Ardiden Limited
Kasagiminnis Gold Deposit - Mineral Resource
September 2019 - Technical Report

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1. EXECUTIVE SUMMARY

As requested by Ardiden Limited (Ardiden), Optiro Pty Ltd (Optiro) has prepared a Mineral Resource estimate for the Kasagiminnis gold deposit, Ontario, Canada. This deposit is within Ardiden's Pickle Lake Gold Project which also includes gold deposits at Dorothy-Dobie Lake, South Limb and Pickle Lake West.

The Kasagiminnis Lake Project consists of three contagious mining claims that cover 752 ha in the Little Ochig Lake area. The property is located in northwestern Ontario, approximately 25 km southwest of Pickle Lake, and approximately 15 km west of the Mishkeegogamang First Nation Community of New Osnaburgh.

The Kasagiminnis gold deposit comprises lode style mineralisation within a steep north-dipping shear zone. Ardiden anticipates that potential extraction will be by underground mining. Overburden comprises glacial till and there is a lake in the vicinity of the mineralisation.

The Kasagiminnis Lake Project is located in the western part of the Pickle Lake Greenstone Belt. At the Kasagiminnis gold deposit the gold mineralisation is within is a 10 to 13 m wide zone of mafic volcanic tuffs interlayered with iron formation. The zone is sheared, silicified and contains garnets along with 1 to 5% pyrrhotite (with occasional concentrations up to 50%). The gold mineralisation is not constrained to within the garnet magnetite-bearing rock and that it appears that the primary control on mineralisation at Kasagiminnis is structure (shear zone), rather than lithology.

The geological interpretation and resource model have been developed using historical data from drilling undertaken in the 1980s and more recent drilling undertaken during 2011 and by Ardiden during 2018. The drill database used for estimation of the resource comprises data from 117 diamond drillholes for a total of 14,057.9 m. The historical data was recorded in feet and the assay data in gold ounces/ton and Ardiden converted this to metric units. The historical data was combined with the 2011 and 2018 data and a simplified geological coding of the units was applied for import into mining software packages. Ardiden also provided a 3D interpretation of aeromagnetic data.

The drillholes are generally spaced at 25 m to 60 m on section with a section spacing of 50 m to 60 m. Drill sections in the eastern area of the deposit are 200 m apart. The 2018 drilling included two fans of drillholes that originated from the same drill pad and tested the down-dip continuity at spacings of up to 15 m.

A nominal cut-off grade of 0.5 g/t gold was used for interpretation of the mineralised zone. Seven mineralised lodes were interpreted, four of which were used for resource definition. The lodes contain significant proportions of un-mineralised and low-grade intervals. A categorical indicator model was developed to defined higher grade sub-domains. An indicator cut-off grade of 0.6 g/t was used for the two lower grade domains and 1 g/t gold was used for the higher-grade domains.

The resource at the Kasagiminnis gold deposit extends along strike for 1,500 m (east-west) is up to 10 m wide (north-south) and extends to a maximum a depth of 280 m below the surface. The resource model was constructed using a parent block size of 6 mE by 1 mN on 6 m benches; the parent blocks were allowed to sub-cell down to 2 mE by 0.5 mN by 2 mRL to more accurately represent the geometry and volumes of the mineralisation domains. Gold block grades were estimated using ordinary kriging techniques, with search ellipses oriented within the plane of the mineralisation. Hard boundary conditions were applied for grade estimation into each of the mineralised domains (i.e. grade estimation for each domain used only the data that is contained within that domain).

A total of 878 bulk density determinations have been undertaken on diamond drill core from the 2018 drilling programme. Average values were calculated using lithology and a density value of 3.0 t/m^3 was assigned to the mineralised domains in the resource model.

The Mineral Resources at the Kasagiminnis gold deposit have been classified as Inferred in accordance with the guidelines of the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves, 2012 (the JORC Code). The Mineral Resources have been classified on the basis of confidence in geological and grade continuity and taking into account data quality (including the historical nature of much of the drill data and limited quality control and quality assurance data), data density and confidence in the block grade estimation. The resource was reported to a depth of 280 m (above 105 mRL).

The Mineral Resource estimate, as at July 2019, for the Kasagiminnis gold deposit is reported in Table 1.1. This has been classified and reported in accordance with the guidelines of the JORC Code. The Mineral Resources have been reported above a 3.0 g/t gold cut-off grade to reflect current commodity prices and likely extraction by underground mining methods.

Table 1.1 **Kasagiminnis gold deposit – Mineral Resource as at July 2019, reported above a cut-off grade of 3 g/t gold**

Classification	Cut-off grade g/t gold	Tonnes (x 1,000)	Grade g/t gold	Gold ounces (x 1,000)
Inferred	3.0	790	4.3	110
Total	**3.0**	**790**	**4.3**	**110**

2. INTRODUCTION

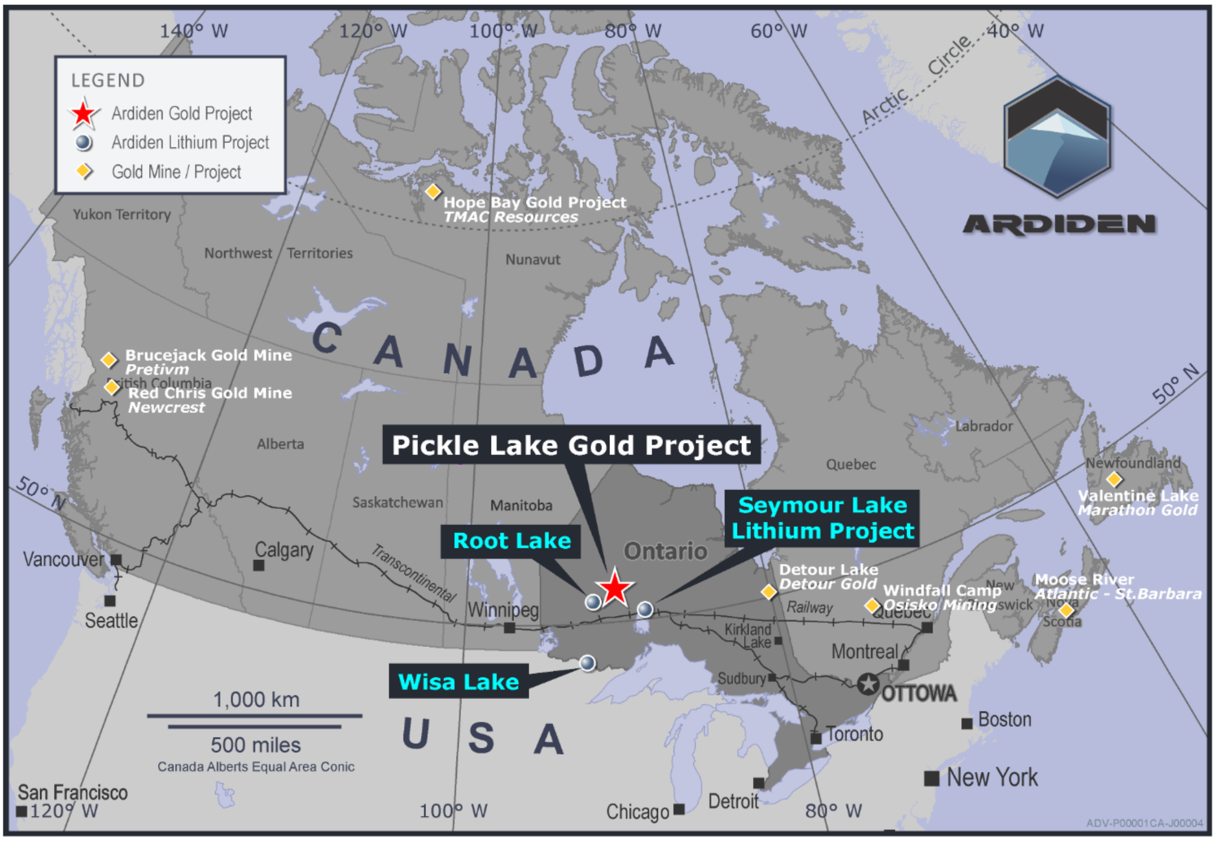
Optiro Pty Ltd (Optiro) has provided assistance to Ardiden Limited (Ardiden) with a Mineral Resource estimate for the Kasagiminnis gold deposit, Ontario, Canada. In 2018, Ardiden acquired 49% of the Pickle Lake Gold Properties in Ontario, and in 2019 Ardiden acquired the remaining 51% by exercising its Option to acquire Murchison Minerals Limited's (Murchison Minerals) JV interest. The Pickle Lake Gold Project includes deposits at Kasagiminnis Lake, Dorothy-Dobie Lake, South Limb and Pickle Lake West (Figure 2.1).

The Kasagiminnis Lake Project consists of three contagious mining claims that cover 752 ha in the Little Ochig Lake area. The property is located in northwestern Ontario, approximately 25 km southwest of Pickle Lake, and approximately 15 km west of the Mishkeegogamang First Nation Community of New Osnaburgh. The provincial Highway 599 is located approximately 9 km east of the Kasagiminnis Lake Project.

A historical resource of 2.6 million tonnes at an average grade of 4.79 g/t gold was estimated for the Kasagiminnis gold deposit by Kenora in 1988 (Ardiden, 2017).

This 2019 Mineral Resource estimate incorporates all data available as at 18 June 2019. Mrs Christine Standing (Principal Consultant, Optiro) has worked closely with Mr Rob Longley (CEO, Ardiden Limited) for estimation of the Mineral Resource. Mr Rob Longley visited the Kasagiminnis Lake Project during July 2019. Optiro's report documents the data sources, assumptions and methodologies used for the Kasagiminnis gold deposit Mineral Resource estimate.

Figure 2.1 Pickle Lake Gold Project location (source: Ardiden, 2019)



3. GEOLOGY

Ardiden undertook a drilling programme during 2018 and the following sections on the regional and local geology have been extracted and summarised from Ardiden's report (Jeffs, 2019) and ASX announcements (Ardiden, 2017 and 2019).

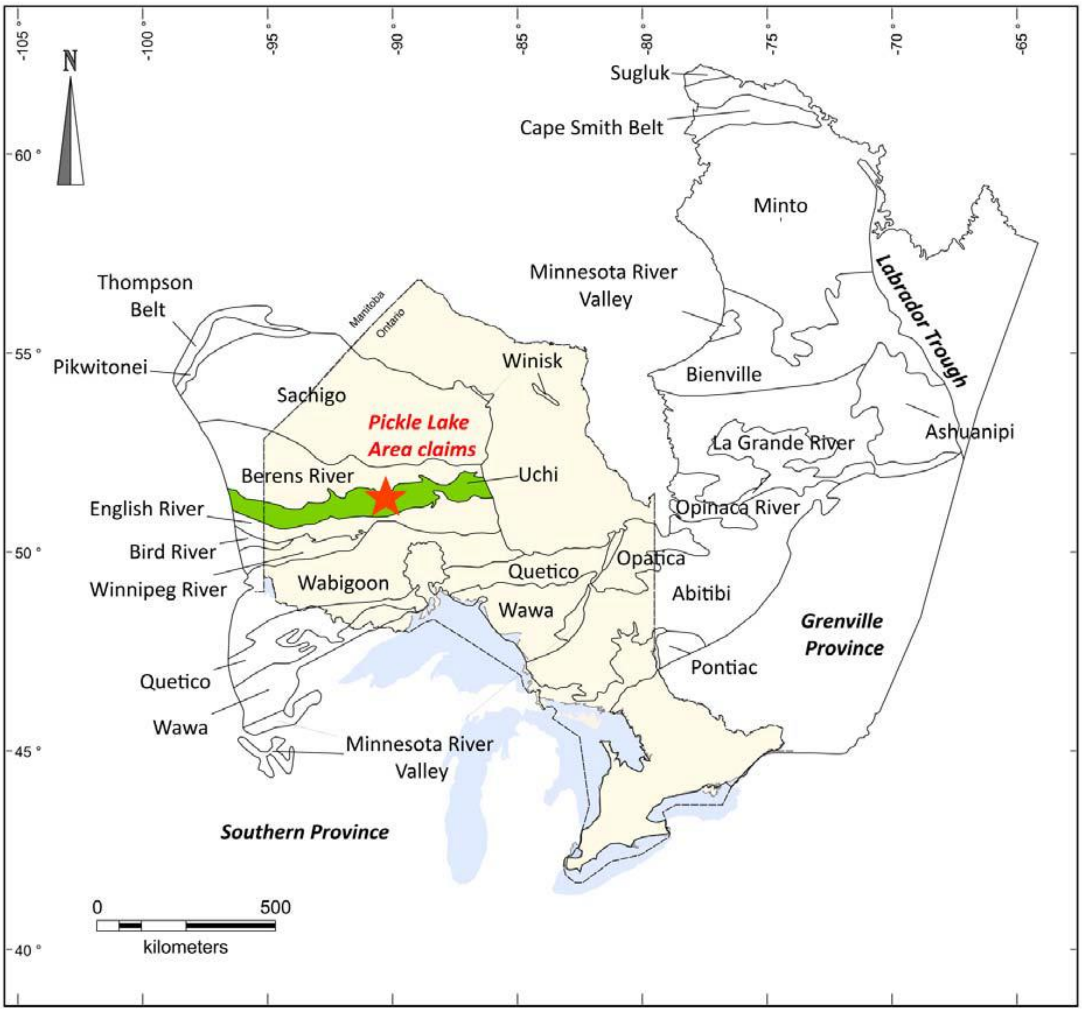
3.1. REGIONAL GEOLOGY

The Kasagiminnis Lake Project is located in the western part of the Pickle Lake Greenstone Belt, which is within the Uchi Domain. The Uchi Domain is located in the southern part of the North Caribou Terrane which in turn lies within the Uchi Subprovince of the Canadian Shield (Figure 3.1).

The Uchi Domain represents an area where significant Neoarchean volcanism and tectonism resulted in the production of new continental crust both prior and synchronous to collision with the Winnipeg River Terrane to the south. As a result, the Uchi Domain comprises Neoarchean volcanic-dominated supracrustal rock sequences, locally significant sedimentary rock accumulations and associated plutons that were built upon, or adjacent to the earlier Mesoarchean crust.

The Pickle Lake Greenstone Belt has been divided by previous workers into a western portion; the Meen-Dempster Greenstone Belt and an eastern portion; also referred to as the Pickle Lake Greenstone Belt.

Figure 3.1 Uchi Subprovince within the Canadian Shield (Jeffs, 2019)

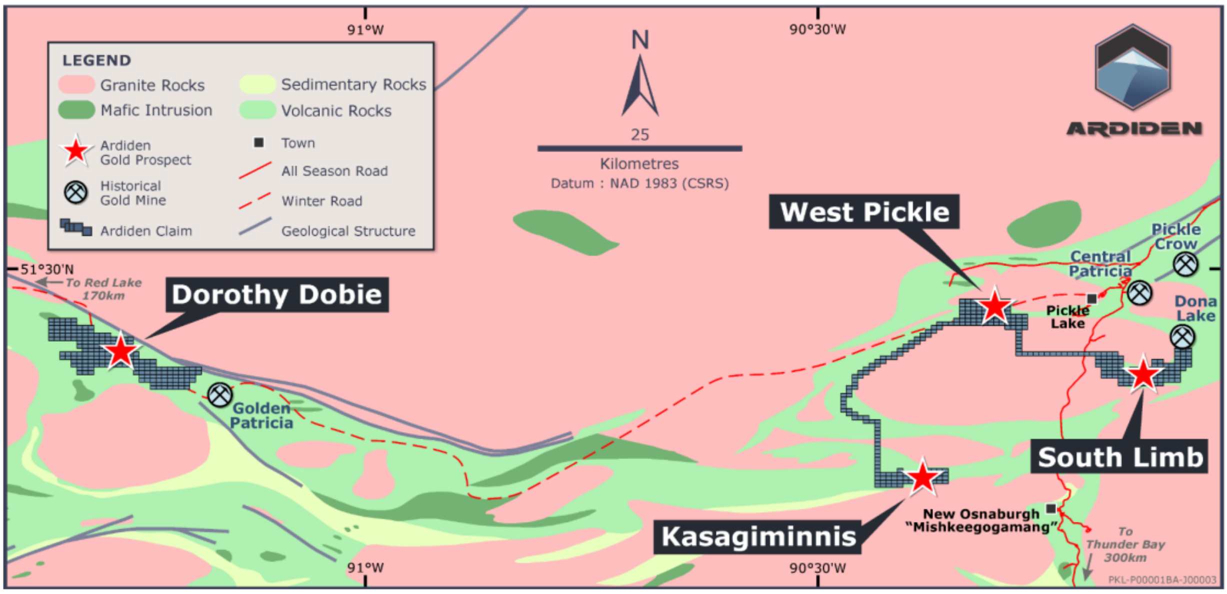


The Pickle Lake Greenstone Belt is an approximately 70 km long by 25 km wide area of supracrustal rocks and internal granitoid plutons surrounded by large granitoid batholiths (Figure 3.2). The supracrustal rocks have been deformed and metamorphosed to greenschist facies with amphibolite facies occurring as thermal areoles surrounding younger plutons.

The Pickle Lake Greenstone Belt is subdivided into three (tectono-stratigraphic) assemblages (Pickle Crow, > 2,860 Ma; Kaminiskag, ~2,836 Ma and Confederation ~2,744 Ma). The northwest-facing Pickle Crow assemblage dominates the northwestern part of the Pickle Lake Greenstone Belt. It comprises mainly massive to pillowed basalt flows intercalated with thin laterally continuous banded iron formation and small discontinuous lenses of intermediate volcanic rocks, all of which are intruded by semi-concordant quartz-feldspar porphyry dykes of various ages.

On the basis of petrochemical characteristics, the Pickle Crow assemblage can be subdivided into a lower and an upper sequence. The lower sequence comprises tholeiitic basalt and rare calc-alkaline andesite which is spatially associated with iron formation. The upper sequence also consists of tholeiitic basalt intercalated with rare lenses of calc-alkaline andsesite to dacite, but is distinguished from the lower sequence by a centrally located alkaline basalt unit. Rocks of the Pickle Lake Greenstone Belt are affected by three episodes of folding and regional metamorphism.

Figure 3.2 Geological map of the Pickle Lake Greenstone Belt and the Kasagiminnis Lake Project (Ardiden, 2019)



Rocks of the Kaminiskag assemblage (circa 2,836 Ma) outcrop to the southeast of the Confederation assemblage. The Kaminiskag assemblage is dominated by mafic volcanic flows, with significant layers of felsic to intermediate volcanic ash flows. The mafic volcanic rocks are generally strongly foliated massive amphibolites, although minor amounts of ultramafic material have been reported. Minor amounts of banded iron formation (or magnetic sedimentary rocks) are interbedded with the mafic volcanic rocks and thin layers of fine-grained clastic sediments are locally interbedded with the felsic to intermediate volcanic rocks. The main felsic to intermediate volcanic unit is a quartz-phyric dacite tuff that may be traced over a strike length of 8 km. This unit locally contains thin pyrrhotite rich massive sulphide lenses in chert.

The Kaminiskag assemblage is bounded to the southeast by granitic rocks of the Second Loon pluton, which imposes a contact strain and metamorphic aureole upon the adjacent supracrustal rocks. Generally, stratigraphy and foliation in the area are sub parallel, strike northeast and dip steeply to the northwest.

Strongly deformed rocks that exhibit extensive silica and carbonate alteration occur in the northwestern portion of the area, near the Kawinogans River. This deformation zone extends toward the southwest into the Pickle Crow Mine area. This deformation event may also be linked to the creation of the anticline-syncline pair in the Central Patricia and Pickle Crow areas. Axial surfaces strike southwest and dip steeply to the northwest, with moderate to steep northeast- plunging hinge lines.

The boundary between the Confederation (2,744 Ma) and the Pickle Crow (2,860 Ma) assemblages has been interpreted to occur northeast of First Loon Lake. A major structural discontinuity separates an S fold from a sequence of less deformed lithologies to the southeast, and south facing directions indicate Confederation assemblage lying unconformably on Pickle Crow assemblage rocks.

3.2. LOCAL GEOLOGY

The Kasagiminnis Lake Project is located in the Dempster/Pickle Lake Greenstone Belt which trends roughly east-west and joins the Pickle Lake Greenstone Belt to the east, and the Meen-Dempster Greenstone Belt to the west. The property is underlain by a complex sequence of southward younging mafic-to intermediate flows, mafic-to-felsic pyroclastics, sediments and iron formation. This sequence has been intruded by numerous small gabbroic bodies, granite pegmatite dykes and minor felsite dykes.

The portion of the belt exposed on the property has been compressed between two granitic bodies, the Kasagiminnis Lake and Carling Granite Plutons on the north and south respectively, resulting in a narrowing of the belt to approximately one mile in width. High angle faults, interpreted from geological and geophysical data, crosscut the volcano-sedimentary sequence and trend northeast-southwest and northwest-southeast. Pervasive shearing and small-scale folding is probably related to a regional tectonic event.

3.3. ALTERATION AND MINERALISATION

Ardiden undertook diamond drilling at Kasagiminnis during 2018 and Jeffs (2019) recoded the following observations about the alteration and mineralisation.

The hangingwall unit to the mineralisation is identified as a fine-grained dacite to rhyodacite tuff. Silicification and sericitisation make the unit appear rhyolitic. The mafic volcanic tuff and/or amphibolite unit may be a sill-like intrusion or a thin mafic tuff. It contains 1 to 3% fine, disseminated, acicular magnetite. The unit grades into the mineralised zone where it is interlayered with a chert-magnetite iron formation ('BIF'). The unit is auriferous where the magnetite is replaced by pyrrhotite. Magnetite and pyrrhotite are mutually exclusive of one another.

A footwall quartz-carbonate veinlet zone usually occurs within mafic volcanics, but locally incorporates minor iron formation. The quartz-calcite veinlets are similar to those that carry gold in the mineralised zone. The footwall zone contains minor, secondary pyrrhotite and sub-economic concentrations of gold. The footwall mafic metavolcanics are tuffs and/or flows, which appear to be similar to the mafic volcanic tuffs and amphibolite rocks of the hangingwall rocks. The footwall zone is foliated with a fine-to medium grained porphyroblastic texture but are otherwise featureless.

The mineralised zone is a 10 to 13 m wide interval of mafic volcanic tuffs interlayered with iron formation. The zone is sheared, silicified and contains garnets along with 1 to 5% pyrrhotite (with occasional concentrations up to 50%). Gold content appears to have a relationship with pyrrhotite and in a few cases quartz-carbonate veinlets rimmed by amphibole and grunerite contain visible gold. Grunerite is common throughout the mineralised section. Hangingwall rocks to the mineralised zone are fine grained silicified and sericitised dacite and rhyodacite tuff, containing disseminated red biotite flakes and rarely sulphide minerals. The footwall to the mineralised zone is a sequence of felsic tuffs or flows similar to the mafic tuffs and amphibolites of the hangingwall.

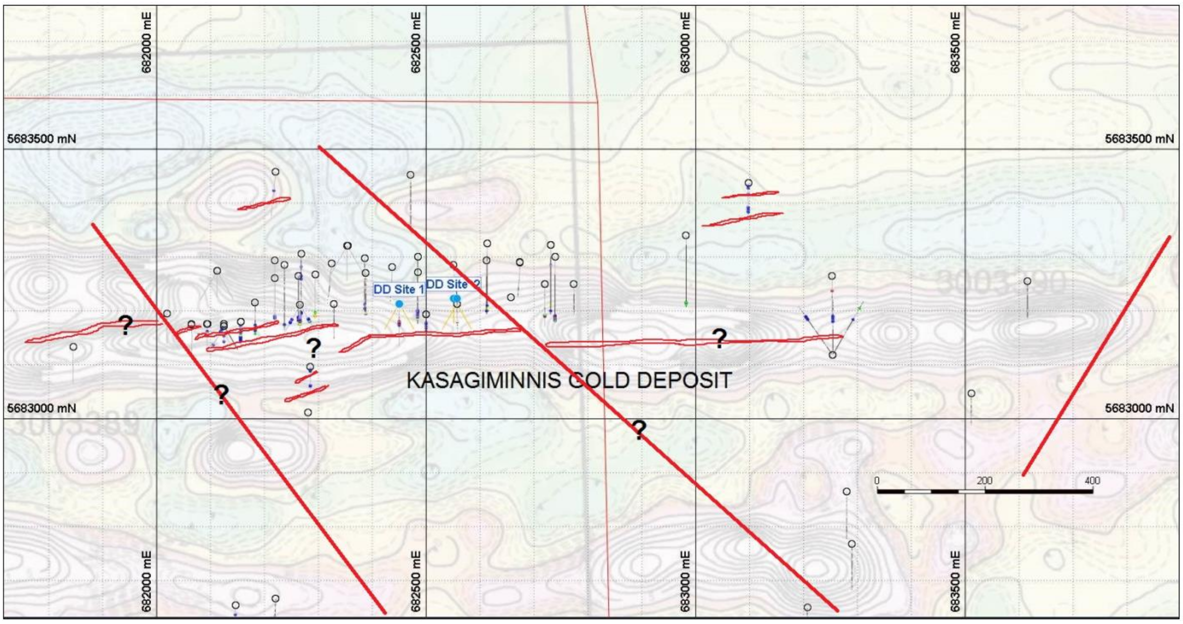
The internal structures present in the bedrock are not well understood, due to a paucity of outcrop. Some faults interpreted from magnetic surveys have been supported by mylonites and fault breccias intersected in drill cores. Faults trending both northeast and northwest have been identified and may represent a conjugate fracture system developed in response to emplacement of surrounding granitoid plutons

The drillholes completed by Ardiden at the Kasagiminnis gold deposit in 2018 were relogged by former Ardiden Executive Director - Technical, Peter Spitalny. It was noted that the 'BIF' units do not consist of distinct alternating iron oxide/chert bands like a true BIF. Also, the total iron content is typically only 8 to 10%, well below the 15% minimum sometimes quoted as the lower limit before a rock can be considered to be an iron formation. The Kasagaminnis 'BIF' is considered to be a fine-grained thinly bedded to laminated mafic rock containing wispy magnetite along with garnet porphyroblasts. It has a tuffaceous appearance but is probably a type of ferruginous metamorphosed sedimentary rock. The quantity of magnetite is quite low; usually less than 5%, with the balance of the iron coming from pyrite and pyrrhotite.

Ardiden noted that the gold mineralisation is not constrained to within the garnet magnetite-bearing rock (interpreted by Optiro as magnetic sedimentary units) and that it appears that the primary control on mineralisation at Kasagiminnis is structure (shear zone), rather than lithology. This shear crosses multiple lithologies and is not limited to the presence or absence of the magnetic sedimentary units.

A plan of Ardiden's mineralisation interpretation (overlain on an aeromagnetic interpretation) was provided (Figure 3.3). The interpreted mineralised zones, projected to surface, are silicified sulphidic shears within a broad zone of shearing that cross-cuts, at a low-angle, the stratigraphy. The magnetic highs are due to magnetic units in the layered sequence. The shears are spatially associated with these units, but this is partly due to these units being centrally located in the greenstone belt and thus accumulating a lot of strain. From this, Ardiden interpreted that the mineralised lodes pitch/plunge steeply towards the west.

Figure 3.3 **Plan of Ardiden's interpretation of the gold mineralisation at Kasagiminnis gold deposit**



4. DATA FOR MINERAL RESOURCE ESTIMATION

4.1. TOPOGRAPHICAL DATA

The topographical data for the Kasagiminnis Lake Project area was provided as STRM data (*KAS_SRTM_Unadjusted_RL.dxf*). This surface data was import into Datamine and was used to constrain the resource model. The collar locations of the holes drilled in 1986, 1987 and 1988 were pressed onto this surface to determine the collar elevation.

4.2. DRILLHOLE DATA

The geological interpretation and preliminary resource model have been developed using historical data from drilling undertaken in the 1980s and more recent drilling undertaken during 2011 and by Ardiden during 2018. A database containing the drillhole collar data, downhole survey data, geological logging and assay data was compiled by Ardiden.

Optiro has used the drillhole database compiled by Ardiden for the resource estimate. The 1986, 1987 and 1988 drilling data was recorded in feet and the gold grades were reported as ounces/ton. The historical data was combined with the 2011 and 2018 data and a simplified geological coding of the units was applied for import into mining software packages.

The data was provided as the following Micromine data files on 18 June 2019:

- Collar.Dat
- Survey.Dat
- Assay.Dat
- Litho.Dat

Optiro validated the drillhole data using standard Datamine checks and found no erroneous data. The drill database used for estimation of the resource comprises data from 117 diamond drillholes for a total of 14,057.9 m (Appendix A and Table 4.1).

Table 4.1 Summary of drilling programmes within the Kasagiminnis Lake Project area

Year	Number of drillholes	Metres drilled
1986	4	435.3
1987	76	8,251.1
1988	8	1,477.0
2011	14	2024.0
2018	15	1,870.5
Total	**117**	**14,057.9**

The drillholes are generally spaced at 25 m to 60 m on section with a section spacing of 50 m to 60 m (Figure 4.1 and Figure 4.2). Drill sections in the eastern area of the deposit are 200 m apart. The 2018 drilling included two fans of drillholes that originated from the same drill pad and tested the down-dip continuity at spacings of up to 15 m.

Figure 4.1 Location of drillholes at the Kasagiminnis Lake Project coloured by drilling programme year (blue = 1986, 1987 and 1988, green = 2011 and red = 2018)

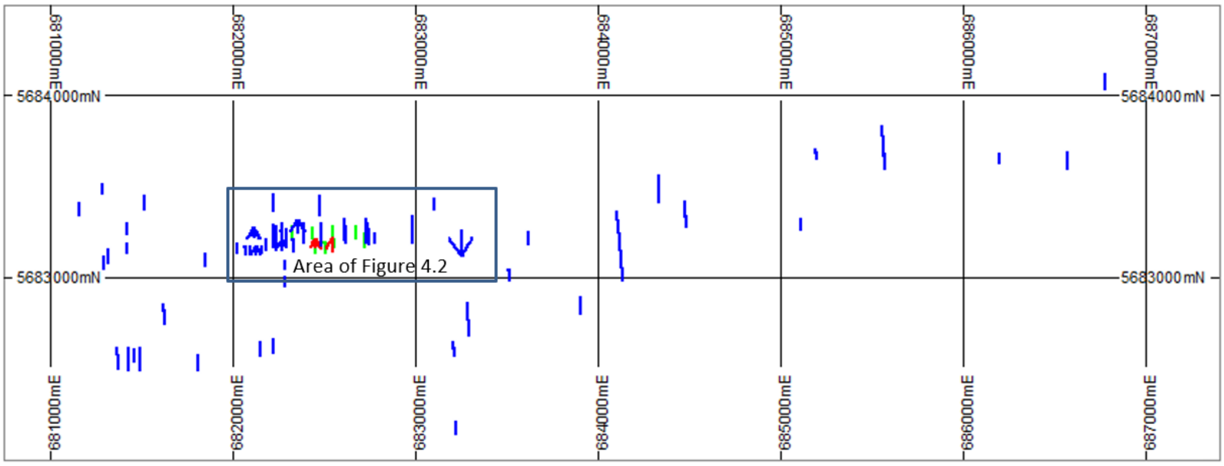
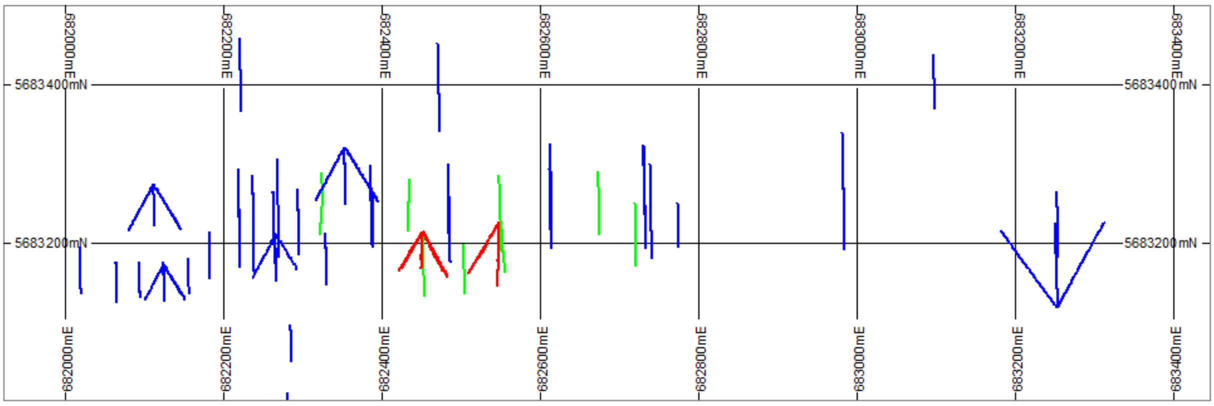


Figure 4.2 Location of drillholes within the resource area at the Kasagiminnis gold deposit coloured by drilling programme year (blue = 1986, 1987 and 1988, green = 2011 and red = 2018)



4.3. SURVEY

The majority of drillholes within the Kasagiminnis resource area have all been drilled with a dip -44° to -75° to the south. Six holes were drilled at -76° to -80° to the south and three holes, in the eastern area of the deposit, were drilled at -45° to the north, north-northeast and north-northwest.

