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PRELIMINARY ECONOMIC ASSESSMENT

PARAMOUNT GOLD NEVADA CORP.

SLEEPER PROJECT, HUMBOLDT COUNTY NEVADA

DECEMBER 10, 2015

PREPARED BY

METAL MINING CONSULTANTS INC.

DATE AND SIGNATURE PAGE

Paramount Gold Nevada Corp.: Preliminary Economic Assessment, Paramount Gold Nevada, Humboldt County, Nevada.

The effective date of this report October 27, 2015.

Dated this 10th day of December, 2015

(signed/sealed) *Scott E. Wilson*

Scott E. Wilson, C.P.G.,

Geologist

(signed) *Carl Brechtel*

Carl Brechtel, SME-RM

Mining Engineer

(signed) *William J. Pennstrom, Jr.*

William J. Pennstrom, Jr., SME-RM

Metallurgist

AUTHOR'S CERTIFICATE

I, Scott E. Wilson, of Highlands Ranch, Colorado, do hereby certify:

1. I am currently employed as President by Metal Mining Consultants Inc., 9137 S. Ridgeline Blvd., Suite 140, Highlands Ranch, Colorado 80129.
2. I am a co-author of the technical report titled "Preliminary Economic Assessment, Paramount Gold Nevada, Humboldt County, Nevada" (the PEA) dated December 10, 2015.
3. I graduated with a Bachelor of Arts degree in Geology from the California State University, Sacramento in 1989.
4. I am a Certified Professional Geologist and member of the American Institute of Professional Geologists (CPG #10965) and a Registered Member (#4025107) of the Society for Mining, Metallurgy and Exploration, Inc.
5. I have been employed as either a geologist or an engineer continuously for a total of 26 years. My experience included resource estimation, mine planning geological modeling and geostatistical evaluations of numerous projects throughout North and South America.
6. 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 (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
7. I have visited the Sleeper project and surrounding area during November 30th, 2015.
8. I am responsible for sections 1-12, 14, 20 and 23-27 of the PEA Report.
9. As of the date of the 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.
10. My prior involvement with the property was as an author of the July 30, 2012 Technical Report on the same property.
11. That I have read NI 43-101 and Form 43-101F1, and that this technical report was prepared in compliance with NI 43-101.
12. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
13. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated December 10, 2015

Scott E. Wilson

I, William Pennstrom, Jr., President of Pennstrom Consulting Inc., do hereby certify that:

1. I am a consulting metallurgical engineer and President of Pennstrom Consulting, Inc. 2728 Southshire Rd. Highlands Ranch, CO 80126, USA.
2. I am a graduate of the University of Missouri Rolla (currently known as Missouri S&T) with a BS degree in Metallurgical Engineering. I am also a graduate of Webster University in St. Louis, MO, with a MA degree in Business Management.
3. I am a Registered Member in good standing of the Society of Mining, Metallurgy and Exploration. I am also a Qualified Professional Member of the Mining and Metallurgical Society of America.
4. I have worked in the Mineral Processing Industry for a total of 28 years since before, during, and after my attending the University of Missouri. I have been an independent process/metallurgical consultant for the last nine (9) years for the mining industry.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
6. I am responsible for the preparation of Sections 13, 17, and 21, and relevant portions of Sections 1, 2, 25 and 26 of the technical report titled "Technical Report and Preliminary Economic Assessment for the Sleeper Gold Project, Nevada, USA" dated December 10, 2015 (the "Technical Report"). I visited the property on May 7, 2012.
7. My prior involvement with the property was as an author of the July 30, 2012 Technical Report on the same property.
8. As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.
9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated December 10, 2015

(signed) William Pennstrom, Jr. [Sealed]

William Pennstrom, Jr., M.A.

I, Carl E. Brechtel, Principal, Carl Brechtel Consulting LLC, do hereby certify that:

1. I am a consulting mining engineer and Principal of Carl Brechtel Consulting LLC, 6439 Umber Circle, Arvada, CO 80007.
2. I am a graduate of the University of Utah, with a BS in Geological Engineering and an MS in Mining Engineering.
3. I am a Registered Member (SME 353000RM) in good standing of the Society of Mining, Metallurgy and Exploration, and a licensed Professional Engineer in the States of Colorado and Nevada, USA.
4. I have worked in the Mining Industry for 37 years.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
6. I am responsible for the preparation of Sections 15, 16, 18, 19, 21 and 22, and relevant portions of Sections 1, 2, 25 and 26 of the technical report titled "Technical Report and Preliminary Economic Assessment for the Sleeper Gold Project, Nevada, USA" dated July 30, 2012 2012 (the "Technical Report"). I have visited the property on May 7, 2012.
7. My prior involvement with the property was as an author of the July 30, 2012 Technical Report on the same property.
8. As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.
9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated December 10, 2015

(signed) Carl E. Brechtel [Sealed]

Carl E. Brechtel, PE

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1 SUMMARY

1.1 INTRODUCTION

The Sleeper Project represents an opportunity as a mine that might be put back in to operation in the current gold price environment. This report documents a scoping study that looked at Sleeper with the potential to operate in an environment of low gold prices. In this view of the project, MMC chose to define a pit constrained resource that assumed a $650 selling price. Though the economic analysis is performed at $1,250 Au and $16 Ag selling prices, the scheduled resources from the $650 pit represent higher value ounces that can support a smartly derived, low capital investment. MMC feels this view of the Sleeper Project is representative for current market conditions.

Results of the PEA are summarized below:

- 30,000 tonnes per day heap leach process facility fed by open pit mining (approximately 11 million tonnes per year throughput with 0.72 strip ratio);
- Mineralized material containing a total 1.02 million ounces of gold and 5.1 million ounces of silver;
- Average annual production of 102,000 ounces of gold and 105,000 ounces of silver for 7 years with additional metal recovered during final leaching of 37,850 ounces of gold and 30,500 ounces of silver;
- Payback period of 3.5 years after the beginning of production based on after tax cash flows;
- Average gold grade for the first three years of 0.47 g/T with 0.41 g/T over the life of mine (LOM);
- Low initial Capital Expenditure of $175 million and total LOM capital and sustaining costs of $259 million;
- Projected LOM average cash operating costs are US$529 per ounce of equivalent gold produced;
- LOM all-in capital, operating and sustaining costs estimated at $869 per ounce of gold equivalent;
- At a gold and silver price of $1250 and $16 per ounce respectively, the Base Case has a $244 million pre-tax net cash flow, a $167 million net present value at a 5% discount rate and an internal rate of return of 25%.

1.2 HISTORY

AMAX first began production in 1986. The Sleeper operation was designed to treat oxide mineralization by both milling and heap leaching. There was no flotation circuit in the mill to recover gold bearing sulphides. The early pit mill feed was oxide material, but zones of sulphide mineralization were present in the pit. Reported gold production from the mill was 1,219,880 ounces and 438,609 ounces from heap leaching. Silver production totaled approximately 2.3 million ounces. The mine ceased production in 1996.

1.3 GEOLOGY AND MINERALIZATION

Four main types of gold mineralization are found within the Sleeper deposit and may represent a continuum as the system evolved from a high level, high sulphidation system dominated by intrusion related fluids and volatiles to a low sulphidation meteoric water dominant system. In this setting the paragenetic relationships of the differing mineralization styles are as follows:

- Early -quartz-pyrite-marcasite stockwork
- Intermediate -medium-grade, silica-pyrite-marcasite cemented breccias localized on zones of structural weakness
- Late -high-grade, banded, quartz-adularia-electrum-(sericite) veins
- Post -alluvial gold-silver deposits in Pliocene gravels

AMAX mined all four types of mineralization, with high-grade material (> 0.1 oz Au/ton) processed through the mill and low-grade (0.006 to 0.1 oz Au/ton) material processed by heap leaching. All were mined by open pit methods from the Sleeper, Wood, and Office pits. The deposit was mined over a north-south distance of 4,500 ft (1,372 m) and an east-west width of approximately 2,100 ft (640 m).

The high-grade bonanza veins are banded and composed of layers of quartz¬-adularia-electrum, with minor carbonate, barite, and late stibnite. Veins ranging from 1 inch to 20 feet in true width were mined in the Sleeper, East Wood, West Wood and Office vein systems. Numerous other narrower or shorter veins have been found in the course of drilling and mining, including several below the final mined pit, and some hosted within Auld Lang Syne meta-sedimentary rocks.

Medium-grade breccias in the mine, which were clast-supported and cemented by silica, pyrite, marcasite and adularia, typically assay between 0.1 and 1.0 oz Au/ton. The pyrite-marcasite content of the higher-grade breccias was notably higher than in the veins. The silver content in mined breccias was typically three to six times the gold grade. Lower-grade stockwork and breccia mineralization accounted for approximately 20 percent of the gold production. Mineralized breccias extend below the depth of the Sleeper Mine open pits, as demonstrated by X-Cal drilling west of the Wood Pit, where the breccias are particularly rich in sulphides.

Alluvial gold mineralization of Miocene or Pliocene age was found and mined in the western part of the Sleeper pit. This Older Alluvium consists of poorly sorted conglomerates derived mostly from the weathering of altered Sleeper rhyolite and partly from vein/stockwork ores.

1.4 GEOLOGICAL MODELING

Leapfrog Support Chile (LSC) was retained by SRK Chile to create a 3D Geological model of Paramount’s Sleeper gold deposit in Nevada. The deliverable products of this work combines a 3D model for Au and Ag mineralization with a lithological model of the study area, to be used as geological domains for resource estimation by SRK. SRK Consulting geologists in Santiago, Chile, worked together with LSC to check the models and verify the process and interpretations. This was also monitored together with Paramount personnel during several meetings held during the process of this study.

1.5 EXPLORATION AND DRILLING

Following the ceasing of operations by AMAX in 1996, The Sleeper Joint Venture performed drilling in 2004 and 2005 concentrating on the West Wood and Facilities areas. X-Cal Resources drilled the Facilities area in 2006 – 2007, as well as other exploration target areas within the claim block. Paramount’s drilling in 2010 – 2011 concentrated on the West Wood and Facilities areas.

1.6 MINERAL RESOURCE ESTIMATION

Mr. Glen Van Treek, President and CEO of Paramount Gold Nevada asked SRK to estimate the gold and silver resources for the Sleeper Project considering three areas of the deposit: Sleeper; Facility; and West Wood.

The estimation work consists of the following:

- (Au) Gold Estimation
- (Ag) Silver Estimation
- (S) Sulphur Estimation
- Density Estimation
- Resource Classification

The geology used for this work corresponds to the interpreted models of lithology, mineralization,and gold and silver envelopes. The mineralized area was estimated using indicator kriging. The models of lithology, mineralization, gold and silver envelopes were created as 3D solids using Leapfrog software. A separation was made based on the solids of 0.1 ppm for Au and 2 ppm for Ag. Through various analyses, it was determined that using the geological units of the deposit as the estimation units was the best method for more faithfully representing the gold distribution in the deposit. Since each sector of the deposit (Sleeper, Facility and West Wood) is clearly defined and the behavior in grade by lithology is different in each one of the sectors, it was decided to analyze each lithological unit for each one of the areas separately.

Correlograms on composite data bases were used for modeling and describing the spatial variability of the mineralization of the deposit. The methodology used for developing Au and Ag correlogram models was based on following determined preferential directions for the grade variation behavior and lithology of each estimation domain. Since it was not a simple task to identify this behavior due to the geology groupings which form the estimation units, the process considers the creation of variographic maps as correlograms in such a way in order to better visualize the preferential directions for each estimation unit.

Variographic studies used both down the hole and directional variogram analysis.

The sulphur (S) estimate was carried out using the Kriging Indicator Method for continuous variables.

The study also considered an estimate of the waste dumps which was performed using the Inverse distance squared method.

A block model with sub-cells was constructed in order to perform the resource estimation using ordinary kriging. The units were estimated separately except for some cases where soft boundaries were present. Validations were conducted to review the information of the nearest neighbor for global bias and drift, whereas for the general neighborhood review (where blocks around drillholes are also included), composited samples of 1.5 m were used. In order to limit the influence of very high grades, capping and a restricted search radius was performed on each estimation unit.

The estimations were validated using real grade vs. estimated grade regression. Comparison of global bias was also performed.

The following criteria were used for classifying the resources:

- In order for blocks to be considered as a measured resource, the average estimation distance must be less than or equal to 28 metres. This data is taken from correlograms where at least 90% of the plateau value is appropriate. Furthermore, the block should be estimated using at least two drillholes.
- In order for blocks to be considered as an indicated resource, the average estimation distance must be less than or equal to 40 metres and greater than 28 metres. This data is taken from correlograms, where at least 100% of the plateau value is appropriate. Furthermore, the block should be estimated using at least two drillholes.
- In order for blocks to be considered as an inferred resource, the block must only be estimated for gold and may not be considered as either measured or indicated resources.

1.7 MINERAL RESOURCES

The Sleeper database used for SRK's resource estimate includes more than 4,000 reverse circulation and core drill holes, as well as historical surface mapping and interpretations, to create a comprehensive lithological and structural model over the entire deposit. Additionally, data from more than 378,000 blast holes, collected while the project was in operation, were utilized to define trends, orientations and inclinations for the principal mineral zones. The April 2015 resource estimate prepared by SRK and discussed in Section 14, in the form of the resource block model, was used by MMC as the basis for determining potentially mineable mineralization in the PEA.

National Instrument 43-101 compliant global mineral resources at a cut-off grade of 0.15 grams of gold per tonne for oxide material and 0.1 grams of gold per tonne for sulphide material are listed in Table 1.1, 1.2, 1.3 and 1.4.

Table 1.1 Global Measured Resources

Cutoff Grade (g/t)	Tonnes (000)	Gold Grade (g/t)	Gold (000 of ounces)	Silver Grade (g/t)	Silver (000 of ounces)
0.15	200,500	0.39	2,488	3.5	22,368

Table 1.2 Global Indicated Resources

Cutoff Grade (g/t)	Tonnes (000)	Gold Grade (g/t)	Gold (000 of ounces)	Silver Grade (g/t)	Silver (000 of ounces)
0.15	93,900	0.31	933	2.8	8,427

Table 1.3 Global Measured Plus Indicated Resources

Cutoff Grade (g/t)	Tonnes (000)	Gold Grade (g/t)	Gold (000 of ounces)	Silver Grade (g/t)	Silver (000 of ounces)
0.015	294,400	0.36	3,421	3.3	30,794

Table 1.4 Global Inferred Resources

Cutoff Grade (g/t)	Tonnes (000)	Gold Grade (g/t)	Gold (000 of ounces)	Silver Grade (g/t)	Silver (000 of ounces)
0.015	241,800	0.32	2,472	1.90	15,004

1.8 MINE PLANNING

The average grade of the Sleeper mineral resources is relatively low, which dictates a different mining approach than previously employed in exploitation of the high grade mineralization during the 1980s. These low grades, which are now being mined successfully elsewhere in Nevada, appear to be economically viable in combination with the current high gold price environment and low operating costs that could result from large surface mining throughputs. This mining approach is the basis of the analysis and evaluation developed for the PEA.

A Preliminary Economic Assessment provides a basis to estimate project operating and capital costs and establish a projection of the potential mineable resource including measured, indicated and inferred categories as permitted under National Instrument 43-101. Whittle pit optimization was performed using estimates of operating costs typical of operating surface mines using heap leach processing in northern Nevada, and using estimates of metallurgical recovery based on test work performed on Sleeper core and waste dump material and consideration of historical operating results for heap leaching at the original Sleeper mine. The ultimate pit shell was determined using a gold price of $650 per ounce. In-pit resources and mineralized dumps used for production scheduling are listed in Table 1.6.

The estimated strip ratio for the economic pit is 0.72.

Paramount notes that the PEA incorporates inferred mineral resources which are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. Therefore, Paramount advises that there can be no certainty that the estimates contained in the PEA will be realized.

Table 1.5 In-pit Resources and Mineralized Dumps Used for Production Scheduling in the PEA

Resource Category	Mineralized Material (000s Tonnes)	Gold Grade (g/t)	Gold (000s of ounces)	Silver Grade (g/t)	Silver (000s of ounces)
Measured	32,596	0.38	399	3.54	3,714
Indicated	10,089	0.35	112	2.29	744
Measured and Indicated	42,685	0.37	511	3.25	4,458
Inferred	34,924	0.46	511	0.57	640

1.9 METALLURGY

Paramount has performed scoping level metallurgical testing to provide a basis to project potential process recoveries for oxide, sulphide and mine dump material. Data was available from bottle roll testing and column leach testing of drill samples from the mine dumps, Facilities Zone, Westwood Zone and tail materials. The tests indicated that materials from the Facilities Zone and mine dumps had generally high Au recovery in cyanide leach tests, while Westwood Zone and Sleeper material had generally low gold recovery in cyanide leach tests. Accordingly, material from the Westwood Zone and tailings was not incorporated into the PEA analysis.

Three general mining zones were defined on the basis of metallurgical testing and historical mining performance: (1) the Facilities Zone (an area on the eastern edge of the Sleeper surface excavation), (2) Sleeper Zone (low grade continuation of the original Sleeper deposit at depth), (3) West Wood and (4) mine dumps from historic Sleeper mining operations.

On the basis of the existing test data and the historical metallurgical performance of the Sleeper cyanide heap leach and cyanide mill processing, heap leach process recovery assumptions used in the Whittle optimization were:

- Alluvium – 72% for gold and 8% for silver
- Mine Dumps – 72% for gold and 42.5% for silver
- Facilities Zone – 79% for gold and 8% for silver
- Mixed Zones – 67.5% for gold and 20% for silver
- Sleeper Zone – 85% for gold and 10% for silver
- West Wood Zone – 72% for gold and 9% for silver

The process facilities in the PEA were assumed to be standard cyanide heap leaching with a carbon-in-column and ADR recovery plant. Heap leach material would be crushed to P80 -3/4 inch (19 mm) using a primary and secondary crushing circuit. It was assumed that agglomeration would be required for the heap leach. The crushing circuit would be sized for 30,000 tonnes per day throughput.

The process facilities would produce a dore' for direct sale to a regional refinery. It was assumed that metal produced would be sold at spot prices for gold and silver.

1.10 CAPITAL COSTS

Capital costs were developed based on scaling costs from similar facilities for production rates and from design basis assumptions including an owner operated mining fleet. The costs are collected in three separate categories: (i) initial capital (construction costs to initiate mining operations and heap leach processing); (ii) sustaining capital (costs associated with equipment additions/replacements or system rebuilds); and (iii) contingency estimates. The estimated life of mine capital costs for the base case are listed in Table 1.6.

Table 1.6 Life of Mine Estimated Capital Costs

Description	US$(millions)
Initial Capital	145.5
Sustaining Capital	37.4
Expansion	22.6
Contingencies	29.4
Initial Fills and Spares	5
Working Capital	18.9

Total	258.8

1.11 OPERATING COSTS

Operating cost assumptions were based on similar scale surface mining operations using heap leach processing in northern Nevada, and process cost estimates for key consumables based on the available metallurgical test data, power consumption data and prevailing costs for key materials in similar Nevada mining operations. Operating cost assumptions per tonne of material processed are summarized as in Table 1.7.

Table 1.7 Estimated Unit Operating Costs

Cost Area	Cost per process tonne ($US/t)	Cost per equivalent* produced Au ounce ($US/eq.Oz)
Mining (including waste and mineralized material rehandle)	$2.41	$245
Processing	$1.98	$202
Administrative	$0.80	$81
Dewatering	$0.20	$20
Reclamation	$0.11	$11
Credit working capital and Initial Fills & Spares	($0.31)	($32)
Subtotal Operating Cost	$5.19	$529
Capital Cost	$3.33	$340
Projected Total Cost	$8.52	$869

* Gold Price =$US 1,250 per ounce; Silver Price = $US 16 per ounce

1.12 ECONOMIC ANALYSIS

The base case economic evaluation used historical three-year trailing averages for gold and silver prices as of October 12, 2015. This approach is consistent with the guidance of the United States Securities and Exchange Commission, is accepted by the Ontario Securities Commission and is industry standard. The base case pre-tax and post-tax economic results for both sets of metal price assumptions are listed in Table 1.8.

1.13 INFRASTRUCTURE

Existing infrastructure at the Sleeper mine site will require upgrades for the projected large mine configuration, however, the basic components remain in place. The site is currently connected to the regional electrical grid, although substantial capacity upgrade would be required. Gravel road access, connecting the Sleeper mine site to paved, all weather Highways 140 and 95 is in place.

The community of Winnemucca, NV is to the south of Sleeper at the junction of Highway 95 and Interstate Highway I-80, and is a community of 7,400 people. Mining and industrial skills required by the mining operation are readily available in the area, as Winnemucca supports numerous existing gold mining operations.

Table 1.8 Projected Economic Results (US $)

Parameter	Base Case	Spot Price Case	Long Term Price Case
Gold Price Assumption	$1,250	$1,185	$1,400
Silver Price Assumption	$16	$16	$16

In-pit Resource Measured (0.1 g/t COG)	32,956	32,956	32,956
In-pit resource – Indicated (0.1 g/t COG)	10,089	10,089	10,089
In-pit resource – Inferred (0.1 g/t COG)	34,924	34,924	34,924
Pre-tax Net Cash Flow	$US 290.5 M	$US 241.6 M	$US 405.5 M
Pre-tax Net Present Value (NPV) at 5%	$US 201.8 M	$US 161.7 M	$US 296.4 M
Internal Rate of Return Pre-tax (IRR)	28.4%	24.1%	38.1%
After tax Net Cash Flow	$US 198.5 M	$US 165.0 M	$US 277 M
After tax Net Present Value (NPV) at 5%	$US 125.8 M	$US 98.3 M	$US 190.5 M
After tax Internal Rate of Return (%)	20%	17%	27%
Overall Strip Ratio (overburden: mineralization)	0.72	0.72	0.72
Average Annual Gold Production	92.4 k oz	92,.4 k oz	92.4 k oz
Average Annual Silver Production	91.8 k oz	91.8 k oz	91.8 k oz
Average Gold Recovery	73.6%	73.6%	73.6%
Average Silver Recovery	14.6%	14.6%	14.6%
Average Total Mining Rate*	46.2 k tpd	46.2 k tpd	46.2 k tpd tpd
Average Mineralized Material Mining Rate*	26.6k tpd	26.6 k tpd	26.6 k tpd
Average Processing Rate*	26.6 k tpd	26.6 k tpd	26.5 k tpd

- over production years 1-8

Existing shop and office Buildings at Sleeper are located on top of the Facilities Zone, and would require removal and reconstruction. Heap leach pad and process facilities would have to be constructed however; very favorable terrain should result in low cost and rapid completion.

Renewed mining at Sleeper would require the development of a dewatering system to empty the existing mine lake, control inflow to the mine excavations and create a local depression in the hydrologic regime to allow deepening of the mine. The previous mining created a system of dewatering wells, however, only some monitoring wells remain functional. New wells would need to be installed, and a wetlands or rapid infiltration basin constructed.

1.14 INTERPRETATION AND CONCLUSIONS

The Sleeper gold-silver deposit represents a project with a great deal of potential for being an important gold producer in Nevada. Exploration potential adjacent to the mine is very positive as well as brownfield opportunities in the other target within the claim block that still remain to be tested, Although the overall exploration potential was not part of the work scope, MMC reported that this potential had been recognized.

Au and Ag mineralization display various controls, including sub-vertical feeder structures and stockwork halos as well as bedding-parallel controls. The latter, is particularly seen at the Facility Zone, related to what has been interpreted in the model presented here in this report, as the base of the rhyolite (either as a flow or dome) and the contact with the underlying Mesozoic basement. These mineralization trends have not been extensively drilled, and present strong potential for continuity for increasing resources at the project.

A combined heap leach processing plus bio-oxidation scenario was tested to determine the economic viability of the Project. This will help guide PZG for future metallurgical testing and trade off studies in the event PZG will assess the project for preliminary feasibility economics. The alternative demonstrated an opportunity to for a project with a 14 year mine life as well as the ability to feed 50,000 tonnes per day to heap leach facilities for 11 years. The envisioned bio-oxidation plant would be fed with 10,000 tonnes per day of higher grade sulphide mineralization. Total LOM production would be 1.7 million ounces of gold and 3.2 million ounces of silver. Total capital and sustaining costs over the LOM would increase to $373 million with a cash operating cost of $758 per gold equivalent ounce. At a 5% discount rate, this scenario would result in a pre-tax NPV of $309 million and an IRR of 25.5%.

1.15 RECOMMENDATIONS

MMC recommends that the QA/QC sample and laboratory analysis evaluation continue to be done on a regular basis during subsequent drillhole campaigns. In addition, the investigations being conducted by Paramount to resolve some of the discrepancies between the principal laboratory and the secondary lab should continue to resolve this prior to the next drill campaign.

MMC recommends that PZG advance the project with a pre-feasibility study ("PFS".) A PFS is an intermediate exercise, normally not suitable for an investment decision. It has the objectives of determining whether the project concept justifies a detailed analysis by a feasibility study, and whether any aspects of the project are critical to its viability and necessitate in depth investigations through various support studies. A PFS study is an intermediate stage between the relatively inexpensive PEA and a relatively expensive FS. PFS studies are often completed by two or three teams with access to various consulting groups.

MMC recommends that a budget of 1% of the initial capital startup costs of this PEA ($1,450,000 US) would be sufficient to implement a PFS.

2 INTRODUCTION

Paramount Gold Nevada Corp. ("PZG") contracted Metal Mining Consultants Inc. (MMC) to perform a Preliminary Economic Assessment (PEA) of the Sleeper Gold and Silver Project located in the Awakening Mining District, Humboldt County, Nevada, USA. The PEA was based on an updated resource and property evaluation performed by SRK Consulting (Chile) S.A., and reported in the report, "Mineral Resource Estimation Update – Sleeper Gold Project, Nevada, U.S.A." dated April 17, 2015.

The Sleeper Gold Property comprises 1,044 unpatented lode mining claims totaling approximately 30 square miles (6,709 hectares).

Figure 2.1 Location of the Sleeper Project

PZG, is a public company listed and trading on the NYSE MKT. ("NYSE"). PZG was spun off from Paramount Gold and Silver Corp. ("PGSC") in April 2015 in connection with PGSC's merger with Coeur Mining, Inc. Paramount's head office and mailing address is 665 Anderson Street, Winnemucca, Nevada 89445.

Paramount through its subsidiaries, X-Cal Resources Ltd., X-Cal USA Inc., New Sleeper Gold LLC and Sleeper Mining Company LLC control 100% of the 1,044 unpatented lode mining claims. All claims registered in the name of X-Cal USA are currently assigned to the New Sleeper Gold LLC.

2.1 SCOPE OF WORK

The MMC Scope of Work was to perform an evaluation of the potential for the Sleeper Project to become a commercial mining operation. The basis of the evaluation was the resource and property evaluation performed by SRK and reported in the Technical Report by Even (2015). MMC was supplied the global resource block model developed by SRK and used it to perform mine optimization analysis for a surface mine operation, assuming heap leach processing of the produced mineralized material. A production schedule was then developed and used as the basis for capital and operating cost estimates. An economic assessment was then performed based on projected metallurgical recovery, gold and silver production, and revenue.

The report developed by SRK has been incorporated into this PEA. The Scope of Work for the previous Technical Report included:

1. Geology and Resources Reviewer Field Visit, review of QA/QC and NI-43-101 document review.
2. Database Review and Validation - SRK Reno Geologist (Brooke Miller) to visit site and review database
3. Review data stream from the logging of holes to lab results to cross-checking the database.
4. Use blast hole samples, if possible to validate historic AMAX database.
5. Iso-Grade Modeling in Leapfrog - also investigate the possibility of creating a lithological model.
6. Resources, SRK Santiago (Joled Nur) - Perform an Indicator Kriging or Indicator Simulation in order to obtain an idea of the locations and trends of the principal veins.
7. Perform a mineral resource estimation for gold and silver using the constructed geologic units.
8. Combine and compile a single report document according to CIM NI-43-101 guidelines including database review and validation, site visit and QA/QC analysis, as well as the geologic model construction and resource estimate.
9. This technical report was prepared following the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1, and in conformity with generally accepted CIM "Exploration Best Practices" guidelines.

2.2 WORK PROGRAM

The MMC Team reviewed the SRK Technical Report for the Sleeper Project and was supplied with the resulting global resource block model which was used as a basis of the mining analysis. Additional technical work by various consultants was also reviewed to develop a conceptual project configuration, which would be the basis of the PEA. Scott E. Wilson visited the Sleeper Project site in Nevada on

November 30, 2015 where he reviewed the site geology and physical configuration subsequent to SEWC 2012 with Paramount Project Manager Geologist Nancy Wolverson.

The conceptual project configuration was reviewed in a series of conversations with PZG. In addition to the viability of heap leach processing, MMC analyzed the possibility that sulphides materials could be processed with bio leaching technology. MMC used the results of bio leaching tests from 2015 to assess the project's ability to support such an operation. The results show this promising technology may work for Sleeper but at a higher gold price than the current market can bear. MMC ultimately chose heap leaching of oxide material at this time. A description of the bio leaching processes is included in the section "Other Relevant Data Chapter 24.

2.3 BASIS OF THE TECHNICAL REPORT

This report is based on information collected by MMC during the site visit and on additional information provided by Paramount. It incorporates work by SRK 2015. In that report, SRK conducted certain independent verifications of exploration data from archived files provided for inspection by the Client in Paramount's Winnemucca, Nevada office. MMC has reviewed the Technical Report and verified parts of information contained herein and believes the information to be reliable. The SRK Technical Report was based on:

- Discussions with Paramount personnel and reports prepared by Paramount and previous owners of the Sleeper property;
- Personal inspection of the Sleeper project area;
- Inspection and review of drill core from the Sleeper Project;
- Review of historical exploration work conducted on the property;
- Additional information obtained from public domain sources.

2.4 QUALIFICATIONS OF MMC

MMC is a consulting practice located in Highlands Ranch, CO USA providing services to the US and International Mining Industry. MMC offers services in geologic modeling, geostatistics and resource estimation, and supports mining operations with pit mapping and ore control assistance. Mine engineering experience includes mine optimization, surface and underground mine layout and design, production scheduling, strategic planning, leach pad development and scheduling, equipment selection and operating and capital cost estimation. MMC has prepared Feasibility Studies and Technical Reports under NI 43-101.

This technical report was compiled by Scott E. Wilson, Mike Cole, William Pennstrom, Jr. ,Carl E. Brechtel, and Scott Burkett.

2.5 SITE VISIT

A site visit was made Scott E. Wilson on November 30, 2015. The visit was hosted by Paramount's Project Manager Nancy Wolverson. The purpose of the visit was to inspect the existing site conditions and review the Sleeper geology. This visit had as its purpose to review the data available, particularly verifying the information used in the drill hole database, as well as procedures used during the mining of the Sleeper deposit and also during the exploration campaigns carried since the mine ceased operations in 1996.

The Sleeper project is an idle, open pit gold mine with exploration potential. The mine produced gold concentrate from 1986 to 1996 under AMAX's operation. Paramount is currently carrying out core and RC drilling campaigns to outline further resources. A portion of the open pit is currently occupied by a pit lake.

2.6 ACKNOWLEDGEMENTS

MMC would like to acknowledge the support and collaboration provided by Paramount personnel for the preparation of this report, and in particular, Mr. Glen Van Treek and Nancy Wolverson for their assistance.

3 RELIANCE ON OTHER EXPERTS

MMC's opinion and conclusions presented in this Technical Report are based on information provided by PZG and reflect technical information and economic conditions at the time of report preparation. MMC has reviewed the available data and concludes that it is an acceptable basis for development of a Preliminary Economic Assessment. MMC is not qualified to assess the status of environmental permitting or future requirements for permitting a major mining project at Sleeper, and has therefore relied on guidance from Paramount's environment consultants at Enviroscientists, Inc. of Reno, NV.

This report includes technical information, which requires subsequent calculations to derive sub- totals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, MMC and SRK do not consider them to be material.

MMC is not an insider, associate or an affiliate of PZG, and has acted as advisor to Paramount or its affiliates in connection with this project. The results of the technical review by MMC are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

MMC has not researched ownership information such as property title and mineral rights.

The opinions expressed in this Report have been based on the information supplied to MMC by PZG. The opinions in this Report are provided in response to a specific request from Paramount to do so. MMC has exercised all due care in reviewing the supplied information. Opinions presented in this report apply to the site conditions and features as they existed at the time of MMC's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which neither MMC has no prior knowledge nor have had the opportunity to evaluate.

Richard DeLong

Mr. Delong is the founder of Enviroscientists, Inc. a well-respected business known throughout the Northern Nevada mining community. Enviroscientists is a leading property development and permit acquisition firm that specializes in assisting natural resource development industries with property development needs, evaluation of environmental effects, and compliance with governing regulations. Mr. Delong is not a Qualified Person as defined by NI43-101. However, Mr. Delong's opinions regarding regulatory compliance are widely sought after and his recommendations are typically followed. The author knows of Mr. Delong's reputation, has relied on Mr. Delong's contributions to Section 20.

4 PROPERTY DESCRIPTION AND LOCATION

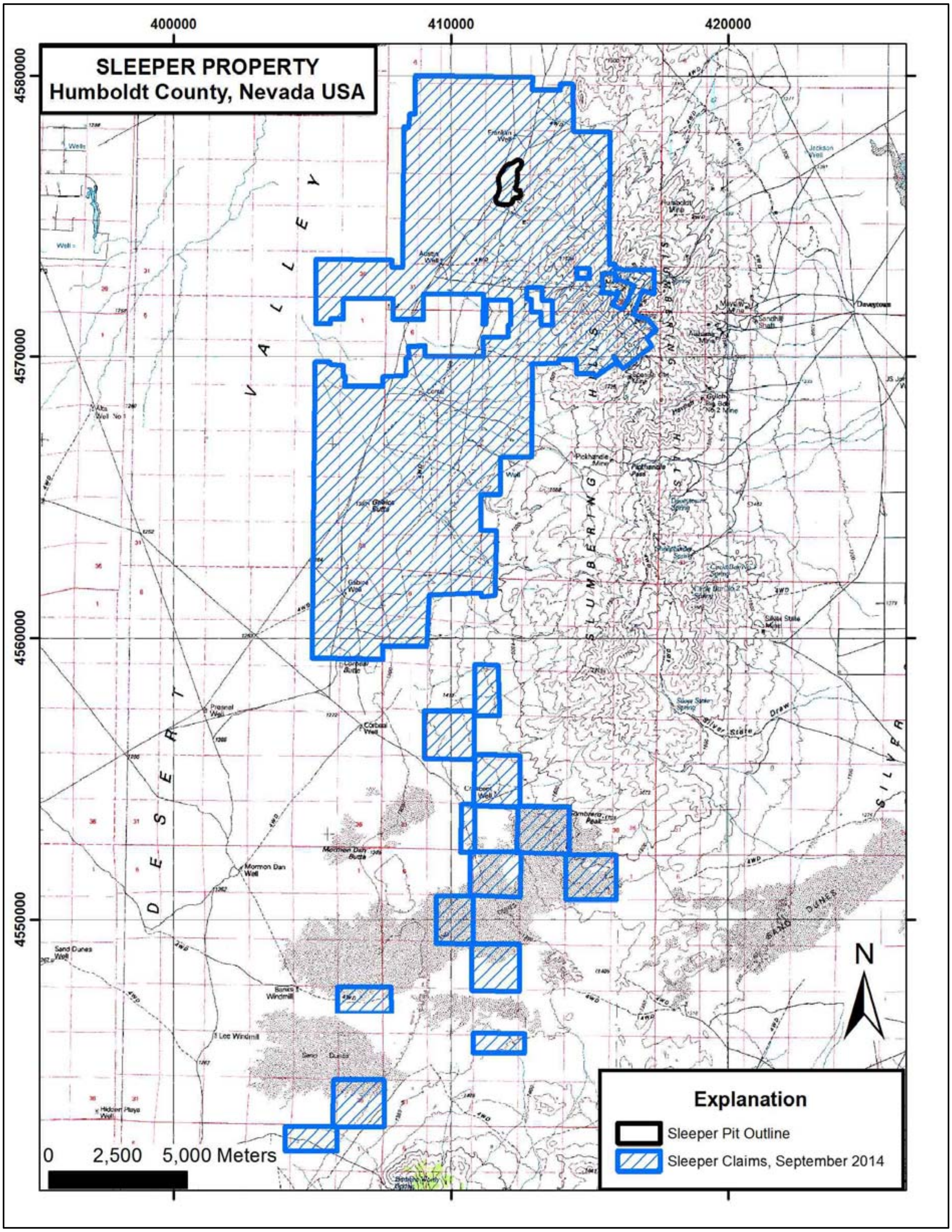
4.1 PROPERTY LOCATION

The Sleeper Gold Property is located in Desert Valley and the adjoining Slumbering Hills, Awakening Mining District, Humboldt County, Nevada, U.S.A. The Property is on the Jackson Well, Sombrero Peak and Mormon Dan Butte 7.5' United States Geological Survey Quadrangles, with the main historical mine workings centered at Lat: 41° 20' N, Long: 118° 03' W. The claims cover parts of Sections 3 to 11, 14 to 23 and 26 to 36, inclusive, in Township 40 North, Range 35 East, Sections 1 to 12 15 to 21 and 29-33, Township 39 North, Range 35 East, Sections 1, 2, 11 and 12, Township 38 North, Range 34 East, Sections 2, 4, 8, 16 and 28, Township 37 North, Range 35 East, Sections 24 and 36, Township 37 North, Range 34 East, and Section 2, Township 36 North, Range 34 East, inclusive, Mount Diablo Base and Meridian, Humboldt County, Nevada, U.S.A. The claims are shown on Figure 4-1 (the complete claim list is in Appendix A). The U.S. Government owns the surface rights to the unpatented lode and placer claims.

4.2 LAND TENURE

The Sleeper Gold Property (Figure 4-1) comprises 2,322 unpatented mining claims (2,313 lode claims and 9 placer claims) totaling approximately 60 square miles (15,500 hectares). See Appendix A for a list of the claims held by Paramount at Sleeper. The detailed claim list shows the surface area occupied by each claim, however, because of claim overlaps, the total area covered by the claims is approximately 15,500 hectares and not the sum of individual claim areas.

Figure 4.1 Sleeper Tenement Map



Source: Paramount

4.2.1 OWNERSHIP

The shares of a predecessor company to Paramount Gold Nevada Corp., X-Cal Resources Ltd., were acquired in August 2010 by PGSC. In 2011, PGSC acquired ICN's (a Canadian public company) land package in the area south of the Sleeper deposit, and in 2012 PGSC staked additional claims. In connection with a merger agreement between Paramount Gold and Silver, Coeur Mining, Inc. and Hollywood Merger Sub, Inc., Paramount Gold and Silver spun-off Paramount Gold Nevada Corp. as a separately publicly traded company listed on the NYSE MKT owning 100% of Sleeper Mining LLC and New Sleeper LLC.

Paramount Gold Nevada Corp. in conjunction with its related companies own 100% of the Sleeper project consisting of 2,322 unpatented mining claims which are owned by the U.S. Government, and no pre-patent U.S. mineral survey has been conducted thereof. The authors know of no other agreements, other encumbrances or environmental liabilities that are attached to the Sleeper Gold Project.

4.2.2 MINERAL RIGHTS IN NEVADA

Most Federal laws regarding mining on public land can be found in the United States Code (USC) under Title 30 "Mineral Lands and Mining" and Title 43, Chapter 35 "Federal Land Policy and Management" (FLPMA), and in the Code of Federal Regulations (CFR) under Title 43 "Public Lands." The majority of Nevada state laws regarding mining can be found in the Nevada Revised Statutes (NRS) under Chapters 512 through 520 and several other chapters and in the Nevada Administrative Code (NAC) under Chapter 517.

Federal (30 USC and 43 CFR) and Nevada (NRS 517) laws concerning mining claims on Federal land are based on an 1872 Federal law titled "An Act to Promote the Development of Mineral Resources of the United States."

About 85% of the land in Nevada is controlled by the Federal Government; most of this land is administered by the Bureau of Land Management, the Forest Service, the Department of Energy, or the Department of Defense. Much of the land controlled by the Bureau of Land Management and Forest Service is open to prospecting and claim location.

Bureau of Land Management regulations regarding surface disturbance and reclamation require that a notice be submitted to the appropriate Field Office of the Bureau of Land Management for exploration activities in which five acres or less are proposed for disturbance (43 CFR 3809.1-1 through 3809.1-4). A plan of operation is needed for all mining and processing activities, plus all activities exceeding five acres of proposed disturbance. A plan of operation is also needed for any bulk sampling in which 1,000 or more tons of presumed ore are proposed for removal (43 CFR 3802.1 through 3802.6, 3809.1-4, 3809.1-5). The BLM also requires the posting of bonds for reclamation for any surface disturbance caused by more than casual use (43 CFR 3809.500 through 3809.560).

Bureau of Land Management regulations (43 USC 1744; 43 CFR 3833.1-2) require that the locator of a mining claim, mill site, or tunnel site file a copy of the notice or certificate of location with the State Office of the Bureau of Land Management, along with a map showing the claims location. Failure to file this information within 90 days after the claim is located voids the claim. The certificate must include the name and current mailing address of the owner or owners, the type of claim, and the location of the claim by township, range, section(s), and quarter section(s). The map should be similar to the one required by Nevada State law.

Federal law (30 USC 28f; 43 CFR 3833.1-5) requires an annual claim maintenance fee of $155 per claim be paid at the State Office of the Bureau of Land Management on or before September 1. During the initial assessment year (the year of location), the claim maintenance fee must be paid at the time the notice of location is filed with the Bureau of Land Management. Failure to pay the claim maintenance fee will void the claim.

Nevada law (NRS 517.230) also requires that on or before November 1 of each year, the annual assessment work is not required, the claimant, or someone in his behalf, must make and have recorded with the County Recorder a notice of "intent to hold". This is an affidavit that must include the name and mailing address of the claimant, the name of the mining claim, the Bureau of Land Management serial number if any, and a statement that the claimant intends to hold the claim. The notice of intent to hold is proof that the claimant intends to hold the claim from 12 p.m. on September 1 of the year before the affidavit was made and recorded until 11:59 a.m. on September 1 of the year the affidavit was made and recorded.

4.2.3 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The Project was explored, developed (mined, milled and heap leached) in the 1980's and 1990's. Reclamation has occurred on the majority of the mine facilities (waste dumps, tailing impounds, heap leach pads and ancillary facilities (access and haul roads) and the open pit has been allowed to refill with water. These reclamation efforts have received awards and recognition from the regulatory agencies and the public. Current activities at the site involve exploration, permit maintenance and reclamation monitoring.

There are no known environmental issues that are adversely impacting air, water or soil resources at the site. Key environmental issues associated with current drilling activities and this NI 43-101 Report are wildlife and archaeology.

While there are no Threatened or Endangered (T&E) species of vegetation or wildlife within the project boundary, there are sensitive species (pygmy rabbit and sage grouse) that may exist and depending upon their location may warrant special mitigation.

There are also known sensitive cultural/archaeological sites within the project area. However, these sites have been effectively avoided during current operations.

4.2.3.1 PERMITS

The project is currently operated as an advanced exploration project. Key permits associated with these activities include:

- Exploration Reclamation Permit #0219
- Exploration Plan of Operations #N77104
- Class II Air Quality Operating Permit Surface Area Disturbance #AP1041-2831
- Mimi Project Notice #N91258

- Daylight Project Notice #N91270

The reclamation bonds associated with the above activities are:

- Exploration Bond #NVB000444 current obligation $285,015
- Mimi Project Bond #NVB001506 current obligation $16,777
- Daylight Project Bond #NVB001505 current obligation $14,140

There are also numerous other permits in place that are maintained from previous mine activities. These are maintained for ease in updating should a decision be made to reinitiate production at the site. Maintenance of these permits includes monthly, quarterly and annual monitoring and reporting. These permits include:

- Mine Reclamation Permit #0037
- Water Pollution Control Permit #NEV50006
- Ground Water Appropriation Permit #53228, #53231 and #53236
- Radio Station (FCC) License #11216793
- Hazardous Materials Permit #30473 FDID #08250 Facility #1168-2326
- Class III Solid Waste Landfill Waiver #SWMI-08-10
- Industrial Artificial Pond Permit #S34480
- Mine Plan of Operations #N64100

A reclamation bond in the amount of $3,915,626 is currently posted with the US Bureau of Land Management to (Mine Bond #NVB000330). The current obligation was approved 9/25/13 and is reviewed every 3 years. This bond guarantees that reclamation is performed on associated mine facilities and activities at the site. Paramount is currently in compliance with all issued permits.

4.2.4 OTHER

MMC knows of no other known significant factors and risks that may affect access, title or the right or ability to perform work on the property.

5 ACCESS, CLIMATE, INFRASTRUCTURE AND PHYSIOGRAPHY

The Sleeper Gold Property is located 26 miles northwest of Winnemucca, Nevada, on the west flank of the Slumbering Hills. Access to the Sleeper Gold Property is by Interstate Highway 80 to Winnemucca, north on Highway 95 for 32 miles, west on Highway 140 for 14 miles, and then south for 6 miles on the maintained gravel Sod House Road to the project site.

The Sleeper Gold Property is in variably flat to hilly, grass-shrub-covered desert, with a few trees present on the higher elevations. Elevations in the Sleeper Gold Property area are between 4,100 ft. along the western, valley side of the project to 5,400 ft. on a hilltop in the south-eastern portion of the project.

The climate in the Sleeper Gold Property area is favorable for year-round mining. The temperatures are cool to cold during the winter, with occasional moderate snowfalls, and are warm during the summer with cool nights. The area is fairly dry, with infrequent rains during the summer. Exploration and mining activities may be conducted year-round. The Sleeper Gold Property area is uninhabited.

An office building, heavy equipment ‘shop’ plus assorted equipment are present on the Sleeper Gold Property site and are in use for exploration offices, core logging, storage and to support drilling programs. Necessary supplies, equipment and services to carry out full sequence exploration and mining development projects are available in Winnemucca, Reno, and Elko, Nevada. A trained mining-industrial workforce is available in Winnemucca and other nearby communities. The overall subdued topography that characterizes much of the Sleeper Gold Property provides ample ground for the sitting of mine facilities, tailings, waste dumps dand heap leach facilities.

6 HISTORY

6.1 PRE-AMAX

Significant deposits of gold were first discovered in the Sleeper Gold Property area beginning in 1935 in the Awakening District at the Jumbo and Alma Mines. Narrow quartz-adularia-gold veins within folded metasedimentary rocks were exploited at the Jumbo mine, located in the Slumbering Hills about 3.7 miles southeast of the Sleeper Mine, by open pit and underground methods (Nash et al., 1995). Estimates of the pre-AMAX gold production from the Awakening District vary; Willden (1964) tabulated a total of 26,262 ounces of gold produced from the district between 1932 and 1958.

6.2 AMAX

The modern history of the Sleeper Gold Property as summarized in Wood and Hamilton (1991), began in April 1982 when John Wood, an exploration geologist with AMAX, observed iron staining in a scarp east of what became the Sleeper Mine during an aerial geological reconnaissance. AMAX conducted surface geological and geochemical work over the next two years, including a drilling program that identified gold mineralization that averaged approximately 0.04 oz Au/ton. In late 1984, AMAX's thirty-fourth drillhole stepped out to the west of the previous drilling and intersected 335 ft (102 metres) of silicified breccia with an average grade of 0.81 oz Au/ton gold, including one very high-grade quartz¬-electrum vein containing abundant visible gold (Nash et al., 1995). This hole led to an immediate increase in the exploration and development programs.

In February 1985, AMAX formally announced the discovery of the Sleeper gold deposit and open pit mine construction was approved in August 1985. The initial development plan called for construction of a 500 ton-per-day mill designed to produce 53,000 ounces of gold per year, with start-up scheduled for mid-1986. Mining initiated in January 1986 and mill commissioning began the following month. On March 26, 1986 AMAX poured its first gold bar from the Sleeper Gold Property three months ahead of schedule and little more than a year after the discovery had been announced. Although the mine plan called for production of about 40,000 ounces in 1986, the mine actually produced 126,000 ounces of gold during the year at an average cost of less than $60 per ounce, making it one of the lowest cost gold mines in the world at the time.

AMAX's initial capital investment was recouped in the first six months of operation. During those first nine months the head grade was 0.75 oz Au/ton, or more than twice the expected grade, owing to bonanza grades in the Sleeper vein (Redfern and Rowe, 2003).

Mill throughput exceeded design capacity during the first full month and was running about 30% over design capacity by the end of the year. In September 1986, AMAX began processing low-grade material in a heap leach circuit. Production increased to 159,000 ounces in 1987 (the first full year of production) and to 230,000 ounces in 1988 at an average cost of $103 per ounce (Proteus, 2002). Armed guards were hired to protect the high-grade, visible gold in the pit.

In 1993, annual production declined to 100,000 ounces at a cash cost of $317 per ounce. Cyprus Minerals and AMAX Inc. merged to form Cyprus AMAX Minerals Co. in 1994. AMAX suspended mining operations at Sleeper in 1996.

The Sleeper operation was designed to treat oxide mineralization by both milling and heap leaching. There was no flotation circuit in the mill to recover gold bearing sulphides. The early pit mill feed was oxide material, but zones of sulphide mineralization were present in the pit. Reported gold production from the mill was 1,219,880 ounces and 438,609 ounces from heap leaching (Zoutomou, 2007). Silver production totaled approximately 2.3 million ounces.

The cover photo of this report shows the Sleeper pit today. The lake formed by the influx of ground water has filled the pit to within 110 feet (33.5 metres) from the crest of the original pit limits. The mill and crushing facilities have been removed and the mill area reclaimed.

6.3 X-CAL

In 1993, X-Cal acquired property around the Alma underground mine, which lies in the Awakening District to the southeast of the Sleeper pit, through an agreement with Leland York. X-Cal's surface mapping and sampling identified several areas of anomalous gold. X-Cal acquired additional land in 1994 and 1995, so that its holdings then extended to the limit of the AMAX Sleeper Property boundary. In April 1996, X-Cal and AMAX formed a joint venture to explore the Sleeper Gold Property, which included the land holdings of both X-Cal and AMAX.

In 1997, X-Cal entered into an option agreement with Placer Dome. During an intensive 40-day period from July 11 to August 20, 1997, Placer Dome reviewed the Sleeper Gold Property data in detail, completed a detailed aeromagnetic survey, and drilled 46 holes (30,992 ft (9,446 metres) of reverse circulation (RC) drilling; 5,509 ft (1,697m) of diamond core drilling). Revised terms to extend the agreement could not be agreed upon and the Placer Dome option expired.

X-Cal became vested as 50% owner of the Sleeper Gold Project, including the Amax Gold claims and Sleeper Mine Site Area.

In 1998, AMAX merged with Kinross. X-Cal negotiated a series of options to purchase the Kinross interest in Sleeper. From 1998 through 2003, there were several amendments to the agreements between X-Cal and Kinross (Proteus, 2002).

6.4 NEW SLEEPER GOLD

On January 9th, 2004 X-Cal and New Sleeper Gold Corp formed a 50/50 Joint Venture and acquired Kinross Gold’s 50% interest in the Sleeper Gold Property. New Sleeper assumed management of the Sleeper Gold Property. During the period February 2004 to July 2005 money contributed by New Sleeper Gold to the Sleeper Joint Venture, funded exploration at Sleeper and completed 97,704 ft (29,780 m) of drilling. The drilling consisted of 2,260 ft (688.8 m) of sonic drilling, 37,315 ft (11,373.6 m) of RC drilling and 55,869 ft (17,028.9 m) of core drilling. In addition the Sleeper Joint Venture conducted trenching, electrical geophysical surveys (both IP and MT), ground gravity surveys, ‘Quicksilver’ mercury soil gas surveys, O2/CO2 soil gas surveys, geological mapping, extensive soil geochemical sampling, and aerial photography. The mill and crusher facilities were removed and the sites where these facilities formerly stood were reclaimed under the management of New Sleeper Gold Corp.

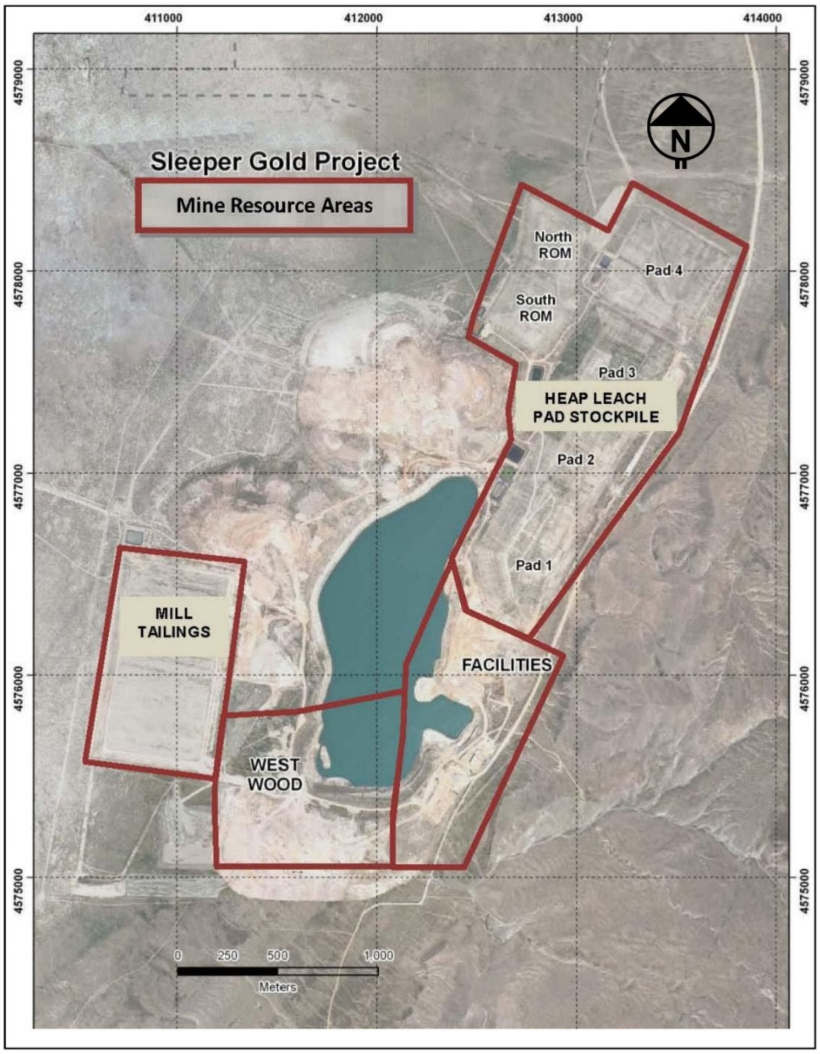
Commencing in August 2005, New Sleeper Gold and X-Cal began to equally fund work at Sleeper, as the initial Joint-Venture funding contributed by New Sleeper Gold had been expended.

During 2004 and to the end of November 2005, New Sleeper Gold LLC had generated approximately 6 to 7 million US dollars of new exploration data acquisition for the Sleeper Gold Property, exclusive of corporate overhead.

In May of 2006, X-Cal purchased New Sleeper's 50% interest in the project for a combination of cash and X-Cal common stock. The Sleeper Gold Property was then consolidated 100% into X-Cal Resources Ltd.

The following figure shows the areas of Sleeper that were under study during the Joint-Venture period.

Table 6.1 Sleeper Resource areas studied by the Joint Venture (Source: Paramount)



6.5 PARAMOUNT

Paramount Gold and Silver Corp. acquired all of the issued and outstanding shares of X-Cal Resources Ltd. in August 2010 by plan of arrangement. In 2013, X-Cal changed its name to Paramount Nevada Gold Corp. which was merged into Paramount Gold Nevada Corp. in early 2015. In December 2014 Paramount Gold and Silver Corp. entered into a merger agreement with Coeur Mining, Inc., Hollywood Merger Sub, Inc. and Paramount Gold Nevada Corp. pursuant to which Coeur is to acquire Paramount

Gold and Silver after the spin-off of Paramount Gold Nevada Corp. as a separate publicly traded entity listed on NYSE MKT owning 100% of Sleeper Mining LLC and New Sleeper LLC and through those all interest in Sleeper project.

PGSC drilling at Sleeper began October 11, 2010 and continued through spring 2013. A total of 39 diamond core holes and 36 exploration reverse circulation holes have been completed at Sleeper for a total of 79,665 feet (24,282 meters). The core drilling was carried out by Redcor Drilling of Winnemucca, Nevada and American Drilling Corp. of Spokane, Washington. The reverse circulation drilling was carried out by DeLong Drilling and Envirotech Drilling, both of Winnemucca, Nevada.

Additionally, 65 shallow reverse circulation drillholes were completed on the north, south and west waste dumps to determine the gold content for a total of 8,773 feet (2,674 meters).

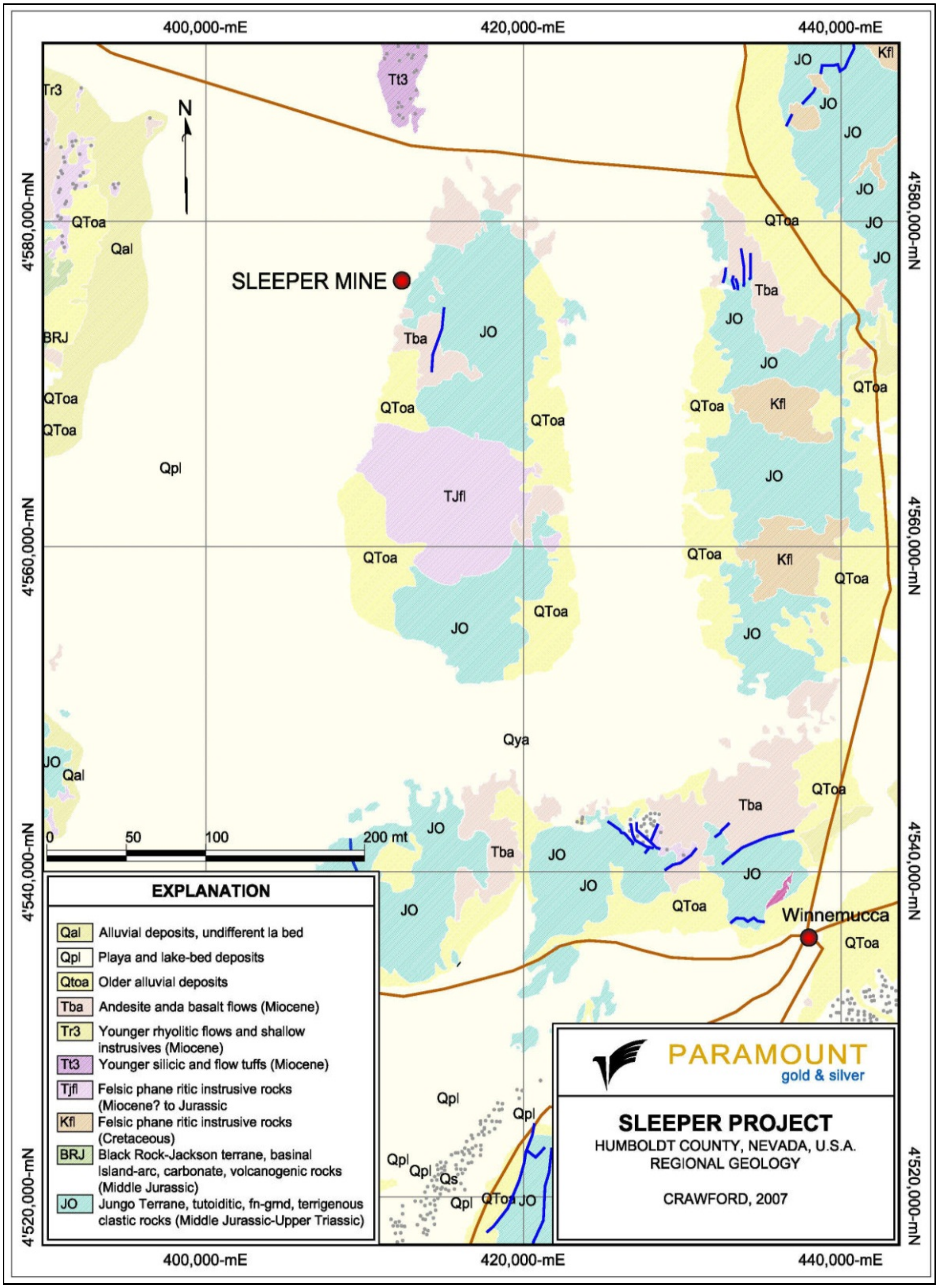
7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Sleeper Gold Property area is situated within the western, apparently older, part of the Northern Nevada Rift ("NNR") geologic province of Miocene age, along the western flank of the Slumbering Hills. The regional geologic framework and generalized local geology and stratigraphy are described below and are shown in Figure 7-1 (modified from Crawford, 2007).

The core of the Slumbering Hills consists of Mesozoic meta-sedimentary rocks of the Auld Lang Syne Group and Cretaceous granitic intrusions (Willden, 1964). Tertiary volcanic and intercalated sedimentary rocks unconformably overlie the Mesozoic units locally in the northern part of the range. Much of the Tertiary volcanic units are thought to be outflow facies of the McDermitt volcanic field and related calderas to the north, with the volcanic rocks that host the Sleeper deposit originating from a local volcanic complex (Nash et al., 1995). Quaternary pediment gravels and aeolian sands lie to the west of the Slumbering Hills and cover much of the Sleeper Gold Property area.

Figure 7.1 Regional Geology of the Sleeper Area



7.2 PROPERTY GEOLOGY

The Sleeper Gold Property is located on the western flank of the Slumbering Hills, largely within Desert Valley. The rock units that underlie Desert Valley appear to have been down-dropped 3,000 to 3,300 ft. along north-to northeast-trending normal faults along the western edge of the Slumbering Hills (Nash et al., 1985). Northwest-striking faults also are present, which may represent re-activated Battle Mountain-Eureka trend structures.

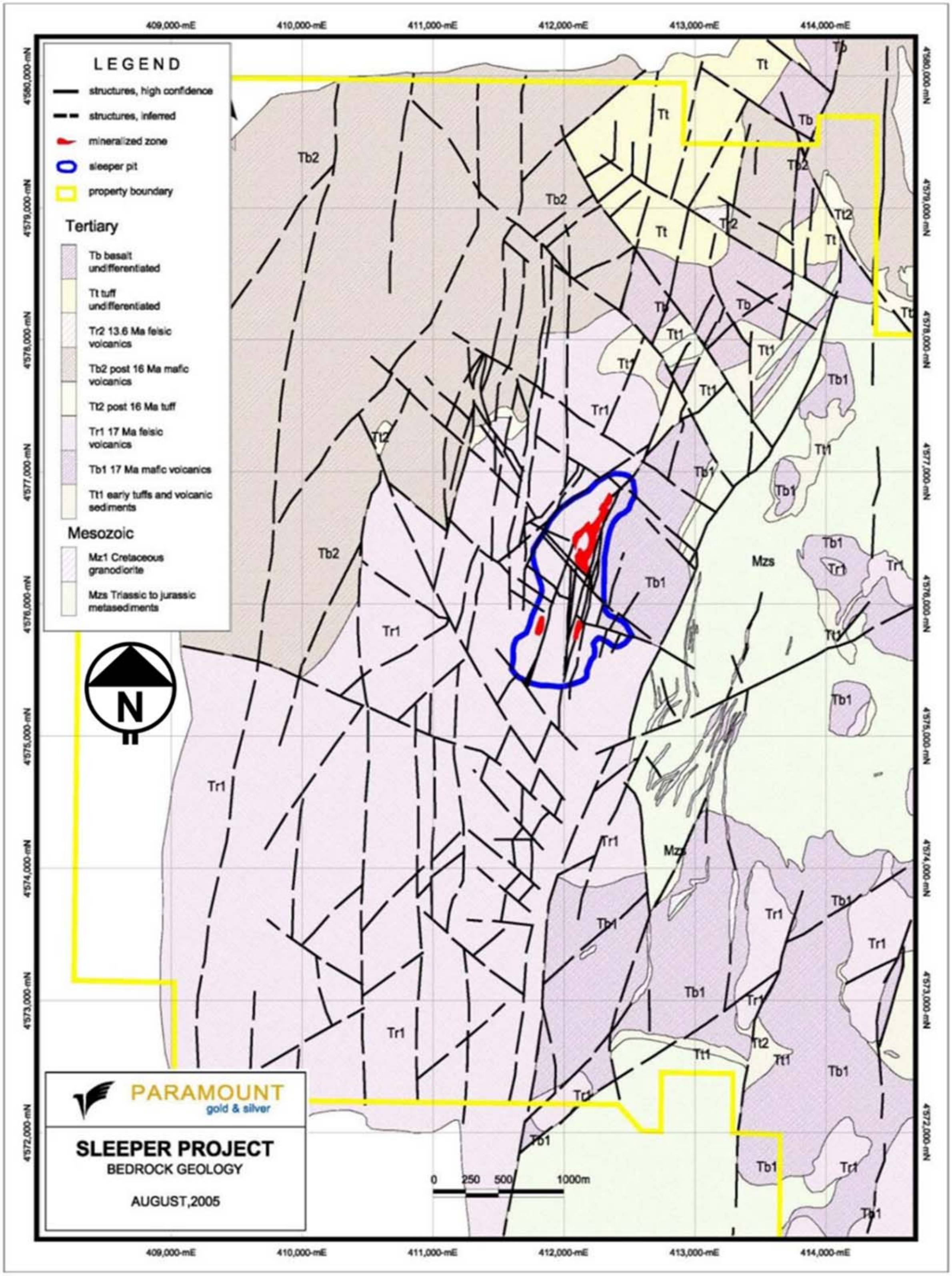
Basement rocks are exposed in the Slumbering Hills to the east of the Sleeper Mine and are comprised of the Auld Lang Syne Group of Triassic to Jurassic (?) age. The Auld Lang Syne Group is a sequence of dark, fine-grained slate, phyllite, quartzite, calcareous phyllite and local marble to granular limestone. These sedimentary units were deformed and weakly metamorphosed to greenschist facies during the Mesozoic (Willden, 1964; Burke and Silberling, 1973). The Auld Lang Syne rocks host the quartz-adularia-gold veins that were exploited at the Jumbo and Alma mines. A granodioritic to monzonitic pluton was emplaced during the Cretaceous (Willden, 1964) in the central part of the Slumbering Hills.

Tertiary volcanic rocks (Nash et al., 1985) unconformably overlie and intrude the Mesozoic rocks in the northern and eastern parts of the Slumbering Hills. The first unit deposited on basement was a sequence of volcaniclastic rocks and local volcanic flow strata of intermediate composition that is up to 650 ft thick. The age of this basal unit is uncertain; an age date of 17.3 Ma was obtained from adularia from a vein cutting this unit at the Jumbo Mine (Conrad et al., 1993).

The Intermediate lavas lie atop the basal volcaniclastic unit and are approximately 500-ft thick. This unit consists of a sequence of volcanic flows and flow breccias of dacitic to basaltic composition. A felsic, pumiceous lapilli tuff unit approximately 130-ft thick lies atop the Intermediate flows unit and is in turn overlain by the Sleeper rhyolite. The Sleeper rhyolite is the main host of gold mineralization within the Sleeper pit and consists of a sequence of flows, dikes, sills and flow domes of quartz-eye rhyolite with sanidine phenocrysts and local biotite. Similar appearing rhyolitic to quartz latite dikes and sills are found to the east and southeast of the Sleeper Mine in the Slumbering Hills. The age of the Sleeper rhyolite is approximately 17 Ma, but there are no direct age dates (Nash et al., 1995).

The Sleeper rhyolite is overlain by significant volumes of per-alkaline rhyolite ash flow tuffs, correlated with the tuff of Oregon Canyon (Nash et al., 1995). These tuffs, which are thought to post- date the gold mineralization at the Sleeper Mine, originated from calderas in the McDermitt area about 50 miles to the north at approximately 16.2 to 16.1 Ma (Conrad et al., 1993). This unit crops out in the northern Slumbering Hills, where it is up to 250-ft thick, contains soda amphiboles and is strongly welded. Flows of the Awakening Rhyolite occur southeast of the Sleeper Mine capping a hill called ZZ Top and are up to 600 ft thick. They have been dated at 13.6 +/-0.7 Ma (Conrad et al., 1993). The Awakening Rhyolite appears to have formed several flow domes along normal faults and the rocks are generally fresh and little altered, in contrast to the strongly altered flows of the older Sleeper rhyolite (Nash et al., 1995). Some silicified but gold-poor dikes of this unit occur near the flow domes.

Figure 7.2 Sleeper Deposit Bedrock Geology



Pliocene basalt dikes occur locally southeast of the Sleeper Mine and represent the youngest igneous unit recognized in the Slumbering Hills. Older alluvium (Pliocene to Quaternary; Nash et al., 1955) occurs in the Sleeper Gold Property area; weathered clasts with quartz veins and visible gold in gravel deposits were found overlying the main deposit at the Sleeper Mine. Airfall ash tuff beds dated at 2.1 Ma (Pliocene) by Conrad et al. (1993) locally overlie the Older Alluvium. Younger Quaternary alluvium lies atop the Pliocene tuff beds, as valley fill in Desert Valley and as pediment gravels, alluvium, and colluvium along the flanks of the Slumbering Hills. A mantle of aeolian sand covers much of the surface of Desert Valley and the adjoining hills.

Basin and Range extension was first manifested in lacustrine and alluvial volcaniclastic materials that were deposited prior to 17 Ma, and in numerous high-angle normal faults with northerly to northeasterly strikes. Sets of northwest trending faults may have been initiated at or before this time, as certain faults with this orientation host quartz-adularia vein systems in the Slumbering Hills, such as at the Jumbo and Alma mines.

In 2013 Paramount initiated a program of core and RC chip re-logging, along with an interpretation of the geophysical studies on the newly acquired claims south of the main Sleeper Mine area. Based on these studies, the following describes the current interpretation of the lithologic and structural setting at Sleeper. The studies are on-going.

The following describes the stratigraphic column in Figure 7-3. These lithologic units were used to create the geologic model for resource calculation. Two x-sections show the relationship between these units in the Facilities, Sleeper and West Wood areas (Figures 7-4 and 7-5).

Qal: Includes alluvium (sand and gravel) and dumps. Gravel of both volcanic and metasediments dominate near the bedrock contact. These are interbedded with eolian sand towards the surface. Near the range front fault, metasediments dominate the gravels. This alluvial unit varies from less than 1 meter to over 200 meters thick southwest of the mine.

Tif: Felsic intrusions similar to the Sleeper Rhyolite but usually with fewer phenocrysts and may lack quartz phenocrysts. Numerous dikes are encountered in drilling, apparently more concentrated in the western Wood Pit area. Some intrusions develop into sills or possibly laccoliths.

Tim: Mafic dikes (basalt to basaltic andesite), usually aphyric to aphanitic, finely felty. Intrude the Sleeper Rhyolite but many are probably older. At deeper levels, particularly intruded into the metasediments, these may be fine-grained diabase to gabbro with augite and olivine.

Tr: Includes the Sleeper Rhyolite and possible younger rhyolite flows. Both vitric and non-vitric rhyolite or dacite with up to 20% plagioclase phenocrysts <2 mm and rarely up to 9 mm with traces of sanidine and quartz phenocrysts. Usually contains 3 to 5% mafic phenocrysts usually <1 mm (rarely up to 2 mm) and rarely up to 15% but typically obscured by alteration. In the least altered examples, orthopyroxene phenocrysts are slightly more abundant than biotite phenocrysts.

Tb: This unit is dominantly flows of basalt to basaltic andesite. Individual flows vary from a few to as much as 100 meters thick. Flow tops of many flows are highly vesicular and commonly have breccias, indicating aa type flows. Fewer of the flows are non-vesicular. Most flows are aphanitic or have rare, small phenocrysts. Some flows have up to 7% mafic phenocrysts <0.5 mm of augite and/or olivine. Others may have up to 5% plagioclase phenocrysts <1 mm. Near the top of the mafic sequence of flows is a distinctive andesite or dacite with about 10% highly elongate small plagioclase phenocrysts. Interbedded with the flows are usually discontinuous volcanic wacke typically less than 20 meters thick. There are also debris flows of mafic material and rare mafic tuffs. The entire sequence likely exceeds 300 meters thick.

Tvs: Wacke, usually fine-grained and rarely laminated. The upper part is volcanic wacke. With depth, thin flat clasts of Mesozoic Auld Lang Syne metasediments become mixed in, usually in distinct fine-grained conglomerate beds and the unit becomes more quartz-rich near the base. In the north central part of the Sleeper Pit, this unit may exceed 150 meters thick but elsewhere is tens of meters thick and may be absent. Underlying the wacke is a unit of breccia up to 50 meters thick of Auld Lang Syne clasts (Tc) that may have interbedded wacke, overlying the Auld Lang Syne in the northeastern part of the Sleeper pit.

Tc: Breccia: Angular clasts of Auld Lang Syne up to 1 m. Rarely has interbedded basaltic wacke. 0 to 50 m thick.

Mz: Dominantly weakly metamorphosed carbonaceous, phyllitic, siltstones and fine-grained, arkose to quartz arenite of the Mesozoic Auld Lang Syne Formation. Very rare carbonaceous, silty, limestone is locally interbedded - usually quite folded. Also includes Mesozoic mafic to felsic dikes and sills.

