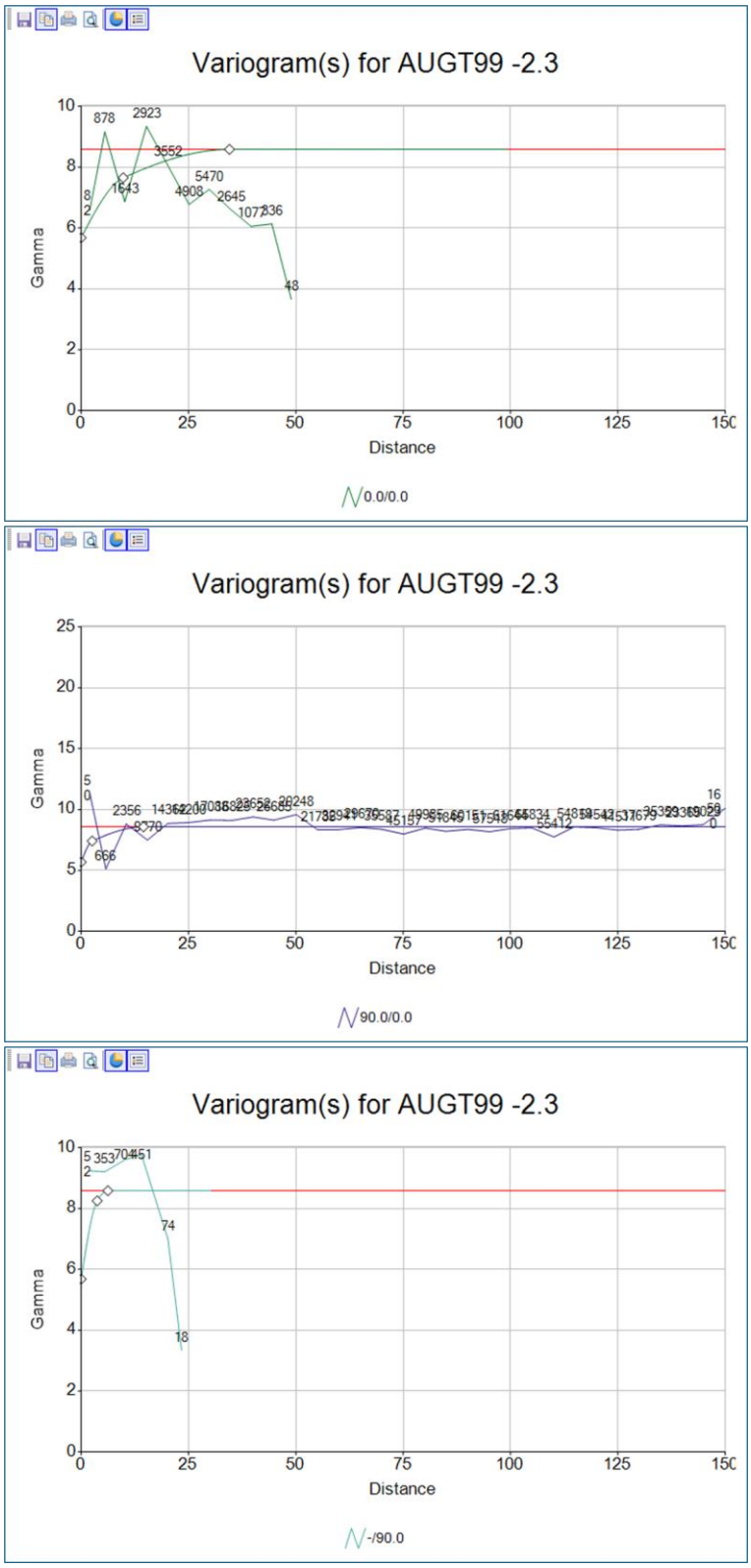




*ARS EWL Variograms*

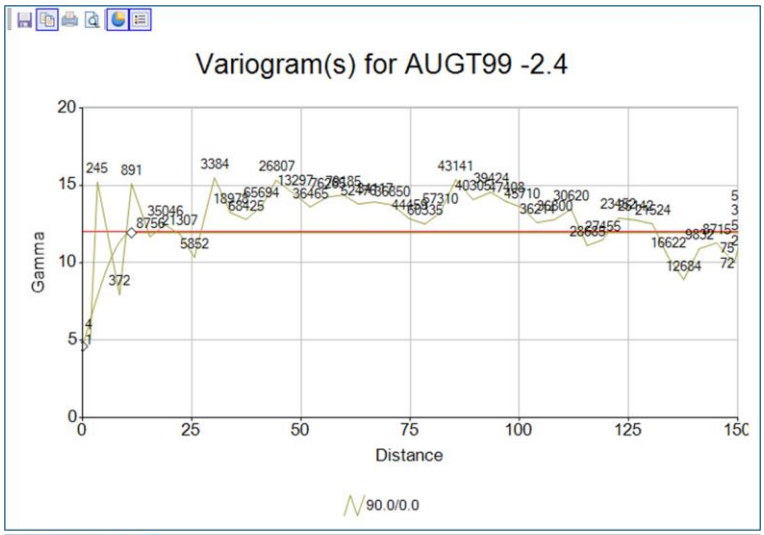


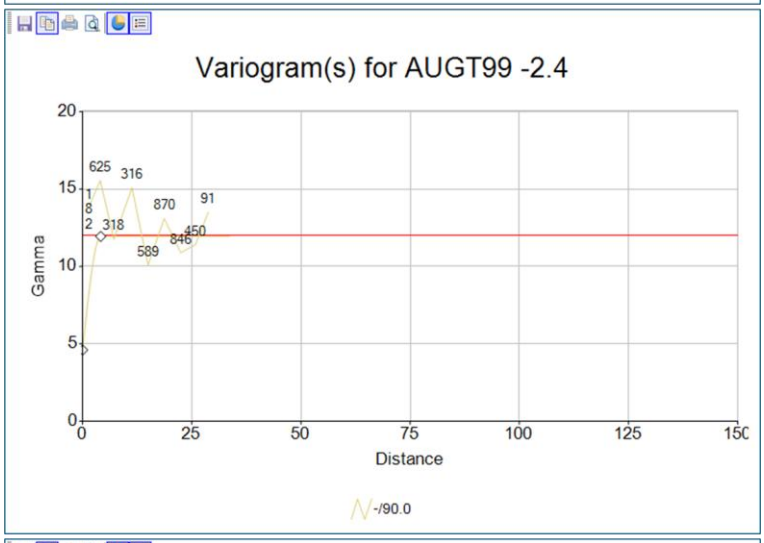



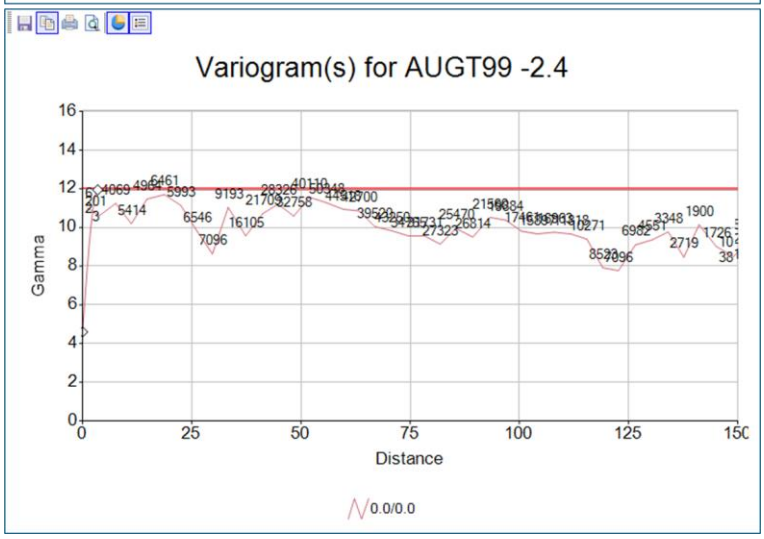

*ARS FW Variograms*



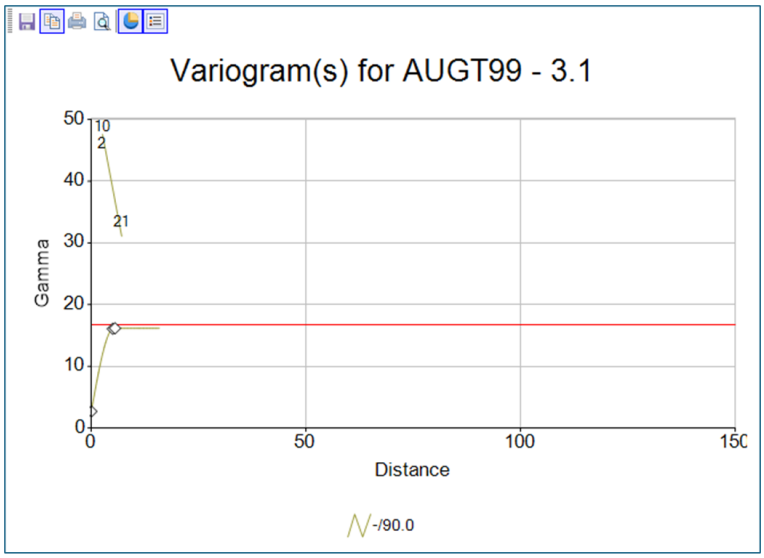

*ARS HW Variograms*

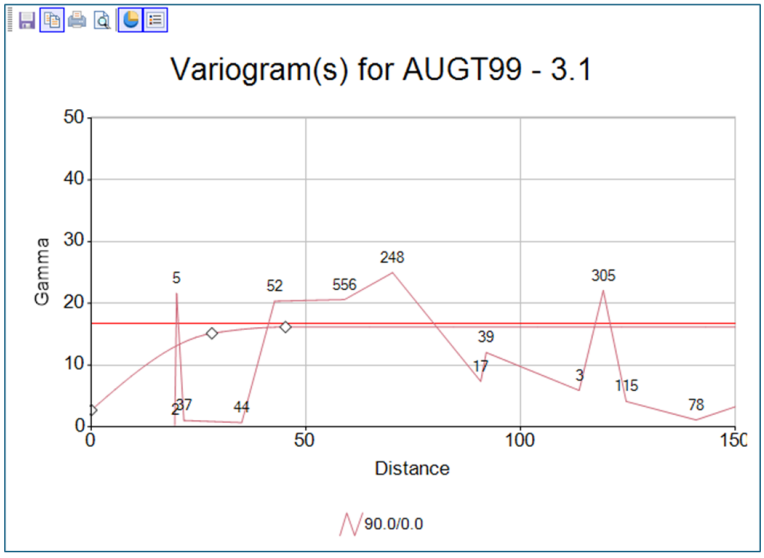


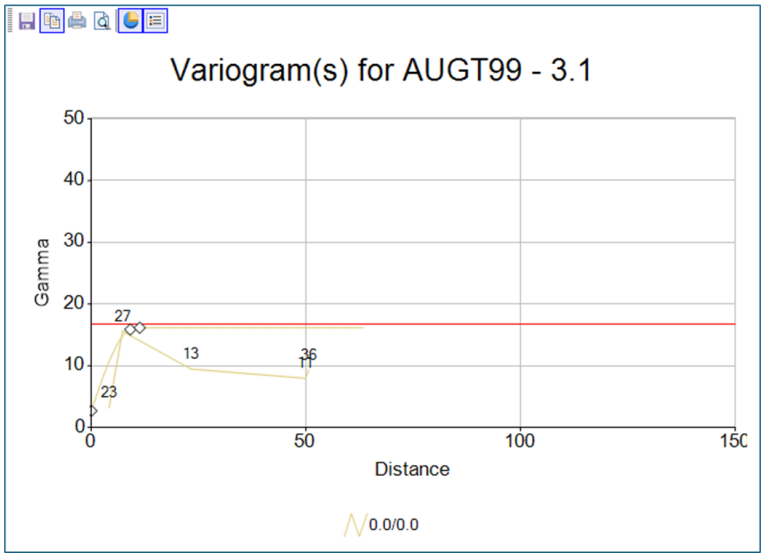



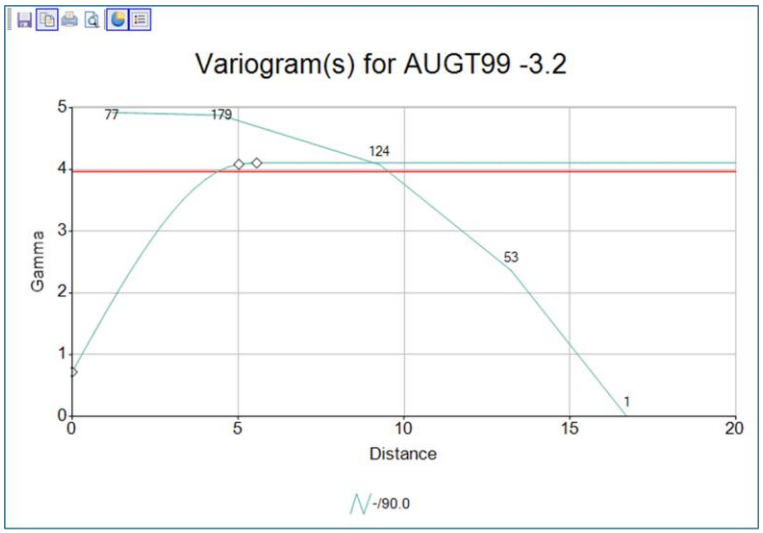

*ARS NSL Variograms*

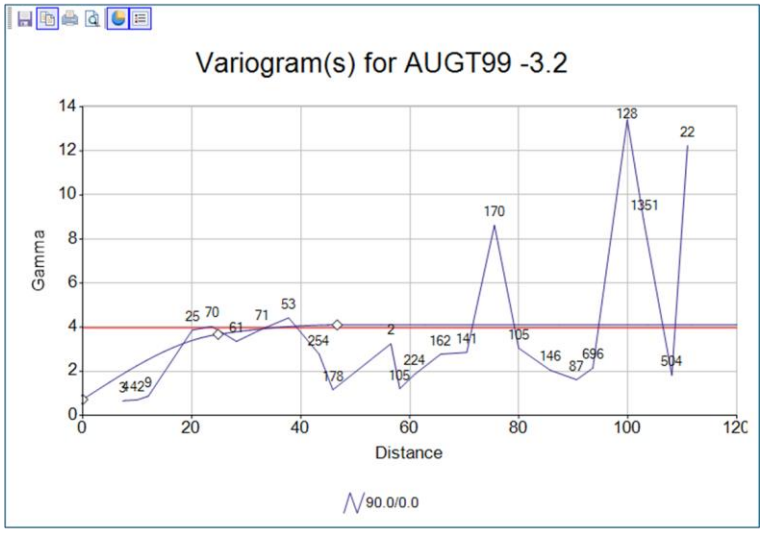


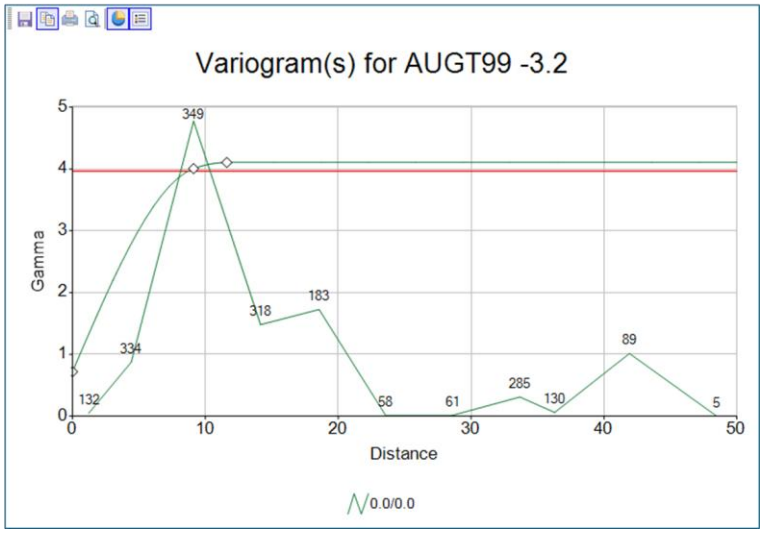



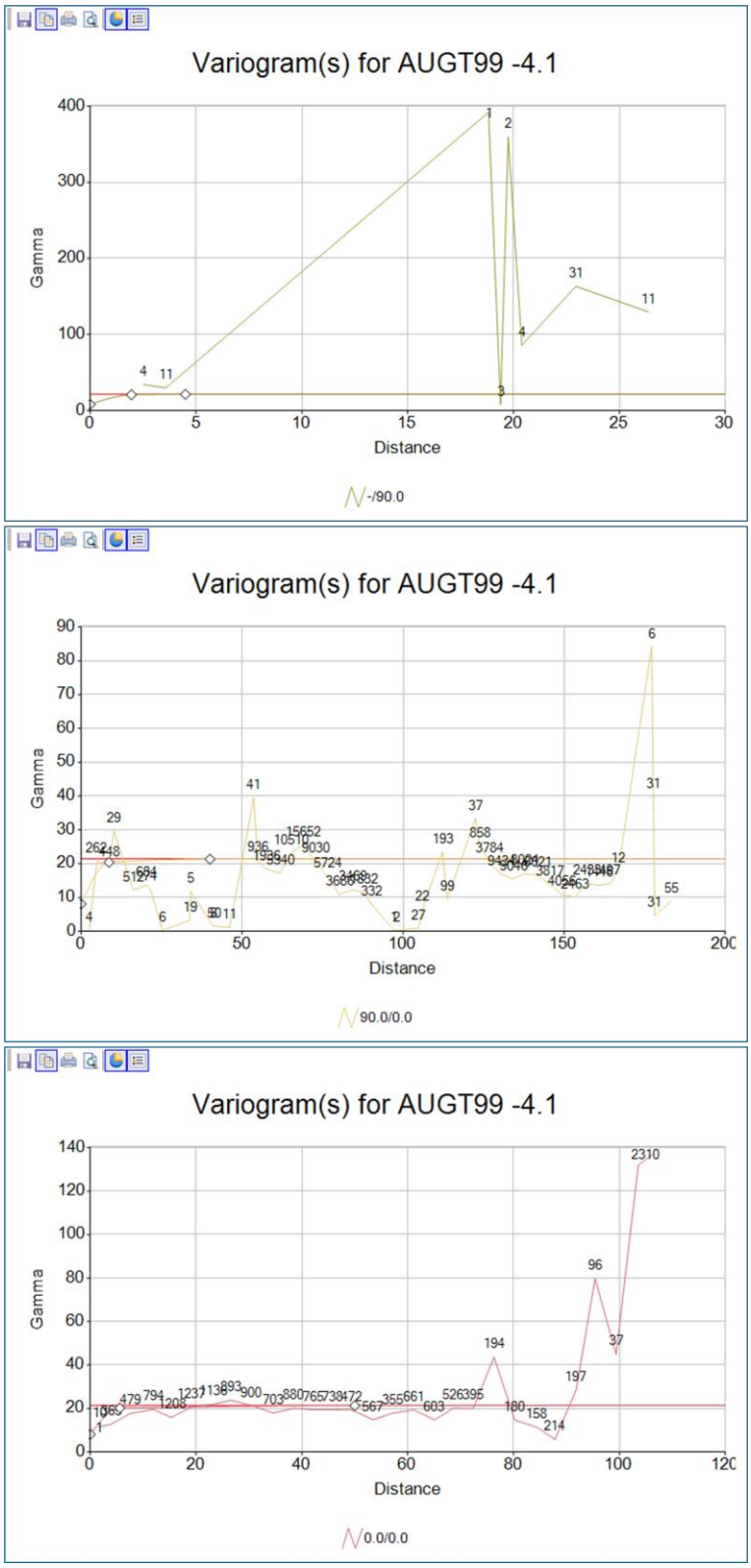

*ARS Extension Variograms*



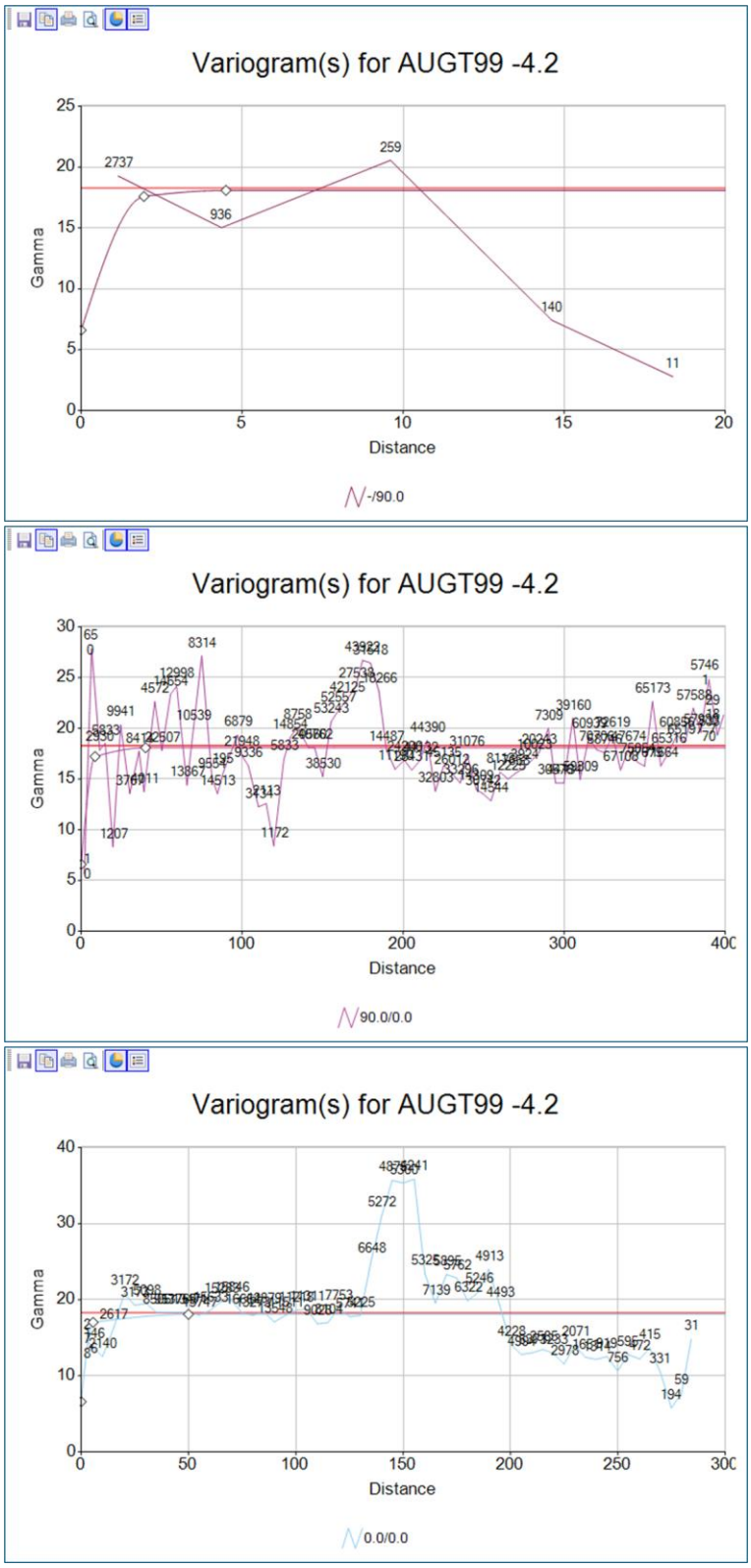



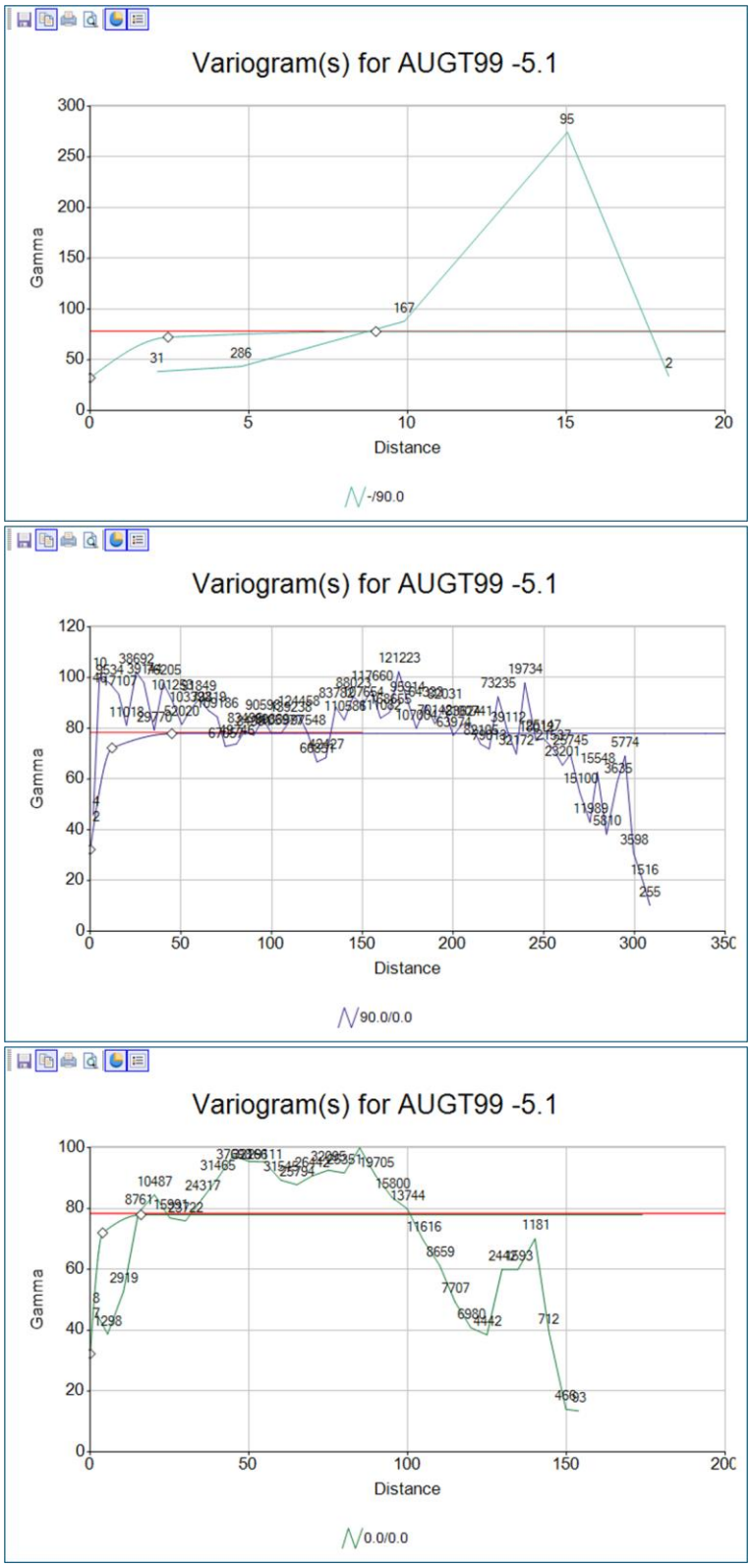

*ARS Extension 990ml Variograms*



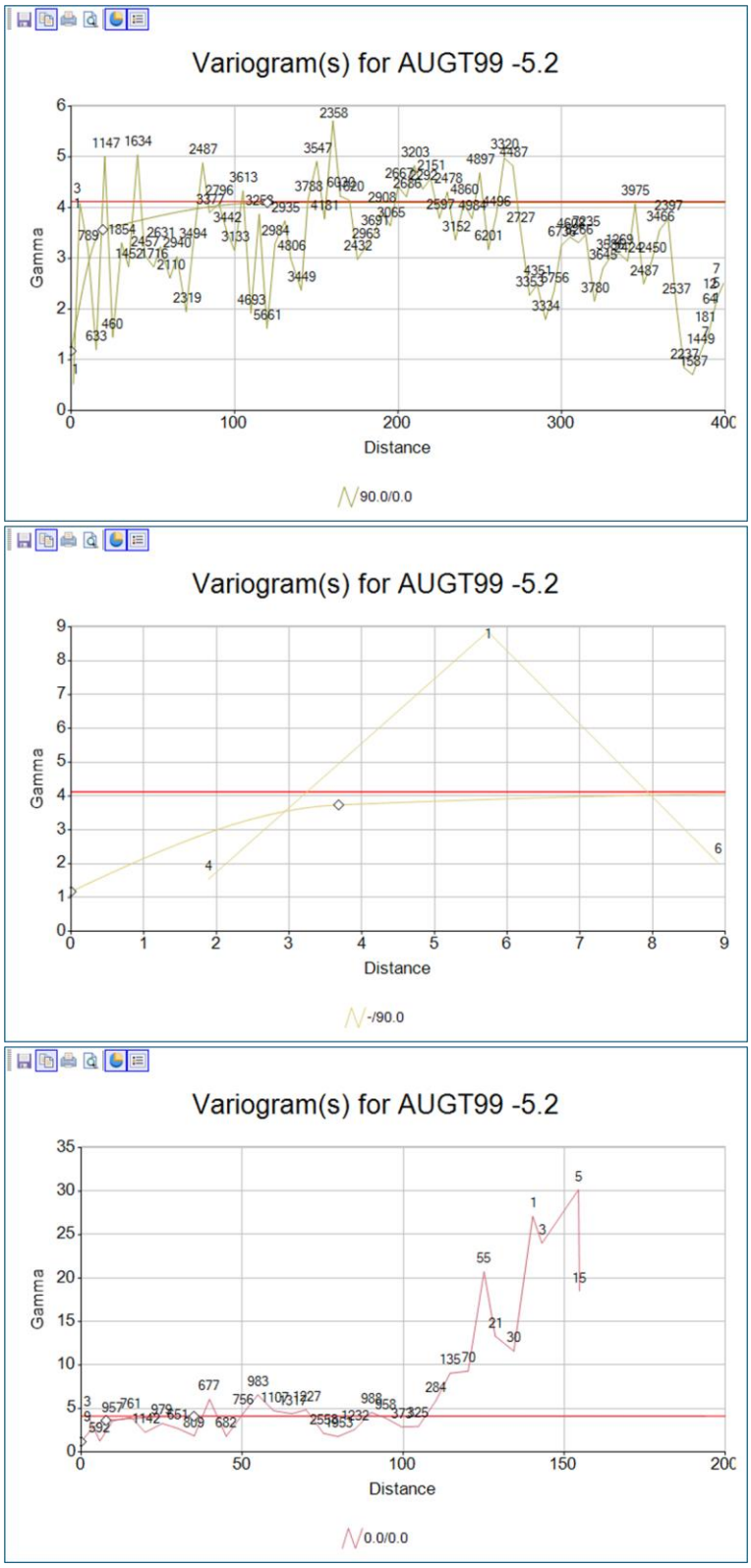

*Blanket Feudal FW Variograms*



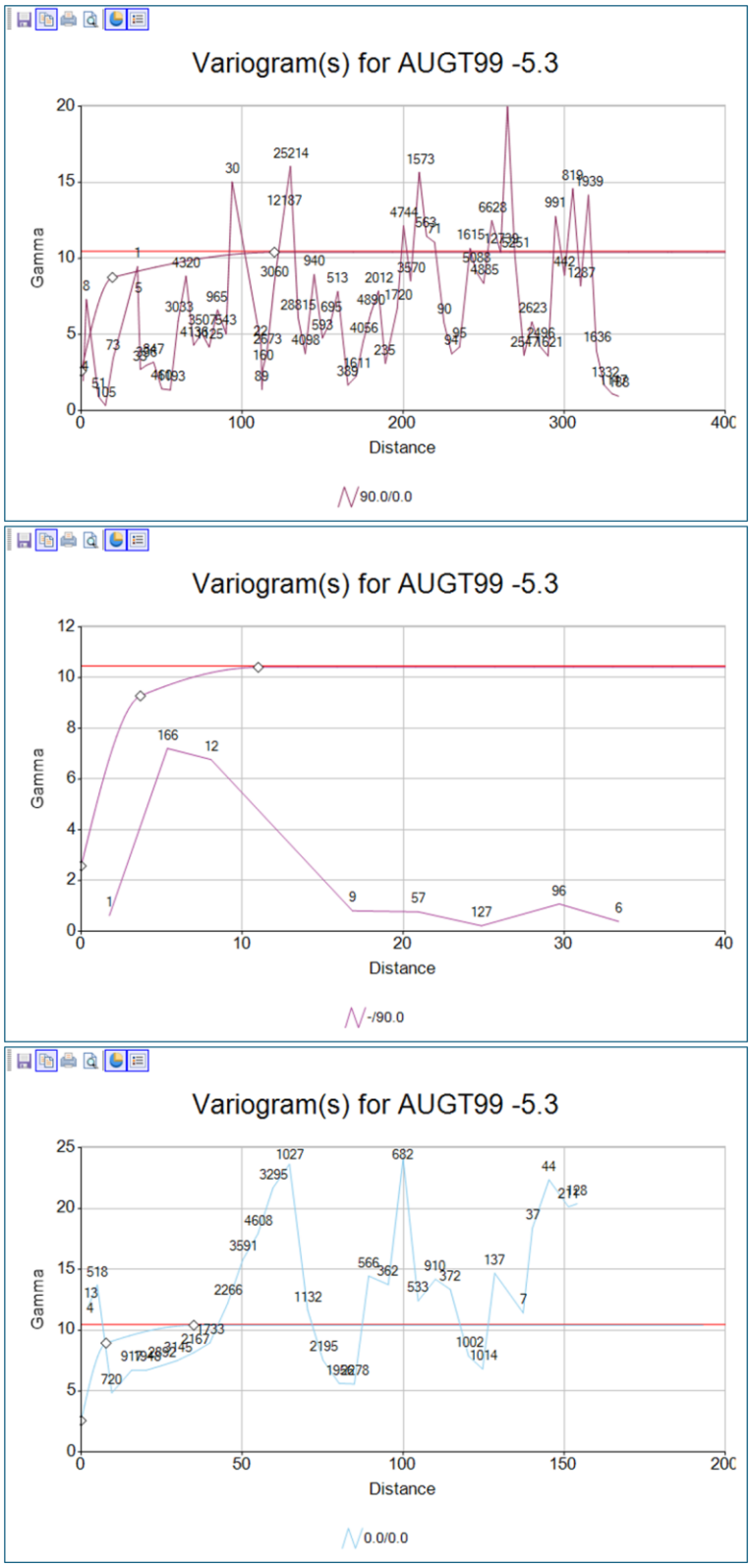

*Blanket Feudal HW Variograms*



