RESOURCE ESTIMATE
AND
PRELIMINARY ECONOMIC ASSESSMENT
ON THE
SAN ALBINO DEPOSIT, SAN ALBINO – MURRA CONCESSION, AND EL JICARO CONCESSION, REPUBLIC OF NICARAGUA

FOR

GOLDEN REIGN RESOURCES LTD.

NI-43-101 & 43-101F1
TECHNICAL REPORT

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P&E Mining Consultants Inc.,
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TABLE OF CONTENTS

LIST OF TABLES

List of Figures

1.0 SUMMARY

Golden Reign Resources Ltd. ("Golden Reign" or the "Company") retained P&E Mining Consultants Inc. ("P&E") to complete an independent National Instrument 43-101 ("NI 43-101") Technical Report (the Report"), containing an updated Mineral Resource Estimate and a Preliminary Economic Assessment ("PEA") on the San Albino Gold Deposit ("San Albino Deposit" or the "Project") on the San Albino-Murra Concession ("San Albino Property" or the "Property"). Golden Reign is a Canadian based, publically traded company listed on the TSX Venture Exchange ("TSX:V") under the symbol GRR.

This PEA study has advanced the Project to a robust level that includes metallurgical studies and detailed process opex/capex estimates.

Golden Reign's San Albino Property is located in the Nueva Segovia Department of the Republic of Nicaragua. This updated Mineral Resource Estimate and PEA considers gold and silver mineralization at the San Albino Deposit that Golden Reign is evaluating for potential surface and underground mining.

The Company's total land package covers an area of 13,771 ha (137.71 km^2) and consist of the San Albino-Murra Concession (8,700 ha or 87.0 km^2) and the El Jicaro Concession (5,071 ha or 50.71 km^2). In 2013, Golden Reign completed the acquisition of a 100% interest in the San Albino-Murra Concession. The San Albino-Murra Concession license has been granted for a period of twenty-five years ending on February 3, 2027. The El Jicaro Concession was acquired in February 2012 from a Nicaraguan title holder. The El Jicaro Concession license is valid for a period of twenty-five years, until September 28, 2033. All concessions are renewable for a further 25 year term and are subject to a 3% NSR on gold production, payable to the Government of Nicaragua.

The Mineral Resource Estimate contained in this Report has been prepared according to NI 43-101 and Form 43-101F1 which require that all estimates be prepared in accordance with the "CIM Definition Standards on Mineral Resources and Mineral Reserves as prepared by the CIM Standing Committee on Reserve Definitions" and in effect as of the effective date of this report.

P&E notes that Indicated Resources, which are not mineral reserves, do not have demonstrated economic viability. The quantity and grade of reported Inferred Mineral Resources in this estimation are uncertain in nature and there has been insufficient exploration to define them as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

The projected mining method and potential production profile referred to in this PEA are conceptual in nature and additional technical studies will need to be completed in order to fully assess the Project's viability. There is no certainty that a potential mining operation will be realized or that a production decision will be made. A mine production decision that is made prior to completing a Feasibility Study carries potential risks which include, but are not limited to, the inclusion of Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. Mine design and mining schedules, metallurgical flow sheets and process plant designs may require additional detailed work and economic analysis and internal studies to ensure satisfactory operational conditions and decisions regarding future targeted production. Capital cost estimates presented in this PEA are preliminary in nature and will require a more detailed assessment in subsequent Feasibility Studies.

1.1 MINERAL RESOURCE ESTIMATE

The mineral resource estimate of the gold mineralization in the San Albino Deposit was completed for gold ("Au g/t") and silver ("Ag g/t"). Data from historic and recent drilling was used to estimate the mineral resources on the San Albino Deposit.

The resulting resource estimate is tabulated in Table 1.1. P&E considers that the gold and silver mineralization of San Albino is potentially amenable to open pit and underground extraction. The mineralization consists of both weathered oxide and the underlying fresh sulphide material.

TABLE 1.1
MINERAL RESOURCE ESTIMATE STATEMENT(1-5)

	Zone	CLASS	Cut-off	Tonnage	Au	Contained Au	Ag	Contained Ag	AuEq	Contained AuEq
			AuEq g/t	Tonnes	g/t	oz	g/t	oz	g/t	oz
In-pit	Oxide	Indicated	0.75	485,000	6.26	97,700	12.9	200,700	6.40	99,900
		Inferred	0.75	313,000	5.05	50,900	9.5	95,600	5.16	51,900
	Sulphide	Indicated	0.75	171,000	9.59	52,700	12.2	67,000	9.77	53,700
		Inferred	0.75	567,000	7.74	141,100	10.82	197,700	7.90	144,000
	Sub-Total	Indicated	0.75	656,000	7.13	150,400	12.7	267,700	7.28	153,600
		Inferred	0.75	880,000	6.78	192,000	10.4	293,300	6.93	195,900
Out of pit	Oxide	Indicated	2.0	9,000	3.36	1,000	5.3	1,500	3.41	1,000
		Inferred	2.0	15,000	2.89	1,400	11.8	5,800	3.02	1,500
	Sulphide	Indicated	2.0	13,000	3.57	1,500	6.4	2,700	3.66	1,500
		Inferred	2.0	2,172,000	8.51	594,400	13.7	955,200	8.72	608,700
	Sub-Total	Indicated	2.0	22,000	3.48	2,500	5.9	4,200	3.56	2,500
		Inferred	2.0	2,187,000	8.47	595,800	13.7	961,000	8.68	610,200
Total	**Oxide**	**Indicated**	**0.75/2.0**	**494,000**	**6.21**	**98,700**	**12.7**	**202,200**	**6.35**	**100,900**
		Inferred	**0.75/2.0**	**328,000**	**4.95**	**52,300**	**9.6**	**101,400**	**5.06**	**53,400**
	Sulphide	**Indicated**	**0.75/2.0**	**184,000**	**9.17**	**54,200**	**11.8**	**69,600**	**9.34**	**55,200**
		Inferred	**0.75/2.0**	**2,739,000**	**8.35**	**735,500**	**13.1**	**1,152,900**	**8.55**	**752,700**
	Total	**Indicated**	**0.75/2.0**	**678,000**	**7.01**	**152,900**	**12.5**	**271,800**	**7.16**	**156,100**
		Inferred	**0.75/2.0**	**3,067,000**	**7.99**	**787,800**	**12.7**	**1,254,300**	**8.17**	**806, 100**

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

(2) The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.

(3) The mineral resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.

(4) The volume of the historical mined areas was depleted from the resource estimate.

(5) The Ag:Au ratio used for Oxide Mineralization was 92:1, and 67:1 for Sulphide mineralization

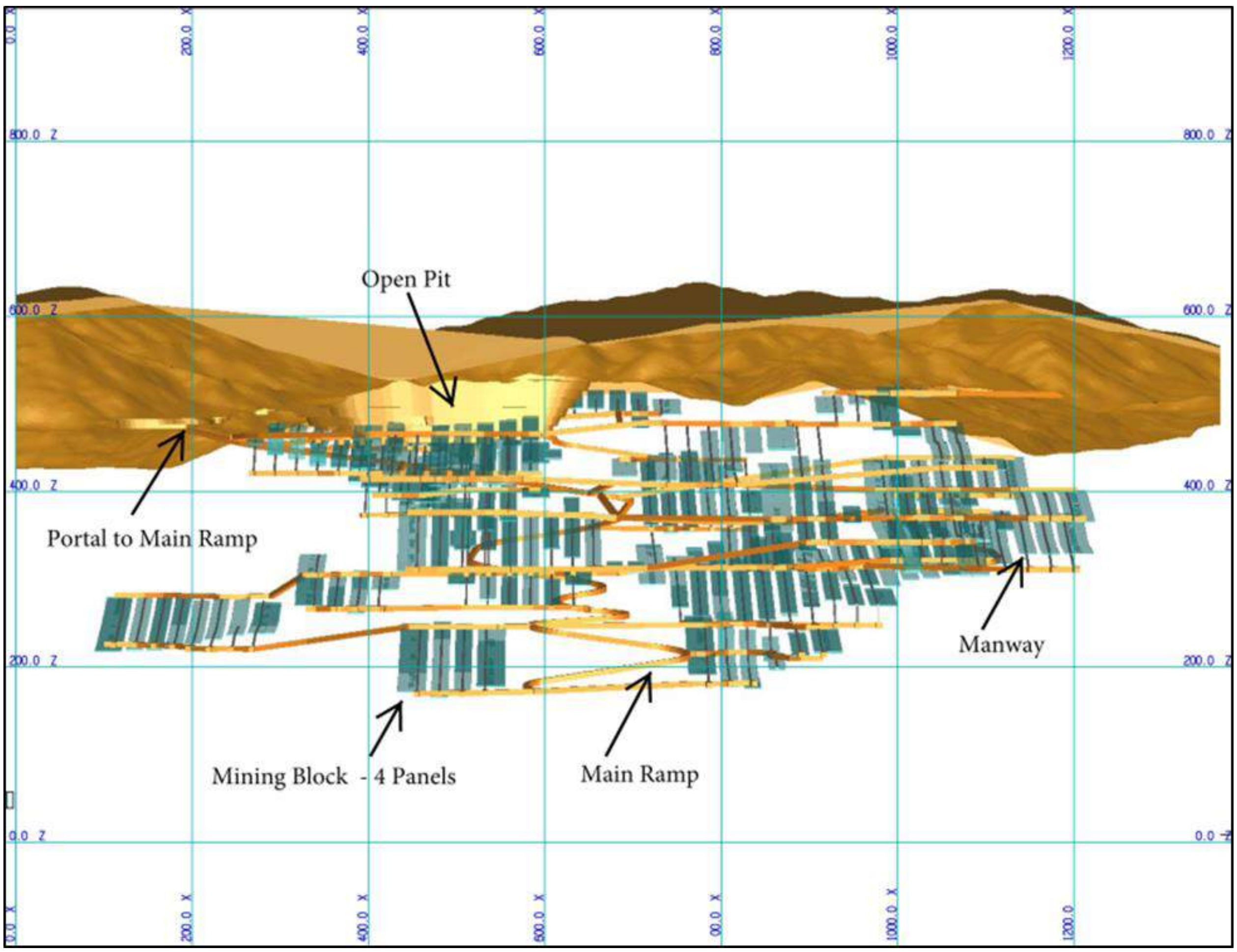
Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.

1.2 CONCEPTUAL MINING PLAN

The mineralized deposits of the San Albino Project will be mined by a combination of traditional open pit mining methods applied to mineralization located closer to surface and underground partially mechanized mining methods for mineralization located at depth (Figure 1.1). The PEA proposes a conventional truck and shovel open pit, followed by ramp access, steep panel open stoping in the underground portion of the mine.

Figure 1.1 Overall Mining Plan



The open pit and underground mining operations have been scheduled assuming the mining of three different materials (oxide mill feed, sulphide mill feed, waste rock), all of which are tracked in the production schedule. Table 1.2 presents a summary of the life-of-mine ("LOM") mill feed tonnage derived from the open pit and the underground operations. Over the LOM, the bulk of the mill feed tonnage (67%) will come from underground mining. The proposed milling rate is approximately 91,000 tonnes per year (250 tpd), hence the open pits would provide about 11 years of mill feed before underground mining is required. The combined mine life is approximately 31 years.

TABLE 1.2
MILL FEED TONNAGE SUMMARY

Open Pit Mining	Mill Feed (diluted kt)	Au Grade (g/t diluted)[1]	Ag Grade (g/t diluted)[1]	AuEq Grade (g/t diluted)[1]	Contained Gold (ounces)	Contained Silver (ounces)	Contained AuEq (ounces)
Indicated	566.5	6.84	12.68	6.99	124,500	231,000	127,300
Inferred	354.0	7.00	11.47	7.14	79,700	130,500	81,300
Underground Mining	**Mill Feed (diluted kt)**	**Au Grade (g/t diluted)[2]**	**Ag Grade (g/t diluted)[2]**	**AuEq Grade (g/t diluted)[2]**	**Contained Gold (ounces)**	**Contained Silver (ounces)**	**Contained AuEq (ounces)**
Indicated	31.1	9.12	10.94	9.26	9,100	11,000	9,300
Inferred	1,820.4	8.33	12.63	8.49	487,700	739,300	496,600

(1) The dilution grade is estimated to be 1.07 g/t Au and 4.3 g/t Ag applied to all pits, with in-pit dilution tonnage ranging from 27-46% depending on the lens width, and an mining loss factor of 3% for all pits.

(2) The dilution grade is estimated to be 0.68 g/t Au and 2.5 g/t Ag on underground dilution of 20% with underground recovery estimated at 76.5% for stopes, and zero dilution and 100% recovery in development drives.

The mining methods and production capacities of the conceptual mining plan have been chosen to match a potential ultimate milling throughput rate of 250 tonnes per day (“tpd”). This total will be composed of successive stages: 1) open pit only, from four separate mining areas located close to surface; 2) concurrent underground and open pit mining; and 3) underground only mining phases once the open pit mining areas have been exhausted. The conceptual ultimate open pit depth for the Project was determined taking into consideration the comparison between underground and open pit mining costs as the four separate mining areas attain a greater depth.

For the purposes of this PEA, the entire mining operation would be conducted on a contractor basis, with engineering, geological control and general Project oversight being provided by Golden Reign.

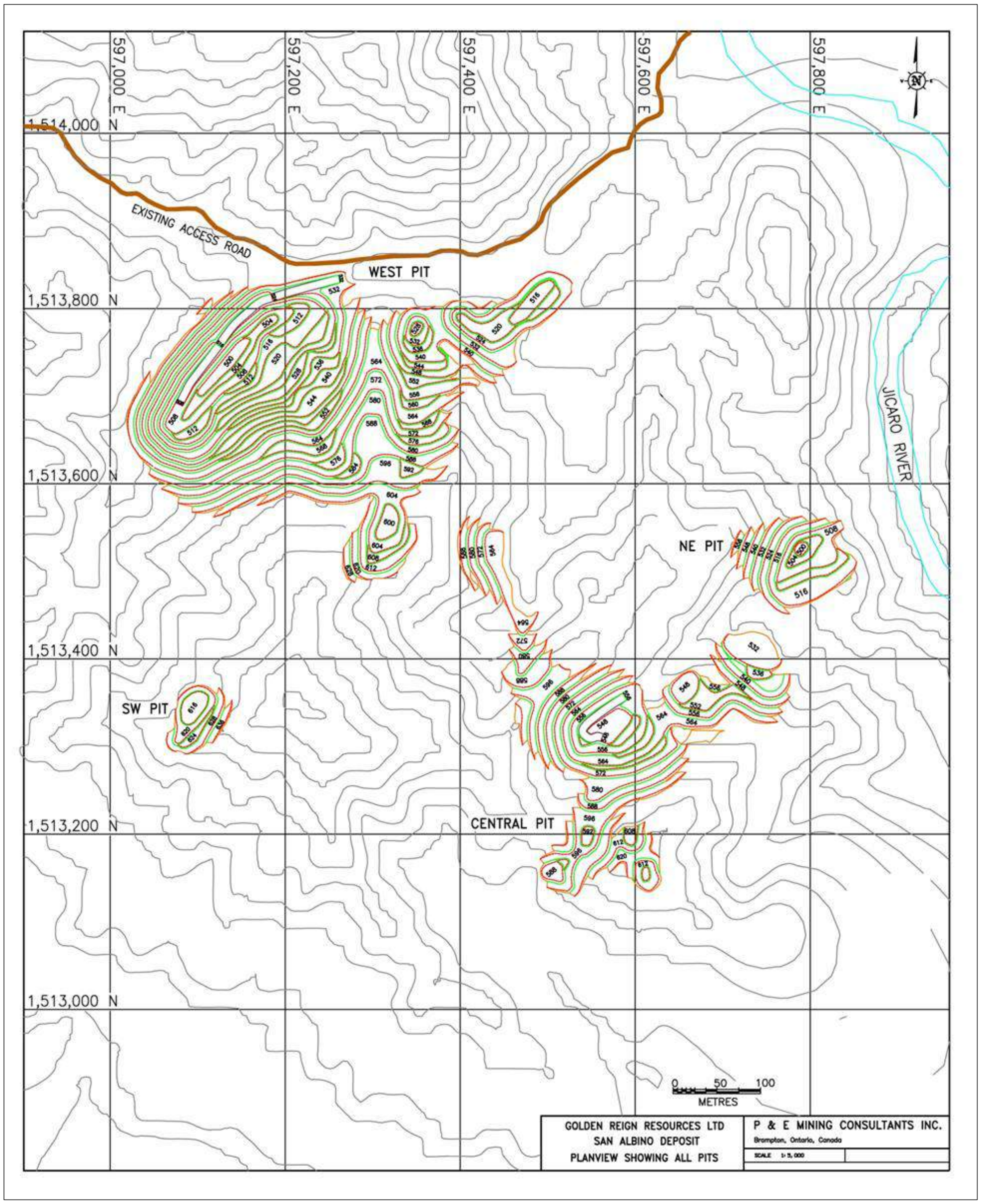
1.3 OPEN PIT MINING

An open pit optimization analysis was carried out in order to identify an optimal, conceptual open pit mining operation. This was developed by determining preliminary all-in operating costs per tonne of mill feed and comparing this to the quantity of contained recoverable gold that would be required to cover all associated operating costs. A number of Lerchs-Grossman pit shells were then generated by varying the gold and associated silver prices. Due to the increasing strip ratios associated with the pit shells as they went deeper, and considering that underground mining will be employed at the Project in any case, the 55% revenue factor pit shell was selected as the Base Case for the pit design. As a result, deeper and more costly high strip ratio mill feed tonnes were allocated to the underground mine operation.

No pit slope geotechnical site investigations have been completed for this PEA. Pits slopes have been designed using P&E’s experience with similar rock materials, using a 40° inter-ramp angle in the oxide rock. Similarly, no hydrogeological studies have been completed for the PEA to assess groundwater conditions. However, given that the pits are on the slopes of hills, groundwater conditions are expected to be favourable to open pit mining.

Four open pits are envisaged for the Project. These include the West Pit; the NE Pit; the SW Pit and the Central Pit (Figure 1.2).

Figure 1.2 Final Design pits



The proposed open pits would utilize conventional open pit mining equipment and drill/blast/load/haul technologies. Open pit mining would proceed as successive pre-strip and hard rock mining operations, and follow the trend of the mineralized deposit. Waste rock storage facilities will be constructed near the open pit exits.

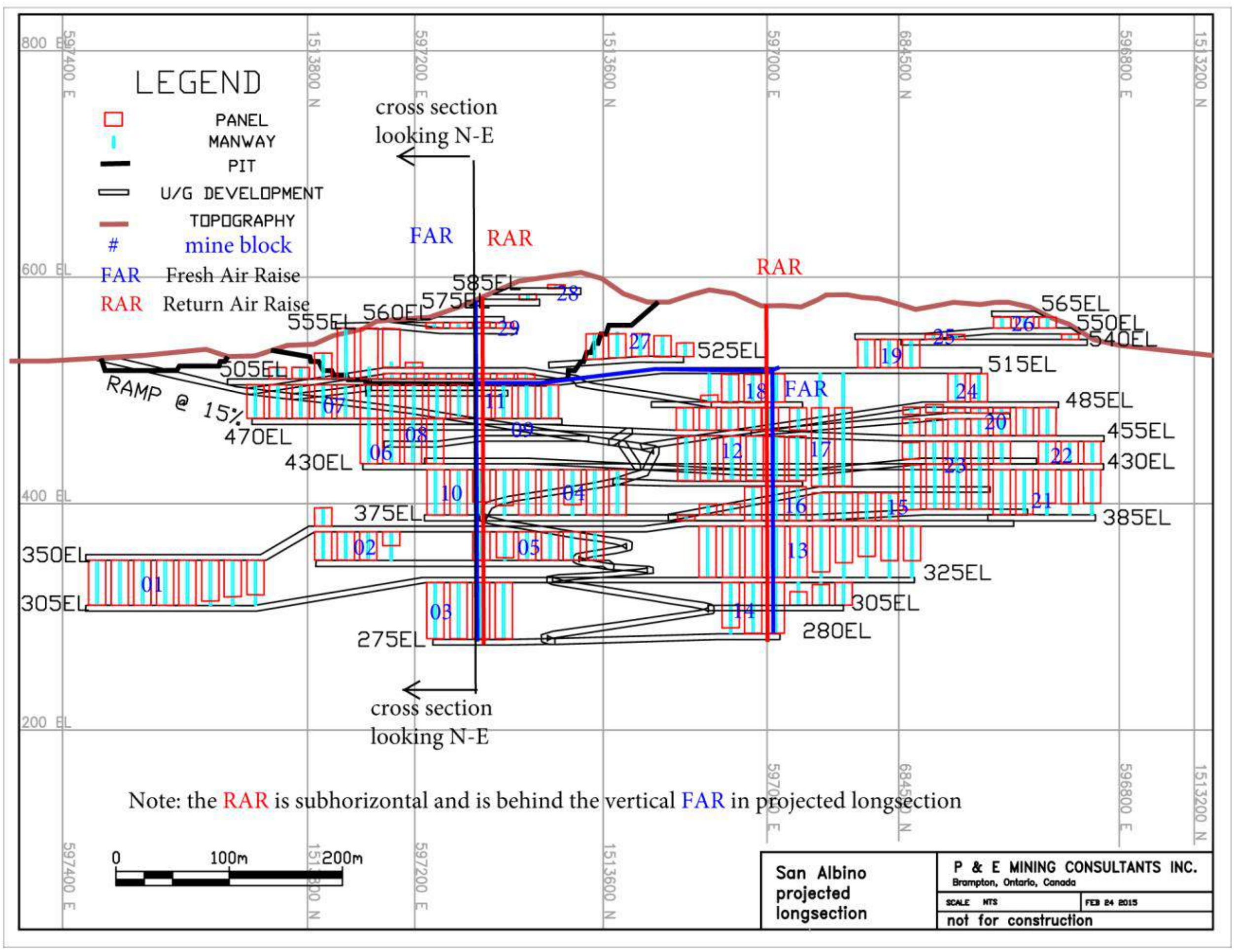
The actual equipment fleet that would be used by the mining contractor will depend on what equipment that they have available. However it is expected that diesel powered hydraulic excavators (back hoes) and 25t capacity articulated trucks would suffice.

1.4 UNDERGROUND MINING

An underground mining operation would access and extract mill feed located at depth and below the open pits. Access to the underground mine will be through an underground decline from surface.

A longitudinal section through the proposed mine is provided in Figure 1.3.

Figure 1.3 Longitudinal Section of Underground Mine



The average true thickness of the underground mineralized zones is 2.6 m and the dip angle varies at approximately 26 degrees. The dip angle is below the angle of repose of broken rock and also is too steep for trackless equipment to move up or down dip within the mineralized zones. For this reason, the primary mining method is envisaged to be steep panel mining. Using hand held drills and slushers, the potential mill feed is blasted and scraped to the bottom of the stope where it would be loaded by mechanized loaders and transported using haul trucks along the main ramp to the portal on surface. Whereas there is the potential for the use of hydraulic fill, paste backfill or a mechanically emplaced fill, the current plan considers that the steep panels will be left open without backfill.

Due to the design of the selected mining method which is based in part on potential ground conditions, it is estimated that 15% of the mineralization will be left in-situ in the form of pillars.

An additional 10% loss will result from the relative inefficiency of the stoping methods used.

Dilution of the mill feed with low grade and barren rock and from backfill combined was estimated at 20%.

Underground mining would proceed on a top-down basis. As the ramp is advanced, lateral drifts will be driven to access the deposit. The stopes will be developed and mined according to the mill feed production requirements.

1.5 COMBINED OPEN PIT AND UNDERGROUND MINING SCHEDULE

The combined open pit and underground mining schedule extends over a period of approximately 31 years, at a fixed production rate of 250 tpd over the life of the Project.

The highest mill feed grades will be achieved after Year 20 of the Project when underground mining encounters the deeper higher grade zones. The schedule incorporates a three year transition period (Years 10, 11 and 12), as open pit operations taper off and the underground production ramps up. Year 13 is the first year where underground mining provides all of the mill feed for the Project.

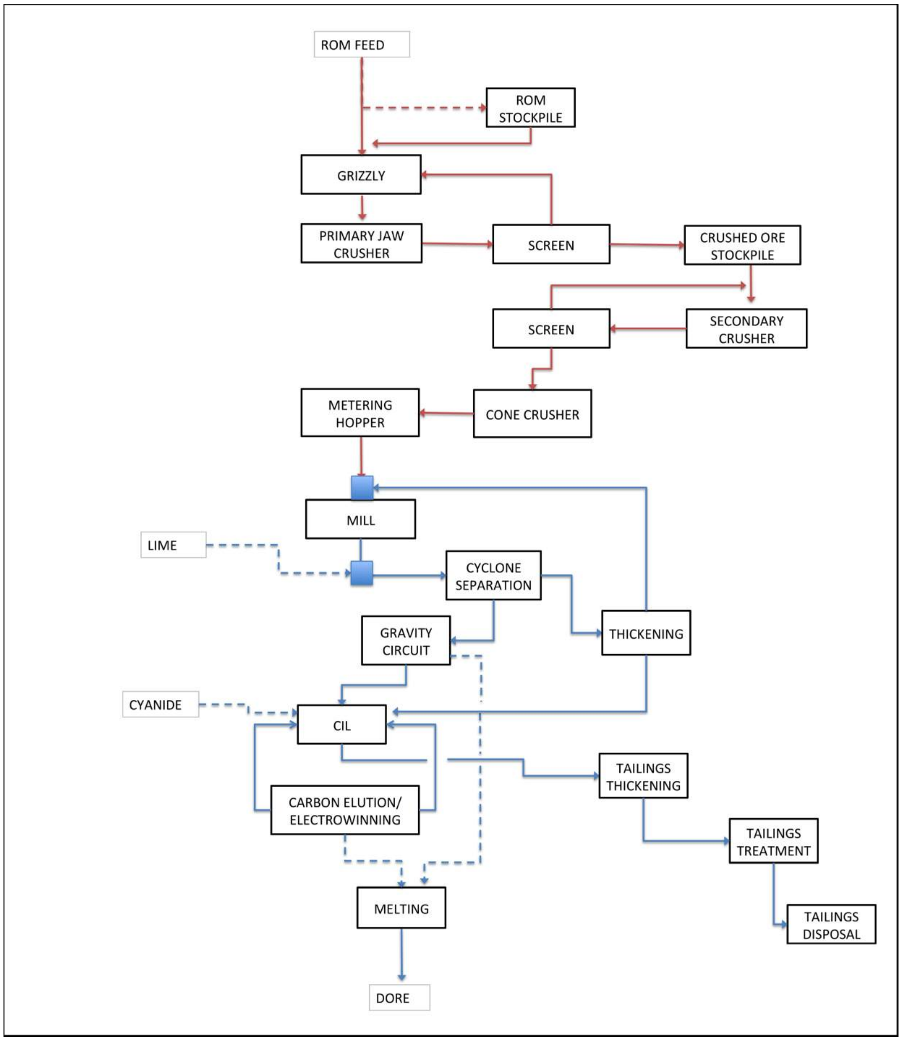
1.6 PROCESS PLANT

In support of a PEA, metallurgical test work was conducted on drill core samples from the San Albino Project by Inspectorate Exploration & Mining Services-Metallurgical Division and the results were summarized in Project Reports for Metallurgical Testing dated June 2013 and February 2014. In addition, Sonoran Resources LLC was contracted by Golden Reign to complete a Preliminary Cost Assessment Report, dated July 10, 2014, including new metallurgical tests and analysis as validation test work.

The results from the confirmatory test work confirmed that a two-step gravity separation process followed by carbon-in-leach ("CIL") leaching will provide high gold recovery levels in the order of 91% to 95%.

The proposed San Albino process plant design will be based on a combination of a two-step gravity circuit and CIL technologies, with a throughput rate of 250 tonnes per day (Figure 1.4). The processing rate was chosen to reduce the capital requirements of Golden Reign in accordance with prior financing arrangements.

Figure 1.4 Process Flow Sheet Block Diagram



1.7 SITE INFRASTRUCTURE

There has been previous mining activity at the San Albino site, but this was generally limited in scale and the remaining facilities are now largely derelict. As a result, there will be significant new infrastructure needed for the currently envisaged operation.

Whereas the mine will be operated by contractors who will provide much of their own facilities, and considering the limited size of the processing plant, the capital requirements of the Project will be limited to:

- Site Roads;
- Process Plant
- Diesel generated power supply (due to the inadequacy of available national grid power);
- Fuel supply and storage system;
- Water supply system;
- Sanitary waste control systems; and
- Tailings management.

1.8 ENVIRONMENTAL IMPACT AND REHABILITATION

Based on P&E's review of the environmental and social aspects of the Project, there do not appear to be any environmental or social barriers to advancing this Project to its next technical study stage. As part of further technical studies, P&E recommends that Golden Reign proactively clarify:

- the extent to which cheeked warblers (la reinita pechinegra, Dendroica chrysoparia) referenced in the Baseline Environmental and Sociology Study could be affected by the Project; and
- the extent to which indigenous peoples could be affected by the Project.

P&E also assessed Nicaragua's Environmental Impact Assessment ("EIA") process in relation to the Equator Principles (2013) which have more comprehensive social risk and social impact assessment requirements. As part of an EIA process for the Project, it may be beneficial to also consider additional social assessment requirements such as those contained in the Equator Principles.

1.9 CAPITAL COSTS

The total LOM capital costs are estimated to be $51.5 million and include the initial construction and commissioning of the open pit, the processing facilities and the related infrastructure; the initial underground development and equipment purchases related to the underground mine after year 10; and the sustaining capital required to support continuing operations (Table 1.3). Initial development capital is estimated at $13.9 million.

Environmental and reclamation costs are included as an expense of $3.5 million in the final year of production.

Table 1.3 Capital Cost Summary	
Description	**$US Million**
Initial Capital Costs	
Site and General	1.24
Utilities & Services	1.42
Open Pit	0.90
Process Plant Directs	3.74
Tailings Facility	0.55
Indirects	2.29
EPCM	1.19
Owner's Costs	0.27
Contingency @20%	2.32
Total Initial Capital	**13.91**
Initial Underground Capital Costs	
Mine Development	12.91
Mining Equipment	1.31
Contingency @20%	2.84
Total Initial Underground Capital Costs	**17.06**
Sustaining Capital Costs	
Open Pit Mining	0.00
Underground Mine Development	12.56
Underground Mine Equipment Replacement	4.39
Process Plant	0.20
Contingency @ 20%	3.43
Total Sustaining Capital	**20.58**
Total Capital (Life-of-Mine)	**51.55**

1.10 OPERATING COSTS

Operating costs include open pit and underground operating and service costs, mine production crushing, haulage of the mill feed to the mill, processing costs and G&A costs. Operating costs are based on expected contractor unit and lump sum prices which include allowances for operating labour, maintenance labour, operating materials and supplies, supervision and support.

The LOM annual Project operating costs are shown in Table 1.4. This includes mining, processing, and general and administration ("G&A") in Years 1 to 31.

TABLE 1.4 LOM OPERATING COST SUMMARY	
Description	**US$ Millions**
Open Pit Mining Cost	19.72
Owner's Open Pit Support	4.30
Underground Mining Cost	120.04
Processing	101.51
Tailings Transport & Placement	4.16
G&A	26.66
Total Operating Cost	**276.39**

1.11 FINANCIAL EVALUATION

It is estimated that the Project would generate a net post-tax cash flow of $290.4 million over its 31-year operating life. This corresponds to a post-tax Internal Rate of Return ("IRR") of 37.4% and a post-tax Net Present Value ("NPV") of $105.4 million, at a 5% discount rate. On this basis, the Project would have a payback period of 2.2 years from the commencement of production. The average all-in sustaining cost is $532/oz gold, or $506/oz of gold after deducting silver credit.

Note: *This PEA is preliminary in nature and utilizes Inferred Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized. There is no guarantee that Golden Reign will be successful in obtaining any or all of the requisite consents, permits or approvals, regulatory or otherwise for the Project to be placed into production. The PEA is not considered to be a Pre-feasibility or Feasibility Study, as the economic and technical viability of the project have not been demonstrated.*

Golden Reign entered into a gold streaming arrangement ("the Arrangement") with Marlin Gold Mining Ltd. (Press Release July 11, 2014) to finance project construction. The PEA cash flow model incorporates the Arrangement into the economic analysis.

The summary of the results of the cash flow analysis is presented in Table 1.5.

TABLE 1.5 ECONOMIC EVALUATION SUMMARY		
	Pre-Tax (US$ M)	**After-Tax (US$ M)**
Undiscounted	422.8	290.4
NPV (5%)	159.7	105.4
NPV (8%)	98.5	63.0
NPV (10%)	74.0	46.2
IRR	50.8%	37.4%
Payback period (years)	1.6	2.2

1.12 CONCLUSIONS AND RECOMMENDATIONS

P&E concludes that the San Albino Project has economic potential as an open pit mining and underground operation, with an on-site processing plant producing a gold doré.

The San Albino Deposit is a low tonnage, high-margin gold project with a robust estimated average mined diluted grade of 8.02 g/t AuEq. Due to its high grade nature and high gold recoveries, the Project shows strong resilience to variances in gold prices, thus mitigating risk.

The Project was evaluated on an after-tax cash flow basis and is estimated to generate an undiscounted net after-tax cash flow of $290.4 million. This results in a post-tax Internal Rate of Return of 37.4% and a post-tax Net Present Value of $105.4 million when using a 5% discount rate. In the base case scenario, the project has a payback period of 2.2 years from the start of production. The average life-of-mine all-in cost is estimated at $532/oz gold and after considering the silver credits that are due, the all-in cost is reduced to $506/oz gold.

It is recommended that Golden Reign advance the San Albino Project to a Pre-feasibility Study ("PFS") that is focused on the mineralization that can potentially be extracted by open pit mining.

Presently, 44% of the total open pit mineral resources and 61% of the potentially mineable open pit resources are classified in the Indicated category. With further exploration, there is potential for converting some of the Inferred mineral resources to the Indicated mineral resource category. A limited amount of in-fill drilling would be sufficient to potentially upgrade the classification of open-pit Inferred resources to Indicated resources.

The PEA contemplates open pit mining from four separate mining areas located close to surface. Additional in-fill drilling, combined with trenching of the inter-lying areas, offers potential to increase potentially mineable open pit resources and mine fewer, larger open pits.

At the open pit mining PFS level, Golden Reign should obtain detailed information from potential mining contractors regarding process design and costing, environmental aspects, safety, mine operating costs and mine scheduling.

In addition, the Company should review and consider higher process throughput rates, as they are clearly more economic compared to a 250 tpd scenario. P&E's cursory examination of alternate production rates (350 tpd and 500 tpd) indicated that an increase in the NPV5% of 36% and 65%, respectively, is possible. As expected, higher production rates would result in lower unit operating costs, a shorter mine life, and generally better economics for a nominal increase in required capital expenditures.

However, P&E recommends that the Project be advanced with a 250 tpd production rate capacity. Staged improvements in capacity can be scheduled as available cash flow and/or financing allows.

Evaluation of the San Albino potential underground resource at the Pre-feasibility Study level will first require that a significant portion of the out-of-pit mineral resources are upgraded from Inferred to the Indicated resources category. The upgrade in the resource confidence would require a significant in-fill drilling program. Given that the current PEA envisions the start of underground mining at San Albino after several years of open pit extraction, in-fill drilling to upgrade the underground resources can also be deferred for several years.

P&E recommends that Golden Reign progress the Project with extended and advanced technical studies particularly in the metallurgical, geotechnical and environmental matters, with the intention to advance the project toward a production decision.

Since Golden Reign has stated that it does not currently intend to complete a Pre-Feasibility Study or Feasibility Study prior to potentially commencing small-scale production at the San Albino Deposit, there is an increased risk that the economic and technical aspects of the PEA may not be realized.

The majority of resources at the San Albino Deposit are currently classified as Inferred resources. At present 56% of open pit mineral resources are Inferred resources. Underground resources are almost entirely comprised of Inferred resources. P&E considers that the priority for further exploration is to increase the confidence of the resource estimate. P&E's exploration recommendation is to initially complete in-fill drilling of the mineralization that can potentially be extracted by open pit mining. As noted above, open pit mining activities would precede underground mining by several years, allowing sufficient time for the completion of the significant in-fill drilling required to upgrade the underground resource.

In addition, it is noted that the San Albino Deposit has opportunity for resource expansion. P&E recommends a small amount of step out drilling to enable priority targets to be tested. A proposed $1,528,000 exploration program is recommended in Table 1.6.

TABLE 1.6
PROPOSED EXPLORATION PROGRAM

Program	Units	Budget US$
In-Fill Diamond Drilling – 72 holes	5,400 m @ $170/m	$918,000
Step Out Diamond Drilling – 10 holes	3,000 m @ $170/m	$510,000
Resource Estimation		$100,000
Total		**$1,528,000**

P&E considers that there exists the potential to add resources through additional in-fill and step out drilling and has identified an Exploration Target beyond the resource estimate (along strike and down dip) with an estimated 3 to 5 million tonnes at a grade between 6 to 10 grams gold equivalent per tonne. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to define a mineral resource, and it is uncertain if further exploration will result in discovery of a mineral resource.

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

This report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino-Murra Concession and El Jicaro Concession, Republic Of Nicaragua" ("Report" or "Technical Report"), was prepared to provide a National Instrument 43-101 ("NI 43-101") Technical Report and Preliminary Economic Assessment ("PEA") on the San Albino Deposit on the San Albino-Murra Concession ("San Albino Project" or "Project"), located in the Nueva Segovia Department of the Republic of Nicaragua. The San Albino Property is 100% owned by Golden Reign Resources Ltd. ("Golden Reign" or the "Company"). Golden Reign is a public, TSX:V listed, mining company trading under the symbol "GRR", with its head office located at:

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Fax: 604-685-4675

This Report was prepared by P&E Mining Consultants Inc. ("P&E") at the request of Ms. Kim Evans, President and CEO of Golden Reign and is considered current as of January 14, 2015.

The purpose of this Report is to provide an independent, NI 43-101 Technical Report and Preliminary Economic Assessment on the San Albino Project. P&E understands that this report will be used for internal decision making purposes and will be filed as required under TSX:V regulations. The Report may also be used to support public equity financings.

The current P&E Resource Estimate presented in this Report has been prepared in full conformance and compliance with the "CIM Standards on Mineral Resources and Reserves – Definitions and Guidelines" as referred to in NI 43-101 and Form 43-101F, Standards of Disclosure for Mineral Projects and in force as of the effective date of this Report.

Mr. Antoine Yassa, P.Geo. and Mr. Andrew Bradfield, P.Eng., each a qualified person under the terms of NI 43-101, conducted a site visit of the Property on October 6 to 9, 2014. A data verification sampling program was conducted as part of the on-site review.

2.2 SOURCES OF INFORMATION

In addition to the site visit, P&E held discussions with technical personnel from the Company regarding all pertinent aspects of the Project and carried out a review of available literature and documented results concerning the Property, including internal company technical reports and maps, published government reports, company letters, memoranda, public disclosure and public information, as listed in the References at the conclusion of this Report. Sections from reports authored by other consultants have been directly quoted or summarized in this Report, and are so indicated where appropriate.

Parts of this Report refer to the NI 43-101 Technical Report for the Property by Kowalchuk (2011) and the NI 43-101 Resource Estimate and Technical Report by Puritch et al. (2013) that were previously filed on SEDAR by Golden Reign.

This Report is prepared in accordance with the requirements of NI 43-101 and in compliance with Form NI 43-101F1 of the British Columbia Securities Commission ("BCSC") and the Canadian Securities Administrators ("CSA"). The Resource Estimate is prepared in compliance with the CIM Definitions and Standards on Mineral Resources and Mineral Reserves that were in force as of the effective date of this Report.

2.3 UNITS AND CURRENCY

Unless otherwise stated, all units used in this Report are metric. Gold ("Au") and silver ("Ag") assay values are reported in grams of metal per tonne ("g/t") unless ounces per ton ("oz/T") are specifically stated. Values reported as equivalent gold grades ("AuEq") were developed using the formula AuEq (g/t) =Au (g/t) + ((Ag (g/t) * (Ag $ price/Au $ price) / (Au % recovery/Ag % recovery)).

The US$ is used throughout this Report unless otherwise specified.

The coordinate system used by Golden Reign for locating and reporting drill hole information is the Universal Transverse Mercator coordinate system "UTM". The Property is in UTM Zone 16 and the WGS84 datum is used. Maps in this Report use either the UTM coordinate system or latitude and longitude.

2.4 GLOSSARY AND ABBREVIATION OF TERMS

The following list shows the meaning of the abbreviations for technical terms used throughout the text of this Report.

Abbreviation	**Meaning**
"3D"	Three Dimensional
"Ag g/t"	Grams Of Silver Per Tonne
"Ag"	Silver
"AGAT"	AGAT Laboratories
"ANFO"	Ammonium Nitrate/Fuel Oil Mixture Explosive
"ap"	Arsenopyrite
"As"	Arsenic
"Au g/t"	Grams Of Gold Per Tonne
"Au"	Gold
"AuEq (g/t)"	Gold Equivalent (This is the computed values of the gold and silver from the identified mineral resources, divided by the price of gold).
"BCSC"	British Columbia Securities Commission
"CA"	Certificate of Authorization
"CDN"	Canadian
"CDN$"	Canadian Dollars

"CIM"	Canadian Institute Of Mining, Metallurgy And Petroleum
"cm"	Centimetre(s)
"Company"	Golden Reign Resources Ltd.
"CSA"	Canadian Securities Administrators
"Cum"	Cumulative
"DCF"	Discounted Cash Flow
"DDH"	Diamond Drill Hole
"DGPS"	Differential Global Positioning System
"E"	East
"EIA"	Environmental Impact Assessment
"EPCM"	Engineering, Procurement, Construction and Management
"ESE	East-South-East
"E-W"	East-West
"FAR"	Fresh Air Raise(s)
"ft"	Foot
"G&A"	General And Administration
"g/t"	Grams Per Tonne
"Golden Reign"	Golden Reign Resources Ltd.
"GPS"	Global Positioning System
"ha"	Hectare(s)
"HLEM"	Horizontal Loop Electromagnetic Survey
"ICPOES"	Inductively Coupled Plasma – Optical Emission Spectrometry
"IP/RES"	Induced Polarization / Resistivity Survey
"IRR"	Internal Rate Of Return
"ISO"	International Organization for Standardization
"k"	Thousands
"k$"	Thousands Of Dollars
"km"	Kilometre(s)
"km/h"	Kilometers per Hour
"kt"	Thousands of Tonnes
"LOM"	Life-Of Mine
"M"	Million
"m"	Metre(s)
"M$"	Millions Of Dollars
"Ma"	Millions Of Years
"MAG"	Magnetometer Survey
"MDA"	Golden Reign’s Management Discussion and Analysis
"mm"	Millimeters
"N"	North
"N/A"	Not Applicable
"NAG"	Non-Acid Generating rock
"NE"	North-East
"NI 43-101"	National Instrument 43-101

"NN"	Nearest Neighbour
"NNW"	North-North-West
"NPV"	Net Present Value
"NSR"	Net Smelter Royalty
"OK"	Ordinary Kriging
"OP"	Open Pit
"opt"	Troy Ounces Per Ton
"OSC"	Ontario Securities Commission
“oz Au/T”	Troy Ounces Gold Per Ton
“P&E”	P&E Mining Consultants Inc.
“PEA”	Preliminary Economic Assessment
“Project”	The San Albino Deposit on the San Albino-Murra Concession
“Property”	The San Albino-Murra Concession
“RC”	Reverse Circulation Drilling
"QA/QC"	Quality Assurance/Quality Control
"QC"	Quality Control
"QP"	Qualified Person as Defined By Canadian National Instrument NI 43-101 Standards Of Disclosure for Mineral Projects
"qz"	Quartz
"RAR"	Return Air Raise(s)
"ROM"	Run-of-Mine Material produced during mining
"RQD"	Rock Quality Designation
"S"	South
"se"	Sericite
"SEDAR"	Website Developed by the CRA, that Provides Access to Public Securities Documents and Information Filed by Public Companies and Investment Funds in Canada
"t"	Metric Tonne(s)
"t/m^3"	Tonnes per Cubic Meter
"tpd"	Tonnes per Day

3.0 RELIANCE ON OTHER EXPERTS

P&E has assumed that all of the information and technical documents listed in the References section of this Report are accurate and complete in all material aspects. While P&E has carefully reviewed all of the available information presented, P&E cannot guarantee its accuracy and completeness. P&E reserves the right, but will not be obligated, to revise the Report and conclusions therein if additional information becomes known to P&E subsequent to the date of this Report.

Although selected copies of the tenure documents, operating licenses, permits, and work contracts were reviewed, an independent verification of land title and tenure was not performed. P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties but has relied on the clients solicitor's to have conducted the proper legal due diligence. Information on tenure and permits was obtained from Golden Reign. In addition, Golden Reign has provided P&E with a letter dated January 14, 2015 from Consejeros Económicos y Legales, S.A., as Nicaraguan legal counsel to Golden Reign, confirming Golden Reign's Nicaraguan subsidiaries and concession licences are in good standing.

A draft copy of this Technical Report has been reviewed for factual errors by Golden Reign. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statement and opinions expressed in this Report are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY LOCATION

The San Albino-Murra Concession is located in Nueva Segovia Department of the Republic of Nicaragua.

The Property is located 173 km north of Managua, the Capital of Nicaragua, 40.6 km east of Ocotal, the capital of Nueva Segovia, and approximately 15 km southeast of the northern border of Nicaragua with Honduras (Figure 4.1). Ocotal has a population of 39,450 (2000 census) and the Nueva Segovia Department has a population of 211,200 (2005 census).

The San Albino Gold Deposit is located at Latitude 13^{o} 41' 23" N, Longitude 86^{o} 06' 04" W (UTM Zone 16,597,200 E, 1,513,600 N, WGS 84 Datum). The small town of El Jicaro is located 6.0 km NW of the San Albino Gold Deposit. The town of Murra (population 1,000) is located 11.7 km northeast of the San Albino Gold Deposit, within the northern part of the Concession.

4.2 PROPERTY DESCRIPTION AND TENURE

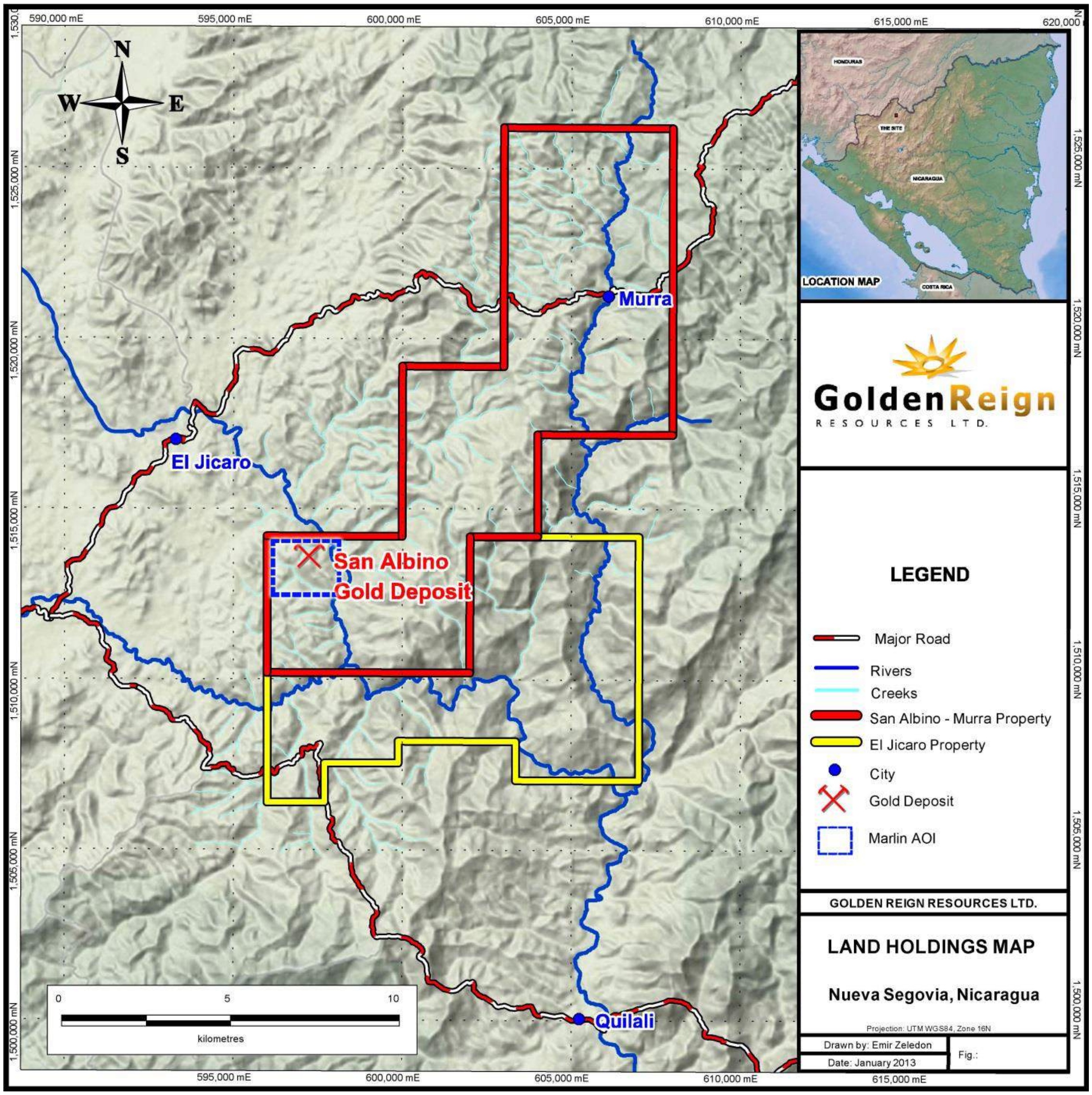
The Company's total land package (Figure 4.2) covers an area of 13,771 ha (137.71km^2) and is comprised of the San Albino-Murra and El Jicaro concessions.

The San Albino-Murra Concession covers 8,700 ha (87 km^2) and is identified by the geographical UTM coordinates in Table 4.1.

Figure 4.1 Property Location Map- San Albino-Murra Concession and El Jicaro Concession

Source: *Golden Reign*

Figure 4.2 San Albino–Murra and El Jicaro Property Map



Source: *Golden Reign*

TABLE 4.1 **SAN ALBINO-MURRA UTM COORDINATES**	
Northing	**Easting**
1,514,000 N	596,000 E
1,510,000 N	596,000 E
1,510,000 N	602,000 E
1,514,000 N	602,000 E
1,514,000 N	604,000 E
1,517,000 N	604,000 E
1,517,000 N	608,000 E
1,526,000 N	608,000 E
1,526,000 N	603,000 E
1,519,000 N	603,000 E
1,519,000 N	600,000 E
1,514,000 N	600,000 E

(UTM Zone 16 WGS 84 datum) for concession corners, San Albino-Murra Concession

The El Jicaro Concession has an area of 5,071 ha (50.71 km^2) and is identified by the geographical UTM coordinates in Table 4.2.

TABLE 4.2 **EL JICARO UTM COORDINATES**	
Northing	**Easting**
1,514,000 N	602,000 E
1,514,000 N	607,000 E
1,506,845 N	607,000 E
1,506,845 N	603,351 E
1,507,994 N	603,351 E
1,507,994 N	599,875 E
1,507,350 N	599,875 E
1,507,350 N	597,700 E
1,506,200 N	597,700 E
1,506,200 N	596,000 E
1,510,000 N	596,000 E
1,510,000 N	602,000 E

(UTM Zone 16 WGS 84 datum) for concession corners, El Jicaro Concession

Following is a summary of the Property tenure and the reader should refer to the legal agreements, as outlined in the Company's disclosure, for full details.

The San Albino-Murra Gold Concession was originally granted to Delgratia Mining Corporation by Decree No 179-RN-MC/2002, dated February 4, 2002. On November 10, 2003, the Property was transferred to Chorti Holdings, S.A., by Decree No 346-RN-MC/2003. The Property was transferred to Nicoz Resources, S.A., ("Nicoz") the present title holder, by Decree No 611-RN-

MC/2006, dated June 22, 2006. The Concession is valid for a period of 25 years ending on February 3, 2027, and may be renewed for a further 25 years.

On May 7, 2012, Golden Reign announced the completion of an 80% earn-in interest in the San Albino-Murra Concession pursuant to the terms of a four-year Property option agreement dated June 26, 2009, with Nicoz, a private Nicaraguan company. Under the terms of the Property option agreement, consideration paid for the 80% interest consisted of:

- Aggregate cash payments totalling US$450,000;
- The issuance of 4,000,000 common shares of Golden Reign;
- Completion of exploration expenditures of US$5,000,000.

On October 31, 2012, Golden Reign announced an agreement to acquire the remaining 20% interest in the San Albino-Murra Concession by making cash payments totalling US$650,000 and issuing 2,100,000 common shares from its treasury over a period of 12 months. The acquisition of the remaining 20% was completed in October 2013, as reported in Golden Reign's Management Discussion and Analysis ("MDA") for the six months ending October 31, 2013.

The El Jicaro Concession was acquired in February 2012 from a Nicaraguan title-holder. Aggregate costs incurred to purchase and transfer title of the mining exploration and exploitation license were US$120,000. The El Jicaro Concession license is valid for a period of twenty-five years, until September 28, 2033, and may be renewed for a further 25 years.

The San Albino-Murra Property is subject to annual exploration reports, to be submitted to the Government of Nicaragua, and annual taxes. All concessions are subject to a 3% NSR on gold production, payable to the Government of Nicaragua. Golden Reign has provided documentation from the Nicaraguan Ministry of Energy and Mines confirming that the San Albino-Murra Concession and El Jicaro Concession are in good standing as of January 14 and 16, 2015 respectively. In addition, Golden Reign has provided P&E with a letter dated January 14, 2015 from Consejeros Económicos y Legales, S.A. as Nicaraguan legal counsel to Golden Reign, confirming that: 1) Nicoz Resources, S.A. holds the legal title of the San Albino-Murra Concession; 2) Nicoz Resources, S.A. is a wholly-owned subsidiary of Golden Reign Resources Ltd.; 3) Gold Belt, S.A. is the holder of the Mining Concession "El Jicaro"; 4) Gold Belt S.A. is a wholly-owned subsidiary of Golden Reign Resources Ltd., and 5) each of Gold Belt S.A. and Nicoz Resources S.A. are validly existing legal entities.

On July 11, 2014, Golden Reign announced the completion of a US$15.0 million gold streaming facility with Marlin Gold Mining Ltd. ("Marlin") to provide financing for the development of the San Albino Gold Deposit. Under the terms of the facility, a wholly-owned subsidiary of Marlin ("Marlin subsidiary") will be entitled to purchase 40% of gold production at US$700 per ounce until Golden Reign has repaid US$19.6 million. Prior to commercial production, the Marlin subsidiary will be entitled to an 8% semi-annual coupon on the US$15.0 million. On commercial production, Golden Reign is required to make minimum monthly payments of US$282,800. After Golden Reign has repaid the US$19.6 million, the Marlin subsidiary will be entitled to purchase 20% of the gold production at US$700/ounce subject to a 1% annual price escalation after 3 years of commercial production, plus 50% of the price differential should the gold price exceed US$1,200/ounce.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Information in the following section is primarily summarized from Kowalchuk's (2011) technical report.

5.1 ACCESS

Access to the Property is via 53 kilometres of paved road leading from the City of Ocotal (the capital of the Department of Nueva Segovia) to El Jicaro, Murra and Quilali. Ocotal is located 226 kilometres north of Managua City, following the paved road Highway CA-1 (the Pan American Highway). An all-weather, gravel road provides access to the Concession from El Jicaro, which is located 6 kilometres to the northwest. It takes approximately 5 hours driving time from Managua to El Jicaro, the nearest town to the Property, and 15-20 minutes driving time from El Jicaro to the San Albino Deposit. It takes approximately 30 minutes driving time from El Jicaro to Murra in the north end of the Property.

5.2 CLIMATE

Nicaragua has a tropical climate. As in the other Central American countries, there are dry and rainy seasons. During the dry season (December - May) there is virtually no rain. Rain usually begins in late May, when it often rains once a day, but generally for a short period of time. September and October often bring heavy rains, in the form of spectacular, tropical downpours. The eastern part of the country experiences more precipitation than the west, where the Property is located. There are three temperature zones in Nicaragua. In the lowlands (Pacific and Atlantic coast) temperatures vary roughly between 22°C at night and 30°C during the daytime. Temperature can reach 38°C in May. The central part of the country is about 5°C cooler, and in the northern highlands, where the Property is situated, it is about 10°C cooler.

5.3 LOCAL RESOURCES

Nicaragua, in general, has a moderately developed infrastructure of communications, roads, airports, and seaports. Several small towns with a history in farming and small-scale mining are located along the main paved road leading from Ocotal City. These towns include: San Fernando, Santa Clara, Susucayan, El Jicaro, Quilali, and Murra.

There is a strong mining history, and a workforce skilled in small-scale mining is locally available. In the past, small-scale, artisanal gold mining, from both placer and hard-rock sources, was evident throughout the area. However, at the present time there is only artisanal placer mining in the northern (Murra) sector of the region.

Agricultural activities in the area are dominated by farm products, such as coffee, corn, beans and cattle ranching. Small farm settlements and dwellings are scattered throughout the area.

5.4 INFRASTRUCTURE

Electrical power for the San Albino Property can be obtained from the national grid system that passes directly through the Property, supplying the two main municipalities of El Jicaro and

Murra. A new power line that was installed in 2011 passes within less than 1 kilometre from the San Albino Deposit.

There are several sources of water for drilling. There are three major rivers located within the Concession boundaries: Murra, El Jicaro and Susucayan. In addition, there are a number of creeks which supply water year-around.

Some heavy equipment such as bulldozers or backhoes can be contracted locally (El Jicaro, Murra, Ocotal, or Esteli). The Company currently owns two mid-size excavators.

5.5 PHYSIOGRAPHY

The San Albino Property lies within the Cordillera Segoviana, an area of moderate to steep relief. Elevations range from 500 to 1,200 m above sea level. The southern portion of the Property is at lower elevation and consists of gently rolling hills. In the northern portion, most of the land is hilly. The steeper, rockier valleys are often thickly forested with moderately dense undergrowth. The upper slopes and tops of the higher hills may be covered in low-density pine forests.

Most of the land is cultivated with corn or beans, or used as grazing pasture for cattle. The soil cover is typically thin and poor in humic material, rarely supporting more than 10 cm of dark soil. Rock outcrops are mostly restricted to the valleys and drainages with rare outcrops found on the hilltops or in road cuts.

The San Albino Deposit is situated in the southern end of the mining concession, approximately 6 kilometres east of the town of El Jicaro. The surrounding topography is characterized by gently sloping terrain, reaching a low of approximately 500 m above sea level. Vegetative cover is primarily second growth shrubs, small trees, and grasses.

6.0 HISTORY

Gold-quartz mineralization was discovered at the San Albino Deposit around 1790 by Spaniards during placer mining activities on the Rio Cocos west of the deposit. Spaniards mined gold at the San Albino Deposit initially from an open pit and subsequently by underground methods. Flooding eventually stopped the early work.

The early history of the Property was summarized by Rodgers Peale (1948). From 1885 to 1920 the Property was worked by several operators. In 1922 to 1926, Charles Butters, an American metallurgist, built a mill on site, however, the operation was seized in 1927 by Augusto Sandino, leader of the Nicaraguan revolution.

Information on the history of exploration on the Property is summarized in Table 6.1, from Kowalchuk (2011) and Puritch et al. (2013).

TABLE 6.1
HISTORICAL EXPLORATION ON THE SAN ALBINO GOLD PROPERTY

Year	Company	Exploration
1885-1899	Ramon Raudales	Mined 12,000 tons of ore at an estimated value of $12.00/t.
1899-1906	San Albino Mines Ltd.	2,000 tons of ore, valued at $17.00/t, was mined from stopes and pillars.
1906-1912	Jicaro Gold Estates Ltd.	11,000 tons of ore, valued at $7.00/t was mined from pillars and dumps.
1912-1920	John May and G.J. Williams	Mined 7,000 tons at an estimated value of $11.00/t. 1,500 tons was stoped and the remainder was taken from development and pillars.
1922-1926	Charles Butters	Heavy mill equipment brought to Property, small production of about 10 tons per day. Dam built on the El Jicaro River for power. 3,000 tons mined.
1926	Augusto Sandino	Took over the mine with the miners and milled approximately 3,000 tons of stockpiled ore.
1935	New York and Honduras Rosario Mining Co.	Sampling conducted on the 400 level.
1938	General Anastasio Somosa	Intermittent operations in late 1930’s and early 1940’s. Closed down after the hydroelectric dam on the El Jicaro river was lost. No production records exist.
1948	Luis Somosa	Property inspected by Rodgers Peale, a mining consulting engineer, who wrote a compilation report of work done to date.
1981		The San Albino Mine plant was burned down by revolutionaries and the remains of the mill equipment scattered at the plant site.
1996	Western Mining Corporation	The 200L, 400L and Naranjo cross cut were cleaned and channel sampled at 5 ft (1.5 m) intervals. The 300L cross cut was reopened for a distance of 287 ft (87.5 m) but didn’t reach the 300L main drift. The 300L cross cut was channel sampled at 5 ft (1.5 m) intervals from the entrance to 145 ft (44.2 m).
1996-1997	Western Mining Corporation	Completed the first modern exploration on the Quilali-Murra Exploration Concession, which included the San Albino-Murra Gold Concession. Work included stream sediment survey throughout the concession area and rock chip sampling. Soil samples were collected ever 500 m along trails and footpaths crossing the area. 2 vertical drill holes (to 76 ft and 96 ft or 23.2 m and 29.3 m) failed to reach the programmed depth of 400 ft (121.9 m).
1997-2006	Resources and Mining S.A. – REMISA (formerly EMSA)	Reopened old cross-cuts at different levels but could not reach the main drift. A soil survey was conducted in the hanging wall side of the San Albino Mine’s mineralized structure.

