Technical Report on the Mineral Resource Estimates for the Lone Tree Deposit, Nevada

Prepared for i-80 Gold Corp

NI 43-101 TECHNICAL REPORT

Effective Date: July 30 2021
Report date: October 21 2021

Prepared by

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CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION

This Report, including the resources and cost estimates, contains certain information that may constitute "forward-looking information" under applicable Canadian securities legislation. Forward-looking information includes, but is not limited to, mineral resource estimates, cost estimates and statements about future development plans, price of gold and similar statements. Forward-looking information is necessarily based upon a number of assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward looking information, including the risks inherent to the mining industry, adverse economic and market developments and the risks identified in i-80's annual information form under the heading "Risk Factors". There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. All forward-looking information contained in this report is given as of the date hereof and is based upon the opinions and estimates of management and information available to management as at the date hereof. i-80 disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.

CAUTIONARY NOTE TO U.S. READERS CONCERNING ESTIMATES OF MEASURED, INDICATED, AND INFERRED MINERAL RESOURCES

The mineral resources have been estimated as at July 30, 2021 in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“NI 43-101”) as required by Canadian securities regulatory authorities. For United States reporting purposes for public companies, the SEC has adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Compliance with the amended rules is required for the first fiscal year beginning on or after January 1, 2021 (the ”SEC Modernization Rules”). The SEC Modernization Rules replace the historical property disclosure requirements for mining registrants that were included in SEC Industry Guide 7, which will be rescinded from and after the required compliance date of the SEC Modernization Rules. As a result of the adoption of the SEC Modernization Rules, the SEC now recognizes estimates of “measured”, “indicated” and “inferred” mineral resources. In addition, the SEC has amended its definitions of “proven mineral reserves” and “probable mineral reserves” to be substantially similar to the corresponding Canadian Institute of Mining, Metallurgy and Petroleum definitions, as required by NI 43-101.

United States readers should understand that “inferred” mineral resources have a great amount of uncertainty as to their existence and great uncertainty as to whether they can be mined legally or economically. In accordance with Canadian rules, estimates of “inferred” mineral resources cannot form the basis of feasibility or other economic studies, except in limited circumstances where permitted under NI 43-101. In addition, United States readers are cautioned not to assume that any part or all of the mineral resources constitute or will be converted into reserves.

Certificate of the Qualified Person
ABANI R. SAMAL, RM – SME

I, Abani R Samal, as an author of this report entitled " Technical Report on the Mineral Resource Estimates for the Lone Tree Deposit, Nevada" prepared for Premier Gold Mines USA, a wholly owned subsidiary of i-80 Gold Corp dated October, 21, 2021 with an effective date of July 30, 2021, do hereby certify that:

- I am Principal of GeoGlobal LLC – a Utah based consulting company.
- I graduated with a PhD degree in 2005 from the Southern Illinois University, Carbondale Illinois where I studied mineral deposits extensively. My PhD research was focused on Florida Canyon gold deposit, Nevada.
- I am also a graduate of the Imperial College, London (2000) with Master's degree in Mineral Exploration.
- I am a registered member of the Society of Mining, Metallurgy and Exploration (SME) with membership number as 4136879
- I have worked as a geologist for over 20 years since 1996. I have broad experience in various commodities including gold-silver, base metals and uranium where mineralization is structurally and lithologically controlled.
- I have relevant experience for the purpose of the Technical Report.
- I have more than 15 years of experience in Mineral Resource Estimation and applied geostatistics
- I have visited the Lone Tree deposit and verified the digital data and drill-core-logs at the core-shed and core-processing facility at the Battle Mountain, Nevada.
- I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association and relevant work experiences, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- I did not have had prior involvement with the property that is the subject of the Technical Report.
- This Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 21st October, 2021

Abani R Samal
RM-SME #04136879

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TABLES

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1. SUMMARY

The Lone Tree Property acquired October 14, 2021 by i-80 Gold Corporation (i-80) from Nevada Gold Mines (NGM), a joint-venture between the world's two largest gold producers, Barrick Gold Corporation and Newmont Corporation. This acquisition will provide i-80 with important processing infrastructure including an autoclave, CIL (carbon-in-leach) mill, and a heap leach facility complete with assay lab and gold refinery. The agreement, and also includes interim processing arrangements at NGM facilities.

GeoGlobal was retained by i-80 during the above mentioned transaction between i-80 and NGM, for independent verification of the quantity of mineral resources at Lone Tree using the available drill-hole data and information shared by NGM to produce a technical report as per the NI-43-101 guidelines. The effective date of published mineral resources is July 31st, 2021. The mineral resources were estimated and reported in the press-release dated September 7th, 2021.

1.1 Mineral Resource Estimates

The Lone Tree mineral deposit hosts substantial gold mineral resources as shown below. The resources shown below assumes gold price of $1,650/oz Au and an open-pit cut-off grade of 0.65 g/t Au. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

- 410,000 ounces of gold indicated mineral resources within 7.2M tonnes grading 1.77 g/t Au
- 2,764,000 ounces of gold inferred mineral resources within 50.7M tonnes grading 1.69 g/t Au

Resource expansion potential exists down-plunge of the main Lone Tree deposit and in the unmined Sequoia zone discovery where previous drilling returned multiple wide, high-grade, intercepts.

1.2 Location of the Property, History and Site Descriptions

The Lone Tree mine project is located approximately 30 miles east of Winnemucca, Nevada and 20 miles northwest of Battle Mountain, Nevada. The mine office is accessible from interstate 80 by paved highway (Figure 1-1**Error! Reference source not found.**).

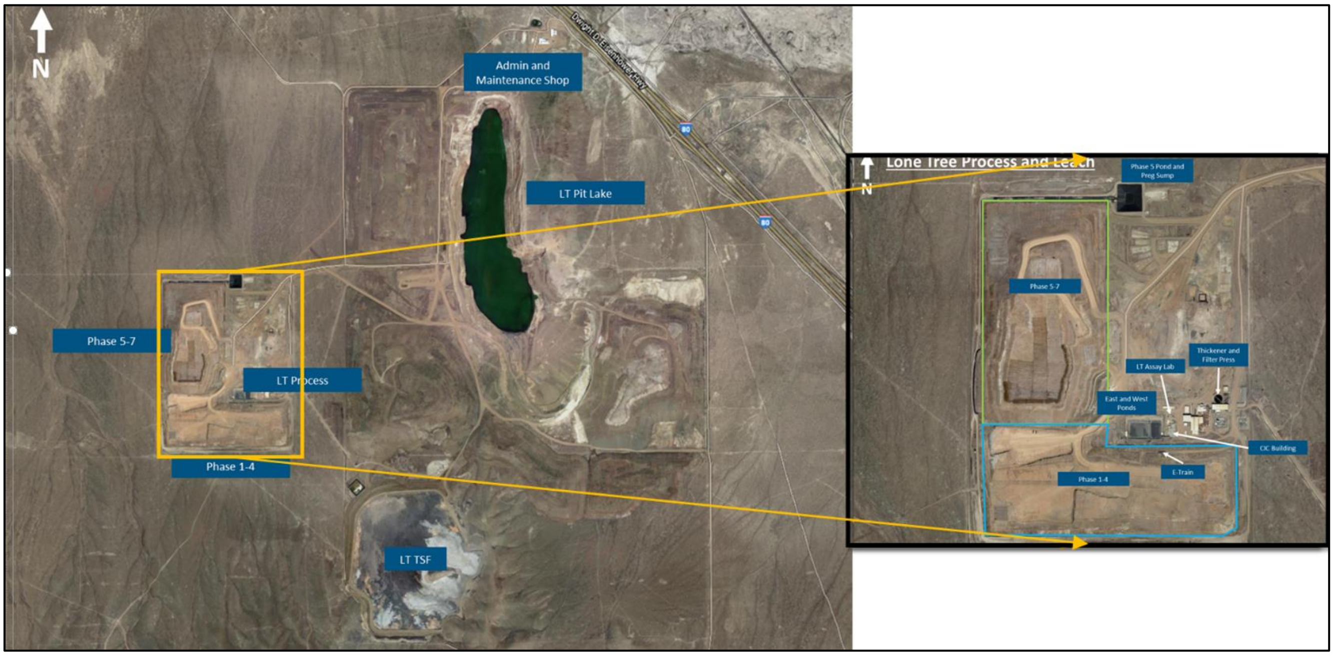
Figure 1-1: Lone Tree Deposit Location

1.3 Site infrastructure

The site has an autoclave and flotation mill, which are currently on care and maintenance. The list of processing plants includes the following facilities:

- Lone Tree Autoclave, which processes high-grade refractory ore.
- Lone Tree Float Plant, which processes low-grade refractory ore.
- Lone Tree Leach pad (Phases 1-4,Figure 1-2), which treats oxide ore in a cyanide heap-leach process.
- Lone Tree Leach pad (Phase 5, Figure 1-2), which treats oxide ore in a cyanide heap-leach process.

Figure 1-2: The Location of Lone Tree Deposit and Infrastructure

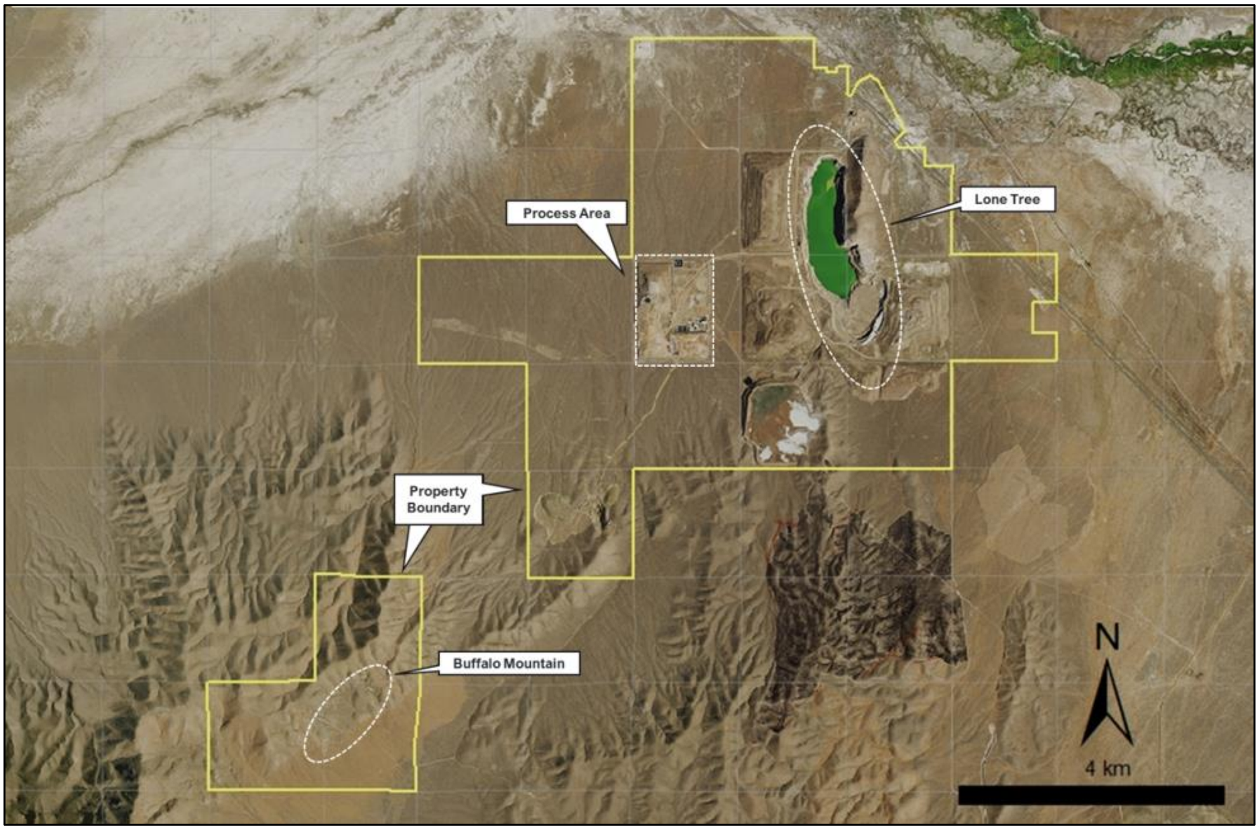


- Lone Tree Leach pad (Phase 6,Figure 1-2), which treats oxide ore in a cyanide heap-leach process
- North Peak Leach pad, which treats oxide ore in a cyanide heap-leach process.

1.4 Land Tenure and Ownership

Figure 1-3 shows the property boundary of the Lone Tree project. It is significant to note that the land package includes the process area, the Lone Tree Pit and Buffalo Mountain.

Figure 1-3: The Property Boundary for the Lone Tree Deposit and Adjacent Buffalo Mountain Exploration Project (Source: https://www.i80gold.com/wp-content/uploads/2021/09/September-7-2021-LTree-RHill.pdf)



1.5 Geology and Mineralization

Mineralization is structurally controlled within three Paleozoic rock sequences at the Lone Tree deposit. The oldest of these three is the Valmy Formation which is unconformably overlain by rocks of the Pennsylvanian Antler Sequence of the Battle and Edna Mountain Formations. The Pennsylvanian-Permian Havallah sequence rocks were thrust over the Antler Sequence rocks in the mine area. The Havallah Sequence is dominated by siltstones, chert and basalts with lesser sandstones and conglomerates. Amongst the three mineralized Paleozoic sequences, Antler Sequence rocks appear to have been preferentially mineralized within the structural zones.

Out of three principal mineralized zones namely the Wayne Zone, the Sequoia Zone, and the Antler High Zone, the Wayne zone is the most preferred zone with higher amount of mineralized material. The main structural component of the Wayne zone is the north-sound trending Powerline Fault, shown in Figure 1-4. While the pit bottom is currently under water, the footwall of the Powerline fault seems to be exposed on the east wall of the Lone Tree mine.

Figure 1-4: The Footwall of the Powerline Fault Seen on the East Side (right side of the picture) of the Lone Tree Deposit

1.6 On site verification of data and information

As part of the requirement of the NI-43-101 reporting, a site visit was completed on July 7th and 8th, 2021. During the site visit the following tasks were completed.

- Field review of the general geology of the deposit
- Select drillhole locations were physically verified.
- Verification of available core, logging and cutting facilities and data management.

1.7 Historical Summary of the Deposit

In early days, the Lone Tree Hill area was explored for copper. Cordex discovered the southern extension of the Lone Tree gold deposit in 1988, which was referred to as the Stonehouse deposit at the time. Santa Fe Pacific Gold discovered the main part of the Lone Tree deposit in the pediment on the west flank of the hill in 1989 and acquired the Stonehouse portion of the deposit. Newmont acquired the deposit from Santa Fe Pacific Gold through a merger and began operations in 1991. Newmont completed mining operations in 2006. Residual leaching and ongoing reclamation activities continued until 2007. In July 2019 the non-operating Lone Tree project became part of Nevada Gold Mines, a joint venture between Barrick and Newmont.

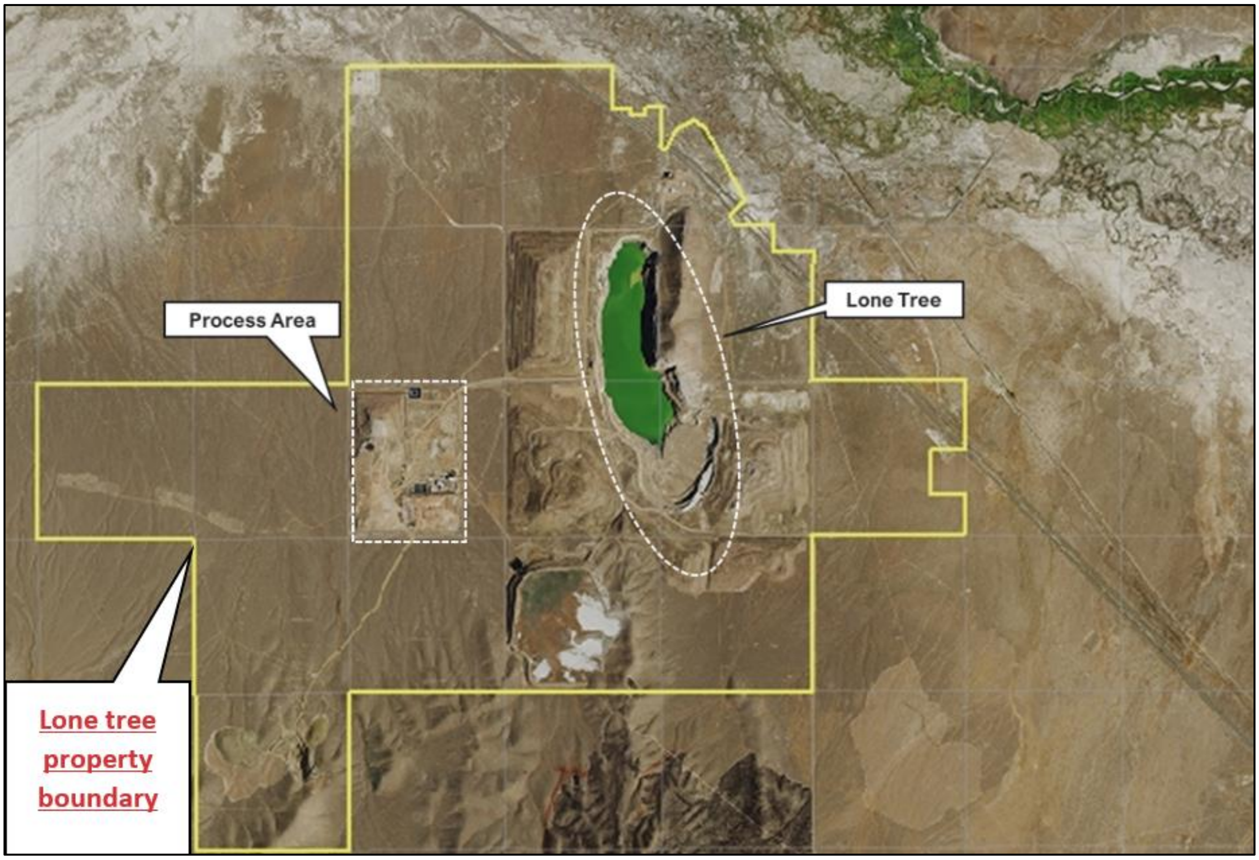
2. INTRODUCTION

The Lone Tree Property was acquired on October 14, 2021, by i-80 Gold Corporation (i-80) from Nevada Gold Mines (NGM). This acquisition will provide i-80 with important processing infrastructure including an autoclave, CIL (carbon-in-leach) mill, a heap leach facility complete with an assay lab, and carbon columns, and interim toll processing agreements for i-80 at NGM facilities. The property boundary contains the existing mine and the process facilities as shown in the figure 2-1.

2.1 Land Status

The Lone Tree Properties include interests in fee lands, mineral rights in fee lands, patented mining claims, and unpatented mining claims which are leased or owned by NGM as of the effective date of this report. These properties are identified as part of the Lone Tree Mine Plan of Operations (PoO) in Sections 11, 12, 13 and 14 in Figure 4-1. More details are available in the section 4.

Figure 2-1: The property Boundary for the Lone Tree Deposit and Adjacent Buffalo Mountain Exploration Project (Source: https://www.i80gold.com/wp-content/uploads/2021/09/September-7-2021-LTree-RHill.pdf)



2.2 Units of Measure

Coordinate Reference System (CRS): Universal Transverse Mercator Zone 11, North American Datum of 1983. EPSG: 26911. For this report a combination of Google Earth Pro and QGIS version 3.16.0-Hannover mapping tools were used for generating maps.

2.3 Definitions

AOI: Area of Influence
BLM: United States Bureau of Land Management
CFR: Code of Federal Regulations (United States Federal Code)
CIM: The Canadian Institute of Mining, Metallurgy and Petroleum
FA/AA: Fire Assay with Atomic Absorption finish, analytical technique for gold analysis
GPS: Global Positioning System
ICP: Inductively Coupled Plasma (geochemical analytical method)

MDBM:	Mount Diablo Base and Meridian
NSR:	Net Smelter Royalties
NMC#:	Nevada Mining Claim Number
PoO:	Plan of Operation
RC:	Reverse Circulation (Drill Hole)
USGS:	United States Geological Survey

3. RELIANCE ON OTHER EXPERTS

Dr Samal of GeoGlobal LLC has prepared this report in collaboration with the geologists and mining engineers of i-80 Gold Corp. GeoGlobal also relied in part on the opinions and reports prepared by NGM and i-80 staff as well as certain opinions and statements of legal counsel as appropriate. GeoGlobal considers its reliance on other experts, as described in this section, to be reasonable based on their documented knowledge, experience, and qualifications.

4. PROPERTY DESCRIPTION AND LOCATION

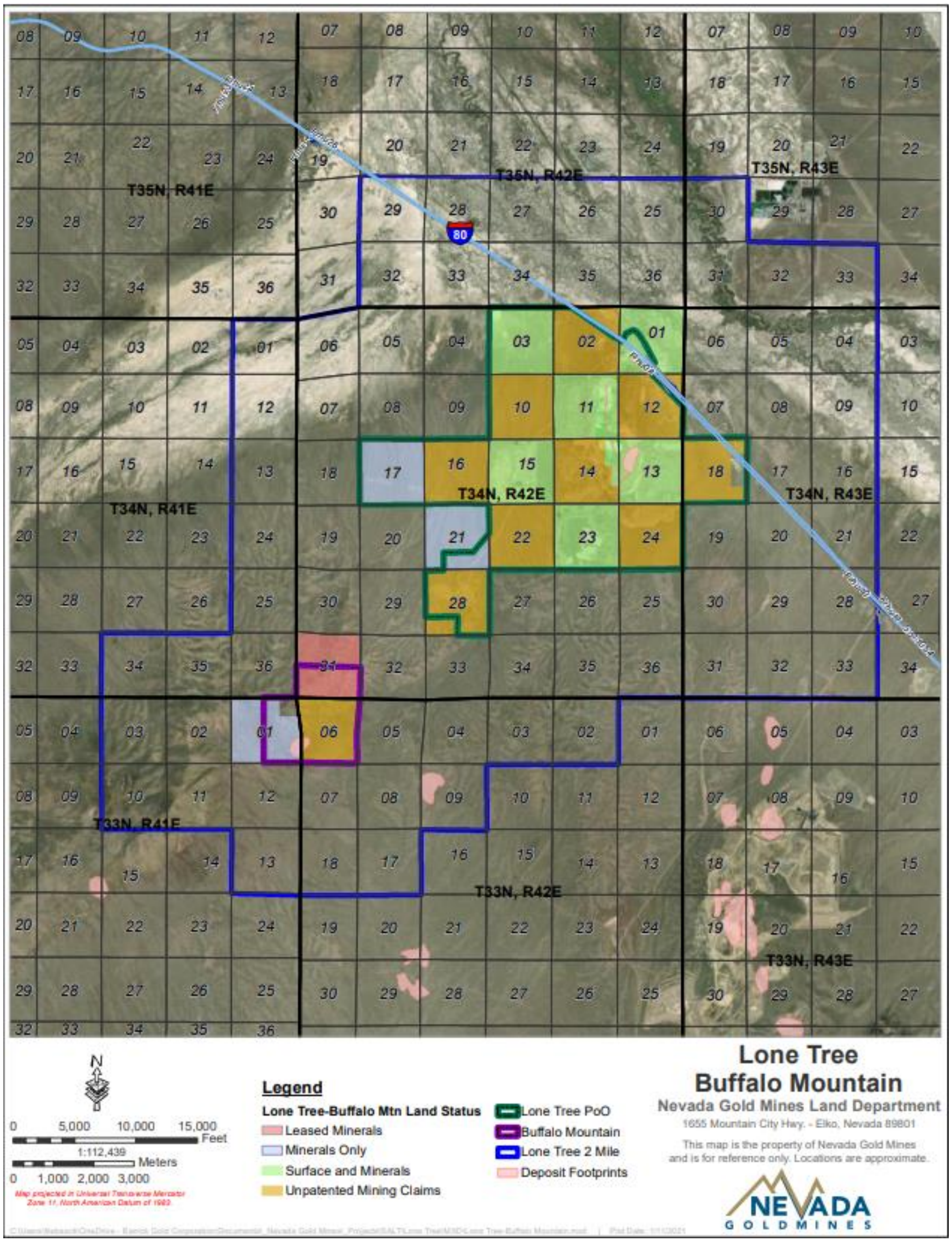
4.1 Location of the Project

The Lone Tree gold deposit is in the Battle Mountain district in Humboldt County, Nevada. As shown Figure 1-1, the nearest town with full services is Winnemucca, which is an historic mining town in northwestern Nevada. The Lone Tree Mine is located approximately 30 miles east of Winnemucca, Nevada and 20 miles northwest of Battle Mountain, Nevada. The mine office is accessible from interstate 80 by paved highway (Figure 4-1). The reference coordinate of the mine is 40° 50' 19" N, 117° 12' 37" W. The Lone Tree facilities include an autoclave, carbon-in-leach (CIL) mill, flotation plant and heap leach facility.

4.2 Land Status

The Lone Tree Properties include interests in fee lands, mineral rights in fee lands, patented mining claims, and unpatented mining claims which are leased or owned by NGM as of the effective date of this report. The information on the Lone Tree/Buffalo Mountain map was prepared by the NGM Land Department (refer to Figure 4-1). These properties are identified as part of the Lone Tree Mine Plan of Operations (PoO) in Sections 11, 12, 13 and 14 in Figure 4-1. This report focuses only on the Lone Tree Mine properties. i-80 has been informed by the Clerk of the Eleventh Judicial District Court, Humboldt County, Nevada that there are no pending actions which relate to the Lone Tree Mine properties in which the Company, the Company’s subsidiaries or NGM are named as parties.

Figure 4-1: Lone Tree Property



5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Lone Tree mine project office is easily accessible from interstate 80 as shown in the Figure 5-1. From the mine office, the mine and process facilities are accessible via paved roads. The nearest town with full services is Battle Mountain, Nevada. The Lone Tree mine project is located approximately 30 miles east of Winnemucca, Nevada

Figure 5-1: Location and Accessibility of the Lone Tree Mining Project

The local climate is cold & semi-arid typical of eastern Nevada.

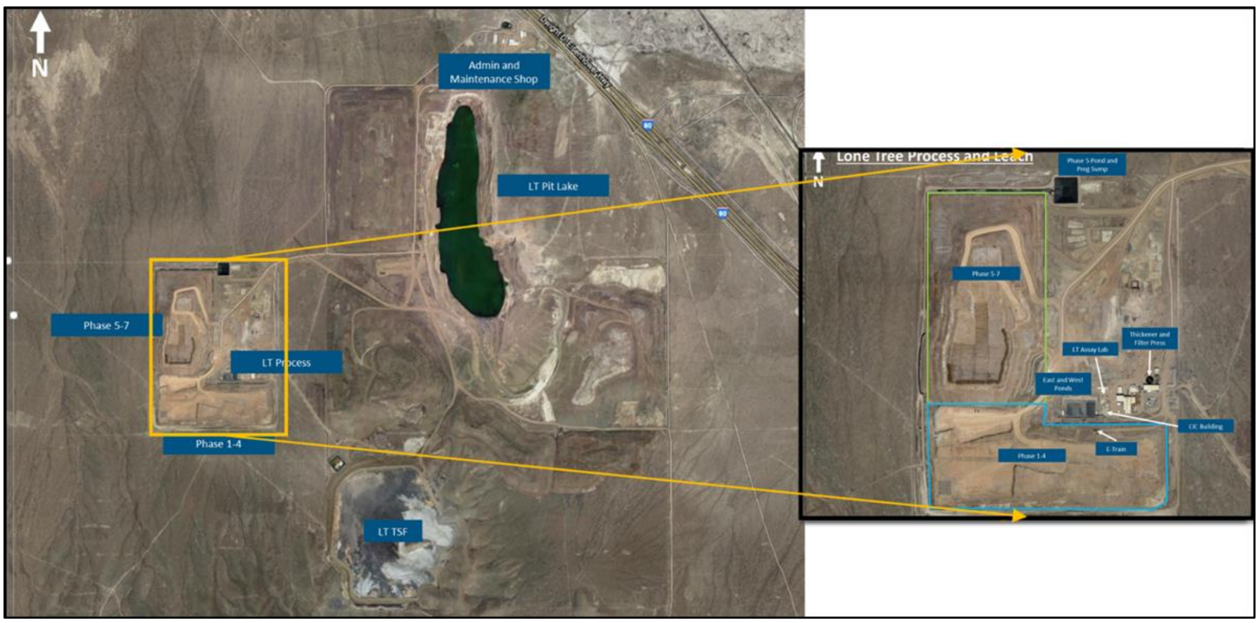
5.1 Site Infrastructure

The site has an autoclave and flotation mill, which are currently on care and maintenance. The list of processing plants includes the following facilities:

- Lone Tree Autoclave, which processes high-grade refractory ore.

- Lone Tree Float Plant, which processes low-grade refractory ore.
- Lone Tree Leach pad (Phases 1-4, Figure 5-2), which treats oxide ore in a cyanide heap-leach process.
- Lone Tree Leach pad (Phase 5, Figure 5-2), which treats oxide ore in a cyanide heap-leach process.
- Lone Tree Leach pad (Phase 6, Figure 5-2), which treats oxide ore in a cyanide heap-leach process
- North Peak Leach pad, which treats oxide ore in a cyanide heap-leach process.

Figure 5-2: Location of the Lone Tree Deposit Infrastructure



6. HISTORY

6.1 Historical Summary of the District

In early days the Lone Tree area was explored for copper, but no significant resources were discovered. The initial discovery hole at Lone Tree was drilled in July 1989 by Cordex Exploration Co. on the southern extension of what was to become the Lone Tree gold deposit. This southern portion of the deposit was referred to as the Stonehouse deposit. Santa Fe Pacific Gold discovered the main part of the Lone Tree deposit in the pediment on the west flank of the hill in 1989 and acquired the Stonehouse portion of the deposit from Cordex. Newmont acquired the deposit from Santa Fe Pacific Gold through a merger and began operations in 1991 and continued mining operations until 2006. Operations were discontinued in 2006 due to increased production costs, largely resulting from the influx of groundwater into the deepening pit. The pit was allowed to flood which created a lake within the pit. Approximately 4.6 million ounces of gold were produced from the Lone Tree Mine and approximately 5.2 million ounces of gold were produced at the Lone Tree processing facilities during this time.