Figure 7.3 Sleeper Stratigraphic Column

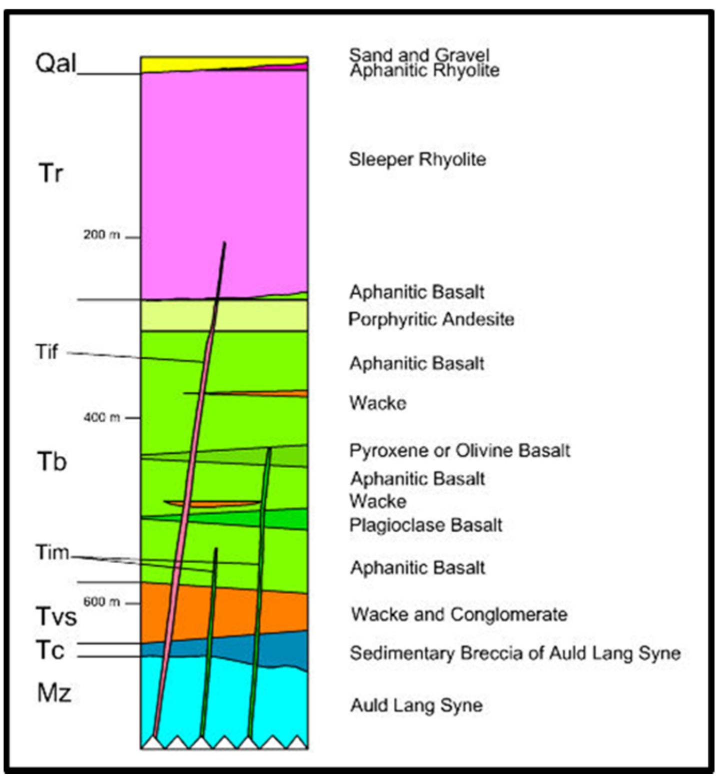


Figure 7.4 Geologic X-Section of the Facilities and Sleeper Areas

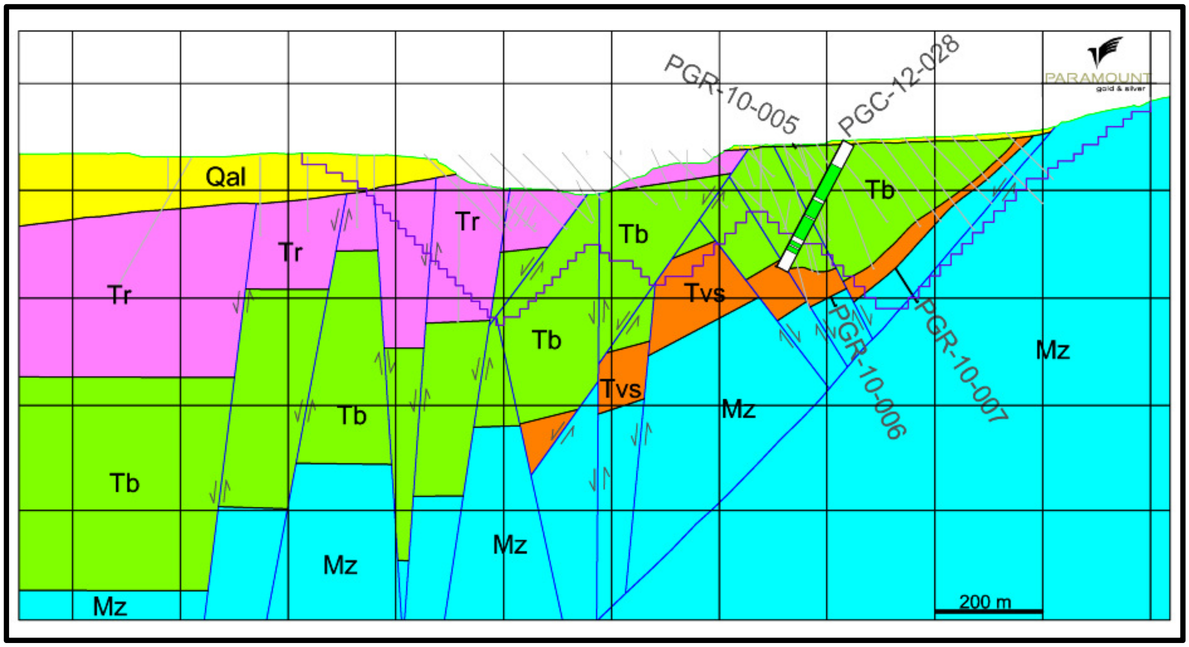
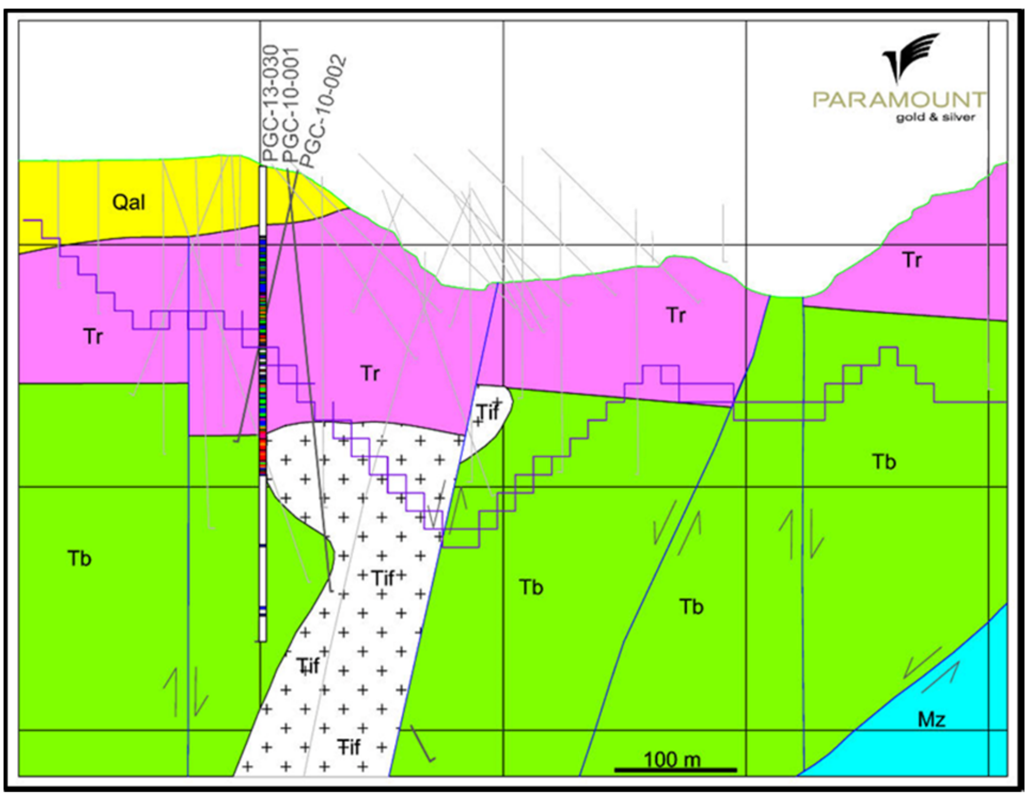


Figure 7.5 Geologic X-Section of the West Wood and Wood areas



7.2.1 STRUCTURAL GEOLOGY

In August 2013, Paramount commissioned SRK Consulting (Canada) Inc. (SRK) to conduct a structural and alteration geology study of the Sleeper project. This study included an inspection of available core, field examination of key exposures, and the collection and review of infrared spectroscopy data. In addition, a preliminary review of available aeromagnetic data and the distribution of gold and silver grades was conducted.

Despite the paucity of available high-grade intervals both in outcrop and in core, SRK recognized that bonanza gold and silver grades are associated with veins that have experienced multiple vein opening stages and vuggy silica textures indicative of near-surface acid leaching.

From inspection of field and pit exposures as well as available core, SRK recognized the presence of three dominant fault systems in the Sleeper district. These include 1) a south-striking fault system associated with gold and silver mineralization, 2) a southeast-striking fault system that locally hosts low grade gold and silver mineralization, but generally post-dates mineralization, and 3) an east-striking fault that post-dates gold and silver mineralization. A normal-dextral component of displacement is recognized along a quartz vein developed along the southeast-striking fault system, whereas the east-striking fault is interpreted to represent a strike-slip fault (movement direction not known). The relative timing relationship between southeast- and east-striking faults was not observed.

Results from SRK's alteration study highlight the presence of those faults observed in the structural study, and also illustrate the presence of additional discontinuous east-striking faults as well as an east-northeast-striking fault system.

Integration of structural and alteration geology data underlines a strong coincidence between observed and interpreted fault zones and interpreted alteration signatures, and reveals the following alteration signatures for each fault set:

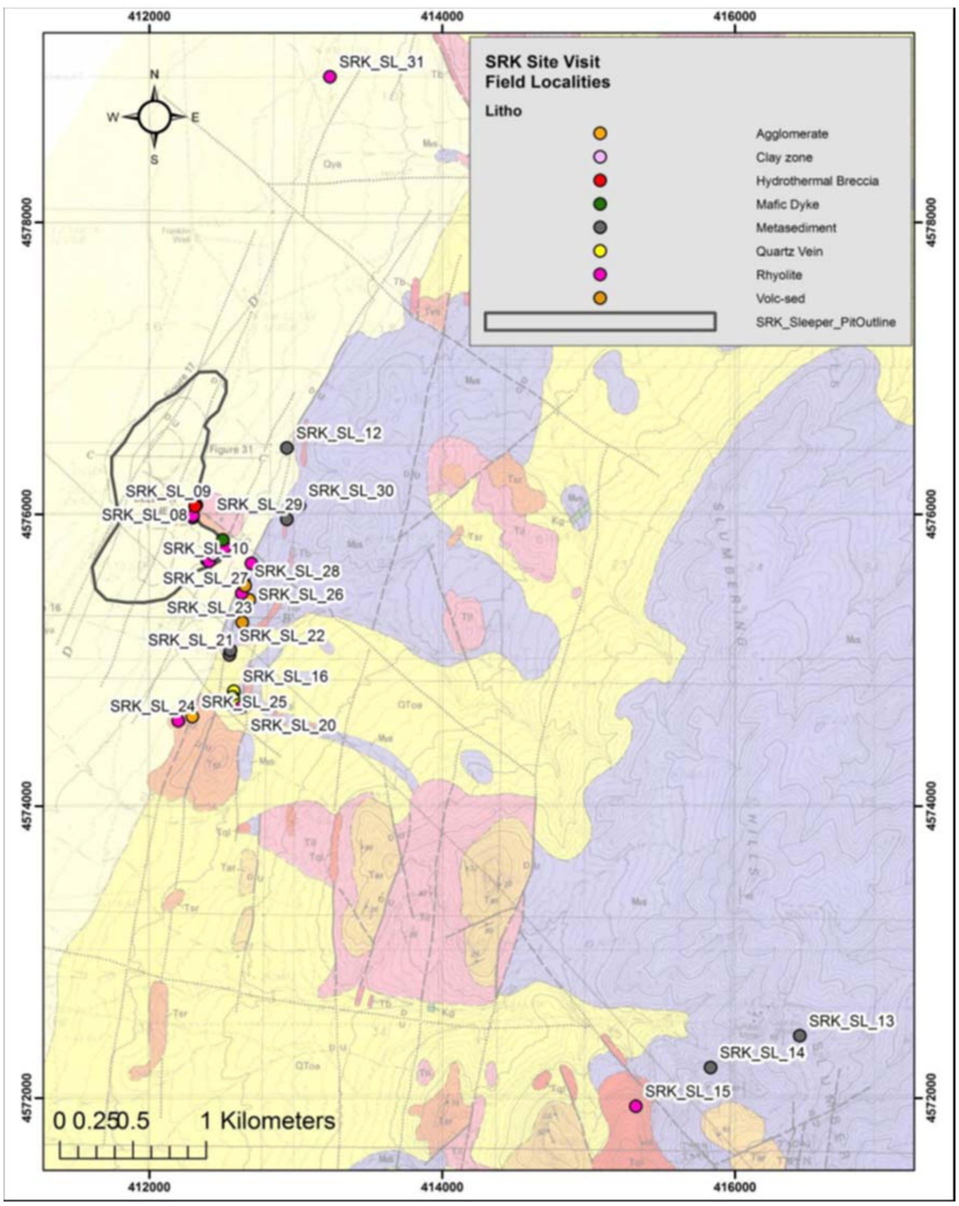
- An ammonium, high illite crystallinity, high kaolinite crystallinity, and local alunite signature associated with south-striking faults that coincide with the main trend of gold and silver mineralization.
- An alunite signature associated with southeast-striking faults, and a phengitic white mica signature associated with south-southeast-striking faults.
- An ammonium, alunite, high illite and high kaolinite crystallinity signature associated with east-striking faults.
- An ammonium signature in the Office-Facilities area, and high kaolinite crystallinity signature north of the Sleeper pit, associated with east-northeast-trending faults.

The alteration signature of each of the fault systems combined with structural observations allowed for the interpretation of the Tertiary structural history for the Sleeper district. The interpreted structural history involves the displacement of south-striking mineralized basin-and-range faults by late- to post-mineral southeast-striking normal-dextral faults and by post-mineral east-striking strike-slip faults. Whereas both the east- and southeast- (to south-southeast) striking fault systems are interpreted to have developed principally after the main gold and silver mineralization event at the Sleeper deposit, the relative timing between these two fault sets could not be determined on the basis of available data and observations made during this study.

East-northeast-trending alteration corridors interpreted as the latest fault set was observed in a single location.

Even though this structural history requires further work to better constrain the timing and kinematics of the recognized faults and the evaluation of the presence of additional faults, it may be applied to exploration targeting. Principally, SRK interprets that prospectivity is likely to be highest to the south and west of the mined areas, as well as at depth relative to the currently known vein at the Sleeper mine. All field localities visited are listed in Figure 7-6 below in reference to the Sleeper pit.

Figure 7.6 Field localities visited (modified from map provided by Paramount)



Field ID's labeled, and bullet colour refers to observed lithology, overlain on the USGS Geology Map (Nash et al., 1995; refer to this report for full legend on geological units).

SRK also examined core from portions of boreholes as listed below (borehole ID, plunge and trend, vein/fault zone and intervals are listed):

Table 7.1 Borehole Intervals examined by SRK during the Sleeper site visit

Hole ID	Plunge	Trend	Vein / Fault Zone	Interval (ft)
S-117	-45	100	Sleeper	600-640; 750-760; 1000-1050
S-117C	-60	180	Sleeper	110-190
S-0135C	-61	181	Sleeper	165-175
PGC-12-029	-40	095	Sleeper	650-500; 1250-1790
MC-43-04	-52	094	Sleeper	960-1020; 1480-1680
PGC-13-034	-45	270	Sleeper	550-1010
PGC-12-016	-51	095	Sleeper	50-300
PGC-12-022	-45	100	Sleeper	215-365
BCP-04-04	-83	120	Bedrock Casino	785-887
WW-08-04	-56	043	West Wood	775-777
WW-14-04	-55	096	West Wood	825-846
WW-27-04	-61	156	West Wood	1010-1025
PGC-12-018	-74	084	Range Front Fault	1250-1440
PGC-13-036	-73	097	Range Front Fault	1500-1720
PGC-12-020	-69	090	Range Front Fault	1215-1380
XC-07-044	-70	090	Range Front Fault	245-400
XC-07-043	-50	090	Range Front Fault	300-480
XC-07-08	-54	091	Range Front Fault	295-520

The following figure shows the structural interpretation on the first vertical derivative of magnetic data. The three dominant lineament orientations are shown: south- to south-southwest striking faults in white, southeast to south-southeast trending faults in brown, and discontinuous east to east-northeast trending faults in dashed red lines. The outline of the Sleeper pit is shown in green..

Figure 7.7 Preliminary lineament interpretation on the first vertical derivative of magnetic data

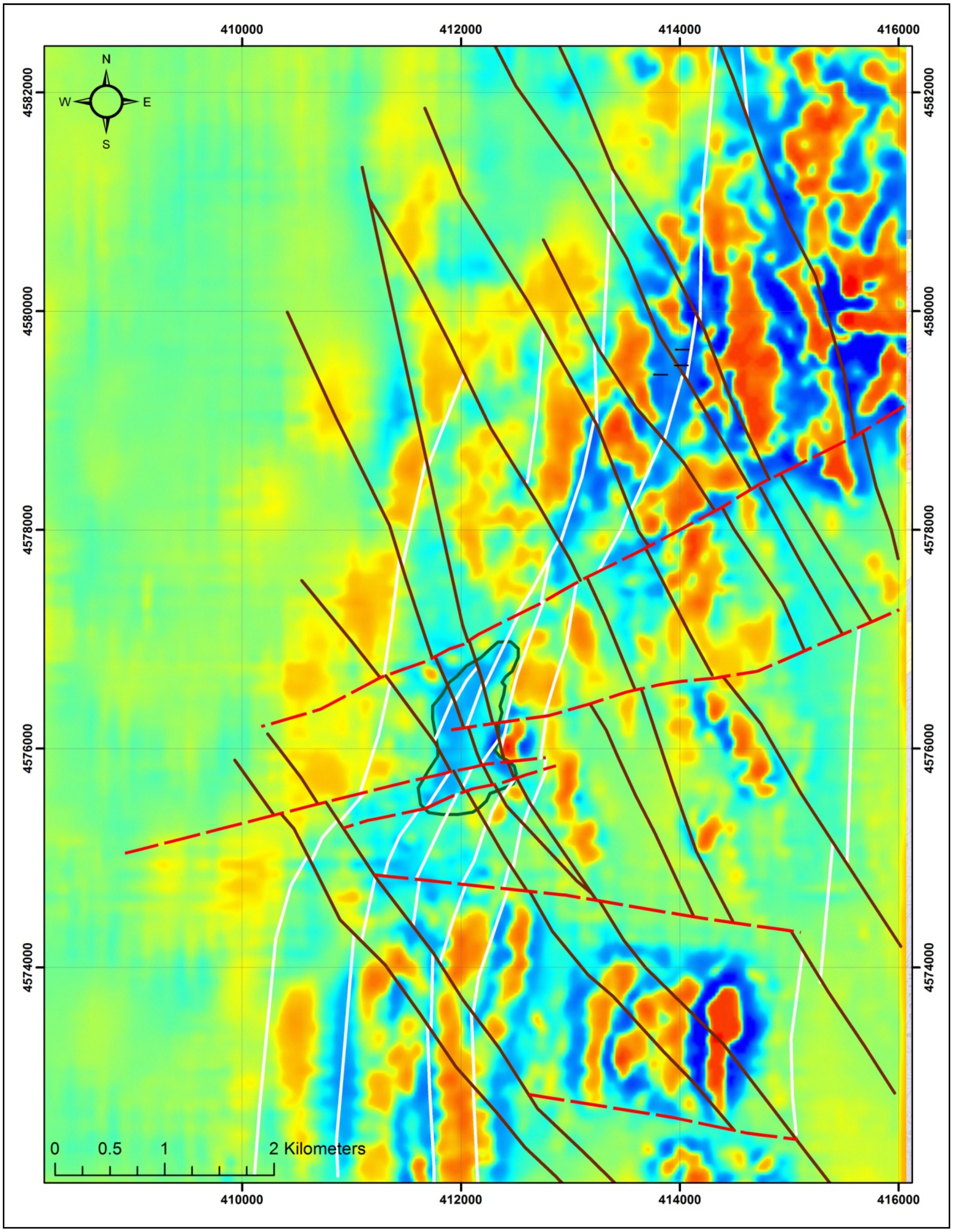
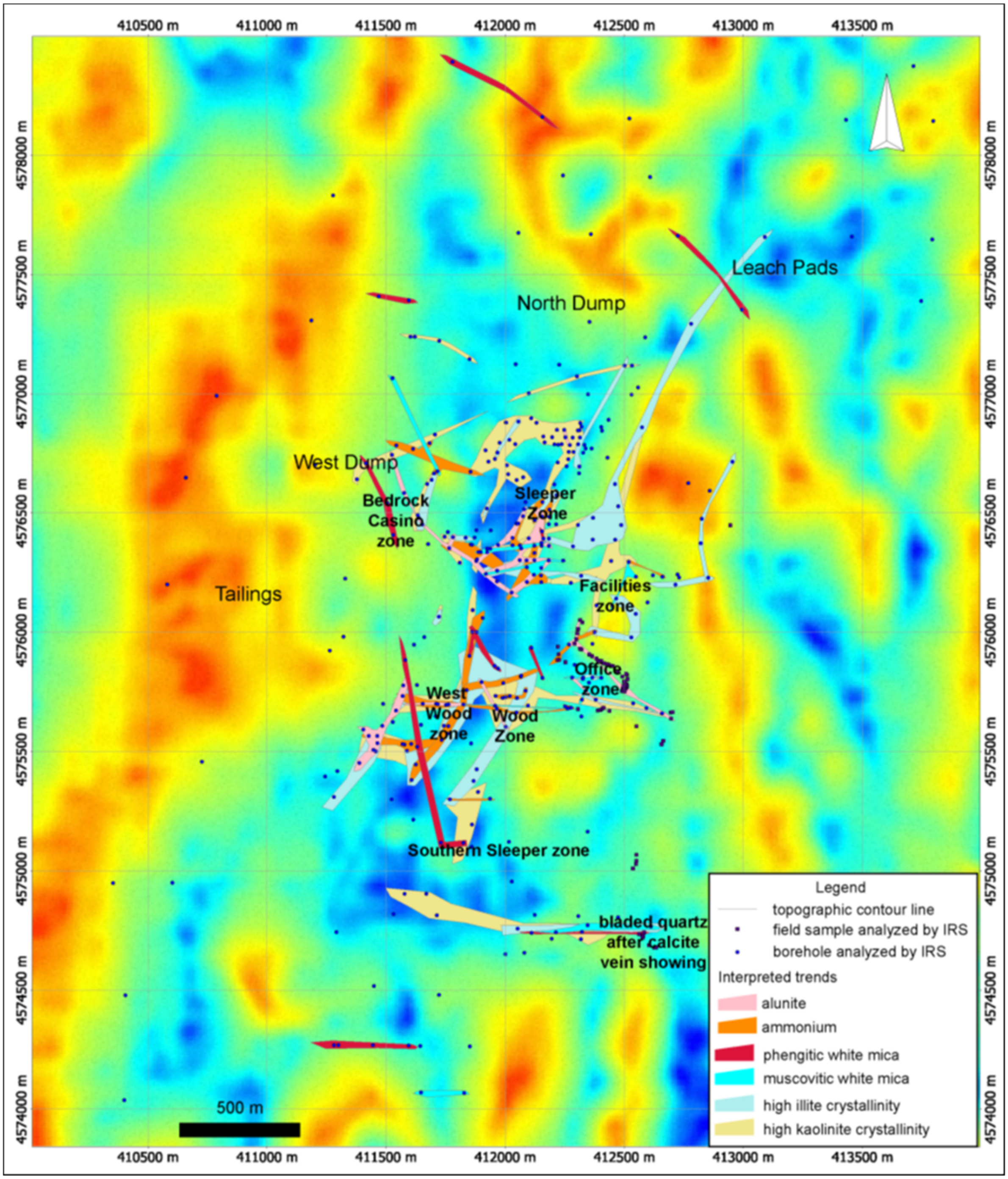


Figure 7-8 shows a composite map with all significant alteration trends interpreted as part of the SRK Canada study.

Figure 7.8 Composite map showing all significant alteration trends



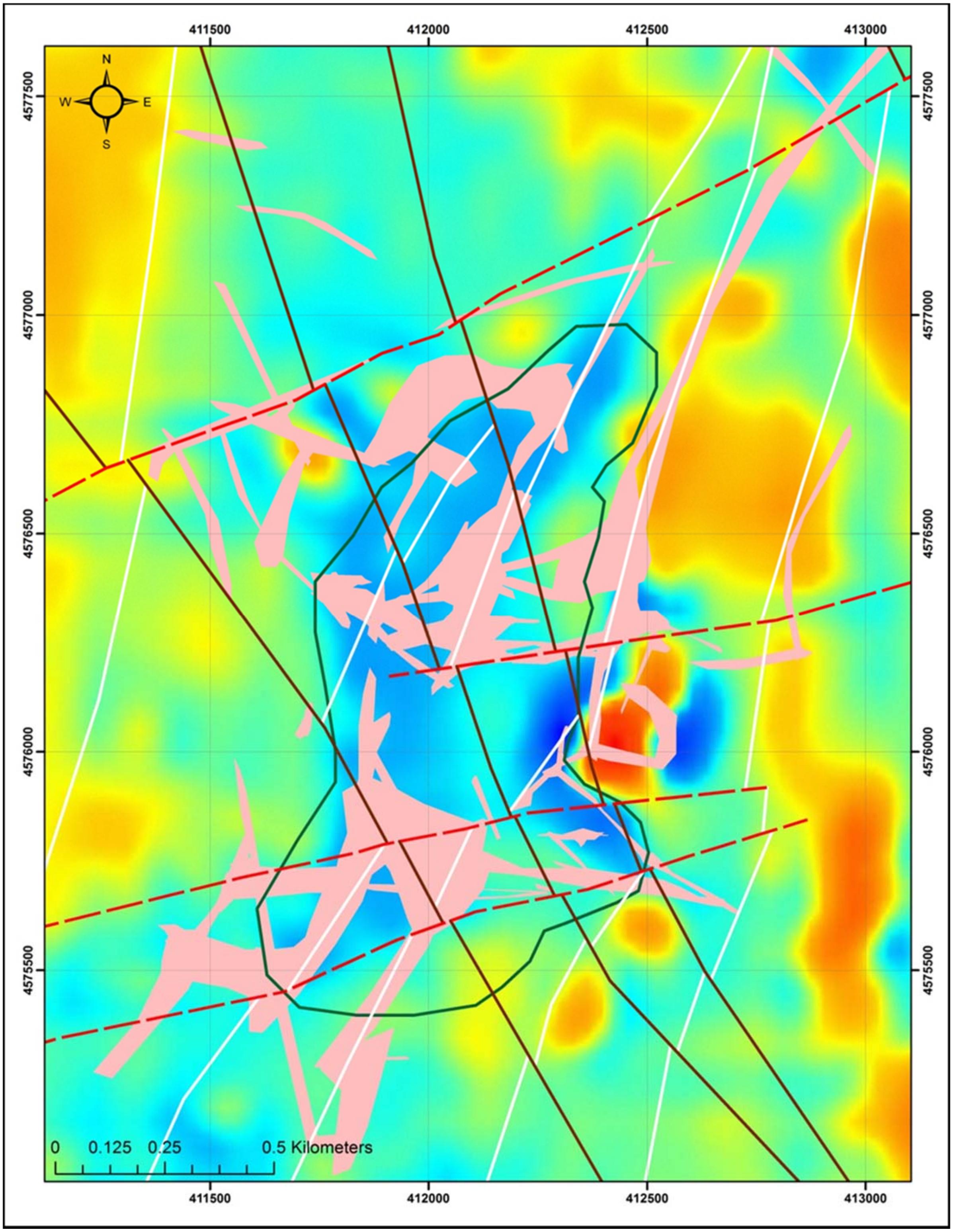
The following alteration signatures can be assigned to the observed and interpreted faults sets:

- South-striking faults have a signature of ammonium, high illite crystallinity, high kaolinite crystallinity, and locally alunite, and coincide with the main trend of gold and silver mineralization. It is interpreted that ammonium, alunite, and high crystallinity kaolinite are related to supergene clay minerals that precipitated during reactivation of the structures that control gold mineralization.

- Southeast-striking faults have an alunite signature indicative of proximity to mineralization, whereas south-southeast striking faults with a phengitic white mica signature are likely unrelated to mineralization.
- East-striking faults have a signature of ammonium, alunite, high illite, and high kaolinite crystallinity that is similar to the alteration signature of the south-striking faults. Crosscutting relationships observed in the pit indicate that east-striking faults post-date south-striking faults that control gold and silver mineralization. The alteration signature is interpreted as being supergene and indicative of proximity to mineralization.
- East-northeast alteration trends have an ammonium signature in the Office-Facilities area that is interpreted as indicative of proximity to mineralization, and high kaolinite crystallinity signature north of the Sleeper pit, which may be indicative of potential mineralization.

Integrated structural and alteration geology data from this study are shown in Figure 7-9. A strong coincidence exists between observed and interpreted fault zones with interpreted alteration signatures.

Figure 7.9 Comparison of interpreted structural and alteration geology trends



Combined alteration trends are shown in pink with interpreted faults coloured as in Figure 7-6 relative to the Sleeper pit in green. Background image is the tilt derivative of total magnetic intensity.

7.2.2 CONCLUSION

Structural examination of pit and field exposures as well as available core resulted in the recognition of several fault trends. Mesozoic rocks to the east of the Sleeper mine are folded along north-trending axial planes and thus record a pre-Tertiary episode of east-west compression. Observed fault trends in the Tertiary volcanic rocks include south-striking, moderately to steeply west-dipping, normal faults that control the distribution of gold and silver mineralization. Similar faults were also observed in the Cenozoic basement rocks, and host gold and silver mineralization at the Jumbo mine. A well-developed set of southeast-striking faults was also observed. These faults range in nature from fracture zones that may also contain silica-cemented breccia to low grade vein zones that exhibit bladed silica after calcite texture. Observed lineations along a southeast-striking fault-fill vein indicate normal-dextral oblique-slip occurred along this fault set. At one location in the Office subpit, an east-striking fault zone was observed, which is interpreted to post-date mineralization.

On the basis of a review of available spectral data and alteration mapping, several alteration trends were interpreted for the Sleeper mine. These alteration trends represent supergene and remobilized minerals that are precipitated along faults. Observed structural trends correspond with interpreted alteration trends, but the alteration study highlighted the presence of additional faults that were not observed from structural investigations.

A signature of ammonium, high illite crystallinity, high kaolinite crystallinity, and local alunite is associated with south-striking faults that host gold and silver mineralization. A signature of alunite indicative of proximity to mineralization and phengitic white mica likely unrelated to mineralization are associated with southeast- and south-southeast-striking faults, respectively. Several discontinuous east-striking faults are recognized that have a signature of ammonium, alunite, high illite and high kaolinite crystallinity. Even though this signature is similar to the alteration signature of south-striking faults that are associated with mineralization, these faults are interpreted as post-mineral. In addition to fault orientations observed in the field, the alteration study also identified the presence of east-northeast trending faults that have an ammonium signature crosscutting the east-striking faults in the Office-Facilities area, and high kaolinite crystallinity signature north of the Sleeper pit.

Integration of the results from the structural and alteration geology studies resulted in the development of an interpreted structural history for the Sleeper area. The interpreted structural history involved the displacement of south-striking mineralized faults by late- to post-mineral southeast-striking normal-dextral oblique –slip faults and by post-mineral east-striking strike-slip faults. The relative timing between the southeast- and east-striking faults could not be determined during this study.

Although further structural investigations are required to better constrain the structural framework at the Sleeper mine, the preliminary structural history may be applied to mine- to district-scale exploration targeting, and particularly highlights that the exploration potential to the south of the current Sleeper mine may be higher than to the north.

7.3 MINERALIZATION

7.3.1 MINERALIZATION AND ALTERATION

Four main types of gold mineralization are found within the Sleeper deposit and may represent a continuum as the system evolved from a high level, high sulphidation system dominated by intrusion related fluids and volatiles to a low sulphidation meteoric water dominant system (Corbett, 2005, Utterback, 2005, Histed, 2005). In this setting the paragenetic relationships of the differing mineralization styles are as follows:

- Early -quartz-pyrite-marcasite stockwork
- Intermediate -medium-grade, silica-pyrite-marcasite cemented breccias localized on zones of structural weakness
- Late -high-grade, banded, quartz-adularia-electrum-(sericite) veins
- Post -alluvial gold-silver deposits in Pliocene gravels

AMAX mined all four types of mineralization, with high-grade material (> 0.1 oz Au/ton) processed through the mill and low-grade (0.006 to 0.1 oz Au/ton) material processed by heap leaching. All were mined by open pit methods from the Sleeper, Wood, and Office pits. The deposit was mined over a north-south distance of 4,500 ft (1,372 m) and an east-west width of approximately 2,100 ft (640 m). During AMAX's operations, the mill feed included the high-grade veins and breccias, while the heap leach feed included lower-grade breccias and stockwork zones. Alluvial gold zones were a special ore type, as they contained vein-bearing clasts with coarse-grained gold that had to be processed through the mill.

The high-grade bonanza veins are banded and composed of layers of quartz¬-adularia-electrum, with minor carbonate, barite, and late stibnite. Veins ranging from 1 inch to 20 feet in true width were mined in the Sleeper, East Wood, West Wood and Office vein systems. Numerous other narrower or shorter veins have been found in the course of drilling and mining, including several below the final mined pit, and some hosted within Auld Lang Syne meta-sedimentary rocks.

The mined high-grade veins showed good continuity along strike and dip, although the distribution of the highest-grade values was somewhat erratic. Detailed drilling and pit mapping show that the high-grade vein systems can be followed along strike for distances of more than 650 ft, although high-grade gold values and the veins themselves do not continue uninterrupted over these lengths. Veins locally averaged over 20 oz Au/ton within the Sleeper pit; one blast hole reported 195 oz Au/ton over 20 ft (6 m) and an RC drillhole intersected 162 oz Au/ton over a true width of 5 ft. (1.5 m). The vein zones in the pit were localized primarily within the Sleeper rhyolite, although they are known to extend downward into the intermediate volcanic rocks and Auld Lang Syne strata. The veins did not show an appreciable nugget effect, as determined by numerous screen-fire gold assays performed by AMAX and X-Cal (Redfern and Rowe, 2003).

Medium-grade breccias in the mine, which were clast-supported and cemented by silica, pyrite, marcasite and adularia, typically assay between 0.1 and 1.0 oz Au/ton. The pyrite-marcasite content of the higher-grade breccias was notably higher than in the veins. The silver content in mined breccias was typically 3 to 6 times the gold grade. Much of the breccia mined by AMAX was within 20 feet (6 m) of the high-grade veins, occurring in both the footwall and hanging wall rocks, although they also occurred in discrete zones up to 10 ft (3 m) wide more than 150 ft (45 m) from known veins. Individual breccia bodies were typically 3 to 10 ft (1 to 3 m) wide and graded laterally into less brecciated wall rocks cut by stockwork veins (Nash et al., 1995). Lower-grade stockwork and breccia mineralization accounted for approximately 20 percent of the gold production.

Alluvial gold mineralization of Miocene or Pliocene age was found and mined in the western part of the Sleeper pit. This Older Alluvium consists of poorly sorted conglomerates derived mostly from the weathering of altered Sleeper rhyolite and partly from vein/stockwork mineralized material. Nash et al. (1995) stated that approximately 100,000 ounces of gold were produced from this material in 1990 to 1992 at grades of approximately 0.1 oz Au/ton.

7.4 GEOLOGICAL MODELING

7.4.1 METHODOLOGY

SRK Chile used the Implicit Geological Modeling technique in this project. The specific software used is Leapfrog Mining™ and Leapfrog Geo™ software, developed by Applied Research Associates New Zealand Limited (ARANZ). This methodology consists of using numerical data and user-defined parameters to calculate volume functions, from which iso-surfaces can be triangulated. This method eliminates or minimizes the need to manual digitization in 2D sections and plans.

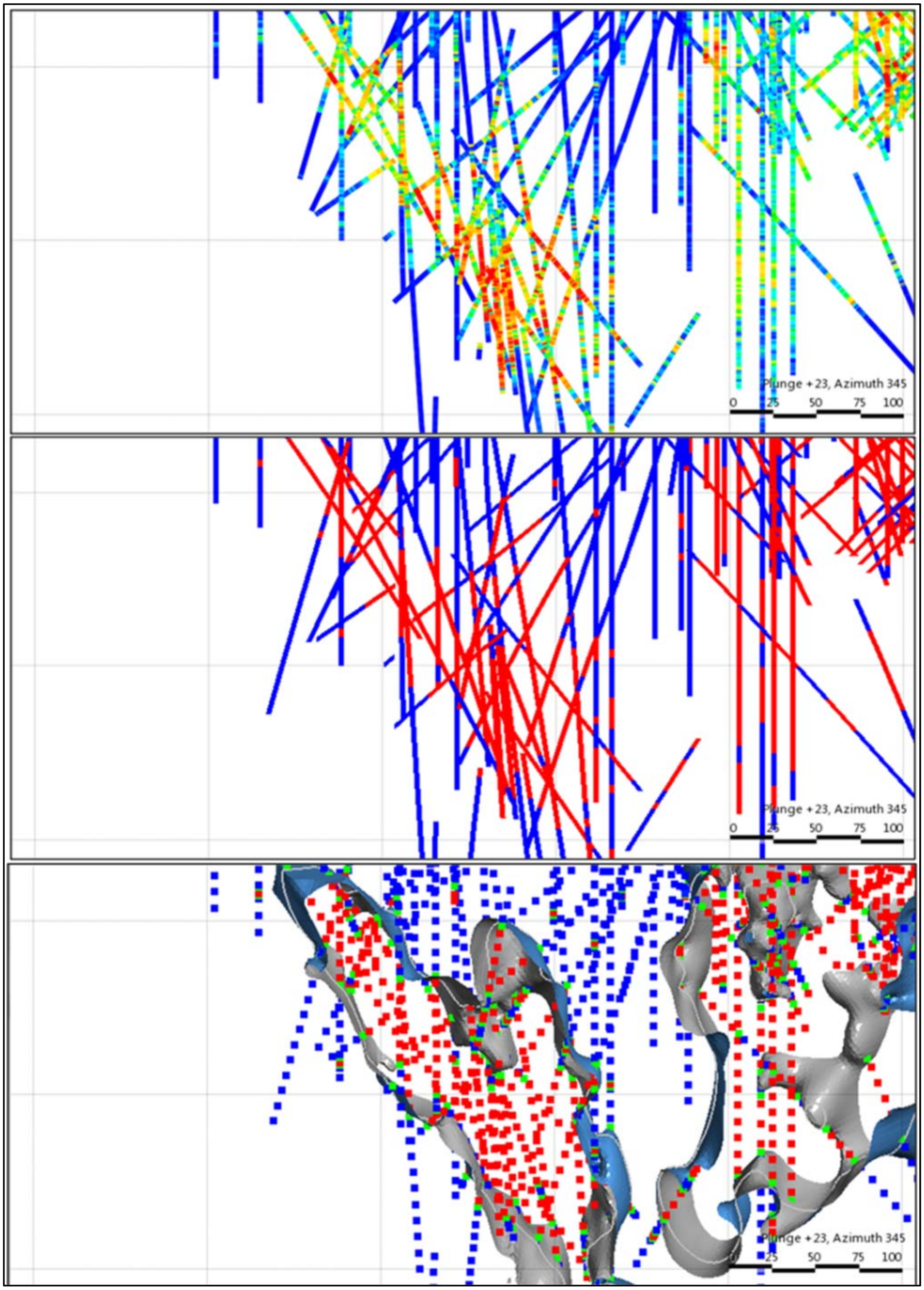
Input data for a volume function can be any 3D georeferenced data, particularly drillhole intervals with assay, intensity or numerical property values. In the case of discrete geological data such as lithology, alteration or mineral zone, the data are converted to “volume points” in the software, through a process that incorporates compositing, dilution, time sequence and cross-cutting relationships into account. In the discrete case, each unit being modeled is represented by a separate set of volume points, which have a value of 0 in the contacts of the unit being modeled.

Geological criteria, critical components and their associated features such as distribution, variability, continuity and structural control are defined by the modeler and entered as numerical parameters, which are applied to the input data in order to create a volume function for each unit. The model can be divided in domains in which different parameters can be defined. Domain boundaries are commonly created from the structural model, which can be generated from the input data, imported from other software, or digitized in Leapfrog Mining™ and Leapfrog GeoTM.

Finally, wireframes are constructed from the volume function, with user-defined fitting and triangle-size parameters. The final interlocking model is created by using Boolean operations (union, subtraction and intersection) according to the geological cross-cutting relationships.

Cowan et al. (2003) provide a more detailed description of this geological modeling technique and its fundamentals. A sample solid construction sequence is shown in the following figure. The upper image shows the drillhole Au assay data. The middle image shows the drillhole data composited into included (Au > 0.3 ppm) and excluded (Au < 0.3 ppm) regions. The lower image shows the volume points generated from 5 m composited intervals and interpolated Au > 0.3 ppm. Structural trend anisotropy was used.

Figure 7.10 Example of implicit modeling of an Au mineralization zone (sliced view of the West Wood Area).

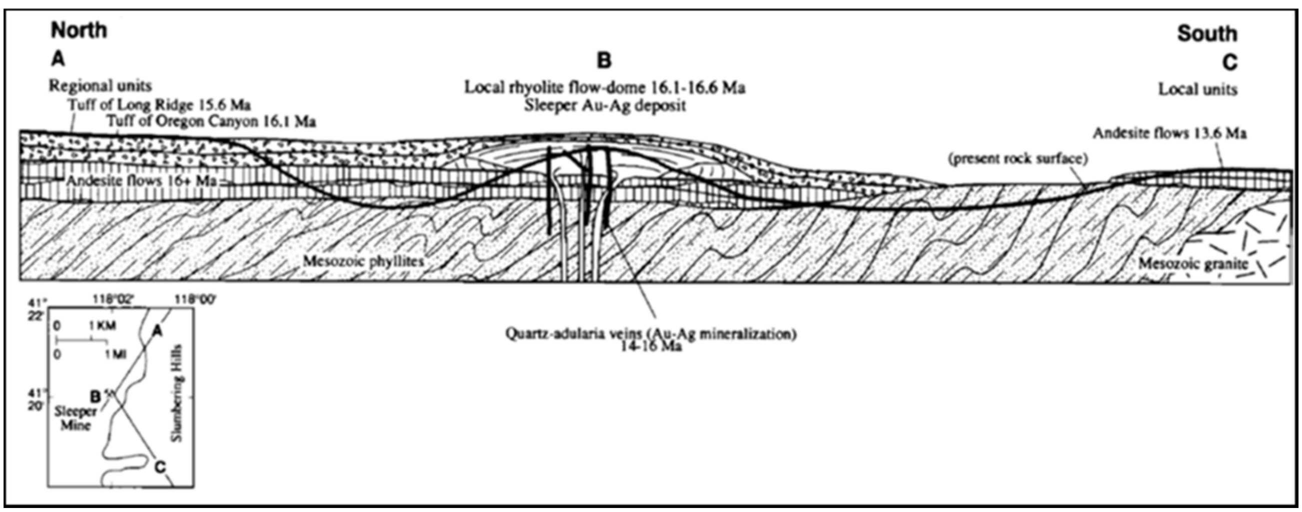


7.4.2 SUMMARY OF GEOLOGICAL MODELING PROCESS

The following guidelines and hypotheses were used to guide the modeling process. They were obtained by reviewing the available literature (see references), from discussions with Paramount and SRK professionals and from the three-dimensional integration and study of geophysical, geological and geochemical information:

- The Sleeper deposit is located on the western foothills of the Sleeper range, in NW Nevada. It consists of an epithermal Au-Ag vein system controlled by an extension-related system of NW, NS and bed-parallel structures affecting stratified rocks.
- Country rock is composed of a Mesozoic metamorphic basement overlaid by a volcano-sedimentary sequence.
- The latter is intruded by a system of rhyolitic porphyry domes, whose N-S feeders structures appear to control the bulk of the vein mineralization (Conrad et al., 1993).
- Bed parallel structures related to the base of the rhyolite porphyry and the contact also act as control for Lower grade, disseminated mineralization.
- NW structures act as discontinuities for the main N-S veins, as well as hosts for lower grade mineralization.
- Alluvial gold is present in the overburden, which should be treated as a different domain.

Figure 7.11 Schematic cross-section showing relationship between rocks exposed in the Slumbering Hills and at the Sleeper mine, prior to basin and range faulting and ensuing erosion and sedimentation (Conrad et al., 1993).



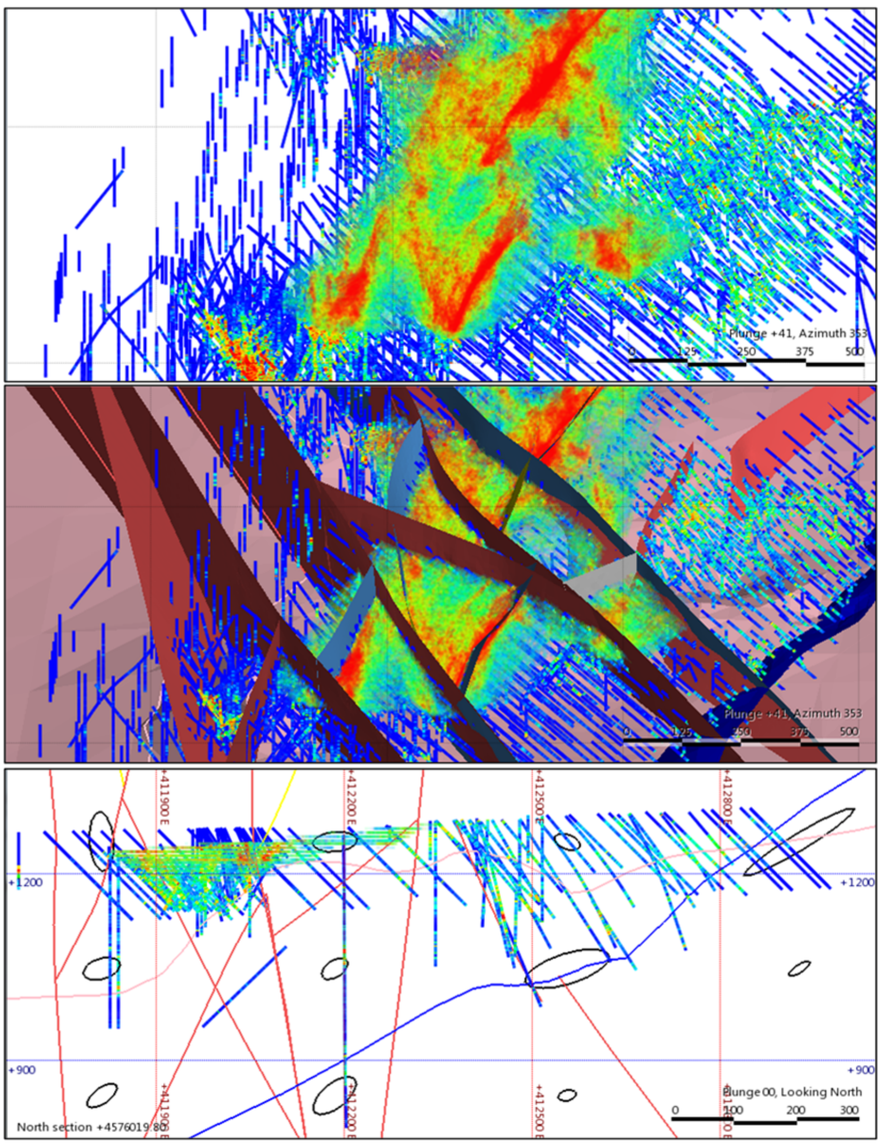
7.4.3 STRUCTURAL MODELING

A structural model was created with the purpose of creating mineralized envelopes that properly represent the geological controls and anisotropy of the gold distribution. This is achieved by creating wireframes of the controlling structures, which are used to direct the interpolation of the Au grades by the "structural trend" feature in the Leapfrog Mining software.

All input data were integrated on a 3D scene. Blastholes and diamond and reverse circulation drillhole assay data most clearly showed which structures needed to be considered to direct the interpolation. These domains were not used as boundaries for the Au and Ag models, since mineralization appears controlled by but not limited to structures. However, some of the structures were also observed to define hard boundaries for the lithological units, and were therefore used to define structural domains.

The figure below shows the Sleeper blasthole and drillhole data. The top figure is an inclined perspective view from the SE showing drillholes and assays as colour ranges. The middle figure displays the structural wireframes of principal vein controls (N-S) and discontinuities (NW), also in a perspective view. The bottom figure is a sliced view section (W-E) showing assays, vertical and bedding parallel structures, and local anisotropy (black ellipsoids) of the combined structural trend.

Figure 7.12 Sleeper deposit blasthole and drillhole data



7.4.4 MINERALIZATION MODEL

The location and shape of the veins in the sleeper deposit are understood mainly by grade distribution rather than by geological drillhole mapping. Therefore, mineralized zones were modeled by defining two regions for Au grades and two for Ag grades. Once these regions were defined, a structural trend was applied based on the structural model. Alluvial deposits were modeled as a separate domain, using the same grade envelopes and a trend parallel to the base of the overburden.

As agreed with Paramount, grade envelopes were selected that represented vein and disseminated mineralization. The grade values selected were 0.1 and 1 ppm Au, and 2 and 10 ppm for Ag.

These envelopes were constructed from volume points extracted from composited and filtered drillhole data, and by applying the above mentioned structural trend to the interpolation, with the exception of the alluvial mineralization for which a trend parallel to the base of the overburden was used.

In addition to the mineralization envelopes, three vein zone envelopes were digitized in Leapfrog using Bezier polylines and interpolated volumes. These envelopes were generated by request of Paramount, in order to restrict subsequent grade interpolations in the main areas (Facilities, Sleeper and West Wood).

Figure 7.13 Plan view of Au wireframes (green > 0.1 ppm, red > 1 ppm).

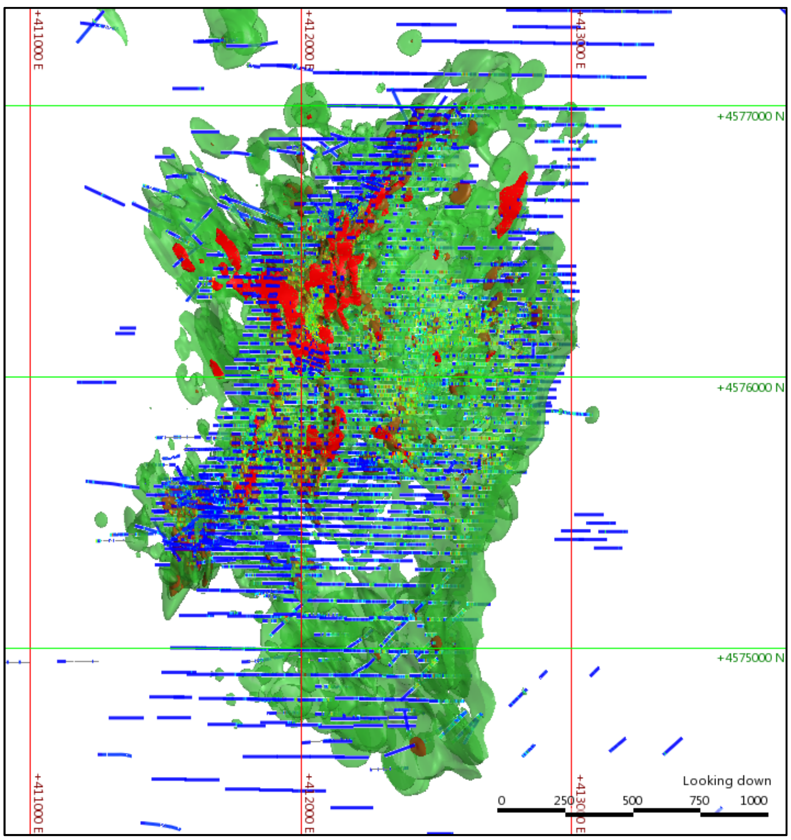


Figure 7.14 3D Sliced view of Au wireframes (view from the SW).

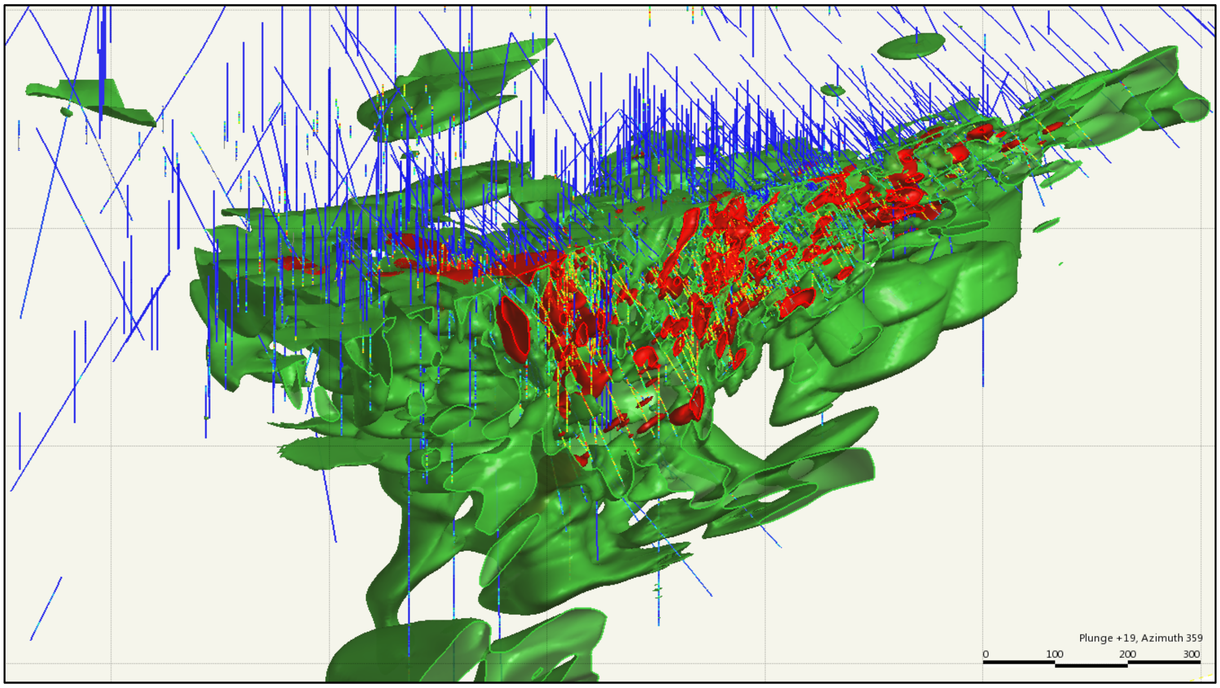
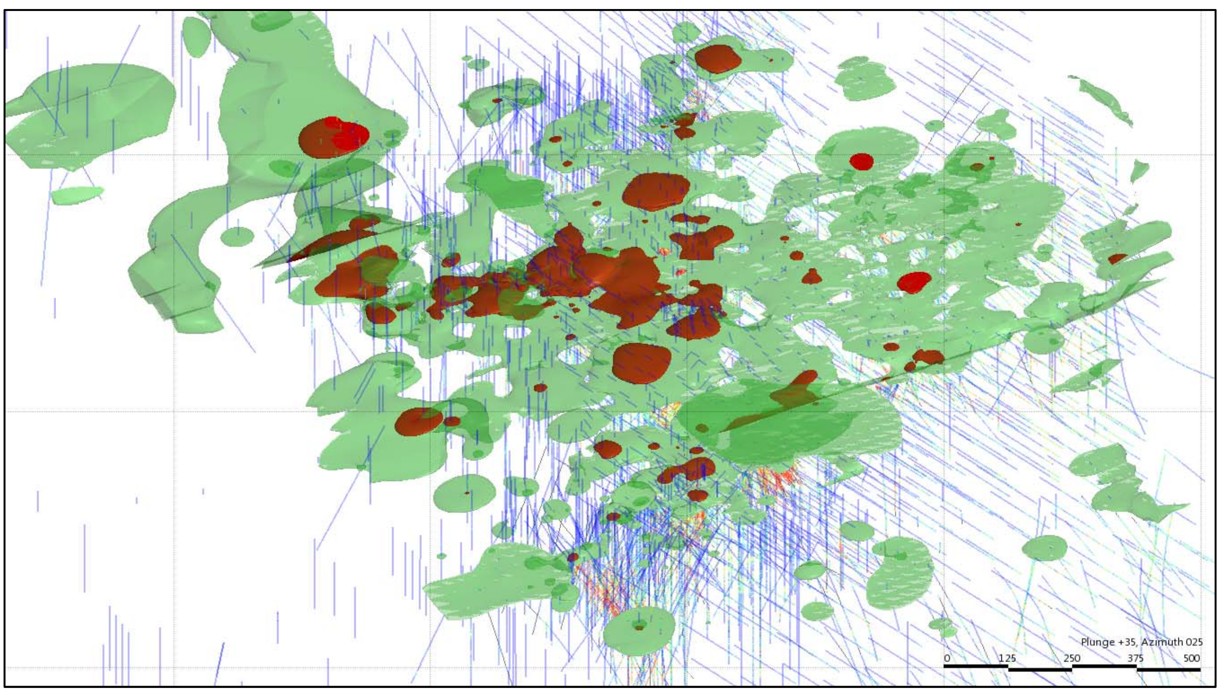


Figure 7.15 Alluvial Au wireframes (view from the SW).



7.4.5 LITHOLOGICAL MODEL

Paramount staff built the lithological and major structures 2D model using E-W oriented vertical sections, spaced every 50 meters in the central area of the deposit. The North and South end sections are spaced every 100 meters. SRK built the lithology solids based on polygon modeling in sections, snapping to the drilling, using the VULCAN ™ software.

The lithology units modeled are:

Qal: Includes alluvium (sand and gravel) and dumps. Gravel of both volcanic and metasediments dominate near the bedrock contact. These are interbedded with eolian sand towards the surface. Near the range front fault, metasediments dominate the gravels. This alluvial unit varies from less than 1 meter to over 200 meters thick southwest of the mine.

Tif: Felsic intrusions similar to the Sleeper Rhyolite but usually with fewer phenocrysts and may lack quartz phenocrysts. Numerous dikes are encountered in drilling, apparently more concentrated in the western Wood Pit area. Some intrusions develop into sills or possibly laccoliths.

Tim: Mafic dikes (basalt to basaltic andesite), usually aphyric to aphanitic, finely felty. Intrude the Sleeper Rhyolite but many are probably older. At deeper levels, particularly intruded into the metasediments, these may be fine-grained diabase to gabbro with augite and olivine.

Tr: Includes the Sleeper Rhyolite and possible younger rhyolite flows. Both vitric and non-vitric rhyolite or dacite with up to 20% plagioclase phenocrysts <2 mm and rarely up to 9 mm with traces of sanidine and quartz phenocrysts. Usually contains 3 to 5% mafic phenocrysts usually <1 mm (rarely up to 2 mm) and rarely up to 15% but typically obscured by alteration. In the least altered examples, orthopyroxene phenocrysts are slightly more abundant than biotite phenocrysts.

Tb: This unit is dominantly flows of basalt to basaltic andesite. Individual flows vary from a few to as much as 100 meters thick. Flow tops of many flows are highly vesicular and commonly have breccias, indicating aa type flows. Fewer of the flows are non-vesicular. Most flows are aphanitic or have rare, small phenocrysts. Some flows have up to 7% mafic phenocrysts <0.5 mm of augite and/or olivine. Others may have up to 5% plagioclase phenocrysts <1 mm. Near the top of the mafic sequence of flows is a distinctive andesite or dacite with about 10% highly elongate small plagioclase phenocrysts. Interbedded with the flows are usually discontinuous volcanic wacke typically less than 20 meters thick. There are also debris flows of mafic material and rare mafic tuffs. The entire sequence likely exceeds 300 meters thick.

Tvs: Wacke, usually fine-grained and rarely laminated. The upper part is volcanic wacke. With depth, thin flat clasts of Mesozoic Auld Lang Syne metasediments become mixed in, usually in distinct fine-grained conglomerate beds and the unit becomes more quartz-rich near the base. In the north central part of the Sleeper Pit, this unit may exceed 150 meters thick but elsewhere is tens of meters thick and may be absent. Underlying the wacke is a unit of breccia up to 50 meters thick of Auld Lang Syne clasts (Tc) that may have interbedded wacke, overlying the Auld Lang Syne in the northeastern part of the Sleeper pit.

Tc: Breccia: Angular clasts of Auld Lang Syne up to 1 m. Rarely has interbedded basaltic wacke. 0 to 50 m thick.

Mz: Dominantly weakly metamorphosed carbonaceous, phyllitic, siltstones and fine-grained, arkose to quartz arenite of the Mesozoic Auld Lang Syne Formation. Very rare carbonaceous, silty, limestone is locally interbedded - usually quite folded. Also includes Mesozoic mafic to felsic dikes and sills.

Figure 17-16 below shows a perspective view of the 3D lithology model and Figure 7-17 shows the structural domain model.

Figure 7.16 Lithological model viewed from the SW

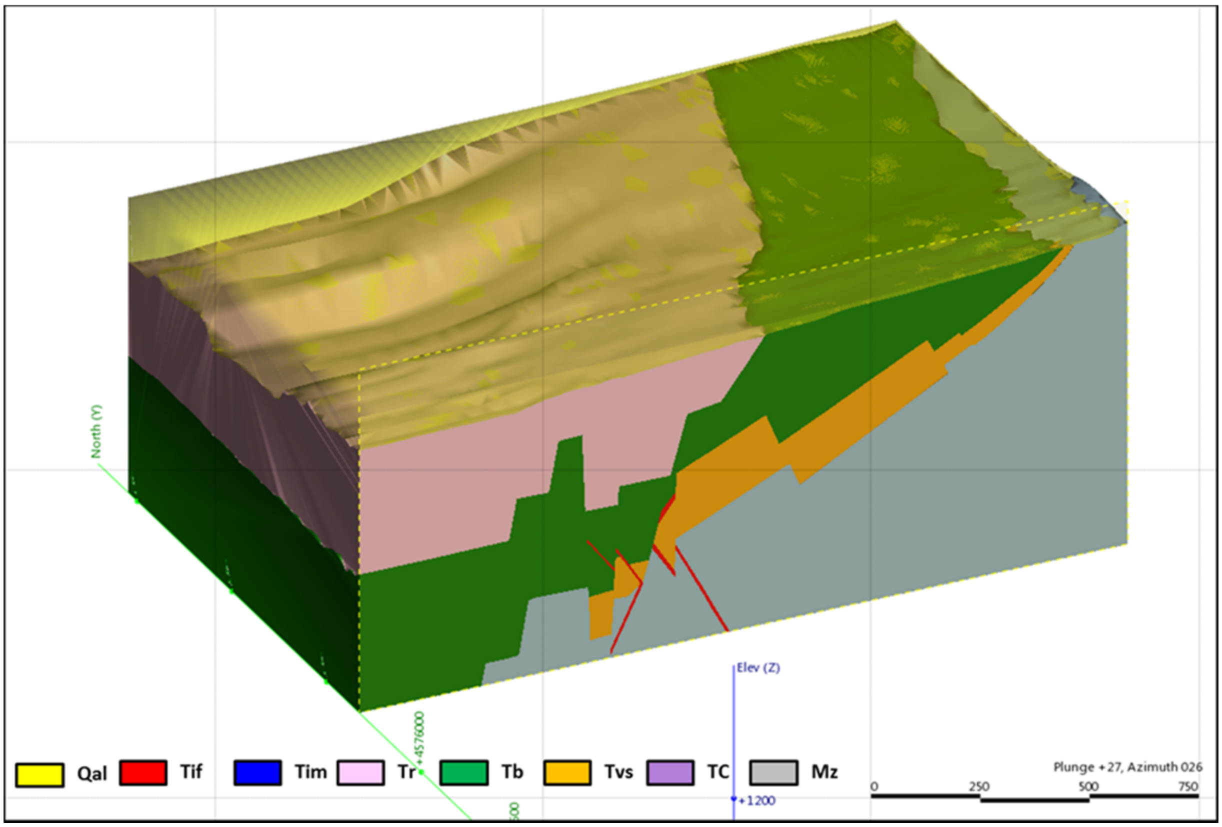
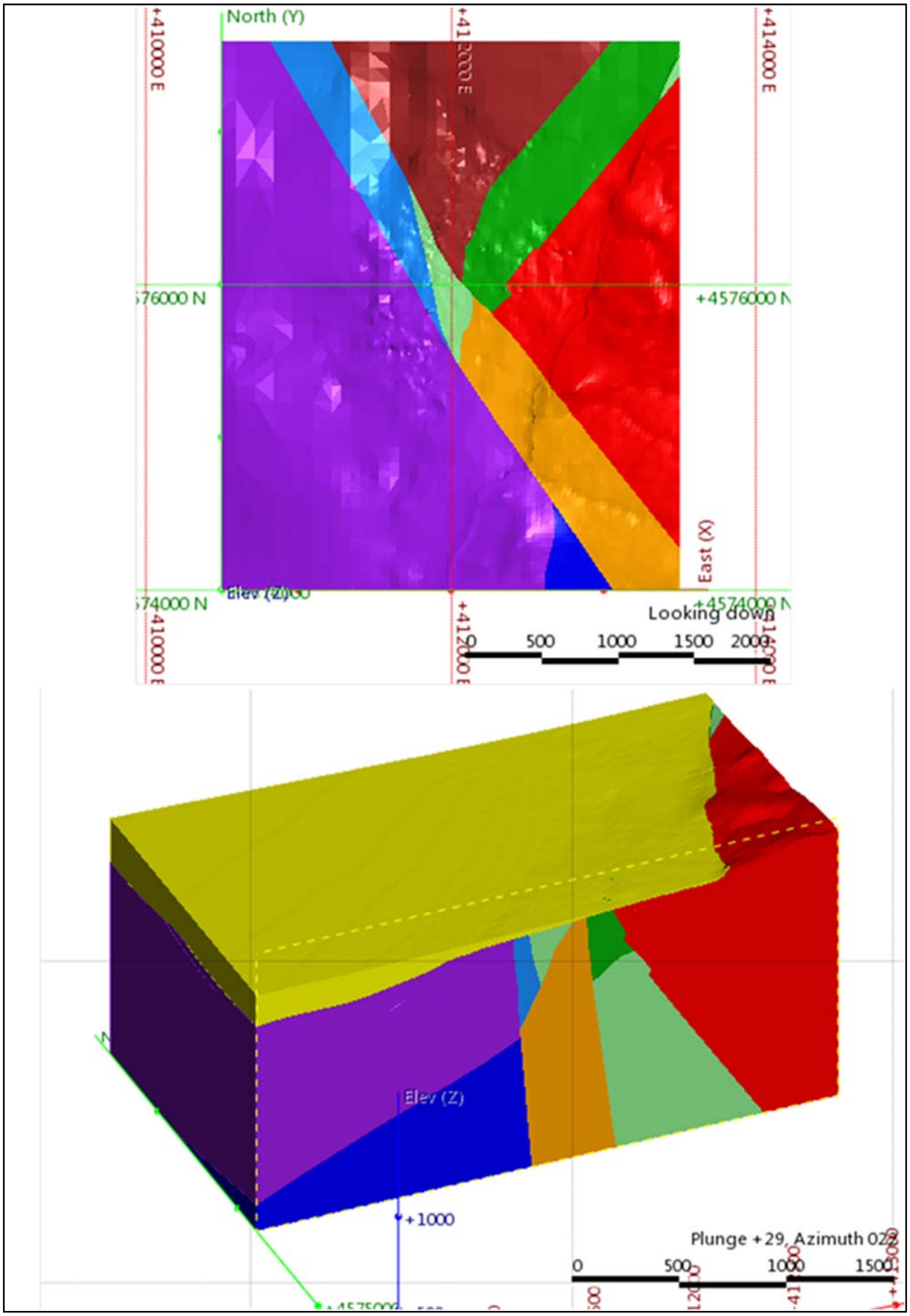


Figure 7.17 Structural domains used as hard boundaries for the lithological model



8 DEPOSIT TYPES

The Sleeper Mine mineralization consist of both high grade bonanza gold veins low in iron sulphides with silver: gold ratios <1 and low-grade stockwork gold mineralization associated with abundant iron sulphides that is characterized by silver : gold ratios of 3 to 10 (Nash et al., 1995). Nash et al. (1995) believe that the lower grade Sleeper Gold Property mineralization does not fit well in current geochemical classification schemes. They believe, however, that the widespread potassic (sericite and adularia) and silicic alteration indicate that this low-grade mineralization could be considered as a variant of the quartz-adularia class of deposit.

The spectrum of mineralization styles and the spatial relationships of those styles may suggest that the Sleeper Gold system demonstrates a continuum in mineralization from a modified high level, high sulphidation, intrusion related system dominated by magnetic derived fluids to a low sulphidation, meteoric water dominant system with a diluted magnetic fluid component (Corbett, 2005, Utterback, 2005, Histed, 2005).

The broad zones of silica sulphide breccias with elevated silver contents may represent a volatile rich event located above and peripheral to volcanic dome like features (Martin, 2005). The silica sulphide breccias identified in West Wood specifically core hole WW-14 -04 report gold and silver values up to 1.300 opt (44.585 g/t) Au and 74.768 opt (2,563.47 g/t) Ag. Crackle breccias and stockwork textures are part of this event. Extensive zones of clay alteration seen at Sleeper most likely formed at this time as the pH of the water was depressed after the exsolution of the volatiles from the fluid. ASD (analytical spectral data) studies indicate an abundance of kaolin species of clay, confirming the acidic environment of this event. Broad zones of silicification accompanied this event.

Subsequent to this early, elevated thermal energy event, waning of the intrusive activity and re-establishment of the hydrologic setting gradually evolved the system to a meteoric water dominant, low sulphidation system. Chemical buffering with wallrock allowed for the saturation of the near neutral evolved fluids with respect to silica. Dilution and buffering would have also inhibited the ability of the fluids to transport silver in the concentrations seen previously leading to the decreased silver content evident in the later vein style mineralization. Bonanza grade gold deposition appears to have resulted from the boiling of a gold-rich solution during these explosive events and as fluids mixed with the oxidized, low pH meteoric waters that resulted from the exsolution of volatiles after boiling (Corbett, 2005).

In addition to the Sleeper Mine style of mineralization, future exploration programs may target and expect more traditional low sulphfidation style mineralization, such as the Midas Style of precious metal occurrences (Goldstrand, 2000). Midas Style mineralization is also hosted in bimodal volcanic rocks and related to mid Miocene mineralizing events. Selenium minerals are an important part of the Midas system and manifest as silver selenides in banded quartz veins with bonanza grades. Trace element studies in 2004 and 2005 of various targets of the Sleeper Gold Property have demonstrated highly elevated levels of selenium as well. As mentioned by Goldstrand, “boiling textures” as bladed carbonate replaced by quartz are found in relation to bonanza grades of the Midas veins.

9 EXPLORATION

X-Cal, Placer Dome and the Sleeper Joint Venture under the management of New Sleeper Gold Corporation conducted exploration programs from 1997 through 2010 when PGSC purchased XCal. Summaries of these programs are included in Section 6, History. The following describe some of the extensive pre-Paramount exploration programs.

9.1 PRE-PARAMOUNT EXPLORATION PROGRAMS

9.1.1 2004 AND 2007 EXPLORATION PROGRAMS

The objective of the exploration program was to test the targets for Sleeper type gold deposits and alteration signatures (and variants) with the objective of making discoveries that can be mined by open pit or underground methods. Vic Chevillon reviewed and summarized the target areas. Much of the following discussion is drawn from his in-house memo (Chevillon, 2006). The mill and the crushing facilities had been removed allowing access to areas and targeted specific areas that had not been accessible since 1986.

In the immediate open pit area, the geologic deposit model of parallel horst and graben features correlates very well with multiple, interpreted geophysical surveys (inverted detailed air magnetic, inverted pre-mine IP, CSAMT data). The mineralized and altered Sleeper graben correlates with distinctive magnetic, gravity and resistivity lows. Up thrown horst blocks east and west of the pit correlate with respective geophysical highs. The higher gold grades within the mineralized bodies may have been influenced by intersecting north-west, north-east and east-west faults and fracture zones. Covered, potentially mineralized grabens are interpreted from the geophysics and these interpretations are supported by recent geochemical data.

Geochemical models in the open pit area depict geochemical and alteration zoning around the deposit (drillhole ICP, ASD alteration clay determinations including ammonia bearing clays proximal to significantly mineralized material). The zoning tends to indicate Sleeper is contained within a large hydrothermal alteration cell. An interstitial soil gas orientation survey documents high CO2, NH3 and locally SO2 anomalies and low O2 anomalies near the mineralized bodies at each end of the open pit and over the covered West Wood Breccia. In outlying covered areas (SW Target orientation area) soil gas anomalies correlate well with geophysical patterns of projected, covered grabens. Coincident soil gas anomalies, particularly CO2 in combination with NH3 are interpreted as remote surface evidence of covered mineralized and altered faults and veins in bedrock. Details of these studies are presented in the comprehensive report by Thomason, Kornze and Rowe, 2006

9.1.2 HISTORICAL GEOPHYSICAL SURVEYS

Geophysical work completed at Sleeper includes: magnetic, gravity, induced polarization (IP) and magnetic-telluric (MT) surveys. Both the historical work and the current work have been incorporated into a MapInfo GIS database to facilitate interpretations based on the entire data set. Consulting geophysicist James Wright, of J. L. Wright Geophysics Inc. was retained by X-Cal to advise on the selection and design of geophysical surveys at Sleeper, and to interpret the results from these surveys (Wright, 2005). Details of geophysical surveys are given in Thomason, Kornze and Rowe, 2006.

A 1997 Placer Dome detailed air magnetic survey (draped north-south and east¬-west lines at 75 m intervals) was inverted in 2005. It shows the Sleeper mineralized bodies are within a distinctive magnetic low which is part of a north-south to north¬-northeast trending magnetic low surrounded by magnetic highs. In the open pit area the magnetic low correlates very well with the map and cross section pattern of the interpreted mineralized Sleeper graben and the highs, with surrounding horsts.