Table 6.1 Historical Exploration on the San Albino Gold Property		
Year	**Company**	**Exploration**
2003	Pila Gold Ltd.	350 separate showings were identified, mapped and sampled. 893 rock samples, 189 soil samples and 43 silt samples were collected. 24 hand dug trenches and pits were completed. Regional traverses conducted. Golden Reign possesses a database with this information.
2006-2008	Condor Resources Plc.	75 Trenches totalling 2,250 m with 2,398 samples. 82 road cuts totalling 584 m with 694 samples. 8 adits inspected or mapped over 246 m with 246 samples taken. 24 drill holes totalling 2,754 m with 1,321 samples (3 drill holes at San Albino and 21 at Arras). Rock chip and soil samples total 1,100 samples.

6.1 TRENCHING

From 2006 to early 2009, Condor Resources, Plc. (now Condor Gold Plc.) completed 75 trenches totalling 2,250 m taking 2,398 samples, 82 road cuts totalling 584 m with 694 samples taken, mapped or inspected 8 adits over 246 m with 246 samples taken. A 24 reverse circulation ("RC") drill hole program, totalling 2,754 m with 1,321 samples taken, was conducted (3 drill holes at the San Albino prospect and 21 at the Arras prospect). Rock chip and soil sampling was done, with 1,100 samples taken.

Select intersections from the San Albino trenches include 4 m grading 6.62 g/t Au in trench SACT024, 1.5 m grading 11.3 g/t Au in trench SACT31 and 5 m grading 37.2 g/t Au in trench SATR062.

Select intersections from the Arras exploration trenches included 3 m grading 15.9 g/t Au in trench SACT002, 10 m grading 1.31 g/t Au in trench SATR001, 18 m grading 6.77 g/t Au in trench SATR010, 16 m grading 7.89 g/t Au in trench SATR011 and 5 m grading 6.97 g/t Au in trench SATR024.

6.2 HISTORIC DRILLING

A total of 24 boreholes were advanced, including 3 on San Albino and 21 on Arras. Two drill holes were completed by diamond drill, with the remainder completed using RC drilling.

Only one hole at San Albino intercepted gold bearing structures, SARC010 intersected 1 m grading 4.20 g/t Au at 14 m and 1 m grading 2.12 g/t Au at 95 m.

Select intersections from the Arras include 4 m grading 17.9 g/t Au from 8 m in drill hole SARC005, 4 m grading 28.2 g/t Au from 3 m in drill hole SARC013 and 4 m grading 16.3 g/t Au from 84 m in drill hole SARC021.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

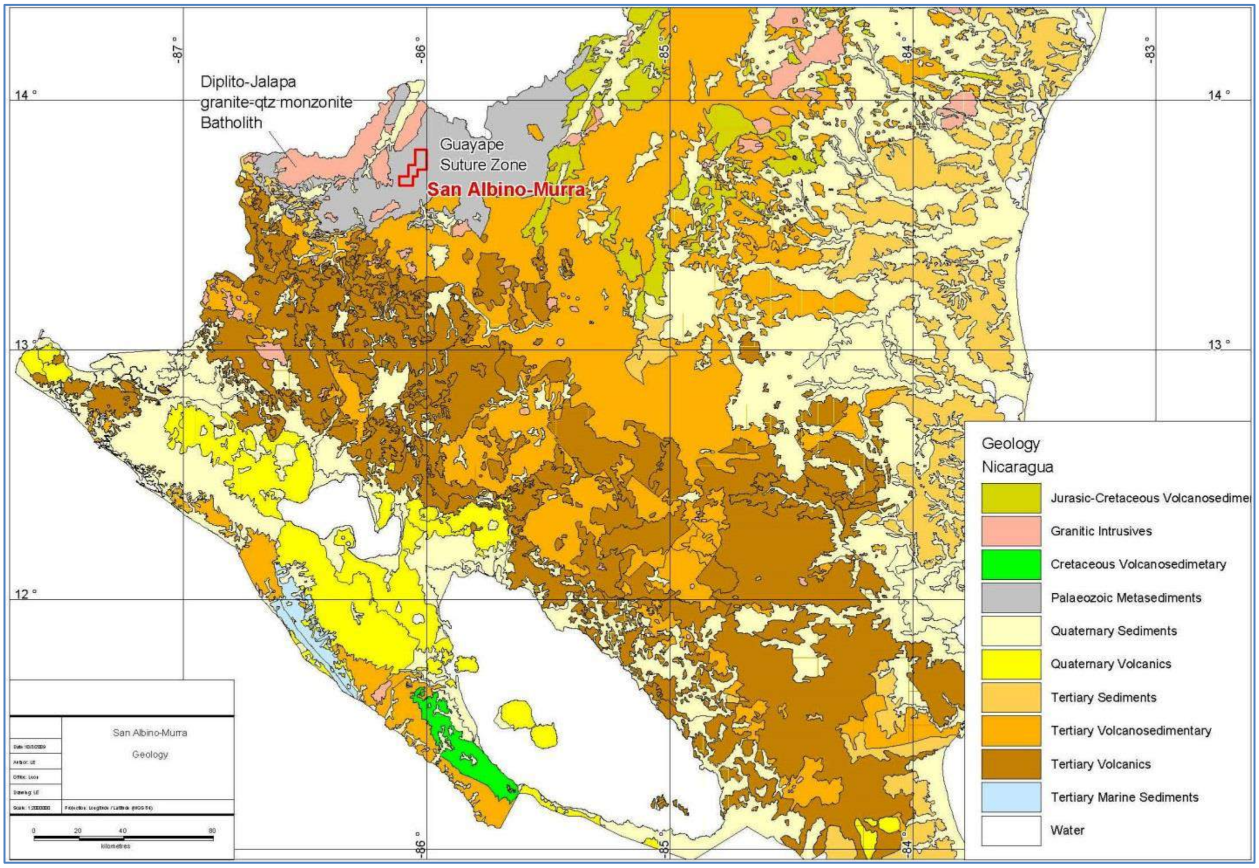
Northern Nicaragua in the region of the San Albino Property is underlain by the eastern part of the Chortis block of the Caribbean Plate. The rocks of the eastern Chortis block are composed of pre-Jurassic Paleozoic greenschist facies phyllites and schists that are unconformably overlain by Mesozoic stratigraphy consisting of limestone, mudstone, greywacke and calcareous mudstone, with lesser andesite tuff and flows of Cretaceous age (Sundblad et al. 1991).

The San Albino Property covers over 20 kilometres strike extent of a belt of Paleozoic metamorphic rocks within a structural trend known as the Guayape Suture Zone (Figure 7.1). North of the Property, the Cretaceous Dipilto granitic batholith and felsic to intermediate dikes intrude the metasedimentary and metavolcanic rocks of the Chortis Block. Since the Dipilto batholith is undeformed, it was probably intruded after the compressional deformation of the Chortis Block occurred.

The region southwest of the Dipilto batholith, including the area of the Property, is underlain by metasedimentary rocks consisting mainly of graphitic metapelitic and metapsammite schists, with layers of metavolcanics, metaconglomerates, quartzites, and calc-silicate (Garrett, 2012). Hydrothermal quartz veins and lenses are common throughout the metasediments.

Further to the southwest, a significant accumulation of Cenozoic volcanic rocks and related intrusive rocks are a result of magmatic activity related to subduction of the Farallon and later the Cocos plates beneath the Caribbean plate along the Middle America Trench, southwest of Nicaragua (Donnelly, 1990). The volcanic rocks are dominated by calc-alkaline, high-alumina basalts and basaltic andesites, with locally important ignimbrites of rhyolitic to andesitic composition.

Figure 7.1 Regional Geology of Nicaragua



Source: *Golden Reign, 2014*

7.2 LOCAL GEOLOGY

The San Albino Gold Deposit is located at the southwest end of the 20 km gold-bearing trend named the Corona de Oro Gold Belt by Golden Reign. The following description of local geology is summarized from Kowalchuk (2011).

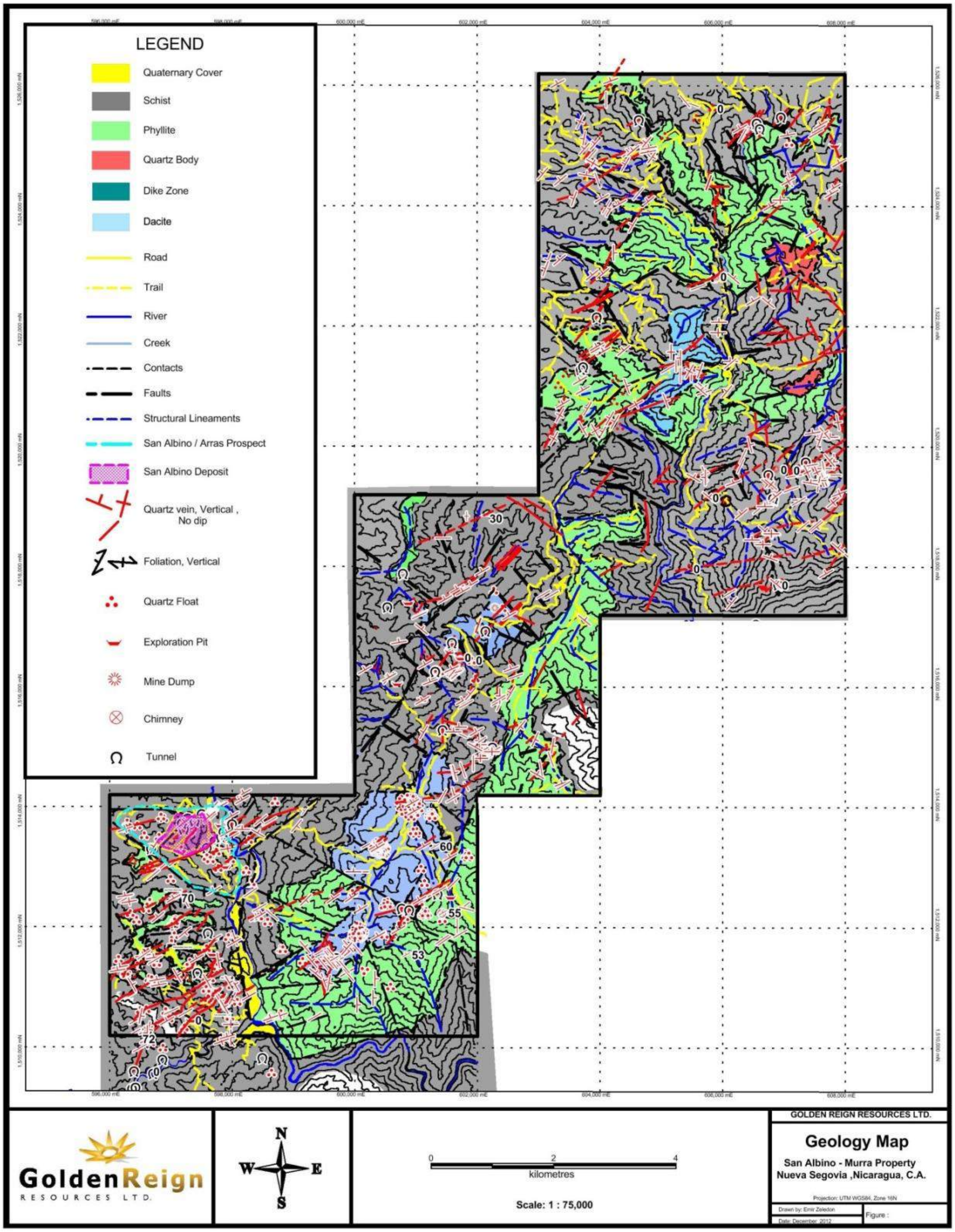
The San Albino Deposit is characterized by a series of shallow dipping, sulphide bearing quartz veins hosted by deformed quartz sericite schist containing up to 3% graphite. The original protolith of the schists is uncertain. Based on petrographic observations, many of the schists and phyllites that are distal to mineralization are described as quartz-calcite-chlorite-sericite schist and phyllite, and are interpreted to be deformed mafic to intermediate volcanics or intrusives. The phyllites are less deformed than the schists. East of the El Jicaro River, mafic rocks range from slightly metamorphosed, to chlorite-sericite phyllite and then to quartz-chlorite-sericite schist.

The immediate host rocks of the mineralization are quartz-sericite-calcite schist with 1-3% carbonaceous material that is probably graphite. Although the carbonaceous material in the schist appears to be abundant in hand specimen, petrographic observations indicate that the carbonaceous content is less than 3%.

The schists and phyllites are intruded by intermediate to mafic plugs and dikes. Petrographic studies describe these intrusives as diabase or gabbro with fine grained dikes being andesitic in composition. The intrusive rocks vary from massive to slightly foliated, suggesting a late-to post-deformation age of emplacement. The mafic intrusives may be related to the Dipilto batholith that ranges from granite to gabbro in composition. Near the gold bearing quartz veins, the dikes and intrusive bodies show signs of hydrothermal alteration, with the conversion of chlorite to sericite and amphibole to actinolite. The mafic dikes and bodies may be contemporaneous or post-date the mineralization. Most of the larger bodies of intrusive rocks lie east of the El Jicaro River, extending north to the municipality of Murra.

Abundant metamorphic quartz veinlets and lenses that are concordant with the dominant foliations are interpreted as derived from metamorphic mineral differentiation. The rocks are extensively deformed with tight compound folding, lensoidal textures and thrust features all recognized at the centimeter to meter-scale. Recumbent folds have fold axes striking at 240º and dipping 45º to the northwest with the fold hinge oriented 215º and folds verging to the northeast.

Figure 7.2 San Albino Property Geology



Source: *Golden Reign, 2012*

The main structural trends are the 240º regional foliation and a cross cutting 310º set of structures or faults. Limited movement, possibly as little as 50 m, occurs along the 310º faults.

The Property is cut by a later north-south trending normal fault along the El Jicaro River which raises the rocks east of this fault by as much as 500 m. Other minor north-south normal faults also raise the rock units east of the faults.

In the North, east of the Murra River the foliation strikes north-east (20°) and dips steeply to the west. West of the Murra River the foliation dips steeply to the east. These schists contain quartz veins and veinlets, ranging in width from 1 centimetre to several m. The mineralized veins generally lie parallel to foliation and it appears that veins follow the large regional north-east trending structures. The large north-south trending Murra River structure may actually be the axis of a large north-south syncline.

7.3 DEPOSIT GEOLOGY

The following description of the San Albino Deposit is primarily summarized from Kowalchuk's (2011) technical report. At the San Albino Deposit, the gold and silver mineralization is hosted by quartz veins, veinlets and quartz stockworks in chlorite schist. The host rock immediately surrounding the mineralized veins consists of sericite, chlorite and clay minerals and minor graphite, much of which may result from alteration of the regional chlorite and biotite schist. Although the schist only contains 1-3% black carbonaceous opaque minerals (graphite), the schist acquires a black colour and is referred to as graphite schist.

Mineralization appears to be controlled by a regional 60° trending regional fabric. This prominent structural control governs both the strike of the surrounding phyllites and schists, as well as the mineralized quartz veins.

The San Albino Deposit consists of four principal stacked, northwest dipping mineralized zones (Golden Reign July 24, 2014 press release). The uppermost El Jobo zone was recently discovered. The San Albino zone underlies the El Jobo zone and dips to the northwest at 17^{o}. The San Albino zone has been traced for a strike length of approximately 700 m and has widths of 1.5 to 6 m. The Naranjo zone, below the San Albino zone, dips at 15^{o} to the northwest, has been traced for a strike length of over 800 m. The Naranjo zone is characterized by heavily fractured to brecciated chalcedonic quartz in a well-developed graphitic shear zone, shows some discontinuity and is generally less than 1.5 m thick. Down dip the zone is reported to split into two or three parallel veins. The Arras zone is the lowest mineralized vein system, dips 19^{o} to the northwest and has been defined over a strike length of approximately 600 m. Overall, the mineralized vein system has been defined over strike length of 670 m, down dip extension of 900 m. The zones are separated by approximately 100 m of host rock.

7.4 MINERALIZATION

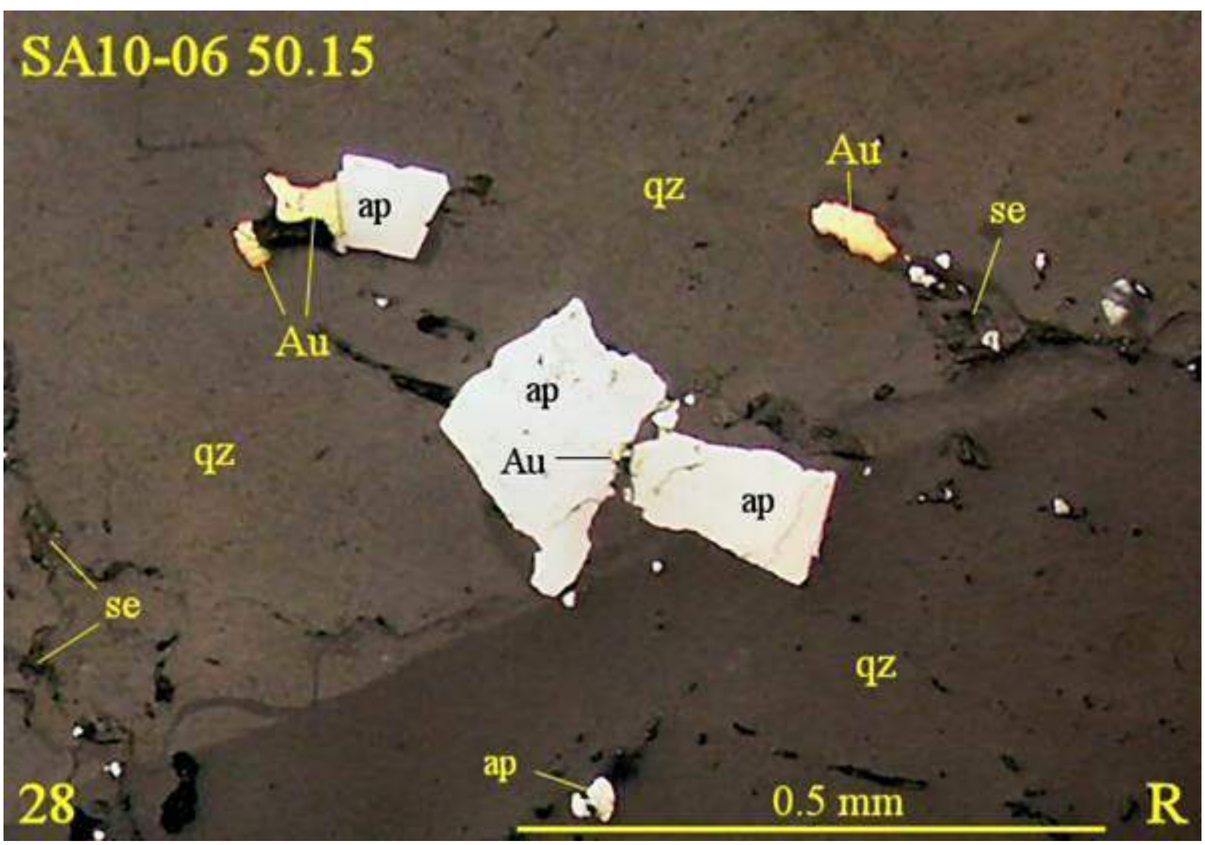
The mineralized veins of the San Albino Gold Deposit are typically milky quartz veins containing pyrite, arsenopyrite, galena and sphalerite, with traces of chalcopyrite. Gold mineralization is described as occurring as microcrystalline and free gold varieties (Garrett, 2012). Visible gold was recognized by Golden Reign geologists in 15 of the 223 holes drilled on the Property and was observed in all three veins. Graphite and possible sulphosalt stringers locally result in a marbled appearance to the veins. The mineralized quartz veins have a moderate amount of fracture-controlled sulphides. Gold mineralization has a very strong correlation with galena and a moderate correlation with arsenopyrite. There is generally a 1:1 gold to silver ratio. Mineralization is occasionally associated with epidote alteration and clay.

Gold mineralization is largely confined to the quartz veins; however, zones of significant gold mineralization are found in narrow 1 centimetre wide quartz veinlets proximal to the veins and distributed erratically peripheral to the veins. The presence of the veinlets produces a mineralized zone significantly wider than the actual primary quartz veins and is the reason the Golden Reign refers to the mineralization as “zones” rather than just as veins. Recent trenching results indicate that the host rock containing thin quartz veinlets have the potential to carry substantial gold grades. For example, trench SA-12-TR-06 returned 8.27 g/t Au over 8.0 m in the host rock. The host rock locally contains disseminated pyrite, pyrite stringers, and pyrite nodules with occasional evidence of chalcopyrite and pyrrhotite nodules.

The host rocks and veins are weathered up to 30 m below surface. In the weathered zone, the mineralized quartz veins and veinlets are often shattered and difficult to recognize in trench mapping and drill core. Generally the sulphides in these weathered veins are not oxidized, and galena, arsenopyrite and sphalerite are observed. The weathered zone is referred to in this report as an oxide zone; however, a more correct term would be a transition zone. True oxide zone is observed only in the regolith.

Petrographic reports with microphotographs provided by Golden Reign illustrate that native gold typically lies along sulphide-quartz and pyrite-arsenopyrite grain boundaries (Figure 7.3). The Company reports that in no cases was native gold visible within the crystal structures of the various sulphide grains. Sample SA10-06, 50.15 m from the San Albino Deposit. Subhedral grains of arsenopyrite (“ap”) in quartz (“qz”) with native gold (“Au”) and minor sericite (“se”).

Figure 7.3 Photomicrograph of Gold Mineralization in San Albino Vein



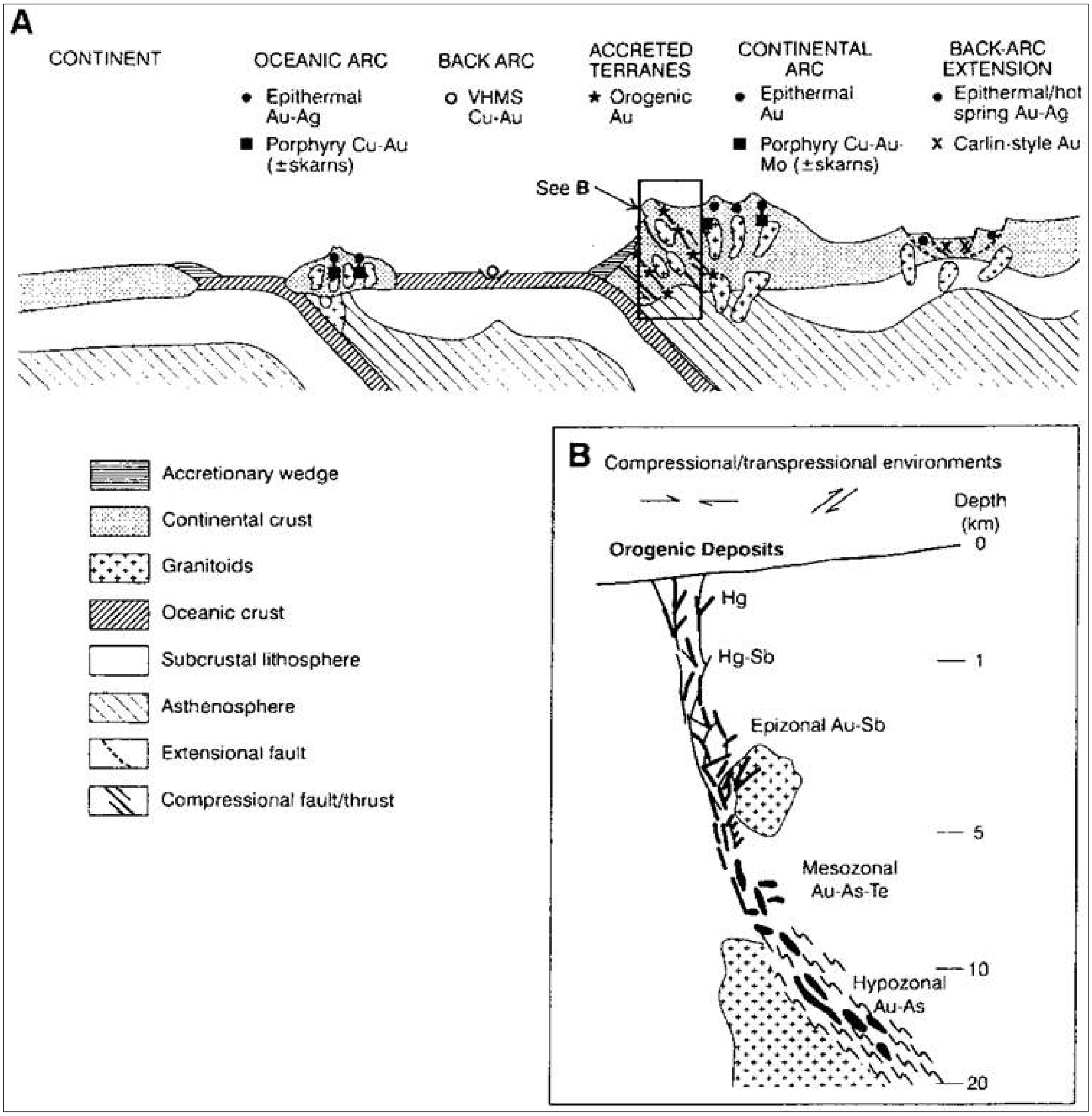
8.0 DEPOSIT TYPES

Nelson (2007) reports that most Central American precious metal deposits are associated with either epithermal quartz veins such as at the Bonanza, Talavera, La Libertad-El Limon mines in Nicaragua, or with epithermal quartz stockworks such as the Marlin mine in Guatemala. These epithermal deposits have formed during the last 10 to 20 million year history of island arc volcanism in Central America. Documented epithermal gold mineralized systems in Nicaragua, such as the El Limón district, are considered typical of low-sulphidation, quartz-adularia, epithermal systems (Pearson and Speirs 2009). The epithermal quartz veins systems are typically steeply dipping, crustiform veins, formed along structural conduits at a relatively deep level of the fossil geothermal systems at 200 to 3,000°C.

In contrast, the San Albino Deposit and other mineralized zones on the Property appear to be orogenic gold deposits associated with deformed accretionary terrains that are adjacent to magmatic arcs. The gold mineralized sulphide-bearing quartz veins of the San Albino Deposit are located within a large and intense regional deformation zone. Mineralization is associated with compressional to transpressional deformation processes. The San Albino Deposit mineralization has significant down dip continuity as indicated by the Arras zone, which has been, thus far, traced down dip for over 900 m.

Figure 8.1 illustrates the structural location and tectonic style of the mineralization based on the model of Groves et al. (1998). In this model, subduction-related thermal events episodically raise geothermal gradients within the hydrated accretionary sequences. These elevated geothermal gradients initiate and drive long-distance hydrothermal fluid migration. The resulting gold-bearing quartz veins are emplaced over a significant range of depths and gold deposition may occur from hypozonal (>12 km), through to mesozonal (6-12 km), and epizonal (<6 km) crustal depths. The shallower range of environments may give rise to deposit characteristics that are gradational between “mesothermal” and “epithermal” deposit types.

Figure 8.1 Tectonic Settings of Gold-Rich Epigenetic Mineral Deposits



Source: *D.I. Groves et al/ Ore Geology Reviews 13 (1998) 7–27*

In Groves et al. (1998) model, epithermal veins and gold-rich porphyry and skarn deposits, form in the shallow (< 5 km) parts of both island and continental arcs in compressional through extensional regimes. Epithermal veins, as well as sedimentary rock-hosted type Carlin mineralization, are emplaced in shallow regions of back-arc crustal thinning and extension. In contrast, 'mesothermal' gold mineralization (termed orogenic gold on this diagram) are emplaced during compressional to transpressional regimes and throughout much of the upper crust, in deformed accretionary belts adjacent to continental magmatic arcs. Note that both the lateral and vertical scale of the arcs and accreted terranes have been exaggerated to allow the gold deposits to be shown in terms of both spatial position and relative depth of formation.

9.0 EXPLORATION

Detailed information on exploration prior to 2013 is summarized in Puritch, et al. (2012) and Kowalchuk (2011).

9.1 REGIONAL MAPPING AND PROSPECTING

The Company completed regional mapping and prospecting over the entire San Albino-Murra Property from 2010 through 2012. Follow-up trenching was completed at a number of prospects. Additionally, several historical mines were re-opened and the veins sampled.

The ongoing regional prospecting and sampling program included mapping that was conducted intermittently over the historic San Albino Mine area during early 2012. The area mapped extends from 576,720E to 577,760E and 1,513,080N to 1,513,920N, representing approximately 0.87 km^2.

All roads, drill pads, drill collars, mine tunnel entrances, mine chimneys, mine dumps, buildings, trenches and outcrops were identified and mapped in detail at a scale of 1:1,000. Particular attention was paid to rock type, foliation and structures. All mapping was conducted utilizing a Garmin GPSmap 60CSx for control. Subsequent to this mapping, all trenches within this area have been reclaimed and the majority of the newly exposed outcrops have since been buried, in accordance with Nicaraguan mining law and environmental protection requirements.

Mapping and sampling carried out at the Las Conchitas area, which lies immediately south of the San Albino Gold Deposit, was successful in identifying several new prospects – all located within a 4 square kilometre area of the southern block of the Property. These new prospects comprise a system of parallel, sheeted quartz veins, similar to those at the San Albino Gold Deposit. A number of old mine dumps and pits, float material and quartz vein structures that were sampled returned good gold grades and are highly prospective. Four significant, parallel mineralized zones, all striking northeast/southwest, have been mapped and tested by sampling.

The Company also outlined the Corona de Oro Gold Belt, a structural corridor approximately 3 km wide by 23 km long that stretches from the southern to the north-eastern boundaries of the Property.

9.1.1 El Jicaro Concession - Regional Mapping and Prospecting

In October 2012, the Company acquired the El Jicaro Concession, situated adjacent to and south of the San Albino-Murra Property. The El Jicaro Concession covers an area of 5,071 hectares (51 km^2), nearly doubling the Company's current land package to an aggregate 13,771 hectares (138 km^2). The El Jicaro Concession license is valid for a period of twenty-five years, until September 28, 2033, and may be extended for a further 25 year period.

The Company completed regional mapping and reconnaissance sampling program over entire concession and conducted a geochemical soil survey over northwest portion of the property, known as the El Golfo Mine area. The El Jicaro Concession is not the focus of the Technical Report and will not be elaborated upon. For further information on this concession, the reader is referred to the Company website, http://goldenreignresources.com.

9.2 SAN ALBINO ZONE TRENCHING PROGRAMS

In 2010, the Company excavated 8 trenches totalling 160 m. The trenches were located to test the surface trace of the San Albino zone. The area of trenching lies above the El Naranjo zone and is surrounded by historical Spanish surface workings. The trenches are approximately 50 m apart, averaging 20 m in length. All of the trenches were hand dug and averaged approximately 0.8 m in width and 1.8 m in depth. Many of the trenches did not reach bedrock and regolith samples were taken for analysis.

In four of the trenches, the Company intersected significant gold values representing the mineralized zone.

In 2011, the Company excavated four trenches (SA11-TR-01 to SA11-TR-04) in a northwest direction to test the exposure of the San Albino zone. The trenches were each spaced 50 m apart and averaged 55 m in length. By using an excavator, Golden Reign was able to dig the trenches to a depth of 3.0 m.

In 2012, the Company excavated eight trenches (SA12-TR-01 to SA12-TR-08) to obtain a more thorough understanding of the San Albino mineralization. Trenches ranged in length from 44 m to 143 m, were approximately 1.5 m wide and were dug to a depth of 2 m to 4 m. The total length of trenching was 789.5 m. All trenches were roughly oriented northwest. The trenches were excavated over the main areas of historic disturbance and were in the same general area as the shallow 2010 and 2011 trenches.

The results of the 2012 San Albino trenching program confirmed that the area contains a continuous strike length of significant gold mineralization.

In 2013 and 2014, the Company completed 10 trenches totaling 1,478.6 m. Where the trenches intersected vein mineralization, a total of 11 exploration pits were excavated showing structural details of the zone and allowing for measurements of the dip, strike and true thickness of the zone. The trenching completed to date has more than doubled the strike length of the San Albino zone from 350 to 800 m.

Highlight from San Albino zone trenching program is summarized in Table 9.1.

TABLE 9.1
SAN ALBINO ZONE TRENCH RESULTS

Trench Number	Sample Type	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)
SA10-TR-01	Floor-Dip	6.0	8.0	2.0	3.10	2.5
SA10-TR-02	Floor-Dip	8.0	10.0	2.0	1.77	2.0
SA10-TR-04	Floor-Dip	4.0	5.0	1.0	10.79	9.1
SA10-TR-04	Floor-Dip	7.0	8.0	1.0	3.15	2.4
SA10-TR-05	Floor-Dip	8.0	9.0	1.0	2.27	2.7
SA10-TR-05	Floor-Dip	9.0	10.0	1.0	17.89	43.0
SA10-TR-05	Floor-Dip	10.0	11.0	1.0	1.18	1.4
SA10-TR-05	Floor-Dip	16.0	17.0	1.0	0.83	1.1
SA10-TR-05	Floor-Dip	17.0	18.0	1.0	0.61	3.1

Table 9.1 San Albino Zone Trench Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
SA10-TR-05	Floor-Dip	18.0	19.0	1.0	1.37	1.4
SA11-TR-01	Floor-Dip	0.0	1.0	1.0	8.42	15.2
SA11-TR-01	Floor-Dip	1.0	2.0	1.0	8.12	36.5
SA11-TR-01	Floor-Dip	2.0	3.0	1.0	10.98	44.0
SA11-TR-01	Floor-Dip	3.0	4.0	1.0	9.71	22.1
SA11-TR-01	Floor-Dip	4.0	5.0	1.0	0.27	0.9
SA11-TR-01	Floor-Dip	5.0	7.0	2.0	12.06	26.2
SA11-TR-01	Floor-Dip	38.0	39.0	1.0	6.31	11.1
SA11-TR-01	Floor-Dip	39.0	40.0	1.0	5.59	14.9
SA11-TR-01	Floor-Dip	40.0	41.0	1.0	6.54	10.2
SA11-TR-01	Floor-Strike	35.5	35.5	1.5	7.24	10.7
SA11-TR-01	Floor-Strike	3.0	3.0	1.5	41.08	37.7
SA11-TR-04	Floor-Dip	34.0	36.0	2.0	1.88	0.6
SA12-TR-01	Floor-Dip	17.0	18.0	1.0	3.39	5.9
SA12-TR-01	Floor-Dip	18.0	19.0	1.0	1.77	4.9
SA12-TR-01	Floor-Dip	19.0	20.0	1.0	16.87	24.1
SA12-TR-01	Floor-Dip	35.0	36.0	1.0	2.04	1.8
SA12-TR-01	Floor-Dip	40.0	42.0	2.0	3.44	2.4
SA12-TR-01	Floor-Dip	42.0	43.0	1.0	11.65	12.2
SA12-TR-01	Floor-Dip	43.0	44.0	1.0	7.17	6.3
SA12-TR-01	Floor-Dip	44.0	45.0	1.0	13.36	14.0
SA12-TR-01	Floor-Dip	45.0	46.0	1.0	59.08	25.8
SA12-TR-01	Floor-Strike	45.0	45.0	1.5	11.78	19.1
SA12-TR-01	Floor-Strike	42.0	42.0	1.5	10.28	12.6
SA12-TR-01	Floor-Strike	36.0	36.0	1.5	2.19	0.5
SA12-TR-01	Floor-Strike	22.0	22.0	1.5	38.79	7.6
SA12-TR-01	Floor-Strike	19.0	19.0	1.5	6.81	20.1
SA12-TR-01	Wall-vertical	40.0	40.0	2.0	1.46	0.9
SA12-TR-01	Wall-vertical	20.0	20.0	1.5	6.22	8.5
SA12-TR-05	Floor-Dip	43.0	45.0	2.0	2.00	5.2
SA12-TR-05	Floor-Dip	64.0	66.0	2.0	38.67	23.7
SA12-TR-05	Floor-Dip	66.0	68.0	2.0	26.10	22.1
SA12-TR-05	Floor-Dip	68.0	70.0	2.0	41.70	30.9
SA12-TR-05	Floor-Dip	70.0	72.0	2.0	55.32	60.6
SA12-TR-05	Floor-Dip	72.0	74.0	2.0	80.40	63.3
SA12-TR-05	Wall-vertical	57.0	57.0	2.0	6.88	13.4
SA12-TR-05	Wall-vertical	62.0	62.0	2.0	7.11	12.0
SA12-TR-05	Wall-vertical	62.0	62.0	2.0	0.90	3.0
SA12-TR-05	Wall-vertical	72.0	72.0	2.0	7.03	6.5
SA12-TR-06	Floor-Dip	20.0	22.0	2.0	5.65	9.0

Table 9.1 San Albino Zone Trench Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
SA12-TR-06	Floor-Dip	54.0	56.0	2.0	9.46	11.8
SA12-TR-06	Floor-Dip	56.0	58.0	2.0	21.15	33.5
SA12-TR-06	Floor-Dip	58.0	60.0	2.0	0.19	1.3
SA12-TR-06	Floor-Dip	60.0	62.0	2.0	2.29	2.4
SA12-TR-06	Floor-Dip	68.0	70.0	2.0	27.45	87.6
SA12-TR-06	Floor-Dip	70.0	72.0	2.0	3.56	10.7
SA12-TR-06	Floor-Dip	72.0	74.0	2.0	18.99	18.5
SA12-TR-06	Floor-Dip	74.0	76.0	2.0	65.45	227.1
SA12-TR-06	Floor-Dip	78.0	80.0	2.0	22.64	148.2
SA12-TR-06	Floor-Dip	80.0	82.0	2.0	0.16	10.0
SA12-TR-06	Floor-Dip	82.0	83.0	1.0	11.56	16.4
SA12-TR-06	Floor-Dip	83.0	85.0	2.0	3.79	4.6
SA12-TR-06	Floor-Dip	104.0	105.0	1.0	0.97	9.6
SA12-TR-06	Floor-Dip	105.0	106.0	1.0	16.15	8.2
SA12-TR-06	Floor-Strike	73.0	73.0	1.0	51.54	93.7
SA12-TR-06	Floor-Strike	104.0	104.0	1.0	3.14	14.7
SA12-TR-06	Floor-Strike	105.0	105.0	1.0	9.94	22.6
SA12-TR-06	Wall-vertical	70.0	70.0	2.0	5.94	19.5
SA12-TR-06	Wall-vertical	74.0	74.0	2.0	6.59	7.3
SA12-TR-06	Wall-vertical	74.0	74.0	2.0	3.07	2.4
SA12-TR-06	Wall-vertical	78.0	78.0	2.0	8.60	22.5
SA12-TR-06	Wall-vertical	82.0	82.0	2.0	5.89	13.5
SA12-TR-06	Wall-vertical	82.0	82.0	2.0	5.40	5.8
SA12-TR-06	Wall-vertical	87.0	87.0	2.0	23.24	20.7
SA12-TR-06	Wall-vertical	90.0	90.0	2.0	3.12	3.7
SA12-TR-06	Wall-vertical	90.0	90.0	2.0	3.71	9.4
SA12-TR-06	Wall-vertical	104.0	104.0	2.0	2.05	9.2
SA12-TR-06	Wall-vertical	22.0	22.0	2.0	1.95	9.5
SA12-TR-06	Wall-vertical	54.0	54.0	1.5	9.36	7.8
SA12-TR-07	Floor-Dip	132.0	134.0	2.0	2.10	1.1
SA12-TR-07	Wall-vertical	124.0	124.0	2.0	1.26	0.9
SA12-TR-08	Wall-vertical	40.0	40.0	1.5	4.21	7.9
SA12-TR-08	Wall-vertical	50.0	50.0	1.5	2.81	7.7
SA12-TR-08	Wall-vertical	58.0	58.0	1.5	5.60	8.0
SA12-TR-08	Wall-vertical	58.0	58.0	1.5	2.95	10.0
SA12-TR-08	Wall-vertical	70.0	70.0	1.0	19.05	24.1
SA12-TR-08	Wall-vertical	80.0	80.0	1.0	1.82	3086.2
SA13-TR-09	Wall-vertical	77.0	77.0	0.8	0.85	2.6
SA13-TR-09 EXT SE	Wall-vertical	48.0	48.0	1.5	0.96	1.7
SA13-TR-10	Floor-Dip	115.0	117.0	2.0	0.89	1.6

Table 9.1 San Albino Zone Trench Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
SA13-TR-11	Floor-Dip	10.0	11.0	1.0	1.53	3.5
SA13-TR-11-EXPPIT#1	True Thickness	10.0	11.0	1.5	6.45	11.4
SA13-TR-11-EXPPIT#1	True Thickness	10.0	11.0	1.5	2.13	13.1
SA13-TR-11	Floor-Dip	11.0	12.0	1.0	3.81	3.2
SA13-TR-11-EXPPIT#1	True Thickness	12.0	13.0	1.5	3.75	24.7
SA13-TR-11-EXPPIT#1	True Thickness	12.0	13.0	1.5	3.10	5.4
SA13-TR-11	Floor-Dip	12.0	13.0	1.0	3.82	8.1
SA13-TR-11-EXPPIT#1	True Thickness	15.0	15.0	1.5	2.59	4.9
SA13-TR-11-EXPPIT#1	True Thickness	15.0	15.0	1.8	13.94	18.9
SA13-TR-11-EXPPIT#1	True Thickness	15.0	15.0	1.8	7.21	14.7
SA13-TR-11-EXPPIT#1	True Thickness	15.0	15.0	2.0	9.40	22.5
SA13-TR-11	Floor-Dip	14.5	15.5	1.0	5.02	30.2
SA13-TR-11	Floor-Dip	15.5	16.5	1.0	2.64	13.6
SA13-TR-11	Floor-Dip	16.5	17.5	1.0	20.16	24.9
SA13-TR-12	Floor-Dip	111.0	113.0	2.0	1.51	2.1
SA13-TR-12	Wall-vertical	115.0	115.0	2.0	13.50	8.3
SA13-TR-12	Wall-vertical	117.0	117.0	2.0	8.51	7.2
SA13-TR-12	Wall-vertical	124.0	124.0	2.0	0.71	0.6
SA13-TR-13	Floor-Dip	31.0	32.0	1.0	1.62	8.3
SA13-TR-13	Floor-Dip	32.0	34.0	2.0	0.65	1.0
SA13-TR-13	Floor-Dip	66.0	68.0	2.0	0.82	1.6
SA13-TR-13	Floor-Dip	70.0	72.0	2.0	29.97	123.0
SA13-TR-13	Floor-Dip	72.0	74.0	2.0	15.09	45.0
SA13-TR-13	Floor-Dip	74.0	76.0	2.0	0.43	2.7
SA13-TR-13	Floor-Dip	76.0	77.0	1.0	0.63	2.2
SA13-TR-13	Floor-Dip	77.0	78.0	1.0	41.25	45.9
SA13-TR-13-EXPPIT#1	Strike	69.0	69.0	1.0	9.81	33.7
SA13-TR-13-EXPPIT#1	Strike	69.0	69.0	1.0	34.58	99.0
SA13-TR-13-EXPPIT#1	Strike	70.0	70.0	1.4	10.27	25.1
SA13-TR-13-EXPPIT#1	Strike	70.0	70.0	1.4	17.77	75.4
SA13-TR-13-EXPPIT#1	Strike	71.0	71.0	1.5	36.22	74.1
SA13-TR-13-EXPPIT#1	Strike	71.0	71.0	1.5	11.22	55.9
SA13-TR-13-EXPPIT#1	Strike	72.0	72.0	1.5	8.24	26.3
SA13-TR-13-EXPPIT#1	Strike	72.0	72.0	1.5	30.82	65.0
SA13-TR-13-EXPPIT#1	Strike	75.0	75.0	1.1	3.25	5.8
SA13-TR-13-EXPPIT#1	Strike	75.0	75.0	1.1	1.15	10.5
SA13-TR-13-EXPPIT#1	Strike	78.0	78.0	1.3	7.74	8.2
SA13-TR-13-EXPPIT#1	Strike	80.0	80.0	1.5	2.17	3.8
SA13-TR-13-EXPPIT#1	Dip	69.0	70.0	1.0	7.05	22.9
SA13-TR-13-EXPPIT#1	Dip	70.0	71.0	1.0	48.43	72.6

TABLE 9.1 SAN ALBINO ZONE TRENCH RESULTS						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
SA13-TR-13-EXPPIT#1	Dip	71.0	72.0	1.0	5.72	19.0
SA13-TR-13-EXPPIT#1	Dip	69.0	70.0	1.0	14.92	72.0
SA13-TR-13-EXPPIT#1	Dip	70.0	71.0	1.0	8.46	32.7
SA13-TR-13-EXPPIT#1	Dip	71.0	72.0	1.0	6.68	21.0
SA13-TR-13-EXPPIT#1	Dip	72.0	73.0	1.0	8.37	41.0
SA13-TR-13-EXPPIT#1	Dip	81.0	82.0	1.0	2.32	12.0
SA13-TR-13-EXPPIT#1	True Thickness	68.0	69.0	1.0	6.46	21.5
SA13-TR-13-EXPPIT#1	True Thickness	68.0	69.0	2.0	1.06	4.5
SA13-TR-13-EXPPIT#1	True Thickness	68.0	69.0	1.3	0.41	3.5
SA13-TR-13-EXPPIT#1	True Thickness	68.0	69.0	2.0	36.44	111.0
SA13-TR-13-EXPPIT#1	True Thickness	79.0	79.0	2.0	7.56	13.9
SA13-TR-13-EXPPIT#1	True Thickness	82.0	82.0	2.0	1.64	1.7
SA13-TR-13	Wall-vertical	31.0	31.0	2.0	7.55	10.0
SA13-TR-13	Wall-vertical	69.0	69.0	2.0	4.41	13.0
SA13-TR-13	Wall-vertical	73.0	73.0	2.0	9.01	30.4
SA13-TR-13	Wall-vertical	75.0	75.0	2.0	4.81	3.1
SA13-TR-14	Floor-Dip	24.0	26.0	2.0	0.92	0.9
SA13-TR-14-EXPPIT#1	Strike	34.0	34.0	1.8	24.03	34.6
SA13-TR-15	Floor-Dip	48.0	50.0	2.0	2.27	1.6
SA13-TR-16-EXPPIT#1	Strike	9.0	9.0	2.0	4.23	9.0
SA13-TR-16-EXPPIT#1	Strike	9.0	9.0	1.6	2.57	4.2
SA13-TR-16-EXPPIT#1	Strike	10.0	10.0	2.0	4.90	27.5
SA13-TR-16-EXPPIT#1	Strike	10.0	10.0	1.3	2.68	10.0
SA13-TR-16-EXPPIT#1	True Thickness	8.0	9.0	2.0	46.38	65.5
SA13-TR-16-EXPPIT#1	True Thickness	8.0	8.0	1.1	1.84	4.1
SA13-TR-16-EXPPIT#1	True Thickness	10.0	11.0	1.7	1.05	2.8
SA13-TR-16-EXPPIT#1	True Thickness	9.0	9.0	1.1	10.52	49.1
SA13-TR-16-EXPPIT#1	Wall-vertical	7.0	7.0	1.7	1.11	2.0
SA13-TR-16 EXT SE	Floor-Dip	0.0	2.0	2.0	0.83	2.0
SA13-TR-16 EXT SE	Floor-Dip	2.0	4.0	2.0	5.10	6.9
SA13-TR-16 EXT SE	Wall-vertical	1.0	2.0	1.0	1.54	3.8
SA13-TR-17	Floor-Dip	0.0	1.0	1.0	1.72	8.0
SA13-TR-17	Floor-Dip	1.0	2.0	1.0	0.28	3.1
SA13-TR-17	Floor-Dip	2.0	3.0	1.0	3.67	4.2
SA13-TR-17	Floor-Dip	3.0	4.0	1.0	2.07	5.0
SA13-TR-17	Floor-Dip	4.0	5.0	1.0	0.91	6.6
SA13-TR-17	Floor-Dip	5.0	6.0	1.0	1.35	1.6
SA13-TR-17	Floor-Dip	6.0	8.0	2.0	30.40	63.3
SA13-TR-17	Floor-Dip	8.0	10.0	2.0	0.84	3.4
SA13-TR-17	Floor-Dip	10.0	12.0	2.0	2.93	5.1

Table 9.1 San Albino Zone Trench Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
SA13-TR-17	Floor-Dip	14.0	15.8	1.8	0.98	7.0
SA13-TR-17	Floor-Dip	16.8	17.8	1.0	0.92	4.8
SA13-TR-17	Floor-Dip	17.8	18.8	1.0	0.99	5.2
SA13-TR-17	Floor-Dip	18.8	19.8	1.0	15.90	34.4
SA13-TR-17	Floor-Dip	19.8	20.8	1.0	6.70	38.7
SA13-TR-17	Floor-Dip	20.8	21.8	1.0	1.14	4.0
SA13-TR-17	Floor-Dip	21.8	22.8	1.0	0.89	3.1
SA13-TR-17	Floor-Dip	22.8	23.8	1.0	0.78	3.0
SA13-TR-17	Floor-Dip	23.8	24.8	1.0	17.40	19.6
SA13-TR-17	Floor-Dip	27.8	28.8	1.0	2.76	10.6
SA13-TR-17	Wall-vertical	29.0	29.0	1.1	3.03	5.5
SA13-TR-17-EXPPIT#1	Dip	1.2	2.3	1.1	4.93	27.9
SA13-TR-17-EXPPIT#1	Dip	2.3	3.4	1.1	1.53	6.5
SA13-TR-17-EXPPIT#1	Dip	0.0	1.0	1.0	27.50	39.4
SA13-TR-17-EXPPIT#1	Dip	1.0	2.0	1.0	10.60	48.9
SA13-TR-17-EXPPIT#1	Dip	2.0	3.0	1.0	1.63	13.4
SA13-TR-17-EXPPIT#1	Dip	3.0	4.0	1.0	8.25	19.7
SA13-TR-17-EXPPIT#1	Dip	4.0	5.0	1.0	2.53	12.9
SA13-TR-17-EXPPIT#1	Dip	5.0	6.0	1.0	2.56	10.8
SA13-TR-17-EXPPIT#1	Dip	6.0	7.0	1.0	2.98	4.5
SA13-TR-17-EXPPIT#1	Strike	2.0	2.0	2.0	1.80	9.5
SA13-TR-17-EXPPIT#1	Strike	2.0	2.0	1.5	10.60	43.6
SA13-TR-17-EXPPIT#1	Strike	4.0	4.0	2.3	4.57	21.3
SA13-TR-17-EXPPIT#1	Strike	4.0	4.0	2.3	0.98	7.5
SA13-TR-17-EXPPIT#1	Strike	6.0	6.0	1.9	1.81	3.7
SA13-TR-17-EXPPIT#1	Strike	6.0	6.0	1.5	6.39	6.9
SA13-TR-17-EXPPIT#1	True Thickness	0.0	0.0	1.2	1.16	4.1
SA13-TR-17-EXPPIT#1	True Thickness	0.0	0.0	1.7	4.76	12.9
SA13-TR-17-EXPPIT#1	True Thickness	0.0	0.0	1.9	4.49	8.0
SA13-TR-17-EXPPIT#1	True Thickness	1.0	1.0	1.6	50.20	63.1
SA13-TR-17-EXPPIT#1	True Thickness	1.0	1.0	1.6	2.83	10.6
SA13-TR-17-EXPPIT#1	True Thickness	8.0	8.0	1.6	6.71	11.5
SA13-TR-17-EXPPIT#1	True Thickness	7.5	7.5	1.9	1.68	5.3
SA13-TR-17-EXPPIT#1	True Thickness	7.5	7.5	1.6	5.00	7.5
SA13-TR-17-EXPPIT#1	True Thickness	8.0	8.0	1.8	2.42	5.3
SA13-TR-17-EXPPIT#1	True Thickness	8.5	8.5	1.6	1.61	3.5
SA13-TR-17-EXPPIT#2	Dip	1.0	2.0	1.0	0.97	3.9
SA13-TR-17-EXPPIT#2	Dip	3.0	4.0	1.0	1.39	3.2
SA13-TR-17-EXPPIT#2	Strike	1.2	1.2	2.0	2.42	4.8
SA13-TR-17-EXPPIT#2	True Thickness	1.5	1.5	1.8	1.64	4.5

TABLE 9.1 SAN ALBINO ZONE TRENCH RESULTS						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
SA13-TR-17-EXPPIT#2	True Thickness	1.0	1.0	1.8	0.84	4.8
SA13-TR-17-EXPPIT#2	True Thickness	6.0	6.0	1.8	19.10	25.5
SA13-TR-17-EXPPIT#2	True Thickness	6.0	6.0	1.8	1.85	5.6
SA13-TR-18	Floor-Dip	12.0	13.0	1.0	11.90	6.1
SA13-TR-18	Floor-Dip	13.0	14.0	1.0	2.98	4.9
SA13-TR-18	Floor-Dip	14.0	15.0	1.0	5.07	12.8
SA13-TR-18	Floor-Dip	15.0	16.2	1.2	5.11	9.4
SA13-TR-18	Floor-Dip	16.2	17.4	1.2	13.00	11.3
SA13-TR-18	Wall-vertical	11.0	11.0	0.9	2.23	3.4
SA13-TR-18-EXPPIT#1	Dip	0.0	1.0	1.0	20.30	20.6
SA13-TR-18-EXPPIT#1	Dip	1.0	2.0	1.0	34.90	29.8
SA13-TR-18-EXPPIT#1	Dip	0.0	1.0	1.0	6.92	7.1
SA13-TR-18-EXPPIT#1	Dip	1.0	2.0	1.0	0.82	5.3
SA13-TR-18-EXPPIT#1	Strike	1.8	1.8	1.5	0.95	7.1
SA13-TR-18-EXPPIT#1	Strike	1.8	1.8	1.5	3.02	5.0
SA13-TR-18-EXPPIT#1	True Thickness	2.2	2.2	1.6	16.70	15.1
SA13-TR-18-EXPPIT#1	True Thickness	2.5	2.5	1.6	1.87	6.3
SA13-TR-18-EXPPIT#1	True Thickness	3.5	3.5	1.5	4.23	9.6
SA13-TR-18-EXPPIT#1	True Thickness	4.0	4.0	1.5	3.77	3.4
SA13-TR-18-EXPPIT#1	True Thickness	4.4	4.4	1.5	1.97	6.4
SA13-TR-18-EXPPIT#1	True Thickness	4.7	4.7	2.0	7.13	36.6
SA13-TR-19	Floor-Dip	0.0	2.0	2.0	32.20	41.4
SA13-TR-19	Floor-Dip	2.0	3.5	1.5	1.62	1.8
SA13-TR-19	Wall-vertical	0.6	0.6	1.7	2.89	7.1

9.3 ARRAS 2012-2014 TRENCHING PROGRAM

In 2012, the Company completed six trenches totalling 378.5 m. The trenching was designed to test the grade and continuity of the surface showings of the Arras zone. Trenches were oriented northwest-southeast at right angles to the strike of the zone. Samples were taken primarily along the floor of the trenches and also down the walls of the trench at 5 m intervals. Trenching confirmed the continuity of the Arras mineralization along strike and down dip.

In 2013 the Company completed 14 trenches totalling 2,030 m, doubling the surface exposure of the Arras zone from 130 m to over 260 m. The average depth of the trenches is 1.8 m, with the mineralization intersected at a depth ranging from 1.0 to 1.5 m. Where the trenches intersected vein mineralization a total of 14 exploration pits were excavated to expose the structural details of the zone. The Company also exposed a large outcrop of the Arras zone with a large pit called “Predator Pit”. The Company excavated four “catas” or exploratory pits, searching for extensions to the zone. Two historical mines, Arras - Tunnel #3 and San Lorenzo Mine - were opened, mapped and sampled in detail:

- Arras - Tunnel #3, was opened for a length of 10 m and the SE or up-dip extension of the zone was exposed and sampled. The quartz vein within the zone (1.8 to 2.2 m wide) is well mineralized and contains galena and arsenopyrite. Cleanup around the entrance of the adit exposed the surface of the mineralized structure, which in this case is identified as sheeted quartz veins, 0.2 to 0.7 m wide with intercalated schist.
- Predator Pit is situated approximately 25 m below Arras - Tunnel #3 tunnel and sampling of the zone demonstrated down-dip continuity of the zone.

In 2014, the Company opened the mouth of the San Lorenzo Mine situated 130 m northeast of known Arras zone mineralization. The trench exposed the Arras zone down-dip extent for 20 m and extended the surface strike length of the Arras zone to 390 m.

Highlights from the Arras zone trenching program and exploration pits are summarized in Table 9.2.