Mining on the Brooks deposit which lies to the southwest of the main Lone Tree pit was conducted 2015-2019. Approximately 52,000 ounces were placed on the heap leach pad and residual leaching is ongoing.

Residual leaching and ongoing reclamation activities from the Lone Tree Mine continued until 2007. In July 2019 the non-operating Lone Tree project became part of Nevada Gold Mines, a joint venture between Barrick and Newmont.

i-80 Gold Corporation acquired the Lone Tree property and processing facilities from NGM on October 14, 2021.

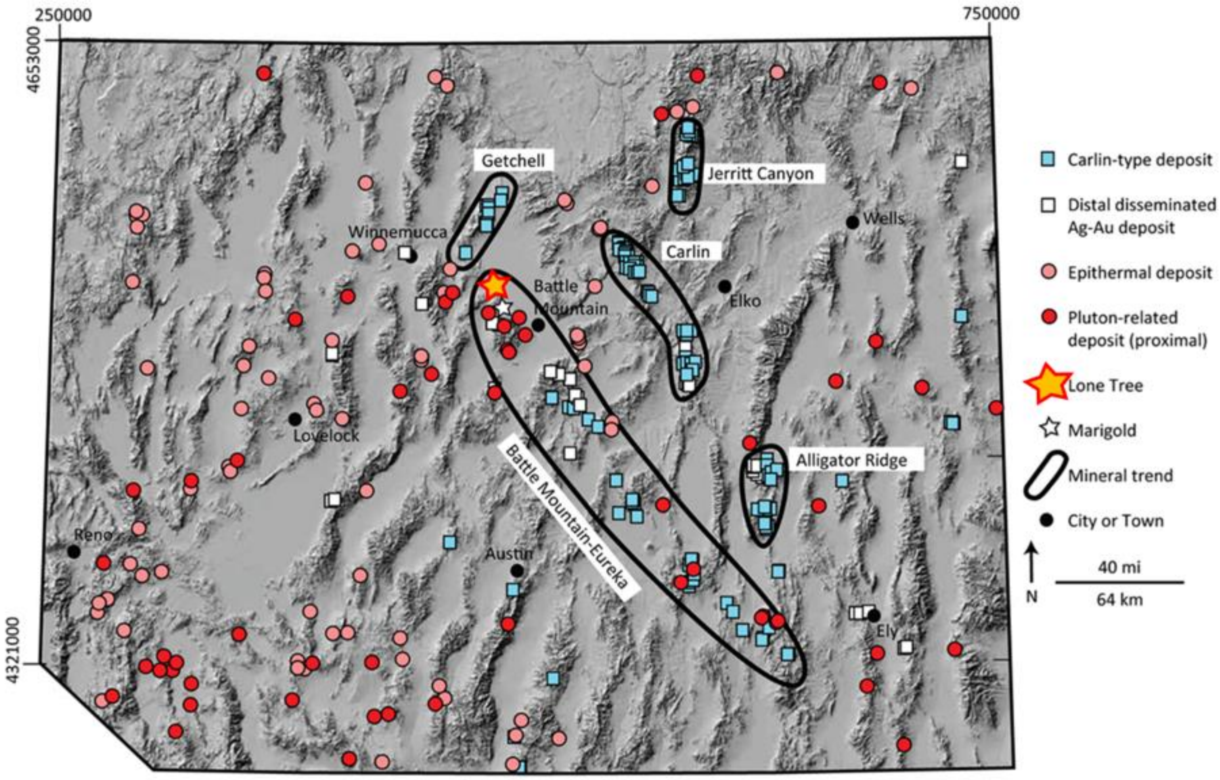
7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Lone Tree deposit occurs in Humboldt County, Nevada, within the Basin and Range physiographic province, in the northern part of the Battle Mountain mining district. The Battle Mountain mining district is dominated by Late Cretaceous and Eocene age magmatism with a variety of ore deposit types including porphyry Cu-Au, porphyry Mo, skarn, distal disseminated +/- Carlin-type deposits. Holley et al 2019, list a number of Cu-Mo porphyry along with sedimentary rock-hosted gold deposits, such as Lone Tree, Buffalo Valley, Marigold, North Peak, and Trenton Canyon, which have been classified as distal disseminated and Carlin-type deposits (Figure 6-1 and Figure 6-2); Doebrich and

Theodore, 1996; Theodore, 1998, 2000; Reid et al. 2010) and Au-skarn deposits, such as those at Buckingham, Copper Canyon, Copper basin, and Elder Creek.

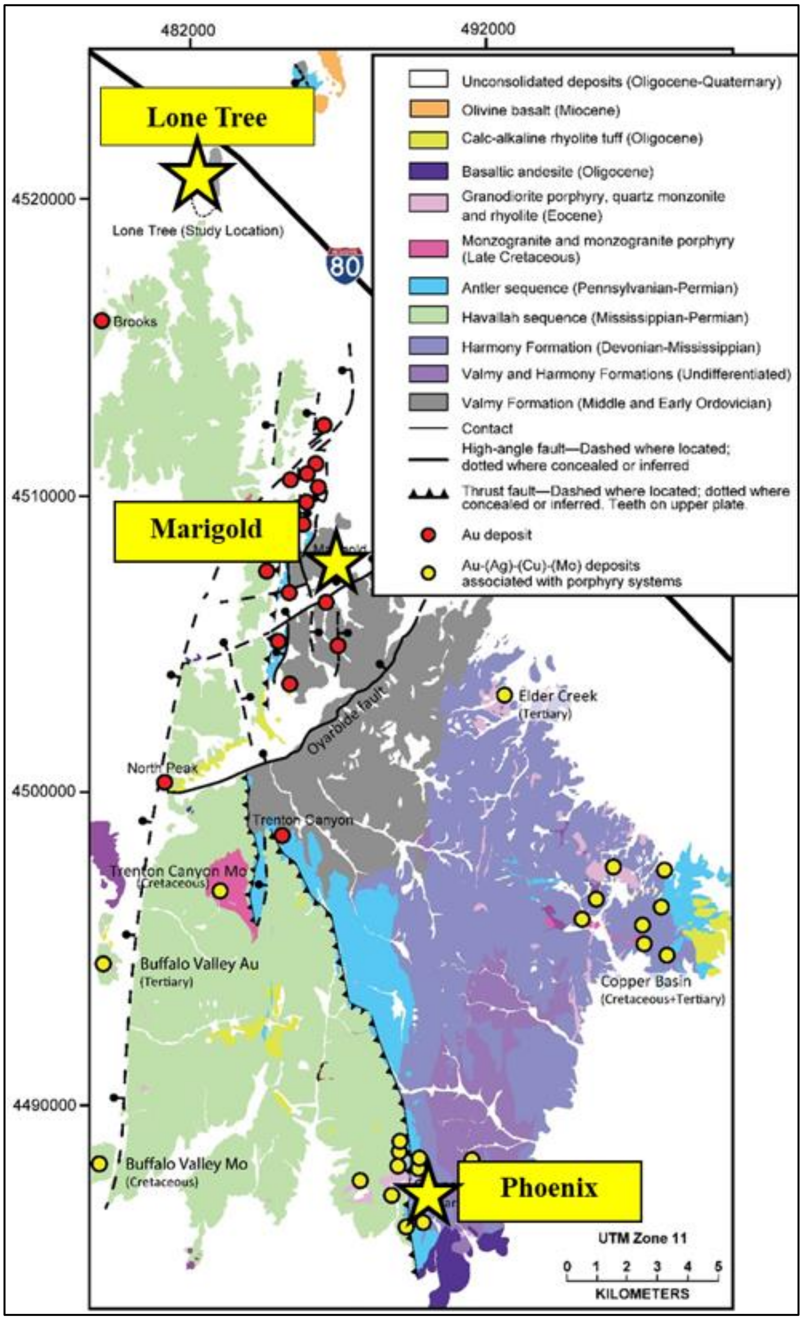
Figure 6-1: Location of the Lone Tree Mine in North-Central Nevada Relative to Major Mineral Trends. Modified from Wallace et al. (2004) and Fithian et al. (2018).



Au/Ag ratios are consistent with most other Carlin-type deposits, although the lower ratios of some ores overlap with the distal-disseminated Au-Ag deposits such as Lone Tree, Nevada. (Ressel, 2005).

The high Au/Ag ratios and lack of base metals have been used to differentiate Carlin-type Deposits from other sedimentary rock-hosted deposits in northern Nevada such as Lone Tree, Nevada, which are classified as pluton-related or distal-disseminated Ag- Au (e.g., Cox, 1992; Mosier et al., 1992; Doebrich and Theodore, 1998, Wallace et al 2004).

Figure 6-2: The Battle Mountain Mining District and Location of Lone Tree Deposit (Source: NGM)



Wallace et al (2004) provide a detailed account of the regional tectonic activities in northern Nevada, occurring over a period of 2 billion years starting with Precambrian rocks occurring in the East Humboldt. Paleozoic rocks in this region generally comprise four distinct tectonostratigraphic assemblages (Source: Holley, 2019):

- Cambrian-Ordovician miogeoclinal carbonate shelf-slope rocks identified through deep drilling in the district but not exposed at the surface (Fithian et al., 2018)
- Ordovician-Mississippian eugeoclinal siliciclastic rocks of the Roberts Mountain allochthon, including the *Valmy Formation*
- Autochthonous Pennsylvanian to Permian shallow-water facies of the *Antler overlap sequence*
- Mississippian to Permian deep-water siliciclastic rocks and basalts of the Golconda allochthon, which were thrust on top of the Antler overlap sequence by the Golconda thrust during the Permian-Triassic Sonoma orogeny (Theodore, 2000), constituting the Havallah sequence; many of the clastic constituents of these rocks appear to be sourced from the Antler highlands (Whiteford, 1990)

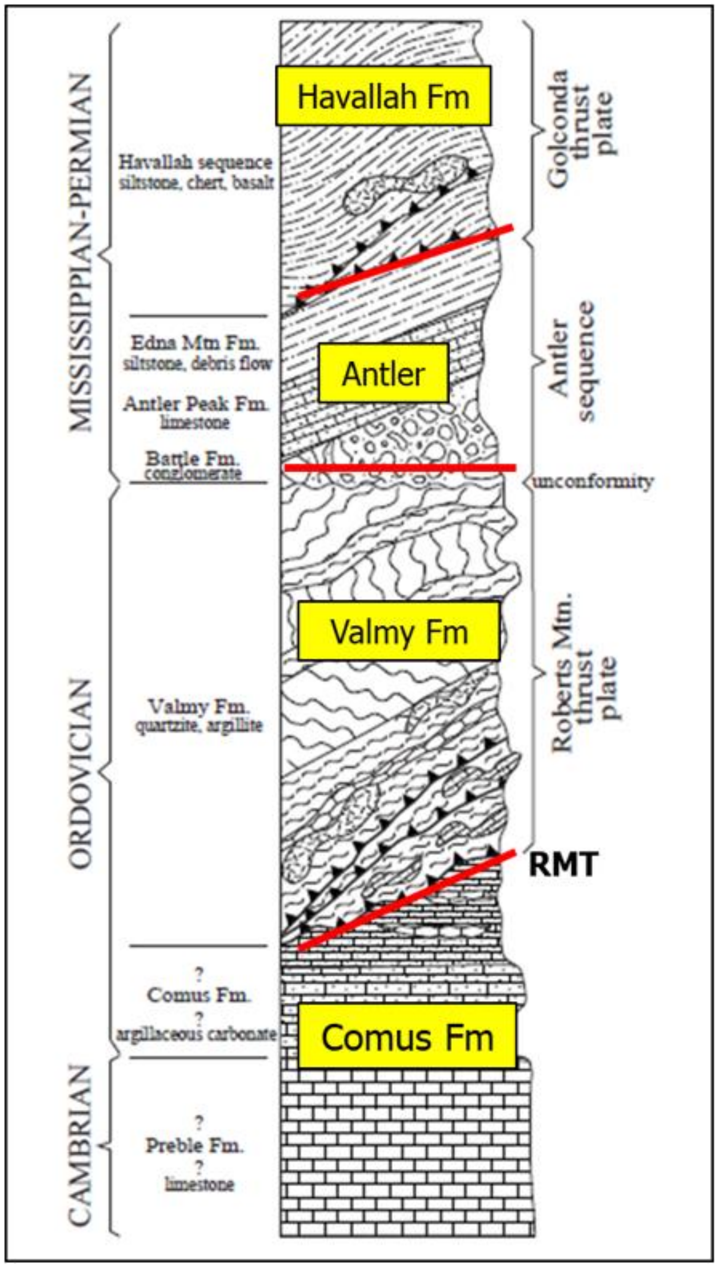
Gold deposits are hosted in a variable stratigraphic package of Ordovician through lower Mississippian shallow-water rocks that have been overthrust by deep-water, siliciclastic allochthonous rocks along the Roberts Mountains Thrust during the late Devonian to Early Mississippian Antler orogeny (Roberts et al., 1958; Roberts 1960). Subsequent orogenic shortening during the Pennsylvanian and Permian (Humboldt disturbance) (Ketner, 1977), Early Triassic (Sonoma orogeny) (Silberling and Roberts, 1962), Middle Jurassic (Elko orogeny) (Thorman et al, 1990) and Early Cretaceous (Sevier orogeny) (Armstrong, 1968) have reactivated earlier basement and Antler-related faults. The sedimentary rocks are intruded or unconformably overlain by igneous rocks of three magmatic episodes: Cretaceous, Eocene, and Miocene age.
The current regional physiography is the result of extensional tectonics during the Tertiary. High angle faults formed during this period are interpreted as the main pathways for ore forming fluids. Economic concentrations of gold typically occur near the intersections of northeast and north-south faults, along the margins of intrusive bodies, or at contacts between siliceous and carbonate lithologies. Geochemical enrichment in trace elements such as silver, arsenic, antimony, mercury, and thallium are common to nearly all trend deposits.

7.2 Deposit Geology & Mineralization

Mineralization is hosted within structures which crosscut all three Paleozoic rock sequences present in the mine area. The oldest of these three sequences is the Ordovician Valmy Formation, which is a part of the Roberts Mountain Allochthon.

In the mine area, the Valmy consists primarily of quartzite, with lesser amounts of chert, argillite, and minor basalt. The Valmy rocks are unconformably overlain by rocks of the Pennsylvanian Antler Sequence, which belong to the Battle and Edna Mountain Formations. The Edna Mountain Formation at Lone Tree is typified by a sandy siltstone unit grading downward into a lithic sandstone unit. The Battle Formation is observed as a poorly sorted cobble conglomerate of varying thickness. A thin calcareous sandstone tentatively identified as a lateral equivalent of the Antler Formation rocks present at the Marigold Mine has been encountered in drill holes on the southeastern margin of the mine area. Rocks of the Pennsylvanian-Permian Havallah sequence were thrust over the Antler Sequence rocks in the mine area during the Sonoma Orogeny. The Havallah Sequence at Lone Tree encompasses several rock types within at least three packages, but is dominated by siltstones, chert and basalts with lesser sandstones and conglomerates. Although gold mineralization is present in all three Paleozoic sequences, Antler Sequence rocks appear to have been preferentially mineralized within the structural zones. Alluvial cover over the deposit ranges from a minimum of two feet to a maximum in excess of 400 feet. Bedrock has been sharply down-dropped to the north and to the southeast by post-mineral faulting, creating alluvium-filled basins in excess of 1,000 feet deep. See Figure 6-3 for the local stratigraphic interpretation Mine (K.C Raabe, 1995. The Lone Tree Extension Project, Humboldt County, Nevada).

Figure 6-3: General Stratigraphic Sequence of Lone Tree



7.3 Controls of Mineralization

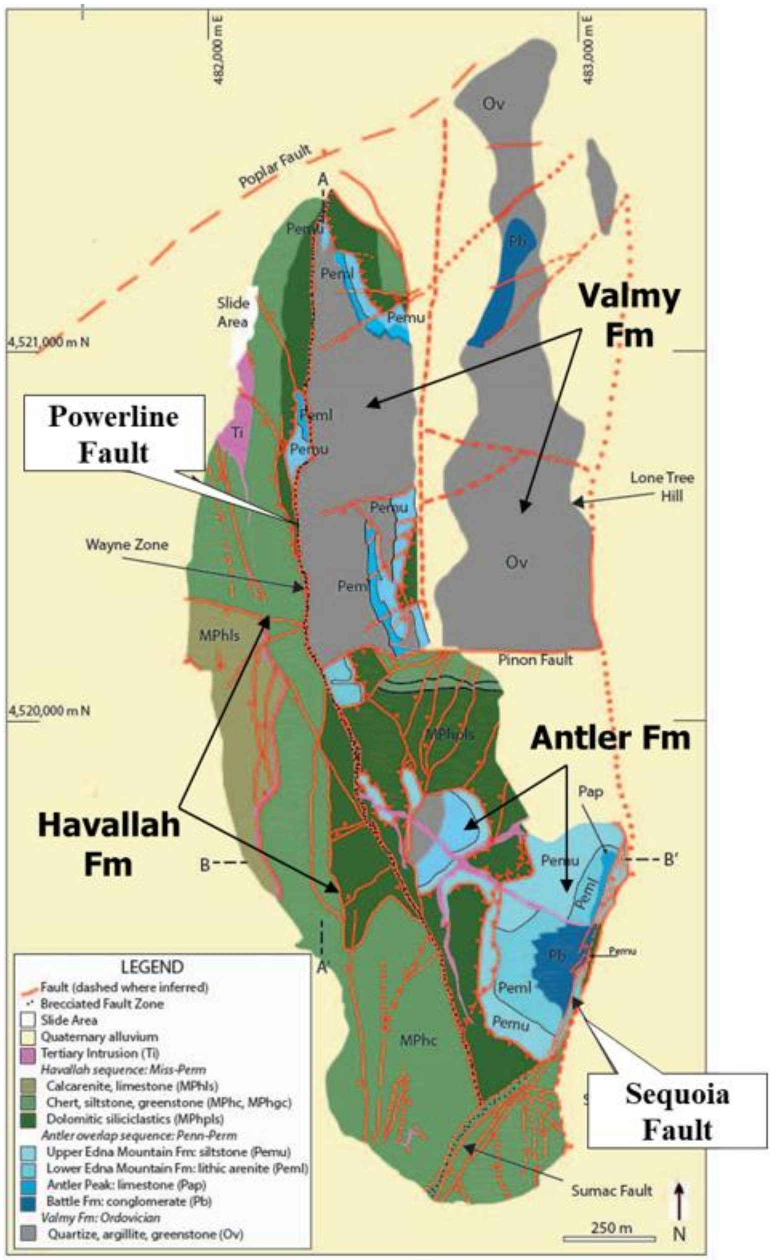
Gold mineralization at Lone Tree is primarily controlled by structure as seen in Figure 6-4. Three principal mineralized structural zones and at least one lesser zone is currently recognized. The three principal structural zones are known as the Wayne Zone, the Sequoia Zone, and the Antler High Zone. The most significant of the three major zones, in terms of known strike length as well as contained tons and ounces, is known as the

Wayne Zone. The Wayne Zone encompasses more than fifty percent of the contained tons and ounces within the overall deposit. The most widely recognized of the lesser zones is known as the Chaotic Zone, aptly named for the structural complexity associated with it.

The Wayne Zone has been described as a system of relatively narrow north-northwest and north-northeast trending faults forming an anastomosing complex of brittle shears enveloping rhomboid blocks of relatively competent but highly fractured domains of lesser strain (Bloomstein et al, 1992). With few exceptions, ore-grade mineralization does not extend along the north-northeast and north-northwest faults beyond the margins of the Wayne Zone. Detailed examination of blast hole data clearly demonstrates a "zig-zag" pattern of mineralization within the principal component structure of the Wayne Zone, known as the Powerline Fault. Higher gold grades within the Powerline Fault are commonly associated with the hanging wall and footwall margins of the fault, which averages 50 feet in width.

The Powerline fault zone is a North - South trending high angle fault zone, extends at least 2,500 m along strike. Mineralization is truncated to the north by the NE trending Poplar Fault. Mineralization in the Wayne Zone is hosted in all 3 rock packages (Valmy, Antler, Havallah) as breccia within the complex structure.

Figure 6-4: Controls of MIneralizaiton at the Lone Tree Deposit



The southern zones of mineralization (Sequoia, Antler High zones) are primarily hosted in the Edna Mtn. Fm. of the Antler sequence. This mineralization is a combination of structural (Sequoia Fault) and stratiform control. Gold is primarily hosted in arsenopyrite rather than arsenian pyrite found in most Carlin-type systems. Lone Tree has always been considered a horst block cored by the Valmy Fm. siliciclastic sediments with the Powerline Fault on west side and Sequoia Fault on east side being the main controls to mineralization (Figure 7-4).

Wayne Zone itself ranges in width from 150 to 300 feet. The Wayne Zone trends north-south, dips to the west at an average of 65 degrees and has a drill-defined strike length in excess of 9,000 feet. The northern half of the zone essentially bounds Lone Tree Hill on the west. Drilling has encountered Wayne Zone mineralization down dip nearly 1,000 feet from the original ground surface; sub-economic mineralization remains open below this depth.

The Sequoia Zone is located to the southeast of Lone Tree Hill, and essentially describes the southeastern margin of the deposit. The structural fabric of the Sequoia Zone is quite similar to that of the Wayne Zone, with some important differences. The known strike length of the Sequoia Zone is 2,000 feet, significantly less than that of the Wayne Zone.

The overall dip of the Sequoia Zone is 75 degrees, as opposed to the 65 degrees of the Wayne Zone. Post-mineral faulting has displaced or cut out mineralization within the Sequoia Zone and has had a significant effect on the continuity of mineralization, both down-dip and along strike.

The Antler High Zone is located within a horst block of Antler sequence rocks between the Wayne Zone and Sequoia Zone and is limited to the southern third of the deposit. The Antler High mineralization is primarily developed within rocks of the Edna Mountain, Battle, and underlying Valmy Formations, and commonly appears parallel or sub-parallel to bedding. Evidence suggests that the Antler High gold mineralization is hosted within a dense network of very narrow fractures similar to a stockwork. Several high-angle mineralized structures are known to cut through the Antler High and may have served as feeder structures. The trends and dip angles of these latter structures are sub-parallel to those of the Wayne Zone and Sequoia Zone. Along the northern margin of the Antler High, several of these structures trend upward through the Golconda thrust and into the overlying highly siliceous Havallah rocks. The combination of these specific high-angle structures and local, lower-angle mineralized structures is known as the Chaotic Zone. In addition to the high-angle structural control in the Antler High, a low-angle (45 degrees east) west-vergent compressional feature known as the Redwood Fault controls a substantial portion of the mineralization in that zone. The Redwood Fault effectively doubles the thickness of the Edna Mountain host rocks within the Antler High.

Mineralization is hosted both within the fault plane itself, and within the highly shattered rocks of the adjacent hanging wall block. The age of the Redwood Fault is not known, but certain evidence suggests that it pre-dates the Sonoma Orogeny.

Mineralized structures have been identified in the hanging wall of the Wayne Zone, and within the footwall of both the Wayne Zone and the Sequoia Zone. Many structures controlling gold mineralization are moderate to high angle, west- or east-dipping normal faults or fractures. Some lower-angle mineralized structures, which are thought to have been re-activated during extension, have been noted. As within the Wayne Zone, mineralization most often occurs at the intersection of NNW and NNE-trending faults of varying dip angles. Strike-slip or oblique-slip motion has been noted on some structures, although kinematic indicators are essentially non-existent in the highly silicified, brittle rocks of the Edna Mountain Formation, or in the Valmy quartzite.

A principal characteristic of the Lone Tree deposit is the spatial coincidence of several structurally controlled episodes of mineralization. Hydrothermal breccias, with as much as 25% matrix expansion, host a significant portion of the gold mineralization. High grade ore occurs at fault or fracture intersections, or at jogs in the faults, which form dilatant zones.

Silicified, multiple phase breccias have been noted along the margins of the principle mineralized zones. These appear to be early, and in general, are lower in grade. Later tectonic breccias have been superposed on the hydrothermal breccias. The most recent structures tend to be milled-breccia post-mineral faults and shears, which often possess >50% clay gouge, and display a crude lamination produced by streaks of iron oxide, pyrite, or angular clasts. Reactivation of high-angle faults is demonstrated by barren, vuggy silica-cemented structures overprinting similarly oriented mineralized zones.

Mineralization is also known to occur in crackle breccias within the more brittle rocks of the Edna Mountain and Valmy Formations, which are crosscut by the Wayne Zone. Zones of intense micro-fracturing noted in the highly silicified Edna Mountain rocks are the closest approximation to "classical" disseminated mineralization yet noted at Lone Tree.

Numerous cross-structures have been identified at Lone Tree. Significant gold mineralization has not been observed in association with any of these structures. The Wayne Zone is cut on the north by a major northeast-trending fault zone known as the Poplar Fault zone. While the Wayne Zone as a structural zone does not appear to be terminated by the Poplar Fault zone, down drop of the bedrock surface, thinning of the mineralized faults, and decreased grade all currently limit the economic potential of the Wayne Zone north of the Poplar. Other northeast-trending faults, such as the Willow Fault in Section 11, have significant effects on the mineralization even though they do not offset the Wayne Zone.

A west-northwest-trending zone of southerly dipping normal faults known as the Pinon Fault zone truncates Lone Tree Hill to the south and is associated with a change in the strike direction of the Wayne Zone at that location. At the extreme southern end of the known mineralization, the Wayne Zone and Sequoia Fault converge. Drilling has identified at least one major northeast-trending structural zone in this area which appears to have some effect on mineralization.

As a result of the fact that the Lone Tree deposit occurs at the margin of a bedrock block essentially surrounded by alluvium, the relationship of the deposit to regional structure is not well understood. It has been speculated that the deposit may have formed in response to strike-slip and normal faulting related to regional wrench faulting. An alternate hypothesis suggests that the faults which control and host mineralization at Lone Tree may be dominantly extensional in nature, with little relationship to strike-slip and wrench faults. The age of the mineralization and of the faults is not known, although it is clear that numerous episodes of fault movement have occurred at the Lone Tree Mine (K. C. Raabe, personal communication, 1995).

7.4 Alteration

The principal alteration process associated with gold mineralization at Lone Tree is potassic alteration (Bloomstein et al, 1992). Other alteration types noted in the mine area are argillization, silicification, propylitization, and skarnification. A general progression from oxidized argillic alteration in the Havallah sediments down into unoxidized argillization, silicification and potassic alteration in the Antler and Valmy rocks has been noted. Alteration assemblages are commonly mixed within the fault zones as a result of the structural control of mineralization. Pervasive pre-mineral silicification is common in portions of the Havallah Sequence, and throughout most of the Antler Sequence rocks at Lone Tree Mine (K.C Raabe, 1995. The Lone Tree Extension Project, Humboldt County, Nevada).

7.5 Gold Mineralogy

Gold mineralization occurs as sub-micron sized inclusions within a distinct generation of very fine-grained pyrite and arsenopyrite in the sulfide zone. Evidence gathered to date suggests that the main gold deposition event occurred in a temperature range of 200^{o} to 450^{o} (epithermal to mesothermal). The ore mineralogy shows evidence of two overprinted assemblages reflecting at least two hydrothermal episodes at Lone Tree. Partial oxidation of the main stage mineralization occurred prior to a later, epithermal event characterized by open-space filling textures and weakly auriferous pyrite and marcasite. In the oxidized portions of the deposit, and particularly in the Havallah rocks, gold occurs as micron-sized particles in goethite and limonite. Post-mineral oxidation extends as much as 700 feet down major structures such as the Wayne Zone. No supergene effects or gold remobilization have been proven or documented at the Lone Tree Mine (K.C. Raabe, 1995. The Lone Tree Extension Project, Humboldt County, Nevada).

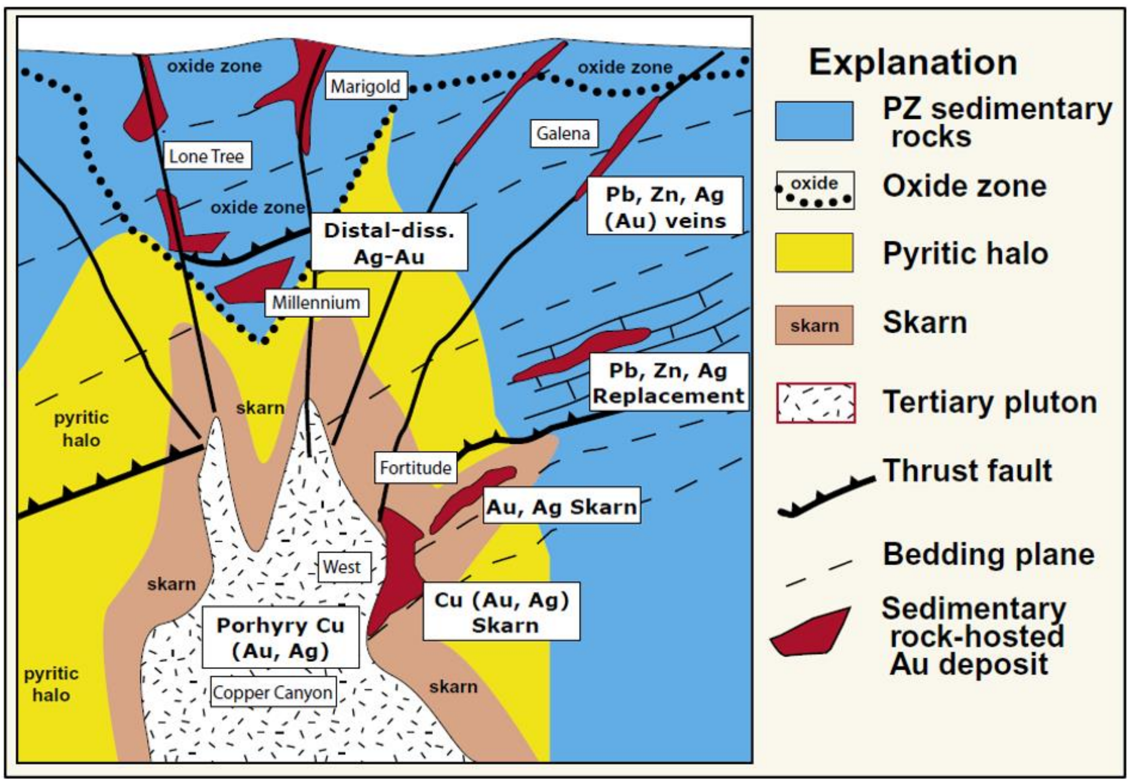
8. DEPOSIT TYPES

The Lone Tree deposit is characterized as a pluton-related or distal-disseminated Ag- Au deposit as shown in Figure 8-1. More details are found in Wallace et al., 2004.