In the Sleeper open pit area there are excellent correlations of air magnetic, pre mine IP and gravity results with the modeled pit geology and alteration. The modeled grabens (and attendant horsts) correlate with the map and 3-D patterns in the inverted geophysical data. Therefore the geophysical information was interpreted and geology was projected into outlying covered areas of the targets

9.1.3 HISTORICAL GEOCHEMICAL SURVEYS

For the purposes of surface exploration geochemistry, the Sleeper Gold Property can be divided into 4 general domains:

- Pediment-covered basin
- Hills, where regolith is present
- Hills with exotic cover, including aeolian sands
- Disturbed mine areas

Geochemical surveys in the pediment-covered basin have included Hg vapor surveys, orientation CO2 soil gas surveys, and orientation pH surveys. Work in the hills has included more conventional soil and rock sampling, and limited ant hill sampling. Great care has been taken to avoid disturbed mine areas in all of these surveys. Details of the geochemical surveys are given in Thomason, Kornze and Rowe, 2006.

9.1.4 HISTORICAL SURVEYING

On site, SRK checked survey reports of drillhole collar surveys for a selection of holes dating from September, 1986, which are the first records that Paramount has in their Winnemucca office. Specifically, several drillhole collar surveys were checked for programs drilled during 1986, 1990, 1994, 1997, 2004, 2005, 2006, 2007 and the current Paramount 2010-2011 drill program.

In addition, downhole surveys were checked for a selection of holes drilled from 2004 – 2007. Paramount is currently surveying downhole deviation on their holes as well. Deviation surveys from pre-2004 holes were not found and it is not clear if holes were surveyed when the mine was in operation until 1998. The majority of the holes drilled during mine operation, however, were relatively short and little deviation would be expected from those holes. SRK considers the survey data to be adequate for use in the modeling and estimation activities.

9.2 PARAMOUNT EXPLORATION PROGRAMS

PZG has completed several geophysical surveys since acquiring Sleeper in 2010 and contracted James Wright, J.L. Wright Geophysics Inc. to evaluate and interpret all of the current and past geophysical surveys.

PZG contracted Magee Geophysical Services LLC to conduct a gravity survey on the Mimi claims south of the historic Sleeper pit. Jim Wright of JL Wright Geophysics was contracted to evaluate and interpret the survey results along with all historic gravity data. A total of 1019 new gravity stations were surveyed by Magee and the data was then merged with the historic data and interpreted by Wright. The combined interpretation details well-defined north-south normal faults and at least one well-defined northwest-southeast right-lateral structure. Based on this interpretation Paramount decided to complete a gradient –array IP survey over two target areas to target sulphide mineralization and further define the structures.

10 DRILLING

PGSC drilling at Sleeper began October 11, 2010 and continued through spring 2013. A total of 39 diamond core holes and 36 exploration, reverse circulation holes have been completed at Sleeper for a total of 79,665 feet (24,282 meters). The core drilling was carried out by Redcor Drilling of Winnemucca Nevada and American Drilling Corp. of Spokane, Washington. The reverse circulation drilling was carried out by DeLong Drilling and Envirotech Drilling, both of Winnemucca, Nevada.

Additionally, 65 shallow reverse circulation drillholes were completed on the north, south and west waste dumps to determine the gold content for a total of 8,773 feet (2,674 meters).

The initial drill campaign focused on two mine area zones (West Wood and Facilities area) with the twin goals of verifying the existing model, and to demonstrate continuity/strike extension. Several holes were drilled for on-going metallurgical testing. Exploration and development drilling across the entire property led to the newly discovered South Sleeper and Pad mineralization. Following the staking of the Mimi claims south of the main Sleeper mine area, 13 RC holes were drilled to determine the depth to bedrock through the valley. The table below summarizes Paramount's drilling to September, 2013. Table 10-2 summarizes the significant intercepts from the Paramount drilling.

Table 10.1 Paramount Drilling in 2010 - 2013

HOLE-ID	AREA	TYPE	UTM_NAD27_E	UTM_NAD27_N	ELEV (M)	AZIM	DIP	TD (M)	TD (FT)
PGC-10-001	WEST WOOD	CORE	411623	4575522	1262	90	-85	351.44	1153
PGC-10-002	WEST WOOD	CORE	411630	4575520	1262	285	-75	230.73	757
PGC-10-003	WEST WOOD	CORE	411623	4575578	1258	90	-85	335.59	1101
PGC-10-004	WEST WOOD	CORE	411630	4575579	1258	270	-70	218.85	718
PGC-10-005	WEST WOOD	CORE	411640	4575632	1256	270	-68	272.19	893
PGC-11-006	FACILITIES	CORE	412583	4576316	1286	115	-53	261.82	859
PGC-11-007	FACILITIES	CORE	412479	4576147	1286	359	-60	130.45	428
PGC-11-008	SOUTH SLEEPER	CORE	411936	4575302	1285	90	-60	215.46	706.9
PGC-11-009	FACILITIES	CORE	412400	4576148	1285	89	-64	105.16	345
PGC-11-010	FACILITIES	CORE	412464	4576198	1285	91	-49	142.34	467
PGC-11-011	FACILITIES	CORE	412375	4576001	1285	277	-54	383.13	1257
PGC-11-012	FACILITIES	CORE	412548	4576077	1293	270	-69	237.14	778
PGC-11-013	PAD	CORE	412821	4576373	1294	272	-46	224.64	737
PGC-11-014	SLEEPER	CORE	411651	4575775	1271	91	-46	377.95	1240
PGC-11-015	EXPLORATION	CORE	412254	4574552	1324	89	-60	306.02	1004
PGC-12-016	PAD	CORE	412487	4576449	1277	93	-51	346.56	1137
PGC-12-017	PAD	CORE	412461	4576621	1269	88	-70	306.02	1004
PGC-12-018	SOUTH SLEEPER	CORE	412027	4574955	1303	88	-70	439.52	1442
PGC-12-019	EXPLORATION	CORE	411244	4575395	1284	89	-71	569.06	1867
PGC-12-020	SOUTH SLEEPER	CORE	412015	4575122	1309	89	-65	448.67	1472
PGC-12-021	EXPLORATION	CORE	410353	4574949	1260	89	-60	459.03	1506
PGC-12-022	PAD	CORE	412475	4576528	1270	86	-44	340.46	1117

HOLE-ID	AREA	TYPE	UTM_NAD27_E	UTM_NAD27_N	ELEV (M)	AZIM	DIP	TD (M)	TD (FT)
PGC-12-023	EXPLORATION	CORE	410602	4574950	1267	86	-61	630.02	2067
PGC-12-024	SOUTH SLEEPER	CORE	412053	4574860	1297	90	-70	425.81	1397
PGC-12-025	SOUTH SLEEPER	CORE	412052	4574758	1299	93	-71	426.42	1399
PGC-12-026	SOUTH SLEEPER	CORE	412001	4574651	1301	86	-61	433.43	1422
PGC-12-027	WEST WOOD	CORE	411649	4575579	1258	91	-45	303.28	995
PGC-12-028	FACILITIES	CORE	412530	4575978	1291	264	-61	264.26	867
PGC-12-029	DEEP SLEEPER	CORE	411651	4576452	1268	90	-43	616	2021
PGC-13-030	WOOD/WEST WOOD	CORE	411605	4575532	1267	288	-88	396.24	1300
PGC-13-031	FACILITIES	CORE	412366	4575952	1284	274	-79	281.33	923
PGC-13-032	PAD	CORE	412574	4576859	1266	274	-47	293.83	964
PGC-13-033	WEST WOOD	CORE	411455	4575500	1272	88	-58	572.42	1878
PGC-13-034	SLEEPER	CORE	412370	4576475	1261	272	-46	498.96	1637
PGC-13-035	SOUTH SLEEPER	CORE	412154	4574750	1300	93	-64	331.32	1087
PGC-13-036	SOUTH SLEEPER	CORE	411859	4575101	1315	89	-71	538.58	1767
PGC-13-037	SOUTH SLEEPER	CORE	411876	4574760	1293	90	-62	505.97	1660
PGC-13-038	SOUTH SLEEPER	CORE	412049	4575050	1311	90	-65	442.88	1453
PGC-13-039	SOUTH SLEEPER	CORE	411780	4574950	1306	89	-60	586.13	1923
PGR-10-001	WEST WOOD	RC	411552	4575626	1270	270	-76	335.28	1100
PGR-10-002	WEST WOOD	RC	411536	4575677	1269	270	-70	310.9	1020
PGR-10-003CT	WEST WOOD	RC/CORE	411572	4575777	1267	270	-70	295.96	971
PGR-10-004	WEST WOOD	RC	411629	4575779	1271	270	-70	310.9	1020
PGR-10-005	FACILITIES	RC	412437	4575964	1286	115	-55	300.23	985
PGR-10-006	FACILITIES	RC	412388	4576043	1286	115	-65	330.71	1085
PGR-10-007	FACILITIES	RC	412481	4576051	1287	115	-55	359.67	1180
PGR-10-008	FACILITIES	RC	412511	4576094	1291	115	-55	300.23	985
PGR-10-009	FACILITIES	RC	412759	4576117	1297	115	-55	170.69	560
PGR-11-010	FACILITIES	RC	412415	4576230	1286	115	-50	329.18	1080
PGR-11-011	FACILITIES	RC	412506	4576242	1288	115	-55	286.51	940
PGR-11-012	FACILITIES	RC	412577	4576252	1289	115	-70	256.03	840
PGR-11-013	EXPLORATION	RC	411600	4573250	1317	98	-70	335.28	1100
PGR-11-014	EXPLORATION	RC	411100	4573249	1304	90	-69	396.24	1300
PGR-11-015	EXPLORATION	RC	411101	4574952	1268	90	-60	304.8	1000
PGR-11-016	EXPLORATION	RC	410852	4574949	1265	90	-60	304.8	1000
PGR-11-017	EXPLORATION	RC	410602	4574950	1267	90	-60	176.78	580
PGR-11-018	EXPLORATION	RC	410353	4574949	1260	90	-60	150.88	495
PGR-11-019	EXPLORATION	RC	411830	4575198	1313	78	-46	316.99	1040
PGR-11-020	EXPLORATION	RC	410950	4577849	1257		-90	106.68	350
PGR-11-021	EXPLORATION	RC	410942	4577849	1257		-90	274.32	900
PGR-11-022	PAD	RC	412879	4576544	1292	267	-46	304.8	1000

HOLE-ID	AREA	TYPE	UTM_NAD27_E	UTM_NAD27_N	ELEV (M)	AZIM	DIP	TD (M)	TD (FT)
PGR-11-023	PAD	RC	412834	4576425	1293	268	-46	426.72	1400
PGMR-12-001	MIMI	RC	408238	4561873	1339	90	-70	207.26	680
PGMR-12-002	MIMI	RC	406045	4561232		90	-70	224.03	735
PGMR-12-003	MIMI	RC	405875	4564200		90	-70	201.17	660
PGMR-12-004	MIMI	RC	405835	4562565		90	-70	134.11	440
PGMR-12-005	MIMI	RC	409344	4564382		90	-70	364.24	1195
PGMR-12-006	MIMI	RC	408885	4565220		90	-70	345.95	1135
PGMR-12-007	MIMI	RC	406095	4567800		90	-70	274.32	900
PGMR-12-008	MIMI	RC	405590	4568397		90	-60	231.65	760
PGMR-12-009	MIMI	RC	405759	4567600		90	-60	176.78	580
PGMR-12-010	MIMI	RC	412055	4569727		90	-60	304.8	1000
PGMR-12-011	MIMI	RC	411315	4569600			-90	298.7	980
PGMR-12-012	MIMI	RC	410795	4569200		90	-60	292.61	960
PGMR-12-013	MIMI	RC	411668	4570446		90	-70	292.61	960

10.1 WEST WOOD AREA

The West Wood is a complex faulted and hydrothermally altered zone with local gold concentrations. Multiple episodes of brecciation have been identified in core samples. The gold mineralization is associated with silicified volcaniclastic rocks, and alteration containing high sulphidation quartz sulphide breccias. There is an overprinting of the high sulphidation mineralizing event by low sulphidation, auriferous, banded quartz veins. Light coloured to white clays of kaolin and illite fill cavities and voids produced from late stage acid leaching. The host rock types of the West Wood are the Sleeper rhyolite, a lapilli tuff and a volcanic breccia. Within the more altered and mineralized zones, silicification and quartz sulphide alteration have replaced and masked many of the original volcanic textures. Gold mineralization is associated with marcasite and occurs as electrum and as visible particles within banded quartz veins. Antimony minerals including stibnite and kermesite are commonly identified proximal to and within more anomalous gold zones. Auriferous, banded quartz veins occur and are predominantly easterly dipping and crosscut quartz sulphide altered volcanic strata. The banding texture is derived from multiple stages of fluid transport saturated with silica and sulphides. Commonly, bands of dark sulphides and framboidal marcasite are parallel to the microcrystalline quartz bands.

Six core holes and four RC drillholes were completed at West Wood for a total of 9,520 ft (2,819 m). Mineralization, and to a lesser extent downhole geology, matched closely with the existing model. Step-out drilling to the north (PGR-10-003, 004) indicates a substantial narrowing of the West Wood zone, but the structure continues without significant structural offsetting.

10.2 FACILITIES AREA

The main feature of the revised geologic interpretation of the Facilities area is the existence of a shallowly west-dipping, Miocene volcano-sedimentary sequence, apparently unconformable on and sub-parallel to the underlying Permo-Triassic meta-sedimentary basement. Within the Miocene package, a specific geologic unit of variable thickness is inferred by Larry Martin to host much of the gold mineralization, thereby accounting for its approximately tabular form. This unit, dominated by partly amygdaloidal basaltic andesite and volcaniclastic breccias, was interpreted as a debris flow.

10.3 SOUTH SLEEPER AREA

The South Sleeper area was discovered by interpretation of geologic and mineralization x-sections. The extension of the Wood structure south underneath the south waste dump and into Desert Valley encountered three broad zones of low grade mineralization in the first hole drilled in the target zone, PGC-12-018. Another 9 core holes were drilled to define the boundaries of the South Sleeper area. Mineralization occurs in strongly silicified, brecciated, rhyolite (TR) and basalt (TB). This zone has more sulphides but similar grades to the Facilities zone. Further work is required to determine if there is a high-grade zone associated with this structure/mineralization

10.4 PAD AREA

The Pad area was discovered while following up on historic drillholes beneath the Leach Pad just north of the Facilities Zone. A few holes were drilled and the mineralization is similar to that in Facilities. Due to the restrictions on drilling around the leach pads, it is difficult to intersect the target area. Further drilling is required to define this target area.

Table 10.2 Significant Intercepts from Paramount Drilling

PGC-10-001, WEST WOOD					
	From (m)	To (m)	Interval (m)	Au (ppm)	Ag (ppm)
	74.07	328.12	254.05	0.75	1.8
incl.	116.74	120.4	3.66	5.321	1
and	124.36	131.98	7.62	3.042	1.4
and	167.03	170.08	3.05	1.294	2.5
and	182.27	189.13	6.86	1.657	1.3
and	203.61	209.7	6.1	1.314	4.1
and	218.85	259.54	40.69	1.412	3.9
and	284.38	290.48	6.1	1.353	6.8
and	327.05	329.18	2.13	0.966	2.3
PGC-10-002, WEST WOOD					
	From (m)	To (m)	Interval (m)	Au (ppm)	Ag (ppm)
	66.75	72.85	6.1	0.205	0.5
	77.42	81.99	4.57	0.27	0.7
	86.56	133.81	47.24	0.766	0.9
incl.	103.39	132.28	28.9	0.951	1.1
	141.43	153.41	11.98	0.6	1
incl.	147.52	149.05	1.52	3.14	2.8
	156.67	230.73	74.07	1.758	7.8
incl.	190.2	230.73	40.54	2.793	13.5

10.5 RECOGNITION OF GEOLOGIC CONTROLS

The Sleeper ore bodies that were mined by Amax were interpreted at that time to be hosted by the Sleeper Rhyolite, stratigraphically above a distinctive basalt marker unit. The contact defines a north and northeast-trending complex of grabens and associated gold bearing ore bodies. The host grabens contain second and third order basins (and small, "in-graben" horsts) within the main, mineralized Sleeper zone.

The largest and highest grade ore bodies (Main Sleeper Vein and Wood Vein) are west-dipping on the east bounding faults of the Sleeper graben. The West Wood vein is vertical to steeply-dipping and appears to coalesce with the Wood vein mineralization at depth. In 3-D, gold grades appear to be best along structural intersections of north-west, east-west and north-south faults.

11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

11.1 SAMPLING METHOD

Only limited descriptions of the sampling and quality-assurance/quality-control ("QA/QC") procedures followed by AMAX and Placer Dome are available. However, the authors have no reason to believe that these large mining companies did not follow good practice.

The sampling methods and approaches used by X-Cal and New Sleeper on behalf of the Sleeper Joint Venture for surface geochemical samples and drill samples were professionally undertaken and consistent with accepted industry standards. Details of the sampling procedures are included in Thomason, Kornze and Rowe, 2006. The sampling methods and procedures used by Paramount in their 2010 - 2013 drilling campaigns are also considered to be in keeping with industry best practices.

SRK found only limited documentation for sampling method, bagging, security, and transportation practices used by AMAX and Placer Dome. However, summary data sheets and summary reports prepared by these companies, their employees and geological consultants, and the analytical laboratories are available. Review of the summary reports, the sampling done prior to X-Cal appears to have been handled by analytical, geological and engineering employees, and professional mining consultants. It is not unreasonable to expect that these persons used sampling techniques in accordance with industry-accepted protocols. These organizations used accredited commercial laboratories in addition to in-house laboratories.

During the time period of 1994 to early 1997, Barry Smee PhD. headed X-Cal's exploration programs. Prior to its involvement in the actual Sleeper site, X-Cal had land holdings within near proximity to the Sleeper mine. Multiple exploration campaigns were conducted and quality control and quality assurance appear to have maintained a protocol of procedures in the handling, bagging, transportation, security, preparation, and analysis of exploration samples. Additional exploration programs after 1997 used that early foundation and further developed the procedures into the present quality control and quality assurance programs implemented at the present Sleeper Gold Property.

The sampling and assaying procedures utilized by X-Cal and New Sleeper on behalf of the Sleeper Joint Venture at the Sleeper Gold Project appear to have been professional and consistent with industry practice. Details of the sample preparation, assaying procedures and security are included in Thomason, Kornze and Rowe, 2006. Paramount has, in general, followed the same procedures since 2010.

11.2 PROCEDURES FOR DRILLING AND SAMPLING

The following descriptions of QA/QC procedures were generally adopted beginning with the 2006 drilling program. The procedures as follows were further developed and refined during the 2007 exploration program. The following procedures can be considered as the norm for all drilling conducted since 2006.

11.3 POSITIONING DRILL EQUIPMENT

Prior to the drilling programs of 2006, Desert Mountain Surveying of Winnemucca, Nevada, positioned two points located North/South relative to each other. A magnetic correction of 15 ½ degrees East was found to be the correct magnetic declination for the Sleeper Project during 2006 and 2007.

All drill sites, including core and RCD locations, were positioned and constructed by personnel employed by X-Cal Resources.

All proposed drill sites were located by using hand held GPS positioning devices. Drillhole collars were then surveyed once each hole was completed

11.4 COLLECTING CORE

Core was collected by a truck mounted Atlas Copco CS3001 core rig capable of drill depths in excess of 2000 feet (610 m). The drill equipment was owned and operated by EMM Core Drilling of Winnemucca, Nevada. Corrugated waxed cardboard core boxes were provided by the core contractor. Wooden blocks or plastic depth indicators were labeled and placed by the core contractors at the appropriate measured drill depths.

Preferred core size was HQ. Adverse drilling conditions preventing advancement of the HQ tools was remedied by casing the hole down to the problem zone. Occasionally a reduction to NQ tools was needed to continue the drillhole to targeted depth.

Core holes drilled in the West Wood target were pre-collared and cased to bedrock (approximately 160-210 feet (49-64 m)) using the RCD rig. Angle and vertical drillhole collar sites were pre-surveyed using a portable GPS positioning device.

Completion of each core hole was preceded by down-hole surveys conducted by International Directional Services of Battle Mountain, Nevada. After the completion of the drillhole and down hole survey the hole was abandoned by pumping a bentonite slurry from the bottom of the drillhole to within 10 feet (3 m) of the surface. The remaining surface plug was ten feet of Portland cement. Desert Mountain Surveying of Winnemucca, Nevada, conducted surface collar surveys for each core hole.

Core boxes filled with core were neatly stacked upon pallets and covered with a tarp at the drill site until the full pallet was transported to the core processing facility. The core was washed, geologically logged and sample intervals selected and labeled by the core geologist.

Drill core were then digitally photographed utilizing scale bars to easily position the exact down-hole location within each individual core box. The core boxes were then positioned next to the sheds that contain self-feeding core saws.

Each piece of silicified or hard core was placed in a confinement jig. The maximum length was one foot. The jig positions the core’s central axis producing two nearly exact volumetric halves after the core was cut. One core half was returned to its origin box and the remaining half was placed into a pre-marked 16”X19” (40X48 cm) sample bag. The more clay rich core intervals were hand chiseled into halves by the core technician or by a geologist.

The sampling technician independently logged the core sample intervals. Copies of the sample intervals were submitted to the assay lab and a copy was archived into individual core hole folders. In addition, the folders contain copies of the geologic log, down-hole survey, assays, hole abandonment sheets and surface collar surveys

11.5 REVERSE CIRCULATION DRILLING

The reverse circulation drilling (RC) programs for both late 2006 and 2007 utilized a Schramm 685, capable of drill depths in excess of 2,500 feet (762 m). The Schramm rig was owned and operated by DeLong Drilling and Construction of Winnemucca, Nevada. The crew consisted of one driller and two driller's helpers. The driller's helpers had multiple tasks in addition to their mechanical drilling duties which included sample bag numbering (including duplicates), chip tray numbering, sample and chip collection and sample storage at the drill site. All drill hands were responsible for a safe, clean and organized drill site.

The preferred RC drillhole diameter was 5¾ inches (14.6 cm) produced by a pneumatic hammer and carbide button bit. If water volumes exceeded capacities that prevented the advancement of the hammer tool or adverse conditions warranted the use of a tri¬cone tool the hammer tool was tripped out of the hole and the appropriate tricone diameter was returned to the bottom of the hole. Occasionally a reduction to a smaller diameter of tricone was needed to complete the proposed drillhole.

RC samples were collected from the surface every 5 feet (1.5 m). Duplicate samples were collected from the rotary splitter every 150 feet (45.7 m).

The rotary wet splitter (splitter) was attached to the rear passenger side of the Schramm. The splitter was washed down after each completed drillhole. Once surface casing was completed, water and on demand drilling mud and hole conditioners were injected to suppress silica dust exposure and maintain the integrity of the drillhole.

The splitter had removable pie shaped platelets that are removed or added to maintain a consistent 20:1 volumetric split product at the exit end of the sample collection port. The sample exited the port straight downward into a 5 gallon (20 lt) plastic bucket. Once the 5 feet (1.5 m) drill interval was completed, another clean bucket was placed under the exit port. The sample bucket was poured into a pre-labeled 15"X17" (38X43 cm) sample bag. The sample bucket was rinsed once with fresh water and contents poured into the sample bag. The bag was tied and placed into a collection crib or crate that was provided to the project by American Assay. The crib provided an additional assurance against contamination by ground exposure. The duplicates, taken every 150 feet, (45.7 m) were collected by similar procedure and placed upon a black plastic sheet for drill site storage.

Drill rod changes have long been suspect for down-the hole-contamination during RCD drilling on other projects. At Sleeper, the end of the 20 feet (6 m) drill rod cycle was used to ream, clean and dress the walls of the last 20 feet drilled. The process was considered vital in maintaining a clean drillhole. Once the new rod for the next 20 feet was positioned, the rotation was started and down the hole pressures and water levels were allowed to stabilize. A screen was placed at the exit of the splitter and checked for debris that may have its origin from up hole. The sample bucket was re-positioned under the sample port only after the driller observed a clean return in the screen. This method took additional time, has proven to be a very effective method in minimizing down the hole contamination.

Completion of each RCD hole was preceded by down hole surveys conducted by International Directional Services of Battle Mountain, Nevada. After the completion of the drillhole and down hole survey, the hole was abandoned by pumping a bentonite slurry from the bottom of the drillhole to within 10 feet (3 m) of the surface. The remaining surface plug was 10 feet of Portland cement. Desert Mountain Surveying of Winnemucca, Nevada, conducted surface collar surveys for each RCD and core hole.

Compartmental chip trays (20 compartments) were used to archive drilled material from each 5 feet (1.5 m) of drill advancement. Each compartment's content was pre¬washed prior to filling the compartment with the aid of a fitted funnel. The process minimizes any contamination from other 5 foot (1.5 m) samples.

All chip tray intervals were reviewed by at least one geologist and logged for geologic attributes. The chip trays were archived by drillhole number and placed upon steel shelves located in closed buildings for later additional reviewing

11.6 PARAMOUNT GOLD AND SILVER 2010 – 2013 DRILL PROGRAM

The drilling tubes provided by both drill contractors were in imperial measurements (feet). The sampling procedure of previous drill campaigns under New Sleeper Gold LLC was the template for the completed Paramount drilling campaign.

Drill samples generated at the drill rigs were transported to the onsite logging facility and stored inside a locked building. At no time, prior to surrendering control of the samples to representatives of the assaying company, were the samples handled by anyone other than the drilling contractors or the geologists onsite.

Because the program included both an RVC and core rig, there are some differences in sampling protocol.

11.6.1 Core Sample Length

The 2010-2011 drill core were sawn in half longitudinally into primarily 5-foot-long (1.5 m) samples, which were then shipped off site where they were assayed for gold, silver, and other metals. The range of sample length was generally capped at five feet, with a minimum sample length of 2.5 feet (0.75 m). In the West Wood area minor amounts of core were drilled which represent overburden above the bedrock; these intervals are not representative of the mineralization and geology of the host rock, and therefore, were not shipped for assay. Approximately 96% of the drillholes used HQ drilling tools and the remainder, NQ tools.

11.6.2 RVC Sample Length

The RVC campaign utilized 10-foot and 20-foot (3 m and 6 m) sections of drill steel. All assayed samples from the RVC drill were in 5 foot (1.5 m) intervals. Flagging and paint marks were set on the drilling derrick to help with accuracy.

11.6.3 Drilling Conditions

Drilling conditions vary widely throughout the property. While generally absent in the Facilities area, overburden in the West Wood area is composed of up to 200 feet (61 m) of unconsolidated sand and gravel. Care was exercised when drilling the overburden section of the West Wood area, although no sections of overburden were included in material to be assayed.

11.6.4 Sample Quality and Procedure

To ensure the quality and reproducibility of assay results, check samples were inserted into the assay stream. For the core program, a random duplicate sample was inserted every 40 samples. Every 20 samples either a blank or a standard sample was inserted in the sample stream.

The RVC drill rig was working on a 24-hour, round the clock basis. To ensure that there were no problems inserting blanks and standard assay samples into the sample stream while no geologist was present, it was decided to only have duplicate samples associated with the RVC sample stream. As with the core program, duplicate samples were inserted randomly into every 40 contiguous samples of the RVC sample stream. This program was based upon the check sample protocol developed during the drilling campaigns completed under previous owners of the project.

11.7 SAMPLE CONTROL PROCEDURES

SRK found only limited documentation for sample preparation, bagging, security, and transportation practices used by AMAX and Placer Dome. However, summary data sheets and summary reports prepared by these companies, their employees and geological consultants and the analytical laboratories are available. Review of the summary reports indicates that the sampling done prior to X-Cal appears to have been handled by analytical, geological and engineering employees and professional mining consultants. It is not unreasonable to expect that these persons used sampling techniques in accordance with industry-accepted protocols. These organizations used accredited commercial laboratories in addition to in-house laboratories.

During the time period of 1994 to early 1997, Barry Smee PhD., headed X-Cal's exploration programs and was responsible for the sample security, preparation and chemical analyses procedures. Prior to its involvement in the actual Sleeper site, X-Cal had land holdings within near proximity to the Sleeper mine. Multiple exploration campaigns were conducted and quality control and quality assurance appear to have maintained a protocol of procedures in the handling, bagging, transportation, security, preparation, and analysis of exploration samples. Additional exploration programs after 1997 used the early foundation procedures of 1994 - 1997 and further developed them into the quality control and quality assurance programs implemented at the Sleeper Gold Property since that period.

The sampling and assaying procedures utilized by X-Cal, New Sleeper Gold and now Paramount, appear to have been professional and consistent with industry practice. Details of the sample preparation, assaying procedures and security are included in Thomason, Kornze and Rowe, 2006.

The following descriptions of QA/QC procedures were generally adopted from the 2006 drilling program. The procedures as follows were further developed and refined during the 2007 exploration program.

11.8 ASSAY SUBMITTAL FOR CORE AND RCD

American Assay Laboratories picked up the sample shipments near the end of a 10-day drilling shift. Predominantly, one drillhole was placed in the shipping container. If additional room was needed to ship a few samples from another drillhole, a plastic liner separated the two sample sets. This procedure helped the lab personnel sort the core or RCD samples according to drillhole.

Duplicate RCD samples were collected from every drillhole on 150 foot (45.7 m) increments. The duplicate RCD samples were temporarily stored on plastic liners near the geology office. The duplicate samples for each individual drillhole once air-dried were placed in larger shipping bags labelled with drillhole numbers and intervals. The duplicate samples were stored at the Sleeper mine site until a shipment quantity "batch" would be ready for transport. The samples were hand delivered by Sleeper personnel to the ALS Chemex's preparation facilities located in Winnemucca, Nevada. Assay submittal sheets and standards accompanied the samples and copies of the submittals were retained by X-Cal for archive.

11.9 DUPLICATE SAMPLES AND REFERENCE MATERIALS

Duplicate samples were collected at the RCD rig every 150 feet (45.7 m). Duplicate samples of specific core intervals were selected from sample rejects after the principle lab preparation and assays were completed. Commercial standards of various gold concentrations (pre-packaged pulps) were introduced into the analytical lab's sample stream at the pulp stage.

11.10 SECURITY

Prior to completion of an RCD hole, the chip trays were stored and secured by the drillers at the rig site after drilling hours. All chip trays were collected after completion of each specific RCD hole. Note: The fenced compound was locked after day shift ends and remained locked until day shift resumed the following day. During the day period the electric gate was unlocked and accessible to entry only through Sleeper personnel.

Core boxes filled with core were neatly stacked upon pallets and tarped at the drill site until the full pallet was transported to the core processing facility. The core was washed, geologically logged and sample intervals selected and labeled by the core geologist. All core boxes were then stored on shelves in the locked core storage facility on site. Paramount is following this same procedure for securing RCD and core samples.

11.11 SPECIFIC GRAVITY DATA

The densities used in the SRK block model are average values of units grouped by lithology and mineral zone, beginning with a default value of 2.4 gm/cc. These densities are based on analyses done on diamond drill core. This distribution of density by group is shown as follows:

- Lithology 1 = 2.23
- Lithology 2 = 2.62
- Mineral Zone 1 and Lithology 3 = 2.19
- Mineral Zone 3 and Lithology 3 = 2.33
- Mineral Zone 1 and Lithology 4 = 2.31
- Mineral Zone 3 and Lithology 4 = 2.42
- Lithology 6 = 2.32
- Lithology 7 = 2.30

- Lithology 3 without Mineral Zone = 2.30
- Lithology 4 without Mineral Zone = 2.35

For the density sampling and testing program carried out by X-Cal, samples of cut core (HQ) were measured for specific gravity by using ASTM International Designation: C97-02 as a guide to methodology. Testing was carried out at the American Assay Laboratory (“AAL”) in Reno, Nevada. AAL is an internationally accredited and certified lab, independent of X-Cal.

Specific samples were pre-selected to test the various rock types and alteration identified in the Facilities Area and West Wood Area. The samples were obtained from intact core that had been sawed in half (lengthwise) for analytical analysis. The rock types varied from debris flow, crystal tuff, lithic tuff, volcanic sediments to meta-sedimentary rocks. Alteration phases included silicified breccias, whole rock silicification, potassic alteration (bleached silicic alteration) and partially clay-altered specimens. The sample sets of half core measured at the Sleeper site did not include samples of advanced argillic alteration (whole rock to clay alteration) due to procedural protocol that required soaking of the test sample in distilled water. The test samples of advanced argillic alteration fell apart and were compromised.

The half core specimens selected for specific gravity measurements were described by specific geologic attributes including alteration, lithology and oxidation state. Each individual sample was labeled with its origin on a smooth surface using indelible ink. The label identifying each sample included specific drillhole number and drill depth interval. The labeled samples were placed in plastic core boxes for storage and archive purposes. Prior to measurement, sample sets each containing twenty specimens, were placed in a portable drying oven for 12 hours set at 105 degrees F. Note that the samples were half core and had been air-drying for a minimum of 30 days prior to oven drying process. A longer oven time interval was tested and 12 hours was found adequate for the minimum drying time that produced successive weight readings with the same weight. The dried specimens were returned to their appropriate core box and stored in a closed room until scheduled for testing.

The dried samples were weighed using an electronic digital scale specifically purchased and dedicated to the specific gravity testing task. The dry weight (measured in grams to nearest tenth of a gram) for each specific sample was recorded and the scale’s calibration reset entered after each measurement. The sample sets were measured in lots containing 20 samples. After ten samples of a lot were measured the first sample of that lot was weighed again to confirm the weight measurement. After the last sample of the lot (number 20) was weighed and recorded, the number 10 sample was re-selected and weighed again to assure consistency.

The samples were then carefully immersed in distilled water contained in clean five gallon buckets for 30 minutes. A longer immersion time was tested (up to two hours) and weight measurements collected at 30 minutes, 90 minutes and 120 minutes were the same. It was concluded that 30 minutes was found to be the minimum time to allow the sample to adsorb the distilled water.

After 30 minutes in distilled water the samples were carefully removed and placed on towels for damp dry and surface dried by paper towels. Each specific sample in the twenty (20) sample lot was weighed and its wet weight (measured in grams to nearest tenth of a gram) recorded as per the same procedure as dry weight were collected.

Each sample is fully immersed in the distilled water and air bubbles removed from the basket and specimen. The basket is allowed to stabilize to a static state and the specimen's submerged weight (measured in grams to nearest tenth of a gram) is recorded. The same QA/QC procedure for the dry weight lot measurement is used weighing submerged samples. Sample numbers 1 and 10 of the submerged lots are weighed again and the calibration reset after each specimen's weight procedure is completed.

12 DATA VERIFICATION

12.1 PRE-PARAMOUNT VERIFICATION

12.1.1 AMAX DATA

In mid-May 1997, Mineral Resources development Inc. ("MRDI") was retained by X-Cal to assist in the evaluation of in situ resources of the Sleeper deposit, monitor a program to obtain samples of material from the existing leach heaps and Mill Tailings from the impoundment area, establish and supervise laboratory metallurgical testing programs on samples of heap leach material and mill tailings and to evaluate the condition of the existing process plant facilities. The results of MRDI's work was presented in three separate and standalone reports. The titles of these three reports are as follows: "Modeling and Resource Estimation of the Facility, Saddle, West Wood and Silica Cap Areas", "Sampling and Metallurgical Evaluation of Existing Leach Heaps and Mill Tailings", and "Evaluation of Existing Process Plant Facilities". The resource model was completed in mid-August, 1997 (MRDI, 1997, Sampling and Metallurgical Evaluation of Existing Leach Heaps and Mill Tailings, Sleeper Gold Property).

During the 1997 study, MRDI selected 2,725 drillholes from a database of 3,732 drillholes. Using the project database MRDI selected 5% of the drillholes to verify collar coordinates down-hole surveys, geological logs and assay data.

The following is a summary of conclusions by MRDI:

Collar coordinates for early drillholes by Amax were difficult to verify and many of the original survey sheets were filed by date and not by specific drillhole. Later drilling by Amax and drilling by Placer Dome and X-Cal, the collar information (including azimuth and dip) was found to be reasonable.

The bulk of the reverse circulation drillholes by Amax were not surveyed downhole. All core holes were surveyed down-hole. MRDI checked all drillholes that were surveyed down-hole and found that there was no entry or data transfer errors from the original survey records.

Overall, MRDI found that the error rate in the assay database is very low at 0.1 percent (10 errors out of 15,588 records), which is well within industry standards (MRDI, 1997 Modeling and Resource Estimation of the Facility, Saddle, West Wood and Silica Cap Areas).

Larry G. Martin, CPG, who logged many of the X-Cal drillholes, provided MRDI with a detailed description of the protocol used by both X-Cal and New Sleeper Gold prior to and during the Sleeper Joint Venture for sample handling, sample preparation, assaying, check assaying and umpire assaying. These procedures and the chain of custody used were found to be satisfactory and SRK is in agreement with this conclusion.

SRK is of the opinion that the pre-2007 data available can be used in the continuing evaluation of the property. A large digital database is available for the Sleeper Gold Property.

12.1.2 2007 ASSAY QUALITY CONTROL PROGRAM

The assay quality control program used during 2007 called for the inclusion of duplicate samples, insertion of reference samples (standards), and regular submission of samples to a second laboratory for check analyses. The principal laboratory was American Assay Laboratories (AAL) in Reno, Nevada and the check laboratory was ALS-Chemex (ALS) in Reno, Nevada. ALS is an internationally accredited and certified lab, independent of X-Cal.

Prior to submitting samples to AAL, X-Cal had a stipulation protocol that drill samples submitted for assay would require an automatic check assay by AAL if gold values reported were greater than 3 grams and or silver values were greater than 60 grams. In addition, drill intervals that were inspected by the supervisory geologist and visually contained geologic features that accompany higher-grade mineralization, including but not limited to banded veins, dark sulphide bearing breccias, antimony sulphides or visible gold were reported to the lab prior to assay analysis. The principle lab preps the indicated higher-grade zone. Between each of the individual samples that have been highlighted by the supervisory geologist, 5 feet (1.5 m) for RCD and 2 ½ feet for core, a barren silica sand flush was used to clean the grinding equipment.

A total of 565 samples were assayed as check samples (565 samples to AAL and 565 duplicates to ALS). The standards inserted into the sample stream totaled 359. Results of the assay quality control program show generally acceptable gold assaying. For future drilling programs, additional check assaying is recommended.

12.1.3 FIELD DUPLICATES

For the 2007 program, field duplicates were collected while drilling the reverse circulation drillholes. Core duplicates were collected from processed core rejects that were returned to the Sleeper mine site by the principle laboratory (AAL) and then the same reject was sent to the secondary lab (ALS) for check analysis.

Although there are relatively few of these duplicate samples, the results show good agreement with no obvious bias.

12.1.4 REFERENCE SAMPLES

All reference samples used during 2007 were from Rocklabs of New Zealand. A total of nine reference samples were used during the period: seven are/were commercially available from Rocklabs. Standards Pa4 and Pa5 appear to be a special custom order from Rocklabs and were not characterized as their commercially available standards. Given that only five samples were assayed at one lab for characterization of these two standards, the accepted limits were set at +/- 10% of the expected values.

The gold results for the reference samples are generally acceptable with the calculated means within the acceptance limits. The most used reference samples show a slight low (-3% to -7%) bias for grades between 0.5 and 5 ppm Au. Below and above this range the results show a slight high bias. Many anomalous reports have had check analyses at a second laboratory (see below). Additional check assaying is recommended for reports with significant mineralization and anomalous standard results.

12.1.5 ASSAY SUBMITTAL FOR CORE AND RCD

American Assay Laboratories were scheduled to pick up the sample containers near the end of a 10-day drilling shift. Predominantly one drillhole was placed in the shipping crib. If additional crib room was needed to ship a few samples from another drillhole, a plastic liner separates the two sample sets. This procedure helps the lab personnel sort the core or RCD samples after delivery to the Sparks, Nevada preparation facilities and prevents co-mingling of drillholes located in different target areas.

Duplicate RCD samples were collected from every drillhole on 150 feet increments. The duplicate RCD samples were temporarily stored on plastic liners near the geology office. The duplicate samples for each individual drillhole once air-dried were placed in larger shipping bags labeled with drillhole numbers and intervals. The duplicate samples were stored at the Sleeper mine site until a shipment quantity.

The samples in each batch were delivered by Sleeper personnel to the ALS preparation facilities located in Winnemucca, Nevada. Assay submittal sheets and standards accompanied the samples and copies of the submittals were retained by X-Cal for archive.

12.2 SKR DATA VERIFICATION

While on site during May, 2011, SRK personnel from the SRK Reno, Nevada office and from the Santiago, Chile SRK office, conducted a review of on-site available data. The mine office from the AMAX and X-Cal period is kept locked and secured. All original data such as drillhole logs, plans and sections, lab analyses certificates and records of drillhole collar surveys and down the hole surveys is kept in this office. Certain records such as lab certificates and collar surveys have been copied by Paramount personnel and those copies are in Paramount’s office in Winnemucca, Nevada.

SRK searched through the data at the mine office and found that most original information appears to be intact. SRK would recommend, however, that Paramount take the time to inventory this information as it is a wealth of data for not only the history of the project during its operation, but also information of other exploration targets on the Sleeper property are carefully detailed and may add significant value to the project as a whole.

SRK also reviewed the QA/QC program used by X-Cal starting in 2003. The following are the observations on the X-Cal and Paramount QA/QC program from 2003 through May, 2011.

In the 2003 drill program, American Assay Laboratory (AAL) check assay results are systematically higher than original assays from ALS Chemex. A roasting procedure dramatically increases Au-FA results from both labs. Overall, control sample results are high quality.

In the 2004 drill program, all control samples, except one, have results in the acceptable ranges.

In the 2005 program, no X-Cal QA/QC results report is included for this data set. SRK took the original data and made plots of Au and Ag results for all the control samples. There are 94 SRM samples and 12 blanks with data, in the set of 1834 RC and 743 drill core samples. Of the 2684 unique drill or SRM samples, 106 of them (3.9%) are SRM. This ratio is within the industry standard of 1 SRM per 20 to 30 drilling samples, 3.3-5%.

Each standard has a certified value and associated standard deviation for gold. Only Standard 8 has a certified silver value. For the rest of the silver results, mean and standard deviation were calculated from the data set for all samples, and with outliers excluded if they were very different from the rest of the data set. In these cases, the mean and standard deviation of the data set without outliers was plotted and the results analyzed.

In the SRM results, there is a lot of variance, but a high or low bias is not apparent. Of the 94 certified SRM samples, 8 had masses greater than 3kg when checked in at the lab. Most of these samples have anomalous gold values. These samples may actually be drillhole samples that were labeled incorrectly, which would explain why most of the SRM outside of the acceptable range are much lower than the certified value. Three blanks and 8 SRM have values greater than the mean plus 2 standard deviations. More samples than that have gold values less than the mean minus 2 standard deviations, so a low bias in gold results is possible, even if the anomalously low gold values are not considered.

Silver values are considered qualitatively, because there is a lot of variation, and only one SRM of five has a certified silver value.

Two RC holes have 8 field duplicates - 6 from SD-02-05 and 2 from BCP-08-05. Duplicate samples are designated in the Type field, but do not have “from” or “to” values to pair them with the original. It appears that check assays were not done at a second lab.

In the 2007 program, the X-Cal report for this program is unfinished. However, it was noted that results for Standard Reference Material (SRM) samples are often biased high or low. A procedure for field and drilling QA/QC is included in the X-Cal report.

In the 2010 program, control sample results are within acceptable ranges, with few exceptions. All industry standards were followed and met, except it appears that no check assays were submitted to an outside lab.

While the overall sample and analysis QA/QC program between 2003 and 2010 is generally acceptable, there are some exceptions as noted above. In particular, it seems that in many cases duplicate coarse reject samples were not analyzed, and check assays were not consistently performed at another lab. SRK strongly recommends that Paramount review its current QA/QC follow up procedures to ensure that industry best practices are consistently followed in regard to controls on analysis so that corrections can be made before the program is completed.

12.3 PARAMOUNT GOLD AND SILVER 2012-2013 QA/QC

12.3.1 INTRODUCTION AND SUMMARY

The drillhole database for the Sleeper Project has been updated to include the drillholes completed through mid-2013. New drill data was imported to the GEMCOM database.

This section presents a summary of the core drilling assay Quality Control program for the Sleeper Project for the time period of June 19th 2012 to July 1st 2013 as conducted by Paramount personnel.

The 2012/2013 core drilling program at the Sleeper project consists of 34,303 ft (10,455.59 m) in 24 holes drilled in the areas known as West Wood, Pad, Facilities and South Sleeper. Eight of these holes were drilled for metallurgical tests (PGC-12-027 through PGC-13-034; 10585 ft /3226.32 m).

The Primary analytical laboratory for the project was ALS with sample pick-up on site. Sample preparation was done in Winnemucca, Nevada and in Reno, Nevada. Metal assaying was done in Reno, Nevada. ICP analyses were done in Vancouver, B.C. Gold was analyzed using fire-assay with atomic absorption finish (FA_AAS) on a 1-AT sample charge (ALS code: Au-AA23). Samples were re-assayed by fire assay with gravimetric finish (FA_GRAV) on a 1-AT sample charge when the original FA_AAS assay was 10 ppm or greater (ALS code: AU-GRA21). Samples were analyzed for Silver and 33 elements by 4-acid digestion (ALS code: ME-ICP61). Samples were re-assayed when original results for Silver were 100 ppm or greater with a gravimetric finish (ALS code: AG-GRA22).

The Secondary analytical laboratory was Inspectorate American Corp. (IAC)in Reno, Nevada. IAC is an internationally accredited and certified lab, independent of Paramount. 157 pulp duplicates were sent to this lab (see Table 12-2). Samples were analyzed for gold by fire-assay with atomic absorption finish on a 1 AT sample charge (Inspectorate code: Au-1AT-AA). Samples were re-assayed with a gravimetric finish on a 1 AT sample charge when the original Au assay was 10 ppm or greater (Inspectorate code: Au-1AT-GV). Silver was analyzed by 2-acid digestion (Aqua Regia) with atomic absorption finish (Inspectorate code: Ag-AR-TR). When original silver assay was 100 ppm or greater it was re-assayed by fire-assay with a gravimetric finish on a 1 AT sample charge (Inspectorate code: Ag-1AT-GV). 30 elements were analyzed by 2-acid digestion (Inspectorate code: 30-AR-TR). A list of check samples sent to Inspectorate is provided.

A total of 6,093 core drill samples were assayed at ALS-Chemex during the period in 33 original assay reports. Included in these samples were 427 control samples (standards and blanks). All samples were kept on site behind locked gates until pick up. A list of assay reports and corresponding drillholes is shown in Table 12-1.

Control sample results are acceptable in most cases for the program. Check assays at Inspectorate, however, show an occasional poor to very poor agreement for both gold and silver. It is recommended that coarse rejects and the corresponding pulps be sent to a third laboratory to determine where the error might have occurred. If no satisfactory solution to that problem is found, core duplicates from the boxes on site should be sent out for analysis.

Table 12.1 Sleeper Project- Assay report and Drillhole List

Hole ID	Job number	Date finalized
PGC-12-016	WN12152755	7/26/2012
PGC-12-017	WN12157011	7/30/2012
PGC-12-018	WN12166024	8/6/2012
	WN12166025	8/7/2012
PGC-12-019	WN12183116	8/26/2012
	WN12183117	8/21/2012
PGC-12-020	WN12183145	9/4/2012
	WN12183146	8/31/2012
PGC-12-021	WN12209477	9/20/2012
PGC-12-022	WN12219765	10/5/2012
PGC-12-023	WN12232365	10/17/2012
PGC-12-024	WN12243929	11/14/2012
PGC-12-025	WN12248374	11/7/2012
PGC-12-026	WN12257822	11/15/2012

Hole ID	Job number	Date finalized
PGC-12-027	RE13022660	2/13/2013
	RE13023835	2/18/2013
	RE13026383	2/15/2013
PGC-12-028	RE13014894	2/13/2013
PGC-12-029	RE13050927	3/30/2013
PGC-13-030	RE13050922	3/29/2013
	RE13057552	4/16/2013
PGC-13-031	RE13069931	4/26/2013
PGC-13-032	RE13081272	5/3/2013
	RE13072471	5/14/2013
PGC-13-033	RE13081273	5/24/2013
	RE13065056	4/20/2013
PGC-13-034	RE13090536	6/3/2013
	RE13081494	5/15/2013
PGC-13-035	WN13072247	5/10/2013
PGC-13-036	WN13073649	5/12/2013
PGC-13-037	RE13084778	5/25/2013
PGC-13-038	RE13089979	5/26/2013
PGC-13-039	RE13093578	6/8/2013

Table 12.2 Number of Samples sent to Inspectorate and Job number

Number of Samples	Job Number	Date finalized
157	13-338-02097-01	5/20/2013

12.3.2 REFERENCE SAMPLE RESULTS

Reference sample results are presented by type and analytical method.

12.3.2.1 GOLD: FA_AA

Twelve different control samples with certified gold values were used during the period. All are commercial standards from Rocklabs of New Zealand or MEG (Shea Clark Smith) of Washoe Valley, Nevada. Additionally marble chips from the local hardware store were used as blank material. Blank and standard results for gold using FA-AAS are summarized in Table 12-3.

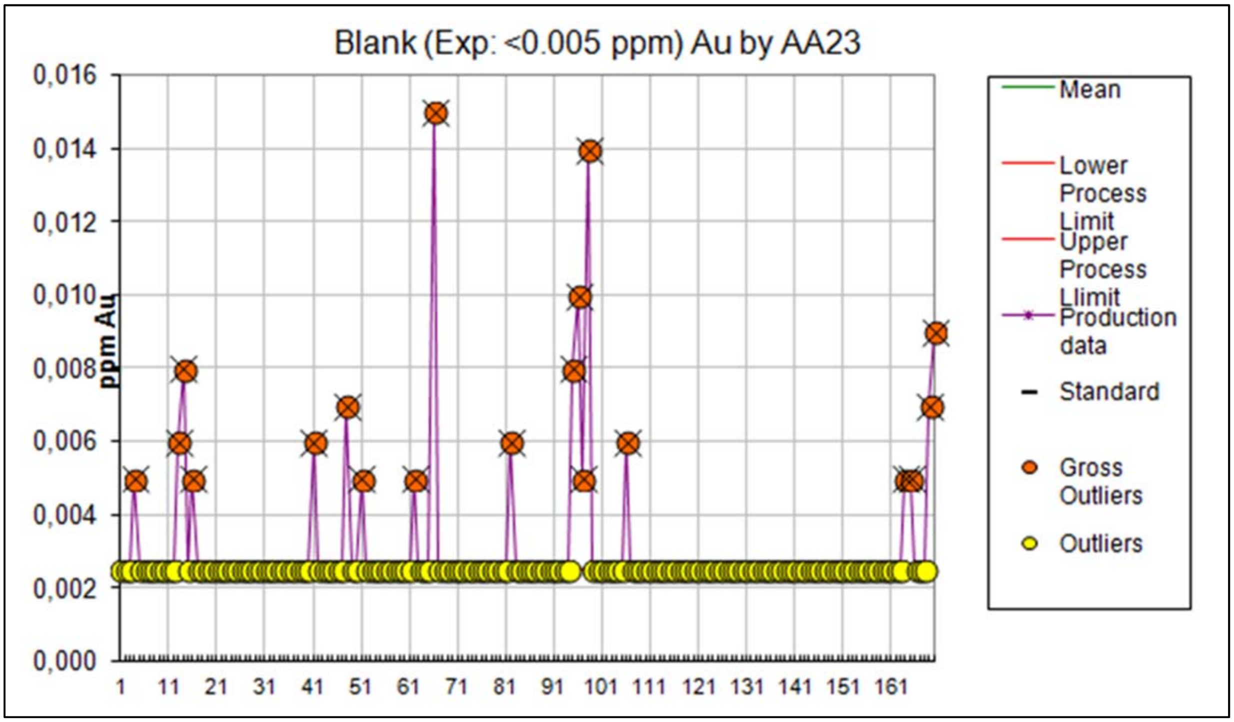
Table 12.3 Reference Sample Results: Gold by FA-AAS

Au Standard(s)			No. of Samples	Calculated Value		
Standard Code	Value (ppm)	SD		Mean Au	SD	Mean Bias (%)
AUBLANK40	<0.002		41	0.003*	0.000664	0.001
MEG-AU-09.02	0.18	0.019	3	0.18	0.01193	-0.001
OxA89	0.084		24	0.08	0.00312	-4.4
OxC30	0.2		1	-	-	-
OXD87	0.417		46	0.44	0.203642	5.5
S107005X	1.3		8	1.382	0.03595	6.3
S107006X	2.9		12	3.061	0.122731	5.5
S107010X	6.4		5	6.282	0.162388	-1.8
S125	1.801		21	1.809	0.029592	0.5
Si42	1.761		38	1.766	0.228212	0.3
SJ63	2.632		29	2.654	0.060499	0.8
SL61	5.931		29	5.798	0.236613	-2.2
BLANK	<0.005		170	0.002967*	0.001698	-0.003

*Half of the detection limit was used for the calculation.

Control charts for this method are shown in Figure 12-1 to Figure 12-12. A brief discussion of each standard follows the respective control chart. A spreadsheet provided on the Rocklabs webpage was used by Paramount personnel to create the charts used in this report.

Figure 12.1 Control chart-Blank_Au-FA-AAS



Most of the results are acceptable with eight anomalous instances (> Mean plus 2 standard deviations). Half the detection limit was used for the calculation.

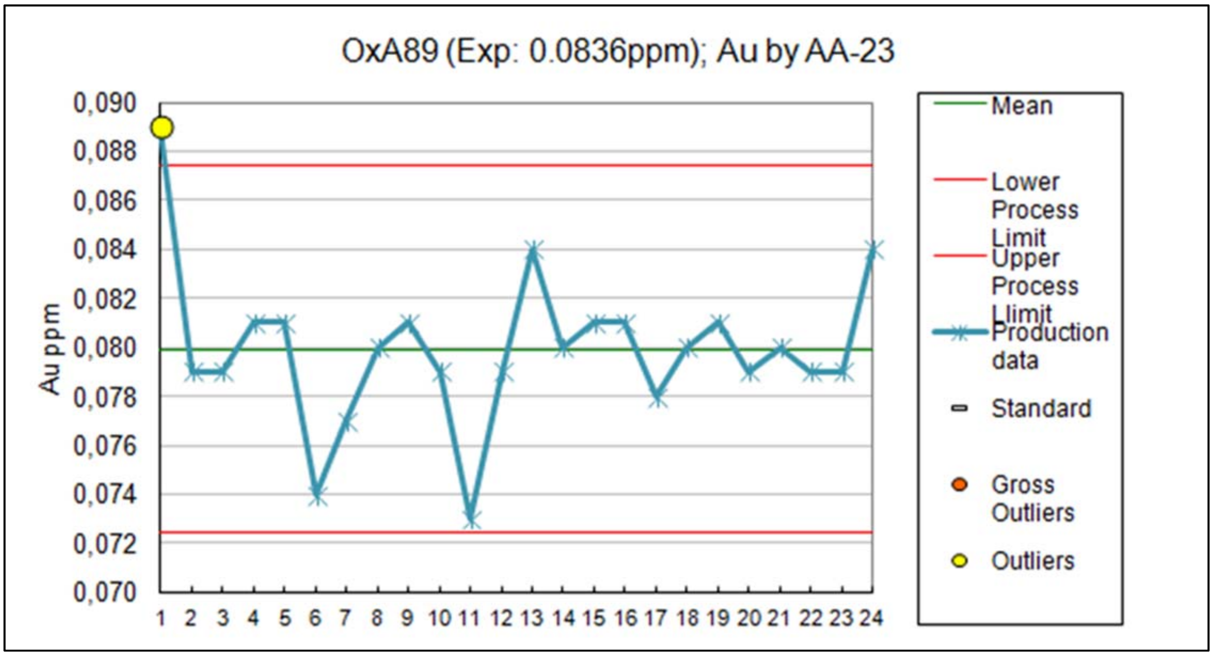
12.3.3 ANOMALOUS SAMPLES

Table 12.4 Anomalous Blank Control Samples Blank_Au FA-AAS

Sample ID	Control	Hole ID	Job Number	Method	Au ppm	Difference %
614801	Blank	PGC-12-018	WN12166024	FA-AAS	0.008	21
615889	Blank	PGC-12-022	WN12219765	FA-AAS	0.007	10
800378	Blank	PGC-12-025	WN12248374	FA-AAS	0.015	58
801583	Blank	PGC-13-030	RE13057552	FA-AAS	0.007	10
801648	Blank	PGC-13-030	RE13057552	FA-AAS	0.009	30
802031	Blank	PGC-13-033	RE13081273	FA-AAS	0.008	21
802065	Blank	PGC-13-033	RE13065056	FA-AAS	0.01	37
802127	Blank	PGC-13-033	RE13065056	FA-AAS	0.014	55

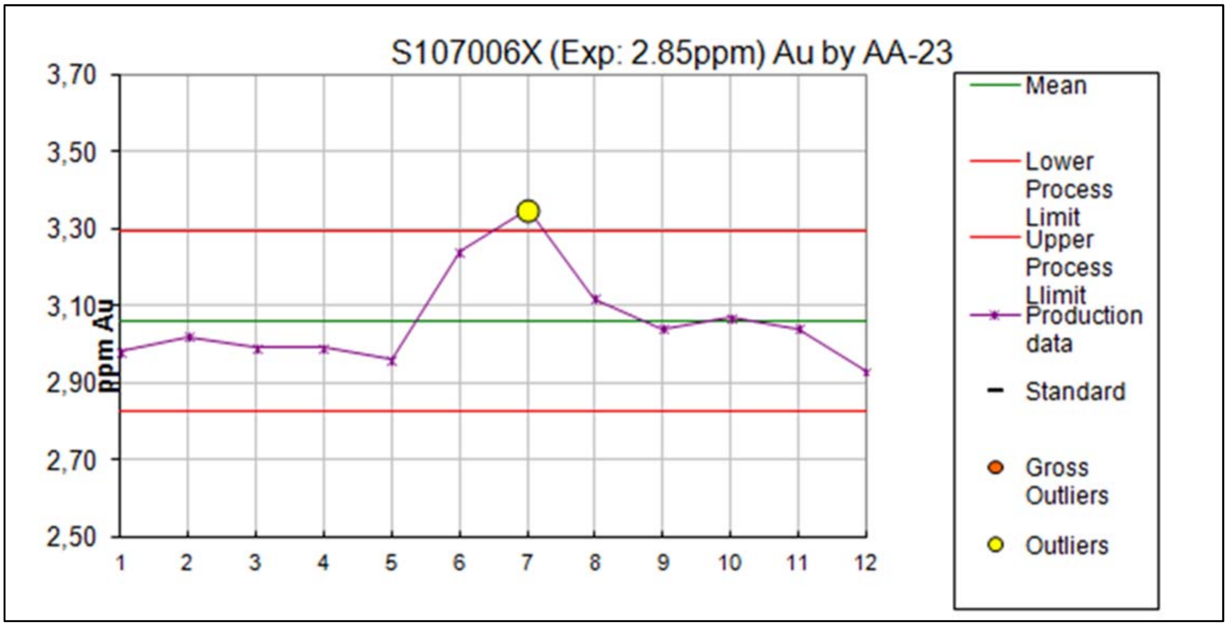
The anomalous reports were examined and all samples, except sample number 615889, have high gold before the sample. That suggests a contamination in the lab. Considering the difficulty in being accurate at the lower limits, no other action is recommended at this time.

Figure 12.2 Control Chart – OxA89_Au-FA-AAS



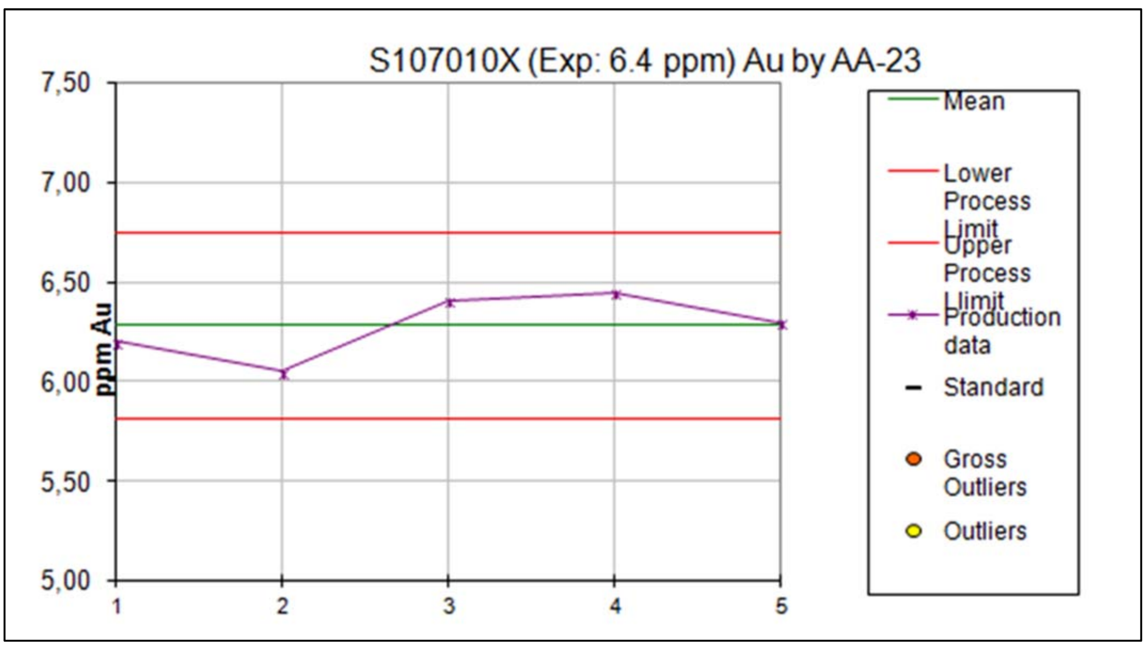
Results for standard OxA89 are acceptable with one slight anomalous instance but still within the 95% confidence range.

Figure 12.3 Control chart S107006X_ Au-FA-AAS



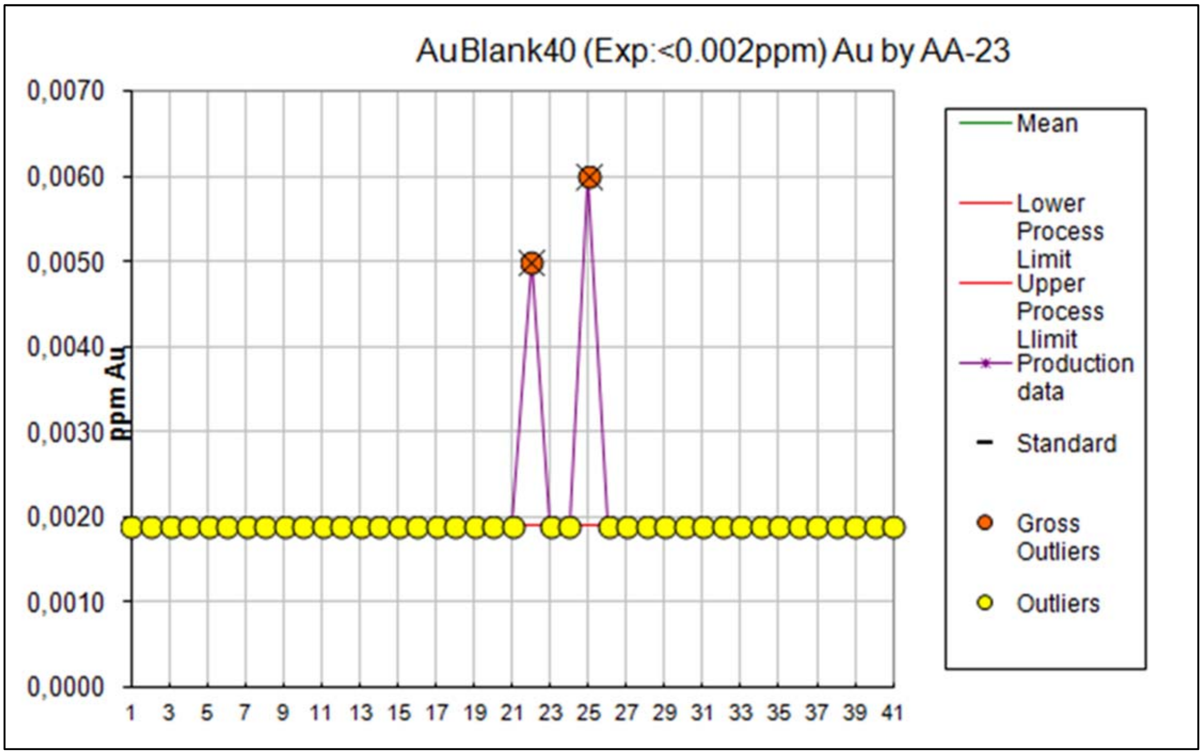
Results for standard S107006X are acceptable with one slight anomalous instance but still within the 95% confidence range. Upper and lower confidence level used is the same as used by Keith Blair in the QAQC report dated December 22nd 2011.

Figure 12.4 Control chart S107010X_ Au-FA-AAS



Results for S107010X are acceptable with no anomalous instances. Upper and lower confidence level used is the same as used by Keith Blair in the QAQC report dated December 22nd 2011.

Figure 12.5 Control Chart AuBlank40_ Au-FA-AAS



Most of the results are acceptable with two anomalous instances.

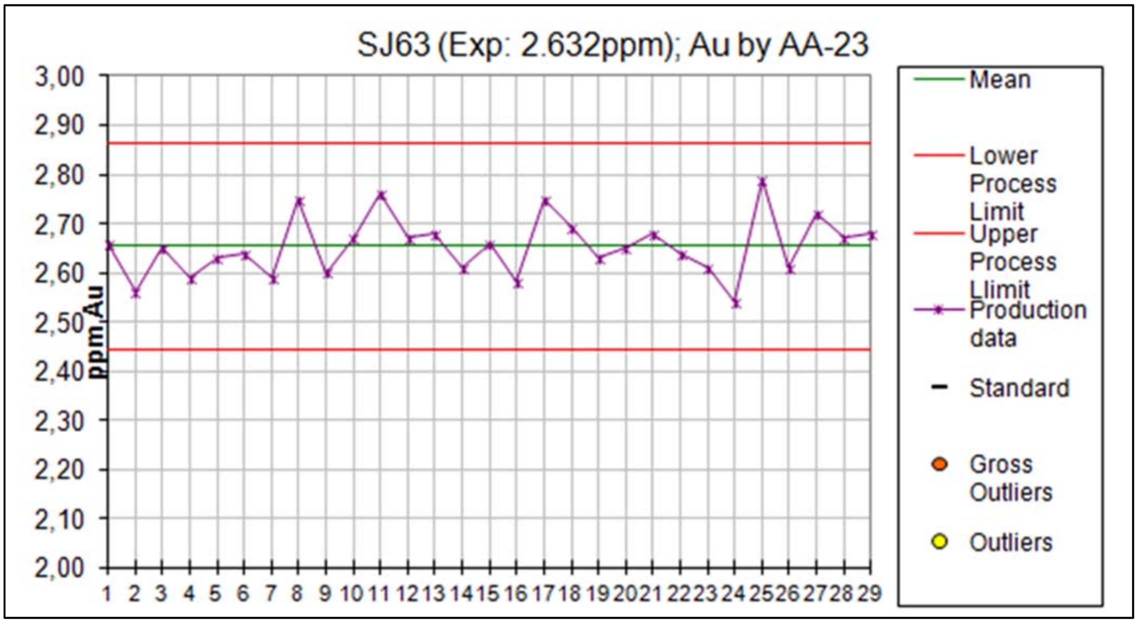
12.3.4 ANOMALOUS SAMPLES

Table 12.5 Anomalous blank control samples Blank40_Au-FA-AAS

Sample ID	Control	Hole ID	Job Number	Method	Au ppm	Difference %
801044	AUBLANK40	PGC-12-027	RE13022660	FA-AAS	0.005	150
802059	AUBLANK40	PGC-13-033	RE13065056	FA-AAS	0.006	200

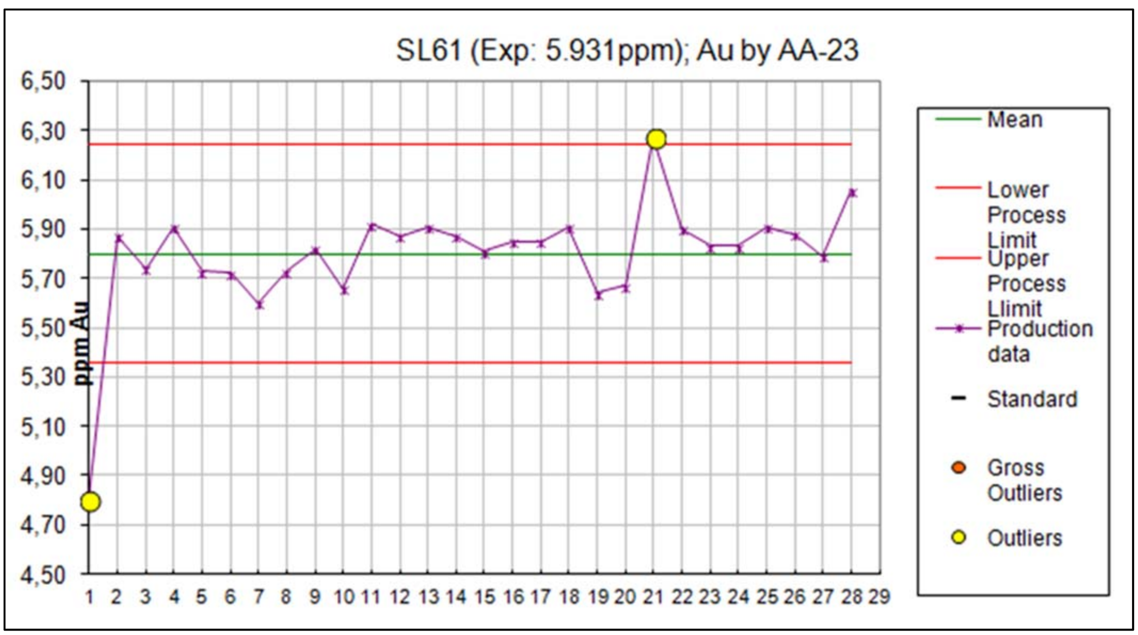
The anomalous reports were examined and all samples have high gold before the sample. That suggests a contamination in the lab. Considering the difficulty in accuracy at such low levels of gold, no other action is recommended at this time.

Figure 12.6 Control chart SJ63_ Au-FA-AAS



Results for SJ63 are acceptable with no anomalous instances.

Figure 12.7 Control chart SL61_ Au-FA-AAS



Results are acceptable with two anomalous instances.