Down-hole survey readings were taken at intervals of around 50 m for the holes drilled during 2011 and at 30 m for the holes drilled during 2018. For the holes drilled during the 1980s, down-hole survey readings were taken at intervals of 26 m to 115 m.

For the 2018 drilling programme, the collar co-ordinates were taken using a SXBlue Platinum DGPS with centimetre accuracy. The collar locations of the 2011 drillholes were surveyed using a handheld GPS and the survey methods for the 1980s drillholes is not known. The accuracy of the 2011 and 1980s drillhole is not known and this has been considered for the resource classification.

4.4. SAMPLE METHODS

All samples are from diamond drill core. The majority of samples from the 1980s drilling programmes were typically collected in intervals of 3 feet where possible, otherwise as intervals based on geological boundaries. Diamond core samples from the 2011 and 2018 drilling programmes were typically collected in intervals of 1 m where possible, otherwise as intervals as close as possible to 1 m based on geological boundaries. Quarter core samples were submitted for analysis.

4.5. ASSAY DATA

Samples from the holes drilled in the 1980s was analysed for gold using fire assay and where significant values were returned the pulps were re-assayed or the core was quartered and resubmitted. The assay data was recoded as ounces/ton and Ardiden converted this to metric units.

The samples from the 2011 drilling programme were analysed Accurassay Laboratories using standard fire assay procedures followed with an AA/ICP finish (Mackie, 2011). The samples from the 2018 drilling programme were analysed Actlabs using fire assay and an inductively coupled plasma optical emission spectrometry (ICP-OES) technique (Jeffs, 2019). Samples from the 2011 and 2018 drilling programmes with assay results of >2.5 g/t gold were re-run with a gravimetric finish.

4.6. QUALITY ASSURANCE AND QUALITY CONTROL (QAQC)

Details of the quality assurance and quality control procedures used for the 1980s drilling are not recorded. For the 2011 assay data, Mackie (2011) reports that a series of blanks and standards were inserted. Results included in the report appendix indicate that 15 blanks samples and that 24 standard samples (of 8.25 g/t, 3.77 g/t and 1.16 g/t gold) were submitted. The blank samples returned assays of <0.05 to 0.008 g/t. For the standard samples the expected SD is not reported: one of the medium standard samples is significantly lower than expected (assay of 1.239 g/t from a standard expected to contain 3.77 g/t).

For the 2018 drill samples, Jeffs (2019) reports that of the eight analyses of the high-grade standard, six were within three standard deviations of the certified value and that for the 24 analyses of the medium and low-grade standards, all were within three standard deviations of the certified value. For the blank samples 11% returned gold values that are above detection limits (0.005 to 0.012 g/t gold). Jeffs (2019) reports that not all of the results from the duplicate samples were satisfactory.

The lack of QAQC data from the 1980s drilling and the issues noted by Jeffs (2019) with the QAQC data from the 2018 drilling have been taken into consideration for the classification of the Mineral Resource.

4.7. BULK DENSITY

Bulk density data was measured from 878 core samples (excluding duplicate measurements) from the 2018 drilling programme. This was imported into Datamine and merged with the lithological and assay data.

4.8. AEROMAGNETIC DATA

In 2009, Geodata Solutions GDS Inc., undertook a Heliborne High Resolution Aeromagnetic Survey at Pickle East and Kasagiminnis Lake. From this, a Geosoft database was developed and provided in the form of a 3D gridded model (using a cell size of 6.25 m) for the Kasagiminnis Lake Project.

5. INTERPRETATION AND DOMAINING

Optiro developed a geological interpretation of the Kasagiminnis gold deposit using Leapfrog Geo 3D software. This included interpretation of:

- the base of overburden (glacial till)
- areas comprised mainly of mafic volcanic sequences
- areas comprised mainly of felsic volcanic sequences
- units that have been logged as magnetic sedimentary sequences
- lodes of potential gold mineralisation.

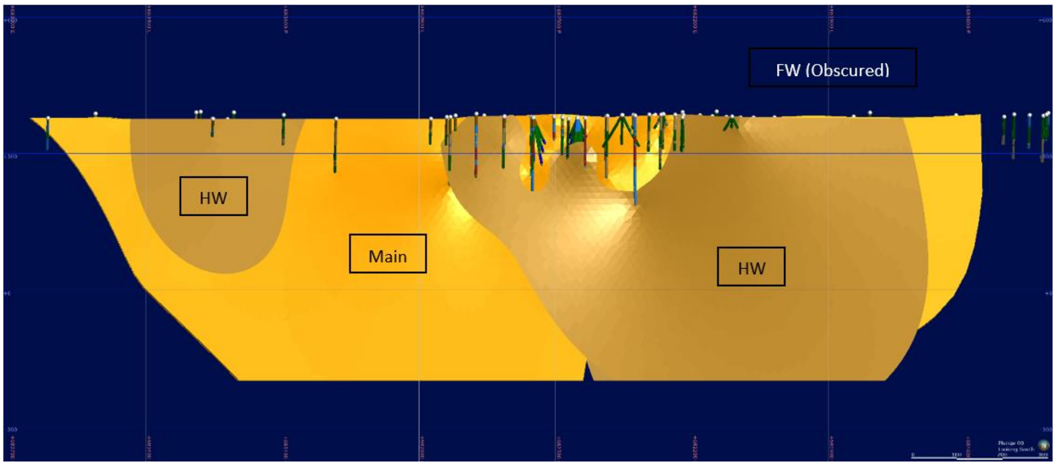
The drillhole database was imported into Leapfrog Geo and the lithologies were grouped into stratigraphic units. These were visualised and coded according to the observed continuity of intersections in 3D. The coding allowed selective modelling of each package of lithology (magnetic sedimentary rocks, volcanics and overburden) into wireframe surfaces or solids to represent the major geological features at the deposit.

The magnetic sedimentary rocks were interpreted into three units (Main structure, hangingwall and footwall lodes), and it was noted that some of the wireframes had bullseye holes around many drillholes. The logging records for these were reviewed individually and most showed subordinate intervals of magnetic sediment that could be used to continue the units through these drillholes. The interpreted mineralisation extends from below the glacial till (~345 mRL) to -310 mRL, approximately 655 m vertical extent.

The interpretation of the magnetic sedimentary rocks was guided by the 3D aeromagnetic data (provided by Ardiden) and the interpretation of the gold mineralisation was guided by the interpretation of the units of magnetic sedimentary rocks. The gold mineralisation was interpreted to be within or in close proximity to the magnetic sedimentary units but was not constrained to within the interpreted magnetic sedimentary units.

The most continuous magnetic sediment unit is the ‘Main’ unit, which is continuous for the strike length of this part of the deposit and correlates well with the 3D model of the magnetics provided by Ardiden. The HW and FW units are narrow and less continuous and are better developed in the western part of the deposit (Figure 5.1).

Figure 5.1 Long section view looking south showing the units of the interpreted magnetic sedimentary units



The mineralisation was modelled using a nominal cut-off grade of around 0.5 g/t gold to produce lode style mineralisation domains (Figure 5.2). The interpreted lodes are considered to provide a better representation of narrow, shear-hosted mineralisation than the use of grade shell implicit models. It was noted during the interpretation that the mineralisation is variable, and whilst proximal to the magnetic sediment horizons, was not always associated with these. The correlation of the interpreted mineralised lodes with the magnetic 3D model is shown in Figure 5.2.

The gold mineralisation was interpreted to form seven broad lodes that contain a significant proportion of low-grade mineralisation. It is evident that there are sub-structures within these lodes that are concentrating the mineralisation and, at the current drill spacing, it is not possible to generate a robust model of the higher-grade mineralisation.

The interpreted mineralisation is not restricted to within the magnetic sedimentary rocks but has a primary shear-related control. A more detailed review of the logging information to allow refinement of the geological interpretation and resource model should be undertaken to incorporate a shear-related control to the mineralisation. The correlation with the magnetic 3D model is shown in Figure 5.2, where the responses greater than 0.038 are shown as dots. A plan of the mineralisation is included in Figure 5.3.

Figure 5.2 **Long section view looking south showing the interpreted mineralised lodes and the 3D magnetic model (dots – magnetic response >0.038)**

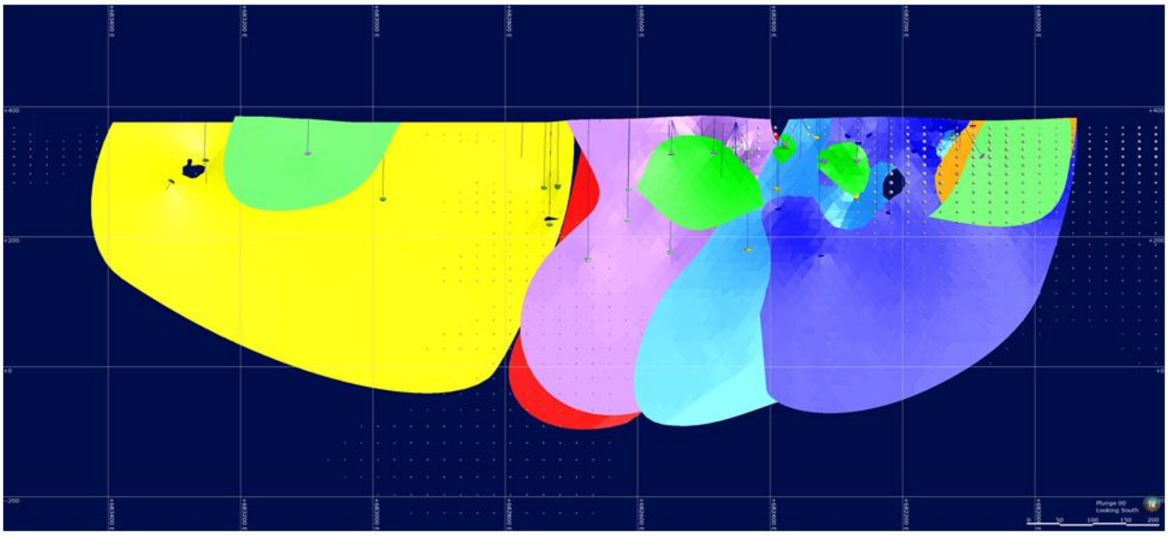
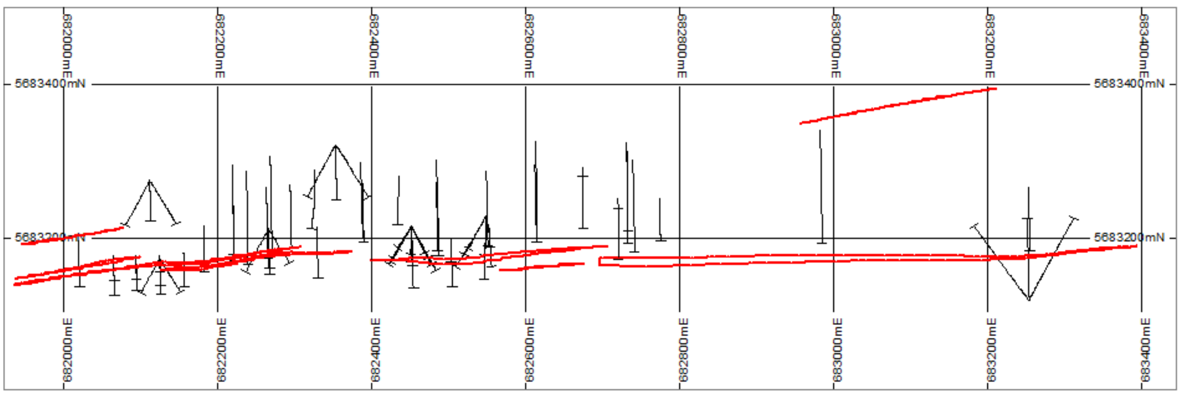


Figure 5.3 **Plan of interpreted mineralisation at 375 mRL**



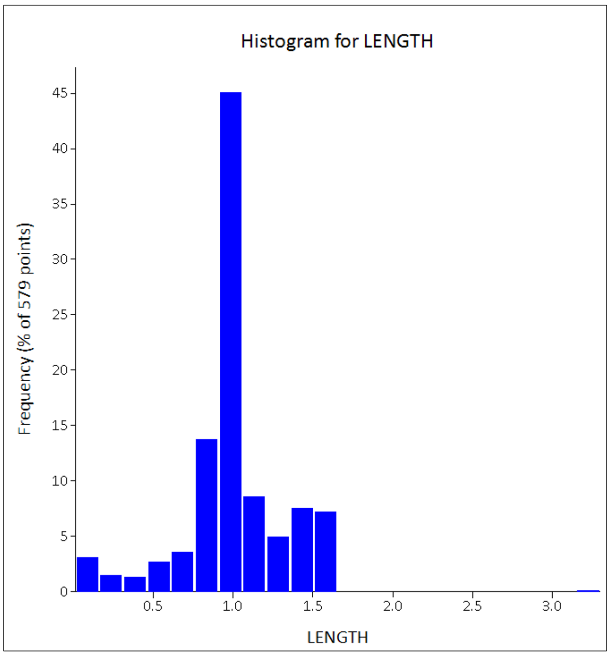
Centre-line surfaces were generated through each of the interpreted mineralised domains and the local dip and dip orientations of the surfaces were determined and estimated into the block model for each domain. These dips and dip orientations were used to control the orientation of the search ellipse for grade estimation.

6. DATA CODING AND SUB-DOMAINING

6.1. DATA CODING AND COMPOSITING

The data was coded within the seven mineralised lodes interpreted using Leapfrog Geo (as discussed in Section 5) and domain codes of 10, 20, 30, 40, 50, 60 and 70 assigned. Intervals with absent gold data, that are within the interpreted mineralisation outlines, were assigned a grade of 0.01 g/t gold. Within the mineralised domains 71% of the assays have been taken over sample intervals of 1 m or less (Figure 6.1) and so the coded data was composited to 1 m down-hole intervals.

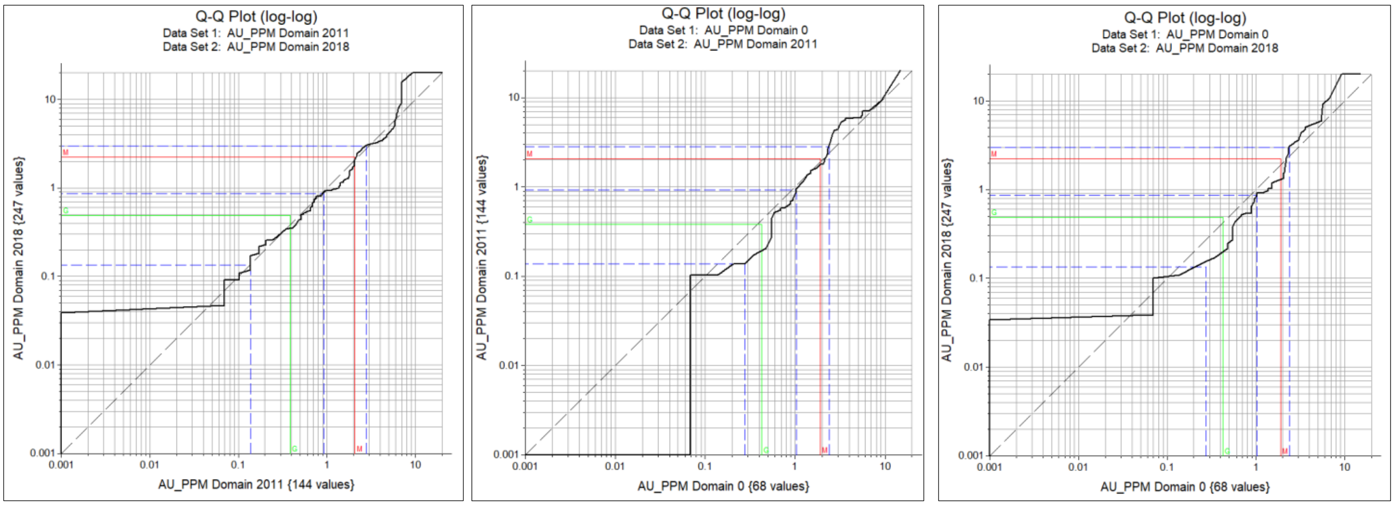
Figure 6.1 Histogram of sample lengths



6.2. DATA ANALYSIS

Quantile-quantile plots were used to compare the composite data from within the mineralised domains (Figure 6.2). The data was top-cut to 20 g/t (as discussed below) and screened to within the area of the 2011 and 2018 drilling (682,290 to 682800 mE). There is no bias between the 2011 and the 2018 drilling data or between the 1980s and 2011 drilling data. The mean of the data from the 2018 drilling (1.91 g/t gold) is higher than that from the 1980s drilling (2.22 g/t). This is in-line with the 2018 fan drilling targeting the higher-grade mineralisation intersected by the 2011 drilling programme. Declustering the 2018 data reduces the mean to 1.97 g/t. It was concluded that the three sets of data could be combined for resource estimation.

Figure 6.2 **Quantile-quantile plots comparing data from the 2011 and 2018 (LHS), 1980s and 2011 (middle) and 1980s and 2018) drilling data from within the mineralised domains**



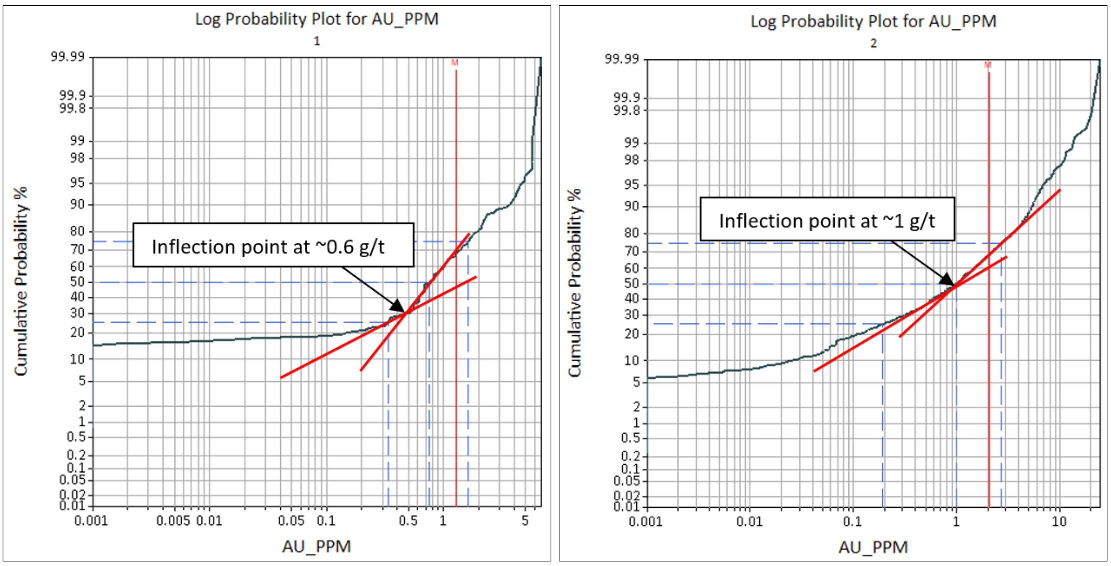
Log-scale histograms and probability plots of the gold data within each of the mineralised domains and the statistical parameters are included in Appendix B. Domains 10, 50 and 70 contain less than 30 composited assay intervals and these domains were not used for resource estimation.

While the interpreted mineralised lodes at the Kasagiminnis gold deposit have captured the majority of the mineralised sample intervals the interpreted lodes contain significant proportions (approximately 25%) of sample intervals with no or very low gold grade (<0.25 g/t gold).

The gold grade distributions within domains 20, 30, 40 and 60 are positively skewed and mixed, and contain low grade material. A categorical indicator kriging (CIK) approach was used within these domains to sub-domain the low-grade and higher-grade populations in preparation for grade estimation.

Log-scale histograms and probability plots were used to examine the gold data within domains 20, 30, 40 and 60. An inflection in the data distribution was noted within the lower-grades lodes (domains 20 and 30) at approximately 0.6 g/t gold and an inflection in the data distribution was noted within the higher-grades lodes (domains 40 and 60) at approximately 1 g/t gold (Figure 6.3).

Figure 6.3 **Log-scale probability plots of gold data from within the mineralised lodes (domains 20 and 30 – LHS, domains 40 and 60 – RHS)**



The CIK sub-domaining process was as follows:

- The CIK analysis and model used a nominal cut-off grade of 0.6 g/t gold to domain the low-grade material from the higher-grade material for domains 20 and 30 and of 1.0 g/t gold to domain the low-grade material from the higher-grade material for domains 40 and 60.
- The composite file was coded with an indicator (IC) where AU_PPM ≥ 0.6, IC=1 and where AU_PPM < grade threshold, IC=0 for domains 20 and 30 and where AU_PPM ≥ 1.0, IC=1 and where AU_PPM < grade threshold, IC=0 for domains 40 and 60.
- The coded data file was imported into Supervisor v8 software and variography was completed for domain 40 (see Section 7).
- An ordinary kriged (OK) estimate of the IC variable was completed for each domain (see Section 9). This provided an estimate of the probability (between 0 to 1) of the block being above the grade indicator for each domain. Estimation parameters were derived from the variogram analysis of domain 40 and were applied to domains 20, 30 and 60.
- To improve the final sub-domain resolution the CIK estimate was performed using a block size of 2.0 mE by 0.5 mN by 2.0 mRL (i.e. parent block subdivisions of 3 by 2 by 3).
- Estimates were inspected visually in cross section against the input data and composites were coded with the estimated CIK probability values.
- Three CIK probability thresholds were selected for comparison; 0.35, 0.4 and 0.45. For each probability threshold the composite file was back-coded with the block CIK estimate (i.e. where IC≥0.35, the sub-domain is higher-grade, and where IC<0.35, the sub-domain is low-grade). The back-coded composites were then assessed as to how effective the CIK thresholds were at separating the low-and high-grade composites into the relevant subdomains.
- A probability of 0.40 was selected to sub-domain the low- and higher-grade mineralisation for all domains.

The effectiveness of the CIK approach to sub-domain the low- and high-grade composites is presented in Figure 6.4 and Figure 6.5. The data within the higher-grade sub-domains within domains 20, 30, 40 and 60 were assigned a final domain code of 210, 310, 410 and 610 respectively. The data within the low-grade sub-domains were assigned a final domain code of 200, 300, 400 and 600 respectively.

Log-scale histograms and probability plots of the gold data within each of the final domains and the statistical parameters are included in Appendix B.

Figure 6.4 **Log histograms of the composited data within the mineralised domains 20 and 30 (top) and CIK sub-domaining (using a IC of 1.0 g/t and 0.4 probability) to low grade 200 and 300 domains (bottom LHS) and higher-grade 210 and 210 domains (bottom RHS)**

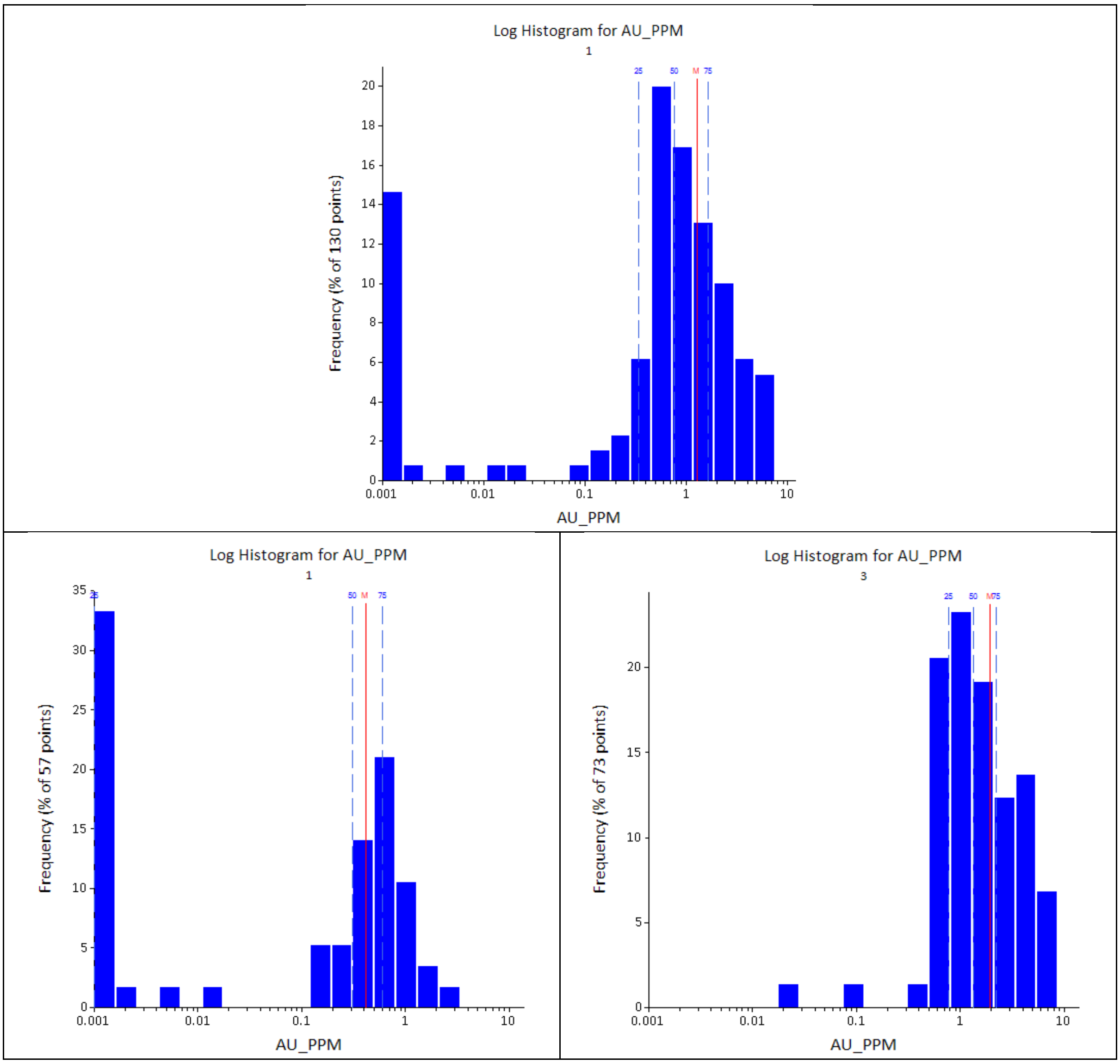
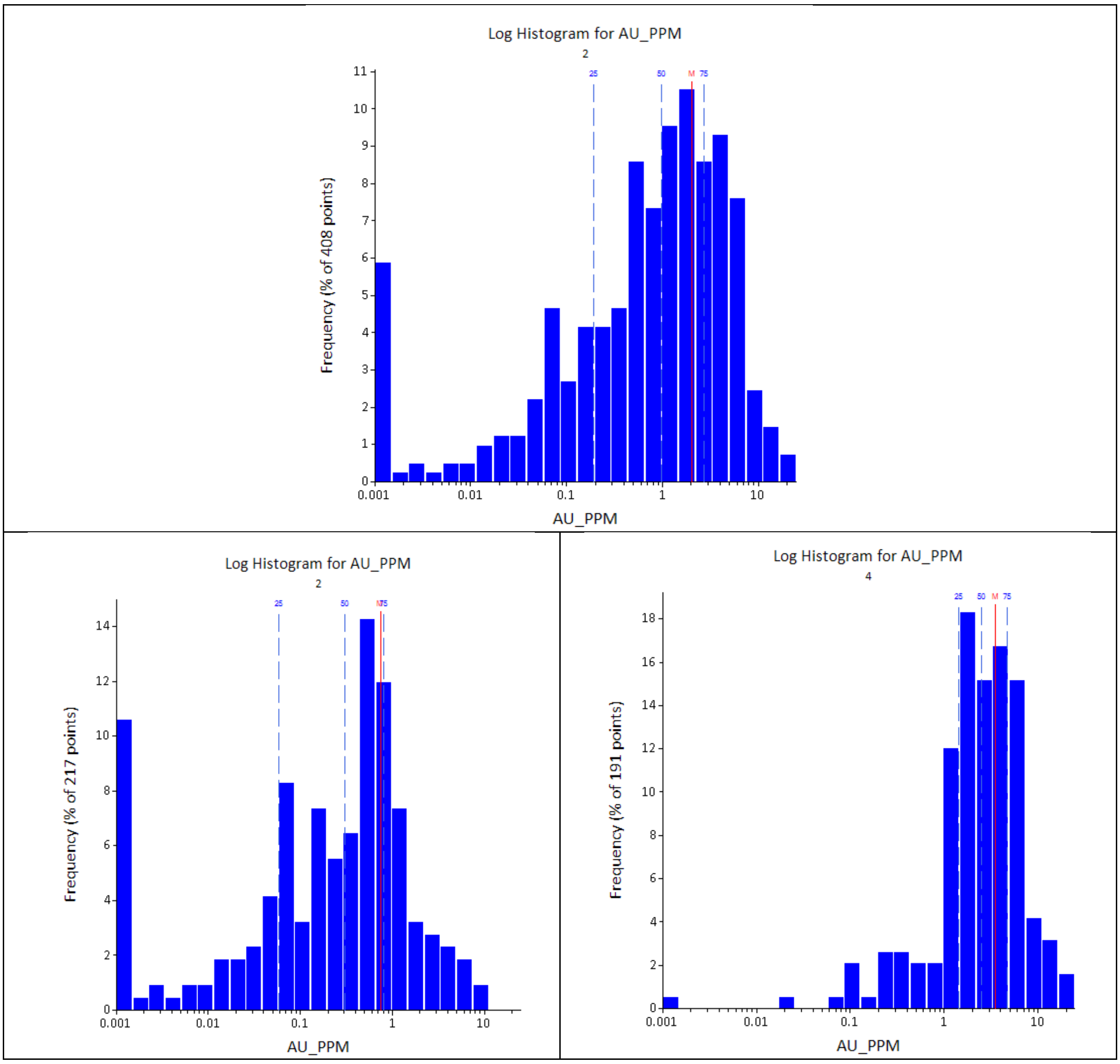


Figure 6.5 **Log histograms of the composited data within the mineralised domains 40 and 60 (top) and CIK sub-domaining (using a IC of 1.0 g/t and 0.4 probability) to low grade 400 and 600 domains (bottom LHS) and higher-grade 410 and 610 domains (bottom RHS)**



6.3. TOP-CUT ANALYSIS

The distributions of the gold data within each of the domain groupings are positively skewed and have moderate coefficients of variation (CV) of 0.78 to 1.42 for all domains except 400 which has a CV of 1.91. Top-cut analysis was undertaken to identify outlier grades and to reduce the CV. A top-cut grade of 7 g/t gold was applied to domain 400 and a top-cut grade of 20 g/t gold was applied to domain 410. The top-cut grades were selected by examining histograms, log probability plots, population disintegration and population statistics before and after top-cutting (mainly the mean and coefficient of variation). The influence of this on the raw and top-cut data for each group is documented in Table 6.1.