As discussed by Peters et al. (in Wallace et al. 2004) the Lone Tree deposit among others in the Battle Mountain district appears to be related genetically to porphyry systems, even though many deposits do not contain obvious near-surface features that would indicate this connection, mainly because the gold-silver mineralization in these deposits may be over one km away from the causative intrusions. This is why the deposit has been characterized as both “distal disseminated” (to intrusive center). Due to complex tectonic and extension in the region, the mineralization in these deposit types may have substantially different geometric relations to the intrusive centers and hosted in different stratigraphic horizons as shown in the figure 8-1. The mineralization at Lone Tree occurs in intensely fractured three stratigraphic horizons which is similar in other deposits in the region; however, it is not the same in all deposits.

Gold is associated with low Ag:Au (<2:1), As, Sb, Hg and Tl as well as elevated Bi, Mo and W. Gold is hosted in arsenopyrite indicating higher temperatures of ore formation in comparison to typical Carlin-type deposits where gold is hosted in arsenian pyrite.

Figure 8-1: Digrammatic Model of Geologic Setting of Distal-Disseminated Ag-Au Deposits and Associated Deposits in the HRB. Adapted from Sawkins (1984), Sillitoe and Bonham (1990), and Theodore (2000). Source: Wallace et al., 2004.



9. EXPLORATION

9.1 Exploration History

The exploration history of the Lone Tree deposit is documented by Bloomstein et al. 1993. Part of this section is extracted from this publication. Prospecting around Lone Tree Hill is believed to have started in the middle 1860's when the construction of the Central Pacific portion of the Transcontinental Railroad started about 3 kilometers northeast of Lone Tree. Sporadic exploration activities continued for copper and gold without much success until Duval Corp and Bear Creek explored the area in 1960's and 1970's for porphyry copper. These exploration activities aided in the discovery of low-grade gold mineralization in the area.

Exploration activities in the 1980s by Nerco, Freeport and several Canadian junior companies yielded intercepts of narrow, fracture filled gold mineralization. In 1989 Cordex Exploration and Santa Fe Mining formed a joint venture for exploration of the Lone Tree deposit resulting in a discovery of substantial gold mineralization about 1 km from Lone Tree Hill. Subsequently, 12 additional holes were drilled and a north-south fault system controlling mineralization was discovered. The first gold was poured in 1991.

Later, Newmont acquired the deposit from Santa Fe Pacific Gold through a merger and began operations in 1991. Newmont completed mining operations in 2006. Residual leaching and ongoing reclamation activities continued until 2007. In July 2019 the non-operating Lone Tree project became part of Nevada Gold Mines, a joint venture between Barrick and Newmont.

GeoGlobal is aware that various exploration activities were completed in this area.

9.2 Recent Exploration Drilling

In 2020, a drill-hole (LTE-20001) was drilled on the West side of the mine which tested for the existence of the Comus Formation below the Lone Tree Mine. The Comus Formation is significant because it is the host rock for the Turquoise Ridge, Twin Creeks, and Granite Creek Mines. The drill hole intercept is shown in the Figure 9-1. Four zones of mineralization were encountered:

i. Upper zone of 10.7m @ 4.49 g/t above a QFP dike on the contact of the Havallah Fm. and Edna Mtn Fm. The Upper zones of mineralization are consistent with stratiform mineralization identified in wide spaced drilling through the hanging wall to the Powerline Fault; this zone is open in three directions

ii. Zone along the contact of Edna sandstone and Valmy quartzite (7.6m @ 6.04 g/t including 1.5m @ 13.5 g/t)

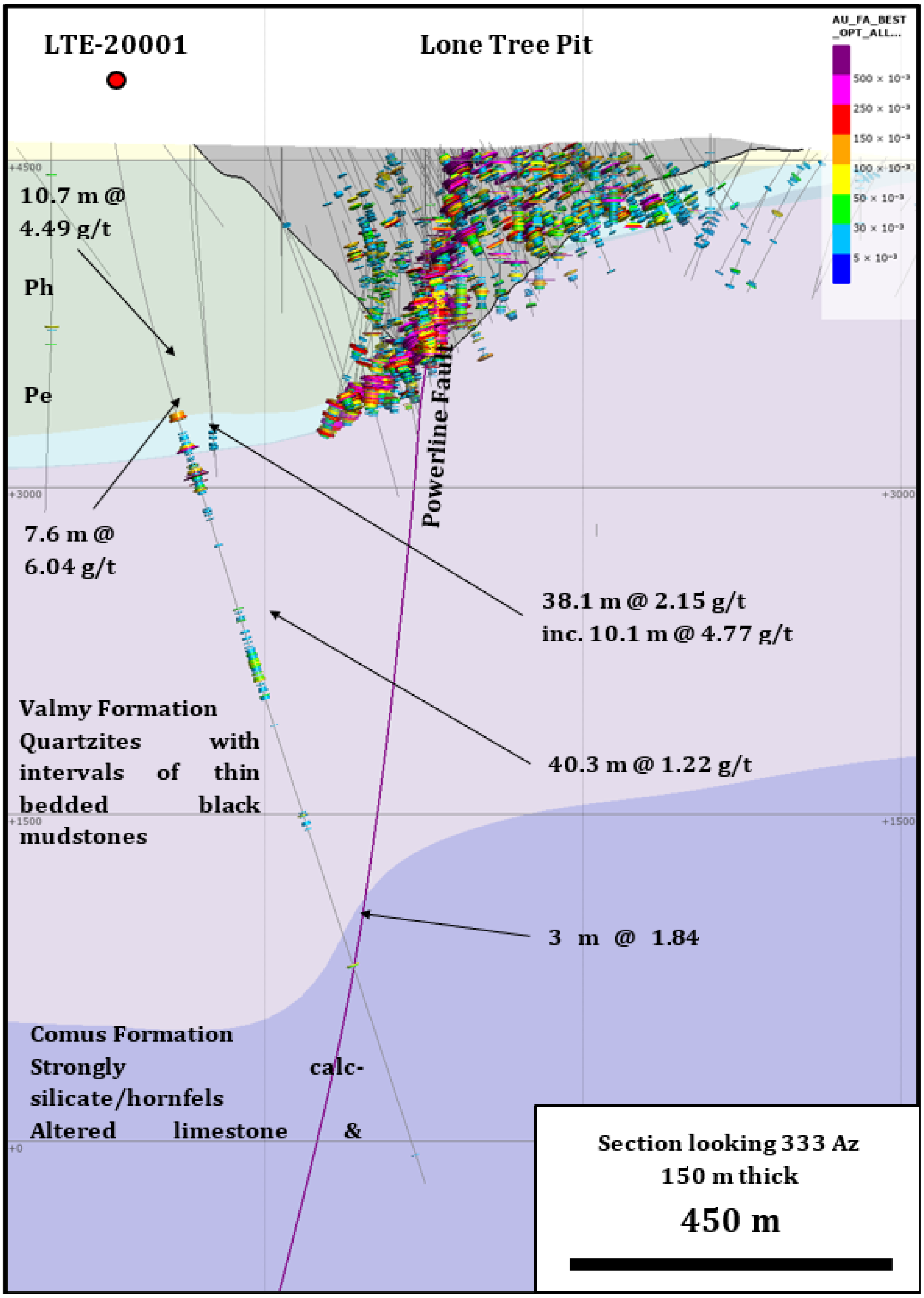
iii. Zone of sulfide breccia in Valmy quartzite (38.1m @ 2.15 g/t w/ grades up to 18.95 g/t Au)

iv. Lower zone of mineralization hosted within a QFP dike with sooty pyrite on fractures and in the groundmass of the intrusive (40.3m @ 1.22 g/t)

The Lower Plate Ord. Comus Fm was intercepted at 1155 m (3790'). The Comus is characterized by strong calc-silicate hornfels intruded by fine grained diabase sills.

A narrow zone of mineralization was encountered down dip on the Powerline Fault in the Comus Fm. (3.0m @ 1.84 g/t). Additional drilling is warranted to vector from the strong calc-silicate alteration to intersect ore controlling structures in more reactive host rocks.

Figure 9-1: Exploration Drill Hole LTE-20001(Source: NGM, Lone Tree Exploration Review v2.pptx)



10. DRILLING

Between 1980 and 2015 a total of 1,904 drillholes, summarized in Table 10-1, were completed in and around the Lone Tree mine. For the purposes of this resource estimate only 1,840 of these drill holes are utilized.

Table 10-1: Summary of Drilling by Hole Type

Hole Type	Number Drill Holes	Total Footage
Unknown	241	197,561
CORE	108	66,263
CORE;RC	176	139,912
RC	1,379	865,613

10.1 Rotary Drilling

Historic drilling included rotary drilling starting in 1980. Samples were typically collected at the drill site after traversing through a rotary wet splitter attached to the return air hose. Most splitters allow for sample size changes by blocking some of the internal rotating vane chambers, thus causing sample material excess to be discarded. The normal sample interval is every five feet, with dry sample weights ranging from 5 to 20 pounds.

Rotary air samples are normally produced by either a down hole percussion hammer bit or a rotary tricone roller bit, with the sample traversing from the bit face up the annulus between the bit and sub or hammer assembly, then into an opening into the drill pipe ("interchange") center tube and then up to the surface. In the past ten years more use has been made of drill bits that direct the sample into the center tube through an opening in the drill bit face.

Typically, the sample bag (13" by 26" Tyvek 1680 series porous fabric) is clamped on the splitter outlet. Note that early (circa mid 1980's) rotary air sampling may have been accomplished in dry conditions using non-porous plastic bags.

Drilling technique for the last twelve years includes clearing the bottom of the hole after every rod change and before the next sample chips are collected and washing the splitter if any material is noted sticking to the sampling surfaces.

Some early rotary holes were drilled using the conventional air circulation method wherein the sample returned in the annulus between the drill pipe and rock.

Rotary mud drilling includes conventional water-based mud systems in which the sample chips return up the annulus between the drill string and the rock suspended in a 'mud' solution. At the surface, the liquid either runs through a settling trough, and the chips manually scooped out of the trough into bags or is directed over a vibrating screen which allows the fluid to fall drain off while the chips progress into a random vane stationary (‘pinball’) splitter and then into sample bags.

10.2 Reverse Circulation Drilling

The Lone Tree Complex followed a standard procedure for Reverse Circulation (RC) drilling executed by a responsible party.

1. Samples are collected by the drill contractors through a rotating splitter attached to the drill rig by the Drilling contractor
2. Samples are collected in five-foot intervals and chip trays are simultaneously filled for later geologic interpretation by the Drilling contractor
3. Nominal sample weight is between 8 and 12 pounds as collected by the Drilling contractor
4. Samples are collected in micro-pore bags to minimize loss of the fine fraction of sample. These bags are provided to the drill contractor by the Newmont drill services department. Bags are tagged with a bar code to track status and for ease of processing and marked with the hole number and sample footage interval for the lab and the project geologist by the Drilling contractor
5. Problems with sample contamination in the rotating splitter (cyclone) are minimized by the strict practice of cleaning the inside of the cyclone regularly by the Drilling contractor 29
6. All drilling problems, including lost circulation, poor sample recovery, high water flow is discussed with the project geologist and Drilling services and remedied, if possible, by the Drilling contractor
7. Samples are prepared for shipment to the assay lab by being placed in multi-sample bins by the Drilling contractor
8. The geologist consults historic data and elects an assay procedure that is appropriate for the style of mineralization (e.g., whether there is a coarse gold issue or “nugget”, and what is the nature of the gold mineralization and gold digestion techniques) by the Lone Tree Complex Geology
9. The geologist completes the sample submittal with all necessary analytical requests, assay packages and submitted quality-check standards (blanks) by the Lone Tree Complex geology
10. The geologist notifies the accredited assay lab to request a sample pick-up
11. Assay results are relayed to the database department and to the project geologist upon completion
12. Sample pulps and coarse rejects are temporarily stored at the assay lab and then returned for storage at the Twin Creeks warehouse or the Winnemucca hangar-Independent assay lab by Newmont drill services

13. Significant drill intercepts or intercepts that appear anomalously low are often reanalyzed at a different lab as a quality control and verification measure as determined by Lone Tree Complex Geology
14. Hard copies of the assay results are filed with the completed geology log for the respective hole in the geology logging facility at the Lone Tree offices by the Lone Tree Complex geology
15. Assay data are computerized and available for extraction by Database management

10.3 Core Drilling

The following procedure pertains to core drilling and sampling at the Lone Tree Complex.

1. Core is cut by the contractor by a diamond bit in 5 to 10-foot runs. The standard diameter for exploration drilling is HQ, 2 ¾-inch diameter
2. Samples are laid in boxes containing approximately 10-foot capacities by the drilling contractor
3. Records are maintained concerning core recovery, run length, core loss, rig time and hole conditioning and drilling contractor
4. Blocks are placed in the boxes which mark the end of a core run and record the length of the run and the length of the core recovered by the Drilling contractor
5. All drilling problems, including lost circulation, poor sample recovery, high water flow is discussed with the project geologist and Drilling services and remedied, if possible, by the Drilling contractor
6. Any core loss is treated as serious and the proper remedies including fluid modification are implemented by the contractors and the drill services representative by the Drilling contractor and Newmont drill services
7. Boxes are stacked when filled and taken by geology to the logging facility by Lone Tree Complex geology
8. Core is washed (minimally) and logged for detailed geologic interpretation. Geotechnical logging is done at the same time as the geology. Core loss is noted on the log by Lone Tree Complex geology
9. Sample intervals are marked out in the boxes with aluminum tags for later core cutting/sampling. Sample breaks are based on the geologist's interpretation and lithology/structure/alteration contacts. In general samples in homogenous intervals are nominally 5 feet in length by Lone Tree Complex geology
10. The geologist consults historic data and elects an assay procedure that is appropriate for the style of mineralization (e.g., whether there is a coarse gold issue or "nugget", and what is the nature of the gold mineralization and gold digestion techniques) by Lone Tree Complex Geology

11. The geologist completes the sample submittal with all necessary analytical requests, assay packages and submitted quality-check standards (blanks) by Lone Tree Complex geology
12. Core is picked up by the drill services group and taken to Twin Creeks Mine for cutting and shipment to the assay lab. It is standard procedure to saw the core in half lengthwise and send half to the accredited assay lab and store half in the Twin Creeks warehouse. The geologist can request that the core be cut down a specific "cut line" marked and denoted on the piece of core but this is rare. Whole core (as in the 2003 program) has been sent for assay without cutting in areas where sample integrity must be ensured by Drill services
13. Metallurgical/petrographic/geochemical/density testing may occur at this stage depending on the maturity of the project by Lone Tree Complex geology, One Tree Process
14. Remaining half of core is stored in the Twin Creeks warehouse or company-rented hangar in Winnemucca by Drill services
15. Sample pulps and coarse rejects are temporarily stored at the assay lab and then returned for storage at the Twin Creeks warehouse or the Winnemucca hangar by Drill services
16. Assay results are relayed to the project geologist and the database manager, and a hard copy of the results are filed with the geologic log in the geology logging facilities at the Lone Tree offices by Lone Tree Complex geology
17. Significant drill intercepts or intercepts that appear anomalously low may are often reanalyzed at a different lab as a quality control and verification measure by Lone Tree Complex Geology and Independent assay lab
18. Assay data are computerized and available for extraction and geologic modeling-Database management, Lone Tree Complex geology by Proceed to Data Quality Control and Validation Flowsheet

Once core was collected, the footage blocks and cut list were checked for accuracy. The core was then laid out, washed, and logged for lithology, formation, alteration, mineralization, and structural measurements on a standardized Lone Tree Complex log form. Samples were then selected based on geologic changes or approximately every 5 feet in geologically homogenous rock. Samples were marked with aluminum tags. Core was then photographed and processed.

10.4 Collar Surveys/Locations

Collar grid coordinates have been determined by optical surveys (1960's through late 1980's), field estimates, Brunton compass and pacing, compass, and string distance, and most recently the use of laser survey or global positioning system measurements. Modern hole locations were transferred electronically to the database and loaded using automated data programs. Hole locations were field checked by Geologists and support staff, plotted on maps, and visually checked for reasonableness in the database.

Drills were oriented on site using a fore and back sight set of survey stakes. Normally these stakes are placed by the Geologist using a compass to determine orientation.

Prior to a Preliminary Economic Assessment work is required to better understand the quality and completeness of the drill hole database.

10.5 Down-Hole Surveys

Determination of the hole trace has been accomplished historically by projection of the initial collar orientation, using a down-hole single-shot or multi-shot film camera.

Most recent downhole survey practice includes the use of gyroscopic surveys, the results of which are automatically loaded to the drillhole database using a direct import function. Gyroscopic surveys are normally reported at 25-foot intervals. Readings are taken with reference to true north (adjustments for declination are made on-site). Magnetic interference is not generally a problem for most of the drill sites in Nevada. Care is taken to reduce the effects of nearby metal objects when compasses are used for survey tool orientation.

Standard procedure at Lone Tree was to perform a downhole survey on all holes greater than 300 feet in length. In some cases (e.g., important angle holes) shorter holes are surveyed as well. An independent contractor performs the survey. The azimuth of the drilled hole is determined using a correction from magnetic north to true north with a standard Brunton pocket transit/compass. The angle correction used for 2003 was 14.5 degrees west of magnetic north as read on the compass. This correction was standard for the contractors and the geologist lining up the drill rig. The downhole survey is done by lowering a gyro through the intact drilling steel and measuring the deviation of the original angle and the variance of the original azimuth. The survey data was recorded, and the geologist received a hard (paper) copy immediately after the survey. An electronic copy of the data was sent to Newmont data input managers for inclusion in the database. Possible errors were screened by the geologist and the database managers at this stage before the data become final.

11. SAMPLE PREPARATION, SECURITY, AND ANALYSES

11.1 Sampling

Sampling methodology and security are discussed in Section 10 as part of the drilling procedures practiced by Newmont Mining Company for RC and core drilling programs.

11.2 Sample Preparation and Analysis

Exploration drill holes were assayed at a variety of accredited laboratories throughout the life of the Lone Tree Mine. The most commonly used labs include the internal company labs of Newmont, Santa Fe, and Battle Mountain. Chemex (now “ALS Chemex”).

Sample preparation occurs at the analytical laboratories, and techniques vary depending upon laboratory and the type of analysis to be performed. Gold assays are commonly performed by two methods. The first is crushing the entire sample, pulverizing a sample split to minus 100 to 200 mesh, subjecting a 5 to 30 gram split of the pulp to acid or cyanide, and taking readings using an atomic absorption machine. The second method is to pulp the sample, add a lead litharge charge, and fire the sample in a furnace (“Fire assay”). The resulting metal bead containing gold is then dissolved in acid and analyzed.

In general fire assays with an atomic absorption or gravimetric finish were standard using 1-assay ton samples. Fire assay methods account for 99.97% of the ‘best assays’ reported in the NGM database. Multi-element ICP geochemical analyses were common but not run on every sample. All gold assay certificates, and geochemical reports were copied and filed with the geologic logs. These logs are available for review in the geology logging facilities at the Lone Tree offices.

Multi-elemental analysis contained in the source database includes ICP and wet geochemistry multi-element suites analyzed by commercial laboratories, consisting of several elements determined from one sample, and XRD/XRF semiquantitative X-ray determinations. Most X-ray analyses were accomplished in-house by the Newmont Metallurgical Services Department.

11.3 Data Security

Newmont implemented the use of an AcQuire database in 2002 to store all drilling related data including assays. The database is secured by Oracle permissions, user ODBC connections across a Novell Network, and user license permissions and is maintained by designated database managers.

The Newmont Laboratory at Gold Quarry was electronically connected to the acQuire database, and an automated process transfers data every two hours. Data from the Lone Tree lab (rare) is loaded via the acQuire data input forms.

Outside lab data, primarily from ALS Chemex, was loaded via an AcQuire direct import protocol. The import program also generates the quality control reports for standards and check samples. Data was normally downloaded from a secure ALS Chemex web site. Access to the site was restricted to three Newmont Nevada employees via a username/password scheme. The ALS Chemex internal QA samples and results are available to Newmont Data staff. Regular audits were conducted by ALS Chemex at the request of Newmont.

Survey data was loaded via emailed survey certificates. Sample intervals are electronically created via an automated form at the Newmont sample prep facilities. These intervals update the acQuire Sample table, and contain the sample ID, footages, and sample types. Collar creation is accomplished via form inputs. Collar creation for surface holes is restricted to data staff. The coordinates and depths are left blank until an (normally) electronic survey is sent via email or placed on the network. Depths are taken from the Geologists email, the Drill cost report, from the last assay interval, or driller's logs.

Because of the loss of paper copies due to rodent infestation in the storage facility, starting in 2005 the certificates from Chemex have been sent in the form of non-editable, digitally signed, PDF files. These are archived on the network. No certificates are, or have ever been, available from the internal Newmont labs, nor is QA data generally shared.

Data extractions are accomplished either using the acQuire software interface, or by use of an in-house program. Extractions are normally done by one of the two database administrators.

11.4 QAQC Procedures

Internal check assays are performed at all labs.

Pulps are retained for all assays where pulps are returned by the lab. Either pulps or coarse rejects can be re-assayed.

11.4.1 Standards

A combination of in-house Standard Reference Material (SRM) and commercially prepared SRM's were used to control assay accuracy. In-house SRMs have been developed over many years, mainly from gold deposits on the Carlin Trend. Commercial

SRMs were obtained from Geostats Pty Ltd in Australia. SRMs represent all grade bins; very high-grade, high-grade, medium-grade, and low-grade gold, in oxide and refractory mineralization. Values have been established for the in-house SRMs for gold assays only, using round robin analysis. Earlier Standard reference materials (SRMs) were submitted at a nominal frequency of one every 60 metres (200 feet), or one SRM for every 40 samples.

11.4.2 Blanks

Generally, for RC drilling, blanks are inserted at intervals of 15 meters (50 ft) and multiples of 15 meters (50 ft). For core drilling samples, blanks inserted at nominal 60 metres (200 feet) intervals. This results in a frequency of SRM insertion of between 2% to 5%. The actual rate of insertion depends on the time period.

11.4.3 Check Samples

Approximately 5% of the total material is dispatched to umpire laboratories as part of the check assay program. Typical checks will be on pulps and coarse reject samples to test the analytical processes and preparation procedure, respectively. Overall, each sample batch submitted for analysis will contain between three to seven check samples.

The Lone Tree operation used the on-site laboratory facility which is currently being used by NGM.

12. DATA VERIFICATION

A site visit of the QP was arranged on July 7th and 8th 2021. Dr Abani Samal, QP on this report was assisted by the technical staff of i-80 Gold and NGM. The purpose of the site visit was to independently verify the geology, and the data provided by NGM. During the site visit the following tasks were completed.

- **Geological control of mineralization:** With the cooperation and assistance of the technical staff of the NGM, an onsite review of the geological controls of mineralization was reviewed. The site visit helped in better understanding of mineralization preferentially hosted in certain rock types (Antler formation) and controlled by the Powerline fault system.

The geology description matches with the field observations.

- **Drill-hole locations:** Location of drill holes were physically verified. The location of the most recent drill hole (LTE-20001) was located as seen in the Figure 12-1. The LTE-2001 is the latest drill hole drilled in the year 2000. This hole is important for i-80 for planning future exploration and potential expansion of mineral resources of the Lone Tree deposit.

Figure 12-1: Location of LTE-20003 on the West Side of the Lone Tree Pit

Additionally, existence of other drill holes in the Sequoia zone were also verified. The hole locations are preserved with a wooden stick and an aluminum plate (Figure 12-2). The NGM staff informed that the numbers shown on the aluminum plate are not the actual drill-hole number; rather a reference number that links to the drill-hole numbers.

Location of the LTE-2001 hole was cross-checked with the collar data and found to be accurate.

Exploration holes were drilled over time while Lone Tree mine was being developed and mining was progressing. This makes it impossible to cross-check the actual locations of the drill-holes inside the current pit limit.

- **Verification of drill-core logs**: The NGM staff arranged the drill-cores for independent verification of mineralization on certain core intercepts at the core-processing center at their Battle Mountain location. The drill core processing and logging facility was well equipped with core cutting tools (Figure 12-3) and logging tables. The core-logs were well prepared and available for verification. Half of the mineralized portion of the drill-cores were sent to the laboratory for assay. The remaining half of the core was well preserved in core trays as shown in the Figure 12-4.

Figure 12-2: Location Tag of an Exploration Drill Hole in Sequoia Zone

Figure 12-3: Drill Core Cutting Tools Within the Core Shed, Battle Mountain, NV

Figure 12-4: An Example of a Mineralized Core Stored in a Core Box

Detailed discussions were held on the characteristics of mineralization and their textural features. The QP took pictures of core boxes and some core-logs, and a drill-core log as an example of the detailed logging procedures. It was noted that the processes followed today have been consistent throughout life of the Lone Tree deposit.

- **On site QA/QC procedure review:** The QP was given access to the core-processing facilities and review of the available document on the QA/QC procedures. The onsite exploration QA/QC procedures were reviewed and discussed during meetings held on July 7th and 8th at the Battle Mountain core logging facility. Pulps and rejects of some drill holes were also located in this facility.
- **Database review:** NGM provided the drill hole data prior to the site visit via an electronic cloud-based data-room facility. The drill hole data was organized in multiple Excel files. Dr Samal compiled the data using Vulcan software. A total of 1839 drill hole data were selected for independent assessment of mineral resource. Using Vulcan software, drill hole data were checked for errors.

No errors in the drill-hole database were found. Nott all holes had lithology logs, which is not a significant issue to have impact on mineral resource estimates.

The processes followed for drill-core collection, storage, sample preparation is well documented in the form of standard operational procedures. The procedures meet CIM's best practice guidelines for exploration data, which adds to the reliability of the geological interpretation and assay data.

- **Bias Study:** A bias study conducted by NGM (then Newmont) compared the exploration data above and below the water table: rotary vs. core, rotary vs. blast holes and core vs. blast holes. The study found bias between rotary hole samples below the water table and core or blast holes. However, as the mine deepens the proportion of core to rotary composites increases making it unnecessary to correct for the defined bias. No bias adjustments were used in the resource model (Zacarias, 2006).

12.1 Comments of the QP

The data and information available for the Lone Tree deposit was reviewed by the QP responsible for independent assessment of mineral resources below the current pit. These include the topographic data, the drill hole data, the geological interpretation data, the density data, and documents in support of the processes and procedures followed for collection, compilation, storage, security, and quality control. As discussed above, the review concluded that the processes followed for maintaining the quality of the data meets the best practices guidelines as outlined by CIM. The data are adequate for the use in undertaking a mineral resource estimate. The data provided by NGM is suitable to be used as the basis of a mineral resource estimate that can be used in future studies on Lone Tree.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

Contents of this section are reproduced from the 2005 Resource report published in 2006 (Refer: Zacaria, 2006). A brief description of the processing facilities at Lone Tree Complex is provide in this section. The descriptions are not meant to be definitive or inclusive of all steps unique to a given process.

13.1 Oxide Heap Leach

Used for lower grade oxide ore that contains economically recoverable gold value when processing costs are sufficiently reduced. Heap leach refers to the process of mounding large volumes of low-grade ore in layers, until ultimate height is reached and leaching terminated. The lixiviant is applied to each layer in succession for gold recovery. Leaching ceases when the gold recovery drops below a pre-determined threshold. At this stage the Heap leach is closed and reclaimed. The basic steps are:

i. Run-of-mine ore placement on a prepared surface.

ii. Gold dissolution occurs by using a weak sodium cyanide solutions as the lixiviant, dripped or sprinkled on the surface of the ore

iii. Solution is recovered through activated carbon columns (CIC) through the leach pad drain system.

iv. Removal of gold laden coconut carbon through pumps into carbon stripping systems, separating the gold into concentrated solutions to be recovered by electro-winning. Stripped carbon is returned to the CIC.

Gold recovery from heap leaching is a function of solution application and management, particle size distribution, time, and mineralogy. Cyanide leach kinetics in heaps is most strongly affected by ore characteristics.

Lone Tree Complex has 3 active heap leach pads, North Peak at the Valmy mine site and Phase I-IV and Phase VVI, both located at Lone Tree.

13.2 Oxide Milling

Oxide ore types with grade high enough to economically support the costs associated with grinding and leaching processes other than heap leach, are milled. The basic steps are:

i. Grinding through SAG/ball mill systems reducing the particle size, becoming slurry with water.
ii. Carbon-in-leach (CIL) process utilizing sodium cyanide as the lixiviant, and air sparging, to dissolve gold from the solid phase to an ion in the liquid phase, and coconut carbon as the adsorption agent.
iii. Ionic gold adsorbs on the surface of coconut carbon.
iv. Removal of gold laden coconut carbon through screens into carbon stripping systems, separating the gold into concentrated solutions to be recovered by electro-winning. Coconut carbon is returned to the CIL.

Oxide milling and oxide leaching have some similar process limitations. Both processes are first order kinetics; dissolution rate is chemically dependent on the concentration of cyanide and oxygen. In addition, recovery is affected by particle size distribution, and ore mineralogy. This is where the similarities end. The number and size of tanks, slurry density, and screen size opening, limit milling process time. Temperature, mixing efficiency, pH control, slurry viscosity, effect oxide mill recoveries in varying degrees, depending on the process.

13.3 Flotation

Lone Tree Complex has a nitrogen sparged flotation system designed to provide concentrate products for roasting and autoclaving facilities. The basic flotation steps are:

i. Crushing and grinding
ii. Adjustment of pH as required.
iii. Conditioning the slurry using collectors and activators to prevent oxidation of the sulfide mineral surfaces and create hydrophobic conditions.
iv. Frothing chemicals and either air or nitrogen added to the flotation cells creating a liquid/gas interface for the hydrophobic particle to cling to, bubbles. The minerals attached to the bubbles at the interface are called “concentrate”.
v. Residual gangue minerals contain sufficient gold for recovery by conventional CIL processing.
vi. The concentrate is filtered and processed through a separate oxidizing facility such a roaster or an autoclave

Flotation processes are chosen when gold has strong associations with sulfide minerals such as pyrite, pyrrhotite, and arsenopyrite. The flotation concentrate produced is a gold-bearing sulfide material or intermediate product that then must undergo oxidation by roasting or autoclaving, followed by leaching and refining to recover the gold.