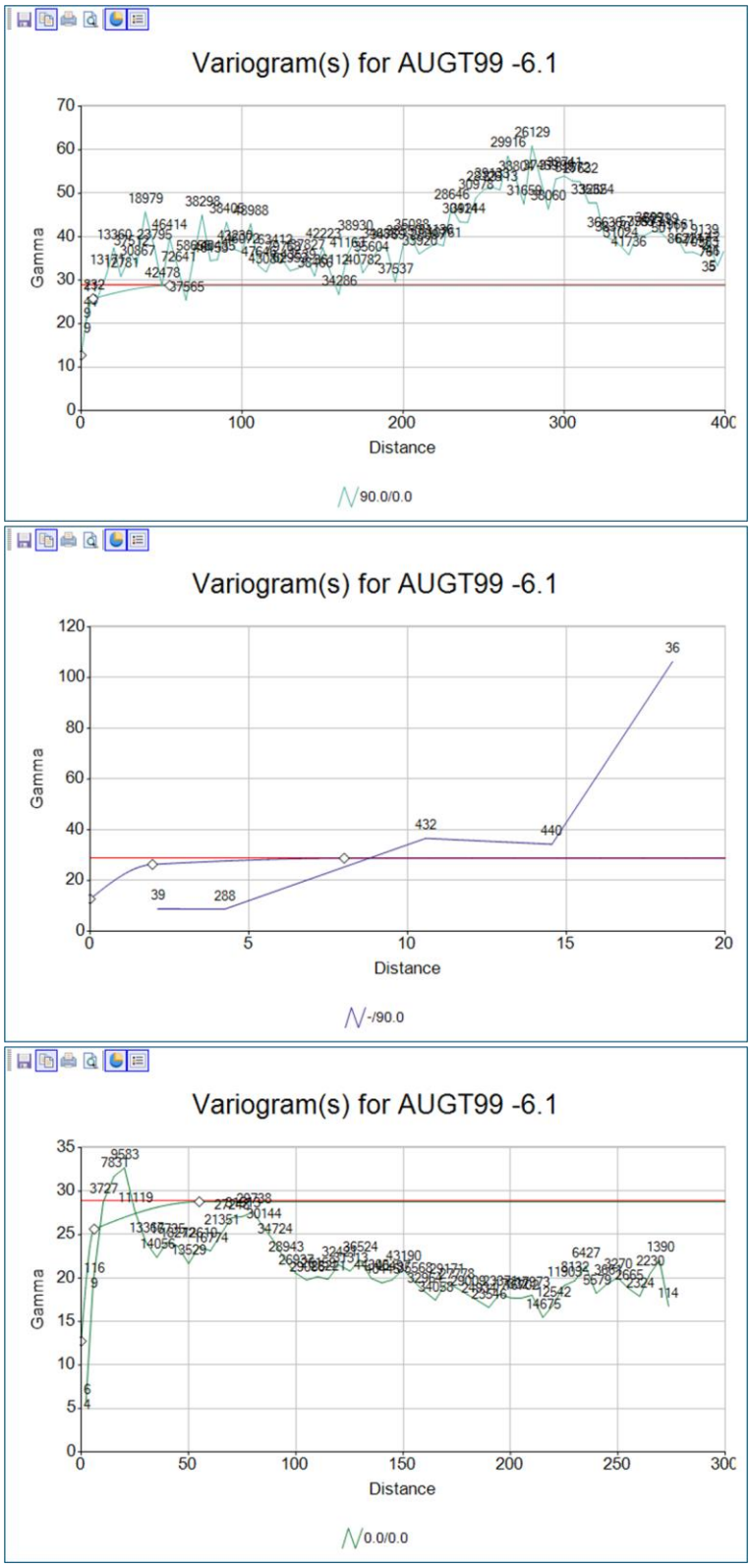

*Blanket1 FW Variograms*



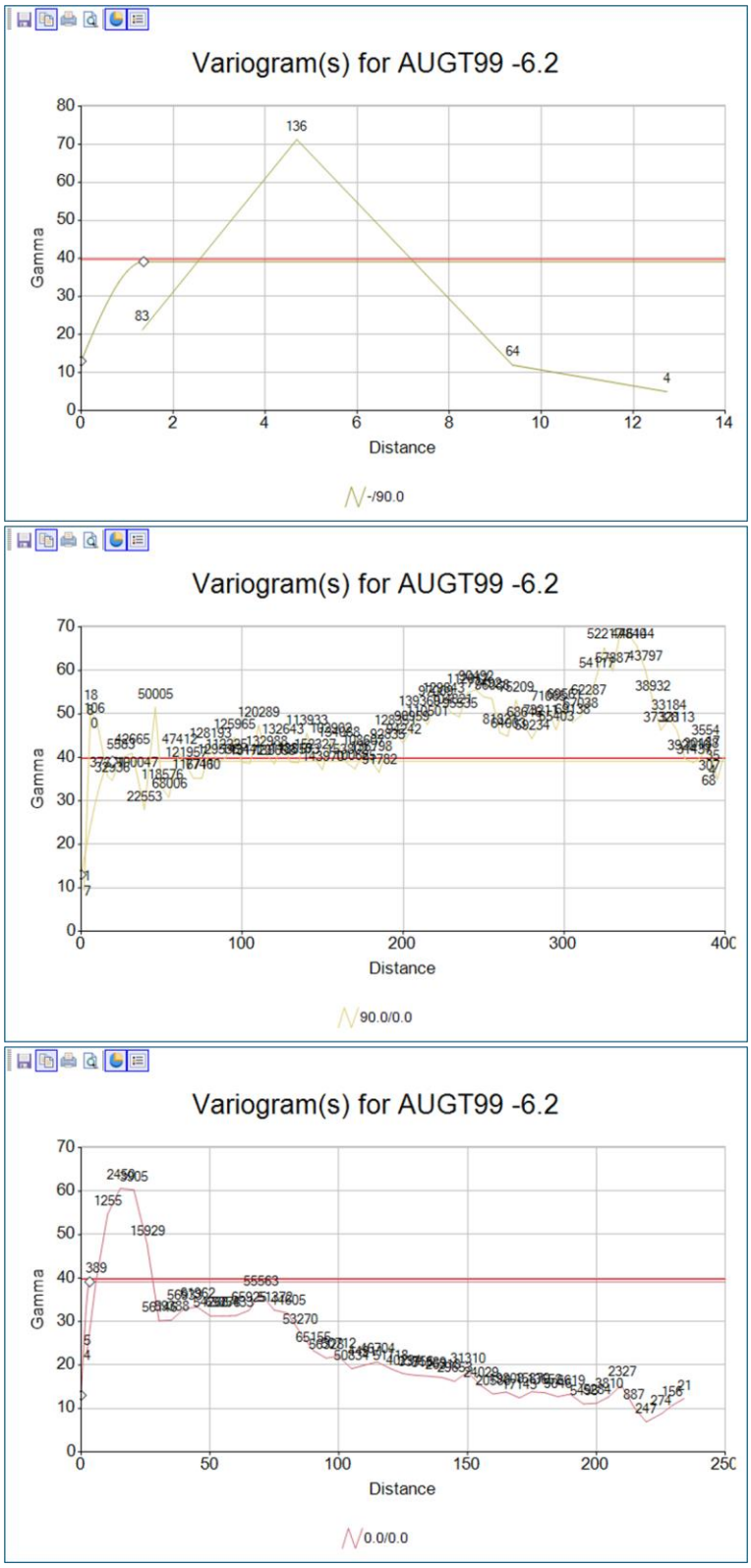

*Blanket1 HW Variograms*



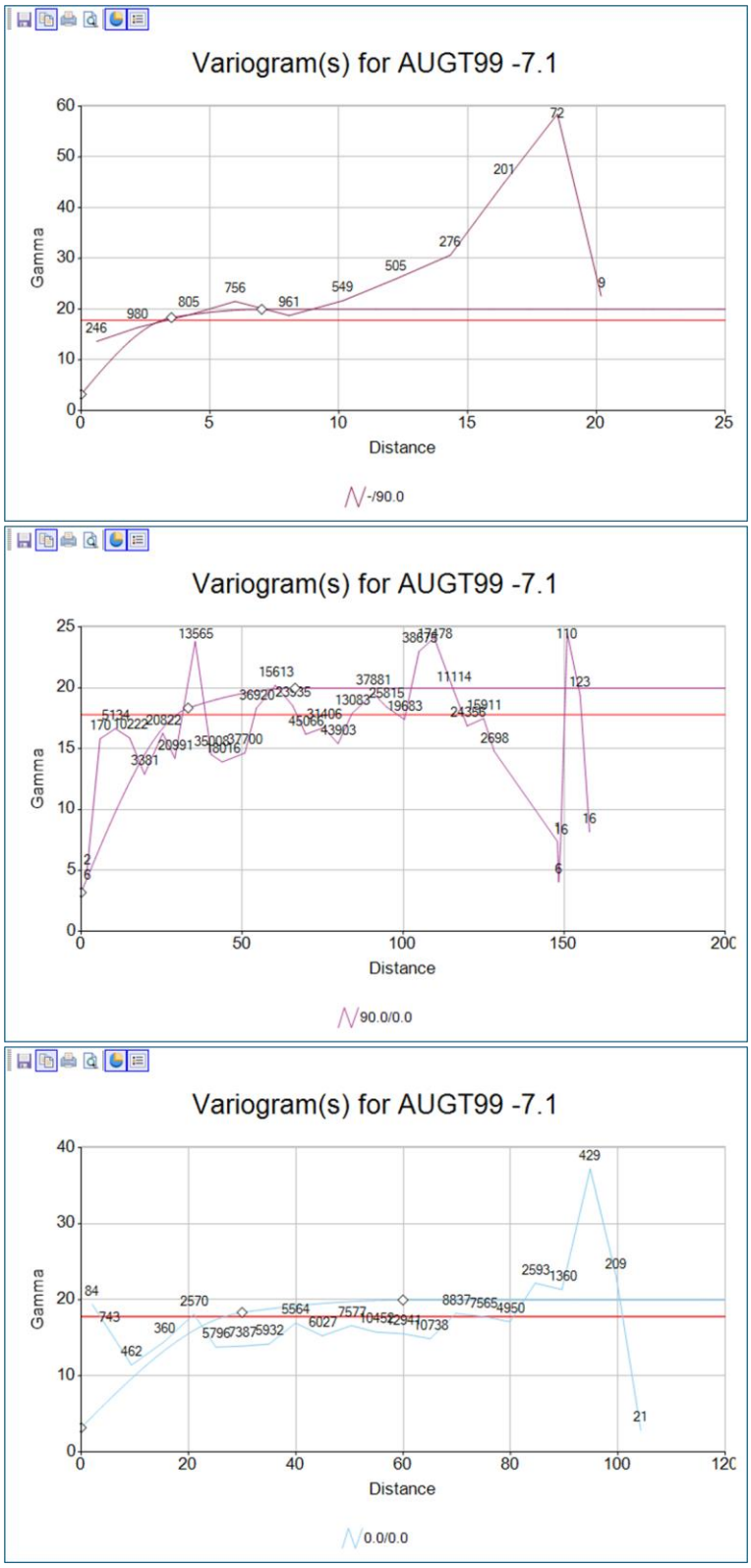

*Blanket1 HW North Variograms*



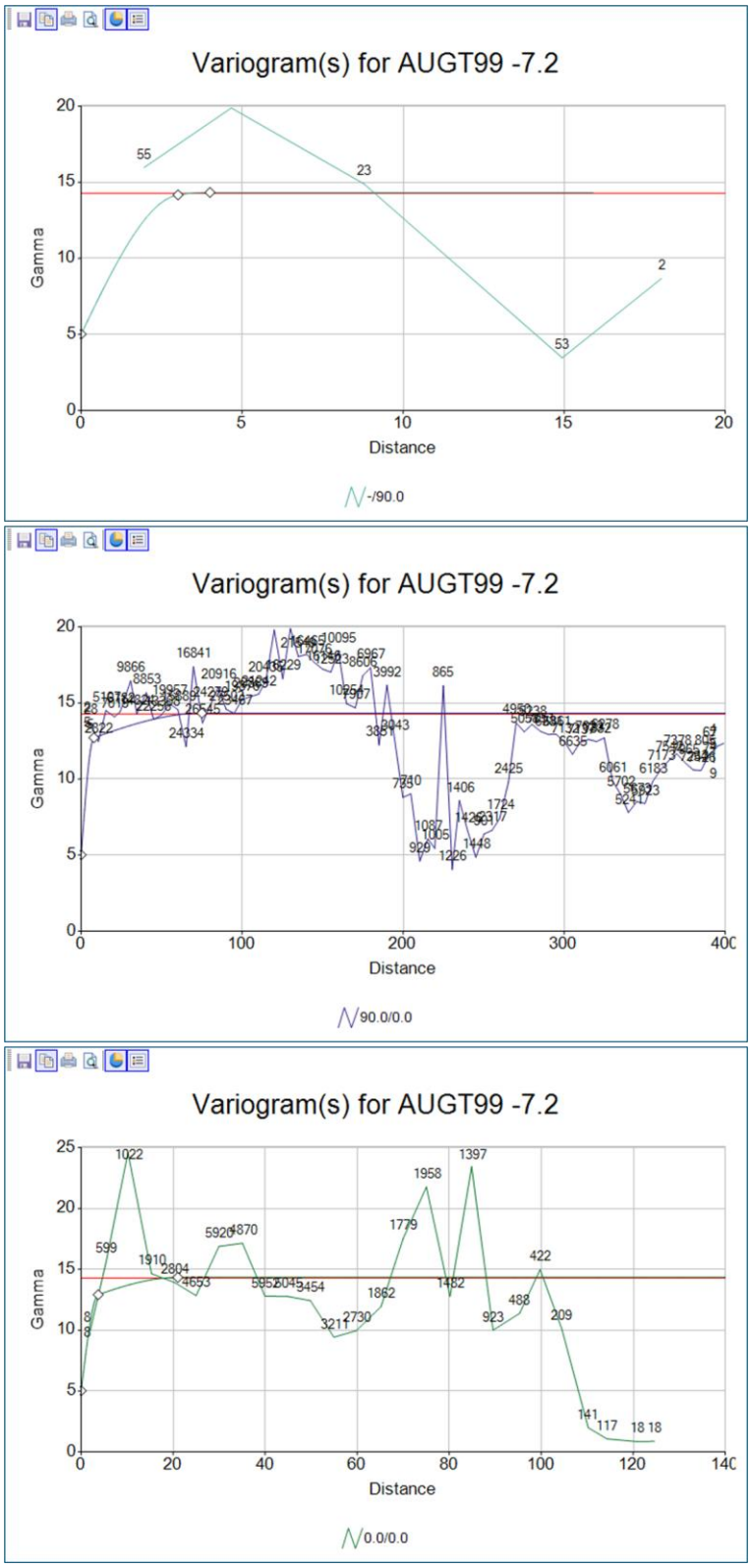

*Blanket2 FW Variograms*



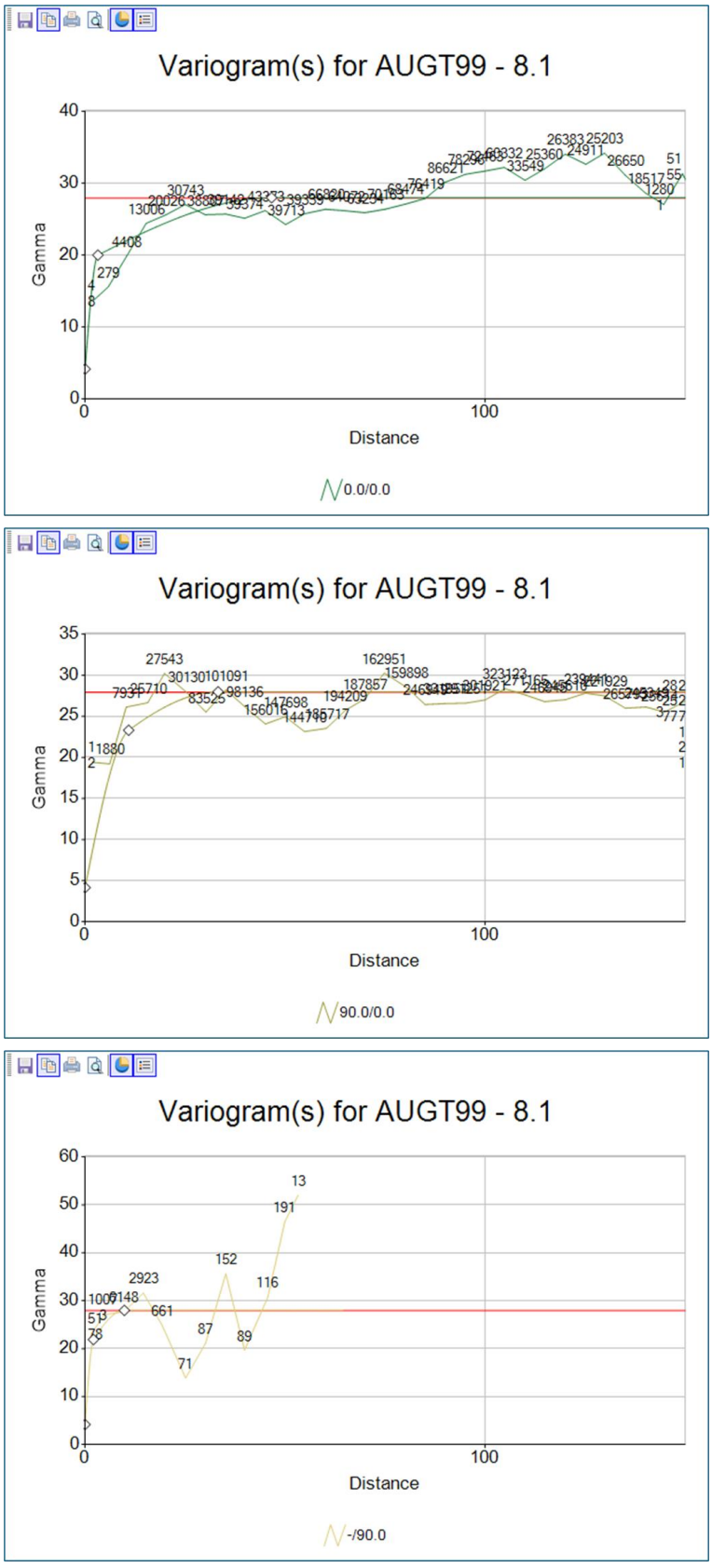

*Blanket2 HW Variograms*



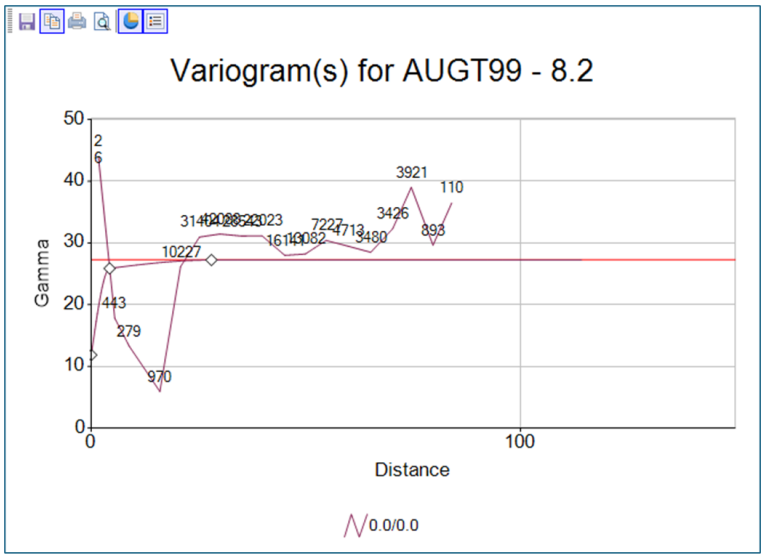

*Blanket3 FW Variograms*

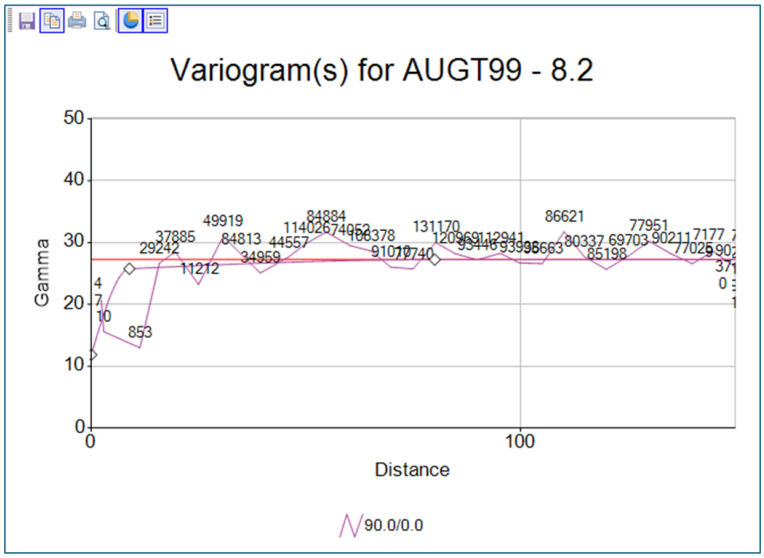


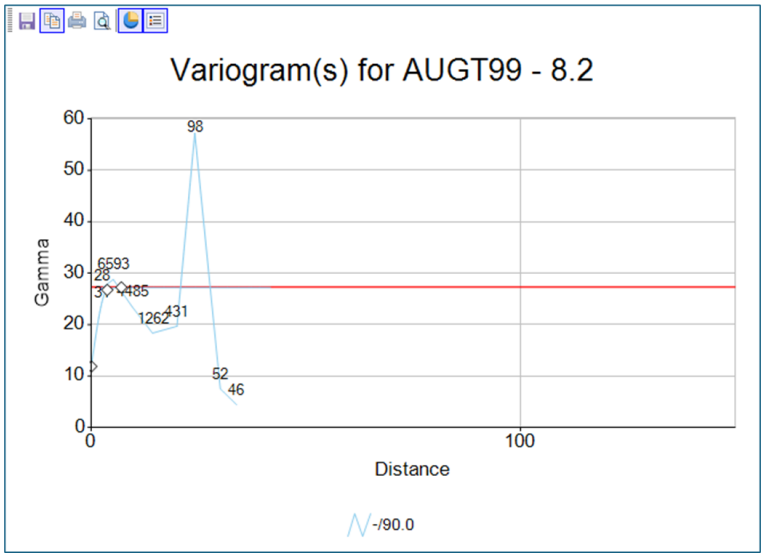

*Blanket3 HW Variograms*



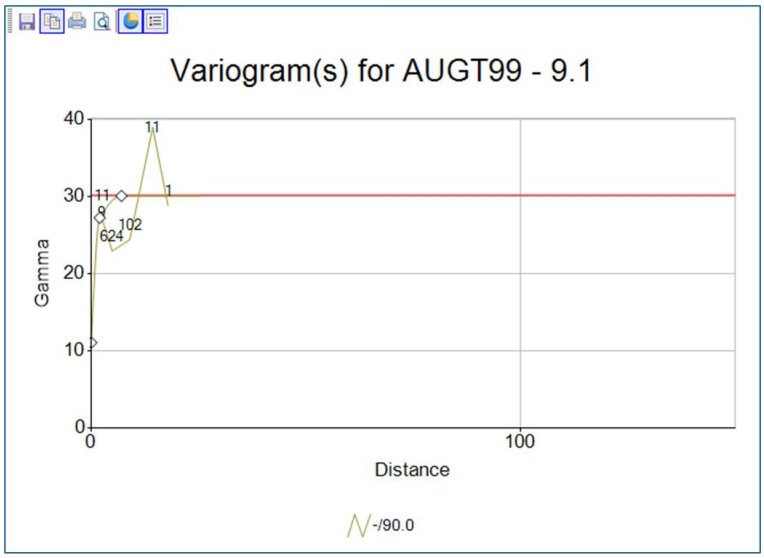

*Blanket4_5 FW Variograms*

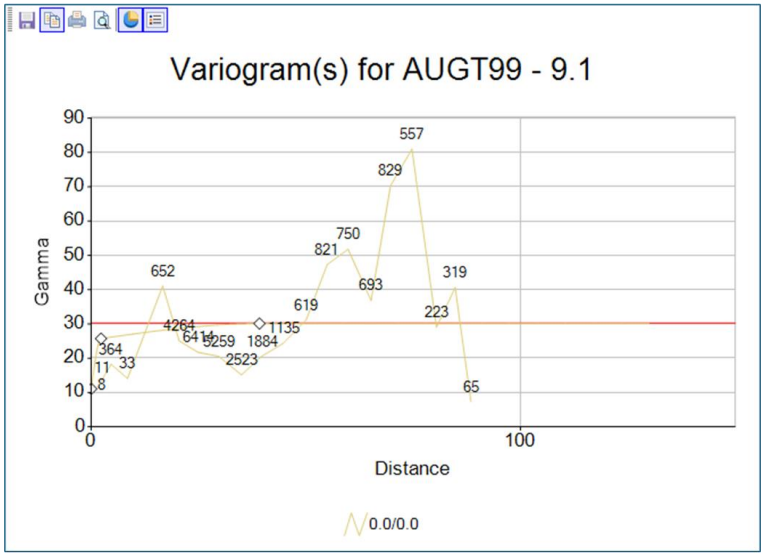


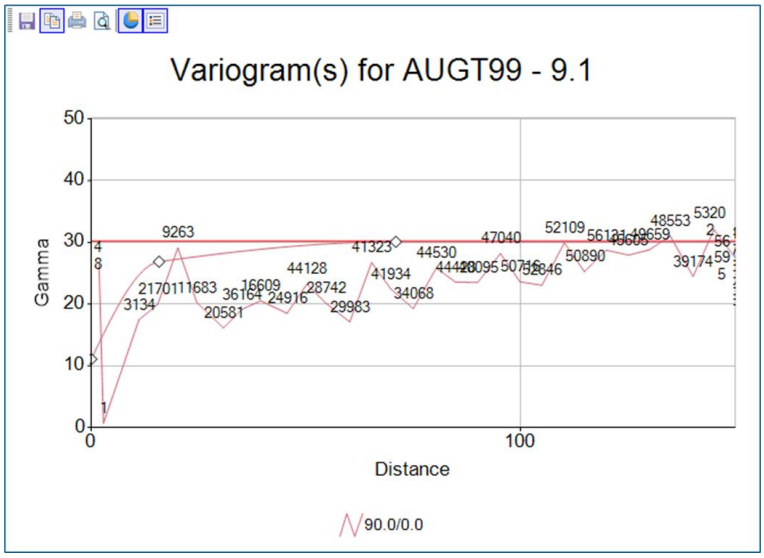



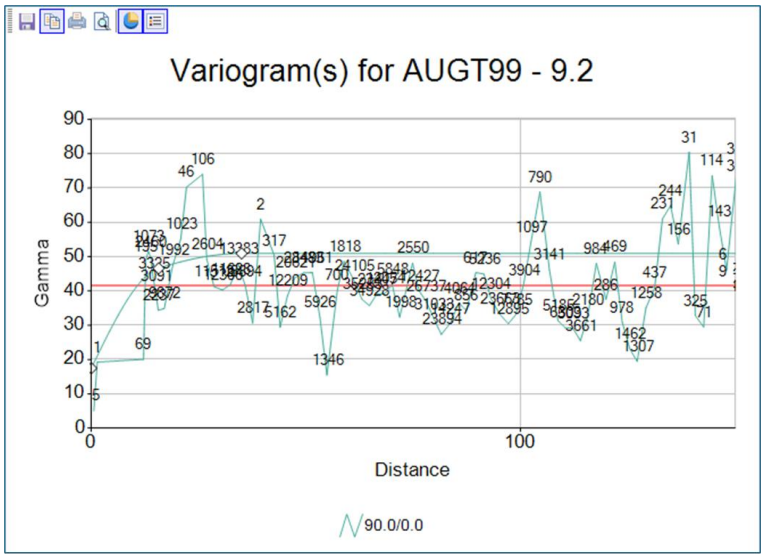

*Blanket4_5 HW Variograms*

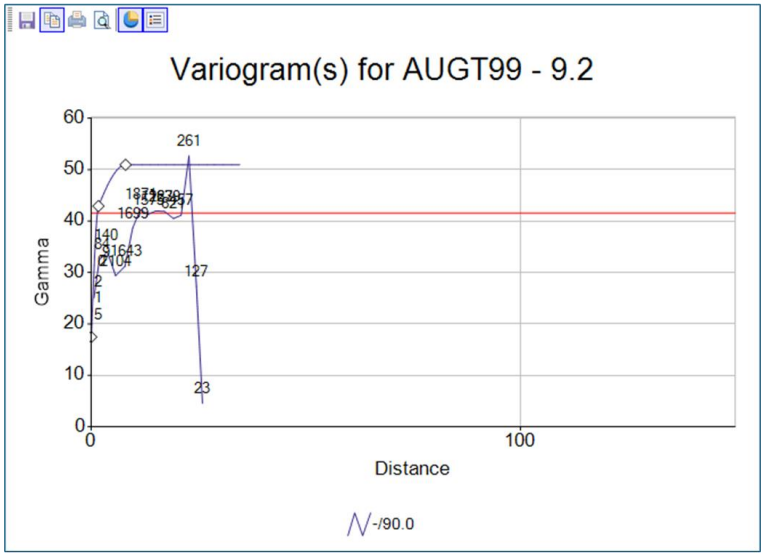


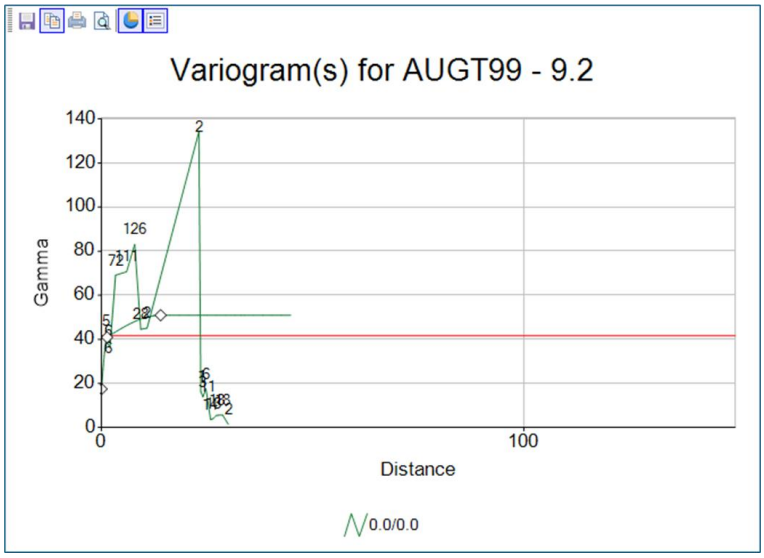