Anomalous Samples

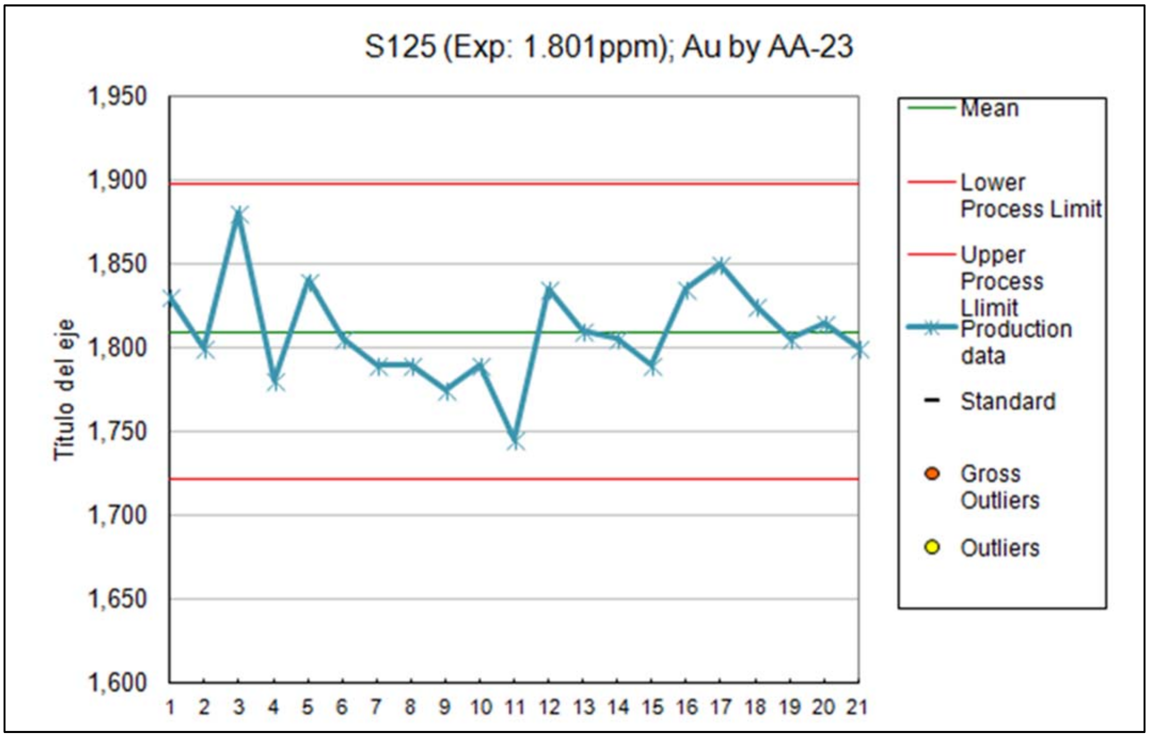
Table 12.6 Anomalous control samples SL61

Sample ID	Control	Hole ID	Job Number	Method	Au ppm	Difference %
614254	SL61	PGC-12-016	WN12152755	FA-AAS	4.8	-19

803275	SL61	PGC-13-036	WN13073649	FA-AAS	6.27	6

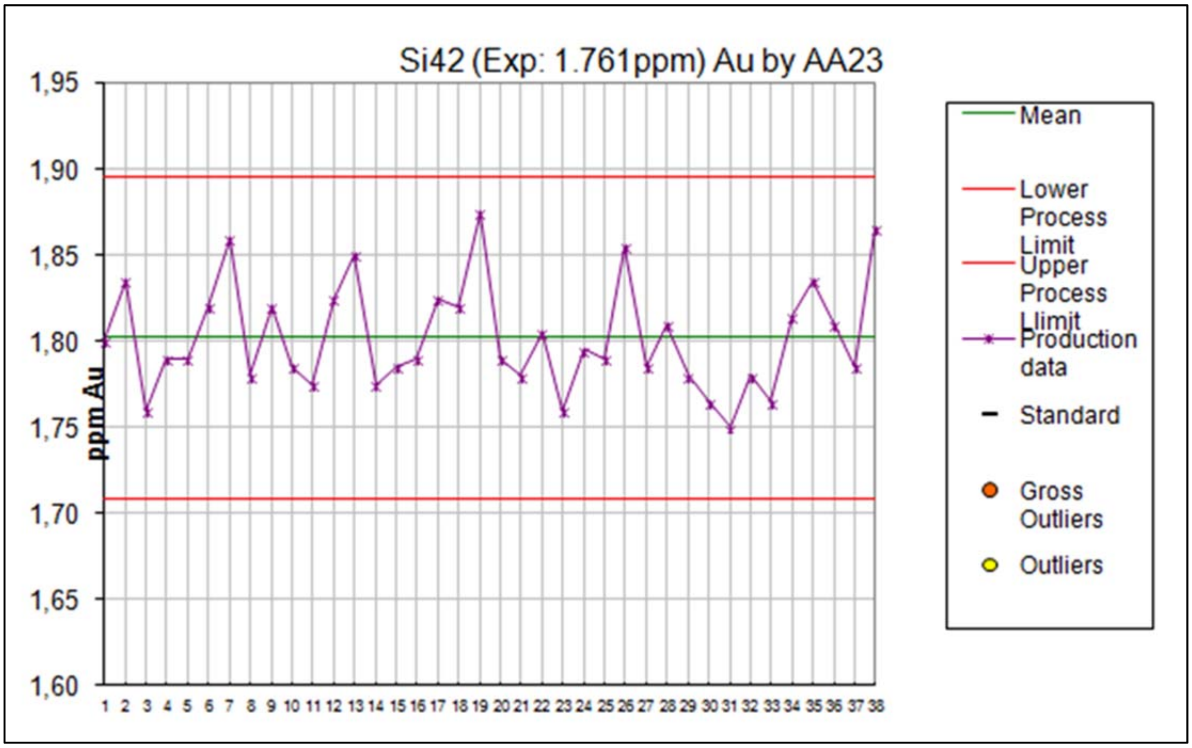
Anomalous reports were examined by Paramount and no readily apparent explanation was found, other than an unidentified problem in the lab.

Figure 12.8 Control chart S125_ Au-FA-AAS



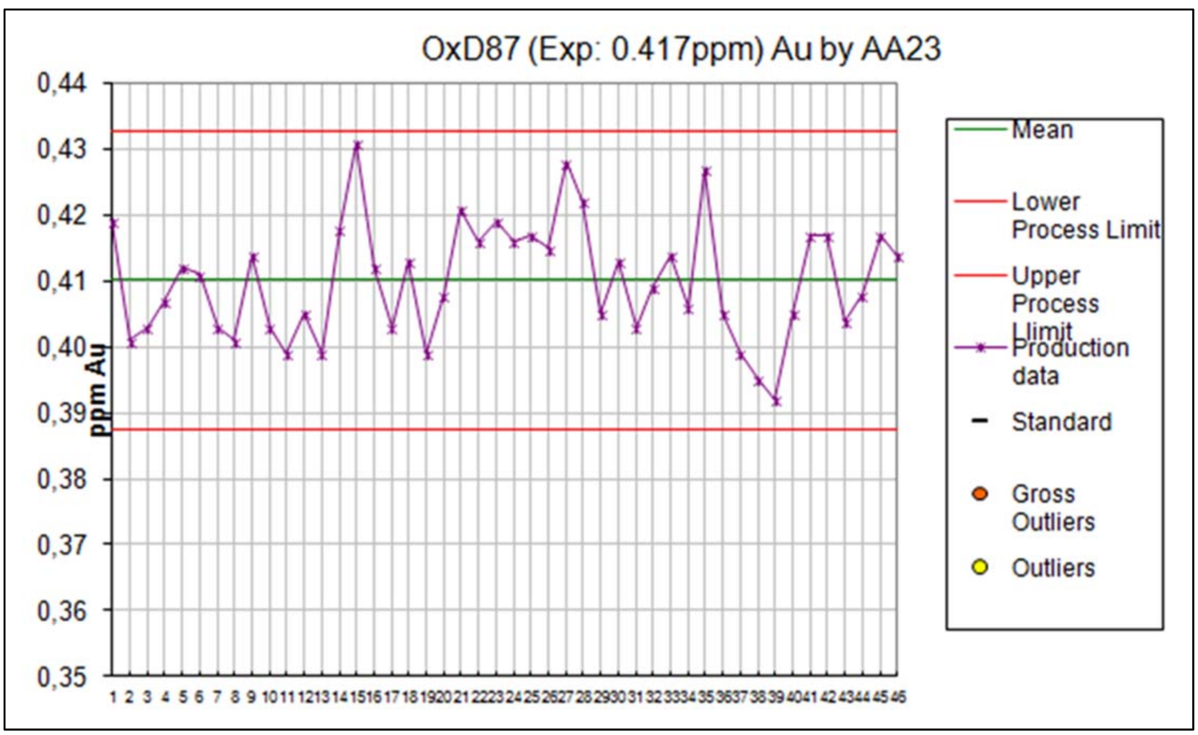
Results for S125 are acceptable with no anomalous instances.

Figure 12.9 Control chart Si42_ Au-FA-AAS



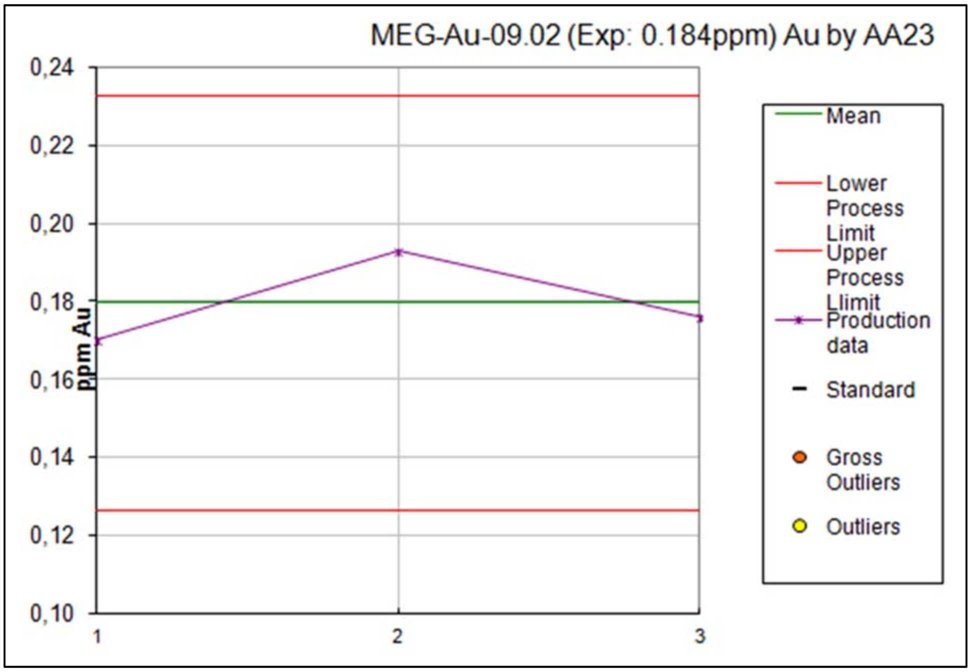
Results for Si42 are acceptable with no anomalous instances.

Figure 12.10 Control chart OxD87_ Au-FA-AAS



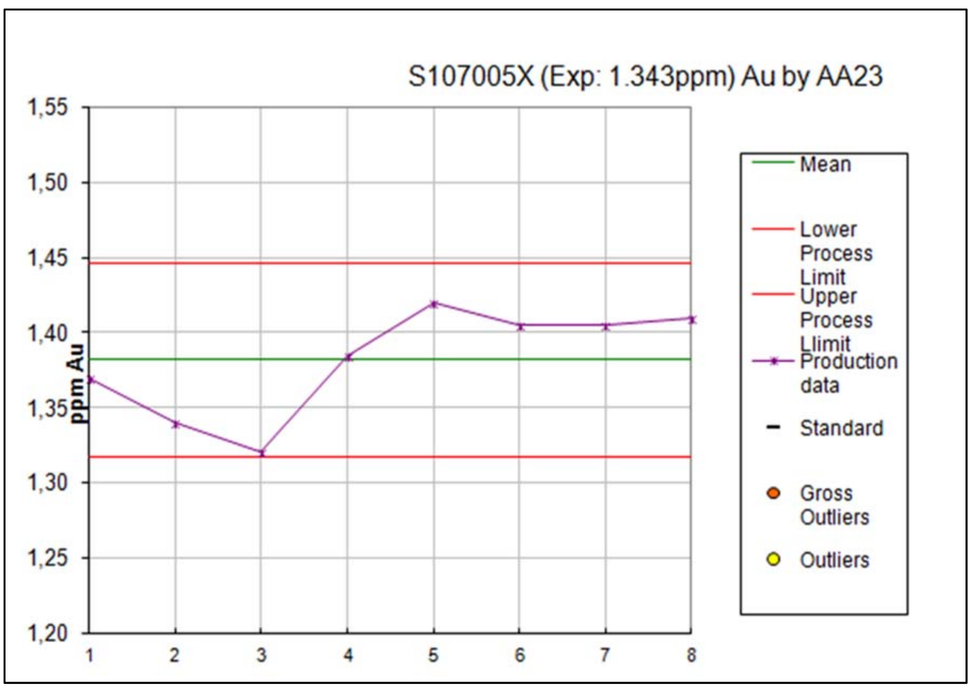
Results for OxD87 are acceptable with no anomalous instances.

Figure 12.11 Control chart MEG-Au-09.02_ Au-FA-AAS



Results for MEG-Au-09.02 are acceptable with no anomalous instances.

Figure 12.12 Control chart S107005X_ Au-FA-AAS



Results for S107005X are acceptable with no anomalous instances. Upper and lower confidence levels used are the same as used by Keith Blair in the QAQC report dated December 22nd 2011.

OxC30 was only inserted in one occasion. No chart was created. However, the result from the lab suggests significant problems that cannot be explained. This sample should be removed from any calculation.

Table 12.7 Anomalous result for control OxC30

Sample ID	Control	Hole ID	Job Number	Method	Au ppm	Difference %
616935	OxC30	PGC-12-021	WN12209477	FA-AAS	3.25	94

12.3.5 CHECK SAMPLES SENT TO INSPECTORATE

A total of 170 check samples were selected and sent to the Inspectorate lab. Results received show, in general, a fair correlation. Occasionally, however, agreement between both labs is poor to very poor, both with gold and silver. The difference may be caused by different analytical methods. ALS uses a 4-acid digestion whereas Inspectorate uses a 2-acid digestion. Below are a few examples of the differences in results.

Figure 12.13 ALS vs Inspectorate Au all scatter plot

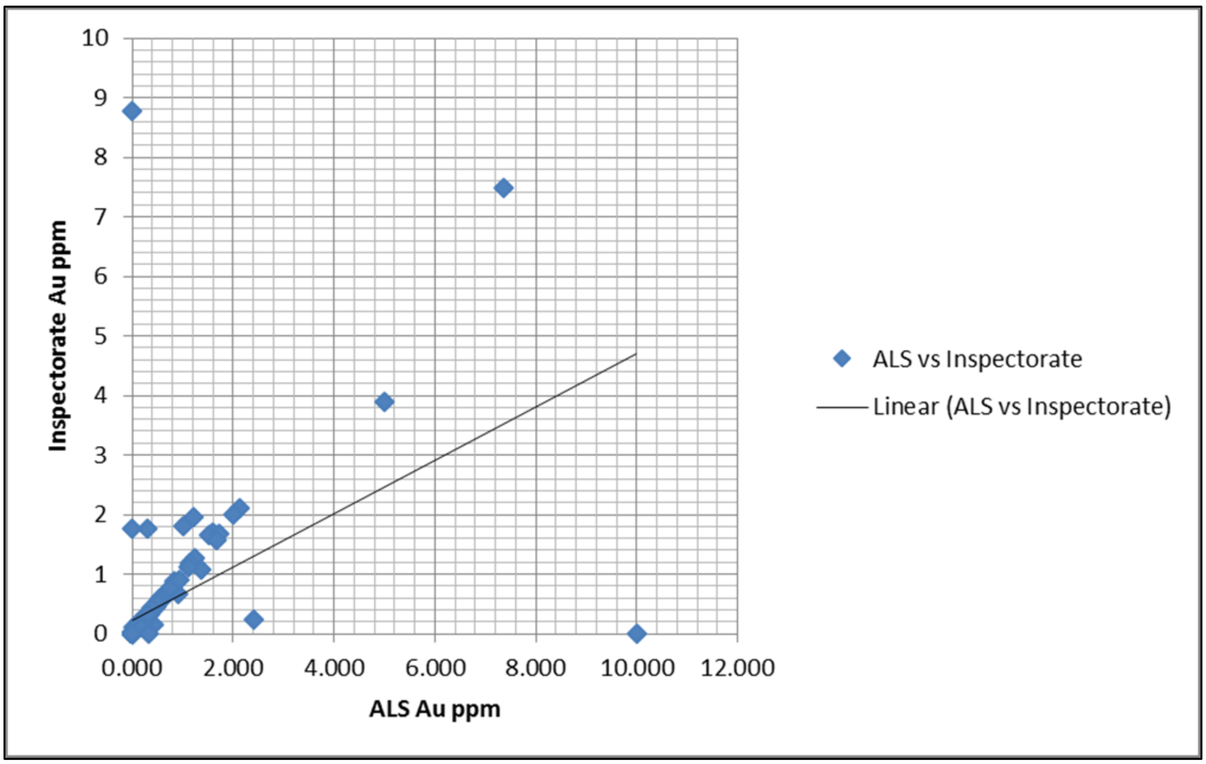


Table 12.8 ALS vs Inspectorate selected Au assays

			ALS	ALS	Inspectorate	Inspectorate	
			Au ppm	Au ppm	Au ppm	Au ppm	
Hole ID	**Sample ID**	**Job Number**	**Au-AA23**	**Au-GRA 21**	**Au-1AT-AA**	**Au-1AT-GV**	**Difference ppm**
PGC-12-016	614262	WN12152755	1.21				
	614262D	13-338-02097-01			1.968		-0.758
PGC-12-016	614423	WN12152755	1.01				
	614423A	13-338-02097-01			1.816		-0.806
	614423D	13-338-02097-01			1.036		0.026
PGC-12-017	614503	WN12157011	0.436				
	614503D	13-338-02097-01			0.154		0.282
PGC-12-019	615283	WN12183117	0.005				
	615283A	13-338-02097-01			8.786		-8.781
	615283D	13-338-02097-01			0.011		-0.011
PGC-12-022	615751	WN12219765	2.4				
	615751D	13-338-02097-01			0.245		2.155
PGC-12-022	615752	WN12219765	0.302				
	615752D	13-338-02097-01			1.772		-1.47
PGC-12-022	615861	WN12219765	5				
	615861D	13-338-02097-01			3.884		1.116
PGC-12-023	616190	WN12232365	0.005				
	616190A	13-338-02097-01			1.768		-1.763
	616190D	13-338-02097-01			0.0025		-0.003
PGC-12-027	801092	RE13023835	10	25.2			
	801092D	13-338-02097-01			>10	19.115	6.085
PGC-12-027	801129	RE13026383	0.326				
	801129D	13-338-02097-01			0.008		0.318

Note: Half the detection limit was used for the calculation.

Figure 12.14 ALS vs Inspectorate Ag all scatter plot

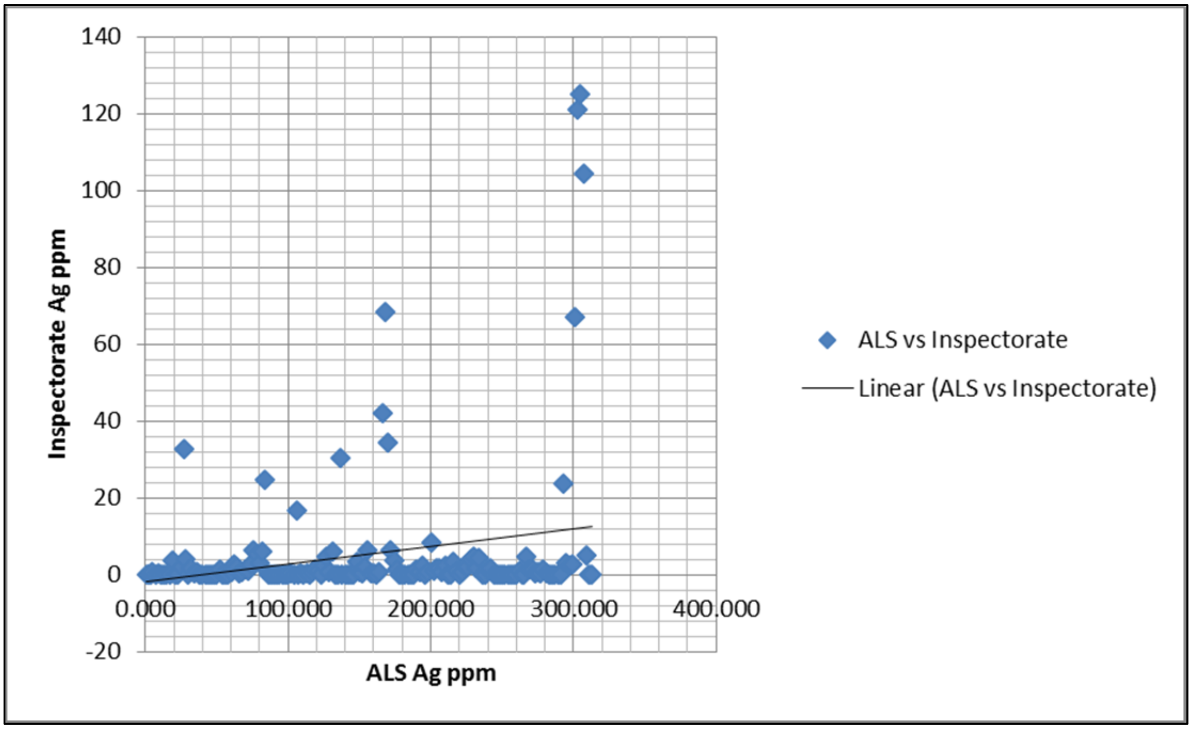


Table 12.9 ALS vs Inspectorate selected Ag assays

			ALS		Inspectorate			
			Ag ppm	Ag ppm	Ag ppm	Ag ppm	Ag ppm	
Hole ID	Sample ID	Job Number	ME-ICP61	Ag-GRA22	Ag-1AT-GV	Ag-AR-TR	30-AR-TR	Difference ppm
PGC-12-016	614423	WN12152755	3.8					
	614423A	13-338-02097-01				32.6	28.6	-28.8
	614423D	13-338-02097-01				4.2	3.6	-4.2
PGC-12-017	614457	WN12157011	3.2					
	614457D	13-338-02097-01				1.8	1.2	1.4
PGC-12-019	614969	WN12183116	22					
	614969D	13-338-02097-01				24.8	20.6	-2.8
PGC-12-019	615283	WN12183117	0.5					
	615283A	13-338-02097-01				16.6	15.1	-16.1
	615283D	13-338-02097-01				0.2	0.05	-0.2
PGC-12-023	616190	WN12232365	0.5					
	616190A	13-338-02097-01				30.5	28.1	-30
	616190D	13-338-02097-01				0.1	0.05	-0.1
PGC-12-020	616703	WN12183146	43.5					
	616703D	13-338-02097-01				42.1	39.4	1.4

			ALS		Inspectorate			
			Ag ppm	Ag ppm	Ag ppm	Ag ppm	Ag ppm	
Hole ID	Sample ID	Job Number	ME-ICP61	Ag-GRA22	Ag-1AT-GV	Ag-AR-TR	30-AR-TR	Difference ppm
PGC-12-020	616717	WN12183146	71.7					
	616717D	13-338-02097-01				68.5	62.2	3.2
PGC-12-020	616718	WN12183146	39.7					
	616718D	13-338-02097-01				34.3	36	5.4
PGC-12-024	800167	WN12243929	3.5					
	800167D	13-338-02097-01				2.3	3.1	1.2
PGC-12-024	800227	WN12243929	4.6					
	800227D	13-338-02097-01				3.3	4.1	1.3
PGC-12-025	800327	WN12248374	3.9					
	800327D	13-338-02097-01				2.4	3	1.5
PGC-12-025	800350	WN12248374	3.4					
	800350D	13-338-02097-01				2.1	2.8	1.3
PGC-12-025	800377	WN12248374	5.6					
	800377D	13-338-02097-01				4.1	4.9	1.5
PGC-12-025	800396	WN12248374	6.7					
	800396D	13-338-02097-01				4.8	5.7	1.9
PGC-12-025	800397	WN12248374	3					
	800397D	13-338-02097-01				1.8	2.4	1.2
PGC-12-025	800420	WN12248374	6.7					
	800420D	13-338-02097-01				4.3	5.8	2.4
PGC-12-025	800509	WN12248374	3.1					
	800509D	13-338-02097-01				1.9	3	1.2
PGC-12-026	800745	WN12257822	2.3					
	800745D	13-338-02097-01				1.1	1.9	1.2
PGC-12-028	800813	RE13014894	9.6					
	800813D	13-338-02097-01				4.6	5.8	5
PGC-12-028	800814	RE13014894	4.6					
	800814D	13-338-02097-01				1.4	2.6	3.2
PGC-12-028	800899	RE13014894	2.6					
	800899D	13-338-02097-01				1.4	2.2	1.2
PGC-12-027	801009	RE13022660	35.3					
	801009D	13-338-02097-01				23.7	22.3	11.6
PGC-12-027	801032	RE13022660	4.6					
	801032D	13-338-02097-01				3.1	4.1	1.5
PGC-12-027	801063	RE13022660	3.8					
	801063D	13-338-02097-01				2.5	3.4	1.3
PGC-12-027	801064	RE13022660	4.2					
	801064D	13-338-02097-01				2.9	3.9	1.3

			ALS		Inspectorate			
			Ag ppm	Ag ppm	Ag ppm	Ag ppm	Ag ppm	
Hole ID	Sample ID	Job Number	ME-ICP61	Ag-GRA22	Ag-1AT-GV	Ag-AR-TR	30-AR-TR	Difference ppm
PGC-12-027	801065	RE13022660	60.5					
	801065D	13-338-02097-01				66.9	58	-6.4
PGC-12-027	801091	RE13023835	100	129				
	801091D	13-338-02097-01			147.5	121	>100	-21
PGC-12-027	801092	RE13023835	100	126				
	801092D	13-338-02097-01			143.7	125.1	>100	-25.1
PGC-12-027	801093	RE13023835	100	100				
	801093D	13-338-02097-01			128.5	104.5	>100	-4.5
PGC-12-027	801107	RE13023835	7.2					
	801107D	13-338-02097-01				5.2	6.3	2

12.3.6 DATABASE ISSUES CONCLUSIONS AND OBSERVATIONS

In general, SRK is in agreement with the QAQC program carried out by PZG and is of the opinion that it is in conformity with generally accepted industry standards. SRK believes that the drillhole and assay database is of sufficient quality and reliability to be used in the mineral resource estimation.

Control sample results are acceptable in most cases for the program. Check assays at Inspectorate, however, show an occasional poor to very poor agreement for both gold and silver. It is recommended that coarse rejects and the corresponding pulps be sent to a third laboratory to determine where the error might have occurred. If no satisfactory solution to that problem is found, core duplicates from the boxes on site should be sent out for analysis.

Control OxC30 was only inserted in one occasion. However, the result from the lab suggests significant problems that cannot be explained. This control sample should be removed from any calculation and not used in future campaigns.

A total of 170 check samples were selected and sent to the Inspectorate lab. Results received show, in general, a fair correlation. Occasionally, however, agreement between both labs is poor to very poor, both with gold and silver. The difference may be caused by different analytical methods. ALS uses a 4-acid digestion whereas Inspectorate uses a 2-acid digestion. The reason for this discrepancy should be resolved before drilling commences on the next campaign.

As of the date of this report, the above-mentioned issues are currently being worked on by Paramount staff.

13 MINERAL PROCCESSING AND METALURGICAL TESTING

Historically at Sleeper, AMAX processed ore by heap leaching and also by milling and flotation. The table below shows the following average heap leach Au head grades and recoveries for three selected years of production.

Table 13.1 Historic Heap leach head grades and recoveries (Au)

Year	Au Head Grade (g/t)	Au Recovery (%)
1989	0.7	52.4
1993	0.88	46.6
1995	0.74	42

An analysis of year-end mine production records shows the following mill recoveries and corresponding Au head grades for four selected years of production.

Table 13.2 Historic Mill head grades and recoveries (Au)

Year	Au Head Grade (g/t)	Au Recovery (%)
1989	13.44	94.24
1991	7.67	88.54
1993	2.73	72.72
1995	3.33	67.49

In 2009, Moose Mountain Technical Services (MMTS) prepared a Preliminary Economic Assessment (PEA) NI 43-101 report on the Sleeper project. The study contemplated 3 estimated production modules:

- Module 1: Heap Leaching New Oxide Ore
- Module 2: Mill and CIP for Reclaimed Mill Tailings and New Sulphide ore
- Module 3: Re-Heap Leaching of Heap Leach Pad Stockpile

Kappes, Cassiday & Associates (KCA) 2002, indicate that reported heap leach recoveries (at 32 operations) averaged 71% gold, and ranged from 49% to 90%. Typical recovery for silver is 45-60%. The Hycroft Mine (close to the Sleeper mine) May 2009 NI 43-101 report states that a 79.5% actual gold recovery was achieved from their Pad 4, and testwork on transition oxide and silicified oxide showed an average cyanide soluble gold recovery of 75%. These heap leach recoveries from the Hycroft Mine are thought to be similar to what can be expected at Sleeper.

KCA bottle roll leaching tests on Sleeper oxide mineralized material showed gold recoveries ranging from 51% to 97%, and silver recoveries ranging from 32% to 88%.

The KCA results also show that a significant amount of gold and silver is recoverable from heap leaching of sulphide mineralized material at the Sleeper mine, however, precedence for suitable recoveries by heap leaching sulphide mineralized material in Nevada is rare. The MMTS PEA considers that the potential to heap leach sulphide mineralized material should be investigated by future metallurgical test work.

There is however, an abundance of metallurgical precedence for good recovery of gold and silver from sulphide mineralized material by milling, flotation, and CIL (Carbon in Leach) or CIP (Carbon in Pulp) processing.

In a 1997 study done by Mine Resource Development Inc. (MRDI), they suggest that a mill with agitated leaching could achieve a tailings gold grade down to 0.002 opt (0.07 g/t). For the average Sleeper historical Mill Tailings grade of 0.679 g/t reported in the 2008 NI 43-101 Technical Report, this represents a potential gold recovery of 90%.

The MMTS 2009 PEA assumes historical mill tailings and fresh sulphide has an average gold and silver recovery of 85% from a mill with flotation and agitated leaching in a CIP circuit. Economic sensitivity to metallurgical recovery is tested ranging from 80% to 90% gold and silver recovery.

The PEA states that reclaimed tailings will be treated by:

- Milling
- Gravity concentration
- Flotation
- Carbon in Pulp (CIP) – agitated leaching and carbon adsorption

The PEA assumes that previous (historic AMAX) processing did not sufficiently reduce particle size for efficient leaching. Work undertaken by KCA reported by Zoutomou 2007 did not investigate mineralogy and optimum particle size prior to leaching potential.

Paramount performed metallurgical testing to provide a basis to project potential process recoveries for different mining zones around the existing Sleeper surface mine excavation, focusing on the waste dumps and Facility area. Test work was performed at McClelland Laboratories Inc. in Sparks, NV, in late 2011 and early 2012. A report titled "Phase 2 Metallurgical Evaluation - Waste Dump, Westwood and Facilities Composites ("bench" scale tests), January 27, 2012," (McClelland, 2012) and provides the most up to date data for establishing anticipated metallurgical performance and recovery data used in the 2012 PEA (MMC, 2012). This data was used in conjunction with the available relevant historical data from the production records made available from the previous operation ran by AMAX. It is understood that a new PEA will need to be completed based on the latest drilling results, the new geological model and resource estimate as reported in this report.

McClelland reached the following conclusions for column leach test work program;

"Summary results show that the two Facilities Oxide core composites are readily amenable to heap leach cyanidation at a P80 19 mm crush size. Gold recoveries from the FOX-001 and FOX- 002 core composites were 84.6 and 83.1 percent with 83 days of total NaCN contact time (rest cycles included). Silver recoveries were both less than 10 percent. NaCN consumptions were high, but should be markedly lower during commercial heap leaching. Both ore charges required agglomeration before cyanidation because of the high fines content (>10% -150µm) and cement additions of nearly 10 kg/mt of ore will be required to produce strong and stable agglomerates. Agglomerating conditions should be optimized, but the quantities of cement added during agglomeration (9.5 and 7.7 kg/mt ore) was sufficient to maintain leach pH at above 10.3 during the leach cycles."

These scoping metallurgical tests provide a basis to project potential process recoveries for different mining zones around the existing Sleeper surface mine excavation. Data was available from Bottle Roll Testing and Column Leach Testing of drill samples from the Sleeper Overburden Dumps, Facilities Zone, Westwood Zone and Sleeper Tails. The tests indicated that materials from the Facilities Zone and Overburden Dumps had generally high Au recovery in cyanide leach tests, while Westwood Zone and Sleeper Tails material had generally low Au recovery in cyanide leach tests.

Paramount has continued metallurgical testing in all areas at Sleeper, and in particular the sulphide mineralization. These tests include Pressure Oxidation, BioOxidation, and additional column leach testing. These tests have been completed and are discussed later in this report. With the examination of additional test work, material type process parameters were revisited, and recoveries for gold and silver adjusted to the following for this PEA:

- Alluvium – 72% for gold and 8% for silver
- Dumps – 72% for gold and 42.5% for silver
- Facilities Zone – 79% for gold and 8% for silver
- Mixed Zones – 67.5% for gold and 20% for silver
- Sleeper Zone – 85% for gold and 10% for silver
- West Wood Zone – 72% for gold and 9% for silver

This PEA does not include the sulfide oxidation as part of this economic analysis, but is only included as future upside potential in this PEA.

McClelland Laboratories Inc. performed test work on the sulfide materials during 2014 and 2015, testing pressure oxidation and heap leach biooxidation. The results from this work are presented in the report titled "Report on Biooxidation and Pressure Oxidation Testing – Sleeper Drill Core Composites", MLI Job Number 3775, May 20, 2015. The results from this test work program are summarized here.

Table 13-3 McClelland Laboratories Summary Paramount Sulfide Material Biooxidation Test Results

Amenability Test No.	Composite	Biooxidation Time, days	Weight Loss, %[1]	Estimated Oxidation, %	% S Init.	% S Final	Total Fe Ext'd., % of Total	Total Fe Ext'd., % Fe	Total Fe Head Assay, % Fe
AM-14	WWS-13-1	5	0.7	1.7	3.80	3.76	-10.0	-0.36	3.60
AM-1	WWS-13-1	8	6.5	53.3	3.80	1.90	54.9	1.98	3.60
AM-2	WWS-13-1	21	8.5	79.5	3.80	0.85	76.6	2.76	3.60
AM-3	WWS-13-1	28	7.7	80.8	3.80	0.79	81.6	2.94	3.60
AM-4	WWS-13-1	35	6.1	86.9	3.80	0.53	89.9	3.24	3.60
AM-13	WWS-13-2	5	0.6	2.6	2.49	2.44	0.0	0.00	2.47
AM-5	WWS-13-2	7	3.3	60.8	2.49	1.01	58.8	1.45	2.47
AM-6	WWS-13-2	21	1.4	78.6	2.49	0.54	42.8	1.06	2.47
AM-7	WWS-13-2	28	4.3	82.3	2.49	0.46	79.5	1.96	2.47
AM-8	WWS-13-2	35	3.2	79.0	2.49	0.54	71.6	1.77	2.47
AM-9	WOS-13-1	5	3.4	5.8	3.58	3.49	4.3	0.15	3.52
AM-10	WOS-13-1	8	2.7	24.2	3.58	2.79	20.4	0.72	3.52
AM-11	WOS-13-1	21	6.4	60.3	3.58	1.52	60.1	2.11	3.52
AM-12	WOS-13-1	28	3.0	85.1	3.58	0.55	66.5	2.34	3.52

1) Weight lost during biooxidation pretreatment. A negative weight loss indicates weight gain due to precipitation of reagents added during testing.

The results from the test work indicate the following:

- The six Sleeper composites tested were refractory to direct cyanidation treatment at feed sizes ranging from 80% -12.5mm to 80% -45um.
- The most likely cause for the low gold recoveries obtained from the refractory Sleeper composites was a locking of gold in sulfide mineral grains.
- All six composites responded very well to biooxidation pretreatment for oxidation of contained sulfide minerals, resulting in an improvement in gold recovery by cyanidation treatment.
- Gold recoveries of 90% or greater were obtained by simulated whole ore stirred tank biooxidation, followed by agitated cyanidation, at an 80% -45um feed size (3 composites tested).
- Gold recoveries of 86% to 93% were obtained by whole ore POX treatment followed by agitated cyanidation, at an 80% -80um feed size
- Gold recoveries of 65% to 81% were obtained by simulated heap biooxidation pretreatment (in columns), at 80% -12.5mm and 80% -6.3mm feed sizes.
- Solution percolation/solution ponding problems were encountered during simulated heap biooxidation pretreatment, particularly at the 6.3 mm feed size. Further optimization of heap biooxidation feed size and biooxidation cycle time will be required, if this process is to be considered further.
- Reagent additions were high, under conditions not yet optimized.

Although these initial results show promise as a treatment scheme for the Sleeper sulfide materials, project initial economics showed adding these materials to the project does not substantially improve the overall project. However, the upside potential exists for improving sulfide processing and increasing the mine life of the Sleeper project.

14 MINERAL RESOURCE ESTIMATION

14.1 INTRODUCTION

Paramount requested SRK through its Exploration Vice President Mr. Glen Van Treek, to estimate the gold and silver resources for the Sleeper Project considering three areas of the deposit, Sleeper, Facility and West Wood.

- The estimation work consists of the following:
- (Au) Gold Estimation
- (Ag) Silver Estimation
- (S) Sulfur Estimation
- Density Estimation
- Resource Classification

In order to provide an optimum block model, volumes, tonnage-grade relationships and density designations are calculated in order to have all the required and necessary information to assign to the appropriate modeled units.

14.2 DEVELOPMENT

14.2.1 GEOLOGY

The geology used for this work corresponds to the interpreted models of lithology and the gold and silver envelopes. Sulfur was estimated using indicator kriging. The models of lithology and gold and silver envelopes were created as 3D solids using Leapfrog software. Table 14-1 shows the solids provided by Leapfrog and the geological parameters assigned. Table 14-2 shows the codes assigned to each unit.

Table 14.1 Geologic Solids

Solid 3D	Domain	Sector
Au_01_ppm.00t	Au - 0.1 ppm	All
Au_1_ppm.00t	Au – 1.0 ppm	All
Ag_2_ppm.00t	Ag - 2 ppm	All
Ag_10_ppm.00t	Ag – 10 ppm	All
01DOM_ESleeperN.00t	Sector	Sleeper
02DOM.ESleeper3.00t	Sector	Sleeper
03DOM.FAC3.00	Sector	Facility
04DOM.WSleeper3.00t	Sector	Sleeper
05DOM_WSleeperN.00t	Sector	Sleeper
06DOM.WW.00t	Sector	West Wood
07DOM_Facilities.00t	Sector	Facility
QAL_Final.00t	Lithology - Alluvial	All
BASAMENTO_FINAL.00t	Lithology - Basement	All
BRECHA_FINAL.00t	Lithology - Breccia	All
TB_FINAL.00t	Lithology - Basalt	All

Solid 3D	Domain	Sector
TIF_FINAL.00T	Lithology – Intrusive	All
TIM_FINAL.00t	Lithology - Dykes	All
TR_FINAL.00t	Lithology - Rhyolite	All
TVS_FINAL.00t	Lithology - Wacke	All
Topo_Current.00t	Current Topography	All
Topo_End_Mine.00t	End Mine Topography	All
Topo_Premine_DEM	Pre-Mine Topography	All
volumen_Relleno	Refill Volume	All
01.-DOM_ESleeperN_Intersect_OXIDOS.00t	Mineral Zone - Oxide	Sleeper
02._DOM.ESleeper3_Intersect_OXIDOS.00t	Mineral Zone - Oxide	Sleeper
03.-DOM.FAC3_Intersect_OXIDOS.00t	Mineral Zone - Oxide	Facility
04._DOM.WSleeper3_Intersect_OXIDOS.00t	Mineral Zone - Oxide	Sleeper
05._DOM_WSleeperN_Intersect_OXIDOS.00t	Mineral Zone - Oxide	Sleeper
06._DOM.WW_Intersect_OXIDOS.00t	Mineral Zone - Oxide	West Wood
07._DOM_Facilities_Intersect_OXIDOS.00t	Mineral Zone - Oxide	Facility
01.-DOM_ESleeperN_Intersect_MIXTOS.00t	Mineral Zone - Mixed	Sleeper
02._DOM.ESleeper3_Intersect_MIXTOS.00t	Mineral Zone - Mixed	Sleeper
03.-DOM.FAC3_Intersect_MIXTOS.00t	Mineral Zone - Mixed	Facility
04._DOM.WSleeper3_Intersect_MIXTOS.00t	Mineral Zone - Mixed	Sleeper
05._DOM_WSleeperN_Intersect_MIXTOS.00t	Mineral Zone - Mixed	Sleeper
06._DOM.WW_Intersect_MIXTOS.00t	Mineral Zone - Mixed	West Wood
07._DOM_Facilities_Intersect_MIXTOS.00t	Mineral Zone - Mixed	Facility
01.-DOM_ESleeperN_Intersect_PRI.00t	Mineral Zone - Primary	Sleeper
02._DOM.ESleeper3_Intersect_PRI.00t	Mineral Zone - Primary	Sleeper
03.-DOM.FAC3_Intersect_PRI.00t	Mineral Zone - Primary	Facility
04._DOM.WSleeper3_Intersect_PRI.00t	Mineral Zone - Primary	Sleeper
05._DOM_WSleeperN_Intersect_PRI.00t	Mineral Zone - Primary	Sleeper
06._DOM.WW_Intersect_PRI.00t	Mineral Zone - Primary	West Wood
07._DOM_Facilities_Intersect_PRI.00t	Mineral Zone - Primary	Facility

Table 14.2 Variable Assignment

Geology	Variable		Type	Code
	Database	Block Model		
Lithology	lito	lito	Alluvial	1
			Basement	2
			Breccia	3
			Basalt	4
			Intrusive	5
			Dykes	6
			Rhyolite	7
			Wacke	8
Isograde Au	Env_Au	Env_Au	0.1 ppm	1
			1 ppm	10
Isograde Ag	Env_Ag	Env_Ag	2 ppm	2
			10 ppm	10
Mineral Zone	-	Minzon	Waste Dump	-99
			Alluvial	-99
			Oxide	1
			Mix	2
			Sulphide	3
Sector	sector	sector	Sleeper EN	11
			Sleeper E3	12
			Sleeper W3	13
			Sleeper WN	14
			Facility FAC3	21
			Facility Facilities	22
			West Wood WW	31

Based on the solids provided by Leapfrog and checked by SRK, a separation was made based on the solids of 0.1 ppm for Au and 2 ppm for Ag.

14.2.2 DATABASE

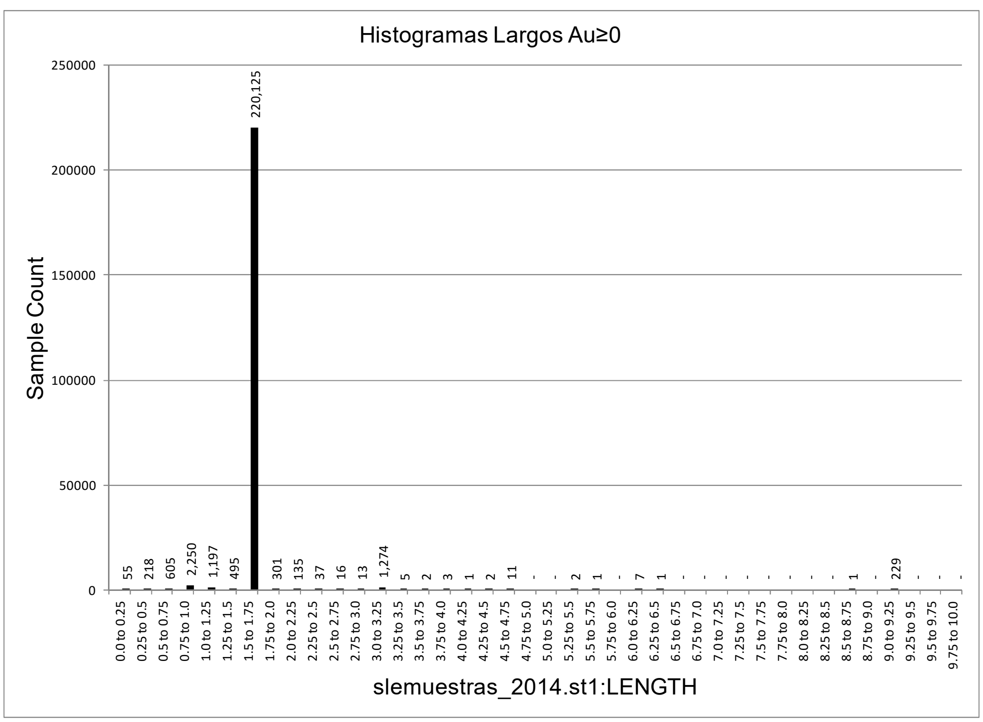
14.2.2.1 FILES

Six databases have been used for the estimation process. These databases are:

1. Drillholes: slesonda_2014.son.isis. This drillhole database has in the ASSAY table the Au and AG grades in ppm. In the AZUFRE table, it has the Sulphur grade. In the DENS table, it has the density data. In the BOTA table, it has the waste condition. Additionally, it contains the table for Collar and Survey.
2. Grade Composites: slecomp1p5_2014.rlf.isis: This is the composite database used for all Au and Ag grades for the resources estimation.
3. Sulphur Composite: slesle_2014.azu.isis: Is the composite database which contains the S grade.
4. Dump Composite: slebotadero_2014.bot.isis: Is the composite database which contains the Au and Ag grades for the waste dump estimation.
5. Density Composite: slesle_2014.den.isis: Is the composite database which contains the density data.
6. Samples Composite: slemuestras_2014.st1.isis: Is the composite database which was used to identify the length of the samples.

It is important to point out that drillholes were converted to grade composite samples by the Run Length method, where each interval of grades were composited at a constant length equal to 1.5 m. Figure 14-1 shows the composite length distribution, from which 1.5 meters was determined as the composite length.

Figure 14.1 Sample Length Histograms

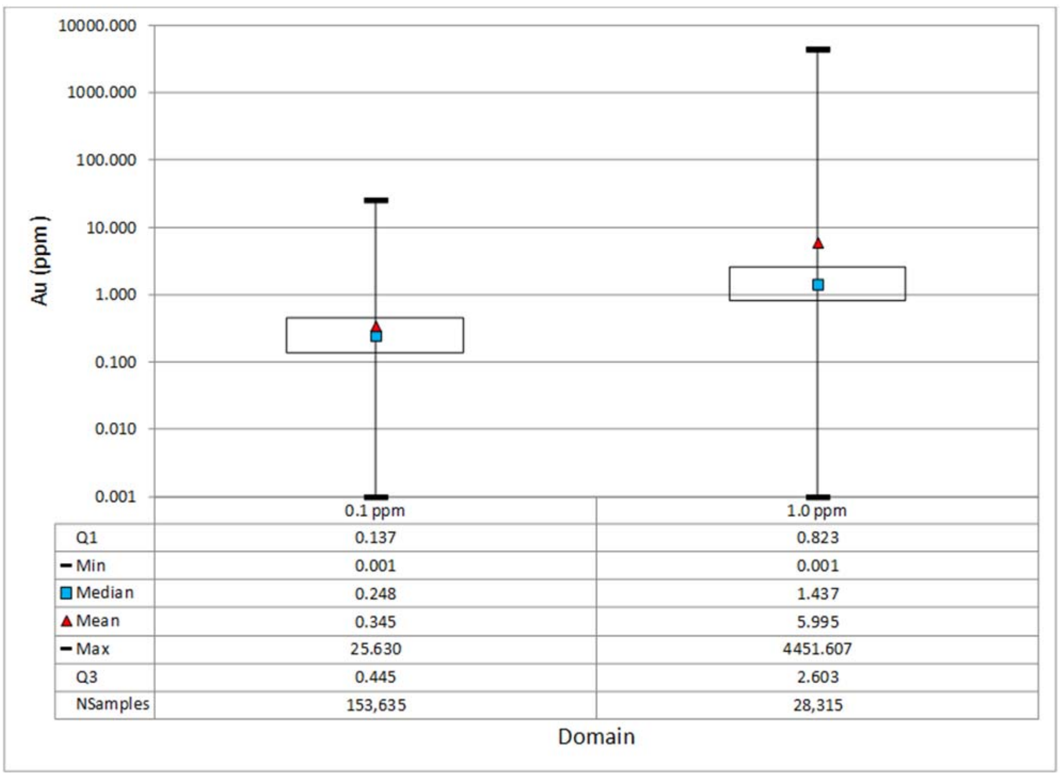


14.2.2.2 AU STATISTICS

With the grade composite file, basic statistics for Au in each of geological units were created. These statistics are shown in the Box Plots graphic and are shown in Figures 14-2 to Figure 14-7. Upon analysis, the following became clear:

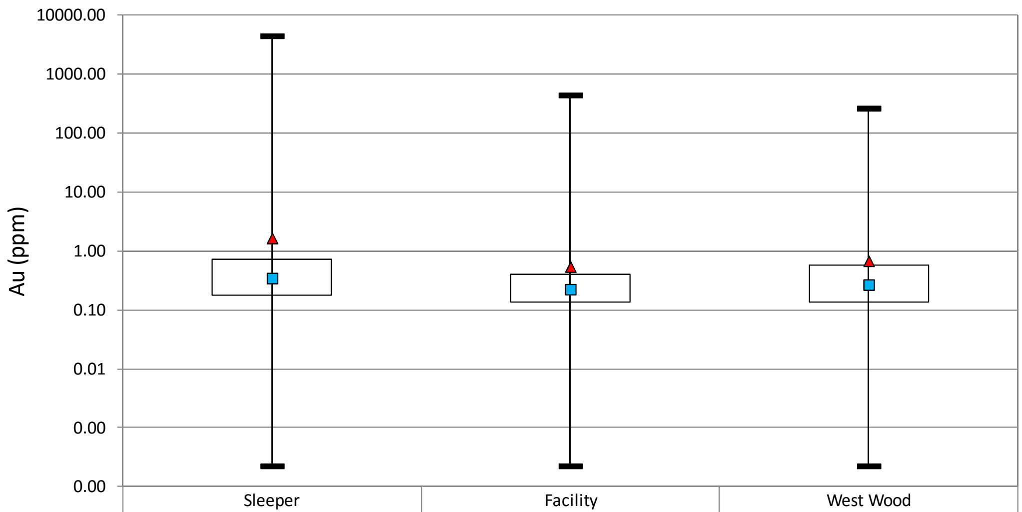
- By separating grades by envelope domains, naturally, the higher areas have better grades.
- The Sleeper area has a better grade with an average of 1.65 ppm, West Wood averages 0.68 ppm and Facility, 0.54 ppm.
- In Sleeper, the rhyolite lithology has higher grades. In West Wood, breccia and intrusive have higher grades.
- In Facility, rhyolite, breccias and basalts have higher grades and there are more data.

Figure 14.2 Box Plot Au by Envelopes



	0.1 ppm	1.0 ppm
Q1	0.137	0.823
Min	0.001	0.001
Median	0.248	1.437
Mean	0.345	5.995
Max	25.630	4451.607
Q3	0.445	2.603
NSamples	153,635	28,315

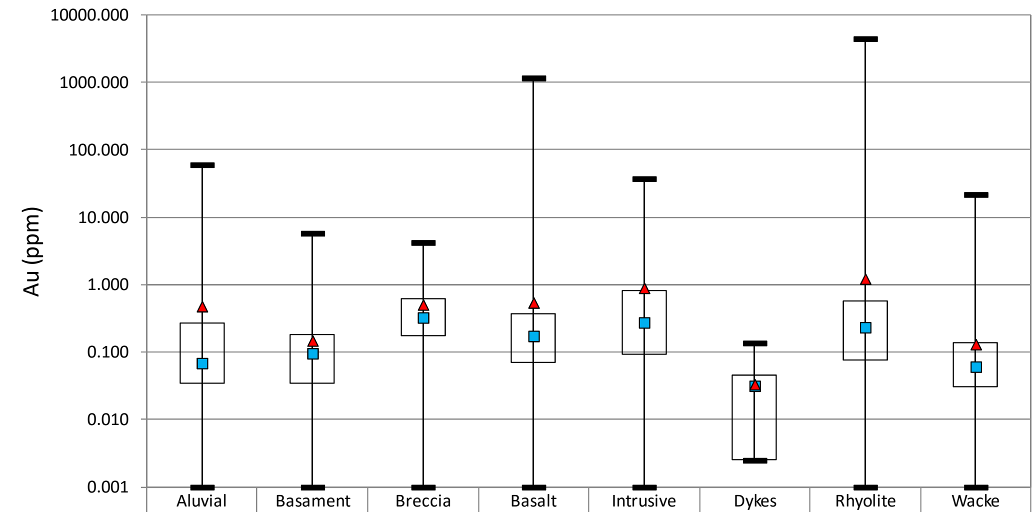
Figure 14.3 Box Plot Au by Sector



	Sleeper	Facility	West Wood
Q1	0.17	0.13	0.14
Min	0.00	0.00	0.00
Median	0.35	0.22	0.27
Mean	1.65	0.54	0.68
Max	4450.94	440.69	263.09
Q3	0.72	0.40	0.58
NSamples	107,319	36,146	33,761

Sector

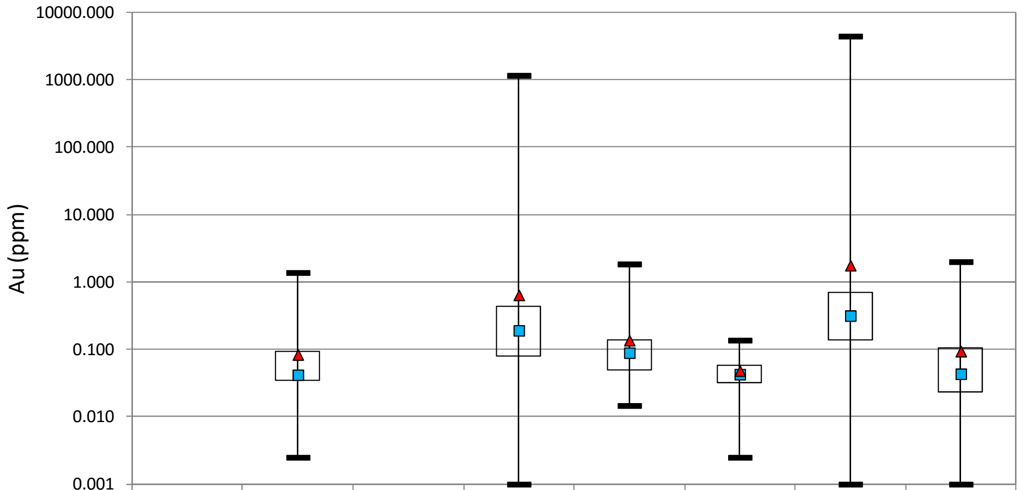
Figure 14.4 Box Plot Au by Lithology



	Aluvial	Basament	Breccia	Basalt	Intrusive	Dykes	Rhyolite	Wacke
Q1	0.034	0.035	0.173	0.069	0.091	0.003	0.075	0.031
Min	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001
Median	0.069	0.096	0.327	0.174	0.276	0.032	0.234	0.061
Mean	0.481	0.149	0.509	0.545	0.899	0.034	1.230	0.131
Max	60.171	5.801	4.231	1165.269	37.408	0.137	4451.607	21.770
Q3	0.274	0.183	0.610	0.376	0.821	0.045	0.560	0.138
NSamples	8,542	12,965	470	85,491	2,197	31	143,186	3,367

Lithology

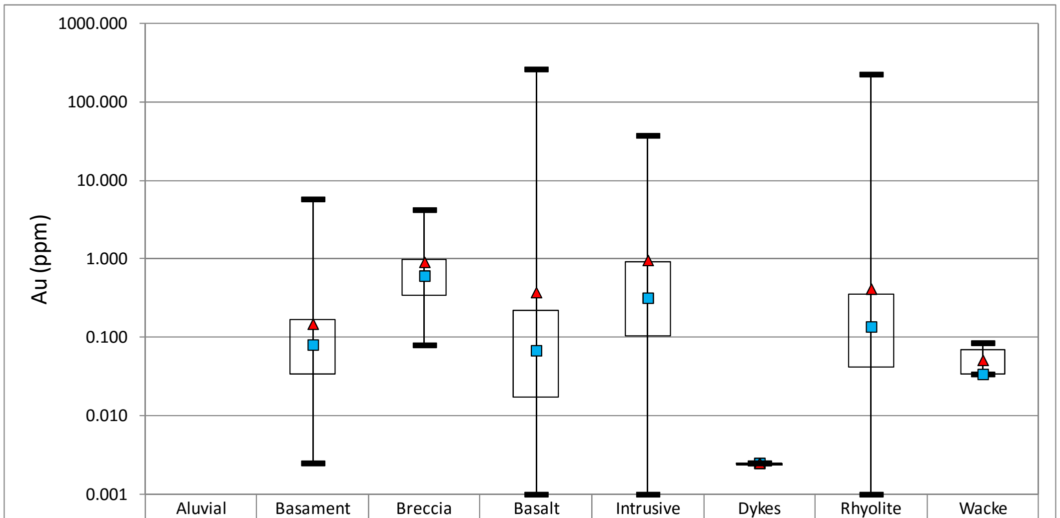
Figure 14.5 Box Plot Au by Lithology in Sleeper



	Aluvial	Basament	Breccia	Basalt	Intrusive	Dykes	Rhyolite	Wacke
Q1		0.034		0.080	0.049	0.031	0.137	0.023
Min		0.003		0.001	0.015	0.003	0.001	0.001
Median		0.042		0.191	0.089	0.043	0.317	0.043
Mean		0.084		0.642	0.137	0.048	1.770	0.094
Max		1.383		1165.269	1.851	0.137	4451.607	2.006
Q3		0.092		0.434	0.137	0.058	0.687	0.103
NSamples		1,319	-	48,097	143	21	84,309	2,212

Lithology in Sleeper

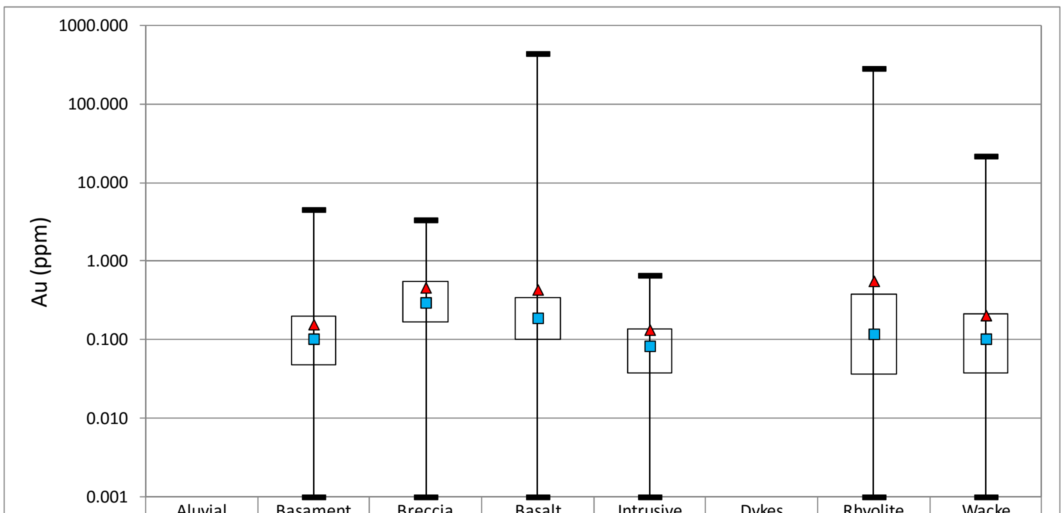
Figure 14.6 Box Plot Au by Lithology in Facility



	Aluvial	Basament	Breccia	Basalt	Intrusive	Dykes	Rhyolite	Wacke
Q1		0.034	0.340	0.017	0.103	0.003	0.042	0.034
Min		0.003	0.080	0.001	0.001	0.003	0.001	0.034
Median		0.081	0.610	0.068	0.319	0.003	0.137	0.034
Mean		0.149	0.912	0.376	0.964	0.003	0.416	0.051
Max		5.801	4.231	263.122	37.408	0.003	226.405	0.085
Q3		0.166	0.981	0.216	0.907	0.003	0.353	0.069
NSamples		1,957	47	10,221	2,024	10	45,730	11

Lithology in West Wood

Figure 14.7 Box Plot Au by Lithology in West Wood



	Aluvial	Basament	Breccia	Basalt	Intrusive	Dykes	Rhyolite	Wacke
Q1		0.048	0.170	0.099	0.037		0.037	0.037
Min		0.001	0.001	0.001	0.001		0.001	0.001
Median		0.103	0.299	0.190	0.084		0.119	0.103
Mean		0.158	0.464	0.436	0.134		0.561	0.205
Max		4.541	3.360	440.741	0.662		284.784	21.770
Q3		0.201	0.549	0.343	0.138		0.381	0.213
NSamples		9,682	420	26,968	30	-	12,431	1,142

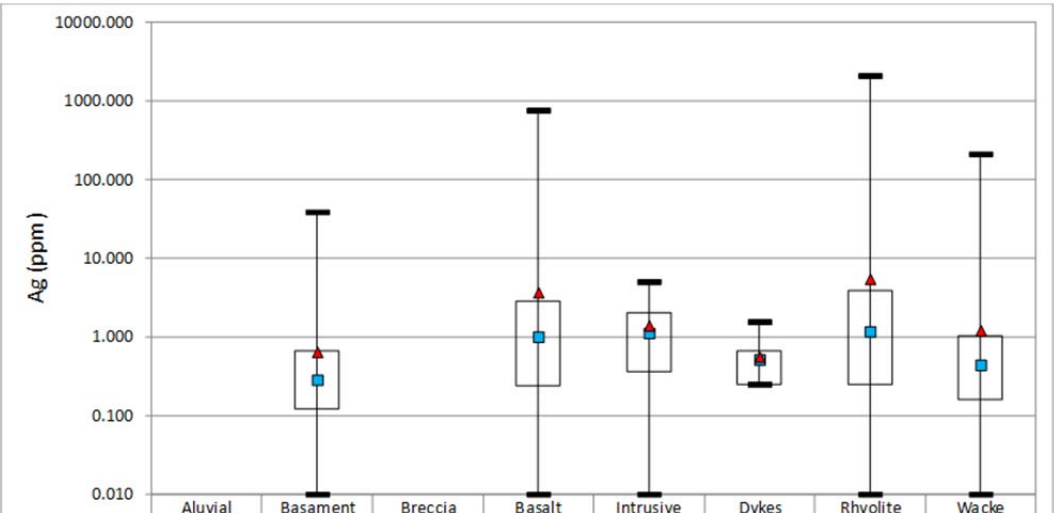
Lithology in Facility

14.2.2.3 AG STATISTICS

In the case of silver, only basic statistics were developed within each lithology, separated by areas. The result is shown in Figures 14-8 to Figure 14-10. Upon examination, the following comments can be made:

- In general, the average grades are low and do not exceed 20 ppm.
- There are many samples per unit, which are sufficient for making consistent silver grade estimations.
- Considering quantity of data and grade, rhyolite is the lithology which has more information and data for silver.

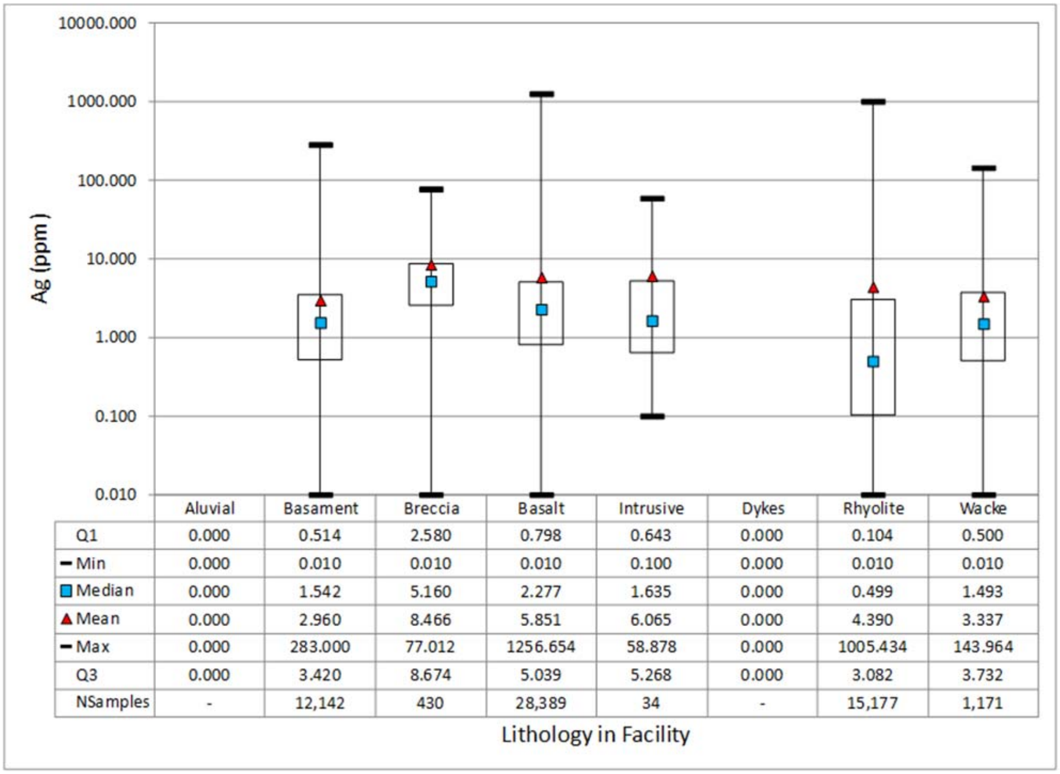
Figure 14.8 Box Plot Ag by Lithology Sleeper



	Aluvial	Basament	Breccia	Basalt	Intrusive	Dykes	Rhyolite	Wacke
Q1		0.121		0.237	0.364	0.250	0.250	0.160
Min		0.010		0.010	0.010	0.250	0.010	0.010
Median		0.284		1.000	1.118	0.514	1.170	0.439
Mean		0.645		3.671	1.392	0.557	5.455	1.211
Max		38.688		759.995	5.033	1.554	2088.631	211.468
Q3		0.668		2.877	2.025	0.653	3.812	1.029
NSamples		2,212	-	51,438	155	23	91,114	2,443

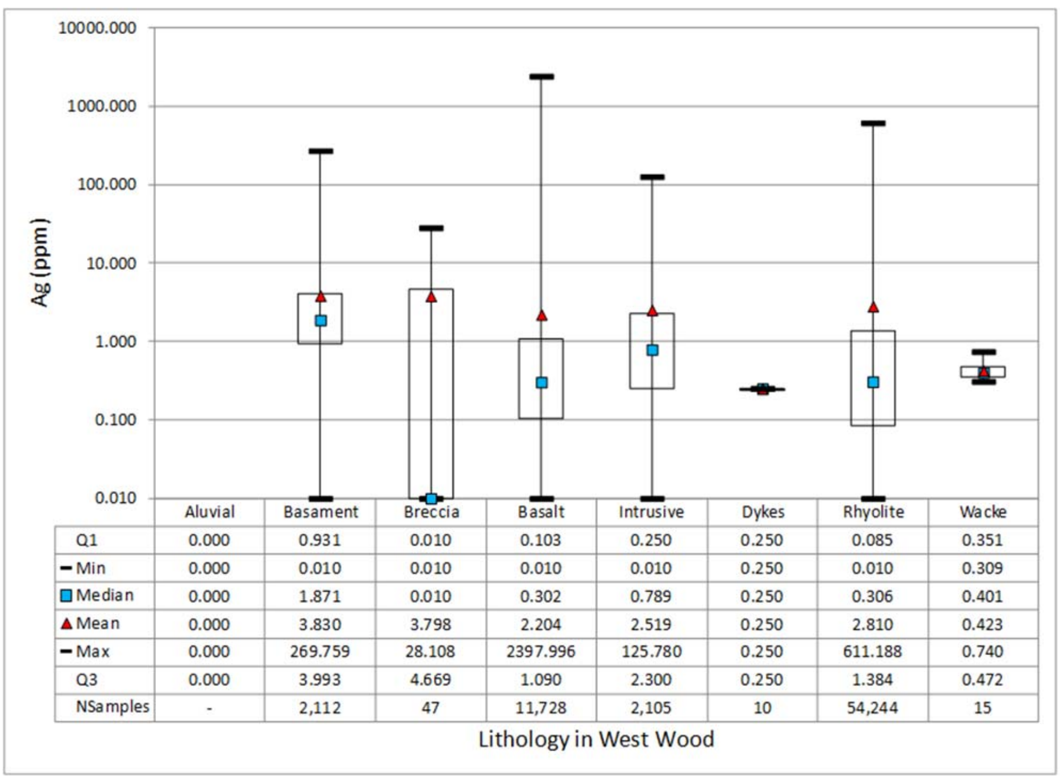
Lithology in Sleeper

Figure 14.9 Box Plot Ag by Lithology in Facility



	Aluvial	Basament	Breccia	Basalt	Intrusive	Dykes	Rhyolite	Wacke
Q1	0.000	0.514	2.580	0.798	0.643	0.000	0.104	0.500
Min	0.000	0.010	0.010	0.010	0.100	0.000	0.010	0.010
Median	0.000	1.542	5.160	2.277	1.635	0.000	0.499	1.493
Mean	0.000	2.960	8.466	5.851	6.065	0.000	4.390	3.337
Max	0.000	283.000	77.012	1256.654	58.878	0.000	1005.434	143.964
Q3	0.000	3.420	8.674	5.039	5.268	0.000	3.082	3.732
NSamples	-	12,142	430	28,389	34	-	15,177	1,171

Figure 14.10 Box Plot Ag by Lithology in West Wood



	Aluvial	Basament	Breccia	Basalt	Intrusive	Dykes	Rhyolite	Wacke
Q1	0.000	0.931	0.010	0.103	0.250	0.250	0.085	0.351
Min	0.000	0.010	0.010	0.010	0.010	0.250	0.010	0.309
Median	0.000	1.871	0.010	0.302	0.789	0.250	0.306	0.401
Mean	0.000	3.830	3.798	2.204	2.519	0.250	2.810	0.423
Max	0.000	269.759	28.108	2397.996	125.780	0.250	611.188	0.740
Q3	0.000	3.993	4.669	1.090	2.300	0.250	1.384	0.472
NSamples	-	2,112	47	11,728	2,105	10	54,244	15

14.2.3 ESTIMATION UNIT

After creating basic statistics for each geological unit, the geological units were grouped in order to obtain final estimation units, which must exhibit a stable grade behavior. This enables a good estimation to be made without a major bias and thus be able to focus on the geological limits proposed for each unit.

14.2.3.1 AU ESTIMATION UNITS

Initially, 0.1 and 1 ppm Au envelope shells were considered for estimating Au grades; however, envelope estimations present a problem with grades that are near the cut-off grade in that many of these samples are eliminated in the block model. Thus, it was decided to use the geological units available in the deposit as the estimation units.

By checking the geological units for each of the lithologies, a good population behavior is seen and the average grades are different for each one, thus it was decided that each population should have its own estimation unit. Another important point is that each population is separated by each of the lithologies inside the 0.1 ppm Au grade shell, which appears to delineate more adequately the deposit and tends to enclose the estimation in such a way as to enhance grade continuity.

Since each sector of the deposit (Sleeper, Facility and West Wood) is clearly defined and the behavior in grade by lithology is different in each one of the sectors, it was decided to separate each lithological unit for each one of the areas.

Figure 14-11, Figure 14-12 and Figure 14-13, show population behaviors in Probability-Plot curves and Table 14-3 shows the estimation units (EU) used in the estimation.