Table 6.1 Top-cut analysis and grades applied for capping of the data geostatistical analysis

Domain	Top-cut	Percentile	Number cut	Mean			Standard Deviation			Coefficient of variation		
				Un-cut	Cut	Diff%	Un-cut	Cut	Diff%	Un-cut	Cut	Diff%
200	2.74	100.0%	0	0.44	0.44	0.0%	0.60	0.60	0.0%	1.36	1.36	0.0%
210	5.76	100.0%	0	1.42	1.42	0.0%	1.21	1.21	0.0%	0.85	0.85	0.0%
300	1.71	100.0%	0	0.39	0.39	0.0%	0.45	0.45	0.0%	1.15	1.15	0.0%
310	6.81	100.0%	0	2.21	2.21	0.0%	1.73	1.73	0.0%	0.78	0.78	0.0%
400	7.00	99.2%	2	0.68	0.66	-3.2%	1.31	1.17	-10.7%	1.91	1.76	-7.8%
410	20.00	99.3%	2	3.53	3.50	-0.8%	3.55	3.40	-4.2%	1.01	0.97	-3.4%
600	6.74	100.0%	0	1.17	1.17	0.0%	1.66	1.66	0.0%	1.42	1.42	0.0%
610	11.33	100.0%	0	3.61	3.61	0.0%	3.01	3.01	0.0%	0.83	0.83	0.0%

Optiro undertook a declustering analysis to determine the effect of data clustering on the mean grade (used for block model validation in Section 10). Plots of the declustered, top-cut data are included in Appendix B.

6.4. DENSITY

Density measurements have been taken using the water immersion (Archimedes) technique. Bulk density data was measured from 878 core samples (excluding duplicate measurements) from the 2018 drilling programme. This was imported into Datamine and merged with the lithological and assay data. Where the sample incorporated two different logged lithologies (magnetic sedimentary rocks and gabbro) the density was assigned to both lithologies. The density data has been coded by lithology and statistical parameters are included in Table 6.2. There are no measurements from the overburden material.

Table 6.2 Density data – statistical parameters

Lithology	Number	Mean	Minimum	Maximum
Gabbro	483	3.1	2.5	3.5
Intermediate volcanic	4	2.9	2.7	3.1
Mafic intrusive	4	2.8	2.7	2.8
Magnetic sedimentary rocks	306	3.0	2.6	3.2
Mafic volcanic	92	2.7	2.6	3.1
Vein	1	2.7	2.7	2.7
Total	**890***	**3.0**	**2.5**	**3.5**

Note: *12 samples are from intervals with gabbro and magnetic sedimentary rocks and are included in both data sets

Scatter-plots of the density versus gold grade and density versus elevation, for the magnetic sedimentary rocks and gabbro, are included in Figure 6.6. These indicate that there is no consistent relationship between density and depth or between density and gold grade.

A histogram of the data from within the magnetic sedimentary rocks and gabbro is included as Figure 6.7. Low and high outliers are noted and the data was screened to >2.7 and <3.3t/m^3. A bulk density of 3.0 t/m^3 was applied to the mineralised lodes for tonnage estimation.

Figure 6.6 Scatter-plots of density with depth (LHS) and with gold grade (RHS)

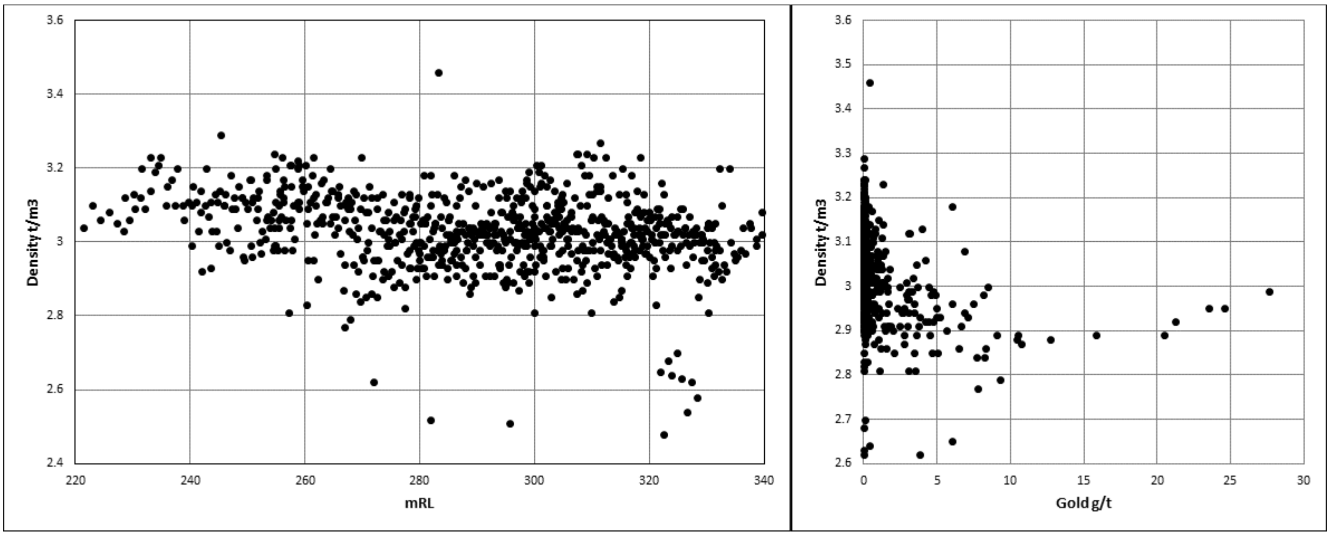
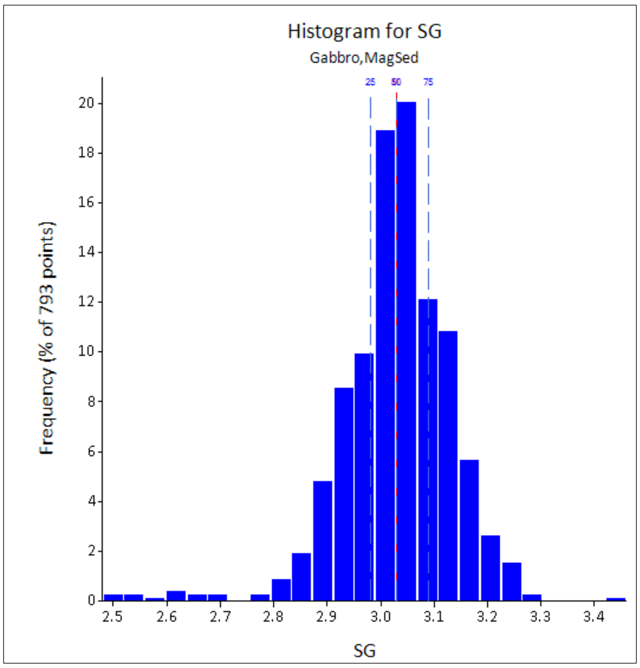


Figure 6.7 Histogram of density data within the gabbro and magnetic sedimentary rocks



7. VARIOGRAPHY

7.1. CATEGORICAL INDICATOR VARIOGRAPHY

As outlined in Section 6, composites within domains 20, 30, 40 and 60 were coded with an indicator (IC) where AU_PPM ≥ 0.6, IC=1 and where AU_PPM < grade threshold, IC=0. Variogram analysis was completed using the IC values to determine the continuity of the higher-grade material within the mineralised domains. A summary of the indicator variography is presented in Table 7.1.

Table 7.1 CIK variogram parameters

Direction		Nugget effect	Sill 1	Range 1 (m)	Sill 2	Range 2 (m)
1	-72°→303°	0.11	0.58	20	0.31	54
2	15°→267°			17		24
3	10°→360°			3		3

7.2. GRADE VARIOGRAPHY

Variogram analysis was undertaken to determine mineralisation continuity using the combined data from the higher-grade domains (210, 310, 410 and 610). A normal scores transformation was applied and the variogram parameters were back-transformed for grade-estimation. Strike directions were interpreted from horizontal variogram fans and dip directions were interpreted from the across-strike variogram fans. Dip plane variogram fans were examined to determine if there was a plunge component to the mineralisation orientation.

The mineralisation was interpreted to have a strike of 085° and a dip of -70° to the north. The mineralisation continuity within the mineralised horizons was interpreted from variogram analyses to have a long range of 55 m in the down dip direction (-70° towards 355°), 20 m across strike (0° towards 265°) and 2 m perpendicular to the mineralisation plane. The variogram fans, directional variograms and interpreted models are included in Appendix C and the interpreted variogram parameters (back-transformed) are included in Table 7.2.

For grade estimation, the search ellipses and variogram parameters were oriented within the plane of the mineralisation of each mineralised domain using Datamine's dynamic anisotropy methodology.

Table 7.2 Grade variogram parameters

Direction		Nugget effect	Sill 1	Range 1 (m)	Sill 2	Range 2 (m)
1	-70°→355°	0.15	0.58	20.5	0.27	55
2	0°→265°			20		20
3	20°→355°			2		2

8. KRIGING NEIGHBOURHOOD ANALYSIS

Kriging neighbourhood analysis (KNA) was conducted to optimise the block size and the kriging parameters used for grade estimation. This analysis used the gold variography for the higher-grade domains (210, 310, 410 and 610)

A series of estimates were run with varying block sizes and the kriging efficiency (KE) and slope of regression (RS) values were calculated in each case. Once the optimum block size was selected, a second series of estimates were run for a range of minimum and maximum sample numbers, a third series to examine the influence of the search ranges and then a final series for the discretisation parameters.

Block sizes of 3 m, 6 m and 9 m in the easting direction (X), 1 m and 2 m in the northing direction (Y), and 6 m and 10 m in the vertical direction (Z) were tested. These results (Appendix D) indicated a small decrease in the kriging efficiency and regression slope with increasing block size. There is also a decrease in the number of negative kriging weights with increasing block size. A parent block size of 6 mE by 1 mN by 6 mRL was selected to accommodate the changes to kriging efficiency, regression slope and number of negative kriging weights.

The influence of the number of informing samples on the estimate was tested. For this analysis, the block size was set to 6 mE by 1 mN by 6 mRL and the sample numbers were varied between 2 and 30. Based on the results of this analysis (Appendix D), the minimum and maximum numbers of samples were selected to be 4 and 12, respectively.

The influence of using the search ellipse was investigated for a range of block sizes. Testing used a search with the same dimensions as the maximum variogram ranges and with a half and double the variogram ranges. The results were the same for each of these scenarios and a search ellipse with the same dimensions as the maximum variogram ranges was selected.

The influence of the block discretisation level on the estimate was also tested. For this analysis, the block size was set to 6 mE by 1 mN by 6 mRL, the number of informing samples was set to the optimal parameters and the discretisation varied from 2 to 6 for each of X, Y and Z. The quality of the block estimate was found to be relatively insensitive to the discretisation level (Appendix D). The discretisation was set to 6 X by 6 Y by 6 Z.

9. GRADE ESTIMATION AND MODEL VALIDATION

9.1. BLOCK MODEL PARAMETERS

Optiro constructed a block model for the Kasagiminnis gold deposit using parameters determined from the KNA using a parent block size of 6 mE by 1 mN on 6 m benches. The parent blocks were allowed to sub-cell down to 2.0 mE by 0.5 mN by 2.0 mRL to more accurately represent the geometry and volumes of the mineralised domains. Details of the model parameters are provided in Appendix E.

Validation of the block model variables, volumes and attribute coding was completed prior to grade estimation. Blocks were inspected visually in section and in 3D. The blocks coded within the mineralised domain were then screened to below the base of overburden surface.

9.2. DENSITY

As discussed in Section 6, a density value of 3.0 t/m^3 was assigned to the blocks within the mineralised domains. This value is considered appropriate for the style of mineralisation and typical host lithologies.

9.3. GRADE ESTIMATION

Gold block grades were estimated using ordinary kriging (OK) techniques with the variogram parameters included in Table 7.2. The search ellipses were oriented within the plane of the mineralisation using Datamine's dynamic anisotropy methodology. Grades were estimated into the parent blocks and details of the key estimation parameters are provided in Appendix E. Hard boundaries were applied between all mineralisation domains and the maximum number of composites from a drillhole was set to four.

A three-pass search was used, whereby the ellipse dimensions for the first search correspond to the mineralisation continuity ranges interpreted from the variogram analysis and expanded searches were used for the second and third passes (see Appendix E). Not all of the coded blocks within the mineralisation domains were estimated and these have been left as absent. In total, 31% of the interpreted mineralisation in domains 20, 30, 40 and 50 has not been estimated or included in the reported resource.

The percentages of parent blocks estimated in each search pass are listed in Table 9.1. For the total model 14% of the blocks were estimated in the first search pass, 26% in the second search pass and the remaining 59% in the third search pass. The block model was screened above 105 mRL for resource reporting and within the reported resource 16% of the blocks were estimated in the first search pass, 29% in the second search pass and the remaining 55% in the third search pass.

Table 9.1 Percentage of parent blocks estimated in each search pass for each domain

Domain	Total model			Within resource (>105 mRL)		
	Search 1	Search 2	Search 3	Search 1	Search 2	Search 3
200	51%	9%	40%	73%	12%	15%
210	10%	22%	68%	10%	22%	68%
300	3%	20%	78%	17%	24%	59%
310	8%	27%	65%	10%	32%	58%
400	53%	26%	21%	61%	29%	10%
410	30%	37%	34%	32%	40%	28%
600	4%	20%	76%	4%	22%	74%
610	7%	29%	64%	7%	29%	64%
Total	**14%**	**26%**	**59%**	**16%**	**29%**	**55%**

9.4. MODEL VALIDATION

Optiro validated the grade models by:

- visual comparison of the drillholes and blocks
- comparing the mean input grade with the estimated block grade
- examining trend plots of the input data and estimated block grades.

Visual validation of the block models was carried out by examining cross-section, long-section and plan views of the drillhole data and the estimated block grades. These indicate good correlation of the estimated block grades with the input drillhole data. Example cross-sections are included in Appendix H

The gold block estimates were statistically validated against the informing composites on a whole-of-domain basis. The mean estimated grade of the blocks was compared to the input data mean of the declustered data for the groups of domains (Table 9.2). The differences between the top-cut data and the estimated blocks are less than 15% and between the top-cut and declustered data are less than 20% except for domain 200. For domain 200 the mean block grade is less than half the input data grade. Examination of this domain indicates estimation of high tonnages of low-grade blocks into areas where there is limited data. This domain contributes 0.2% of the total resource.

Table 9.2 Global comparison of mean input data and block grade

Domain	Number of samples	Composite mean	Top-cut composite mean	Top-cut and declustered mean	Model mean	Percentage of resource	Difference between model and composite mean	Difference between model and declustered mean
200	29	0.44	0.44	0.48	0.22	0.2%	-50%	-54%
210	24	1.42	1.42	1.49	1.57	3%	10%	5%
300	28	0.39	0.39	0.42	0.34	0.5%	-13%	-19%
310	49	2.21	2.21	2.17	2.39	17%	8%	10%
400	190	0.68	0.66	0.71	0.62	8%	-6%	-12%
410	173	3.53	3.50	3.21	3.21	21%	-8%	0%
600	27	1.17	1.17	1.23	1.02	36%	-13%	-17%
610	18	3.61	3.61	3.34	3.89	14%	8%	16%

Grade trend profiles were constructed to assess any global bias, average grade conformance and to detect any obvious estimation issues. The trend plots were examined in the easting, northing and elevation directions, and are included in Appendix F. The validation plots indicate that there is generally acceptable correlation between the input grades and the block grades. As expected, the model grades are smoother than the input data, particularly for the elevation validation plots. The domain200, 210, 300, 310, 600 and 610 contain limited data and smoothing of grades has extrapolation occurred within area with sparse data.

10. CLASSIFICATION AND RESOURCE REPORTING

10.1. CLASSIFICATION

The mineralisation at the Kasagiminnis gold deposit that is above 105 mRL (up to 280 m below surface) has been classified as Inferred in accordance with the guidelines of the JORC Code (2012). Table 1 criteria of the JORC Code and supporting comments are listed in Appendix G. The Mineral Resources have been classified on the basis of confidence in geological and grade continuity and taking into account data quality (including the historical nature of much of the drill data and limited quality control and quality assurance data), data density and confidence in the block grade estimation.

Inferred Mineral Resources have been defined at the Kasagiminnis gold deposit within domains 20, 30, 40 and 60 where the drill spacing is generally 50 mE by 50 mN or less and the resources are above 105 mRL. Drill spacing within the eastern area of the deposit is up to 200 m along strike. The classification is illustrated in Figure 10.1 and a plan illustrating the strike extent of the Mineral Resource with ≥3 g/t gold is included in Figure 10.2.

Figure 10.1 **3D view (looking north-east of drillholes and the classified resource model (red = Inferred, ≥3 g/t gold; green = Inferred, 2 to 3 g/t gold; blue = Inferred <2g/t gold; grey = not classified and mineralisation external to resource model)**

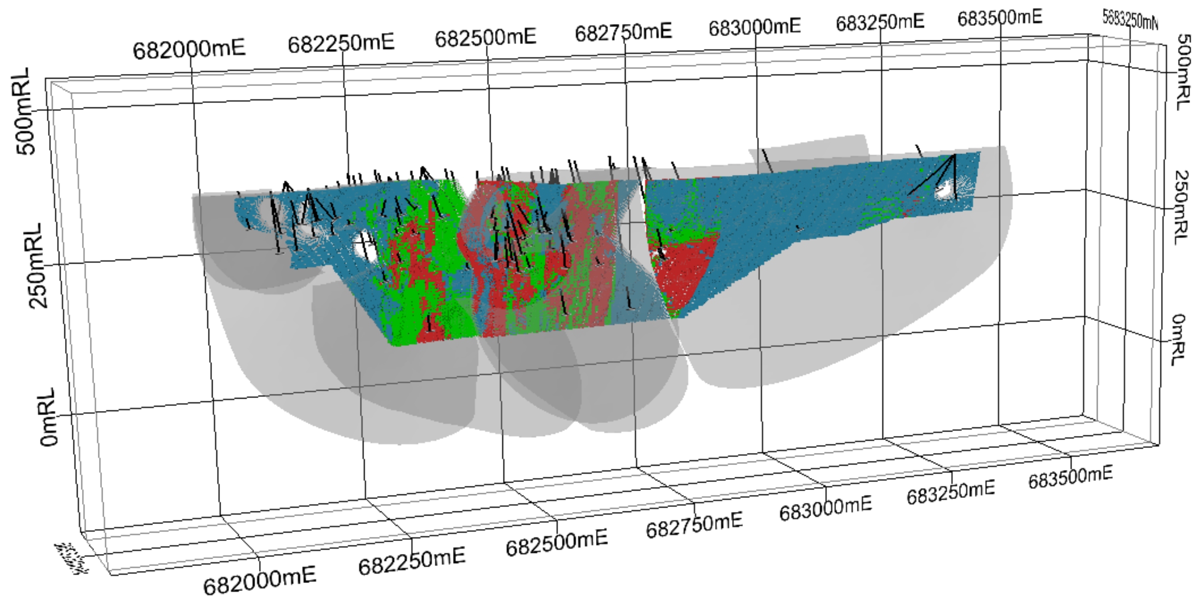
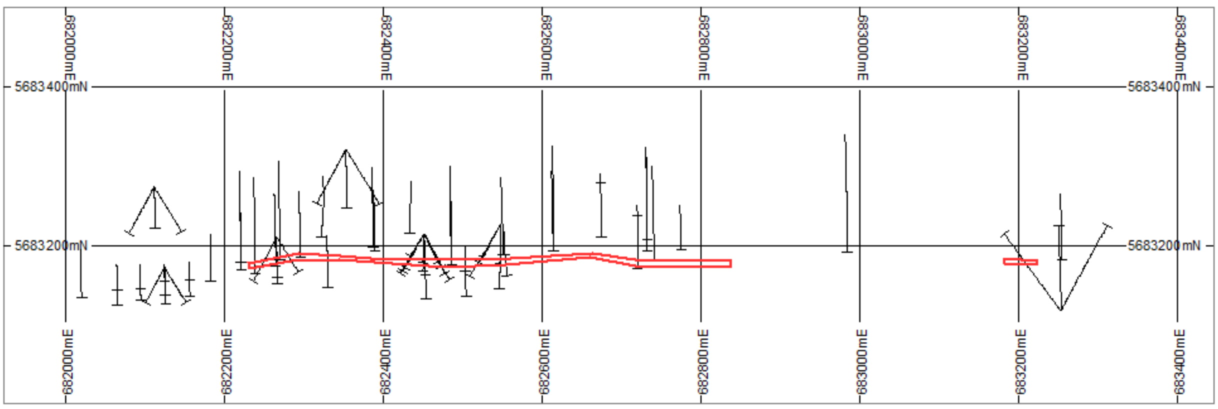


Figure 10.2 **Plan of the strike extent of the ≥3 g/t gold Mineral Resource**



10.2. MINERAL RESOURCE STATEMENT

The Mineral Resource estimate, as at July 2019, for the Kasagiminnis gold deposit is reported in Table 10.1. This has been classified and reported in accordance with the guidelines of the JORC Code (2012). The Mineral Resources have been reported above a 3 g/t gold cut-off grade to reflect current commodity prices and likely underground mining methods.

Table 10.1 Kasagiminnis gold deposit – Mineral Resource as at July 2019, reported above a cut-off grade of 3 g/t gold

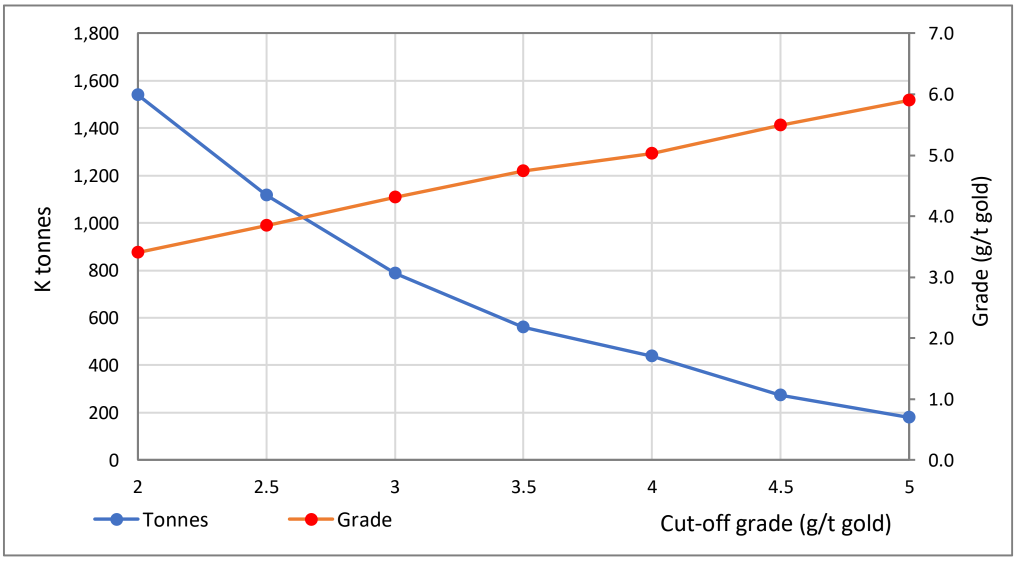
Classification	Cut-off grade g/t gold	Tonnes (x 1,000)	Grade g/t gold	Gold ounces (x 1,000)
Inferred	3.0	790	4.3	110
Total	**3.0**	**790**	**4.3**	**110**

The Mineral Resource has been reported at a range of cut-off grades (Table 10.2) and grade tonnage curves are included as Figure 10.3.

Table 10.2 Inferred Mineral Resource reported above a range of gold cut-off grades

Cut-off grade g/t gold	Tonnes (x 1,000)	Grade g/t gold	Gold ounces (x 1,000)
2.0	1,540	3.4	170
2.5	1,120	3.8	140
3.0	790	4.3	110
3.5	560	4.7	90
4.0	440	5.0	70
4.5	270	5.5	50
5.0	180	5.9	30

Figure 10.3 Grade and tonnage curves for a range of cut-off grades



10.3. COMPARISON WITH PREVIOUS RESOURCE ESTIMATES

A preliminary mineral inventory of 2.6 million tonnes at an average grade of 4.79 g/t gold was estimated for the Kasagiminnis gold deposit by Kenora in 1988 (Harron, 2009). Details of how this was estimated, and the dimensions of the interpreted mineralisation are not included in Harron (2009). This mineral inventory is substantially larger than the Inferred Resource estimated by Optiro in July 2019 and may have been extended at depth and along strike.

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Appendix A List of drillholes

Hole ID	Easting (mE) 83_15	Northing (mN) _83_15	Elevation (mRL)	Total depth (m)	Hole type	Year
KAS-86-01	681421.00	5683301.00	385.20	81.4	DD	1986
KAS-86-02	681291.00	5683123.00	387.19	96.6	DD	1986
KAS-86-03	681458.00	5682616.00	384.13	105.8	DD	1986
KAS-86-04	681620.00	5682858.00	383.66	151.5	DD	1986
KAS-87-01	682281.00	5683011.00	384.65	81.4	DD	1987
KAS-87-02	682285.00	5683097.00	382.25	63.1	DD	1987
KAS-87-03	682266.00	5683212.00	385.95	80.8	DD	1987
KAS-87-04	683097.31	5683437.50	384.31	93.6	DD	1987
KAS-87-05	682221.00	5683458.50	379.34	118.0	DD	1987
KAS-87-06	682146.00	5682654.00	392.08	105.8	DD	1987
KAS-87-07	684134.88	5683059.50	386.91	96.6	DD	1987
KAS-87-08	684125.31	5683154.00	382.02	133.2	DD	1987
KAS-87-09	684116.19	5683244.00	379.00	130.1	DD	1987
KAS-87-10	684103.69	5683368.00	379.63	162.1	DD	1987
KAS-87-11	683901.38	5682897.50	386.30	124.0	DD	1987
KAS-87-12	683511.13	5683047.50	387.45	87.5	DD	1987
KAS-87-13	683289.81	5682768.50	390.00	121.0	DD	1987
KAS-87-14	683280.06	5682865.00	391.25	124.0	DD	1987
KAS-87-15	683220.81	5682216.00	375.00	102.7	DD	1987
KAS-87-16	684333.06	5683563.50	384.16	192.6	DD	1987
KAS-87-17	684479.69	5683352.00	394.00	101.2	DD	1987
KAS-87-18	684472.63	5683425.00	392.30	102.7	DD	1987
KAS-87-19	685107.44	5683324.00	396.86	82.0	DD	1987
KAS-87-20	685193.38	5683709.50	396.38	75.3	DD	1987
KAS-87-21	685571.13	5683680.00	393.91	111.2	DD	1987
KAS-87-22	685563.38	5683757.00	394.43	111.2	DD	1987
KAS-87-23	685555.50	5683835.00	394.02	108.8	DD	1987
KAS-87-24	686195.00	5683687.00	380.00	80.8	DD	1987
KAS-87-25	682182.75	5683215.00	383.72	85.6	DD	1987
KAS-87-26	682329.00	5683213.00	384.41	90.5	DD	1987
KAS-87-27	681417.00	5683193.00	388.61	78.3	DD	1987
KAS-87-28	682019.00	5683195.00	379.30	78.3	DD	1987
KAS-87-29	682471.13	5683453.00	376.00	142.3	DD	1987
KAS-87-30	682774.00	5683250.50	376.00	78.3	DD	1987
KAS-87-31	683253.00	5683265.00	376.00	108.8	DD	1987
KAS-87-32	683615.38	5683255.50	377.35	99.7	DD	1987
KAS-87-33	681283.00	5683518.00	380.70	78.3	DD	1987
KAS-87-34	683207.00	5682650.00	389.94	105.8	DD	1987
KAS-87-35	682221.00	5682667.00	390.60	105.8	DD	1987
KAS-87A-01	682266.00	5683211.50	385.92	90.2	DD	1987
KAS-87A-02	682266.00	5683211.50	385.92	71.0	DD	1987
KAS-87A-03	682266.00	5683210.00	385.82	81.1	DD	1987
KAS-87A-04	682155.69	5683180.00	381.57	62.8	DD	1987
KAS-87A-05	682155.63	5683180.00	381.57	78.0	DD	1987
KAS-87A-06	682124.81	5683176.00	379.96	59.7	DD	1987
KAS-87A-07	682124.63	5683176.00	379.95	78.0	DD	1987
KAS-87A-08	682093.88	5683176.00	379.00	65.8	DD	1987
KAS-87A-09	682093.75	5683176.00	379.00	96.3	DD	1987
KAS-87A-10	682065.00	5683175.50	379.00	99.4	DD	1987
KAS-87A-11	682065.00	5683175.00	379.00	78.0	DD	1987
KAS-87A-12	682112.00	5683274.00	381.06	87.2	DD	1987
KAS-87A-13	682112.00	5683274.00	381.06	68.9	DD	1987
KAS-87A-14	682112.00	5683274.00	381.06	87.2	DD	1987
KAS-87A-15	682353.00	5683320.50	384.21	102.7	DD	1987
KAS-87A-16	682353.00	5683320.50	384.21	96.3	DD	1987
KAS-87A-17	682354.00	5683320.50	384.15	105.5	DD	1987
KAS-87A-18	681492.00	5682617.00	385.70	155.4	DD	1987
KAS-87A-19	681428.00	5682620.00	382.67	160.3	DD	1987
KAS-87A-20	681368.00	5682618.00	382.85	157.3	DD	1987
KAS-87A-21	681809.00	5682583.00	389.47	123.7	DD	1987
KAS-87A-22	681158.00	5683412.00	378.62	88.7	DD	1987
KAS-87A-23	681514.00	5683451.00	380.41	95.7	DD	1987
KAS-87A-24	681312.00	5683160.00	387.45	115.8	DD	1987