Table 9.2 Arras Zone Trenching Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR12-TR-01	Floor-Dip	5.0	6.0	1.0	9.79	22.6
AR12-TR-01	Floor-Dip	24.0	26.0	2.0	1.48	5.0
AR12-TR-01	Floor-Dip	26.0	27.0	1.0	1.75	21.8
AR12-TR-01	Floor-Dip	27.0	28.0	1.0	0.47	3.9
AR12-TR-01	Floor-Dip	28.0	29.0	1.0	0.92	3.9
AR12-TR-01	Floor-Dip	29.0	30.0	1.0	0.62	5.4
AR12-TR-01	Floor-Dip	30.0	31.0	1.0	6.62	17.7
AR12-TR-01	Floor-Dip	31.0	32.0	1.0	2.01	10.2
AR12-TR-01	Floor-Dip	32.0	33.0	1.0	5.69	33.4
AR12-TR-01	Floor-Dip	33.0	34.0	1.0	1.81	8.0
AR12-TR-01	Floor-Dip	34.0	35.0	1.0	10.28	24.9
AR12-TR-01	Floor-Dip	35.0	36.0	1.0	2.32	6.7
AR12-TR-01	Floor-Dip	36.0	37.0	1.0	3.06	6.9
AR12-TR-01	Floor-Dip	37.0	38.0	1.0	1.75	6.3
AR12-TR-01	Floor-Dip	38.0	39.0	1.0	0.55	2.1
AR12-TR-01	Floor-Dip	39.0	40.5	1.5	3.37	6.2
AR12-TR-01	Floor-Dip	48.5	49.5	1.0	0.77	2.7
AR12-TR-01	Floor-Dip	51.5	52.5	1.0	4.76	20.2
AR12-TR-01	Floor-Dip	52.5	53.5	1.0	3.42	20.1
AR12-TR-01	Floor-Dip	73.5	75.5	2.0	3.77	5.2
AR12-TR-01	True Thickness	6.0	7.0	1.5	5.91	14.1
AR12-TR-01	True Thickness	22.0	22.0	1.0	11.48	24.9
AR12-TR-01	True Thickness	24.0	24.0	1.0	7.50	21.4
AR12-TR-01	True Thickness	26.0	27.0	1.3	28.82	50.9
AR12-TR-01	True Thickness	73.5	73.5	1.0	2.87	5.1
AR12-TR-01	True Thickness	46.5	47.5	2.0	2.88	6.7
AR12-TR-01	True Thickness	43.5	43.5	1.5	0.80	2.0
AR12-TR-01	Floor-Strike	28.5	28.5	1.0	7.63	20.0
AR12-TR-01	Floor-Strike	29.5	29.5	1.0	2.99	30.8
AR12-TR-01	Floor-Strike	31.5	31.5	1.0	0.95	5.8
AR12-TR-01	Floor-Strike	32.5	32.5	1.0	3.72	12.3
AR12-TR-01	Floor-Strike	33.5	33.5	1.0	3.27	21.3
AR12-TR-01	Floor-Strike	34.5	34.5	1.2	2.53	6.0
AR12-TR-03	Floor-Dip	20.0	22.0	2.0	11.32	9.9
AR12-TR-03	Floor-Dip	33.0	33.8	0.8	1.15	9.3
AR12-TR-03	Floor-Dip	46.0	47.0	1.0	0.94	4.6
AR12-TR-03	Floor-Dip	47.0	48.0	1.0	7.29	16.5
AR12-TR-03	Floor-Dip	48.0	49.0	1.0	60.00	36.8
AR12-TR-03	Floor-Dip	49.0	51.0	2.0	3.99	5.6
AR12-TR-03	Floor-Dip	59.0	61.0	2.0	1.20	2.3

TABLE 9.2
ARRAS ZONE TRENCHING RESULTS

Trench Number	Sample Type	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)
AR12-TR-03	Floor-Dip	61.0	63.0	2.0	0.25	0.7
AR12-TR-03	Floor-Dip	63.0	65.0	2.0	4.81	9.1
AR12-TR-03	Floor-Dip	65.0	67.0	2.0	0.70	2.7
AR12-TR-03	Floor-Dip	67.0	69.0	2.0	2.42	1.5
AR12-TR-03	True Thickness	27.0	27.0	0.5	31.54	26.3
AR12-TR-03	True Thickness	28.0	28.0	0.6	3.12	3.1
AR12-TR-03	True Thickness	46.0	46.0	1.0	19.27	23.1
AR12-TR-03	True Thickness	46.0	46.0	0.5	9.88	11.3
AR12-TR-03	True Thickness	52.0	52.0	0.8	2.51	9.5
AR12-TR-03	True Thickness	53.0	53.0	0.6	10.47	16.6
AR12-TR-03	Floor-Dip-pit	46.0	47.0	1.3	45.44	34.8
AR12-TR-03	Floor-Dip-pit	47.0	48.0	1.2	32.68	23.8
AR12-TR-03	Floor-Dip-pit	46.0	47.0	1.3	30.95	39.4
AR12-TR-03	Floor-Dip-pit	47.0	48.0	1.3	7.17	15.2
AR12-TR-03	Floor-Strike	32.5	32.5	1.2	2.26	10.9
AR12-TR-03	Floor-Strike	46.5	46.5	1.2	5.54	18.7
AR12-TR-03	Floor-Strike	47.5	47.5	1.2	5.55	10.5
AR12-TR-03	Floor-Strike	48.5	48.5	1.2	33.63	72.5
AR12-TR-04	Floor-Dip	0.0	2.0	2.0	84.25	58.6
AR12-TR-04	Floor-Dip	2.0	3.0	1.0	4.71	16.2
AR12-TR-04	Floor-Dip	15.0	16.0	1.0	1.51	4.8
AR12-TR-04	Floor-Dip	16.0	17.0	1.0	13.95	72.0
AR12-TR-04	Floor-Dip	17.0	18.0	1.0	10.71	37.5
AR12-TR-04	Floor-Dip	18.0	19.3	1.3	6.49	24.2
AR12-TR-04	Floor-Dip	19.3	20.3	1.0	4.46	11.0
AR12-TR-04	Floor-Dip	20.3	21.3	1.0	11.82	38.4
AR12-TR-04	Floor-Dip	21.3	22.3	1.0	4.39	26.0
AR12-TR-04	Floor-Dip	22.3	23.6	1.3	1.99	17.4
AR12-TR-04	Floor-Dip	23.6	24.6	1.0	1.95	9.9
AR12-TR-04	Floor-Dip	24.6	25.6	1.0	3.97	21.8
AR12-TR-04	Floor-Dip	25.6	26.6	1.0	0.90	4.8
AR12-TR-04	Floor-Dip	26.6	27.6	1.0	2.80	13.5
AR12-TR-04	Floor-Dip	27.6	29.6	2.0	3.73	8.9
AR12-TR-04	Floor-Dip	29.6	31.6	2.0	7.27	10.3
AR12-TR-04	Floor-Dip	31.6	33.6	2.0	4.93	5.7
AR12-TR-04	Floor-Dip	33.6	35.6	2.0	1.22	4.2
AR12-TR-04	Floor-Dip	35.6	37.6	2.0	3.58	7.1
AR12-TR-04	Floor-Dip	37.6	39.6	2.0	1.42	7.0
AR12-TR-04	True Thickness	2.0	2.0	1.0	5.43	19.6
AR12-TR-04	True Thickness	3.0	3.0	1.5	34.94	60.2

TABLE 9.2 ARRAS ZONE TRENCHING RESULTS						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR12-TR-04	True Thickness	4.0	4.0	1.0	12.17	44.7
AR12-TR-04	True Thickness	5.0	5.0	1.0	23.51	91.2
AR12-TR-04	True Thickness	6.5	6.5	1.0	9.98	25.8
AR12-TR-04	True Thickness	13.0	13.0	1.5	9.94	24.5
AR12-TR-04	True Thickness	19.8	19.8	1.3	5.52	38.3
AR12-TR-04	Floor-Strike	21.8	21.8	1.5	2.07	6.5
AR12-TR-04	Floor-Strike	23.0	23.0	1.5	1.34	14.7
AR12-TR-04	Floor-Strike	24.1	24.1	1.5	3.80	17.7
AR12-TR-04	Floor-Strike	25.1	25.1	1.5	4.86	15.5
AR12-TR-04	Floor-Strike	26.1	26.1	1.5	9.41	48.5
AR12-TR-05	Floor-Dip	13.0	14.0	1.0	5.09	13.9
AR12-TR-05	Floor-Dip	17.0	18.0	1.0	1.01	1.9
AR12-TR-05	Floor-Dip	26.0	27.0	1.0	3.45	6.7
AR12-TR-05	Floor-Dip	27.0	29.0	2.0	0.56	3.9
AR12-TR-05	Floor-Dip	29.0	31.0	2.0	0.12	0.8
AR12-TR-05	Floor-Dip	31.0	33.0	2.0	1.55	3.2
AR12-TR-05	Wall-vertical	31.0	31.0	1.0	1.82	8.7
AR12-TR-05	Wall-vertical	28.0	28.0	2.0	1.86	2.6
AR12-TR-05	True Thickness	21.0	22.0	1.5	9.60	7.3
AR13-TR-12-06 EXT	Floor-Dip	0.0	1.0	1.0	21.66	31.4
AR13-TR-12-06 EXT	Floor-Dip	13.0	15.0	2.0	3.18	4.3
AR13-TR-12-06 EXT	Floor-Dip	15.0	17.0	2.0	43.60	62.6
AR13-TR-12-06-EXPPIT#1	Dip	7.0	8.0	1.0	4.97	13.1
AR13-TR-12-06-EXPPIT#1	Dip	8.0	9.0	1.0	1.93	7.6
AR13-TR-12-06-EXPPIT#1	Dip	9.0	10.0	1.0	2.95	12.9
AR13-TR-12-06-EXPPIT#1	Dip	11.0	12.0	1.0	1.99	11.6
AR13-TR-12-06-EXPPIT#1	Dip	1.5	3.5	2.0	0.86	14.4
AR13-TR-12-06-EXPPIT#1	Dip	10.0	11.0	1.0	4.34	13.8
AR13-TR-12-06-EXPPIT#1	Dip	11.0	12.0	1.0	2.47	15.4
AR13-TR-12-06-EXPPIT#1	Dip	12.0	13.0	1.0	2.02	7.4
AR13-TR-12-06-EXPPIT#1	Dip	1.5	3.0	1.5	2.02	12.2
AR13-TR-12-06-EXPPIT#1	Dip	10.5	12.0	1.5	1.93	7.9
AR13-TR-12-06-EXPPIT#1	Dip	12.0	13.0	1.0	13.67	22.1
AR13-TR-12-06-EXPPIT#1	Strike	5.0	6.0	1.5	0.90	11.3
AR13-TR-12-06-EXPPIT#1	Strike	12.0	13.0	1.5	7.65	21.1
AR13-TR-12-06-EXPPIT#1	Strike	12.0	13.0	1.5	4.21	15.9
AR13-TR-12-06-EXPPIT#1	Strike	12.0	13.0	1.5	3.30	8.3
AR13-TR-12-06-EXPPIT#1	True Thickness	10.0	11.0	0.8	3.96	11.0
AR13-TR-12-06-EXPPIT#1	True Thickness	10.0	11.0	1.0	8.61	25.9
AR13-TR-12-06-EXPPIT#1	True Thickness	11.0	11.0	1.0	1.21	2.7

TABLE 9.2 ARRAS ZONE TRENCHING RESULTS						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR13-TR-07	Floor-Dip	39.0	40.0	1.0	22.88	47.1
AR13-TR-07	Floor-Dip	40.0	41.0	1.0	8.69	20.7
AR13-TR-07	Floor-Dip	41.0	42.0	1.0	6.01	7.9
AR13-TR-07	Floor-Dip	46.0	47.0	1.0	0.96	5.1
AR13-TR-07	Floor-Dip	97.0	98.0	1.0	2.82	5.9
AR13-TR-07	Floor-Dip	98.0	99.0	1.0	4.32	9.7
AR13-TR-07	Floor-Dip	100.0	101.0	1.0	4.49	21.9
AR13-TR-07	Floor-Dip	101.0	102.0	1.0	43.56	67.0
AR13-TR-07	Floor-Dip	102.0	103.0	1.0	21.56	26.3
AR13-TR-07	Floor-Dip	103.0	104.0	1.0	0.27	1.1
AR13-TR-07	Floor-Dip	104.0	105.0	1.0	54.71	53.0
AR13-TR-07	Floor-Dip	109.0	111.0	2.0	1.88	18.4
AR13-TR-07	Floor-Dip	111.0	112.0	1.0	5.26	31.0
AR13-TR-07	Floor-Dip	112.0	113.0	1.0	10.68	25.2
AR13-TR-07	Floor-Dip	113.0	114.0	1.0	82.21	146.0
AR13-TR-07	Floor-Dip	114.0	115.0	1.0	18.55	46.0
AR13-TR-07	Floor-Dip	115.0	116.0	1.0	43.57	108.0
AR13-TR-07	Wall-vertical	82.0	82.0	2.0	2.38	7.0
AR13-TR-07	Wall-vertical	83.0	83.0	1.7	16.68	46.9
AR13-TR-07	Wall-vertical	39.0	40.0	2.0	3.03	5.8
AR13-TR-07	Wall-vertical	41.0	42.0	2.0	1.31	2.1
AR13-TR-07	Wall-vertical	49.0	49.0	1.3	16.46	31.3
AR13-TR-07	Wall-vertical	53.0	53.0	1.5	1.54	2.3
AR13-TR-07	Floor-Strike	38.0	38.0	1.0	0.84	6.4
AR13-TR-07	Floor-Strike	39.0	39.0	1.5	12.42	34.0
AR13-TR-07	Floor-Strike	40.0	40.0	1.5	21.48	30.8
AR13-TR-07	Floor-Strike	41.0	41.0	1.8	16.86	22.9
AR13-TR-07	Floor-Strike	42.0	42.0	1.8	2.94	6.9
AR13-TR-07-EXPPIT#1	Strike	45.0	45.0	1.5	17.85	22.5
AR13-TR-07-EXPPIT#1	Strike	45.0	45.0	1.5	61.50	66.0
AR13-TR-07-EXPPIT#1	Strike	46.0	46.0	2.0	5.36	21.3
AR13-TR-07-EXPPIT#1	Strike	46.0	46.0	1.5	53.45	52.7
AR13-TR-07-EXPPIT#1	Strike	47.0	47.0	2.0	5.38	9.6
AR13-TR-07-EXPPIT#1	Strike	47.0	47.0	2.0	21.04	34.4
AR13-TR-07-EXPPIT#1	Strike	48.0	48.0	2.2	23.42	20.4
AR13-TR-07-EXPPIT#1	Strike	48.0	48.0	2.2	3.49	13.7
AR13-TR-07-EXPPIT#1	Strike	49.0	49.0	0.9	26.55	24.7
AR13-TR-07-EXPPIT#1	Strike	49.0	49.0	2.2	22.69	29.0
AR13-TR-07-EXPPIT#1	Strike	50.0	50.0	0.9	5.85	12.8
AR13-TR-07-EXPPIT#1	Strike	50.0	50.0	2.3	15.44	32.0

Table 9.2 Arras Zone Trenching Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR13-TR-07-EXPPIT#1	Strike	51.0	51.0	2.2	9.39	10.7
AR13-TR-07-EXPPIT#1	Strike	52.0	52.0	2.3	7.48	16.1
AR13-TR-07-EXPPIT#1	True Thickness	39.0	39.0	1.6	4.97	6.0
AR13-TR-07-EXPPIT#1	True Thickness	40.0	40.0	2.0	6.66	10.9
AR13-TR-07-EXPPIT#1	True Thickness	39.0	39.0	1.6	14.74	42.8
AR13-TR-07-EXPPIT#1	True Thickness	46.0	46.0	0.9	16.86	22.3
AR13-TR-07-EXPPIT#1	True Thickness	48.0	48.0	1.4	12.47	20.1
AR13-TR-07-EXPPIT#1	True Thickness	50.0	50.0	1.6	8.78	9.6
AR13-TR-07-EXPPIT#1	True Thickness	52.0	52.0	2.0	4.61	3.7
AR13-TR-07-EXPPIT#1	Dip	44.0	46.0	2.0	4.62	11.9
AR13-TR-07-EXPPIT#1	Dip	46.0	48.0	2.0	24.52	35.9
AR13-TR-07-EXPPIT#1	Dip	48.0	50.0	2.0	13.94	13.8
AR13-TR-07-EXPPIT#1	Dip	44.0	46.0	2.0	22.12	37.3
AR13-TR-07-EXPPIT#1	Dip	46.0	48.0	2.0	2.49	9.0
AR13-TR-07-EXPPIT#1	Dip	48.0	50.0	2.0	35.87	65.0
AR13-TR-07-EXPPIT#1	Dip	50.0	52.0	1.4	21.63	24.7
AR13-TR-07-EXPPIT#2	Strike	72.0	72.0	1.2	1.77	5.5
AR13-TR-07-EXPPIT#2	Strike	73.0	73.0	1.4	3.20	5.9
AR13-TR-07-EXPPIT#2	True Thickness	76.0	76.0	1.9	9.97	14.0
AR13-TR-07-EXPPIT#2	True Thickness	77.0	77.0	2.2	6.92	7.6
AR13-TR-07-EXPPIT#2	True Thickness	78.0	78.0	1.6	3.05	6.4
AR13-TR-07-EXPPIT#2	True Thickness	78.0	78.0	1.5	3.32	10.1
AR13-TR-07-EXPPIT#3	Strike	100.0	100.0	2.0	9.61	24.0
AR13-TR-07-EXPPIT#3	Strike	100.0	100.0	1.4	15.23	40.0
AR13-TR-07-EXPPIT#3	Strike	101.0	101.0	2.0	7.07	8.6
AR13-TR-07-EXPPIT#3	Strike	101.0	101.0	1.2	12.41	37.0
AR13-TR-07-EXPPIT#3	Strike	102.0	102.0	1.8	14.93	30.0
AR13-TR-07-EXPPIT#3	Strike	102.0	102.0	1.2	6.03	16.5
AR13-TR-07-EXPPIT#3	Strike	103.0	103.0	1.2	43.95	41.0
AR13-TR-07-EXPPIT#3	Strike	104.0	104.0	1.8	19.56	14.5
AR13-TR-07-EXPPIT#3	Strike	104.0	104.0	1.2	40.84	54.0
AR13-TR-07-EXPPIT#3	Strike	105.0	105.0	1.2	20.53	22.7
AR13-TR-07-EXPPIT#3	Strike	107.0	107.0	1.3	29.15	45.0
AR13-TR-07-EXPPIT#3	Strike	104.0	105.0	2.0	1.37	3.9
AR13-TR-07-EXPPIT#3	Strike	105.0	106.0	2.0	3.96	7.0
AR13-TR-07-EXPPIT#3	Strike	107.0	108.0	2.0	3.36	11.1
AR13-TR-07-EXPPIT#3	Strike	108.0	108.0	1.9	3.07	13.6
AR13-TR-07-EXPPIT#3	Strike	108.0	108.0	1.9	13.83	13.7
AR13-TR-07-EXPPIT#3	True Thickness	98.0	99.0	2.0	8.17	11.4
AR13-TR-07-EXPPIT#3	True Thickness	99.0	100.0	1.5	2.00	4.4

TABLE 9.2 ARRAS ZONE TRENCHING RESULTS						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR13-TR-07-EXPPIT#3	True Thickness	99.0	100.0	1.9	21.21	46.0
AR13-TR-07-EXPPIT#3	True Thickness	107.0	107.0	2.0	1.96	6.9
AR13-TR-07-EXPPIT#3	True Thickness	107.0	107.0	2.0	0.86	2.2
AR13-TR-07-EXPPIT#3	True Thickness	107.0	107.0	1.5	61.50	117.0
AR13-TR-07-EXPPIT#3	True Thickness	107.0	107.0	1.7	22.07	28.3
AR13-TR-07-EXPPIT#4	Strike	112.0	112.0	1.6	2.28	9.2
AR13-TR-07-EXPPIT#4	Strike	112.0	112.0	1.6	40.49	92.0
AR13-TR-07-EXPPIT#4	Strike	113.0	113.0	1.5	113.26	147.0
AR13-TR-07-EXPPIT#4	Strike	113.0	113.0	1.5	39.56	54.2
AR13-TR-07-EXPPIT#4	Strike	114.0	114.0	2.0	23.56	52.0
AR13-TR-07-EXPPIT#4	Strike	114.0	114.0	2.0	42.83	78.0
AR13-TR-07-EXPPIT#4	Strike	115.0	115.0	1.9	55.77	115.0
AR13-TR-07-EXPPIT#4	Strike	115.0	115.0	1.9	29.59	47.0
AR13-TR-07-EXPPIT#4	True Thickness	112.0	112.0	1.7	173.61	194.0
AR13-TR-07-EXPPIT#4	True Thickness	112.0	112.0	1.6	28.11	48.0
AR13-TR-07-EXPPIT#4	True Thickness	113.0	113.0	1.5	49.68	70.0
AR13-TR-07-EXPPIT#4	True Thickness	115.0	115.0	1.0	13.02	30.0
AR13-TR-07 EXT SE	Floor-Dip	0.0	2.0	2.0	1.47	0.8
AR13-TR-12	Floor-Dip	22.0	24.0	2.0	3.20	6.6
AR13-TR-12	Floor-Dip	24.0	26.0	2.0	5.48	8.4
AR13-TR-12	Floor-Dip	40.0	42.0	2.0	14.67	25.5
AR13-TR-12	Floor-Dip	68.0	70.0	2.0	1.37	12.8
AR13-TR-12	Floor-Dip	70.0	71.0	1.0	3.07	20.8
AR13-TR-12	Floor-Dip	71.0	72.0	1.0	0.94	7.2
AR13-TR-12	Floor-Dip	72.0	73.0	1.0	2.12	15.0
AR13-TR-12	Floor-Dip	73.0	74.0	1.0	15.64	45.8
AR13-TR-12	Floor-Dip	74.0	75.0	1.0	1.02	5.0
AR13-TR-12	Floor-Dip	75.0	76.0	1.0	0.47	1.6
AR13-TR-12	Floor-Dip	76.0	77.0	1.0	2.99	20.5
AR13-TR-12	Floor-Dip	77.0	78.0	1.0	2.38	15.7
AR13-TR-12-EXPPIT#1	Strike	70.0	70.0	1.4	3.00	35.5
AR13-TR-12-EXPPIT#1	Strike	71.0	71.0	1.4	12.07	38.6
AR13-TR-12-EXPPIT#1	Strike	71.0	71.0	1.4	1.22	21.6
AR13-TR-12-EXPPIT#1	Strike	72.0	72.0	1.8	2.04	3.8
AR13-TR-12-EXPPIT#1	Strike	72.0	72.0	1.8	1.65	21.2
AR13-TR-12-EXPPIT#1	Strike	73.0	73.0	2.0	33.25	110.0
AR13-TR-12-EXPPIT#1	Strike	73.0	73.0	1.8	1.49	11.4
AR13-TR-12-EXPPIT#1	Strike	74.0	74.0	2.0	26.95	59.0
AR13-TR-12-EXPPIT#1	Strike	74.0	74.0	1.7	5.58	27.0
AR13-TR-12-EXPPIT#1	Strike	75.0	75.0	1.8	3.94	18.8

TABLE 9.2 ARRAS ZONE TRENCHING RESULTS						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR13-TR-12-EXPPIT#1	Strike	76.0	76.0	1.7	0.77	1.3
AR13-TR-12-EXPPIT#1	Strike	77.0	77.0	1.7	5.45	32.8
AR13-TR-12-EXPPIT#1	Strike	78.0	78.0	2.0	5.05	32.7
AR13-TR-12-EXPPIT#1	Strike	78.0	79.0	1.5	0.91	3.3
AR13-TR-12-EXPPIT#1	True Thickness	78.0	79.0	1.4	3.36	22.0
AR13-TR-12-EXPPIT#1	Wall-vertical	79.0	79.0	1.3	1.16	4.8
AR13-TR-12	Wall-vertical	25.0	25.0	1.4	22.81	22.1
AR13-TR-13	Floor-Dip	0.0	2.0	2.0	13.40	5.5
AR13-TR-13	Floor-Dip	20.0	22.0	2.0	1.89	12.2
AR13-TR-13	Floor-Dip	22.0	23.0	1.0	7.27	29.0
AR13-TR-13	Floor-Dip	23.0	24.0	1.0	4.88	18.6
AR13-TR-13	Floor-Dip	26.0	28.0	2.0	1.00	1.9
AR13-TR-13	Floor-Dip	28.0	29.0	1.0	0.20	0.8
AR13-TR-13	Floor-Dip	29.0	30.0	1.0	67.07	74.7
AR13-TR-13	Floor-Dip	30.0	32.0	2.0	1.65	6.5
AR13-TR-13	Floor-Dip	55.0	56.0	1.0	65.74	300.0
AR13-TR-13	Floor-Dip	56.0	57.0	1.0	76.13	131.0
AR13-TR-13	Wall-vertical	57.0	57.0	1.7	52.43	170.0
AR13-TR-13	Wall-vertical	101.0	101.0	1.5	29.56	59.0
AR13-TR-13-EXPPIT#2	Dip	22.0	24.0	2.0	1.63	26.2
AR13-TR-13-EXPPIT#2	Dip	24.0	26.0	2.0	0.71	4.6
AR13-TR-13-EXPPIT#2	Dip	26.0	27.0	1.0	4.71	16.9
AR13-TR-13-EXPPIT#2	Dip	28.5	30.5	2.0	9.92	16.7
AR13-TR-13-EXPPIT#2	Dip	30.5	32.5	2.0	1.26	2.3
AR13-TR-13-EXPPIT#2	Dip	22.0	24.0	2.0	1.34	7.2
AR13-TR-13-EXPPIT#2	Dip	24.0	26.0	2.0	0.20	3.9
AR13-TR-13-EXPPIT#2	Dip	26.0	28.0	2.0	0.02	0.5
AR13-TR-13-EXPPIT#2	Dip	28.0	29.5	1.5	106.72	80.0
AR13-TR-13-EXPPIT#2	Dip	29.5	31.0	1.5	20.45	97.0
AR13-TR-13-EXPPIT#2	Dip	31.0	32.0	1.0	27.03	80.0
AR13-TR-13-EXPPIT#2	True Thickness	24.0	24.0	2.0	2.84	9.9
AR13-TR-13-EXPPIT#2	True Thickness	24.0	24.0	2.0	1.83	14.3
AR13-TR-13-EXPPIT#2	True Thickness	31.0	31.0	2.0	4.29	12.0
AR13-TR-13-EXPPIT#2	True Thickness	30.0	30.0	1.7	15.91	50.0
AR13-TR-13-EXPPIT#2	True Thickness	29.0	29.0	2.0	36.57	54.0
AR13-TR-13-EXPPIT#2	True Thickness	29.0	29.0	2.0	1.87	13.7
AR13-TR-13-EXPPIT#2	Strike	23.0	23.0	2.0	0.73	6.1
AR13-TR-13-EXPPIT#2	Strike	30.0	30.0	2.0	12.07	26.0
AR13-TR-13-EXPPIT#2	Strike	30.0	30.0	2.0	15.59	38.4
AR13-TR-13	True Thickness	55.0	55.0	2.0	69.45	118.0

TABLE 9.2
ARRAS ZONE TRENCHING RESULTS

Trench Number	Sample Type	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)
AR13-TR-13	True Thickness	57.0	57.0	1.8	35.10	175.0
AR13-TR-14	Wall-vertical	12.0	12.0	1.7	1.55	8.6
AR13-TR-14 EXT SE	Floor-Dip	24.0	26.0	2.0	2.78	1.2
AR13-TR-15	Floor-Dip	10.0	12.0	2.0	2.33	3.6
AR13-TR-15	Floor-Dip	12.0	14.0	2.0	5.02	3.2
AR13-TR-15	Floor-Dip	14.0	16.0	2.0	11.51	12.9
AR13-TR-15	Floor-Dip	140.0	142.0	2.0	1.28	17.9
AR13-TR-16	Floor-Dip	22.0	24.0	2.0	4.81	3.0
AR13-TR-16	Floor-Dip	24.0	25.0	1.0	5.09	5.8
AR13-TR-16	Floor-Dip	25.0	26.0	1.0	12.75	13.6
AR13-TR-16	Floor-Dip	27.7	29.0	1.3	14.67	26.9
AR13-TR-16	Floor-Dip	29.0	30.0	1.0	31.05	52.4
AR13-TR-16	Floor-Dip	30.0	31.0	1.0	37.41	31.1
AR13-TR-16	Floor-Dip	32.0	33.0	1.0	1.71	1.2
AR13-TR-16	Wall-vertical	25.0	25.0	1.3	8.39	7.3
AR13-TR-16	Wall-vertical	24.0	24.0	0.6	2.05	1.2
AR13-TR-16	Wall-vertical	22.0	22.0	1.3	1.45	4.8
AR13-TR-16	Wall-vertical	15.0	15.0	1.2	5.08	15.2
AR13-TR-16	Wall-vertical	7.0	7.0	1.2	5.23	5.1
AR13-TR-17	Floor-Dip	23.0	24.0	1.0	1.55	3.4
AR13-TR-17	Wall-vertical	4.0	4.0	1.5	111.49	156.0
AR13-TR-17	Wall-vertical	6.0	6.0	1.5	102.55	128.0
AR13-TR-17	Wall-vertical	8.0	8.0	1.3	36.96	51.0
AR13-TR-17	Wall-vertical	10.0	10.0	1.2	7.51	9.3
AR13-TR-17	Wall-vertical	24.0	24.0	1.3	2.23	10.7
AR13-TR-17-EXPPIT#1	Strike	22.0	22.0	1.0	8.18	22.8
AR13-TR-17-EXPPIT#1	Strike	23.0	23.0	1.0	4.78	14.0
AR13-TR-17-EXPPIT#1	True Thickness	24.0	24.0	0.8	5.67	17.0
AR13-TR-17-EXPPIT#1	True Thickness	22.0	22.0	1.0	1.17	12.1
AR13-TR-17-EXPPIT#1	True Thickness	22.0	22.0	0.7	74.76	105.0
AR13-TR-18	Floor-Dip	20.0	21.0	1.0	5.41	6.7
AR13-TR-18	Floor-Dip	21.0	22.0	1.0	9.48	18.1
AR13-TR-18	Floor-Dip	22.0	23.0	1.0	17.26	53.0
AR13-TR-18	Floor-Dip	23.0	24.0	1.0	1.74	12.6
AR13-TR-18	Floor-Dip	28.0	30.0	2.0	1.46	3.2
AR13-TR-18	Wall-vertical	4.0	4.0	1.5	3.13	10.2
AR13-TR-18	Wall-vertical	8.0	8.0	1.4	2.14	3.6
AR13-TR-18	Wall-vertical	10.0	10.0	1.4	1.32	4.9
AR13-TR-18	Wall-vertical	27.0	27.0	1.2	0.86	1.6
AR13-TR-18	Wall-vertical	38.0	38.0	1.6	0.77	3.2

Table 9.2 Arras Zone Trenching Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR13-TR-18-EXPPIT#1	Strike	24.0	24.0	1.0	10.83	25.6
AR13-TR-18-EXPPIT#1	Strike	25.0	25.0	1.0	14.26	35.0
AR13-TR-18-EXPPIT#1	Strike	23.0	23.0	1.0	3.45	12.2
AR13-TR-18-EXPPIT#1	Strike	24.0	24.0	1.0	1.89	2.8
AR13-TR-18-EXPPIT#1	Strike	25.0	25.0	1.0	6.99	13.2
AR13-TR-19	Floor-Dip	31.0	32.0	1.0	8.58	17.0
AR13-TR-19	Floor-Dip	32.0	33.0	1.0	31.57	108.0
AR13-TR-19	Floor-Dip	33.0	34.0	1.0	37.21	104.0
AR13-TR-19	Floor-Dip	34.0	35.0	1.0	17.57	24.0
AR13-TR-19	Floor-Dip	35.0	36.0	1.0	30.66	39.0
AR13-TR-19	Floor-Dip	36.0	37.0	1.0	15.36	32.1
AR13-TR-19	Floor-Dip	37.0	38.0	1.0	32.82	43.0
AR13-TR-19	Floor-Dip	38.0	39.0	1.0	11.34	22.0
AR13-TR-19	Floor-Dip	39.0	40.0	1.0	0.85	2.2
AR13-TR-19	Floor-Dip	40.0	41.0	1.0	3.98	5.6
AR13-TR-19	Floor-Dip	50.0	52.0	2.0	48.37	59.5
AR13-TR-19	Wall-vertical	24.0	24.0	1.5	4.39	11.3
AR13-TR-19-EXPPIT#1	Strike	37.0	38.0	1.0	3.88	26.3
AR13-TR-19-EXPPIT#1	Strike	38.0	39.0	1.0	4.42	21.8
AR13-TR-19-EXPPIT#1	Strike	39.0	40.5	1.5	41.18	19.5
AR13-TR-19-EXPPIT#1	Strike	40.0	41.5	1.5	13.78	26.3
AR13-TR-19-EXPPIT#1	Strike	30.0	31.5	1.5	2.54	6.6
AR13-TR-19-EXPPIT#1	Strike	31.5	33.0	1.5	26.54	34.0
AR13-TR-19-EXPPIT#1	Strike	33.0	34.5	1.5	12.62	42.0
AR13-TR-19-EXPPIT#1	Strike	34.5	36.0	1.5	30.64	41.0
AR13-Predator Pit	Dip	2.0	2.0	2.0	1.31	4.6
AR13-Predator Pit	Dip	4.0	4.0	2.0	15.96	26.5
AR13-Predator Pit	Dip	6.0	6.0	2.0	1.89	8.1
AR13-Predator Pit	Dip	8.0	8.0	2.0	4.01	22.1
AR13-Predator Pit	Dip	17.0	17.0	2.0	3.79	6.5
AR13-Predator Pit	Dip	19.0	19.0	2.0	22.23	28.5
AR13-Predator Pit	Dip	21.0	21.0	2.0	28.99	69.8
AR13-Predator Pit	Wall-vertical	0.0	0.0	0.8	4.06	4.9
AR13-Predator Pit	Wall-vertical	0.0	0.0	1.0	3.20	10.3
AR13-Predator Pit	Wall-vertical	18.0	18.0	2.0	22.99	41.8
AR13-Predator Pit	Wall-vertical	18.0	18.0	1.2	10.59	22.9
AR13-Predator Pit	True Thickness	21.0	21.0	1.0	19.25	12.8
AR13-Predator Pit	True Thickness	21.0	21.0	1.2	22.98	23.8
AR13-Predator Pit	Wall-vertical	1.0	1.0	1.2	10.53	14.8
AR13-Predator Pit	True Thickness	1.0	1.0	1.0	19.65	15.0

Table 9.2 **Arras Zone Trenching Results**						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR13-Predator Pit	Wall-vertical	1.0	1.0	1.4	17.03	25.1
AR13-Predator Pit	True Thickness	2.0	2.0	0.6	30.81	41.7
AR13-Predator Pit	Wall-vertical	2.0	2.0	1.0	9.38	19.4
AR13-Predator Pit	True Thickness	3.0	3.0	0.8	4.93	15.5
AR13-Predator Pit	True Thickness	4.0	4.0	1.5	9.33	21.5
AR13-Predator Pit	True Thickness	5.0	5.0	1.6	10.04	21.0
AR13-Predator Pit	True Thickness	6.0	6.0	1.5	1.00	6.8
AR13-Predator Pit	Wall-vertical	8.0	8.0	1.5	1.92	9.9
AR13-Predator Pit	Wall-vertical	9.0	9.0	1.6	2.06	22.1
AR13-Predator Pit	Wall-vertical	10.0	10.0	1.6	22.64	70.6
AR13-Predator Pit	True Thickness	15.0	15.0	2.0	9.85	21.5
AR13-Predator Pit	True Thickness	16.0	16.0	1.2	25.25	57.1
AR13-Predator Pit	True Thickness	16.0	16.0	1.0	2.41	6.3
AR13-Predator Pit	Dip	0.0	1.0	1.0	7.54	23.2
AR13-Predator Pit	Dip	1.0	2.0	1.0	25.96	51.1
AR13-Predator Pit	Dip	2.0	3.0	1.0	5.41	57.3
AR13-Predator Pit	Dip	3.0	4.0	1.0	15.70	54.4
AR13-Predator Pit	Dip	4.0	5.0	1.0	16.50	52.7
AR13-Predator Pit	Dip	5.0	6.0	1.0	3.02	28.7
AR13-Predator Pit	Dip	0.0	1.0	1.0	2.76	11.1
AR13-Predator Pit	Dip	1.0	2.0	1.0	2.03	6.5
AR13-Predator Pit	Dip	0.0	1.0	1.0	12.62	15.2
AR13-Predator Pit	Dip	1.0	2.0	1.0	7.10	24.2
AR13-Predator Pit	Dip	0.0	1.0	1.0	30.94	66.3
AR13-Predator Pit	Dip	1.0	2.0	1.0	13.33	37.2
AR13-Cata-3	Floor-Dip	5.0	6.0	1.0	22.55	42.3
AR13-Cata-3	Floor-Dip	6.0	7.0	1.0	27.99	59.0
AR13-Cata-3	Floor-Dip	7.0	8.0	1.0	0.69	3.7
AR13-Cata-3	Floor-Dip	8.0	9.0	1.0	0.59	2.3
AR13-Cata-3	Floor-Dip	9.0	10.0	1.0	6.97	23.5
AR13-Cata-3	Floor-Dip	15.0	16.0	1.0	1.39	7.5
AR13-Cata-3	Wall-vertical	0.0	0.0	1.0	9.02	29.1
AR13-Cata-3	Wall-vertical	2.5	2.5	1.3	2.44	4.2
AR13-Cata-3	Wall-vertical	4.0	4.0	1.0	1.58	5.4
AR13-Cata-3	True Thickness	6.0	6.0	1.5	11.61	24.3
AR13-Cata-3	True Thickness	7.0	7.0	1.0	48.06	98.0
AR13-Cata-3	True Thickness	7.0	7.0	1.3	18.79	104.0
AR13-Cata-3	Wall-vertical	8.0	8.0	1.5	7.37	6.6
AR13-TNL-3	Wall-vertical	0.0	0.0	1.6	10.6	38.6
AR13-TNL-3	Wall-vertical	1.0	1.0	1.7	5.96	29.3

Table 9.2 Arras Zone Trenching Results						
Trench Number	**Sample Type**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**	**Ag (g/t)**
AR13-TNL-3	Wall-vertical	2.0	2.0	1.9	8.96	67.5
AR13-TNL-3	Wall-vertical	3.0	3.0	2.0	34.0	33.1
AR13-TNL-3	Wall-vertical	4.0	4.0	2.0	1.98	21.5
AR13-TNL-3	Wall-vertical	5.0	5.0	1.5	1.33	5.5
AR13-TNL-3	Wall-vertical	5.0	5.0	1.5	6.06	13.2
AR13-TNL-3	Wall-vertical	5.0	5.0	1.7	12.70	23.9
AR13-TNL-3	Wall-vertical	6.0	6.0	1.5	2.15	5.6
AR13-TNL-3	Wall-vertical	6.0	6.0	1.5	4.83	10.1
AR13-TNL-3	Wall-vertical	7.0	7.0	1.5	1.52	13.5
AR13-TNL-3	Wall-vertical	0.0	0.0	1.7	35.30	62.1
AR13-TNL-3	Wall-vertical	1.0	1.0	1.9	17.10	42.2
AR13-TNL-3	Wall-vertical	2.0	2.0	2.2	11.70	17.2
AR13-TNL-3	Wall-vertical	3.0	3.0	2.0	16.30	65.3
AR13-TNL-3	Wall-vertical	4.0	4.0	2.0	6.02	19.5
AR13-TNL-3	Wall-vertical	5.0	5.0	2.2	3.97	13.0
AR13-TNL-3	Wall-vertical	5.0	5.0	1.8	1.81	11.2
AR13-TNL-3	Wall-vertical	5.0	5.0	1.8	0.88	4.8
AR13-TNL-3	Wall-vertical	5.0	5.0	2.0	3.06	22.6
AR13-CUT-TNL3	Wall-vertical	3.5	3.5	1.6	0.87	12.5
AR13-CUT-TNL3	Wall-vertical	3.5	3.5	1.6	5.23	38.1
AR13-CUT-TNL3	Wall-vertical	5.0	5.0	2.0	1.25	6.1
AR14-TR-20	Wall-vertical	0.0	0.0	2.0	1.91	4.2
SL14-EXPPIT#1	Wall-vertical	5.0	5.0	1.5	3.31	10.2
SL14-EXPPIT#1	Wall-vertical	15.0	15.0	1.0	14.00	40.0
SL14-EXPPIT#1	Wall-vertical	15.0	15.0	1.0	7.11	14.5
SL14-EXPPIT#1	Wall-vertical	19.0	19.0	0.9	26.50	74.0
SL14-EXPPIT#1	Wall-vertical	19.0	19.0	0.9	27.00	35.5
SL14-EXPPIT#1	True Thickness	8.0	8.0	1.5	13.00	19.2
SL14-EXPPIT#1	True Thickness	9.0	9.0	1.3	4.15	38.4
SL14-EXPPIT#1	True Thickness	13.5	13.5	1.2	25.80	110.0
SL14-EXPPIT#1	Wall-vertical	2.0	2.0	1.5	4.63	18.3
SL14-EXPPIT#1	Wall-vertical	4.0	4.0	1.0	39.80	57.6

9.4 LAS CONCHITAS EXPLORATION

The Las Conchitas area, situated 1.5 km south of the San Albino Gold Deposit, has 4 areas hosting near-surface gold and silver mineralization: San Pablo, Intermediate, Las Conchitas and Las Dolores zones. The Company has completed comprehensive trenching and limited drilling at Las Conchitas. The Las Conchitas area is not the focus of the Technical Report and will not be elaborated upon. For further information on this area, the reader is referred to the Company website, http://goldenreignresources.com.

10.0 DRILLING

Detailed information on drilling prior to 2013 is summarized in Puritch, et al. (2012) and Kowalchuk (2011).

10.1 INTRODUCTION

From 2010 to 2013 the Company drilled 41,170.21 m of core in 226 holes. All drilling consisted of HQ sized core. Drill sites were originally located using a handheld GPS unit. Drill hole locations were surveyed using Total Station surveying equipment. The Company conducted drilling at a spacing of between 15 to 75 m, with most of the holes oriented at an azimuth of 130°, perpendicular to the strike of mineralization. Downhole surveys for dip and magnetic azimuth were carried out at approximately 50 m intervals using a Reflex Multishot Survey Instrument.

Information from 2010-2012 drilling and trenching activities formed the basis of an initial mineral resource estimate prepared by P&E in November 2012. Subsequent drilling and trenching provided additional information for an updated mineral resource estimate in July 2014. Additional work completed by Golden Reign in 2014 led to a further revision of the resource estimate, which can be found in Section 14.

In 2011, Golden Reign carried out a limited drill program at the Las Conchitas area, which lies approximately 1.5 km south of the historic San Albino Mine and 0.5 km north of the Company's El Jicaro Concession. A total of 2,012 m of drilling was completed in seven holes as follow up to the Company's extensive 2011 trenching program.

In 2013, the Company drilled 10 holes totalling 1,026 m over the second or Intermediate zone of the Las Conchitas area. One hole was cored in the Intermediate area near the former Mina Francisco shaft. Drilling targeted high-grade mineralization intersected initially by trenching. These Las Conchitas zones are not the focus of the Technical Report and will not be elaborated upon. For further information on the Las Conchitas area, the reader is referred to the Company website, http://goldenreignresources.com.

10.2 2010-2012 SAN ALBINO/ARRAS DRILLING PROGRAM

The primary objectives of the 2010 drill exploration program were to: (1) test the lateral and down-dip extension of the San Albino zone mineralization (2) confirm and evaluate the size and grade of known mineralized zones within the San Albino Gold Deposit area.

In 2010, the Company drilled an initial 9 holes totalling 1,269 m under the historic San Albino Mine. All drill holes successfully intersected the near-surface San Albino zone. Two drill holes, SA10-06 and SA10-09, were extended to a depth of over 250 m to test for down dip extensions of underlying mineralized zones. Drill hole SA10-06 intersected the down dip extension of both the Naranjo and Arras zones.

At the Arras zone outcrop, Golden Reign drilled an additional 5 short holes totalling 244.9 m. All but one of these drill holes intersected the mineralized zone and confirmed the presence of high-grade, near surface mineralization.

Based on the success of the 2010 drill program, the Company significantly expanded drilling on both the San Albino and Arras zones of the San Albino Gold Deposit. In 2011, the Company drilled 54 core holes totalling 14,431.2 m. In 2012, drilling consisted of 84 holes totalling 19,055.4 m on the San Albino Gold Deposit.

Drilling carried out by Golden Reign on the San Albino Gold Deposit was confined to an area of 700 m in length and up to 800 m in width. Geological mapping and geochemical sampling suggest that the mineralized area extends beyond the drilled strike length and width.

Mineralization on the San Albino Gold Deposit is currently confined to four principal sub-parallel zones, namely the , El Jobo, San Albino, Naranjo and Arras zones, as well as a number of semi-discontinuous lenses. The zones are shallow, dipping towards the northwest, and strike northeast.

10.2.1 SAN ALBINO/ARRAS 2013 DRILL PROGRAM

In 2013, the drill program consisted of 6,160.5 m in 73 drill holes. The program included short in-fill holes designed to test the continuity of the near-surface mineralized zones and deeper step-out holes testing extensions peripheral to the mineralization. In addition, 12 drill holes totalling 236 m were used for metallurgical test work.

This in-fill drilling resulted in the discovery of a new zone, El Jobo, which lies at surface, structurally above the San Albino zone.

Table 10.1 provides drill hole coordinates for all holes drilled at San Albino and Arras in 2013. Figure 10.1 shows the locations of all of the San Albino Gold Deposit drill holes and trenches completed from 2010 to 2014.

TABLE 10.1
DRILL HOLE COORDINATES FOR THE 2013 SAN ALBINO/ARRAS DRILL PROGRAM

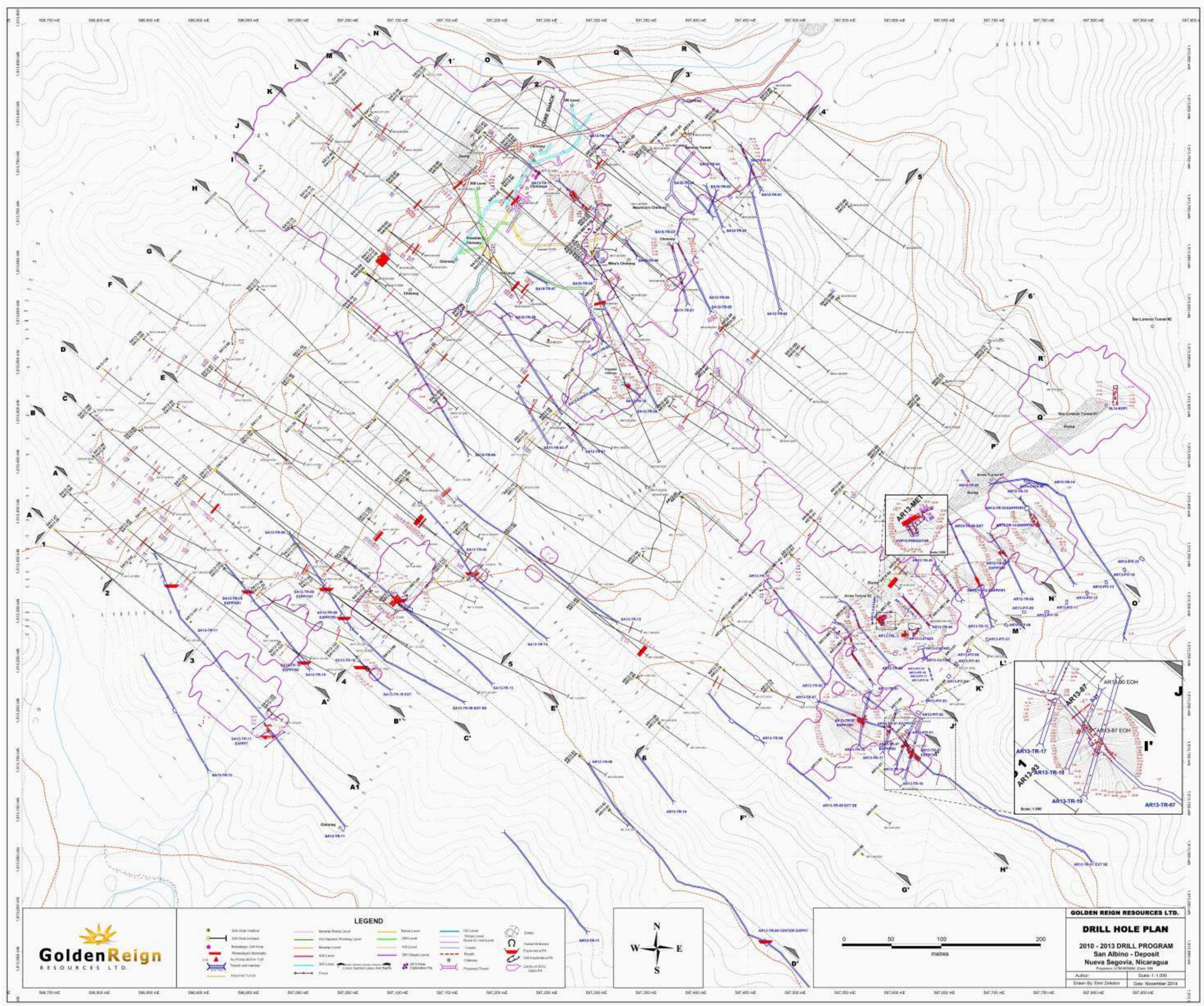
Hole No.	Easting (m)	Northing (m)	Elevation (m)	Length (m)	Azimuth (°)	Dip (°)
SA13-103	597032	1513827	572	314.9	130	70
SA13-104	597032	1513827	572	141.4	130	90
SA13-105	596842	1513570	600	362.6	130	70
SA13-106	596842	1513570	599	185.1	130	90
SA13-107	596788	1513494	599	318.6	130	70
SA13-108	596788	1513494	599	220.5	130	90
SA13-109	597167	1513378	645	53.9	130	70
SA13-110	597167	1513379	645	57.9	130	90
SA13-111	597146	1513341	642	61.1	130	70
SA13-112	597146	1513342	642	58.6	130	90
SA13-113	597069	1513316	630	101.3	130	70
SA13-114	597069	1513316	630	89.4	130	90
SA13-115	597044	1513348	614	88.0	130	70
SA13-116	597044	1513349	614	70.1	130	90

TABLE 10.1
DRILL HOLE COORDINATES FOR THE 2013 SAN ALBINO/ARRAS DRILL PROGRAM

Hole No.	Easting (m)	Northing (m)	Elevation (m)	Length (m)	Azimuth (°)	Dip (°)
SA13-117	596997	1513363	607	79.0	130	70
SA13-118	596997	1513363	607	77.2	130	90
SA13-119	596923	1513338	593	73.0	130	70
SA13-120	596922	1513339	593	66.0	130	90
SA13-121	597039	1513266	607	74.1	130	70
SA13-122	597040	1513265	607	64.2	130	50
SA13-123	596984	1513263	591	94.9	130	70
SA13-124	596985	1513263	591	93.8	130	50
SA13-125	596967	1513197	569	50.3	130	70
SA13-126	596967	1513197	569	49.6	130	90
SA13-127	597068	1513389	611	46.9	130	70
SA13-128	597068	1513389	611	50.6	130	90
SA13-129	597107	1513428	619	50.0	130	70
SA13-130	597106	1513428	619	50.0	130	90
SA13-131	597144	1513510	617	50.0	130	70
SA13-132	597144	1513511	617	84.0	130	90
SA13-133	597000	1513791	586	120.1	130	70
SA13-134	596959	1513741	590	145.0	130	90
SA13-135	596917	1513713	590	139.0	122	70
SA13-136	596871	1513645	594	165.8	118	70
SA13-137	596835	1513616	608	175.1	125	70
SA13-138	596801	1513540	608	174.6	130	70
SA13-139	597084	1513247	599	34.8	130	90
SA13-140	596956	1513353	587	70.0	130	90
SA13-141	596889	1513285	583	69.1	130	90
SA13-142	596828	1513345	549	46.4	130	90
AR13-75	597473	1513217	607	110.6	120	70
AR13-76	597473	1513217	607	50.0	120	90
AR13-77	597426	1513237	610	120.0	130	70
AR13-78	597425	1513237	610	60.4	130	90
AR13-79	597338	1513229	609	118.4	130	60
AR13-80	597338	1513229	609	95.0	130	90
AR13-81	597310	1513096	611	73.0	130	70
AR13-82	597309	1513096	611	70.3	130	90
AR13-83	597280	1513150	611	100.5	130	70
AR13-84	597280	1513150	611	84.8	130	90
AR13-85	597360	1513184	589	110.1	130	70

TABLE 10.1 DRILL HOLE COORDINATES FOR THE 2013 SAN ALBINO/ARRAS DRILL PROGRAM						
Hole No.	**Easting (m)**	**Northing (m)**	**Elevation (m)**	**Length (m)**	**Azimuth (°)**	**Dip (°)**
AR13-86	597360	1513183	589	100.0	130	90
AR13-87	597602	1513173	618	45.3	140	70
AR13-88	597646	1513220	615	57.3	130	70
AR13-89	597676	1513263	594	58.4	130	70
AR13-90	597607	1513200	612	45.4	130	70
AR13-91	597646	1513251	601	50.1	130	70
AR13-92	597688	1513295	578	39.1	130	70
AR13-93	597583	1513136	606	81.0	130	70
AR13-94	597578	1513093	588	55.8	130	70
AR13-95	597527	1513149	604	39.6	130	70
AR13-96	597565	1513052	585	44.0	130	90
SA13-MET-01	597295	1513677	585	24.3	130	90
SA13-MET-01B	597289	1513680	585	24.7	130	90
SA13-MET-02	597324	1513758	555	39.4	130	90
SA13-MET-03	597249	1513569	608	32.5	130	90
SA13-MET-04	597107	1513312	629	24.5	130	90
SA13-MET-05	597360	1513769	545	19.3	130	70
AR13-MET-01	597451	1513312	607	15.2	130	90
AR13-MET-02	597541	1513276	571	16.8	130	90
AR13-MET-03	597483	1513344	600	18.2	130	90
AR13-MET-04	597550	1513271	572	9.5	130	90
AR13-MET-05	597582	1513291	567	6.3	130	50
AR13-MET-06	597633	1513292	575	6.2	130	50

Figure 10.1 Drill Hole Location Map for the San Albino/Arras 2010-2014 Drill Program



A summary of significant mineralized intercepts during the 2013 San Albino Gold Deposit drill program is presented in Table 10.2. Near surface, in heavily weathered rock, core drilling may underestimate the actual gold results with gold being washed away in places where poor core recovery was realized.

Diamond drilling carried out by Golden Reign at San Albino and Arras was confined to a zone 700 m in length and up to a width of 800 m. Geological mapping and geochemical sampling indicate that the mineralized area extends beyond the drilled strike length and width, and the mineralized zone remains open along strike in all directions, as well as to depth.

Mineralization is confined to four principal sub-parallel zones: namely the El Jobo, San Albino, Naranjo and Arras zones, as well as a number of semi-discontinuous lenses.

Table 10.2
Significant Drill Hole Intervals from the 2013 San Albino/Arras Drill Program

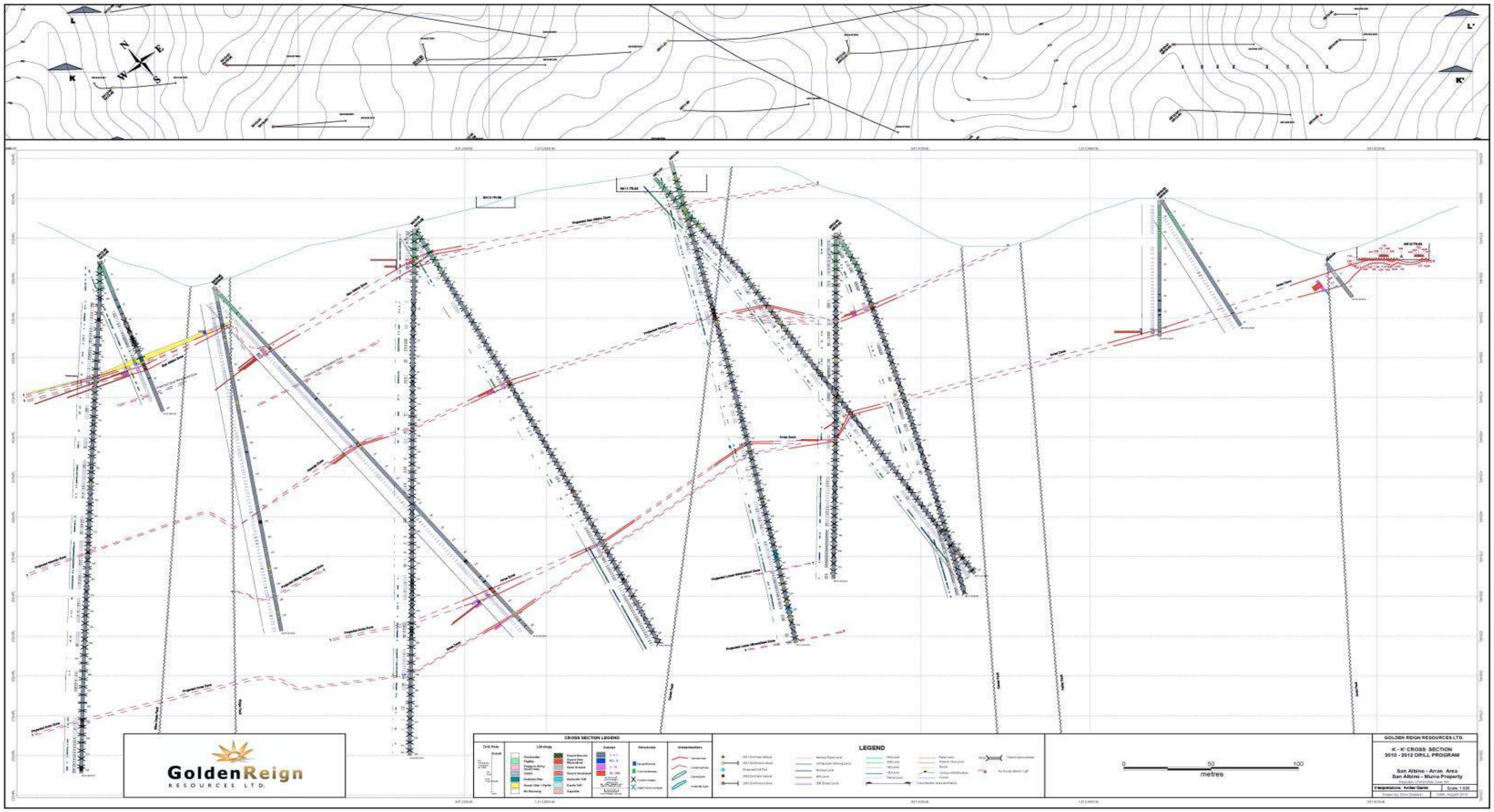
Hole No.	From (m)	To (m)	Core Length (m)	Au (g/t)	Ag (g/t)	Zone
SA13-103	98.5	99.5	1.0	1.24	1.6	San Albino
SA13-103	99.5	100.6	1.1	0.40	0.9	San Albino
SA13-103	100.6	101.4	0.8	33.73	35.9	San Albino
SA13-103	101.4	102.1	0.7	17.44	43.2	San Albino
SA13-103	102.1	102.8	0.7	73.41	96.0	San Albino
SA13-103	102.8	103.6	0.8	4.70	13.3	San Albino
SA13-103	103.6	105.1	1.5	1.38	2.0	San Albino
SA13-103	191.5	192.0	0.5	15.19	6.7	Naranjo
SA13-103	296.0	297.0	1.0	1.77	1.8	Arras
SA13-103	299.9	301.0	1.1	43.96	46.6	Arras
SA13-103	301.0	301.4	0.4	0.79	2.6	Arras
SA13-104	106.0	106.6	0.5	1.07	1.6	San Albino
SA13-104	106.6	107.7	1.2	7.31	4.7	San Albino
SA13-105	54.0	55.0	1.0	3.20	12.3	El Jobo
SA13-105	68.0	69.0	1.0	6.31	14.6	El Jobo
SA13-105	132.5	133.5	1.0	8.12	30.6	San Albino
SA13-105	136.5	137.5	1.0	1.00	2.6	San Albino
SA13-105	295.0	296.0	1.0	9.39	5.8	Naranjo
SA13-106	172.9	173.9	0.9	7.65	9.2	San Albino
SA13-107	177.5	179.0	1.5	8.22	18.1	San Albino
SA13-107	184.4	185.4	1.0	62.68	81.8	San Albino
SA13-107	188.5	189.5	1.0	1.89	3.9	San Albino
SA13-107	281.0	282.0	1.0	5.36	18.3	Arras
SA13-107	298.0	299.0	1.0	3.44	5.1	Arras
SA13-107	301.4	302.0	0.6	11.25	44.4	Arras
SA13-107	302.0	303.5	1.5	1.83	5.2	Arras
SA13-108	57.6	58.5	0.9	6.08	30.3	El Jobo?
SA13-108	183.5	185.0	1.5	21.02	22.3	San Albino
SA13-114	16.0	17.5	1.5	1.57	0.9	San Albino
SA13-116	3.0	4.5	1.5	1.53	1.5	San Albino

TABLE 10.2 **SIGNIFICANT DRILL HOLE INTERVALS FROM THE 2013 SAN ALBINO/ARRAS DRILL PROGRAM**						
Hole No.	**From (m)**	**To (m)**	**Core Length (m)**	**Au (g/t)**	**Ag (g/t)**	**Zone**
SA13-123	9.0	10.0	1.0	43.50	16.3	San Albino
SA13-125	14.5	15.5	1.0	1.39	1.3	San Albino
SA13-126	10.4	11.0	0.6	2.61	4.2	San Albino
SA13-133	109.1	110.3	1.2	19.21	71.9	San Albino
SA13-133	112.5	113.0	0.5	42.57	28.9	San Albino
SA13-135	120.5	122.1	1.6	2.16	6.3	San Albino
SA13-136	127.7	128.5	0.8	8.43	8.2	San Albino
SA13-137	143.1	143.5	0.4	2.69	10.3	San Albino
SA13-137	146.0	147.0	1.0	5.12	12.8	San Albino
AR13-75	52.0	53.5	1.5	1.06	1.4	Arras
AR13-86	99.3	100.0	0.7	2.03	1.8	Arras
AR13-91	17.0	17.5	0.5	4.03	25.8	Arras

(1) True widths for the mineralized zones are typically from 70% to 100% of the stated intercepts.

Figure 10.2 shows a cross section (Cross section K-K') of the drill holes showing three mineralized zones: San Albino, Naranjo and Arras.

Figure 10.2   Cross Section K-K’



11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The following section is largely taken from P&E's Technical Report and Resource Estimate on the San Albino Deposit, dated January 4, 2013.

11.1 SAMPLE PREPARATION AND SECURITY

Drill core was brought back to surface where it was placed in custom HQ boxes with core blocks, secured, and transported from the drill site to the core logging facility in El Jicaro. At the logging facility, the core was washed and logged. Sample intervals were selected based on structural and geological indicators of zones of interest. Logging was completed by Company geologists and geotechnicians.

Samples were identified with a unique sample tag and recorded in a book of sample tags. Blanks, standards and duplicate samples were included approximately every twenty samples and were numbered sequentially with the core samples. All core was photographed in both wet and dry states before being split for sampling. Each sample length was split in half with a diamond saw by a technician. One half was placed, with a sample tag, into a sample bag that was marked with the sample number. The remaining half core was stored in a secure archival facility for future reference. Sample bags were kept in a secure holding area before being checked and loaded into a truck for direct transportation to the Inspectorate America Corporation ("Inspectorate" or "IPL'), a certified USA based laboratory (UKAS, NAMAS, STERLAB, ISO 17025), preparation laboratory in Managua, Nicaragua by Company personnel.

11.2 ANALYSES

Prior to 2012, Golden Reign's analytical procedure was as follows:

Samples were dried and crushed to -10 mesh at the IPL preparation lab. A 500 gram riffle split was pulverized and shipped to the IPL laboratory in Richmond, Canada where the sample was subjected to a 500 gram metallic screen process. The 500 gram sample was then pulverized to -150 mesh and sieved through a 150 mesh screen. The fraction of the sample that did not go through the screen (+150 mesh) was weighed and fire assayed. Two 30 gram samples of the -150 mesh fractions were fire assayed for gold and averaged. The two sets of assays were combined with a weighted average to produce a total gold value for the 500 gram sample. All samples were subject to a 30- element ICP analysis.

In 2012, Golden Reign implemented the following analytical procedure:

All samples were analyzed using a 30 gram fire assay with AA finish for samples less than 10 g/t Au and a gravimetric finish for samples greater than 10 g/t Au. All samples greater than 1.0 g/t gold were subjected to a 500 gram metallic screen process. The metallic screen method is the best practice for reducing the 'nugget effect' in samples. Golden Reign used metallic screen analysis for compilation of its assay database utilized in the current Resource Estimate.

11.3 QUALITY CONTROL AT INSPECTORATE

Inspectorate uses both certified reference material and certified in-house standards. Standards are inserted approximately every 20 samples, as well as 2 pulp duplicates and 1 geological blank in every batch with FA/AA work. Results from all internal QC samples, and repeats, get reported to Golden Reign.

Both Inspectorate's preparation facility in Managua, Nicaragua and its analytical laboratory in Richmond, B.C. are ISO 9001:2008 accredited facilities.

It is the author's opinion that the sample preparation, security and analytical procedures used by Golden Reign are adequate.