Table 14.3 Au Geological Units of Estimation

EU Au	Sector	Lithology	Colors
1	All	Alluvial	
12	Sleeper	Basement	
13		Breccia	
14		Basalt	
15		Intrusive	
16		Dykes	
17		Rhyolite	
18		Wacke	
22	Facility	Basement	
23		Breccia	
24		Basalt	
25		Intrusive	
26		Dykes	
27		Rhyolite	
28		Wacke	
32	West Wood	Basement	
33		Breccia	

EU Au	Sector	Lithology	Colors
34		Basalt	
35		Intrusive	
36		Dykes	
37		Rhyolite	
38		Wacke	

Figure 14.11 Au Probability Plots of Sleeper Estimation Unit

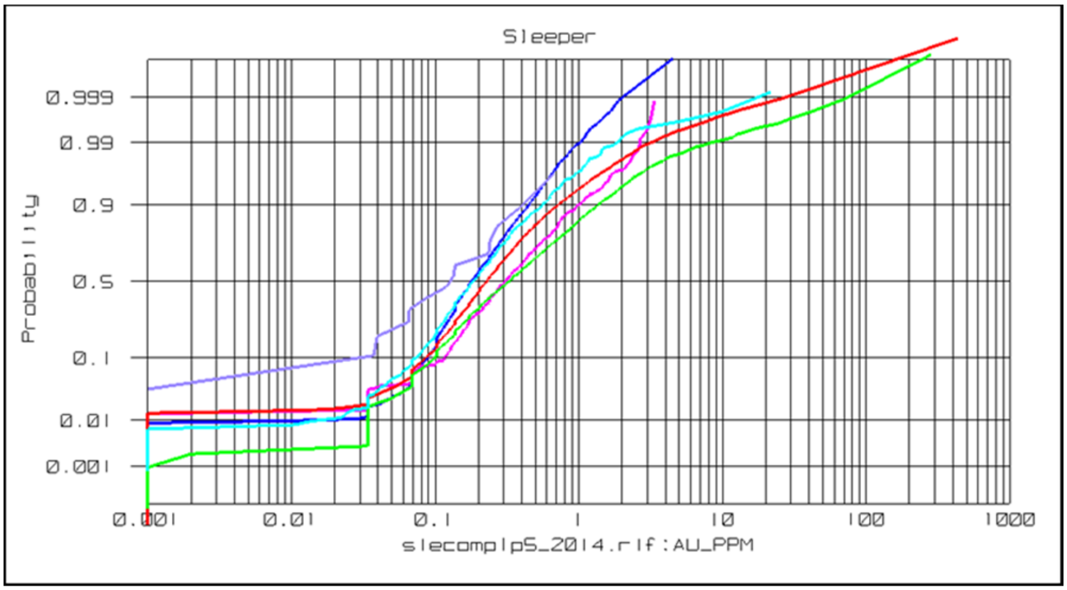


Figure 14.12 Au Probability Plots of Facility Estimation Unit

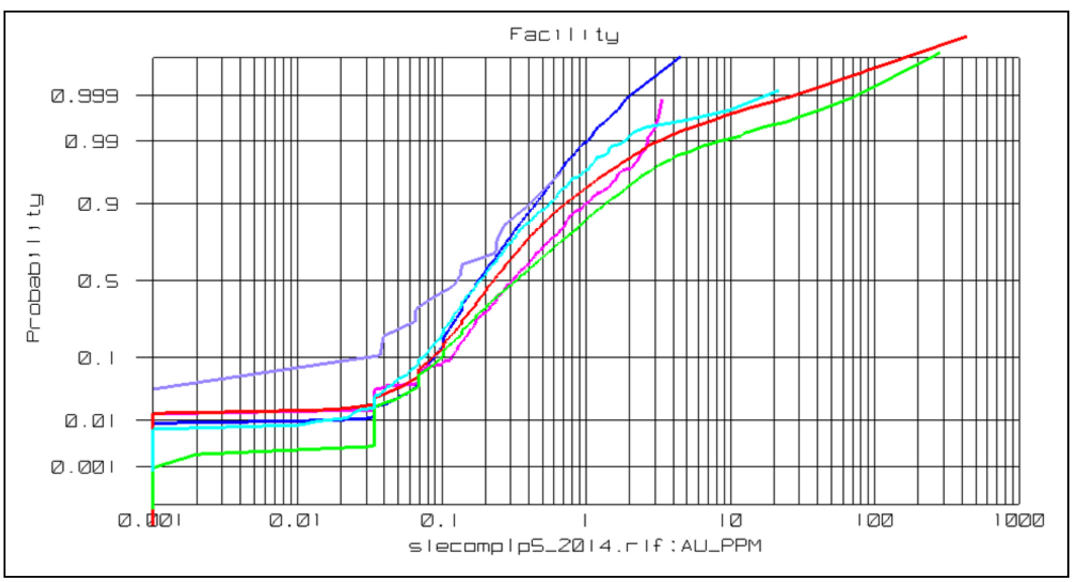
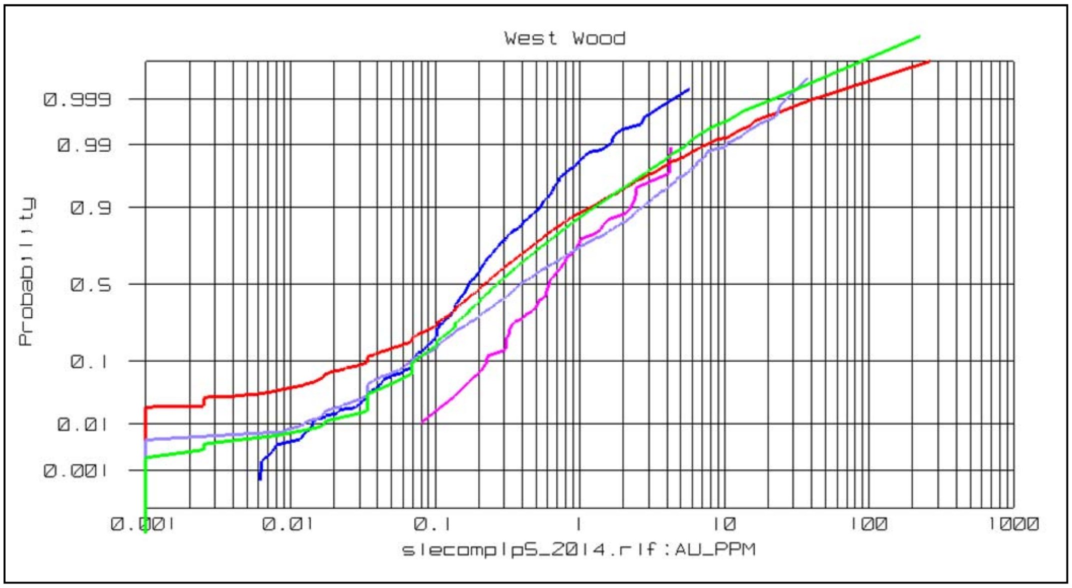


Figure 14.13 Au Probability Plots of West Wood Estimation Unit



The Alluvial unit was constructed in global terms, thus the estimation unit was for the total area. Basement is the unit with lower grade in the three areas. Coded colors for the curves are explained in Table 14-3.

Table 14.4 Statistics Au Units of Estimation

EU Au	Min	Q1	Median	Q3	Max	Mean	σ	N Samples
1	0.001	0.034	0.069	0.274	60.171	0.481	1.982	8,542
12	0.003	0.103	0.148	0.251	1.383	0.211	0.202	281
13								-
14	0.001	0.138	0.264	0.548	1165.269	0.804	7.604	37,445
15	0.034	0.103	0.137	0.247	1.851	0.218	0.266	71
16								-
17	0.001	0.206	0.395	0.787	4451.607	2.088	32.105	70,712
18	0.001	0.109	0.180	0.293	2.006	0.235	0.217	589
22	0.001	0.122	0.179	0.286	4.541	0.237	0.208	5,463
23	0.001	0.171	0.306	0.553	3.360	0.471	0.507	412
24	0.001	0.137	0.228	0.387	440.741	0.514	5.227	22,277
25	0.001	0.065	0.127	0.241	0.662	0.177	0.170	14
26								-
27	0.001	0.161	0.323	0.686	284.784	0.948	6.446	7,032
28	0.001	0.115	0.183	0.309	21.770	0.317	0.963	671
32	0.006	0.103	0.154	0.229	5.801	0.213	0.266	923
33	0.080	0.326	0.608	0.974	4.231	0.914	0.934	47
34	0.001	0.082	0.162	0.282	263.122	0.336	2.382	4,985
35	0.001	0.130	0.249	0.526	37.408	0.613	1.762	1,762
36								-
37	0.001	0.110	0.178	0.327	226.405	0.354	1.258	28,841
38	0.085				0.085	0.085		1

14.2.3.2 AG ESTIMATION UNITS

The same concept was used for the silver estimation units as was used for gold, namely, separating lithology units within the 2 ppm Ag grade shell. Separation is also made by each of the three sectors.

Table 14-5 shows the estimation units for silver. Figure 14-14, Figure 14-15 and Figure 14-16 show population behaviors in Probability-Plot curves

Silver was estimated in the alluvial lithology also.

Table 14.5 Ag Geological Units of Estimation

EU Ag	Sector	Lithology	Colors
1	All	Alluvial	
12	Sleeper	Basement	
13		Breccia	
14		Basalt	
15		Intrusive	
16		Dykes	
17		Rhyolite	
18		Wacke	
22	Facility	Basement	
23		Breccia	
24		Basalt	
25		Intrusive	
26		Dykes	
27		Rhyolite	
28		Wacke	
32	West Wood	Basement	
33		Breccia	
34		Basalt	
35		Intrusive	
36		Dykes	
37		Rhyolite	
38		Wacke	

Figure 14.14 Ag Probability Plots Unit of Sleeper Estimation

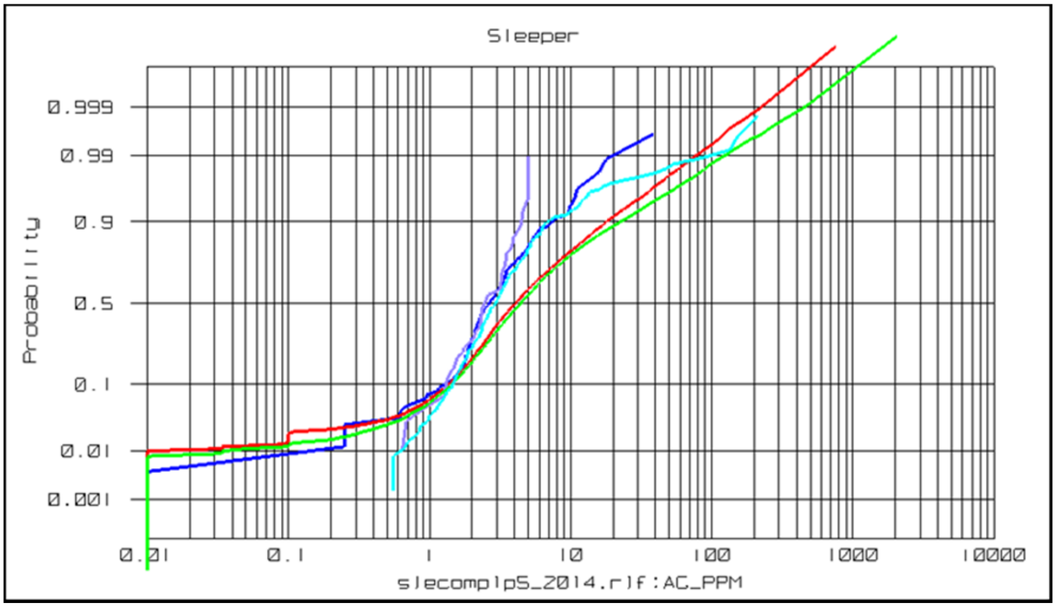


Figure 14.15 Ag Probability Plots Unit of Facility Estimation

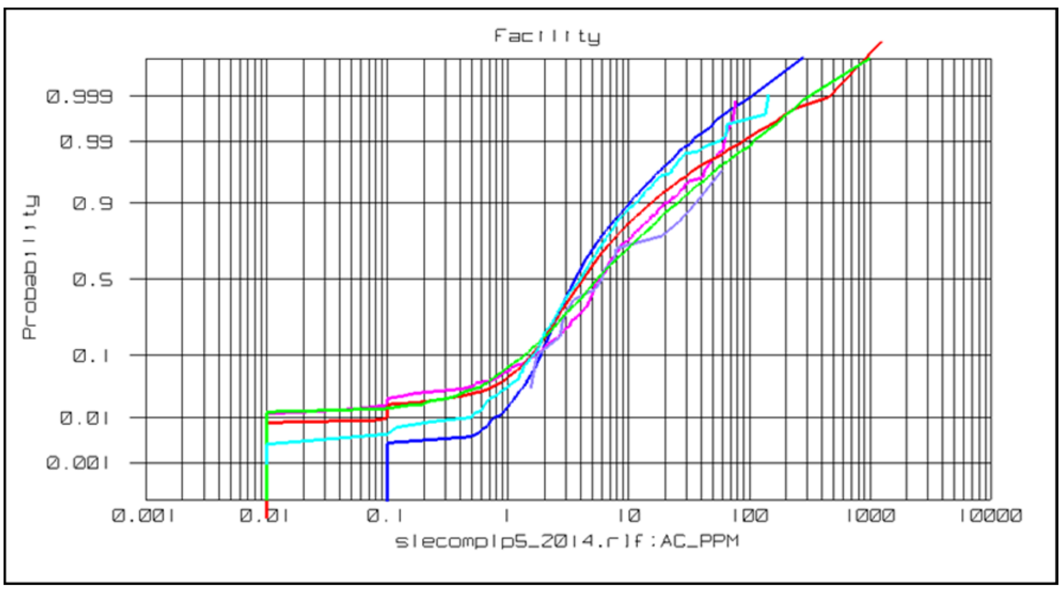
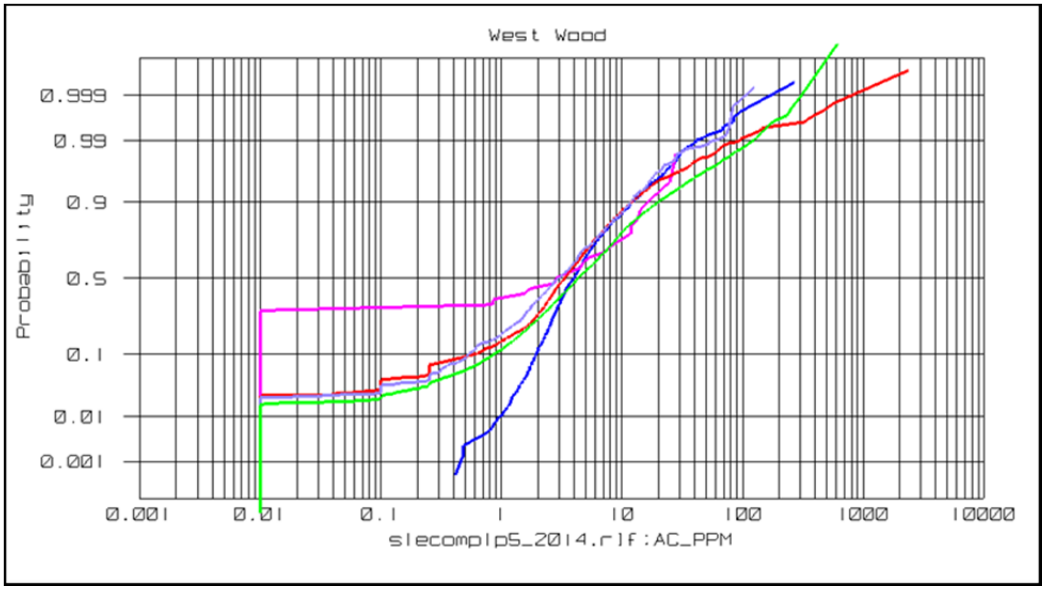


Figure 14.16 Ag Probability Plots Unit of West Wood Estimation



Basic statistics of each unit are shown in Table 14-6.

Table 14.6 Statistics Ag Units of Estimation

EU Ag	Min	Q1	Median	Q3	Max	Mean	σ	N Samples
1	0.010	0.049	0.240	0.928	239.256	1.557	6.153	10,579
12	0.010	1.912	2.656	4.093	38.688	3.841	4.272	128
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
14	0.010	2.353	4.064	8.378	759.995	8.822	19.557	19,063
15	0.643	1.823	2.470	3.475	5.033	2.721	1.151	48
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
17	0.010	2.480	4.455	9.078	2088.631	11.713	35.271	39,831
18	0.552	2.022	2.941	4.513	211.468	5.972	17.481	313
22	0.100	2.498	3.591	5.697	283.000	5.491	8.406	5,680
23	0.010	3.506	5.650	10.212	77.012	9.411	11.515	384
24	0.010	2.502	4.173	7.484	1256.654	9.024	31.528	17,445
25	1.540	2.874	6.000	15.967	58.878	12.509	15.687	15
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
27	0.010	2.743	5.486	11.729	1005.434	11.914	27.038	5,253
28	0.010	2.398	3.950	6.376	143.964	6.256	10.735	553
32	0.417	2.664	3.975	6.447	269.759	6.646	13.111	1,060
33	0.010	0.010	2.822	10.283	28.108	6.083	7.543	29
34	0.010	1.899	3.330	6.104	2397.996	9.545	63.524	2,261
35	0.010	1.491	2.995	6.101	125.780	5.583	9.762	796
36	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
37	0.010	2.056	4.328	9.041	611.188	10.387	24.740	13,100
38	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-

14.2.4 CONTACT PROFILE ANALYSIS

Contact Profile Analysis for the interaction of the EU's were carried out in order to determine if some units had soft boundaries or hard boundaries to use the information for grade estimation.

Tables 14-7 to 14-12 show the boundary details. "D" means a hard boundary while "S" is a soft boundary and the figure shows one unit's influence on another in metres.

The detail of all the graphics is shown in Appendix B.

Table 14.7 Au Contact Profile Analysis of the Sleeper Estimation

Au	12	13	14	15	16	17	18
12		D	D	D	D	D	D
13	D		D	D	D	D	D
14	D	D		D	D	S 9m	D
15	D	D	S 12m		D	D	D
16	D	D	D	D		D	D
17	D	D	D	D	D		D
18	D	D	D	D	D	D	

Table 14.8 Au Contact Profile Analysis of the Facility Estimation

Au	22	23	24	25	26	27	28
22		D	D	D	D	D	D
23	D		S 8m	D	D	S 15m	D
24	D	D		D	D	S 30m	D
25	D	D	D		D	D	D
26	D	D	D	D		D	D
27	D	S 6m	S 12m	D	D		D
28	D	D	D	D	D	D	

Table 14.9 Au Contact Profile Analysis of the West Wood Estimation

Au	32	33	34	35	36	37	38
32		D	D	D	D	D	D
33	D		D	D	D	D	D
34	D	D		S 18m	D	S 15m	D
35	D	D	D		D	S 2m	D
36	D	D	D	D		D	D
37	D	S 6m	S 30m	S 27m	D		D
38	D	D	D	D	D	D	

Table 14.10 Ag Contact Profile Analysis of the Sleeper Estimation

AG	12	13	14	15	16	17	18
12		D	D	D	D	D	D
13	D		D	D	D	D	D
14	D	D		S 9m	D	S 9m	D
15	D	D	D		D	D	D
16	D	D	D	D		D	D
17	D	D	S 9m	D	D		D
18	D	D	D	D	D	D	

Table 14.11 Ag Contact Profile Analysis of the Facility Estimation

AG	22	23	24	25	26	27	28
22		D	S 15m	D	D	S 6m	D
23	D		S 18m	D	D	D	S 6m
24	D	S 18m		d	d	S 6m	S 3m
25	D	D	D		D	D	D
26	D	D	D	D		D	D
27	D	D	D	D	D		D
28	D	D	D	D	D	D	

Table 14.12 Ag Contact Profile Analysis of the West Wood Estimation

AG	32	33	34	35	36	37	38
32		D	D	D	D	D	D
33	D		D	D	D	D	D
34	D	D		D	D	D	D
35	D	D	D		D	D	D
36	D	D	D	D		D	D
37	D	D	D	D	D		D
38	D	D	D	D	D	D	

Tables 14-7 to 14-12 indicate that most boundaries between the gold and the silver units are hard boundaries (D), but there are some units that have smooth or soft boundaries (S).

14.3 AU AND AG VARIOGRAPHIC ANALYSIS

Variographic analysis considers the creation of variographic maps, "down the hole" variograms and directional variograms for grade, whether it is gold or silver and for each estimation geological unit.

14.3.1 VARIOGRAPHIC MAPS

Correlograms on composite data bases were used for modeling and describing the spatial variability of the mineralization of the deposit. The methodology used for developing Au and Ag correlogram models was based on following determined preferential directions for the grade variation behavior and lithology of each estimation domain. Since it was not a simple task to identify this behavior due to the geology groupings which form the estimation units, the process considers the creation of variographic maps as correlograms in such a way in order to better visualize the preferential directions for each estimation unit.

Table 14-13 shows angles found from gold variographic maps, which are shown in Appendix C. It should be pointed out that sign convention is according to Vulcan® software. Table 14-14 shows preferential angles for silver.

Table 14.13 Au Search Angles

EU Au	Bearing (°)	Plunge (°)	Dip (°)
1	70	5	0
12	Omni		
13	Not estimated		
14	15	-15	-90
15	Id2		
16	Not estimated		
17	15	0	55
18	Omni		
22	45	35	65
23	Omni		
24	15	-50	65
25	Id2		
26	Not estimated		
27	15	0	-90
28	Omni		
32	125	0	45
33	Id2		
34	155	0	60
35	60	75	-90
36	Not estimated		
37	25	5	-90
38	Not estimated		

Table 14.14 Ag Search Angles

EU Ag	Bearing (°)	Plunge (°)	Dip (°)
1	15	0	8
12	Id2		
13	Not Estimated		
14	30	-20	45
15	Id2		
16	Not Estimated		
17	35	20	60
18	Omni		
22	35	-20	60
23	Omni		
24	120	0	-50
25	Id2		
26	Not Estimated		
27	150	50	-90
28	Omni		
32	90	-20	-60
33	Id2		
34	20	0	-40
35	45	0	10
36	Not Estimated		
37	100	-90	-60
38	Not Estimated		

Gold and Silver estimation units (EU) 13, 16, 26, 36 and 38 do not have information regarding the search angles because these units do not have sufficient information for performing a variographic analysis.

14.3.2 DOWN THE HOLE VARIOGRAMS

Experimental down the hole variograms are useful to more precisely determine the nugget effect in each estimation unit, which is necessary for modeling experimental directional variograms. This kind of variogram is not a vertical variogram, but rather one which identifies with each drillhole and calculates variogram function along the drillhole depending on the space used. When a drillhole is finished being analyzed, it moves to the next until it is finished analyzing all the drillholes belonging to the required unit.

Figures 14-17 to 14-36 show the correlograms for gold per estimation unit by drillhole. This method infers the axis curve of the ordinate (Y-axis). Nomenclature DTH means “Down the Hole”.

Figure 14.17 EU Au 1 DTH Variogram

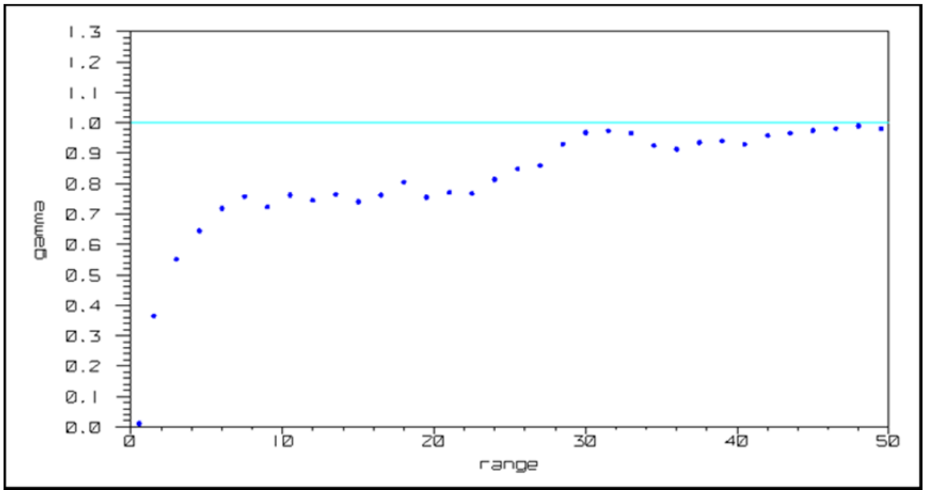


Figure 14.18 EU Au 14 DTH Variogram

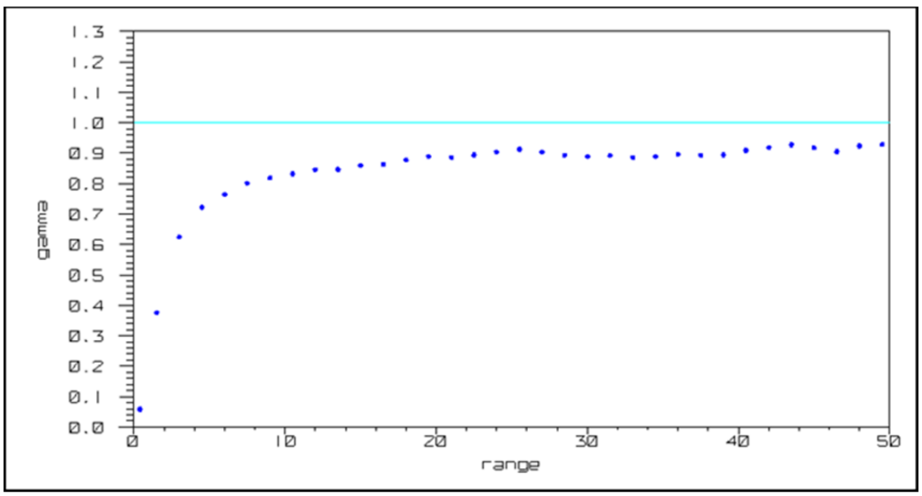


Figure 14.19 EU Au 17 DTH Variogram

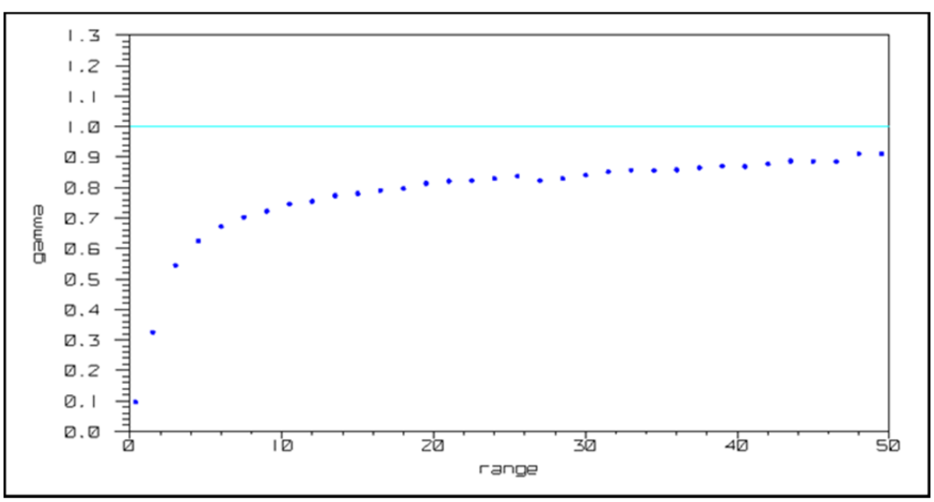


Figure 14.20 EU Au 22 DTH Variogram

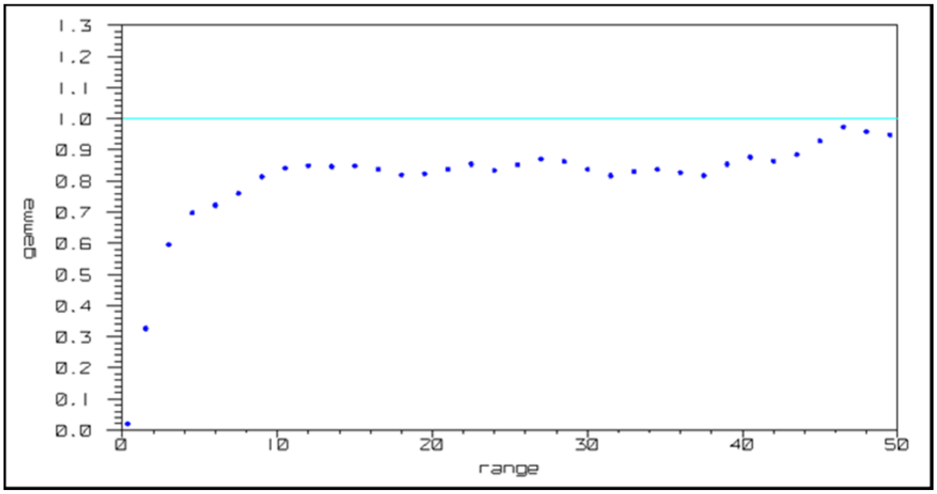


Figure 14.21 EU Au 24 DTH Variogram

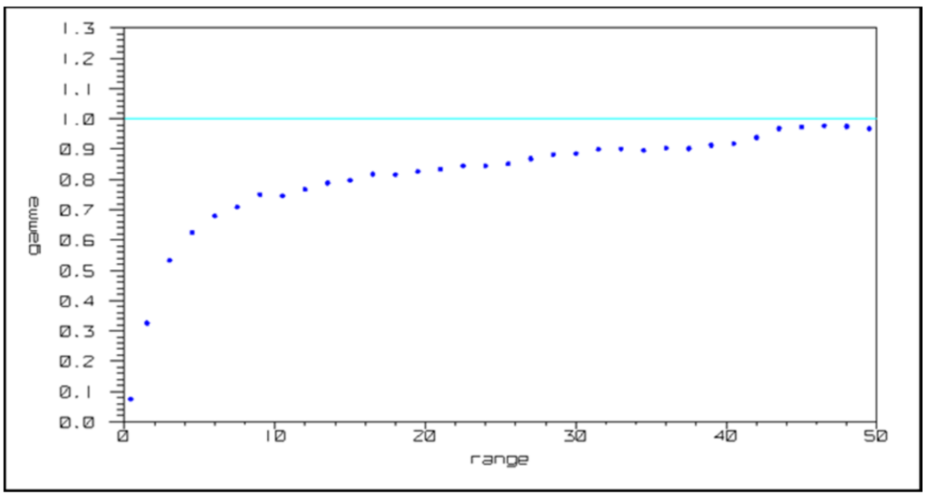


Figure 14.22 EU Au 27 DTH Variogram

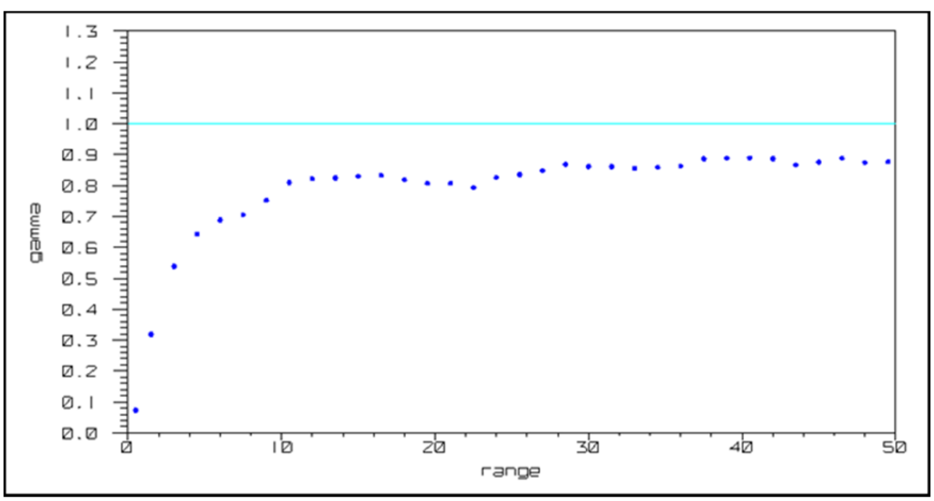


Figure 14.23 EU Au 32 DTH Variogram

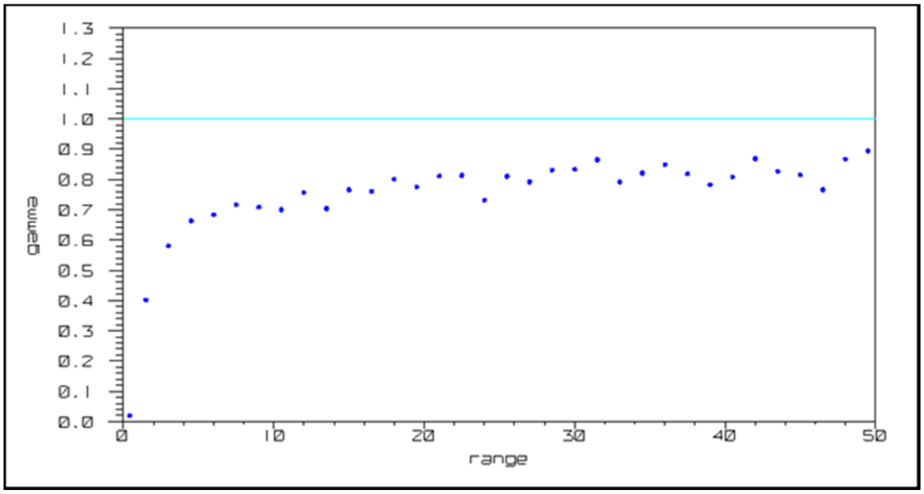


Figure 14.24 EU Au 34 DTH Variogram

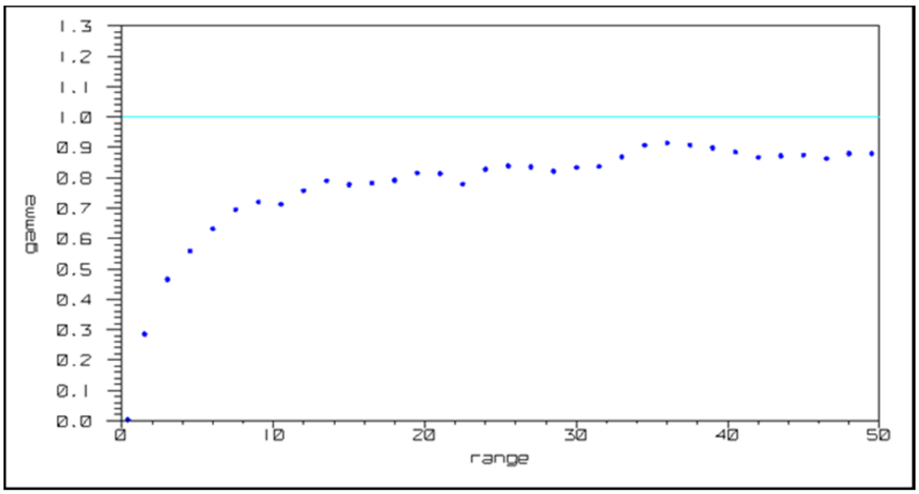


Figure 14.25 EU Au 35 DTH Variogram

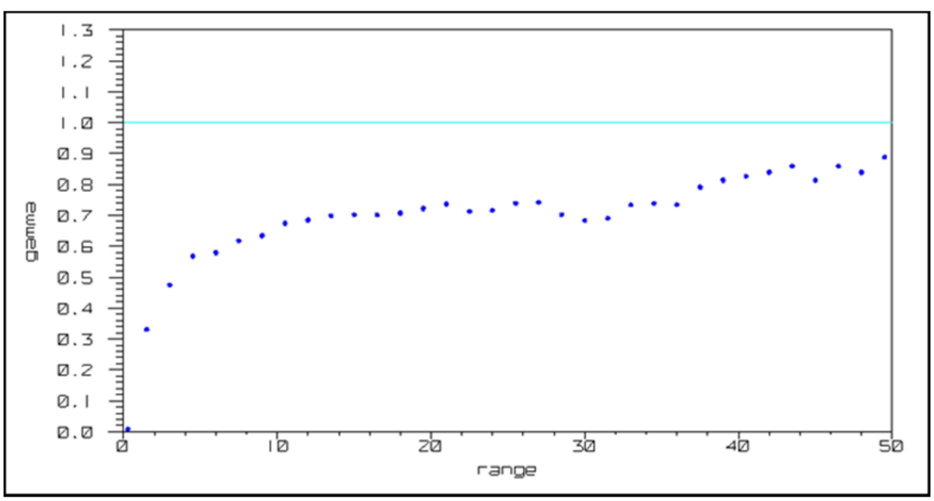


Figure 14.26 EU Au 37 DTH Variogram

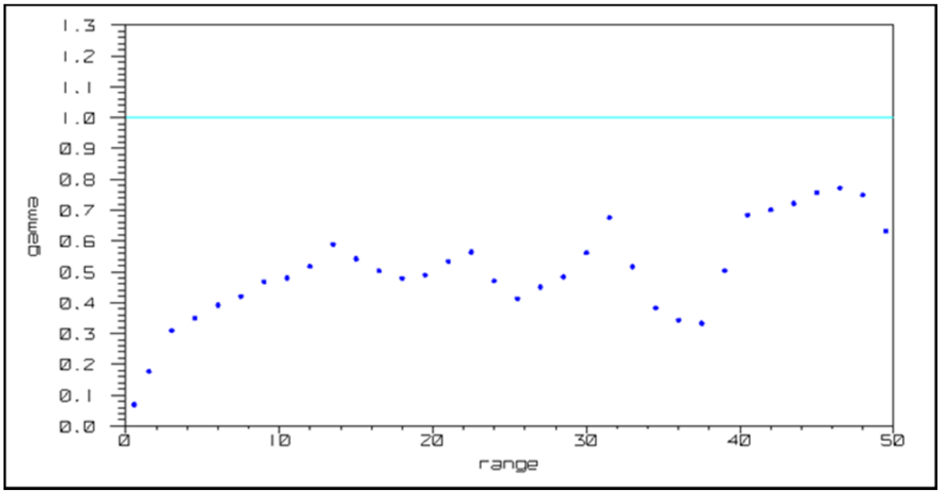


Figure 14.27 EU Ag 1 DTH Variogram

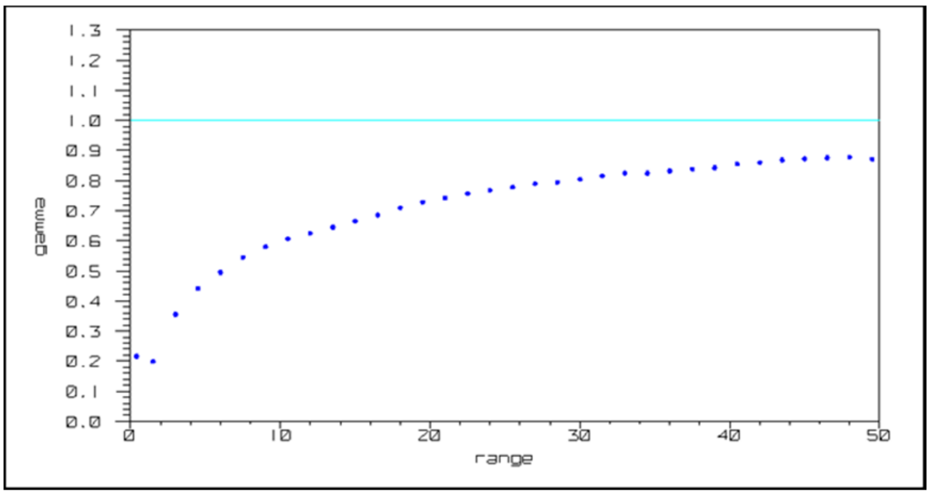


Figure 14.28 EU Ag 14 DTH Variogram

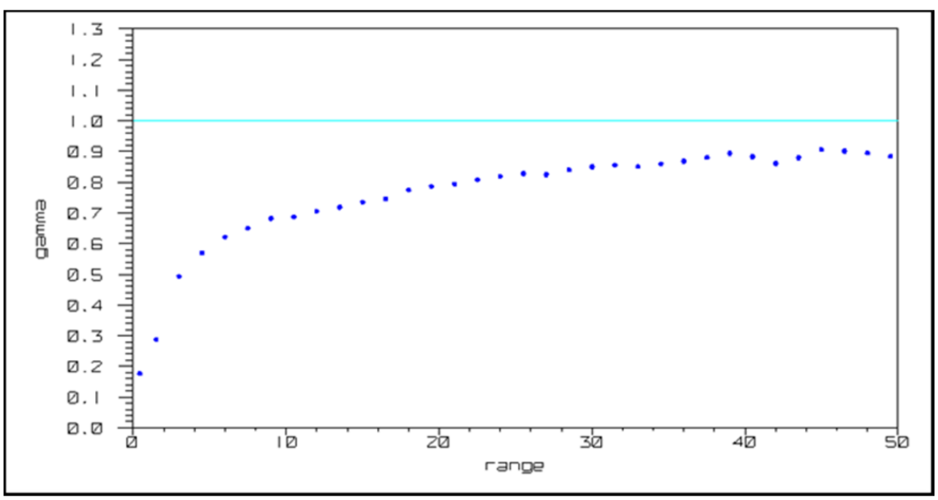


Figure 14.29 EU Ag 17 DTH Variogram

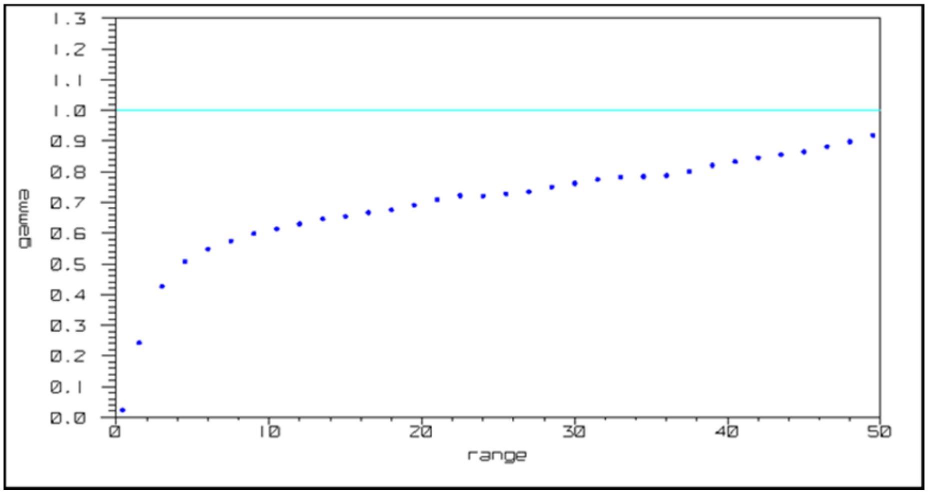


Figure 14.30 EU Ag 22 DTH Variogram

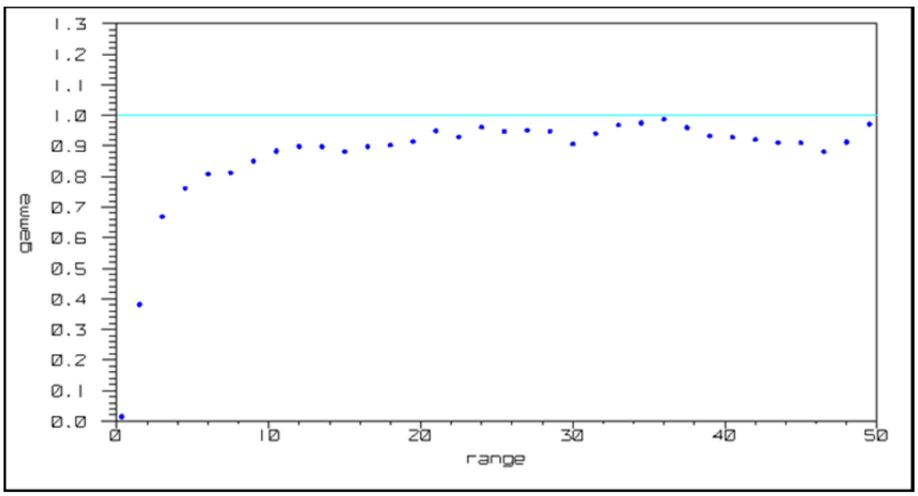


Figure 14.31 EU Ag 24 DTH Variogram

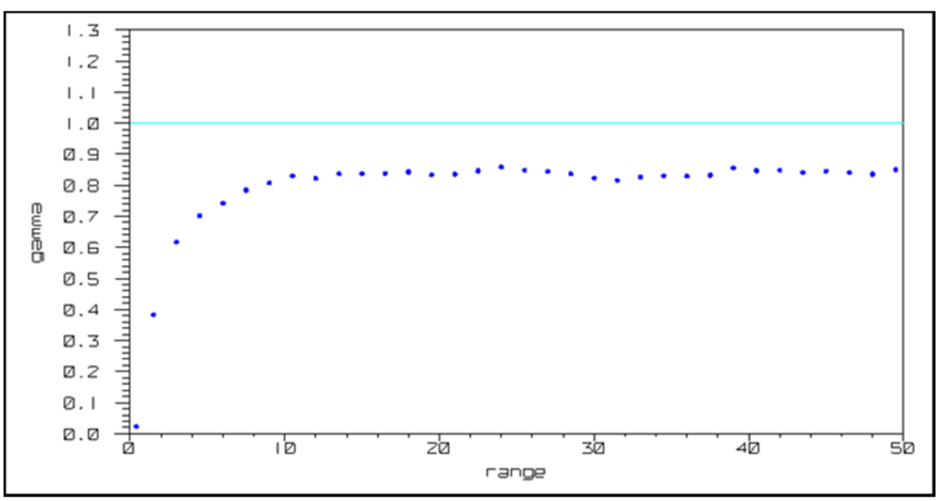


Figure 14.32 EU Ag 27 DTH Variogram

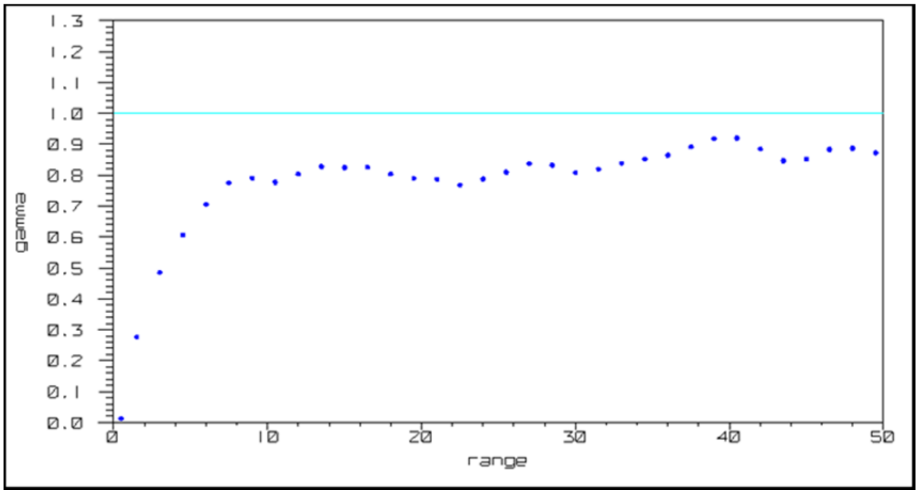


Figure 14.33 EU Ag 32 DTH Variogram

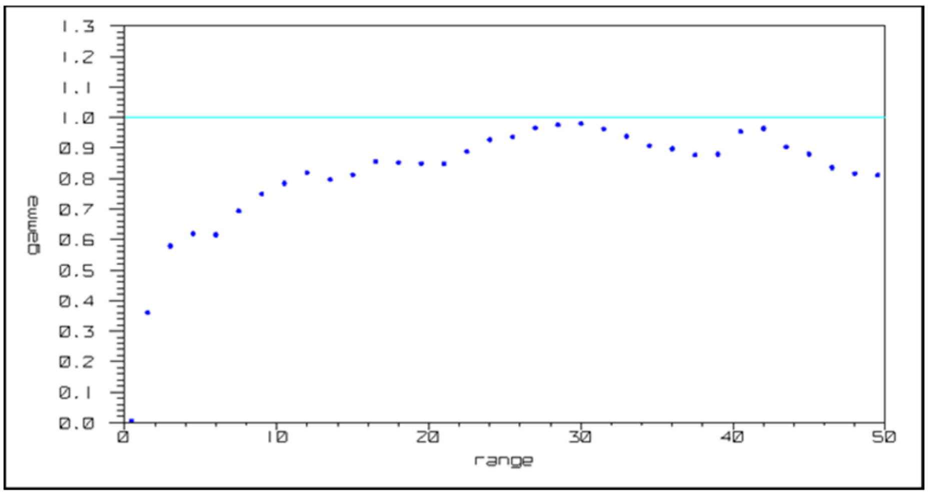


Figure 14.34 EU Ag 34 DTH Variogram

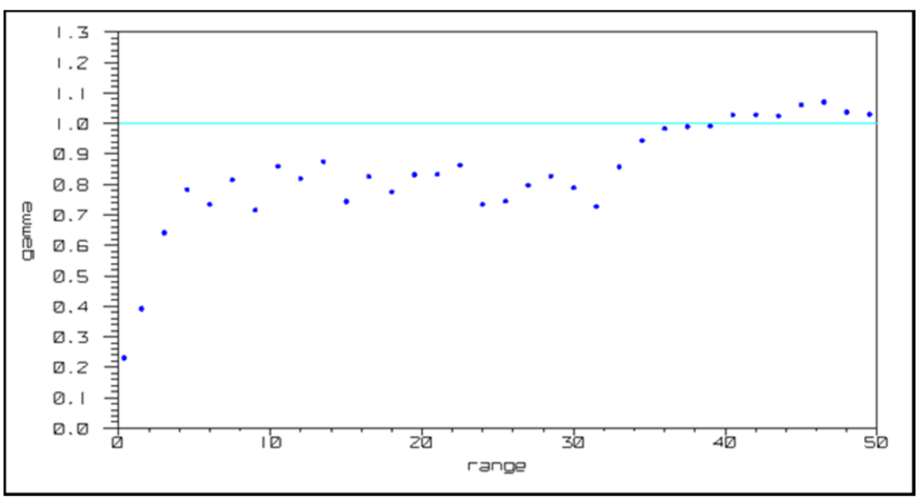


Figure 14.35 EU Ag 35 DTH Variogram

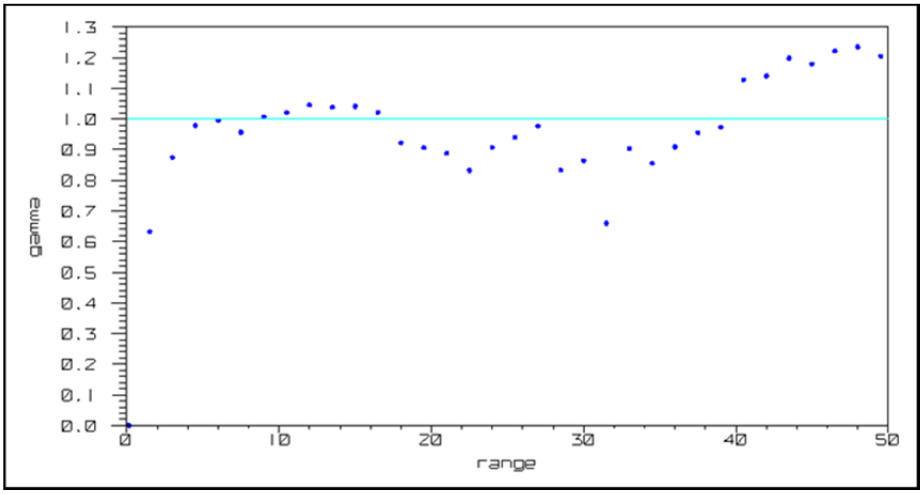


Figure 14.36 EU Ag 37 DTH Variogram

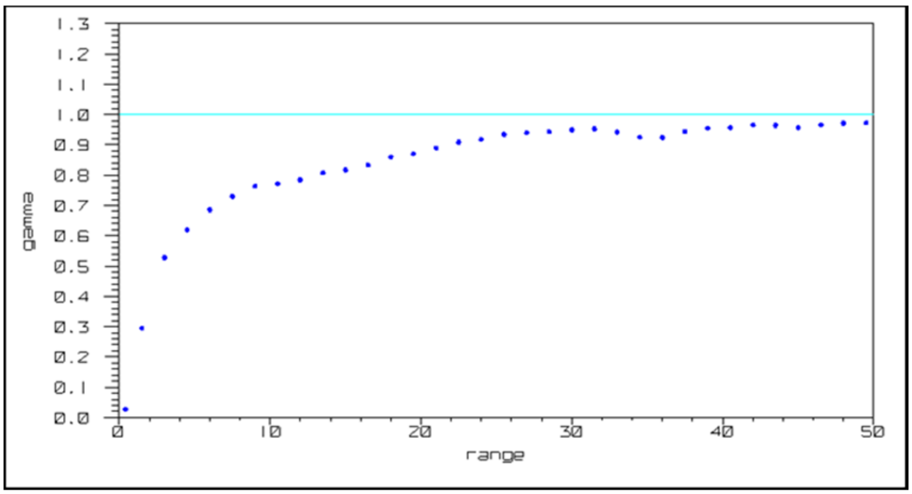


Table 14-15 shows the extrapolated nugget effect for each unit and each grade.

Table 14.15 Nugget Effect per Unit

EU	Au Nugget	Ag Nugget
1	0.07	0.01
12	0.2	Chaos
13	-	-
14	0.02	0.001
15	-	-
16	-	-
17	0.02	0.02
18	0.2	0.2
22	0.04	0.001
23	0.1	0.13
24	0.02	0.04
25	-	-
26	-	-
27	0.001	0.001
28	0.01	0.01
32	0.08	0.005
33	-	-
34	0.01	0.05
35	0.08	0.15
36	-	-
37	0.001	0.001
38	-	-

For Gold and Silver estimation units (EU) 12, 18, 23 and 28, the nugget effect is determined from the omnidirectional variograms.

14.3.3 DIRECTIONAL VARIOGRAMS

Based on the information obtained from variographic maps, experimental directional correlograms were set, which are interpreted in order to obtain theoretical correlogram models, which, in turn, provide a 3D model for calculating kriging.

Figures 14-37 to Figure 14-63, show the Au and Ag correlograms. Dots show experimental variograms and the curves indicate the theoretical model. Theoretical variogram parameters, plateau or reach, are indicated on the bottom of each figure. Some are 100% directional, but others are omnidirectional, since, as previously mentioned, there was insufficient data for calculating experimental variograms for those units.

Figure 14.37 EU Au 1 Directional Variogram

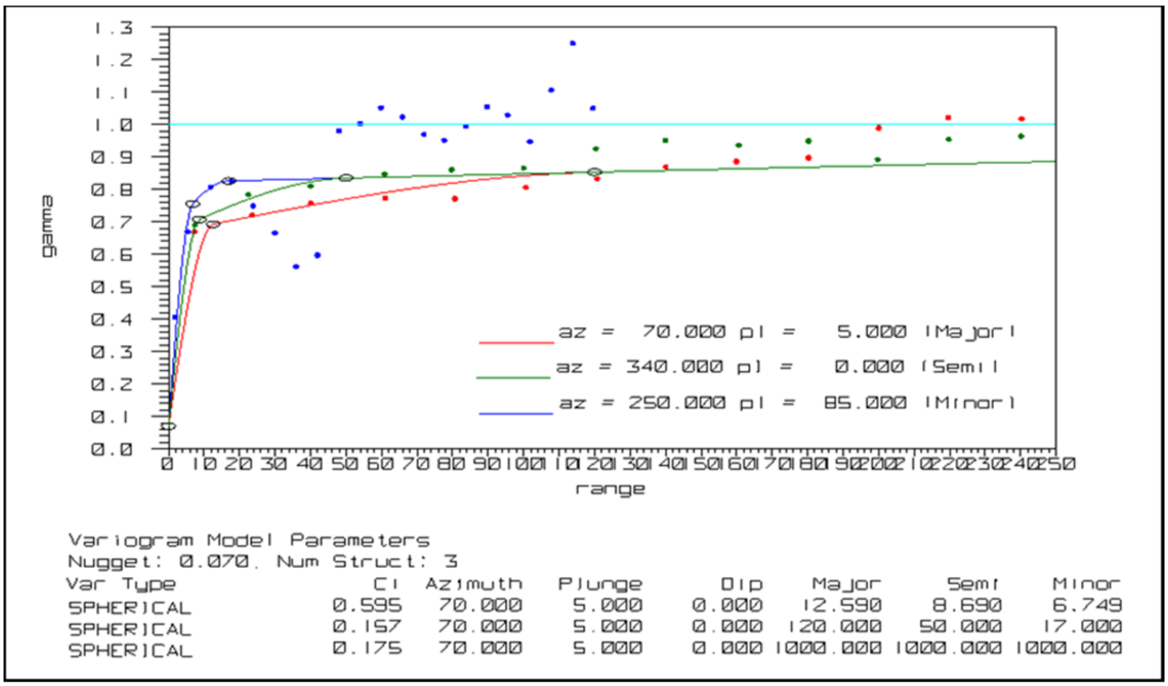


Figure 14.38 EU Au 12 Omnidirectional Variogram

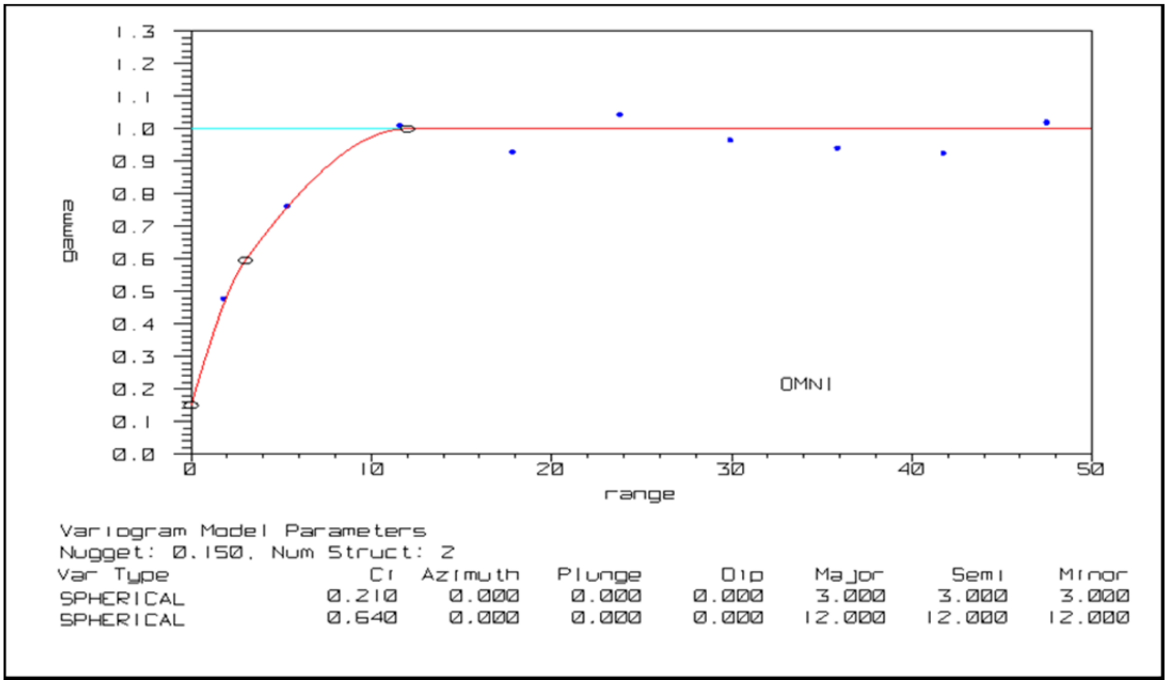


Figure 14.39 EU Au 14 Directional Variogram

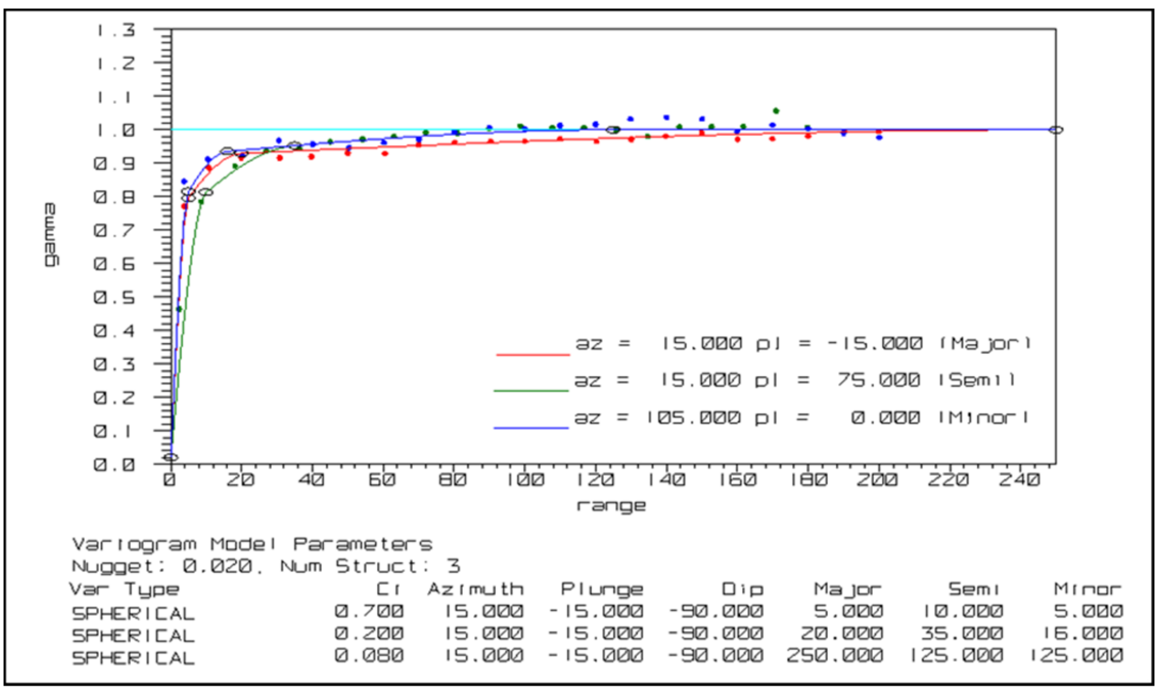
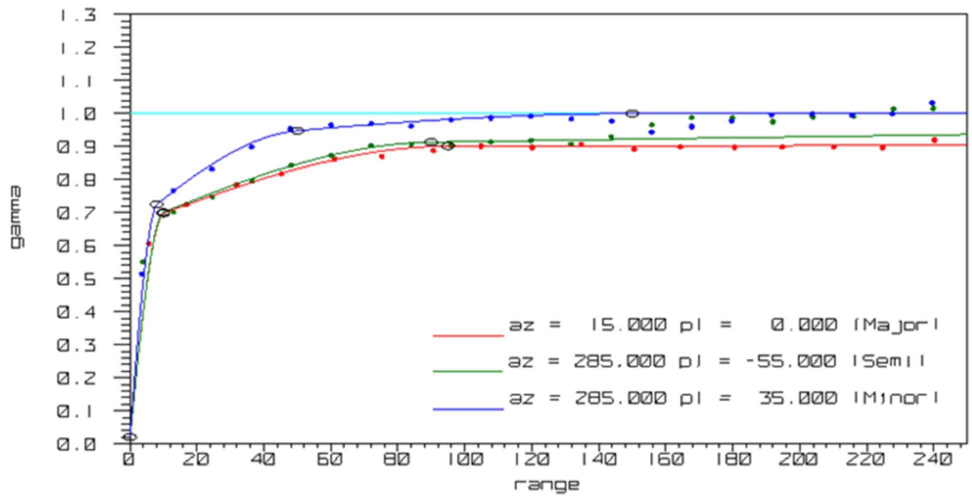


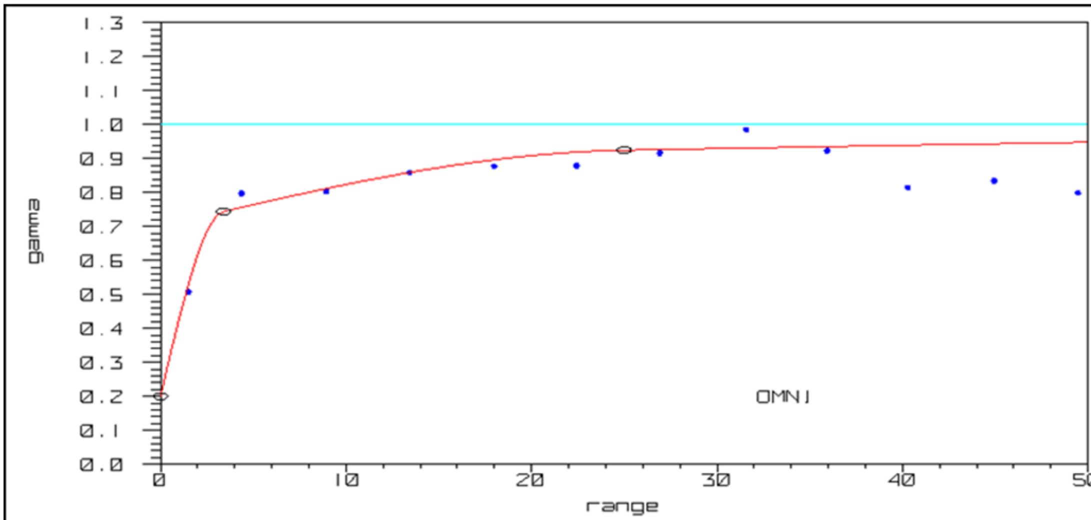
Figure 14.40 EU Au 17 Directional Variogram



Variogram Model Parameters
Nugget: 0.020, Num Struct: 3

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.640	15.000	0.000	55.000	10.000	10.000	8.000
SPHERICAL	0.240	15.000	0.000	55.000	95.000	90.000	50.000
SPHERICAL	0.100	15.000	0.000	55.000	10000.000	1000.000	150.000

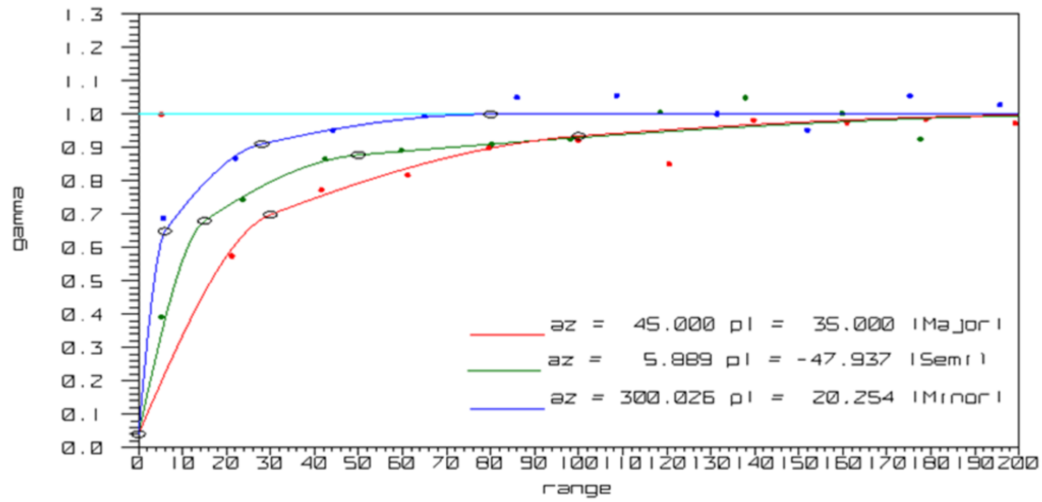
Figure 14.41 EU Au 18 Omnidirectional Variogram



Variogram Model Parameters
Nugget: 0.200, Num Struct: 3

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.500	90.000	0.000	0.000	3.400	3.400	3.400
SPHERICAL	0.200	90.000	0.000	0.000	25.000	25.000	25.000
SPHERICAL	0.100	90.000	0.000	0.000	150.000	150.000	150.000

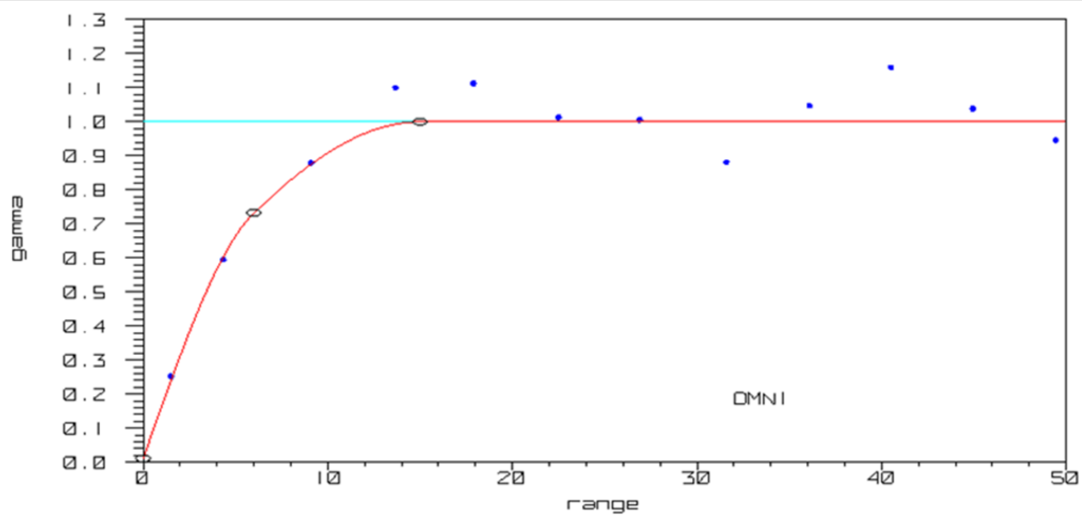
Figure 14.42 EU Au 22 Directional Variogram



Variogram Model Parameters
Nugget: 0.040, Num Struct: 3

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.500	45.000	35.000	65.000	30.000	15.000	6.000
SPHERICAL	0.280	45.000	35.000	65.000	100.000	50.000	28.000
SPHERICAL	0.180	45.000	35.000	65.000	220.000	230.000	80.000

Figure 14.43 EU Au 23 Omnidirectional Variogram



Variogram Model Parameters
Nugget: 0.010, Num Struct: 2

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.370	0.000	0.000	0.000	6.000	6.000	6.000
SPHERICAL	0.620	0.000	0.000	0.000	15.000	15.000	15.000