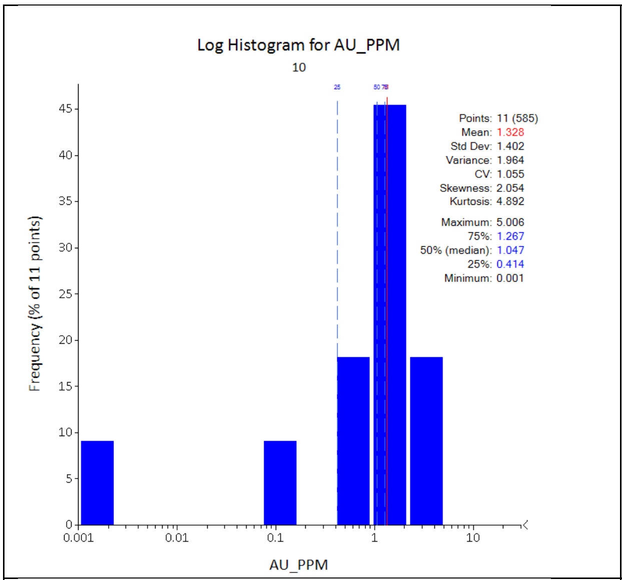
Hole ID	Easting (mE) 83_15	Northing (mN) _83_15	Elevation (mRL)	Total depth (m)	Hole type	Year
KAS-87A-25	681845.00	5683133.00	380.83	107.0	DD	1987
KAS-87A-26	682263.00	5683264.50	386.26	126.5	DD	1987
KAS-87A-27	682237.09	5683285.83	384.92	203.3	DD	1987
KAS-87A-28	682268.06	5683306.00	385.01	184.7	DD	1987
KAS-87A-29	682294.00	5683268.00	385.31	123.7	DD	1987
KAS-87A-30	682219.00	5683294.00	384.20	192.3	DD	1987
KAS-87A-31	682219.50	5683260.50	385.28	135.3	DD	1987
KAS-87A-32	682124.63	5683172.00	380.08	68.9	DD	1987
KAS-87A-33	682125.25	5683172.00	380.11	62.8	DD	1987
KAS-87A-34	682125.25	5683172.00	380.11	68.9	DD	1987
KAS-87A-35	683253.38	5683119.00	376.04	153.9	DD	1987
KAS-87A-36	683254.38	5683119.00	376.04	142.0	DD	1987
KAS-87A-37	683254.38	5683119.00	376.04	160.3	DD	1987
KAS-87A-38	686775.69	5684121.50	380.00	132.9	DD	1987
KAS-87A-39	686569.00	5683694.50	380.00	124.0	DD	1987
KAS-87A-40	682388.00	5683270.00	381.66	133.2	DD	1987
KAS-87A-41	682386.00	5683298.00	382.61	185.0	DD	1987
KAS-88-01	682484.38	5683300.00	379.23	198.1	DD	1988
KAS-88-02	682484.00	5683272.00	380.76	150.0	DD	1988
KAS-88-03	682613.00	5683325.00	380.43	210.9	DD	1988
KAS-88-04	682612.00	5683294.00	381.61	150.6	DD	1988
KAS-88-05	682731.00	5683323.00	380.00	200.2	DD	1988
KAS-88-05A	682730.88	5683323.00	380.00	209.4	DD	1988
KAS-88-06	682739.00	5683300.00	379.78	163.7	DD	1988
KAS-88-07	682982.25	5683340.00	376.00	194.1	DD	1988
KAS-11-01	682720.00	5683250.00	383.00	161.65	DD	2011
KAS-11-02	682720.00	5683250.00	383.00	18.3	DD	2011
KAS-11-03	682657.00	5683225.00	383.00	9.1	DD	2011
KAS-11-04	682552.52	5683217.28	380.10	165.0	DD	2011
KAS-11-05	682552.52	5683217.28	380.10	127.0	DD	2011
KAS-11-06	682503.09	5683197.83	380.48	101.0	DD	2011
KAS-11-07	682503.09	5683197.83	380.48	108.0	DD	2011
KAS-11-08	682451.82	5683214.24	378.05	147.0	DD	2011
KAS-11-09	682451.82	5683214.24	378.05	125.0	DD	2011
KAS-11-10	682674.00	5683290.00	387.00	42.7	DD	2011
KAS-11-11	682674.00	5683291.00	387.00	266.3	DD	2011
KAS-11-12	682548.85	5683285.47	378.28	259.25	DD	2011
KAS-11-13	682434.87	5683280.25	377.80	225.2	DD	2011
KAS-11-14	682325.00	5683288.00	383.00	268.5	DD	2011
KAS-18-01	682451.83	5683214.61	377.68	92.5	DD	2018
KAS-18-02	682451.83	5683214.61	377.68	154.0	DD	2018
KAS-18-03	682451.83	5683214.61	377.68	101.5	DD	2018
KAS-18-04	682451.83	5683214.61	377.68	115.0	DD	2018
KAS-18-05	682451.83	5683214.61	377.68	136.0	DD	2018
KAS-18-06	682451.83	5683214.61	377.68	164.5	DD	2018
KAS-18-07	682451.83	5683214.61	377.68	85.0	DD	2018
KAS-18-08	682451.83	5683214.61	377.68	97.0	DD	2018
KAS-18-09	682451.83	5683214.61	377.68	146.5	DD	2018
KAS-18-10	682451.83	5683214.61	377.68	142.0	DD	2018
KAS-18-11	682548.63	5683227.51	379.60	131.5	DD	2018
KAS-18-12	682548.63	5683227.51	379.60	141.5	DD	2018
KAS-18-13	682548.63	5683227.51	379.60	115.0	DD	2018
KAS-18-14	682548.63	5683227.51	379.60	114.0	DD	2018
KAS-18-15	682548.63	5683227.51	379.60	134.5	DD	2018

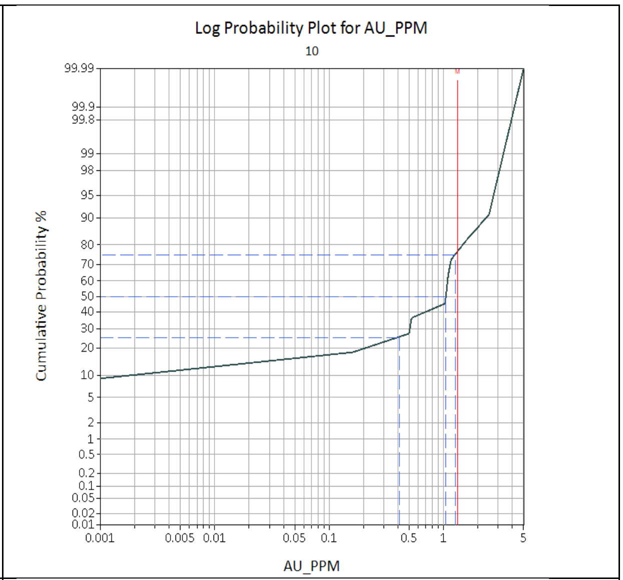
Appendix B Statistical parameters, histograms and probability plots

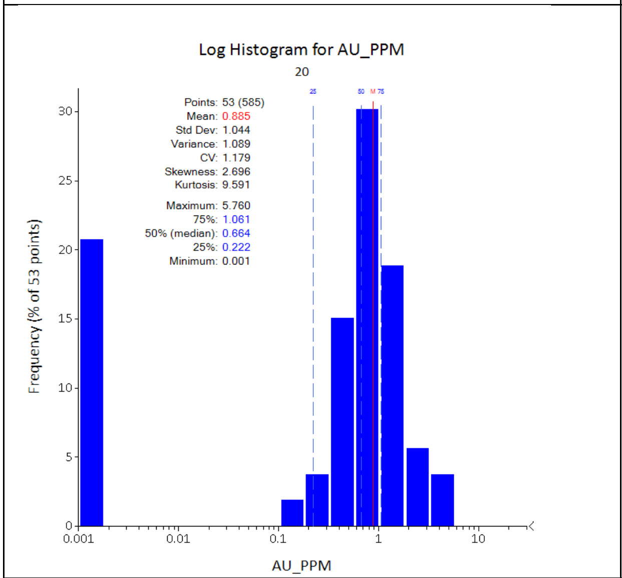
STATISTICAL PARAMETERS – MINERALISED DOMAINS

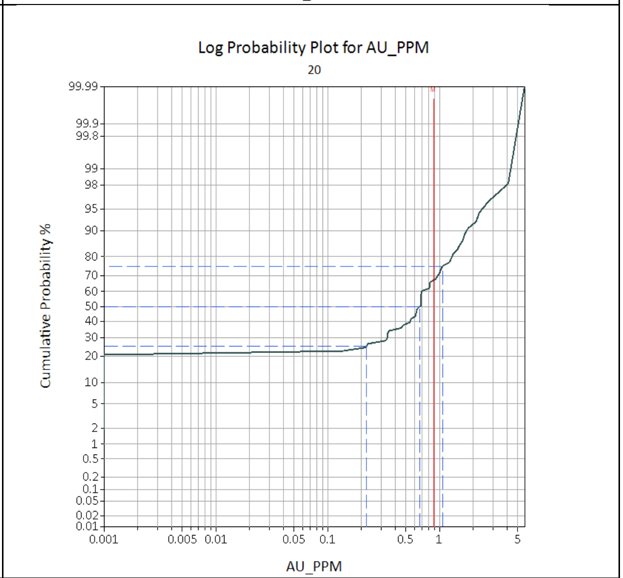
Domain		10	20	30	40	50	60	70
Samples		11	53	77	363	26	45	10
Minimum		0.001	0.001	0.001	0.001	0.001	0.001	0.549
Maximum		5.01	5.76	6.81	24.60	27.60	11.33	1.51
Mean		1.33	0.89	1.55	2.04	2.27	2.15	0.91
Standard deviation		1.40	1.04	1.65	2.98	5.33	2.57	0.43
Coefficient of variation		1.06	1.18	1.07	1.46	2.35	1.20	0.47
Variance		1.96	1.09	2.74	8.91	28.43	6.60	0.19
Skewness		2.05	2.70	1.44	3.26	4.66	1.92	0.59
Geometric mean		0.54	0.21	0.45	0.53	0.88	0.66	0.83
Percentile	10th	0.02	0.00	0.00	0.03	0.42	0.01	0.55
	20th	0.23	0.00	0.22	0.10	0.51	0.46	0.55
	30th	0.51	0.34	0.55	0.27	0.55	0.55	0.55
	40th	0.73	0.55	0.69	0.55	0.92	0.93	0.55
	50th	1.05	0.66	0.91	0.90	0.93	1.19	0.55
	60th	1.08	0.69	1.24	1.48	1.03	1.47	0.96
	70th	1.15	0.97	1.74	2.23	1.25	2.11	0.96
	80th	1.49	1.29	2.28	3.51	1.69	3.09	1.45
	90th	2.40	1.75	4.25	5.27	2.30	5.98	1.51
	95th	3.63	2.43	5.08	6.98	5.72	6.65	1.51
	97.5th	4.32	3.67	5.75	10.08	14.24	9.03	1.51
	99th	4.73	4.89	6.00	13.65	22.26	10.45	1.51

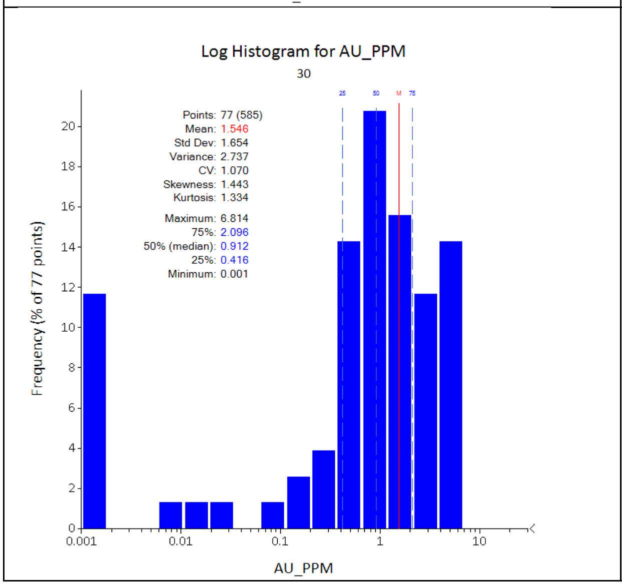
HISTOGRAMS AND LOG-SCALE PROBABILITY PLOTS – MINERALISED DOMAINS

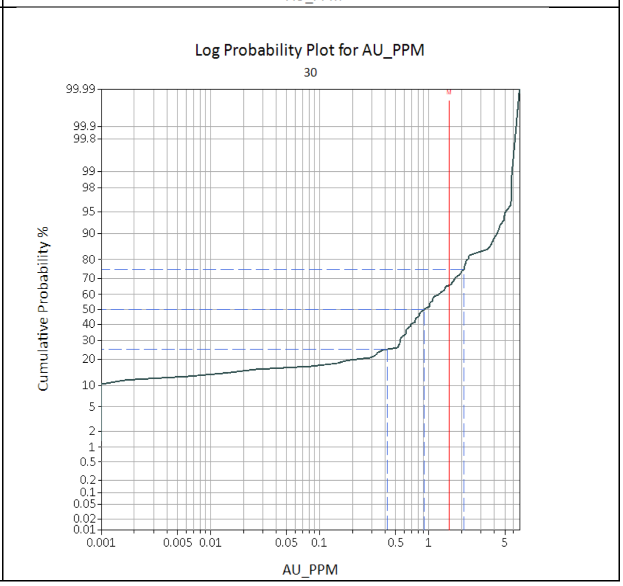


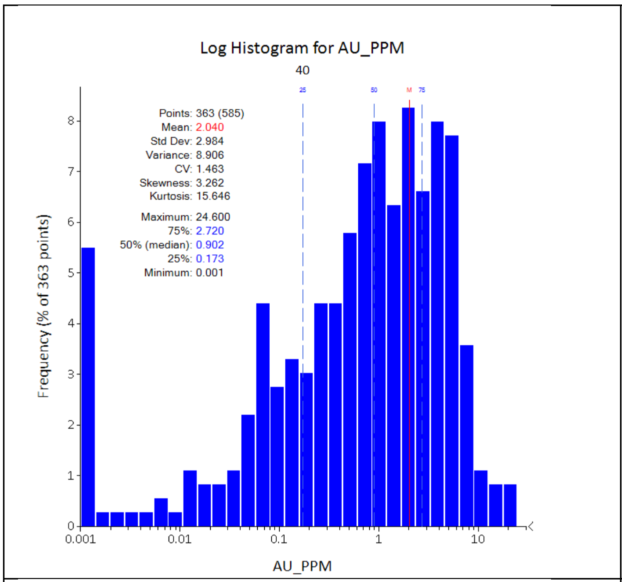


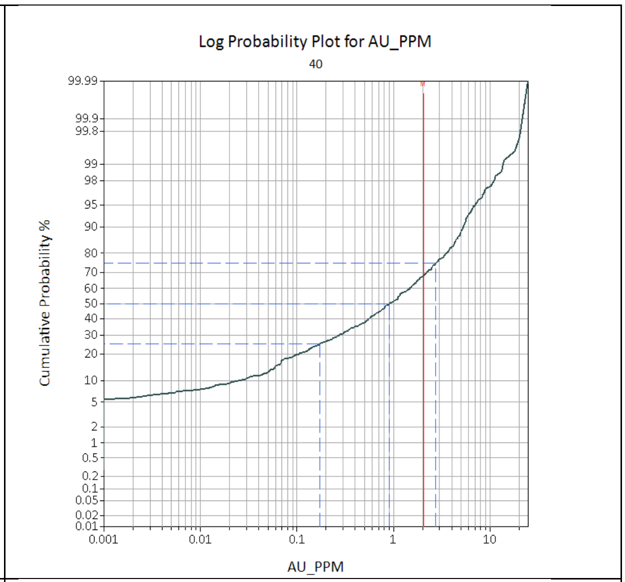


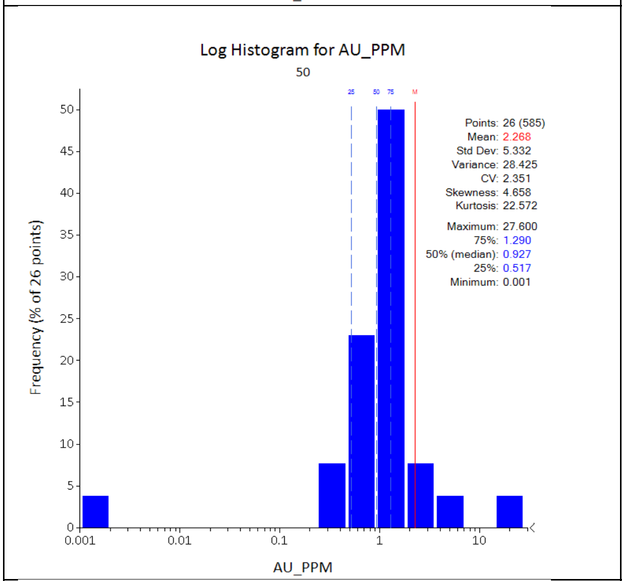


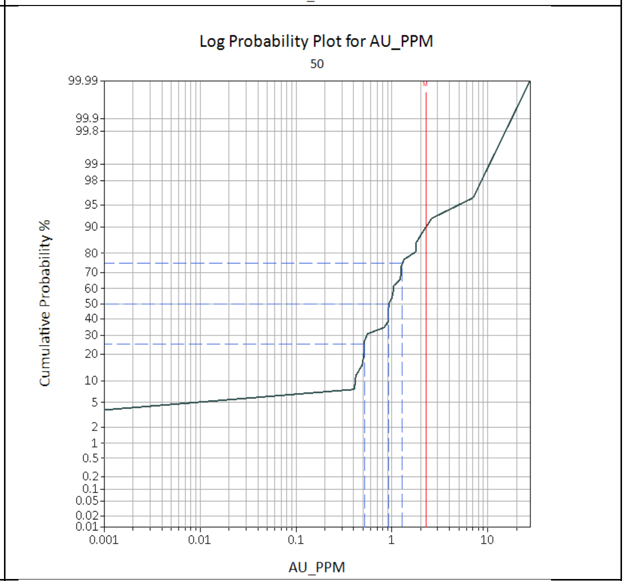


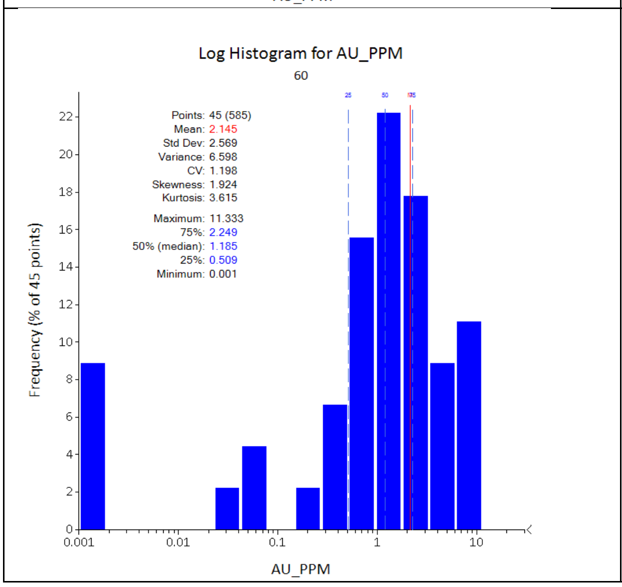


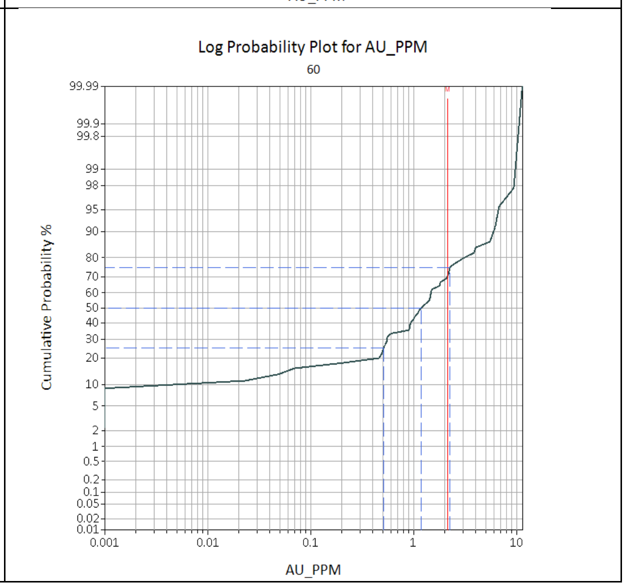

Log Histogram for AU_PPM
40
Points: 363 (585)
Mean: 2.040
Std Dev: 2.984
Variance: 8.906
CV: 1.463
Skewness: 3.262
Kurtosis: 15.646
Maximum: 24.600
75%: 2.720
50% (median): 0.902
25%: 0.173
Minimum: 0.001
Frequency (% of 363 points)
AU_PPM

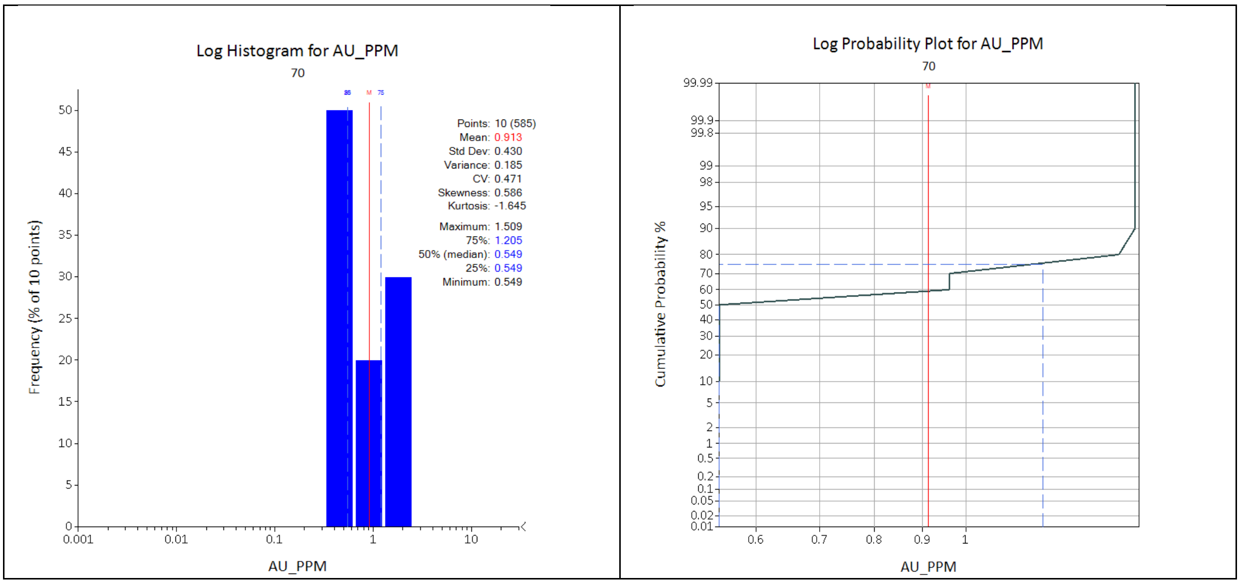

Log Probability Plot for AU_PPM
40
Cumulative Probability %
AU_PPM


Log Histogram for AU_PPM
50
Points: 26 (585)
Mean: 2.268
Std Dev: 5.332
Variance: 28.425
CV: 2.351
Skewness: 4.658
Kurtosis: 22.572
Maximum: 27.600
75%: 1.290
50% (median): 0.927
25%: 0.517
Minimum: 0.001
Frequency (% of 26 points)
AU_PPM


Log Probability Plot for AU_PPM
50
Cumulative Probability %
AU_PPM


Log Histogram for AU_PPM
60
Points: 45 (585)
Mean: 2.145
Std Dev: 2.569
Variance: 6.598
CV: 1.198
Skewness: 1.924
Kurtosis: 3.615
Maximum: 11.333
75%: 2.249
50% (median): 1.185
25%: 0.509
Minimum: 0.001
Frequency (% of 45 points)
AU_PPM

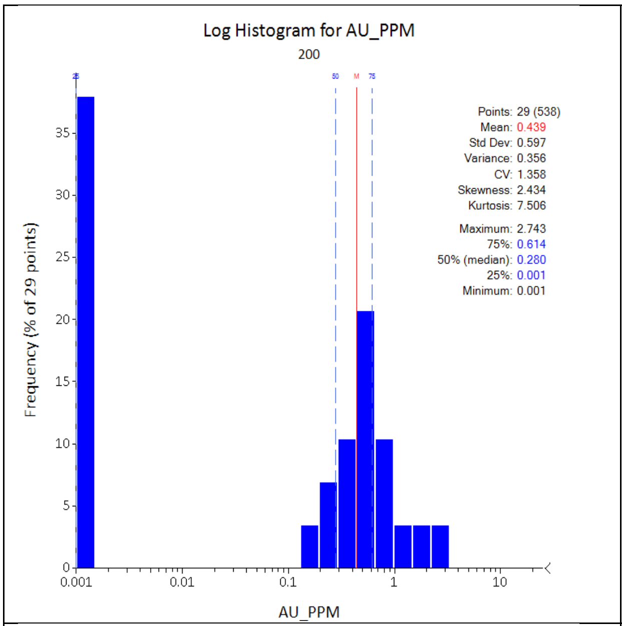

Log Probability Plot for AU_PPM
60
Cumulative Probability %
AU_PPM

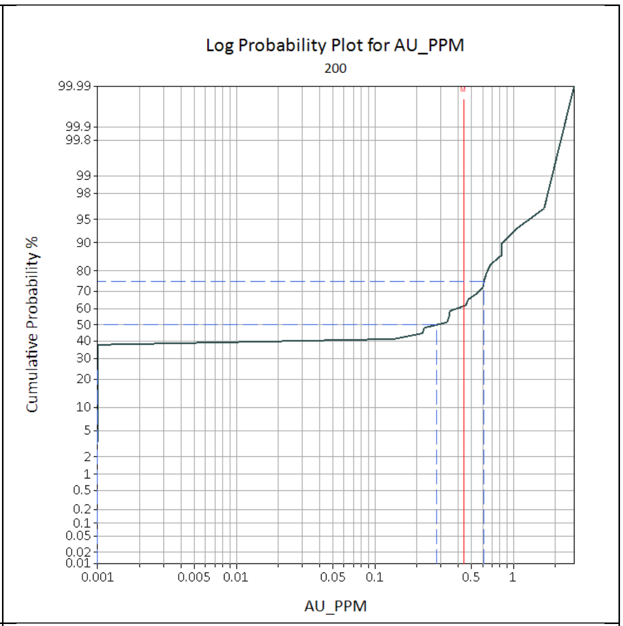

Log Histogram for AU_PPM
70
Frequency (% of 10 points)
Points: 10 (585)
Mean: 0.913
Std Dev: 0.430
Variance: 0.185
CV: 0.471
Skewness: 0.586
Kurtosis: -1.645
Maximum: 1.509
75%: 1.205
50% (median): 0.549
25%: 0.549
Minimum: 0.549
AU_PPM
Log Probability Plot for AU_PPM
70
Cumulative Probability %
AU_PPM

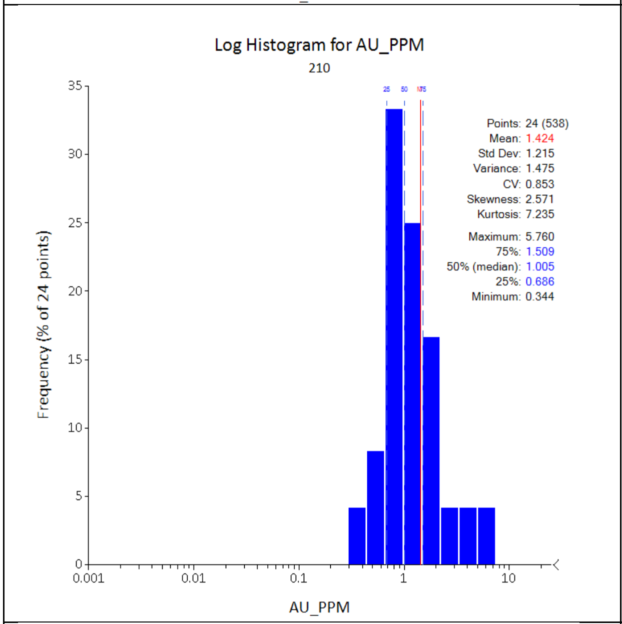
STATISTICAL PARAMETERS – FINAL DOMAINS

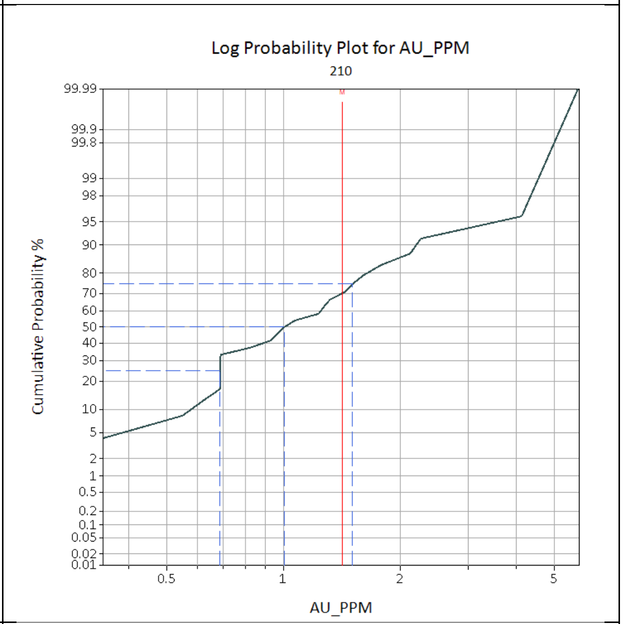
	Domain	200	210	300	310	400	410	600	610
	Samples	29	24	28	49	190	173	27	18
	Minimum	0.001	0.344	0.001	0.025	0.001	0.001	0.001	0.914
	Maximum	2.74	5.76	1.71	6.81	10.61	24.60	6.74	11.33
	Mean	0.44	1.42	0.39	2.21	0.68	3.53	1.17	3.61
	Standard deviation	0.60	1.22	0.45	1.73	1.31	3.55	1.66	3.01
	Coefficient of variation	1.36	0.85	1.15	0.78	1.91	1.01	1.42	0.84
	Variance	0.36	1.48	0.20	2.99	1.71	12.61	2.75	9.08
	Skewness	2.43	2.57	1.31	1.02	4.31	2.75	2.37	1.47
	Geometric mean	0.05	1.14	0.05	1.52	0.15	2.11	0.26	2.73
Percentile	10th	0.00	0.58	0.00	0.62	0.00	0.38	0.00	1.10
	20th	0.00	0.69	0.00	0.74	0.03	1.16	0.03	1.44
	30th	0.00	0.69	0.00	0.99	0.07	1.54	0.23	1.48
	40th	0.08	0.89	0.04	1.18	0.14	1.92	0.50	1.87
	50th	0.28	1.01	0.29	1.63	0.26	2.52	0.55	2.21
	60th	0.39	1.25	0.37	2.06	0.44	3.33	0.91	2.54
	70th	0.57	1.42	0.54	2.33	0.64	4.19	1.03	3.63
	80th	0.65	1.65	0.65	3.85	0.84	5.17	1.29	5.94
	90th	0.84	2.21	0.88	4.93	1.37	6.69	2.66	6.99
	95th	1.38	3.75	1.20	5.72	2.65	9.33	4.91	9.56
	97.5th	1.97	4.78	1.40	5.76	4.67	13.36	5.90	10.45
	99th	2.43	5.37	1.59	6.30	6.21	18.56	6.40	10.98