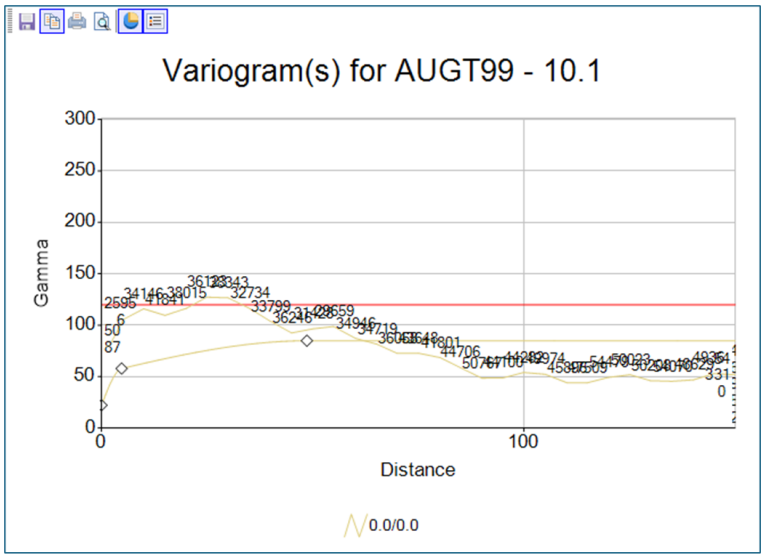

*Blanket6 FW Variograms*

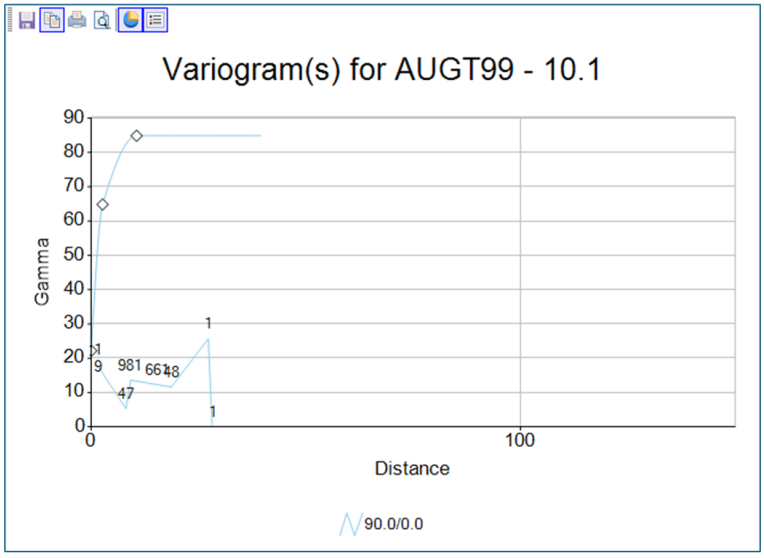


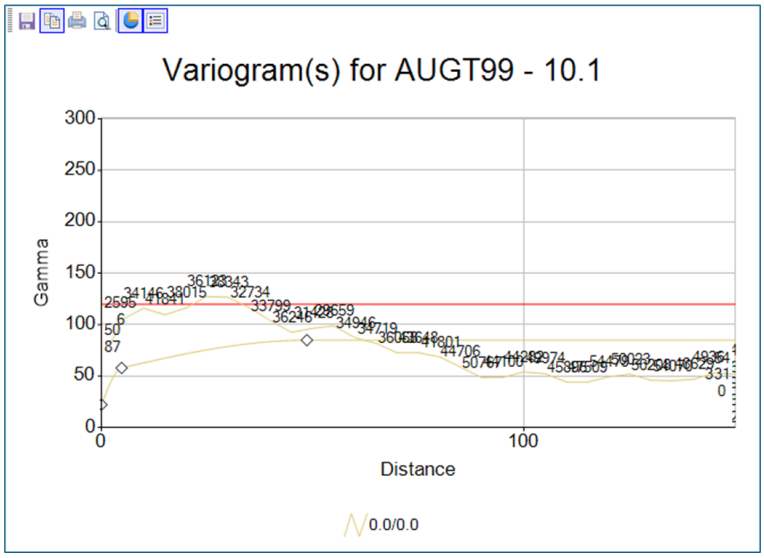



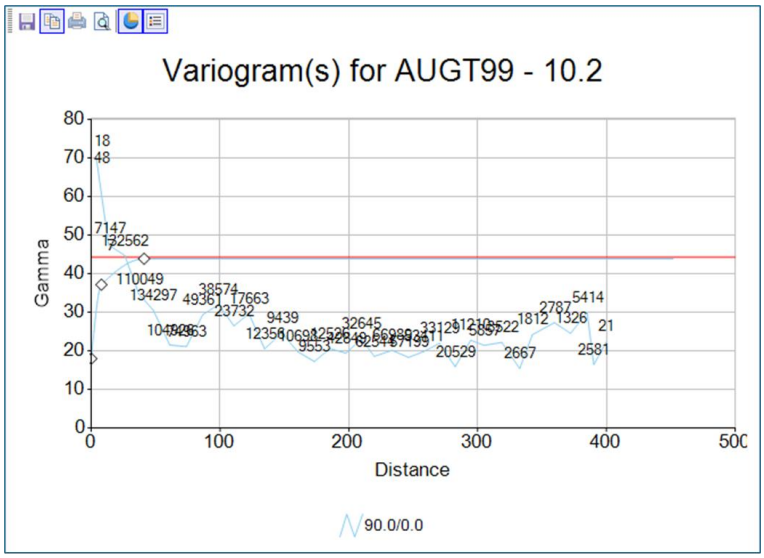

*Blanket6 HW Variograms*

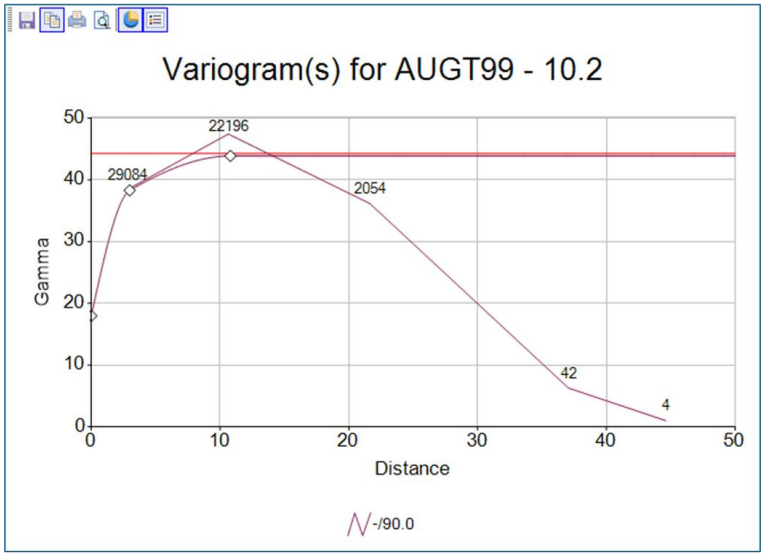


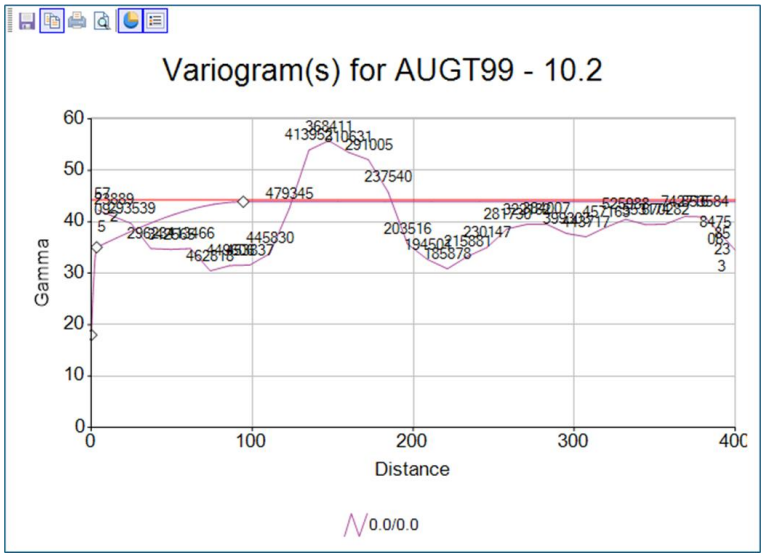



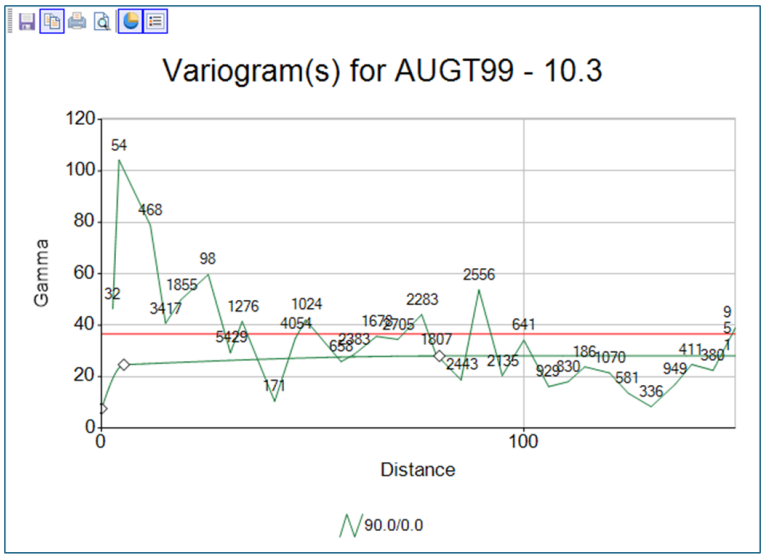

*BQR FW Variograms*

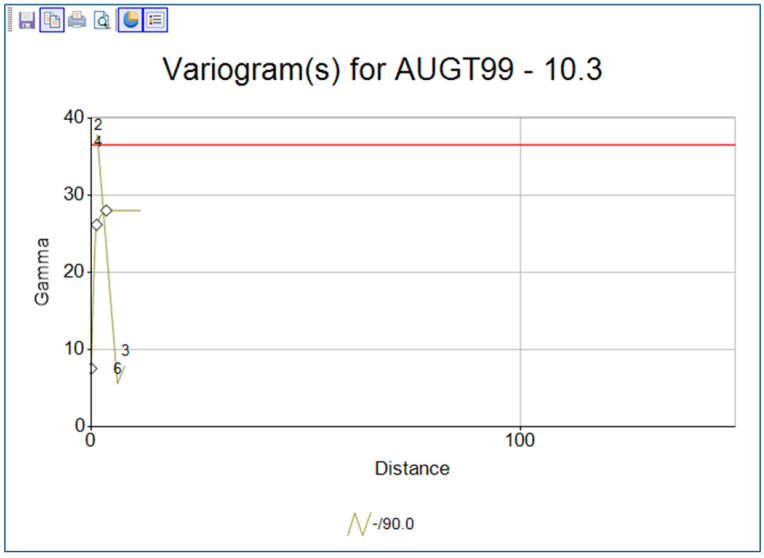


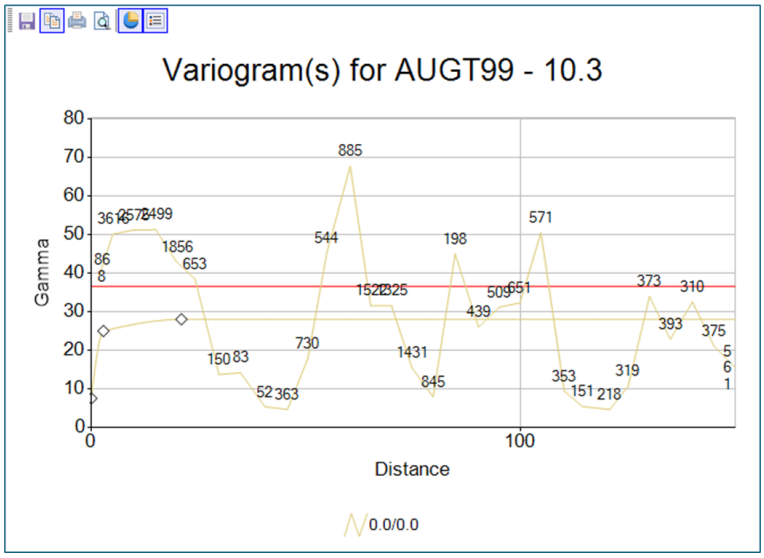



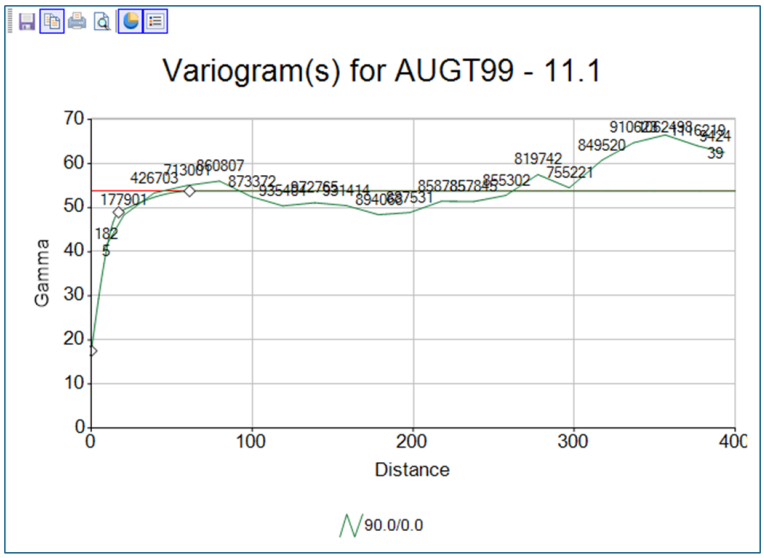

*BQR HW Variograms*

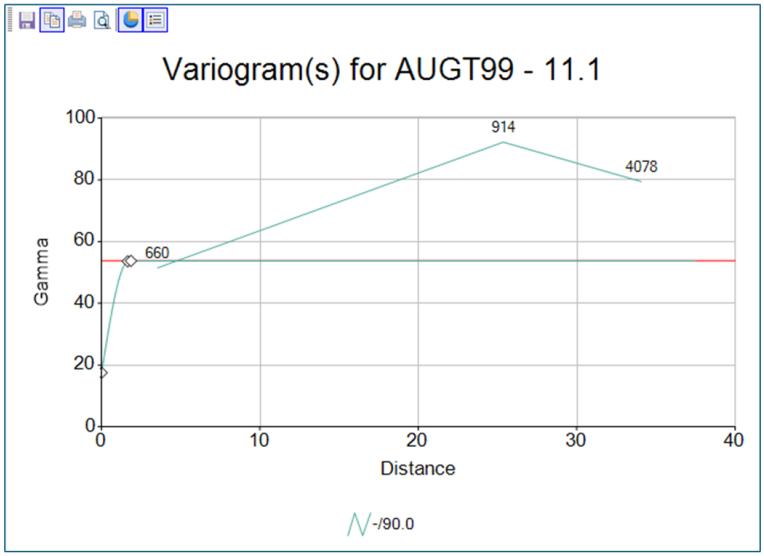


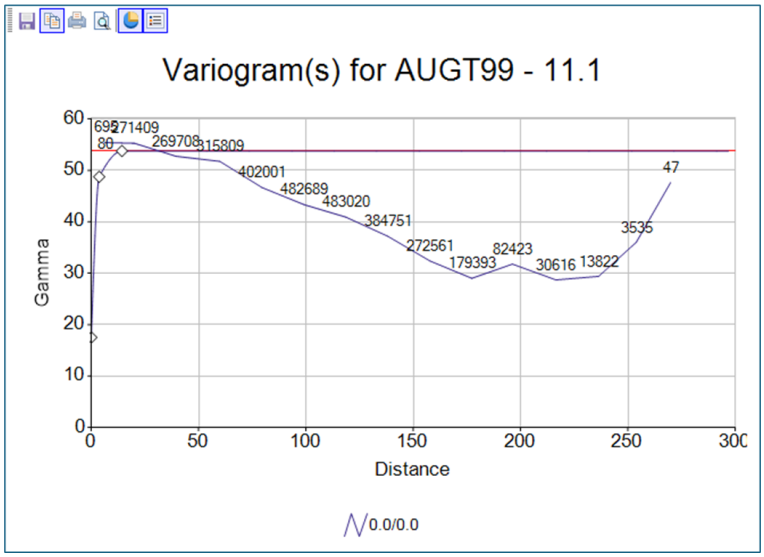



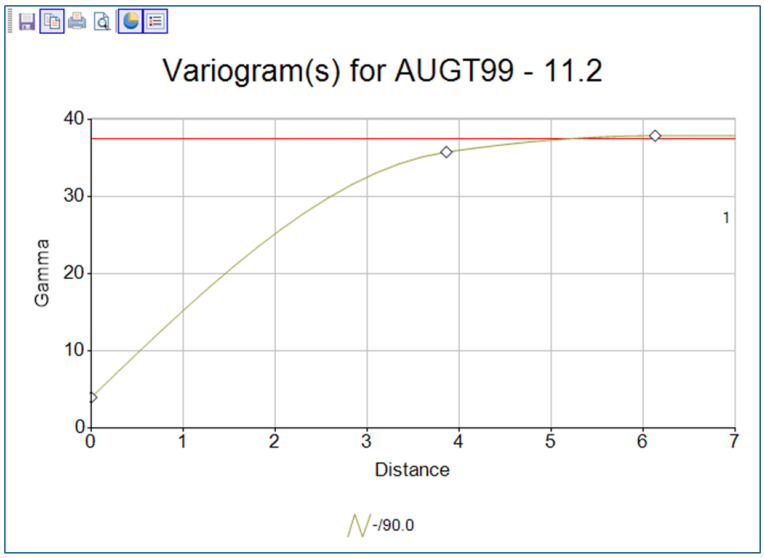

*BQR HW North Variograms*

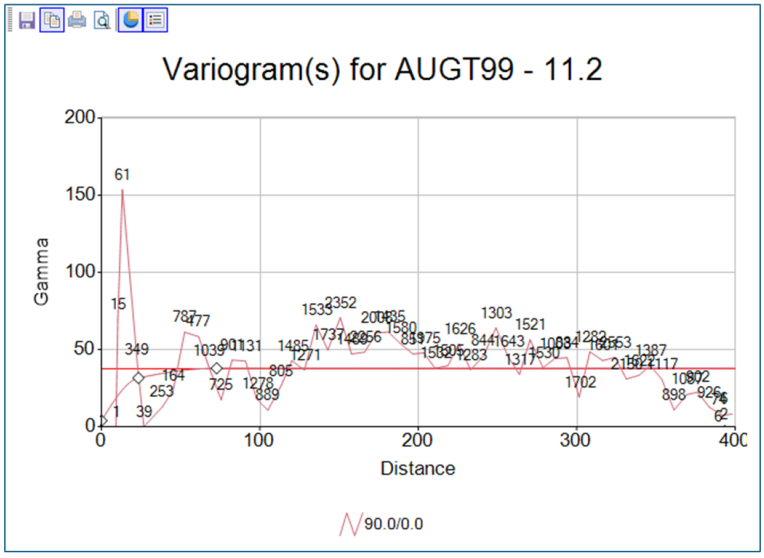


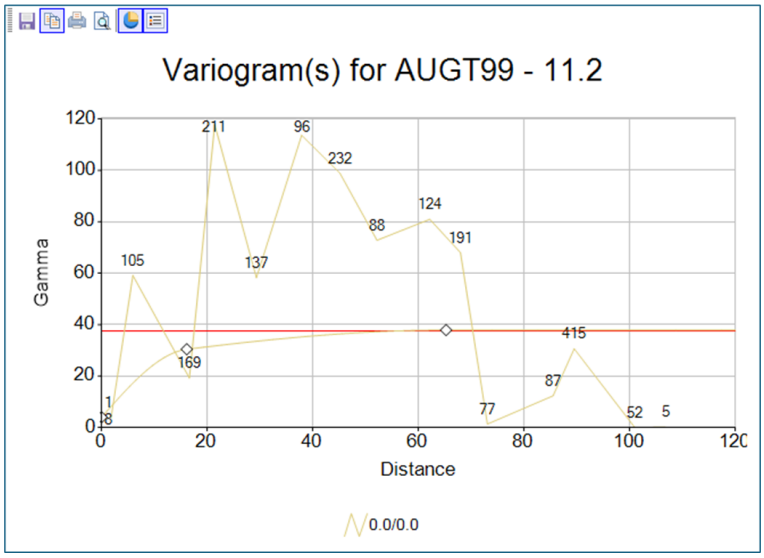



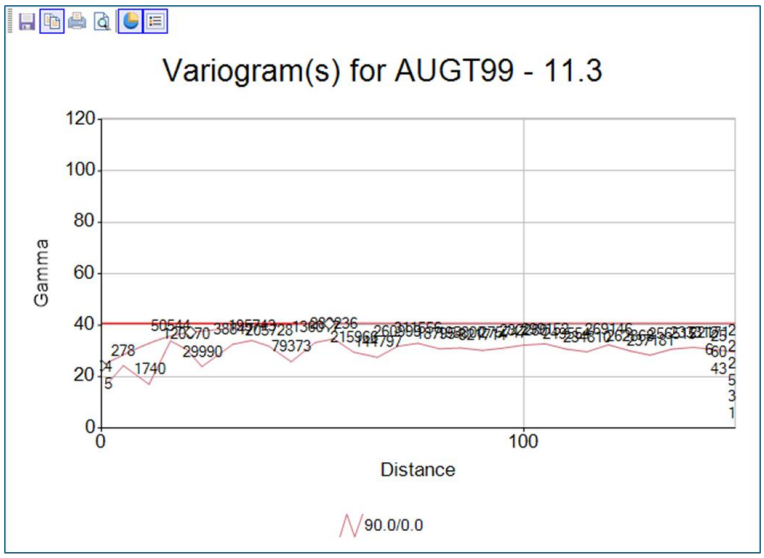

*ERC North Variograms*

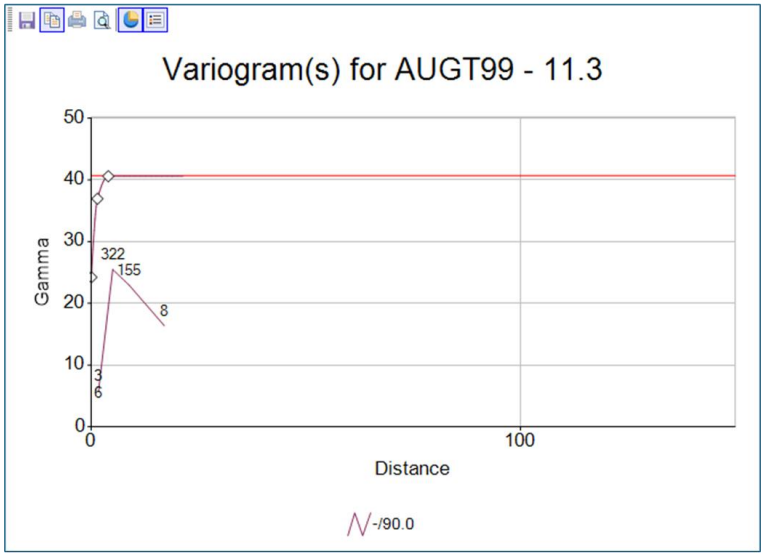