13.4 Autoclave

Lone Tree utilized a single partial oxidation autoclave capable of processing up to 130 tph. The autoclave process uses heat, pressure, and oxygen to oxidize sulfide minerals prior to cyanidation. The basic steps are:

i. Crushing and grinding
ii. Adjustment of pH as required.
iii. Introduction of heat by two-stage process.
iv. Introduction of oxygen under pressure.
v. Conversion of sulfide minerals to sulfuric acid, elemental sulfur, and various ionic species.
vi. Re-adjustment of pH using lime to levels capable of keeping sodium cyanide in solution.
vii. Carbon-in-leach (CIL) process utilizing sodium cyanide as the lixiviant, and air sparging, to dissolve gold from the solid phase to an ion in the liquid phase, and coconut carbon as the adsorption agent.
viii. Ionic gold adsorbs on the surface of coconut carbon.
ix. Removal of gold laden coconut carbon through screens into carbon stripping systems, separating the gold into concentrated solutions to be recovered by electro-winning.
x. Coconut carbon is returned to the CIL.

13.5 Gold Recoveries

The gold recovery data presented in Table 13-1: *2004 Recoveries by Material Type for the Lone Tree Complex, Zakaria, 2006*.

Table 13-1: The Gold Recovery at Lone Tree Project.

Process	Source/Type	Au Recovery
Lone Tree Mill	Lone Tree Oxide	89.00%
Lone Tree Mill	Mule Canyon Oxide	N/A
Lone Tree Mill	Autoclave Lone Tree Sulfide	94.90%
Lone Tree Mill	Autoclave Concentrate	93.90%
Lone Tree Mill	Autoclave Post	93.90%
Lone Tree Mill	Autoclave Mule Canyon	96%
Lone Tree Mill	Autoclave Chukar	92.90%
N2 Flotation	Lone Tree Flotation	83.70%
N2 Flotation	Mule Canyon Flotation	82.20%
Lone Tree Heap Leach	Lone Tree Oxide Heap Leach	67.30%
Lone Tree Heap Leach	Lone Tree Sulfide Heap Leach	63.60%
Lone Tree Heap Leach	Mule Canyon HeapLeach	N/A
Trenton Canyon Heap Leach	Trenton	71.80%
Trenton Canyon Heap Leach	North Peak	71.80%
Trenton Canyon Heap Leach	Valmy	71.80%
Reona Heap Leach	BMG	31.90%

14. MINERAL RESOURCE ESTIMATES

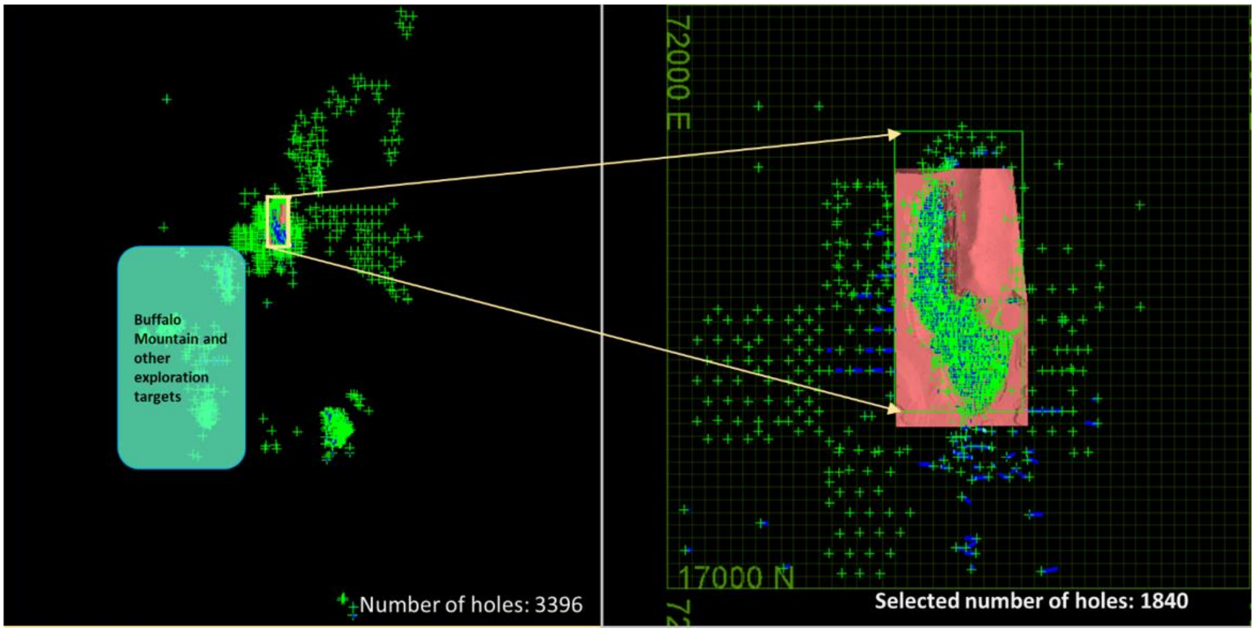
GeoGlobal was mandated to do an independent data analysis and estimate mineral resources of the Lone Tree deposit. Following data were available for use in the resource estimation process. Maptek's Vulcan Version 11.x and ISATIS® version 6 software tools were used for this purpose.

14.1 Datasets

14.1.1 Drillholes

The dataset contains 3,396 drillholes. This dataset includes holes from Lone Tree as well as Buffalo Mountain, Lynn, and Second Chance exploration properties. Drill holes close to Lone Tree were selected. This selection contains 1840 drill holes (Figure 14-1).

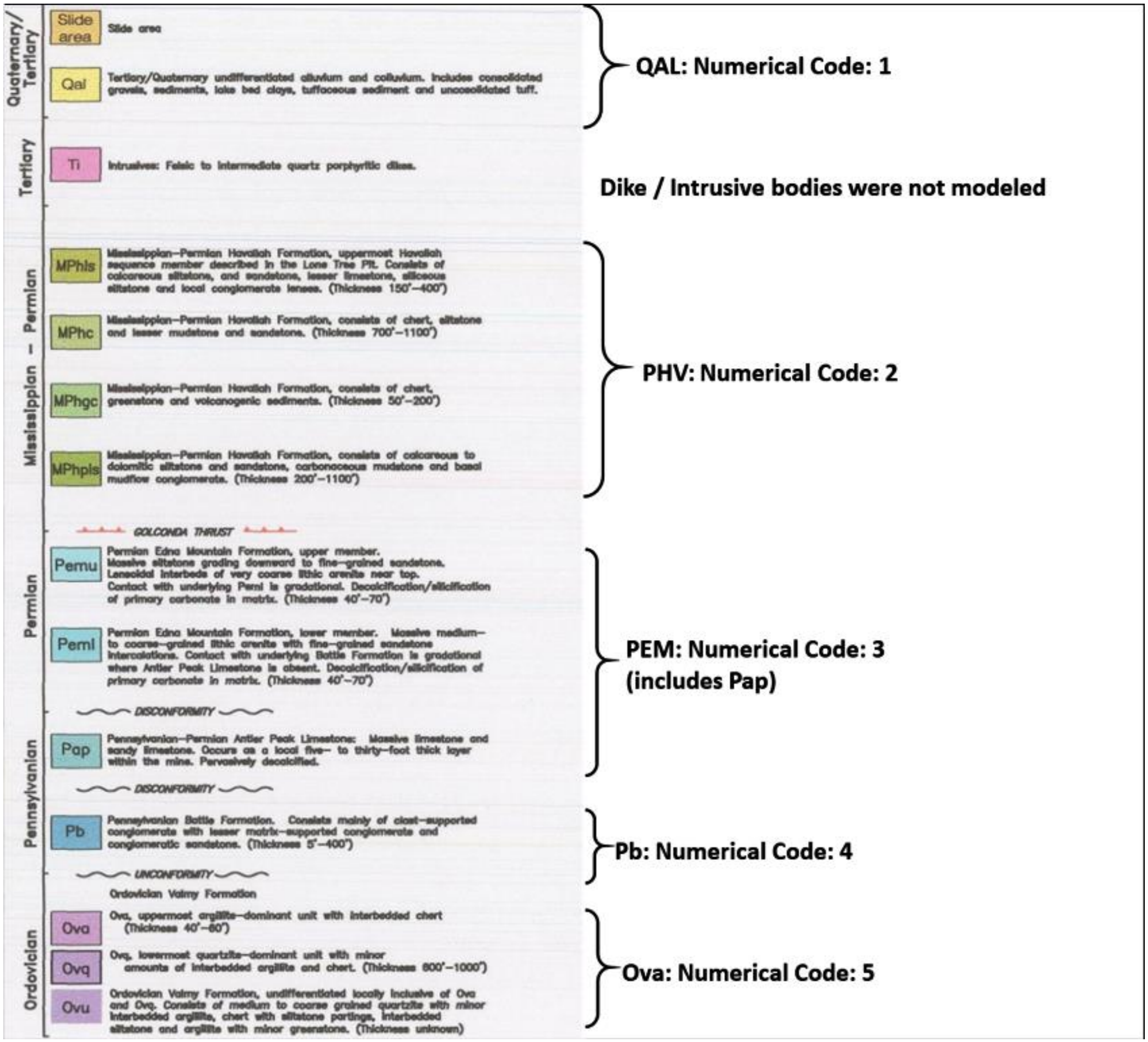
Figure 14-1: Drill Hole Data Distribution



14.1.2 Other Data Sets

- Triangulations representing topography including latest pit-outline and pre-mining topography.
- Three dimensional geological interpretations of rock types and interpretation of fault planes were created using Leapfrog software tool. During this process geological units were combined as shown in Figure 14-2 .
- A block model created using Newmont's in-house software TSS 3-dimensional modeling Geomodel software. Details are discussed later in this section of the report.

Figure 14-2: The Geological Codes Used In Creating Solid Model



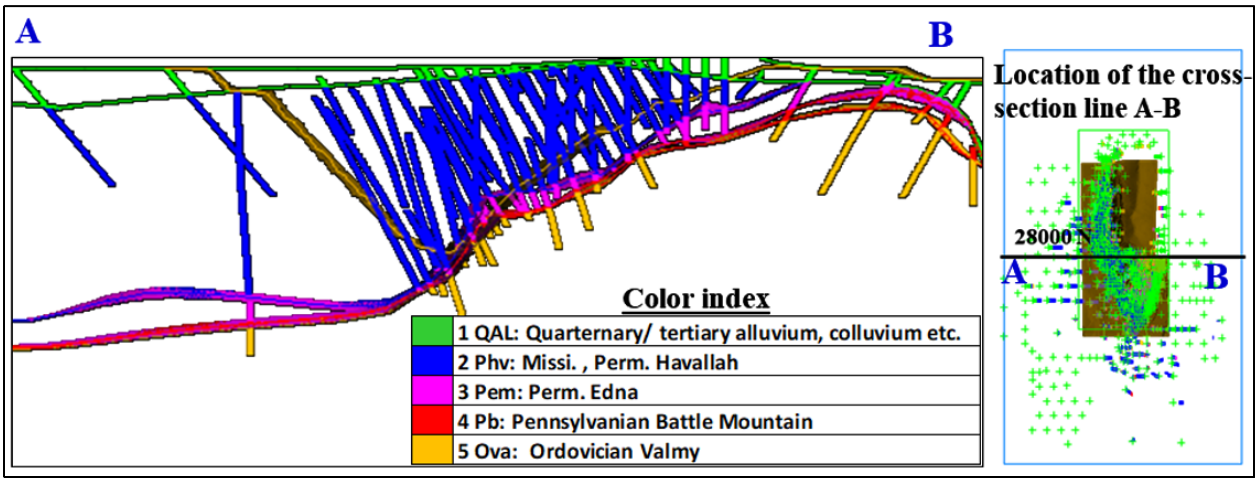
14.2 Geological interpretation and lithological models

As discussed in Section 7, the mineralization at Lone Tree is primarily controlled by fault systems within certain rock types. It is clear that not all rock types are mineralized; rather mineralization occurs within three Paleozoic rock sequences at the Lone Tree deposit: the Valmy Formation the Antler Sequence and the Pennsylvanian-Permian Havallah sequence rocks. The Wayne zone is known for rich-mineralization due to the Powerline fault cutting through the favorable rock-types. The rock-type models include five lithologic groups:

- QAL: Quaternary/tertiary alluvium, colluvium etc.
- Phv: Missi., Perm. Havallah
- Pem: Perm. Edna
- Pb: Pennsylvanian Battle Mountain
- Ova: Ordovician Valmy

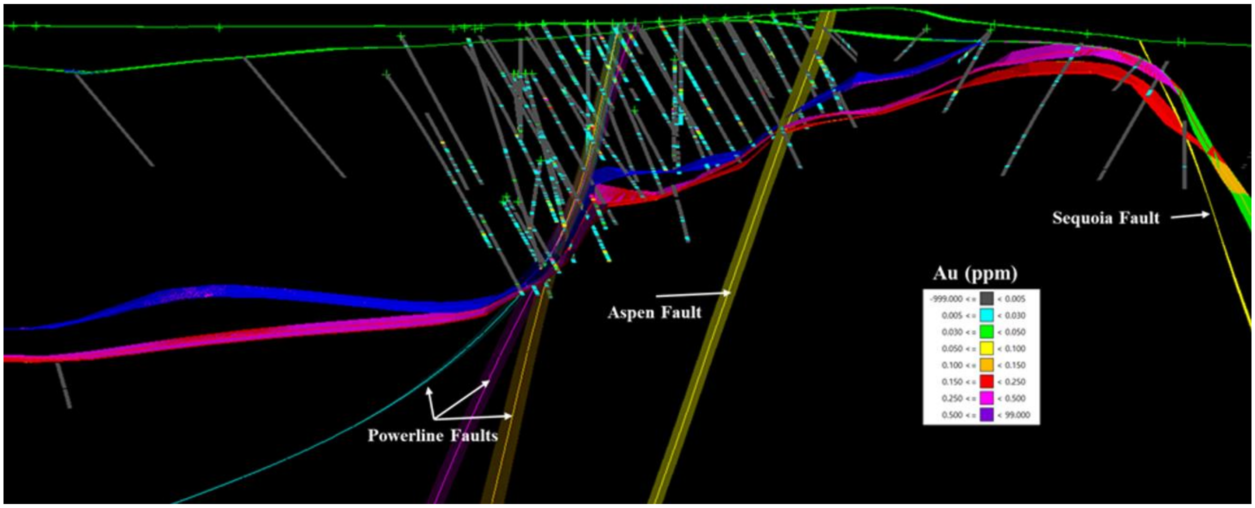
A vertical cross-section, shown in Figure 14-3, along 2800 N shows the geological model created by the NGM geologists that has been adopted for this resource estimation process.

Figure 14-3: A vertical Cross-Section at 28000N (Looking North)Showing the Rock-Type Models Along With Geological Logs of the Drill-Holes



The Power Line fault is the most important structural zone at the Lone Tree deposit. As shown in the Figure 14-4, the mineralization seems to be controlled largely by these structural elements. The other major fault at the mine is the Sequoia fault on the south side of the deposit.

Figure 14-4: A Vertical Cross-Section at 27300N (Looking North) Showing the Rock Type Models and Various Faults Along with Gold Assay (AuFA) Data from the Drill Holes.



14.3 Block Model Configuration

For the resource estimation of the Lone tree deposit, a block model was created with dimensions listed in Table 14-1.

Table 14-1: Block Model Geometry

	East (X)	North (Y)	Elevation (Z)
Origin	78575	20475	-1200
Block dimensions	50	50	20
Number of blocks	200	300	310

14.4 Density model

Block model density values were transferred from the NGM block tonnage factor model (tonfac) directly to this block model framework. This variable is known as 'density'.

14.5 Lithology model

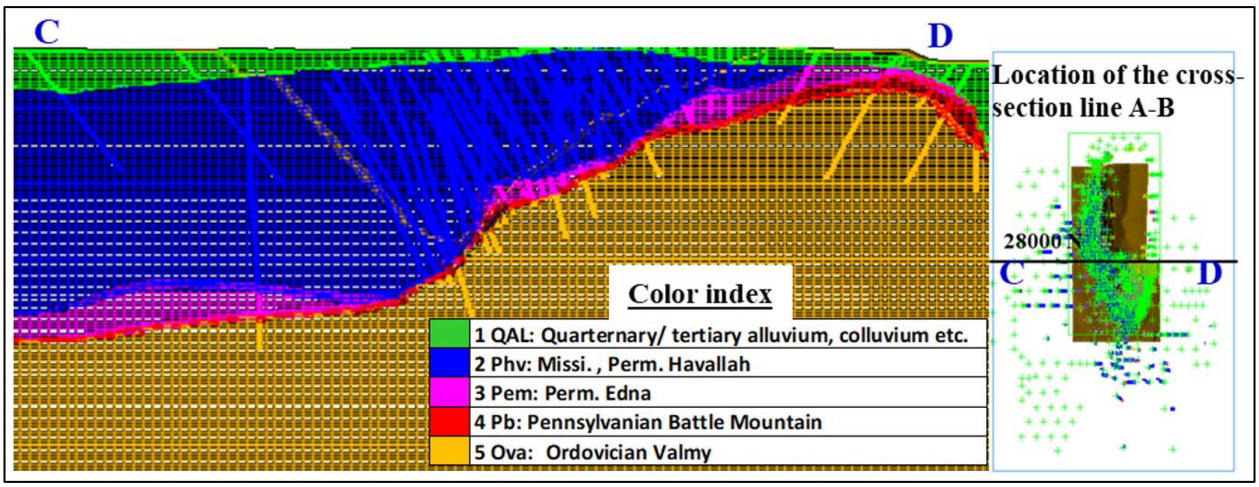
The lithology model is updated using the new lithology solids provided by NGM. The block model is coded based on the geology triangulation model. The variable is 'newlith'. The codes assigned are presented in Table 14-2.

Table 14-2: The Lithology Codes Used in the Block Model

Lithology	'newlith' code in the block model	NEWGEOL variable in the composite data
QAL: Quarternary/ tertiary alluvium, colluvium etc.	1	1
Phv: Missi. , Perm. Havallah	2	2
Pem: Perm. Edna	3	3
Pb: Pennsylvanian Battle Mountain	4	4
Ova: Ordovician Valmy	5	5

The lithology block model shown in the Figure 14-5 has been coded with the drillhole lithology codes as shown in Figure 14-3.

Figure 14-5: The Lithology Block Model (newlith) North 28000 Seciton, (Looking North)



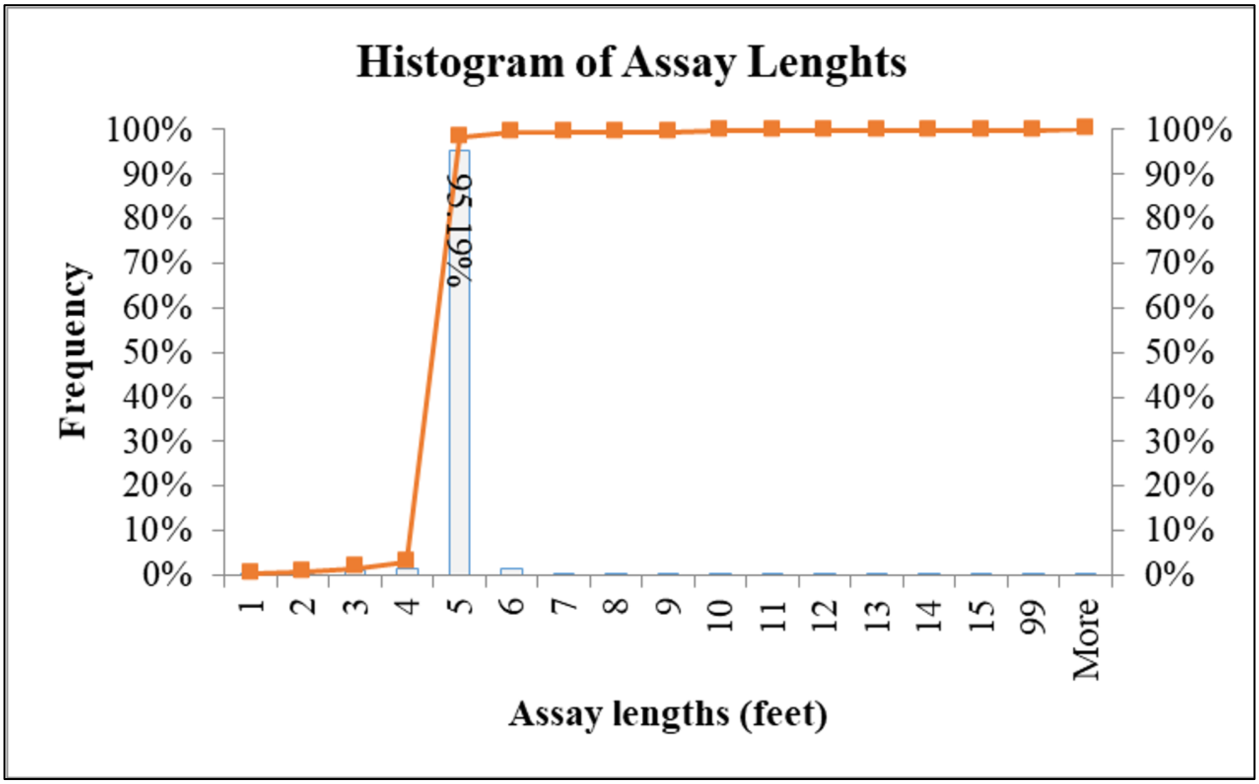
14.6 Exploratory Data Analysis and Compositing

The purpose of the exploratory data analyses (EDA) is to characterize the dataset so that the dataset can be effectively used in grade interpolation and resource estimation. The results of the EDA process help in developing parameters for grade interpolations as discussed below.

14.6.1 Compositing

More than 95% of the drill-hole intercepts are five feet long (Figure 14-6). To minimize grade dilution due to compositing, the drill hole data were composited on five-foot intervals.

Figure 14-6: Historgram of Drill Hole Assay Lengths



14.6.2 Statistical Analyses of Composited Data

The general statistics of gold composited data (ounces per ton) are presented in the Table 14-3. The Figure 14-7 compares the means and standard deviations of all five lithology types.

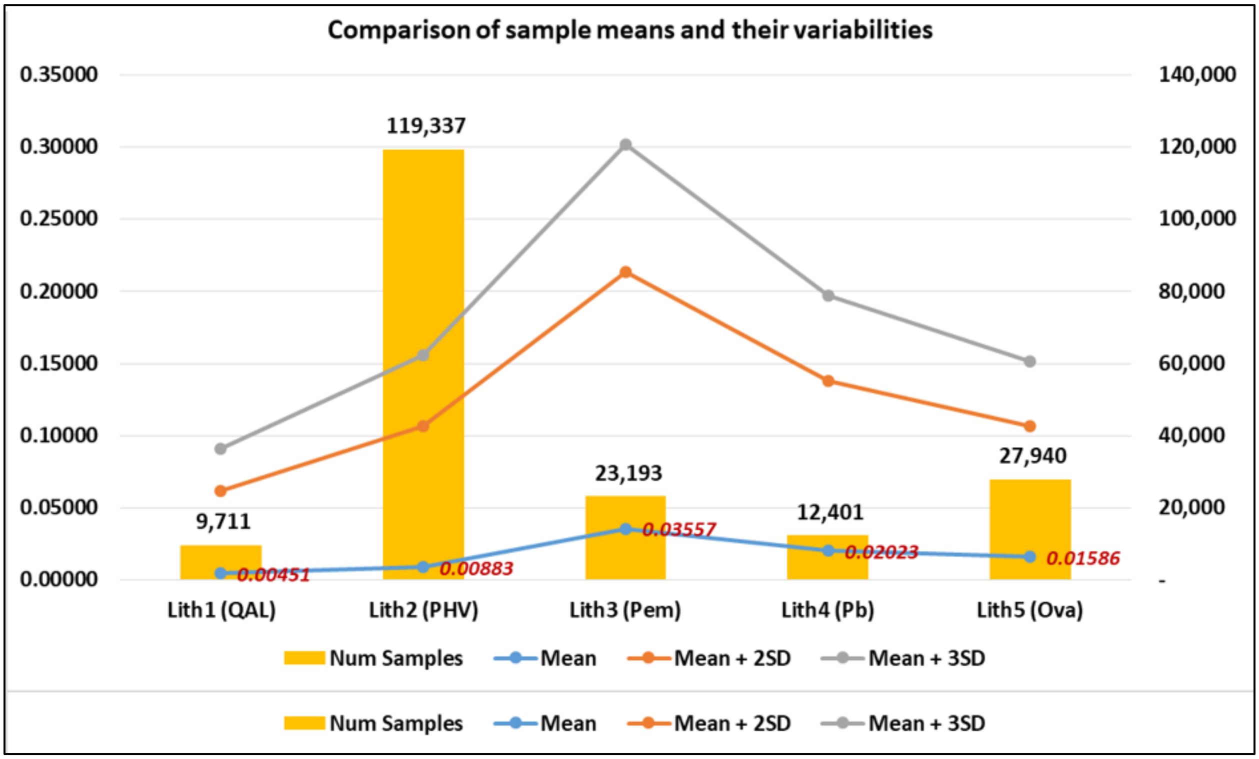
Table 14-3: General Statistical Characteristics of the Gold (AuFA,opt)

Lithology	Min	Q1	Median	Q3	Max	Mean	Standard Dev.	Num Samples
Newgeol:1 (QAL)	0.000	0.001	0.001	0.002	1.379	0.005	0.029	9711
Newgeol:2 (Phv)	0.000	0.001	0.001	0.001	2.410	0.009	0.049	119337
Newgeol:3 (Pem)	0.000	0.001	0.006	0.028	5.652	0.036	0.089	23193
Newgeol:4 (Pb)	0.000	0.001	0.004	0.014	2.074	0.020	0.059	12401
Newgeol:5 (Ova)	0.000	0.001	0.003	0.011	1.014	0.016	0.045	27940
Newgeol 0 (not tagged)	0.000	0.001	0.001	0.001	0.078	0.001	0.002	11212
All	0.000	0.001	0.001	0.004	5.652	0.013	0.054	203794

Figure 14-7 shows that the Havallah formation has the dominant number of composites. The figure also suggests that the Edna formation (Pem) data hosts higher gold assays compared to other lithology types. The variability of the gold assays (measured by two standard deviations in this figure) is also greatest in the Edna formation.

Use of confidence interval (CI) is a better measure of variances for comparing sample sets of different sizes, as in the CI, the standard deviation is normalized by the number of samples compares the means and variabilities of the composites in different rock types. This figure further confirms that the gold assays in the Pem (Edna formation) are of highest grade followed by Pb (Battle Formation) and Ova (Valmy).

Figure 14-7:Comparison of Data Statistics of All Lithology Types



The histograms of all composites are presented in the Figure 14-8. The histograms show that the Havallah (code 3, Phv) are relatively low-grade rocks. In the cumulative frequency plot of the same dataset (Figure 14-9 and Figure 14-10), it appears that the gold composites of the Edna formation (Pem) have higher proportions of higher-grade intercepts compared to the other rock types.