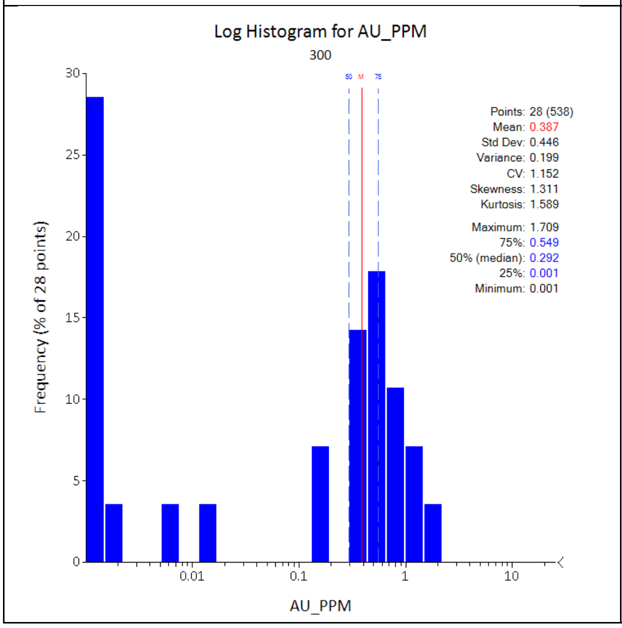
HISTOGRAMS AND LOG-SCALE PROBABILITY PLOTS – FINAL DOMAINS

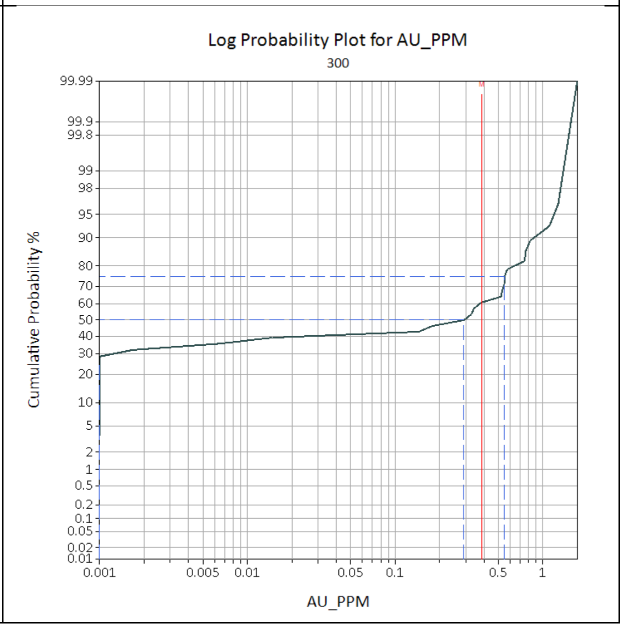


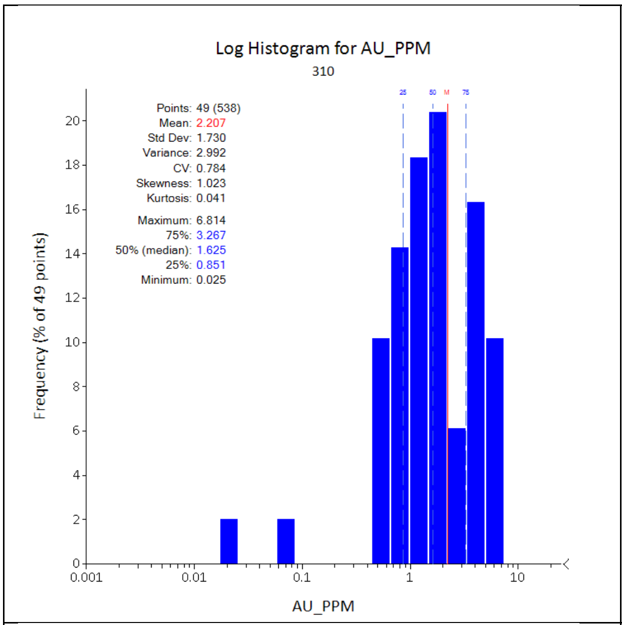


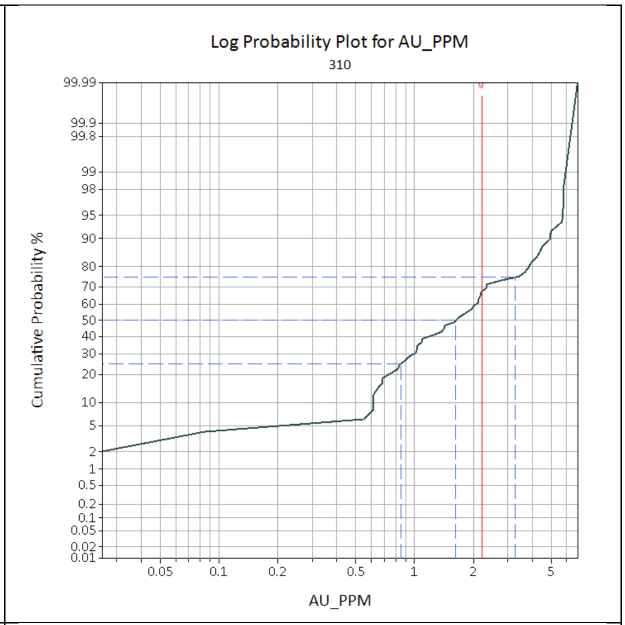


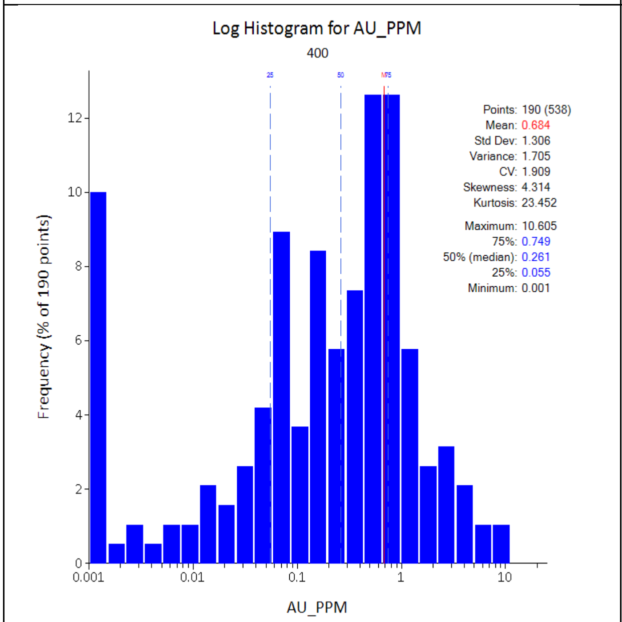


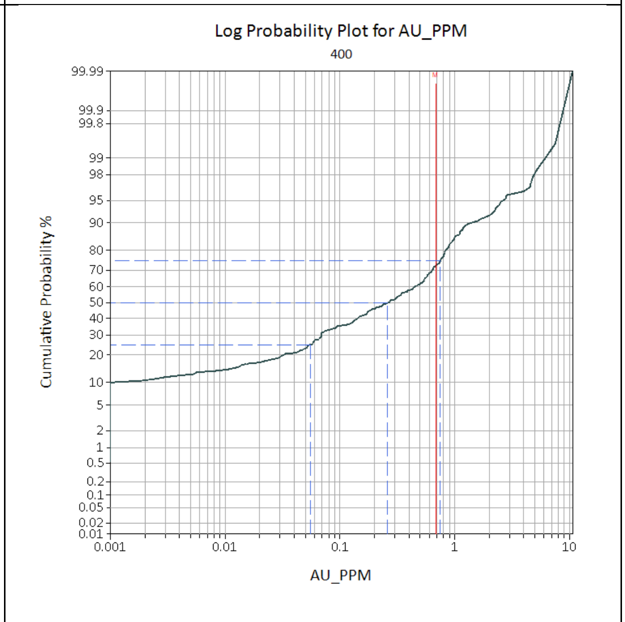


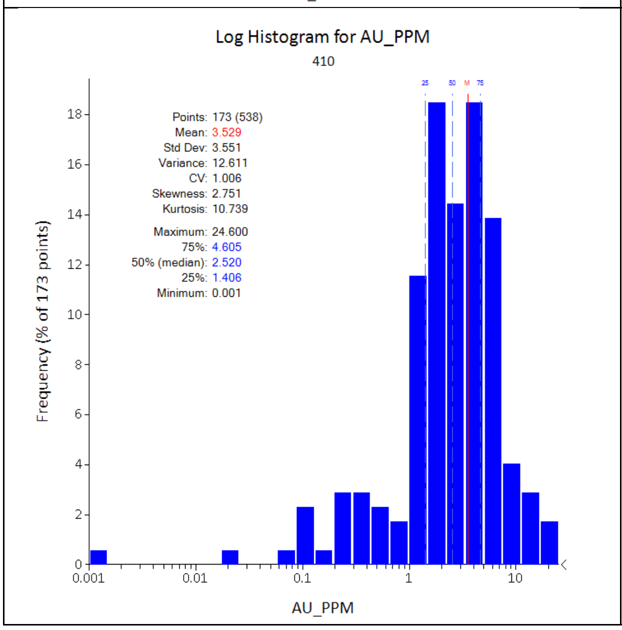


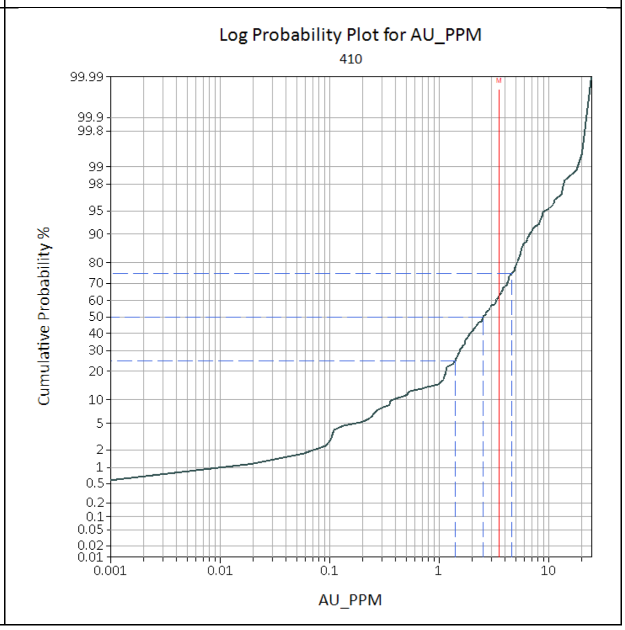

Log Histogram for AU_PPM
310
Points: 49 (538)
Mean: 2.207
Std Dev: 1.730
Variance: 2.992
CV: 0.784
Skewness: 1.023
Kurtosis: 0.041
Maximum: 6.814
75%: 3.267
50% (median): 1.625
25%: 0.851
Minimum: 0.025
Frequency (% of 49 points)
AU_PPM

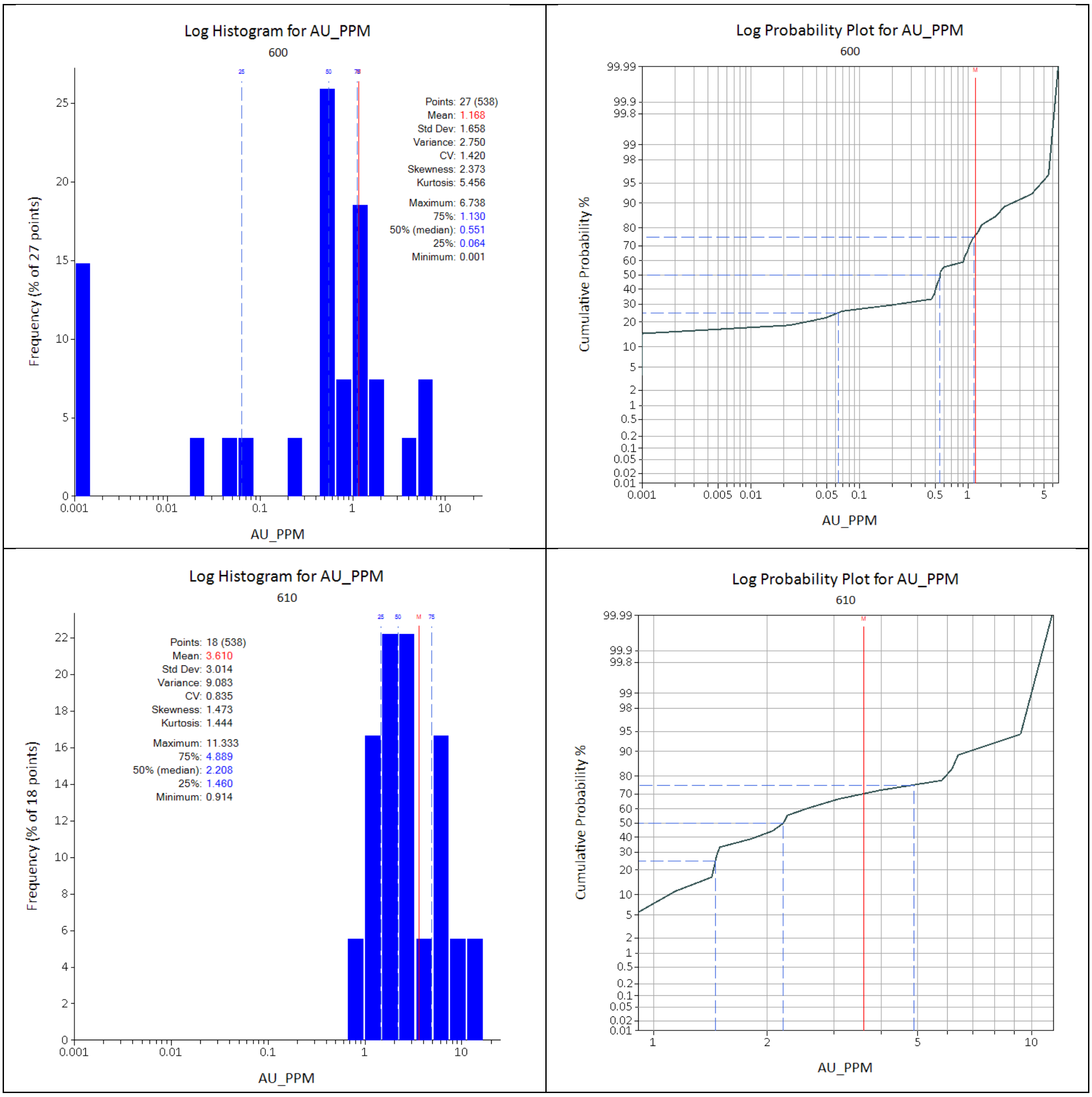

Log Probability Plot for AU_PPM
310
Cumulative Probability %
AU_PPM


Log Histogram for AU_PPM
400
Points: 190 (538)
Mean: 0.684
Std Dev: 1.306
Variance: 1.705
CV: 1.909
Skewness: 4.314
Kurtosis: 23.452
Maximum: 10.605
75%: 0.749
50% (median): 0.261
25%: 0.055
Minimum: 0.001
Frequency (% of 190 points)
AU_PPM

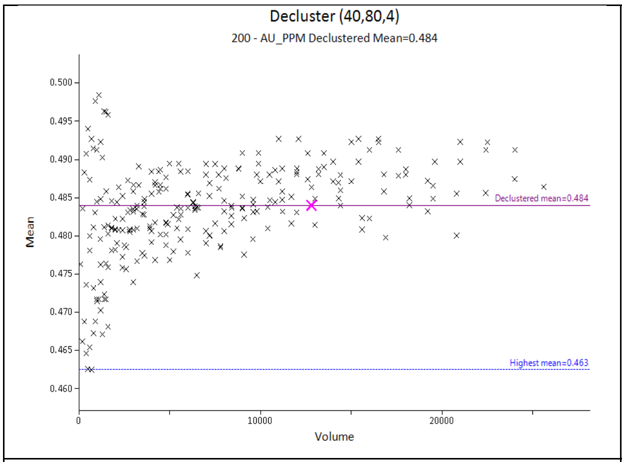

Log Probability Plot for AU_PPM
400
Cumulative Probability %
AU_PPM

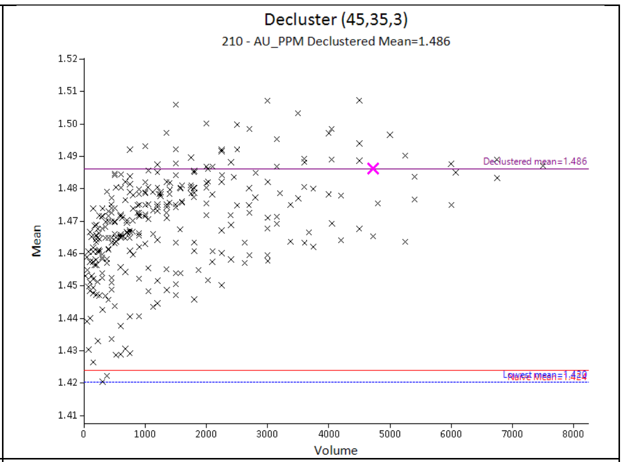

Log Histogram for AU_PPM
410
Points: 173 (538)
Mean: 3.529
Std Dev: 3.551
Variance: 12.611
CV: 1.006
Skewness: 2.751
Kurtosis: 10.739
Maximum: 24.600
75%: 4.605
50% (median): 2.520
25%: 1.406
Minimum: 0.001
Frequency (% of 173 points)
AU_PPM

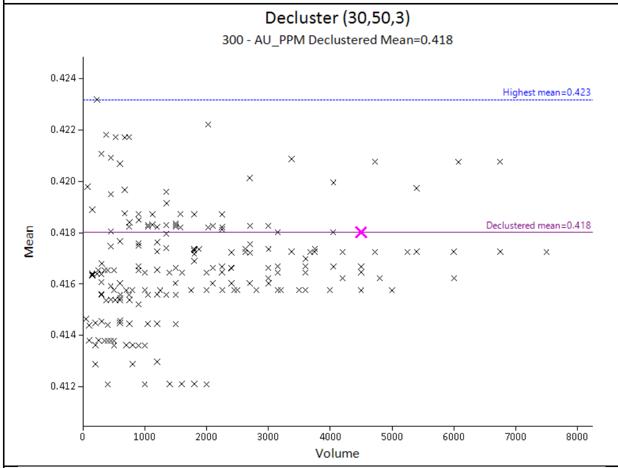

Log Probability Plot for AU_PPM
410
Cumulative Probability %
AU_PPM

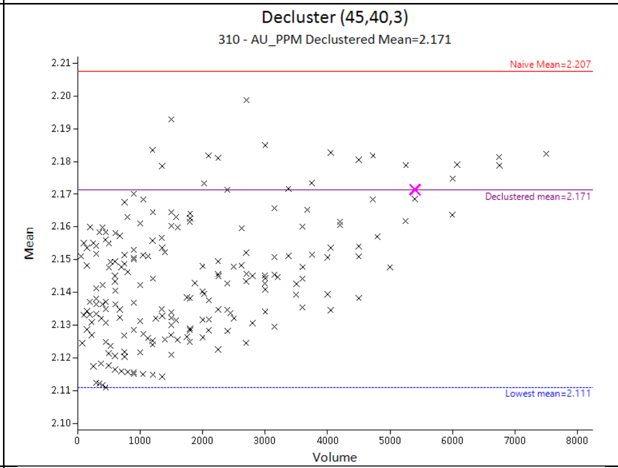

Log Histogram for AU_PPM
600
Frequency (% of 27 points)
AU_PPM
Points: 27 (538)
Mean: 1.168
Std Dev: 1.658
Variance: 2.750
CV: 1.420
Skewness: 2.373
Kurtosis: 5.456
Maximum: 6.738
75%: 1.130
50% (median): 0.551
25%: 0.064
Minimum: 0.001
Log Probability Plot for AU_PPM
600
Cumulative Probability %
AU_PPM
Log Histogram for AU_PPM
610
Frequency (% of 18 points)
AU_PPM
Points: 18 (538)
Mean: 3.610
Std Dev: 3.014
Variance: 9.083
CV: 0.835
Skewness: 1.473
Kurtosis: 1.444
Maximum: 11.333
75%: 4.889
50% (median): 2.208
25%: 1.460
Minimum: 0.914
Log Probability Plot for AU_PPM
610
Cumulative Probability %
AU_PPM

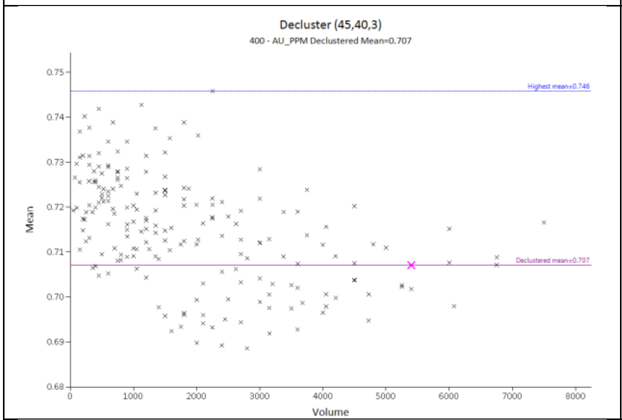
DECLUSTERED DATA

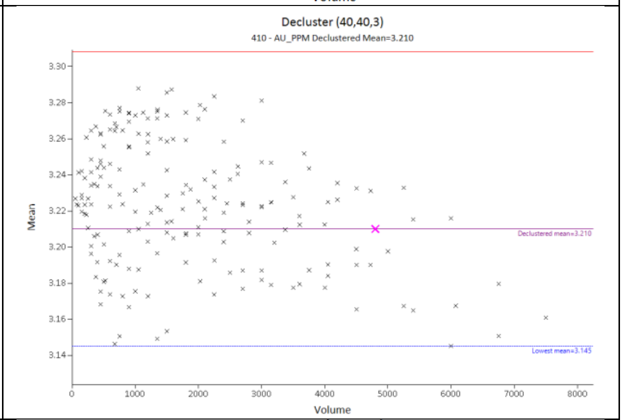


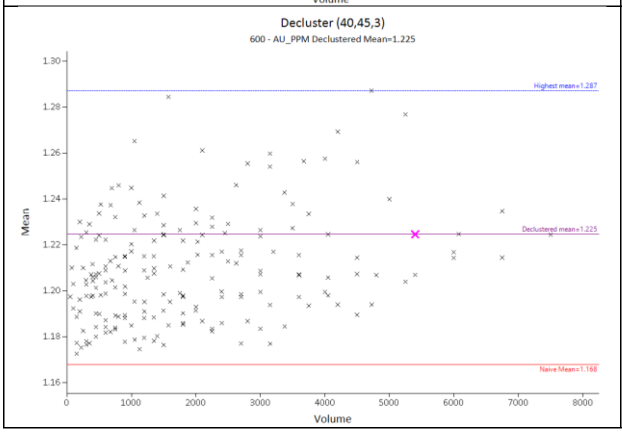


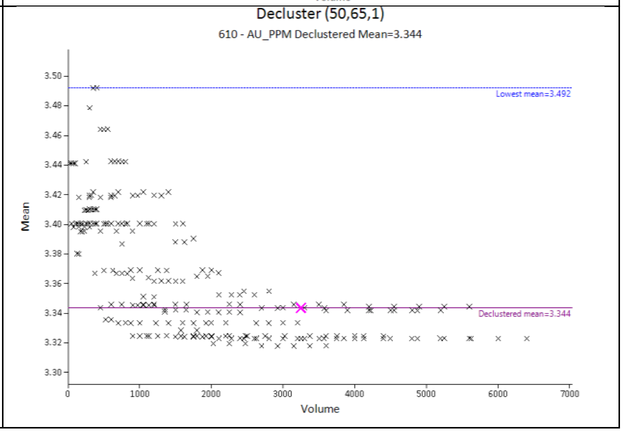






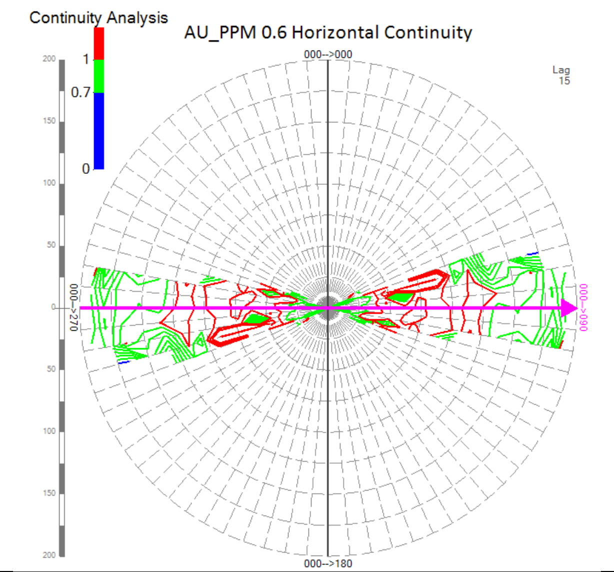


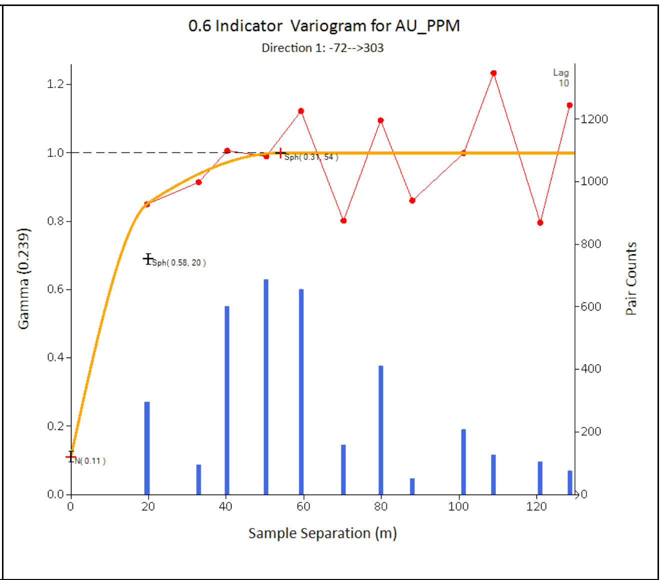


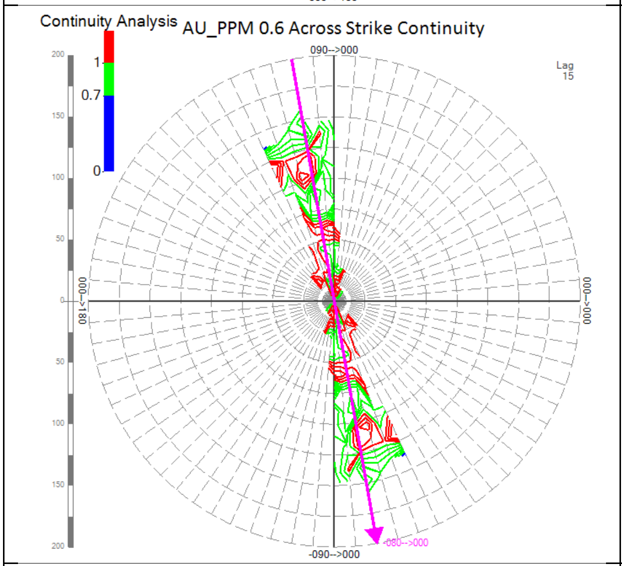


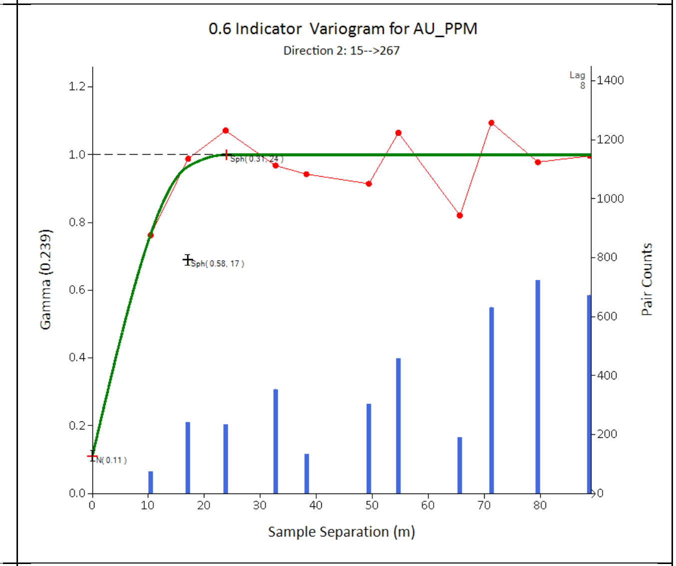
Appendix C Variogram fans and interpreted models