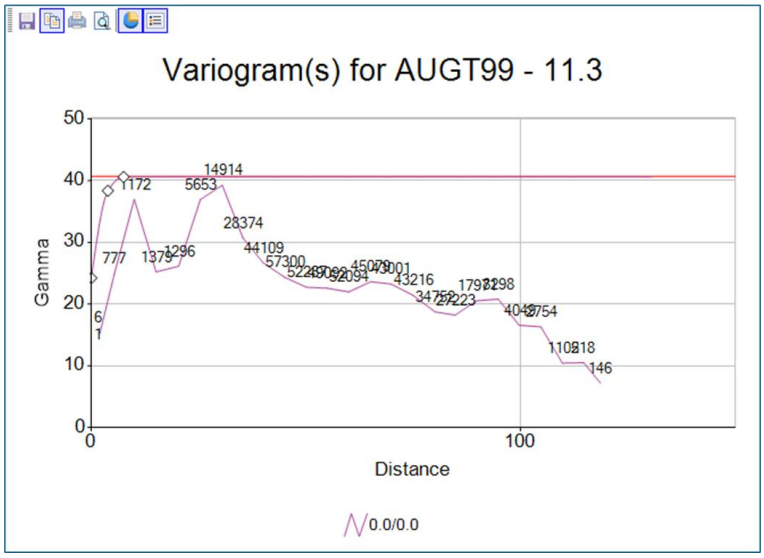



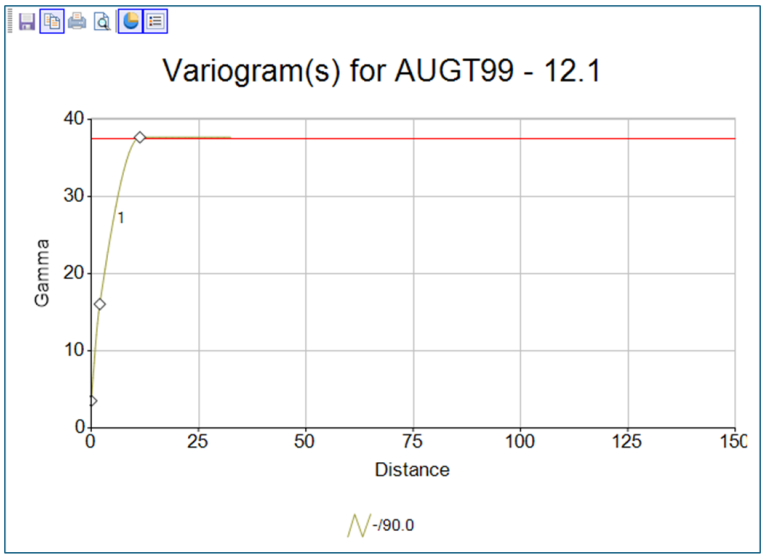

*ERC North FW Variograms*

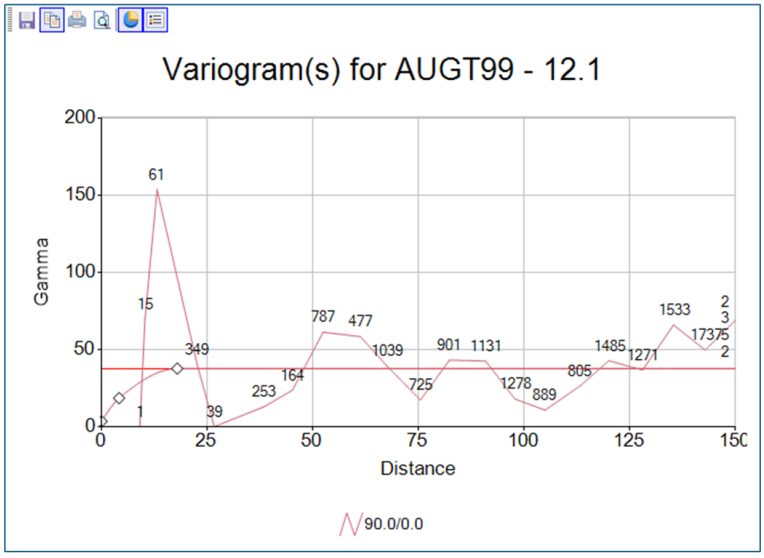


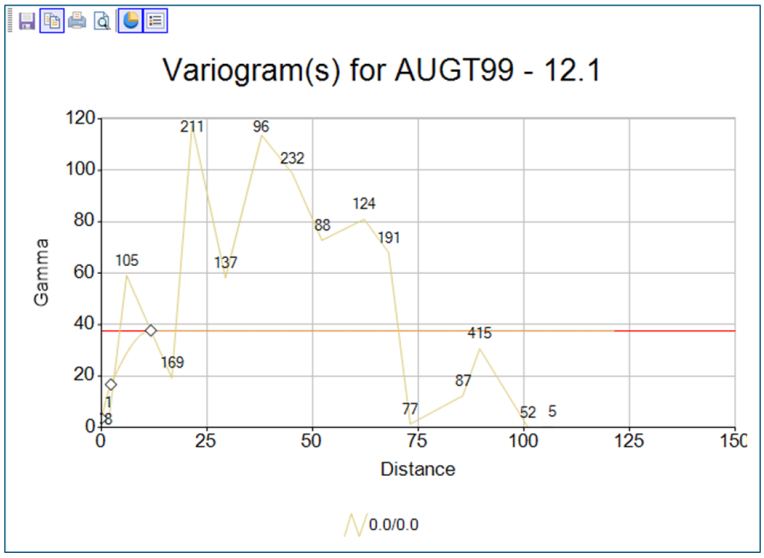



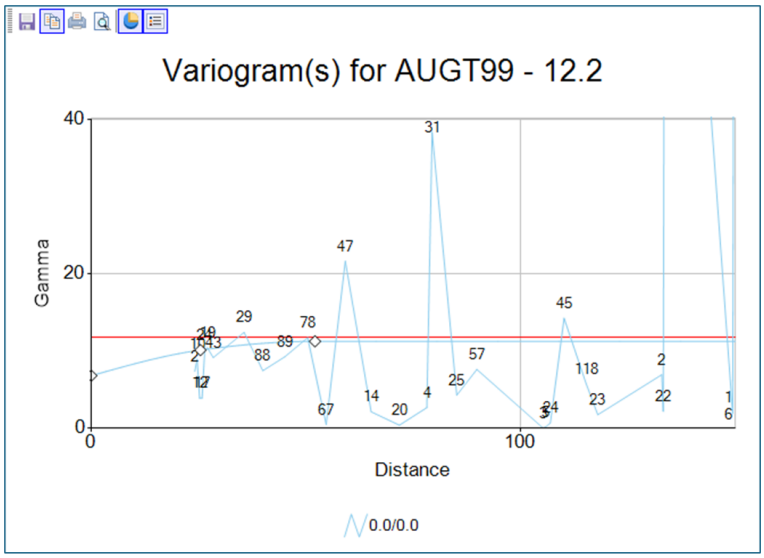

*ERC South Variograms*

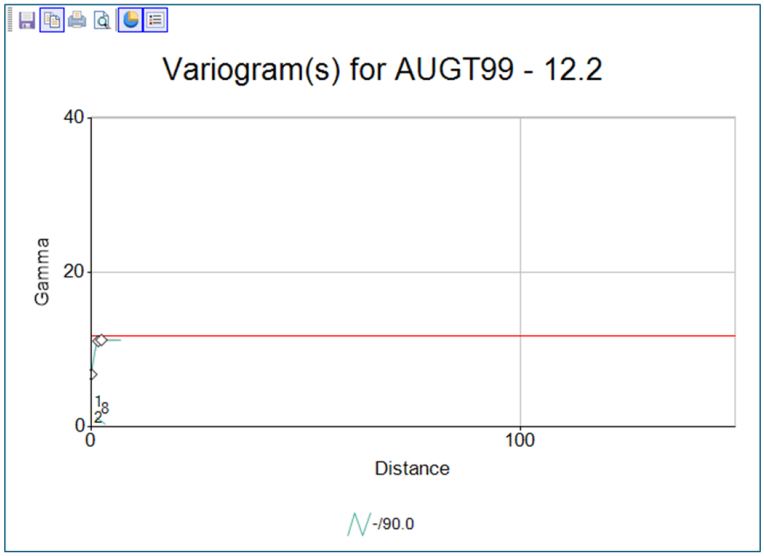


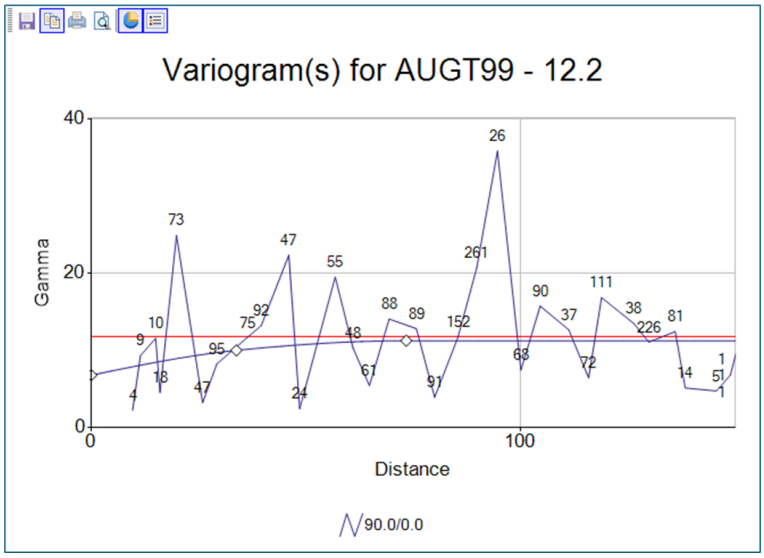



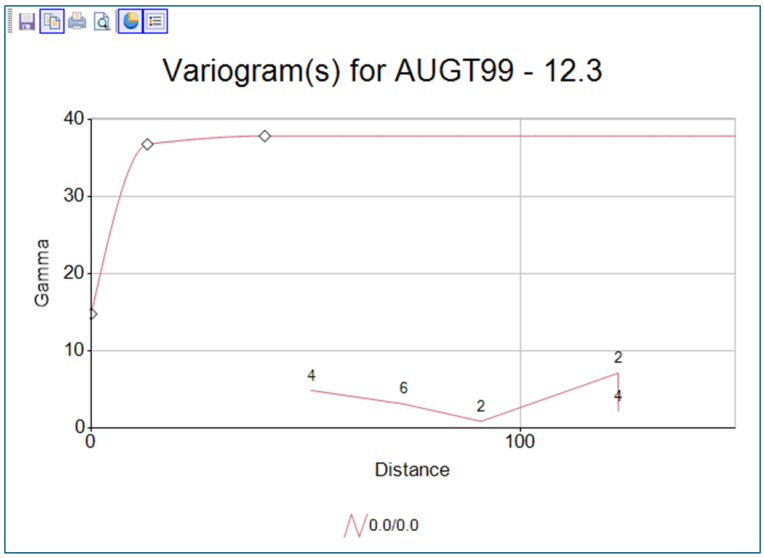

*Jethro Variograms*

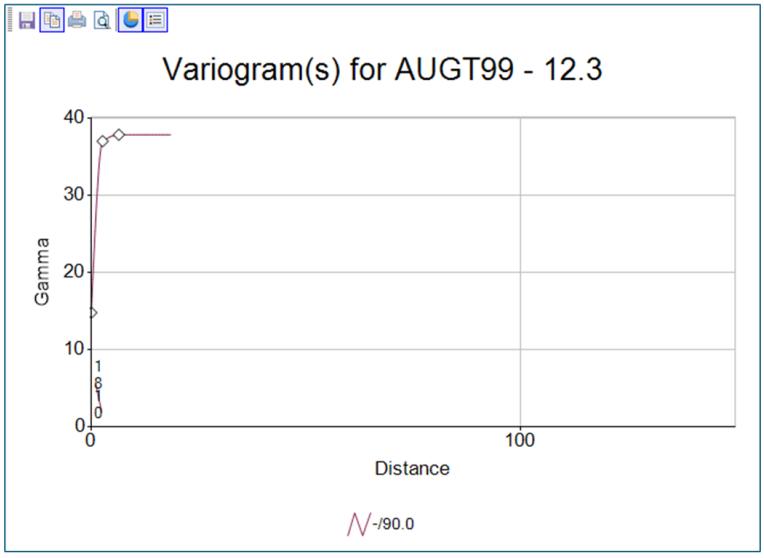


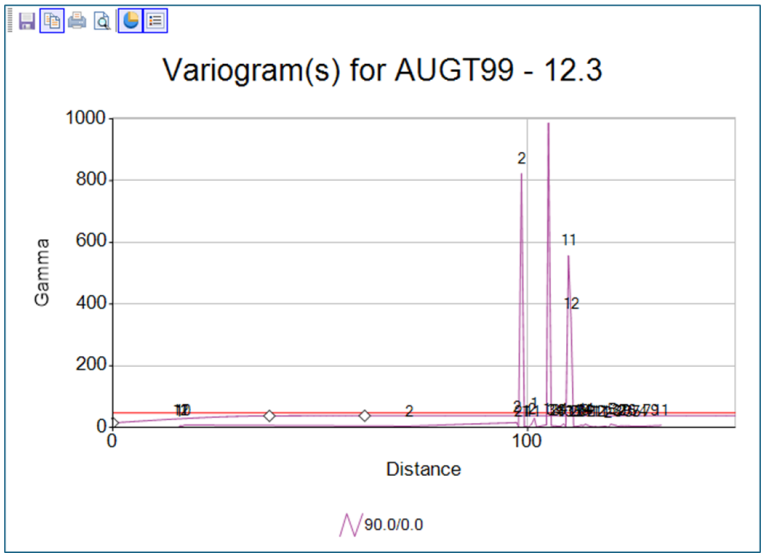



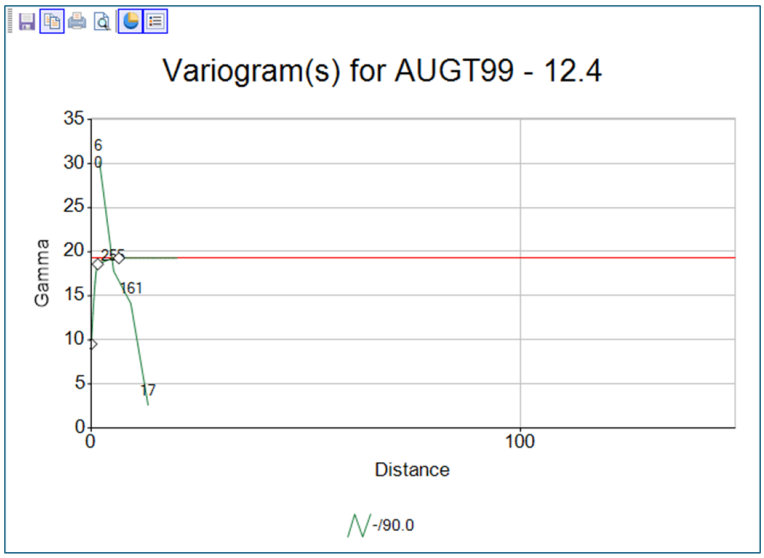

*Jethro Central Variograms*

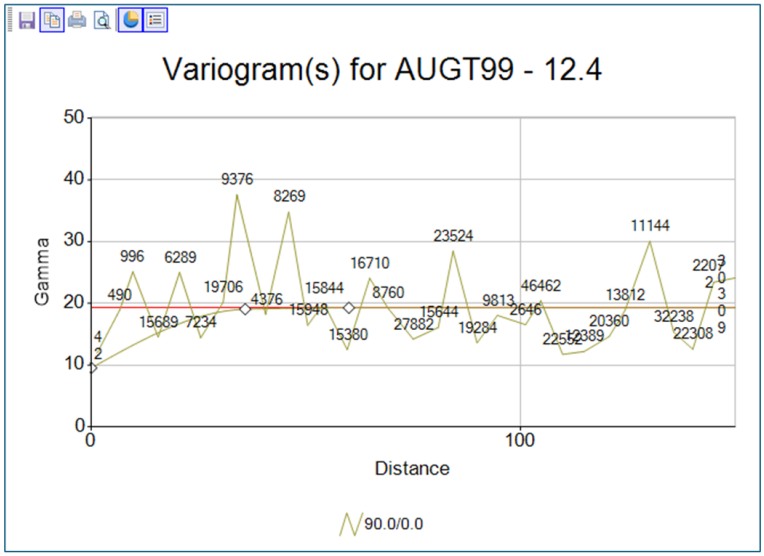


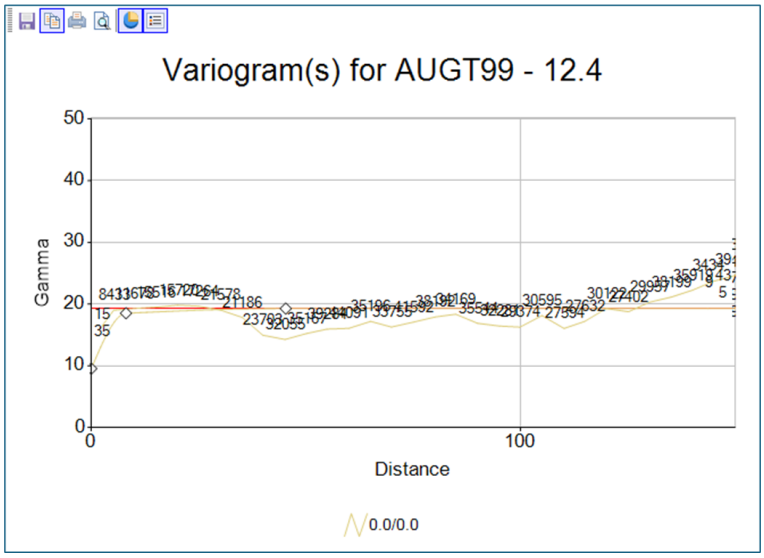



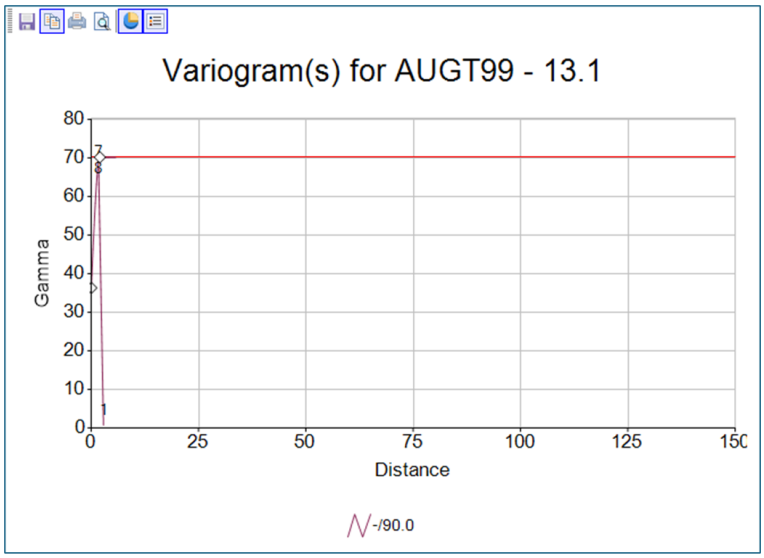

*Jethro HW1 Variograms*

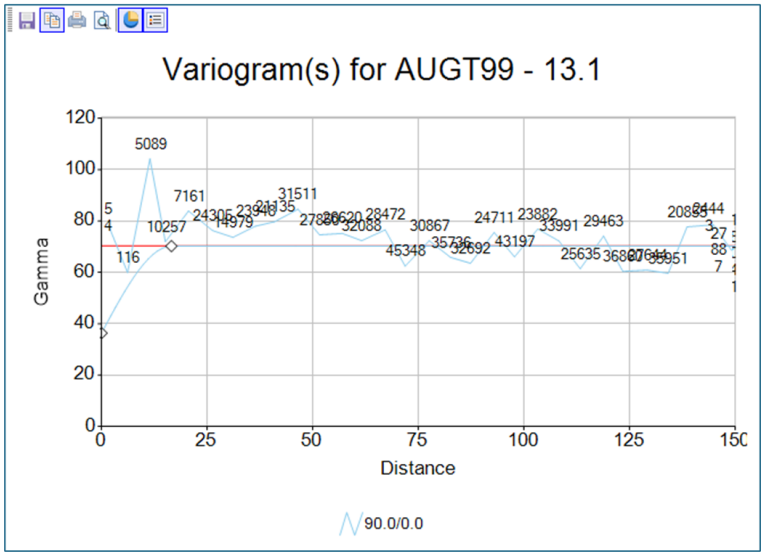


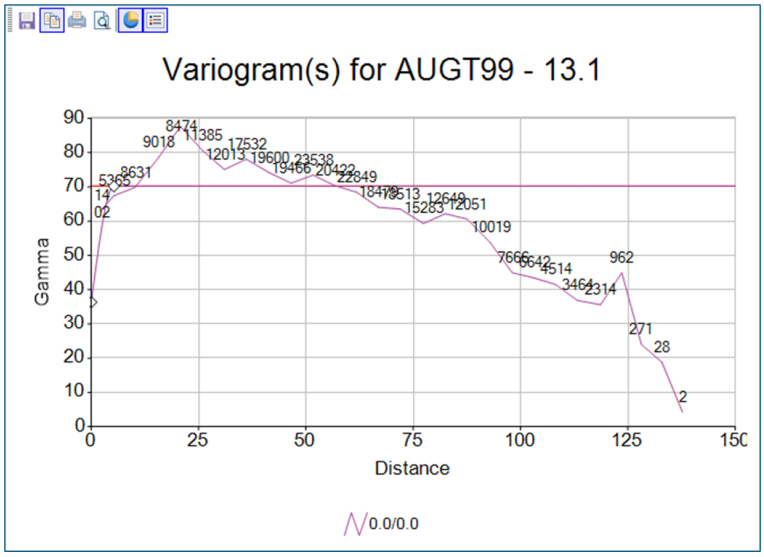



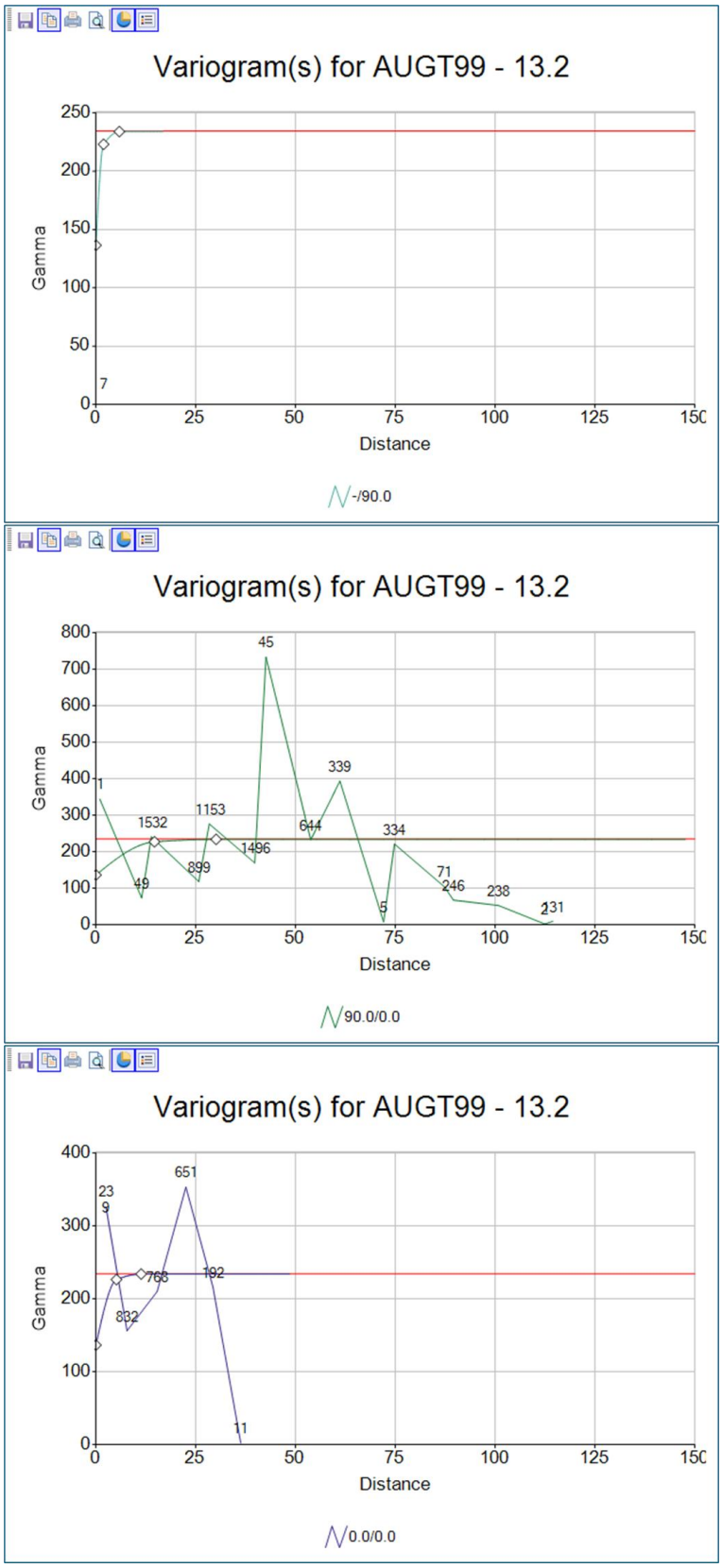