Figure 14-8: Comparison of Sample Means and Their Variabilities Using Confidence Intervals

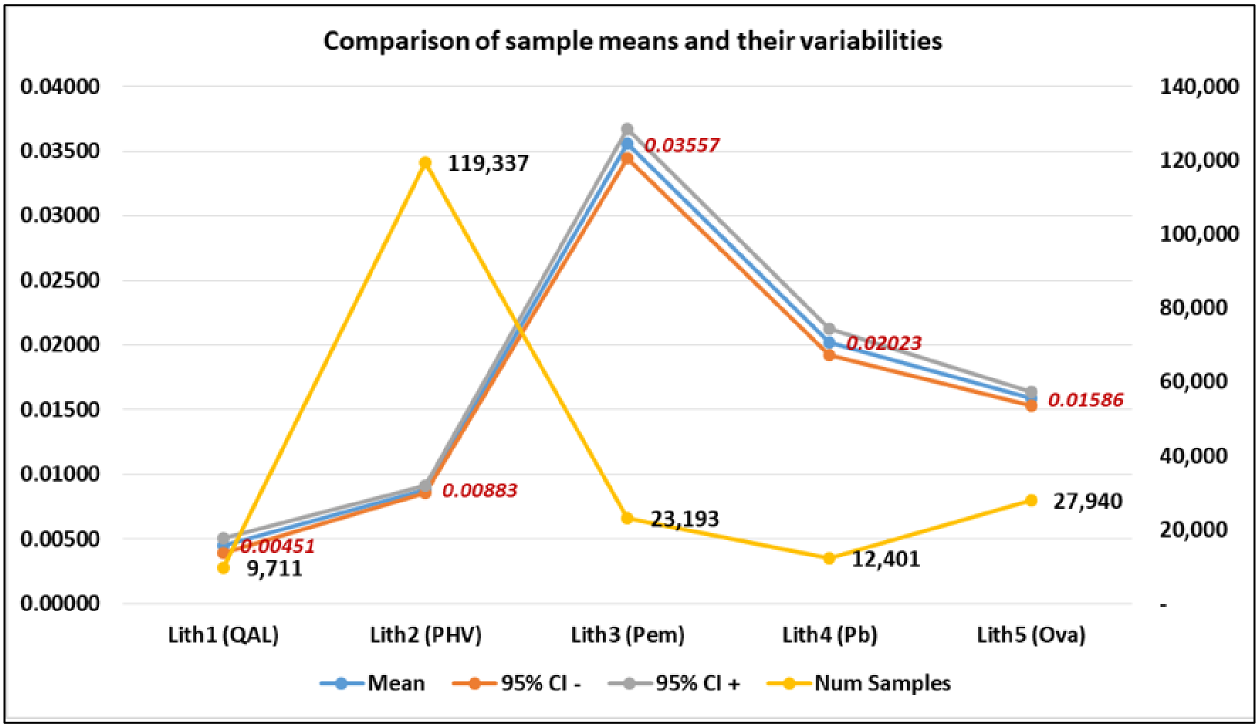


Figure 14-9: Comparison of Statistical Distribution of the Gold Assay Values (AuFA) by Lithology

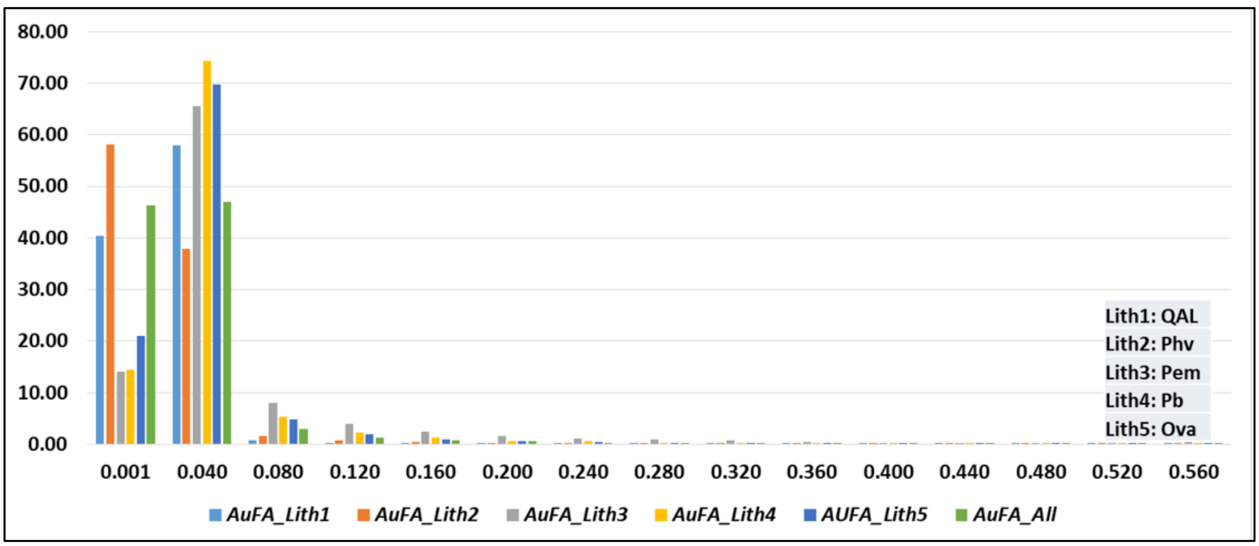
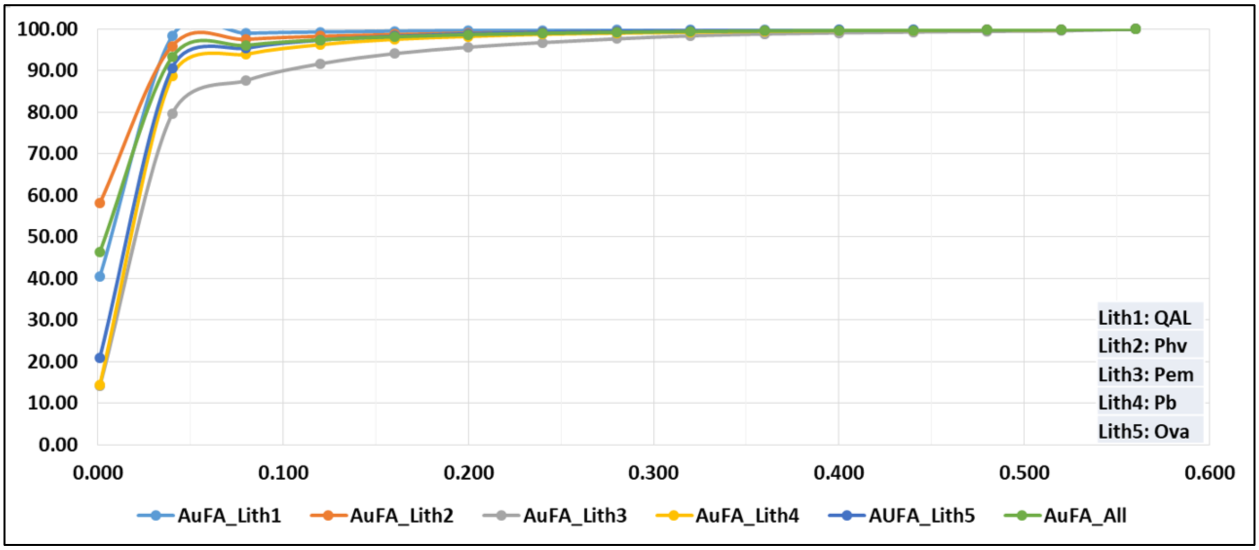


Figure 14-10: Cumulative Frequency Plots of Gold Composites (AuFA) From Various Lithologies

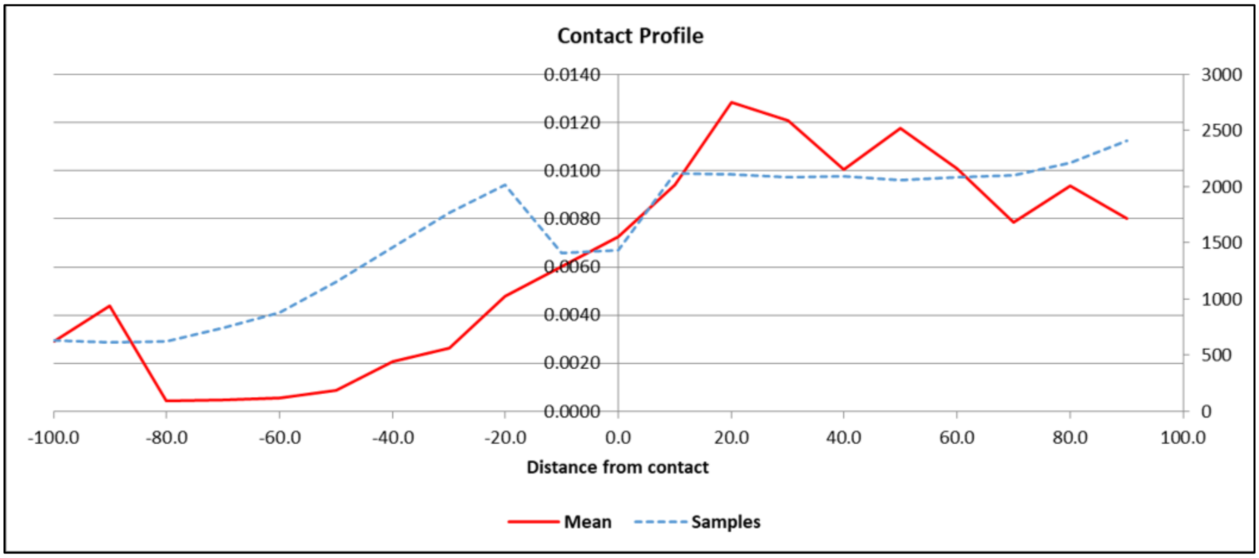


14.6.3 Contact Plots

Contact plot analyses of AuFA across different lithological boundaries are done to determine the behavior of AuFA near the lithological boundary. This information is important in deciding whether to treat the geological domains as 'domains' for grade estimation and whether to treat the boundaries as hard or soft boundaries. In this exercise Vulcan software was used for contact plot analysis.

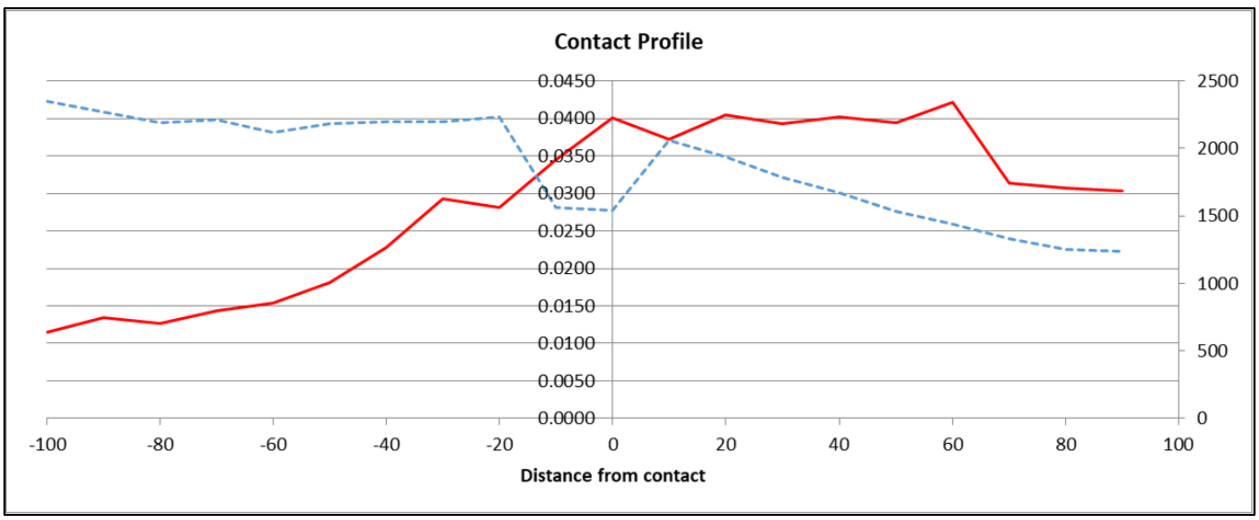
The contact plot of AuFA for the boundary between Qal (Quarternary alluvium) and (Phv Havallah) shown in the Figure 14-11 indicates that the Qal is relatively low grade compared to Phv. The gold values change gradually across the boundary. This interpretation is non-conclusive.

Figure 14-11: Contact Plot of AuFA for the Boundary Between Qal and Phv



The contact plot of AuFA for the boundary between and (Phv Havallah) and Pem (Edna) is presented in the Figure 14-12. The Pem is of higher grade compared to the Phv. The contact between Phv and Pem is not sharp, but distinct.

Figure 14-12: Contact Plot of AuFA for the Boundary Between Phv (Havallah) and Pem (Edna)



The contact plot analyses shown in Figure 14-11 through Figure 14-14, indicate that the gold assays behave differently for different rock types. Even though the contacts are not sharp, but they are distinct.

Figure 14-13: Contact Plot of AuFA for the Boundary Between Pem(Edna) and Pb (Battle Formation)

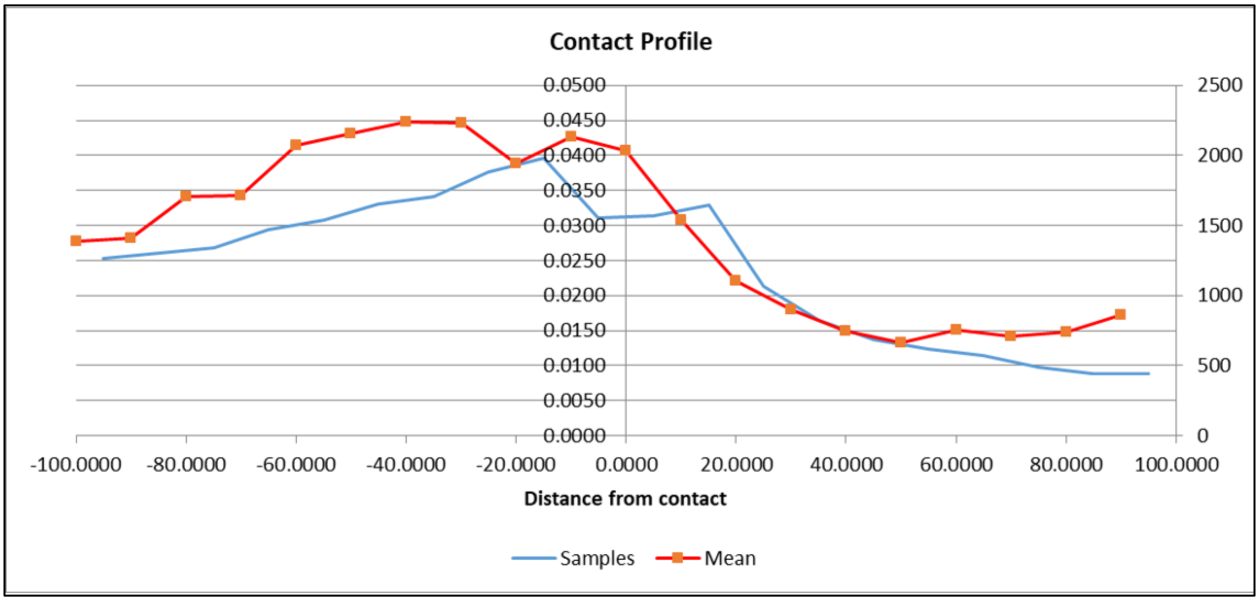
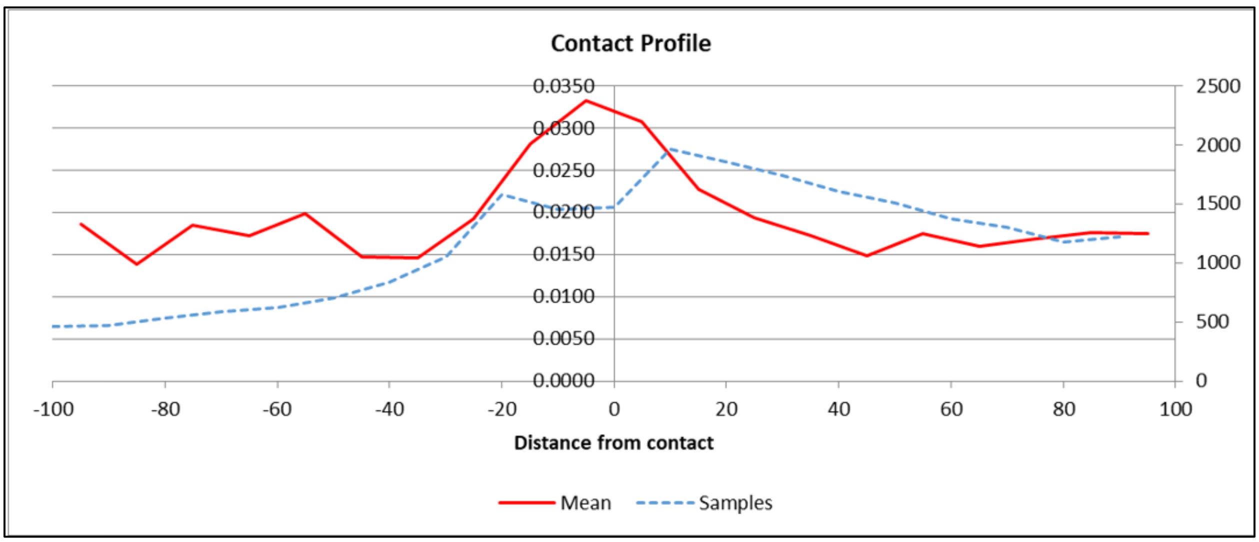


Figure 14-14: Contact Plot of AuFA for the Boundary Between Pb (Battle Fomration) and Ova (Valmy)



14.7 Geological domains

Based on the statistical analysis above the lithology units are considered as domains within which the mineralization is assumed to behave consistently throughout. The variogram analyses and interpolation parameters are derived for the gold grade estimation within the lithological domains.

14.8 Variogram Analysis

The statistical analysis as discussed earlier provides the information used for variogram analysis. The variogram analysis process is presented in the Figure 14-15. Variography is a stepwise process.

i. *Declustering:* When the drill hole data shows clustering effects, at certain locations the drill hole intercepts are closer to each other compared to other locations. A cell declustering process corrects potential bias due to preferential sampling of high-grade zones.

ii. *Variogram Map:* To find the inherent spatial anisotropy of the database, variogram maps of each variable lithologic domain are calculated using declustered data.

- Variogram maps are calculated for various lag lengths, tolerance angles and distances of tolerances. Angles of tolerances are ideally kept at ½ of the angular sectors in a variogram map. The maximum distances of tolerances are kept at ½ of the lag distance. The variogram maps are shown in the appendix A.
- The variogram maps indicate a North-South & East-West orthogonal set of anisotropy.
- These anisotropy interpretations correspond to the structural controls of mineralization and hence are geologically valid.

iii. *Experimental variogram calculation:* The experimental variograms are calculated along the three orthogonal directions as selected from the variogram maps. The angles of tolerance are ideally kept at ½ of the angular sectors in a variogram map. The maximum distances of tolerance are kept at ½ of the lag distance. The experimental variograms are saved for modelling.

iv. *Variogram model:* An approved type of variogram model is selected for fitting to the experimental variograms calculated in the prior stage.

v. A set of three orthogonal variogram models are fitted for each of the elements within each of the lithological domains. As variograms are fitted for the one domain, they do not show regional anisotropy and display geometric anisotropy. This implies same sill and nugget effects for all three variogram models in a set. The variogram ranges may change (anisotropy) in three directions. In this exercise multiple structures for variogram models were not observed. Variogram models are presented in the Table 14-4.

Figure 14-15: Steps Followed in Variogram Analysis

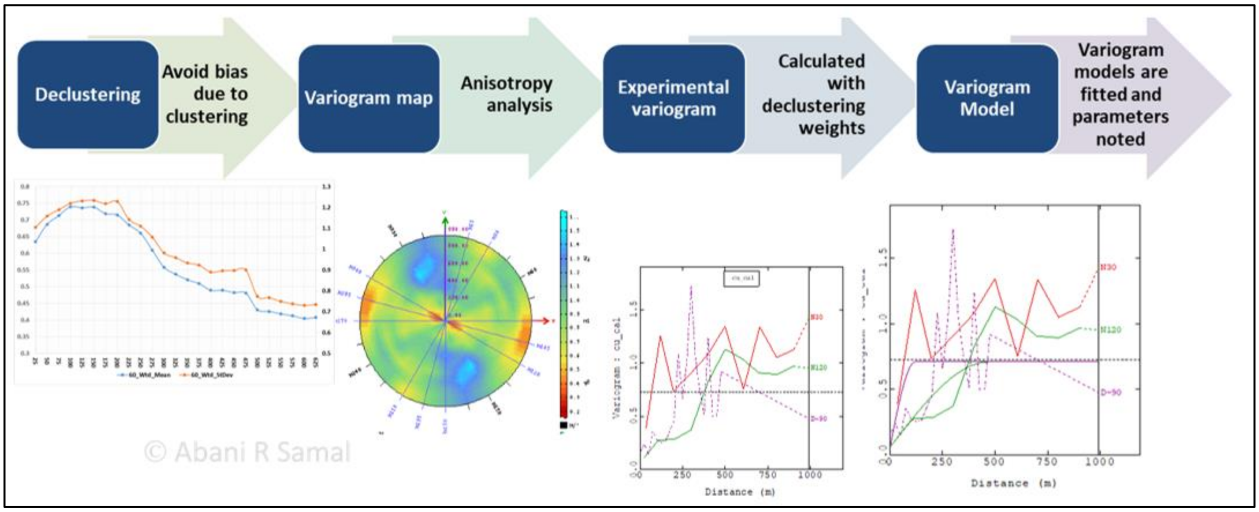


Table 14-4: Variogram Parameters of AuFA in Different Lithological Units of Lone Tree Deposit

Lithology code and name		Azimuth	Dip	Ranges
newgeol1 (QAL)	Major	0	0	90
	Semi-Major	90	0	70
	Minor	90	-90	200
	Nugget	0.00002		
	Sill	0.000155		
		Azimuth	Dip	Ranges
newgeol2 (Phv)	Major	0	0	90
	Semi-Major	90	0	90
	Minor	90	-90	200
	Nugget	0.0005		
	Sill	0.001		
		Azimuth	Dip	Ranges
newgeol3 (Pem)	Major	0	0	100
	Semi-Major	90	0	60
	Minor	90	-90	150
	Nugget	0.002		
	Sill	0.0048		
		Azimuth	Dip	Ranges
newgeol4 (Pb)	Major	0	0	100
	Semi-Major	90	0	200
	Minor	90	-90	120

	Nugget	0.0005		
	Sill	0.004		
		Azimuth	Dip	Ranges
newgeol5 (Ova)	Major	0	0	75
	Semi-Major	90	0	75
	Minor	90	-90	150
	Nugget	0.0003		
	Sill	0.000995		

14.9 Grade Interpolation

Variogram models could be fitted for AuFA for all geological domains (Table 14-4 and Appendix B). Therefore, ordinary kriging (OK) was chosen as the interpolation technique over non-geostatistical techniques such as inverse distance power (IDP).

The different lithology units are considered as unique geological domains. For estimation of gold grades within a particular domain, the composites within that domain are used. The boundaries between various domains are considered as hard boundaries.

The key points in the interpolation of AuFA grade are:

- No data is treated as absence of data.
- Value zero is treated as zero value
- The search ellipsoids are designed according to the orientations of the variogram models. Multi-pass search ellipsoids are used for estimating copper grades in each domain.
    - The first search ellipsoid is the smallest one.
    - The axes of the next consecutive passes are relatively larger
    - A restricted search ellipsoid of 50ft * 50 ft * 30ft is used for inclusion of high-grade values. A 0.25 opt Au is considered as the high-grade value in the grade interpolation.

Following additional variables are saved along with the kriged gold values

- Interpolation pass numbers.
    - Blocks estimated during the first pass = 1
    - Blocks estimated during the second pass = 2
    - Blocks estimated during the third pass = 3

    - Blocks estimated during the fourth pass = 4
    - Blocks estimated during the fifth pass = 5
- The average distance from samples from block centers
- The distance of the closest sample from block centers
- Number of samples used to estimate each block
- Number of holes
- Nearest Neighbor Estimate (closest sample value)
- Kriging variance: A measure of error of estimation
- *Note: This parameter should be used in conjunction with other variables.*
- Kriging efficiency: A measure of quality of grade estimation using ordinary kriging.
- *Note: This parameter should be used carefully as the mathematics are not well proven to be robust.*

The interpolation parameters for AuFA estimation are shown in the Table 14-5.

Table 14-5: Interpolation Parameters Used for Estimation of Gold Grades

	Drill Hole limits			Sample Criteria			Axes			High Yield Limits			
ID	Holes / estimate	Minimum / hole	Maximum / holes	Minimum	Maximum	Max. / hole	Major	Semi-Major	Minor	Threshold	Major axis	Semi-major	HYL - Minor
ova5_1	No	1	10	2	20	X	50	50	20	0	50	50	50
ova5_2	Yes	2	10	8	24	6	90	90	100	0.25	50	50	30
ova5_3	Yes	2	10	6	24	6	130	130	150	0.25	50	50	30
ova5_4	Yes	2	10	4	24	6	160	160	200	0.25	50	50	30
ova5_5	No	1	10	2	24	X	180	180	200	0.25	50	50	30
pb4_1	No	1	10	2	20	X	50	50	20	0	50	50	50
pb4_2	Yes	2	10	8	24	6	90	90	100	0.25	50	50	30
pb4_3	Yes	2	10	6	24	6	130	130	150	0.25	50	50	30
pb4_4	Yes	2	10	4	24	6	160	160	200	0.25	50	50	30
pb4_5	No	1	10	2	24	X	180	180	200	0.25	50	50	30
pem3_1	No	1	10	2	20	X	50	50	20	0	50	50	50
pem3_2	Yes	2	10	8	24	6	90	90	100	0.25	50	50	30
pem3_3	Yes	2	10	6	24	6	130	130	150	0.25	50	50	30
pem3_4	Yes	2	10	4	24	6	160	160	200	0.25	50	50	30
pem3_5	No	1	10	2	24	X	180	180	200	0.25	50	50	30
phv2_1	No	1	10	2	20	X	50	50	20	0	50	50	50
phv2_2	Yes	2	10	8	24	6	90	90	100	0.25	50	50	30
phv2_3	Yes	2	10	6	24	6	130	130	150	0.25	50	50	30
phv2_4	Yes	2	10	4	24	6	160	160	200	0.25	50	50	30
phv2_5	No	1	10	2	24	X	180	180	200	0.25	50	50	30
qal1_1	No	1	10	2	20	X	50	50	20	0	50	50	50
qal1_2	Yes	2	10	8	24	6	90	90	100	0.25	50	50	30
qal1_3	Yes	2	10	6	24	6	130	130	150	0.25	50	50	30
qal1_4	Yes	2	10	4	24	6	160	160	200	0.25	50	50	30
qal1_5	No	1	10	2	24	X	180	180	200	0.25	50	50	30

14.10 Density Model

NGM determined density factors for the Lone Tree deposit in 2003. This work was reviewed and deemed satisfactory for use in this resource estimate. The density shown in Table 14-6 was imported as a variable from the NGM block model.

Table 14-6: Tonnage Factor By Geologic Unit (NGM, 2003)

	Unit	#	Min	Max	Avg	TF	Std	Void
1	Edna Mountain Sucrosic (Pems)	18	11.41	12.57	11.92	**12.15**	0.35	2%
2	Edna Mountain Lithic (Peml)	12	11.66	13.19	12.32	**12.69**	0.40	3%
3	Middle Wayne Zone, sulfide (MWZ)	35	10.94	13.52	12.49	**13.11**	0.59	5%
4	Havallah, altered sulfide (Phv/a/s)	16	11.70	15.26	14.09	**14.66**	0.96	4%
5	Havallah, altered oxide (Phv/a/o)	4	13.57	16.03	14.59	**14.94**	1.03	4%
6	Battle Fm (Pb)	4	11.96	13.24	12.70	**13.10**	0.62	6%
7	Havallah, fresh oxide (Phv/f/o)	9	11.70	13.08	12.38	**13.10**	0.49	5%
8	Havallah, fresh sulfide (Phv/f/s)	5	11.70	13.64	12.36	**13.10**	0.80	4%
9	Upper Wayne Zone, oxide (UWZ)	15	13.03	15.41	13.90	**14.31**	0.80	3%

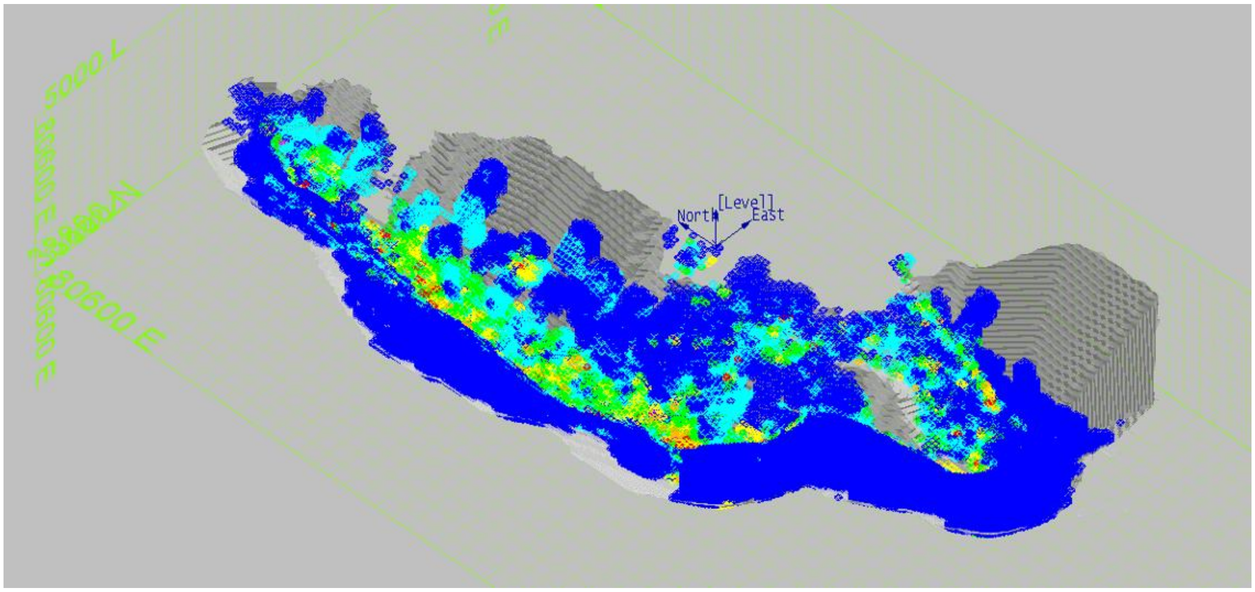
14.11 Resource Classification

Resource classification is a process of assigning confidence on the mineralized body by a competent person based on geological continuity, quality of data and the quality of resource estimation. As discussed in Section 12, NGM has followed the QA/QC programs which meets the best practices guidelines as outlined by the CIM for exploration.

The NGM geologists have made the geological interpretation of the lithological units and ensure reliability for use in grade estimation and assigning confidence to classify the inventory of materials that meets the criteria for Reasonable Prospects for Eventual Economic Extraction (RPEEE). The quality of resource estimation depends on the quality of the data and geological interpretation. The processes followed for estimating gold grades for the Lone Tree deposit meets the CIM best practice guidelines (2019).

Using sample and distance criteria, all blocks shown in Figure 14-16 the current pit limit are considered candidate for the tests of RPEEE.

Figure 14-16: All Blocks Below the Limits of the Current Pit that are Considerd for Optimized Pit-Shell



14.12 Criteria for Reasonable Prospect for Eventual Economic Extraction

To meet the RPEEE criteria, an optimized pit shell was created within which all blocks will be considered as resources. An optimized pit-shell was floated using $1650 USD gold price and 90% recovery factor based on the operational data from Newmont Mining, now NGM. This pit shell meets the Reasonable Prospect for Eventual Economic Extraction (RPEEE) criteria, hence will be used for resource statements.

The following parameters (Table 14-7) are used for generating the optimized pit limit. The optimum pit-shell was developed by Mr. Tim George of i-80 Gold Corp. This pit-shell will be referred to as the $1650 pit shell.

Table 14-7: Optimum Pit Criteria Applied to Resource Estimate

Variables	Value	Notes
Au Price	$1,650	
Mine Cost	$2.00	
Processing + G&A Cost	$28.00	Assume 2500tpd autoclave @ $35/ton + 5000tpd float @ $20/ton + 3$ G&A
Recovery	90.0%	

Royalty	3.0%	NSR
Cutoff	0.019	opt
Slope Angles	40°-45°	

All blocks within the $1650 pit-shell were tagged as inferred category (auok_mii = 3).
All blocks within the $1650 pit-shell are estimated using at least two holes, minimum 4 composites. Additionally, 90% of these blocks have composites within 120 ft; > 77% of these blocks have composites within an average distance of 120 ft. It should be noted that the variogram models show ranges of 100 to 120 feet. Any portion of these blocks contained within a Resource pit-shell is well qualified to be reported as inferred resources.

14.12.1 Indicated blocks:

All block within 40 to 50 feet (one bench height) from the current pit can be indicated based on additional criteria considered:

- The geology and mineralization in blocks are partially exposed at the current pit and supported by previously drilled blast-hole / infill drilling data
- Continuity of geology and mineralization exposed on the pit-surface, can be comfortably projected one bench below

The inferred and indicated category resources are shown in the Figure 14-17.

At this time, no measured resources are defined for the Lone Tree deposit.

14.12.2 Inventory of mineral resources

The estimates of indicated and inferred category mineral resources within the optimized pit-shell are provided in Table 14-8 for different cut off grades.