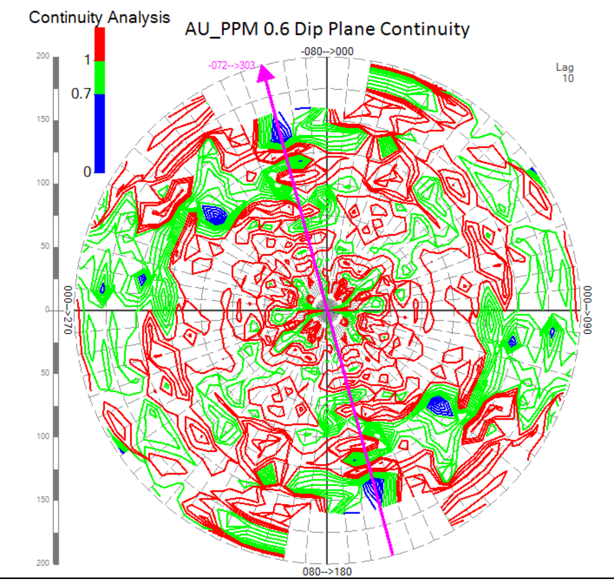
INDICATOR VARIOGRAMS – 0.6 G/T

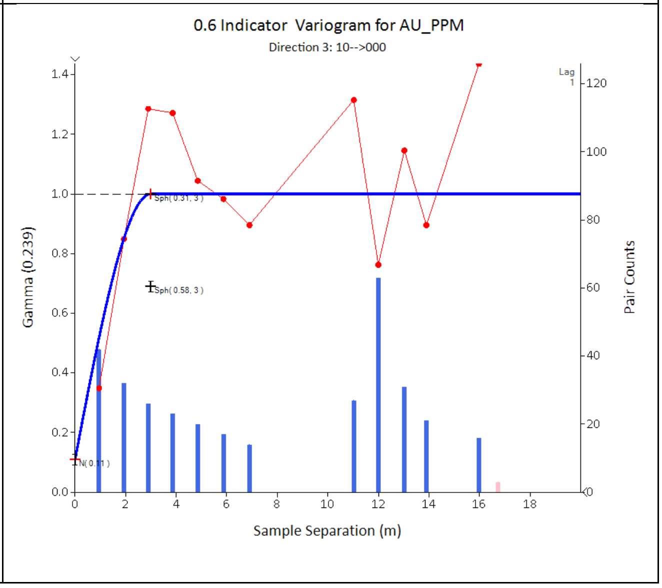




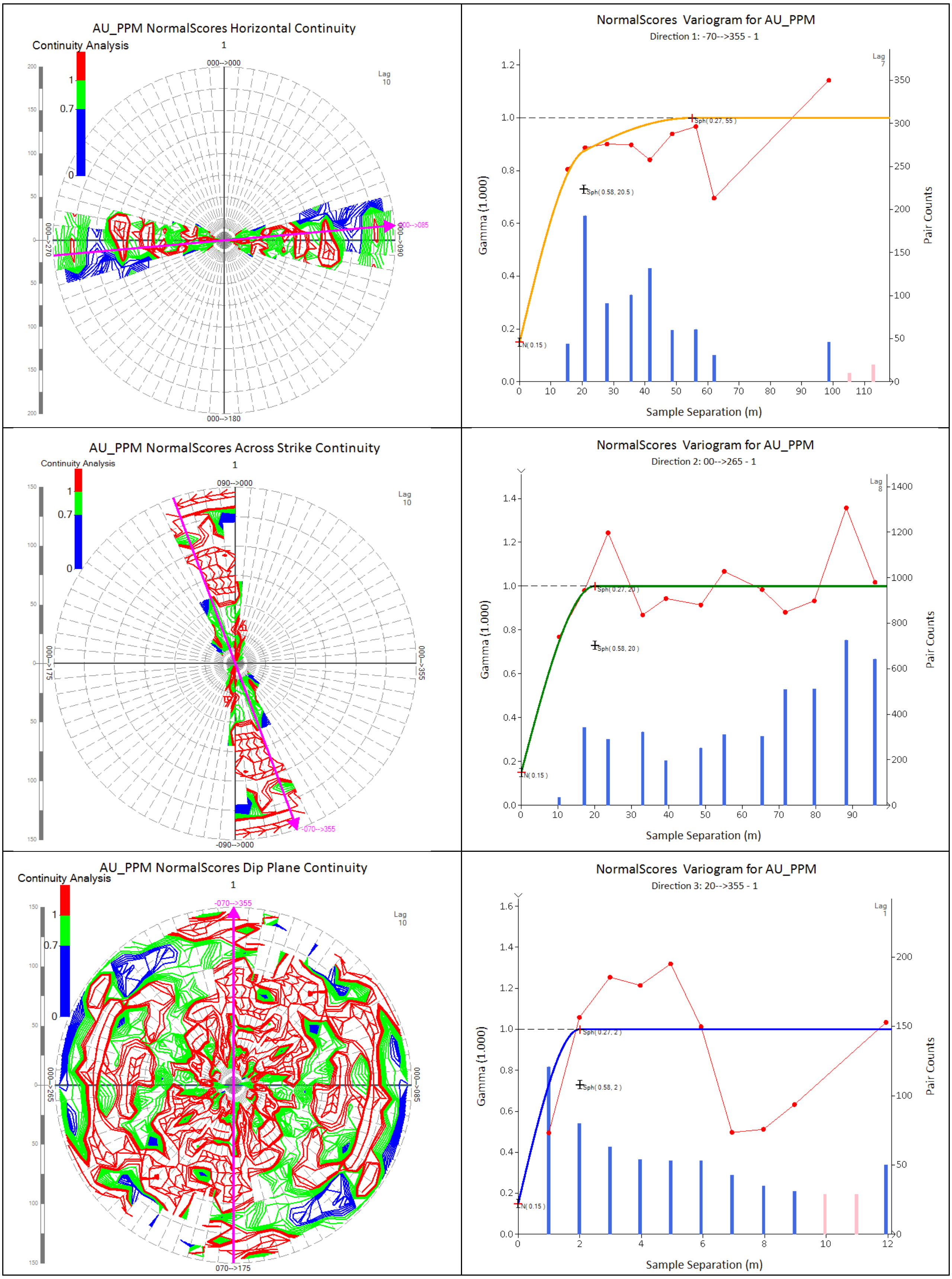




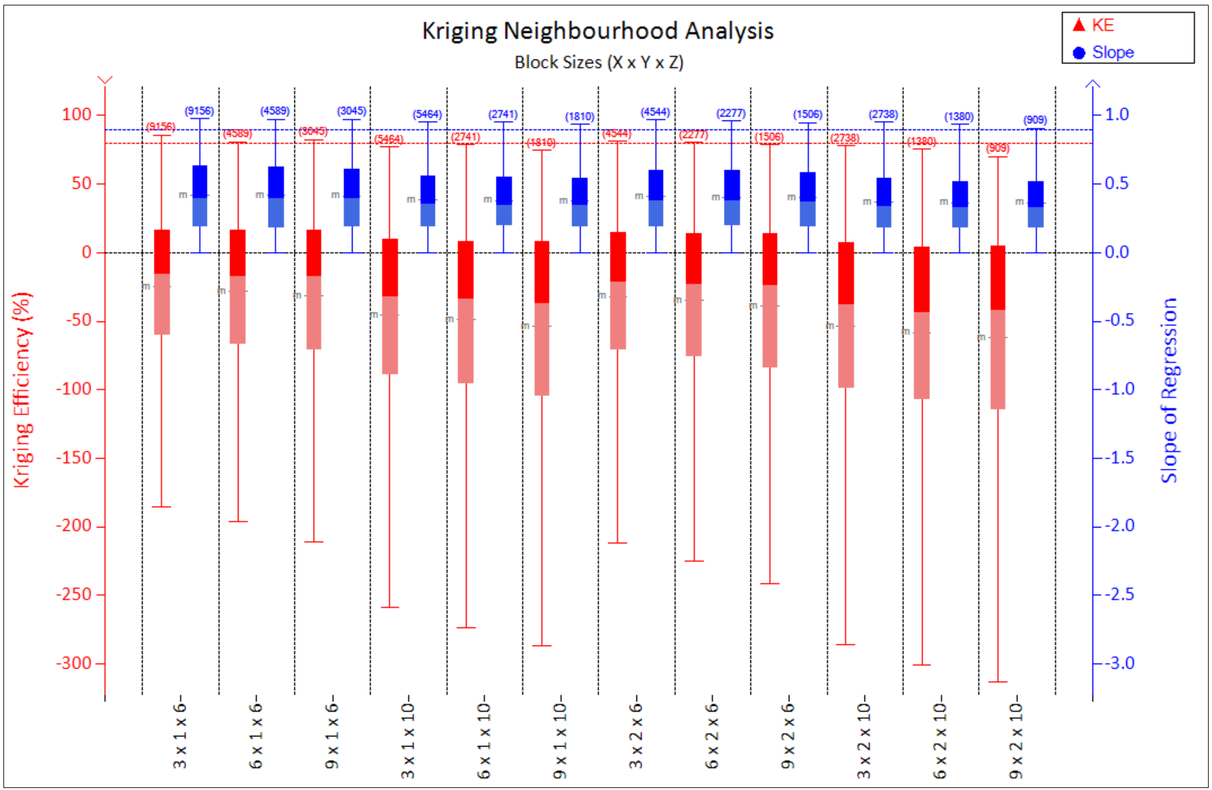


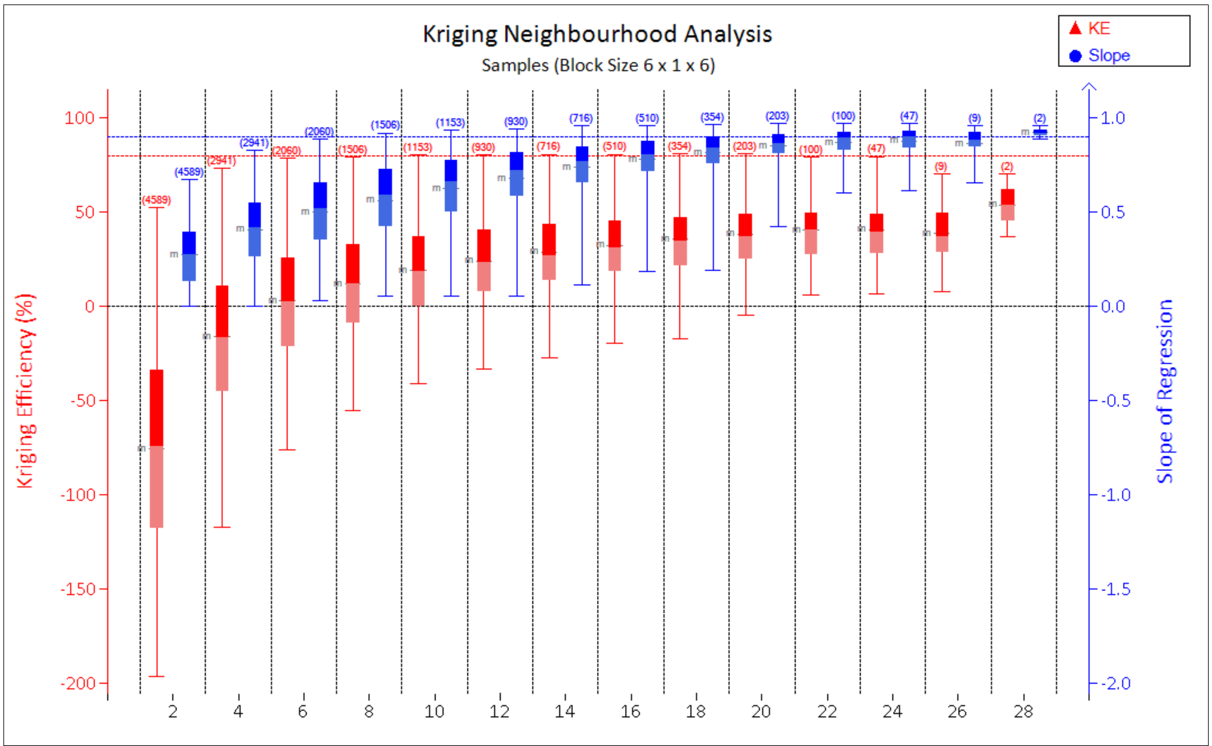


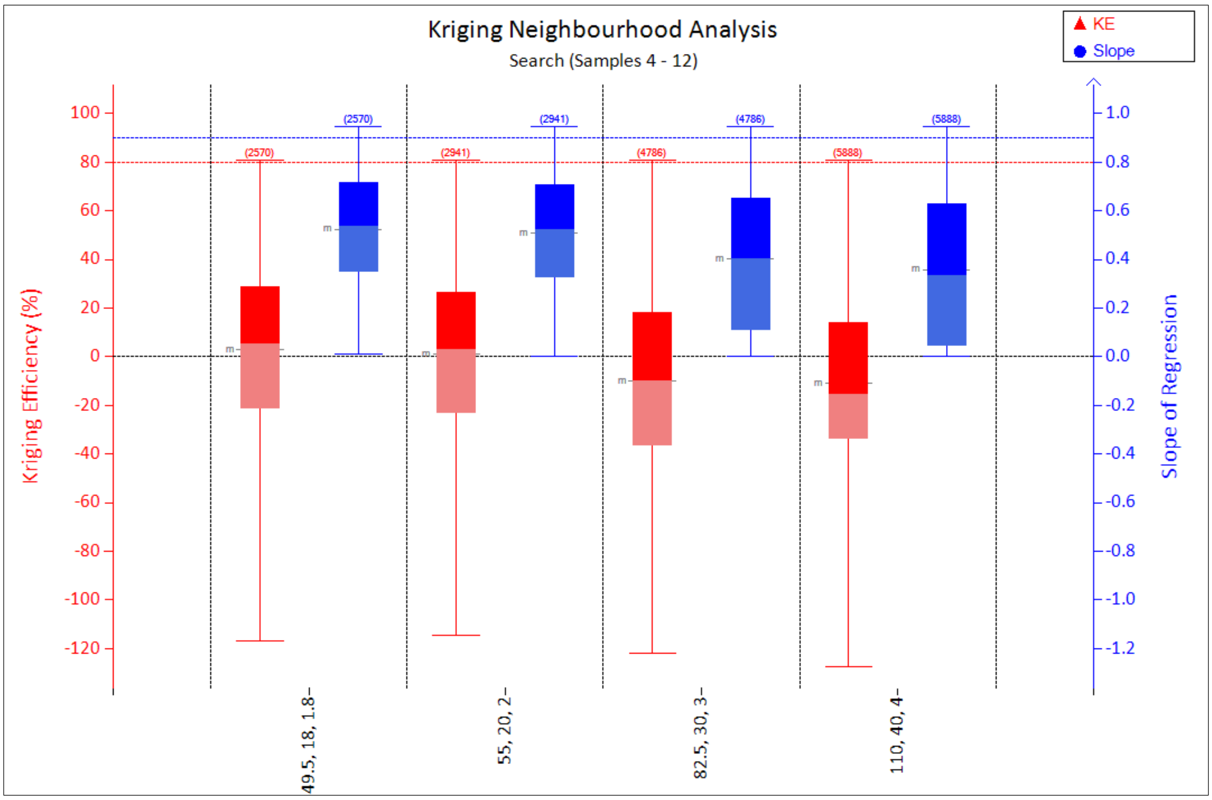
GRADE VARIOGRAMS

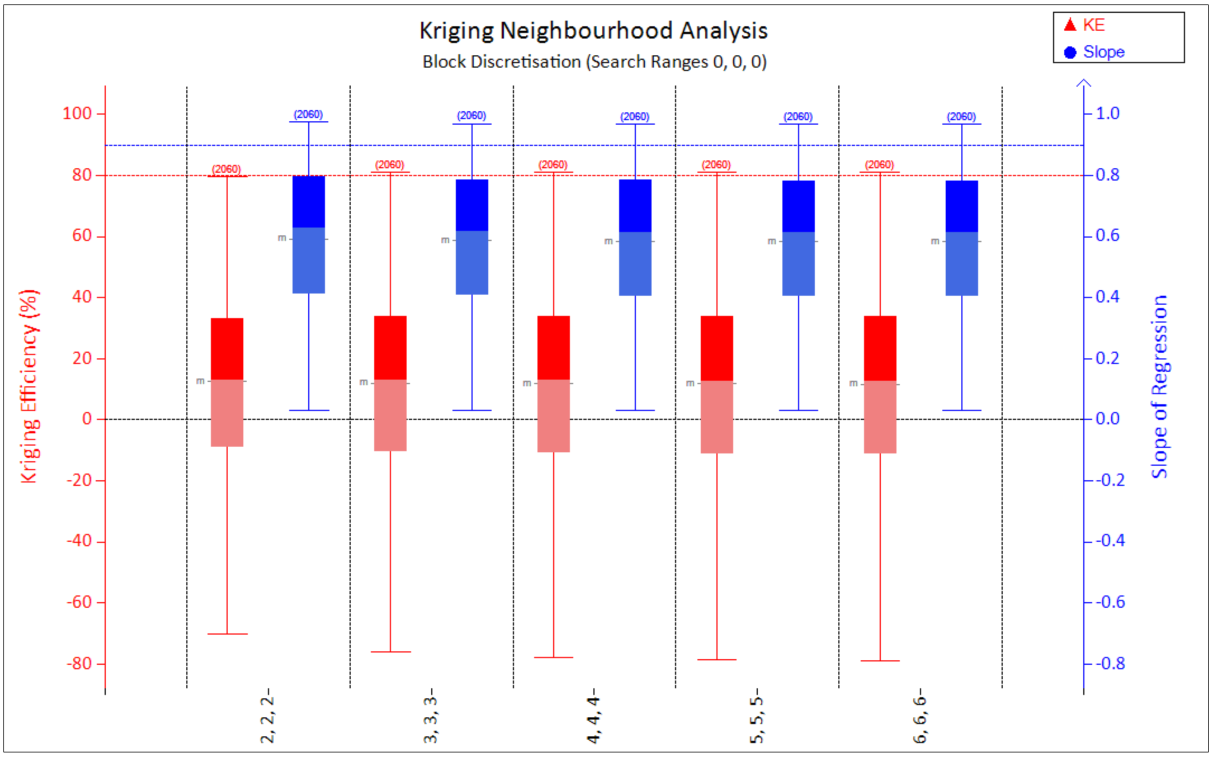


Appendix D Kriging Neighbourhood Analysis


Kriging Neighbourhood Analysis
Block Sizes (X x Y x Z)
KE
Slope
Kriging Efficiency (%)
Slope of Regression
3 x 1 x 6
6 x 1 x 6
9 x 1 x 6
3 x 1 x 10
6 x 1 x 10
9 x 1 x 10
3 x 2 x 6
6 x 2 x 6
9 x 2 x 6
3 x 2 x 10
6 x 2 x 10
9 x 2 x 10


Kriging Neighbourhood Analysis
Samples (Block Size 6 x 1 x 6)
KE
Slope
Kriging Efficiency (%)
Slope of Regression


Kriging Neighbourhood Analysis
Search (Samples 4 - 12)
KE
Slope
Kriging Efficiency (%)
Slope of Regression
(2570)
(2941)
(4786)
(5888)
49.5, 18, 1.8
55, 20, 2
82.5, 30, 3
110, 40, 4

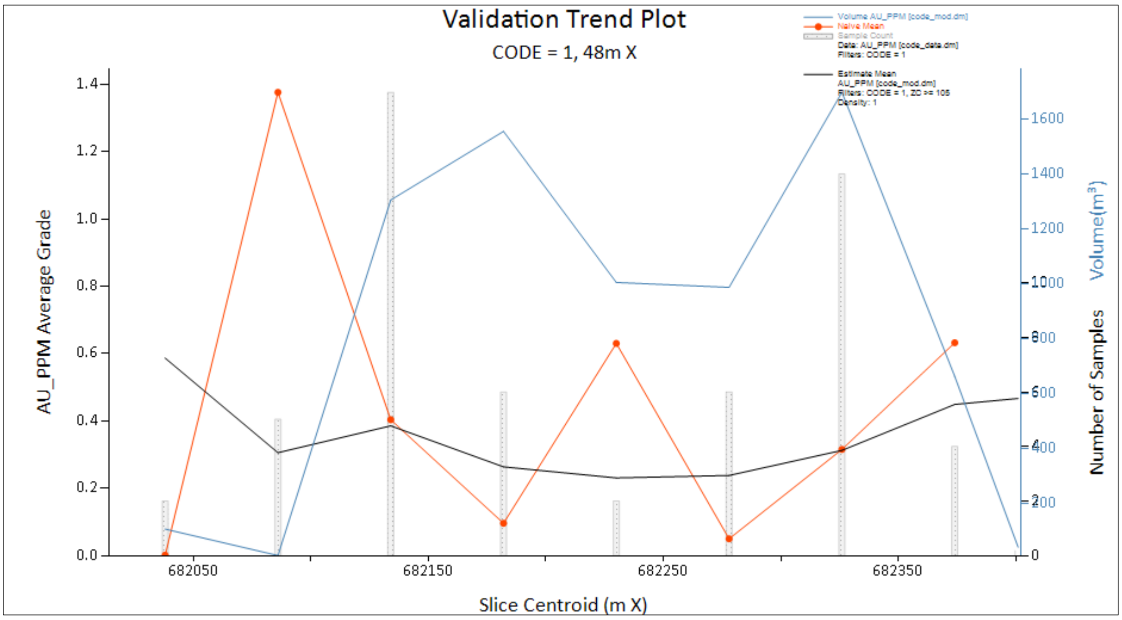

Kriging Neighbourhood Analysis
Block Discretisation (Search Ranges 0, 0, 0)
KE
Slope
Kriging Efficiency (%)
Slope of Regression
(2060)
2, 2, 2
3, 3, 3
4, 4, 4
5, 5, 5
6, 6, 6

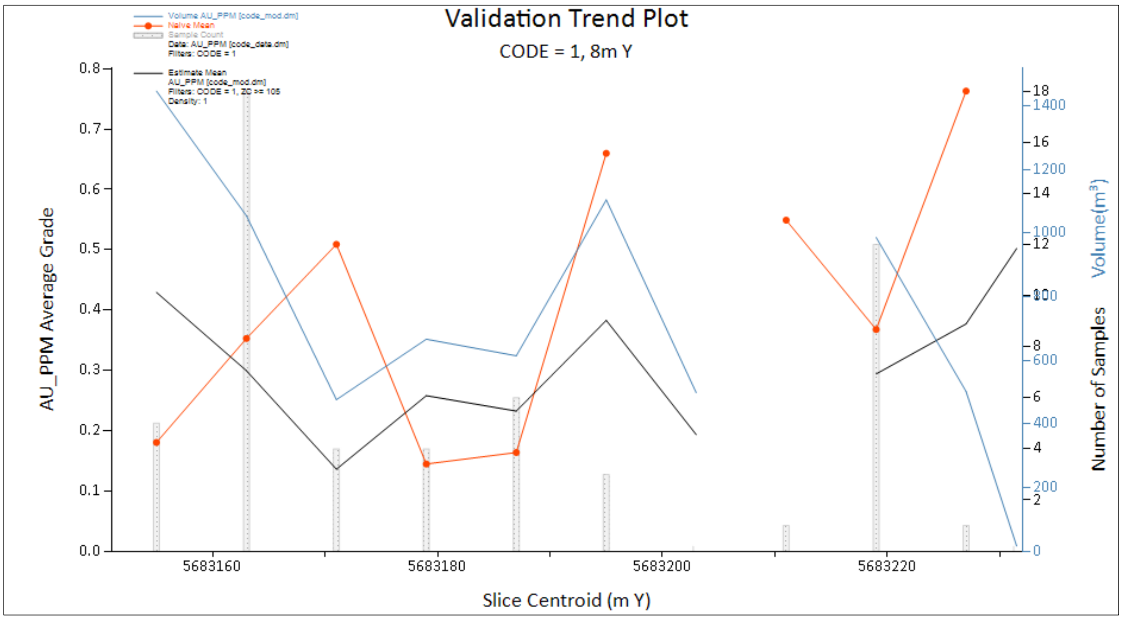
Appendix E Block model and estimation parameters

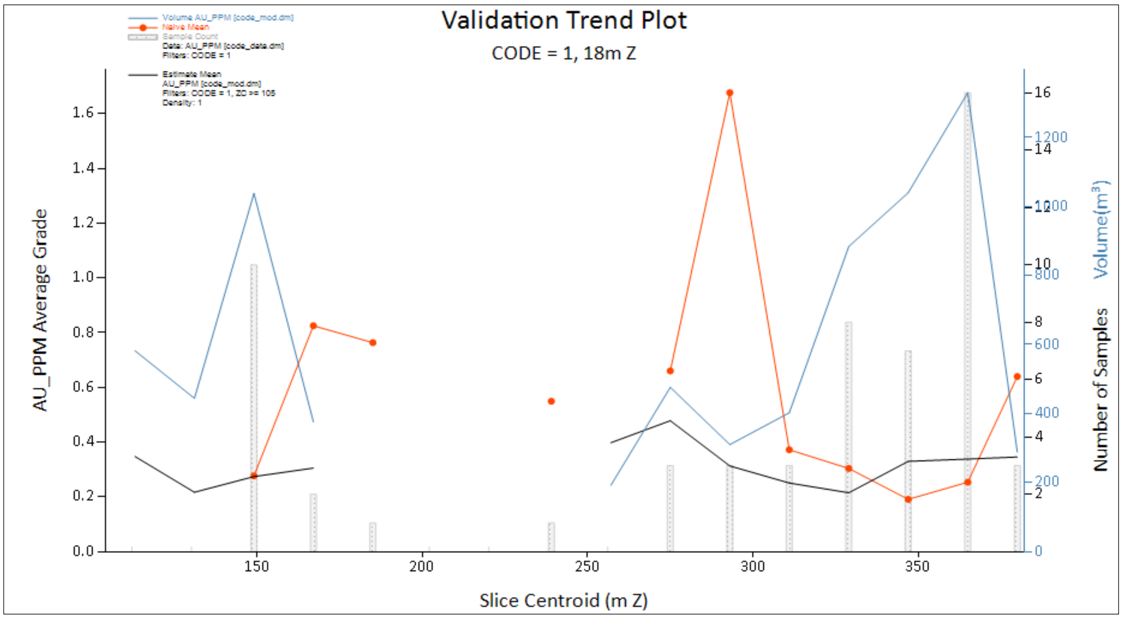
Block model and estimation parameters for Kasagiminnis				
Parameter		**Value**		
Resource estimate date		July 2019		
Software		Datamine		
Estimation method		Ordinary kriging		
Section spacing		50 m to 60 m		
On section spacing		25 m to 60 m and fan drilling spaced at up to 15 m		
Mineralisation orientation		Seven lodes of steep north-dipping lodes of mineralisation. Four lodes used for resource estimation.		
Block model extent	Easting	681,770 mE	-	683,690 mE
	Northing	5,683,150 mN	-	5,683,350 mN
	Elevation	-200 mRL	-	550 mRL
Block size	Parent	X – 6 m	Y – 1 m	Z – 6 m
	Sub-cell	X – 2 m	Y – 0.5 m	Z – 2 m
Density		Fresh mineralisation – 3.0 t/m^3		
RESCAT		3 = Inferred 4 = not classified		
Compositing interval		1 m downhole		
Discretisation		6 X by 6 Y by 6 Z		
Domains 200, 210, 300, 310, 400, 410, 600 and 610				
Search 1 (minimum, maximum samples)		55 m by 20 m by 2 m (4, 12)		
Search 2 (minimum, maximum samples)		Two times Search 1 (4, 12)		
Search 1 (minimum, maximum samples)		Five times Search 1 (4, 12)		

Appendix F Validation plots

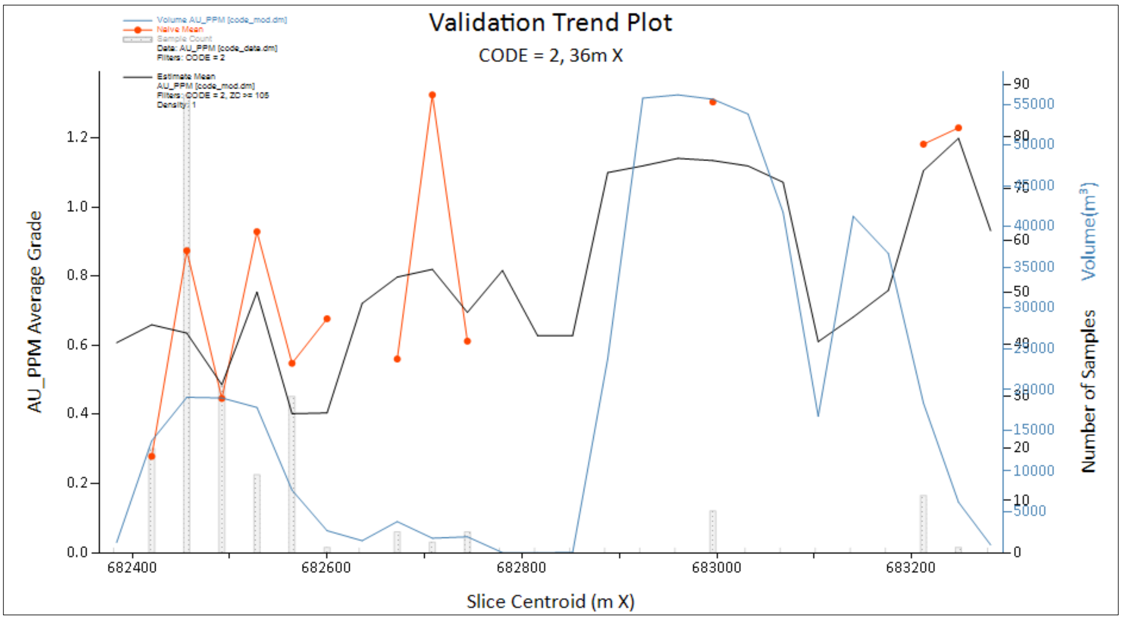
DOMAINS 200 AND 300 (ABOVE 105 MRL)