*Jethro HW2 Variograms*



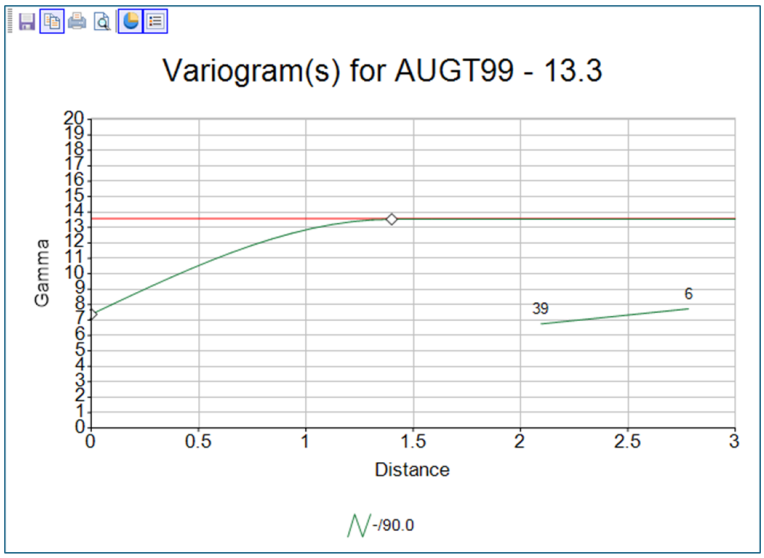



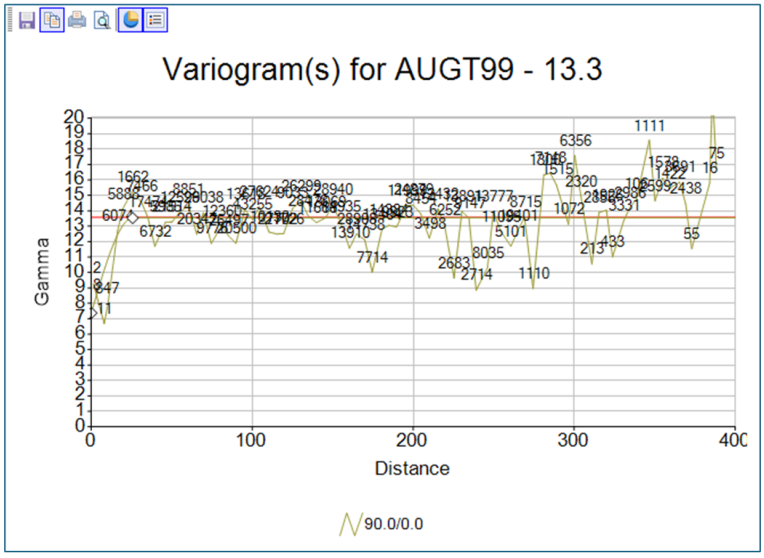



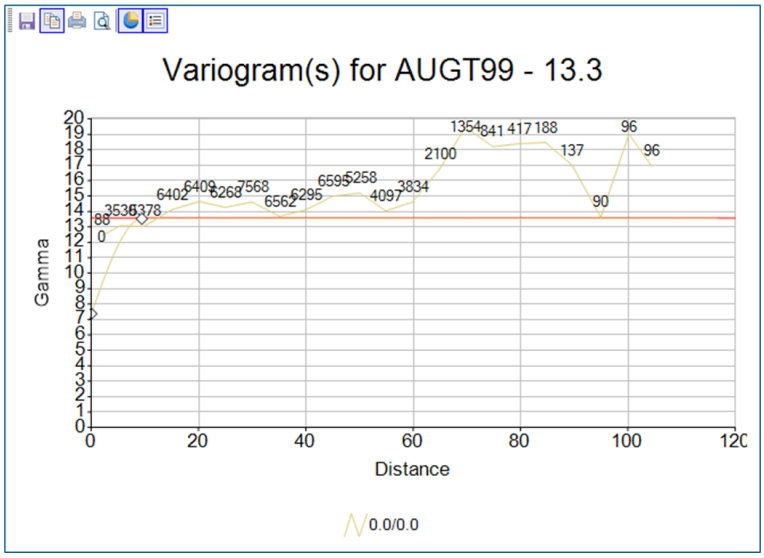

*LIMA FWE Variograms*



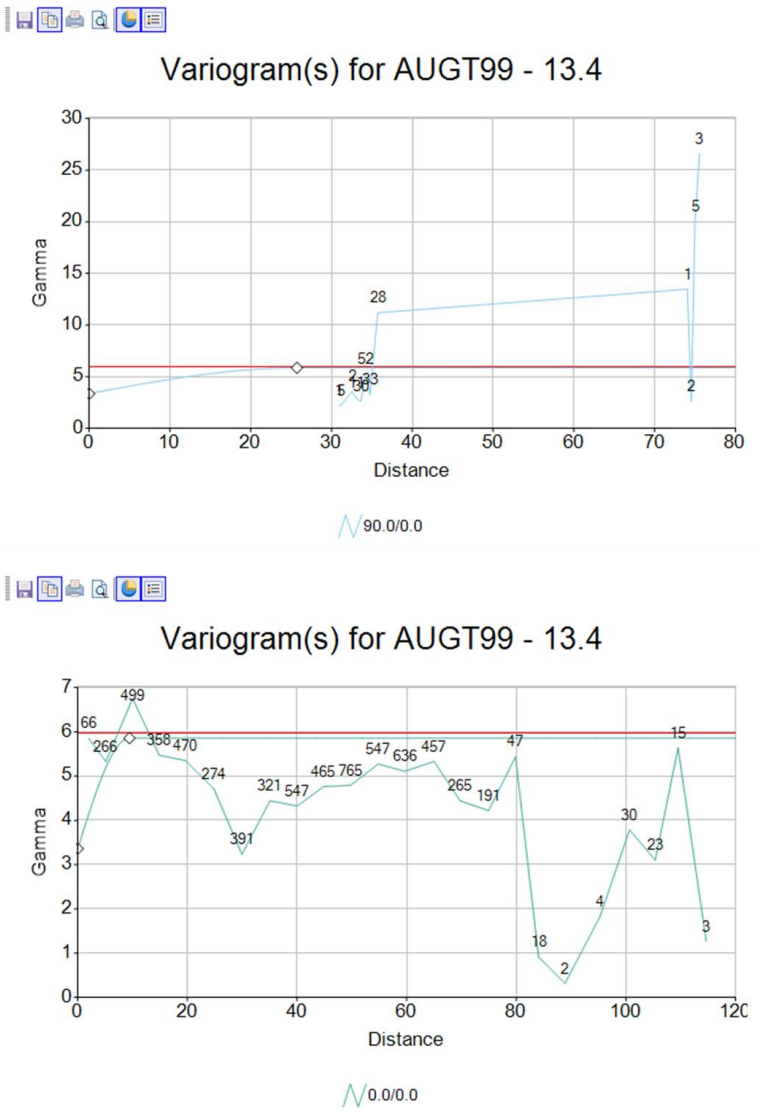

*LIMA HW Variograms*



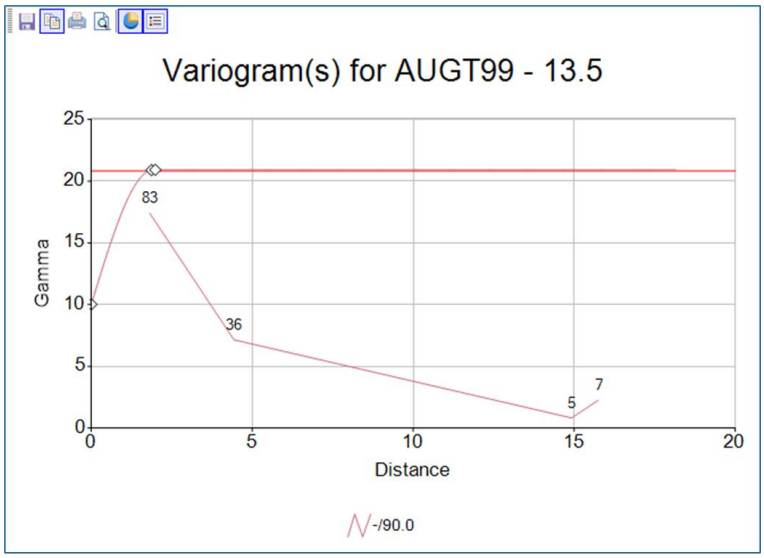



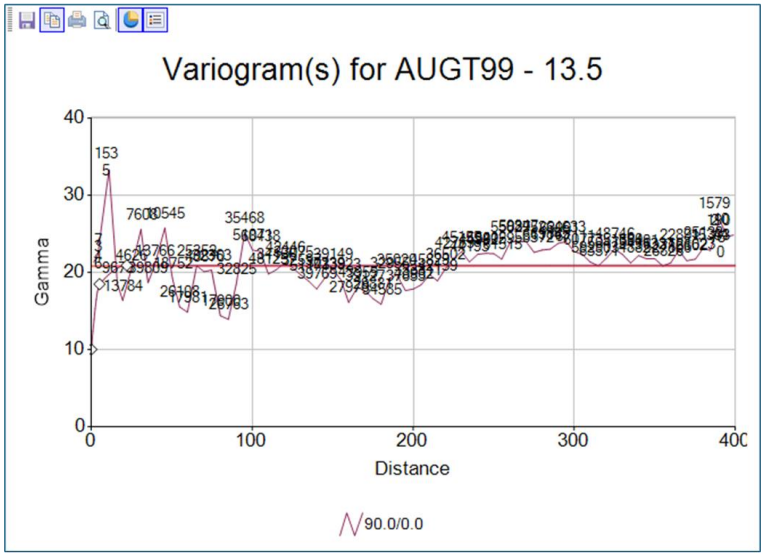



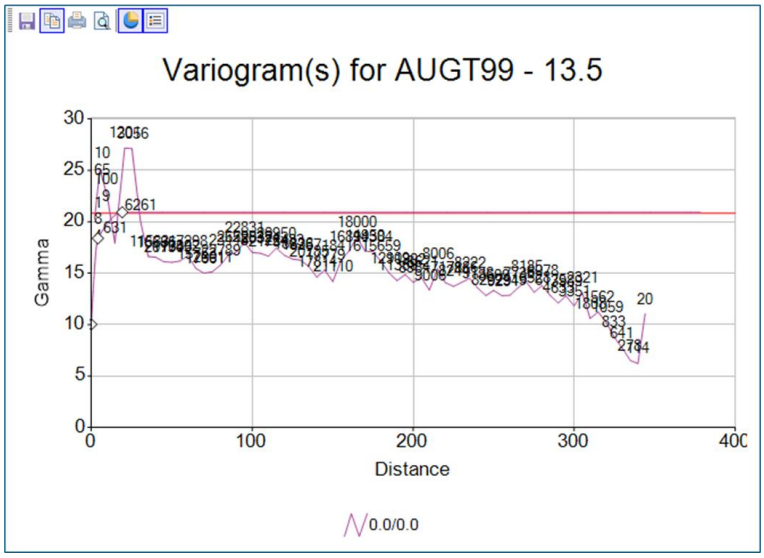

*LIMA Inter Variograms*



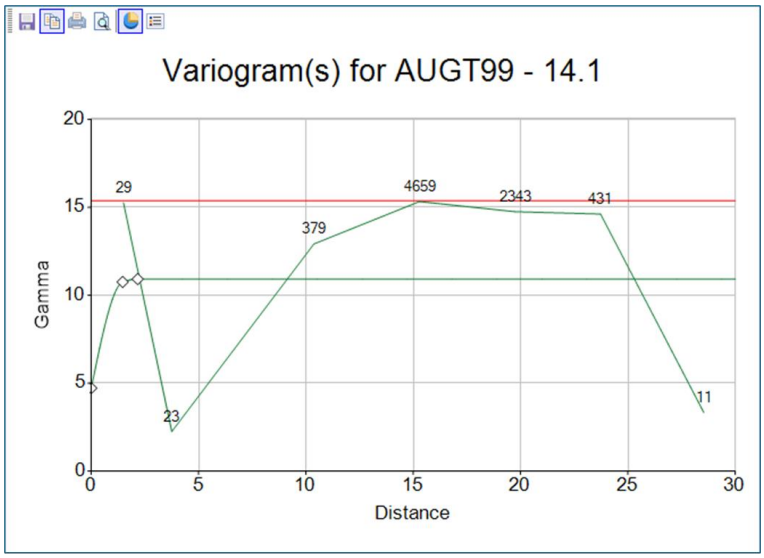

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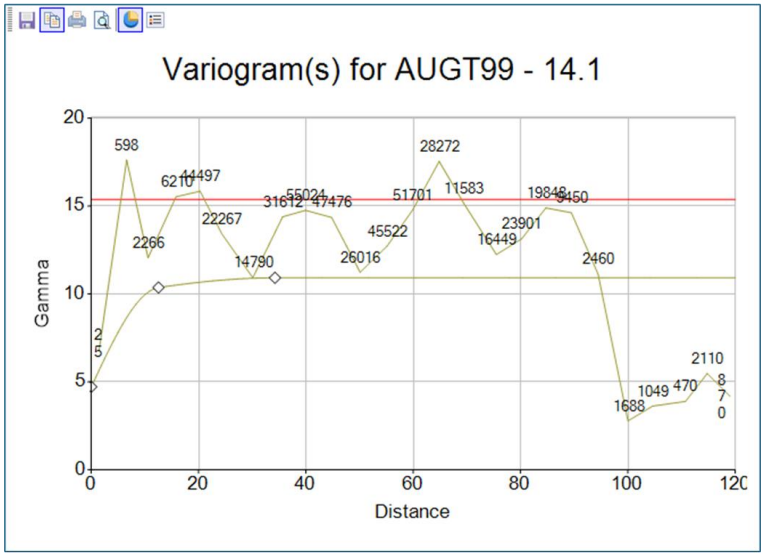


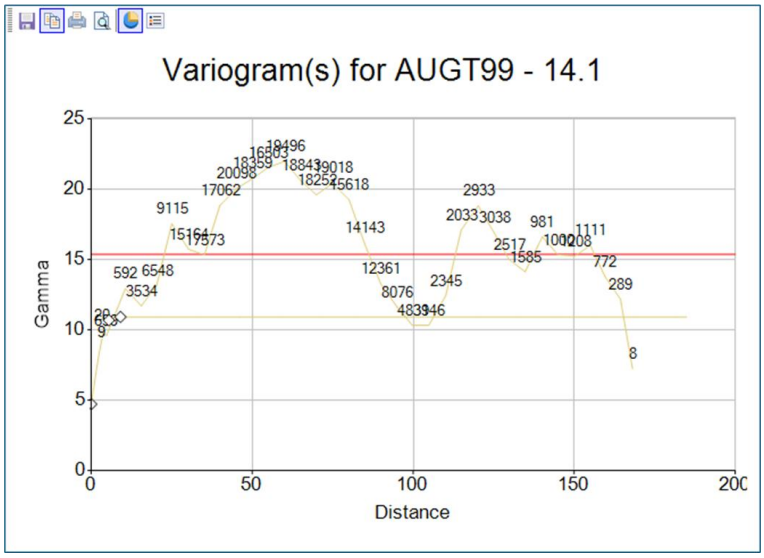



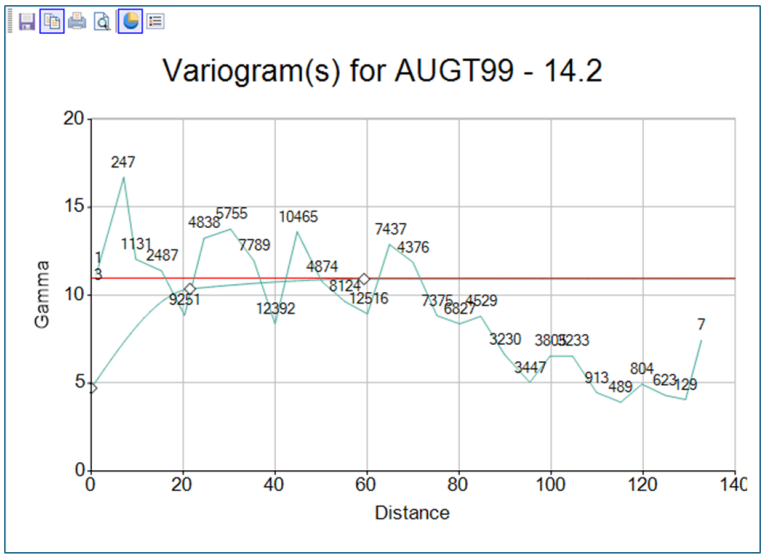

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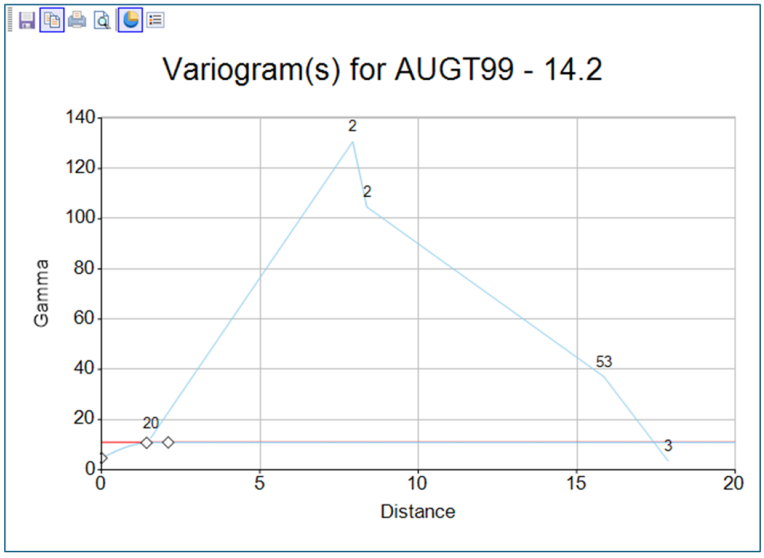


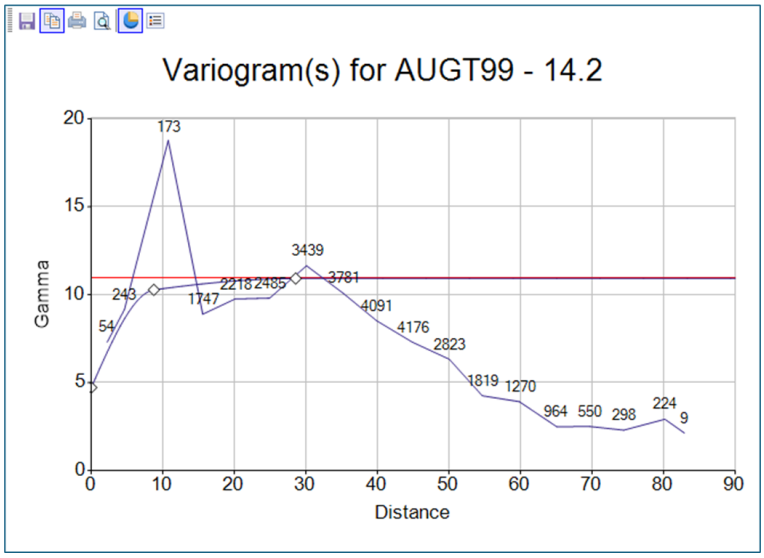




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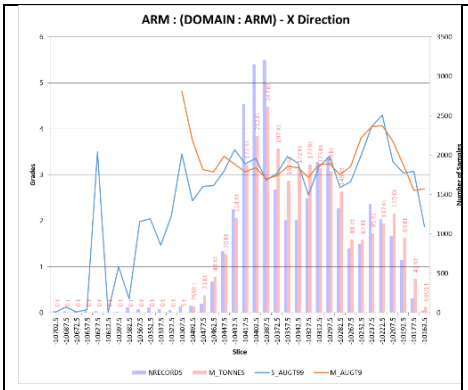