Figure 14.44 EU Au 24 Directional Variogram

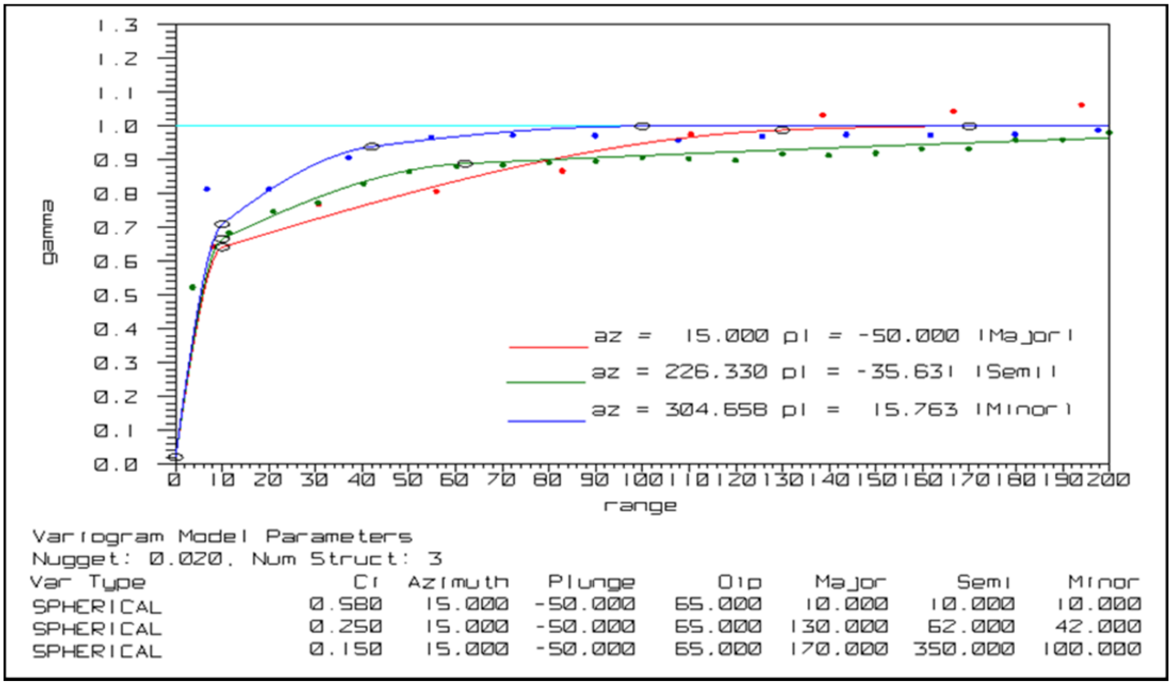


Figure 14.45 EU Au 27 Directional Variogram

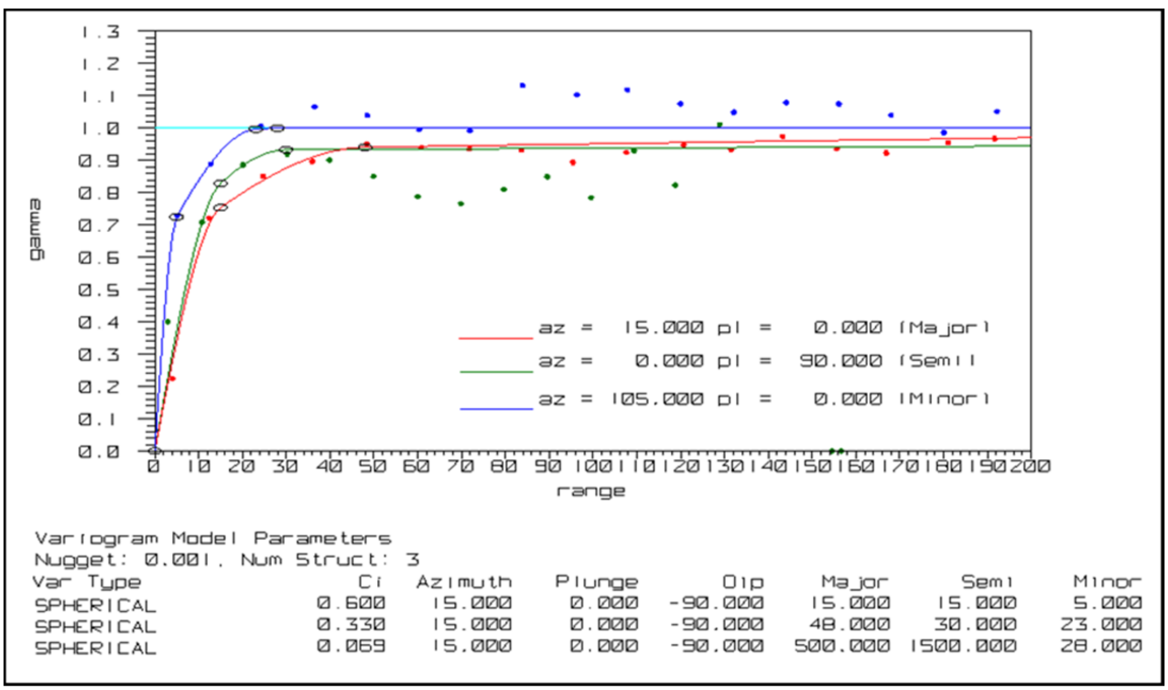


Figure 14.46 EU Au 28 Omnidirectional Variogram

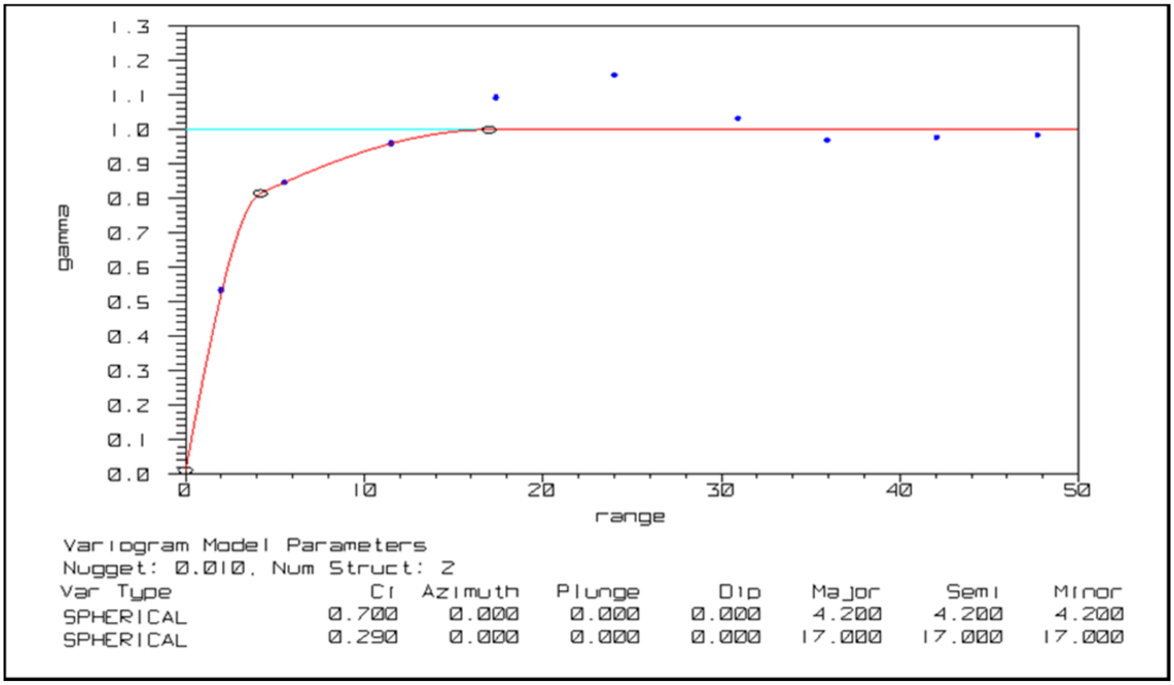


Figure 14.47 EU Au 32 Directional Variogram

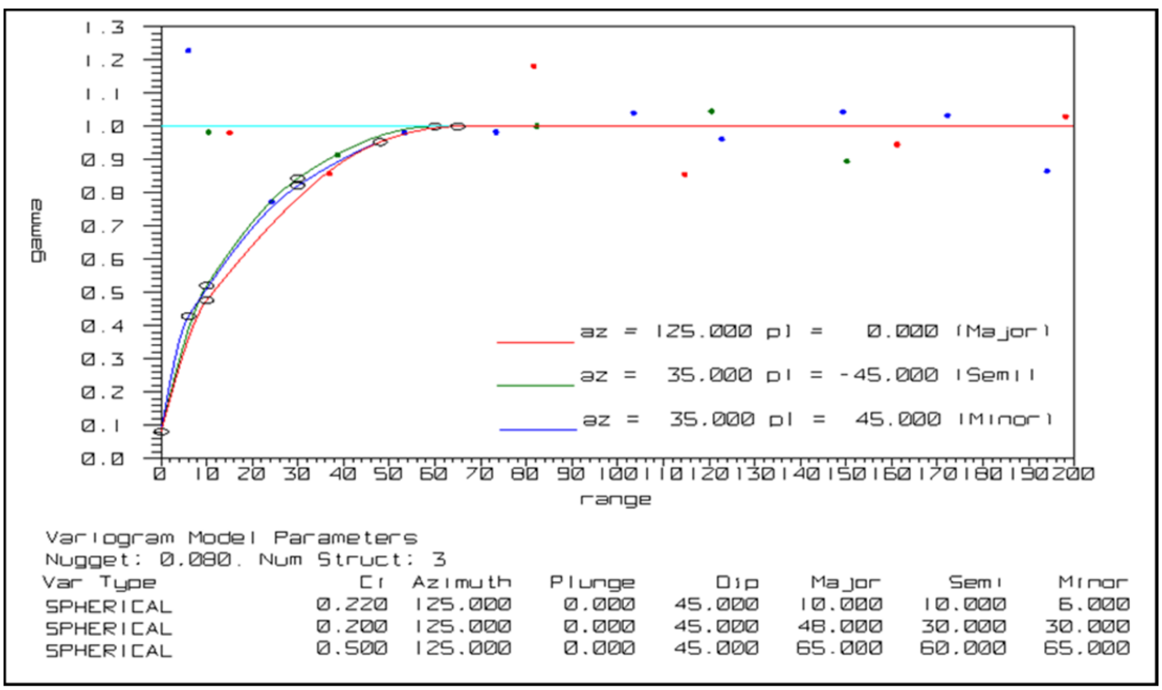
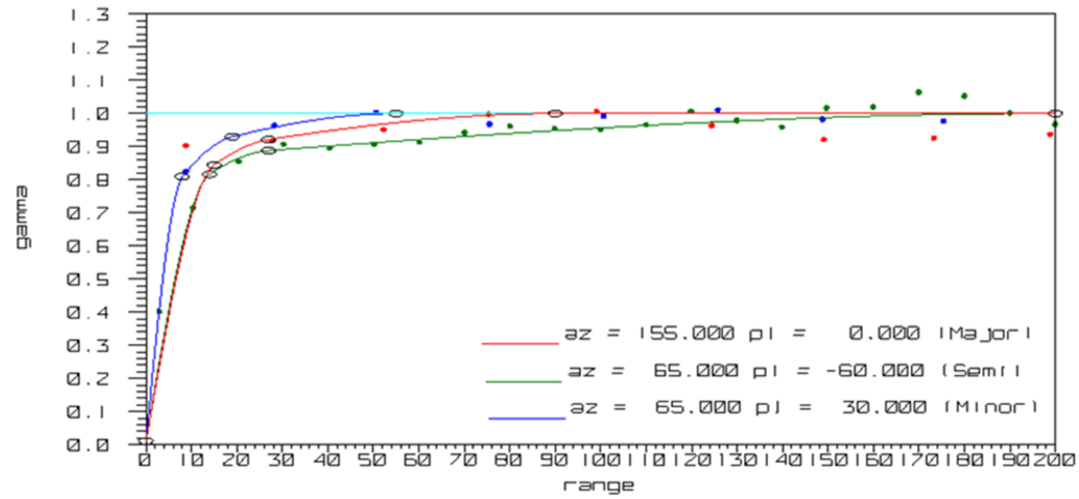


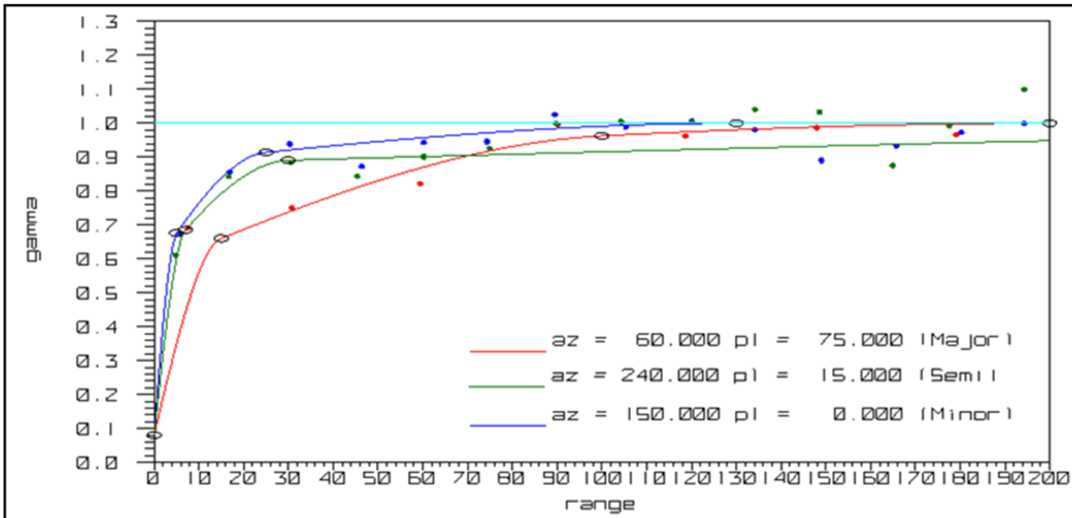
Figure 14.48 EU Au 34 Directional Variogram



Variogram Model Parameters
Nugget: 0.010. Num Struct: 3

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.650	155.000	0.000	60.000	15.000	14.000	8.000
SPHERICAL	0.200	155.000	0.000	60.000	27.000	27.000	19.000
SPHERICAL	0.140	155.000	0.000	60.000	90.000	200.000	55.000

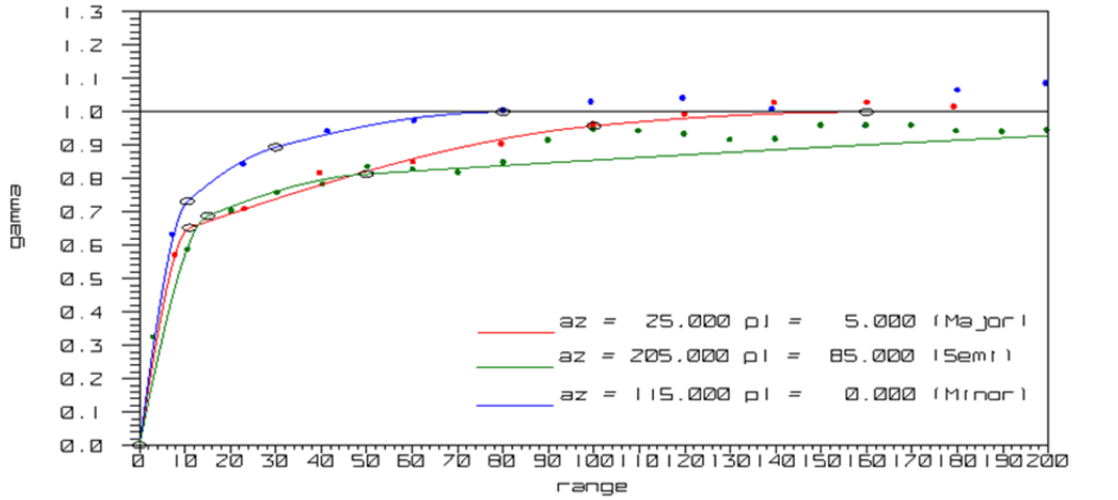
Figure 14.49 EU Au 35 Directional Variogram



Variogram Model Parameters
Nugget: 0.080. Num Struct: 3

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.500	60.000	75.000	89.000	15.000	7.000	5.000
SPHERICAL	0.300	60.000	75.000	89.000	100.000	30.000	25.000
SPHERICAL	0.120	60.000	75.000	89.000	200.000	500.000	130.000

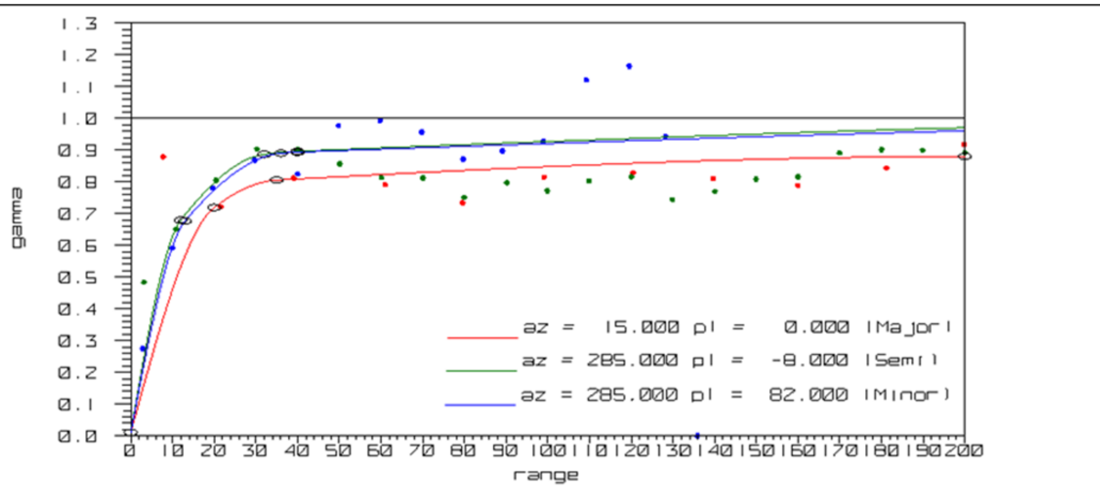
Figure 14.50 EU Au 37 Directional Variogram



Variogram Model Parameters
Nugget: 0.001. Num Struct: 3

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.600	25.000	5.000	-90.000	11.000	15.000	10.480
SPHERICAL	0.170	25.000	5.000	-90.000	100.000	50.000	30.000
SPHERICAL	0.229	25.000	5.000	-90.000	160.000	400.000	80.000

Figure 14.51 EU Ag 1 Directional Variogram



Variogram Model Parameters
Nugget: 0.010. Num Struct: 4

Var Type	Ci	Azimuth	Plunge	Dip	Major	Semi	Minor
SPHERICAL	0.450	15.000	0.000	8.000	20.000	12.000	13.000
SPHERICAL	0.320	15.000	0.000	8.000	35.000	32.000	36.000
SPHERICAL	0.095	15.000	0.000	8.000	200.000	40.000	40.000
SPHERICAL	0.125	15.000	0.000	8.000	7000.000	350.000	400.000

Figure 14.52 EU Ag 14 Directional Variogram

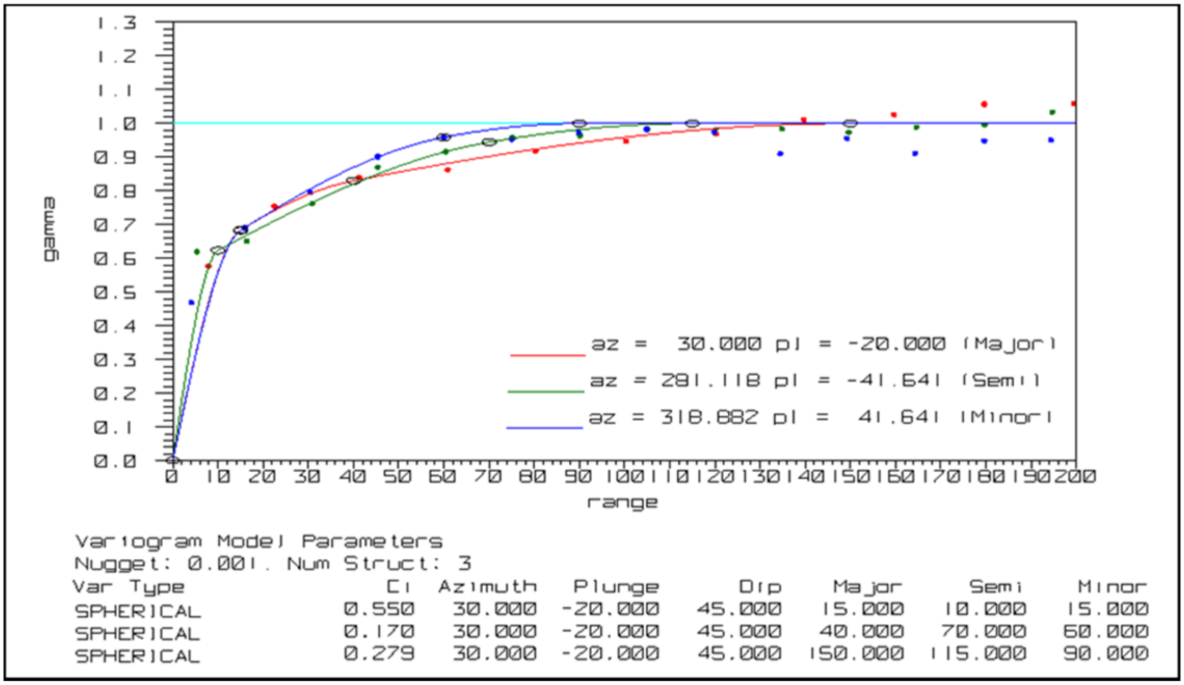


Figure 14.53 EU Ag 17 Directional Variogram

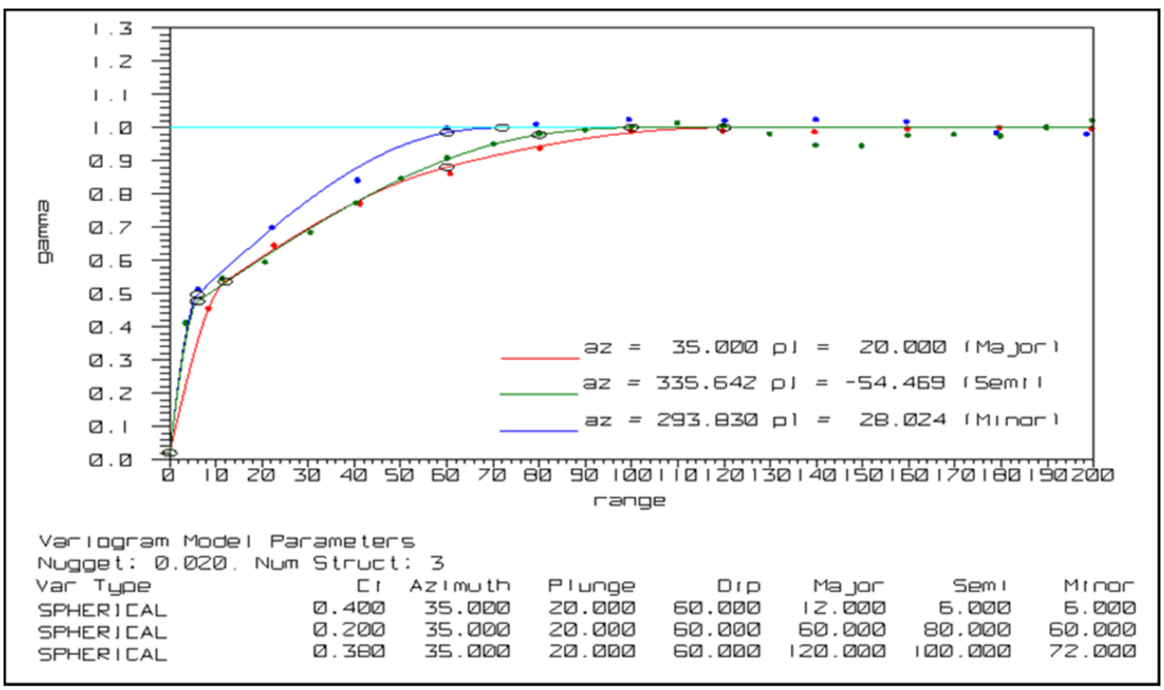


Figure 14.54 EU Ag 18 Omnidirectional Variogram

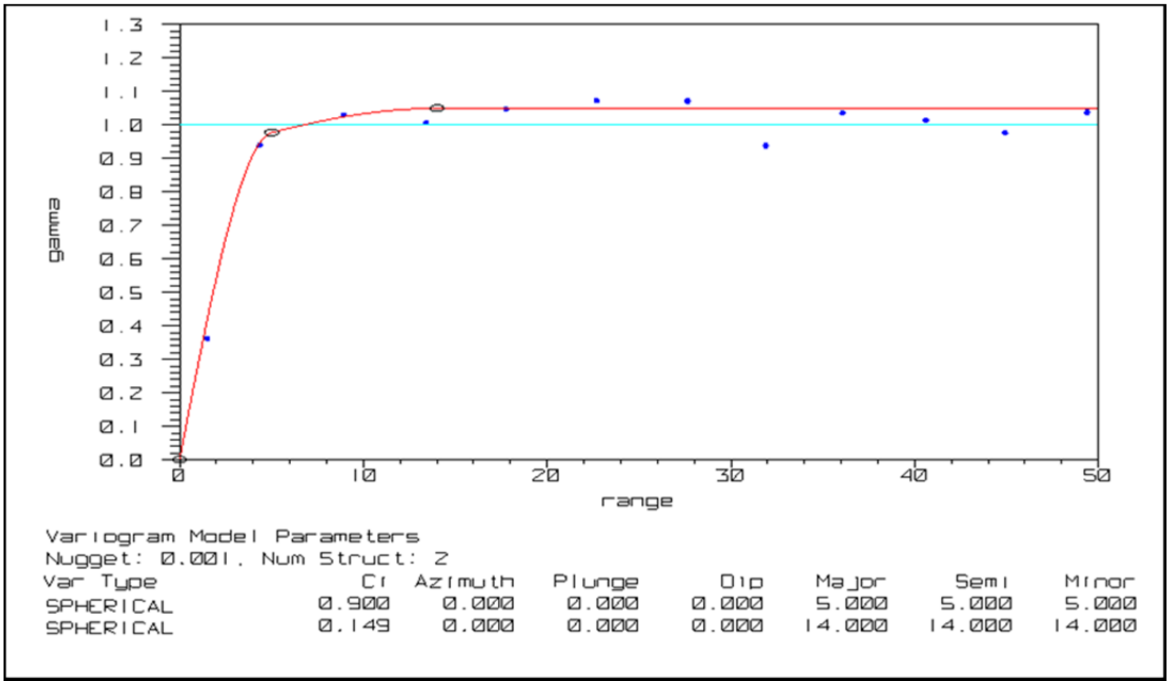


Figure 14.55 EU Ag 22 Directional Variogram

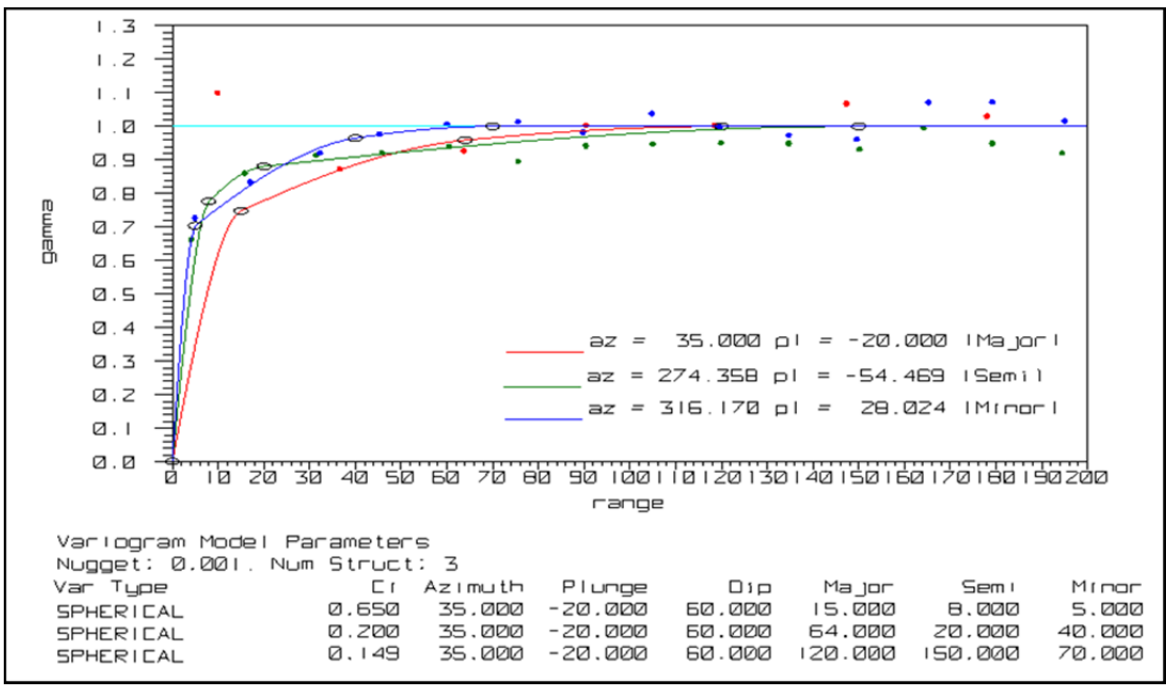


Figure 14.56 EU Ag 23 Omnidirectional Variogram

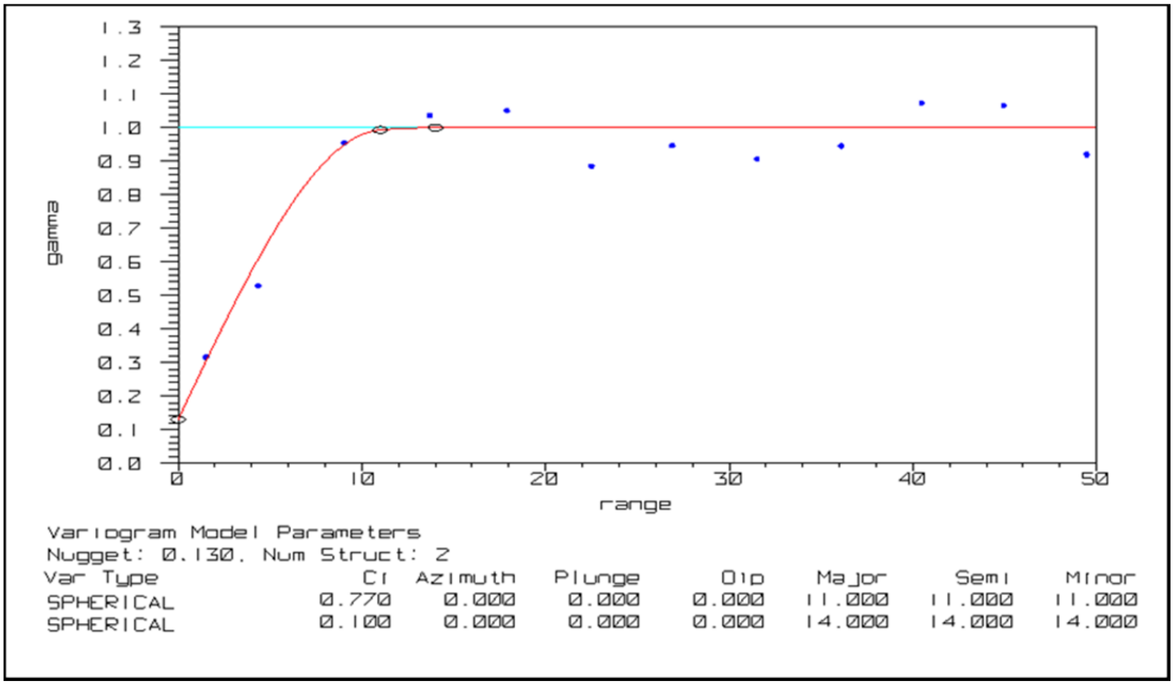


Figure 14.57 EU Ag 24 Directional Variogram

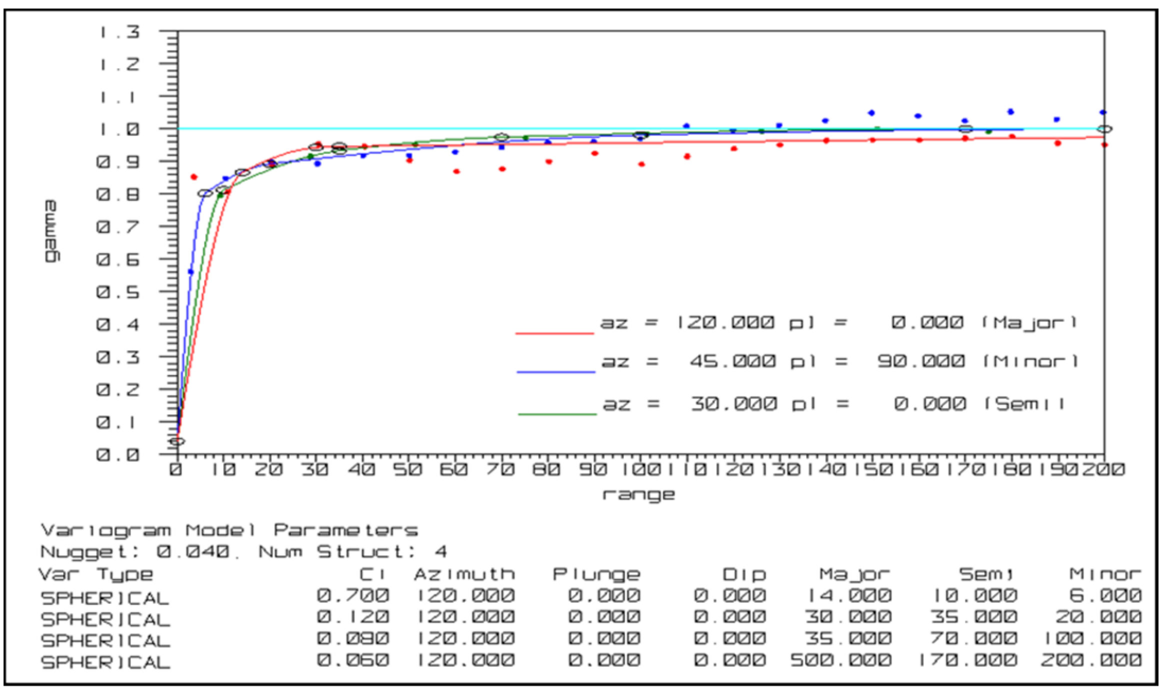


Figure 14.58 EU Ag 27 Directional Variogram

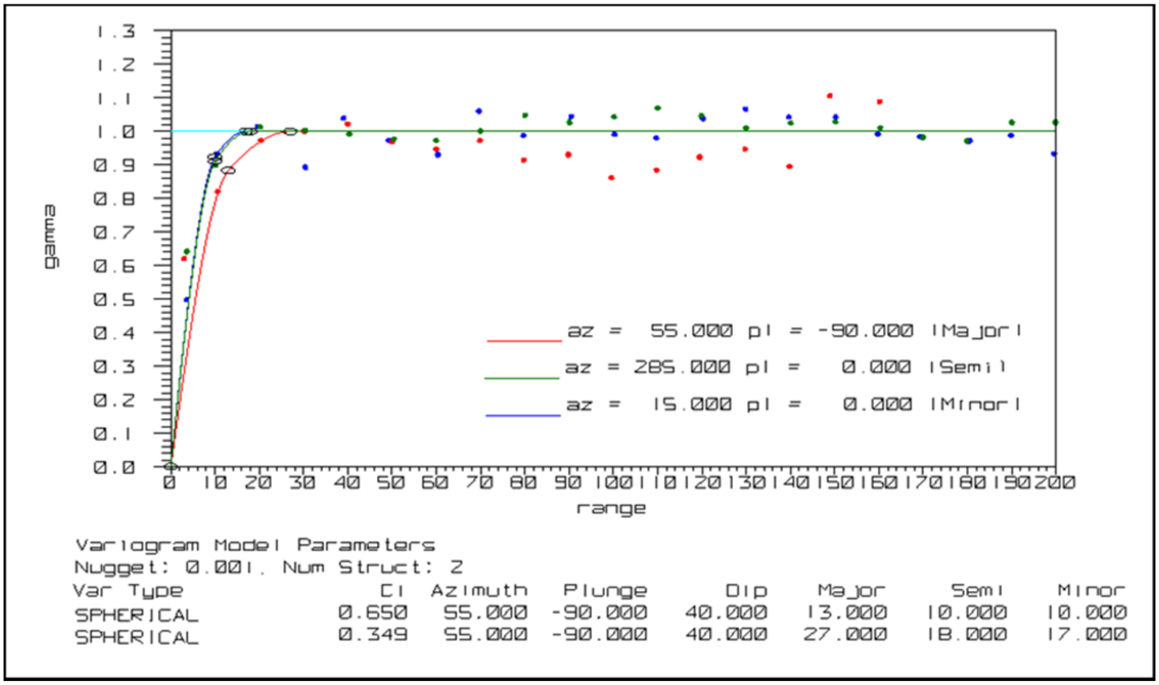


Figure 14.59 EU Ag 28 Omnidirectional Variogram

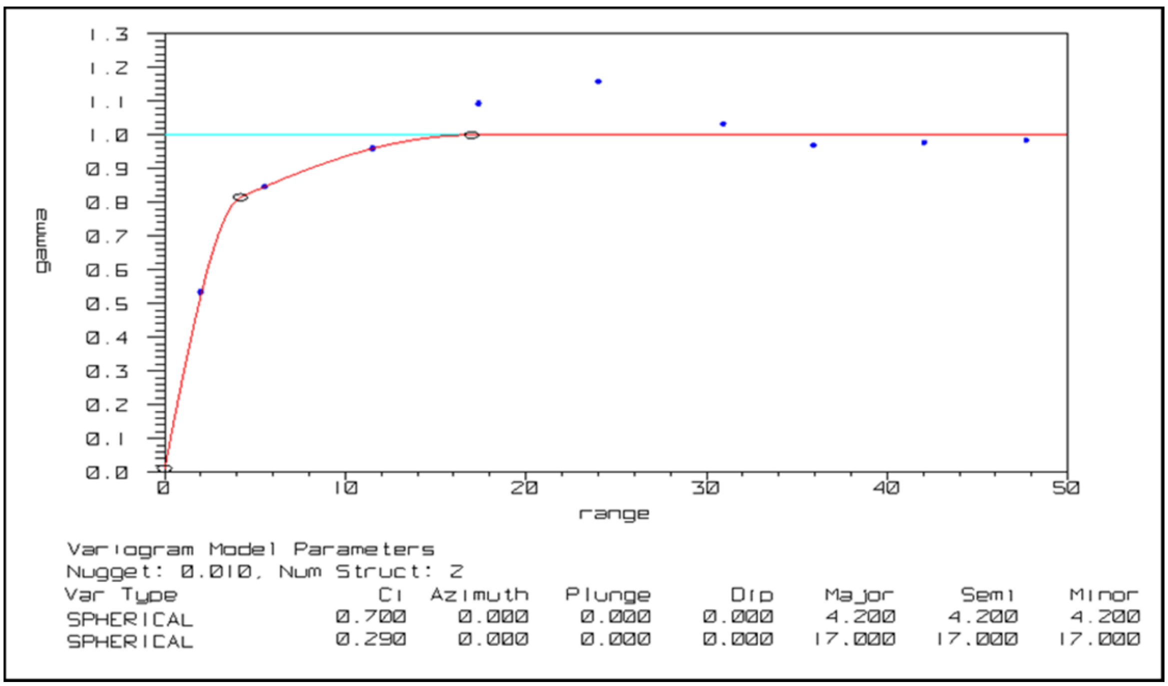


Figure 14.60 EU Ag 32 Directional Variogram

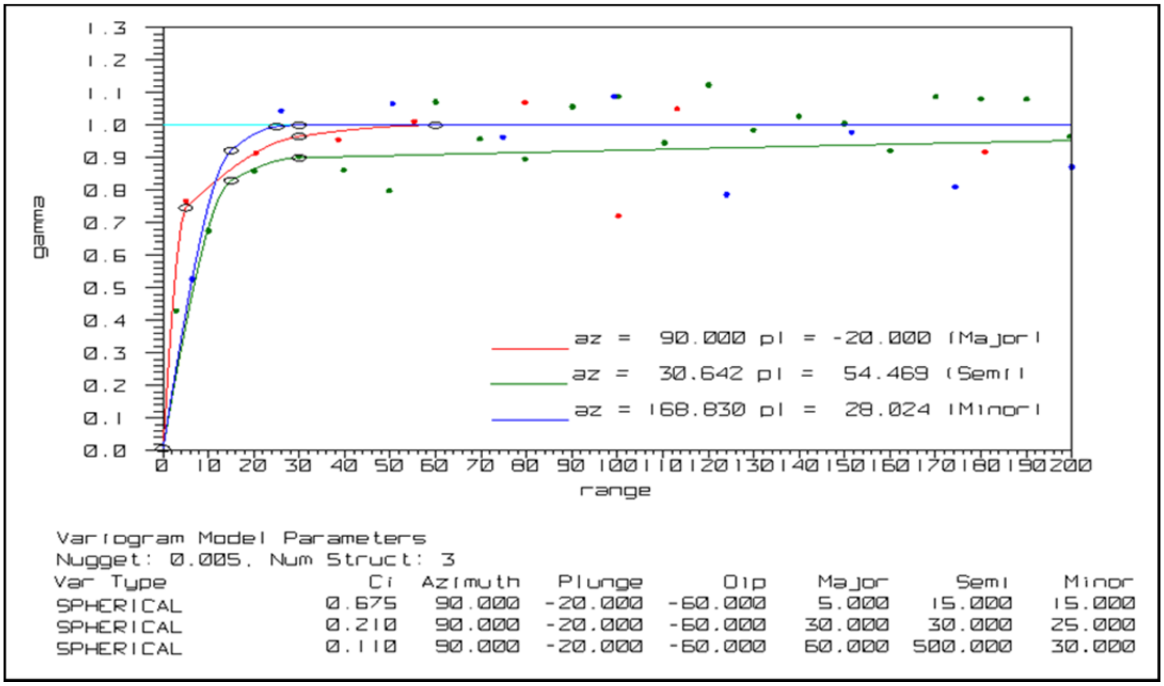


Figure 14.61 EU Ag 34 Directional Variogram

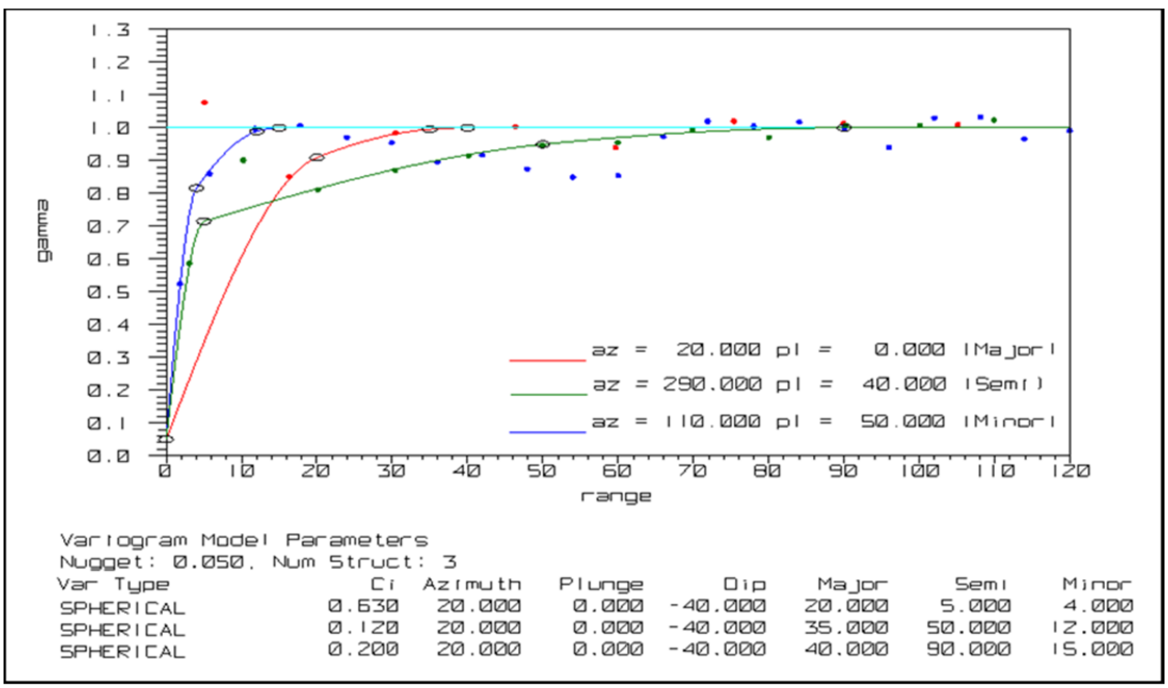


Figure 14.62 EU Ag 35 Directional Variogram

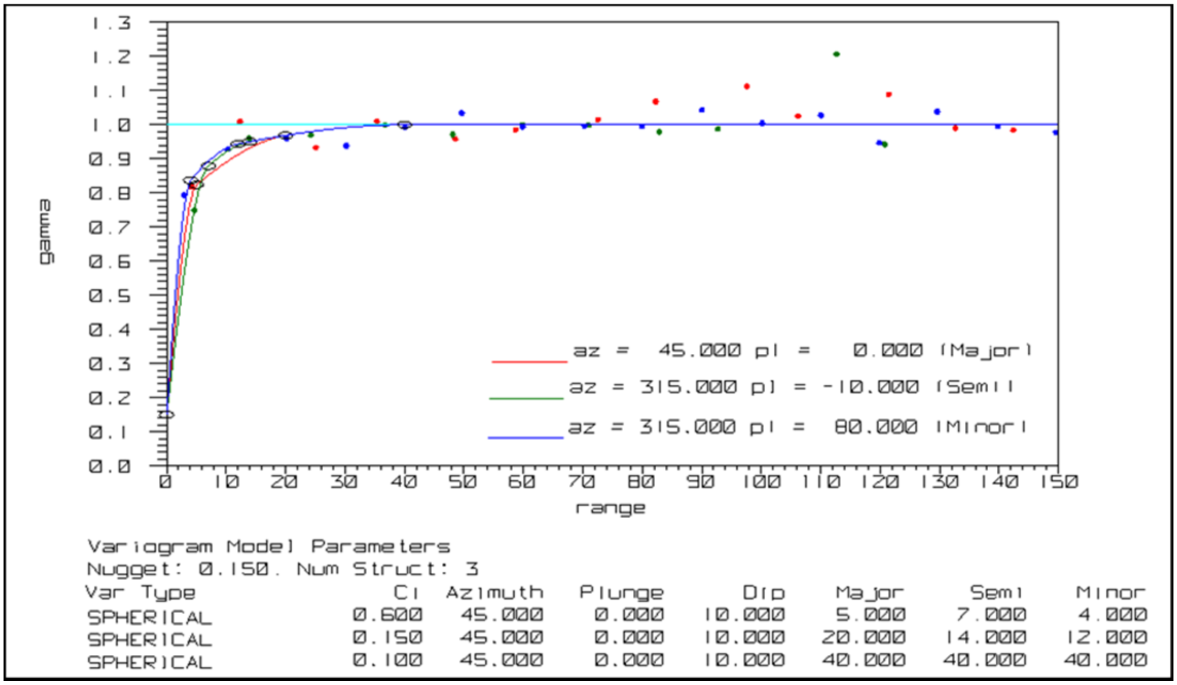
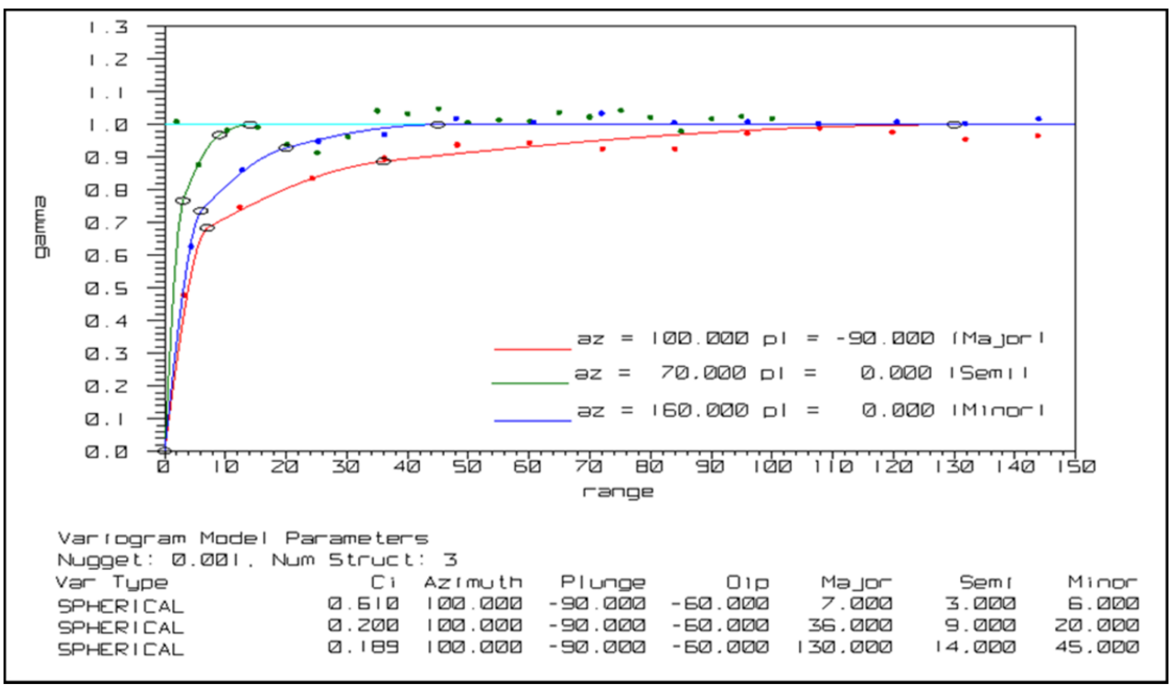


Figure 14.63 EU Ag 37 Directional Variogram



14.4 AU AND AG RESOURCE ESTIMATION

A block model with sub-cells was constructed in order to perform the resource estimation using ordinary kriging and inverse distance. Validations were conducted to review the information of the nearest neighbor for global bias and drift, whereas for the general neighborhood review (where blocks around drillholes are also included), composited samples of 1.5 m were used. In order to limit the influence of very high grades, search restriction was performed on each estimation unit.

14.4.1 BLOCK MODEL

The block model named "MB_Est_Sleeper_2014.bmf" with sub-cells was used for storing Au, Ag and S grades. Coordinates and data for construction are the following:

- X origin: 410,850
- Y origin: 4,574,350
- Z origin: 500
- Bearing: 90°
- Plunge: 0°
- Dip: 0°
- Block size: 2.5x2.5x2.5 meters (minimum)
- Block size: 10x10x10 meters (maximum)
- X distance: 2,250 meters
- Y distance: 3,600 meters
- Z distance: 900 meters

The most important model characteristics are:

- Au: gold grades in ppm
- Ag: silver grades in ppm
- S_ki: sulphur grades in percentage
- Sector: Indicates the sector that is associated with the block
    - 1: Sleeper
    - 2: Facility
    - 3: West Wood
- Env_au: Indicates the domain that is associated with the block for gold
    - 1: shell gold 0.1 ppm
    - 10: shell gold 1 ppm
- Env_ag: Indicates the domain that is associated with the block for silver
    - 2: shell silver 2 ppm
    - 10: shell silver 10 ppm
- Ug_Au: Indicates geology unit for estimation gold
- Ug_Ag: Indicates geology unit for estimation silver
- Categ: Indicates the categorization

- 1: measured
- 2: indicated
- 3: inferred

- Lito: Indicates the rock type
- Minzon: Indicates the mineral zone type
- Dens: Indicates the density (tonnes/m3)

14.4.2 HIGH GRADE VALUES

In order to avoid over estimation produced by high grade values, a restricted search radius was used for those high gold and silver values. Table 14-16, lists the threshold for those values while the restricted search radius used is detailed in the estimation plan in Appendix D.

Table 14.16 High Grades Restriction

EU	High yield	
	Au (ppm)	Ag (ppm)
1	13.3	23
12	1.25	12
14	11.02	132
15	0.517	Doesn't apply
17	12.5	178
18	1.41	18
22	1.55	54.2
23	Doesn't apply	Doesn't apply
24	4.12	119
25	Doesn't apply	9.0 (cap)
27	13.3	155
28	2.2	70.5
32	1.92	53
33	2.65	Doesn't apply
34	9	153
35	18.25	89
37	7.6	182

14.4.3 AU AND AG ESTIMATION PLAN

- The Sleeper estimation plan is divided among 3 ellipsoids or "runs" for estimating each block belonging to a variogram configuration. There is a fourth run for filling non-estimated blocks. General settings are detailed bellow:
- The three first runs were determined according to the correlogram function distribution for each preferential direction.
- When the variograms have a very short range, some EU are only used for one to two runs estimation.
- All Au and Ag estimations are developed by the ordinary kriging method, except units 15, 25, 33 and 38 for gold and units 12, 13 and 34 for silver, which were estimated with inverse distance squared (ID2). This is because these units have insufficient data.
- The angles which determine the search directions for Au and Ag are the same ones determined in the correlogram maps.
- Since the deposit has disseminated mineralization as well as in structures, it was decided to use a restricted search for very high grades and erratic values. In some units, it was necessary to include a capping, because of the influence of excessively high grades on the estimation.
- In the estimation, all blocks have a discretisation of 4x4x3.
- In Au, the estimation of unit 38 was supported by the units 18 and 28.
- For some Au and Ag units, capping was applied.
- The estimation file denomination has the following configuration:

  Project Name> + <au_> + <value of EU> .bef

  For example: sleau_22.bef

- In order to estimate, a small ellipsoid and non-grade restriction were used.

The estimation plan for Au grades is shown in Table 14-17 and the estimation plan for silver grades is shown in Table 14-18.

Table 14.17 Au Estimation Plan

EU_Au	Run	Type	Search Angles			Search Distances			Samples x Est.		Database		Restringed Ratios for Thereshold High Yield				Máx Sampl x DH	Capping Au (ppm)
			Bearing	Plunge	Dip	Major	Semi	Minor	min	Máx			Grade	Major	Semi	Minor		
1	1	OK	70	5	0	30	30	10	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	5	5	5	6	-
	2	OK	70	5	0	60	60	18	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	5	5	5	6	-
	3	OK	70	5	0	120	120	36	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	5	5	5	-	-
12	1	OK	0	0	0	12	12	12	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	1.25	5	5	5	6	-
	2	OK	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	1.25	5	5	5	-	-
14	1	OK	15	-15	-90	35	25	20	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	11.02	6	6	6	6	33
	2	OK	15	-15	-90	70	50	40	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	11.02	6	6	6	6	33
	3	OK	15	-15	-90	140	100	80	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	11.02	6	6	6	-	33
15	1	INV 2	0	0	0	25	25	25	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	0.517	4	4	4	6	-
	2	INV 2	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	0.517	4	4	4	-	-
17	1	OK	15	0	55	25	22.5	15	8	12	slecomp1p5_2014.rlf.isis	AU_PPM	12.5	8	8	8	6	60
	2	OK	15	0	55	50	45	30	8	12	slecomp1p5_2014.rlf.isis	AU_PPM	12.5	8	8	8	6	60
	3	OK	15	0	55	180	160	120	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	12.5	8	8	8	-	60
18	1	OK	0	0	0	25	25	25	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	1.41	5	5	5	6	-
	2	OK	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	1.41	5	5	5	-	-
22	1	OK	45	35	65	65	40	30	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	1.55	3	3	3	6	-
	2	OK	45	35	65	100	100	70	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	1.55	3	3	3	6	-
	3	OK	45	35	65	200	200	140	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	1.55	3	3	3	-	-
23	1	OK	0	0	0	15	15	15	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	5	5	5	-	-
	2	OK	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	5	5	5	-	-
24	1	OK	15	-50	65	35	20	15	8	12	slecomp1p5_2014.rlf.isis	AU_PPM	4.12	10	10	10	6	12.2
	2	OK	15	-50	65	70	35	30	8	12	slecomp1p5_2014.rlf.isis	AU_PPM	4.12	10	10	10	6	12.2
	3	OK	15	-50	65	240	124	110	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	4.12	10	10	10	-	-
25	1	INV 2	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	5	5	5	-	-
27	1	OK	15	0	-90	26	18	13	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	3	3	3	6	43
	2	OK	15	0	-90	50	30	25	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	3	3	3	6	43
	3	OK	15	0	-90	100	60	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	13.3	3	3	3	-	43
28	1	OK	0	0	0	20	20	20	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	2.2	4	4	4	6	6
	2	OK	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	2.2	4	4	4	-	6
32	1	OK	125	0	45	40	40	40	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	1.92	5	5	5	6	4.3
	2	OK	125	0	45	65	65	65	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	1.92	5	5	5	6	4.3
	3	OK	125	0	45	130	130	130	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	1.92	5	5	5	-	4.3
33	1	INV 2	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	2.65	3	3	3	6	-
34	1	OK	155	0	60	30	20	20	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	9	5	5	5	6	22.6
	2	OK	155	0	60	80	50	50	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	9	5	5	5	6	22.6
	3	OK	155	0	60	160	100	100	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	9	5	5	5	-	22.6
35	1	OK	60	75	-90	50	20	20	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	18.25	7	7	7	6	-
	2	OK	60	75	-90	90	30	30	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	18.25	7	7	7	6	-
	3	OK	60	75	-90	180	60	60	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	18.25	7	7	7	-	-
37	1	OK	25	5	-90	70	50	40	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	7.6	12	12	12	6	19
	2	OK	25	5	-90	100	80	80	8	16	slecomp1p5_2014.rlf.isis	AU_PPM	7.6	12	12	12	6	19
	3	OK	25	5	-90	200	160	160	4	12	slecomp1p5_2014.rlf.isis	AU_PPM	7.6	12	12	12	-	19
38	1	INV 2	0	0	0	50	50	50	1	12	slecomp1p5_2014.rlf.isis	AU_PPM	1.41	5	5	5	6	-

Table 14.18 Ag Estimation Plan

EU_Ag	Run	Type	Search Angles			Search Distances			Samples x Est.		Database		Restringed Ratios for Thereshold High Yield				Máx Sampl x DH	Capping Ag (ppm)
			Bearing	Plunge	Dip	Major	Semi	Minor	mín	Máx			Grade	Major	Semi	Minor		
1	1	OK	15	0	8	25	25	25	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	6	-
	2	OK	15	0	8	40	40	40	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	6	-
	3	OK	15	0	8	80	80	80	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	-	-
12	1	ID 2	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	12	2	2	2	-	-
14	1	OK	30	-20	45	70	60	45	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	132	6	6	6	6	163
	2	OK	30	-20	45	130	90	90	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	132	6	6	6	6	163
	3	OK	30	-20	45	260	180	180	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	132	6	6	6	-	163
15	1	ID 2	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	-	-
17	1	OK	35	20	60	65	60	45	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	178	8	8	8	6	33
	2	OK	35	20	60	120	100	70	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	178	8	8	8	6	33
	3	OK	35	20	60	240	200	140	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	178	8	8	8	-	33
18	1	OK	0	0	0	23	23	23	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	18	6	6	6	6	57.5
	2	OK	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	18	6	6	6	-	57.5
22	1	OK	35	-20	60	45	15	25	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	54.2	6	6	6	6	-
	2	OK	35	-20	60	90	60	65	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	54.2	6	6	6	6	-
	3	OK	35	-20	60	180	120	130	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	54.2	6	6	6	-	-
23	1	OK	0	0	0	20	20	20	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	6	-
	2	OK	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	-	-
24	1	OK	120	0	-50	22	22	22	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	119	7.5	7.5	7.5	6	216
	2	OK	120	0	-50	35	35	35	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	119	7.5	7.5	7.5	6	216
	3	OK	120	0	-50	70	70	70	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	119	7.5	7.5	7.5	-	216
25	1	ID 2	0	0	0	50	50	50	1	12	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	-	-
27	1	OK	150	50	-90	15	10	10	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	155	7.5	7.5	7.5	6	300
	2	OK	150	50	-90	30	20	20	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	155	7.5	7.5	7.5	6	300
	3	OK	150	50	-90	60	40	40	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	155	7.5	7.5	7.5	-	300
28	1	OK	0	0	0	20	20	20	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	70.5	3	3	3	-	-
	2	OK	0	0	0	50	50	50	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	70.5	3	3	3	-	-
32	1	OK	90	-20	-60	20	15	15	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	53	10	10	10	6	107
	2	OK	90	-20	-60	55	30	27	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	53	10	10	10	6	107
	3	OK	90	-20	-60	110	60	54	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	53	10	10	10	-	107
33	1	ID 2	0	0	0	50	50	50	1	12	slecomp1p5_2014.rlf.isis	AG_PPM	23	4	4	4	-	-
34	1	OK	20	0	-40	20	20	10	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	153	10	10	10	6	200
	2	OK	20	0	-40	40	45	20	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	153	10	10	10	6	200
	3	OK	20	0	-40	80	90	40	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	153	10	10	10	-	200
35	1	OK	45	0	10	20	20	20	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	57	3	3	3	6	98
	2	OK	45	0	10	40	40	40	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	57	3	3	3	6	98
	3	OK	45	0	10	80	80	80	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	57	3	3	3	-	98
37	1	OK	100	-90	-60	35	10	20	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	182	5	5	5	6	327
	2	OK	100	-90	-60	50	20	45	8	16	slecomp1p5_2014.rlf.isis	AG_PPM	182	5	5	5	6	327
	3	OK	100	-90	-60	100	40	90	4	12	slecomp1p5_2014.rlf.isis	AG_PPM	182	5	5	5	6	327

14.5 AU AND AG VALIDATIONS

In order to validate the estimation, various methods were used such as, real grade vs. estimated grade regression, comparison of database vs. estimated block drift. Comparison of global bias is detailed in the following section of this report.

14.5.1 GLOBAL BIAS REVIEW

Global averages of Au and Ag grades were reviewed for the grades estimated and the nearest neighbor in each unit of estimation. In addition, this average is separated by each estimation run.

The results are shown in Tables 14-19 and 14-20 for Au and Ag, respectively.

Table 14.19 Global Bias Au

Model	UE Au	Pass	Au	Au NN	Tonnage	Au	Au NN	Tonnage	Δ error
MB_Est_Sleeper_2014.bmf	1	1	0.392	0.391	14,232,643	0.190	0.199	180,883,724	4.33
		2	0.224	0.233	69,821,368				
		3	0.137	0.146	96,829,713				
	12	2	0.202	0.204	5,504,893	0.202	0.204	5,504,893	0.54
	14	1	0.443	0.446	61,478,244	0.386	0.380	134,079,601	(1.73)
		2	0.308	0.292	50,799,458				
		3	0.410	0.398	21,801,898				
	15	1	0.193	0.162	375,756	0.193	0.162	375,756	(19.45)
	17	1	0.691	0.644	60,507,648	0.511	0.484	124,550,928	(5.64)
		2	0.347	0.346	44,336,232				
		3	0.327	0.302	19,707,048				
	18	1	0.177	0.188	289,386	0.223	0.213	10,522,847	(4.77)
		2	0.224	0.214	10,233,461				
	22	1	0.220	0.220	41,046,815	0.221	0.216	80,071,540	(2.16)
		2	0.216	0.207	28,383,602				
		3	0.234	0.227	10,641,123				
	23	1	0.491	0.458	375,902	0.424	0.408	1,001,970	(3.87)
		2	0.384	0.379	626,068				
	24	1	0.330	0.362	29,926,214	0.292	0.317	86,747,437	7.71
		2	0.268	0.286	40,464,472				
		3	0.284	0.310	16,356,751				
	25	1	0.145	0.102	188,888	0.145	0.102	188,888	(41.91)
	27	1	0.602	0.633	5,141,520	0.414	0.411	22,459,716	(0.71)
		2	0.406	0.399	10,996,920				
		3	0.276	0.252	6,321,276				
	28	1	0.277	0.255	334,131	0.274	0.258	5,777,011	(6.03)
		2	0.274	0.259	5,442,880				
	32	1	0.260	0.264	2,972,261	0.227	0.217	26,744,891	(4.69)
		2	0.218	0.207	9,245,008				
		3	0.226	0.213	14,527,622				
	33	1	0.800	0.820	148,292	0.800	0.820	148,292	2.44
	34	1	0.498	0.503	6,281,692	0.293	0.291	43,410,480	(0.45)
		2	0.300	0.305	22,117,907				
		3	0.196	0.182	15,010,881				
	35	1	0.998	0.975	1,823,862	0.583	0.573	5,511,368	(1.78)
		2	0.439	0.432	1,499,975				
		3	0.336	0.334	2,187,532				
	37	1	0.402	0.396	58,565,808	0.345	0.344	84,133,800	(0.09)
		2	0.205	0.219	19,649,592				
		3	0.243	0.250	5,918,400				

Table 14.20 Global Bias Ag

Model	UE Ag	Pass	Ag	Ag NN	Tonnage	Δ error	Ag	Ag NN	Tonnage	Δ error
MB_Est_Sleeper_2014.bmf	1	1	1.44	1.52	18,296,850	5.2	0.92	0.96	184,668,832	3.8
		2	1.14	1.20	49,687,204	4.4				
		3	0.75	0.77	116,684,778	2.9				
	12	1	3.48	3.27	2,437,035	-6.4	3.48	3.27	2,437,035	-6.4
	14	1	6.98	7.09	46,328,124	1.5	6.81	6.84	52,570,959	0.4
		2	4.42	3.74	3,977,300	-18.3				
		3	7.45	7.21	2,265,535	-3.4				
	15	1	2.67	2.68	189,770	0.7	2.67	2.68	189,770	0.7
	17	1	7.06	7.20	48,280,968	2.0	6.80	6.88	56,115,180	1.2
		2	5.28	5.16	6,524,172	-2.4				
		3	4.76	3.67	1,310,040	-29.5				
	18	1	4.45	4.87	64,739	8.6	3.80	3.95	3,817,660	3.7
		2	3.79	3.94	3,752,922	3.6				
	22	1	5.16	5.23	10,086,913	1.3	5.12	5.22	93,437,607	1.8
		2	4.98	5.21	63,401,161	4.4				
		3	5.54	5.23	19,949,533	-6.0				
	23	1	11.18	11.11	196,055	-0.6	9.77	9.96	859,765	1.9
		2	9.35	9.62	663,710	2.8				
	24	1	7.42	7.92	20,999,018	6.3	6.44	6.53	60,291,239	1.5
		2	6.03	6.20	26,802,397	2.7				
		3	5.65	4.92	12,489,824	-15.0				
	25	1	4.01	4.13	287,373	2.9	4.01	4.13	287,373	2.9
	27	1	14.93	15.86	951,372	5.9	9.23	9.11	12,797,136	-1.3
		2	10.75	10.90	4,301,280	1.4				
		3	7.64	7.23	7,544,484	-5.6				
	28	1	5.58	5.47	1,334,644	-1.8	6.20	6.80	5,093,437	8.8
		2	6.42	7.27	3,758,793	11.6				
	32	1	6.00	5.42	237,600	-10.7	5.88	6.05	13,655,156	2.8
		2	6.28	6.27	2,033,342	-0.1				
		3	5.81	6.03	11,384,215	3.6				
	33	1	5.39	5.50	111,060	1.9	5.39	5.50	111,060	1.9
	34	1	7.31	7.29	845,426	-0.2	5.16	4.60	12,089,190	-12.2
		2	4.64	4.29	3,514,567	-8.3				
		3	5.16	4.45	7,729,197	-16.1				
	35	1	5.03	5.43	590,505	7.2	4.29	4.27	1,502,069	-0.6
		2	3.75	3.46	300,524	-8.3				
		3	3.85	3.55	611,040	-8.4				
	37	1	9.21	10.36	8,613,036	11.0	7.54	7.93	33,045,660	4.9
		2	7.29	8.13	10,574,460	10.3				
		3	6.68	6.27	13,858,164	-6.7				

The tables show a good representation of the estimated model and the database (represented by the nearest neighbor or NN) where the relative error between grades is less than ±5%. For Au, problems are only observed in units 15 and 25 where there is a slight over-estimation due to few data and the grade variability in both units. In Ag, unit 34 has a greater error but most of it is estimated in the third run which implies that this material corresponds to an inferred resource.

14.5.2 CONDITIONAL BIAS REVIEW

The UG's average grade inside the 10x10x10 m blocks are calculated for the block model and composite samples. In order to avoid a prominent conditional bias, the regression graphic slope must be slightly above 1.

Figures 14-64 to Figure 14-81 show the review of the conditional bias for Au and Ag grades. In these graphs, it is seen that the dot clouds are acceptable. However, in the case of very high grades, the situation is difficult to validate because the estimation was performed with a restricted search, which makes it impossible to perform a proper validation.