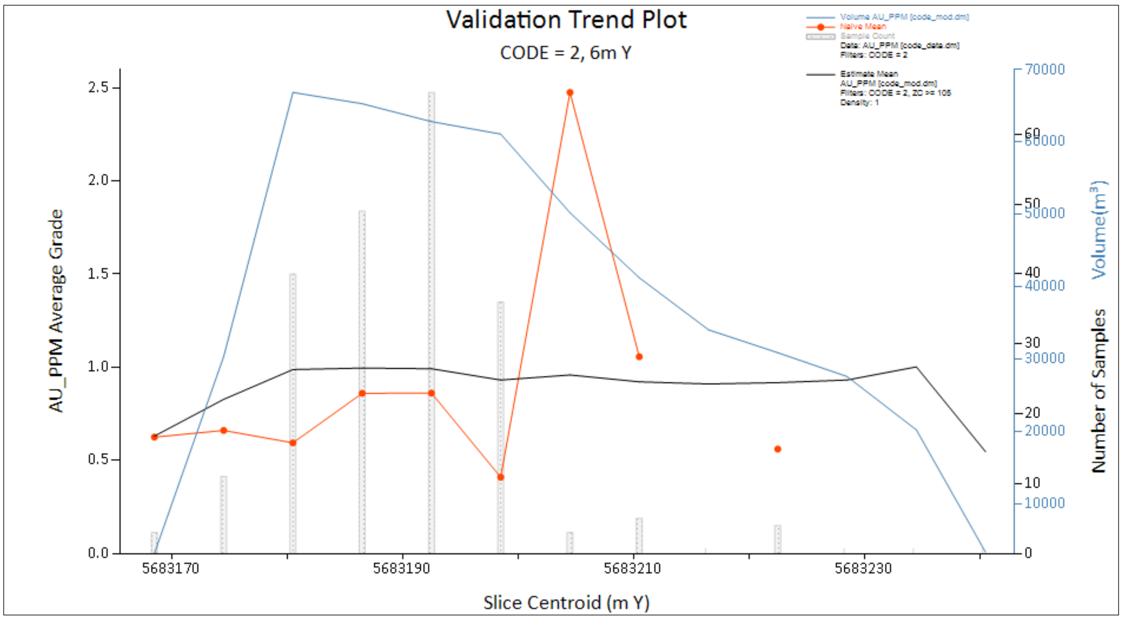


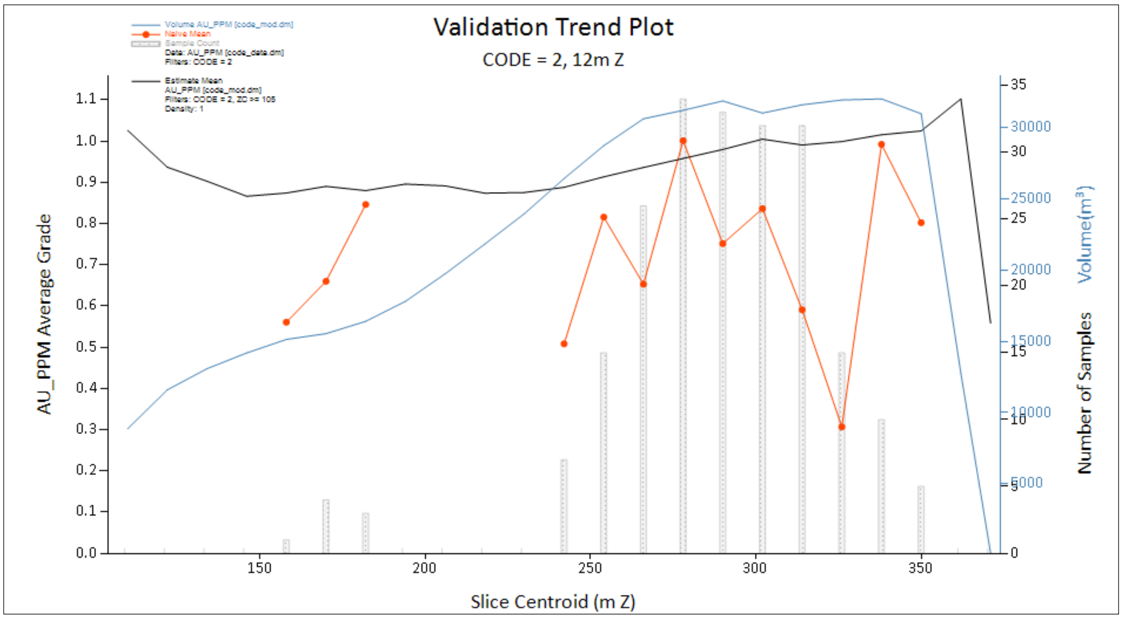




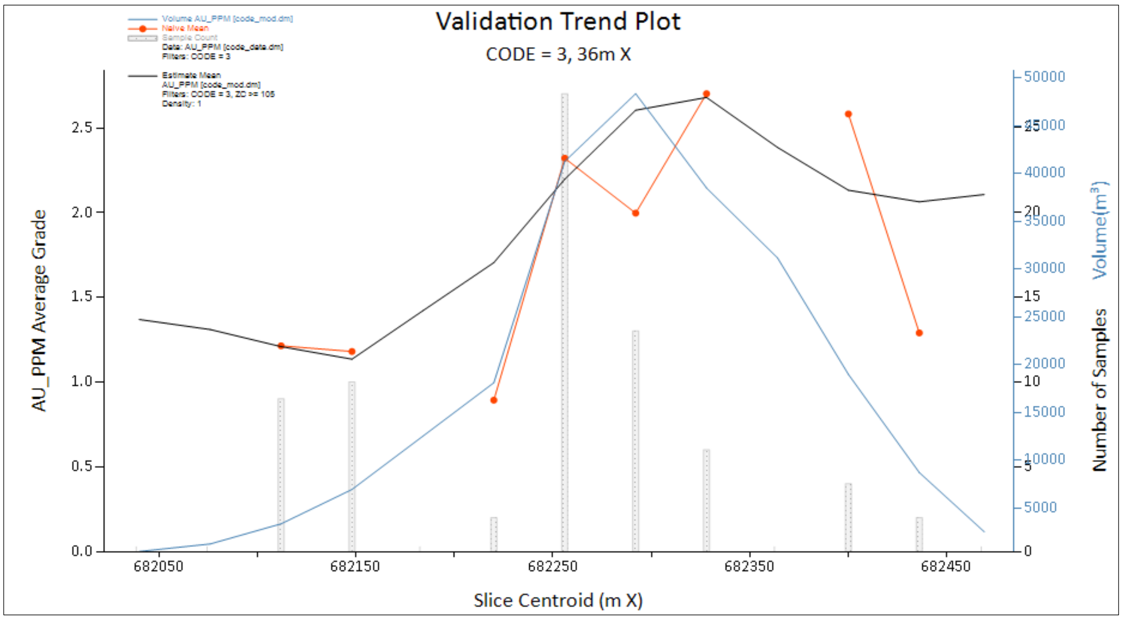
DOMAINS 400 AND 600 (ABOVE 105 MRL)

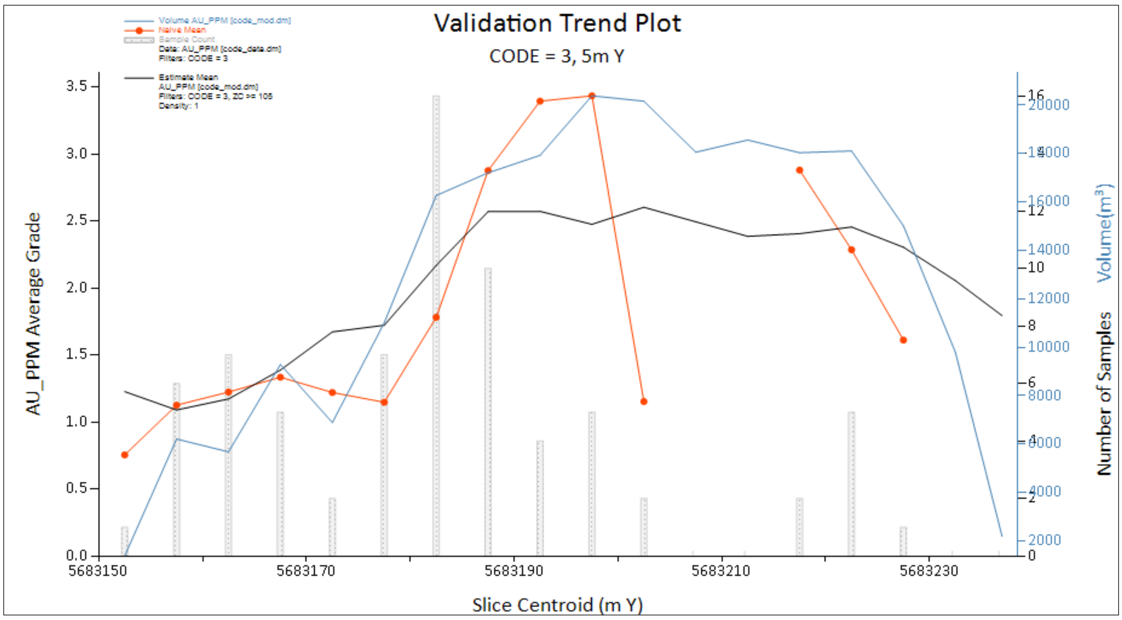


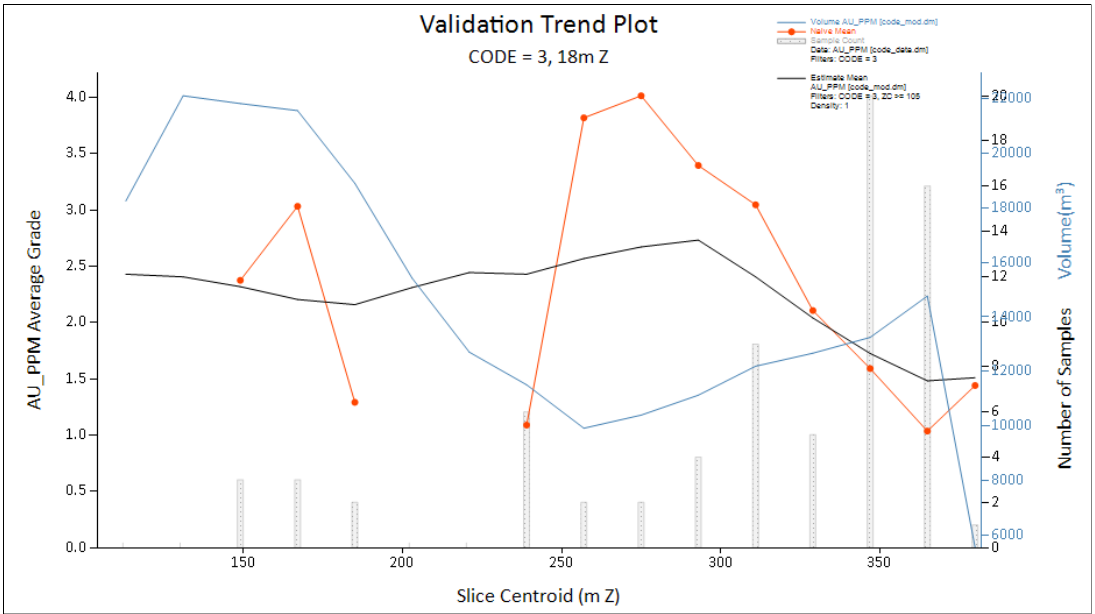




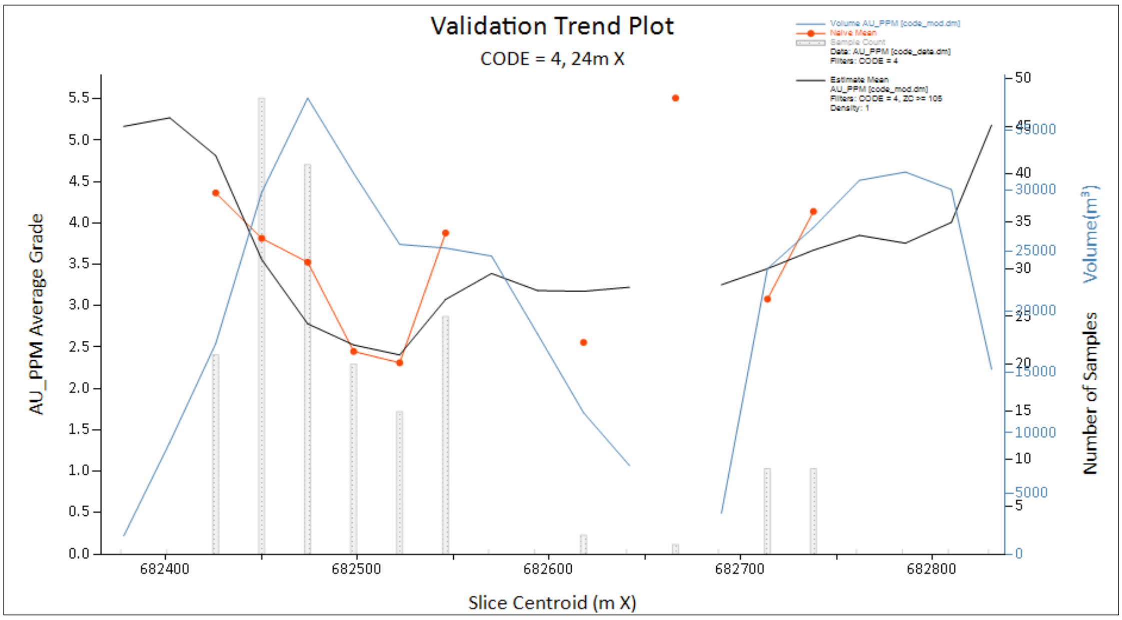
DOMAINS 210 AND 310 (ABOVE 105 MRL)

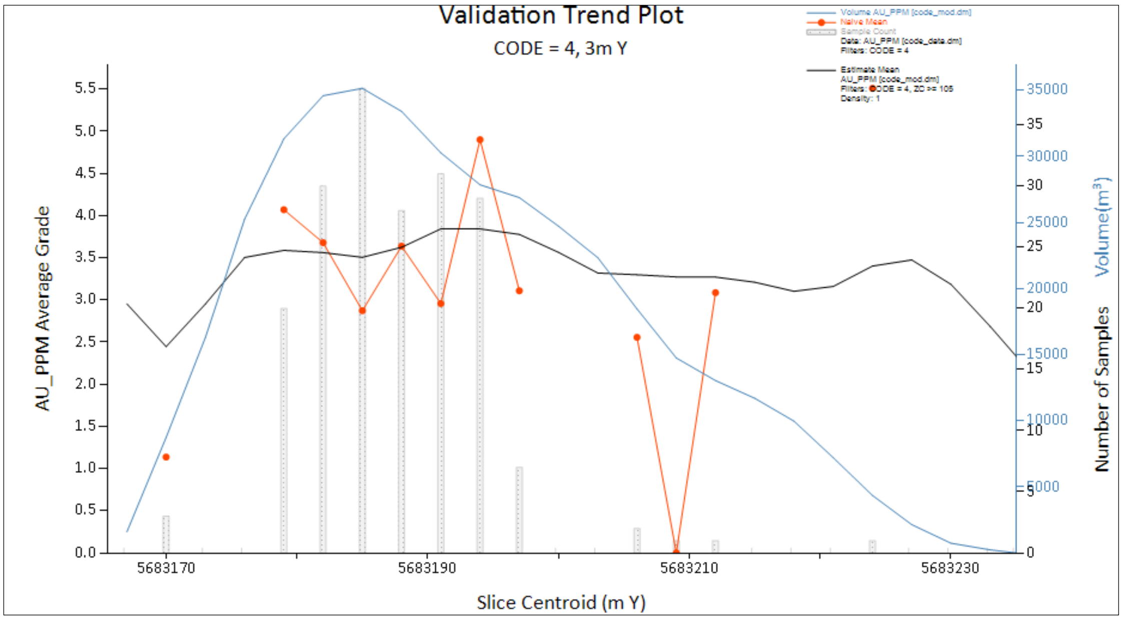


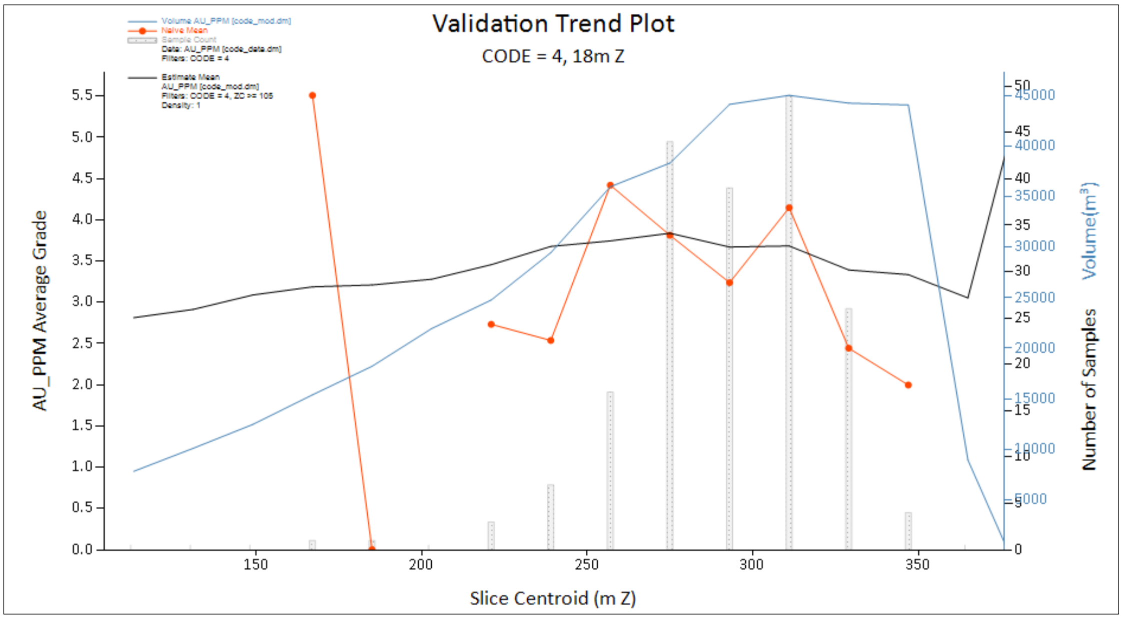




DOMAINS 410 AND 610 (ABOVE 105 MRL)







Appendix G JORC Code Table 1 Criteria

The table below summaries the assessment and reporting criteria used for the Kasagiminnis Mineral Resource estimate and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	*2018 Ardiden Ltd.* • Samples from the Kasagiminnis Project have been derived from diamond drill core. The core has been logged, cut and sampled by qualified personnel to industry best practise and samples submitted to Actlabs in Ontario, a reputable and certified facility. • Prior to shipping, all samples were routinely subjected to wet/dry weight SG determination by Ardiden Ltd. personnel and geological comments on each sample documented. The entire half-core sample was used in this process. • All samples received by Actlabs were crushed to 80% passing 10 mm. This was then riffle split to a 350 g charge which was pulverised to 90% passing 150 micron. • A 30 g subsample was then subject to Fire Assay for Au and Pt through an inductively coupled plasma optical emission spectrometry (ICP-OES) technique. • Another 0.5 g subsample is subjected to an Aqua Regia digest and ICP for Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Te, Ti, Tl, U, V, W, Y, Zn, Zr. • A 0.2 g subsample is subjected to Infra-red analysis in an induction furnace to determine S content. • Laboratory SG determinations were made at a rate of 1 in 50 as a check against the values derived by Ardiden Ltd. • These techniques are considered appropriate for the mineralisation expected at the Kasagiminnis Project. *2011 Manicouagan Minerals Inc.* • Nine diamond drillholes (KAS-11-01 to KAS-11-14) totalling 2,024 m were drilled to test a 400 m interval along the 1,300 m-long gold bearing zone (the Kasagiminnis Gold Zone). • A total of 2,880 samples representing a combined length of 572.19 m were collected for gold assay. • A selection of core samples were sawed, while all of the other samples were split. • Sampling lengths ranged from 0.4 to 2.4 m and averaged 1.0 m. Samples collected were individually bagged and labelled; individually

Criteria	JORC Code explanation	Commentary
		bagged samples were then put into rice bags for shipping to Accurassay Laboratories in Thunder Bay. • The samples were first analysed using standard fire assay procedures with an AA/ICP finish. • Assay results greater than 2.5 g/t were rerun using a gravimetric finish. • These techniques are considered appropriate for the mineralisation expected at the Kasagiminnis Project. *Other Sampling and Assays* • Exploration during the 1980s included diamond drilling. • Samples from the holes drilled in the 1980s was analysed for gold using fire assay and where significant values were returned the pulps were re-assayed or the core was quartered and resubmitted. • Ardiden Ltd. is unable to verify the sampling techniques previously used on the Pickle Lake Gold Properties. • All reference to historical drilling results at the Kasagiminnis gold deposit were sourced from publicly available documents and are to be considered from a historical point of view. • Sources included: – Technical Report on Three Gold Exploration Properties Pickle Lake Area, Ontario, Canada, for Manicouagan Minerals Inc., G.A. Harron, P.Eng., G.A. Harron & Associates Inc., October 13, 2009; – Manicouagan Minerals Inc. Work Report of 2009 Diamond Drilling Program Dorothy-Dobie Lake Project Pickle Lake Area, Ontario, Bruce W. Mackie P.Geo., Bruce Mackie Geological Consulting Services, 30 December 2009; – Manicouagan Minerals Inc. Work Report of 2011 Phase One and Two Diamond Drilling Programs Kasagiminnis Lake Project Pickle Lake Area, Ontario, Bruce W. Mackie P.Geo., Bruce Mackie Geological Consulting Services, October 2011; – Blackburn, C.E., Hailstone, M.R., Parker, J. and Story, C.C., 1989, Kenora Resident Geologist's Report – 1988; p. 3-46 in Report of Activities 1988, Resident Geologists edited by K.G. Fenwick, P.E. Giblin and A.E. Pitts, Ont. Geol. Surtv, MP 142, 391 p; – Seim, G.W., 1993, Mineral Deposits of the Central Portion of the Uchi Subprovince, Vol. 1,

Criteria	JORC Code explanation	Commentary
		Meen Lake to Kasagiminnis Lake Portion, Ont. Geol. Surv. OFR 5869, 390p; – the Trillium North Minerals Ltd. *Summer 2007 Dorothy Dobie Property Diamond Drill Program Dobie Lake, Meen Lake and Kawashe Lake Areas Patricia Mining District Ontario*, Caitlin Jeffs, P.Geo. Fladgate Exploration Consulting Corporation, 12 Jun 2008; – White Metal Resources Corporate Presentation, January 2017.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	*2018 Ardiden Ltd. Drilling* • All samples and geological information have been derived from diamond core using standard equipment of BTW size (41.3 mm diameter). • The holes were completed by Forage M3 Drilling of Ontario in 2018. • The core was unoriented. *2011 Manicouagan Minerals Inc. Drilling* • All samples and geological information have been derived from diamond core using standard equipment of BTW size (41.3 mm diameter). • The holes were completed by Cartwright Diamond Drilling Company of Newfoundland in 2011. • The core was unoriented. *Other Historical Drilling* • Ardiden Ltd. is unable to verify the drilling techniques used on Pickle Lake Gold Properties. All reference to historical diamond drilling results were sourced from publicly available documents as listed above.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	*2018 Ardiden Ltd. Drill Sample Recovery* • All drill core was measured and compared to actual drilled depths on a run-by-run basis to determine core recovery and Rockmass Quality Data (RQD). Recoveries to date have averaged higher than 99.9% with the only loss of material coming from the overburden. This horizon is not considered prospective for Ardiden Ltd.'s purposes. • Core recovery through the mineralised zones is 100%. *2011 Manicouagan Minerals Inc. Drill Sample Recovery* • Core recovery for the program was not reported. • Only one section of poor recovery was documented in hole KAS-11-01 from 67.6 m to 70.15 m which was not in the mineralised zone. *Other Historical Drill Sample Recovery* • Ardiden Ltd. is unable to verify the drilling sample techniques used on Pickle Lake Gold Properties. All

Criteria	JORC Code explanation	Commentary
		reference to historical drilling results were sourced from publicly available documents as listed above.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	*2018 Ardiden Ltd.* • All diamond core has been marked up, inspected and logged by suitably trained and qualified personnel. • Logging detail includes Depth, Hole Orientation, Lithology, Alteration, Veining, Mineralogy, Mineralised Zonation, RQD, Magnetic Susceptibility and Structure. These methods involve a combination of both qualitative and quantitative determinations. *2011 Manicouagan Minerals Inc.* • All diamond core was marked up, inspected and logged by suitably trained and qualified personnel. • Lithologies were described in sufficient detail so as a favourable direct comparison could be made with the 2018 drilling to confirm the historical geological logging. *Other Historical Diamond Core Logging* • Ardiden Ltd. is unable to verify the drill core logging completed on Pickle Lake Gold Properties. • All reference to historical drilling results were sourced from publicly available documents as listed above.
Sub-sampling techniques and sample preparation	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	*2018 Ardiden Ltd.* • All samples have been derived from BTW diamond core and have been cut in half or quartered using a standard brick saw. Foliation is aligned perpendicular to the cut. This technique is considered appropriate for the mineralisation historically observed at the Kasagiminnis Lake Project. • Field duplicates (half-core cut in half again) have been submitted to the laboratory at a rate of 1 in 50 to evaluate the sampling technique as per standard industry practise. • Ardiden Ltd. has retained and stored all remaining half-core samples for future reference/use. *2011 Manicouagan Minerals Inc.* • A total of 472 samples representing a combined length of 458.2 m were collected for gold assay. • A selection of core samples were sawed, while all of the other samples were split. This method is considered adequate for the mineralisation historically observed at the Kasagiminnis Lake Project. • Sampling lengths ranged from 0.4 to 1.8 m and

Criteria	JORC Code explanation	Commentary
		averaged ~1.0 m. • No field duplicates were recorded as taken. *Other Historical Sampling* • Ardiden Ltd. is unable to verify the sampling techniques used on Pickle Lake Gold Properties. • All reference to historical drilling results were sourced from publicly available documents.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	*2018 Ardiden Ltd.* • A laboratory audit of Actlabs, Ontario will be conducted in the near future by Ardiden Ltd. personnel and/or external consultants. Actlabs is a certified laboratory and subject to its own internal QAQC processes. • Actlabs digest processes are considered total and appropriate for this style of mineralisation. • Ardiden Ltd. determined SG values have been derived from whole-sample wet/dry weights using a suitable set of electronic scales as per industry standard practise. • Field duplicates have been derived at a rate of 1 in 50 samples. • Certified gold standards and blanks were inserted into the sample stream at a rate of 1 in 25. • Actlabs is subject to its own internal QAQC determinations. A duplicate sample is generated for *crushed* samples at a rate of 1 in 50. Another duplicate for *pulverised* samples is generated at a rate of 1 in 30. • Laboratory instruments are calibrated every 45 samples. • Laboratory blanks (x2), certified reference materials (x2) and sample duplicates (x3) are analysed within every 42 samples in the batch tray. • Ardiden has viewed the QAQC results and they are considered acceptable. *2011 Manicouagan Minerals Inc.* • Actlabs digest processes are considered total and appropriate for this style of mineralisation. • Certified gold standards and blanks were inserted into the sample stream at a rate of 1 in 25. • No bias from the sampling and assay techniques employed is expected. • Actlabs is subject to its own internal QAQC determinations. A duplicate sample is generated for *crushed* samples at a rate of 1 in 50. Another duplicate for *pulverised* samples is generated at a rate of 1 in 30. • Ardiden has viewed the QAQC results and they are considered acceptable. *Other Historical QAQC* • Ardiden Ltd. is unable to verify the assay techniques

Criteria	JORC Code explanation	Commentary
		used on Pickle Lake Gold Properties. • All assay results reported are historical and were sourced from publicly available documents.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	*2018 Ardiden Ltd.* • Significant intersection assays, widths and calculations are verified by external consultants in both Canada and Australia. • Twinned holes have not been employed as a check to the current program at this stage. • All data is electronically logged in Excel and stored in a Dropbox. A master copy of this data exists on the Ardiden Ltd. server in Australia. • The data is imported into Micromine software for visual checks and database validation. • Grades for significant intersections are calculated on length and SG weighted averages. *2011 Manicouagan Minerals Inc.* • Significant intersection assays, widths and calculations have been verified by external consultants after drilling and checks have been conducted by Ardiden Limited. • This program drilled close to but did not twin earlier holes. • Ardiden's 2018 drilling drilled close to but did not twin earlier holes. • All data was logged and then entered electronically into Gemcom software and the data retained by Manicouagan Minerals. • Ardiden has received an electronic copy of this data from White Metals and has run it through validation checks. *Other Historical Sample Verification* • Ardiden Ltd. is unable to verify the assay techniques used on Pickle Lake Gold Properties. • All assay results reported are historical and were sourced from publicly available documents.
Location of data points	• *Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	*2018 Ardiden Ltd.* • The 2018 program of drilling was subject to suitable location and orientation techniques given the technically difficult nature of the location and magnetic lithologies. • Initially, hole locations were placed in NAD83-15 using a hand-held GPS and notes recorded on how these locations relate to existing holes and clearing. A DGPS was employed at the end of the program to survey Ardiden Ltd.'s recent drill collars and also existing historical collars in the immediate area. • The drill rig was aligned to planned azimuth using a Reflex Northfinder APS, a true-north seeking gyro prior to collaring. A second APS reading was taken

Criteria	JORC Code explanation	Commentary
		after collaring and applied to the first survey of the hole as minor deviation when collaring through glacial till is common. • Downhole surveys were conducted using a Reflex multishot digital camera. This instrument records dip, magnetic azimuth, roll, temperature and magnetism. Surveys generally became magnetically affected by the mineralisation host rock after the third or fourth survey and on other occasions no effect was observed. By this time, it was possible to use the APS bearing and first couple of hole surveys to predict the azimuth of the hole trace accurately given the history of drilling in the area. Dip readings are not affected by magnetism. • Surveys were all calculated to UTM (Grid North) taking into account magnetic declination (2018 Canadian Geological Survey Model model) and grid convergence at Kasagiminnis. *2011 Manicouagan Minerals Inc.* • Drillhole collars were spotted using a handheld GPS device in NAD83-15. The holes were aligned using a Silva Compass. • In 2018 Ardiden located and surveyed using a DGPS the following holes; KAS-11-04 to KAS-11-09; KAS-11-12 and KAS-11-13. • Downhole surveys were accomplished using a magnetic downhole camera, the make of which cannot be verified. • Ardiden has reviewed the camera shots and minor adjustments have been made to downhole magnetic readings to better approximate normal deviation observed at Kasagiminnis in both historical and the 2018 Ardiden drilling. *Other Historical Sample Locations* • Ardiden Ltd. is unable to verify the location of the data points used on Pickle Lake Gold Properties. • All drill locations reported are historical and were sourced from publicly available documents.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	• The drillholes are generally spaced at 25 m to 60 m on section with a section spacing of 50 m to 60 m. Drill sections in the eastern area of the deposit are 200 m apart. The 2018 drilling included two fans of drillholes that originated from the same drill pad and tested the down-dip continuity at spacings of up to 15 m. • The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classification applied.

Criteria	JORC Code explanation	Commentary
	• *Whether sample compositing has been applied.*	• No sample composites have been created.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	*2018 Ardiden Ltd.* • Due to the difficulty in mobilising and moving drill rigs at Kasagiminnis, a series of holes were drilled from one location. Both dip and azimuth changes are performed. Thus, it will be rare that any drillhole will intersect the mineralisation in a purely perpendicular manner. • There is no expected assay bias resulting from the orientation of drilling due to the nature of mineralisation observed at the Kasagiminnis Lake Project. *2011 Manicouagan Minerals Inc.* • The 2011 drilling followed a similar approach to the 2018 Ardiden drilling, essentially intersecting mineralisation perpendicular to strike but had varying degrees of dip. • There is no expected assay bias resulting from the orientation of drilling due to the nature of mineralisation observed at the Kasagiminnis Lake Project. *Other Historical Sampling* • Ardiden Ltd. is unable to verify the orientation of the data in relation to the geology on Pickle Lake Gold Properties.
Sample security	• *The measures taken to ensure sample security.*	*2018 Ardiden Ltd.* • Samples were kept on location until a hole was fully sampled. The samples were then taken directly to the laboratory by Ardiden Ltd. personnel without the use of any intermediaries. *2011 Manicouagan Minerals Inc.* • Samples collected were individually bagged and labelled; individually bagged samples were then put into rice bags for shipping to Accurassay Laboratories in Thunder Bay. *Other Historical Chain of Custody* • Ardiden Ltd. is unable to verify the security of historical data.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• A full sample review was conducted prior to writing sampling, logging and QAQC procedures to be implemented for any future drilling. • These procedures were then used for the 2018 program and supervised internally by Ardiden Ltd. personnel in charge of the due-diligence program.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Kasagiminnis gold deposit consists of three granted Mining claims 4207793, 4207794 4207795, • Ardiden Limited owns the tenements 100%. • There are no known issues affecting the security of title or impediments to operating in the area
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Pickle Lake Project is located within the Pickle Lake area, Kenora (Patricia) Mining Division, Ontario. Significant gold deposits including the historical Pickle Crow Gold Mine. • Over 25,000 m of historical diamond drilling were completed across the Pickle Lake Gold Properties by previous owners, confirming the potential for multiple extensive gold mineralised zones at both Dorothy-Dobie Lake and Kasagiminnis gold deposit, with gold mineralisation remaining open along strike and at depth. • A list of technical reports prepared by previous exploration companies is included in Section 1 of this table.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Pickle Lake Project is located within the Meen-Dempster greenstone belt and the adjoining Pickle Lake greenstone belt, which contain the known gold deposit (Kasagiminnis) and prospects (South Limb, West Pickle and Dorothy-Dobbie). Both greenstone belts are located on the southern margin of the North Caribou terrane within the Uchi domain. • Rocks within the Uchi domain greenstone belts display petrochemical characteristics of arc and back-arc volcanism. • The Kasagiminnis gold deposit comprises lode style mineralisation within a steep north-dipping shear zone. Overburden comprises glacial till and there is a lake in the vicinity of the mineralisation.
Drillhole Information	• *A summary of all information material to the understanding of the exploration results*	• Exploration results are not being reported for the Mineral Resource area.