Figure 14-17: The Indicated and Inferred Category Resources

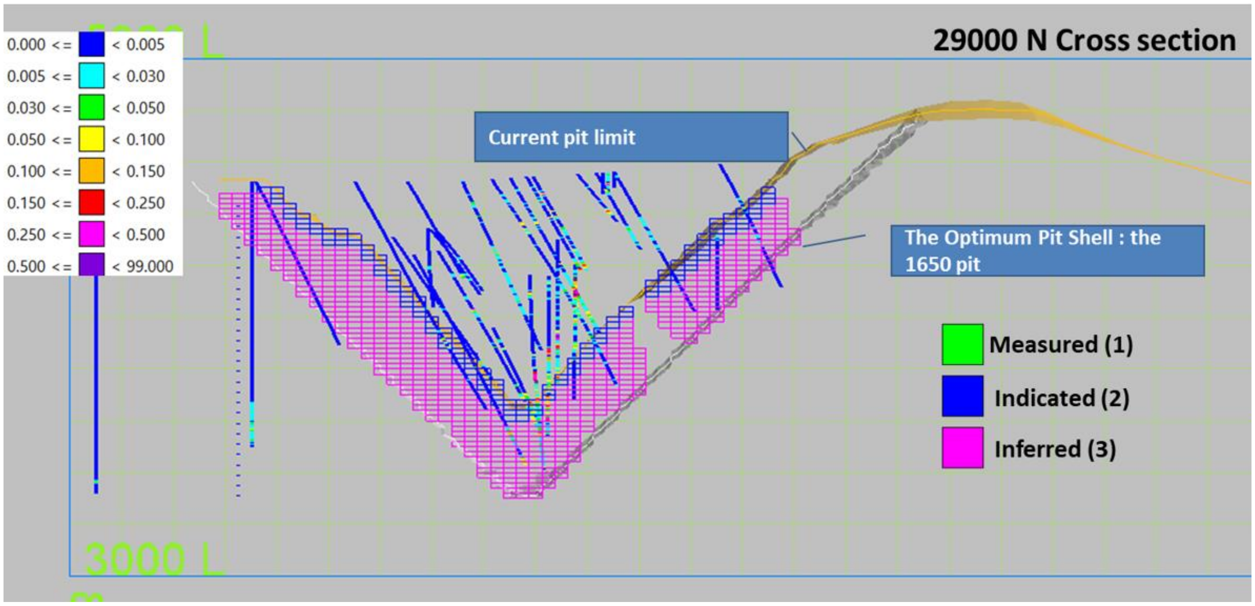


Table 14-8: Inventyory of Mineral Resources Within $1650 Pit-Shell

	INDICATED RESOURCES		INFERRED RESOURCES	
Cutoff (opt)	au (opt)	Tonnage	Cutoff (opt)	au (opt)
0.01	0.038	12,283,000	0.01	0.038
0.011	0.040	11,465,000	0.011	0.040
0.012	0.042	10,906,000	0.012	0.042
0.013	0.043	10,358,000	0.013	0.043
0.014	0.045	9,880,000	0.014	0.045
0.015	0.046	9,460,000	0.015	0.046
0.016	0.048	9,016,000	0.016	0.048
0.017	0.049	8,620,000	0.017	0.049
0.018	0.050	8,253,000	0.018	0.050
0.019	0.052	7,960,000	0.019	0.052
0.02	0.053	7,697,000	0.02	0.053
0.021	0.054	7,406,000	0.021	0.054
0.022	0.055	7,139,000	0.022	0.055
0.023	0.056	6,916,000	0.023	0.056
0.024	0.058	6,652,000	0.024	0.058
0.025	0.059	6,384,000	0.025	0.059
0.03	0.066	5,255,000	0.03	0.066
0.06	0.101	2,088,000	0.06	0.101

The figures Figure 14-18 and Figure 14-19 represent the grade tonnage curves of indicated and inferred category mineral resources.

Figure 14-18: The Grade Tonnage Curve of Indicated Category Resources

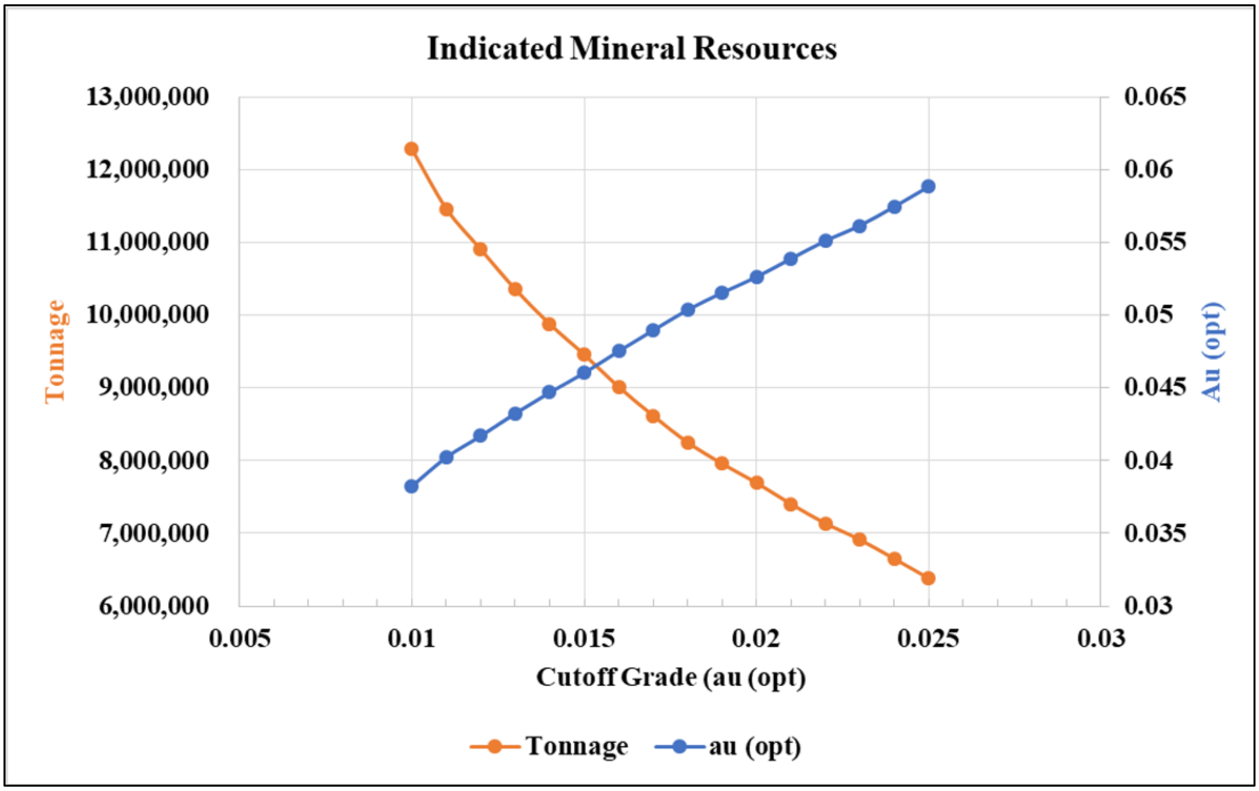
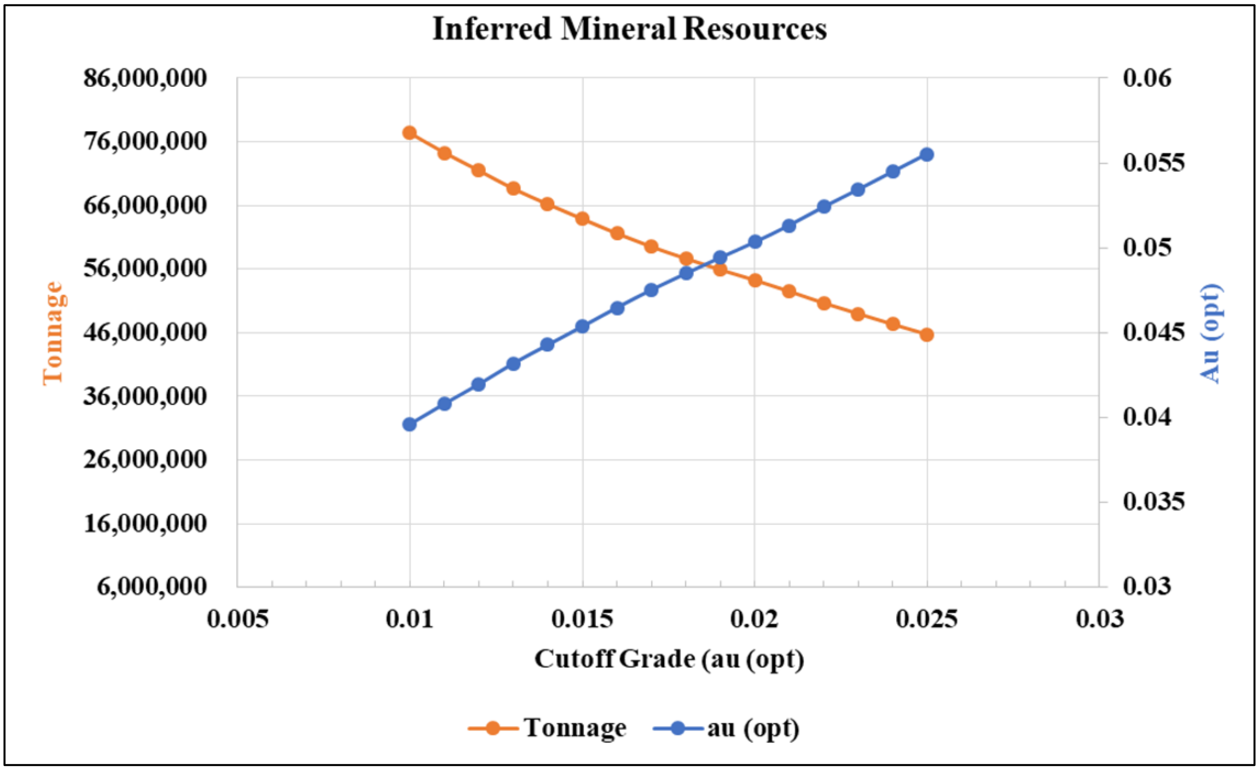


Figure 14-19: The Grade Tonnage Curve of Inferred Category Resources

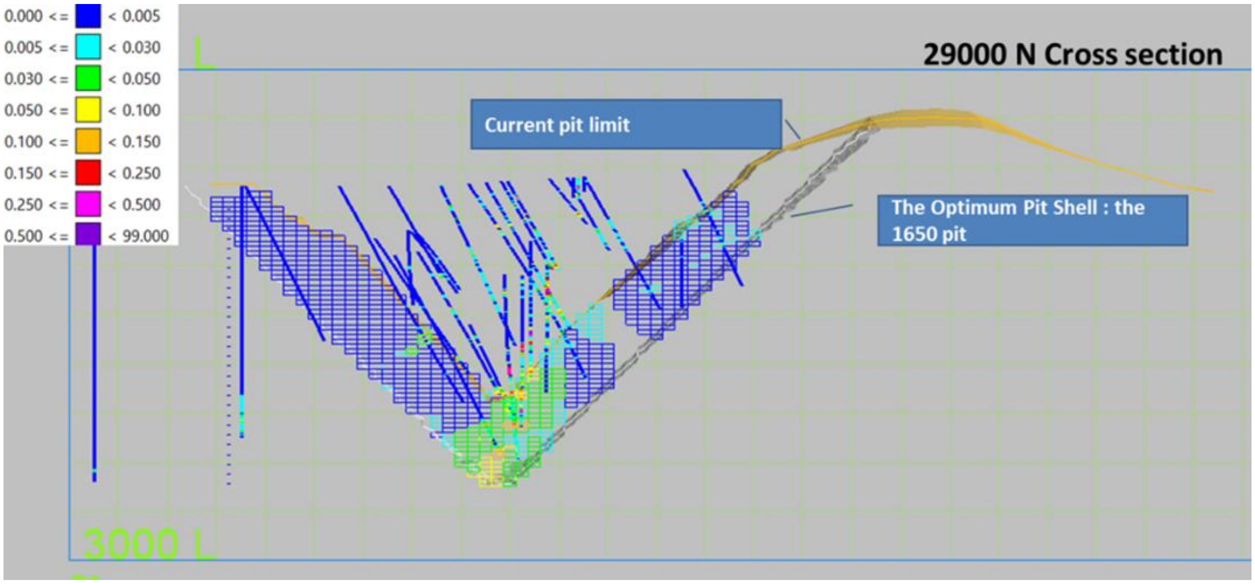


14.13 Model Validation

14.13.1 Cross Sections

Figure 14-20 presents a vertical cross-section at 29000N with gold grades of the drill holes overlain by the estimated gold grades in the block model using the same color code. This figure is presented to visually validate the grade estimates in the block model with the drill hole data. The gold estimate grades in the block model represent the spatial distribution of gold assay values in the drill-hole intercepts reasonably well.

Figure 14-20: Estimate Blocks Within the $1650 Pit Shell



14.13.2 Statistical Validation

Statistical validation of the final estimates of gold (auok) includes charts and table of various variables as discussed below.

- **Number of holes used:** Approx. 55% of blocks were estimated using > two holes (Figure 14-21 and Figure 14-22). All blocks were estimated using at least two drill-holes

Figure 14-21: Histogram of Number of Holes Used for Estimating Both Indicated and Inferred Categoy Resources

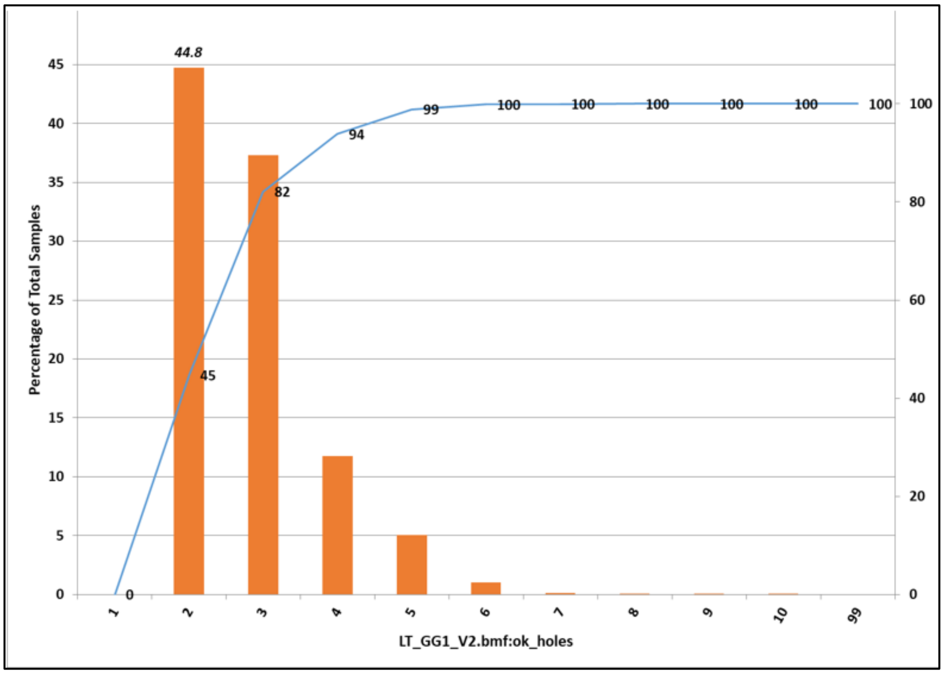
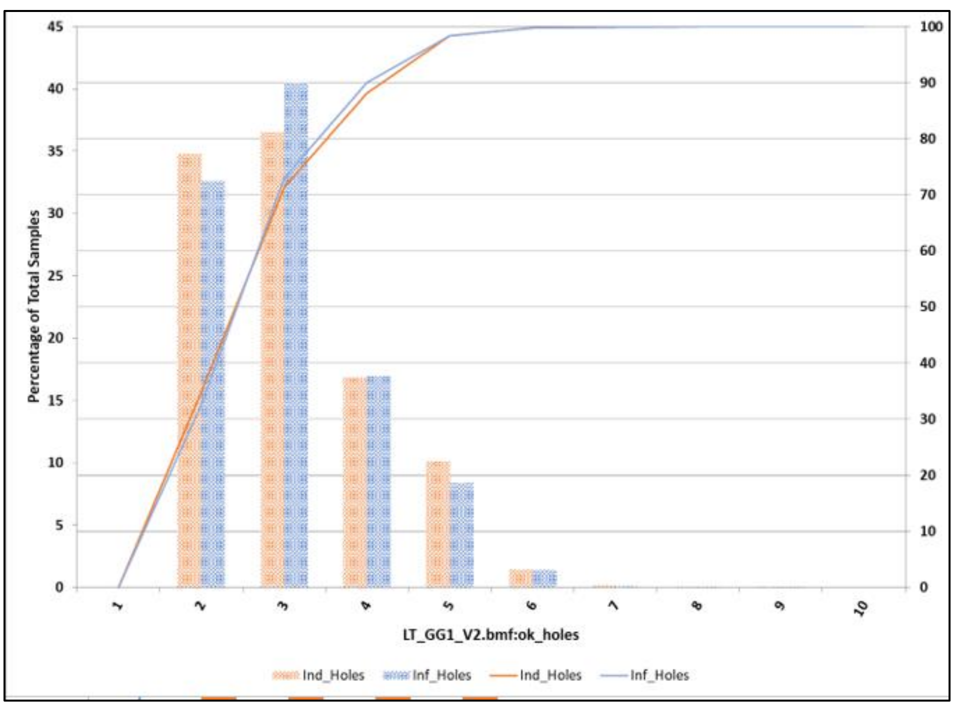


Figure 14-22: Historgram of Number of Holes Used for Estimating Blocks Classified as Indicated (ind) or Inferred (inf) Category



- **Number of samples used:** As shown in Figure 14-23, approximately 88% of blocks were estimated using > eight samples. Additionally, all blocks are estimated using at least two holes and six samples; 64% of all indicated blocks and 61.5 % of inferred blocks were estimated using up to 14 samples (Figure 14-24)

Figure 14-23: Number of Composites Used to Estimate Blocks with Gold Grade

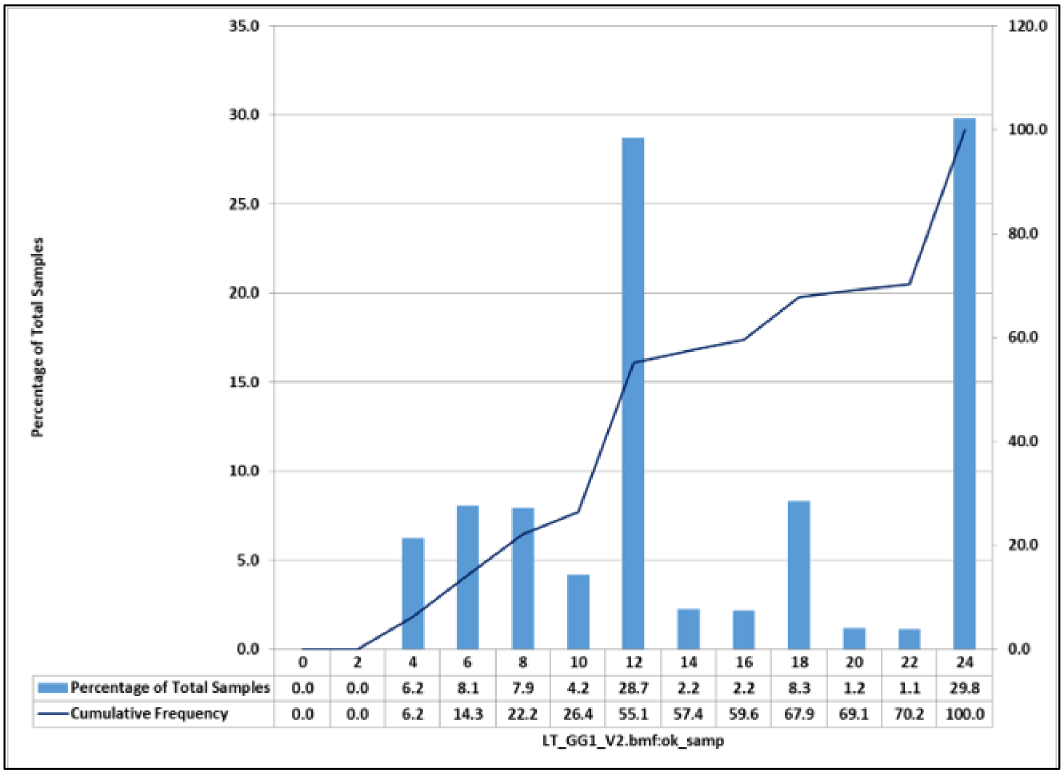
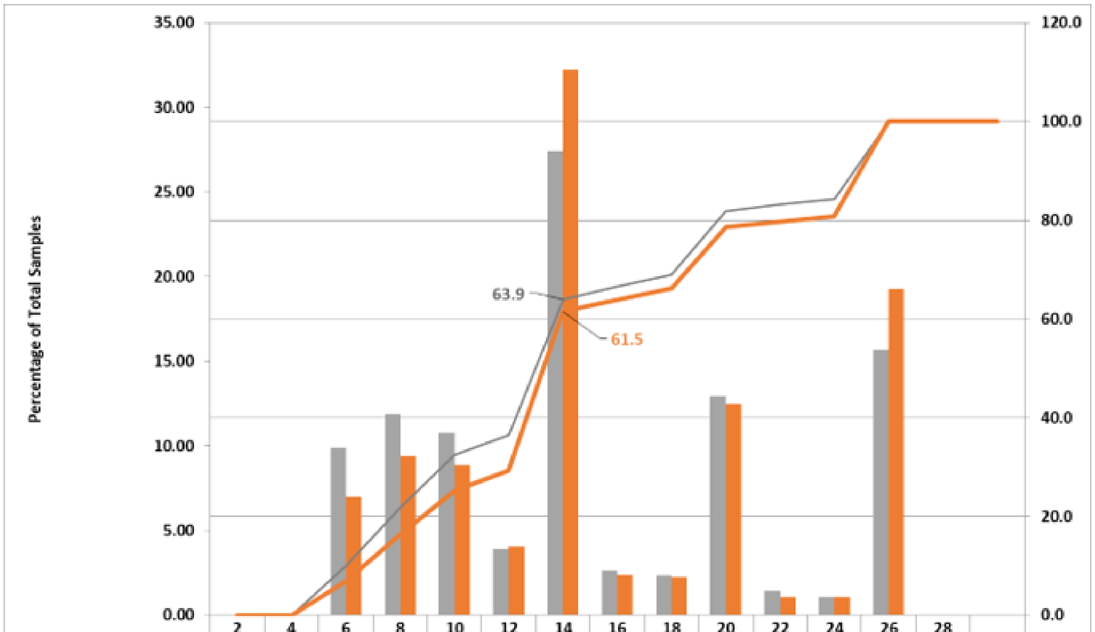


Figure 14-24: Number of Composites Used to Estimate Blocks with Gold Grade in Indicated and Inferred Category Blocks



	2	4	6	8	10	12	14	16	18	20	22	24	26	28	
Indicated_samples	0.00	0.00	9.91	11.89	10.74	3.93	27.43	2.66	2.34	12.92	1.44	1.06	15.68	0.00	0.00
Inferred_samples	0.00	0.00	6.99	9.39	8.87	4.05	32.22	2.37	2.26	12.46	1.06	1.05	19.26	0.00	0.00
Indicated_samples	0.0	0.0	9.9	21.8	32.5	36.5	63.9	66.6	68.9	81.8	83.3	84.3	100.0	100.0	100.0
Inferred_samples	0.0	0.0	7.0	16.4	25.3	29.3	61.5	63.9	66.2	78.6	79.7	80.7	100.0	100.0	100.0

- **Average distance of samples:** All blocks are estimated using at least two holes and six samples and 69% of indicated blocks and 58% of inferred blocks are estimated using samples with average distance of 100ft or less as shown in Figure 14-25 and Figure 14-26. It should be noted that, the variogram ranges with 100 to 120 feet ranges within which samples are well correlated.

Figure 14-25: Average Distance of Samples From Block Centers

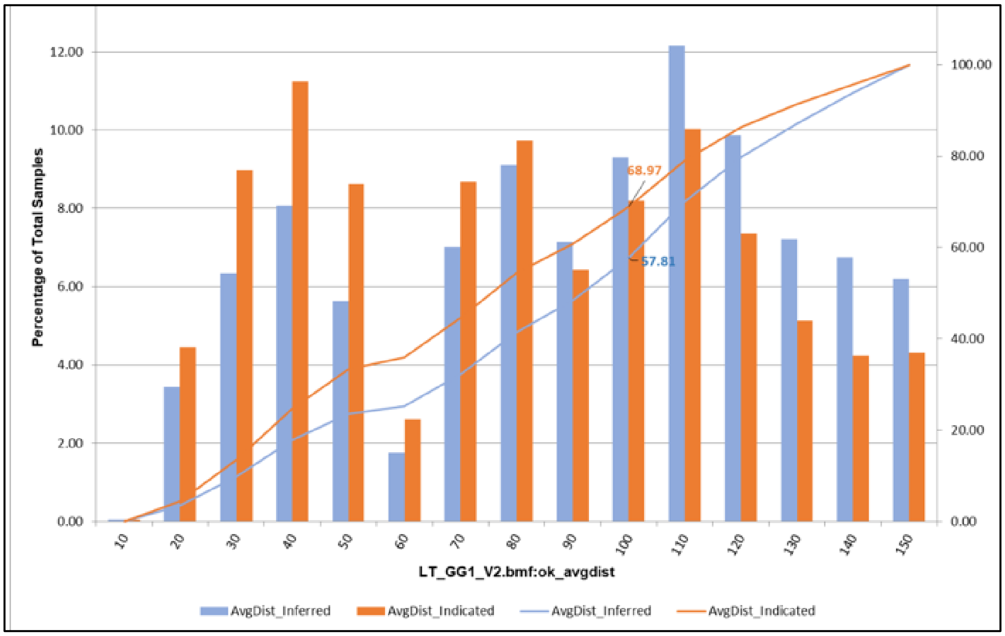


Figure 14-26: Minimum Distance of Composites From Blocks

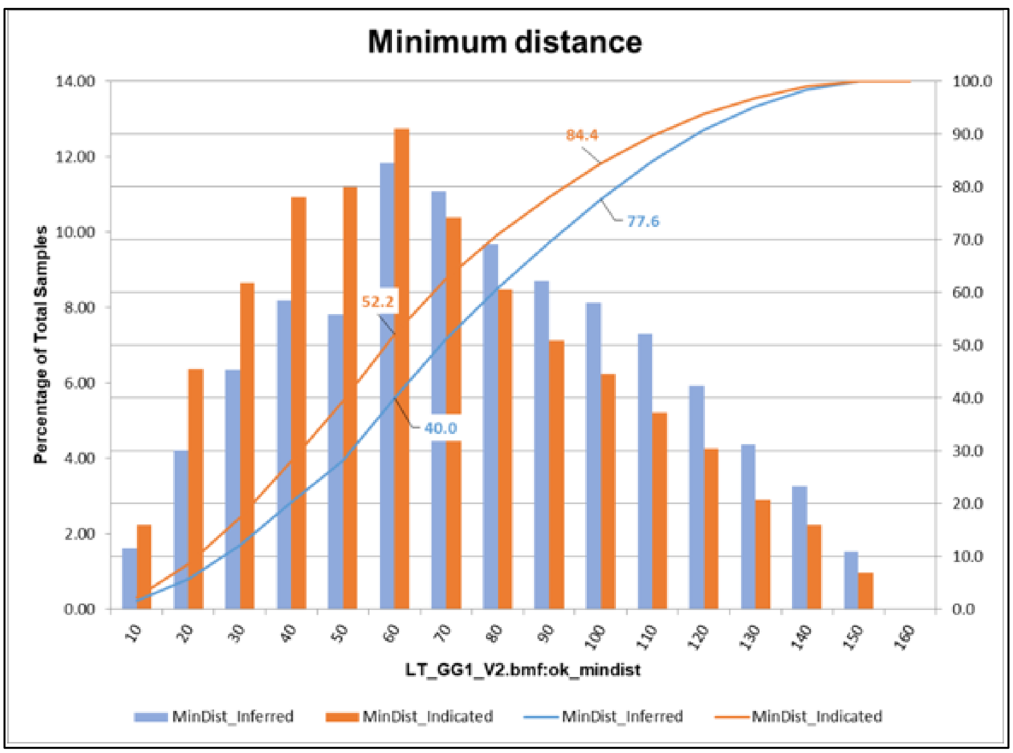


Table 14-9 compares the gold grades of the composite data in each lithology units with the statistics of the estimated grades in the block model.

The statistics presented in Table 14-9 suggests that the grade estimates have lower mean due to interpolation. The coefficient of variation of estimated gold grades in each lithology type are relatively low compared to the composites. This is expected. This table proves no fatal-flaw or serious mistake in the grade estimates.

In figures Figure 14-27 to Figure 14-31 the histogram and cumulative frequency plots of the block grade estimates are compared with the input composited data. These figures show that the statistical structures of the block grade estimates are very similar to the input composites. The grade estimates are statistically similar to the composited data, which further validates the grade estimates in the block model.