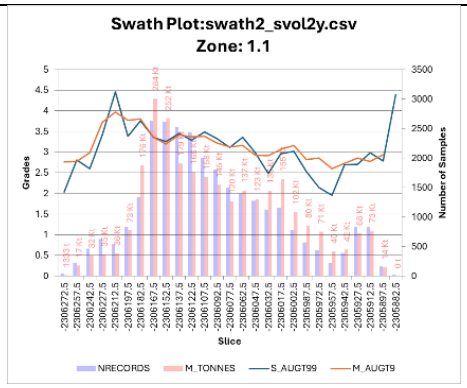



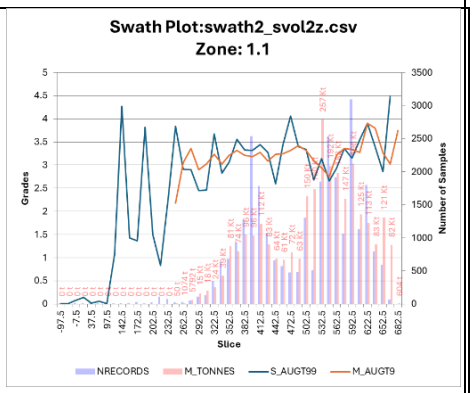




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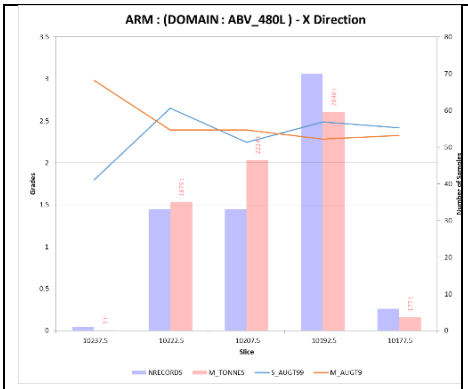
## Appendix 5: Swath Plots

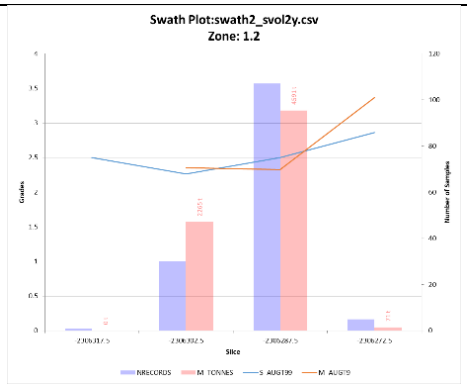


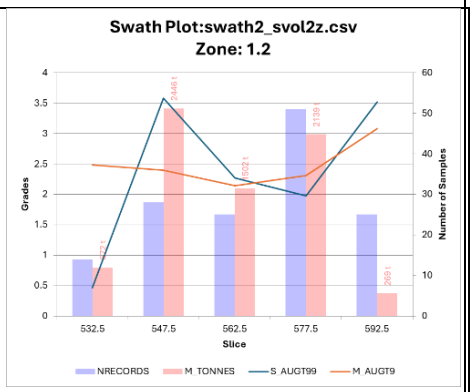



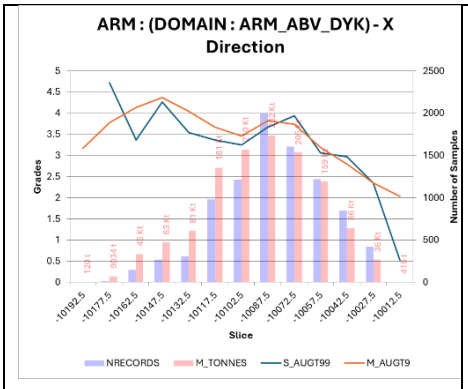

Swathe Plot for ARM in X, Y and Z Directions (15m wide)

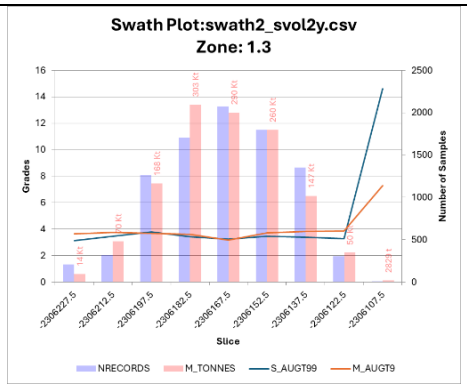


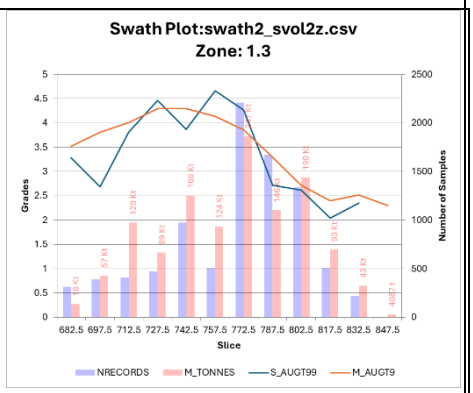



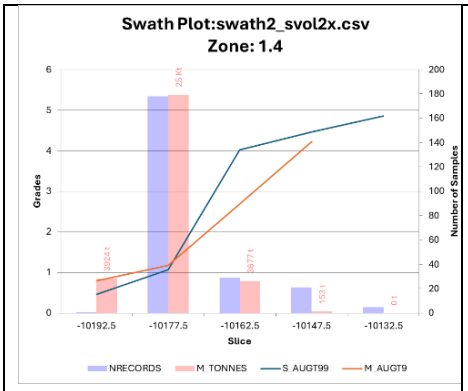

Swathe Plot for ARM_ABV_480l in X, Y and Z Directions (15m wide)

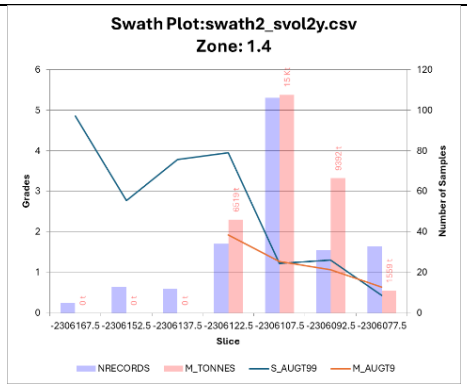


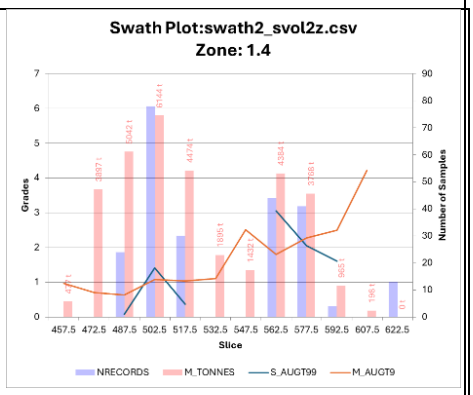



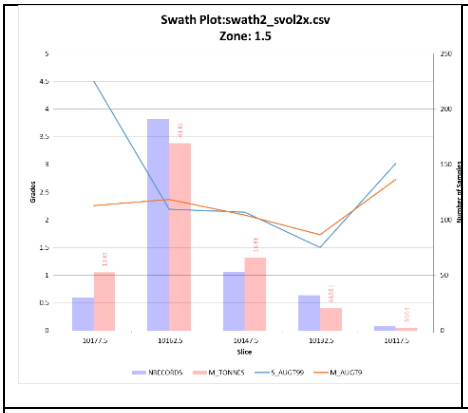

Swathe Plot for ARM_ABV_DYK in X, Y and Z Directions (15m wide)

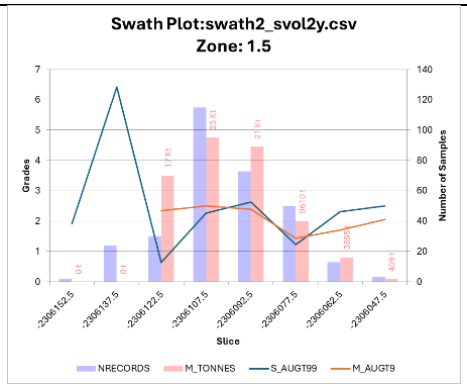


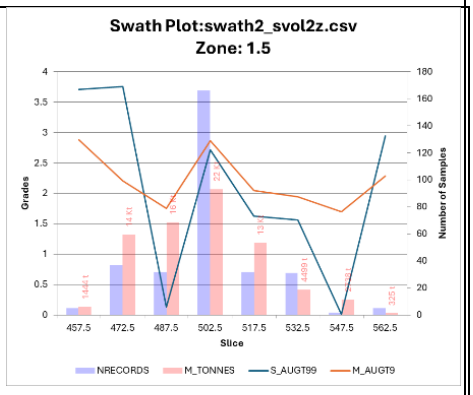



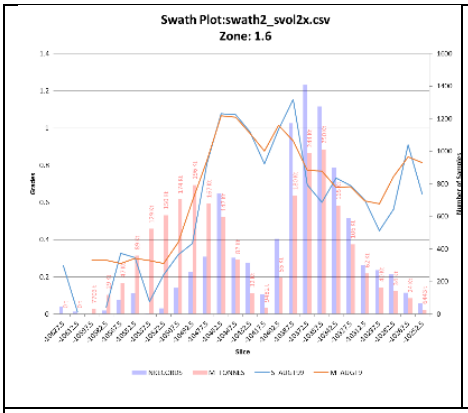

Swathe Plot for ARM_FAR_FW1 in X, Y and Z Directions (15m wide)

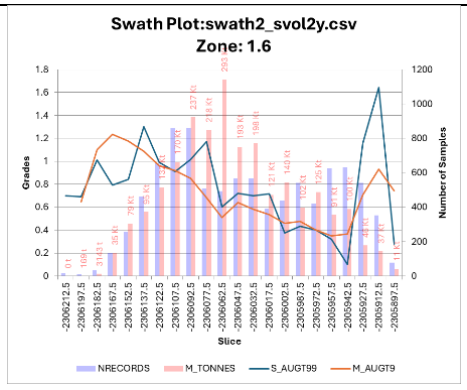


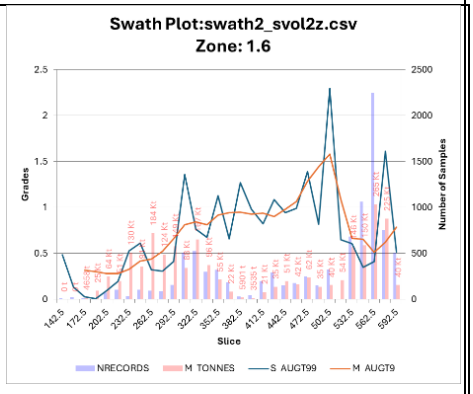



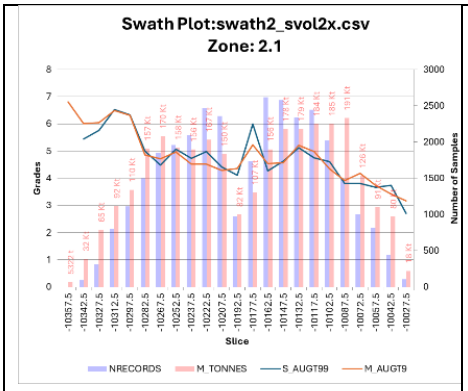

Swathe Plot for ARM_FAR_FW2 in X, Y and Z Directions (15m wide)

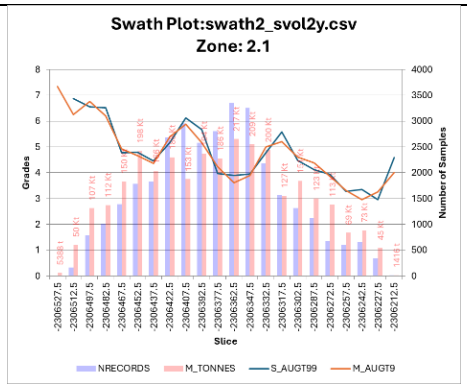


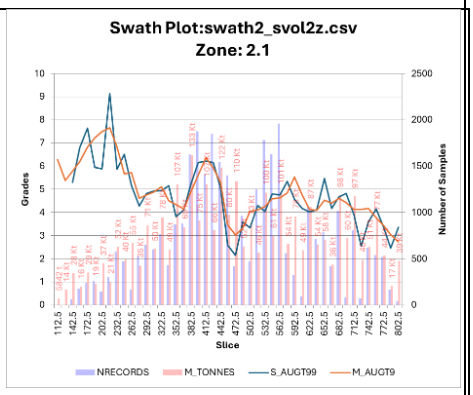



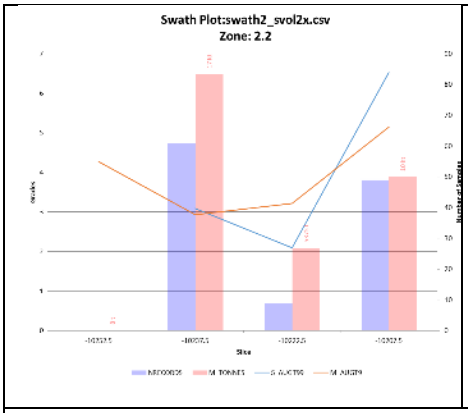

Swathe Plot for ARM_Waste in X, Y and Z Directions (15m wide)

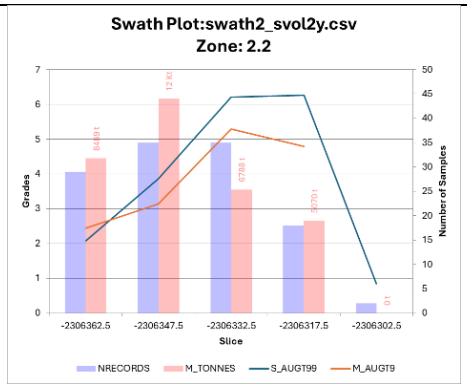


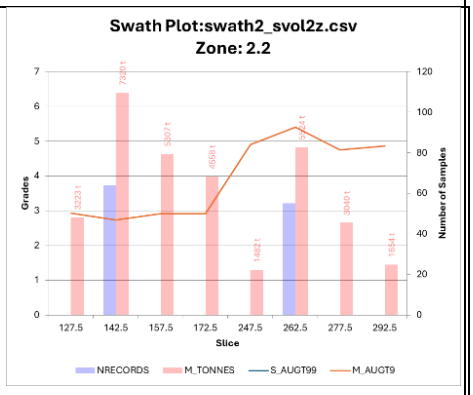



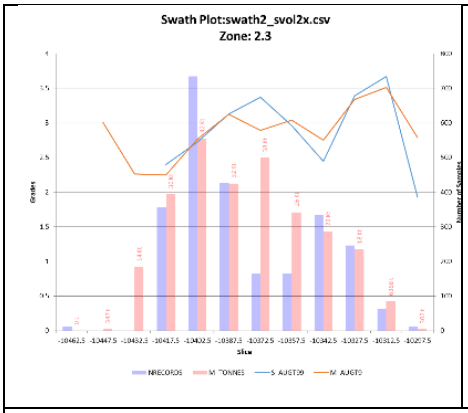

Swathe Plot for ARS_EWL in X, Y and Z Directions (15m wide)

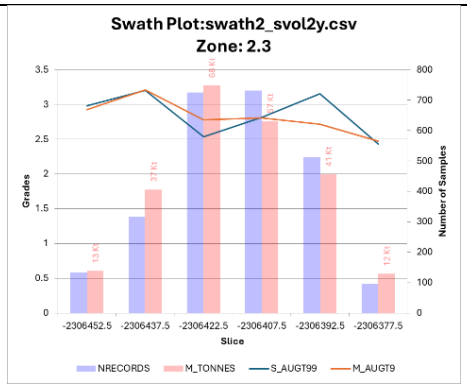


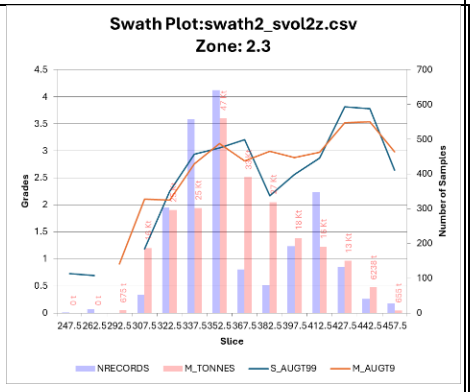



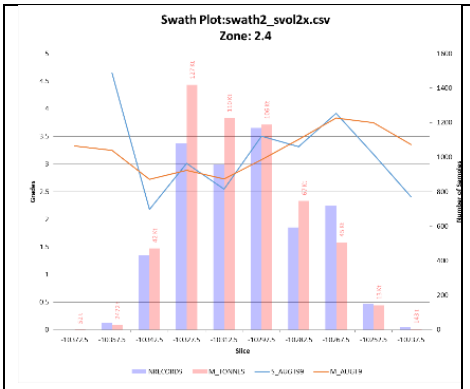

Swathe Plot for ARS_FW in X, Y and Z Directions (15m wide)

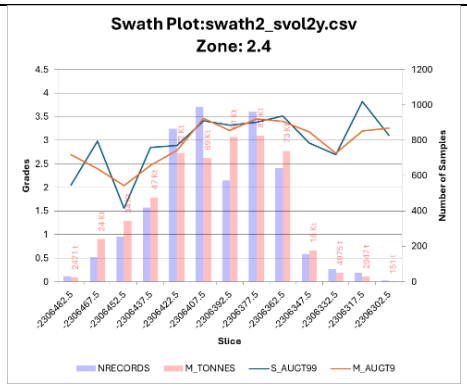


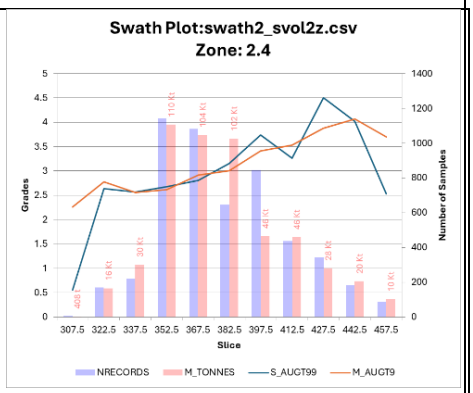



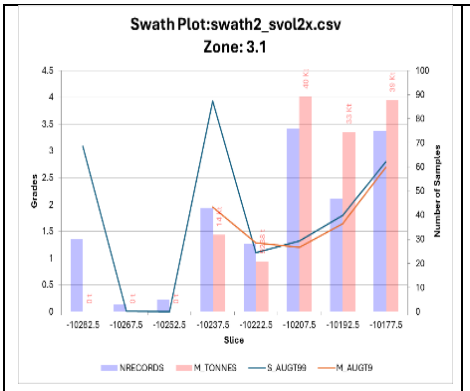

Swathe Plot for ARS_HW in X, Y and Z Directions (15m wide)

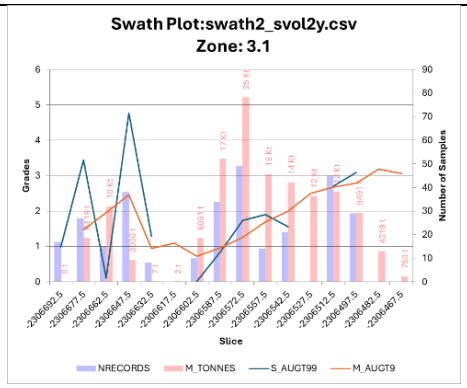


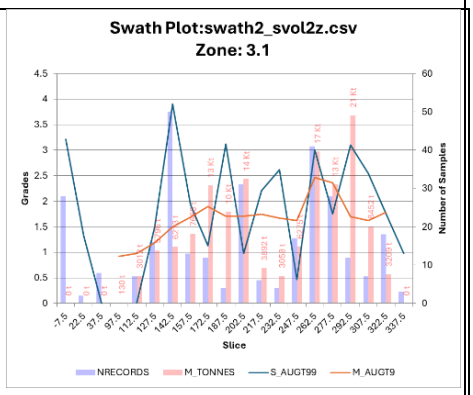



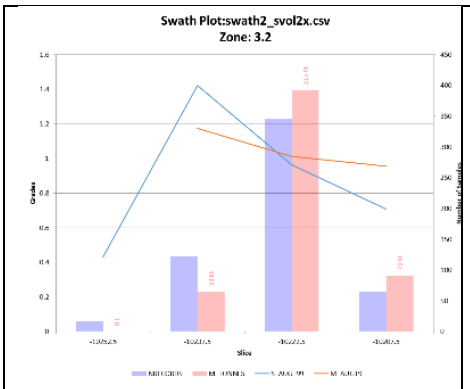

Swathe Plot for ARS_NSL in X, Y and Z Directions (15m wide)

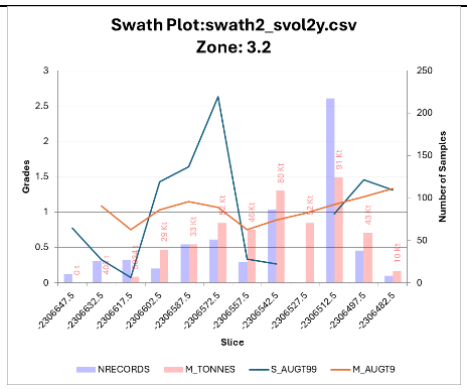


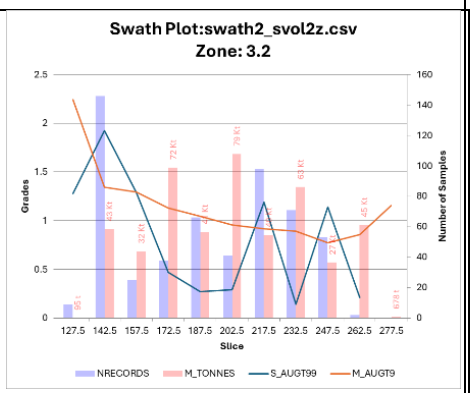



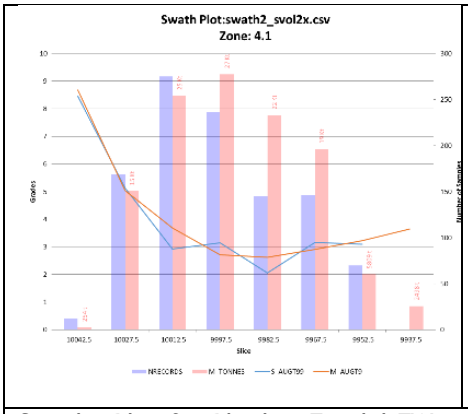

Swathe Plot for ARS_Extension in X, Y and Z Directions (15m wide)

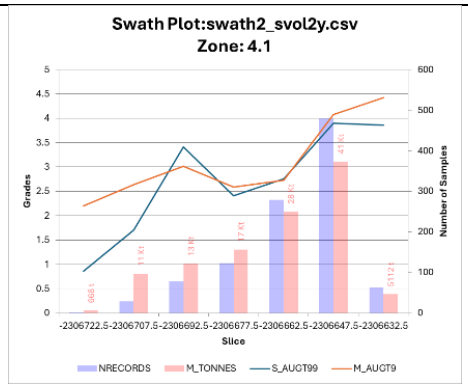


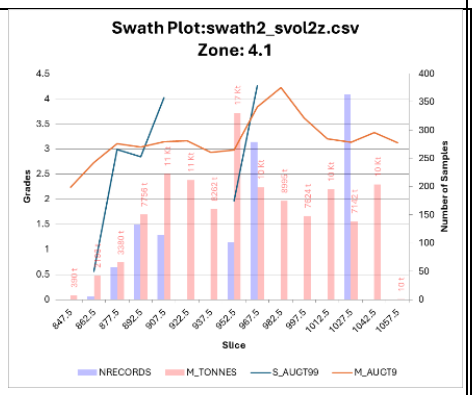



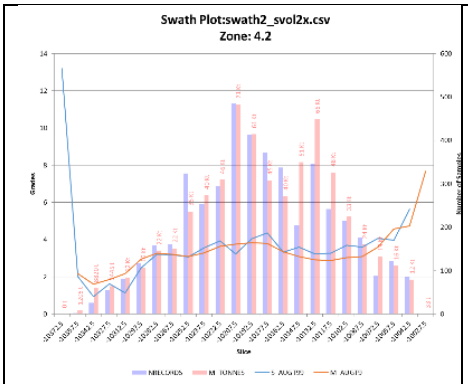

Swathe Plot for ARS_Extension_990L in X, Y and Z Directions (15m wide)



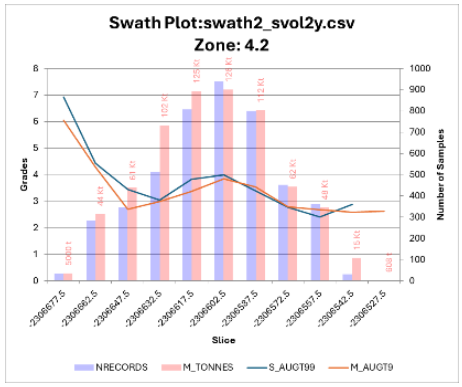



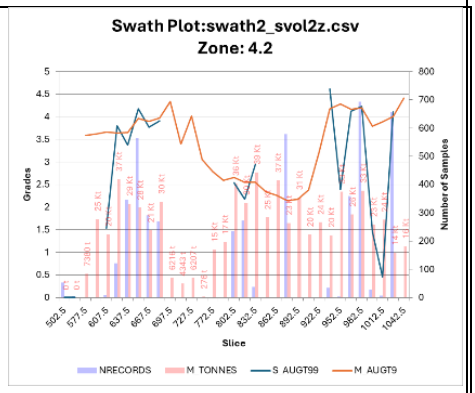




Swathe Plot for Blanket Feudal FW in X, Y and Z Directions (15m wide)