Figure 14.64 EU Au 1 and 12 Conditional Bias

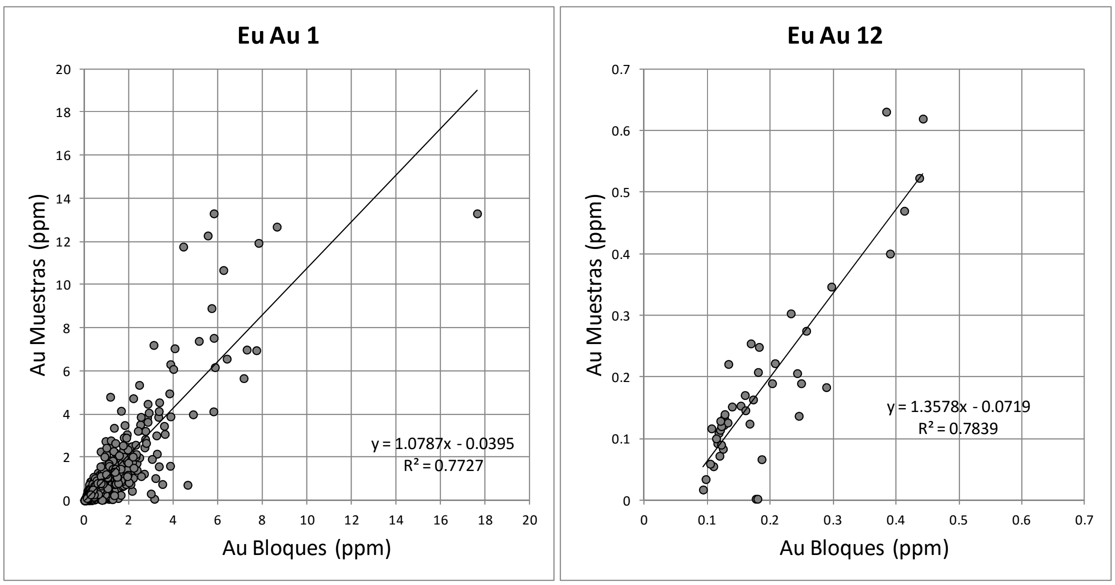


Figure 14.65 EU Au 14 and 15 Conditional Bias

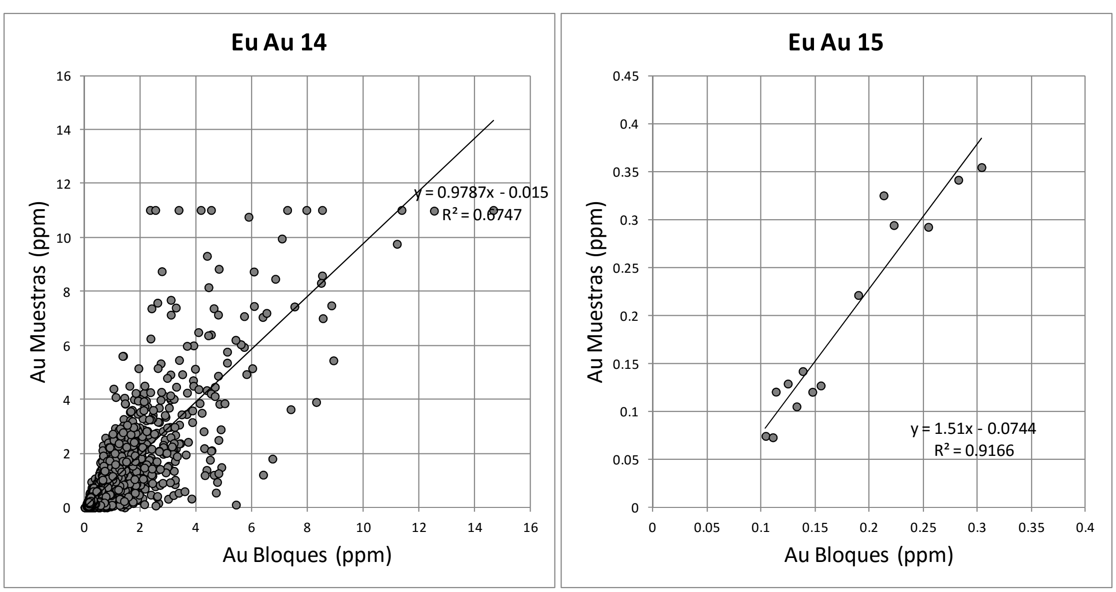


Figure 14.66 EU Au 17 and 18 Conditional Bias

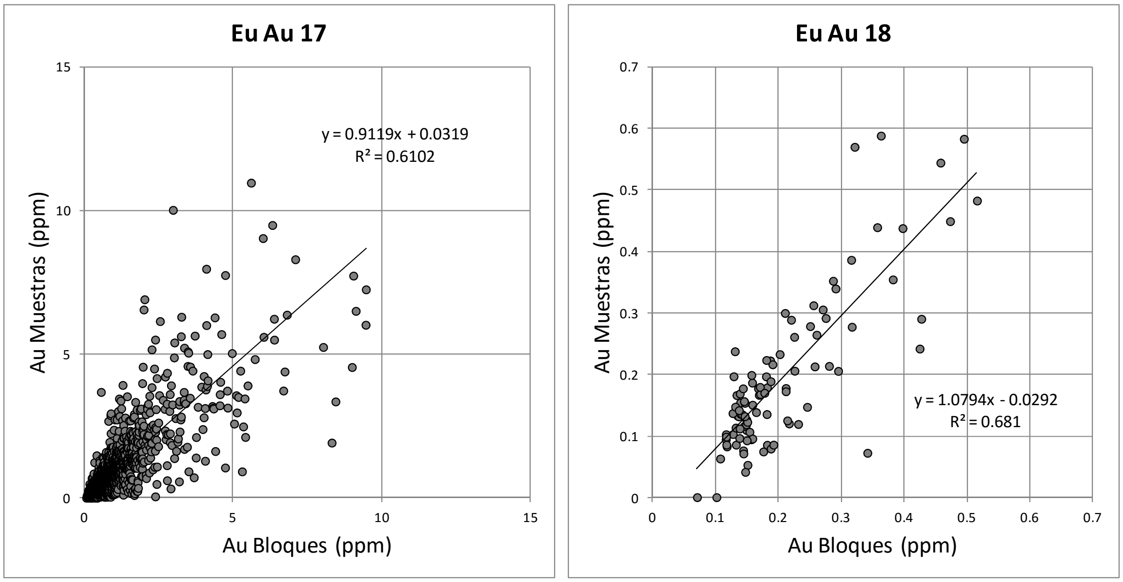


Figure 14.67 EU Au 22 and 23 Conditional Bias

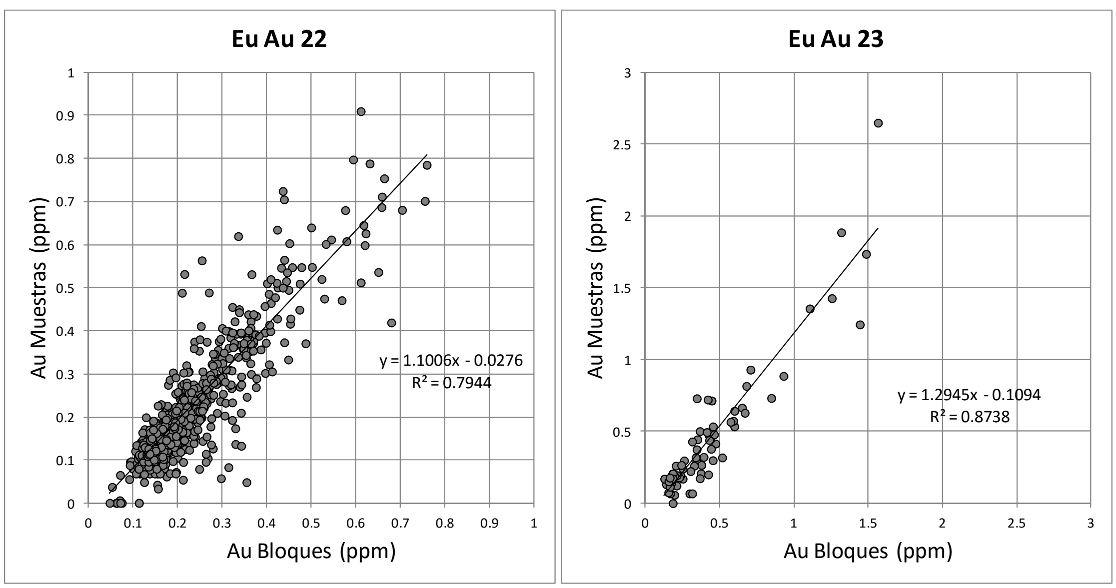


Figure 14.68 EU Au 24 and 25 Conditional Bias

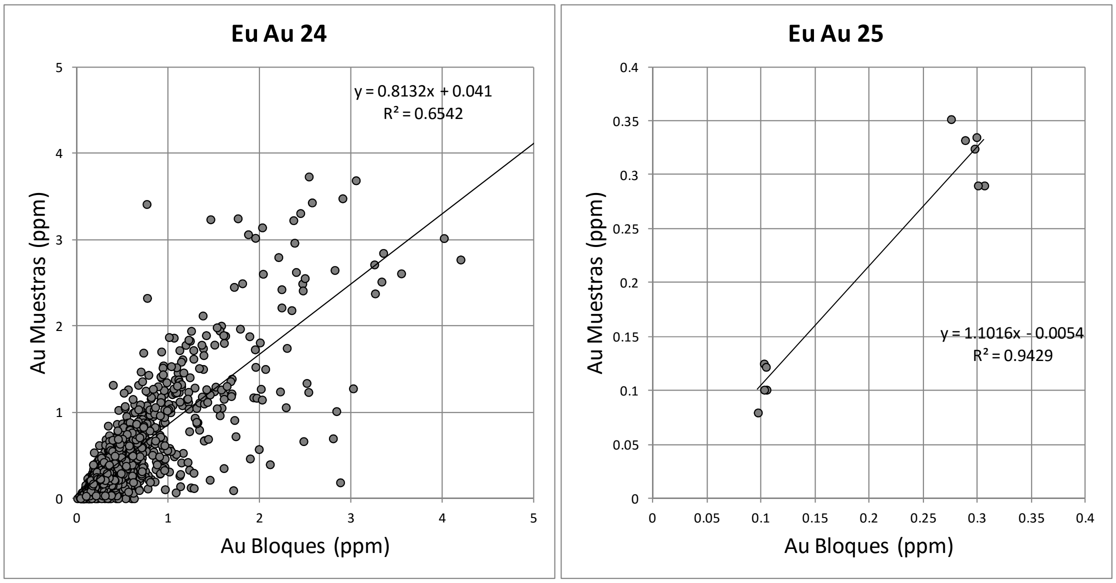


Figure 14.69 EU Au 27 and 28 Conditional Bias

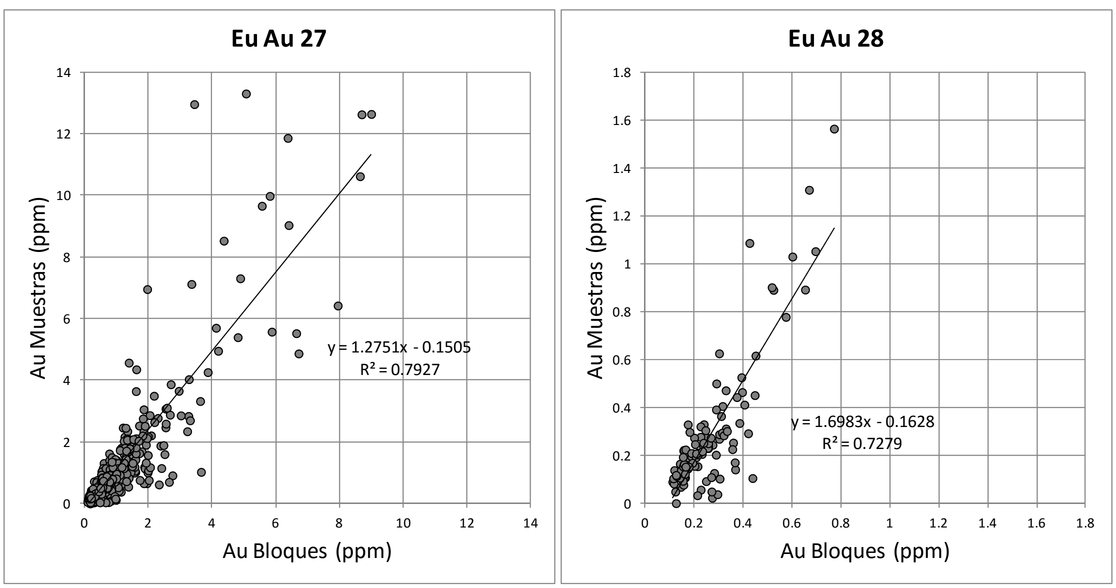


Figure 14.70 EU Au 32 and 33 Conditional Bias

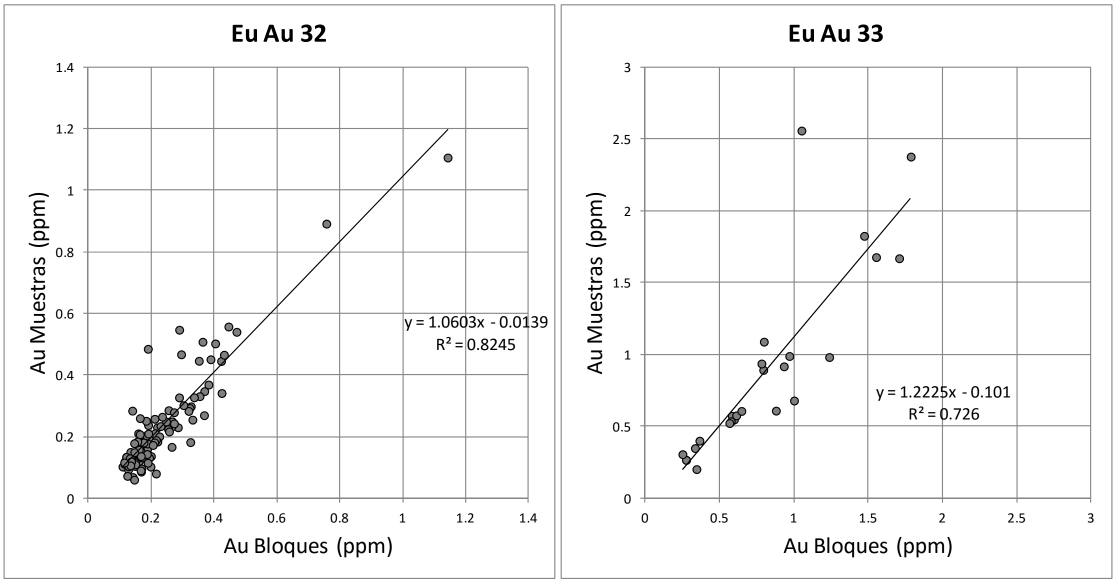


Figure 14.71 EU Au 34 and 35 Conditional Bias

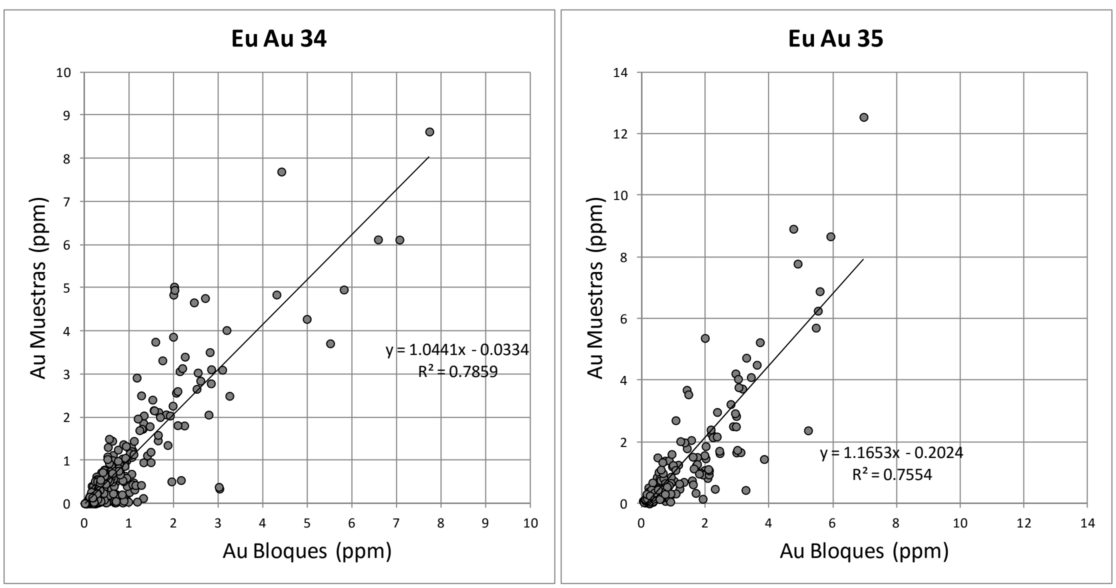


Figure 14.72 EU Au 37 and 38 Conditional Bias

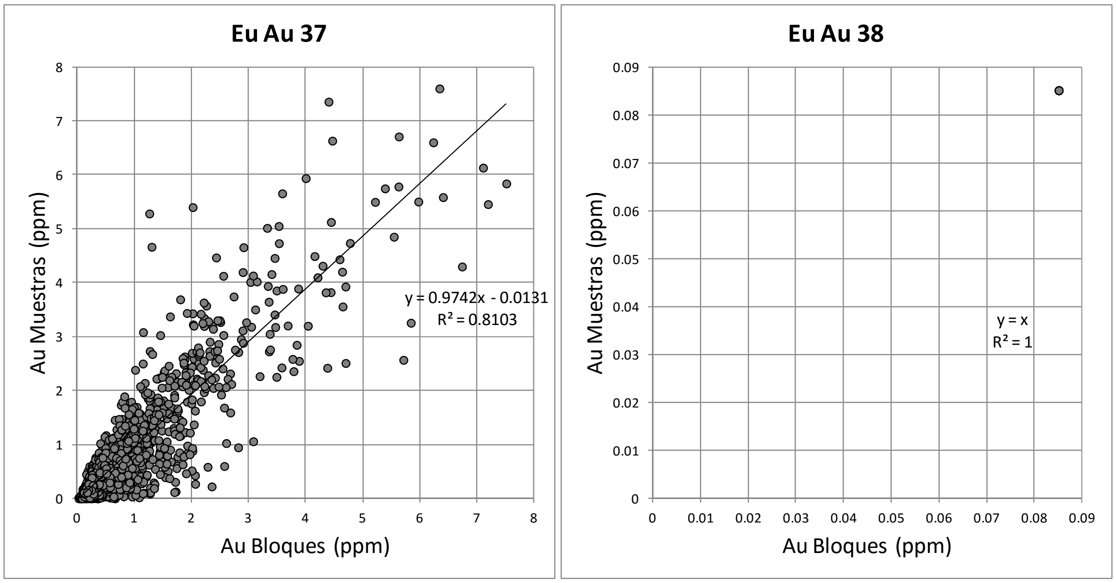


Figure 14.73 EU Ag 1 and 12 Conditional Bias

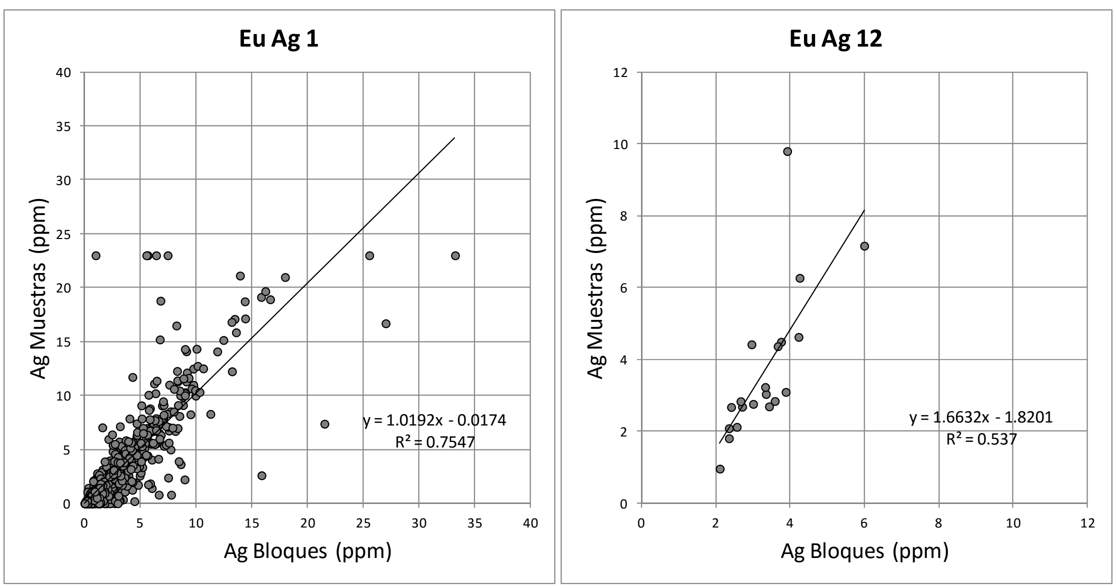


Figure 14.74 EU Ag 14 and 15 Conditional Bias

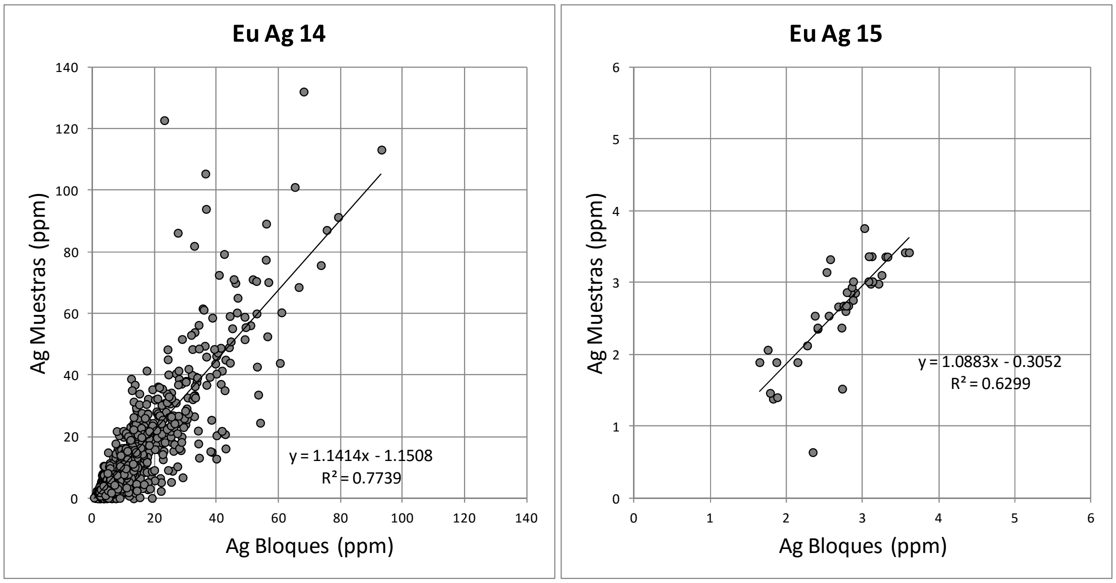


Figure 14.75 EU Ag 17 and 18 Conditional Bias

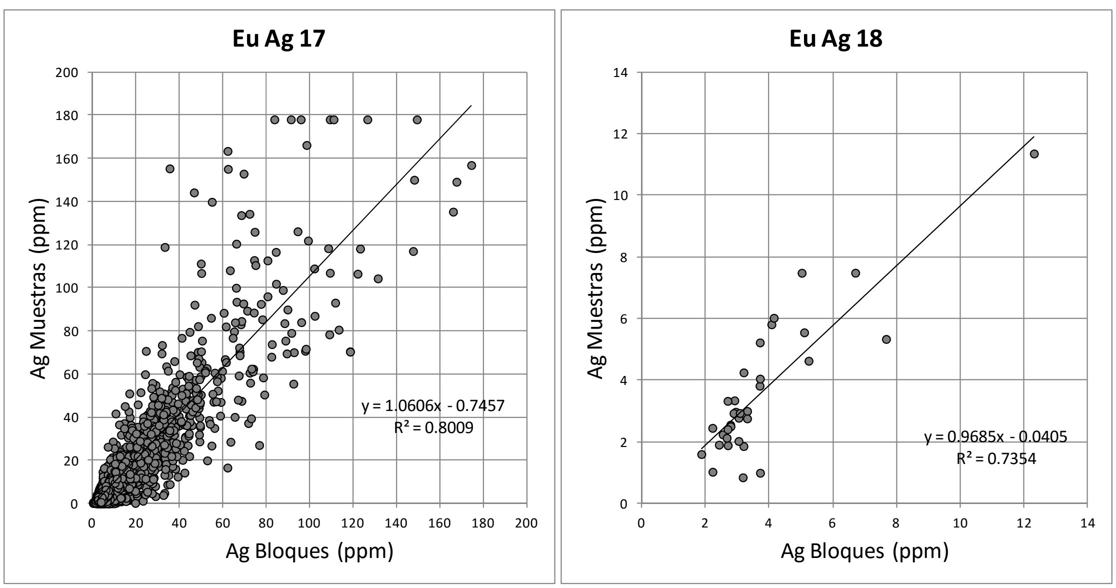
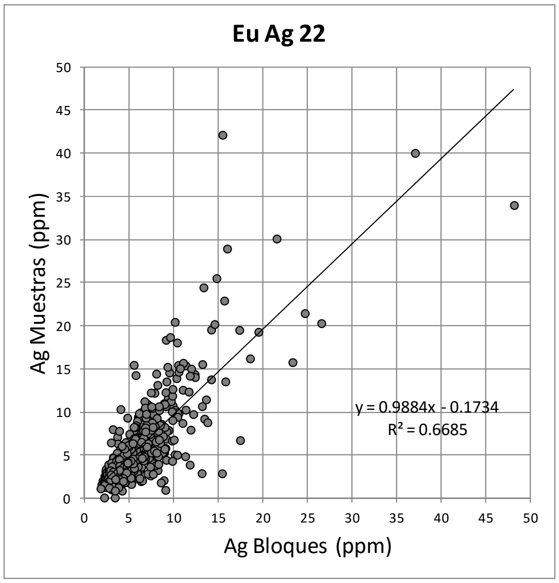


Figure 14.76 EU Ag 22 and 23 Conditional Bias



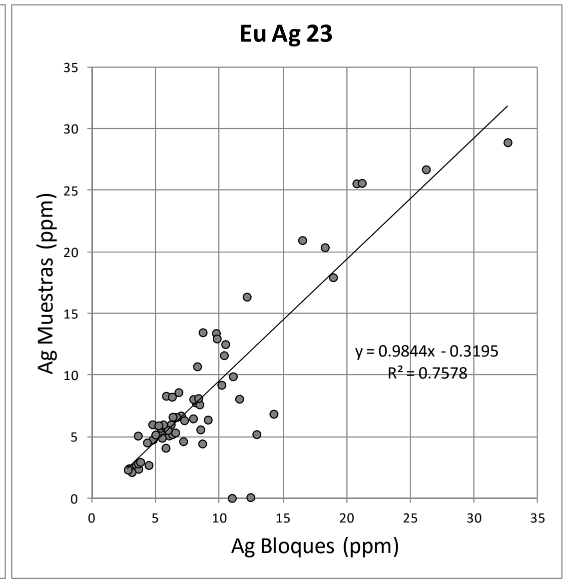
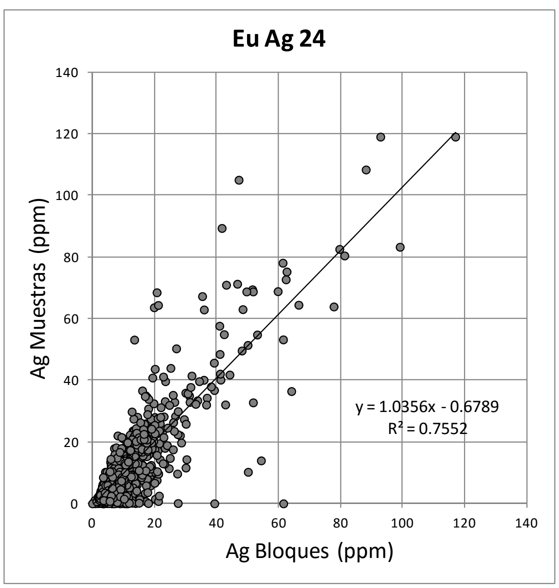


Figure 14.77 EU Ag 24 and 25 Conditional Bias



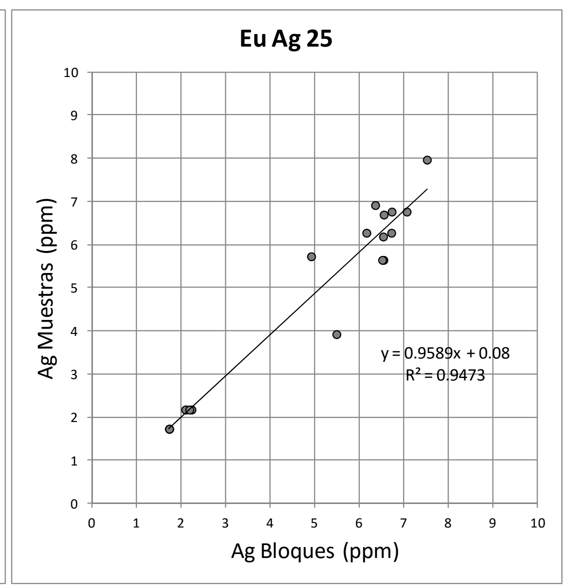


Figure 14.78 EU Ag 27 and 28 Conditional Bias

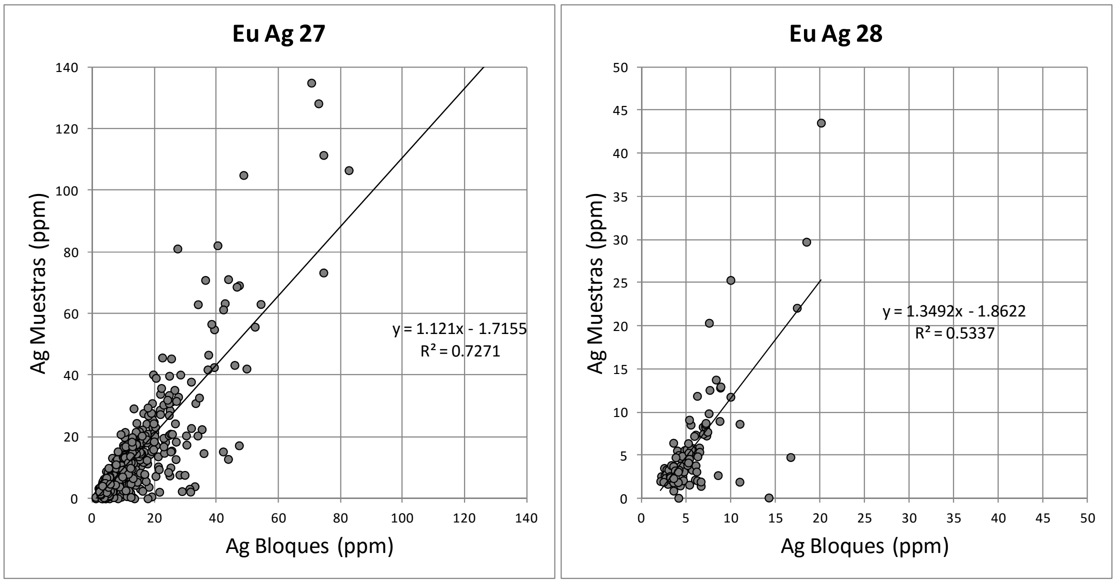


Figure 14.79 EU Ag 32 and 33 Conditional Bias

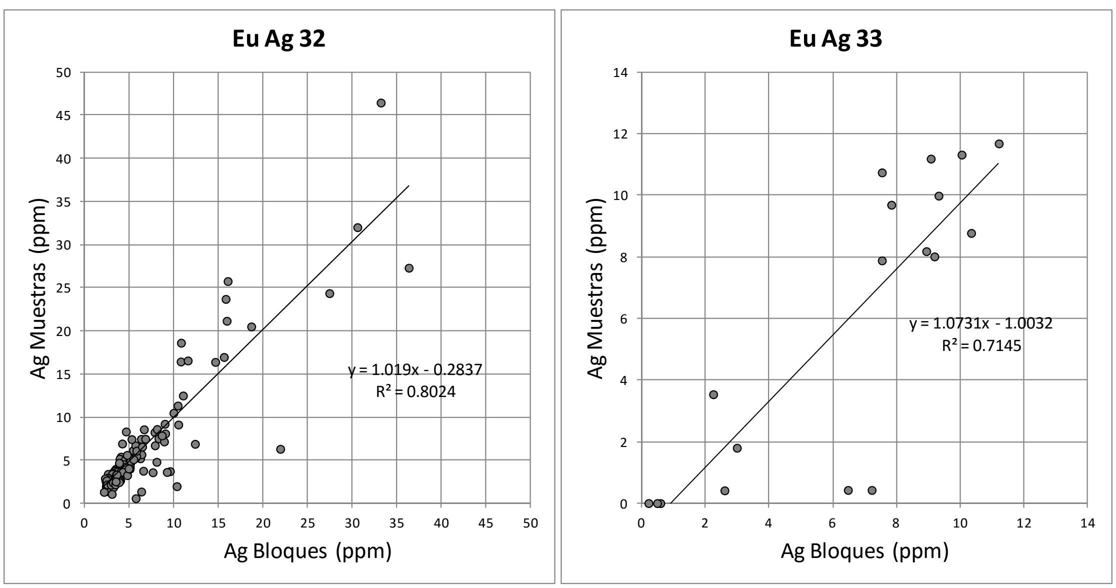
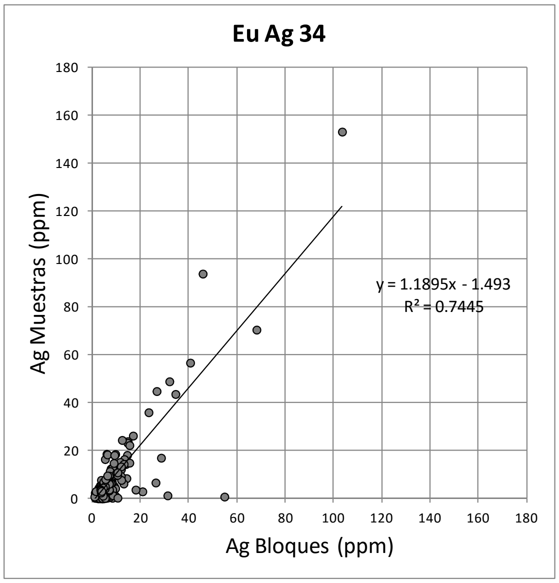


Figure 14.80 EU Ag 34 and 35 Conditional Bias



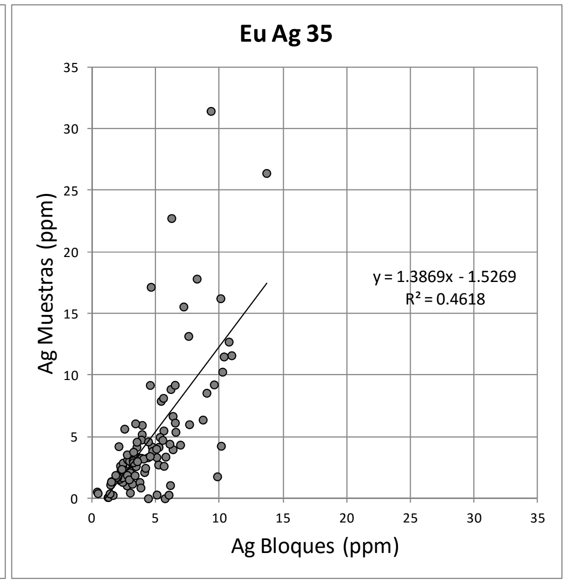
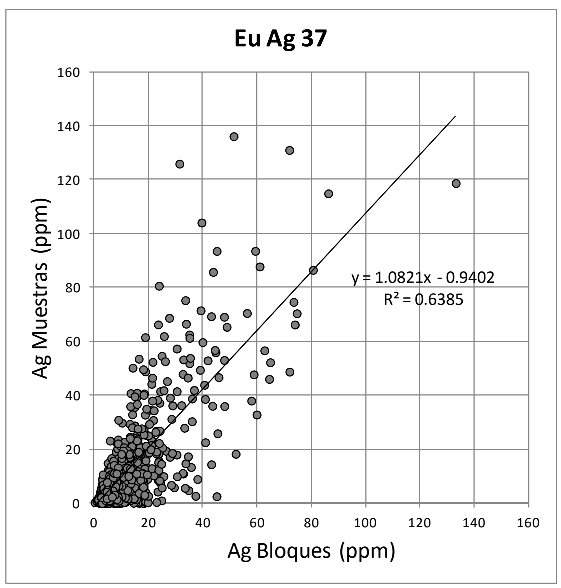


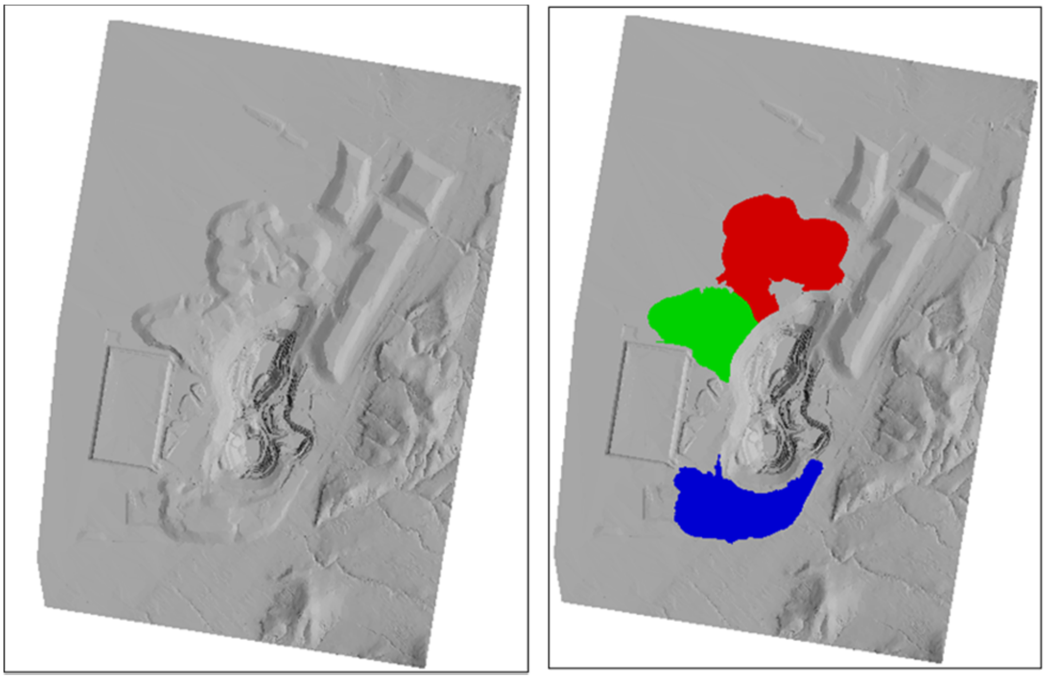
Figure 14.81 EU Ag 37 Conditional Bias



14.6 WASTE DUMP ESTIMATION

To estimate the waste dump, it was divided into three sectors: Waste Dump 1, Waste Dump 2 and Waste Dump 3, as shown in Figure 14-82.

Figure 14.82 Distribution of Waste Dumps



The estimation is performed separately for each dump using very short vertical distances (thin ellipses). The estimation plan is shown in Table 14-19.

Table 14-20 shows the Grade-Tonnage distribution in each waste dump.

Table 14.21 Estimation Plan Waste Dump

Eu Bota	Run	Type	Search Angles			Search Distances			Discretizacion			Samples x Est.		Database	
			Bearing	Plunge	Dip	Major	Semi	Minor				min	Max		
1	1	ID^2	0	0	0	50	50	2	4	4	3	1	8	slebotadero_2014.bot.isis	AU_PPM
	2	ID^2	0	0	0	100	100	2	4	4	3	1	6	slebotadero_2014.bot.isis	AU_PPM
	3	ID^2	0	0	0	200	200	4	4	4	3	1	6	slebotadero_2014.bot.isis	AU_PPM
2	1	ID^2	0	0	0	50	50	2	4	4	3	1	8	slebotadero_2014.bot.isis	AU_PPM
	2	ID^2	0	0	0	100	100	2	4	4	3	1	6	slebotadero_2014.bot.isis	AU_PPM
	3	ID^2	0	0	0	200	200	4	4	4	3	1	6	slebotadero_2014.bot.isis	AU_PPM
3	1	ID^2	0	0	0	50	50	2	4	4	3	1	8	slebotadero_2014.bot.isis	AU_PPM
	2	ID^2	0	0	0	100	100	2	4	4	3	1	6	slebotadero_2014.bot.isis	AU_PPM
	3	ID^2	0	0	0	200	200	4	4	4	3	1	6	slebotadero_2014.bot.isis	AU_PPM

Table 14.22 Volume Waste Dump

Waste Dump	SubCell Model		Re-Block Model	
	AU	K Ton	AU	K Ton
1	0.220	29,557	0.203	32,413
2	0.102	15,088	0.101	15,730
3	0.153	16,925	0.132	20,917

14.7 RESOURCE CLASSIFICATION

Gold correlograms were used to classify resources and the following conditions were used:

- In order for blocks to be considered as a measured resource, the average estimation distance must be less than or equal to 28 meters. This data is taken from correlograms where at least 90% of the plateau value is appropriate. Furthermore, the block should be estimated using at least two drillholes.
- In order for blocks to be considered as an indicated resource, the average estimation distance must be less than or equal to 40 meters and greater than 28 meters. This data is taken from correlograms, where at least 100% of the plateau value is appropriate. Furthermore, the block should be estimated using at least two drillholes.
- In order for blocks to be considered as an inferred resource, the block must only be estimated for gold and may not be considered as either measured or indicated resources.

This configuration is the same used in the Sleeper Estimation 2011. Table 14-21 shows the resource category values set in the block model for characterization.

Table 14.23 Resource Charaterization Values

CATEG	Value
Measured	1
Indicated	2
Inferred	3

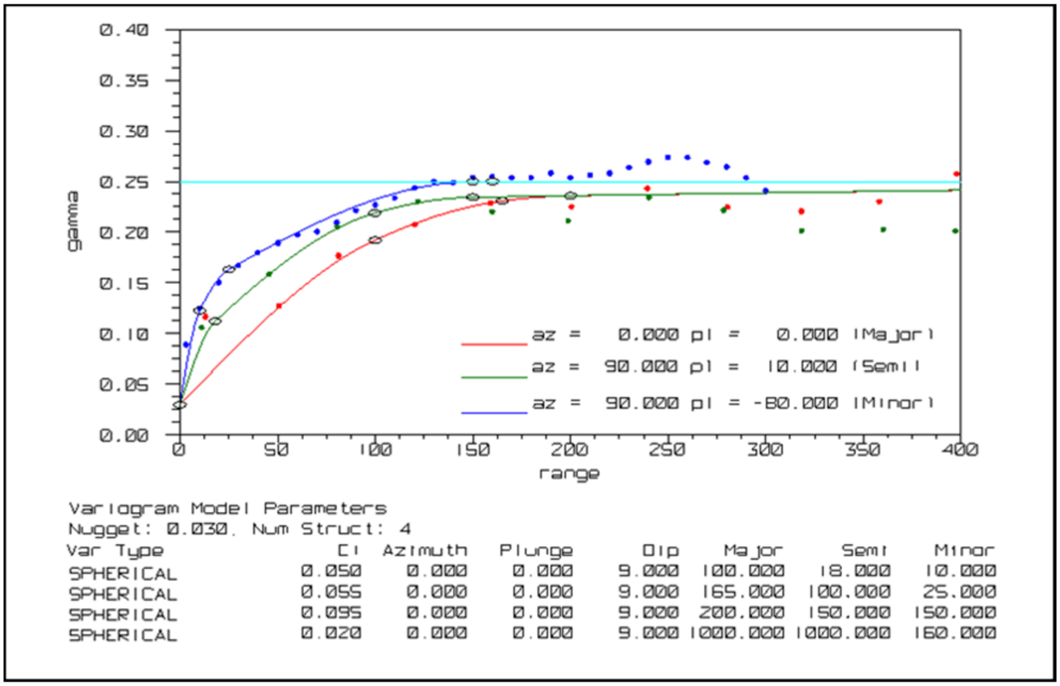
14.8 SULPHUR ESTIMATION

Indicator kriging for continuous variables was performed in order to estimate the sulphur grades. The lithology was not a useful separation, because the estimate was shown to be very tabular. This is because there are few data for sulphur.

The indicator variogram is shown in Figure 14-83. The cutoff used was 1.39% and corresponds to the median of the sulfur data.

The main parameters used in indicator kriging are shown in Table 14-22.

Figure 14.83 Indicator Variogram for median Sulphur



The cutoffs used for the distribution are:

> 0.01 - 0.05 - 0.13 - 0.24 - 0.37 - 0.53 - 0.71 - 0.93 - 1.14 - 1.39 (median) - 1.67 - 1.94 - 2.2 - 2.51 - 2.8 - 3.17 - 3.65 - 4.35 - 5.65

Table 14.24 Indicator Kriging Plan for Sulphur

UE_S	Run	Type	Search Angles			Search Distances			Samples x Est.		Database		Expected value		Correction Affine	Discret. Of Distrib.
			Bearing	Plunge	Dip	Major	Semi	Minor	min	Máx			minor	Major		
All	1	IK	0	0	10	160	125	140	1	30	slesle_2014.azu.isis	S_POR	0	9	0.68	20
	2	IK	0	0	10	500	300	400	1	30	slesle_2014.azu.isis	S_POR	0	9	0.68	20

14.9 DENSITIES

In order to assign densities, measured grades grouped by common geological (lithology) parameters were used, starting with a default value of 2.317 g/cc. The following is the configuration:

- Lithology 1 Alluvial = 2.169
- Lithology 2 Basement = 2.587
- Lithology 3 Breccia = 2.39
- Lithology 4 Basalt = 2.292
- Lithology 5 Intrusive = 2.351
- Lithology 6 Dykes = 2.317
- Lithology 7 Ryolite = 2.304
- Lithology 8 Wacke = 2.456
- Waste Dump = 1.8
- Fill Material = 1.8

14.10 RE-BLOCK

As the estimation model contains sub-cells which start from 2.5x2.5x2.5 m, it is necessary to consolidate a final model with cells of the same size in the x, y and z axes, which in this case belong to cells of 10x10x10 m. Smaller, regular cells produce a model which is too cumbersome and unusable from the software point of view. Re-blocking is required because the block model must be used in order to develop optimizations to find the optimum pits. This re-blocked model is cut with the current topography and contains the fill material in the pit.

The final model is called “MB_Sleeper_Categ_2014_10x10x10.bmf” and has the following variables:

- Au: gold grade in ppm
- Ag: silver grade in ppm
- S_ki: sulphur grade in percentage
- Env_au: domain for Au
- Env_ag: domain for Ag
- Ue_au: Au estimation unit
- Ue_ag: Ag estimation unit
- Categ: resource classification (1=measured, 2=indicated, 3=inferred)
- Lito: lithology
- Minzon: mineral zone (1 = oxide, 2 = mixed, 3 = primary,-99 = waste dump or alluvial)
- Dens: weighted density (air=0)
- Tipo_de_Roca: rock type (see Table 14-25)

Table 14.25 Rock Type Re-Block Model

Rock Type	
0 and -99	air
1	Oxide
2	Mixed
3	Primary or sulphide
4	Waste Dump
5	Alluvial
6	Fill Material
7	Undetermined Oxides
8	Waste

The "Undetermined Oxides" are the blocks between the Alluvial and Oxide solids. In subsequent tasks, it will be necessary to obtain an oxide solid that exactly matches with alluvium solid

14.11 VOLUME

Table 14-26 shows in situ deposit global volume in the sub-cell model. Densities indicated in section 14.8 of this report and the sub-cell model was used.

Table 14-27 shows using current topography the volumes separated by category and Rock Type in the reblocked model.

Table 14-28 shows using current topography the grade-Tonnes report separated by category in the reblocked model.

Table 14-29 shows using current topography the volumes separated by category, mineral zone and Au 0.15 cut-off in the reblocked model.Pit Resources

Table 14.26 Global Volume per EU by Category in situ Model

Block Model	Sector	EU Au	Measured						Indicated						Measured+Indicated					
			Au			Ag			Au			Ag			Au			Ag		
			Au g/t	Kton	Oz Au	Ag g/t	Kton	Oz Ag	Au g/t	Kton	Oz Au	Ag g/t	Kton	Oz Ag	Au g/t	Kton	Oz Au	Ag g/t	Kton	Oz Ag
MB_Est_Sleeper_2014.bmf	Alluvial	1	0.350	24,009	269,896	1.39	24,000	1,075,464	0.257	45,981	380,068	1.18	45,981	1,743,674	0.289	69,990	649,964	1.25	69,982	2,819,138
	Sleeper	12	0.205	66	439	3.08	34	3,387	0.189	234	1,422	3.58	72	8,282	0.192	301	1,861	3.42	106	11,669
		14	0.422	71,685	973,090	7.28	30,166	7,062,973	0.311	30,630	306,232	6.53	8,830	1,855,099	0.389	102,316	1,279,322	7.11	38,997	8,918,072
		15	0.184	57	340	2.47	22	1,731	0.207	62	414	2.49	20	1,586	0.196	120	755	2.48	42	3,317
		17	0.586	89,648	1,688,561	7.40	37,197	8,846,039	0.307	15,293	151,019	5.22	3,441	578,047	0.545	104,941	1,839,580	7.21	40,638	9,424,086
		18	0.173	563	3,137	3.88	152	18,997	0.188	565	3,413	3.54	26	2,945	0.181	1,128	6,550	3.83	178	21,942
	Facility	22	0.233	16,803	125,678	5.39	14,063	2,436,291	0.210	20,712	140,171	5.00	17,687	2,842,233	0.220	37,515	265,848	5.17	31,750	5,278,524
		23	0.458	406	5,981	9.54	353	108,202	0.391	155	1,955	8.53	132	36,223	0.439	562	7,935	9.26	485	144,425
		24	0.308	51,312	508,314	6.75	37,428	8,122,122	0.260	16,537	138,146	5.71	11,038	2,028,158	0.296	67,848	646,460	6.51	48,465	10,150,280
		25		-	-		-	-		-	-		-	-		-	-		-	-
		27	0.490	13,662	215,397	10.71	8,093	2,788,044	0.310	4,319	43,001	7.82	2,521	633,555	0.447	17,982	258,398	10.03	10,614	3,421,600
		28	0.264	2,017	17,146	6.19	1,612	320,981	0.304	1,079	10,550	7.36	684	161,963	0.278	3,096	27,696	6.54	2,296	482,944
	West Wood	32	0.276	1,591	14,092	7.00	1,251	281,571	0.228	3,213	23,522	7.31	2,703	635,100	0.244	4,804	37,614	7.21	3,954	916,671
		33	0.708	88	2,009	5.63	68	12,302	0.664	22	470	3.24	15	1,569	0.699	110	2,479	5.20	83	13,871
		34	0.438	9,202	129,706	5.41	3,587	624,024	0.298	9,635	92,412	4.90	2,988	470,699	0.367	18,838	222,118	5.18	6,574	1,094,723
		35	0.933	2,062	61,868	4.62	870	129,270	0.480	834	12,884	3.17	156	15,948	0.803	2,897	74,752	4.40	1,026	145,218
		37	0.483	36,990	574,684	8.11	15,830	4,129,978	0.275	14,900	131,720	6.79	5,338	1,165,854	0.423	51,890	706,403	7.78	21,168	5,295,831
		38		-	-		-	-		-	-		-	-		-	-		-	-

Block Model	Sector	EU Au	Inferred					
			Au			Ag		
			Au g/t	Kton	Oz Au	Ag g/t	Kton	Oz Ag
MB_Est_Sleeper_2014.bmf	Alluvial	1	0.132	257,548	1,092,022	0.56	262,922	4,728,773
	Sleeper	12	0.203	5,204	33,972	3.49	2,331	261,270
		14	0.384	42,759	527,857	5.98	13,764	2,644,953
		15	0.192	258	1,592	2.72	148	12,947
		17	0.320	34,682	356,378	5.72	15,539	2,859,572
		18	0.228	9,395	68,898	3.80	3,640	445,101
	Facility	22	0.220	43,206	305,973	5.22	70,103	11,757,000
		23	0.406	441	5,753	10.75	383	132,481
		24	0.278	19,677	175,675	6.00	18,689	3,602,939
		25	0.145	189	881	4.01	287	37,015
		27	0.285	8,770	80,317	6.25	8,432	1,695,261
		28	0.269	2,681	23,191	5.92	2,797	532,514
	West Wood	32	0.228	30,238	221,974	5.57	26,971	4,827,134
		33	1.095	38	1,337	5.97	28	5,394
		34	0.223	34,015	243,982	5.63	15,465	2,800,877
		35	0.326	3,469	36,359	4.15	1,227	163,566
		37	0.218	32,702	229,104	7.11	23,630	5,404,110
		38	0.085	8	22		-	-

Table 14.27 Global Volume per Rock Type by Category - Reblock model (current topography)

Block Model	Rock Type	Measured						Indicated					
		Au			Ag			Au			Ag		
		Au g/t	Kton	Oz Au	Ag g/t	Kton	Oz Ag	Au g/t	Kton	Oz Au	Ag g/t	Kton	Oz Ag
MB_Sleeper_Categ_2014_10x10x10.bmf	1 Oxide	0.230	42,539	314,872	3.39	20,938	2,282,682	0.175	21,055	118,342	2.54	10,167	829,341
	2 Mixed	0.280	56,179	505,418	5.17	38,340	6,379,381	0.211	24,178	164,278	4.82	14,453	2,240,352
	3 Primary	0.324	167,490	1,747,523	4.76	99,404	15,228,036	0.225	99,355	717,442	4.35	49,168	6,881,142
	4 Waste Dump		-	-		-	-		-	-		-	-
	5 Alluvial	0.156	16,318	82,074	0.80	16,309	418,532	0.119	31,568	121,089	0.64	31,560	646,967
	6 Fill Material	0.285	6,886	63,071	3.56	4,866	556,570	0.129	667	2,771	1.10	494	17,505
	7 Ind. Oxides	0.024	144	109	0.12	144	539	0.040	292	372	0.32	292	3,027

Block Model	Rock Type	Inferred					
		Au			Ag		
		Au g/t	Kton	Oz Au	Ag g/t	Kton	Oz Ag
MB_Sleeper_Categ_2014_10x10x10.bmf	1 Oxide	0.116	45,633	169,710	2.41	42,099	3,264,585
	2 Mixed	0.157	44,548	225,142	3.58	35,497	4,091,698
	3 Primary	0.186	324,527	1,937,625	3.92	225,409	28,439,539
	4 Waste Dump	0.180	54,900	317,503		-	-
	5 Alluvial	0.084	234,477	633,819	0.37	237,393	2,849,967
	6 Fill Material	0.134	654	2,806	2.35	881	66,601
	7 Ind. Oxides	0.031	3,377	3,400	0.07	3,294	7,033

Table 14.28 Sleeper Resources Grade-Ton Report (April 2015) Reblock Model (current topography)

Cutoff Au	Measured						Indicated						Measured+Indicated					
	Au g/t	Kton	Oz Au	Ag g/t	Oz Ag	S %	Au g/t	Kton	Oz Au	Ag g/t	Oz Ag	S %	Au g/t	Kton	Oz Au	Ag g/t	Oz Ag	S %
0	0.291	289,557	2,709,363	2.67	24,859,102	2.18	0.197	177,115	1,121,920	1.86	10,592,748	1.73	0.26	466,673	3,831,283	2.36	35,451,850	1.35
0.05	0.322	259,749	2,689,361	2.96	24,722,079	2.29	0.237	144,271	1,099,429	2.25	10,437,620	1.86	0.2916	404,020	3,788,791	2.71	35,159,699	1.47
0.1	0.348	235,312	2,633,073	3.19	24,136,504	2.36	0.269	120,463	1,041,950	2.56	9,915,959	1.96	0.3213	355,775	3,675,023	2.98	34,052,462	1.56
0.15	0.386	200,472	2,488,173	3.47	22,367,774	2.41	0.309	93,930	933,264	2.79	8,426,559	2.04	0.3614	294,402	3,421,437	3.25	30,794,333	1.64
0.2	0.443	157,924	2,249,528	3.78	19,194,621	2.44	0.366	66,211	779,205	2.98	6,344,350	2.08	0.4203	224,135	3,028,734	3.54	25,538,971	1.72
0.25	0.508	122,060	1,993,776	4.03	15,816,767	2.47	0.428	45,980	632,784	3.09	4,568,463	2.09	0.4861	168,040	2,626,560	3.77	20,385,230	1.79
0.3	0.577	94,135	1,746,500	4.24	12,833,901	2.5	0.497	31,897	509,733	3.12	3,199,937	2.1	0.5568	126,032	2,256,234	3.96	16,033,837	1.87
0.35	0.646	73,949	1,536,041	4.39	10,438,420	2.53	0.561	23,256	419,505	3.04	2,273,254	2.11	0.6257	97,205	1,955,546	4.07	12,711,674	1.92
0.4	0.719	58,313	1,348,143	4.48	8,400,112	2.57	0.629	17,065	345,149	2.97	1,629,717	2.14	0.6986	75,379	1,693,292	4.14	10,029,828	1.99
0.45	0.792	46,720	1,189,778	4.54	6,820,191	2.61	0.698	12,785	286,933	2.84	1,167,466	2.18	0.7718	59,504	1,476,711	4.17	7,987,657	2.05
0.5	0.862	38,294	1,061,385	4.61	5,676,315	2.65	0.766	9,829	242,085	2.7	853,302	2.21	0.8424	48,122	1,303,470	4.22	6,529,617	2.11
0.55	0.936	31,411	945,353	4.67	4,716,664	2.67	0.833	7,698	206,199	2.56	633,698	2.22	0.9157	39,109	1,151,552	4.25	5,350,362	2.14
0.6	1.007	26,267	850,520	4.72	3,986,546	2.7	0.899	6,148	177,718	2.46	486,303	2.24	0.9865	32,415	1,028,238	4.29	4,472,849	2.19
0.65	1.078	22,156	767,994	4.75	3,384,019	2.72	0.966	4,935	153,296	2.4	380,859	2.24	1.0576	27,092	921,290	4.32	3,764,879	2.22
0.7	1.152	18,743	694,270	4.86	2,928,951	2.74	1.023	4,130	135,857	2.25	298,807	2.23	1.1287	22,873	830,127	4.39	3,227,758	2.25
0.75	1.217	16,248	635,805	4.94	2,580,833	2.76	1.08	3,469	120,458	2.24	249,838	2.23	1.1929	19,716	756,262	4.46	2,830,671	2.27
0.8	1.283	14,133	583,053	5.01	2,276,768	2.77	1.137	2,923	106,872	2.27	213,368	2.23	1.258	17,056	689,924	4.54	2,490,136	2.30
0.85	1.347	12,413	537,616	5.11	2,039,507	2.8	1.18	2,566	97,356	2.25	185,635	2.2	1.3184	14,979	634,971	4.62	2,225,143	2.32
0.9	1.414	10,874	494,402	5.22	1,825,163	2.82	1.237	2,165	86,126	2.3	160,137	2.21	1.3846	13,039	580,528	4.74	1,985,299	2.35
0.95	1.480	9,583	456,019	5.36	1,651,527	2.85	1.287	1,866	77,210	2.23	133,783	2.21	1.4485	11,448	533,229	4.85	1,785,310	2.39
1	1.549	8,433	420,027	5.53	1,499,514	2.87	1.345	1,570	67,916	2.23	112,604	2.2	1.517	10,003	487,943	5.01	1,612,118	2.42

Cutoff Au	Inferred					
	Au g/t	Kton	Oz Au	Ag g/t	Oz Ag	S %
0	0.144	708,115	3,278,731	1.22	27,778,141	1.27
0.05	0.216	447,543	3,108,337	1.59	22,880,817	1.54
0.1	0.266	332,637	2,845,061	1.83	19,573,162	1.7
0.15	0.318	241,767	2,472,091	1.93	15,003,569	1.76
0.2	0.383	166,849	2,054,765	2	10,729,843	1.77
0.25	0.452	116,678	1,695,774	1.91	7,165,769	1.73
0.3	0.526	82,908	1,402,245	1.78	4,745,239	1.67
0.35	0.597	61,160	1,174,033	1.65	3,244,814	1.63
0.4	0.672	45,978	993,470	1.52	2,247,134	1.59
0.45	0.739	36,131	858,542	1.34	1,556,761	1.55
0.5	0.807	28,785	746,942	1.26	1,166,229	1.56
0.55	0.881	22,861	647,604	1.19	874,743	1.58
0.6	0.949	18,720	571,233	1.14	686,201	1.61
0.65	1.008	15,833	513,175	1.1	560,013	1.62
0.7	1.066	13,484	462,200	1.09	472,606	1.62
0.75	1.132	11,310	411,662	1.08	392,752	1.57
0.8	1.199	9,534	367,569	1.1	337,219	1.48
0.85	1.247	8,453	338,924	1.09	296,253	1.45
0.9	1.3	7,400	309,313	1.06	252,209	1.43
0.95	1.351	6,521	283,263	1.06	222,250	1.42
1	1.393	5,858	262,378	1.08	203,423	1.41

Table 14.29 Sleeper Resources (cutoff 0.15) Product Report (April 2015) Reblock Model for Mineral Zone (current topography)

Mineral Zone	Product	Measured					Indicated					Measured+Indicated				
		Au g/t	Kton	Oz Au	Ag g/t	Oz Ag	Au g/t	Kton	Oz Au	Ag g/t	Oz Ag	Au g/t	Kton	Oz Au	Ag g/t	Oz Ag
Waste Dump and Alluvial	Au < 0.15	0.057	9,786	561,412	0.50	4,869,210	0.058	21,399	1,243,622	0.53	11,343,080	0.058	31,185	1,805,034	0.52	16,212,290
	Au ≥ 0.15	0.413	2,873	1,186,795	1.33	3,828,375	0.356	4,573	1,627,270	1.05	4,824,428	0.378	7,446	2,814,065	1.16	8,652,802
Oxide	Au < 0.15	0.075	18,951	1,414,559	0.62	11,696,925	0.065	14,967	974,553	0.59	8,862,430	0.070	33,918	2,389,112	0.61	20,559,354
	Au ≥ 0.15	0.327	28,938	9,454,766	2.23	64,429,740	0.295	12,417	3,668,359	1.70	21,160,946	0.317	41,355	13,123,125	2.07	85,590,686
Mixed	Au < 0.15	0.086	14,507	1,246,312	1.22	17,715,967	0.084	9,057	758,410	1.48	13,363,725	0.085	23,565	2,004,722	1.32	31,079,693
	Au ≥ 0.15	0.342	43,563	14,902,086	4.26	185,786,788	0.286	15,295	4,373,675	3.70	56,563,659	0.327	58,859	19,275,761	4.12	242,350,447
Primary	Au < 0.15	0.081	45,841	3,728,781	0.93	42,441,449	0.078	37,762	2,947,860	0.91	34,177,136	0.080	83,603	6,676,641	0.92	76,618,585
	Au ≥ 0.15	0.415	125,097	51,881,684	3.54	442,554,411	0.314	61,645	19,371,774	2.92	179,934,767	0.382	186,743	71,253,458	3.33	622,489,178
Total		0.291	289,557	84,376,395	2.67	773,322,863	0.197	177,115	34,965,523	1.86	330,230,173	0.256	466,673	119,341,918	2.36	1,103,553,036

Mineral Zone	Product	Inferred				
		Au g/t	Kton	Oz Au	Ag g/t	Oz Ag
Waste Dump and Alluvial	Au < 0.15	0.046	214,820	9,823,585	0.24	51,676,285
	Au ≥ 0.15	0.366	47,720	17,445,247	0.32	15,197,128
Oxide	Au < 0.15	0.048	57,372	2,726,763	0.78	44,899,783
	Au ≥ 0.15	0.316	15,194	4,804,319	1.39	21,149,679
Mixed	Au < 0.15	0.059	29,479	1,738,097	1.54	45,437,455
	Au ≥ 0.15	0.298	18,473	5,503,271	2.15	39,751,178
Primary	Au < 0.15	0.067	164,677	11,086,999	1.55	254,867,902
	Au ≥ 0.15	0.307	160,380	49,190,904	2.44	391,644,787
Total		0.144	708,115	102,319,185	1.22	864,624,197

14.12 PIT RESOURCE

Mineral Resources must meet the criteria to establish reasonable prospects of eventual economic extraction. A Whittle™ run was performed in order to confine resources to a pit.

The resource model, MB_Sleeper_Categ_2014_10x10x10.bmf, contains the estimation of Au grades, density and resource categories which are necessary for the Whittle™ run purposes.

The block model is of regular type, with a grid dimension of 10 x10 x10m (in x, y, z, respectively). This block model extension corresponds to 225 blocks in an E-W direction, 360 blocks in N-S direction and 90 blocks in height.

The geological block model contains a numeric rock code flag. Rock type codes are shown in Table 14-30.

Table 14.30 Rock Type Codes

Code	Description
0 y -99	Air
1	Oxide
2	Mixed
3	Sulphide
4	Dump (oxide)
5	Alluvial (Oxide)
6	Fill material (waste)
7	Undetermined Oxides
8	Waste

The topography considered for the optimization of Whittle™ was provided by Paramount.

The process recoveries used in the Whittle™ optimization were:

- Facilities Zone Oxide and Sulphide mineralisation – 78% for gold and 10% for silver
- Sleeper Zone Oxide mineralisation – 78% for gold and 10% for silver
- Sleeper Zone Sulphide mineralisation – 55% for gold and 10% for silver
- Mine dumps mineralisation – 78% for gold and 10% for silver

For Whittle™ runs, an overall pit slope angle of 45° was used.

Whittle™ pit optimizations were performed using the estimate of the mining cost, the resource model (rock types, Au grades and category), processing cost, slope angles and metal recoveries.

All resources were considered in the optimization.

As a result of the pit optimization, a series of nested pits were determined using different revenue factors (RF) and gold price.

The ultimate pit shell was determined using a gold price of US$1,300 per ounce.

Table 14-31 shows the parameters used in the Whittle™ exercise.

Table 14.31 Parameters Used in the Whittle™ Optimization

Cost Category	US$'s (Per Tonne Processed)
Mining Costs (includes waste and stockpile re-handle)	3.14
Heap Leach Processing	1.55
Administrative	0.5
Dewatering	0.2
Reclamation	0.11
Total	5.5

Source: SEWC 2012 Sleeper project Technical Report.

The results of the Whittle™ optimization are shown in the Table 14-32.

Table 14.32 Sleeper Results, April 2015

Pit	Revenue Factor	Au Price	Rock	Tonnes	Strip Ratio	Au Fine	Au Grade	Ag Fine	Ag Grade	Au Oz	Ag Oz
		US$/oz	x1000	x1000		x1000	g/t	x1000	g/t	x1000	x1000
1	0.5	650	163,773	99,883	0.64	47,105	0.472	254,716	2.55	1,514	8,189
2	0.6	780	380,982	199,342	0.91	84,409	0.423	574,352	2.88	2,714	18,466
3	0.7	910	490,990	271,754	0.81	104,136	0.383	771,336	2.84	3,348	24,799
4	0.8	1,040	633,334	344,161	0.84	123,671	0.359	908,529	2.64	3,976	29,210
5	0.9	1,170	727,808	399,063	0.82	135,934	0.341	1,027,239	2.57	4,370	33,027
6	1	1,300	833,828	452,650	0.84	147,491	0.326	1,118,778	2.47	4,742	35,970
7	1.1	1,430	924,165	492,902	0.87	156,062	0.317	1,191,102	2.42	5,018	38,295
8	1.2	1,560	977,848	524,139	0.87	161,124	0.307	1,245,025	2.38	5,180	40,028
9	1.3	1,690	1,016,183	547,680	0.86	164,574	0.301	1,284,730	2.35	5,291	41,305
10	1.4	1,820	1,069,349	574,132	0.86	168,585	0.294	1,339,281	2.33	5,420	43,059
11	1.5	1,950	1,125,693	602,145	0.87	172,682	0.287	1,420,196	2.36	5,552	45,660

Pit 6 from the Whittle™ exercise was selected as the most representative based on a revenue factor of 1 (gold price of US$1,300 per ounce).

Table 14-33 shows the grade-tonnage report for the in-pit resources.

Table 14.33 Tonnage Grade Curve In-Pit Resources, April 2015

Cutoff	Measured					Indicated					Measured + Indicated				
	Tonnage	Au Grade	Au	Ag Grade	Ag	Tonnage	Au Grade	Au	Ag Grade	Ag	Tonnage	Au Grade	Au	Ag Grade	Ag
	x1000	(g/t)	Oz	(g/t)	Oz	x1000	(g/t)	Oz	(g/t)	Oz	x1000	(g/t)	Oz	(g/t)	Oz
0	245,937	0.31	2,451,462	2.86	22,616,710	113,734	0.23	822,835	2.00	7,314,090	359,671	0.28	3,274,297	2.59	29,930,800
0.1	206,986	0.36	2,389,323	3.33	22,162,797	82,855	0.29	777,930	2.61	6,953,413	289,841	0.34	3,167,252	3.12	29,116,210
0.2	144,150	0.45	2,081,141	3.9	18,076,723	50,464	0.38	618,220	3.10	5,030,139	194,614	0.43	2,699,361	3.69	23,106,862
0.3	87,081	0.58	1,626,824	4.38	12,264,184	25,935	0.51	424,466	3.29	2,743,602	113,016	0.56	2,051,290	4.13	15,007,786
0.4	54,231	0.72	1,262,490	4.62	8,056,222	14,309	0.64	295,375	3.20	1,472,276	68,540	0.71	1,557,866	4.32	9,528,498
0.5	35,746	0.87	997,673	4.76	5,471,111	8,424	0.78	211,275	2.92	790,928	44,170	0.85	1,208,949	4.41	6,262,039
0.6	24,615	1.01	801,754	4.86	3,846,519	5,364	0.91	157,657	2.63	453,651	29,979	1.00	959,411	4.46	4,300,170
0.7	17,635	1.16	656,628	4.99	2,829,509	3,665	1.04	122,450	2.37	279,313	21,300	1.14	779,077	4.54	3,108,822
0.8	13,364	1.29	553,911	5.13	2,204,471	2,696	1.14	99,168	2.31	200,242	16,060	1.26	653,079	4.66	2,404,714
0.9	10,334	1.42	471,531	5.31	1,764,504	2,011	1.24	80,426	2.33	150,638	12,345	1.39	551,958	4.82	1,915,141
1	8,054	1.55	401,918	5.61	1,452,808	1,469	1.35	63,910	2.25	106,281	9,523	1.52	465,828	5.09	1,559,089
1.1	6,426	1.68	346,945	5.93	1,225,362	1,148	1.44	53,097	2.31	85,295	7,575	1.64	400,042	5.38	1,310,657
1.2	5,239	1.80	303,075	6.24	1,051,242	850	1.54	42,081	2.51	68,631	6,090	1.76	345,156	5.72	1,119,874
1.3	4,262	1.93	263,916	6.47	886,572	633	1.64	33,340	2.88	58,584	4,894	1.89	297,256	6.01	945,156
1.4	3,479	2.06	229,982	6.76	756,166	483	1.73	26,846	3.14	48,755	3,962	2.02	256,828	6.32	804,921
1.5	2,872	2.18	201,694	7.18	663,079	343	1.84	20,337	3.53	38,973	3,215	2.15	222,031	6.79	702,052
1.6	2,372	2.32	176,774	7.57	577,301	255	1.94	15,927	3.34	27,421	2,627	2.28	192,702	7.16	604,722
1.7	2,023	2.43	158,256	7.9	513,860	200	2.02	13,021	3.44	22,152	2,223	2.40	171,277	7.50	536,012
1.8	1,694	2.57	139,857	8.33	453,840	133	2.16	9,243	2.96	12,655	1,827	2.54	149,100	7.94	466,494
1.9	1,456	2.68	125,617	8.7	407,178	115	2.21	8,153	2.99	11,026	1,570	2.65	133,770	8.28	418,204
2	1,236	2.82	111,865	8.97	356,459	78	2.34	5,889	2.65	6,678	1,314	2.79	117,755	8.59	363,137

Cutoff	Inferred				
	Tonnage	Au Grade	Au	Ag Grade	Ag
	x1000	(g/t)	Oz	(g/t)	Oz
0	259,945	0.19	1,596,449	1.23	10,280,800
0.1	138,120	0.33	1,461,139	1.44	6,395,261
0.2	84,026	0.45	1,202,303	1.59	4,295,869
0.3	50,679	0.58	938,629	1.63	2,656,189
0.4	31,039	0.72	721,589	1.49	1,487,093
0.5	21,199	0.85	580,077	1.33	906,583
0.6	14,314	1.00	459,801	1.28	589,134
0.7	10,936	1.11	389,601	1.26	443,049
0.8	8,412	1.22	329,171	1.19	321,869
0.9	6,741	1.31	283,732	1.12	242,765
1	5,423	1.40	243,587	1.12	195,288
1.1	4,252	1.49	204,108	1.29	176,356
1.2	3,636	1.55	181,238	1.36	159,022
1.3	2,435	1.69	132,464	1.55	121,347
1.4	1,900	1.79	109,352	1.71	104,465
1.5	1,456	1.89	88,609	1.90	88,936
1.6	1,168	1.98	74,325	1.77	66,476
1.7	890	2.09	59,671	1.92	54,923
1.8	573	2.27	41,791	2.26	41,625
1.9	494	2.34	37,121	2.34	37,169
2	402	2.43	31,340	2.47	31,908

The pit shell produced by the whittle optimization is larger than the existing mine at Sleeper mine.

Figure 14-34 shows a plan view of the current topography and the area projected by the pit shell at the US$ 1,300 gold price. Figure 14-85 shows a section view from block model with current topography and the projected pit surface.

Figure 14.84 Current topography of the Sleeper Mine with the area Projected by the pit surface at US$ 1,300 per ounce gold price (in red)

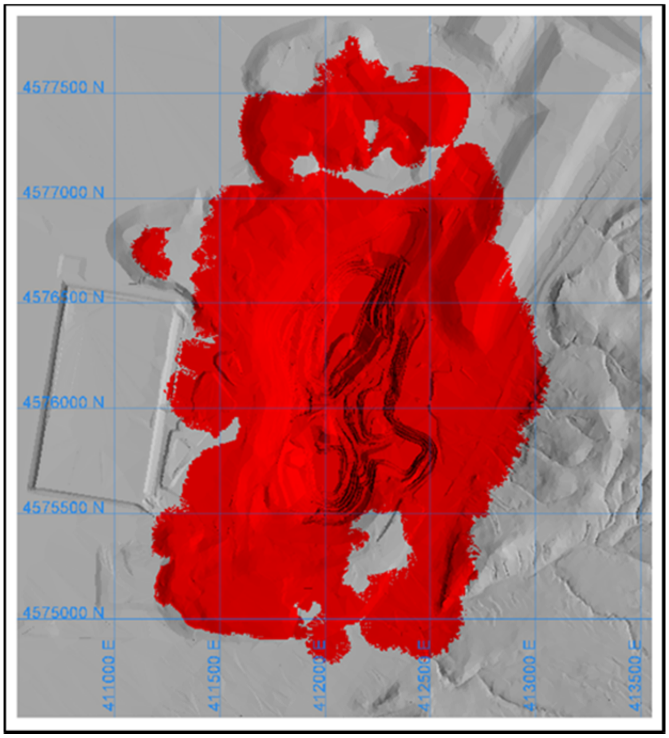
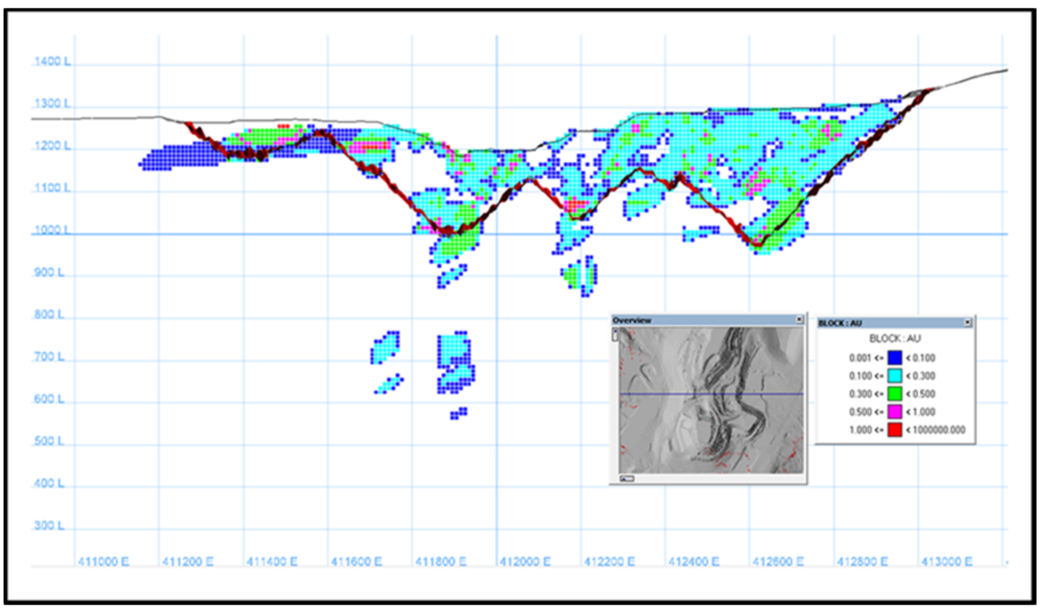


Figure 14.85 Cross – section through the current topography showing the expanded pit surface at US$ 1,300 per ounce gold price



15 MINERAL RESERVE ESTIMATES

There are no Mineral Reserves Estimated for the Sleeper Project.

16 MINING METHODS

This section of the report describes the mining assumptions used in the PEA. The mining operation was assumed to employ conventional surface mining methods, with drill and blast rock breakage and truck and loader materials handling. The global resource model described in Section 14 was used to develop a surface mine shell using Lerchs-Grossman optimization in the Gemcom Whittle software package. A production schedule was then developed using Whittle strategic scheduling tools to schedule mineralized material to process facilities for treatment and overburden material to storage facilities. The production schedule was constrained to produce a constant feed of mineralized material to a crushing/agglomeration plant followed by placement on a heap leach pad. Talpac software was used with the production schedule and with average haul distances to the crusher and overburden storage areas to estimate the required truck fleet. The equipment fleet was assumed to be truck constrained.

16.1 MINE OPTIMIZATION

The block model used 10x10x10 meter blocks. This is considered a reasonable basis for selection at the anticipated mining rates for the project. The average grade of each block was considered to have captured mining dilution. For the mining selection process, blocks were labeled for 4 material types; (1) Facilities Zone material (an area on the eastern edge of the Sleeper surface mine excavation), (2) Sleeper Zone material (low grade continuation of the original Sleeper deposit at depth), (3) West Wood and (4) Mine Dumps and Alluvial material from historic Sleeper mining operations. Within each of the zones, each block was labeled as either oxide or unoxidized.

Pit optimization results from an evaluation of each block based on projected costs, grade and metallurgical recovery. The parameters used in the optimization process are listed in Table 16.1. Other cost account for dewatering, and were applied to blocks below the current water elevation of 1248 meters. A preliminary geotechnical evaluation has been performed for Sleeper surface mining to provide a basis for pit slope recommendations (Kinakin, 2012). A range of preliminary inter-ramp slope angle recommendations was developed based on mining surfaces projected for expansion of the mine excavation, and classified as “conservative”, “base” and “aggressive”. The “base” recommendation of 45 degrees was used in the PEA Whittle analysis. Further refinement of the pit slope recommendations would be performed for more advanced engineering studies, after the mining surface has been defined.

Table 16.1 Parameters Used for Whittle Optimization

Material Type	Mining Cost ($/tonne)	Processing Cost ($/tonne)	Admin Cost ($/tonne)	Au Recovery (%)	Ag Recovery (%)
Facilities Oxide	$1.40	$1.68	$0.45	79%	8%
Mixed Transitional	$1.40	$1.68	$0.45	67.5%	42.5%
Sleeper Oxide	$1.40	$1.68	$0.45	85%	10%
West Wood Oxide	$1.40	$1.68	$0.45	72%	9%
Mine Dumps Alluvium	$1.00	$1.68	$0.45	78%	10%

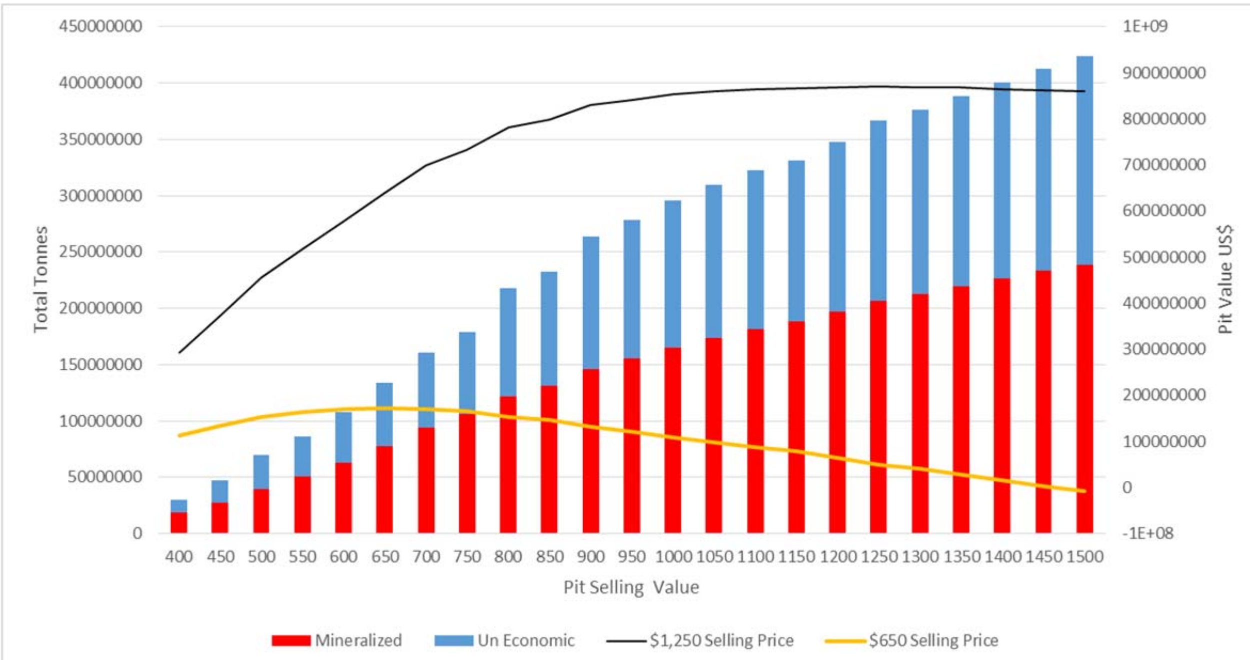
The Whittle optimization was performed for a series of gold prices ranging between $400 - $1,500 US per gold ounce. The resulting productions volumes, strip ratios (overburden/mineralized material), average grades and contained ounces are summarized in Table 16.2, for the range of gold price.