12.0 DATA VERIFICATION

12.1 SITE VISIT AND INDEPENDENT SAMPLING

The San Albino Project was visited by Mr. Antoine Yassa, P. Geo., of P&E, a qualified person under NI 43-101, from October 6 to 9, 2014. The site visit included geological discussions, drill collar surveys, examination of mining adits and open trenches, as well as a validation due diligence ¼ core sampling program.

Mr. Yassa collected nine samples by ¼ sawing the half core remaining in the core box. Two samples were collected from the Arras vein, and seven samples were collected from the San Albino vein. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag and taken by Mr. Yassa to the offices of P&E in Brampton, ON, Canada for delivery to AGAT Labs in Mississauga, ON, for analysis.

AGAT is an independent lab that has developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards.

AGAT maintains ISO registrations and accreditations. ISO registration and accreditation provide independent verification that a QMS is in operation at the location in question. AGAT Laboratories in Mississauga, ON is ISO/IEC 17025:2005 accredited laboratory.

Gold was determined using Fire Assay - Trace Au, ICP-OES finish. All gold values greater than 10 g/t were rerun using Fire Assay with a Gravimetric finish. Silver was analyzed using Aqua Regia Digest with ICP/ICP-MS finish.

The results from the comparisons for gold and silver, taking in consideration the nugget effect, are acceptable for the purposes of the resource estimate.

Results of the site visit samples are presented in Figure 12.1 and Figure 12.2.

Figure 12.1 P&E Site Visit Results for Gold

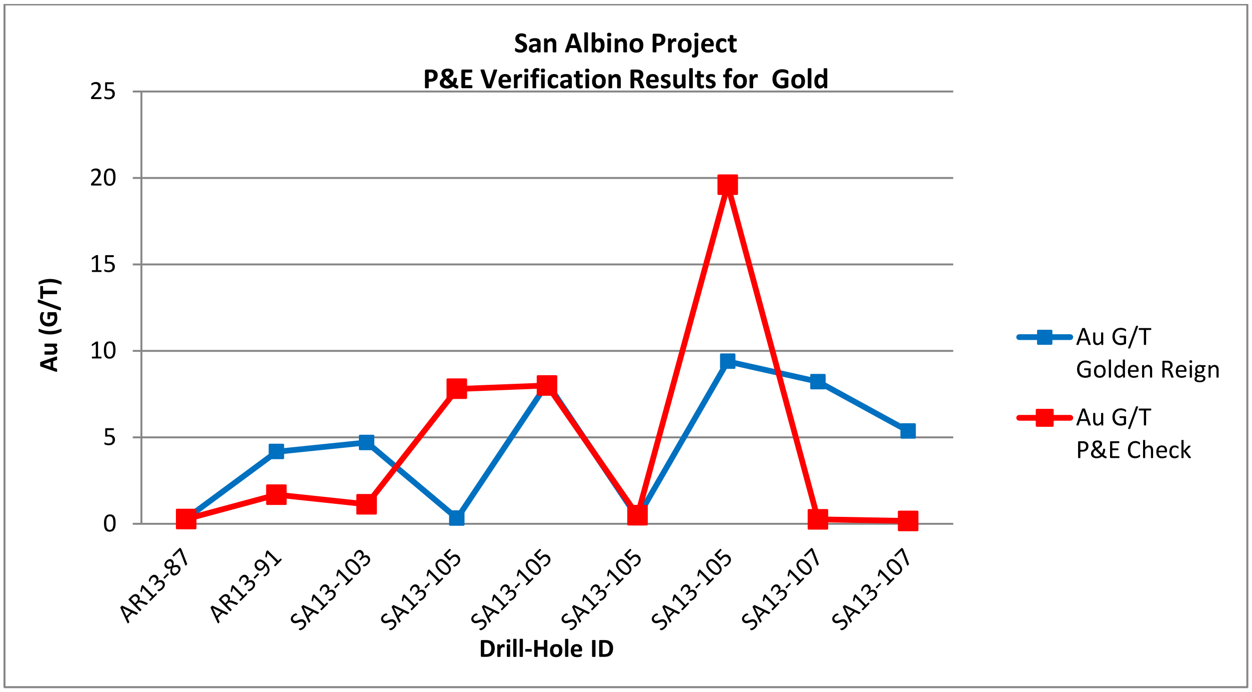
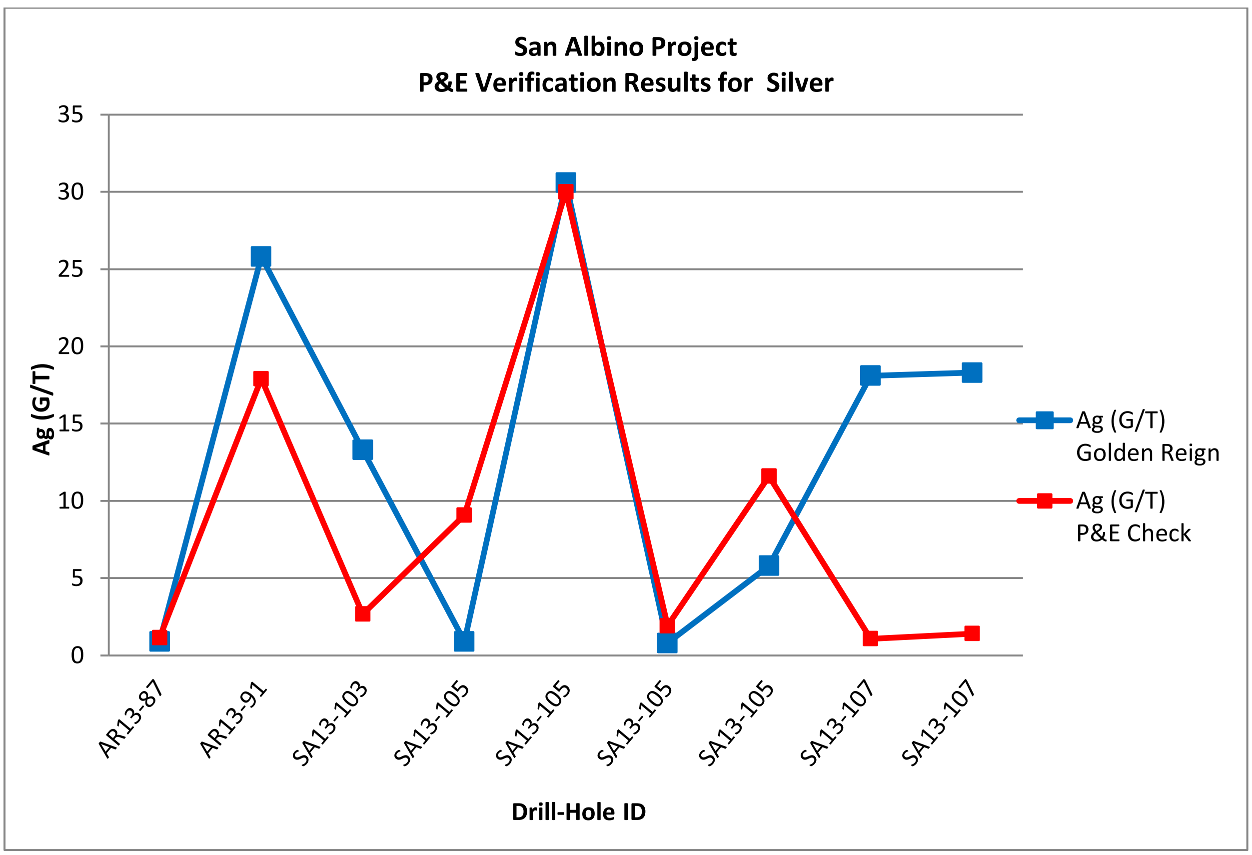


Figure 12.2 P&E Site Visit Results for Silver



12.2 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

The QA/QC program evaluated data from analyses performed between January 2013 and October 2014 for the San Albino Deposit.

All San Albino Deposit samples were sent to Inspectorate's preparation laboratory in Managua, Nicaragua for sample preparation and forwarded to Acme Analytical Laboratories (Vancouver) Ltd. ("Acme") of Vancouver, British Columbia for analysis.

A total of 11,791 samples in 115 batches were sent to Acme for analysis. The batches range in size from 20 to 240 samples, including the QC samples inserted in each batch. Routine batches include the insertion of one certified reference material (standard), one blank and one coarse reject duplicate per approximately 20 samples.

All samples were analyzed using a 30 gram Lead Collection Fire - Assay Fusion - AAS Finish for samples less than 10 PPM Au and an additional gravimetric finish for samples greater than 10 PPM Au. All samples (with exception of the last three batches analyzed in 2014) greater than 1.0 PPM Au were subjected to a 500 gram metallic screen process.

A total of 478 samples in 56 batches were further analyzed with Metallics Fire Assay.

It is noted that the metallic analyses were performed without the necessary QC samples (standards and blanks) inserted and is recommended that in future analyses these reference materials be included.

Additionally the samples were tested by 1:1:1 Aqua Regia digestion ICP-ES analysis for 34 elements including Ag.

12.2.1 Performance of Certified Reference Materials

The protocols included the insertion of 578 reference standard pulps in the 115 batches submitted to Acme. The standards consisted of four reference materials: OREAS 10c, OREAS 12a, OREAS 66a and OREAS 203, prepared and certified by Ore Research & Exploration Pty Ltd of Australia. Three of the standards are certified for Au (OREAS 10c, OREAS 12a and OREAS 203). One of the standards (OREAS 66a) is certified for Au, Ag and Cu.

Analytical performance is judged by warning limits of +/- two standard deviations from the mean of the between-lab round robin characterization, and tolerance limits of +/- three standard deviations from the certified mean. Values should remain between +/- two standard deviations nine times out of ten. Any values falling outside the tolerance limits are failures and must be examined on a case-by-case basis.

Graphs of the performances of the three standards for Au and one standard for Au and Ag are presented in Figures 12.3, 12.4, 12.5, 12.6 and 12.7.

Figure 12.3 Performance of OREAS 10c

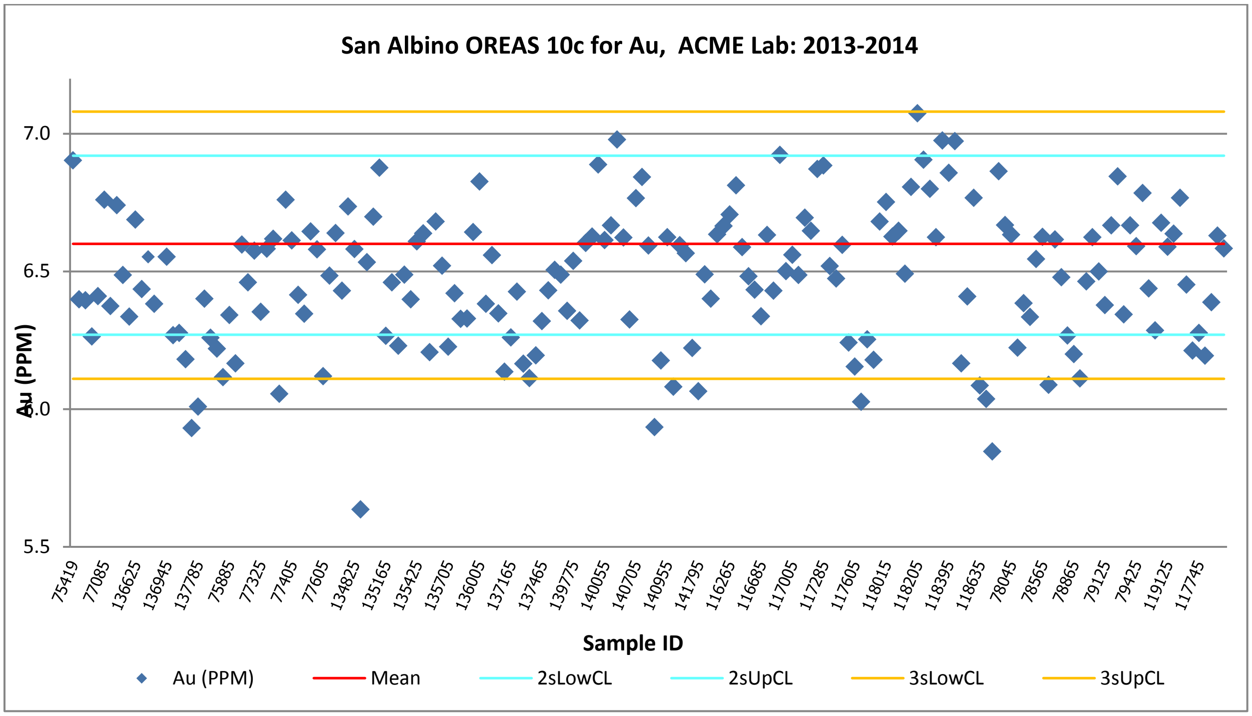


Figure 12.4 Performance of OREAS 12a

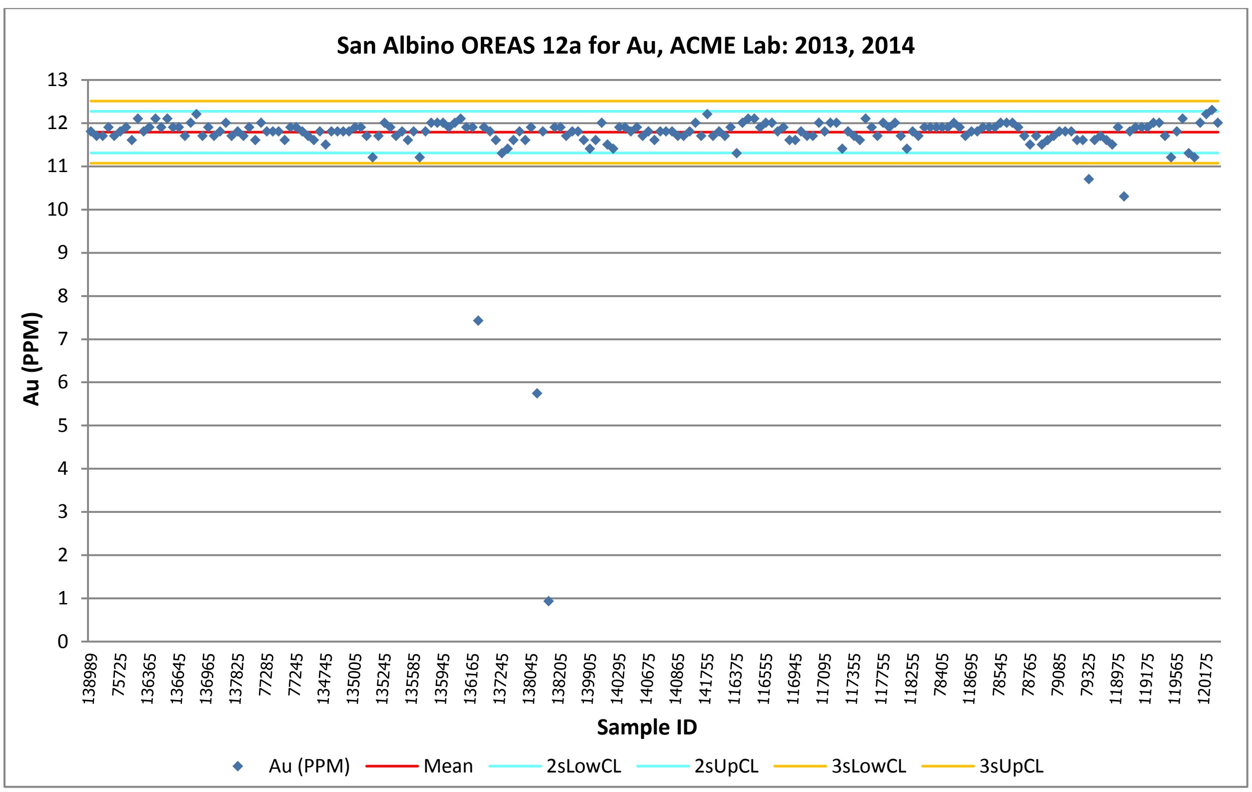


Figure 12.5 Performance of OREAS 66a for Au

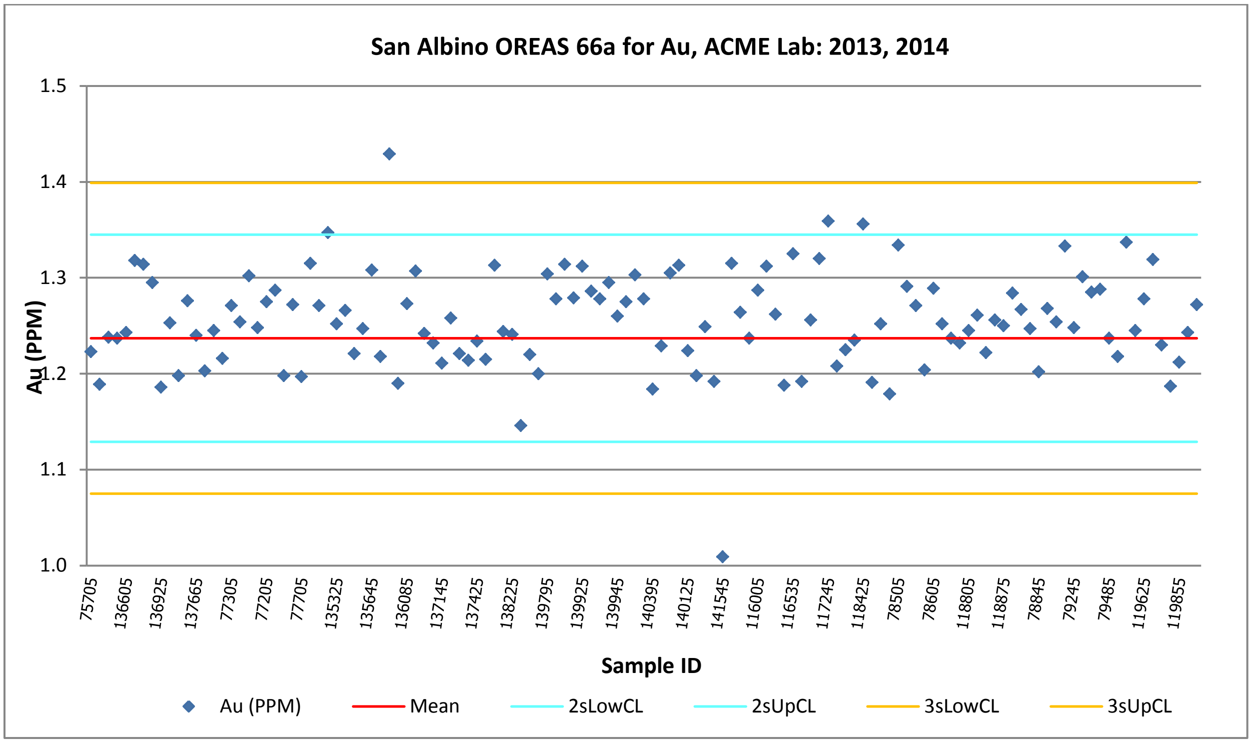


Figure 12.6 Performance of OREAS 66a for Ag

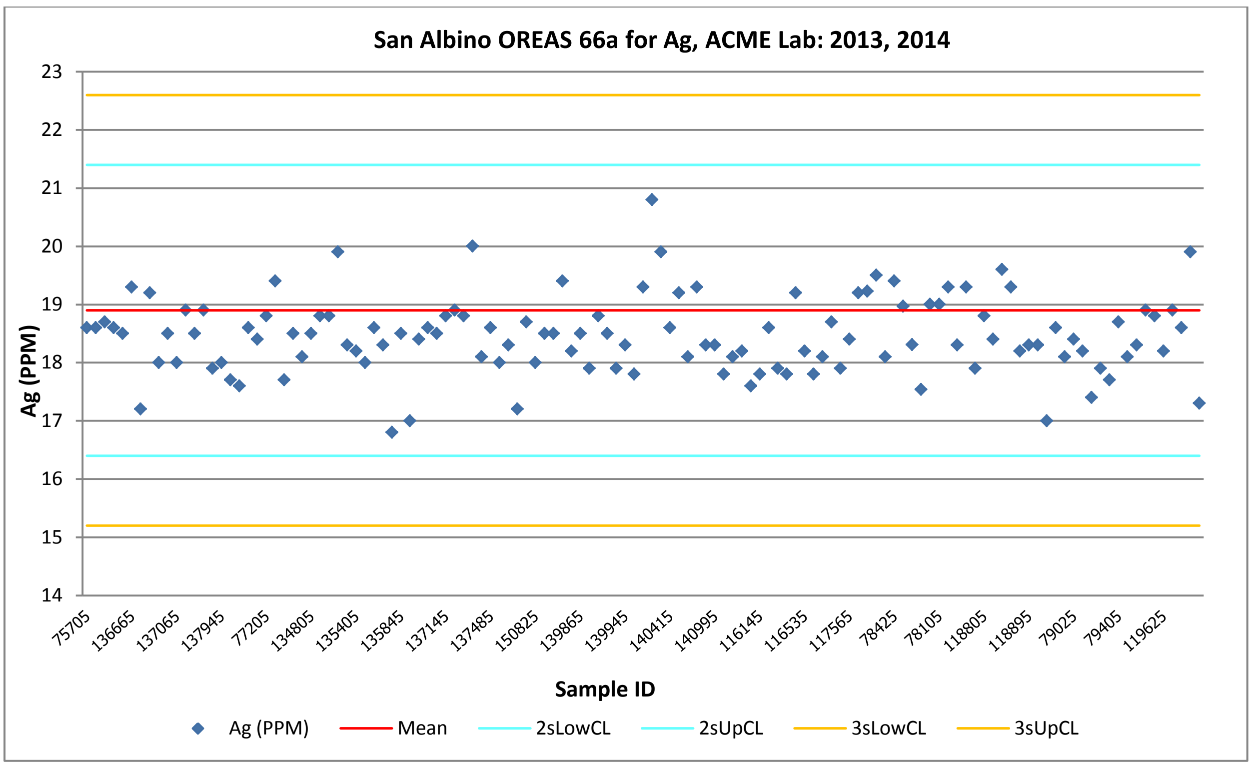
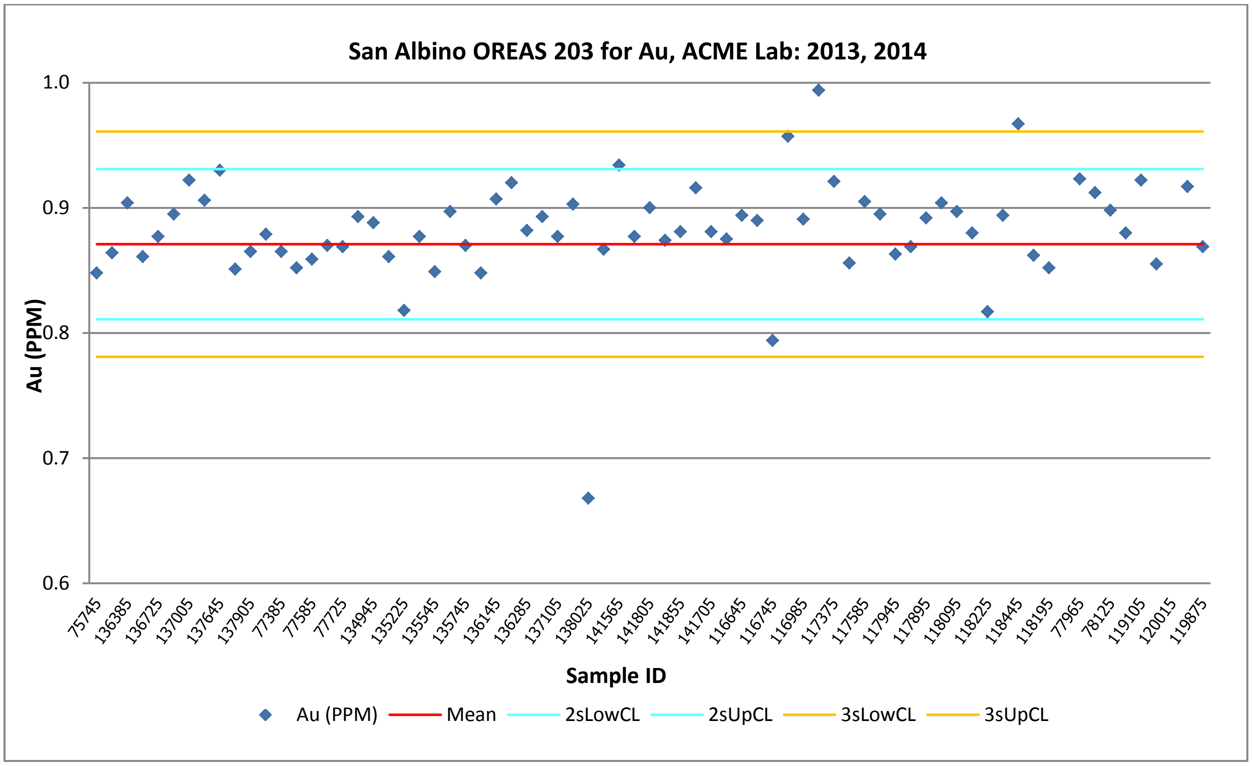


Figure 12.7 Performance of OREAS 203



Performance is summarized in Table 12.1.

Table 12.1 **Summary of Performance of Reference Standards Analyses**		
Standards	**Acceptance**	**Remarks**
OREAS 10c Au g/t	Pass	Out of 185 data points for gold, 14 values failed below -3rd deviation. Re-runs are not being requested as all failures except one lie within a sample sequence of very low Au values and will have no impact on the resource. Also other standards in the same batches are passing. Only one sample is within significant results - MGA13000342 (sample 117665), however all other standards within this batch are passing.
OREAS 12a Au g/t	Pass	Out of 192 data points for gold, 5 values failed below -3rd deviation. Re-runs are not being requested as all failures lie within a sample sequence of very low Au values and will have no impact on the resource. Also other standards in the same batches are passing.

Table 12.1 Summary of Performance of Reference Standards Analyses		
Standards	**Acceptance**	**Remarks**
OREAS 66a Au g/t	Pass	Out of 127 data points for gold, 1 value failed above +3rd deviation and 1 value failed below -3rd deviation. Re-runs are not being requested as the failures lie within a sample sequence of very low Au values and will have no impact on the resource. Also the other standards in the same batches are passing.
OREAS 66a Ag g/t	Pass	Out of 125 data points for silver, all values are between mean and +/- 2nd deviation.
OREAS 203 Au g/t	Pass	Out of 73 data points for gold, 2 values failed above +3rd deviation and 2 values failed below -3rd deviation. Re-run is recommended for part of MGA13000620 (sample 120015) only as all the rest of the failures lie within a sample sequence of very low Au values and will have no impact on the resource. Also other standards in the same batches are passing.

12.2.2 Performance of Blank Material

Golden Reign inserted geological blanks into the sample stream as part of its QA/QC protocol. The geological blanks were sourced from barren rock from the Property.

There were 575 geological blanks used for Au in the reported batches and 570 for Ag.

If the assayed value in a certificate was indicated as being less than detection limit (<0.005 ppm) the value was assigned the value of half the detection limit (0.0025 ppm) for data treatment purposes. An upper tolerance limit of three times the detection limit (0.015 ppm) was indicated for Au.

The geological blanks performed very well for Au with 15 values exceeding the upper tolerance limit of 0.015 ppm for Au. For most of the failures, re-runs were not recommended as they lie within a sample sequence of very low Au values and will have no impact on the resource.

Re-runs were recommended for portions of five batches. However with the recalculated cut-off grade of 0.75 g/t Au for P&E’s 2014 Resource evaluation, this was no longer deemed necessary as these slightly elevated Au values would have no impact on the Resource.

The geological blanks performed very well for Ag with five failures recorded. Re-runs were recommended for portions of two batches; however this was also no longer considered necessary as these slightly elevated Ag values would have no impact on the Resource.

Graphs of the performances of the geological blanks for Au and Ag are presented in Figures 12.8 and 12.9.

Figure 12.8 Performance of Geological Blanks for Au

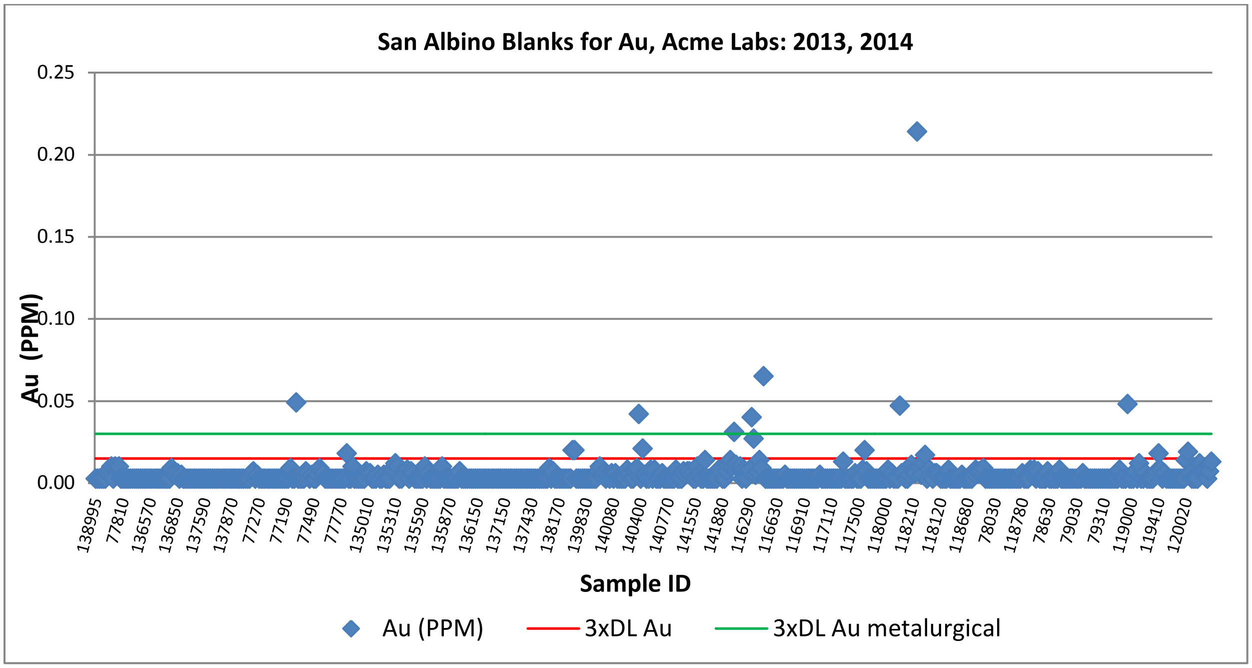
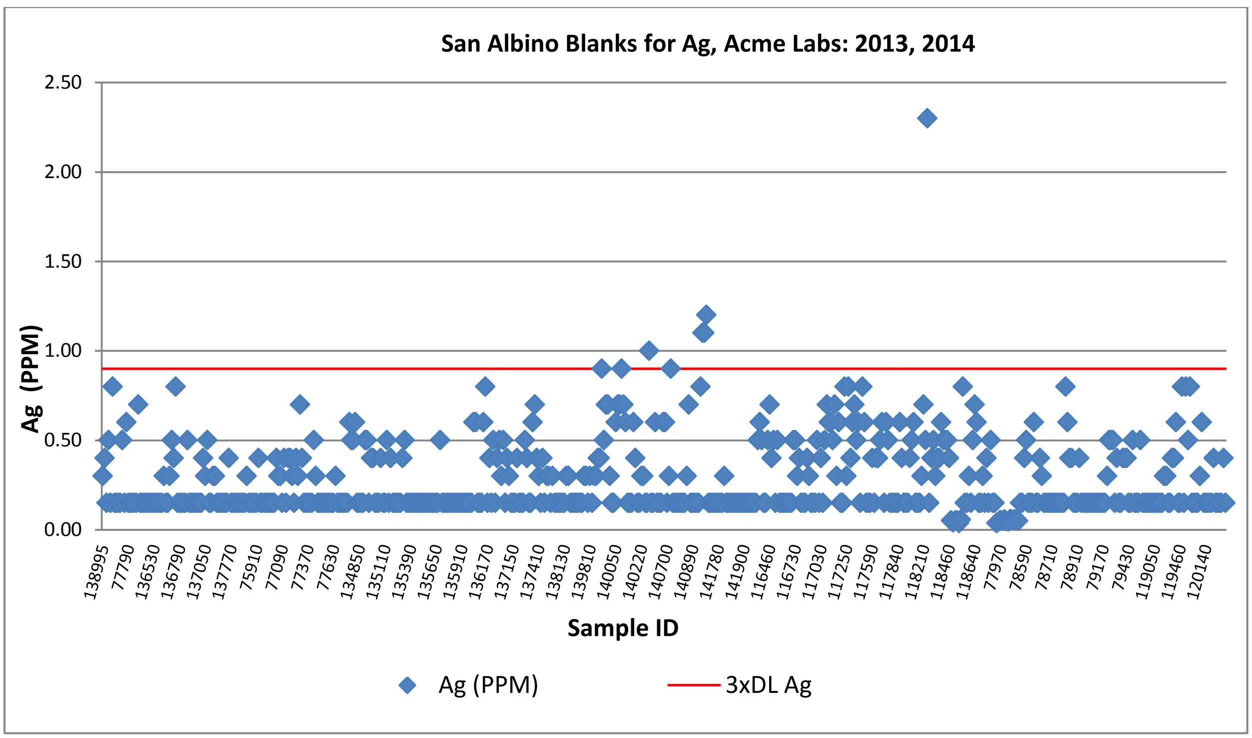


Figure 12.9 Performance of Geological Blanks for Ag



The authors consider the data to be of good quality and suitable for use in the current resource estimate.

12.2.3 Performance of Duplicates

For better representation the duplicates accumulated in the 2013 and 2014 period were divided to two groups: DDH duplicates (for drill-holes) and TR duplicates (for trenches). Further statistical analyses were applied separately to both groups.

DDH (Drill-Holes) Duplicate Data

Statistical analyses were applied to the accumulated 2013 (there were no DDH tested in 2014) coarse DDH duplicate data in order to obtain an indication of precision. The data set consisted of 369 coarse duplicate pairs for Au and 351 coarse duplicates for Ag.

Scatter plot, Thompson-Howarth Precision Plot, as well as graph of the Mean of the Sample Pair versus the Absolute Relative Difference of the Sample Pair (ARD plot) were created and compared for Au and Ag – presented in Figures 12.10, 12.11, 12.12, 12.13, 12.14 and 12.15.

Figure 12.10 Scatter Plot Au (DDH)

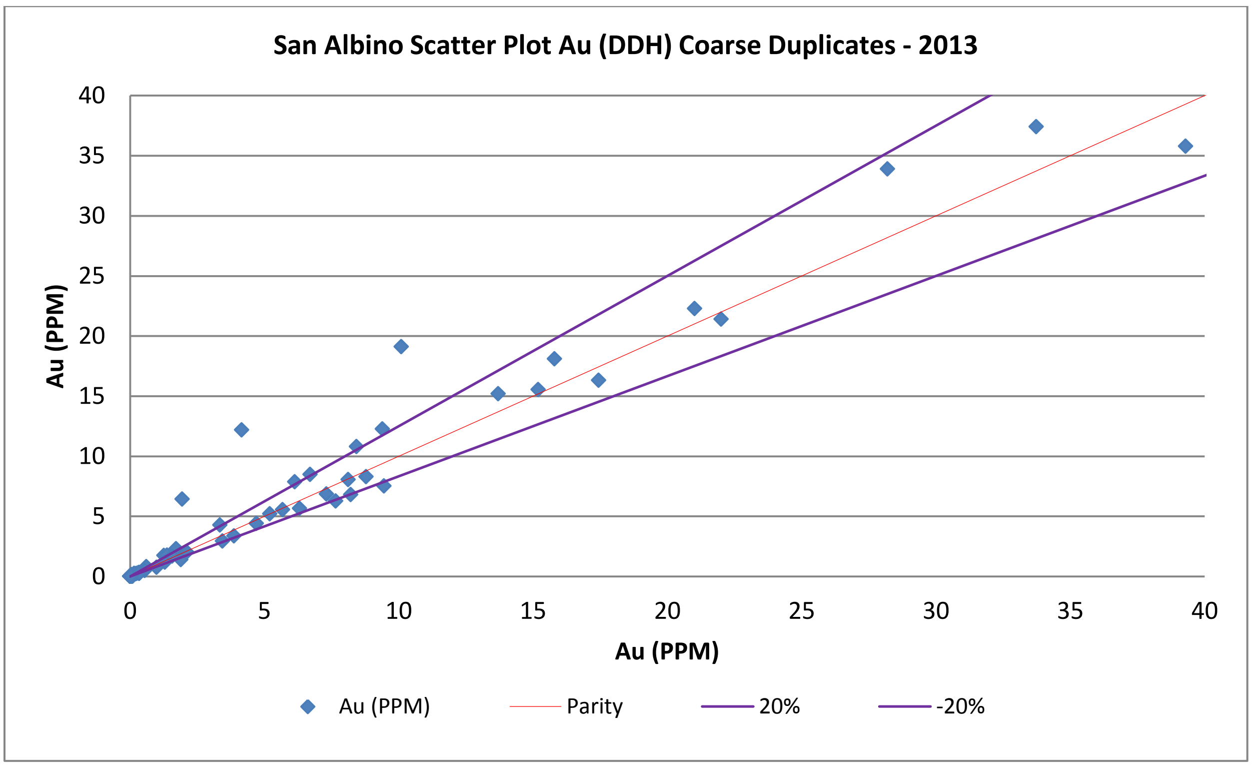


Figure 12.11 Thompson-Howarth Precision Plot for Au (DDH)

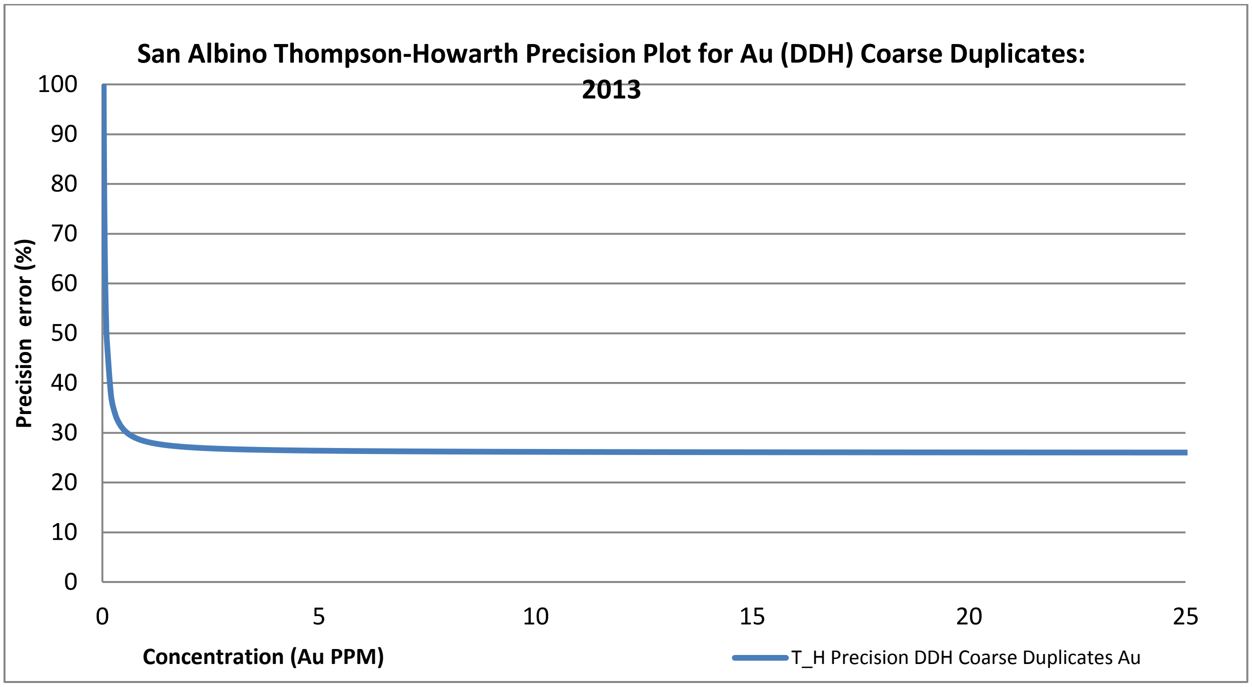


Figure 12.12 Mean of Sample Pair versus Absolute Relative Difference of Sample Pair Au (DDH)

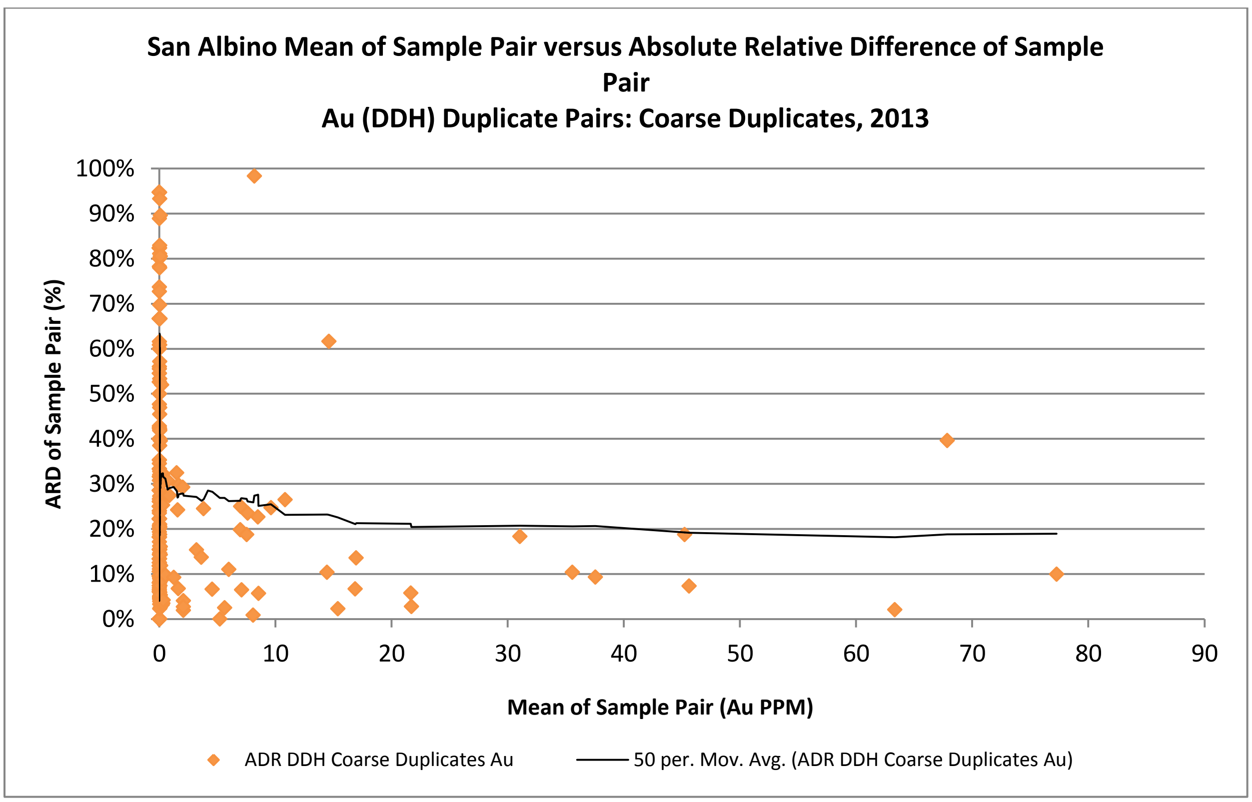


Figure 12.13 Scatter Plot Ag (DDH)

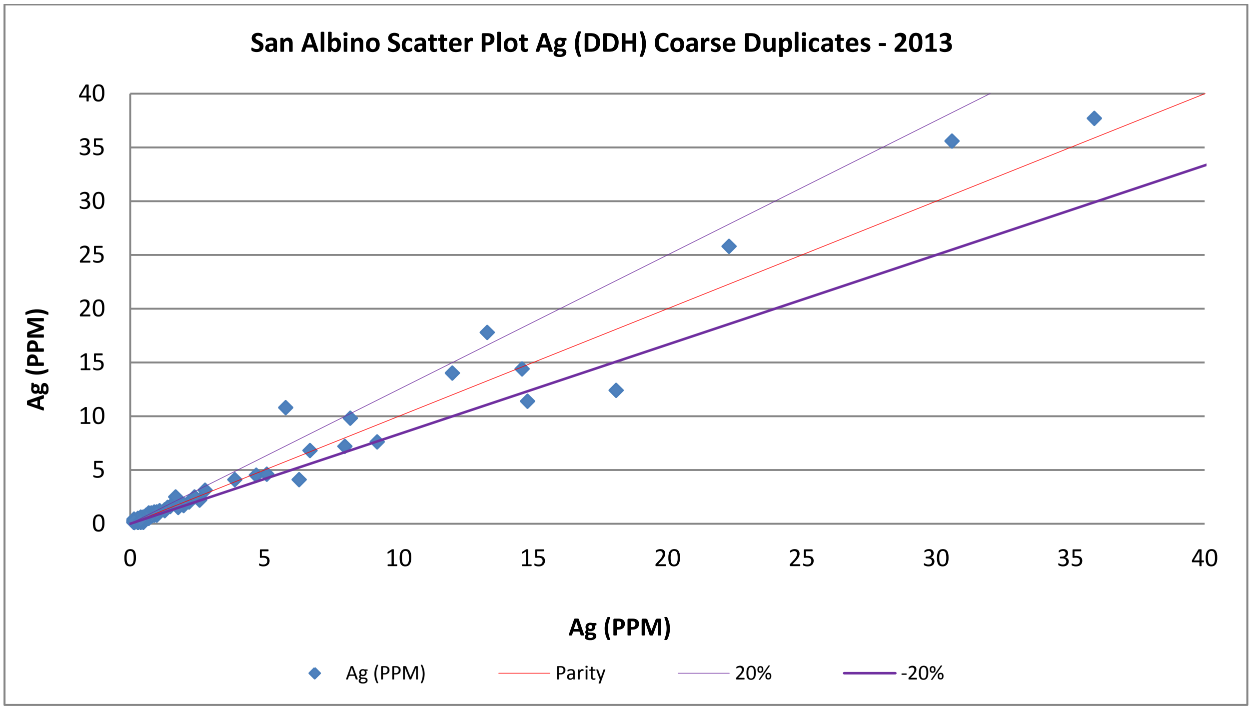


Figure 12.14 Thompson-Howarth Precision Plot for Ag (DDH)

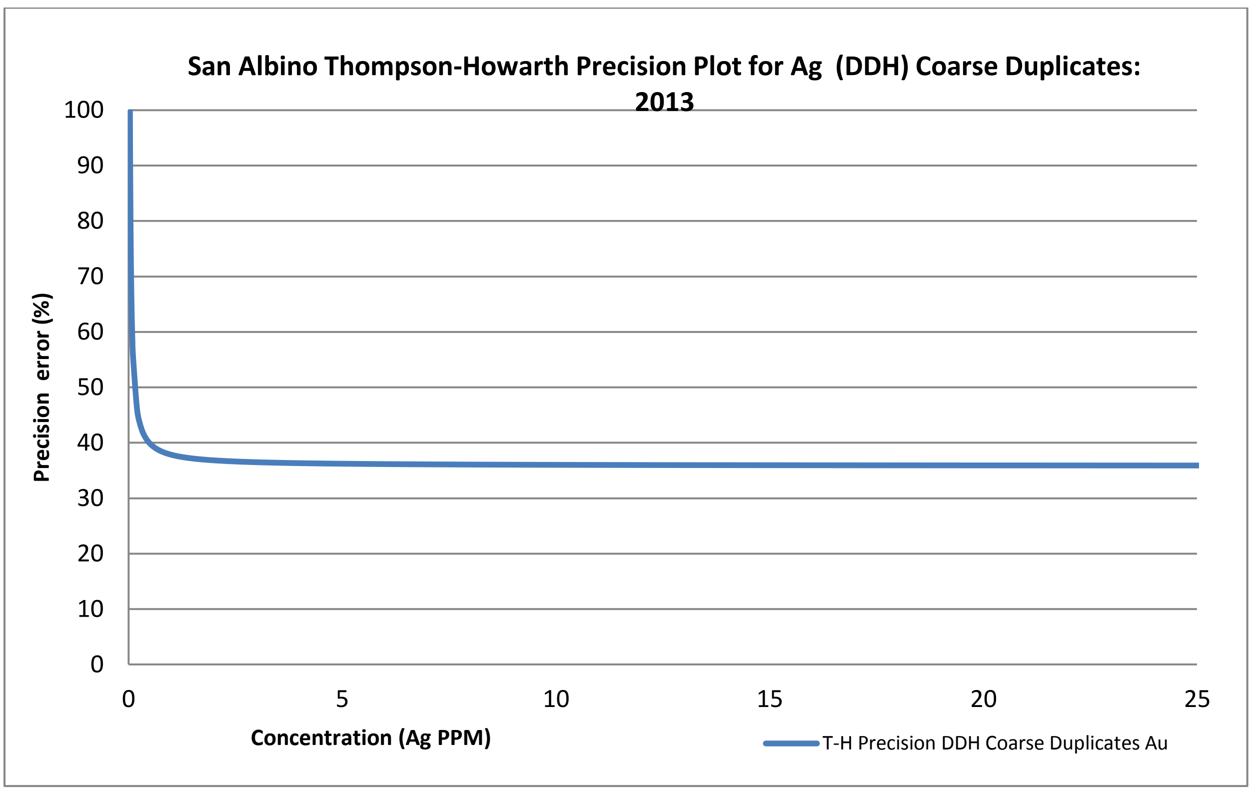
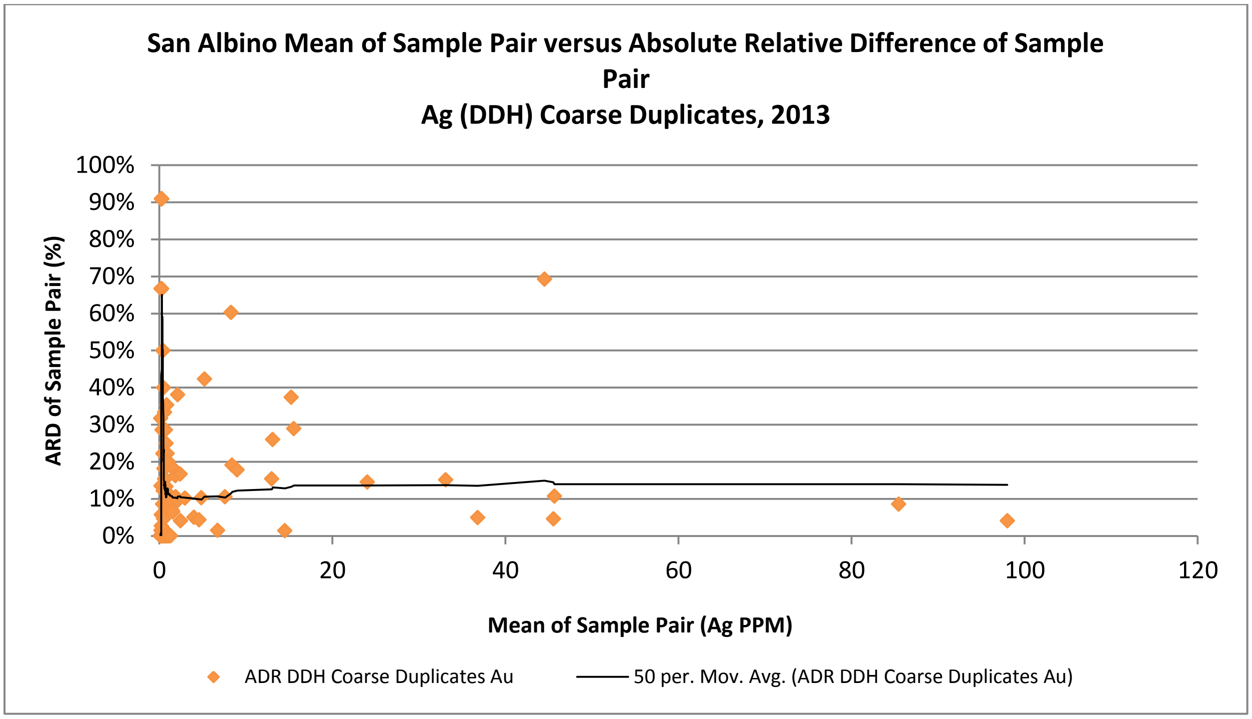


Figure 12.15 Mean of Sample Pair versus Absolute Relative Difference of Sample Pair Ag (DDH)



The cumulative coarse duplicate data for gold yielded a value of 26% for T-H Precision Plot and 19% for the ARD Precision Plot.

The cumulative coarse duplicate data for silver yielded a value of 36% for T-H Precision Plot and 14% for the ARD Precision Plot.

As ±20 percent relative difference is considered to provide good precision for coarse duplicates, these results are deemed to be satisfactory for the purposes of the resource estimate.

<u>TR (Trenches) Duplicate Data</u>

The author considers that the method used for taking the coarse duplicate samples from the trenches does not qualify them as real coarse duplicates but more as a second sample from the same location.

It is recommended that pulp duplicates created during the sample preparation procedure are inserted in the sample flow of all future analyses to complement the coarse reject duplicates and improve the precision.

<u>Laboratory Pulp Duplicate Data</u>

Statistical analyses were applied to the accumulated 2013 – 2014 internal laboratory pulp duplicate data in order to obtain further indication of precision. The data set consisted of 399 laboratory pulp duplicate pairs for Au and 402 laboratory pulp duplicate pairs for Ag.

Scatter plot, Thompson-Howarth Precision Plot, as well as graph of the Mean of the Sample Pair versus the Absolute Relative Difference of the Sample Pair (ARD plot) were created and compared for Au and Ag – presented in Figures 12.16, 12.17, 12.18, 12.19, 12.20 and 12.21.