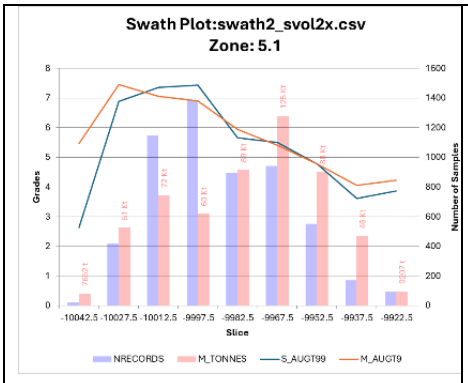


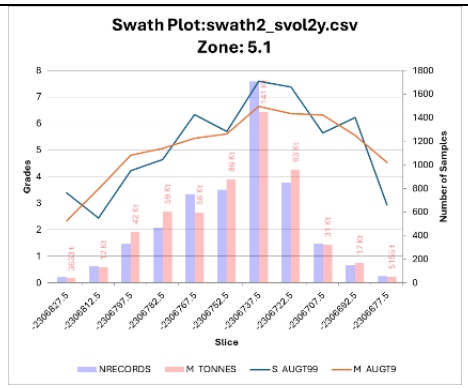

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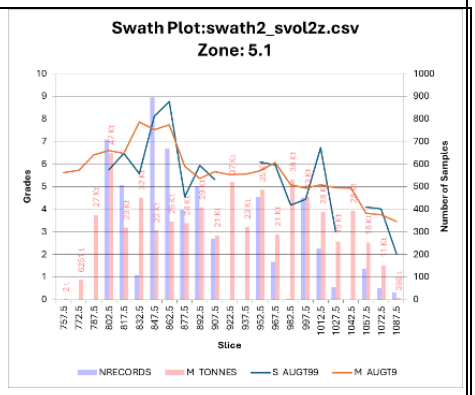


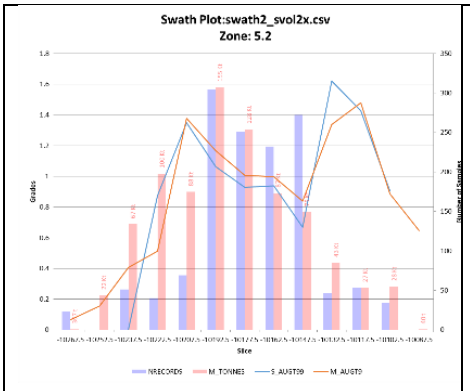

Swathe Plot for Blanket Feudal HW in X, Y and Z Directions (15m wide)

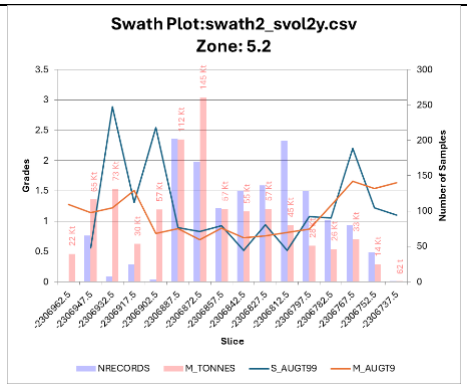


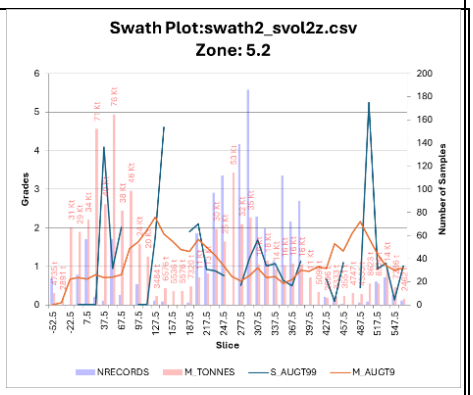



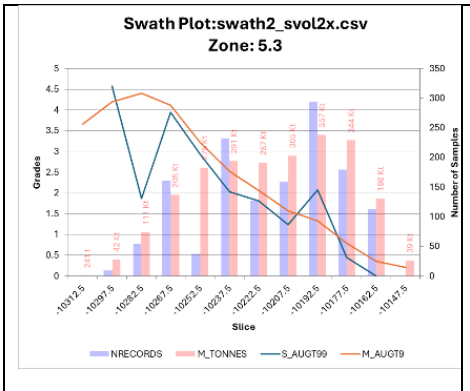

Swathe Plot for Blanket1 FW in X, Y and Z Directions (15m wide)

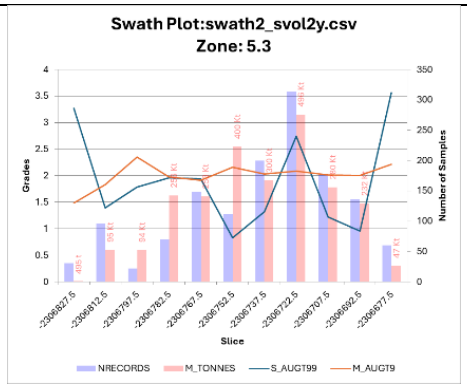


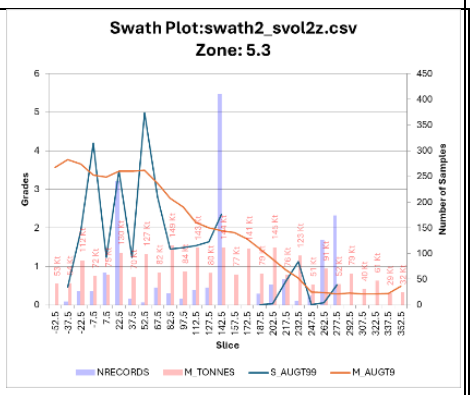



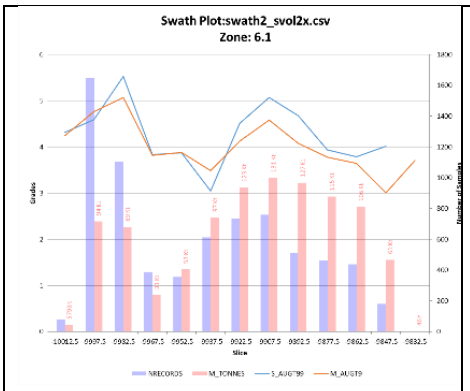

Swathe Plot for Blanket1 HW in X, Y and Z Directions (15m wide)

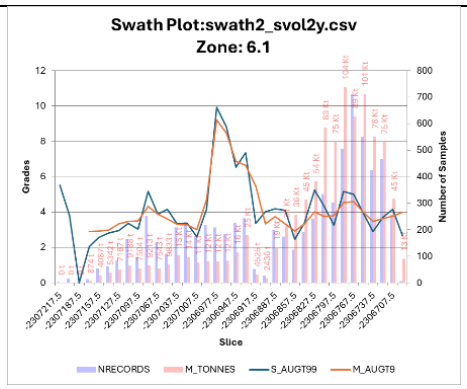


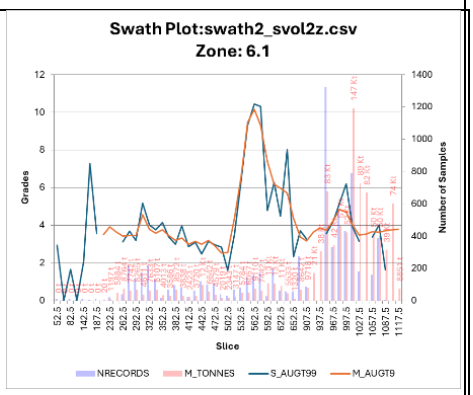



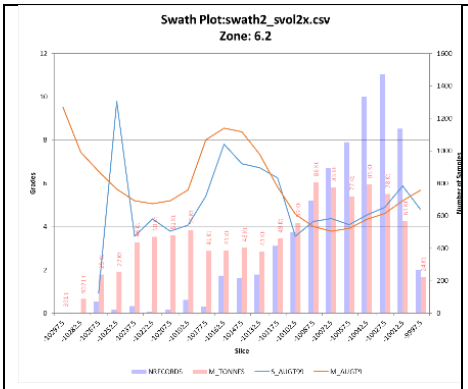

Swathe Plot for Blanket1 HW North in X, Y and Z Directions (15m wide)

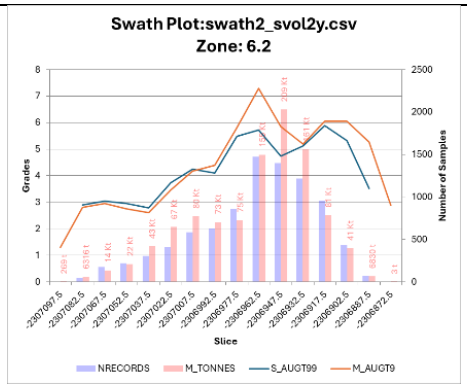


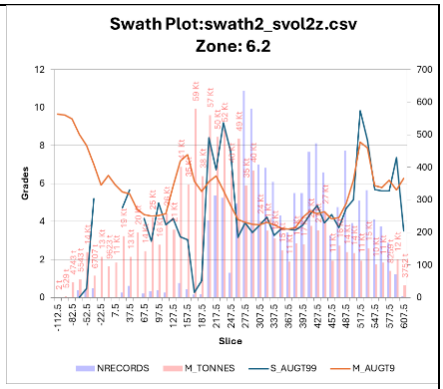



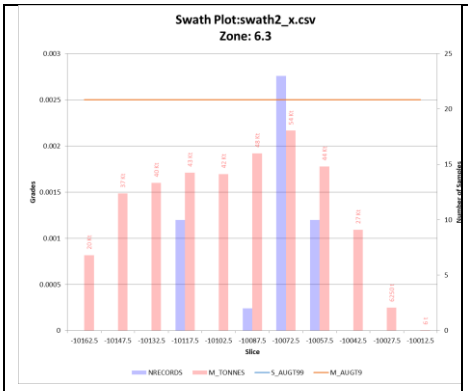

Swathe Plot for Blanket2 FW in X, Y and Z Directions (15m wide)

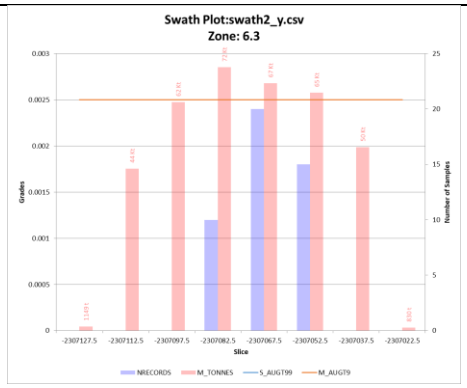


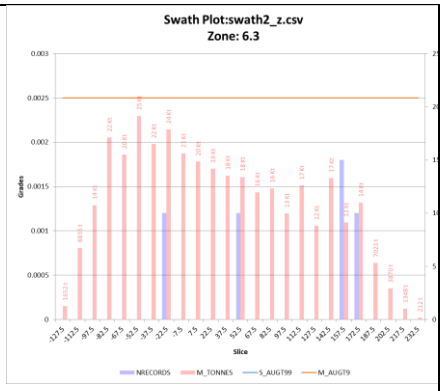



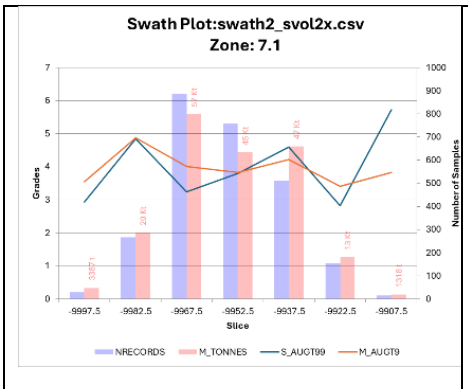

Swathe Plot for Blanket2 HW in X, Y and Z Directions (15m wide)

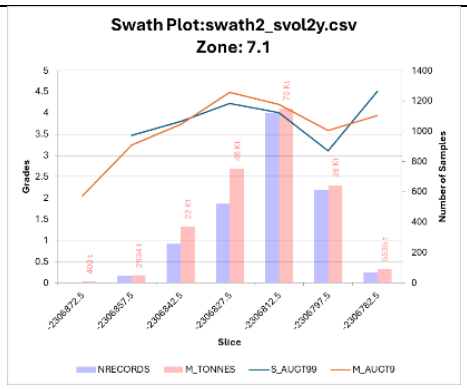


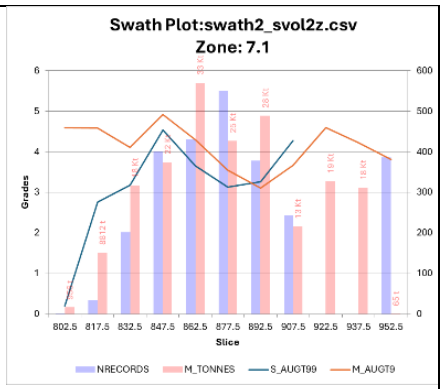



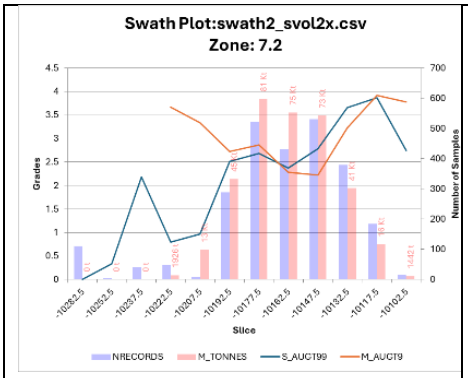

Swathe Plot for Blanket2 HW LG in X, Y and Z Directions (15m wide)

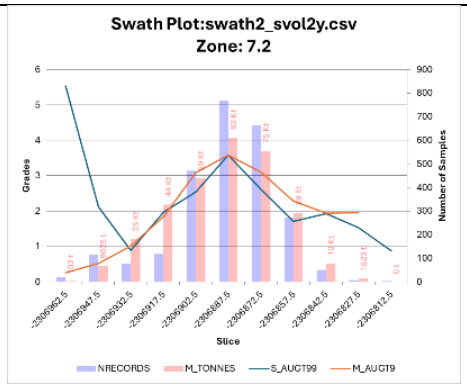


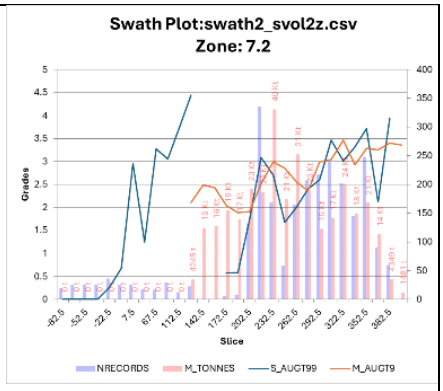



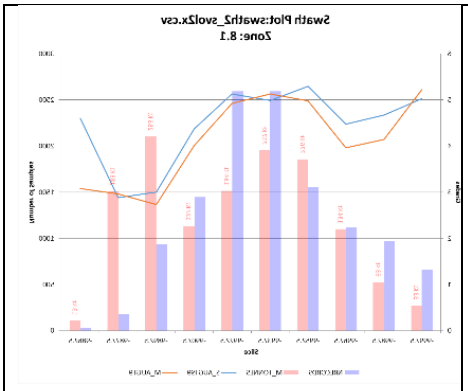

Swathe Plot for Blanket3 FW in X, Y and Z Directions (15m wide)

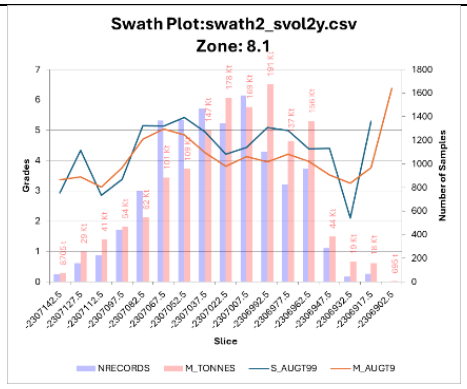


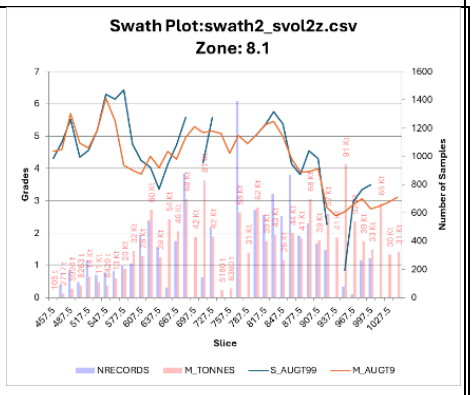



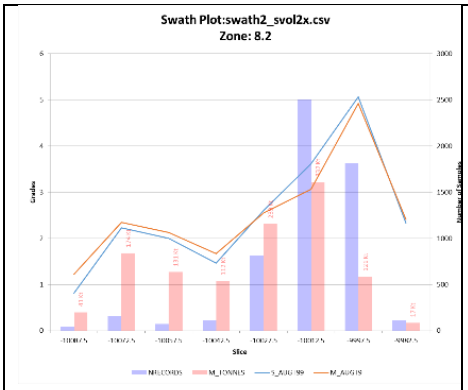

Swathe Plot for Blanket3 HW in X, Y and Z Directions (15m wide)

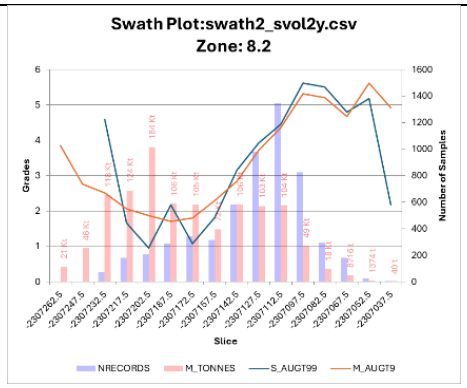


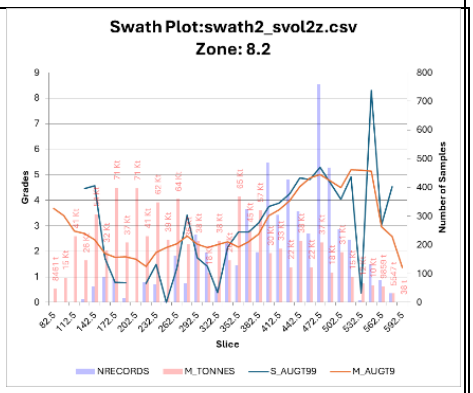


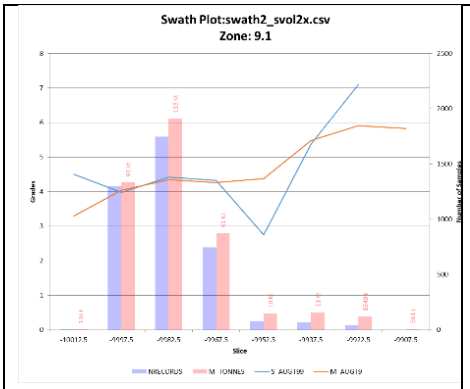

Swathe Plot for Blanket4_5 FW in X, Y and Z Directions (15m wide)

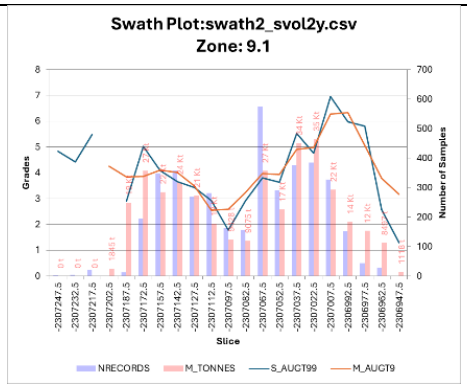


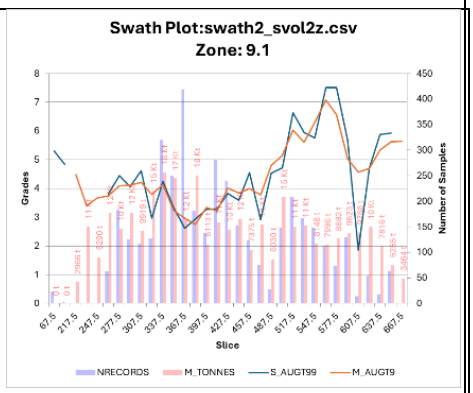



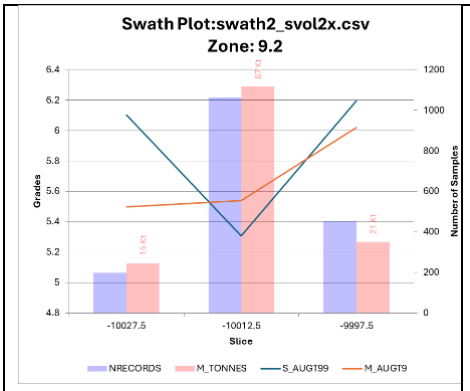

Swathe Plot for Blanket4_5 HW in X, Y and Z Directions (15m wide)

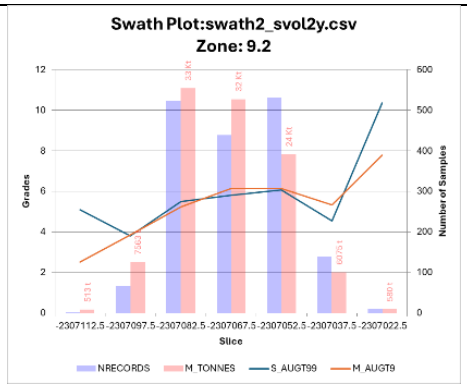


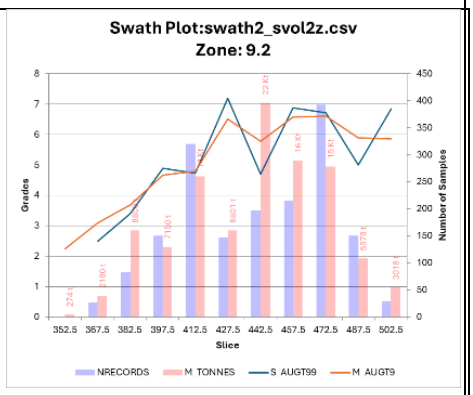



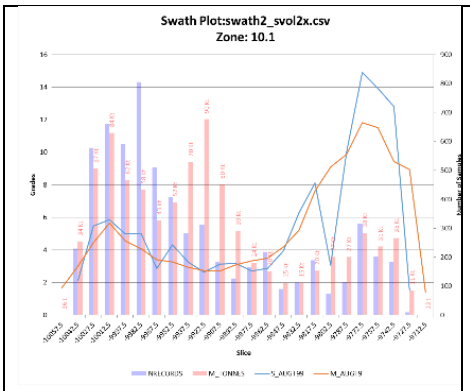

Swathe Plot for Blanket6 FW in X, Y and Z Directions (15m wide)

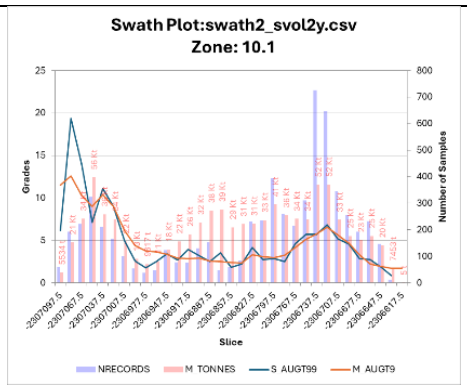


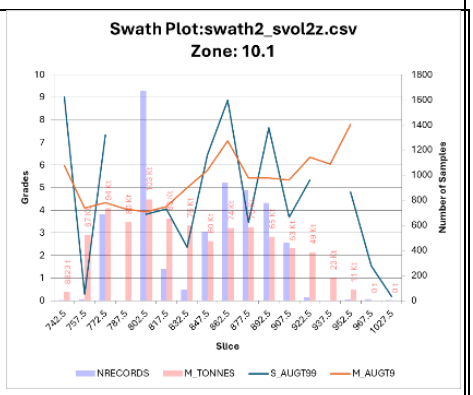



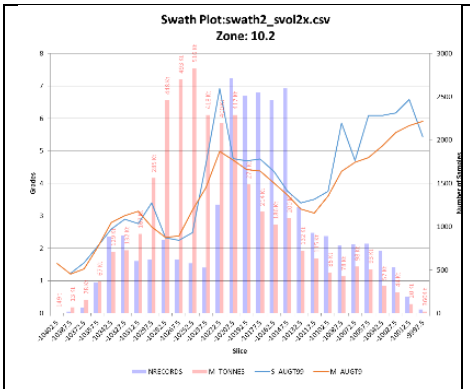

Swathe Plot for Blanket6 HW in X, Y and Z Directions (15m wide)

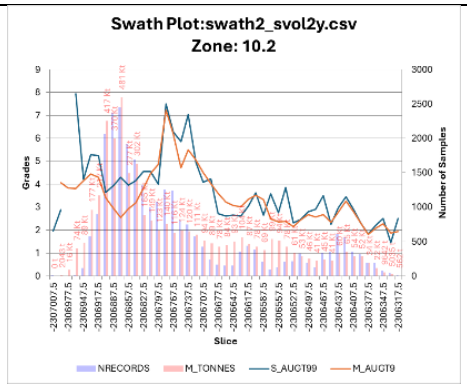


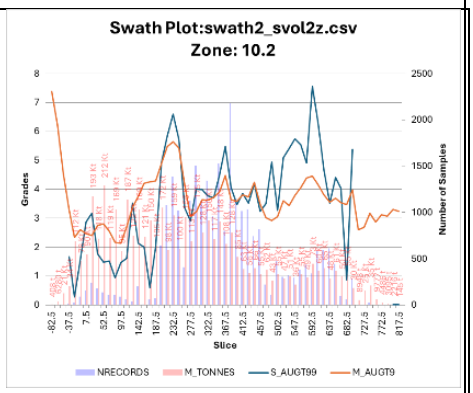



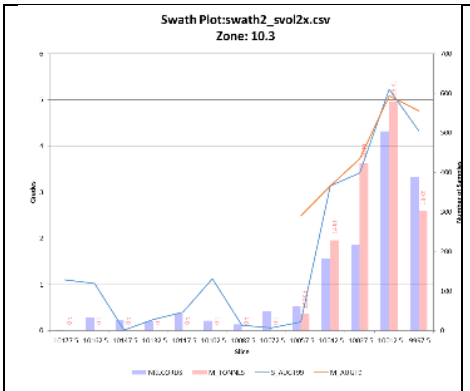

Swathe Plot for BQR FW in X, Y and Z Directions (15m wide)