Table 14-9: Comparison of Gold Grades for Composite Data by Lithologic Unit

Composite Statistics									
Lithological Units	Min (opt)	Q1 (opt)	Median (opt)	Q3 (opt)	Max (opt)	Mean (opt)	Standard Dev. (opt)	Num Samples	CV
Comp1: QAL	0.0001	0.0005	0.0010	0.0020	1.3789	0.0045	0.0287	9711	6.36
Comp2: Phv	0.0000	0.0005	0.0005	0.0010	2.4100	0.0088	0.0490	119337	5.54
Comp3: Pem	0.0001	0.0010	0.0060	0.0282	5.6520	0.0356	0.0888	23193	2.50
Comp4: Pb	0.0001	0.0010	0.0040	0.0140	2.0740	0.0202	0.0590	12401	2.91
Comp5: Ova	0.0001	0.0010	0.0030	0.0107	1.0140	0.0159	0.0453	27940	2.85
Block model Statistics									
Lithological Units	**Min (opt)**	**Q1 (opt)**	**Median (opt)**	**Q3 (opt)**	**Max (opt)**	**Mean (opt)**	**Standard Dev. (opt)**	**Num Samples**	**CV**
Blk1: QAL	0.0000	0.0002	0.0005	0.0010	0.6246	0.0014	0.0069	68212	4.93
Blk2: Phv	0.0000	0.0005	0.0005	0.0009	0.9812	0.0030	0.0149	428823	4.92
Blk3: Pem	0.0001	0.0024	0.0091	0.0256	1.0185	0.0224	0.0387	50662	1.73
Blk4: Pb	0.0001	0.0019	0.0049	0.0147	1.4541	0.0143	0.0293	31570	2.05
Blk5: Ova	0.0000	0.0012	0.0033	0.0088	0.5550	0.0089	0.0160	209277	1.79

Figure 14-27: Comparison of Historgram and Cumulative Frequency Charts of Composites and Block Grade Estimates in the Phv

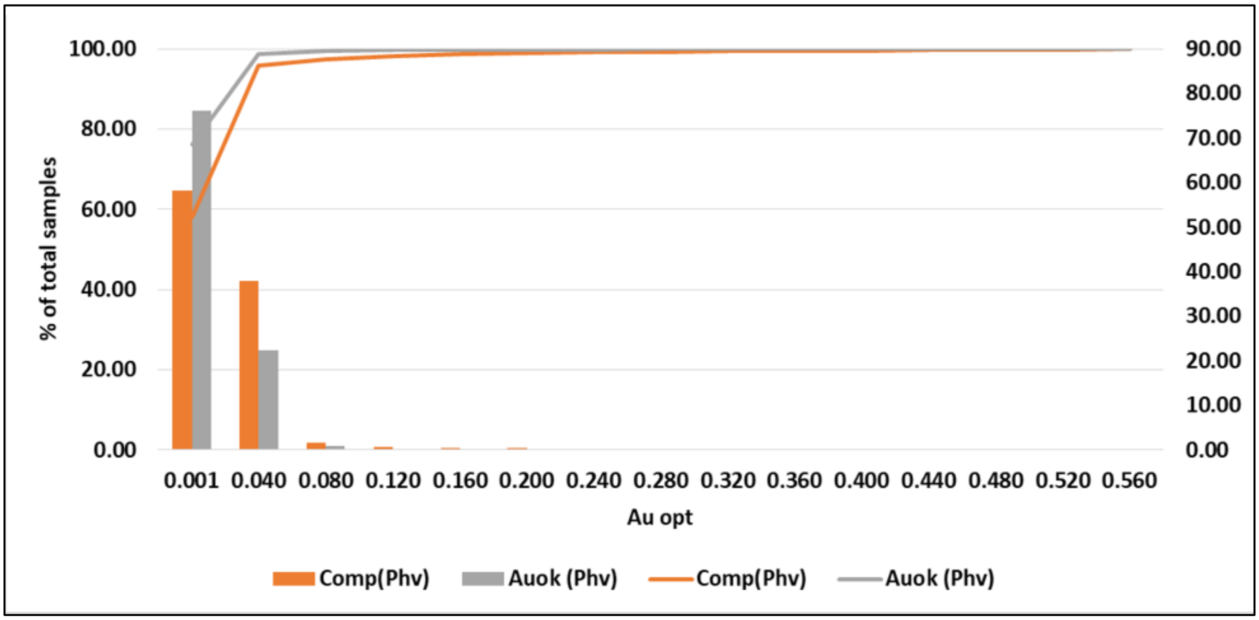


Figure 14-28_Comparison of Historgram and Cumulative Frequency Charts of Composites and Block Grade Estimates in the Qal

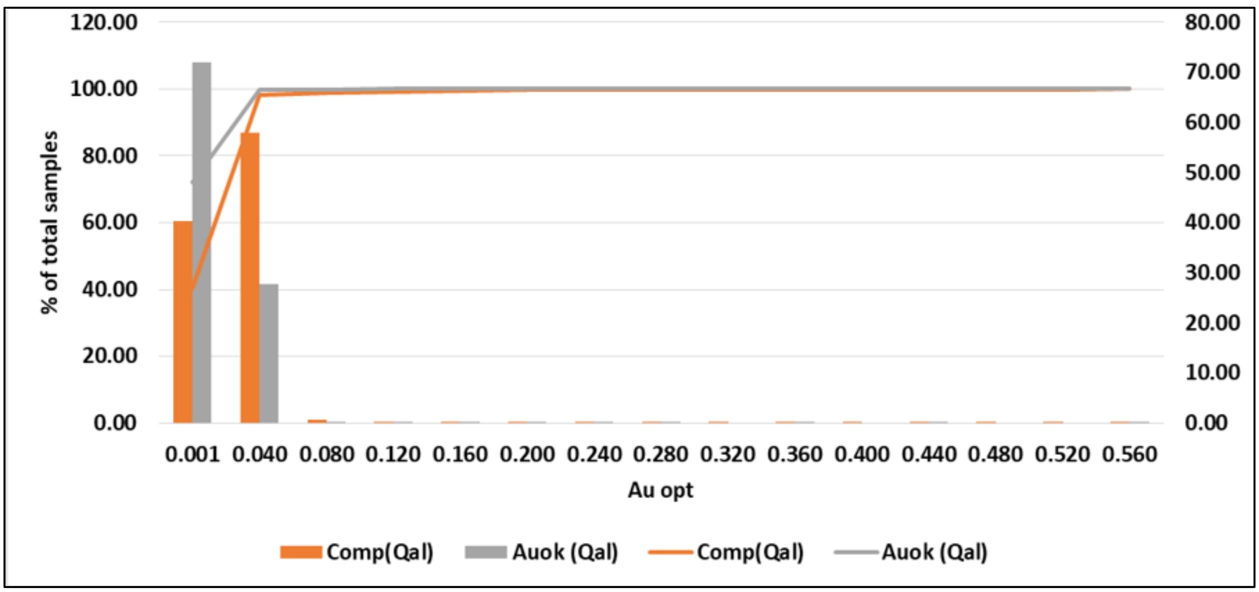


Figure 14-29: Comparison of Histogram and Cumulative Frequency Charts of Composites and Block Grade Estimates in the Pem

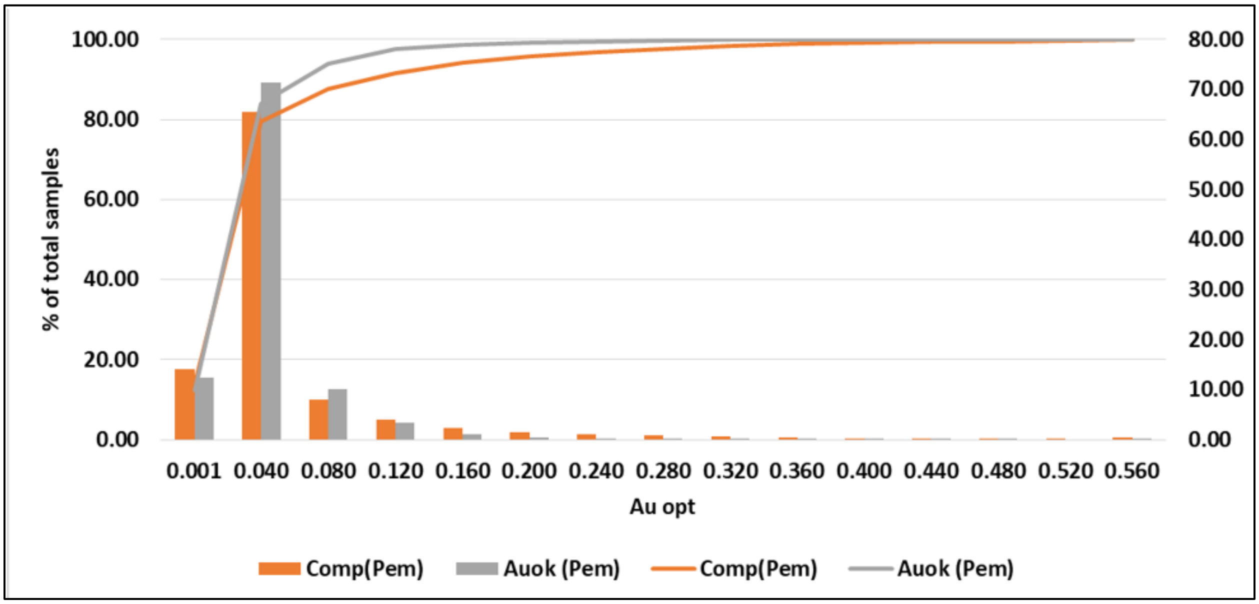


Figure 14-30: Comparison of Istogram an dCumulative Frequency Charts of Composites and Block Grade Estimates in the Pb

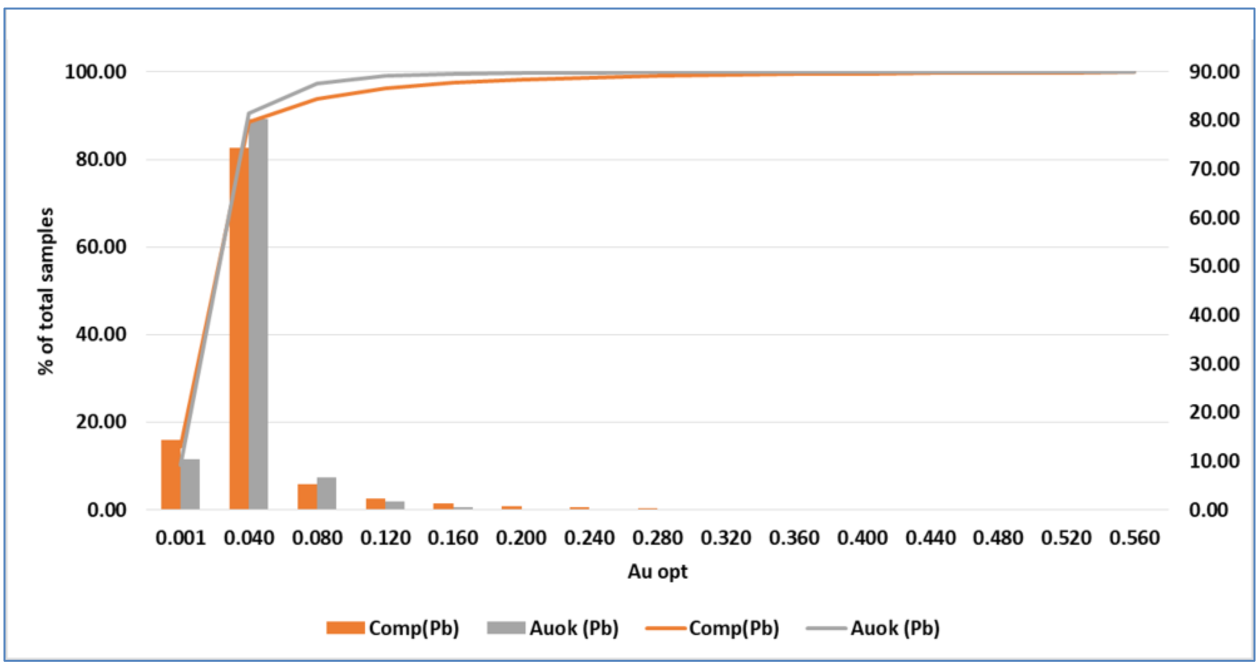
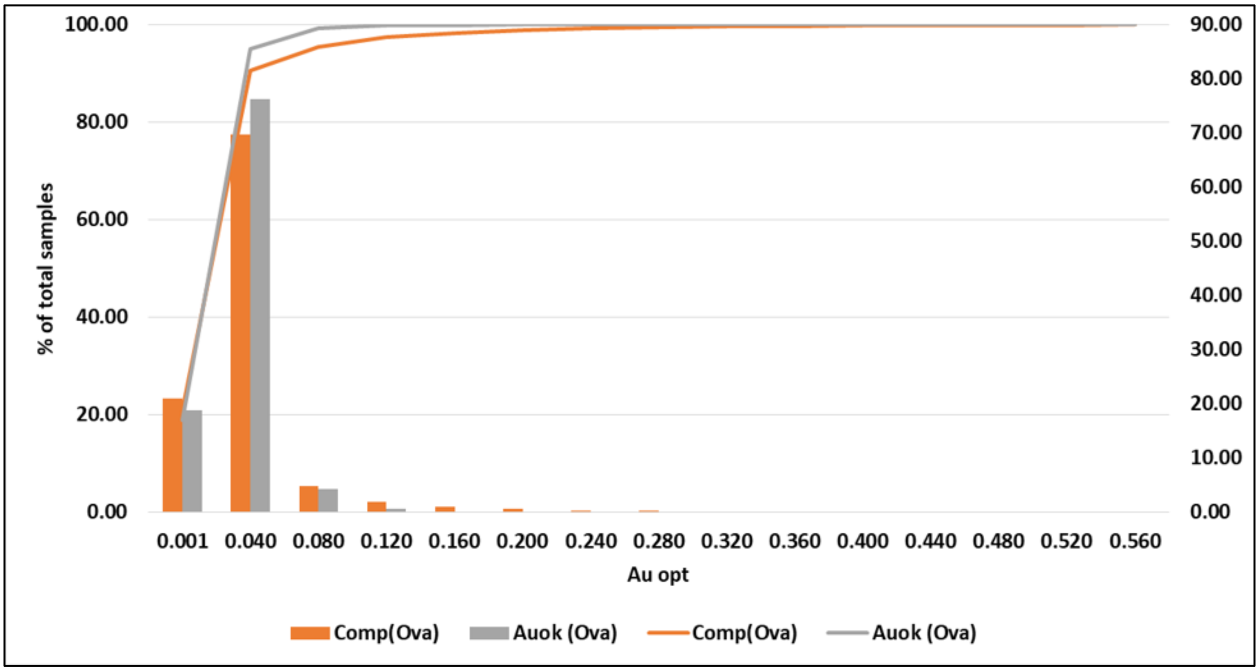


Figure 14-31: Comparison of Histogram and Cumulative Frequency Charts of Composites and Block Grade Estimates in the Ova



14.14 Tabulation of Estimated Resources

The estimated mineral resources are presented in Table 14-10

Table 14-10: Estimated Resources at 0.65 g/t Cut-Off Grade

	Tonnes (Mt)	Au (g/t)	Au (K ozs)
Indicated Mineral Resources	7.2	1.77	410
Inferred Mineral Resources	50.7	1.69	2,764

Notes to accompany the Mineral Resource table for Lone Tree deposit:

1. Mineral Resources have an effective date of 31 July, 2021.
2. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
3. Mineral resources are shown above a 0.65 g/t Au cut-off grade.
4. Mineral Resources are constrained to oxide and transitional oxide-sulfide mineralization inside a conceptual open pit shell. The parameters for pit shell construction are a gold price of $1,650/oz Au, 90% recovery for gold, open pit mining costs of $2.20/tonne, average processing cost of $27.55/tonne processed, general and administrative costs of $3.31/tonne processed, a 3% NSR royalty and pit slopes of 40° to 45°.
5. Mineral Resources are stated as in situ with no consideration for planned or unplanned external mining dilution.
6. The contained gold estimates in the Mineral Resource table have not been adjusted for metallurgical recoveries.
7. Units shown are metric tonnes.
8. Numbers have been rounded as required by reporting guidelines and may result in apparent summation differences.

15. MINERAL RESERVE ESTIMATES

"Mineral reserves" differ from "Mineral Resources" in that Mineral Reserves are known to be economically feasible for extraction. The CIM Definition Standards require the completion of a Preliminary Feasibility Study (PFS) as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves. At this time, a PFS has not been completed for the Lone Tree Project. Therefore, reserve estimates have not been made.

16. MINING METHODS

The Lone Tree has been historically mined using surface mining method. A surface mining method is expected. However, a detailed mining plan has not been developed.

17. RECOVERY METHODS

Refer Section 13 for metal recovery method.

18. PROJECT INFRASTRUCTURE

Refer to Section 5.

19. MARKETING STUDIES AND CONTRACTS

Marketing studies are out of the scope of this project.

20. ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Lone Tree is an operational site with gold production from the existing heap leach pad, an active assay laboratory, ongoing reclamation from past mining and production, environmental monitoring, and treatment of the pit lake.

20.1 Environmental Liabilities

Reclamation activities from past mining and processing at the Lone Tree project are ongoing. A reclamation cost estimate prepared in March 2021 estimated cost to close and reclaim the project is $84.7M. This amount includes closure of all permitted mining and exploration disturbance at the project and is calculated using standardized reclamation cost estimators that assess the following:

- Exploration drill hole abandonment
- Exploration roads and pads

- Waste rock dumps
- Heap leach pads
- Roads
- Pits
- Foundations and buildings
- Other demolition and equipment removal
- Sediment and drainage control
- Process ponds
- Landfill
- Yards
- Waste disposal
- Well abandonment
- Miscellaneous costs
- Monitoring
- Construction management
- Mobilization and demobilization

20.2 Dewatering

During mining of the historic Lone Tree pit, dewatering operations were conducted 24 hours per day with an average daily production of 30,000 gallons per minute (gpm); dewatering at its peak was 75,000 gpm. At the end of mining operations in 2006, dewatering wells were turned off and the pit lake began to form. In March 2018, the pit-lake elevation was approximately 4,307 ft and water levels continued to rebound. The pit currently functions as a sink and groundwater flow toward the Lone Tree Pit from all directions is anticipated to continue for another 40-50 years to reach equilibrium. Regional groundwater flow is also influenced by local users including agricultural producers and dewatering at the Marigold Mine.

Developing the current resource would require draining the historic Lone Tree pit and extending the cone of depression deeper than previously attempted. This represents one of the greatest challenges in advancing the current resource and will require extensive investigations into the technical, environmental, and social impacts.

20.3 Current Permits

Several permits are in place at the Lone Tree site. The following is a list of key permits:

- Plan of Operations (BLM)
- Nevada State Fire Marshal Hazardous Materials Permit (No. 89468 and 95462)
- On-Site Sewage Disposal Systems General Septic Permit (NDEP, Bureau of Water Pollution Control)
- General Permit for Stormwater Discharges Associated with Industrial Activity from Metals Mining Activities (NDEP)
- Industrial Artificial Pond Permit for the heap leach facility (NDEP)
- Industrial Artificial Pond Permit for tailings decant pond (Nevada Department of Wildlife)
- Permit to Operate a Public Water System (NDEP Bureau of Safe Drinking Water)
- Water Pollution Control Permits (NDEP, Bureau of Mining Regulation and Reclamation)
- National Pollutant Discharge Elimination System (NDEP Bureau of Mining Regulation and Reclamation)
- Reclamation Permit (NDEP Bureau of Mining Regulation and Reclamation)
- Tailings Dam Construction and Safety Permit (Nevada Division of Water Resources)
- Class II Air Quality Operating Permits (NDEP Bureau of Air Pollution Control)
- Lone Tree Mine Section 14 Class III Landfill No. 3 (NDEP Bureau of Sustainable Materials Management)
- Petroleum Contaminated Soils (PCS) Management Plan
- Class V License for Liquefied Petroleum (Nevada NP Gas Board).
- Permit to Change Point of Diversion, Manner of Use and Place of Use of the Public Waters of the State of Nevada Heretofore Appropriated.
- Permit to Change the Public Waters of the State of Nevada Heretofore Appropriated.
- Groundwater Discharge Permit
- Underground Injection Control Permits
- NPDES Permits

21. CAPITAL AND OPERATING COSTS

Detailed studies have not been carried out to provide this information. However, various cost factors have been assumed for creating an optimized pit-shell to meet the Reasonable Prospect for Eventual Economic Extraction criteria. These cost factors have been disclosed in the Section 14.

22. ECONOMIC ANALYSIS

Detailed economic analysis is out of the scope of this project.

23. ADJACENT PROPERTIES

Most of the mineral rights surrounding Lone Tree Marigold are owned or controlled by NGM. The only other active mining project in the area is Marigold, operated by SSR Mining. There are several inactive mines and exploration or development projects in the area. Other smaller deposits in the area are Trenton Cayon (Figure 23-1) & North Peak (owned by NGM) and Converse complex owned by Waterton. Mineral Resources for area properties are summarized in Table 23-1.

Figure 23-1: Mineral Deposits Adjacent to Lone Tree

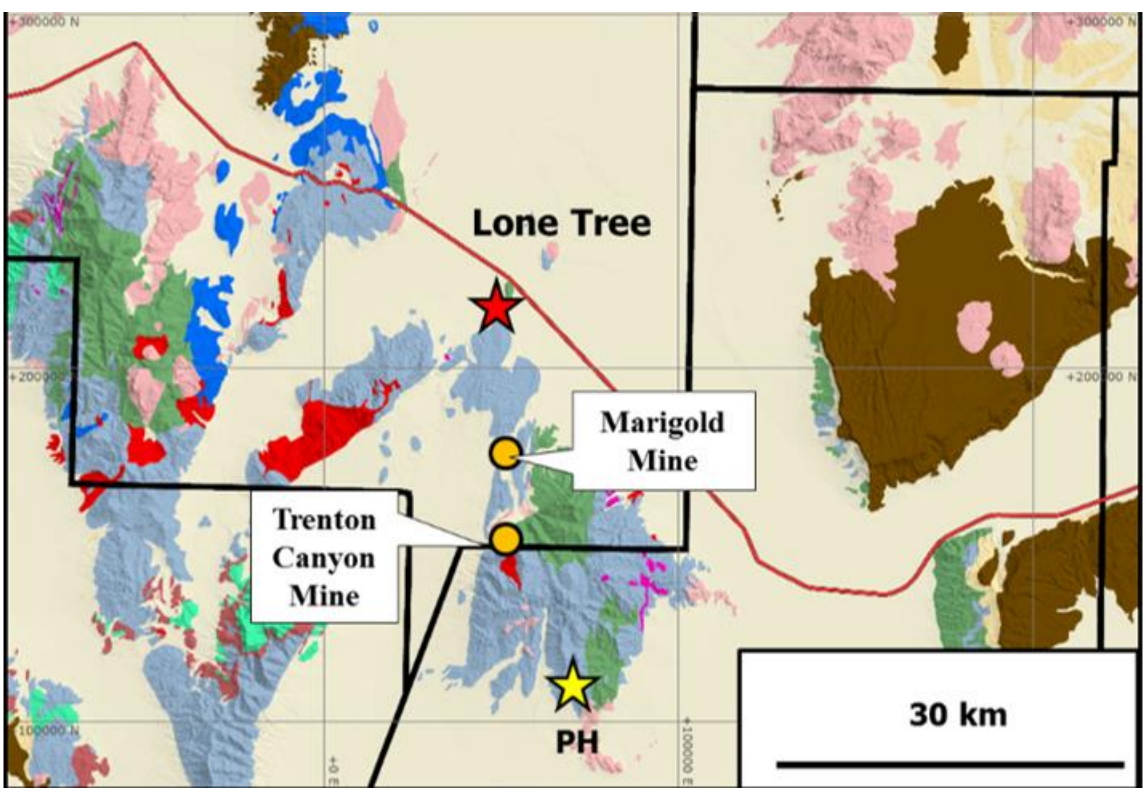


Table 23-1: Mineral Resources for Nearby Properties

Property	Owner	Produced (Au Oz)	Stated Mineral Reserves (M. Au Oz)	Stated Measured and Indicated Mineral Resources (M.Au Oz)	Stated Inferred Mineral Resources (M. Au Oz)
Marigold[1]	SSR	--	3.19	5.66	0.63
Buffalo Valley Complex[2]	Newmont	39,688	n/a	0.47	Unknown
Trenton Canyon & North Peak[2]	Newmont	n/a	n/a	n/a	n/a
Converse[3]	Waterton	--	n/a	6.10	0.59

Notes:

1 SSR, 2017, Marigold Mine, NI 43-101 Technical Report

2 Newmont, 2014; Newmont's 2013 Annual Report filed February 20, 2014.

2 The Nevada Mineral Industry, 2012; Nevada Bureau of Mines and Geology Special Publication MI-2012 less Valmy which was purchased by SSR Mining in 2015.

3 Chaparral Gold, October 21, 2014; website, deposit sold to Waterton Global Resource Management in 2014.

24. OTHER RELEVANT DATA AND INFORMATION

A mine grid coordinate system is used at the Lone Tree deposit for drilling. The drill hole collars use a mine grid coordinate system and are mapped using a GPS. The GPS has 0.4-inch (1 cm) accuracy. From 1985 through 1998, a Topcon total station instrument was used, accurate to within five seconds of a degree.

Each of the surveyed data points is recorded digitally and manually, before it is saved in an acQuire Data Management data-storage system

25. TECHNICAL REPORT INTERPRETATION AND CONCLUSIONS

1. As per the definition of the Inferred resources, geological continuity can be assumed. However, in this Lone Tree resource estimation project, contact analyses proved that the <u>geological units interpreted by NGM are reasonable</u>; Various geological units (as designated and grouped by NGM) had different levels of favorability for mineralization (different AuFA grade distributions).
2. Geological continuity: Composites within one geological unit were used for estimation of blocks within the same geological unit; And a minimum of two drill holes were required for inferred and indicated resource classification. As per the definition of the;
    - Inferred resources, geological continuity can be assumed. However, in this Lone Tree resource estimation project,

- already interpreted geological model by previous operators. Holes/ samples used for gold grade estimation: Use of minimum two holes and 6 samples within 100 feet (i.e., the approx. range of AuFA variogram models) is defendable for inferred and indicated category resources.

3. The RPEEE criteria: The resource classification is based on a pit-shell that uses operational parameters of the current pit by previous operators as shown in **Error! Reference source not found.**.

   - Inventory of all blocks below the current pit limit and within 1650 pit-shell is classified as inferred resources and a subset of these blocks within 50 feet from the current pit-surface are classified as indicated blocks.

26. RECOMMENDATIONS

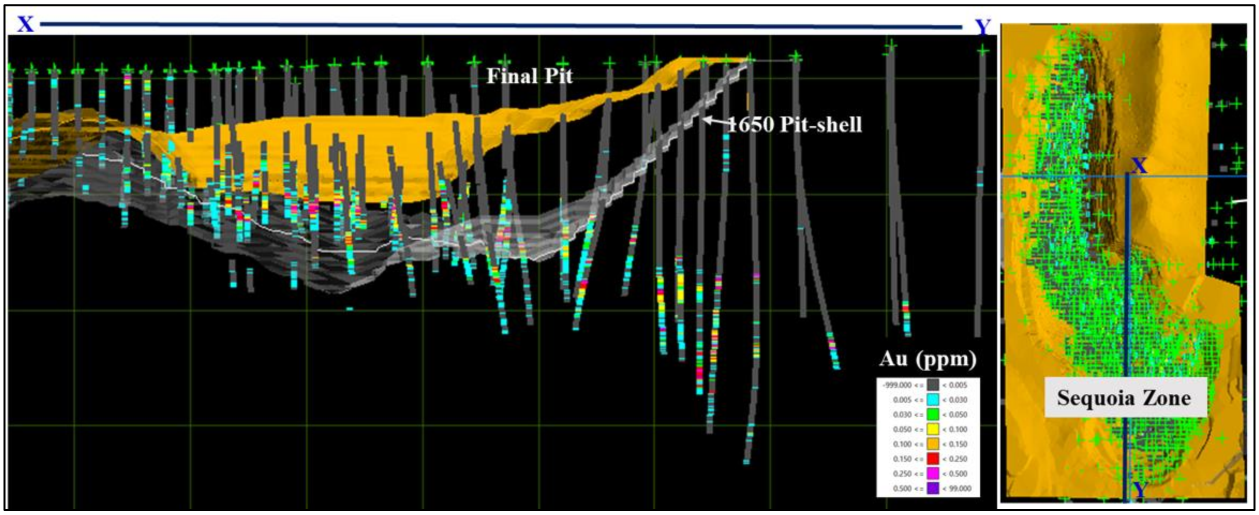
The resource estimates presented in this report are valid in a deposit scale, which may be appropriate for long-term mine planning. However, for making the mine production ready a resource model should be updated using more detailed data analyses for achieving local scale accuracies such as in weekly or monthly production scale.

A simulation-based resource model with risk factors inbuilt in it may be beneficial for estimating risks and opportunities for the future production. Such an approach may also be useful for strategic exploration planning.

The Lone Tree deposit provides potential for improving currently inferred category resources into indicated category and additional inferred resources through infill drilling. These infill drilling program should be strategically designed so that benefits from drilling is maximized. An advanced geostatistical approach to strategic drill hole planning is advised.

Lone Tree has potential for substantial mineral resources at Sequoia area. This the current drill hole intercepts as shown in the Figure 26-1. Further deep drilling in the Sequoia zone has potential to add more mineral resources to the project.