Figure 12.16 Scatter Plot Au (Laboratory Pulp Duplicates)

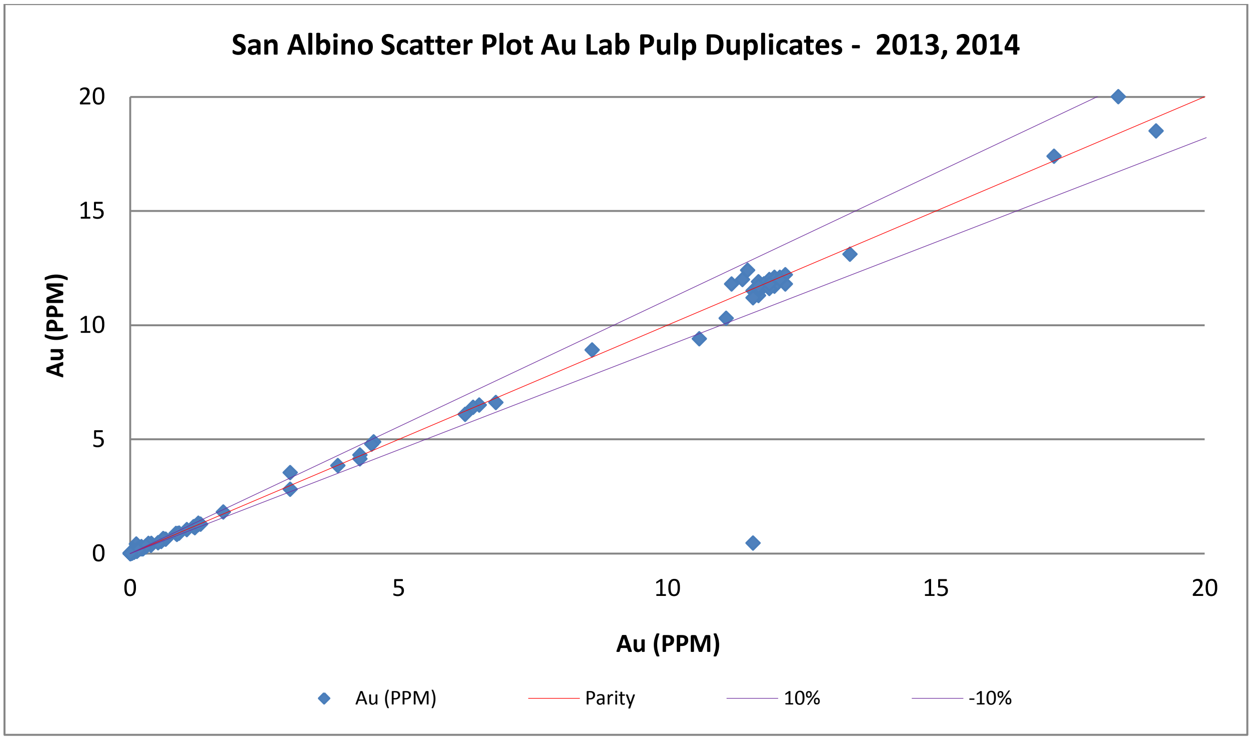


Figure 12.17 Thompson-Howarth Precision Plot for Au (Laboratory Pulp Duplicates)

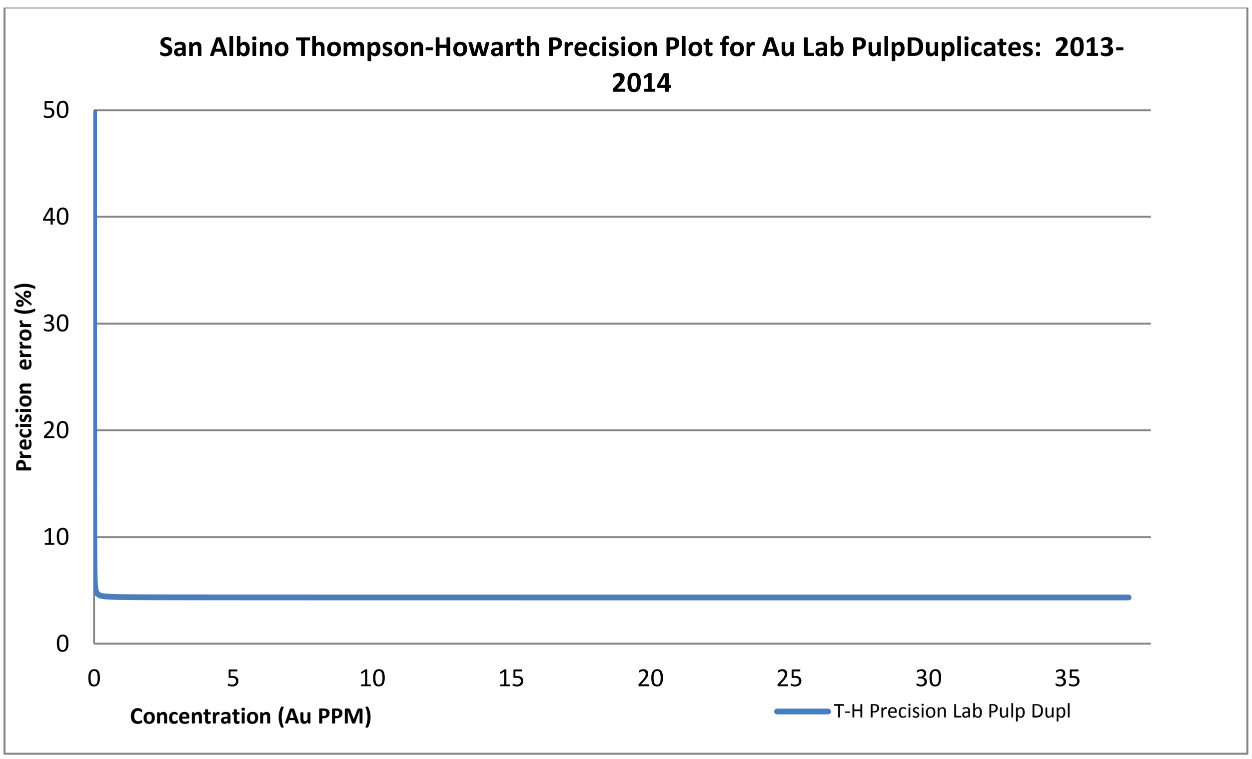


Figure 12.18 Mean of Sample Pair versus Absolute Relative Difference of Sample Pair Au (Laboratory Pulp Duplicates)

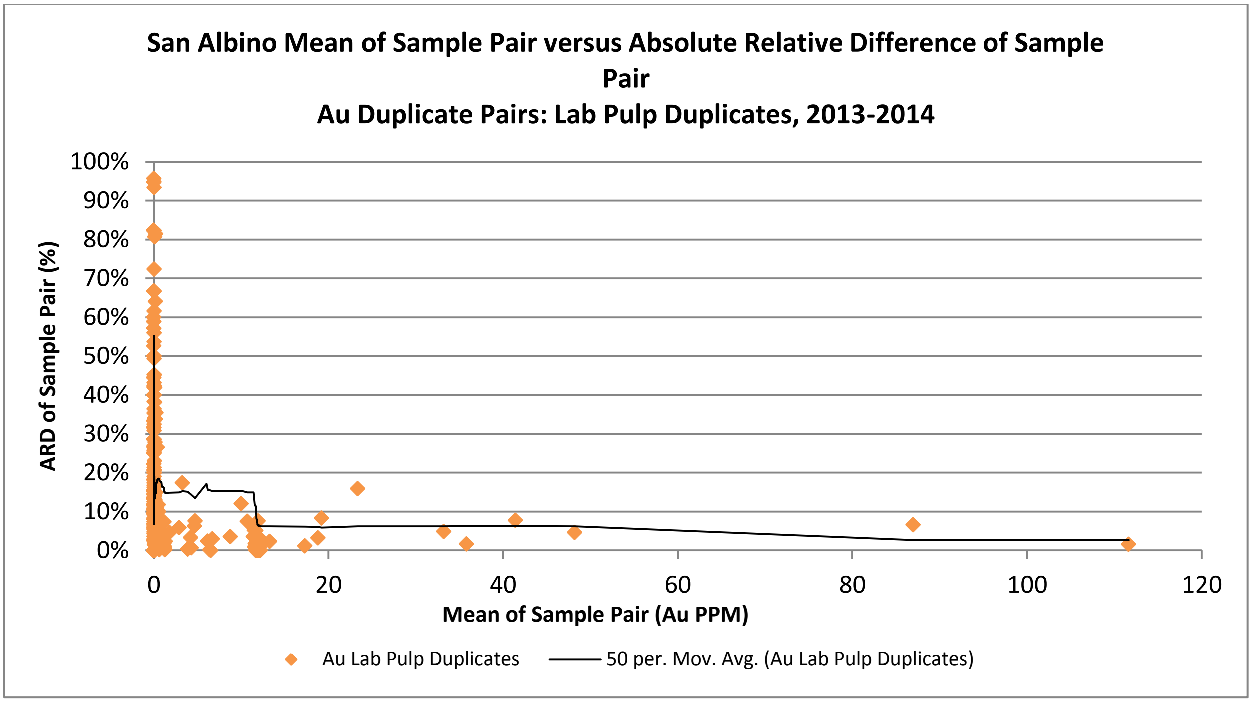


Figure 12.19 Scatter Plot Ag (Laboratory Pulp Duplicates)

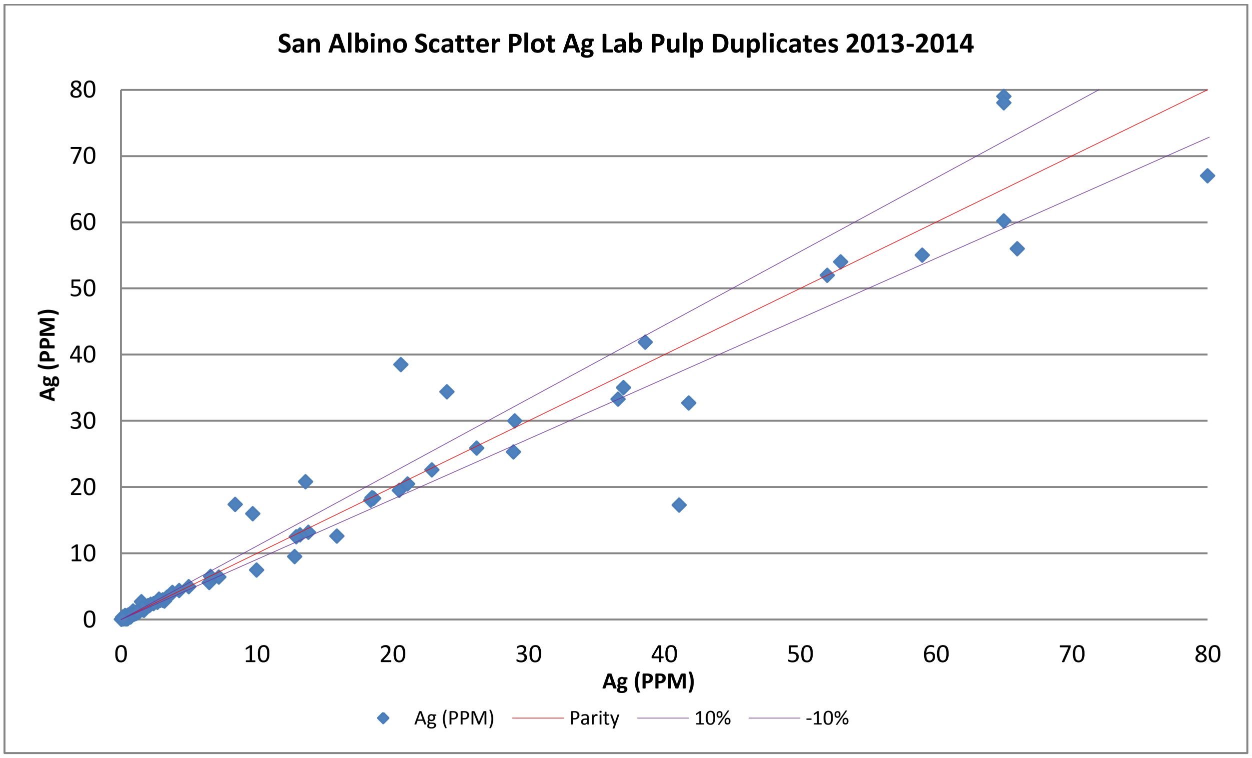


Figure 12.20 Thompson-Howarth Precision Plot for Ag (Laboratory Pulp Duplicates)

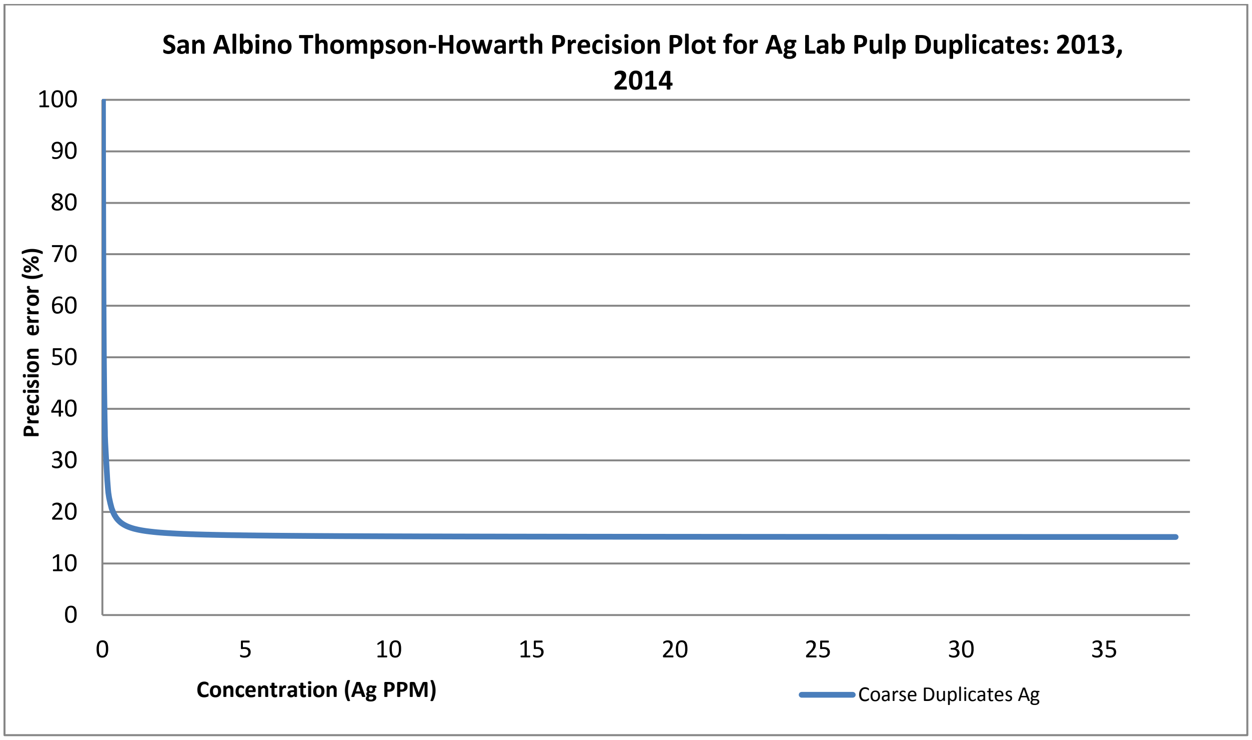
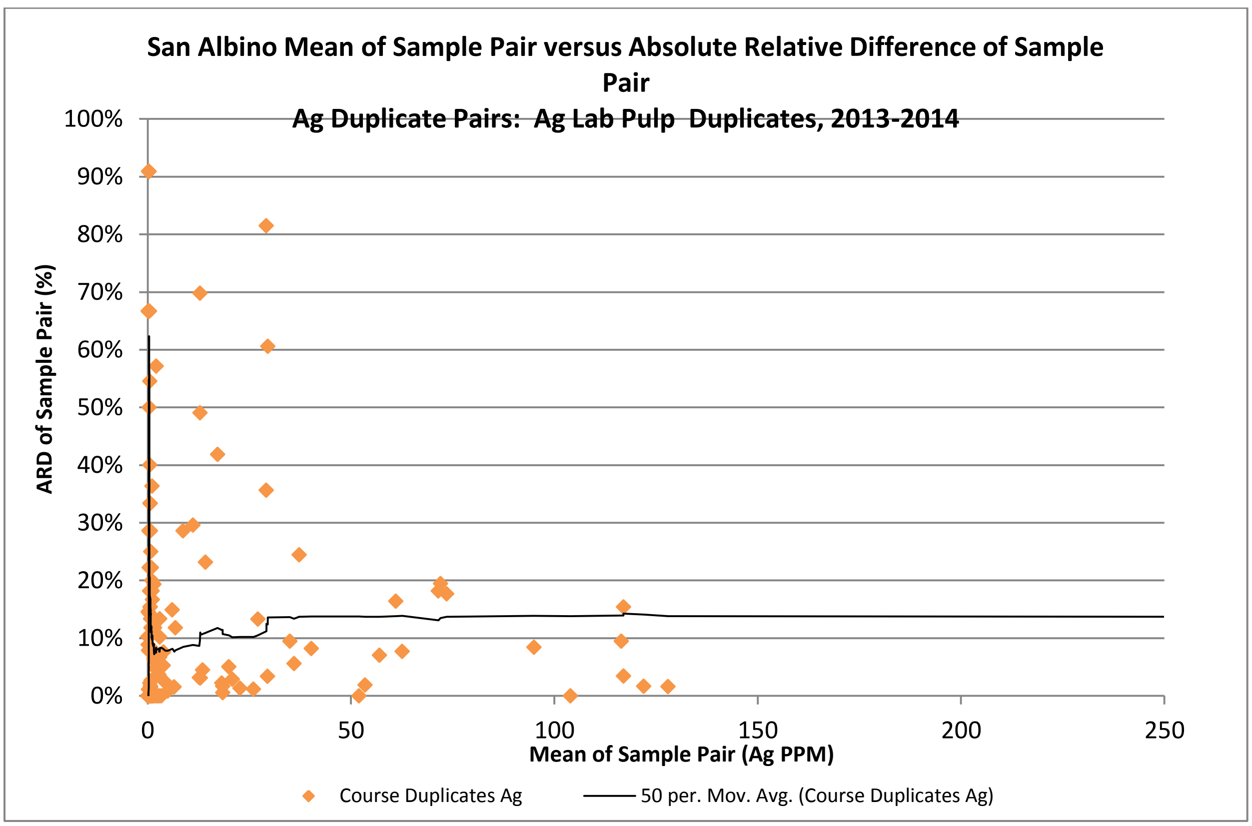


Figure 12.21 Mean of Sample Pair versus Absolute Relative Difference of Sample Pair Ag (Laboratory Pulp Duplicates)



The cumulative laboratory pulp duplicate data for gold yielded a value of 4% for T-H Precision Plot and 3% for the ARD Precision Plot.

As ±10 percent relative difference is considered to provide good precision for pulp duplicates, these results are deemed to be very good for the purposes of the resource estimate.

The cumulative laboratory pulp duplicate data for silver yielded a value of 15% for T-H Precision Plot and 13% for the ARD Precision Plot.

As ±10 percent relative difference is considered to provide reasonable precision for pulp duplicates, these results are deemed to be satisfactory for the purposes of the resource estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 MINERAL PROCESSING AND METALLURGICAL TESTING

Drill core samples from the San Albino Project have been subjected to metallurgical testing by Inspectorate Exploration & Mining Services-Metallurgical Division and the results were summarized in Project Reports for Metallurgical Testing dated June 2013 and February 2014. In addition, Sonoran Resources LLC was contracted by Golden Reign Resources Ltd. to complete a Preliminary Cost Assessment Report, dated July 10, 2014, which included new metallurgical tests and analysis as validation test work.

The first laboratory testing program was conducted on four composite samples collected by Golden Reign, designated as A, B, C, and D, to determine their amenability to gold and silver recovery via direct cyanide leaching, centrifugal gravity concentration and sulphide flotation. The scope of original test work included:

- Head sample characterization
- Test grinds
- Diagnosis cyanide leaching tests at three grind sizes
- Gravity recovery tests
- Rougher flotation tests
- Size by assay analysis of test tailings
- Sequential gravity-flotation tests
- Analytical consistency checks.

This work was completed during 2013 and the Executive Summary for this work reported on scope and testing as follows:

"The study covers the following major topics: head assay, cyanide leaching at three different grind sizes, gravity concentration at two grind sizes and rougher flotation kinetic assessment at three different grind sizes. The best results were combined to test the combined gravity-flotation gold recovery from two primary composites.

Fire assays of the four composites indicated gold grades of 29.9, 13.7, 6.3 and 3.9 g/t for composites A, B, C and D, respectively. These grades were used to check for analytical consistency in each test.

Diagnostic leach tests results show that samples A, B and D contained cyanide soluble gold in the range of 78.6% to 89.3% using 20 g/L activated carbon.

The gravity pre-concentration tests indicated that 3-pass Au recoveries between 80.2% to 84.4% were achieved on composites A through C at a grind target P80 of 100 µm. Gravity recovery of Au on composite D was lower, just under 52%. All samples generally responded well to sulphide flotation, with gold recoveries in the range of 76.6% to 85.5% on tests carried-out at the finer grind size target of P80 75 µm and after 8 minutes of flotation.

Sequential gravity-flotation testing on composite D as well as a 50/50 blend of composite A and B material resulted in total recoveries of 96.4% Au and 92.6% Ag for composite AB and 84.3%

Au and 86.8% Ag for composite D. It is recommended to pursue this processing route for further optimization and to investigate upgrading of the concentrate grades."

A second testing program was conducted on four composite samples collected by Golden Reign, designated as AR-01, AR-02, SA-01 and NAR-01, to determine their amenability to gold recovery via centrifugal gravity concentration followed by cyanide leaching using the carbon-in-leach ("CIL") process. This work was completed early 2014. The latest results were presented in the Report for Phase-II Metallurgical Testing on the San Albino Project. The report summary presented the results as follows:

"The study covers the following major topics: head assay, gravity concentration to recover free gold followed by cyanide leaching of the gravity tailings.

Metallic screen assays of the four primary composites indicated gold grades of 2.70, 8.99, 0.41 and 2.68 g/t for composites AR-01, AR-02, SA-01 and NAR-01, respectively. A fifth, high-grade sample (79494) was separately assayed at 13.87 g/t Au. These composite grades were used to check for analytical consistency in each test.

The gravity concentration tests indicated gravity-recoverable-gold ("GRG") content in the range of 47.1% to 56.9% in all four composites, the highest of which was composite AR-02.

The gravity tailings responded well to 72 hour cyanide leaching, resulting in gold extractions in the range of 80.0% to 85.6% across all composites, with the exception of composite AR-01, which yielded a 67.3% Au extraction. Ag extractions ranged from 34.4% to 56.9% for all four composites.

A duplicate leach test on GRG-2 (composite AR-02) test tails found that decreasing the leach time from 72 hours to 24 hours resulted in the same metal extractions. The 24 hour residence time also resulted in a 61% reduction in NaCN consumption.

The combination of both gravity and leach tests yielded total gold recoveries in the range of 91.0% to 93.5%, with the exception of AR-01 which had a combined gold recovery of 82.9%.

A size-by-assay analysis of the leach residues for composite AR-01 is recommended to better understand the size distribution of the remaining gold.

Additional testing is recommended to further optimize the cyanide leach process and determine the optimal residence time and cyanide dosage."

Validation tests were completed using material from drill cores to duplicate the 2013 test work composites to determine their amenability to gold recovery via centrifugal gravity concentration followed by cyanide leaching using the carbon-in-leach process. The tests have been completed by an ISO certified independent laboratory, McClelland Laboratories Inc. In completing this work, Sonoran Resources also used ALS Minerals, (ALS USA Inc.), WETLAB, Environmental Testing Laboratories (USA) and Associated Laboratories (USA). The results of the validation tests are summarized in Sonoran Resources' report.

The results from the confirmatory test work confirmed that gravity separation including two steps followed by CIL leaching will provide high gold recovery levels in the order of 90% to 93%.

13.2 HEAD SAMPLES ASSAYS

The gold contents in the different head samples (A, B, C and D) are shown in Table 13.1.

TABLE 13.1
GOLD CONTENT OF THE DIFFERENT HEAD SAMPLES

2013 Met Report (Inspectorate)		**(SA) Compo A**	**(Arras) Compo B**	**(HWFW) Compo C**	**(Oxide) Compo D**
Fire Assay, Au ppm	(a)	29.86	13.66	6.25	3.91
Metallic Screening, Au ppm	(b)	30.51	15.64	6.09	5.11
	diff (b-a)	0.625	1.98	-0.16	1.20
	diff % (b-a)	2.1%	12.7%	-2.6%	23.5%
2014 MLI Investigations (New Composite)		**Compo A’**	**Compo B’**	**Compo C’**	**Compo D’**
Fire Assay (Triplicate)					
1st Split, Au ppm, g/t		18.60	25.50	3.27	n/a
2nd Split, Au ppm, g/t		17.50	19.90	4.29	n/a
		15.60	27.50	3.11	n/a
Average, Au ppm, g/t	(a)	17.23	24.30	3.56	
Metallic Screening, Au, ppm, g/t	(b)	13.92	23.70	3.68	
	diff (b-a)	-3.31	-0.60	0.12	
	diff % (b-a	-23.8%	-2.5%	3.4%	

13.3 GRAVITY CONCENTRATION

Given the high-grade nature of the mineralization from the San Albino Project, and occasional visible gold, it was logical to test the material performance using standard modern day gravity separation techniques. In this case a scoping level centrifugal concentrator test was utilized, and the notion of grind size was introduced to the test plans. Each of the samples tested showed an increase in extraction of gold at finer grind size with the exception of the oxide sample, composite D. At the scoping level, this testing did not optimize grind size and recovery. Silver data is not presented here but is included in the appendices.

Two different gravity processing amenability test methods were used in previous metallurgical studies on San Albino materials, and were described in the respective reports by Inspectorate in 2013 and 2014.

The testing performed at the request of Sonoran Resources in 2014 was directed to provide validation of the work done on similar composites (Composites A, B, C in 2013 and Composites A, B, and C in 2014). Therefore, the method used was made identical to the work in 2013. The two methods used previously are appropriately termed General Gravity Amenability (GRG), and (Extended) Gravity Recoverable Gold (EGRG). One was created by Knelson Concentrators; the other is more generic and basic. The GRG or EGRG testing includes grinding to a finer size after each single pass through the centrifugal concentrator. The General Gravity Amenability test provides for 3 passes through the centrifugal concentrator and no particle size reduction. It assesses the gravity recovery method and uses multiple passes to account for any machine inefficiencies. This is the method that was used for the 2013 gravity work, and is therefore what was used for the 2014 validation work.

13.4 LEACHING TESTS

The San Albino Deposit is typically comprised primarily of oxide material near surface and sulphide material at depth. In some areas there is an active carbonaceous component, which is capable of adsorbing gold from the solution. Sulphide material, as tested in the validation tests, might be partially refractory to conventional processing, but the test results indicated that CIL was providing high recovery. Oxide material leaches relatively rapidly.

13.5 CARBONACEOUS EFFECTS

The presence of carbon and its effects in the leaching were evaluated in the test work. One composite showed significant preg-robbing. Average extraction was 85% excluding the low extraction test, and 79% for all tests.

The carbonaceous distribution within each size fraction is tabulated in Table 13.2.

TABLE 13.2
CARBONACEOUS DISTRIBUTION WITHIN SIZE FRACTION

2013 Met Report (Inspectorate)		**(SA) Compo A**	**(Arras) Compo B**	**(HWFW) Compo C**	**(Oxide) Compo D**
Graphite, C %		0.17	0.13	0.23	0.07
2014 Met Report (Inspectorate)	**AR-01**	**AR-02**	**SA-01**	**NAR-01**	**#79494**
Carbon, Total %	0.17	0.23	0.20	0.17	0.18
Carbon, Organic %	0.02	0.02	0.03	0.02	0.02
Carbon, Inorganic %	0.13	0.19	0.14	0.12	0.10
Carbon, Graphite %	0.03	0.02	0.03	0.03	0.06
2014 MLI Investigations		**Campo A'**	**Campo B'**	**Campo C'**	**Campo D'**
Carbon, Total %		1.05	1.47	1.75	n/a
Carbon, Organic %		0.43	0.61	1.13	n/a
Carbon, Inorganic %		0.62	0.86	0.62	n/a
Carbon, Graphite %		0.06	0.14	0.33	n/a

The table presents an increased value in the carbonaceous content that could present preg-robbing effects that will influence the gold recovery. Tests on the assessment of the "preg-rob" nature of the San Albino material by implementing a graphite flotation to remove it from the bulk sample were implemented as part of the validation test work. Tests on composite C indicated that only 30% of the graphite can be removed as flotation concentrate and it also shows decreases in the "preg-rob" but the gold leach reached a peak of 60% and a tendency towards lower recovery. Further test consideration of carbonaceous material pretreatment might be required to consider supplementary process installation.

The leaching test performed on the gravity tailings did not show major influence of carbonaceous content on the gold recovery when conventional CIL is used.

13.6 LEACHING RESULTS

Based on an evaluation of all the test work, for purposes of this PEA, the recoveries using a combined gravity and CIL process are assumed to be as follows:

- Overall recovery for gold in oxide material: 91%
- Overall recovery for silver in oxide material: 59%

- Overall recovery for gold in sulphide material: 95%
- Overall recovery for silver in sulphide material: 85%

Tests for evaluating the river water effect on leaching indicated that there was no major impact on leach extraction.

Note: Neither P&E, nor the author of this section of the Report, carried out, supervised or in any way observed the metallurgical test work described in this section. As such, the results were not independently verified by P&E, but are believed to be of sound quality for a PEA level study.

14.0 MINERAL RESOURCE ESTIMATE

14.1 INTRODUCTION

The purpose of this Report section is to illustrate the Mineral Resource Estimate on the San Albino Deposit of Golden Reign Resources Ltd.'s San Albino-Murra Property in the Republic of Nicaragua. The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 and has been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into mineral reserve. Confidence in the estimate of Inferred mineral resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral resources may be affected by further in-fill and exploration drilling that may result in increases or decreases in subsequent mineral resource estimates.

This resource estimate was undertaken by Yungang Wu, P.Geo., and Antoine Yassa, P.Geo. of P&E Mining Consultants Inc. of Brampton, Ontario, independent Qualified Persons in terms of NI 43-101, from information and data supplied by Golden Reign Resources Ltd. The resource estimate has been reviewed by Eugene Puritch, P.Eng. of P&E Mining Consultants Inc. The effective date of this resource estimate is January 14, 2015.

14.2 DATABASE

All drilling and assay data were provided in the form of Excel data files by Golden Reign. The Gemcom ("GEMS") database for this resource estimate, constructed by P&E, consisted of 226 core holes totalling 41,164 m, 24 RC drill holes totalling 2,756 m and 53 trenches totaling 4,773 m (Table 14.1). A drill hole plan is shown in Appendix I.

TABLE 14.1
DRILL HOLE DATABASE SUMMARY

Drilling Type	# Drill Holes	M of Drilling	# of Drill Holes used for the Resource Estimate
Core Holes	226	41,163.61	177
RC Holes	24	2,756	16
Trenches	53	4,773	36

The assay table of the database contained 26,654 Au assays and 25,422 Ag Assays (most of the metallurgical samples and some of the in-fill samples were only analyzed for gold). All drill hole survey and assay values are expressed in metric units, while grid coordinates are in the NAD 83, Zone 16 UTM system.

14.3 DATA VERIFICATION

Verification of assay database records was performed by P&E against independently acquired laboratory electronic certificates from Acme. As shown in Table 14.2, a total 81% of the entire assay database was checked, of which 9,703 assays were validated during a previous P&E

resource estimate, while 11,791 assays were validated during this estimate. No errors were discovered in the assay database.

P&E typically also validates a mineral resource database by checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields. No significant validation errors were noted. P&E believes that the supplied database is suitable for mineral resource estimation.

TABLE 14.2
ASSAY DATABASE VALIDATION

Year of Validation	# of Assays	# of Checked Assays	% of Validated Assays
2013	13,844	9,703	70%
2014	12,810	11,791	92%
Total	**26,654**	**21,494**	**81%**

14.4 DOMAIN INTERPRETATION

Eleven (11) mineralization domain wireframes were developed during the course of this mineral resource estimate. Domain models were generated from successive polylines oriented perpendicular to the strike of the mineralization of the deposit. Mineralization domains were defined by continuous mineralized structures along strike and down dip, and assay intervals equal to or greater than 0.75 g/t AuEq for the potential open pit mining area, and 2.0 g/t AuEq for the potential underground mining area using an optimized pit shell as a guideline. In some cases mineralization below the above mentioned cut-offs was included for the purpose of maintaining zonal continuity. On each cross-section, polyline interpretations were digitized from drill hole to drill hole but not typically extended more than 25 m into untested territory. Minimum constrained sample length for interpretation was 1.5 m. The resulting domains were used as constraining boundaries during resource estimation, for rock coding, statistical analysis and compositing limits. The 3D domains are presented in Appendix II.

P&E created 3D solids of voids for historical mined areas by digitizing a longitudinal section of the historical mined area of San Albino. Topographic and Oxide surfaces were provided by Golden Reign.

14.5 ROCK CODE DETERMINATION

A unique rock code was assigned for each mineralized domain solid in the resource model. The domain volumes and rock codes utilized for the resource modeling are tabulated in Table 14.3.

TABLE 14.3 MODEL ROCK CODE DESCRIPTION AND VOLUME		
Domain	**Model Code**	**Volume (m^3)**
Arras-SE	100	946,945
Arras-NW	110	84,704
Naranjo-SE	200	267,291
Naranjo-NW	210	80,584
SA-SE	300	480,231
SA-NW	310	183,236
Jobo-SE	400	55,718
Jobo-NW	410	31,606
Misc1	510	53,511
Misc2	520	15,872
Misc3	530	11,005
Air	0	
Oxide	10	
Sulphide	20	
Waste	99	
Voids	999	

14.6 COMPOSITING

The basic statistics of all constrained assays and sample lengths are presented in Table 14.4.

TABLE 14.4 BASIC STATISTICS OF ALL CONSTRAINED ASSAYS AND SAMPLE LENGTHS			
Variable	**Au Assay g/t**	**Ag Assay g/t**	**Length m**
Number of samples	2,200	2,108	2,200
Minimum value	0.002	0.05	0.20
Maximum value	234.19	3086.20	3.00
Mean	6.07	13.50	1.32
Variance	232.13	5056.91	0.24
Standard Deviation	15.24	71.12	0.49
Coefficient of variation	2.51	5.27	0.37

Approximately 39% of the constrained sample lengths were 1 m, with an overall average of 1.32 m (Table 14.5). In order to regularize the assay sampling intervals for grade interpolation, a one m compositing length was selected for the drill hole intervals that fell within the constraints of the above-mentioned domains. The composites were calculated for Au and Ag over 1.0 m lengths starting at the first point of intersection between assay data hole and hanging wall of the 3-D zonal constraint. The compositing process was halted upon exit from the footwall of the aforementioned constraint. Un-assayed intervals and below detection limit assays were set to 0.001 g/t for both Au and Ag. Any composites that were less than 0.25 m in length were discarded so as not to introduce any short sample bias in the interpolation process. The constrained composite data were extracted to point files for a capping study. The composite statistics are summarized in Table 14.5.

Figure 14.1 Constrained Sample Length Distribution

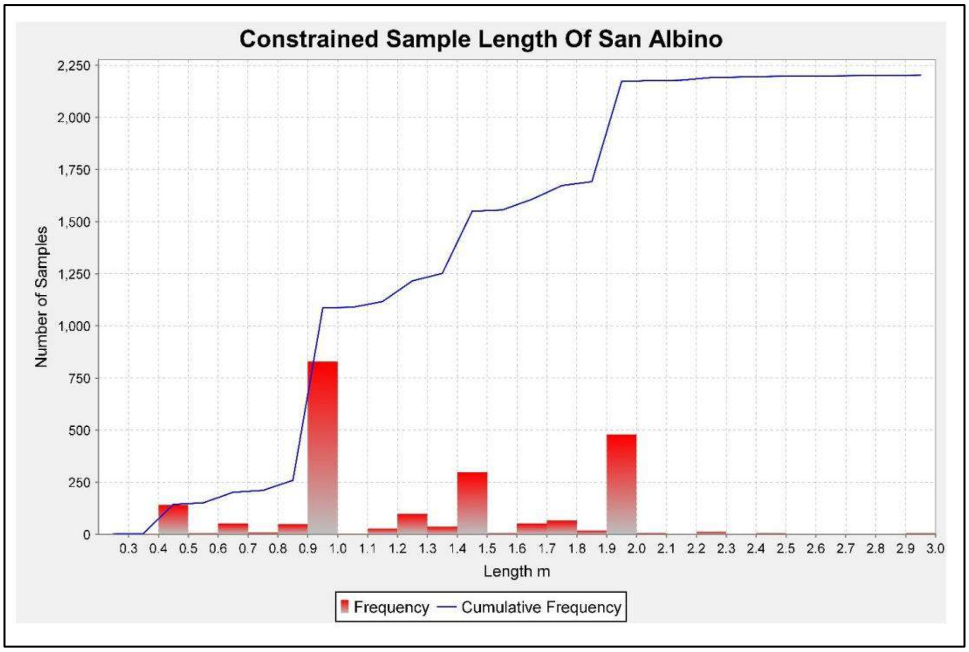


TABLE 14.5 COMPOSITE SUMMARY STATISTICS				
Variable	**Au Composites**	**Ag Composites**	**Au Capped Composites**	**Ag Capped Composites**
Number of samples	3,210	3,210	3,210	3,210
Minimum value	0.001	0.001	0.001	0.001
Maximum value	212.68	3085.80	85.00	130.00
Mean	5.26	11.46	5.00	10.18
Variance	173.24	3437.58	125.53	391.36
Standard Deviation	13.16	58.63	11.20	19.78
Coefficient of variation	2.50	5.12	2.24	1.94

14.7 GRADE CAPPING

Grade capping was investigated on the 1.0 m composite values in the database within the constraining domains to ensure that the possible influence of erratic high values did not bias the database. Au composite Log-normal histograms were generated for each mineralized domain and the resulting graphs are exhibited in Appendix III. The Au and Ag grade capping values are detailed in Table 14.6 and 14.7, respectively. A total of 30 Au composites and 21 Ag composites were capped. The capped composites were utilized to develop variograms by domain and for block model grade interpolation.

TABLE 14.6
AU GRADE CAPPING VALUES

Domains	Total # of Composites	Capping Value Au (g/t)	# of Capped	Mean of Composites	Mean Capped Composites	CV of Composites	CV of Capped Composites	Percentile
Arras-SE	1,837	85	11	5.73	5.43	2.62	2.29	99.4%
Arras-NW	32	15	1	4.61	3.70	1.71	1.10	96.9%
Naranjo-SE	136	NA	0	3.06	3.06	1.54	1.54	100.0%
Naranjo-NW	31	40	2	12.14	10.33	1.43	1.16	93.5%
SA-SE	751	60	7	5.10	5.02	2.16	2.10	99.1%
SA-NW	100	60	1	6.76	6.66	1.80	1.75	99.0%
Jobo-SE	287	35	2	2.43	2.32	2.68	2.50	99.3%
Jobo-NW	16	NA	0	1.36	1.36	1.37	1.37	100.0%
Misc1 Misc2 Misc3	20	10	6	10.5	4.57	1.46	0.86	70.0%

TABLE 14.7
AG GRADE CAPPING VALUES

Domains	Total # of Composites	Capping Value Ag (g/t)	# of Capped	Mean of Composites	Mean Capped Composites	CV of Composites	CV of Capped Composites	Percentile
Arras-SE	1,837	130	11	11.20	10.89	2.04	1.90	99.4%
Arras-NW	32	NA	0	12.58	12.58	1.32	1.32	100.0%
Naranjo-SE	136	NA	0	4.93	4.93	1.82	1.82	100.0%
Naranjo-NW	31	60	1	16.78	16.09	1.22	1.16	96.8%
SA-SE	751	125	8	11.09	10.43	2.35	2.10	98.9%
SA-NW	100	NA	0	11.53	11.53	1.43	1.43	100.0%
Jobo-SE	287	65	1	16.66	6.13	10.92	1.91	99.7%
Jobo-NW	16	NA	0	5.79	5.79	1.30	1.30	100.0%
Misc1 Misc2 Misc3	20	NA	0	13.57	13.57	1.05	1.05	100.0%

14.8 SEMI-VARIOGRAPHY

A semi-variography study was performed as a guide to determining a grade interpolation search strategy. Omni, along strike, down dip and across dip semi-variograms were attempted for each domain using capped composites. Selected variograms are attached in Appendix IV.

Based on the analysis of the resulting experimental semi-variograms, a strike search distance of 25 m, a dip search distance of 25 m, and a cross-strike search distance of 10 m were selected as appropriate ranges for the Indicated mineral resource estimation classification. Continuity ellipses based on the observed ranges were subsequently generated and used as the basis for estimation search ranges, distance weighting calculations and mineral resource classification criteria. Anisotropy was modeled based on an average strike direction of 40°, -22° NW down dip.

14.9 BULK DENSITY

A total of 568 bulk density measurements from 119 drill holes were provided by Golden Reign. Average bulk densities of 2.45 t/m^3 and 2.70 t/m^3 were utilized for oxide and sulphide mineralization respectively for this resource estimate.

14.10 BLOCK MODELING

The San Albino resource block model was constructed using Geovia GEMS V6.6 modelling software and the block model origin and block size are tabulated in Table 14.8. The block models were rotated in order to orient the Y axis parallel to the trend of the domains. The block model consists of separate models for estimated grade, rock type, percent, bulk density and classification attributes.

TABLE 14.8
BLOCK MODEL DEFINITION

Direction	Origin	# of Blocks	Block Size (m)
X	596,400	606	2
Y	1,513,400	218	6
Z	670	210	2
Rotation	40° Clockwise		

All blocks in the rock type block model were initially assigned a waste rock code of 99, corresponding to the surrounding country rocks. All mineralized domains were used to code all blocks within the rock type block model that contain by volume at least 1 % or greater volume within the domains. These blocks were assigned their appropriate individual rock codes as indicated in Table 14.2. The topographic surface was subsequently utilized to assign rock code 0, corresponding to air, to all blocks 50% or greater above the surface. The Oxide surface was subsequently coded to 10 for Oxide mineralization blocks which were 50% or greater above the surface, and 20 for Sulphide mineralization blocks which were at least 50% below the surface.

A volume percent block model was set up to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining domains. As a result, the domain boundary was properly represented by the volume percent model ability to measure individual infinitely variable block inclusion percentages within that domain. The minimum percentage of the mineralized block was set to 1%. The Void solids were utilized to deplete the resource model volume with the historical mined areas in Domain SA_SE by selecting 1% as the minimum percent of block inside the Void solids. The percentage model used for this resource estimation was derived from the subtraction of the domain percent and the void percent. If the volume percent value of any block contained by volume less than 1%, it was coded to 0%.

A bulk density of 2.45 t/m^3 was initialized to Oxide mineralization blocks inside of the pit shell and 2.5 t/m^3 to Oxide blocks outside of the pit; while 2.7 t/m^3 was assigned to all sulphide mineralization blocks.

Au and Ag grade blocks were interpolated with Inverse Distance Cubed using capped composites. Multiple passes were executed for the grade interpolation to progressively capture the sample points in order to avoid over smoothing and preserve local grade variability. Search ranges were based on the variograms and search directions which were aligned with the strike and dip directions of each domain respectively. Grade blocks were interpolated using the following parameters in Table 14.9.

TABLE 14.9
AU & AG BLOCK MODEL INTERPOLATION PARAMETERS

Pass	Dip Range (m)	Strike Range (m)	Across Dip Range (m)	Max # of Sample per Hole	Min # Sample	Max # Sample	% of Blocks Interpolated
I	15	15	6	2	5	20	4
II	25	25	10	2	3	20	13
III	100	100	40	2	1	20	83

Selected cross-sections and plans of the Au grade blocks are presented in Appendix V.

The Au equivalent blocks ("AuEq") were manipulated using formula AuEq = Au + (Ag/92) for Oxide Mineralization and AuEq = Au + (Ag/67) for Sulphide Mineralization.

14.11 RESOURCE CLASSIFICATION

In P&E's opinion, the drilling, assaying and exploration work of the San Albino Project supporting this mineral resource estimate are sufficient to indicate a reasonable potential for economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The mineral resources were classified as Indicated and Inferred based on the geological interpretation, semi-variogram performance and drill hole spacing. The Indicated resources were defined for the blocks interpolated by the grade interpolation Pass I and II in Table 14.9, which used at least 3 composites from a minimum of two holes; and Inferred resources were categorized for all remaining grade populated blocks within the mineralized domains. The classifications of Indicated and Inferred resources have been adjusted to reasonably reflect the distribution of each category. Selected classification block cross-sections and plans are attached in Appendix VI.

14.12 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimate was derived from applying an AuEq cut-off grade to the block model and reporting the resulting tonnes and grade for potentially mineable areas. The following calculation demonstrates the rationale supporting the AuEq cut-off grade that determines the open pit and underground potentially economic portions of the constrained mineralization.

<u>Open Pit AuEq Cut-Off Grade Calculation</u>

Au Price	US$1,404/oz based on two year trailing average at Sep 30/14
Ag Price	US$23.47/oz based on two year trailing average at Sep 30/14
Au Recovery	91%
Ag Recovery	59%
Process Cost (1,000 tpd)	US$24.73/tonne milled
General & Administration	US$3.00/tonne milled
Au Refining US$/oz	US$12.00
Au Smelter Payable	99.8%

Therefore, the AuEq cut-off grade for the open pit resource estimate is calculated as follows:

Process and G&A costs per tonne of mill feed = ($24.73 + $3) = $27.73/tonne

($27.73)/[(($1,404-12)/oz/31.1035 x 91% Recovery x 99.8% Payable)] =0.68, Use 0.75 g/t

<u>Underground AuEq Cut-Off Grade Calculation</u>

Au Price	US$1,404/oz a based on two year trailing average at Sep 30/14
Ag Price	US$23.47/oz based on two year trailing average at Sep 30/14
Au Recovery	95%
Ag Recovery	91%
Mining Cost	US$50.00/tonne mined
Process Cost (1,000 tpd)	US$24.73/tonne milled
General & Administration	US$3.00/tonne milled
Au Refining US$/oz	US$12.00
Au Smelter Payable	99.8%

Therefore, the AuEq cut-off grade for the underground resource estimate is calculated as follows:

Mining, Processing G&A costs per tonne of mill feed = ($50 + $24.73 + $3) = $77.73/tonne

[($77.73)/[($1,404-12)/oz/31.1035 x 95% Recovery x 99.8% Payable] = 1.83 Use 2.0 g/t

Pit Optimization Parameters

In order to report the mineral resources, the resource model was further investigated with pit optimizations to ensure a reasonable stripping ratio was applied and a reasonable assumption of potential economic extraction could be made (See pit shell in Appendix VII). The open pit resource was then reported inside this constraining pit shell. The following parameters were utilized in the pit optimizations:

Au Price	US$1,400/oz
Au Recovery	91%
Ag recovery	59%
Mineralized Material Mining Cost	US$3.00/tonne mined
Waste Rock Mining Cost	US$3.00/tonne mined
Process Cost	US$24.73/tonne milled
General/Administration	US$3/tonne milled
Au Refining $/oz	US$12.00
Au Smelter Payable	99.8%
Pit Slopes	45 degrees

14.13 RESOURCE ESTIMATE STATEMENT

The resulting resource estimate is tabulated in Table 14.10. P&E considers that the gold and silver mineralization comprising the San Albino Deposit is potentially amenable to open pit and underground extraction.

14.14 MINERAL RESOURCE ESTIMATE SENSITIVITY

Mineral resources are sensitive to the selection of a reporting AuEq cut-off grade. The sensitivities of the AuEq cut-off are demonstrated in Table 14.11 and 14.12 for the San Albino open pit and underground, respectively.

TABLE 14.10 MINERAL RESOURCE ESTIMATE STATEMENT(1-5)										
	Zone	**CLASS**	**Cut-off**	**Tonnage**	**Au**	**Contained Au**	**Ag**	**Contained Ag**	**AuEq**	**Contained AuEq**
			AuEq g/t	**Tonnes**	**g/t**	**oz**	**g/t**	**oz**	**g/t**	**oz**
In-pit	Oxide	Indicated	0.75	485,000	6.26	97,700	12.9	200,700	6.40	99,900
		Inferred	0.75	313,000	5.05	50,900	9.5	95,600	5.16	51,900
	Sulphide	Indicated	0.75	171,000	9.59	52,700	12.2	67,000	9.77	53,700
		Inferred	0.75	567,000	7.74	141,100	10.82	197,700	7.90	144,000
	Sub-Total	Indicated	0.75	656,000	7.13	150,400	12.7	267,700	7.28	153,600
		Inferred	0.75	880,000	6.78	192,000	10.4	293,300	6.93	195,900
Out of pit	Oxide	Indicated	2.0	9,000	3.36	1,000	5.3	1,500	3.41	1,000
		Inferred	2.0	15,000	2.89	1,400	11.8	5,800	3.02	1,500
	Sulphide	Indicated	2.0	13,000	3.57	1,500	6.4	2,700	3.66	1,500
		Inferred	2.0	2,172,000	8.51	594,400	13.7	955,200	8.72	608,700
	Sub-Total	Indicated	2.0	22,000	3.48	2,500	5.9	4,200	3.56	2,500
		Inferred	2.0	2,187,000	8.47	595,800	13.7	961,000	8.68	610,200
Total	**Oxide**	**Indicated**	**0.75/2.0**	**494,000**	**6.21**	**98,700**	**12.7**	**202,200**	**6.35**	**100,900**
		Inferred	**0.75/2.0**	**328,000**	**4.95**	**52,300**	**9.6**	**101,400**	**5.06**	**53,400**
	Sulphide	**Indicated**	**0.75/2.0**	**184,000**	**9.17**	**54,200**	**11.8**	**69,600**	**9.34**	**55,200**
		Inferred	**0.75/2.0**	**2,739,000**	**8.35**	**735,500**	**13.1**	**1,152,900**	**8.55**	**752,700**
	Total	**Indicated**	**0.75/2.0**	**678,000**	**7.01**	**152,900**	**12.5**	**271,800**	**7.16**	**156,100**
		Inferred	**0.75/2.0**	**3,067,000**	**7.99**	**787,800**	**12.7**	**1,254,300**	**8.17**	**806, 100**

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

(2) The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.

(3) The mineral resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.

(4) The volume of the historical mined areas was depleted from the resource estimate.

(5) The Ag:Au ratio used for Oxide Mineralization was 92:1, and 67:1 for Sulphide mineralization

Table 14.11
San Albino In-pit Sensitivity to Resource Estimate

Zone	CLASS	Cut-off AuEq g/t	Tonnage Tonnes	Au g/t	Contained Au oz	Ag g/t	Contained Ag oz	AuEq g/t	Contained AuEq oz
OXIDE	Indicated	5.0	228,456	10.49	77,031	19.34	142,061	10.70	78,575
		4.5	248,498	10.01	80,012	18.68	149,257	10.22	81,634
		4.0	271,049	9.53	83,014	17.97	156,562	9.72	84,715
		3.5	291,344	9.12	85,390	17.32	162,254	9.30	87,153
		3.0	317,920	8.62	88,092	16.48	168,465	8.80	89,923
		2.5	354,976	8.00	91,255	15.49	176,794	8.16	93,176
		2.0	393,675	7.43	93,983	14.59	184,651	7.58	95,990
		1.5	427,590	6.97	95,786	14.08	193,543	7.12	97,890
		1.0	463,413	6.52	97,149	13.31	198,298	6.67	99,305
		0.75	485,404	6.26	97,741	12.86	200,692	6.40	99,923
		0.50	512,463	5.96	98,254	12.30	202,651	6.10	100,456
		0.25	538,861	5.69	98,559	11.77	203,979	5.82	100,776
		0.001	610,968	5.03	98,775	10.47	205,633	5.14	101,010
	Inferred	5.0	128,484	8.25	34,066	14.54	60,063	8.40	34,719
		4.5	146,421	7.81	36,751	13.72	64,566	7.96	37,453
		4.0	164,879	7.40	39,225	12.99	68,861	7.54	39,973
		3.5	191,885	6.88	42,419	12.18	75,147	7.01	43,235
		3.0	215,927	6.46	44,875	11.51	79,913	6.59	45,744
		2.5	242,732	6.05	47,180	10.91	85,110	6.16	48,106
		2.0	263,834	5.74	48,678	10.47	88,810	5.85	49,643
		1.5	286,841	5.41	49,901	10.07	92,902	5.52	50,911
		1.0	306,625	5.14	50,697	9.65	95,151	5.25	51,731
		0.75	313,041	5.05	50,873	9.49	95,553	5.16	51,912
		0.50	320,148	4.96	51,015	9.33	96,024	5.06	52,058
		0.25	326,225	4.87	51,083	9.18	96,239	4.97	52,129
		0.001	345,744	4.60	51,143	8.69	96,632	4.70	52,193
Sulphide	Indicated	5.0	105,192	13.88	46,947	16.26	54,989	14.12	47,767
		4.5	111,414	13.36	47,871	15.76	56,440	13.60	48,713
		4.0	116,727	12.94	48,578	15.37	57,679	13.17	49,439
		3.5	124,282	12.38	49,458	14.84	59,304	12.60	50,343
		3.0	132,928	11.78	50,342	14.23	60,810	11.99	51,250
		2.5	143,787	11.09	51,263	13.74	63,508	11.29	52,211
		2.0	154,090	10.49	51,985	13.11	64,926	10.69	52,954
		1.5	161,939	10.07	52,405	12.69	66,085	10.25	53,392
		1.0	167,574	9.77	52,624	12.39	66,733	9.95	53,620
		0.75	170,972	9.59	52,716	12.19	66,984	9.77	53,715
		0.50	174,430	9.41	52,782	11.99	67,219	9.59	53,785
		0.25	178,193	9.22	52,824	11.76	67,363	9.40	53,829
		0.001	185,215	8.87	52,845	11.33	67,471	9.04	53,852
	Inferred	5.0	349,808	10.49	117,991	14.62	164,418	10.71	120,445
		4.5	382,305	10.00	122,862	13.92	171,088	10.20	125,415
		4.0	414,958	9.53	127,205	13.32	177,650	9.73	129,857
		3.5	471,270	8.84	133,900	12.29	186,207	9.02	136,679
		3.0	501,406	8.50	137,003	11.82	190,510	8.68	139,847
		2.5	519,515	8.30	138,573	11.56	193,125	8.47	141,455
		2.0	536,947	8.10	139,813	11.30	195,039	8.27	142,724
		1.5	547,657	7.97	140,399	11.15	196,257	8.14	143,328
		1.0	561,879	7.80	140,943	10.92	197,352	7.97	143,889
		0.75	567,051	7.74	141,087	10.84	197,686	7.90	144,038
		0.50	569,937	7.70	141,142	10.80	197,851	7.86	144,095
		0.25	573,562	7.66	141,184	10.74	198,018	7.82	144,140
		0.001	577,898	7.60	141,196	10.66	198,104	7.76	144,153

Table 14.12 San Albino Underground Sensitivity to Resource Estimate									
Zone	**CLASS**	**Cut-off AuEq g/t**	**Tonnage Tonnes**	**Au g/t**	**Contained Au oz**	**Ag g/t**	**Contained Ag oz**	**AuEq g/t**	**Contained AuEq oz**
OXIDE	Indicated	5.0	729	11.33	266	20.78	487	11.56	271
		4.5	808	10.67	277	19.66	511	10.88	283
		4.0	1,193	8.56	328	15.29	587	8.73	335
		3.5	1,841	6.84	405	11.36	673	6.97	412
		3.0	2,772	5.62	500	9.03	804	5.71	509
		2.5	4,931	4.33	686	6.88	1,091	4.40	698
		2.0	8,980	3.36	969	5.28	1,525	3.41	986
		1.5	17,378	2.54	1,420	4.26	2,379	2.59	1,446
		1.0	32,944	1.92	2,030	3.79	4,011	1.96	2,074
		0.75	43,401	1.66	2,315	3.39	4,727	1.70	2,366
		0.50	60,104	1.36	2,630	2.89	5,589	1.39	2,691
		0.25	112,562	0.89	3,214	2.29	8,301	0.91	3,304
		0.001	215,692	0.51	3,514	1.49	10,339	0.52	3,626
	Inferred	5.0	1,057	8.16	277	9.33	317	8.26	281
		4.5	1,375	7.33	324	9.35	413	7.43	329
		4.0	1,582	6.91	351	9.27	472	7.01	356
		3.5	2,713	5.53	483	9.89	863	5.64	492
		3.0	4,668	4.51	676	11.29	1,694	4.63	695
		2.5	6,978	3.87	867	12.99	2,915	4.01	899
		2.0	15,260	2.89	1,419	11.84	5,809	3.02	1,482
		1.5	32,021	2.28	2,349	8.54	8,794	2.37	2,444
		1	52,772	1.86	3,154	6.19	10,511	1.93	3,268
		0.75	76,660	1.54	3,801	4.82	11,880	1.59	3,930
		0.50	96,678	1.35	4,197	4.24	13,184	1.40	4,340
		0.25	126,708	1.11	4,505	3.61	14,721	1.15	4,665
		0.001	221,940	0.69	4,926	2.40	17,144	0.72	5,113
Sulphide	Indicated	5.0	2,091	7.04	473	14.97	1,006	7.26	488
		4.5	2,373	6.75	515	14.31	1,092	6.96	531
		4.0	3,114	6.12	612	12.49	1,251	6.30	631
		3.5	4,817	5.23	810	9.96	1,543	5.38	833
		3.0	6,958	4.60	1,028	8.36	1,871	4.72	1,056
		2.5	9,289	4.11	1,229	7.40	2,209	4.22	1,262
		2.0	12,892	3.57	1,479	6.40	2,653	3.66	1,518
		1.5	24,167	2.68	2,081	4.62	3,586	2.75	2,134
		1.0	38,818	2.14	2,665	3.60	4,495	2.19	2,732
		0.75	44,020	1.98	2,807	3.39	4,798	2.03	2,879
		0.50	50,684	1.80	2,934	3.17	5,165	1.85	3,011
		0.25	59,916	1.58	3,035	2.84	5,469	1.62	3,116
		0.001	130,897	0.74	3,121	1.52	6,393	0.76	3,217
	Inferred	5.0	1,137,690	13.37	489,080	19.39	709,083	13.66	499,663
		4.5	1,239,660	12.65	504,159	18.53	738,684	12.93	515,184
		4.0	1,372,062	11.83	521,678	17.50	771,870	12.09	533,198
		3.5	1,553,645	10.87	542,843	16.38	818,254	11.11	555,056
		3.0	1,738,955	10.04	561,498	15.46	864,427	10.27	574,399
		2.5	1,919,695	9.35	576,908	14.66	904,623	9.57	590,410
		2.0	2,171,797	8.51	594,402	13.68	955,220	8.72	608,659
		1.5	2,473,626	7.66	609,429	13.81	1,097,939	7.87	625,816
		1	2,756,794	7.00	620,003	12.89	1,142,701	7.19	637,059
		0.75	2,900,489	6.69	623,902	12.38	1,154,544	6.88	641,134
		0.50	3,026,885	6.44	626,336	11.95	1,162,557	6.61	643,688
		0.25	3,154,304	6.19	627,784	11.51	1,167,126	6.36	645,203
		0.001	3,478,313	5.62	628,694	10.49	1,172,923	5.78	646,200

14.15 CONFIRMATION OF ESTIMATE

The block model was validated using a number of industry standard methods including visual and statistical methods.

Visual examination of composite and block grades on successive plans and cross-sections on-screen in order to confirm that the block model correctly reflects the distribution of sample grades.

Review of estimation parameters including:

- Number of composites used for estimation;
- Number of holes used for estimation;
- Mean Distance to sample used;
- Number of passes used to estimate grade; and
- Mean value of the composites used.

Comparison of Au mean grades of composites with block model, as presented in Table 14.13.

TABLE 14.13
STATISTICAL COMPARISON OF COMPOSITES WITH BLOCK MODEL

Data Type	Au g/t	Variance	Standard Deviation	Coefficient of Variation
Composites	5.26	173.24	13.16	2.50
Capped Composites	5.00	125.53	11.20	2.24
Block Model ID^3 (1)	5.02	44.26	6.65	1.33
Block Model NN (2)	5.04	30.34	5.51	1.09

(1) block model grade interpolated using Inverse Distance Cubed
(2) block model grade interpolated using Nearest Neighbour

The comparison above shows the average grades of all the Au blocks in the block models to be similar as that of capped composites used for grade estimation.

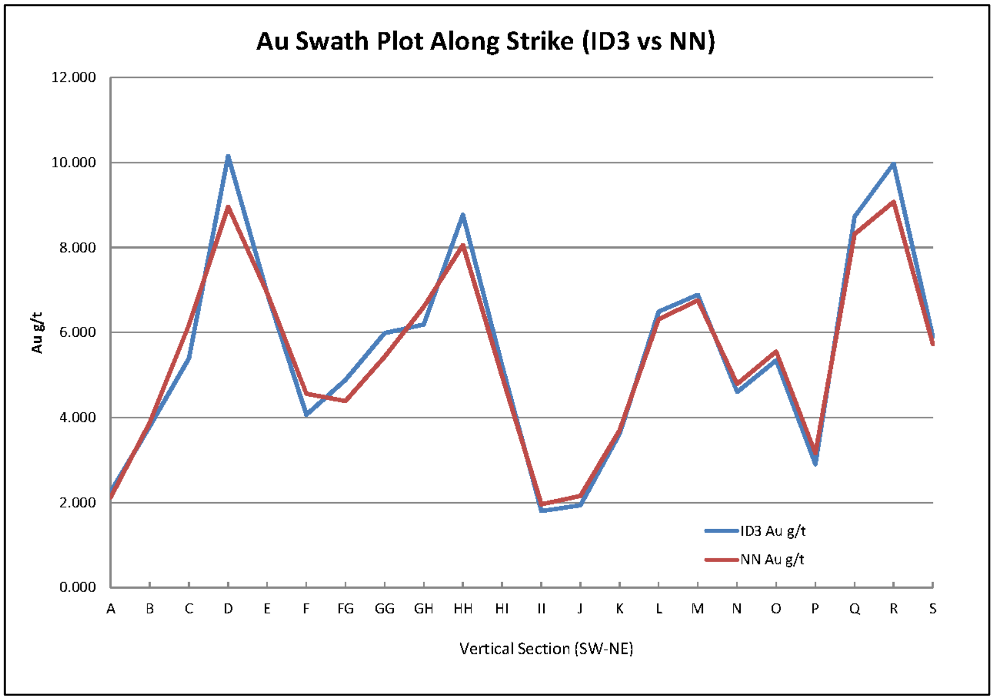
A volumetric comparison was performed with the block model volume versus the geometric calculated volume of the domain solids and the differences are detailed in Table 14.14.

TABLE 14.14
VOLUME COMPARISON OF BLOCK MODEL WITH GEOMETRIC SOLIDS

Geometric Volume of Wireframes	2,210,703 m^3
Block Model Volume	2,210,709 m^3
Difference %	0.0%

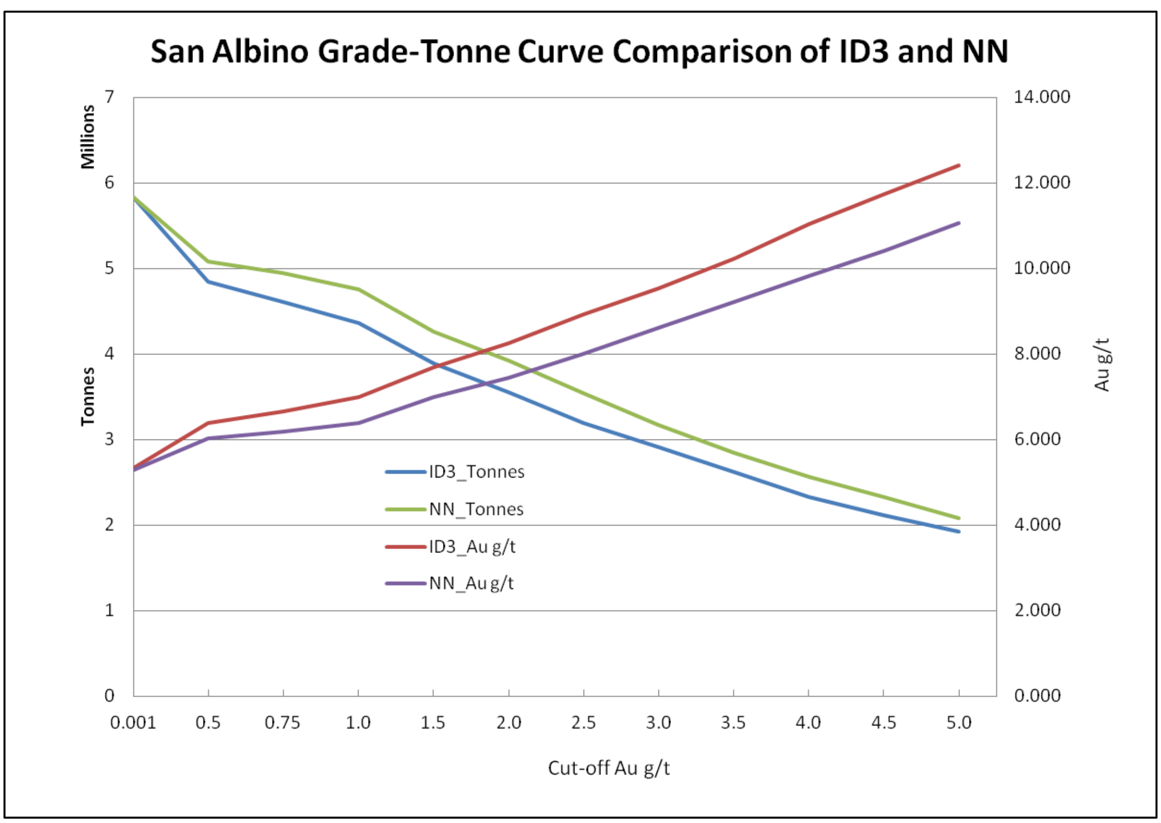
Local trends were evaluated by comparing the ID^3 block estimates to a Nearest Neighbour estimate ("NN") at zero cut-off along the strike of the San Albino Deposit (Figure 14.2). In general the ID^3 block estimates are in good agreement with the NN estimates.

Figure 14.2 San Albino Au Grade Swath Plot along Strike



Comparison of Au grade models interpolated with Inverse Distance cubed and NN on global resource basis. Figure 14.3 present the grade-tonnage curve for comparison.

Figure 14.3 San Albino Au Grade Tonnage Comparisons for NN and ID^3 Interpolation



14.16 EXPLORATION TARGET

P&E considers that there exists the potential to add resources through additional in-fill and step out drilling and has identified an Exploration Target beyond the resource estimate (along strike and down dip) with an estimated 3 to 5 million tonnes at a grade between 6 to 10 grams gold equivalent per tonne. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to define a mineral resource, and it is uncertain if further exploration will result in discovery of a mineral resource.

15.0 MINERAL RESERVE ESTIMATES

There are no mineral reserves for the San Albino Project.

According to NI 43-101 guidelines, a Preliminary Economic Assessment is considered preliminary in nature and includes the use of Inferred resources which are considered too speculative geologically to apply economic considerations that would enable them to be categorized as mineral reserves.

16.0 MINING METHODS

The San Albino Property contains several gold-silver zones, some of which were partially mined in the past using underground methods. The Property contains zones near surface, thereby lending themselves to conventional open pit mining methods. As the gold zones trend deeper and the open pit strip ratios increase, underground mining methods will be used for production.

The open pit and underground mining operations have been scheduled assuming the mining of three different materials (oxide mill feed, sulphide mill feed, waste rock), all of which are tracked in the production schedule. Table 16.1 presents a summary of the life-of-mine ("LOM") mill feed tonnage derived from the open pit and the underground operations. Over the 31 year life of the Project the bulk of the mill feed tonnage (67%) will come from underground mining. The proposed milling rate is about 91,000 tonnes per year (250 tpd), hence the open pits would provide about eleven years of mill feed before underground mining is required.

- Oxide Mill Feed: is mineralized oxide rock above cut-off grade that will be delivered to a centrally located CIL processing plant.
- Sulphide Mill Feed: is mineralized sulphide rock above cut-off grade, which will be delivered to the same CIL plant.
- Waste Rock: is barren or low grade material placed into nearby waste rock dumps. No distinguishing is made between oxide or sulphide rock waste.