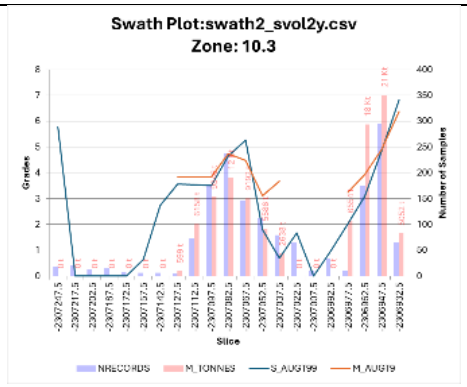


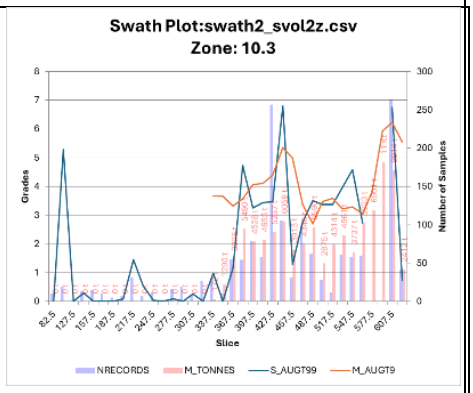



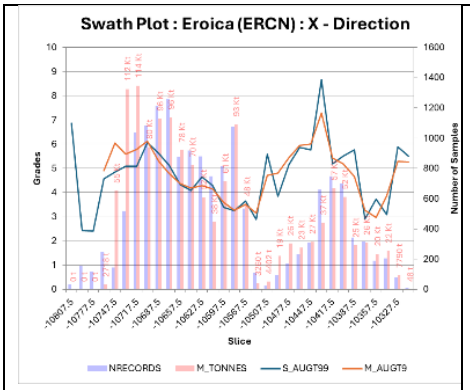

Swathe Plot for BQR HW in X, Y and Z Directions (15m wide)

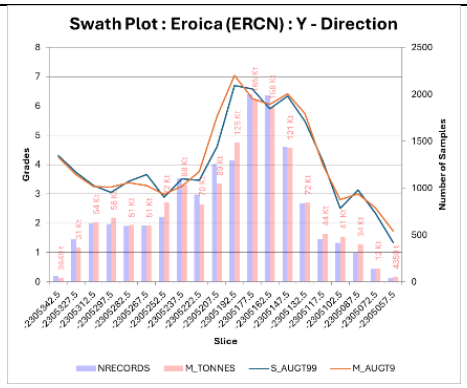


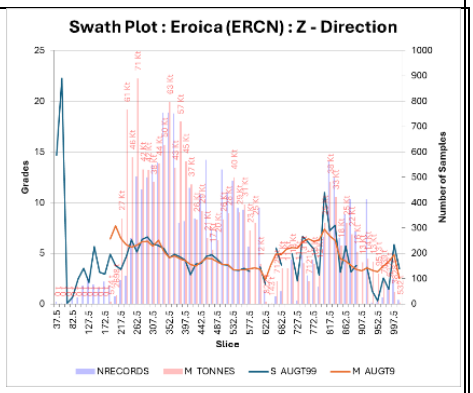



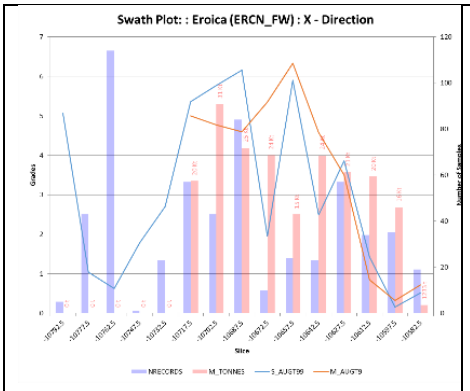

Swathe Plot for BQR HW North in X, Y and Z Directions (15m wide)

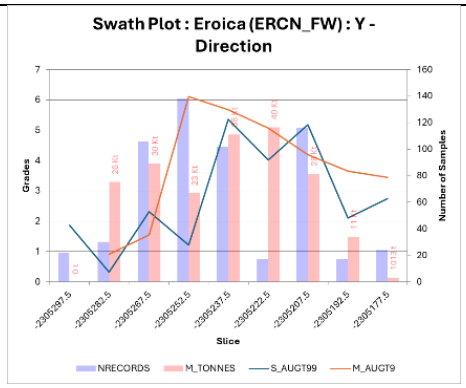


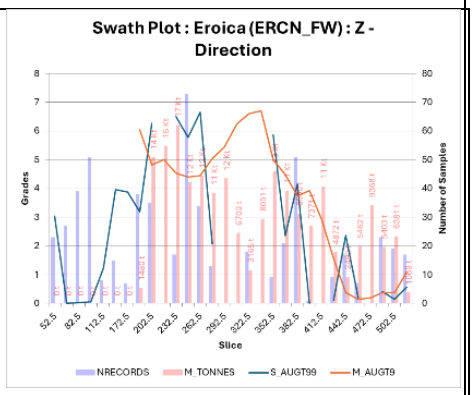



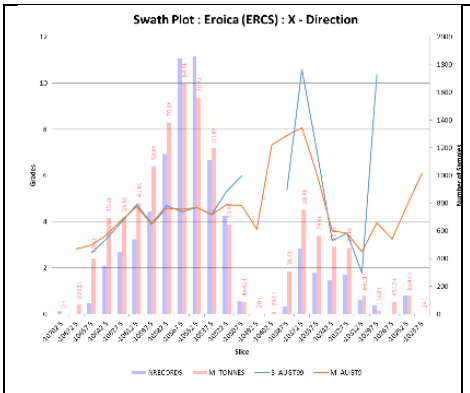

Swathe Plot for ERCN in X, Y and Z Directions (15m wide)

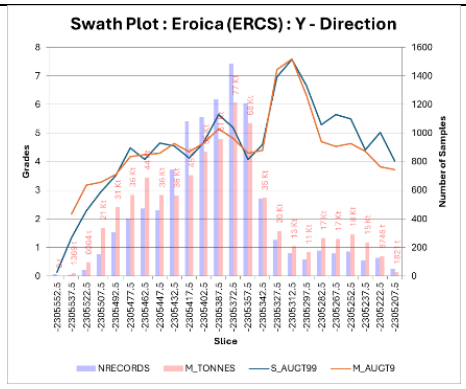


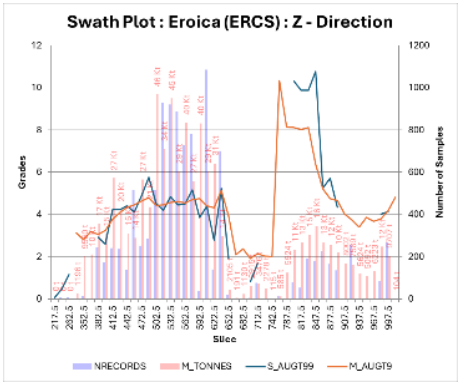



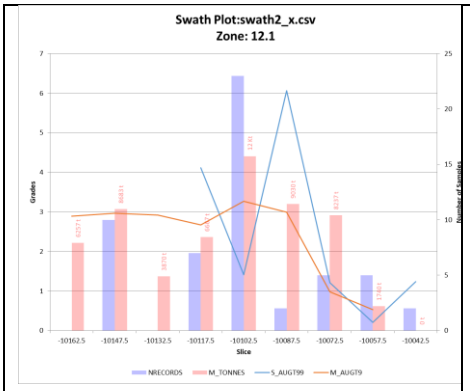

Swathe Plot for ERCN FW in X, Y and Z Directions (15m wide)

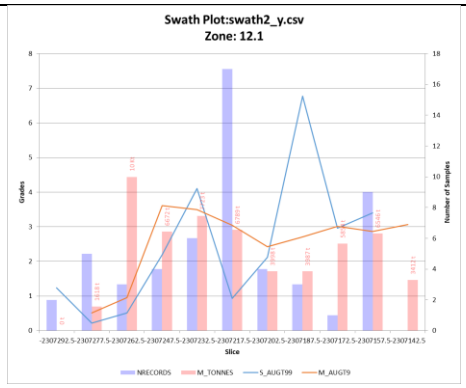


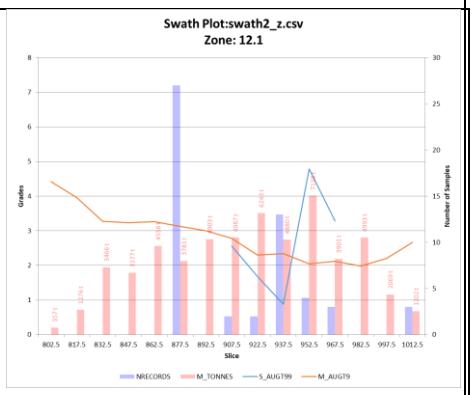



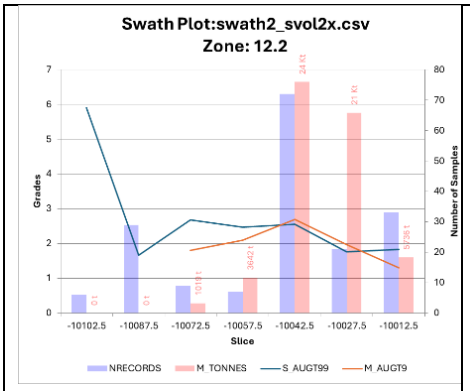

Swathe Plot for ERCS in X, Y and Z Directions (15m wide)

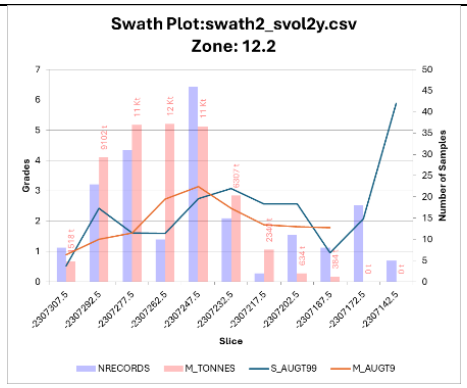


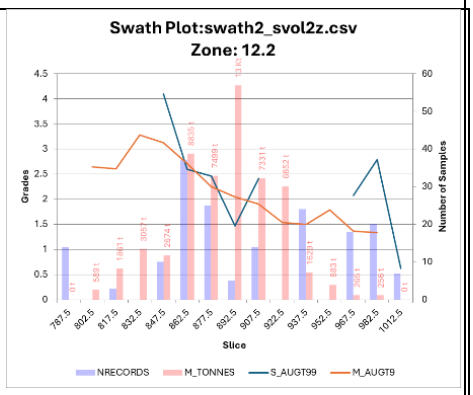



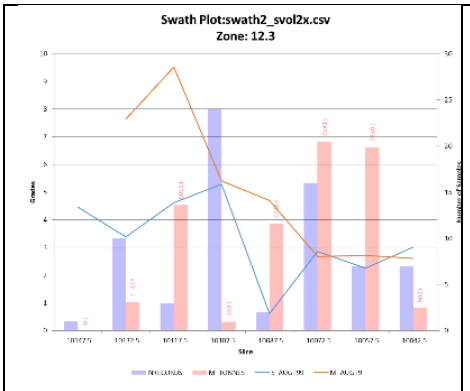

Swathe Plot for JETHRO in X, Y and Z Directions (15m wide)

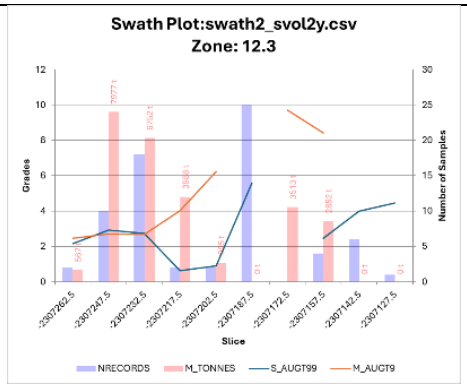


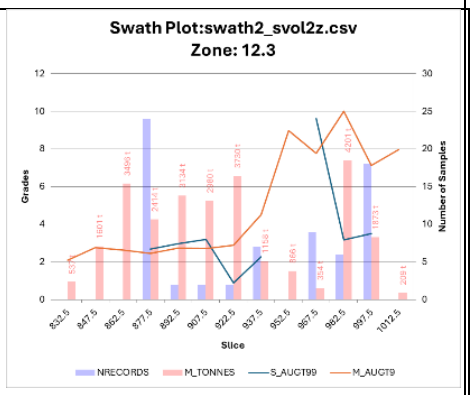



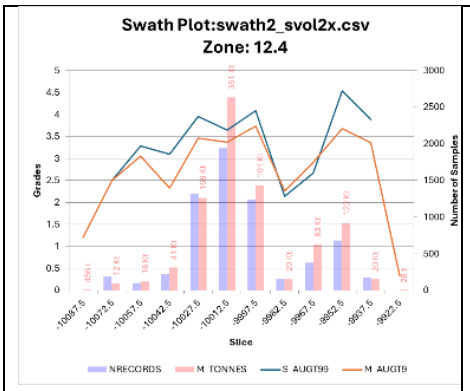

Swathe Plot for JETHRO Central in X, Y and Z Directions (15m wide)

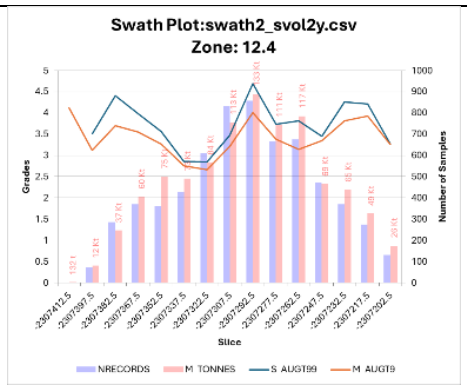


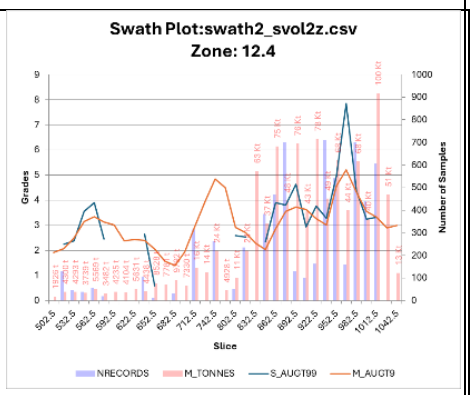



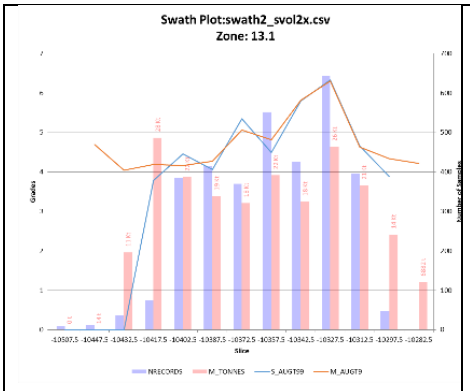

Swathe Plot for JETHRO HW1 in X, Y and Z Directions (15m wide)

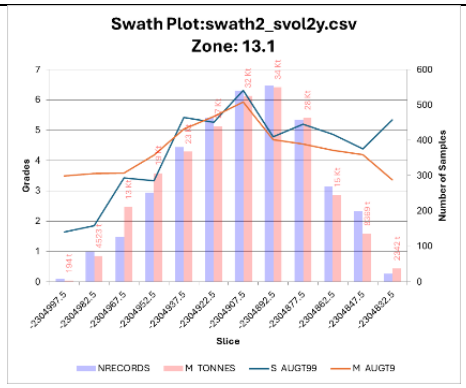


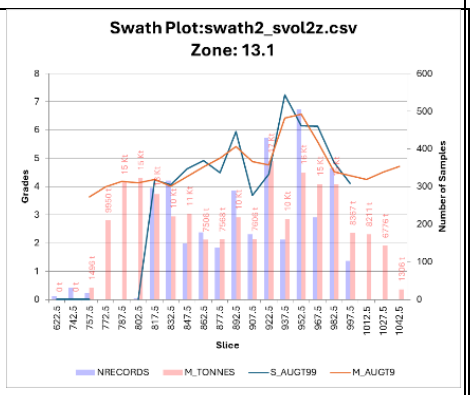



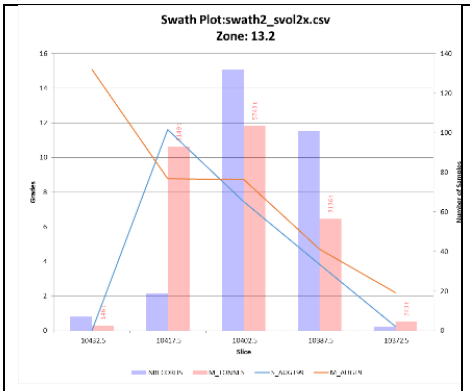

Swathe Plot for JETHRO HW2 in X, Y and Z Directions (15m wide)

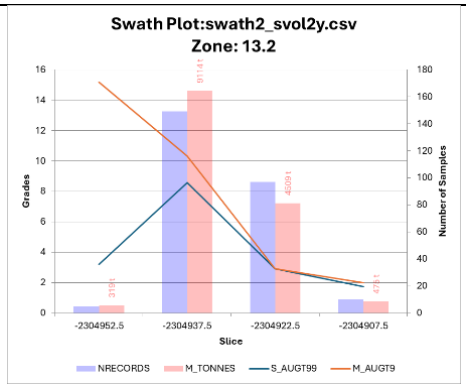


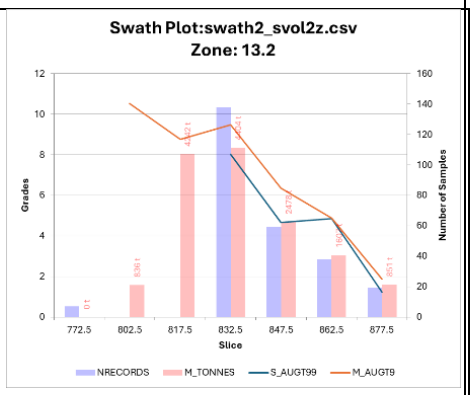



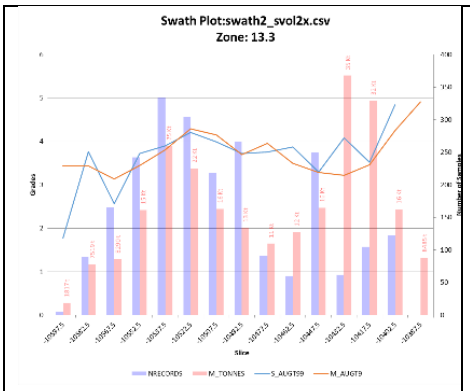

Swathe Plot for LIMA FWE in X, Y and Z Directions (15m wide)

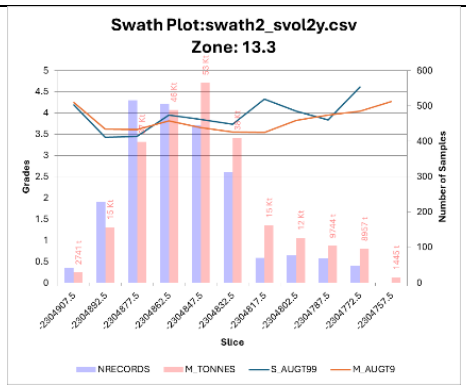


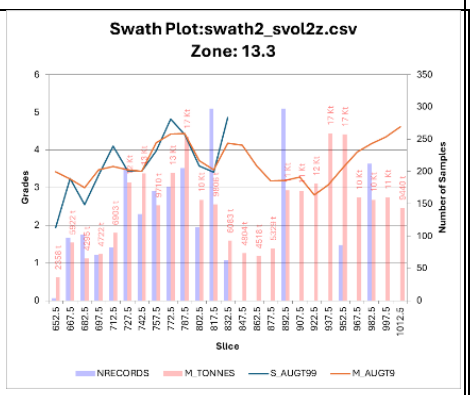



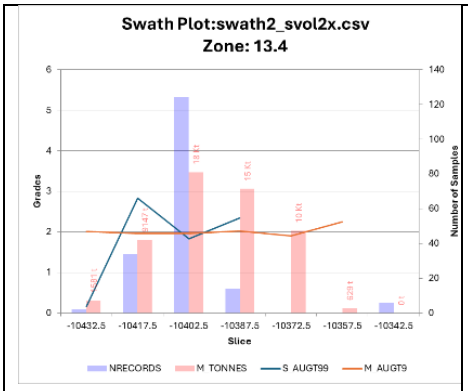

Swathe Plot for LIMA HW in X, Y and Z Directions (15m wide)

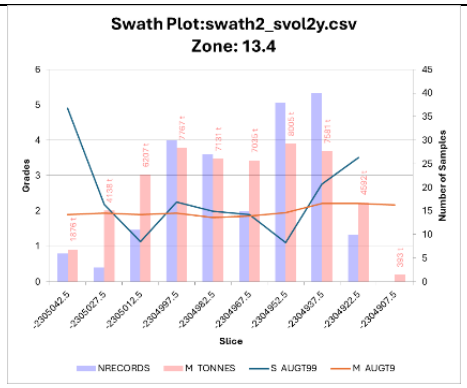


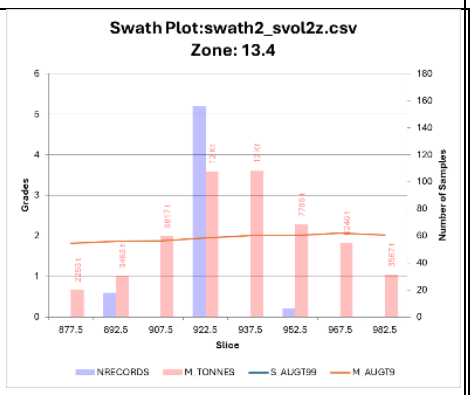



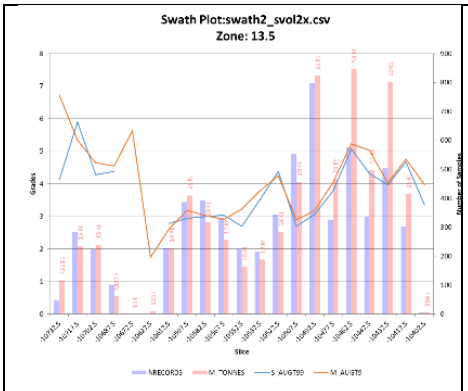

Swathe Plot for LIMA Inter South in X, Y and Z Directions (15m wide)

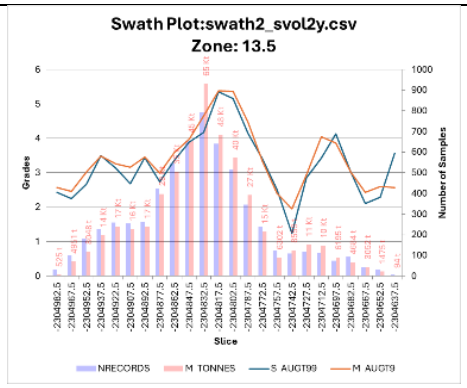


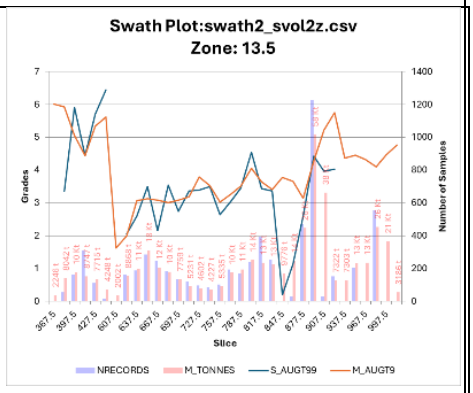



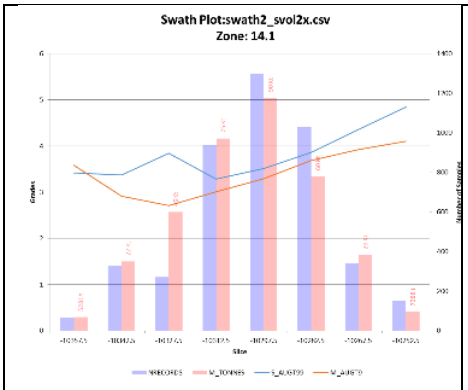

Swathe Plot for LIMA Inter in X, Y and Z Directions (15m wide)

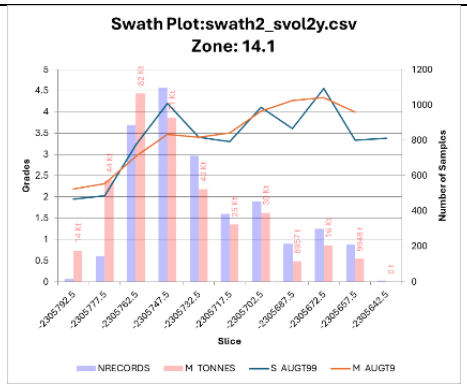


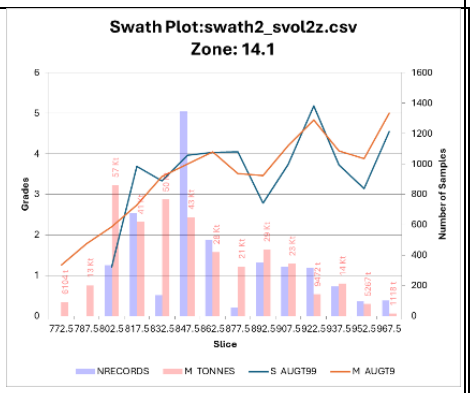



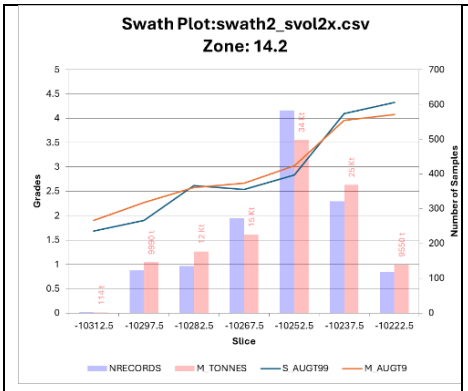

Swathe Plot for LIMA Main in X, Y and Z Directions (15m wide)

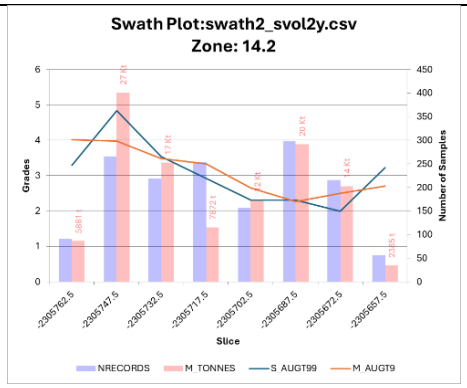


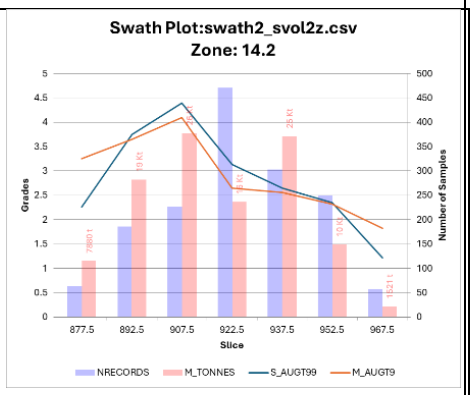




Swathe Plot for SHEET Main in X, Y and Z Directions (15m wide)




Swathe Plot for SHEET South in X, Y and Z Directions (15m wide)