Figure 26-1: A Vertical Cross Section (Looking East) Along East 83700 North-South



27. REFERENCES

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28. APPENDIX A

28.1 Variogram Maps

Figure 278-1: Variogram map of AuFA in Qal

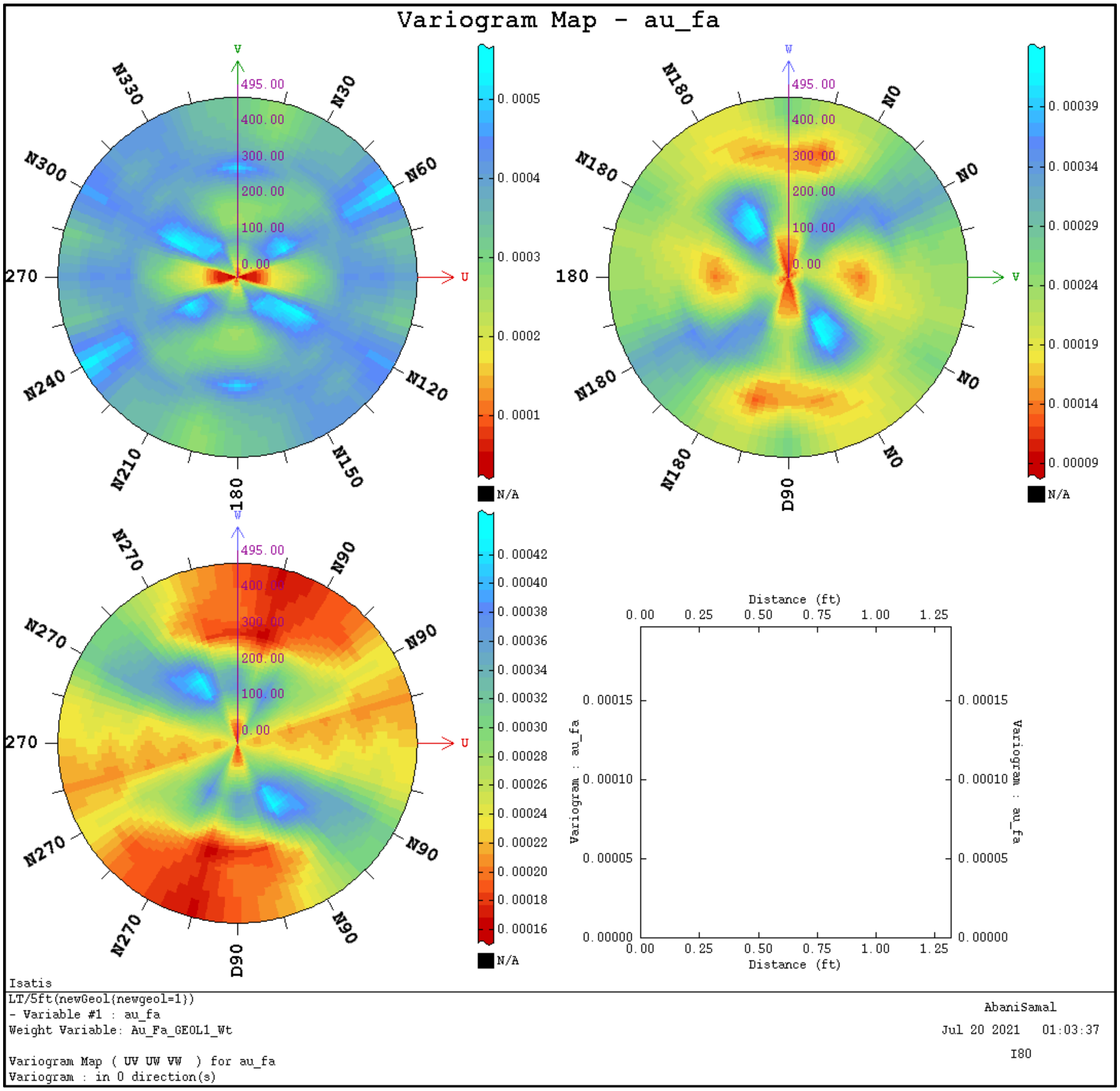


Figure 278-2: Variogram Map of AuFA in Phv

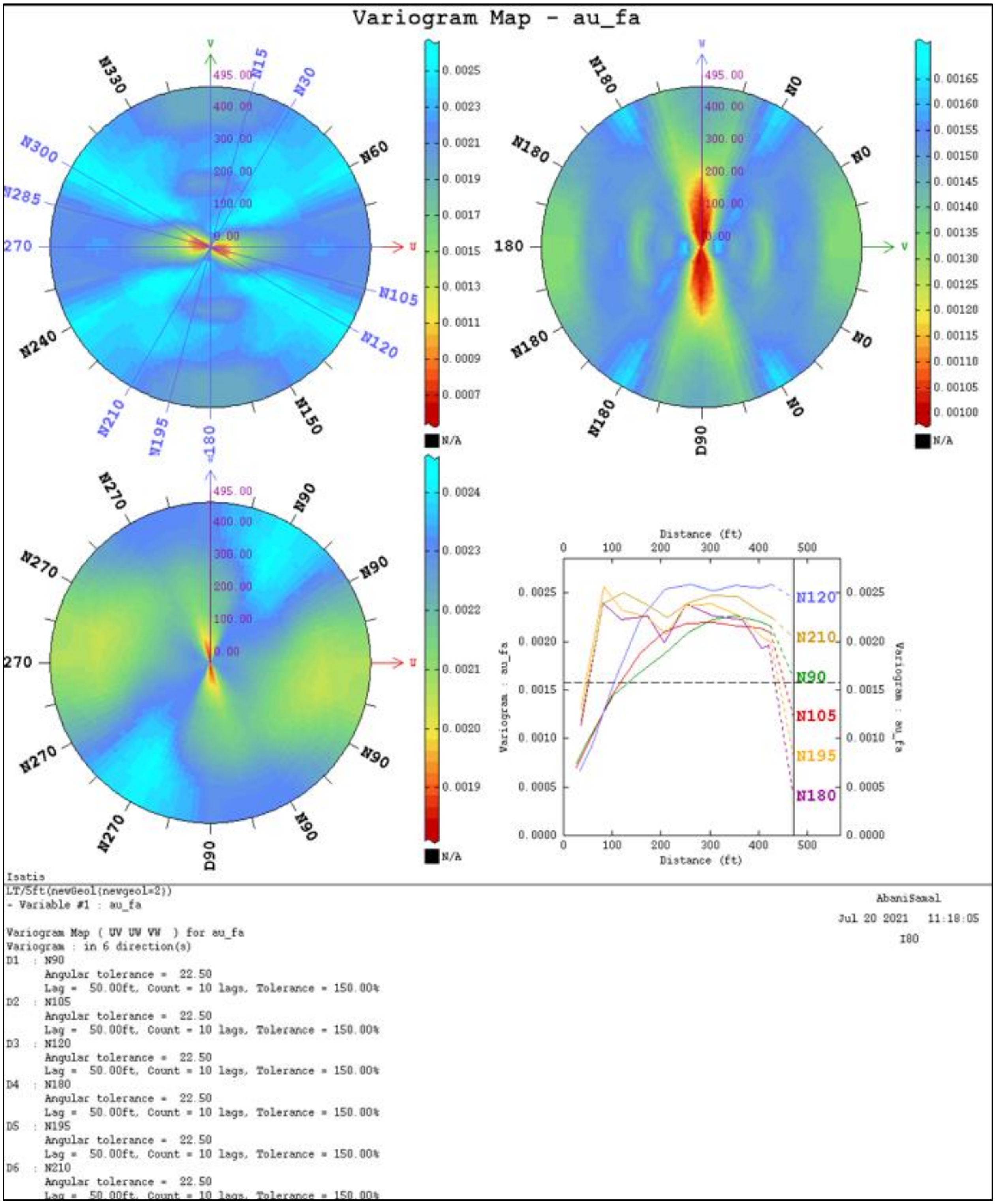


Figure 278-3: Variogram Map of AuFA in Pem

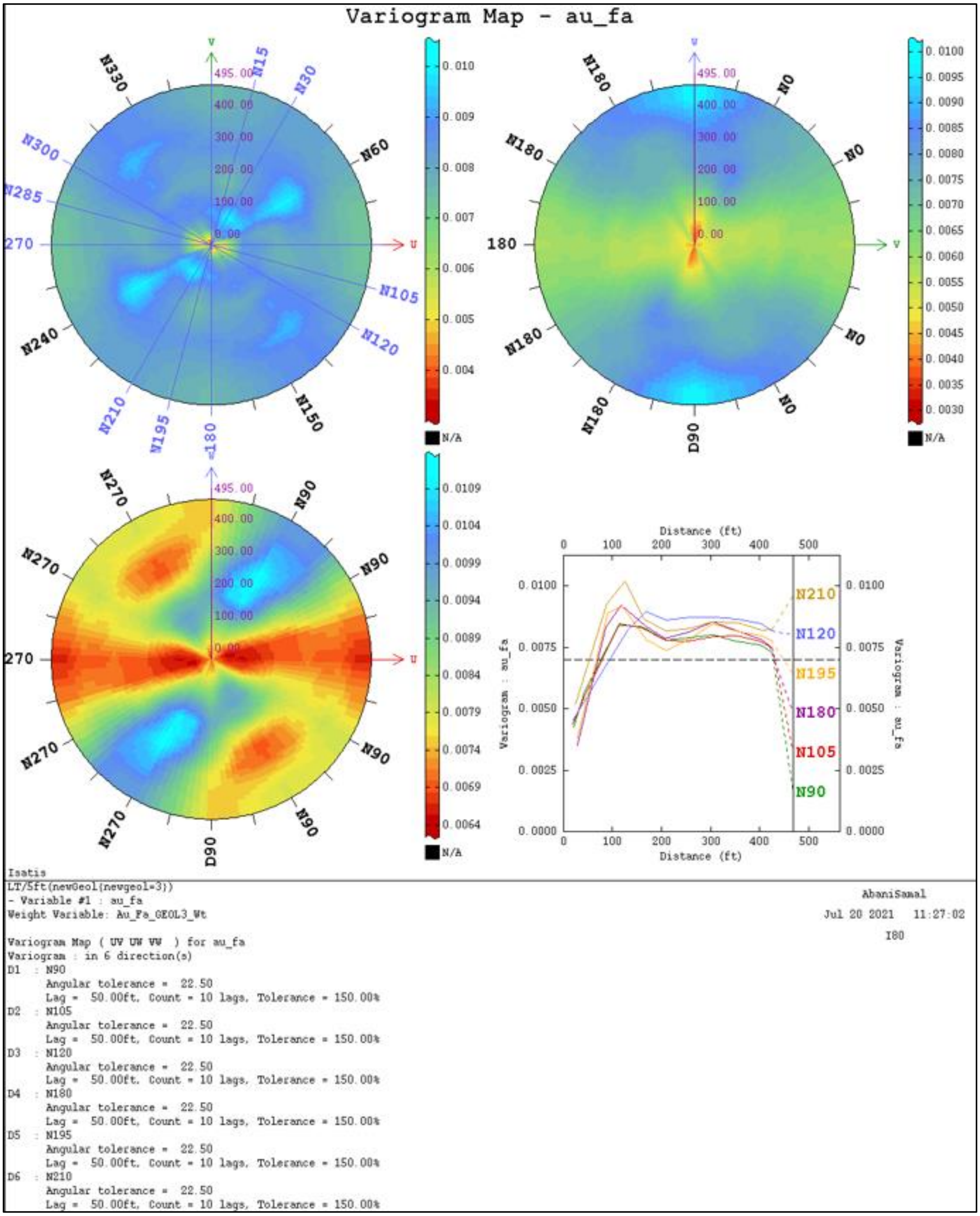


Figure 278-4: Variogram Map of AuFA in Pb

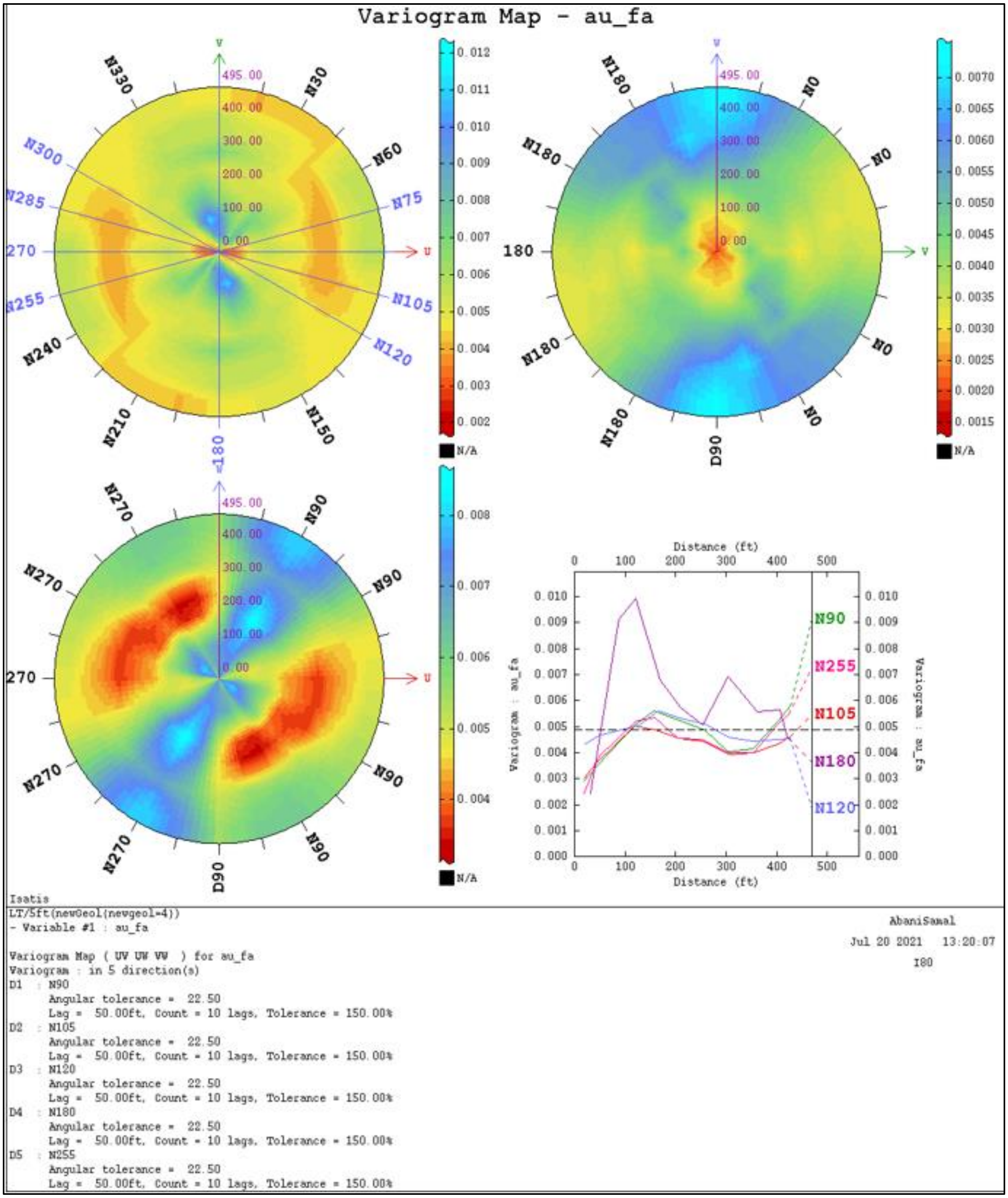
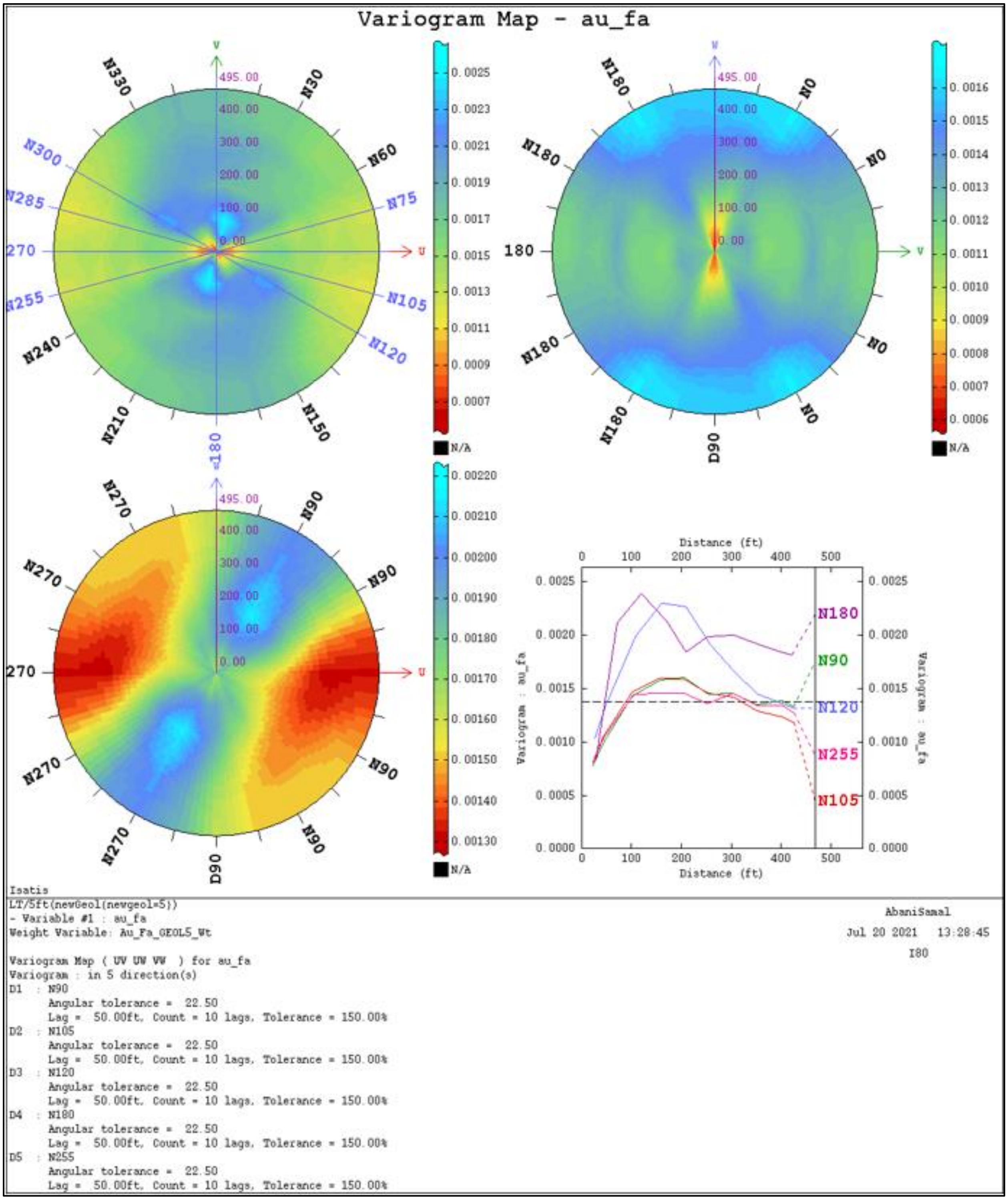


Figure 278-5: Variogram Map of AuFA in Ova



28.2 Variogram Models

Figure 278-6: Variogram Model of Lithology code 1 (Qal)

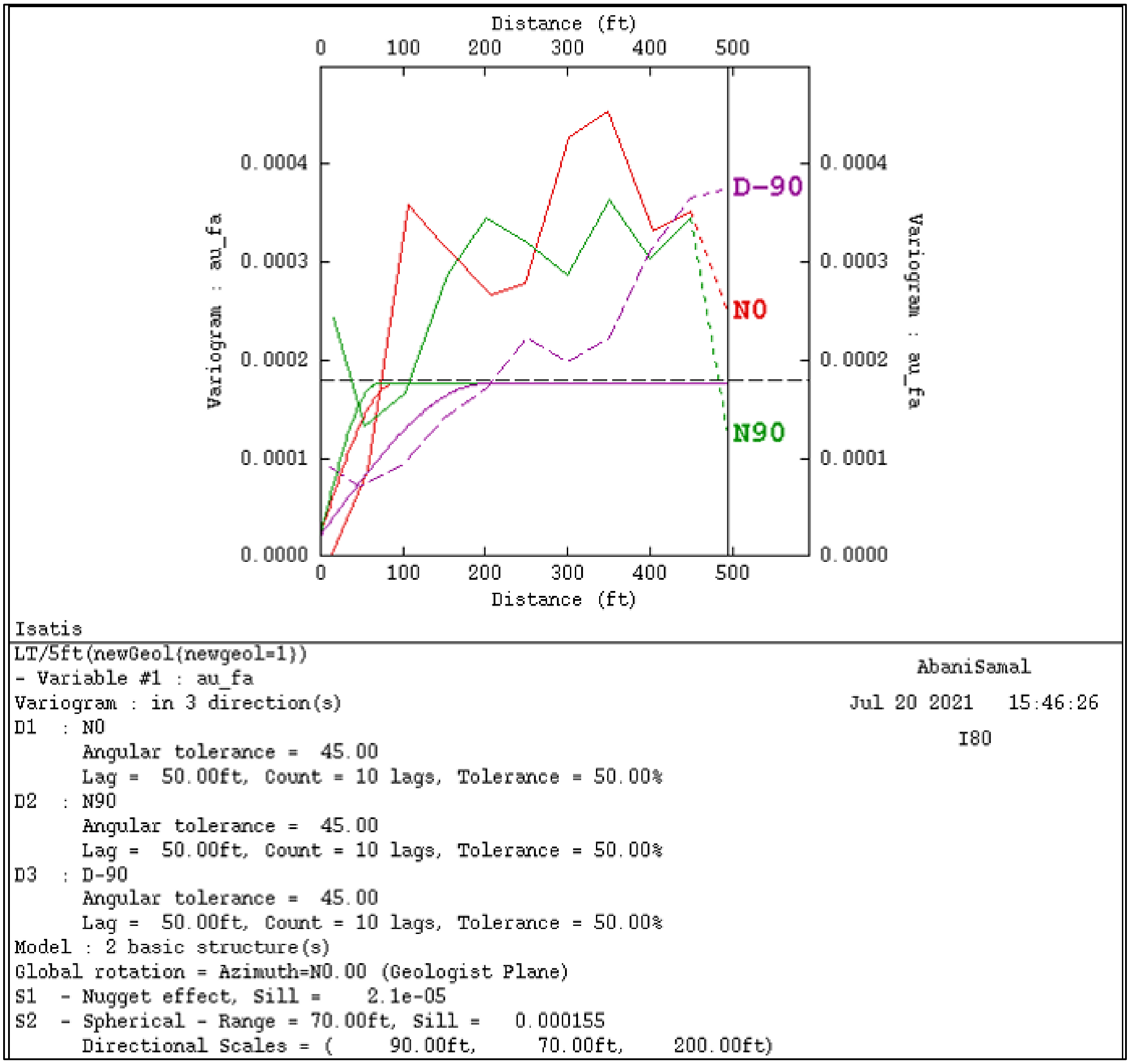
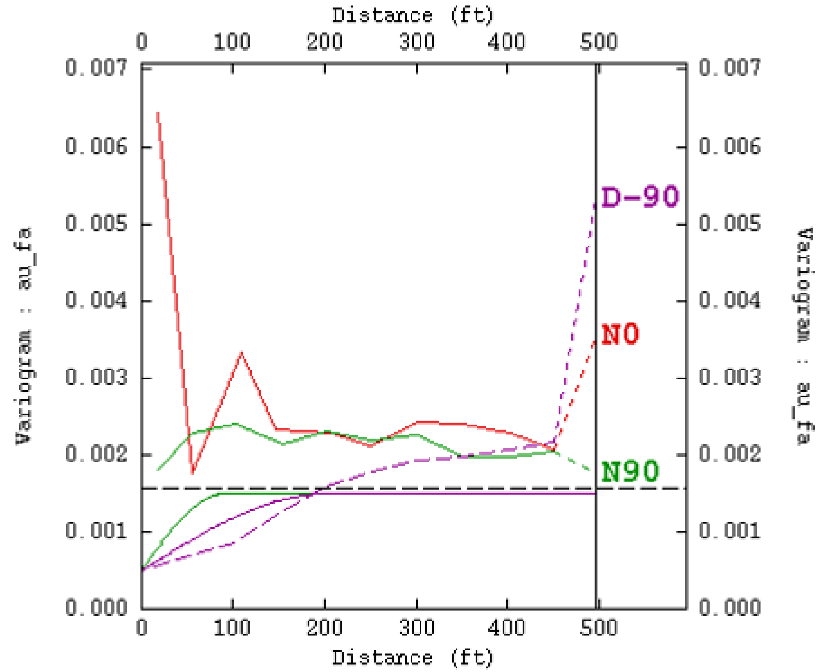


Figure 278-7: Variogram Model of Lithology Code 2 (Phv)



Isatis

LT/5ft(newGeol{newgeol=2})
- Variable #1 : au_fa
Variogram : in 3 direction(s)
D1 : N0
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D2 : N90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D3 : D-90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
Model : 2 basic structure(s)
Global rotation = Azimuth=N0.00 (Geologist Plane)
S1 - Nugget effect, Sill = 0.0005
S2 - Spherical - Range = 90.00ft, Sill = 0.001
Directional Scales = (90.00ft, 90.00ft, 200.00ft)

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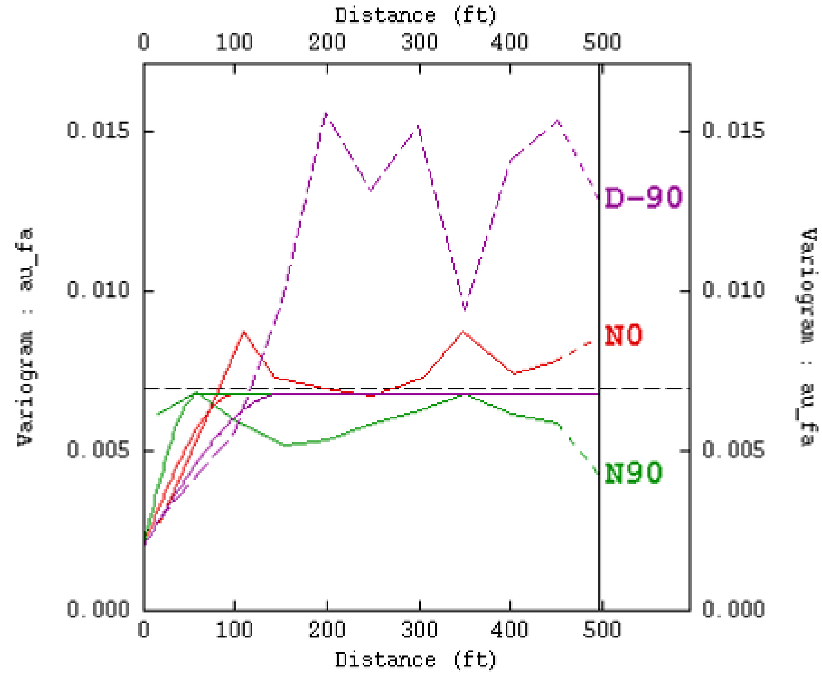
Figure 278-8: Variogram Model of Lithology Code 3 (Pem)



Isatis

LT/5ft(newGeol{newgeol=3})
- Variable #1 : au_fa
Variogram : in 3 direction(s)
D1 : N0
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D2 : N90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D3 : D-90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
Model : 2 basic structure(s)
Global rotation = Azimuth=N0.00 (Geologist Plane)
S1 - Nugget effect, Sill = 0.002
S2 - Spherical - Range = 60.00ft, Sill = 0.0048
Directional Scales = (100.00ft, 60.00ft, 150.00ft)

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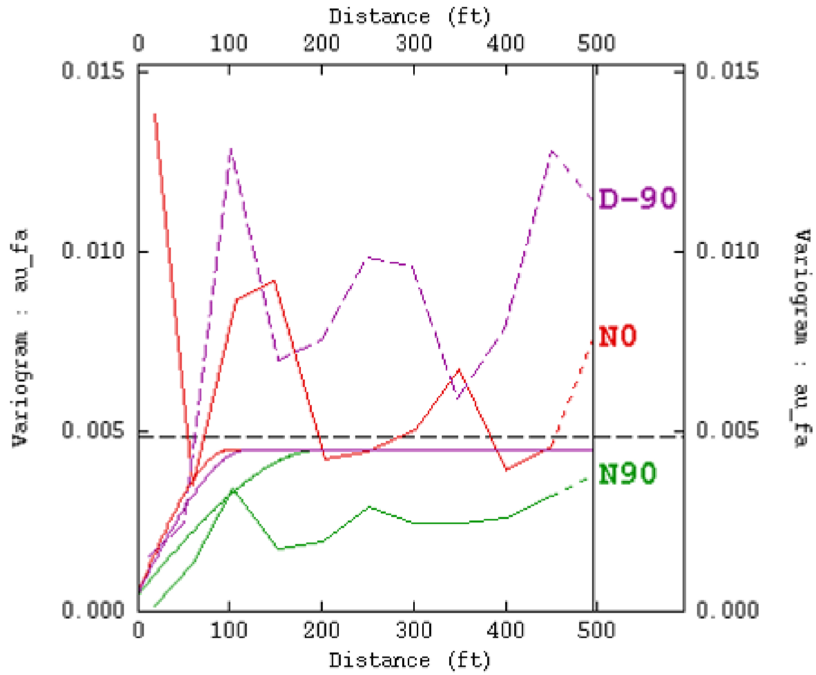
Figure 278-9: Variogram Model of Lithology Code 4 (Pb)



Isatis

LT/5ft(newGeol(newgeol=4))
- Variable #1 : au_fa
Variogram : in 3 direction(s)
D1 : N0
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D2 : N90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D3 : D-90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
Model : 2 basic structure(s)
Global rotation = Azimuth=N0.00 (Geologist Plane)
S1 - Nugget effect, Sill = 0.0005
S2 - Spherical - Range = 100.00ft, Sill = 0.004
Directional Scales = (100.00ft, 200.00ft, 120.00ft)

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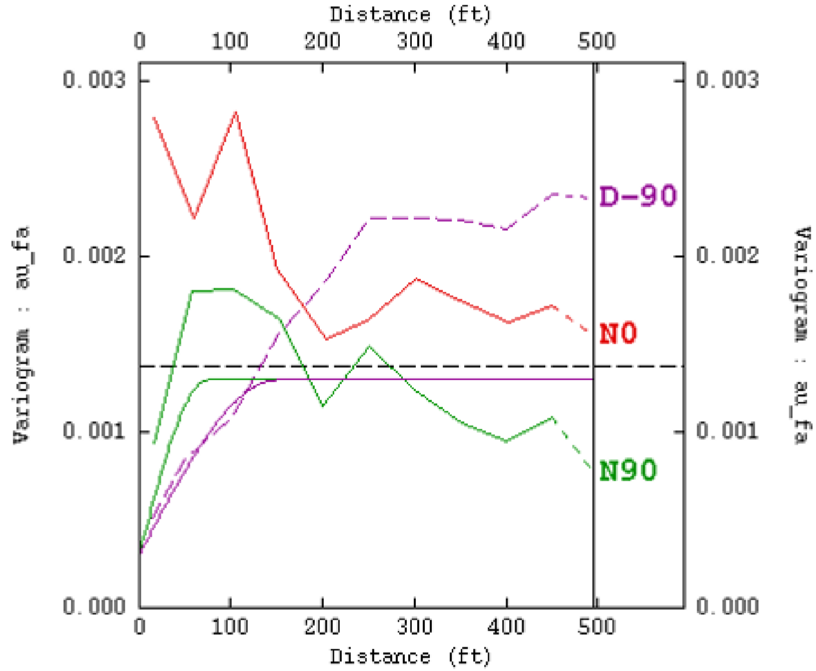
Figure 278-10: Variogram Modle of Lithology Code 5 (Ova)



Isatis

LT/5ft(newGeol(newgeol=5))
- Variable #1 : au_fa
Variogram : in 3 direction(s)
D1 : N0
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D2 : N90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
D3 : D-90
Angular tolerance = 45.00
Lag = 50.00ft, Count = 10 lags, Tolerance = 50.00%
Model : 2 basic structure(s)
Global rotation = Azimuth=N0.00 (Geologist Plane)
S1 - Nugget effect, Sill = 0.0003
S2 - Spherical - Range = 75.00ft, Sill = 0.0009995
Directional Scales = (75.00ft, 75.00ft, 150.00ft)

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