TABLE 16.1
MILL FEED TONNAGE SUMMARY

Open Pit Mining	**Mill Feed (diluted kt)**	**Au Grade (g/t diluted)[1]**	**Ag Grade (g/t diluted)[1]**	**AuEq Grade (g/t diluted)[1]**	**Contained Gold (ounces)**	**Contained Silver (ounces)**	**Contained AuEq (ounces)**
Indicated	566.5	6.84	12.68	6.99	124,500	231,000	127,300
Inferred	354.0	7.00	11.47	7.14	79,700	130,500	81,300
Underground Mining	**Mill Feed (diluted kt)**	**Au Grade (g/t diluted)[2]**	**Ag Grade (g/t diluted)[2]**	**AuEq Grade (g/t diluted)[2]**	**Contained Gold (ounces)**	**Contained Silver (ounces)**	**Contained AuEq (ounces)**
Indicated	31.1	9.12	10.94	9.26	9,100	11,000	9,300
Inferred	1,820.4	8.33	12.63	8.49	487,700	739,300	496,600

(1) The dilution grade is estimated to be 1.07 g/t Au and 4.3 g/t Ag applied to all pits, with in-pit dilution tonnage ranging from 27-46% depending on the lens width, and an mining loss factor of 3% for all pits.
(2) The dilution grade is estimated to be 0.68 g/t Au and 2.5 g/t Ag on underground dilution of 20% with underground recovery estimated at 76.5% for stopes, and zero dilution and 100% recovery in development drives.

16.1 OPEN PIT MINING

For the open pit portion of the production schedule, four separate open pits will be developed over the life of the Project.

The design of the open pits requires several steps which are listed below:

- Run Lerchs-Grossman pit optimizations to examine the optimal pit shells to be used for mine design;
- Design operational pits with ramps and benches based on the selected pit shells; and
- Develop an open pit production schedule, based on supplying 91,000 tonnes per year of mill feed to the process plant. The production schedule is based on diluted tonnages and grades.

16.1.1 Pit Optimizations

A single geological resource model containing all gold zones was developed for the Project. A series of Lerchs-Grossman pit optimizations were completed on the resource block model using the CAE Mining NPV Scheduler software package. This optimization process produces a series of nested pit shells each containing mineralized material that is economically mineable according to a given set of physical and economic parameters. An examination of the nested shells provided guidance on optimal size for the open pit design.

The pit optimizations were run using the parameters and preliminary costs shown in Table 16.2. The production basis for the original pit optimization was 350 tpd; however, subsequently the decision was made to use a 250 tpd production rate for the PEA. It is not critical whether 250 tpd or 350 tpd is the basis for optimization. As discussed below, the fully optimized 350 tpd pit shell (i.e. 100% revenue factor) was not selected as the basis for the pit design, and a smaller pit shell was actually used (55% revenue factor pit). A base case gold price (i.e. 100% revenue factor) of $US1,250/oz and $US20/oz for silver were used along with an overall pit wall slope of 45°. The optimization analysis included both Indicated and Inferred resources.

Table 16.2
Pit Optimization Parameters

Description	Units	Oxide	Sulphide
Throughput rate	tpd	350	350
Plant Availability	%	93.0%	93.0%
Annual Capacity	tpy	119,000	119,000
Gold Price	US$/oz	1,250	1,250
Silver Price	US$/oz	20	20
OP Waste Mining Cost	US$/t material	3.00	3.00
OP Mill Feed Mining Cost	US$/t mill feed	3.00	3.00
Process Cost	US$/t mill feed	46.00	46.00
G&A Cost	US$/t mill feed	6.70	6.70
G&A Annual Cost	US$M/year	0.80	0.80
Au Process Recovery	%	91.0%	95.0%
Au Smelter Payable	%	99.8%	99.8%
Au Refining Charge	US$/oz	12	12
Ag Process Recovery	%	59.0%	85.0%
Ag Smelter Payable	%	99.8%	99.8%
Ag Refining Charge	US$/oz	0.50	$0.50
Cut-off Grade (g/t Au)	g/t	1.46	1.40
Pit Wall Slope		45°	45°

The results of the optimization are shown in Figure 16.1 and indicated a few interesting trends. Based on a 100% revenue factor (US$1,250/oz gold price), the graph indicates an optimal open pit shell with a mill feed tonnage of 1.5 Mt and an overall average strip ratio of 17:1. This large strip ratio is due to the high mill feed head grades at depth (> 12 g/t Au) which enable high strip ratios to be supported economically. However, inside this large pit shell, the incremental strip ratios are in the range of about 30:1. Assuming an open pit mining cost of US$3.00/t, such an incremental strip ratio equates to an incremental mill feed cost of US$90.00/tonne (US$3.00 x 30:1), which is above the expected underground mining cost of US$60-US$80/tonne. Therefore, a large pit might be selected if no future underground mining is anticipated, due to the quantity and grade of mineralization at depth; however, in this case, underground mining is contemplated. As a result, the costly high strip ratio tonnes were reallocated to the underground operation.

Therefore, for the open pit mine design, the 55% revenue factor pit shell was selected as the design basis. This results in a smaller pit shell with a mill feed tonnage of 0.84 Mt and average strip ratio of 9:1. The 55% optimization shell configuration is shown in Figure 16.2.

Further adjustments were made to the selected pit shell prior to designing the final pits. The pit depth was designed to follow the oxide / sulphide rock interface in order to minimize the underground operation having to mine softer oxide rock. In addition, the northwest wall of the main pit was pushed out further (shown in Figure 16.2) as it was determined that the extension would be more economic to mine by open pit as opposed to underground.

Figure 16.1 Pit Optimization Result

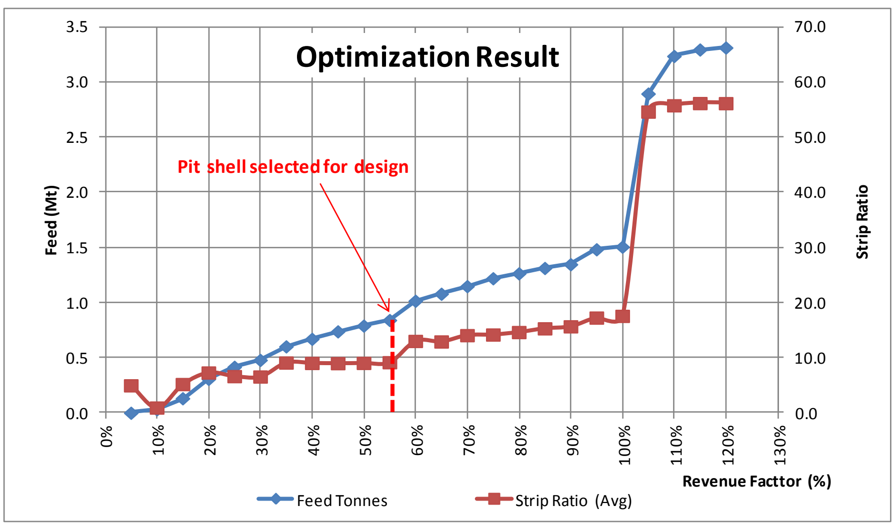
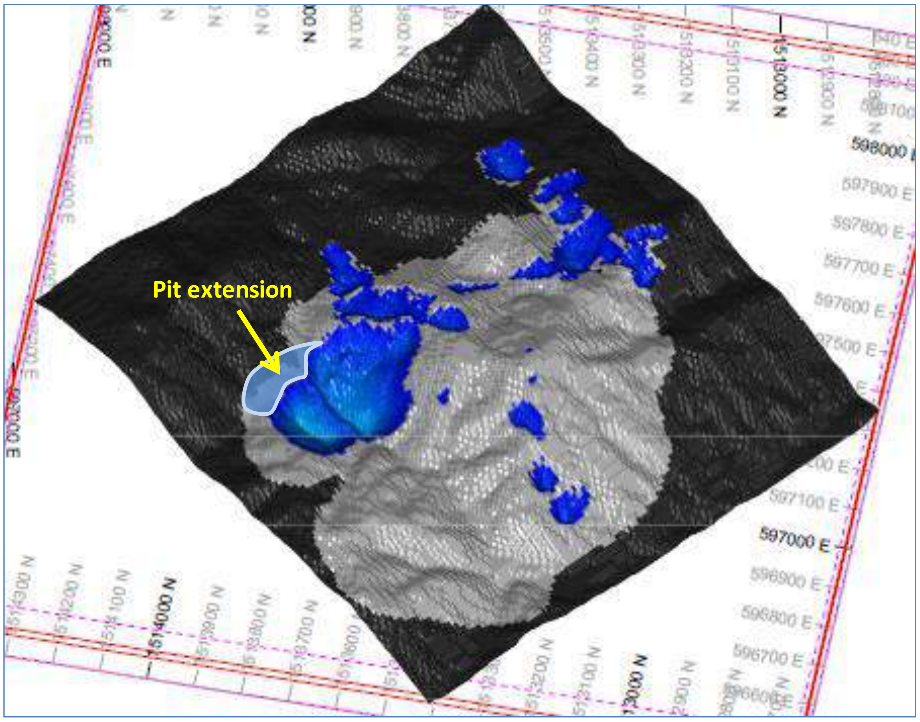


Figure 16.2 55% Revenue Factor Pit Shells



16.1.2 Pit Designs

The pit designs were developed using the optimized shell as a template. Engineering of the pit examined preferred access points along the pit periphery, and then added benches, ramps and haul roads according to the parameters shown in Table 16-3. The final design pits are shown in Figures 16.3 and 16.4. For the production schedule, the large West Pit was sub-divided into two mining phases, at approximately the 564 m elevation.

TABLE 16.3
PIT DESIGN PARAMETERS

Description	Units	Oxide Rock	Sulphide Rock	Notes
Bench Height	m	8.0	8.0	4 m bench double bench
Bench Face Angle	degrees	70	70	
Inter-Ramp Angle	degrees	40	50	
Catch Berm Width	m	6.6	3.8	
Haul road grade (max)	%	10%	10%	
Road width (double)	m	16	16	
Road width (single)	m	9	9	

Figure 16.3 Final Design Pits

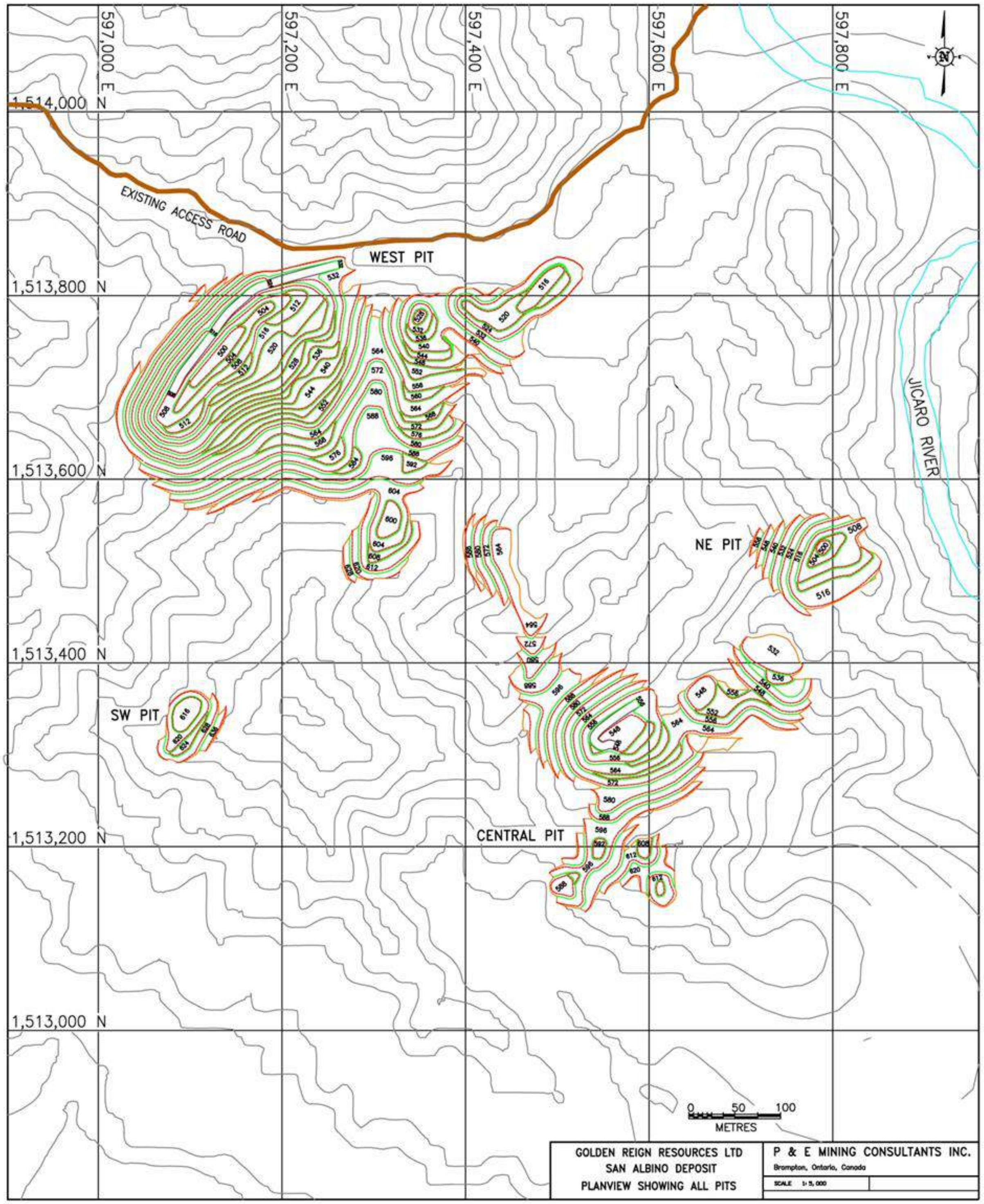
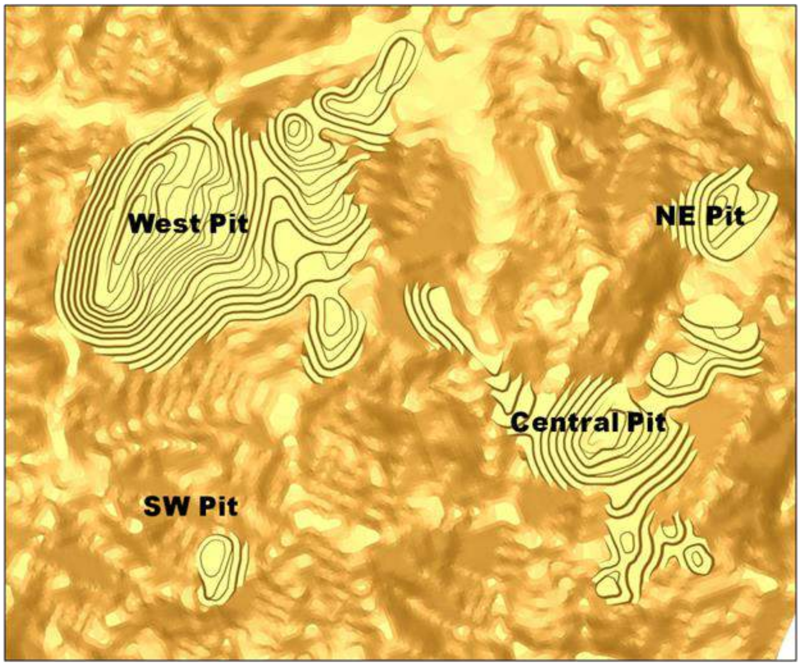


Figure 16.4 Final Design Pits Topography



16.1.2.1 Geotechnical Studies

No pit slope geotechnical site investigations have been completed for this PEA and there are no existing pit slopes on the Property that demonstrate geotechnical performance. Therefore, pits have been designed using P&E's experience with similar rock materials, using a 40° inter-ramp angle in the oxide rock.

16.1.2.2 Hydrogeological Studies

No hydrogeological studies have been completed for the PEA to assess groundwater conditions. However, given that the pits are on the upper slopes, groundwater conditions are expected to be favourable.

16.1.2.3 Open Pit Dilution and Losses

Open pit mineralized production will include waste rock dilution. It was assumed that waste surrounding the mill feed zones would be mixed with the mill feed during mining, thereby causing dilution. In addition, mill feed losses will occur during mining.

In order to estimate the amount of open pit dilution, a 0.60 m thick waste "skin" was estimated to be mined from the adjacent waste overlying and underlying the mineralized zone. The thickness of this skin relative to the thickness of the mill feed zone ultimately determines the amount of dilution and hence it is different for each pit. Dilution was determined for several cross-sections across the pit and then averaged for the entire pit. The narrower the mineralized zone, the more dilution can be expected.

A three dimensional ("3D") solid was created for the waste skin outside the mill feed zone and the diluting grades were estimated within that 3D solid using captured assay composites. These waste grades were be applied as diluting grades, as summarized in Table 16.4.

Mining losses during mining were assumed to be 3% for all pits.

TABLE 16.4
DILUTION PARAMETERS

Pit	Mining Losses	Dilution [1]	Diluting Grade (Au g/t)	Diluting Grade (Ag g/t)
West Pit	3.0%	46%	1.07	4.3
Central Pit	3.0%	27%	1.07	4.3
NE Pit	3.0%	38%	1.07	4.3
SW Pit	3.0%	34%	1.07	4.3

(1) The same dilution parameters were applied to both oxide and sulphide rock mill feed.

The mineralized zones at San Albino are shallow dipping and represent well defined layers, similar to a coal seam. Therefore grade control drilling should be used to precisely define the mineralization and waste contacts. To help reduce dilution, the top and bottom of the mineralized zone should be defined in conjunction with the lateral extent. This can help avoid mining waste from above and below the mineralized zone along with the feed material. Therefore P&E recommends a square drill grid pattern of 5 m with multiple samples collected down each hole (1 m long samples). If one is mining in areas far from or above the mineralized zones, it may be possible to take one composite sample per hole or even omit the sampling entirely if one is certain that area contains only waste material. Regardless, the grade control method will need a period of field testing to optimize the chosen procedure.

16.1.3 Potential Mill Feed Tonnage

After the pit designs were completed, the dilution and loss factors were applied to the tonnage contained within the pit in order to determine the estimated mill feed tonnage and grades. The pit tonnages are summarized in Table 16.5, which also shows the undiluted tonnages to illustrate the impact of dilution. The diluted tonnages are used as the planning basis for the PEA production schedule. Table 16.6 summarizes the mineable tonnage by pit.

16.1.4 Open Pit Production Schedule

The open pit production schedule consists of one year of pre-production pre-stripping and eleven years of open pit production.

The target processing rate is approximately 91,000 tonnes per year or 250 tpd. The total daily mining rates of mill feed and waste combined will peak at about 1,900 t/day or 690,000 tonnes per year.

Table 16.7 presents the detailed open pit mining schedule. This schedule is shown graphically in Figure 16.5, which illustrates how the total peak mining rate is maintained between 600 kt to 700 kt per year. Figure 16.6 present the open pit mill feed supply by year and the estimated head grade. The head grades peaks near the end of the open pit schedule in years 9 to 11 as the West Pit deepens into the higher grade sulphide rock mineralization.

Figure 16.5 Annual Production Profile Graphic (Mill Feed & Waste)

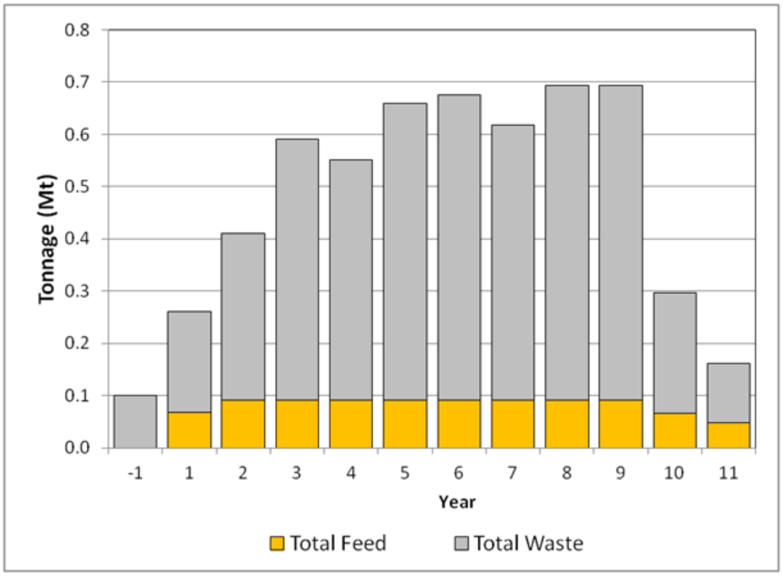


Figure 16.6 Mill Feed Source and Head Grade (Au g/t)

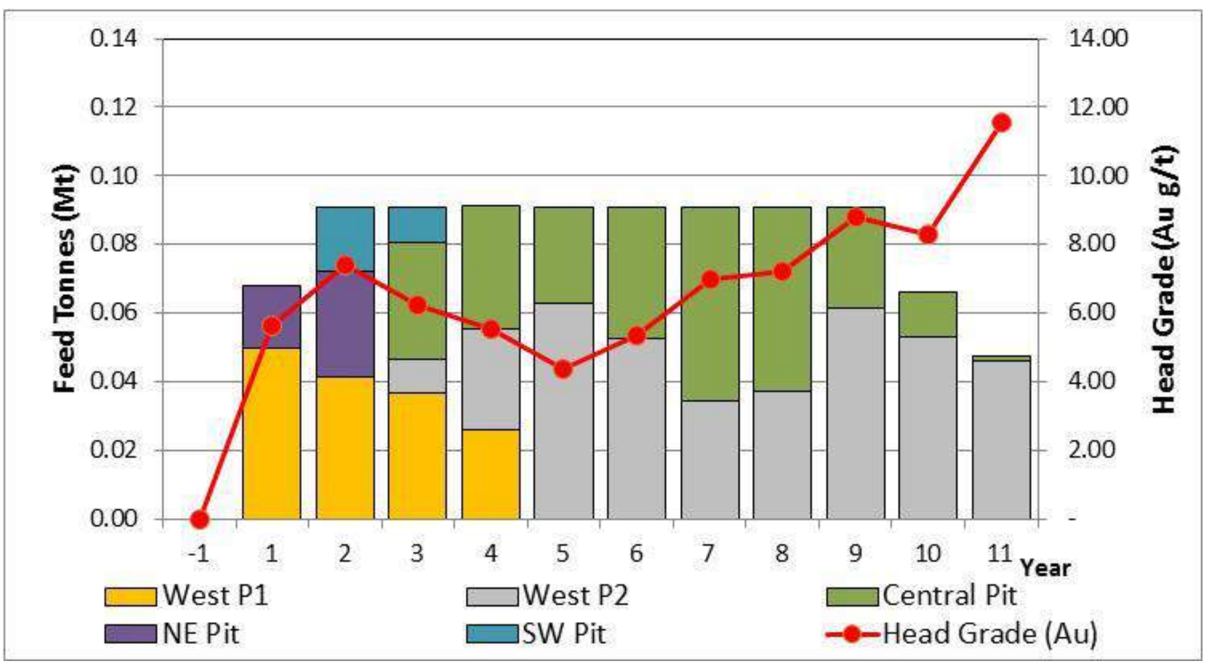


TABLE 16.5
MILL FEED TONNAGE SUMMARY (UNDILUTED AND DILUTED)

Open Pit	Oxide Mill Feed	Au	Ag	Sulphide Mill Feed	Au	Ag	Total Mill Feed	Au	Ag	Waste	Total Material	Strip	Gold
	kt	g/t	g/t	kt	g/t	g/t	kt	g/t	g/t	kt	kt	Ratio	oz
Undiluted	472.6	7.66	14.9	211.8	12.48	16.2	684.4	9.15	15.3	5,048.5	5,732.9	7.7	201,400
Diluted	628.3	5.88	12.0	292.2	9.10	12.7	920.4	6.90	12.2	4,812.4	5,732.9	5.2	204,200

Note: *The potential mill feed tonnages utilized in the PEA contain both Indicated and Inferred resources. The reader is cautioned that Inferred Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that value from such Resources will be realized either in whole or in part.*

TABLE 16.6
MILL FEED TONNAGE BY OPEN PIT

Open Pit	Oxide Mill Feed	Au	Ag	Sulphide Mill Feed	Au	Ag	Total Mill Feed	Au	Ag	Waste	Total Material	Strip
	kt	g/t	g/t	kt	g/t	g/t	kt	g/t	g/t	kt	kt	Ratio
West Phase 1	154.1	6.5	9.9				154.1	6.5	9.9	610.5	764.6	3.96
West Phase 2	158.3	4.3	9.4	239.9	9.9	13.5	398.2	7.7	11.9	3,214.1	3,612.3	8.07
Central Pit	238.4	6.2	13.0	51.8	5.4	8.4	290.2	6.1	12.2	680.3	970.5	2.34
NE Pit	48.4	7.2	18.4	0.5	7.4	19.3	48.9	7.2	18.5	270.3	319.2	5.53
SW Pit	29.0	6.6	18.0				29.0	6.6	18.0	37.2	66.2	1.28
Total	**628.3**	**5.9**	**12.0**	**292.2**	**9.1**	**12.7**	**920.4**	**6.9**	**12.2**	**4,812.4**	**5,732.9**	**5.23**

**Values have been rounded. Totals are accurate summations of the columns.*

TABLE 16.7
OPEN PIT PRODUCTION SCHEDULE

		Totals	-1	1	2	3	4	5	6	7	8	9	10	11	12
West P1															
Total Waste	kt	610.5	12.8	136.2	176.7	227.2	57.6								
Strip ratio	w:o	4.0	-	2.7	4.3	6.2	2.2	-	-	-	-	-	-	-	-
Oxide Mill Feed	kt	154.1		49.8	41.5	36.9	25.9								
Au	g/t	6.46	-	5.09	7.93	4.90	8.95	-	-	-	-	-	-	-	-
Ag	g/t	9.9	-	9.5	11.6	10.4	7.2	-	-	-	-	-	-	-	-
Sulphide Mill Feed	kt														
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Mill Feed	kt	154.1		49.8	41.5	36.9	25.9								
Au	g/t	6.46	-	5.09	7.93	4.90	8.95	-	-	-	-	-	-	-	-
Ag	g/t	9.9	-	9.5	11.6	10.4	7.2	-	-	-	-	-	-	-	-
West P2															
Total Waste	kt	3,214.1				203.5	231.0	471.1	492.7	398.1	524.5	560.3	214.7	109.7	8.5
Strip ratio	w:o	8.1	-	-	-	21.2	7.8	7.5	9.3	11.5	14.1	9.1	4.0	2.4	0.8
Oxide Mill Feed	kt	158.3				9.6	29.5	61.8	34.0	15.1	5.8	2.4	0.1		
Au	g/t	4.29	-	-	-	3.10	3.56	3.61	4.66	7.20	6.58	6.15	4.22	-	-
Ag	g/t	9.4	-	-	-	7.6	7.4	8.3	10.0	15.7	14.6	11.1	7.6	-	-
Sulphide Mill Feed	kt	239.9						1.0	18.8	19.5	31.3	59.3	53.0	46.2	10.7
Au	g/t	9.89	-	-	-	-	-	3.05	6.33	9.01	10.06	10.23	8.86	11.78	12.88
Ag	g/t	13.6	-	-	-	-	-	5.9	10.4	15.0	17.4	16.7	11.1	11.3	10.1
Total Mill Feed	kt	398.2				9.6	29.5	62.8	52.8	34.7	37.1	61.7	53.1	46.2	10.7
Au	g/t	7.66	-	-	-	3.10	3.56	3.60	5.25	8.22	9.52	10.07	8.85	11.78	12.88
Ag	g/t	11.9	-	-	-	7.6	7.4	8.3	10.2	15.3	17.0	16.5	11.1	11.3	10.1
Central Pit		**Totals**													
Total Waste	kt	680.3				47.6	171.2	97.8	92.5	129.6	77.6	43.2	16.1	4.6	
Strip ratio	w:o	2.3	-	-	-	1.4	4.8	3.5	2.4	2.3	1.4	1.5	1.2	3.7	-
Oxide Mill Feed	kt	238.4				34.3	35.8	28.1	37.9	42.1	25.7	20.0	13.2	1.3	
Au	g/t	6.20	-	-	-	8.47	4.73	6.19	5.54	6.33	5.85	6.55	6.12	3.77	-
Ag	g/t	13.0	-	-	-	14.1	7.8	12.2	14.2	16.1	12.8	15.7	9.9	7.1	-
Sulphide Mill Feed	kt	51.8							0.3	14.2	28.1	9.2			
Au	g/t	5.45	-	-	-	-	-	-	2.18	5.80	5.40	5.21	-	-	-
Ag	g/t	8.4	-	-	-	-	-	-	4.4	9.6	8.3	7.3	-	-	-
Total Mill Feed	kt	290.2				34.3	35.8	28.1	38.2	56.3	53.8	29.2	13.2	1.3	
Au	g/t	6.07	-	-	-	8.47	4.73	6.19	5.51	6.20	5.61	6.13	6.12	3.77	-
Ag	g/t	12.2	-	-	-	14.1	7.8	12.2	14.2	14.5	10.4	13.0	9.9	7.1	-
NE Pit		**Totals**	**-1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Total Waste	kt	270.3	86.9	57.0	126.5										

Table 16.7 Open Pit Production Schedule															
Strip ratio	w:o	5.5	-	3.1	4.1	-	-	-	-	-	-	-	-	-	-
Oxide Mill Feed	kt	48.4		18.2	30.2										
Au	g/t	7.25	-	7.14	7.32	-	-	-	-	-	-	-	-	-	-
Ag	g/t	18.5	-	18.1	18.7	-	-	-	-	-	-	-	-	-	-
Sulphide Mill Feed	kt	0.5			0.5										
Au	g/t	7.43	-	-	7.43	-	-	-	-	-	-	-	-	-	-
Ag	g/t	19.3	-	-	19.3	-	-	-	-	-	-	-	-	-	-
Total Mill Feed	kt	48.9		18.2	30.7										
Au	g/t	7.25	-	7.14	7.32	-	-	-	-	-	-	-	-	-	-
Ag	g/t	18.5	-	18.1	18.7	-	-	-	-	-	-	-	-	-	-
SW Pit		**Totals**													
Total Waste	kt	37.2			16.3	21.0									
Strip ratio	w:o	1.3	-	-	0.9	2.1	-	-	-	-	-	-	-	-	-
Oxide Mill Feed	kt	29.0			18.8	10.2									
Au	g/t	6.57	-	-	6.49	6.73	-	-	-	-	-	-	-	-	-
Ag	g/t	18.0	-	-	17.7	18.6	-	-	-	-	-	-	-	-	-
Sulphide Mill Feed	kt														
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Mill Feed	kt	29.0			18.8	10.2									
Au	g/t	6.57	-	-	6.49	6.73	-	-	-	-	-	-	-	-	-
Ag	g/t	18.0	-	-	17.7	18.6	-	-	-	-	-	-	-	-	-
TOTAL		**Totals**	**-1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Total Waste	kt	4,812.5	99.7	193.1	319.4	499.3	459.9	568.9	585.3	527.7	602.1	603.5	230.8	114.3	8.5
Strip ratio	w:o	5.2	-	2.8	3.5	5.5	5.0	6.3	6.4	5.8	6.6	6.6	3.5	2.4	0.8
Oxide Mill Feed	kt	628.3		68.0	90.5	91.0	91.2	89.9	71.9	57.3	31.5	22.4	13.3	1.3	
Au	g/t	5.88	-	5.64	7.43	6.26	5.55	4.41	5.12	6.56	5.99	6.51	6.11	3.77	-
Ag	g/t	12.0	-	11.8	15.3	12.4	7.5	9.5	12.2	16.0	13.2	15.2	9.9	7.1	-
Sulphide Mill Feed	kt	292.2			0.5			1.0	19.1	33.7	59.4	68.5	53.0	46.2	10.7
Au	g/t	9.10	-	-	7.43	-	-	3.05	6.26	7.66	7.85	9.55	8.86	11.78	12.88
Ag	g/t	12.7	-	-	19.3	-	-	5.9	10.3	12.7	13.1	15.5	11.1	11.3	10.1
Total Mill Feed	kt	920.4		68.0	91.0	91.0	91.2	90.9	91.1	91.0	90.9	90.9	66.3	47.5	10.7
Au	g/t	6.90	-	5.64	7.43	6.26	5.55	4.40	5.36	6.97	7.21	8.80	8.31	11.57	12.88
Ag	g/t	12.2	-	11.8	15.3	12.4	7.5	9.5	11.8	14.8	13.1	15.4	10.8	11.2	10.1
Gold Oz	oz	204,191	-	12,323	21,730	18,311	16,282	12,859	15,698	20,388	21,075	25,733	17,706	17,653	4,435
Silver Oz	oz	361,473	-	25,867	44,699	36,337	21,951	27,674	34,653	43,247	38,346	45,022	23,095	17,109	3,473
Total Material	kt	5,732.9	99.7	261.1	410.4	590.3	551.1	659.8	676.3	618.7	693.0	694.4	297.1	161.8	19.2

**Values have been rounded. Totals are accurate summations of the columns.*

16.1.5 Open Pit Mining Practices

It is assumed that the San Albino open pit mine will be operated on a contractor basis. While owner-operated mining may be an option, this was not considered in this PEA in order to reduce the initial capital requirement.

The mining contractor would undertake all drill and blast, loading, hauling, and mine site maintenance activities. The owner will provide overall mine management and technical services, such as mine planning, grade control, geotechnical, and surveying services.

16.1.5.1 Contractor Mining

It is anticipated that the contracted mining operations would be conducted on day shift only (approximately 10 hours/day) and 6 days per week throughout the entire year. The exact hours of operation are to be negotiated with the contractor, and will depend on the fleet size to be supplied.

It is assumed that most of the materials mined will require drilling and blasting to some degree. The mining contractor will provide the blasting services and it is anticipated that blasting of the rock will be carried out using an ammonium nitrate fuel oil mixture ("ANFO").

The actual equipment fleet that would be used by the mining contractor has not yet been determined as yet. This will generally depend on the types of equipment the contractor has in its fleet. However it is expected that diesel powered hydraulic excavators (back hoes) will be used to dig the blasted rock. The anticipated trucks would be of the 25 t capacity articulated type, although alternate truck sizes may be used.

The primary mining operation would be supported by the contractor's fleet of support equipment consisting of dozers, road graders, watering trucks, maintenance vehicles, and service vehicles.

Some of the deeper pits will likely experience groundwater seepage and storm events will also introduce water into the pit. The mining contractor will be responsible to keep the pits dry and operable. There is the potential that some of the pit water could be piped to the mill area and used as process water.

16.1.5.2 Owners Mining Team

The mine owner will be responsible for providing contract management and overall supervision of the mining contractor. The owner will also provide technical services, such as mine planning and scheduling, geotechnical engineering, grade control, and surveying. Table 16.8 lists the personnel on the owners mining team.

Table 16.8 Owners Mining Team	
Description	**Number**
Mine Superintendent	1
Chief Engineer	1
Mine Engineer	1
Geologist	1
Surveyor	1
Survey Tech	1
Grade Control Tech	1
Total	**7**

16.1.5.3 Waste Rock Storage Areas

Each of the pits will require the development of one or more waste rock storage areas. Some of the waste rock will be placed onto the hillside adjacent to the pit, and depending upon the mining sequence, it may also be possible to backfill mined out parts of other pits but only if there is no likelihood of re-mining those pits in the future. Table 16.9 summarizes the open pit waste rock balance.

At this stage of the Project design, the waste dumps were not designed in detail, however, potential waste rock storage locations were identified and it is recommended that field reconnaissance be carried out at the next stage of study to confirm the preferred locations.

Table 16.9 Waste Rock Balance					
Location	**Waste Rock Tonnage (kt)**	**Insitu Density (t/m^3)**	**Swell Factor**	**Placed Density (t/m^3)**	**Waste Volume (‘000’s of m^3)**
West Pit	3,824.6	2.45	30%	1.88	2,029
Central Pit	680.4	2.45	30%	1.88	361
NE Pit	270.3	2.45	30%	1.88	143
SW Pit	37.2	2.45	30%	1.88	20
	4,812.5				2,553
UG Waste Rock	838.2	2.45	30%	1.88	445
Total Waste Rock	5,650.7				2,998
Waste Dump Areas					
East Dump					585
North Dump					210
West Dump					2,400
Total Capacity					**3,195**

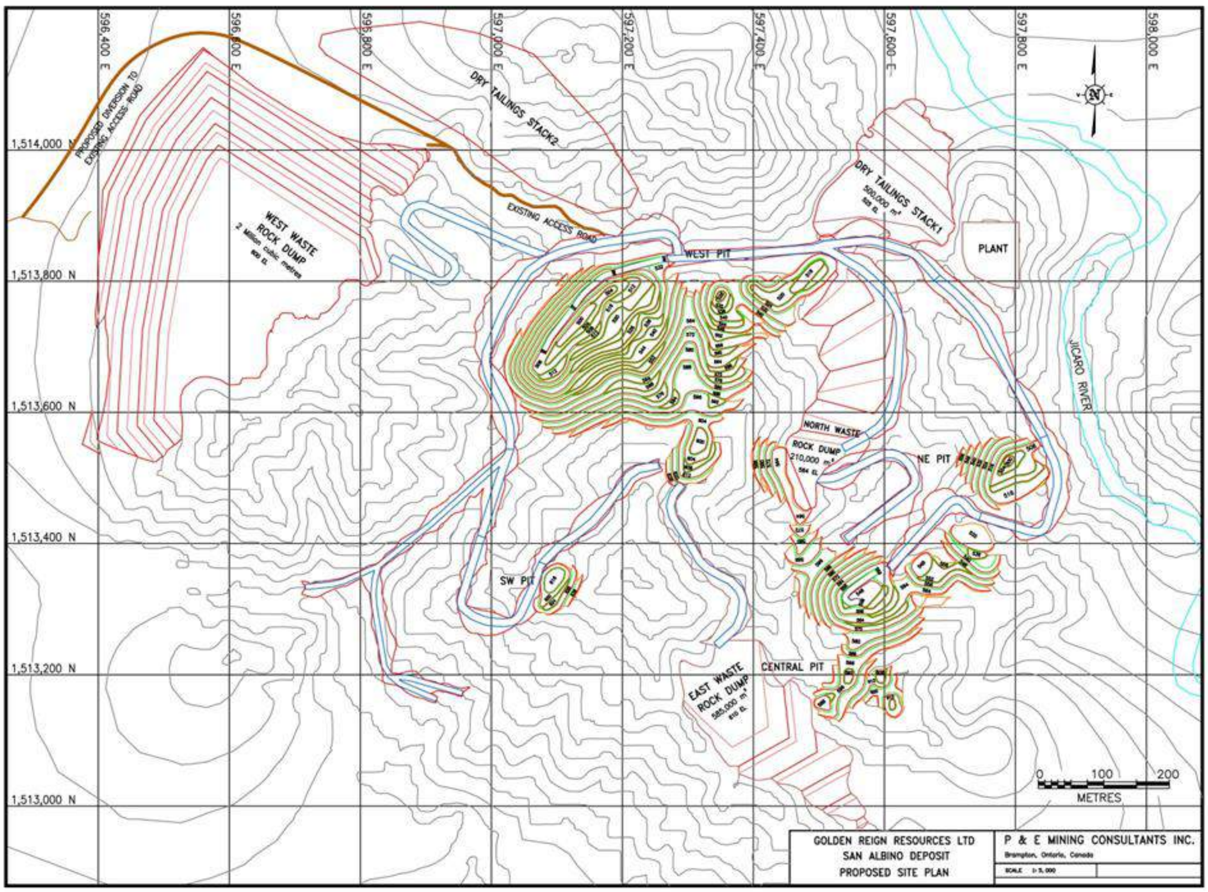
16.1.5.4 Mine Support Facilities

The San Albino mine will require mine offices, maintenance facilities, warehousing, and cold storage areas.

A maintenance shop area and a fuel and lube station for fuelling the mining fleet will be provided by the contractor.

A site plan is presented in Figure 16.7.

Figure 16.7 Overall Site Plan

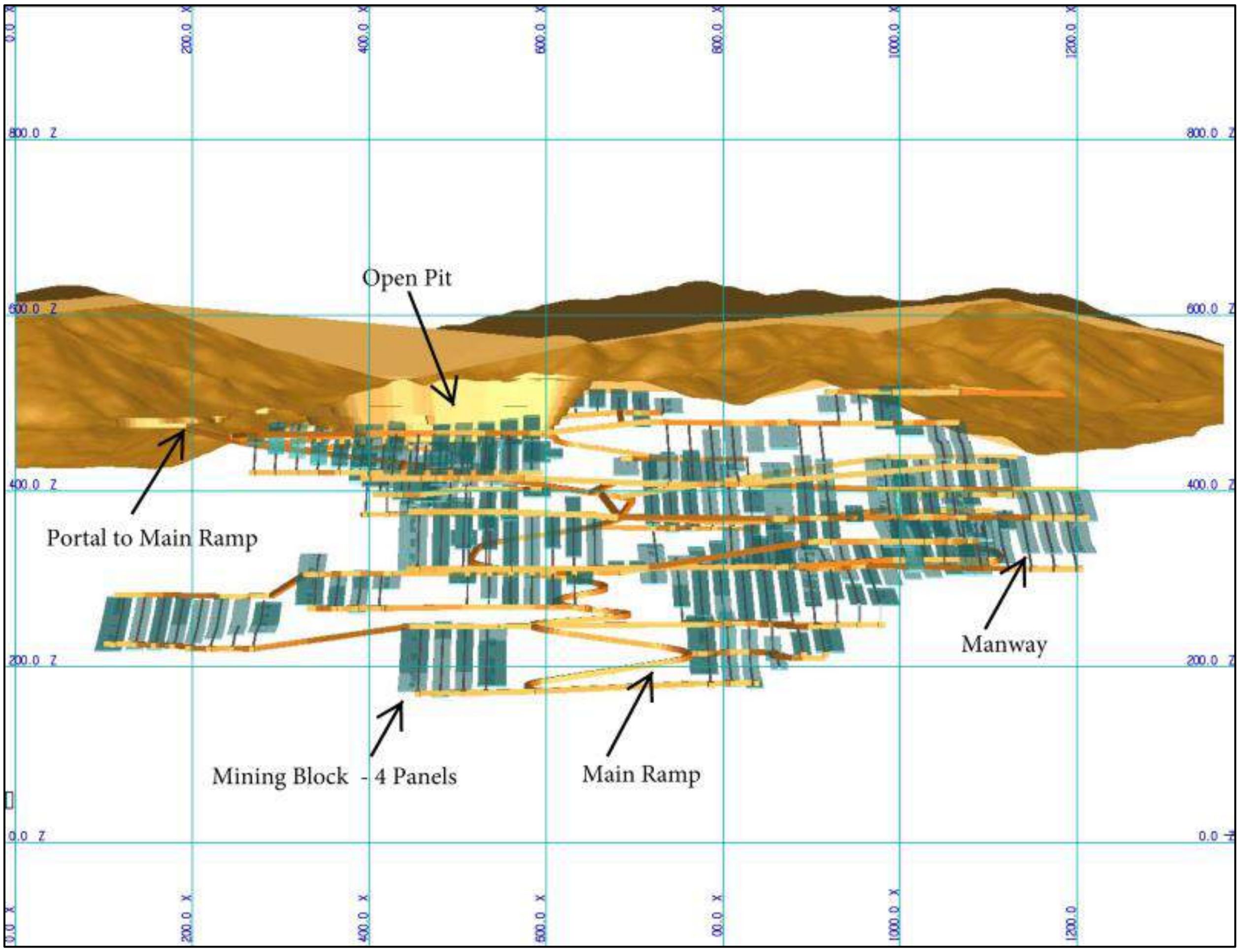


16.2 UNDERGROUND MINING

The San Albino Deposit mineral resources extend from +590 m to +275 m above sea level, a vertical distance of 315 m. Underground mining methods will be employed to extract the material that cannot be extracted economically from the open pits. The envisioned underground mine will extend 900 m along strike, continue approximately 800 m down dip and contains 29 non-continuous mining blocks.

An isometric view of the envisioned underground mine is presented in Figure 16.8.

Figure 16.8 San Albino Underground Mine Isometric View



An underground mine with a steady state production rate of 250 tpd of mill feed is planned. The mine design and the mining method selection have been at a conceptual level of study only.

It is assumed that the San Albino underground mine will be operated on a contractor basis. While owner-operated mining may be an option, this was not considered in this PEA. No mining contractor price quotations were obtained for this study. Prices were obtained by P&E from other similar projects.

The mining contractor would undertake all drill and blast, loading, hauling, and mine maintenance activities. The owner will provide overall mine management and technical services, such as mine planning, grade control, geotechnical, and surveying services.

Further research into actual conditions and more detailed engineering will be required in the next level of study.

16.2.1 Underground Mine Design Parameters

16.2.1.1 Geotechnical Studies

No geotechnical studies have yet been performed on the underground mine mineral deposit. Stope sizing and pillar geometries have been estimated based on P&E's experience at other similar projects elsewhere. It is recommended that geotechnical investigations be carried out in advance of more detailed feasibility study analysis.

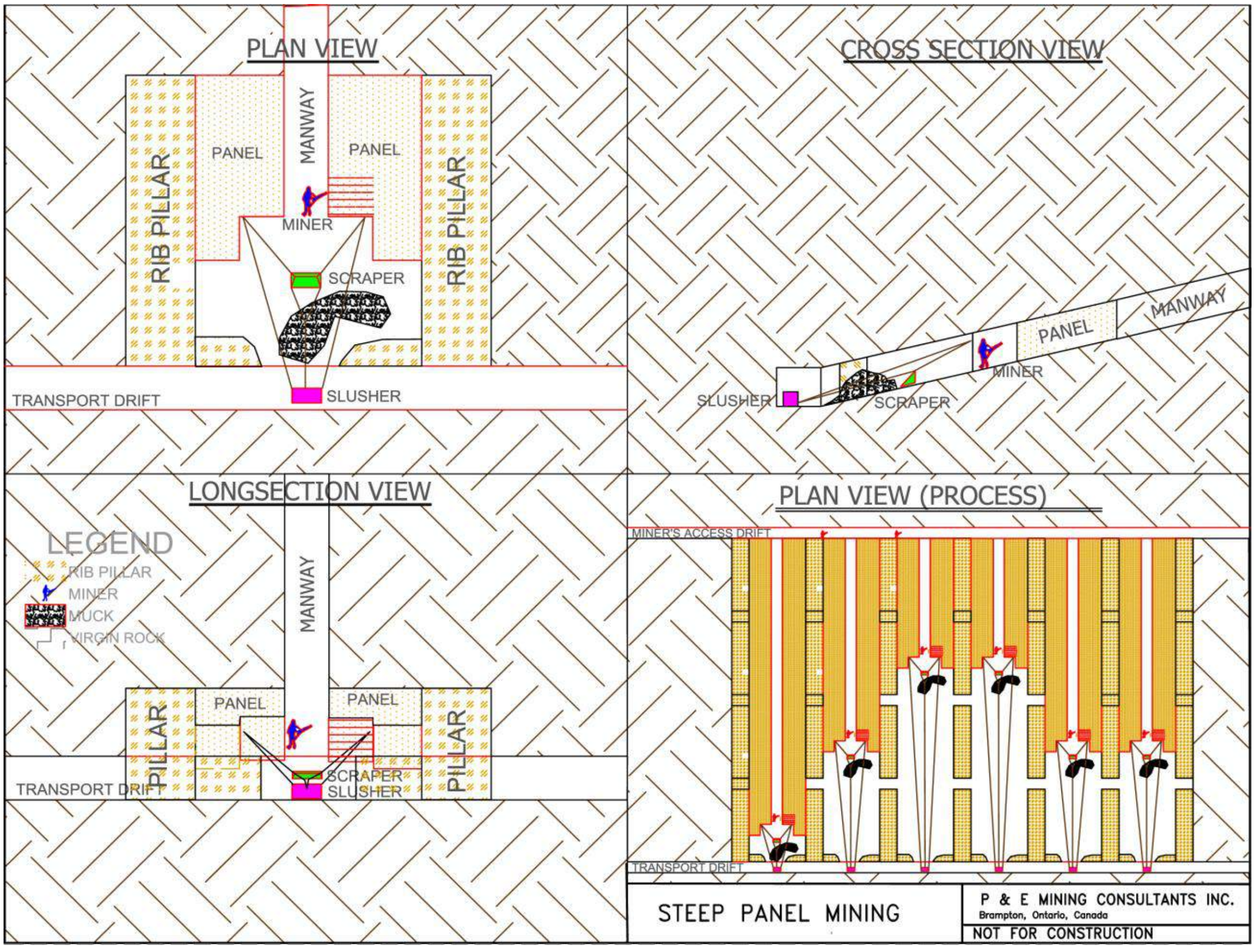
16.2.1.2 Hydrogeological Studies

No hydrogeological studies have been completed for the PEA to assess groundwater conditions. It is recommended that hydrogeological investigations be carried out in advance of more detailed feasibility study analysis.

16.2.1.3 Primary Stoping Method - Conventional Steep Panel Mining

The average true thickness of the mineralized zones is 2.6 m and the dip angle varies but it is generally at approximately 26 degrees. The dip angle is below the angle of repose of broken rock and also is too steep for trackless equipment to move up or down dip within the mineralized zones. For this reason, the primary mining method is envisaged to be steep panel mining. The equipment used to mine the material from the stopes includes handheld drills and slushers. Excavated rock will loaded by mechanized loaders and transported to surface using haul trucks which will travel along the main ramp to a portal on surface. This method is illustrated in Figure 16.9.

Figure 16.9 Conventional Steep Panel Mining



The undercut or "transport drift" and the overcut or "miners' access drift" will be developed first. After this is completed, the manway from the undercut towards the overcut will be driven using hand held drills and mucked using a slusher. To get up and down the manway, ladders will be installed with platforms.

Mining of the panel can commence once the manway is established. The miners will enter the working area from the overcut or "miners' access drift" and come down to the working face via a manway using the installed ladders and platforms. They will place equipment and material on a slide and lower the slide down into the panel using a winch. Once in the working area, support will be installed before breasting of the panel can commence. The stope miners will drill and blast into the open area down slope and will retreat mine the panel moving the working face towards the access drift at the top of the panel.

Near the bottom of the panel, a slusher operator will scrape down blasted muck with a slusher to the transport drift. A barrier will be made in front of the slusher operator as protection from rock traveling down the stope. The slusher operator may also work remotely, standing or sitting behind a pillar and operating the slusher from there. A remote slusher setup can be installed using a television connected to a camera looking into the panel.

Following the scraping of the rock down to the transport drift, it can then be picked up by an underground mechanized loader and loaded onto a haul truck. The haul truck will transport the material up the main ramp and out of the portal, to the mill or mill feed storage area.

The steep panel mining method is similar to steep room and pillar but it differs because the miners will be retreating the panel towards the miners' access drift and there will be no re-entry into the mined out parts of the panel.

Twenty nine main mining blocks have been identified. Each mining block has dimensions controlled by the geological character of the zone at that location. The dimensions of each block are listed in the Table 16.10.

TABLE 16.10
MINING BLOCK DIMENSIONS AND DESCRIPTION

Block Title	Length Along Dip (m)	Width Along Strike (m)	True Thickness (m)	Dip Angle	Number of panels	Stope Width (m)	Rib Pillar Thickness (m)
STP001	121.4	20	2.1	21.4°	8	17	3
STP002	81	20	1.9	19.8°	4	17	3
STP003	126.8	20	1.8	25°	4	17	3
STP004	89	20	1.8	38.2°	7	17	3
STP005	90.8	20	2.7	19.3°	6	17	3
STP006	127.4	20	3.6	25.8°	7	17	3
STP007	205.5	20	2.5	24.3°	7	17	3
STP008	54.2	20	1.6	21.7°	3	17	3
STP009	48.5	20	1.9	23.8°	3	17	3
STP010	71.7	20	2.4	43.9°	4	17	3
STP011	103.3	20	2.7	29.5°	7	17	3
STP012	148.7	20	3.5	28.4°	6	17	3
STP013	116.1	20	3.1	25.5°	10	17	3
STP014	108.2	20	2.0	27.7°	6	17	3
STP015	76.3	20	1.9	36.2°	5	17	3
STP016	65.32	20	2.1	40.1°	3	17	3
STP017	114.6	20	2.0	37.9°	2	17	3
STP018	114.2	20	2.9	28.9°	4	17	3
STP019	44	20	2.6	40.8°	3	17	3
STP020	69.5	20	6.4	30.3°	6	17	3
STP021	95.9	20	2.6	32.3°	5	17	3
STP022	63.7	20	1.6	23°	3	17	3
STP023	135.5	20	2.2	8.8°	4	17	3
STP024	116.3	20	1.8	21°	3	17	3
STP025	23.2	20	1.6	13.7°	3	17	3
STP026	63.6	20	1.9	13.7°	4	17	3
STP027	45.2	20	2.1	34.3°	5	17	3
STP028	27.5	20	1.7	16.4°	1	17	3
STP029	47.7	20	2.0	16.5°	4	17	3

The LOM schedule includes 29 stopes that would produce an average of approximately 250 tpd of mill feed.

Stope dimensions would nominally be 17 m wide with a rib pillar 3 m wide on each side of each stope. The centerlines of each manway will nominally be 20 m apart. The true thickness of the mineralized zones is on average 2.6 m but can vary from 1.6 m to 6.4 m. The average length along dip is 90 m but can vary from 23 m to 135 m depending on the geological character of the zone at that location.

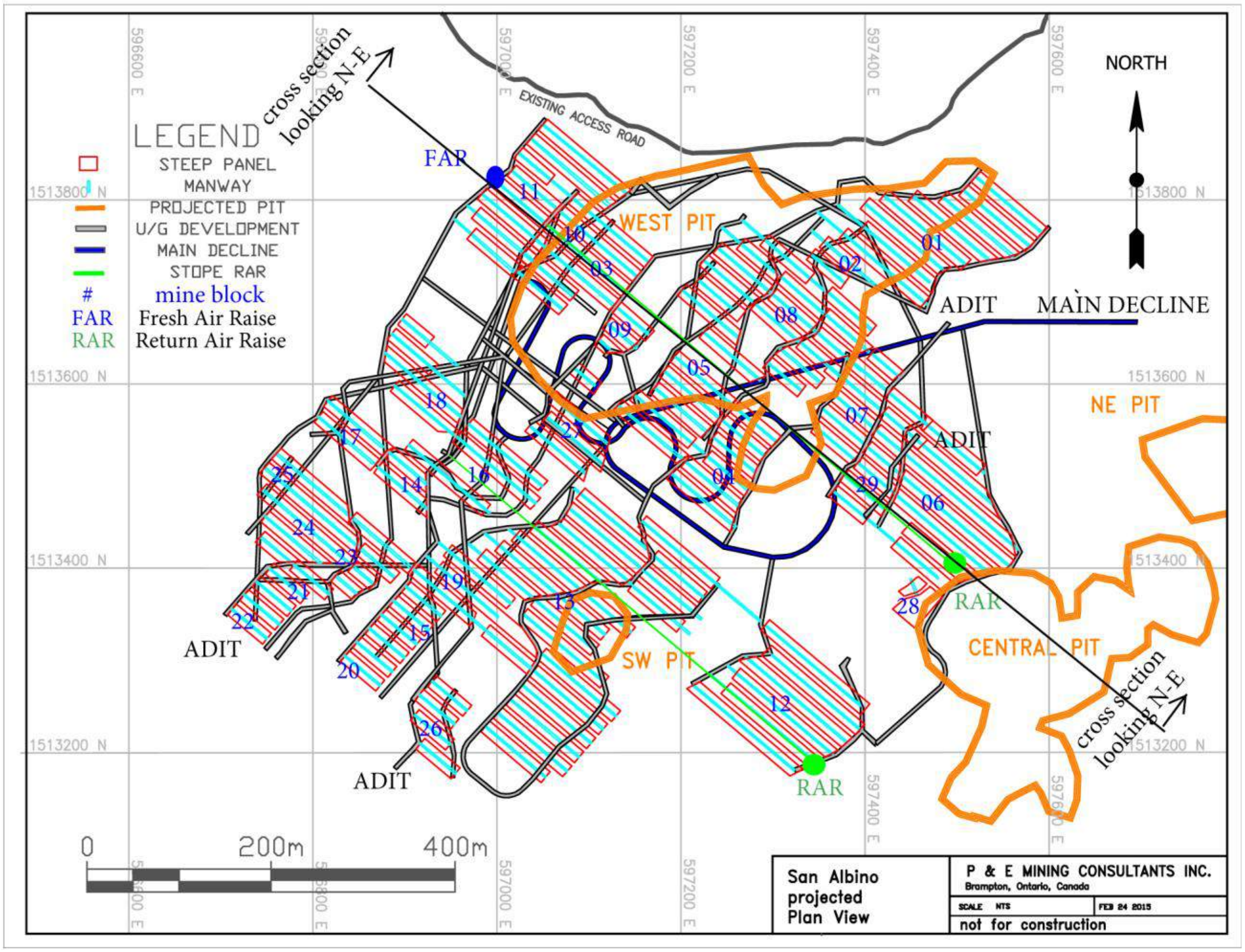
The average dip of the mineralized zones is 26 degrees. This angle is less than the angle of repose of broken rock. Therefore, the panels cannot be filled by dumping loose backfill from the overcut drift. Whereas there is the potential for the use of hydraulic fill, paste backfill or a mechanically emplaced fill, the current plan considers that the steep panels will be left open without fill.

16.2.2 Underground Mine Design

The underground mine is approximately 900 m long on strike and approximately 800 m along the dip direction. However, it is only about 315 m deep vertically. The mine is envisaged as being accessed by a centrally located 5m x 5m decline ramp from surface, which would be collared at the 525 m elevation, at a hillside between the West Pit and the NE pit. The decline will provide personnel transport and the haulage of material in and out of the underground mine. While the main decline is being driven, 5 m x 5 m adits will also be developed to access the mining blocks located near surface. The schedule of this work will be determined by the decline development progress schedule in the early years.

The main decline is drawn in blue and labeled “Main Decline” in the conceptual underground mining plan illustrated in Figure 16.10. The Fresh Air Raise (“FAR”) and Return Air Raises (“RAR”) are indicated in the figure.

Figure 16.10 Conceptual Underground Mining Plan

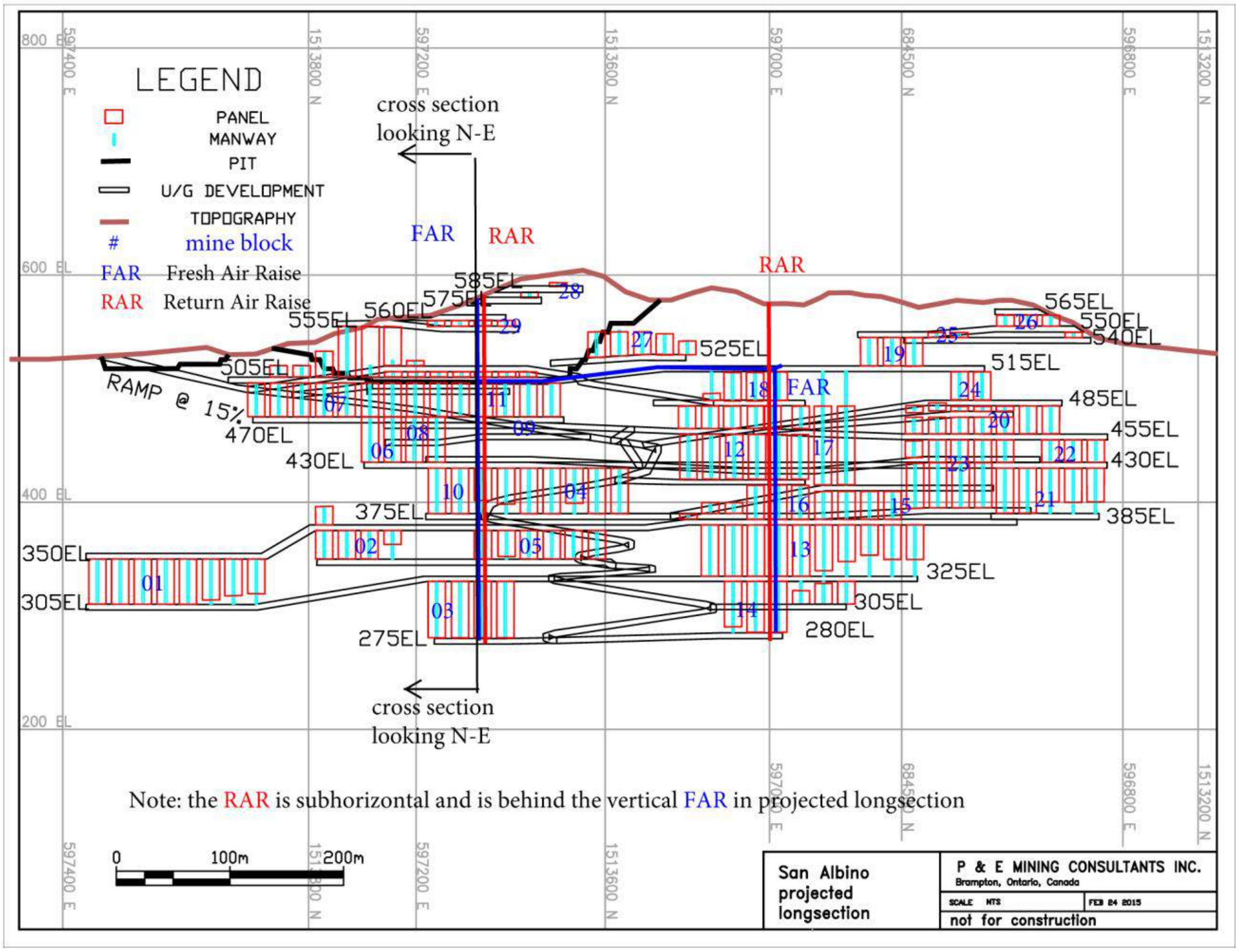


In Figure 16.10, the open pits have also been projected onto the underground plan view. The underground mine lies below the west pit and the south-west pit. The top of the underground mine stretches to the north-west pit rim of the central pit. The mineralized zones are not continuous on strike or down dip. The majority of the mining blocks are independent of one another and require separate accesses from the decline, both from the miners' access drift at the top and the material transport drift at the bottom.