Criteria	JORC Code explanation	Commentary
	including a tabulation of the following information for all Material drillholes: • easting and northing of the drillhole collar • elevation or RL (elevation above sea level in metres) of the drillhole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	• Exploration results are not being reported for the Mineral Resource area. • Metal equivalent values have not been used.
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.*	• Exploration results are not being reported for the Mineral Resource area.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.*	• Relevant diagrams have been included within the report. • Exploration results are not being reported for the Mineral Resource area.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Exploration results are not being reported for the Mineral Resource area.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Exploration results are not being reported for the Mineral Resource area.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Infill and extensional drilling along strike and down dip, aimed at growing the resource. is planned.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Drillhole data has been compiled by Ardiden from current and historical data files. • The drillhole database is managed by Ardiden using Micromine software. • It has been validated by several company geologists and database administrators. • Additional data validation, by Optiro, included checking for out of range assay data and overlapping or missing intervals.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	• Mrs C Standing has not visited the Pickle Lake Gold Project. • Mr Rob Longley visited the Pickle Lake property during July 2019 and inspected core, outcrop and historical drill sites.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations*	• Leapfrog Geo software was used to produce an interpretation of the lithological units and the gold mineralisation at the Kasagiminnis gold deposit. • The magnetic sedimentary rocks were interpreted into three units (Main structure, hangingwall and footwall lodes). • The mineralisation was modelled using a nominal cut-off grade of around 0.5 g/t gold to produce lode style mineralisation domains.

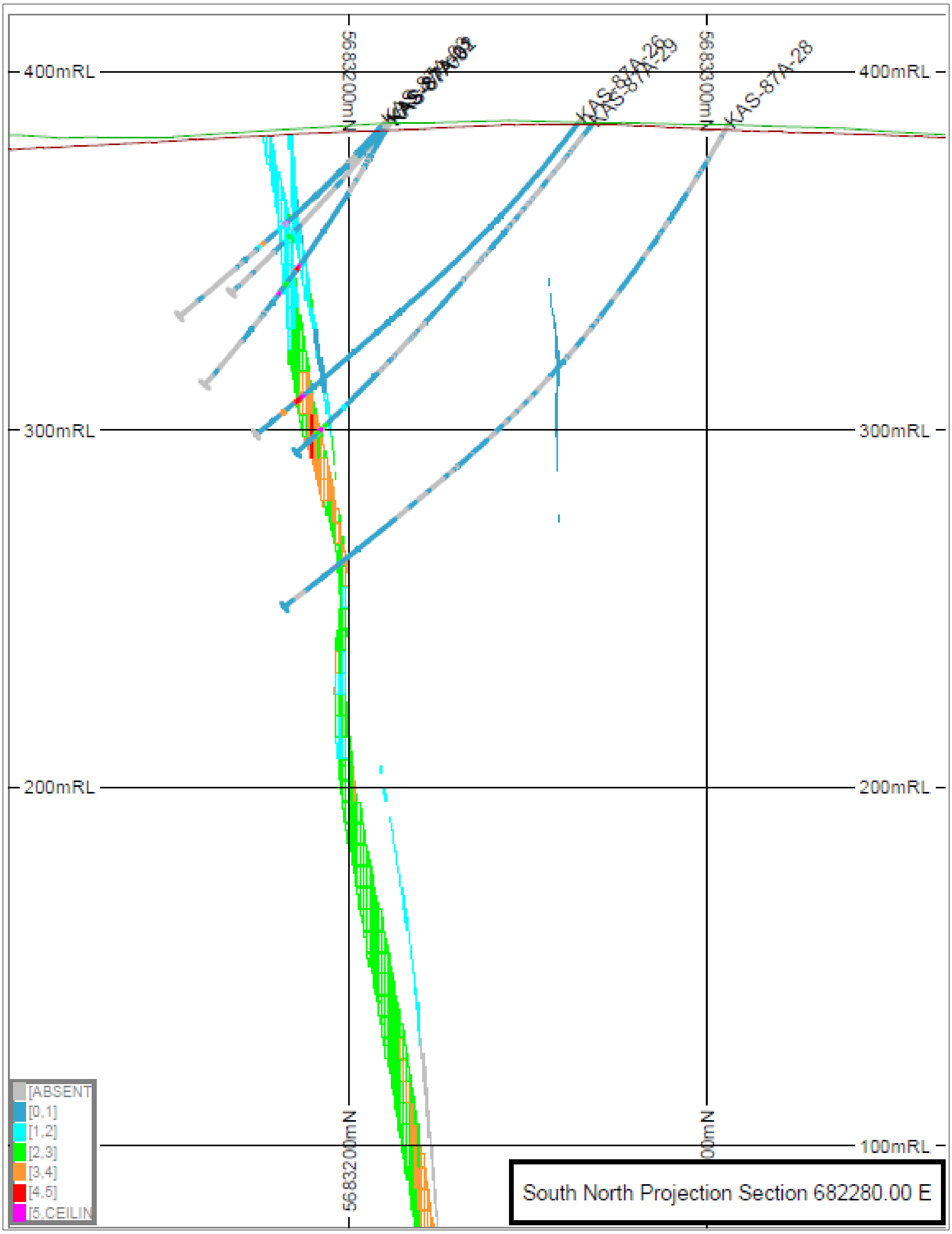
Criteria	JORC Code explanation	Commentary
	on Mineral Resource estimation. • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Seven mineralised lodes were defined, four of which were used for resource estimation. • The lodes contain significant proportions of un-mineralised and low-grade intervals. A categorical indicator model was developed to defined higher grade sub-domains. An indicator cut-off grade of 0.6 g/t was used for the two lower-grade domains and 1 g/t gold was used for the higher-grade domains.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Mineral Resource extends for 1,500 m along strike (east-west), is from 1 to 10 m wide (north-south) and is up to 280 m deep.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for*	• Leapfrog Geo 3D software was used for geological and mineralisation interpretation. Data analysis and estimation was undertaken using Snowden Supervisor and Datamine software. • Drillhole sample data was flagged from mineralised interpretations. • Sample data was composited to a 1 m downhole length. • Resource interpretations were extended by up to 100 m along strike and to 20 m below the base of drilling. • The data has a moderate to high coefficient of variation and high-grade outliers are present in two of the mineralised domains and top-cut grades of 7 g/t and 20 g/t gold were applied. The top-cut grades were selected by examining histograms, log probability plots, population disintegration. • A preliminary mineral inventory of 2.6 million tonnes at an average grade of 4.79 g/t gold was estimated for the Kasagiminnis gold deposit by Kenora in 1988. Details of how this was estimated, and the dimensions of the interpreted mineralisation are not known. This mineral inventory is substantially larger than the Inferred Resource estimated in July 2019 and may have been extended at depth and along strike. • No assumptions have been made regarding the recovery of by-products. • Only gold has been estimated.

Criteria	JORC Code explanation	Commentary
	acid mine drainage characterisation). • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	• Gold mineralisation continuity was interpreted from variogram analyses to have a long range of 55 m in the down dip direction,20 m across strike and 2 m perpendicular to the mineralisation plane. • Grade estimation was into parent blocks of 6 mE by 1 mN on 6 m benches. Block sizes were selected based on kriging neighbourhood analysis. • Estimation was carried out using ordinary kriging at the parent block scale. The search ellipses were oriented within the plane of the mineralisation. • Three estimation passes were used; the first search was based upon the variogram ranges in the three principal directions; the second search was two times the initial search and the third search was five times the first search. • The model was screened to above 105 mRL and within the reported resource 16% of the block grades were estimated in the first pass, 29% in the second pass and 55% in the third search pass. • The estimated gold block model grades were visually validated against the input drillhole data, comparisons were carried out against the drillhole data and by northing, easting and elevation slices and comparison of the mean input data and block model grades for each mineralised lode.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnes have been estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource estimate has been reported at a cut-off grade of 3 g/t gold, which is considered appropriate for the likely underground mining method.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods,*	• Planned extraction is by underground mining. • Mining factors such as dilution and ore loss have not been applied.

Criteria	JORC Code explanation	Commentary
	but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous.*	• No metallurgical assumptions have been built into the resource model.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation.*	• No assumptions have been made regarding waste and process residue.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences*	• A total of 878 bulk density determinations have been undertaken on core samples from the 2018 diamond drillholes. • Bulk density measurements were obtained from drill core samples using the water immersion (Archimedes) method. • Average values have been calculated from the dataset and applied to the resource model based on the lithologies in the area • A density value of 3.0 t/m^3 was assigned to the resource model.

Criteria	JORC Code explanation	Commentary
	between rock and alteration zones within the deposit. • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource has been classified as Inferred on the basis of confidence in geological and grade continuity and taking into account data quality (including the historical nature of much of the drill data and limited quality control and quality assurance data), data density and confidence in the block grade estimation. The Mineral Resource has been classified as Inferred. • Typically drill density for the Inferred category is around 50 m by 50 m and above 105 mRL (up to 280 m depth). Drill spacing within the eastern area of the deposit is up to 200 m along strike, where it is under the lake. The majority of the >3g/t gold resources are located to the west of the lake. • The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The 2019 Mineral Resource estimate for has been peer reviewed by Optiro.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation.*	• The assigned classification of Inferred reflects the Competent Person's assessment of the accuracy and confidence levels in the Mineral Resource estimate. • The statement relates to global estimates of tonnes and grade. • No production data exists for the Kasagiminnis gold deposit.

Appendix H Example cross-sections – drillholes and blocks coloured by gold grade



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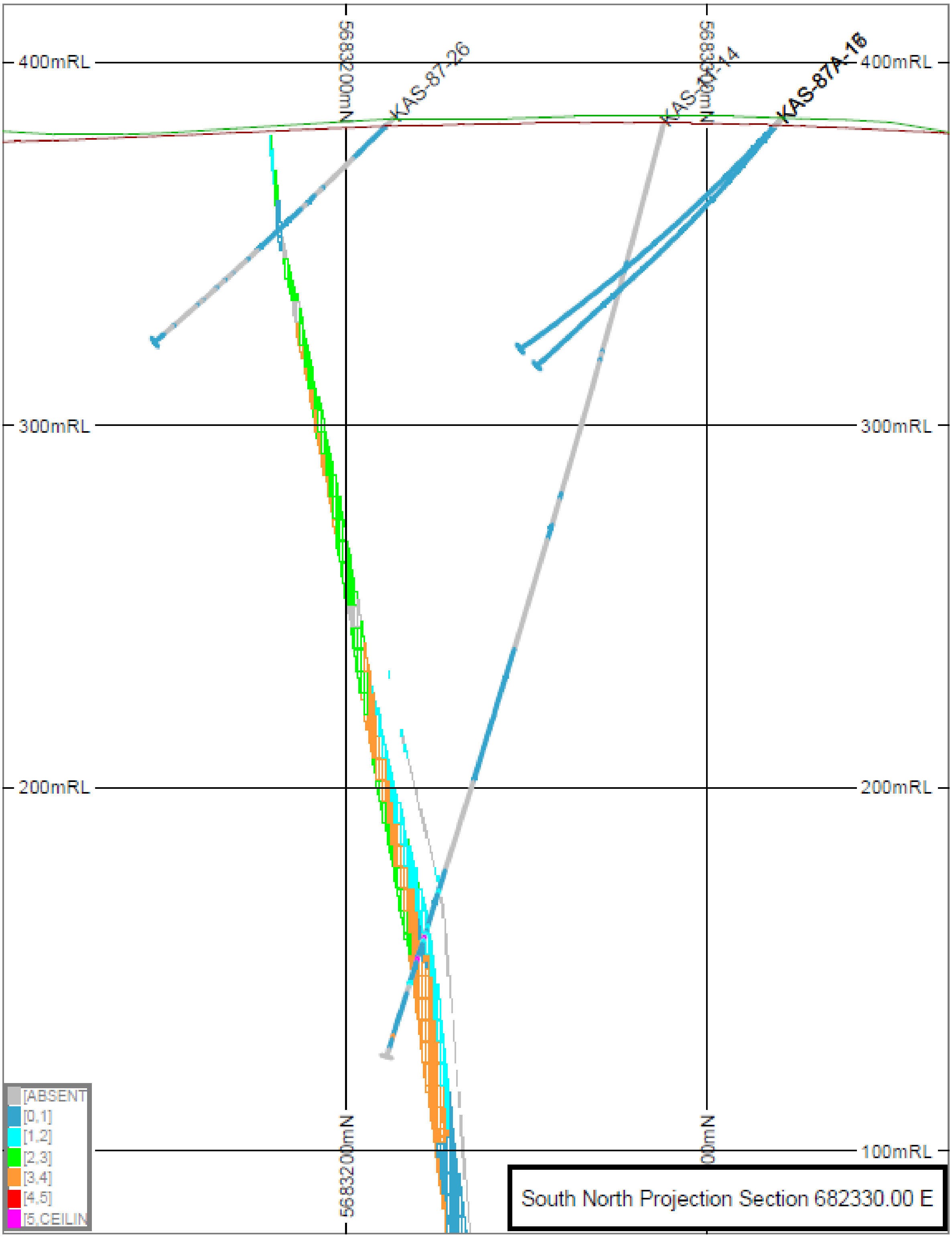
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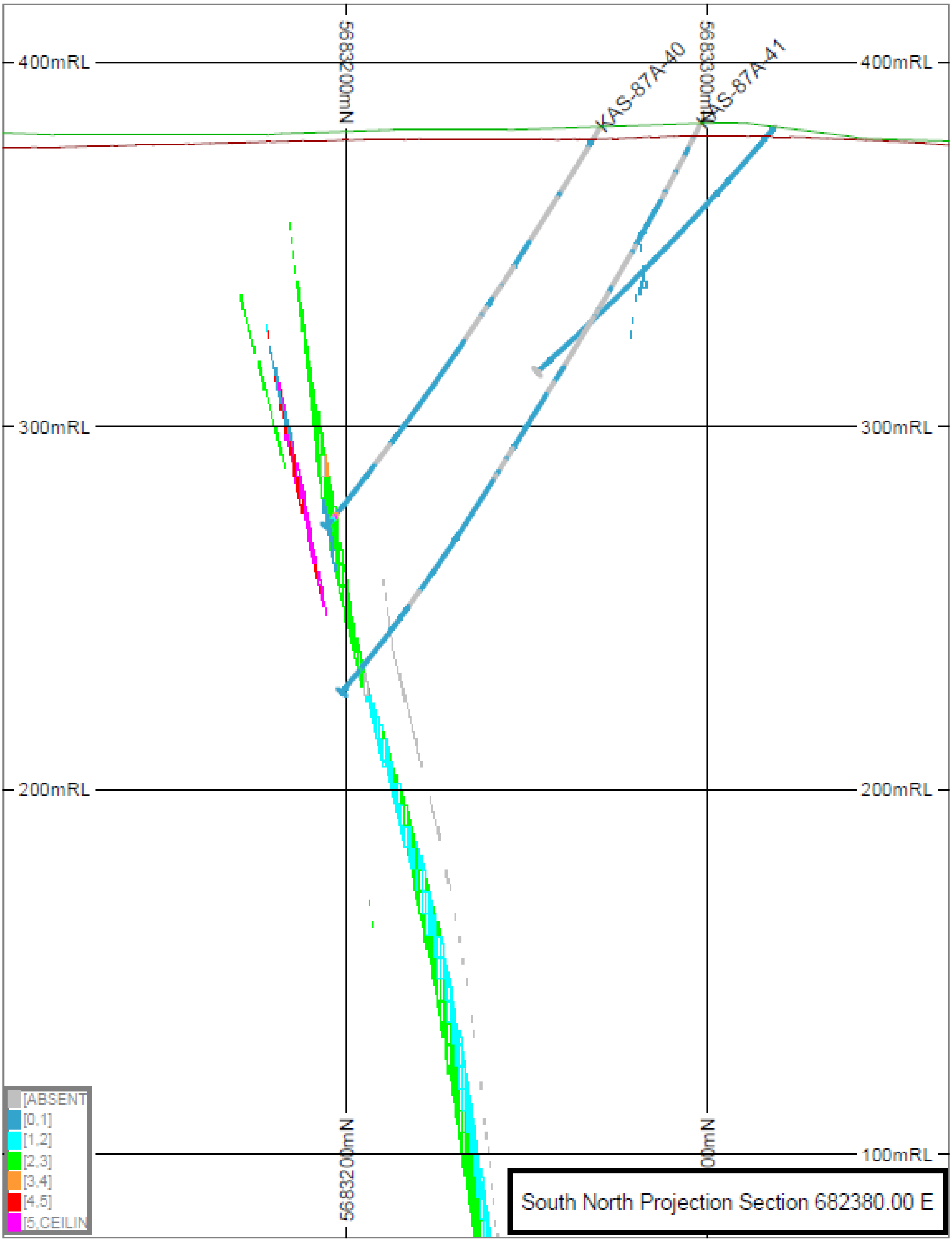
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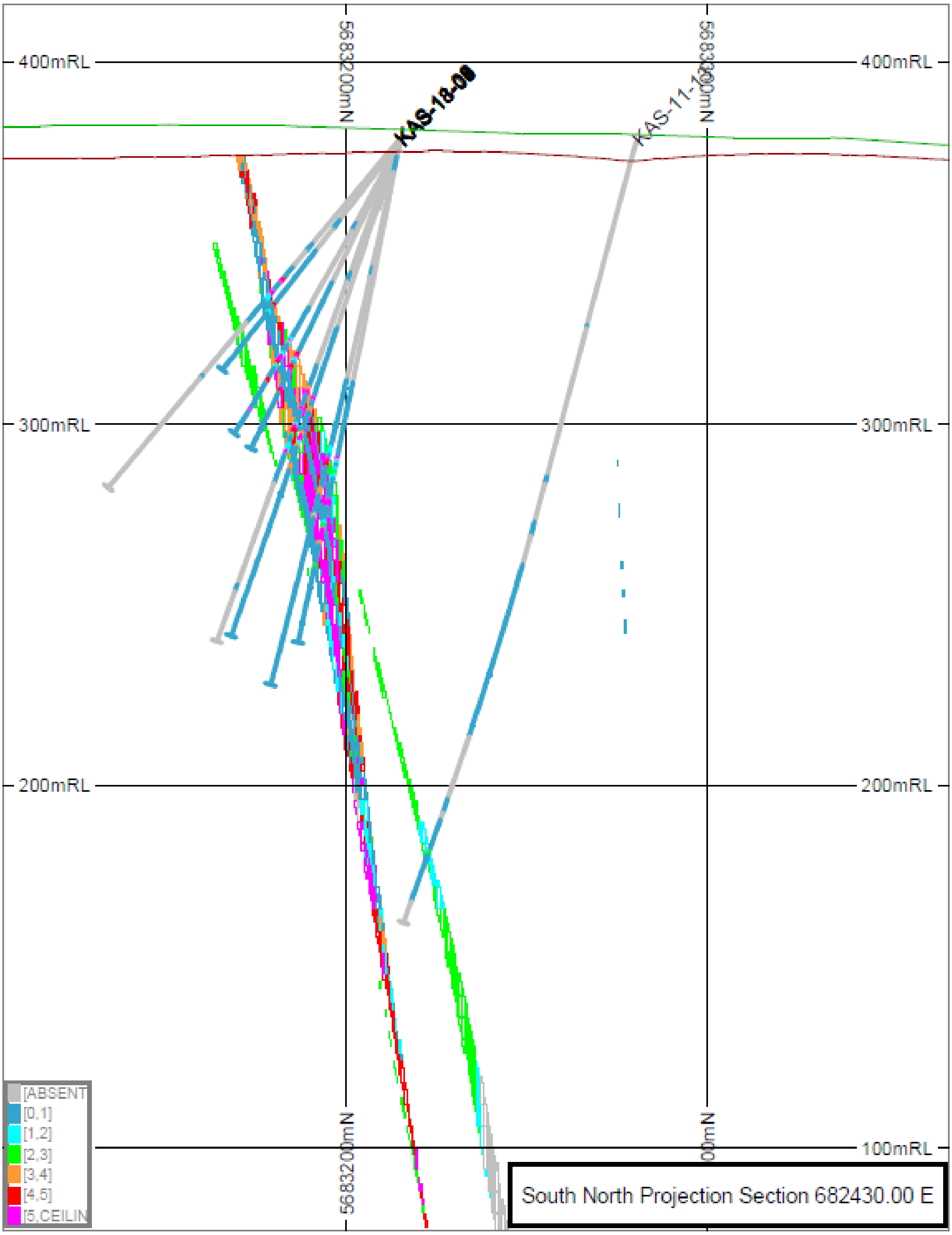
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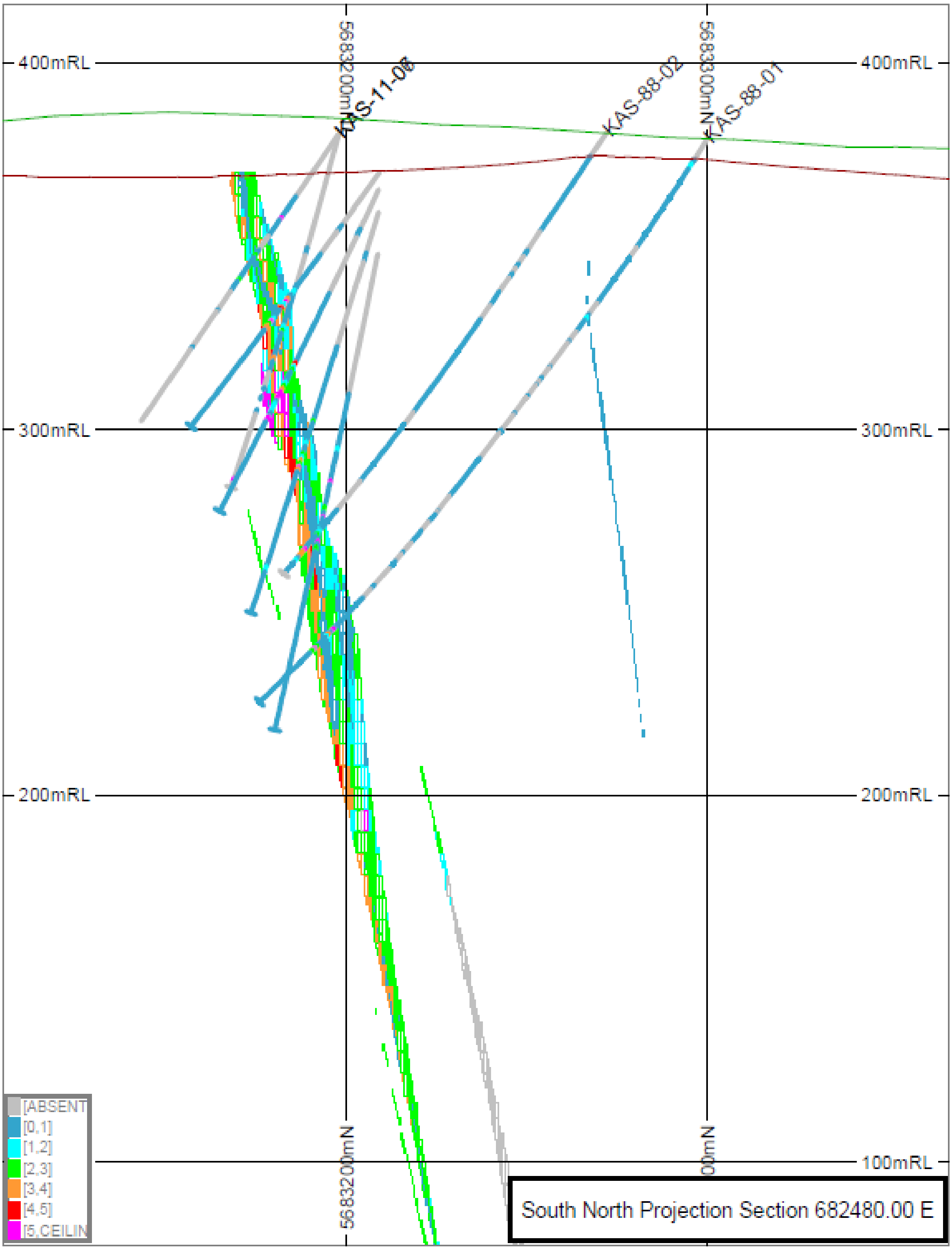
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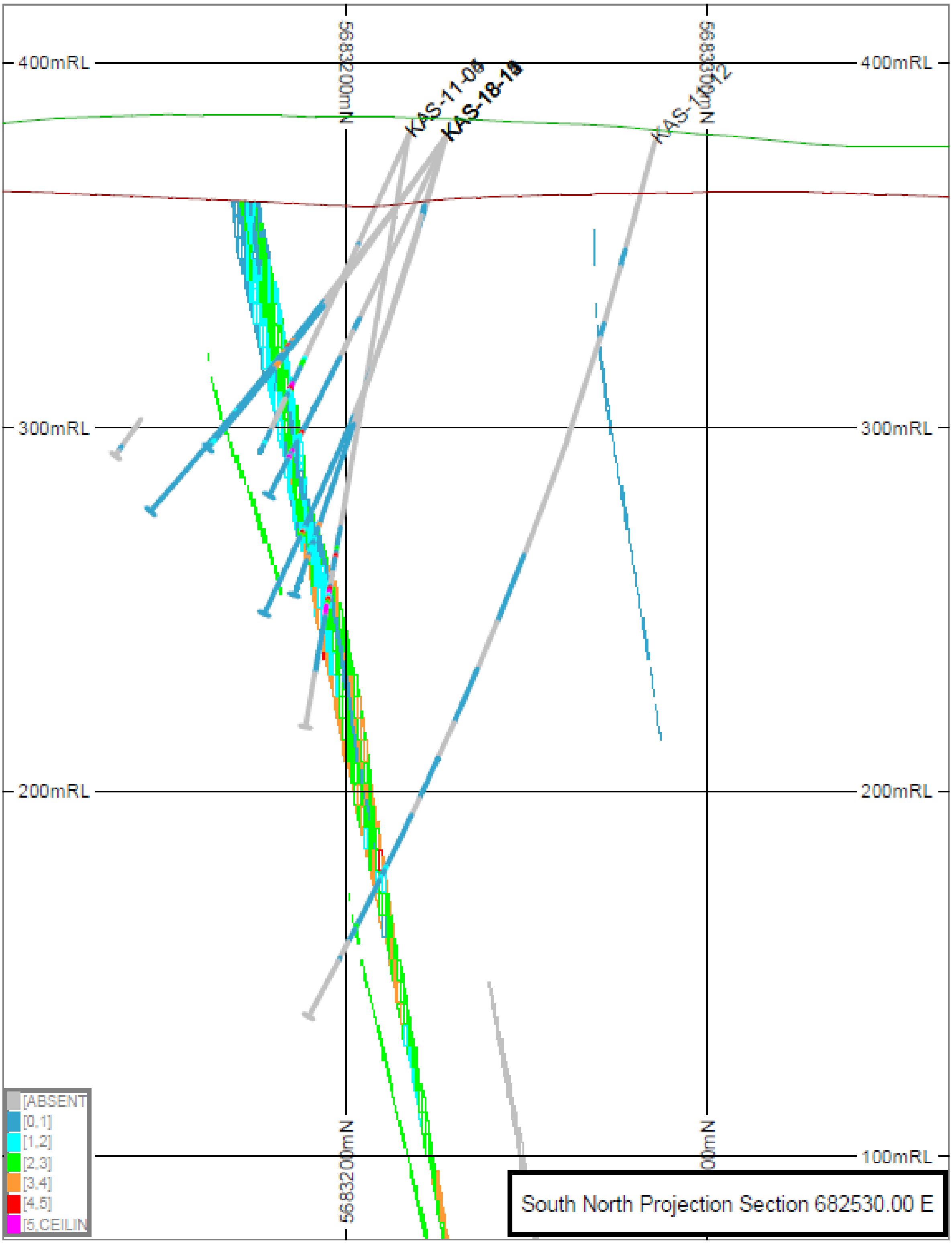
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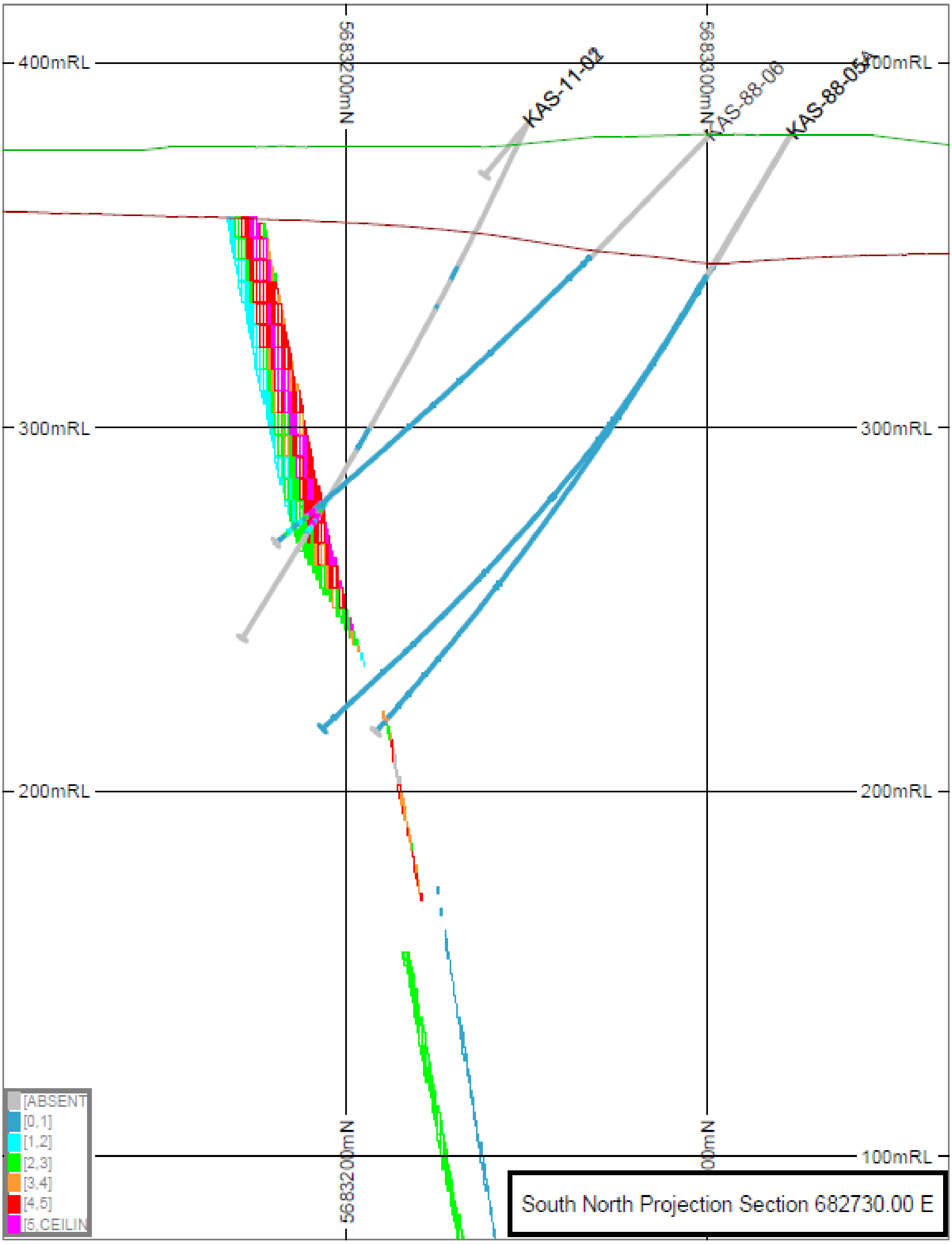

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