Table 16.2 Sleeper Production Volumes, Strip Ratio and Average Grades for Gold Prices from $400 - $1,500 per Ounce

Au Price ($US/oz)	Total Mined (000 tonne)	Mineralized Material (000 tonne)	Strip Ratio	Au Grade (gpt)	Contained Au (000 oz)	Ag Grade (gpt)	Contained Ag (000 oz)
400	29,578	18,959	0.56	0.63	387	1.70	1,036
450	47,497	27,689	0.72	0.58	514	1.82	1,617
500	69,591	39,128	0.78	0.52	653	1.83	2,302
550	86,555	50,840	0.70	0.47	771	2.06	3,374
600	107,409	63,802	0.70	0.44	892	2.04	4,133
650	133,485	77,145	0.73	0.41	1,021	2.04	5,061
700	160,936	93,730	0.72	0.39	1,161	2.18	6,567
750	178,806	105,787	0.69	0.37	1,251	2.20	7,492
800	217,830	121,823	0.79	0.35	1,390	2.16	8,466
850	232,327	131,171	0.77	0.34	1,452	2.15	9,075
900	263,253	145,853	0.80	0.33	1,562	2.11	9,890
950	278,249	155,414	0.79	0.32	1,620	2.11	10,537
1000	295,754	165,039	0.79	0.32	1,680	2.09	11,077
1050	309,812	173,381	0.79	0.31	1,727	2.05	11,409
1100	322,162	181,480	0.78	0.30	1,770	2.02	11,770
1150	331,014	187,989	0.76	0.30	1,800	2.00	12,100
1200	347,994	196,962	0.77	0.29	1,848	1.98	12,507
1250	366,797	206,350	0.78	0.29	1,897	1.92	12,765
1300	376,407	212,531	0.77	0.28	1,924	1.90	12,979
1350	388,124	219,397	0.77	0.28	1,955	1.88	13,253
1400	400,325	226,580	0.77	0.27	1,985	1.88	13,688
1450	412,784	233,111	0.77	0.27	2,014	1.86	13,955
1500	423,409	238,555	0.77	0.27	2,037	1.85	14,187

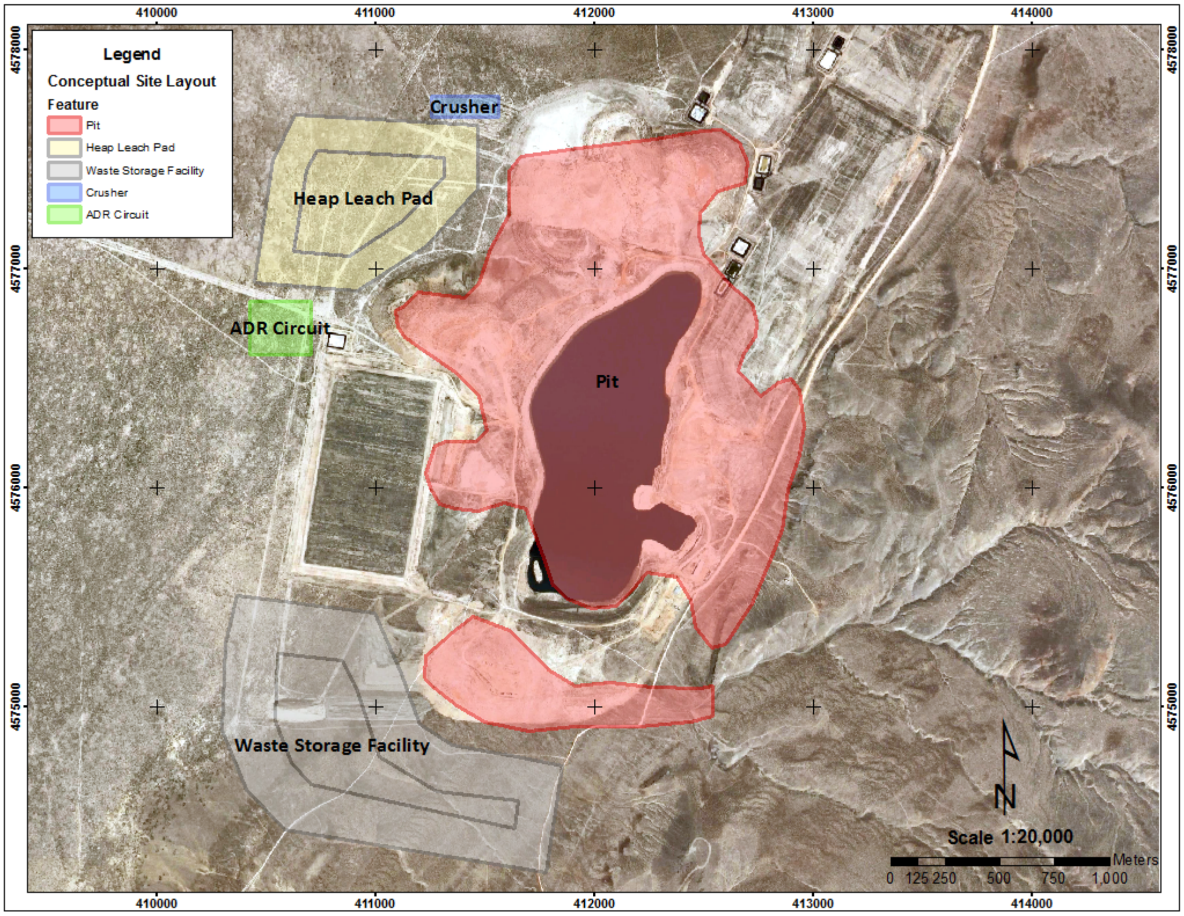
The surface mine shell defined at $650 per ounce gold price was selected for the base case and resulting production physicals were combined with the mineralized dump materials to generate the production schedule. The $650 mining shell resulted in robust performance on the basis of operating cost assumptions and metal recovery and an uncertain price environment. Additionally, we feel with a continued low gold price market that a smaller more robust operation will be the way to demonstrate positive economic performance for Sleeper. The NPV performance, defined by the assumptions, is illustrated in Figure 16.1.

Figure 16.1 Graphical Comparison of Surface Mine Shells at Gold Price between $400 and $1,500 per ounce



The mining surface produced by the Whittle optimization is larger than the existing surface mine excavation at Sleeper. This is illustrated by Figure 16.2, which shows an aerial view of the lake currently occupying the Sleeper mine excavation and the outline of the projected mining shell at $650 gold price.

Figure 16.2 Surface Photograph of the Sleeper Mine Lake With the Outline of the Expanded Mining Surface -



16.2 MINE DEWATERING

Reclamation of the Sleeper Mine excavation included the placement of waste materials in the pit to isolate them from the air, and termination of the dewatering operations to allow the mine excavation to form a lake. In historic Sleeper dewatering, the majority of the water production came from an alluvial aquifer to the West of the mine excavation, and exposed in the west wall. The alluvium thins to the East and the topography gently rises along the hill slope above the Facilities Zone. This suggests that initial mining in the Facilities Zone should not require dewatering, and it has been assumed in the PEA that dewatering of the mine lake and re-establishment of the cone of depression around the surface mine can be spread over a 3 year period.

Mining of the Sleeper Zone requires the dewatering progress to reach the bottom of the historic mine, and requires dewatering of the mine waste and alluvium placed in the mine before the lake was allowed to form. This will required operation of a pump barge in the lake, re-creation of an interceptor well field to the West, and installation of dewatering wells in the waste material placed in the mine. Further expansion of the mining footprint would result in an increase in the required dewatering rate beyond that achieved in the historic Sleeper Mining. A preliminary evaluation of the expanded dewatering requirements has been performed (Thompson, 2012) and projects dewater production rates of 34,000 gpm or nominally 225% of the peak historic dewatering rate.

Details of the required dewatering program represent an area of uncertainty and will require more detailed definition as the engineering plans are refined.

16.3 PRODUCTION SCHEDULE

The production schedule includes waste material removed from the bottom of the existing mine, overburden and mineralized material produced by expansion of the surface mine, and mineralized mine dumps. Components of the mining are summarized in Table 16.3.

Table 16.3 Component of Sleeper Mining Production

Mined Material Component	Production (000 tonnes)
Waste and Alluvium Placed in Mine	20,434
Mined Mineralized Dumps	17,060
Overburden	55,877
Facilities Zone Mineralized Material	8,544
Sleeper Zone Mineralized Material	13,002
West Wood Mineralized Material	594
Mixed	17,973

A production schedule was developed for a constant throughput to the crusher/agglomeration plant of 10.9 M tonnes per year. Mining production is scheduled over an 8 year period, with feed to the heap leach pad. Table 16.4 lists the production from the mine to the overburden storage, heap leach pad and stockpiles, and the scheduled process feed to the heap leach pad.

Table 16.4 Projected Production Schedule for Sleeper Mining

Paramount Gold										
Sleeper Mine										
HL Operation Only Scenario, 30k tpd										
		366	365	365	365	366	365	365	365	
	Year	1	2	3	4	5	6	7	8	Total
Total Waste Tonnes	kT	6,378	6,400	7,994	10,171	10,080	6,451	7,966	436	55,877
Strip Ratio		0.58	0.58	0.73	0.93	0.92	0.59	0.73	0.45	0.72
Aluvium Tonnes from Mine to HL	kT	1,834	2,299	3,729	2,991	2,268	4,161	3,152	-	20,434
Au Grade	gpt	0.31	0.74	0.65	0.52	0.36	0.33	0.35	-	0.47
Au Oz	oz	18,099	54,616	77,895	50,391	26,263	44,770	35,329	-	307,362
Ag Grade	gpt	1.96	1.37	1.46	1.04	0.75	0.67	0.87	-	1.10
Ag Oz	oz	115,299	101,213	175,542	99,746	54,502	89,136	88,069	-	723,507
Au Recovery	%	72%	72%	72%	72%	72%	72%	72%	72%	72%
Ag Recovery	%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Recovered Au		13,031	39,323	56,084	36,281	18,909	32,234	25,437	0	221,301
Recovered Ag		10,377	9,109	15,799	8,977	4,905	8,022	7,926	0	65,116
Dump Tonnes from Mine to HL	kT	7,031	5,314	1,114	2,197	1,404	-	-	-	17,060
Au Grade	gpt	0.44	0.49	0.27	0.30	0.33	-	-	-	0.42
Au Oz	oz	99,021	83,191	9,568	20,928	15,022	-	-	-	227,731
Ag Grade	gpt	0.00	0.00	0.01	0.02	0.04	-	-	-	0.01
Ag Oz	oz	37	806	311	1,349	1,596	-	-	-	4,099
Au Recovery		72%	72%	72%	72%	72%	72%	72%	72%	72%
Ag Recovery		9%	9%	9%	9%	9%	9%	9%	9%	9.00%
Recovered Au		71,295	59,898	6,889	15,068	10,816	0	0	0	163,966
Recovered Ag		3	73	28	121	144	0	0	0	369
Facilities Tonnes from Mine to HL	kT	1,759	1,237	776	1,988	2,229	513	43	-	8,544
Au Grade	gpt	0.28	0.31	0.29	0.27	0.28	0.29	0.39	-	0.28
Au Oz	oz	15,905	12,197	7,117	17,458	19,754	4,848	537	-	77,814
Ag Grade	gpt	4.06	3.93	3.66	4.35	4.38	3.23	3.78	-	4.11
Ag Oz	oz	229,753	156,249	91,386	277,997	313,907	53,314	5,178	-	1,127,784
Au Recovery		79%	79%	79%	79%	79%	79%	79%	79%	79%
Ag Recovery		8%	8%	8%	8%	8%	8%	8%	8%	8%
Recovered Au		12,565	9,635	5,622	13,792	15,605	3,830	424	0	61,473
Recovered Ag		18,380	12,500	7,311	22,240	25,113	4,265	414	0	90,223
Mixed Tonnes from Mine to HL	kT	136	641	2,578	2,483	3,186	4,529	3,987	433	17,973
Au Grade	gpt	0.39	0.45	0.57	0.43	0.34	0.36	0.38	0.56	0.41
Au Oz	oz	1,690	9,382	47,551	34,166	35,242	51,747	49,261	7,858	236,896
Ag Grade	gpt	6.39	5.27	5.40	4.28	6.64	4.61	2.67	1.78	4.58
Ag Oz	oz	27,954	108,747	447,504	342,003	680,463	671,567	342,782	24,790	2,645,810
Au Recovery		68%	68%	68%	68%	68%	68%	68%	68%	67.50%
Ag Recovery		20%	20%	20%	20%	20%	20%	20%	20%	20%
Recovered Au		1,140	6,333	32,097	23,062	23,788	34,929	33,251	5,304	159,905
Recovered Ag		5,591	21,749	89,501	68,401	136,093	134,313	68,556	4,958	529,162
Sleeper Tonnes from Mine to HL	kT	182	1,436	2,731	1,208	1,771	1,666	3,481	526	13,002
Au Grade	gpt	0.32	0.36	0.53	0.36	0.27	0.29	0.35	0.88	0.39
Au Oz	oz	1,870	16,611	46,397	13,805	15,153	15,794	38,832	14,839	163,302
Ag Grade	gpt	2.92	3.06	1.79	1.55	1.00	0.64	0.45	1.38	1.29
Ag Oz	oz	17,082	141,501	157,183	60,308	56,748	34,144	50,680	23,403	541,048
Au Recovery		85%	85%	85%	85%	85%	85%	85%	85%	85.00%
Ag Recovery		10%	10%	10%	10%	10%	10%	10%	10%	10%
Recovered Au		1,590	14,119	39,438	11,734	12,880	13,425	33,007	12,613	138,806
Recovered Ag		1,708	14,150	15,718	6,031	5,675	3,414	5,068	2,340	54,105
West Wood Tonnes from Mine to HL	kT	7	23	21	83	92	80	288	-	594
Au Grade	gpt	0.24	0.24	0.24	0.32	0.41	0.29	0.67	-	0.49
Au Oz	oz	55	177	167	851	1,203	748	6,235	-	9,436
Ag Grade	gpt	4.54	4.54	4.54	6.96	8.66	1.44	0.03	-	2.91
Ag Oz	oz	1,021	3,284	3,105	18,635	25,618	3,724	256	-	55,642
Au Recovery		72%	72%	72%	72%	72%	72%	72%	72%	72%
Ag Recovery		9%	9%	9%	9%	9%	9%	9%	9%	9%
Recovered Au		40	127	121	613	866	539	4,489	0	6,794
Recovered Ag		92	296	279	1,677	2,306	335	23	0	5,008
Total HL Production	kTs	10,950	10,950	10,950	10,950	10,950	10,950	10,950	959	77,609
Au Grade	gpt	0.39	0.50	0.54	0.39	0.32	0.33	0.37	0.74	0.29
Contained Au Oz	oz	136,640	176,174	188,696	137,597	112,636	117,906	130,194	22,698	1,022,541
Recoverable Au Oz		99,661	129,437	140,251	100,549	82,865	84,956	96,609	17,918	752,245
Average Au Recovery	%	73%	73%	74%	73%	74%	72%	74%	79%	73.6%
Ag Grade	gpt	1.11	1.45	2.49	2.27	3.22	2.42	1.38	1.56	2.04
Contained Ag Oz	oz	391,146	511,800	875,030	800,039	1,132,834	851,884	486,964	48,193	5,097,891
Recoverable Ag Oz		36,151	57,877	128,636	107,447	174,234	150,350	81,988	7,298	743,982
Average Ag Recovery	%	9%	11%	15%	13%	15%	18%	17%	15%	15%
Total Tonnes to HL	kTs	10,950	10,950	10,950	10,950	10,950	10,950	10,950	959	77,609
Total Tonnes to HL/Day	tpd	29,918.03	30,000.00	30,000.00	30,000.00	29,918.04	30,000.00	30,000.00	2,626.15	
Total Tonnes to Mill	kT									
Total Tonnes to Mill/Day	tpd									
Total Material Moved	kT	17,328	17,350	18,944	21,121	21,030	17,401	18,916	1,394	133,485
Total Material Moved/day	tpd	47,345.15	47,535.32	51,902.07	57,864.95	57,459.13	47,673.89	51,824.76	3,820.40	

Note: The above production schedule includes Inferred Mineral Resources. Inferred Mineral Resources do not meet the criteria for economic assumptions to be applied that would indicate that this material is economically viable. There is no certainty that resources will be converted to Mineral Reserves.

16.4 MOBILE EQUIPMENT FLEET

The mobile equipment fleet required for the production schedule was developed based on analysis of loading and hauling requirements. Haul distances were at different phases of the mine development were estimated from the preliminary mine layouts. The haul profiles were input into TALPAC™ and used to develop the estimated number and size of haul trucks and shovels required. Other required units were then estimated from observed equipment fleets at other operations. Table 16.5 lists the estimated mobile equipment requirements and costs based on the Mining Cost Service of INFOMINE estimating guide.

Table 16.5 Estimated Mobile Equipment Fleet for Sleeper Mining

Equipment	No. of Units	Capacity	Cost per Unit ($US)	Total Cost ($US)
Production FEL	3	21 cubic metre	$4,650,000	$13,950,000
Haul Trucks	7	136 tonne	$2,660,000	18,620,000
Blasthole Drills	3	21.5 cm	$1,064,000	$3,192,000
Dozers	2	-	$922,000	$6,800,000
Graders	1	-	$491,500	$491,500
Water Truck	1	-	$779,000	779,000
Explosive Bulk Truck	1	-	$87,850	$87,850
Service Truck	2	-	$72,000	$144,000
Tire Truck	1	-	$169,000	$169,000
Fuel Truck	1	-	$88,000	$88,000
Light Plants	6	-	$20,000	$120,000
Pumps	6	-	$14,350	$81,600
Pickup Trucks	13	-	$40,000	$520,000
Skid Steer Loader	1	-	$78,000	$78,000
Utility Excavator	1	-	$1,079,000	$1,079,000
Total Cost ($US)				$41,249,050

17 RECOVERY METHODS

The process facilities in the PEA were assumed to be standard cyanide heap leaching with carbon-in-column and ADR recovery plant. Heap leach material would be crushed to P80 -3/4 inch (19 mm) using a primary and secondary crushing circuit. It was assumed that agglomeration would be required for the heap leach. For the heap leach only system, the crushing circuit would be sized for 30 ktpd throughput, with a stockpile of mineralized material developed to level the process rate.

The process facilities would produce a dore' for direct sale to a regional refinery. It was assumed that produced metal would be sold at spot prices for gold and silver. Limited data was available from Bottle Roll Testing and Column Leach Testing of drill samples from the Sleeper Overburden Dumps, Facilities Zone, Westwood Zone and Sleeper Tails. The tests indicated that materials from the Facilities Zone and Overburden Dumps had generally high Au recovery in cyanide leach tests, while Westwood Zone and Sleeper Tails material had generally low Au recovery in cyanide leach tests.

Three general mining zones were defined on the basis of metallurgical testing and historical mining performance: (1) the Facilities Zone (area on the eastern edge of the Sleeper surface excavation), (2) Sleeper Zone (low grade continuation of the original Sleeper deposit at depth), (3) west Wood and (4) Overburden Dumps and alluvium from historic Sleeper mining operations. On the basis of the existing test data and the historical metallurgical performance of the Sleeper cyanide heap leach and cyanide mill processing, process recovery assumptions used in the Whittle optimization were:

- Alluvium – 72% for gold and 8% for silver
- Dumps – 72% for gold and 42.5% for silver
- Facilities Zone – 79% for gold and 8% for silver
- Mixed Zones – 67.5% for gold and 20% for silver
- Sleeper Zone – 85% for gold and 10% for silver
- West Wood Zone – 72% for gold and 9% for silver

The process facilities would produce a dore' for direct sale to a regional refinery. It was assumed that produced metal would be sold at spot prices for gold and silver.

18 PROJECT INFRASTRUCTURE

Infrastructure required to re-establish mining operations at Sleeper are primarily in place due to the historic mining. That primary infrastructure consists of access to the mine site, human resources, electrical power and water. Each of these components is discussed in the following sections.

18.1 LOCATION AND ACCESS

The Sleeper Property is located 26 miles to the Northwest of Winnemucca NV, which is on Interstate 80 and connects the major cities of Reno, NV and Salt Lake City, Utah. Access is to the north via State Highway 95 approximately 32 miles and the west on State Highway 140 approximately 14 miles. The property is connected to the paved highways by a maintained gravel road, Sod House Road, which enters the project site.

Interstate 80 is a major commercial artery across northern Nevada, and with the parallel railroad transport corridor allows delivery of bulk consumables required by large mining operations directly to Winnemucca. Numerous gold mining operations are scattered along this transportation corridor assuring a well-developed service basis for equipment and supplies.

18.2 HUMAN RESOURCES

The community of Winnemucca NV has a population of 7,400 and is the county seat of Humbolt Co. Nevada. The surrounding mining operations are substantial employers in the Winnemucca community, and personnel also commute to mining operations from the surrounding area. The extensive scope of mining along the I-80 corridor assures that the necessary skills and support services will be available to any future operation.

18.3 ELECTRICAL POWER

An existing high-tension electrical power line services Sleeper from the north. This 120 kV line is operated by Haney Rural Electric Company of Burns, Oregon. The capacity of this line may require upgrading for the increased processing envisioned for the re-establishment of Sleeper mining. No planning has been completed at this stage, and future engineering studies will need to establish the required line capacity and enter into negotiations with the power supplier.

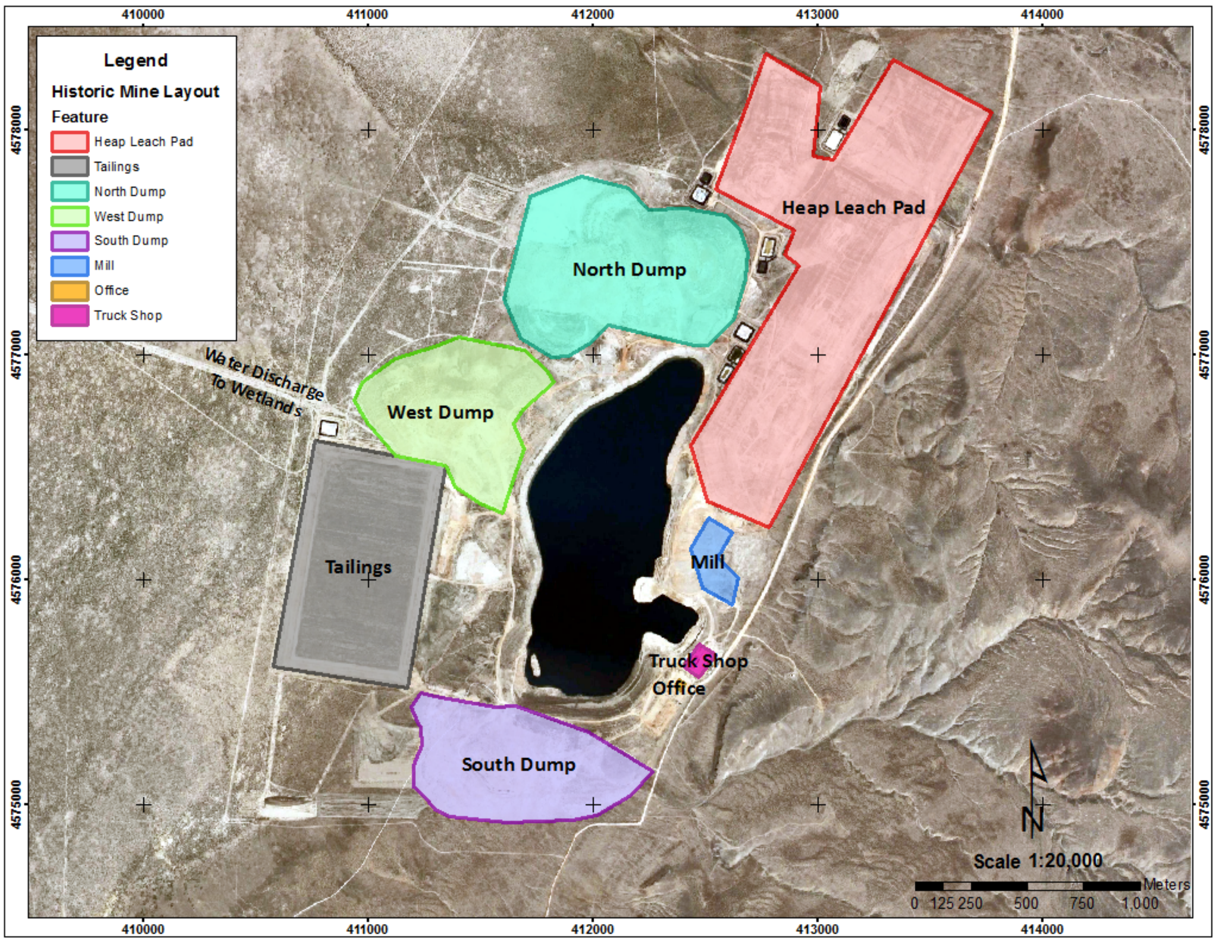
18.4 WATER

Historical Sleeper operations had water rights which allowed supply to the process facilities and heap leach pad, which were the primary consumers. Re-establishing mining operations at Sleeper will require dewatering operations similar in scale to historical requirements, with the final dewatering rates estimated to be at 225% of the historical capacity. Paramount currently holds water rights for future operations. Establishing the water balance for the project will be a priority for advanced engineering studies.

18.5 FACILITIES

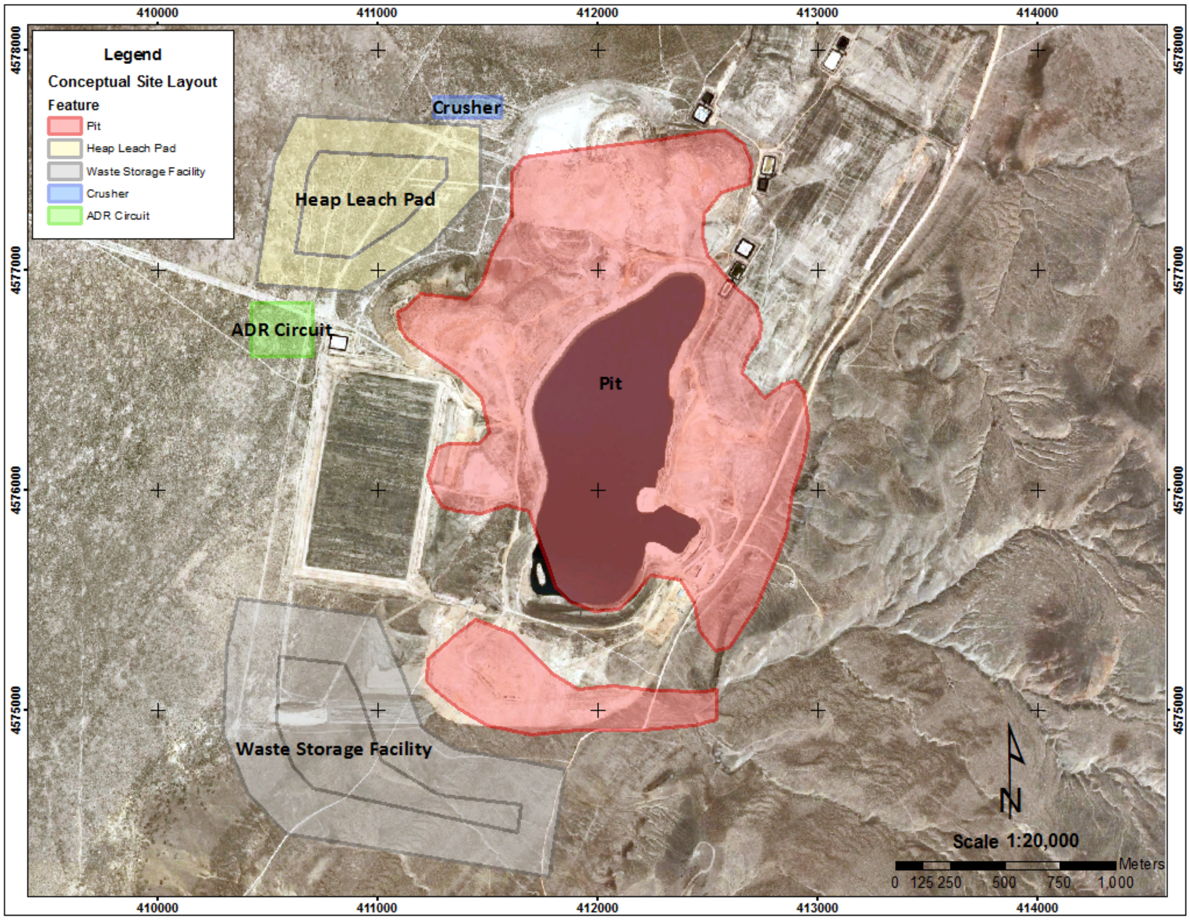
Much of the Sleeper mining infrastructure has been reclaimed, so re-establishing mining operations will require construction of new facilities. Existing shops and offices are located on top of the Facilities Zone, so will require removal and relocation. Figure 18.1 illustrates the site layout when the mine was closed in 1996. The equipment required for the large scale mining needed to deliver the economies of scale for the indicated low grades of mineralized material are too large for the current equipment shops, so new construction will likely be required, with potential for recycling some of the existing components. Facilities which require construction are the dewatering and water supply system, wet land or rapid infiltration basin, crusher and agglomeration plant, ADR facility, reagent tanks, warehouse, mobile equipment shops, fuel depot, operations and administration building, assay laboratory, bulk materials storage and electrical systems.

Figure 18.1 Historic Sleeper Mine Layout



A conceptual location for mine support facilities would be to the north of the planned mine, as illustrated in Figure 18.2. The site access road would cut across north of the historic heap leach pads and historic North Dump, and follow west of the North Dump. To the north and west of the historic North Dump would be the mine office, truck shop and crushing plant.

Figure 18.2 New Conceptual Sleeper Site Layout



18.6 HEAP LEACH PAD AND ADR PLANT

The heap leach pad has been placed northwest of the planned mine area in the conceptual layout. This area is fairly flat and drains to the south-west. The ADR plant could be located at the southwest corner of the leach pad as illustrated in Figure 18.2. The leach pad was assumed to be approximately 70 meters high based on historic pad heights at Sleeper and the assumed need to agglomerate.

18.7 OVERBURDEN DUMP

A single overburden dump area was assumed for the project, and was assumed to be located to the southwest of the mine area as illustrated in Figure 18.2. The height of the dump was assumed to be 60 meters; or 100 meters below the elevation of nearby mountains. This location would allow for easy access from ramps exiting the mine in the southern most extent and along the eastern extent of the mine.

19 MARKET STUDIES AND CONTRACTS

The study assumes that a gold dore' will be produced at an ADR facility located at Sleeper, and sold on to a gold refiner offsite. No transport and refining charges have been considered in the analysis, and no contracts for delivery of gold dore' have been established due to the preliminary nature of the evaluation.

It has been assumed that gold would be sold on the spot market, which has historically been able to absorb the entire world production.

No contracts for materials delivery, electrical supply or maintenance have been established.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 HISTORICAL STATUS OF THE SLEEPER MINE

The Project was explored, developed (mined, milled and heap leached) in the 1980's and 1990's. Reclamation has occurred on the majority of the mine facilities (waste dumps, tailing impounds, heap leach pads and ancillary facilities (access and haul roads) and the open pit has been allowed to refill with water. These reclamation efforts have received awards and recognition from the regulatory agencies and the public. Current activities at the site involve exploration, permit maintenance and reclamation monitoring.

There are no known environmental issues that are adversely impacting air, water or soil resources at the site. Key environmental issues associated with current drilling activities and this NI 43-101 Report are wildlife and archaeology.

While there are no Threatened or Endangered (T&E) species of vegetation or wildlife within the project boundary, there are sensitive species (pygmy rabbit and sage grouse) that may exist and depending upon their location may warrant special mitigation.

There are also known sensitive cultural/archaeological sites within the project area. However, these sites have been effectively avoided during current operations.

20.2 PERMITS

The project is currently operated as an advanced exploration project. Key permits associated with these activities include:

- Exploration Reclamation Permit #0219
- Exploration Plan of Operations #N77104
- Class II Air Quality Operating Permit Surface Area Disturbance #AP1041-2831
- Mimi Project Notice #N91258
- Daylight Project Notice #N91270

The reclamation bonds associated with the above activities are:

- Exploration Bond #NVB000444 current obligation $345,044 which covers the Sleeper property as follows:
    - Sleeper Exploration current obligation $283,077
    - Mimi Project current obligation $16,658
    - Daylight Project current obligation $14,398
    - There is an excess of $30,911 as needed for future use

There are also numerous other permits in place that are maintained from previous mine activities. These are maintained for ease in updating should a decision be made to reinitiate production at the site. Maintenance of these permits includes monthly, quarterly and annual monitoring and reporting. These permits include:

- Mine Reclamation Permit #0037
- Water Pollution Control Permit #NEV50006
- Ground Water Appropriation Permit #53228, #53231 and #53236
- Radio Station (FCC) License #11216793
- Hazardous Materials Permit #30473 FDID #08250 Facility #1168-2326
- Class III Solid Waste Landfill Waiver #SWMI-08-10
- Industrial Artificial Pond Permit #S34480
- Mine Plan of Operations #N64100

A reclamation bond in the amount of $3,915,626 is currently posted with the US Bureau of Land Management to (Mine Bond #NVB000330). The current obligation was approved 9/25/13 and is reviewed every 3 years. This bond guarantees that reclamation is performed on associated mine facilities and activities at the site. Paramount is currently in compliance with all issued permits.

20.3 PERMIT REQUIREMENTS FOR NEW MINING OPERATION

This section of the technical report summarizes the permits that will likely be required to conduct new mining activities at the Sleeper Project. In order to conduct mining and processing activities, the Project will need specific permits from the State of Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) and Bureau of Air Pollution Control (BAPC) and the BLM. As part of the Sleeper Project resumption of mining and processing activities will require the BLM to comply with the National Environmental Policy Act (NEPA). NEPA Compliance will likely be through the development of an Environmental Impact Statement (EIS) based on an amended or new Plan of Operations. The following is a list of the major permits that will be required followed by a brief discussion of each.

- Plan of Operations/Nevada Reclamation Permit;
- Water Pollution Control Permit;
- Air Quality Operating Permit;
- Water Rights; and
- Industrial Artificial Pond Permit.

20.3.1 PLANS OF OPERATION/NEVADA RECLAMATION PERMIT

A Plan of Operations/Nevada Reclamation Permit (Plan) is a joint application that is submitted to the BLM and NDEP BMRR that utilizes a format accepted by the BLM and BMRR. The application will describe the operational procedures for the construction, operation, and closure of the Project. As required by the BLM and BMRR, the Plan will include a waste rock management plan, quality assurance plan, a storm water spill contingency plan, reclamation plan, a monitoring plan, and an interim management plan. In addition, the Plan includes a Reclamation Cost Estimate for the reclamation and closure of the Project. The mine design must be completed prior to submittal of the Plan.

20.3.2 WATER POLLUTION PERMIT APPLICATION

The Water Pollution Control Permit (WPCP) application must address the open pit, waste rock dump, heap leach pad, mining activities, mill tailings and the water management system, as well as the potential for these facilities to degrade waters of the state. The application includes an engineering design for the waste rock dump, a waste characterization report and a modeling report for the closure of the waste rock dump, heap leach pads and tailings storage facility, as well as an engineering design for the water management system.

A Tentative Plan for Permanent Closure must also be completed and submitted to the NDEP BMRR in conjunction with the WPCP. A Final Permanent Closure Plan will need to be developed two years prior to Project closure.

20.3.3 AIR QUALITY OPERATING PERMIT

A Title V Permit Application for those portions of the stationary sources that have the potential to emit pollutants, including mercury, must be prepared using BAPC forms. The Application includes a description of the facility and a detailed emission inventory. The Application also includes locations, plot plans, and process flow diagrams. The Application must also include a fugitive dust control plan to be used during construction and operation of the Project. The processing facility will treat loaded carbon and electrowinning precipitate; therefore, a Mercury Air Quality Permit application will also be necessary, which is required to address the necessary federal and state mercury controls.

20.3.4 WATER RIGHTS

Water rights are needed from the Nevada Division of Water Resources (NDWR) to remove and utilize the water from the mining operation and to provide water for the public water system. Water management is likely to be a major issue due to the dewatering requirements and will involve the NDEP, Nevada State Engineer and Nevada Department of Wildlife (NDOW) the current administer of the Sleeper Pit Lake).

Historically, dewatering operations at the Sleeper Project directed the water into an artificial wetland, which allowed reinfiltration into the alluvial aquifer system; however, this activity also resulted in losses due to evaporation. Current, the industry practice is to develop a rapid infiltration basin to reduce the amount of evaporation losses. It is likely that any new dewatering system at Sleeper will require a rapid infiltration basin to minimize evaporative loss because the dewatering water right does not include consumption by the mine.

20.3.5 INDUSTRIAL ARTIFICIAL POND PERMITS

The development of the water storage pond(s), which is part of the water management system, will require an Industrial Artificial Pond Permit (IAPP) from the NDOW.

20.3.6 MINOR PERMITS AND APPLICATIONS

In addition to the above noted permits, Table 20.1 lists potential other notifications or ministerial permits that will likely be necessary to conduct the new mining operations.

Table 20.1 Required Minor Permits and Applications

Notification/Permit	Agency	Comments
Mine Registry	Nevada Division of Minerals	-
Mine Opening Notification	State Inspector of Mines	-
Solid Waste Landfill	Nevada Bureau of Waste Management	-
Hazardous Waste Management Permit	Nevada Bureau of Waste Management	-
General Storm Water Permit	Nevada Bureau of Water Pollution Control	-
Hazardous Materials Permit	State Fire Marshall	-
Fire and Life Safety	State Fire Marshall	-
Explosives Permit	Bureau of Alcohol, Tobacco, Firearms and Explosives	Mining contractor may be responsible for permit
Notification of Commencement of Operation	Mine Safety and Health Administration	-
Radio License	Federal Communications Commission	-
Public Water Supply Permit	NV Division of Environmental Protection	-
MSHA Identification Number and MSHA Coordination	U.S. Department of Labor Mine Safety and Health Administration (MSHA)	-
Septic Tank	NDEP – Bureau of Water Pollution Control	-
Petroleum Contaminated Soils	NV Division of Environmental Protection	-

21 CAPITAL AND OPERATING COSTS

Capital and operating costs have been developed using information available from historical data bases for similar type projects, available test work data on the project material types, and the CostMine cost data service by InfoMine USA, Inc. This basic data was reviewed in discussions with staff at operating mines in Northern Nevada where heap leach processing was underway to assure that the estimates represented the range of practice.

A conceptual basis for the development of site infrastructure (heap leach pad, overburden storage facility, roads, shops offices, process plant) was defined as the basis for capital cost estimates. The capital costs were developed based on a nominal total mining rate of 46.2 k tonnes per day, processing 30 k tonnes of mineralized material per day. The estimate includes facilities, mobile equipment and sustaining capital required over the LOM.

Cost accuracy is estimated to be + or – 35%. All costs are in constant USD from Q3 2015, without escalation for inflation.

21.1 CAPITAL COSTS

Capital costs are described for the general categories of initial capital, expansion capital, sustaining capital, contingency, initial fills and spares, and working capital in Table 21-1.

Table 21.1 Total Estimated Capital Expenditure

Capital Description	Estimated Capital Cost ($US M)
Initial Capital	$145.5
Expansion Capital	$22.6
Sustaining Capital	$37.4
Contingency	$29.4
Initial Fills and Spares	$5.0
Working Capital	$18.9
Total	$258.8

21.1.1 PROJECT CAPITAL COSTS – CONSTRUCTION YEAR -1

The Construction capital cost is listed in Table 21-2 and consists of costs associated with project construction which is assumed to begin in year -1, prior to production. Sunk costs associated with Feasibility Studies, Permitting and finance are not included in the evaluation. The construction capital costs include direct costs, indirect costs, Owner's costs and contingency. Direct capital cost includes the CIC and ADR plant and ponds, initial heap leach pad construction, crusher plant, stacker conveyor, infrastructure buildings and services, site roads, and the mobile equipment fleet. Indirect costs included Engineering, Procurement and Construction Management (EPCM) at a rate of 18%. Owner's cost includes an allowance for property maintenance and development of management team and workforce, and the training of the workforce. A contingency of 25% on direct capital items excluding the mobile equipment was assumed. The mobile equipment fleet was estimated to cost $US 20.7 M in year -1, with the remainder of the equipment deferred into sustaining capital.

Table 21.2 Initial Project Capital Costs Elements - Year -1

Capital Item	Estimated Capital Cost ($US M)
Direct Capital Cost	$93.5
Indirect Capital Cost	$21.2
Owner's Cost	$6.5
Contingency	$24.3
Total	$145.5

21.1.2 OTHER CAPITAL – YEARS 1 TO 8

Other capital included all capital costs occurring after the startup of production (year 1-8). It included incremental capital for expansion of production capacity (leach pad expansion, haul road construction, overburden storage expansion). It also included estimates for re-creation of the dewatering system and dewatering of the mine lake, which was projected to begin in year 2. Capital costs were estimated based on a New Sleeper Gold internal memo (Alexander, 2005) and escalated to 2015. Evaluation of the dewater requirement is an area of high uncertainty in the capital cost estimate used here, which assumes re-creation of the system used in historical Sleeper mining. The cost estimate includes a pump barge to dewater the existing mine lake, an interceptor well field to the west of the mine and re-establishment of the historical wetlands for disposal of the water. Rebuild of the mobile equipment was projected at $14.6M reflecting the relatively short operating life. Other capital is listed in Table 21-3, including a contingency of 25% on direct items.

Table 21.3 Other Capital Cost

Capital Item	Sustaining Capital Cost ($US M)
Other Capital LOM	$108.2
Remaining Contingency	$5.1
Total Sustaining Capital	$113.3

21.2 WORKING COST

A working cost equivalent to the estimated operating cost for the first 4 months of production was included in the financial analysis. This cost was $US 18.9 M to allow for the lag between startup of leaching and production of the first Au dore'. This cost is assumed recovered at the end of operations.

21.3 INITIAL FILLS AND SPARES

An allowance of $US 5 M was included in the first production year to account for consumable stocks and maintenance materials at startup. This cost is assumed recovered at the end of operations

21.4 OPERATING COST

Operating cost assumptions were based on similar scale surface mining operations using heap leach processing in northern Nevada, and on process cost estimates for key consumables based on the available metallurgical test data, power consumption estimates and prevailing costs for key materials in similar Nevada mining operations. The operating cost assumptions are listed in Table 21.4 on the basis of processed tonnes of mineralized material.

Table 21.4 Sleeper Estimated Unit Operating Cost

Operating Cost Category	Estimated Operating Cost ($US/process tonne)
Mining (includes waste and mineralized material)	$2.41
Heap Leach Processing	$1.98
Administrative	$0.80
Dewatering	$0.20
Reclamation	$0.11
Credit Working Capital and Initial Fills & Spares Recovery	($0.31)
Total	$5.19

Dewatering operating costs were developed considering historical Sleeper annual dewatering costs, the total dewatering rate and escalation of electrical power costs. Electrical costs were the major component of dewatering operating cost and are currently approximately twice the historical rate. The dewatering operating cost of $0.20 per process tonne, reflects a dewatering rate of approximately 280% of the historical dewatering production, which is consistent with the projections developed by Thompson, 2012.

Reclamation cost is consistent with the projected scale of the mining operation. More definitive estimates will require detail design of the facilities

22 ECONOMIC ANALYSIS

An economic evaluation of the Sleeper gold project was performed based on the schedule of production physicals from Section 16 and the capital and operating cost estimates in Section 21. The evaluation assumes constant US dollars from Q3 2015 and considers estimates of the Nevada Mineral Proceeds Tax and US Federal tax. A constant gold price of $US 1,250 per Au ounce and a constant silver price of $US 16 per Ag ounce were assumed for the base case evaluation. No escalation of costs beyond Q3 2015 is assumed in the analysis. Construction of the project is assumed to require 1 year before startup of production, with an LOM of 11 years considering reclamation. Active mining would be conducted for 8 years. Recovery of metal inventory is assumed during rinse down of the leach pad in year 9.

The gold/silver production model assumes an inventory buildup of 15% of the recoverable metal in year 1 to account for the startup of the metal leaching. Pad inventory is assumed to continue increasing at a rate of 11% of recoverable metal production in year 2 -8. Recovery of the year 1 inventory increment is assumed in year 3 and recovery of the metal inventory continues to year 9.

This PEA is preliminary in nature, and is based on technical and economic assumptions which consists of material in Measured, Indicated and Inferred classifications. Inferred mineral resources are considered too speculative geologically to have technical and economic considerations applied to them. The current basis of project information is not sufficient to convert the in-situ mineral resources to Mineral Reserves, and mineral resources that are not mineral reserves do not have demonstrated economic viability. Accordingly, there can be no certainty that the results estimated in this PEA will be realized. The PEA results are only intended as an initial, first-pass review of the potential project economics based on preliminary information.

22.1 ECONOMIC PERFORMANCE PARAMETERS

Mining physicals in the production schedule from Table 16-4 were used with unit operating cost assumptions from Table 21-4 to calculate annual operating costs. Capital costs were input on an annual basis using a conceptual schedule for construction in year -1, followed by sustaining capital and contingencies over the LOM.

Economic and physical performance parameters are listed in Table 22-1, for the base case price assumptions, for spot price assumptions as at October 12, 2015, and a long term price assumption.

Table 22.1 Projected Economic and Physical Performance Parameters for the Sleeper Evaluation Using Base Case, Spot Price and Long Term Price Assumptions

Parameter	Base Case	Spot Price Case	Long Term Price Case
Gold Price Assumption	$1,250	$1,185	$1,400
Silver Price Assumption	$16	$16	$16
In-pit Resource Measured (0.1 g/t COG)	32,956	32,956	32,956
In-pit resource – Indicated (0.1 g/t COG)	10,089	10,089	10,089
In-pit resource – Inferred (0.1 g/t COG)	34,924	34,924	34,924
Pre-tax Net Cash Flow	$US 290.5 M	$US 241.6 M	$US 405.5 M
Pre tax Net Present Value (NPV) at 5%	$US 201.8 M	$US 161.7 M	$US 296.4 M
Internal Rate of Return Pre tax (IRR)	28.4%	24.1%	38.1%
After tax Net Cash Flow	$US 198.5 M	$US 165.0 M	$US 277 M
After tax Net Present Value (NPV) at 5%	$US 125.8 M	$US 98.3 M	$US 190.5 M
After tax Internal Rate of Return (%)	20%	17%	27%
Overall Strip Ratio (overburden:mineralization)	0.72	0.72	0.72
Average Annual Gold Production	92.4 k oz	92,.4 k oz	92.4 k oz
Average Annual Silver Production	91.8 k oz	91.8 k oz	91.8 k oz
Average Gold Recovery	73.6%	73.6%	73.6%
Average Silver Recovery	14.6%	14.6%	14.6%
Average Total Mining Rate*	46.2 k tpd	46.2 k tpd	46.2 k tpd tpd
Average Mineralized Material Mining Rate*	26.6k tpd	26.6 k tpd	26.6 k tpd
Average Processing Rate*	26.6 k tpd	26.6 k tpd	26.5 k tpd

- over production years 1-8

Table 22-2 lists the LOM physical data for the Sleeper Project Evaluation.

Table 22.2 Summary of the Projected Physical Data for the Estimated Sleeper Production Schedule

Key Physical Data	Units	Data
Process Feed Mined	M tonnes	77.6
Overburden Mined	M tonnes	55.9
Total Material Mined	M tonnes	133.5
Mine Life	Years	8
Contained Gold	M Oz	1.02
Recovered Gold	M Oz	0.75
Assumed Gold Recovery	%	73.6
Contained Silver	M Oz	5.10
Recovered Silver	M Oz	0.74
Assumed Silver Recovery	%	14.6
Average Strip Ratio	(overburden:mineralized material)	0.72
Average Gold Grade	g/t	0.41
Average Silver Grade	g/t	2.04

The projected LOM unit operating and capital costs per process tonne and per equivalent produced Au ounce are listed in Table 22-3.

Table 22.3 Projected Operating, Capital and Total Cost Summary - Sleeper Gold and Silver Project

Cost Area	Cost per process tonne ($US/t)	Cost per equivalent* produced Au ounce ($US/eq.Oz)
Mining	$2.41	$245
Processing	$1.98	$202
Administrative	$0.80	$81
Dewatering	$0.20	$20
Reclamation	$0.11	$11
Credit working capital and Initial Fills & Spares	($0.31)	($32)
Operating Cost	$5.19	$529
Capital Cost	$3.33	$340
Projected Total Cost	$8.52	$869

* Gold Price =$US 1,250 per ounce; Silver Price = $US 16 per ounce

22.2 CASH FLOW SCHEDULE

The projected annual production and cash flow (considering estimates of Nevada Mineral Proceeds Tax and US Federal Tax) for the Sleeper Gold and Silver Project is listed in Table 22-4. The estimated payback period , assuming constant metal prices of US$ 1,250 per Au ounce and $16.00 per Ag ounce is 4.5 years after the beginning of construction in Year -1.

A simple tax calculation was utilized to estimate the Nevada Mineral Proceeds Tax (NMPT) and US Federal Tax where operating costs and depreciation were subtracted from revenue to calculate the income basis for NMPT which was assumed at the maximum rate of 5%. The Federal taxable income was estimated after subtraction of the NMPT and an average tax rate of 28% was assumed for US Federal Tax. The assumed US Federal Tax rate was lower than the maximum rate because a simple linear depreciation rate was used based on the rate of depletion of the gold resource, and so does not include the impacts of accelerated depreciation, property acquisition costs or resource depletion.

22.3 SENSITIVITY

The sensitivity of projected economic performance has been evaluated over a range of gold price assumptions between $US 900 - $US 1,900 per ounce (silver price constant - $16.00 per ounce) and the results are listed in Table 22-5. Sensitivity to operating cost, capital cost and gold recovery were investigated over a range of 75% - 125% of the base case assumptions, and are listed in Tables 22-6, 22-7 and 22-8 respectively

Graphical presentations of the sensitivity are shown as spider diagrams in Figures 22-1 which shows the change in IRR for proportional changes of operating cost, capital cost and gold recovery assumptions around the base case (0%), and in Figure 22-2, which shows the change in NPV@5% for proportional changes in operating cost, capital cost and gold recovery assumptions around the base case (0%). The sensitivity analysis indicates that the project economic performance is most sensitive to gold price or metal recovery. The project is least sensitive to capital cost.

Table 22.4 Projected Sleeper Annual Production and Cash Flow (Pre Tax and After Tax) Assuming $US 1,250 per Au Ounce and $US 16.00 per Ag Ounce

Year	Overburden Mined (M t)	Mineralized Material Mined (M t)	Process Feed (M t)	Produced Au (k Oz)	Produced Ag (k oz)	Revenue ($US M)	Operating Cost ($US M)	Capital Cost ($US M)	Pre Tax Net Cash Flow ($US M)	Estimated Nevada Mineral Proceeds Tax ($US M)	Estimated US Federal Tax ($US M)	Estimated After Tax Cash Flow ($US M)
-1								$ (174.7)	$ (174.7)			-$ 174.7
1	6.4	11.0	11.0	84.7	30.8	106.4	$ (56.7)	$ (28.5)	$ 21.2	$ (1.3)	$ (7.1)	$ 12.7
2	6.4	11.0	11.0	114.8	52.1	144.3	$ (56.7)	$ (11.2)	$ 76.5	$ (2.7)	$ (14.5)	$ 59.2
3	8.0	11.0	11.0	139.6	121.5	176.4	$ (58.9)	$ (12.7)	$ 104.8	$ (3.7)	$ (19.7)	$ 81.4
4	10.2	11.0	11.0	104.1	102.1	131.8	$ (62.0)	$ (13.3)	$ 56.5	$ (1.7)	$ (9.1)	$ 45.7
5	10.1	11.0	11.0	89.2	169.5	114.2	$ (61.9)	$ (4.3)	$ 48.0	$ (1.0)	$ (5.5)	$ 41.5
6	6.5	11.0	11.0	86.8	145.7	110.8	$ (56.8)	$ (4.3)	$ 49.7	$ (1.1)	$ (5.7)	$ 42.9
7	8.0	11.0	11.0	95.1	91.2	120.4	$ (58.9)	$ (9.7)	$ 51.8	$ (0.9)	$ (5.0)	$ 45.8
8	0.4	1.0	1.0	25.3	21.6	31.9	$ 19.1		$ 51.0	$ (2.0)	$ (10.5)	$ 38.5
9				12.6	8.9	15.9	$ (3.3)		$ 12.5	$ (0.3)	$ -	$ 12.2
10							$ (3.3)		$ (3.3)	$ -		-$ 3.3
11							$ (3.3)		$ (3.3)	$ -		-$ 3.3
Total	55.88	77.61	77.61	752.10	743.40	$ 952.0	$ (402.7)	$ (258.8)	$ 290.5	$ (14.8)	$ (77.2)	$ 198.5

Table 22.5 After Tax Sensitivity of NPV @ 5% and IRR to Gold Price Between $US 900 and $US 1,900 per Au Ounce (silver price $US 16 per ounce)

Gold Price ($)	NPV ($US M)				IRR (%)
	10%	7.50%	5%	0%	
900	$(52.8)	$(39.1)	$(23.3)	$17.0	2%
1000	$(16.6)	$0.3	$19.9	$69.6	8%
1100	$19.0	$39.1	$62.4	$121.3	13%
1200	$54.4	$77.7	$104.7	$172.7	18%
1300	$89.8	$116.4	$147.0	$224.2	22%
1400	$125.3	$155.0	$189.3	$275.6	27%
1500	$160.7	$193.6	$231.6	$327.1	31%
1600	$196.2	$232.3	$273.9	$378.5	36%
1700	$231.6	$270.9	$316.2	$429.9	40%
1800	$267.1	$309.5	$358.5	$481.4	44%
1900	$302.5	$348.2	$400.8	$532.8	48%

Table 22.6 Sensitivity of After Tax NPV @ 5% and IRR to Gold Recovery (base case metal price assumptions of $1,250/oz. gold and $16/oz. silver)

Sensitivity Value	NPV (US$M)				IRR (%)
	10%	7.50%	5%	0%	
25%	$182.9	$217.8	$258.0	$359.2	34%
20%	$160.7	$193.6	$231.6	$327.1	31%
15%	$138.6	$169.5	$205.2	$294.9	29%
10%	$116.4	$145.3	$178.7	$262.8	26%
5%	$94.3	$121.2	$152.3	$230.6	23%
0%	$72.1	$97.0	$125.8	$198.5	20%
-5%	$50.0	$72.9	$99.4	$166.3	17%
-10%	$27.8	$48.8	$73.0	$134.1	14%
-15%	$5.7	$24.6	$46.5	$102.0	11%
-20%	$(16.6)	$0.3	$19.9	$69.6	8%
-25%	$(39.1)	$(24.2)	$(7.0)	$36.8	4%

Table 22.7 Sensitivity of After Tax NPV@5% and IRR for Changes in Operating Cost (base case metal price assumptions of $1,250/oz gold and $16/oz silver)

Sensitivity Value	NPV (US$M)				IRR (%)
	10%	7.50%	5%	0%	
25%	$ 22.7	$ 43.8	$ 68.3	$ 130.3	13%
20%	$ 32.6	$ 54.4	$ 79.7	$ 143.8	15%
15%	$ 42.4	$ 65.0	$ 91.2	$ 157.4	16%
10%	$ 52.3	$ 75.6	$ 102.7	$ 171.0	17%
5%	$ 62.2	$ 86.3	$ 114.2	$ 184.7	19%
0%	$ 72.1	$ 97.0	$ 125.8	$ 198.5	20%
-5%	$ 82.1	$ 107.8	$ 137.5	$ 212.3	21%
-10%	$ 92.1	$ 118.6	$ 149.2	$ 226.2	23%
-15%	$ 102.1	$ 129.4	$ 160.9	$ 240.1	24%
-20%	$ 112.2	$ 140.3	$ 172.7	$ 254.1	26%
-25%	$ 122.3	$ 151.2	$ 184.5	$ 268.2	27%

Table 22.8 Sensitivity of NPV and IRR to Changes in the Capital Cost (base case metal prices assumptions of $1,250/oz. gold and $16/oz. silver)

Sensitivity Value	NPV (US$M)				IRR (%)
	10%	7.50%	5%	0%	
25%	$26.1	$51.3	$80.5	$154.2	13%
20%	$35.3	$60.5	$89.6	$163.0	14%
15%	$44.5	$69.6	$98.6	$171.9	16%
10%	$53.7	$78.8	$107.7	$180.8	17%
5%	$62.9	$87.9	$116.8	$189.6	18%
0%	$72.1	$97.0	$125.8	$198.5	20%
-5%	$81.3	$106.2	$134.9	$207.3	22%
-10%	$90.5	$115.3	$144.0	$216.2	24%
-15%	$99.7	$124.5	$153.0	$225.0	26%
-20%	$108.9	$133.6	$162.1	$233.9	28%
-25%	$118.1	$142.8	$171.2	$242.7	31%

Figure 22.1 Sensitivity of IRR to Operating Cost, Capital Cost and Gold Recovery or Price around the Base Case Assumptions (0%)

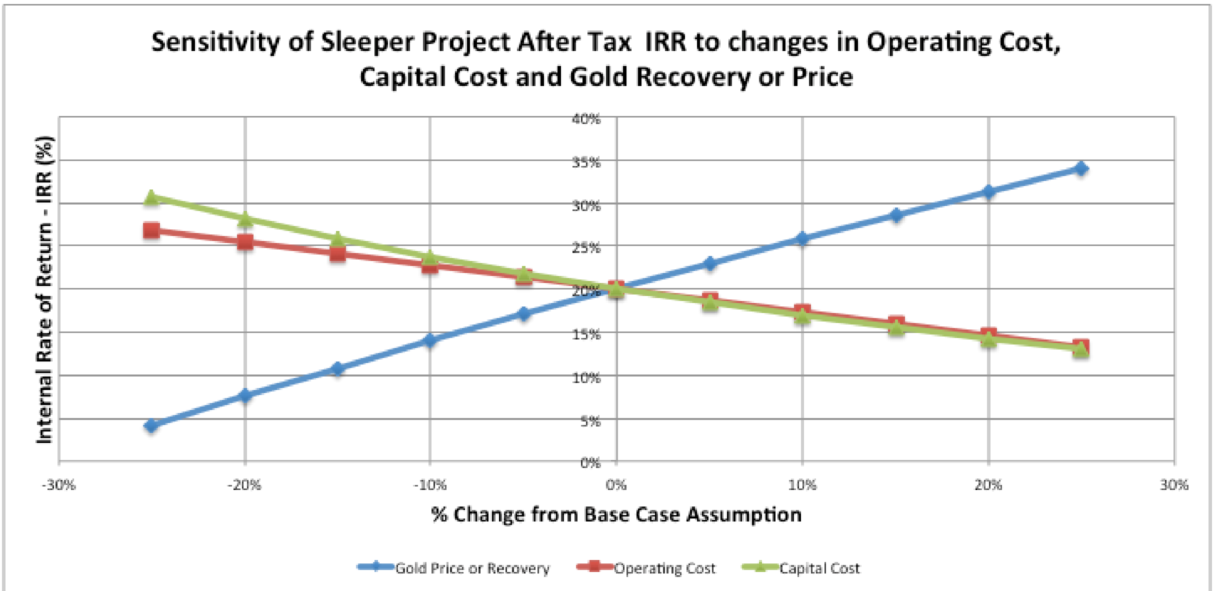
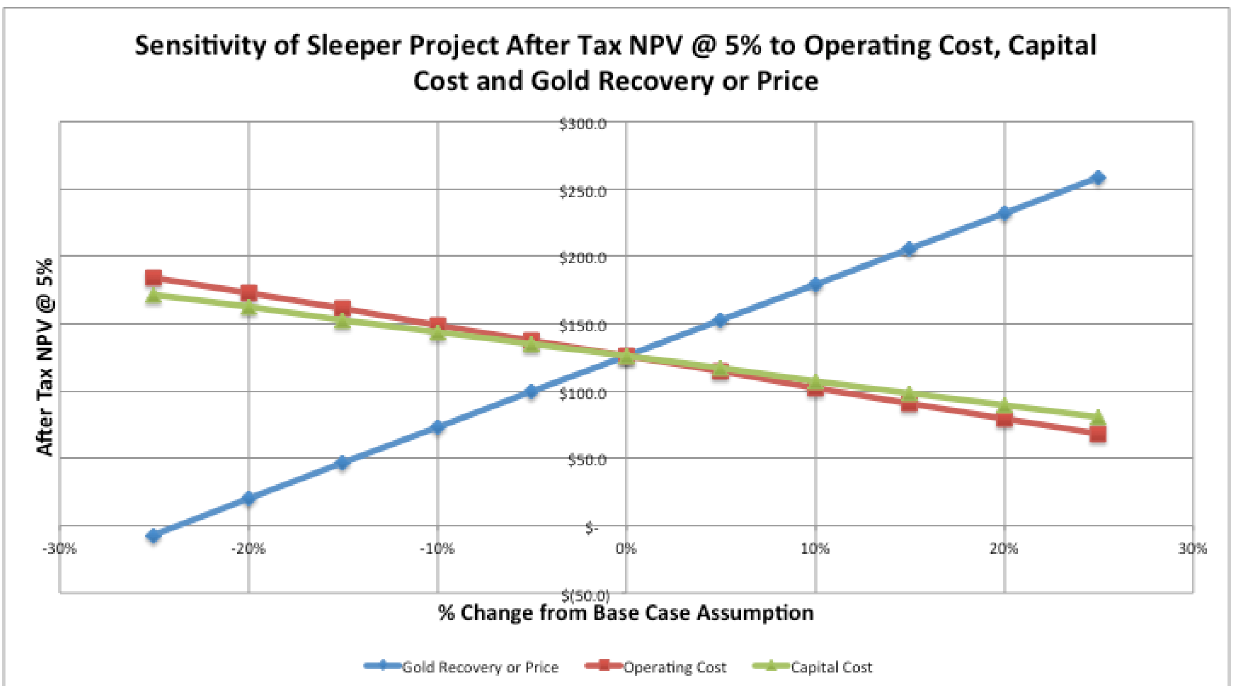


Figure 22.2 Sensitivity of NPV@5% to Changes in Operating Cost, Capital Cost and Gold Recovery or Price Around the Base Case Assumptions (0%)



23 ADJACENT PROPERTIES

No adjacent properties are known to impact the Sleeper Project.

24 OTHER RELEVANT DATA AND INFORMATION

24.1 SULFIDE MATERIAL TREATMENT OPTIONS

Paramount has continued metallurgical testing in all areas at Sleeper, and in particular the sulphide mineralization. These tests include Pressure Oxidation, Bio-Oxidation, and additional column leach testing. These tests have been completed and are discussed later in this report. With the examination of additional test work, material type process parameters were revisited, and recoveries for gold and silver adjusted to the following for this PEA:

- Alluvium – 72% for gold and 8% for silver
- Dumps – 72% for gold and 42.5% for silver
- Facilities Zone – 79% for gold and 8% for silver
- Mixed Zones – 67.5% for gold and 20% for silver
- Sleeper Zone – 85% for gold and 10% for silver
- West Wood Zone – 72% for gold and 9% for silver

This PEA does not include the sulfide oxidation as part of this economic analysis, but is only included as future upside potential in this PEA.

McClelland Laboratories Inc. performed test work on the sulfide materials during 2014 and 2015, testing pressure oxidation and heap leach bio-oxidation. The results from this work are presented in the report titled “Report on Bio-oxidation and Pressure Oxidation Testing Sleeper Drill Core Composites”, MLI Job Number 3775, May 20, 2015. The results from this test work program are summarized here.

Table 24.1 McClelland Laboratories Summary Paramount Sulfide Material Bio-oxidation Test Results

Amenability Test No.	Composite	Biooxidation Time, days	Weight Loss, %[1)]	Estimated Oxidation, %	% S= Init.	% S= Final	Total Fe Ext'd., % of Total	Total Fe Ext'd., % Fe	Total Fe Head Assay, % Fe
AM-14	WWS-13-1	5	0.7	1.7	3.80	3.76	-10.0	-0.36	3.60
AM-1	WWS-13-1	8	6.5	53.3	3.80	1.90	54.9	1.98	3.60
AM-2	WWS-13-1	21	8.5	79.5	3.80	0.85	76.6	2.76	3.60
AM-3	WWS-13-1	28	7.7	80.8	3.80	0.79	81.6	2.94	3.60
AM-4	WWS-13-1	35	6.1	86.9	3.80	0.53	89.9	3.24	3.60
AM-13	WWS-13-2	5	0.6	2.6	2.49	2.44	0.0	0.00	2.47
AM-5	WWS-13-2	7	3.3	60.8	2.49	1.01	58.8	1.45	2.47
AM-6	WWS-13-2	21	1.4	78.6	2.49	0.54	42.8	1.06	2.47
AM-7	WWS-13-2	28	4.3	82.3	2.49	0.46	79.5	1.96	2.47
AM-8	WWS-13-2	35	3.2	79.0	2.49	0.54	71.6	1.77	2.47
AM-9	WOS-13-1	5	3.4	5.8	3.58	3.49	4.3	0.15	3.52
AM-10	WOS-13-1	8	2.7	24.2	3.58	2.79	20.4	0.72	3.52
AM-11	WOS-13-1	21	6.4	60.3	3.58	1.52	60.1	2.11	3.52
AM-12	WOS-13-1	28	3.0	85.1	3.58	0.55	66.5	2.34	3.52

1) Weight lost during biooxidation pretreatment. A negative weight loss indicates weight gain due to precipitation of reagents added during testing.

The results from the test work indicate the following:

- The six Sleeper composites tested were refractory to direct cyanidation treatment at feed sizes ranging from 80% -12.5mm to 80% -45um.
- The most likely cause for the low gold recoveries obtained from the refractory Sleeper composites was a locking of gold in sulfide mineral grains.

- All six composites responded very well to bio-oxidation pre-treatment for oxidation of contained sulfide minerals, resulting in an improvement in gold recovery by cyanidation treatment.
- Gold recoveries of 90% or greater were obtained by simulated whole ore stirred tank bio-oxidation, followed by agitated cyanidation, at an 80% -45um feed size (3 composites tested).
- Gold recoveries of 86% to 93% were obtained by whole ore POX treatment followed by agitated cyanidation, at an 80% -80um feed size
- Gold recoveries of 65% to 81% were obtained by simulated heap bio-oxidation pre-treatment (in columns), at 80% -12.5mm and 80% -6.3mm feed sizes.
- Solution percolation/solution ponding problems were encountered during simulated heap bio-oxidation pre-treatment, particularly at the 6.3 mm feed size. Further optimization of heap bio-oxidation feed size and bio-oxidation cycle time will be required, if this process is to be considered further.
- Reagent additions were high, under conditions not yet optimized.

Although the initial economic investigation into the processing of refractory materials at Sleeper did not markedly improve the overall project economics, the processing of the sulfides may meet economic hurdle requirements to continue the processing of the refractory materials late in the mine life. Table 24.2 shows the results from the bio-oxidation treatment tests, both pre and post bio-ox treatment, and provides an estimate for the processing costs.

Table 24.2 Paramount Sleeper Refractory Material Gold and Processing Cost

			Au Recovery, %		Ag Recovery, %		Estimated
Ore Type	Process Treatment	Feed Size, mm	Pre Treatment	Post Treatment	Pre Treatment	Post Treatment	Processing Cost, $/T
West Wood Sulfide	Column Biooxidation	12.5	19.5%	65.4%	33.8%	44.6%	$11.03
West Wood Sulfide	Column Biooxidation	6.3	20.6%	68.7%	33.3%	45.0%	$11.30
Wood Sulfide	Column Biooxidation	12.5	14.8%	71.9%	39.9%	41.8%	$11.03
Wood Sulfide	Column Biooxidation	6.3	14.4%	77.9%	36.4%	43.9%	$11.30
Faciltiy Sulfide	Column Biooxidation	12.5	14.3%	70.7%	19.0%	41.7%	$11.03
Faciltiy Sulfide	Column Biooxidation	6.3	11.9%	81.0%	16.7%	38.5%	$11.30

The success of the oxidation treatment on the refractory materials provides some basis for continuing to investigate methods for oxidizing these materials. Additional treatment options may include flotation concentration of the sulfides with oxidation processes administered to the concentrates only, followed by conventional cyanide leaching in agitated tanks of the oxidized concentrate. Initial indications are that these methods may have positive economics and could extend the mine life at Sleeper considerably.

A scoping level estimate was prepared for the biox pretreatment case. In this study, the processing of the refractory materials added 8 years on to the end of the project life. The added capital required to treat the 10,000 tpd of refractory materials was estimated at US$ 19.7 million.

25 INTERPRETATIONS AND CONCLUSIONS

The Sleeper gold-silver deposit represents a project with a great deal of potential for being an important gold producer in Nevada once again.

The project economic evaluation indicates a strong and positive performance for the conceptual Sleeper Project considered based on the technical assumptions and current metal price environment. The project performance is most sensitive to gold price and gold recovery. Metallurgical data available at this time is limited, and creates uncertainty that should be addressed as the project evolves with an expanded metallurgical investigation. Other uncertainty exists around the dewatering assumptions used in the PEA, and more detailed evaluation of dewatering should be performed for future work since this technical assumption will affect both mine performance and permitting.

Exploration potential adjacent to the mine is very positive as well as brownfield opportunities in the other target within the claim block that still remain to be tested (although overall exploration potential was not part of SRK's work scope, this potential was recognized nonetheless.

Au and Ag mineralization display various controls, including sub-vertical feeder structures and stock work halos as well as bedding-parallel controls. The latter, is particularly seen at Facility, related to what has been interpreted in the model presented here in this report, as the base of the rhyolite (either as a flow or dome) and the contact with the underlying Mesozoic basement. These mineralization trends have not been extensively drilled, and present strong potential for continuity for increasing resources at the project as well as areas of promising initial results from drilling south of the Sleeper pit.

26 RECOMMENDATIONS

26.1 PROJECT DEVELOPMENT

MMC recommends that an overall project development strategy be developed by Paramount to focus future work on the outstanding areas of uncertainty in project information. MMC has identified an area of technical uncertainty with the highest priority for information development, dewatering.

- Dewatering Engineering to be advanced. Dewatering projections should address the expanded mine shapes and water disposal through re-establishment of wetlands or a rapid infiltration basin.

26.2 PRE-FEASIBILITY STUDY

MMC recommends that PZG advance the project with a pre-feasibility study ("PFS".) A PFS is an intermediate exercise, normally not suitable for an investment decision. It has the objectives of determining whether the project concept justifies a detailed analysis by a feasibility study, and whether any aspects of the project are critical to its viability and necessitate in depth investigations through various support studies. A PFS study is an intermediate stage between the relatively inexpensive PEA and a relatively expensive FS. PFS studies are often completed by two or three teams with access to various consulting groups.

With regards to NI43-101, a PFS is the minimum hurdle by Mineral Resources may be converted to Mineral Reserves. The range of options for the technical and economic viability of the mineral project are advanced to a stage where a preferred mining method is established and an effective method of mineral processing is determined. The PFS includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a QP to determine if all or part of the Mineral Resource may be converted to a Mineral Reserve at the time of reporting.

MMC recommends that a budget of 1% of the initial capital startup costs of this PEA ($1,450,000 US) would be sufficient to implement a PFS.

26.3 QA/QC CONTROLS

In general, MMC is in agreement with the QAQC program carried out by PZG and is of the opinion that it is in conformity with generally accepted industry standards. MMC believes that the drillhole and assay database is of sufficient quality and reliability to be used in the mineral resource estimation.

Control sample results are acceptable in most cases for the program. Check assays at Inspectorate, however, show an occasional poor to very poor agreement for both gold and silver. It is recommended that coarse rejects and the corresponding pulps be sent to a third laboratory to determine where the error might have occurred. If no satisfactory solution to that problem is found, core duplicates from the boxes on site should be sent out for analysis. SRK understands that Paramount staff are currently working on how to proceed in order to resolve this issue.

Control OxC30 was only inserted in one occasion. However, the result from the lab suggests significant problems that cannot be explained. This control sample should be removed from any calculation and not used in future campaigns.

A total of 170 check samples were selected and sent to the Inspectorate lab. Results received show, in general, a fair correlation however, in some particular instances, agreement between both labs with both gold and silver is poor to very poor. The difference may be caused by different analytical methods. ALS uses a 4-acid digestion whereas Inspectorate uses a 2-acid digestion. The reason for this discrepancy should be resolved before drilling commences on the next campaign.

The above-mentioned issues are currently being worked on by Paramount staff.

SRK recommends that the QA/QC sample and laboratory analysis evaluation continue to be done on a regular basis during subsequent drillhole campaigns. In addition, the investigations being conducted by Paramount to resolve some of the discrepancies between the principal laboratory and the secondary lab should continue to resolve this prior to the next drill campaign.

Paramount will decide how to best address the issues raised in these recommendations. It was not part of SRK's present work scope to give a detailed plan for their resolution or to estimate costs for said plan.

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