The first working level would be the 495 m elevation, which would be developed as it is accessed from the decline. It is envisioned that the level development will be geologically controlled, due to the non-continuous nature of the deposits.

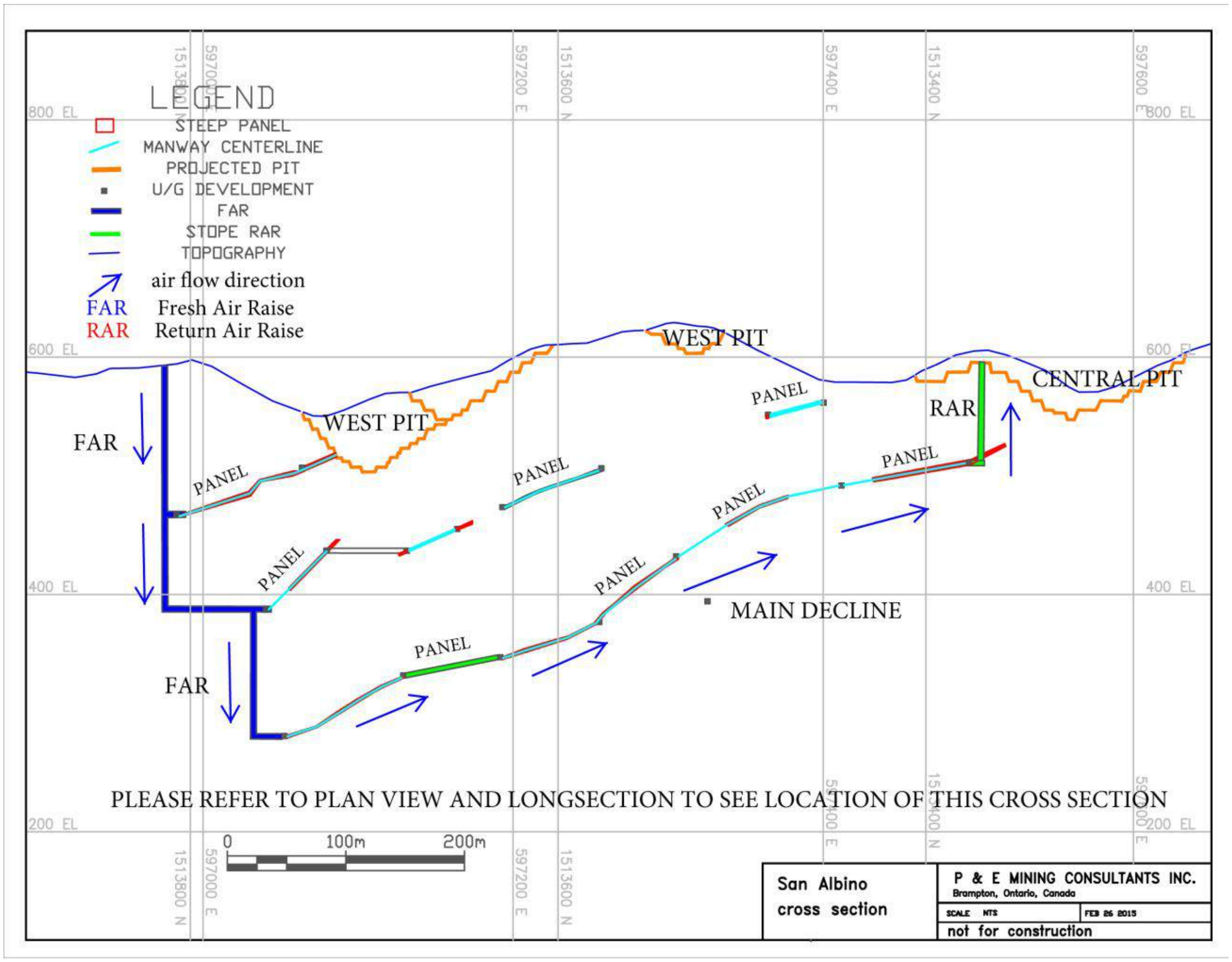
A longitudinal section through the proposed mine is provided in Figure 16.11. Manways are shown as cyan lines. The limits of the panels are shown as red lines.

Figure 16.11 Mine Longitudinal Section



The ventilation system selected for the underground mine is a stope return system which will use the stope manway development as part of the system. Fresh air will downcast from the portal as well as from a vertical fresh air raise ("FAR"), connecting to the working areas and then down to the bottom of the mine. The fresh air will up cast through the manways and working panels and through the miners' access drifts in the stoping areas, to two return air raises ("RAR"). Exhaust fans will be located on surface at the tops of the RAR (Figure 16.12).

Figure 16.12 Mine Ventilation Schematic



In Figure 16.12, the blue line on the left shows fresh air descending. This fresh air then travels through the miners' access drifts and opened panels. The air is then exhausted to surface from the top of the block after going through the workings as shown by the green line.

The mining blocks are vertically stacked. The distance between the two mining blocks is greater than 100 m. It is envisioned that the mining sequence of the 29 blocks progresses downwards from the top.

16.2.3 Mine and Stope Development

All mine development in waste rock is classified as either capitalized mine development ("capex" and "sustaining") or operating mine development ("opex"). All stope development in mineralization that produces mill feed is classified as opex. The life-of-mine schedule includes a total of approximately 19,033 m of stope development, and 13,410 m of mine development of which 4,982 m are allocated to "capex" and 8,428 m are sustaining development. Table 16.11 tabulates the quantities of development required for the different mining blocks.

Block Name	Stope Development (OPEX)		Mine Development (CAPEX)			Mine Development (Sustaining)			
	Drift (m)	Manway (m)	Portal (m)	Ramp (m)	Ventilation (m)	Access (m)	Drift (m)	Manway (m)	Remuck (m)
STP001	219	856	-	-	-	365	179	161	-
STP002	121	257	-	-	-	148	43	38	-
STP003	123	472	-	209	-	75	-	16	-
STP004	209	546	-	342	-	44	59	159	-
STP005	43	395	-	237	-	25	44	112	-
STP006	249	1,624	-	241	-	365	110	240	-
STP007	428	1,389	237	127	-	107	202	230	-
STP008	25	157	-	-	-	40	23	-	-
STP009	98	186	-	190	-	121	37	-	-
STP010	90	208	-	463	-	270	184	77	-
STP011	229	1,145	-	265	-	122	92	48	-
STP012	172	871	358	287	-	71	127	105	-
STP013	698	2,121	-	136	-	61	188	-	-
STP014	302	568	-	317	-	158	164	-	-
STP015	165	375	-	-	-	272	57	-	-
STP016	74	179	-	-	-	176	25	-	-
STP017	114	250	-	-	-	346	-	-	-
STP018	137	334	96	-	-	132	91	163	-
STP019	55	96	-	-	-	74	58	48	-
STP020	224	420	-	-	-	286	-	-	-
STP021	84	420	-	-	-	130	116	36	-
STP022	153	212	-	-	-	90	-	-	-
STP023	180	468	-	-	-	316	79	18	-
STP024	90	206	-	-	-	253	16	9	-
STP025	34	41	131	-	-	-	25	9	-
STP026	89	184	77	-	-	-	60	21	-
STP027	129	190	-	-	-	-	131	22	-
STP028	21	20	76	-	-	-	-	-	-
STP029	111	181	91	-	-	-	19	-	-
Remuck	-	-	-	-	-	-	-	-	744
Ventilation	-	-	-	-	1,102	-	-	-	-
Total	**4,665**	**14,368**	**1,066**	**2,814**	**1,102**	**4,047**	**2,126**	**1,511**	**744**

Table: **TABLE 16.11 MINE DEVELOPMENT QUANTITIES BY MINING BLOCK**

16.2.4 Stoping Production

Drilling and blasting will be carried in the mining panels. Whereas each panel will have different dimensions and features, a nominal panel size of 90 m in length, 2.6 m in thickness and 17 m in width was selected to estimate daily production drilling and blasting requirements. The results of this analysis are tabulated in Table 16.12.

TABLE 16.12 PANEL DRILLING AND BLASTING PARAMETERS		
Description	**Units**	**Quantity**
Nominal Panel Geometry		
Stope Length	m	90
Stope Thickness	m	2.6
Stope Width	m	17
Mineralization Specific Gravity	t/m^3	2.5
Nominal Tonnage		
Total Nominal Sized Stope Tonnage	t	9,945
Manway Tonnage	t	1,404
Miners' Access Drift Tonnage	t	800
Transport Drift Tonnage	t	800
Steep Panel Tonnes	t	6,941
Rib Pillar Lost Recovery	t	1,755
Production Tonnage per Day	t	250
Drilling Parameters @ 35mm Diameter Holes		
Drill Meters per Panel	m	4,983
Drill Holes per Panel		2,076
Drill Holes per Slash		14
Average Required Slashes per Day		5.3
Required Metres per Day for Production Schedule	m	179.5
Blasting Parameters @ 35 mm Diameter Holes		
Diameter	m	0.035
Burden	m	0.75
Spacing	m	0.75
Hole Length	m	2.40
Stemming	m	0.15
S.G. Rock	t/m^3	2.5
S.G Explosive	t/m^3	1.0
Loaded	kg/m	0.96
Quantity	kg/hole	2.16
Tonnes/hole	t	3.38
Powder Factor	kg/t	0.65
Slash Length	m	3.0
Slash Height	m	2.6
Slash Depth	m	2.4
Explosive in Slash	kg	30
Slash Tonnage	t	46.8
Slashes in Panel		149
Explosive used in Nominal Sized Panel	kg	4,516

A nominal sized panel would produce approximately 800 t of mill feed from the miners' access drift and transport drift development. The manway would produce approximately 1,404 t. Mining of the stope from the access drifts and raise would produce approximately 6,941 t. The 3 m wide pillars, which are not recoverable, represent a loss of 1,755 t for a nominal sized stope.

An average of 179.5 m of blastholes must be drilled each day to achieve a 250 tpd production target. To drill an entire nominal sized panel using 35 mm diameter drill bits, approximately 4,983 m of drilling is required or 2,076 holes of 2.4 m length. Each breast will require 14 blastholes.

An average of 5.3 panel blasts is required each day to achieve a 250 tpd production target. Each panel blast will have a burden and spacing of 75 cm each, a hole length of 2.4 m and 15 cm of stemming. Approximately 30 kg of explosives will be placed in the 14 drilled holes to blast a typical 47 t slash. This is equivalent to a powder factor of 0.65 kg/t, which is required to produce adequate fragmentation of the rock. To blast the entire panel of 6,941 t, approximately 4,516 kg of explosives is needed.

A typical shift schedule was developed to calculate how many stope miners are required to achieve a production rate of 250 tpd. Table 16.13 summarises the estimate.

TABLE 16.13
STOPING – DRILL AND BLAST MANPOWER CALCULATION

Tonnage/blast		
Tonnes per blast		46.8
Shift		
Shifts/day		2
Working hours per 12 hr man-shift (“ms”)	Hrs/ms	10
Ground support	Hrs/ms	2.5
Drilling	Hrs/ms	2.8
Lunch and Breaks	Hrs/ms	1.5
Blasting	Hrs/ms	2.3
Total Hours	**Hrs/ms**	**9.1**
Drill and Blast Manpower		
Tonnes/man-hour (stoping only)		5.1

A typical panel blast is estimated to require 9.1 man-hours to cycle, and each stope miner working at drilling or blasting can produce approximately 5.1 tph. Based on these calculations, it is estimated that approximately 50 drilling and blasting man-hours are required to produce 250 tpd. This does not include other mining activities such as slushing, mucking, trucking, etc.

The stoping productivity requirements for the nominal sized panel are shown in Table 16.14.

Table 16.14 Stoping - Productivity		
Required stope blasts per day		
Production Rate	tpd	250
Tonnes per blast		46.8
Required Stope Blasts per Day		5.3
Minimum required scheduled days per panel		
Nominal Sized Panel	t	7,641
Stope Blasts per Panel		163
Total Man-hours Required - No Delays	**Man-hours**	**1,491**
Total man-hours required - 15% delay contingency	**Man-hours**	**1,715**
Nominal scheduled (single blast per day)	Days/Panel	86
Nominal schedule (double blast/day)	Days/Panel	43

A minimum of 5.3 stope blasts are required each day to achieve the targeted 250 tpd production rate. Each block will have a number of panels which could be blasted during the same time. If a single blast is taken per day in a panel it is estimated that it will take 86 days to complete mining the steep panel. Alternatively, if two blasts are taken each day, it is estimated that it will take approximately 43 days to complete the panel.

16.2.4.1 Backfill

After the panel is fully excavated, it is possible to backfill with hydraulic or paste backfill. Loose fill and cemented rock fill cannot be dumped into mined stope since the flat dip angle of the stope is less than the angle of repose of rock. In the schedule, it was assumed that the panels are not backfilled.

16.2.4.2 Recovery and Dilution

In order to estimate total mining recovery in the stope, an estimate of the material left in the 3 m pillars at the sides of the stopes was combined with an efficiency rating of the methods contemplated for the stoping operations.

Design Recovery	= 1 – (3/20) = 85%
Mine Recovery in Stope	= 90% (using a jackleg)
Total Recovery	= 85% x 90% = 76.5%

The mine recovery in stope of 90% is considered conservative and allows for an increase in the size of the pillars, if required for geotechnical reasons.

Dilution of the mineralized mill feed with waste rock was calculated assuming that 25 cm of extra material would be taken on the hanging wall and footwall. This represents a waste rock dilution of 20%. The diluting grade was estimated to be 0.68 g/t Au and 2.5 g/t Ag, based on an analysis of the assays within the diluting skin.

16.3 UNDERGROUND MINE DEVELOPMENT AND PRODUCTION SCHEDULE

16.3.1 Ramp Development Schedule

The main ramp will be used to transport underground mobile equipment and personnel between underground to surface. The ramp from surface will start at the 525 m elevation and be developed down 250 m to the 275 m elevation. The underground mine commences in the 10th year production year of the Project. Details of the adit and ramp development schedule are presented in Table 16.15. For simplicity, month zero refers to the beginning of the 10th year in Table 16.15.

TABLE 16.15
ADIT AND MAIN RAMP SCHEDULE

Level	Type	Destination	Mining Block	Months	
				Start	Finish
500EL - 600EL	Adit	To Miners' Access Drift	STP028	0.0	0.4
	Adit	To Transport Drift	STP028	0.4	0.5
	Adit	To Miners' Access Drift	STP007	0.5	2.1
	Adit	To Miners' Access Drift	STP029	2.1	2.4
	Adit	To Transport Drift	STP029	2.4	2.7
	Adit	To Miners' Access Drift	STP026	2.7	3.0
	Adit	To Transport Drift	STP026	3.0	3.2
	Ramp	To Miners' Access Drift	STP006	3.2	4.8
	Ramp	To Transport Drift	STP025	4.8	5.7
	Adit	To Miners' Access Drift	STP018	5.7	6.3
450EL - 500EL	Ramp	To Transport Drift	STP007	6.3	7.1
	Ramp	To Miners' Access Drift	STP009	7.1	8.4
	Ramp	To Transport Drift	STP011	8.4	10.1
400EL - 450EL	Ramp	To Transport Drift	STP012	10.1	12.0
	Ramp	To Miners' Access Drift	STP004	12.0	12.4
	Ramp	To Miners' Access Drift	STP010	12.4	13.9
350EL - 400EL	Ramp	To Transport Drift	STP004	13.9	15.8
	Ramp	To Miners' Access Drift	STP013	15.8	16.7
	Ramp	To Transport Drift	STP010	16.7	18.2
300EL - 350EL	Ramp	To Transport Drift	STP005	18.2	19.8
350EL - 300EL	Ramp	To Transport Drift	STP003	19.8	21.2
	Ramp	To Miners' Access Drift	STP014	21.2	22.1
	Ramp	To Transport Drift	STP014	22.1	23.3

Due to the general non-continuous nature of the mineralized zones and the relative variability in the elevation of each block, a standard level spacing has not been used. In practice, the mine engineering department will need to work very closely with the geology department to determine the best elevations to access the top and bottom parts of each block, as the confidence in the geological model increases with time.

16.3.2 Block Development and Stoping Schedule

Transport drift development, miners' access drift development and manway development generally progresses from the top of the underground mine downwards. The lateral development produces much of the production mill feed during the ramp up of mill feed production from underground sources. After much of this development is completed, the manway development and stoping activities commence and the mine is expected to produce at steady state, 91,000t/annum as of the 12th year. The underground mine starts in the 10th year of the Project.

Details of the lateral development, manway development and steep panel scheduled activities are summarised in Table 16.16. There are a number of panels contained within each mining block. For simplicity, month zero refers to the beginning of the 10th year in Table 16.16.

TABLE 16.16
BLOCK DEVELOPMENT AND STEEP PANEL MINING SCHEDULE

Level interval	Block Name	Number of Panels	Months					
			Lateral Development		Manway Development		Block Development	
			Start	Finish	Start	Finish	Start	Finish
500 - 600EL	STP028	1	0.5	0.7	11.6	11.8	19.2	19.6
500 - 600EL	STP029	4	3.5	4.6	11.8	13.8	19.6	21.5
500 - 600EL	STP026	4	4.6	5.7	5.7	7.9	21.5	22.6
500 - 600EL	STP025	3	8.4	8.8	8.8	9.4	22.6	22.9
500 - 600EL	STP027	5	8.8	10.8	10.8	13.0	22.9	24.1
500 - 600EL	STP019	3	17.9	19.2	19.2	20.7	24.1	24.8
500 - 600EL	STP006	7	5.7	23.1	23.1	60.1	29.8	73.8
500 - 600EL	STP007	7	0.7	26.2	66.0	87.0	78.8	96.4
450 - 500EL	STP008	3	27.2	27.9	87.0	88.7	96.4	97.3
500 - 600EL	STP011	7	14.5	29.7	88.7	101.7	103.9	116.8
450 - 500EL	STP020	6	35.6	39.5	109.3	113.9	115.4	117.9
500 - 600EL	STP018	4	16.2	30.7	101.7	106.9	115.4	118.0
500 - 600EL	STP024	3	19.2	32.4	106.9	109.3	118.0	119.3
500 - 600EL	STP012	6	13.1	42.2	118.4	129.0	129.0	143.4
450 - 500EL	STP009	3	26.2	46.5	129.0	131.0	143.4	144.5
400 - 450EL	STP022	3	54.6	55.7	145.0	147.4	147.4	148.0
400 - 450EL	STP017	2	49.2	52.7	131.0	133.8	149.4	151.8
400 - 450EL	STP023	4	52.7	53.7	133.8	145.0	151.8	157.6
350 - 400EL	STP004	7	55.7	57.3	147.4	154.9	161.1	164.8
350 - 400EL	STP010	4	64.4	66.3	154.9	157.9	164.8	166.4
350 - 400EL	STP015	5	70.0	72.0	163.6	167.7	167.7	169.2
400 - 450EL	STP016	3	46.5	67.4	166.4	168.4	168.4	169.4
400 - 450EL	STP021	5	53.7	73.5	167.7	172.6	173.9	177.3
300 - 350EL	STP005	6	73.5	74.5	172.6	178.0	178.0	182.0
350 - 400EL	STP002	4	63.2	75.6	178.0	181.2	185.8	187.6
350 - 400EL	STP001	8	67.4	79.5	181.2	192.1	192.5	199.8
300 - 350EL	STP003	4	75.6	82.0	215.4	220.8	220.8	223.6
350 - 400EL	STP013	10	57.3	81.2	192.1	215.4	204.6	248.8
350 - 300EL	STP014	6	82.0	86.9	247.8	254.0	254.0	257.4

Lateral development begins in the middle of the first month after two short adits are driven into the side of the hill on surface and finishes in the 87th month, in the 8th year of the underground mine. Manway development begins in the 5th month of the underground schedule, connecting the transport drift of block 26 (STP026) with the miners' access drift. Manway development is driven as required and finishes in the 254th month in the 22nd year of the underground mine life. The development can be driven concurrently while stoping in the same block in a different panel. Stoping commences in 20th month and continues for the entirety of mine life finishing in the 258th month or the 22nd year of the underground LOM.

16.3.3 Combined Open Pit and Underground Mining Schedule

The combined open pit and underground mining schedule extends over a period of approximately 31 years, at a fixed production rate of 250 tpd over the life of the Project. The life-of-project mine production schedule is summarized in Table 16.17 and 16.18.

TABLE 16.17
COMBINED OPEN PIT AND UNDERGROUND SCHEDULE (YEARS 1-14)

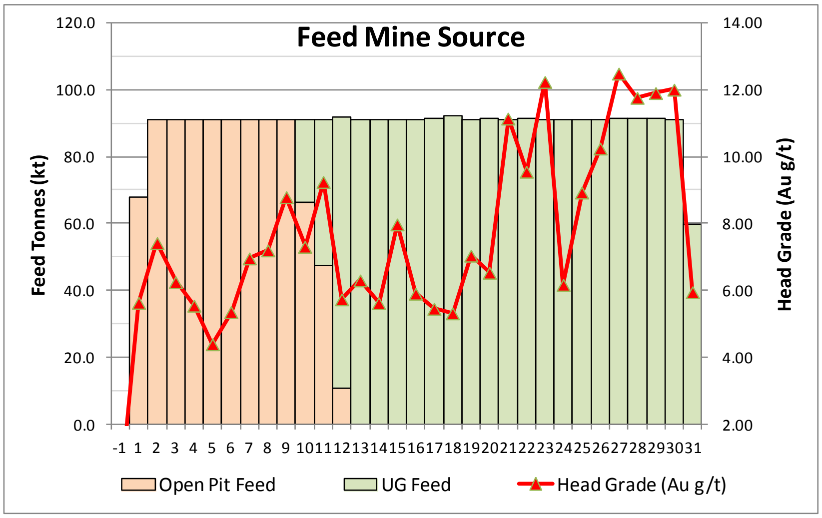
Description	Units	Total Mine Life	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Open Pit																	
Waste	kt	4,812.5	99.7	193.1	319.4	499.3	459.9	568.9	585.3	527.7	602.1	603.5	230.8	114.3	8.5		
Oxide Mill Feed	kt	628.3		68.0	90.5	91.0	91.2	89.9	71.9	57.3	31.5	22.4	13.3	1.3			
Au	g/t	5.88	-	5.64	7.43	6.26	5.55	4.41	5.12	6.56	5.99	6.51	6.11	3.77	-	-	-
Ag	g/t	12.0	-	11.8	15.3	12.4	7.5	9.5	12.2	16.0	13.2	15.2	9.9	7.1	-	-	-
Sulphide Mill Feed	kt	292.2			0.5			1.0	19.1	33.7	9.4	68.5	53.0	46.2	10.7	-	-
Au	g/t	9.10	-	-	7.43	-	-	3.05	6.26	7.66	7.85	9.55	8.86	11.78	12.88	-	-
Ag	g/t	12.7	-	-	19.3	-	-	5.9	10.3	12.7	13.1	15.5	11.1	11.3	10.1	-	-
OP Mill Feed	kt	920.4		68.0	91.0	91.0	91.2	90.9	91.1	91.0	90.9	90.9	66.3	47.5	10.7		
Au	g/t	6.90	-	5.64	7.43	6.26	5.55	4.40	5.36	6.97	7.21	8.80	8.31	11.57	12.88	-	-
Ag	g/t	12.2	-	11.8	15.3	12.4	7.5	9.5	11.8	14.8	13.1	15.4	10.8	11.2	10.1	-	-
Underground																	
Waste	kt	838.2											86.1	172.2	187.3	79.4	56.0
Oxide Mill Feed	kt																
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Sulphide Mill Feed	kt	1,851.6											24.9	43.6	81.0	91.0	91.1
Au	g/t	8.35	-	-	-	-	-	-	-	-	-	-	4.68	6.74	0.0	6.31	5.63
Ag	g/t	12.6	-	-	-	-	-	-	-	-	-	-	7.0	10.9	0.0	10.1	8.1
UG Mill Feed	kt	1,851.6											24.9	43.6	81.0	91.0	91.1
Au	g/t	8.35	-	-	-	-	-	-	-	-	-	-	4.68	6.74	0.0	6.31	5.63
Ag	g/t	12.6	-	-	-	-	-	-	-	-	-	-	7.0	10.9	7.8	10.1	8.1
Total																	
Waste	kt	5,650.7	99.7	193.1	319.4	499.3	459.9	568.9	585.3	527.7	602.1	603.5	316.9	286.5	195.9	79.4	56.0
Oxide Mill Feed	kt	628.3		68.0	90.5	91.0	91.2	89.9	71.9	57.3	31.5	22.4	13.3	1.3			
Au	g/t	5.88	-	5.64	7.43	6.26	5.55	4.41	5.12	6.56	5.99	6.51	6.11	3.77	-	-	-
Ag	g/t	12.0	-	11.8	15.3	12.4	7.5	9.5	12.2	16.0	13.2	15.2	9.9	7.1	-	-	-
Sulphide Mill Feed	kt	2,143.8			0.5			1.0	19.1	33.7	59.4	68.5	77.9	89.8	91.7	91.0	91.1
Au	g/t	8.45	-	-	7.43	-	-	3.05	6.26	7.66	7.85	9.55	7.52	9.33	5.74	6.31	5.63
Ag	g/t	12.6	-	-	19.3	-	-	5.9	10.3	12.7	13.1	15.5	9.8	11.1	8.1	10.1	8.1
Total Mill Feed	**kt**	**2,772.0**		**68.0**	**91.0**	**91.0**	**91.2**	**90.9**	**91.1**	**91.0**	**90.9**	**90.9**	**91.2**	**91.1**	**91.7**	**91.0**	**91.1**
Au	g/t	7.87	-	5.64	7.43	6.26	5.55	4.40	5.36	6.97	7.21	8.80	7.32	9.26	5.74	6.31	5.63
Ag	g/t	12.5	-	11.8	15.3	12.4	7.5	9.5	11.8	14.8	13.1	15.4	9.8	11.1	8.1	10.1	8.1

TABLE 16.18
COMBINED OPEN PIT AND UNDERGROUND SCHEDULE (YEARS 15-31)

		15	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
Open Pit																		
Waste	kt																	
Oxide Mill Feed	kt																	
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulphide Mill Feed	kt																	
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OP Mill Feed	kt																	
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Underground																		
Waste	kt	45.7	67.8	84.8	22.6	1.2	5.1	0.9	7.7	3.7	7.2	9.7			0.8			
Oxide Mill Feed	kt																	
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
Sulphide Mill Feed	kt	91.2	91.2	91.3	92.2	91.2	91.3	91.1	91.2	91.1	91.0	91.0	91.2	91.4	91.3	91.2	91.2	59.8
Au	g/t	7.98	5.91	5.46	5.32	7.05	6.54	11.15	9.56	12.25	6.18	8.94	10.26	12.50	0.0	11.91	12.02	5.96
Ag	g/t	11.7	8.5	8.0	8.9	12.5	10.9	10.4	11.7	16.9	12.9	17.2	14.2	17.1	0.0	16.9	16.5	14.1
UG Mill Feed	kt	91.2	91.2	91.3	92.2	91.2	91.3	91.1	91.2	91.1	91.0	91.0	91.2	91.4	91.3	91.2	91.2	59.8
Au	g/t	7.98	5.91	5.46	5.32	7.05	6.54	11.15	9.56	12.25	6.18	8.94	10.26	12.50	0.0	11.91	12.02	5.96
Ag	g/t	11.7	8.5	8.0	8.9	12.5	10.9	10.4	11.7	16.9	12.9	17.2	14.2	17.1	20.1	16.9	16.5	14.1
Total																		
Waste	kt	45.7	67.8	84.8	22.6	1.2	5.1	0.9	7.7	3.7	7.2	9.7			0.8			
Oxide Mill Feed	kt																	
Au	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ag	g/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulphide Mill Feed	kt	91.2	91.2	91.3	92.2	91.2	91.3	91.1	91.2	91.1	91.0	91.0	91.2	91.4	91.3	91.2	91.2	59.8
Au	g/t	7.98	5.91	5.46	5.32	7.05	6.54	11.15	9.56	12.25	6.18	8.94	10.26	12.50	11.77	11.91	12.02	5.96
Ag	g/t	11.7	8.5	8.0	8.9	12.5	10.9	10.4	11.7	16.9	12.9	17.2	14.2	17.1	20.1	16.9	16.5	14.1
Total Mill Feed	**kt**	**91.2**	**91.2**	**91.3**	**92.2**	**91.2**	**91.3**	**91.1**	**91.2**	**91.1**	**91.0**	**91.0**	**91.2**	**91.4**	**91.3**	**91.2**	**91.2**	**59.8**
Au	g/t	7.98	5.91	5.46	5.32	7.05	6.54	11.15	9.56	12.25	6.18	8.94	10.26	12.50	11.77	11.91	12.02	5.96
Ag	g/t	11.7	8.5	8.0	8.9	12.5	10.9	10.4	11.7	16.9	12.9	17.2	14.2	17.1	20.1	16.9	16.5	14.1

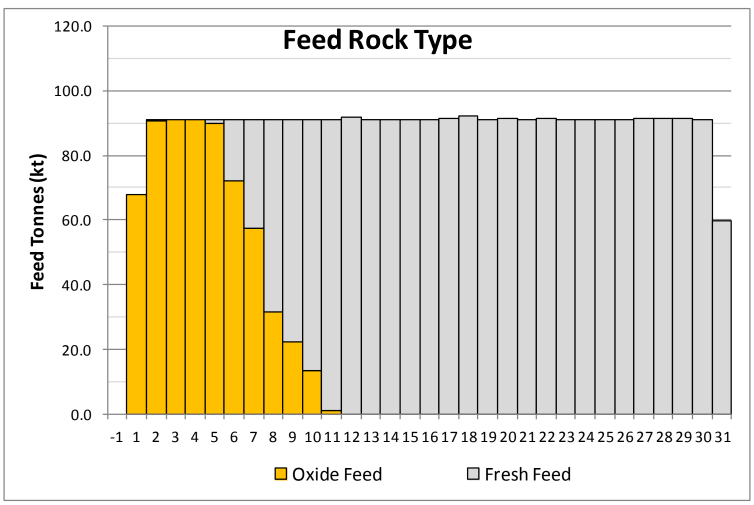
The source and grade of the mill feed over the life of mine is shown graphically in Figure 16.13. The highest mill feed grades will be achieved after Year 20 of the Project when underground mining encounters the deeper higher grade zones. The schedule incorporates a three year transition period (Years 10, 11 and 12), as open pit operations taper off and the underground production ramps up. The transition period is required to develop the mining stopes and ventilation system, and train underground crews. In Year 13 all mill feed production would come from underground mining operations.

Figure 16.13 Life-of-Mine Head Grades



The mill feed will consist of both oxide and sulphide rock mineralization. Figure 16.14 shows that initially the mill will process only open pit oxide material, which transitions into sulphide rock as the pits deepen. Sulphide rock will be processed over the majority of the Project schedule.

Figure 16.14 Life-of-Mine Oxide vs Sulphide Rock Processing

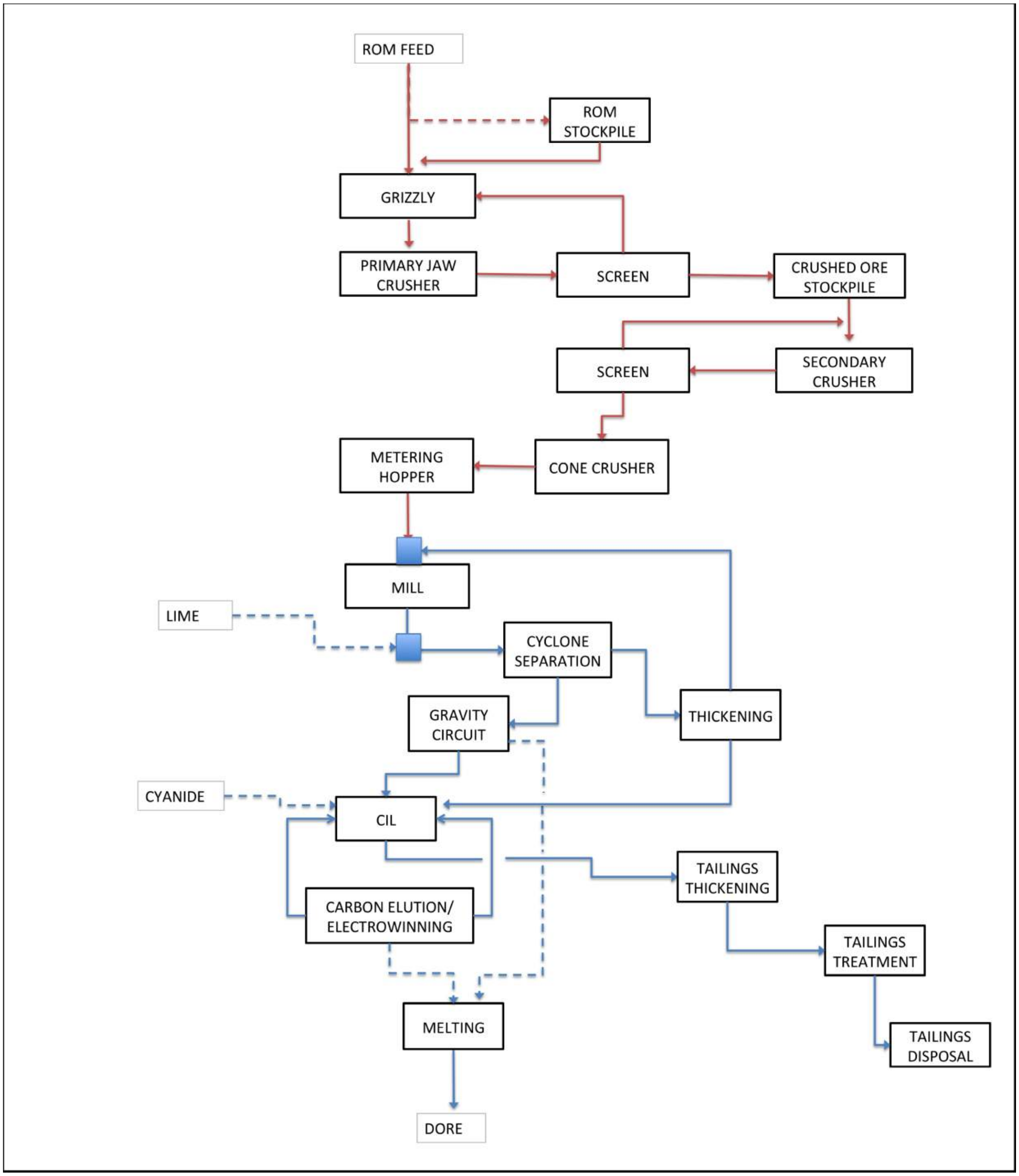


17.0 RECOVERY METHODS

17.1 GOLD RECOVERY PROCESS BLOCK DIAGRAM

The process design (Figure 17.1) is based on a combination of a gravity circuit and CIL technology at a process rate of 250 tonnes per day.

Figure 17.1 Process Flow Sheet Block Diagram



17.2 PROCESSING

17.2.1 Mineralized Feed Receiving

The San Albino processing plant is a 250 tonnes per day CIL gold recovery plant. Run of Mine (ROM) mill feed is hauled by trucks from the mine and dumped directly into the dump hopper feeding the jaw crusher or dumped to form a ROM buffer stockpile that will be reclaimed using a front-end loader to feed the hopper when required. The hopper is fitted with a stationary grizzly to limit the top size to the crusher. A variable speed apron feeder draws the mineralized material from the hopper at a nominal rate of 50 tonnes per hour to feed the primary jaw crusher. The crusher produces a minus 100 mm crushed product that is fed to a screening station to remove oversize for recirculation. The screen undersized product is transferred by a conveying system that delivers the mineralized material to the crushed material stockpile with a storage capacity of 7 days.

17.2.2 Secondary and Tertiary Crushing

Material in the stockpile is reclaimed with a front-end loader into a metering hopper discharging into a transfer conveyor to feed the secondary jaw crusher, discharging into a screening station that classifies the material to feed the tertiary cone crushing. Material sized to -25 mm is fed into the tertiary crusher that will reduce the size of the material to a P80 of 6.3 mm for feeding the ball mill. The sized material is transferred to a mill feed hopper.

17.2.3 Milling and Gravity Circuit

A variable speed belt feeder draws the mineralized material from the mill feed hopper at a nominal rate of 10.4 tonnes per hour onto the ball mill feed conveyor, then delivers it to the ball mill. The ball mill discharges fines, with a grind size that would have a P80 of 70 microns (to be confirmed with further test work), into the cyclone feed pump box. Lime is also added to the cyclone feed pump box. A cyclone feed pump feeds the mill discharge to two operating hydro cyclones. The cyclone underflow flows, by gravity, to the gold gravity recovery circuit where a set of Knelson concentrators provides two-steps for the recovery of free gold. The overflow from the gravity circuit discharges into the ball mill feed chute. Water is added automatically to the cyclone feed pump box to maintain a set-point cyclone feed density. A vibrating screen cleans the cyclone overflow of trash before it flows to the thickener tanks. The thickener overflow is recycled to the mill feed and other plant uses. The thickener underflow is feed to the CIL circuit.

17.2.4 Gold Recovery, CIL

The CIL circuit provides approximately 30 hours of leach and carbon absorption residence time that is provided by six tanks receiving slurry with 40% to 45% solids from the thickener underflow discharge. The use of pure oxygen, in lieu of using compressed air, could be considered for improved process recovery. The CIL tanks are installed on a step down elevation gradation, to allow the slurry to gravity flow. Carbon is moved every two days by pumping out the slurry to the loaded carbon-vibrating screen. Tanks 1 and 2 of the CIL train will have provision to receive milk of lime or caustic soda to allow pH control. The installation will include the instrumentation to support monitoring of operating variables including the concentration of gold and free cyanide in solution, the pH value and ionic strength of the solution, the concentration of organic compounds in the solution, the temperature, the particle size of the carbon, and the mixing efficiency. Carbon addition at a set rate defined by the metallurgical design requirements will have a counter-current movement from the last CIL tank forward to the first tank.

17.2.5 Gold Extraction from Loaded Carbon

The loaded carbon batch from the loaded carbon screen is pumped and collected in the acid wash tank to clean the carbon of calcium and other inorganic contaminants. After acid washing, the acid is neutralized and the alkalinity is increased. The carbon batch is then advanced to the carbon-stripping vessel. Striping solution is prepared and heated in a separate tank and then passed through the stripping vessel to obtain a pregnant solution. Following stripping, the carbon is washed with water to cool the carbon and to recover all of the gold bearing solution. Washed and stripped carbon is then returned to the CIL circuit.

17.2.6 Gold EW and Melting

The pregnant solution is circulated through the electro-winning cell then back into the pregnant solution tank. The electro-winning cell design is a sludge type where the majority of the gold is washed to the cell bottom and collected by flushing with a water hose into the filter feed pump box. The gravity concentrate gold and the gold sludge filter cake are then smelted to doré in the refinery furnace.

In the melting area, the gold concentrate from the gravity circuit is processed in cleaning tables and then melted together with gold cake obtained in the EW circuit.

17.2.7 Reagent Preparation

In this section of the plant, the project includes a cyanide preparation station, where diluted solution of cyanide is prepared using process water. A metering system delivers the prepared solution to the process.

A caustic soda preparation station handles solid caustic soda and allows for the preparation of a diluted solution that is transferred to a storage tank. A metering pump feeds the process to maintain pH control.

Activated carbon is required in the process for gold recovery. The process will produce carbon losses as fines due to process handling and there is a need to replace carbon load in a planned program. Carbon make up is planned and fresh activated carbon is fed according to the process requirements.

The plant does not include an activated carbon regeneration circuit in consideration that there would be minimum losses of the carbon absorption capacity in normal operation. It is estimated that activated carbon will have a one-year active life.

17.2.8 Tailing Treatment, Cyanide Destruction

Slurry discharged from the CIL circuit is discharged into a surge tank in the tailings area. The slurry will be fed to the filtration stage # 1 drum filter and a filter cake, that is washed by spray of fresh water, drops into an agitated re-pulper tank that provides surge to a filtration # 2 drum filter.

The tailings treatment will be based on using the INCO system using Copper catalyzed SO_2/Air using Sodium Metabisulphite as it is a method with wide acceptance in cyanide destruction. Alternate methods using ferrous sulphate as the main reagent can be evaluated during the next study stage since Ferrous-ferric cyanide complexing method is practiced at many operations including Barrick's Cortez Mine in Nevada. It is a low technology method, works without sophisticated operators and instrumentation, and uses a readily available waste product, ferrous sulphate, as the main reagent.

The use of H_2O_2 for cyanide destruction was not considered for a number of reasons. It is a liquid and is difficult to handle and store. It also does not work very well on slurry and the process considers treating filter cake.

17.2.9 Tailing Disposal

The filter cake will have approximately 8% to 12% moisture and it will be transported from the filter by a short belt conveyor to a transfer stockpile area. Tailings will be collected by a contractor front-end loader, loaded into contractor haul trucks, and transported to the tailings dry stack areas.

The tailings dry stack areas will be designed with drainage and pumping systems to collect and transfer water seepage and rainfall drainage to the mill area.

18.0 PROJECT INFRASTRUCTURE

Previous mining activity at San Albino was small scale and the remnants of that mining activity are now largely derelict. Hence, the infrastructure needed for the Project will need to be developed.

18.1 MINE SITE INFRASTRUCTURE

Contracted mining operations are planned for both open pit extraction and future exploitation using underground mining. Infrastructure that will be required includes access roads to the main pit and overburden disposal area. The contractors will install their own equipment maintenance facilities in locations specified by the owner.

A portable office for supporting technical services is required for the owner's supervisory personnel.

Workspace and parking areas will be supplied for maintenance of the owner's mobile equipment, and support vehicles. Additionally, a covered workspace for mechanics to perform breakdown repairs and maintenance will be provided by the contractor.

18.2 MINERAL PROCESSING AND GOLD RECOVERY PLANT BUILDINGS

In general the process facilities will be located outdoors and localized rain protection covers will be provided as needed.

The plant operation will require the following buildings:

- Carbon elution and gold recovery area
- Laboratory
- Offices
- Lunchroom
- Medical services
- Spare parts warehouse
- Control room
- Electrical room equipment
- Reagents storage room

18.3 ROADS

An access road to process facilities is considered as part of the Project. All plant facilities will have internal circulation roads, street lighting and electric power distribution lines. An arrangement of gravel roads will be built using waste rock coming from the mining exploitation. The width of these roads will be wide enough to accommodate three times the operating width of the largest hauling equipment, and will represent 12 to 15 m.

18.4 POWER SUPPLY

The power requirements for the plant are estimated at 0.84 MW/h. Although the national power grid runs within one kilometre of the proposed concentrator and CIL plant, Golden Reign intends to use diesel generation to power the plant and ancillary buildings.

At present, the Nicaraguan power grid does not have the capacity to take on the load of an industrial user in the area. The grid is used beyond its present load capacity, such that it suffers from frequent brownouts and blackouts. The power grid is often switched off at its distal points when power demand in Managua is high. Charges for power from the grid are presently approximately $0.25 per kilowatt-hour, slightly higher than the cost estimate of $0.234 for the diesel-generated plant.

When Nicaragua builds more capacity into its power grid and can reduce electrical charges for industrial usage, the Company will examine connecting to the grid and reducing its diesel power generation. At present, B2 Gold's Nicaraguan operations generate their own power by diesel at their two gold mines and provide power for neighboring communities.

18.5 FUEL SUPPLY

Distribuidora Nicaragüense de Petroleo provides bunker C fuel for power generation. The cost of this fuel is negotiable but significantly less than the price of normal diesel. Further consideration of bunker C fuel use will require selection of the proper generators instead of the conventional diesel generators. A fuel storage tank with proper spillage control is considered in the plant.

Diesel fuel storage will also be provided at site for the mining equipment and the owner's equipment.

18.6 WATER SUPPLY

Potable water will be delivered to the plant in special containers. The possibility to obtain well water and treated as potable water is considered as an option to be evaluated.

Process water will be obtained from the river and stored in a dual-purpose tank providing process water and storage of fire protection water. The preliminary water consumption for the operating plant was estimated at 45 m^3/hr with recycling providing 60% of this consumption and a net fresh water requirement of 18 m^3/hr.

18.7 SANITARY WASTE

A sanitary waste water treatment plant is considered as part of the supporting facilities. The facilities will be selected to support 60 persons.

An incinerator package will be integral to the plant.

18.8 TAILINGS MANAGEMENT

The tailings disposal system will consist of a filtered dry stack approach. The tailings will be trucked to several different disposal areas (see Table 18.1). One of these sites is near the plant site while three of the areas will consist of mined-out pits. Tailings generated by the processing of mill feed from underground mining will be backfilled into the pits. The out-of-pit tailings area will be HDPE lined and designed to collect water runoff and return it to the water management system. The in-pit tailings cells will be unlined.

TABLE 18.1
TAILINGS PLACEMENT VOLUMES

	Volume (m^3)
Near Plant	497,000
NE Pit	56,000
West Pit Phase1	142,000
West Pit Phase2	1,160,000
Total	**1,855,000**

19.0 MARKET STUDIES AND CONTRACTS

19.1 MARKET STUDIES

There were no market studies completed in support of this Technical Report. Gold, like other precious metals, is priced according to the current spot prices on public markets. As such, market studies are not required. However, the gold doré production from the San Albino Project can be sold either on the spot market or under agreements with refineries.

The base case financial model for the San Albino Project utilizes a gold price of US$1,250/oz and a silver price of US$20/oz. These prices remain fixed for the life of the Project. For comparison, the 24-month trailing average price for gold that existed on the effective date of this Technical Report was approximately US$1,300 per ounce.

Sales and marketing considerations will require finalisation during project execution. It is expected that any sales and refining agreements would be negotiated in line with industry norms.

19.2 CONTRACTS

For financing purposes, in July 2014 Golden Reign completed a Gold Streaming Arrangement with Marlin Gold Mining Ltd. at the Company's San Albino Gold Deposit (news release dated July 11, 2014). The Arrangement covers solely the San Albino Gold Deposit, a 3.5 square kilometre area within the Company's 137.71 square kilometre landholdings. As a term of the Arrangement, Sonoran Resources LLC will be the nominated engineering, procurement, construction and management ("EPCM") firm for project development. This EPCM contract is yet unexecuted, therefore the terms are not finalized.

No other major production or supply contracts have been entered into at this stage of the project.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section describes the Project, its potential environmental impacts, the environmental and social regulatory framework for mining in Nicaragua, environmental studies and permitting activities completed to date, and the envisaged mine closure plan.

The Company has an environmental permit for its geological exploration project on its 8,700 ha San Albino-Murra mineral concession. The Environmental Impact Assessment ("EIA") for the geological exploration project was conducted in accordance with Nicaraguan regulatory requirements. Golden Reign has also obtained relevant road building and land use agreements. Public consultation activities were conducted as part of the EIA. Golden Reign is very active in the community, maintaining regular dialogue with community leaders, and reports strong support for the proposed development of an operating mine at this location.

The Republic of Nicaragua has recently experienced economic growth and political stability with the return of Daniel Ortega to the presidency in 2007 (World Bank (2014), Moody's (2013), BTI (2004)). The country's decision makers have shifted from crisis control mode to making advance and developing longer-term and pioneering strategies including fighting poverty and improving the country's infrastructure. Nicaragua is one of the least developed countries in Central America and has a multi-ethic population of just over six million people. Based on P&E's review of the environmental and social aspects of the Project, there do not appear to be any environmental or social barriers to advancing this Project to its next technical study stage.

20.1 PROJECT DESCRIPTION

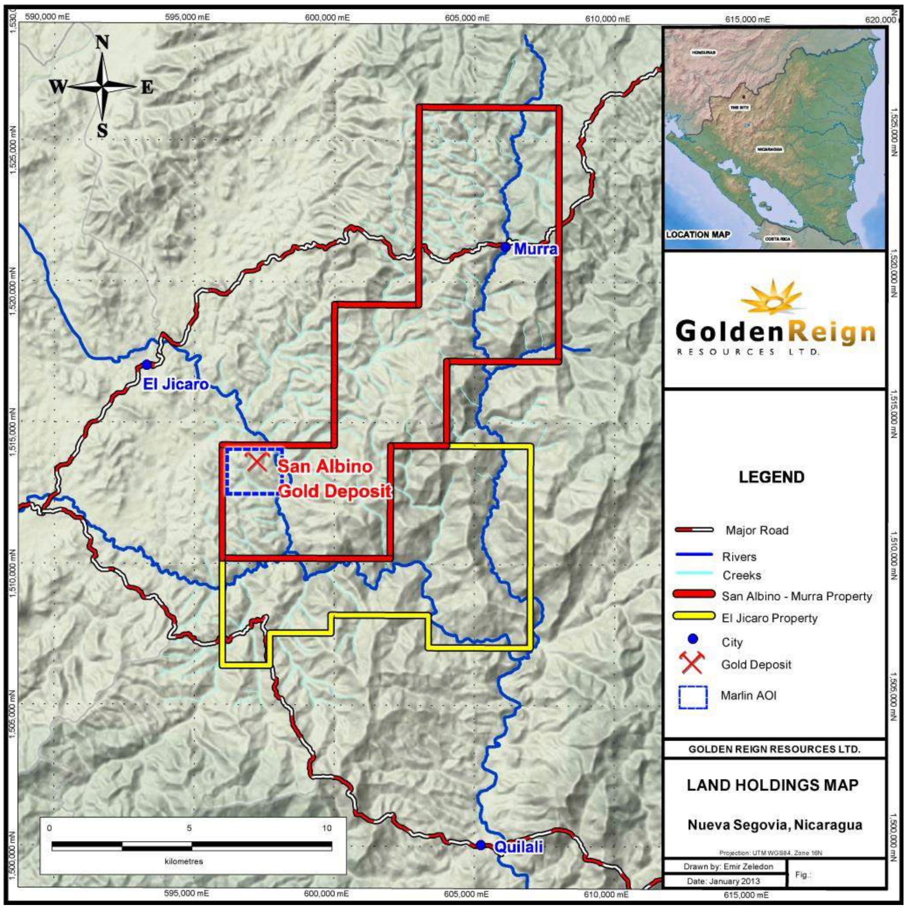
Golden Reign's San Albino-Murra 8,700 ha mineral concession area is situated within the El Jícaro and Murra municipalities of the Nueva Segovia Department. The proposed Project would be developed west of the El Jicaro River as shown in Figure 20.1. The main economic activities in this rural region are agriculture (predominately coffee, beans, corn, and vegetables), livestock, and logging. The town of El Jicaro is located 6 km northwest of the Project.

The proposed Project includes:

The development of an underground mine and four open pits in historic and previously disturbed mining areas. The majority of the mineralization would be extracted from the underground mine. The overburden materials stripped from the pit areas would be stockpiled for later use in site reclamation. The waste rock produced by the mining activities would be stockpiled in designated areas and/or used to backfill one or more of the pits and possibly some of the underground workings.

The construction and operation of an on-site carbon-in-leach gold and silver recovery plant. The plant would initially be used to process about 250 tonnes of material per day and may be expanded in later years. The plant process would use conventional crushing, grinding, carbon-in-leach, and gold and silver recovery stages to produce a doré bar product. The tailings would be filtered and disposed as dry-stacked tailings in a designated area north and east of the plant.

Figure 20.1 Project Location Map



The site infrastructure would include offices, change house, training and first aid facilities, repair shop, warehouse and material storage areas, potable water supply, process water supply, sanitation system, a power line and substation or diesel powered generators, fuel and chemical storage facilities, secure explosive and detonator storage facilities, waste management facilities, and vehicle parking areas.

The Project's water management system would include: a mine water collection system and settling pond; lined ditches to divert clean runoff away from stockpiled mine waste materials; a covered mineralized material storage area at the crusher; and process water recycling when possible. The process make-up water would be obtained from the El Jicaro River. The plant would have a peroxide-based cyanide destruction system available to treat excess process water prior to release.

The Project would be expected to have an integrated health and safety, environmental and social monitoring program. Personnel would receive training relevant to their work activities including training on spill prevention and control, the site emergency plan, etc. The health and safety performance of the project would be monitored and corrective and preventative measures would be taken to address potential concerns. The environmental monitoring program would include water and air quality and biological monitoring and inspection and audit activities. The areas of the concession disturbed by the Project would be progressively rehabilitated over the life of the operation and the Project would be closed-out after the cessation of mining.

The Project has been developed to the conceptual engineering stage. The Project may be revised as more advanced levels of study are carried out and additional technical, environmental, social and public consultation information becomes available.

20.2 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

The potential environmental impacts shown in Table 20.1 are based on P&E's understanding of the Project, conditions in the region, and its relevant experience from other gold and metal mining projects internationally. It is expected that the mine operator would include environmental controls into the design of the project and use standard operating procedures, training, monitoring, inspections, audits, emergency preparedness and response plans, etc. to eliminate or otherwise mitigate the potential significant impacts shown in Table 20.1.

TABLE 20.1
POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

Environmental & Social Aspect	Potential Impact	Examples of Typical Controls
Atmosphere.	Noise. Dust. Greenhouse gas emissions. Other air emissions.	Facility design / equipment selection. Noise reduction measures. Dust suppression. Equipment/engine maintenance.
Surface and groundwater quality. Surface and groundwater uses. Soils. Mine materials disposal. Tailings disposal. Non-hazardous and hazardous solid waste disposal. Mine dewatering. Seismic / hurricane events.	Water contamination. Receiving water quality impact. Valued ecosystem components including species at risk (if any). Acid rock drainage and metal leaching. Soil erosion/landslides. Soil contamination.	Divert clean run-off from mine waste stockpiles. Mine water collection and treatment. Sanitation system design and maintenance. Dry-stack tailings. Recycling. The use of qualified approved solid waste disposal contractors and facilities. Engineered processes and facilities. Monitoring programs.
Chemical transportation and storage. Chemical spills.	Soil and water contamination. Impact to terrestrial flora and fauna, and aquatic life.	Engineered storage facilities. Worker training. Spill prevention, control and countermeasure plans.
Treated effluent. Sanitation. Potable water.	Impact to receiving waters including flow, water quality, aquatic life, domestic animals, wildlife and water uses.	Water management system. Process water recycling. Environmental sampling and monitoring. Cyanide destruction.
Flora. Fauna. Aquatic life. Existing severe deforestation.	Diminished habitat & wildlife. Diminished biodiversity. Excess clearing. Valued ecosystem	The need for site-specific controls are identified as part of the EIA process. Mine operators typically introduce additional engineered controls and procedures to protect flora and fauna.

TABLE 20.1 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS		
Environmental & Social Aspect	**Potential Impact**	**Examples of Typical Controls**
	components including species at risk.	
Socio-Economic. Aesthetics. Cultural aspects. Archeological aspects. Artisanal mining. Resettlement (not expected). Transportation. Local infrastructure. Valued ecosystem components.	Reduced community support. Impacts to agricultural activities. Impacts (likely positive) to the local economy Aesthetics impact.	Community consultation. Opportunities for work. Worker training. Local / regional purchases. Community support activities. Sustainability initiatives. Joint company: community efforts.

20.3 REGULATORY FRAMEWORK

20.3.1 Background

The Republic of Nicaragua which was for an extended time besieged by political turmoil and conflict has recently experienced economic growth and political stability (World Bank, 2014). The country's decision makers have shifted from crisis control mode to making advance and developing longer-term and pioneering strategies including fighting poverty and improving the country's infrastructure. Nicaragua is one of the least developed countries in Central America and has a multi-ethic population of just over six million people.

The country has legislation covering for the environmental impact assessment ("EIA"), permitting, operation and closure of mining operations as well as public consultation and regulatory enforcement. It also has established legislation pertaining to the rights, including the right to self-government, of indigenous and designated ethic communities. The environmental permit for the San Albino-Murra Property geological exploration program was obtained by the property owner at that time and in accordance with Nicaraguan legislation. The property owner is Nicoz Resources S.A. (100% Golden Reign subsidiary).

20.3.2 Legislation

Nicaraguan environmental and social consultation legislation includes EIA requirements, permitting requirements, enforcement, and public participation obligations. The country's environmental legislation is rooted in the Political Constitution and contained in acts and regulations, executive decrees, resolutions, technical standards, guidelines, policies and agreements. The Constitution of the Republic of Nicaragua, Article 60, gives Nicaraguans have the right to live in a healthy environment and it is the obligation of the State to preserve, conserve and reclaim the environment and the natural resources of the country. The country's laws, regulations, decrees, resolutions and norms include EIA and permitting requirements. Under Nicaraguan Law 217, Article V and Executive Decree No. 76-2006, Article 17 an EIA is required for defined Category II type works, projects, industries and activities such as metal mining and mineral processing activities that have the potential to cause significant environmental impacts.

Other relevant laws include but are not limited to Law 612 Law on Amendment and Addition to Law 290, Law 620 General Water Law and associated regulations Decree No. 106-2007, and the Municipalities Law (Law No. 40 & 261). The key legislation referenced in the EIA for the San Albino-Murra geological exploration project (Nicoz, 2012) are shown in Table 20.2.

TABLE 20.2
KEY LEGISLATION IDENTIFIED IN THE GEOLOGICAL EXPLORATION PROJECT EIA

Legislation	Note
Political Constitution of the Republic of Nicaragua (Constitución Política de Nicaragua).	All laws are subordinate to it.
Law 217, General Environmental and Natural Resources Law and Decree 9-96 Regulation for the General Environmental and Natural Resources Law. (Ley 217 "Ley General del Medio Ambiente y los Recursos Naturales" y su Reglamento Decreto 9-96.	Law 217 enables standards to be established for the conservation, protection, enhancement and restoration of the environment and natural resources. Decree 9-96 establishes general regulations for environmental management and sustainable use of natural resources.
Law 387, Special Mining Prospecting and Exploitation Law and Regulation Decree No. 119-2001. (Ley 387: "Ley Especial de Exploración y Explotación de Minas" y su Reglamento.	The Ministry of Energy and Mines grants the mining concession holder exclusive rights to explore and exploit minerals within its concession area (PDAC, 2014).
Law 40 & 261, "Municipalities law" and regulations. (Ley 40 y 261 "Ley de Municipios" y su Reglamento.)	Under Article 6, Municipal governments have jurisdiction in all matters that affect the socio-economic development and environmental conservation and natural resources of their territorial boundaries.
Law 475, Law of Citizen Participation (Ley 475, "Ley de Participación Ciudadana".)	Law 475 seeks to promote the exercise of citizenship in political, social, economic and cultural spheres through the creation and operation of institutional mechanisms that enable interaction between the State and Nicaraguan society.
Law 722, Special Law for the Creation of Potable Water and Sanitation Committees, and regulations. (Ley Especial para la Creación de los Comités de Agua Potable y Saneamiento).	Law 722 aims to establish arrangements for the organization, constitution, legalization and operation of Committees of Drinking Water and Sanitation. Committees of Water and Sanitation (Comités de Agua Potable y Saneamiento) are referenced using the acronym "CAPS".
Decree 45-2005, National Policy for Solid Waste Management (2005-2023). (Decreto 45-2005. Política Nacional sobre Gestión Integral de los Residuos Sólidos (2005-2023).	This policy is aimed at advancing towards the integrated solid waste management compatible with the environment and public health.
Decree 76-2006, Environmental Evaluation System. (Decreto 76-2006 Sistema de Evaluación Ambiental).	This Decree establishes rules governing the Environmental Evaluation System of Nicaragua.
Decree 33-95, Provisions for the control of Contamination from domestic, industrial and agricultural waste waters. (Decreto 33-95	Under Article 1, this Decree establishes maximum permissible values or ranges

TABLE 20.2 KEY LEGISLATION IDENTIFIED IN THE GEOLOGICAL EXPLORATION PROJECT EIA	
Legislation	**Note**
"Disposiciones para el control de la Contaminación Proveniente de las Descargas de Aguas Residuales Domesticas, Industriales y Agropecuarias").	of liquid waste generated by domestic, industrial and agricultural discharging to the sanitary sewer lines and receiving bodies.
Decree 78-2002, Standards, Guidelines and Criteria for Land Management. (Decreto 78-2002: Normas, Pautas y Criterios para el Ordenamiento Territorial).	This instrument sets standards, guidelines and criteria for zoning, in the context of sustainable land use; ecological and cultural and heritage protection and restoration; natural disaster prevention; and the spatial distribution of human settlements.
NTON 05 014-01, Standard for the Management, Treatment and Disposal of Non-Hazardous Solid Waste. (NTON 05 014-01. Norma Técnica Ambiental para el Manejo, Tratamiento y Disposición final de los Desechos Sólidos No-peligrosos).	This is a technical standard for the environmental management, treatment and final disposal of Non-Hazardous Solid Waste.
NTON 05 027 – 05, Technical Standard for Wastewater Treatment Systems and Reuse. (NTON 05 027 – 05 Norma Técnica para Regular los Sistemas de Tratamiento de Aguas Residuales y su Reuso).	It establishes the technical and environmental provisions and regulations for the location, operation and maintenance, management and disposal of liquid and solid wastes generated by treatment systems for domestic, industrial and agricultural wastewater including treated water re-use.
General Regulation for Mine Work Health and Safety. (Reglamento General de Higiene y Seguridad del Trabajo en las Minas).	This regulation establishes occupational risk identification and prevention, and occupational hygiene provisions.
Labour Code (Código Laboral).	This Code establishes employer and worker rights and duties.
Criminal Code of Nicaragua (Código Penal de Nicaragua).	Prohibited constructions and crimes against nature are identified in Title XV of the Code and in associated chapters and articles.

20.4 GEOLOGICAL EXPLORATION PROGRAM EIA

The scope of the geological exploration project included diamond drilling, trenching, and associated site access, civil construction works and reclamation activities. The objective of the EIA was to determine the significant positive and negative impacts in each phase of the project (Nicoz, 2012). The EIA report and supporting documentation included:

- A description of the geological exploration project.
- A description of the 8,700 ha mineral concession.
- Property characterization including geology, soils, soil use in the El Jicaro and Murra municipalities; climate and meteorology; hydrogeology; flora and fauna; exploration program details including restoration options; and social, cultural, archeological and economic review and screening level assessment.
- A comprehensive assessment of social and economic conditions in the communities of El Jobo, San Albino, San Pablo, Las Conchitas.
- The identification of potential significant impacts with and without controls using a matrix type approach and potential impact scoring system; and

- The potential significant environmental aspects based on controls being in place were potential impacts to surface water and biodiversity.

The assessment also showed that the geological exploration project would have a positive economic impact.

It was predicted that the geological exploration project would not affect traditional economic activities in the area. Hidrosoluciones (2012) reported that the 8,700 ha concession area has a generally low diversity of species of wildlife due to habitat destruction from logging, ongoing land clearing, fire damage, climate change and hunting. The number of species identified as part of the baseline study are shown in Table 20.3. Nicoz (2012) indicates that the cheeked warbler, a threatened species, was first spotted in forests in the Jinotega and Nueva Segovia Departments in 2002 - see also the environmental recommendation in Section 26.

TABLE 20.3
NUMBER OF SPECIES IDENTIFIED IN THE EXPLORATION PROJECT BASE LINE STUDY

Taxonomic Group	No. of Species
Mammals	26
Reptiles	11
Amphibians	7
Birds	47
Trees	33

20.5 CLOSURE

The Project would be progressively rehabilitated and closed out at the end of the mine life in accordance with its Closure Plan. The initial version of the closure plan would be developed as part of advanced technical studies and the EIA process for the Project. The key objectives of the plan would outline the measures, time lines and costs to rehabilitation and close out the Project and leave the site in a safe and physically and chemically stable condition. The initial version of the plan would be refined over the life of the mine. The environmental performance of the rehabilitation and closure works would be demonstrated using the results of a post-closure environmental monitoring program. The key elements of the closure plan and estimated closure cost are shown in Table 20.4.

Under Law 387, Special law for Exploration and Mining, mine operators need to meet environmental discharge standards and their mine closure ecological restoration work obligations. Under Article 32, a mining concessionaire must leave a property in a safe condition. P&E has not identified a specific Nicaraguan legislated requirement to provide financial assurance for mine closure, aside from a general need to have resources available to fund closure.

Table 20.4 Projected Closure Cost		
Project Closure Component	**Key Elements**	**Closure Cost Allowance**
Open pits	The pits would be backfilled with mine waste rock when possible. Reactive rock (if any) would be placed in a pit(s) below the future pit lake elevation in order to keep the material submerged. The pit slopes located above a pit lake level would be re-sloped and vegetated to provide stable slopes over the long term. Vehicle access into the pits would be blocked.	$540k
Underground Mine	The underground mining equipment, materials and services, fuel, oil, explosives and blasting accessories would be removed from the mine and properly disposed. The mine openings to surface such as mine portals and raises would be backfilled with rock and sealed using reinforced concrete bulkheads. If the crown pillar is not geotechnically stable over the long term, it would be backfilled or securely fenced-off to prevent inadvertent access.	$210k
Plant	The plant and equipment would be removed and sold, or otherwise demolished, and the plant site would be cleaned-up. Unused chemicals and non-hazardous and hazardous wastes would be disposed in a responsible manner. The plant foundations would be covered with clean rock and soil capped and vegetated.	$610k
Tailings	The dry-stack tailings pile would have been developed with closure in mind. The tailings would be soil capped and vegetated. Rock lined ditches would be used to prevent the erosion of the soil cap layer.	$240k
Infrastructure	The project infrastructure including buildings, furnishings and stationary and mobile equipment, etc. would be sold and removed, or otherwise demolished and responsibly disposed. Contaminated soil conditions (if any) would be remediated. Unused chemicals and non-hazardous and hazardous wastes would be disposed in a responsible manner. Foundations would be soil capped and vegetated. Site roads would be scarified and vegetated.	$1,240k
Monitoring	The performance of the closure works program would be assessed over a 2-3 year post-closure monitoring time line. The monitoring program would focus on public safety aspects, erosion control success, re-vegetation success, and receiving water quality.	$160k
Indirect costs	Reclamation and closure indirect costs.	$500k
	Total	**$3,500k**

21.0 CAPITAL AND OPERATING COSTS

The capital and operating cost estimates were developed to a level of accuracy commensurate with that of a Preliminary Economic Assessment, in order to evaluate the Project's overall potential as a profitable mining and processing operation.

Where applicable, the exchange rate used was 27.0 "Nicaraguan Córdoba" ("NIO") per $US.

The estimated capital and operating costs for the Project are described in this section.

21.1 CAPITAL COSTS

The capital cost estimate includes the engineering, procurement, construction and start-up costs of the San Albino Project, which consists of several open-pit mines, a CIL processing facility capable of processing 250 tpd, and associated ancillary facilities.

After inclusion of an allowance for contingency, the capital cost estimate is considered to have an accuracy of ±30%, as of the first quarter of 2015. A summary of the initial and sustaining capital costs of the Project are summarized in Table 21.1.

TABLE 21.1
CAPITAL COST SUMMARY

Description	$US Million
Initial Capital Costs	
Site and General	1.24
Utilities & Services	1.42
Open Pit	0.90
Process Plant Directs	3.74
Tailings Facility	0.55
Indirects	2.29
EPCM	1.19
Owner's Costs	0.27
Contingency @20%	2.32
Total Initial Capital	**13.91**
Initial Underground Capital Costs	
Mine Development	12.91
Mining Equipment	1.31
Contingency @20%	2.84
Total Initial Underground Capital Costs	**17.06**
Sustaining Capital Costs	
Open Pit Mining	0.00
Underground Mine Development	12.56
Underground Mine Equipment Replacement	4.39
Process Plant	0.20
Contingency @20%	3.43
Total Sustaining Capital	**20.58**
Total Capital (Life-of-Mine)	**51.55**

Note: *Some values have been rounded. The totals are accurate summations of the columns and rows of data.*

No provision has been included in the capital cost to offset future escalation.

Items not included in the capital estimate include:

- Sunk costs and costs prior to the start of basic engineering phase
- Escalation
- Insurance
- Working capital
- Interest and financing cost
- Taxes
- Reclamation and associated bonding requirements.

21.1.1 Basis of Capital Cost Estimates

The estimate was developed using vendor budget pricing on all major equipment. Minor or support equipment that was not developed using vendor budget pricing was gathered from similar projects that are less than one year old.

Labour installation rates were calculated using labour rates considered current in the area. Included are appropriate and typical labour cost burdens.

Installation manhours were developed using historical man-hour/tonne ratios.

Material bulks have been factored using industry experience.

Indirect costs have been developed using appropriate factors for this level of study and knowledge. Local freight and commissioning costs have been factored into the indirect assumptions.

This operation does not lend to a large amount of spare parts, nor are any spare parts expected to require long lead times for delivery. Spare parts are accounted for in the operation costs. There are minimal initial fills to account for.

Engineering, procurement, and construction management costs have been factored into the indirect costs, as well as into the labour rates.

Local freight costs have been included in the indirect costs

21.1.2 Initial Capital Costs

The total estimated cost to design, procure, construct and start-up the facilities described in this report is $13.9 million, as presented in Table 21.2.

TABLE 21.2 INITIAL CAPITAL COSTS	
Description	**US$ Millions**
Site and General Direct Costs	
Site development	0.20
Gatehouse	0.02
Warehouse & Truck Shop	0.05
Main Office, Process, Service Buildings	0.37
Laboratory	0.36
Pickup trucks	0.08
Warehouse truck	0.05
Minibus	0.06
Ambulance	0.05
Total Initial Site and General Direct Costs	**1.24**
Utilities and Services Direct Costs	**1.42**
Open Pit Capital Costs	
Pre-stripping	0.52
Haul Roads	0.13
Survey equipment	0.03
Office equipment, PC's	0.01
Software	0.05
Pickup trucks (4)	0.16
Total Initial Open Pit Capital Costs	**0.90**
Process Plant Direct Costs	
Ore Receiving	0.26
Crushing	0.43
Grinding	0.71
CIL Plant	0.49
Carbon & Gold Room	0.80
Cyanide destruction	0.07
Tailings Filters	0.79
Reagents	0.19
Total Initial Process Plant Direct Capital Costs	**3.74**
Tailings Management Facility Direct Costs	**0.55**
Indirect Capital Costs	
Construction Indirects	1.36
Spare parts	0.14
Startup	0.16
Freight	0.63
Total Initial Indirect Capital Costs	**2.29**
EPCM	**1.19**

TABLE 21.2 INITIAL CAPITAL COSTS	
Description	**US$ Millions**
Owner's Costs	**0.27**
Initial Capital Cost Subtotal	**11.59**
Contingency @20%	**2.32**
Initial Capital Cost Total	**13.91**

Note: *Some values have been rounded. The totals are accurate summations of the columns and rows of data.*

The process plant facilities that are included in the initial capital cost estimate include:

- Ore receiving;
- Crushing;
- Grinding;
- CIL;
- Filtration;
- Cyanide Destruction;
- Gold Recovery;
- Reagents Utilities;
- Laboratory; and
- Diesel Power Generators.

The process plant capital cost includes the equipment, labour, civil/structural works, mechanical/piping, electrical/instrumentation and installation of all related equipment.

Indirect capital costs include construction indirects, freight, construction equipment, first fills and spare parts.

21.1.3 Initial Underground Capital Costs

Initial development of the underground mine will start in Year 10. Underground equipment purchases will total approximately $1.3 million and mine development activities will total approximately $12.9 million. The total capital cost estimate for the initial underground capital costs is $17.1 million, including a contingency allowance of 20%.

21.1.4 Sustaining Capital Costs

Sustaining capital estimates include capital expenses for additional costs and equipment purchases that will be necessary during the operating life of the project, and are not included in the normal operating costs. LOM sustaining capital is estimated to be $20.6 million. This includes a contingency allowance of $3.4 million over the life of the Project.

Since the open pit will be a contracted operation, no significant sustaining capital costs are expected. An allowance has been included in the Process Plant sustaining capital costs of

$200,000 in Year 5 for the addition of a ball mill required for adequate grind size of sulphide mill feed. However, most of the equipment replacement costs are included in the operating costs of the facility.

21.2 OPERATING COSTS

The open-pit and underground mining operating costs were estimated from first principles taking into consideration:

- The mining schedule;
- Mine designs;
- Climate;
- Anticipated ambient and workplace conditions;
- Shift durations and crew rotations;
- Unit cost information;
- Equipment requirements;
- Environmental protection and health and safety; and
- Various other factors.

The LOM annual Project operating costs are shown in Table 21.3. This includes mining, processing, and general and administration ("G&A") costs in Years 1 to 31.

TABLE 21.3
OPERATING COST SUMMARY

Description	US$ Millions
Open Pit Mining Cost	19.72
Owner's Open Pit Support	4.30
Underground Mining Cost	120.04
Processing	101.51
Tailings Transport & Placement	4.16
G&A	26.66
Total Operating Cost	**276.39**

21.2.1 Mining

The open pit mining operation will be undertaken using a mining contractor. The owner will support the mining contractor by providing overall management and technical services. Therefore, the open pit mining costs will consist of two components; the contractor mining cost and the Owner's support cost.

21.2.1.1 Open Pit Contractor Cost

At this PEA stage, no open pit contractors have been contacted to provide firm mining cost quotes. The open pit operating cost was estimated from P&E's experience in similar projects and was based on using owner operated smaller equipment, such as 25 t articulated trucks and small excavators. The mining cost estimate was then rounded up to provide an estimate for a contract mining cost. The mining cost estimate build-up is shown in Table 21.4. A unit cost of $3.50/t was used for all material handled in the mine.

TABLE 21.4 CONTRACT MINING COST ASSUMPTION	
Estimated Costs	**Unit Cost[1] US $/t material**
Drilling	$0.28
Blasting	$0.20
Loading	$0.35
Hauling	$0.99
Services/Roads/Dumps	$1.31
Extra Allowance (6%)	$0.20
Total Estimated Mining Cost	**$3.34**
Contractor Cost Used	$3.50

(1) Average mining cost is for open pit mining only

The number of mining personnel employed in the mining operations will be determined by the contractor that is retained to carry out the work.

21.2.1.2 Owner Open Pit Mining Support Cost

The estimated annual Owner support cost ranges from $0.35 million to $0.41 million per year, depending on the tonnages being moved, blasted, and assayed. Included in this total is the provision of management and technical services. A breakdown of the estimated annual cost for a typical year is provided in Table 21.5.

TABLE 21.5 OWNER'S OPEN PIT SUPPORT COST FOR A TYPICAL YEAR			
	#	**Salary + Burden ($US k)**	**Total Per Year ($US k)**
Mine Superintendent	1	51	51
Chief Engineer	1	51	51
Mine Engineer	1	40	40
Geologist	1	45	45
Surveyor	1	22	22
Survey Tech	1	22	22
Grade Control Tech	1	22	22
Sub-total Mine Salaries	7		253
Slope Stability Consultants			30
Software Leases			40
Office Supplies Allowance			5
Office Equipment Allowance			5
Blasthole Assaying			74
Total Mine Technical Services			**407**

During the open pit operating years (years 1-12), the total Owner support cost is $4.3 million.

21.2.2 Underground Mining Operating Cost

At this PEA stage, no underground contractors have been contacted to provide firm mining cost quotes. The mining cost was estimated from P&E's experience at another similar project in Nicaragua and from a database of other mine's using comparable mining methods. A total cost of $64.83/t underground mill feed has been estimated for underground mining. This average cost includes mine operating and non-capitalized development costs (over-cuts, under-cuts, and slot raises) and an allowance for Owner's costs of $3.38/t of underground mill feed.

The number of mining personnel employed in the mining operations will be determined by the contractor that is retained to carry out the work.

21.2.3 Processing Plant Operating Costs

Table 21.6 summarizes estimated process operating costs. These costs apply to the mill feed tonnages delivered to the mill from all mining operations.

TABLE 21.6
ESTIMATED PROCESS OPERATING COSTS

Item		US $M/year	US $/t
Operating Labour		0.44	4.79
Power		1.59	17.42
Reagents		0.53	5.82
Operating Supplies		0.09	1.04
Maintenance Labour		0.23	2.52
Maintenance Supplies		0.16	1.71
Subtotal		3.04	33.29
Contingency	10%	0.30	3.33
Total cost		**3.34**	**36.62**

Note: *Some values have been rounded. The totals are accurate summations of the columns and rows of data.*

Senior process staff are included in Operating Labour costs. Table 21.7 tabulates the salaried staff numbers.

TABLE 21.7
PROCESS SALARIED EMPLOYEES

Position	No. Required
Staff	
Mill Superintendent	1
Metallurgist	1
General Foreman	1
Clerk	1
Chief Assayer	1
Assayers	1
Staff Subtotal	6

In order to accommodate a 24-hour operation, the number of hourly rated employees totals 26 (Table 21.8).

TABLE 21.8 **PROCESS HOURLY EMPLOYEES**	
Position	**No. Required**
Operation Hourly	
Crusher Operator	2
Crusher Helper	2
Grinding Operator (shift lead)	4
Grinding Helper	4
Leach/CIL Operator	4
Leach/CIL Helper	0
Carbon Operator	4
Carbon Helper	2
Refiner	1
Refinery Helper	1
General Labour	2
Laboratory Labour	2
Total	**26**

The plant operations will be supported with a maintenance crew comprised of 12 persons (Table 21.9).

TABLE 21.9 **PROCESS MAINTENANCE LABOUR**	
Position	**No. Required**
Supervision	
Maintenance Foreman	1
Labour	
Lead hand Millwright	1
Millwrights/Mechanics	3
Millwright Asst.	4
Lead hand Electrician	1
Electrician	1
Electrician Assistant	2
Maintenance Personnel Total	**12**

Reagents and consumable cost estimates are presented in Table 21.10.

TABLE 21.10 REAGENTS AND CONSUMABLES						
Description	**Consumption (kg/t)**	**Annual (t/a)**	**Unit Cost ($/kg)**	**Freight ($/kg)**	**Delivered Cost ($/kg)**	**Total ($/t)**
(CaO) Lime	0.500	46	0.12	0.00	0.12	0.060
NaCN	1.250	114	2.40	0.15	2.55	3.188
carbon	0.050	5	3.00	0.15	3.15	0.158
Caustic	0.210	19	0.00	0.15	0.15	0.032
HCl	0.005	0	0.07	0.15	0.22	0.001
Millsperse	0.015	1	0.80	0.00	0.80	0.012
Na2S2O5	0.500	46	1.00	0.15	1.15	0.575
Flocculant	0.020	2	6.50	0.15	6.65	0.133
Lead nitrate	0.050	5	1.57	0.15	1.72	0.086
Fuel (L/t)	0.075	7	1.000	0.150	1.150	0.086
Flux	0.010	1	3.000	0.150	3.150	0.032
Total						**4.361**

Note: *Some values have been rounded. The totals are accurate summations of the columns and rows of data.*

21.3 GENERAL AND ADMINISTRATIVE (G&A)

The G&A costs have been estimated to a PEA level and include costs for management, accounting, training, health & safety, and environmental. For a typical year, the annual G&A cost is estimated at $0.9 million or approximately $9.45/t of feed processed (Table 21.11).

TABLE 21.11 G&A COST					
Description	**No.**	**Unit Cost NIO/month**	**Unit Cost US$/month**	**Payroll Burdens 45.5%[1]**	**Total US$ per month**
General Manager	1	200,000	7,407	3,370	10,800
Admin assistant	1	30,000	1,111	506	1,600
IT Tech	1	40,000	1,481	674	2,200
Controller	1	76,000	2,815	1,281	4,100
Accountants	1	40,000	1,481	674	2,200
HR Manager	1	76,000	2,815	1,281	4,100
Secretary	1	30,000	1,111	506	1,600
Bus Driver	1	30,000	1,111	506	1,600
Safety & Security Officer	1	50,000	1,852	843	2,700
Environmental technician	1	40,000	1,481	674	2,200
Security team	12	25,000	11,111	5,056	16,200
Warehouse Supervisor	1	50,000	1,852	843	2,700
Warehousemen	1	40,000	1,481	674	2,200
Purchasing Agents	1	40,000	1,481	674	2,200
Receptionist	1	20,000	741	337	1,100
General Office Expenses		100,000	3,700		3,700
Insurance		100,000	3,700		3,700
Monthly Subtotal	26		46,733	17,897	64,900
Contingency Allowance		10%	4,673	1,790	6,490

Table 21.11 G&A Cost					
Description	**No.**	**Unit Cost NIO/month**	**Unit Cost US$/month**	**Payroll Burdens 45.5%[1]**	**Total US$ per month**
Monthly Total			51,407	19,686	71,390
Yearly Total			616,880	236,236	856,680
			Annual cost (rounded) =		860,000
			G&A Unit Cost ($/t) =		9.45

(1) An allowance of 45.5% for payroll burdens (also referred to locally as "fringe benefits" or "contribution") was take from PricewaterhouseCoopers International Limited ("PwC Nicaragua"), "Doing Business - A Guide for Nicaragua", October 2013

Note: *Some values have been rounded. The totals are accurate summations of the columns and rows of data.*

22.0 ECONOMIC ANALYSIS

22.1 SUMMARY

A discounted cash flow model was prepared using the production schedule described in Section 16 and the capital and operating cost parameters described in Section 21. The PEA cash flow model was developed on both a pre-tax and after-tax basis.

The San Albino Project economic evaluation conclusions are summarized in Table 22.1. At a base case gold price of US$1,250 per ounce, San Albino has an estimated undiscounted after tax cash flow of US$290.4 million, a US$105.4 million after-tax net present value at a 5% discount rate (“NPV5%”), and an after-tax internal rate of return (“IRR”) of 37.4%. The payback period is estimated at 2.2 years from the start of production.

TABLE 22.1
ECONOMIC EVALUATION SUMMARY

	Pre-Tax (US$ M)	After-Tax (US$ M)
Undiscounted	422.8	290.4
NPV (5%)	59.7	105.4
NPV (8%)	98.5	63.0
NPV (10%)	74.0	46.2
IRR=	50.8%	37.4%
Payback period (years)	1.6	2.2

Note that the figures in Table 22.1 do not exactly match those in the Golden Reign news release on the results of this PEA, dated March 16, 2015. A non-material revision to the metallurgical recovery was made subsequent to the news release.

The PEA project economics are based on a production plan that utilizes both Indicated and Inferred resources. P&E notes that Indicated Resources which are not mineral reserves do not have demonstrated economic viability. The quantity and grade of reported Inferred Mineral Resources in this estimation are uncertain in nature and there has been insufficient exploration to define them as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. The PEA should not be considered a Pre-feasibility or Feasibility Study, as the economic and technical viability of the project have not been demonstrated at this time.

22.1.1 Basic Assumptions

A discounted cash flow analysis of the San Albino Project was prepared based on technical and cost inputs developed by the P&E engineering team commensurate with a PEA level study.

This discounted cash flow analysis was performed on a stand-alone project basis. The financial evaluation uses a base case discount rate of 5%, discounting back to the commencement of construction (Year -2) of the Project. Other discount rates are also applied to the cash flows as a sensitivity analysis.

All currency values are expressed in US dollars unless otherwise noted.

22.1.2 Gold Price

In the financial analysis the gold price used was $US 1,250/oz and the silver price is $US 20/oz, and these prices are constant over the 31 year life of the project. Gold generates about 98% of the project revenue, hence the economic sensitivity to gold price was also examined.

22.1.3 Metallurgical Recoveries

The San Albino Project's gold and silver process recovery assumptions for the feed types are summarized below:

- Oxide feed: Au = 91% Ag = 59%
- Sulphide feed: Au = 95% Ag = 85%

22.1.4 Gold Streaming Arrangement

Golden Reign entered into a gold streaming arrangement ("the Arrangement") with Marlin Gold Mining Ltd. (Press Release July 11, 2014) to finance project construction. The PEA cash flow model incorporates the Arrangement into the economic analysis. The terms of the Arrangement specify that:

- Marlin will provide a US$15.0 million upfront payment to be used for construction and development at the San Albino Gold Deposit. For income tax purposes, the US$15.0 million payment is considered as deferred income and distributed over the life of the project based on the annual gold ounces delivered to the stream; and
- Marlin's wholly-owned subsidiary, Sailfish Royalty Corp. ("Sailfish"), will be entitled to purchase 40% of gold production at US$700 per troy ounce (subject to a 1% per year cost escalation beginning three years from commercial production) until an amount of US$19.6 million is recovered by Sailfish. From that point on Sailfish will be entitled to purchase 20% of annual gold production at US$700 per troy ounce (subject to a 1% per year cost escalation beginning three years from commercial production plus 50% of the price differential above US$1,200/oz).

Golden Reign will be required to make minimum payments of US$282,800 per month when commercial production commences until the US$19.6 million is recovered. This would equate to delivering a minimum of 404 ounces of gold per month (4,850 oz/yr) based on a US$700 gold price. The minimum payment may be paid in gold or cash or a combination thereof, at Golden Reign's election.

Prior to commercial production Sailfish will be entitled to receive an 8% semi-annual coupon payment on the purchase price.

The quantity and revenue derived from gold ounces subject to the Arrangement are shown in Table 22.2.

TABLE 22.2 GOLD STREAMING SUMMARY		
Description	**Units**	**Value**
Gold Production (Total life-of-mine)	oz	661,236
Delivered to 40% Stream	oz	27,883
Average Gold Realized Price for 40% stream	$/oz	703
Delivered to 20% Stream	oz	119,174
Average Gold Realized Price for 20% stream	$/oz	852
Delivered to Stream (total)	oz	147,057
% of Total Gold Production	%	22.2%
Revenue from Front Steam Payment	$US ('000)	15,000
(+) Revenue from 40% stream	$US ('000)	19,600
(+) Revenue from 20% stream	$US ('000)	101,523
(-) Coupon payment (semi-annual)	$US ('000)	-1,200
Total Stream Revenue	$US ('000)	134,923
Deferred Annual Stream Payment	$US ('000)	15,000
Deferred Stream Payment (for income tax)	$/oz	102

If the gold streaming arrangement were not in effect, the project would have improved economics. Table 22.3 summarizes the economics without the streaming arrangement. The NPV5% increases to US$128.6 million from US$105.4 million (from Table 22.1).

TABLE 22.3 ECONOMICS WITHOUT GOLD STREAMING ARRANGEMENT		
	Pre-Tax (US$ M)	**After Tax (US$ M)**
Undiscounted	4,836.	337.5
NPV (5%)	189.9	128.6
NPV (8%)	120.4	79.8
NPV (10%)	92.2	60.1
IRR	63.5%	47.9%
Payback period (years)	1.3	1.7

22.1.5 Capital Costs

Total life-of-mine capital costs are estimated at US$51.5 million as outlined in Section 21. The initial capital costs of US$13.9 million are incurred over a two year construction period. The initial underground development cost is estimated to be US$17.0 million, while life-of-mine sustaining costs are approximately US$20.6 million.

22.1.6 Depreciation

Depreciation is based on a straight line method, on a unit of production (tonnes milled) basis.

22.1.7 Income Tax Rate

The government income tax is levied at a rate of 30% on the net taxable income.

22.1.8 Royalty Rate

A government 3% gross revenue royalty is applied in the cash flow economics, and is considered deductible when determining taxable income. The revenue basis for the royalty calculation is the income generated by the streaming agreement including the annually distributed up-front stream payment.

22.1.9 Surface Rights Fee

A $12/ha surface right payment is included assuming a mineral concession area of 350 ha.

22.1.10 Cash Flow Summary

The estimated annual production and life-of-mine cash flows for the San Albino Project are summarized in Table 22.4.

TABLE 22.4
PROJECT CASH FLOW SUMMARY

Description	Units	Quantity
Mine Production		
Production Rate	tpd	250
Open Pit Feed	Mt	0.92
Underground Feed	Mt	1.85
Total Feed	Mt	2.77
Au	g/t	7.87
Ag	g/t	12.47
Total Waste (OP,UG)	Mt	5.65
Total Material	Mt	8.42
Mine Life	years	31.0
Processing		
Au Recovery (Oxide)	%	91.0%
Ag Recovery (Oxide)	%	59.0%
Au Recovery (Sulphide)	%	95.0%
Ag Recovery (Sulphide)	%	85.0%
Au recovered	oz	661,200
Ag recovered	oz	881,900
Revenue		
Gold Price	$US/oz	1,250.0
Silver Price	$US/oz	20.0
Total Revenue (Life-of-Mine)	$M	778.5
Operating Cost		
LOM Average Mining Cost (OP & UG)	$/t feed	52.16
Processing	$/t feed	36.62
Tailings	$/t feed	1.50
G&A	$/t feed	9.62
Total operating Cost	$/t feed	99.90

TABLE 22.4 PROJECT CASH FLOW SUMMARY		
Description	**Units**	**Quantity**
Capital Costs		
Initial Capital	$M	13.9
Underground Initial Capital	$M	17.0
Sustaining Capital	$M	20.6
Total Capital	$M	51.5
Cash Flows		
Revenue	$M	778.5
(-) Operating Cost	$M	(276.4)
(-) Working Capital	$M	0.0
(-) Royalty	$M	(23.9)
(-) Minimum Payment to Marlin	$M	(0.3)
(-) Capital Spending	$M	(51.5)
Environmental & Reclamation	$M	(3.5)
Pre-Tax Cash Flow	$M	422.8
(-) Income Tax	$M	(132.4)
After-Tax Cash Flow	$M	290.4

22.2 SENSITIVITIES

The San Albino Project economics were examined with a sensitivity analysis for several key variables.

The effect on the after-tax NPV5%, IRR and payback period resulting from changes to the gold price are shown in Table 22.5.

TABLE 22.5 GOLD PRICE SENSITIVITY							
US$/oz	**$1,000**	**$1,150**	**$1,200**	**$1,250**	**$1,300**	**$1,350**	**$1,500**
NPV5% ($M)	69.0	90.4	97.5	105.4	113.3	121.2	144.8
IRR (%)	28.6%	34.0%	35.7%	37.4%	39.1%	40.7%	45.4%
Payback (years)	2.8	2.4	2.3	2.2	2.1	2.0	1.8

The effect on the after-tax NPV5% due to changes in the capital and operating costs is tabulated in Table 22.6.

TABLE 22.6 NPV5% SENSITIVITY TO CAPITAL AND OPERATING COST					
	Change in Capex or Opex				
Description	-20%	-10%	0%	10%	20%
Capex	110.5	107.9	105.4	102.9	100.3
Opex	122.2	113.8	105.4	97.0	88.7

The effect on the IRR due to changes in the capital and operating costs is tabulated in Table 22.7.

Table 22.7 IRR Sensitivity to Capital and Operating Cost					
	Change in Capex or Opex				
Description	-20%	-10%	0%	10%	20%
Capex	44.4%	40.7%	37.4%	34.7%	32.2%
Opex	42.1%	39.9%	37.4%	35.2%	32.8%

The San Albino Project has been designed at a production rate of 250 tpd. This base case production rate has been selected in order to present a capital cost that is financeable with the gold stream arrangement. However 250 tpd may not be the most optimal production rate and so a cursory examination of alternate production rates (350 tpd and 500 tpd) has been undertaken. Capital and operating costs for these options were developed by factoring the costs from the 250 tpd production case.

Table 22.8 presents a comparison of the 250 tpd base case and the 350 and 500 tpd alternate cases. As expected, higher production rates would result in lower unit operating costs, a shorter mine life, and generally better economics.

Table 22.8 Project Economics Sensitivity to Production Rate Variation				
Production Rate	**tpd**	**250 tpd**	**350 tpd**	**500 tpd**
Open Pit Feed	Mt	0.92	0.92	0.92
Underground Feed	Mt	1.85	1.85	1.85
Total Feed	Mt	2.77	2.77	2.77
Au	g/t	7.87	7.87	7.87
Ag	g/t	12.47	12.47	12.47
Total Waste (OP,UG)	Mt	5.65	5.65	5.65
Total Material	Mt	8.42	8.42	8.42
Mine Life	years	31.0	22.0	16.0
Processing				
Au Recovery (Oxide)	%	90.0%	90.0%	90.0%
Ag Recovery (Oxide)	%	59.0%	59.0%	59.0%
Au Recovery (Sulphide)	%	95.0%	95.0%	95.0%
Ag Recovery (Sulphide)	%	85.0%	85.0%	85.0%
Au recovered	oz	661,200	661,200	661,200
Ag recovered	oz	881,900	881,900	881,900
Revenue				
Gold Price	$US/oz	1,250.0	1,250.0	1,250.0
Silver Price	$US/oz	20.0	20.0	20.0
Total Revenue (Life-of-Mine)	$M	778.5	773.2	769.0
Operating Cost				
LOM Average Mining Cost (OP & UG)	$/t feed	52.16	49.27	47.83
Processing	$/t feed	36.62	32.43	29.30
Tailings	$/t feed	1.50	1.50	1.50

Table 22.8 **Project Economics Sensitivity to Production Rate Variation**				
Production Rate	**tpd**	**250 tpd**	**350 tpd**	**500 tpd**
G&A	$/t feed	9.62	6.83	4.96
Total operating Cost	$/t feed	99.90	90.03	83.59
Capital Costs				
Initial Capital	$M	13.9	17.0	21.1
Underground Initial Capital	$M	17.0	17.0	17.0
Sustaining Capital	$M	20.6	20.6	20.6
Total Capital	$M	$ 51.5	55.0	59.0
Cash Flows				
Revenue	$M	778.5	773.2	769.0
(-) Operating Cost	$M	(276.4)	(249.0)	(231.2)
(-) Working Capital	$M	0.0	0.0	0.0
(-) Royalty	$M	(23.9)	(23.7)	(23.6)
(-) minimum payment to Marlin	$M	(0.3)	0.0	0.0
(-) Capital Spending	$M	(51.5)	(55.0)	(59.0)
Environmental & Reclamation	$M	(3.5)	(3.5)	(3.5)
Pre-Tax Cash Flow	$M	422.8	442.0	451.7
(-) Income Tax	$M	(132.4)	(138.9)	(142.1)
After-Tax Cash Flow	$M	290.4	303.1	309.6
NPV (5%)	$M	105.4	143.8	173.9
NPV (8%)	$M	63.0	96.6	126.4
NPV (10%)	$M	46.2	75.5	103.2
IRR	%	37.4%	46.5%	54.2%
Payback period (years)		2.2	1.8	1.7

22.3 ALL-IN SUSTAINING CASH COST

The all-in cost for gold production is estimated to be $532/oz based on a total estimated gold production over the LOM of 661,236 oz.

With the silver credit included, the all-in cost is expected to be $506/oz AuEq.

Table 22.9 summarizes the details for the cash cost, all-in sustaining cost, and all-in cost with and without the silver credit.

TABLE 22.9 CASH COST BASIS			
Description		**LOM Cost ($M)**	**$/oz Au**
Operating Cost (Y1 to end)		276,394	418
Royalty		23,947	36.2
Cash Cost	(A)	300,341	454
Sustaining Capex		23,421	35.4
All In Sustaining Cost	(B)	323,763	490
Initial Capex		28,125	42.5
All-in Cost	(C)	351,888	532
With Silver Credit			
Revenue from Silver (credit)	(D)	17,196	-26.0*
Cash Cost (A-D)	(A-D)	283,145	428*
AISC (B-D)	(B-D)	306,566	464*
All-in Cost (C-D)	(C-D)	334,691	506*

**$/oz AuEq*

23.0 ADJACENT PROPERTIES

There are no adjacent properties to the San Albino Property.

24.0 OTHER RELEVANT DATA & INFORMATION

24.1 PROJECT RISK ASSESSMENT

Risks due to catastrophic events caused by forces of nature, or by man, which could not have been prevented or avoided by foresight or prudence are notable risks to the anticipated project outcome. Similarly, risks related to uncertainties in metal price assumptions, uncertainties in estimated unit costs of equipment and consumables, the availability of personnel to operate the mine, the availability of financial resources for construction and other industry risks, are also notable concerns. Whereas these issues may be quantifiable to some extent, they are only itemized here as a matter of record.

P&E also notes that whereas mining typically involves exposure to falling rocks, large moving mobile equipment, moving equipment parts, etc., the San Albino Project carries no unusual risks in terms of health and safety. The topography, rock conditions and climate of the Project location are considered unproblematic and conventional mining and processing techniques will be employed with adequate training of the employees.

Also, the Project is located in an easily accessible part of the country of Nicaragua. The Project is in approximately 41 kilometres from the city of Ocotal, the capital of the Nueva Segovia Department of the Republic of Nicaragua. Ocotal is connected by the Pan American highway to Managua, the capital of Nicaragua. The site has easy access to the national power grid and ample water resources. The topography of the area is very amenable to mining operations. However, Nicaragua is still one of Latin America’s least developed countries.

Nicaragua has a constitutional democracy as a form of government. The CIA World Factbook reported in 2014 that “… the 2011 presidential elections, 2012 municipal elections, and 2013 regional elections were marred by widespread irregularities. Nicaragua's infrastructure and economy - hard hit by the earlier civil war and by Hurricane Mitch in 1998 - are slowly being rebuilt, but democratic institutions have been weakened under the ORTEGA administration (sic The Chief of State of Nicaragua since 2007 is President Jose Daniel ORTEGA Saavedra)”.

The Long-Term Climate Risk Index 2014, authored by Sönke Kreft and David Eckstein, and published by Germanwatch e.V., lists Nicaragua as number 4 in its list of the 10 countries most affected by extreme weather events between 1993 and 2012.

However, subject to further study in this area, it is expected that these risks to the Project will be minimal. Some specific and significant risks related to the San Albino Project are described in Table 24.1. The risks identified therein are not the complete list of risks. They include only unusual risks related to technical issues.

TABLE 24.1 PROJECT RISK ASSESSMENT		
Risk	**Explanation/Potential Impact**	**Possible Risk Mitigation**
Gold and Silver Prices	Project economics are not extremely sensitive to gold and silver metal prices due to the high grade of the deposits. However, any significant decrease in gold and silver prices would have negative implications on the results of the PEA.	The PEA used a 24-month trailing average to estimate gold and silver prices in the PEA. Forward selling of gold can mitigate the risk of price fluctuations.
Water Inflow into Underground Mine	The open pits are located generally on hillsides. Underground operations however may be affected by high water inflows. Actual water inflow rates to the area have not been confirmed through hydrogeological studies. Should inflow rates be significantly higher for any reason, then this would increase total operating cost and negatively impact project economics.	Investigations into water inflow rates will determine the extent of any problems encountered. Additional mitigation strategies, if needed, could include large mine dewatering facilities Water management will form an important part of the mine development.
Mineral Resource Confidence	This PEA is based upon mineral resources that include Inferred Mineral Resources. Inferred resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves.	Additional in-fill drilling will upgrade the confidence level of the contained Inferred resources. Since the initial 10 years of production will be from the open pit, in-filling drilling should focus on the open pit resource.
Mining Dilution	Higher than expected mining dilution could have a significant impact on project economics.	Underground and open pit mining operations will need to employ accurate drilling and blasting practices, in order to minimize dilution. A grade control plan must be developed as part of more detailed studies.
Metallurgical Recoveries*	Recovery estimates are based on available metallurgical data and analysis. No pilot tests have been performed. If actual recoveries are lower than estimated, then this would reduce revenue per tonne of mill feed and adversely affect overall project economics.	Substantial advanced metallurgical test work has been completed, where simple gravity concentration tests returned excellent gold recoveries and overall recoveries for the oxide zone were 91% for gold, 59% for silver and for the sulphide zone, were 95% for gold and 85% for

TABLE 24.1 PROJECT RISK ASSESSMENT		
Risk	**Explanation/Potential Impact**	**Possible Risk Mitigation**
		silver
Capital and Operating Costs	Higher capital and/or operating costs will affect the project economics. The exposure to high capital costs has been minimized by planning for a modest initial capital investment.	In the next stage of study, confirm contract costs with more detailed scopes of work and more detailed contractors cost estimates. Investigate potential cost-reduction measures.
Environmental Permitting	If the permitting timeline is longer than expected, then the additional cost and delay in production will adversely affect project economics.	Golden Reign must maintain good relations with the community and the Nicaraguan government and its agencies.
Geotechnical Risk	Geotechncial risks associated with the open pit slopes and the design of the underground openings and underground mining methods may require modifications to the designs, with additional associated costs.	Carry out a full geotechnical investigation at the Project site to confirm or revise the parameters used in the PEA.

**The descriptions and preliminary designs for the processing sections of the San Albino PEA were based in part on the industry experience of P&E. Higher level metallurgical test work will be required to confirm or modify the projections made herein. Contamination of products with deleterious elements/by-products will affect the value of the product. Higher reagent consumption or lower recoveries of gold can possibly occur. Detailed and advanced metallurgical test work and / or pilot plant work may be required to verify the assumptions made in this PEA.*

24.2 CONCLUSION

To the best of the author's knowledge there is no other relevant data, additional information or explanation necessary to make the Report understandable and not misleading.

25.0 OBSERVATIONS AND CONCLUSIONS

Based on the favourable economics generated by the PEA, P&E concludes that the San Albino Project has economic potential as an open pit and underground mining operation, feeding a 250 tpd on-site mineral processing facility to produce a gold doré.

The reader is cautioned that this PEA is preliminary in nature. In particular the reader is advised that the majority of mineral resources on which PEA is based are Inferred Mineral Resources. Inferred mineral resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability and there is no certainty that this PEA will be realized.

P&E Mining Consultants Inc. also offers the following interpretation and conclusions:

- This Report is considered by P&E Mining Consultants Inc. to meet the requirements of a Technical Report as defined in Canadian NI 43-101 regulations. The economic analysis contained in this Report is based on Indicated and Inferred resources. The mineral resources in this PEA were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions. This PEA is not sufficient to adequately support a production decision. The economic and technical viability of the project have not been demonstrated at this time.
- There is no guarantee that Golden Reign will be successful in obtaining any or all of the requisite consents, permits or approvals, regulatory or otherwise for the San Albino Project development or that the Property will be placed into production;
- Golden Reign's exploration work is professionally managed and field procedures generally meet accepted industry best practices. P&E is of the opinion that the exploration data are sufficiently reliable to interpret with confidence the boundaries of the gold mineralization and support evaluation and classification of mineral resources in accordance with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserve Best Practices" and CIM "Definition Standards for Mineral Resources and Mineral Reserves" guidelines.
- The San Albino gold-bearing deposits contain a significant mineral resource estimated at 156,100 ounces of gold and gold equivalent silver in the Indicated categories, with an additional 806,100 ounces of gold and gold equivalent silver in the Inferred category;
- P&E considers that the mineral resource model documented herein is sufficiently reliable to support engineering and design studies at a PEA level;
- The Project was evaluated on a post-tax cash flow basis and generates an undiscounted net after-tax cash flow of $290.4 million. This results in a post-tax Internal Rate of Return ("IRR") of 37.4% and a post-tax Net Present Value of $105.4 million when using a 5% discount rate. In the base case scenario, the project has a payback period of 2.2 years from the start of production. The average life-of-mine all-in $532/oz gold and after considering the silver credits that are due, the all-in cost is reduced to $506/oz gold;
- The San Albino Project has been designed at a production rate of 250 tpd, yielding a project life of 31 years. This base case production rate has been

selected in order to present a capital cost that is financeable with the gold stream arrangement. A cursory examination of alternate production rates (350 tpd and 500 tpd) indicated that an increase in the NPV5% of 40% and 70% respectively was possible. As expected, higher production rates would result in lower unit operating costs, a shorter mine life, and generally better economics.

- The average open pit mining dilution was determined to be between 27% and 46%, at a diluting grade of 1.07 g/t Au and 4.3 g/t Ag. The average dilution was estimated for each open pit based on a 0.6 m thick envelope around the mineralized zones.
- The San Albino mineral resources extend from +590 m to +275 m above sea level, a vertical distance of 315 m. Underground mining methods will be employed to extract the material that cannot be extracted economically from the open pits. This mineralization is amenable to underground mining methods that are specifically designed to extract material lying in a moderately dipping mineralized zone.
- The average underground stope mining dilution was estimated based on a 25 cm thick envelop on the hanging and footwalls. This equated to an estimated dilution of 20%, at a grade of 0.68 g/t Au and 2.5 g/t Ag. Underground stope mine recovery is estimated to be 76.5%;
- Test work carried out on representative samples of the deposits indicate that the San Albino deposit mineralization can be treated with a combination of gravity and CIL technologies, with a process rate of 250 tonnes per day with a recovery of between 90% Au and 59% Ag for Oxides and between 95% Au and 85% Ag for Sulphides;
- Proper logistics planning will play a key role in supporting construction and operation of the Project;
- Nicaragua is continuing to emerge from a prolonged period of political instability and conflict and is implementing / normalizing its environmental regulatory requirements across the country. Based on P&E's review of the environmental and social aspects of the Project, there do not appear to be any environmental or social barriers to advancing this Project to its next technical study stage;
- P&E also assessed Nicaragua's EIA process in relation to the Equator Principles (2013) which have more comprehensive social risk and social impact assessment requirements. As part of an EIA process for the Project, it may be beneficial to also consider additional social assessment requirements such as those contained in the Equator Principles.

26.0 RECOMMENDATIONS

P&E concludes that the San Albino Project has economic potential as an open pit mining and underground operation, with an on-site processing plant producing a gold doré.

The San Albino Deposit is a low tonnage, high-margin gold project with a robust estimated average mined diluted grade of 8.02 g/t AuEq. Due to its high grade nature and high gold recoveries, the Project shows strong resilience to variances in gold prices, thus mitigating risk.

The Project was evaluated on an after-tax cash flow basis and is estimated to generate an undiscounted net after-tax cash flow of $290.4 million. This results in a post-tax Internal Rate of Return of 37.4% and a post-tax Net Present Value of $105.4 million when using a 5% discount rate. In the base case scenario, the project has a payback period of 2.2 years from the start of production. The average life-of-mine all-in cost is estimated at $532/oz gold, and after considering the silver credits that are due, the all-in cost is reduced to $506/oz gold.

It is recommended that Golden Reign advance the San Albino Project to a Pre-feasibility Study that is focused on the mineralization that can potentially be extracted by open pit mining.

Presently, 44% of the total open pit mineral resources and 61% of the potentially mineable open pit resources are classified as Indicated resources. With further exploration, there is potential for converting some of the Inferred mineral resources to the Indicated mineral resource category. A limited amount of in-fill drilling would be sufficient to improve the confidence of the open pit resources.

The PEA contemplates open pit mining from four separate mining areas located close to surface. Additional in-fill drilling, combined with trenching of the inter-lying areas, offers potential to increase potentially mineable open pit resources and mine fewer, larger open pits.

At the open pit mining PFS level, Golden Reign should obtain detailed information from potential mining contractors regarding process design and costing, environmental aspects, safety, mine operating costs and mine scheduling.

In addition, the Company should review and consider higher process throughput rates, as they are clearly more economic compared to a 250 tpd scenario. P&E’s cursory examination of alternate production rates (350 tpd and 500 tpd) indicated that an increase in the NPV5% of 36% and 65%, respectively, is possible. As expected, higher production rates would result in lower unit operating costs, a shorter mine life, and generally better economics for a nominal increase in required capital expenditures.

However, P&E recommends that the Project be advanced with a 250 tpd production rate capacity. Staged improvements in capacity can be scheduled as available cash flow and/or financing allows.

Evaluation of the San Albino potential underground resource at the Pre-feasibility Study level will first require that a significant portion of the out-of-pit mineral resources are upgraded from inferred to the indicated resources category. The upgrade in the resource confidence would require a significant in-fill drilling program. Given that the current PEA envisions the start of underground mining at San Albino after several years of open pit extraction, in-fill drilling to upgrade the underground resources can also be deferred for several years.

P&E recommends that the Golden Reign progress the Project with extended and advanced technical studies particularly in metallurgical, geotechnical and environmental matters, with the intention to advance the Project towards a production decision.

Since the Company has publically stated that it does not currently intend to complete a Pre-Feasibility or Feasibility Study prior to potentially commencing small scale production at the San Albino Gold Deposit there is an increased risk that the economic and technical aspects of the PEA may not be realized.

Specifically, it is recommended that Golden Reign take the following actions to develop the Project to a Pre-Feasibility Study level.

26.1 GEOLOGY AND EXPLORATION

The majority of resources at the San Albino Property are currently classified as Inferred resources. At present 56% of open pit mineral resources are Inferred resources. Underground resources are almost entirely comprised of Inferred resources. P&E considers that the priority for further exploration is to increase the confidence of the resource estimate. P&E's exploration recommendation is to initially complete in-fill drilling of the mineralization that can potentially be extracted by open pit mining. Open pit mining activities would precede underground mining by several years, allowing sufficient time for the completion of the significant in-fill drilling required to upgrade the underground resource.

Evaluation of the San Albino potential underground resource at the Pre-feasibility Study level will first require that a significant portion of the out-of-pit mineral resources are upgraded from Inferred to the Indicated resources category. The upgrade in the resource confidence would require a significant in-fill drilling program. Given that the current PEA envisions the start of underground mining at San Albino after several years of open pit extraction, in-fill drilling to upgrade the underground resources can also be deferred for several years.

In addition, it is noted that the San Albino Deposit has opportunity for resource expansion.

P&E recommends a small amount of step out drilling to enable priority targets to be tested. A proposed $1,528,000 exploration program is recommended in Table 26.1.

Table 26.1 Proposed Exploration Program		
Program	**Units**	**Budget US$**
In Fill Diamond Drilling – 72 holes	5,400 m @ $170/m	$918,000
Step Out Diamond Drilling – 10 holes	3,000 m @ $170/m	$510,000
Resource Estimation		$100,000
Total		**$1,528,000**

P&E considers that there exists the potential to add resources through additional in-fill and step out drilling and has identified an Exploration Target beyond the resource estimate (along strike and down dip) with an estimated 3 to 5 million tonnes at a grade between 6 to 10 grams gold equivalent per tonne. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to define a mineral resource, and it is uncertain if further exploration will result in discovery of a mineral resource.

26.2 PROCESSING

26.2.1 Process Plant and Metallurgical Testing

Although testing indicates that the Gravity-CIL circuit configuration is well suited for treating the San Albino Deposit mineralization, additional testing is recommended to confirm circuit configuration and provide definitive design parameters. This includes:

- Testing for obtaining specific equipment design parameters is required in order to define crushing work index, grinding work index;
- Testing program for P80 confirmation for grinding in order to optimize gravity recovery;
- Testing of the cyanide leach process is required to determine the optimal time and cyanide dosage;
- Testing on Carbon Adsorption/CIL circuit;

Also, testing should be considered on carbonaceous samples to define alternate circuit configuration for future evaluation in case there is a need to mitigate the effects of carbonaceous compounds on gold recovery.

26.3 MINING

26.3.1 Geotechnical Studies (Pit Slopes)

No geotechnical investigations have yet been completed for the open pits. The largest pit will have an overall depth of 130 m and therefore the stability of the pit slopes are an issue. A geotechnical program should be completed for all the four pits. Since underground mining is expected to commence later in the mine life, underground geotechnical studies can be scheduled later.

26.3.2 Drilling and Blasting

It is likely that the different rock types in the pits may have different blasting requirements. Further study should be undertaken to assess the optimal blasting patterns for the different areas of the pits. Possibly some areas are free digging and no blasting is required, which would lower the mining costs.

26.3.3 Waste Rock Characterization

The potential for waste rock acid generation should be assessed, since this may impact on the design and placement of the waste rock dumps. Also this may confirm whether or not there is a need to segregate any of the waste rock types during mining.

26.3.4 Hydrogeological

P&E recommends that a water monitoring and assessment program is carried out so that appropriate sound water management measures can be implemented. This can be done in conjunction with the geotechnical program. Pit inflows, underground inflows, and precipitation runoff will all form key parts of the site water balance. Since there is no tailings pond with a dry stack system, water management and the water balance will be important.

P&E recommends that the pit perimeter diversion ditches be constructed as mining develops.

26.3.5 Tailings Storage Area Location

The dry stack tailings storage facility will be sited close to the plant. Geotechnical investigations will need to be completed to confirm the suitability of the site foundation and the type of liner design that will be required.

26.3.6 Mining Contractor Selection

Discussions should be held with local mining contractors to solicit actual price quotations and to involve the contractors in the design of the mine layout. The mining contractors should be asked to provide unit prices with and without blasting.

26.4 ENVIRONMENTAL AND SOCIAL

26.4.1 Environmental

- Proactively clarify the extent to which cheeked warblers (la reinita pechinegra, Dendroica chrysoparia) referenced in the Baseline Environmental and Sociology Study, could be affected by the Project;
- Proactively clarify the extent to which indigenous peoples could be affected by the Project; and
- P&E also assessed Nicaragua's EIA process in relation to the Equator Principles (2013) which have more comprehensive social risk and social impact assessment requirements. As part of an EIA process for the Project, it may be beneficial to also consider additional social assessment requirements such as those contained in the Equator Principles.

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28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

RICHARD SUTCLIFFE, Ph.D., P. GEO.

I, Richard Sutcliffe, Ph.D., P. Geo., residing at 100 Broadleaf Crescent, Ancaster, Ontario, do hereby certify that:

1. I am an independent geological consultant and Vice President Geology, P&E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of the University of Toronto with a Bachelor of Science degree in Geology (1977). In addition, I have a Master of Science in Geology (1980) from University of Toronto and a Ph.D. in Geology (1986) from the University of Western Ontario. I have worked as a geologist for a total of 32 years since obtaining my M.Sc. degree. I am a geological consultant currently licensed by the Association of Professional Geoscientists of Ontario (License No 852).

   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. My relevant experience for the purpose of the Technical Report is:

   - Precambrian Geologist, Ontario Geological Survey 1980-1989
   - Senior Research Geologist, Ontario Geological Survey 1989-1991
   - Associate Professor of Geology, University of Western Ontario. 1990-1992
   - President and CEO, URSA Major Minerals Inc.. 1992-2012
   - President and CEO, Patricia Mining Corp. 1998-2008
   - President and CEO, Auriga Gold Corp. 2010-2012
   - Consulting Geologist 1992-Present

4. I have not visited the Property that is the subject of this report.
5. I am responsible for authoring Sections 2-8 and 23 and coauthoring Sections 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the project that is the subject of this Technical Report. The nature of my involvement was as co-author of a Technical Report titled "Technical Report and Resource Estimate on the San Albino Deposit, San Albino – Murra Property Republic of Nicaragua" (the "Technical Report"), with an effective date of November 20, 2012.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[Richard Sutcliffe]

____
Dr. Richard H. Sutcliffe, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

EUGENE J. PURITCH, P. ENG.

I, Eugene J. Puritch, P. Eng., residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for Bachelor's Degree in Engineering Equivalency. I am a mining consultant currently licensed by Professional Engineers and Geoscientists New Brunswick (License No. 4778), Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 5998), Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216) and Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252) the Professional Engineers of Ontario (License No. 100014010) and registered with the Ontario Association of Certified Engineering Technicians and Technologists as a Senior Engineering Technologist. I am also a member of the National and Toronto Canadian Institute of Mining and Metallurgy.

   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.

   I have practiced my profession continuously since 1978. My summarized career experience is as follows:
   - Mining Technologist - H.B.M.& S. and Inco Ltd.,.. 1978-1980
   - Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd.,.. 1981-1983
   - Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine,... 1984-1986
   - Self-Employed Mining Consultant – Timmins Area,.. 1987-1988
   - Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, ... 1989-1995
   - Self-Employed Mining Consultant/Resource-Reserve Estimator,...................................... 1995-2004
   - President – P&E Mining Consultants Inc,.. 2004-Present
4. I have not visited the Property that is the subject of this report.
5. I am responsible for coauthoring Section 14, 15, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the project that is the subject of this Technical Report. The nature of my involvement was as co-author of a Technical Report titled "Technical Report and Resource Estimate on the San Albino Deposit, San Albino – Murra Property Republic of Nicaragua" (the "Technical Report"), with an effective date of November 20, 2012.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[Eugene J. Puritch]

____
Eugene J. Puritch, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 3053 Keniris Road, Nelson, British Columbia, V1L 6Z8, do hereby certify that:

1. I am an independent geological consultant contracted by P & E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for a total of 9 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Association of Professional Engineers and Geoscientists of British Columbia (License No. 40875). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

   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.

   My relevant experience for the purpose of the Technical Report is:

   - Geologist, Foran Mining Corp. 2004
   - Geologist, Aurelian Resources Inc. 2004
   - Geologist, Linear Gold Corp. 2005-2006
   - Geologist, Búscore Consulting 2006-2007
   - Consulting Geologist (AusIMM) 2008-2014
   - Consulting Geologist, P.Geo. (APEGBC/AusIMM) ....2014-Present.

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Section 11 and coauthoring Section 12, 25 and 26 of this Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying all of the tests in section 1.5 of National Instrument 43-101.
7. I have not had prior involvement with the project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[Jarita Barry]

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Jarita Barry, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

DAVID BURGA, P.GEO.

I, David Burga, P. Geo., residing at 3884 Freeman Terrace, Mississauga, Ontario, do hereby certify that:

1. I am an independent geological consultant contracted by P & E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of the University of Toronto with a Bachelor of Science degree in Geological Sciences (1997). I have worked as a geologist for a total of 12 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Association of Professional Geoscientists of Ontario (License No 1836).

   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.

   My relevant experience for the purpose of the Technical Report is:

   Exploration Geologist, Cameco Gold 1997-1998
   Field Geophysicist, Quantec Geoscience 1998-1999
   Geological Consultant, Andeburg Consulting Ltd. 1999-2003
   Geologist, Aeon Egmond Ltd. 2003-2005
   Project Manager, Jacques Whitford 2005-2008
   Exploration Manager – Chile, Red Metal Resources 2008-2009
   Consulting Geologist 2009-Present

4. I have not visited the Property that is the subject of this report.
5. I am responsible for authoring Sections 9 and 10 and coauthoring Sections 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Property that is the subject of this Technical Report. The nature of my involvement was as co-author of a Technical Report titled "Technical Report and Resource Estimate on the San Albino Deposit, San Albino – Murra Property Republic of Nicaragua" (the "Technical Report"), with an effective date of November 20, 2012.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[David Burga]

____
David Burga, P.Geo.

CERTIFICATE OF AUTHOR

JAMES F. GARDNER, P.ENG.

I, James F. Gardner, P.Eng., residing at 505 - 525 Richmond Street West, Toronto, Ontario, Canada, M5V 1Y5, do hereby certify that::

1. I am an independent Mining Engineering Consultant, contracted by P& E Mining Consultants Inc.
2. This certificate applies to the technical report entitled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of the University of Toronto, Toronto, Ontario, Canada, in 2004 with a Bachelor of Science degree in Mining Engineering. I am registered as a Professional Engineer in the Province of Ontario (Reg. No. 100169340). I have worked as a mining engineer for a total of 11 years since my graduation.

   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. My relevant experience for the purpose of the Technical Report is:

   Independent Consultant, Associate, P&E Mining Consultants Inc. 2013-present
   Mining Consultant, Toronto Office, AMC Consultants 2012-2013
   Mine Estimator, Head office, Dumas Contracting Ltd..2011-2012
   Project Control Engineer, Pascua-Lama, J.S Redpath Ltd 2010
   Production Engineer, Tritton Mine, Straits Resources Ltd 2007-2009
   Mine Engineer, William Mine, Barrick Gold Corp..2004-2006
   Environmental Assistant, Barrick Gold Corp. ....2003 (summer)
   Laboratory Technician for Paste Backfill, University of Toronto ....2001 (summer)

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for coauthoring Sections 16, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the property that is the subject of the Technical Report.
8. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that Instrument and Form.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[James F. Gardner]

____
James F. Gardner, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

ANTOINE R. YASSA, P. GEO.

I, Antoine R. Yassa, P. Geo., residing at 3602 Rang des Cavaliers, Rouyn-Noranda, Quebec, J0Z 1Y2, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of Ottawa University at Ottawa, Ontario with a B.Sc (HONS) in Geological Sciences (1977). I have worked as a geologist for 30 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and a practising member of the APGO (Registration Number 1890).

   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.

   My relevant experience for the purpose of the Technical Report is:

   - Minex Geologist (Val d'Or), 3D Modeling (Timmins), Placer Dome 1993-1995
   - Database Manager, Senior Geologist, West Africa, PDX 1996-1998
   - Senior Geologist, Database Manager, McWatters Mine 1998-2000
   - Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine) QAQC Manager (Sigma Open pit), McWatters Mines.. 2001-2003
   - Database Manager and Resources Evaluation at Julietta Mine, Far-East Russia, Bema Gold Corporation 2003-2006
   - Consulting Geologist .... since 2006
4. I have visited the Property that is the subject of this Technical Report on October 6 to 9, 2014.
5. I am responsible for co-authoring Sections 12, 14, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the project that is the subject of this Technical Report. The nature of my involvement was as co-author of a Technical Report titled "Technical Report and Resource Estimate on the San Albino Deposit, San Albino – Murra Property Republic of Nicaragua" (the "Technical Report"), with an effective date of November 20, 2012.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[Antoine Yassa]

____
Antoine R. Yassa, P. Geo.

CERTIFICATE OF AUTHOR

YUNGANG WU, P.GEO.

I, Yungang Wu, P. Geo., residing at 4334 Trail Blazer Way, Mississauga, Ontario, L5R 0C3, do hereby certify that:

1. I am an independent consulting geologist contracted by P&E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of Jilin University, China with a Master Degree in Mineral Deposits (1992). I am a geological consultant and a registered practising member of the Association of Professional Geoscientist of Ontario (Registration No. 1681). I am also a member of the Ontario Prospectors Association.

   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.

   My relavent experience for the purpose of the Technical Report is as follows:
   - Geologist –Geology and Mineral Bureau, Liaoning Province, China…………………….. 1992-1993
   - Senior Geologist – Committee of Mineral Resources and Reserves of Liaoning, China… 1993-1998
   - VP – Institute of Mineral Resources and Land Planning, Liaoning, China……………….. 1998-2001
   - Project Geologist–Exploration Division, De Beers Canada……………………………….. 2003-2009
   - Mine Geologist – Victor Diamond Mine, De Beers Canada………………………………. 2009-2011
   - Resource Geologist– Coffey Mining Canada……………………………………………….2011-2012
   - Consulting Geologist……………………………………………………………………..Present
4. I have not visited the property that is the subject of this Technical Report.
5. I am responsible for coauthoring Sections 14, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have not had prior involvement with the property that is the subject of the Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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;

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}

[Yungang Wu]

____

Yungang Wu, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

KENNETH KUCHLING, P.ENG.

I, Kenneth Kuchling, P. Eng., residing at 33 University Ave., Toronto, Ontario, M5J 2S7, do hereby certify that:

1. I am a senior mining consultant with KJ Kuchling Consulting Ltd. located at #2303-33 University Ave, Toronto, Ontario Canada.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I graduated with a Bachelor degree in Mining Engineering in 1980 from McGill University and a M. Eng degree in Mining Engineering from UBC in 1984. I have worked as a mining engineer for over 32 years since my graduation from university. My relevant work experience for the purpose of the Technical Report is 12 years as an independent mining consultant in commodities such as gold, copper, potash, diamonds, molybdenum, tungsten, and bauxite. I have practiced my profession continuously since 1980. I am a member of the Professional Engineers of Ontario.

   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.

   My relevant experience for the purpose of the Technical Report is:

   - Mining Consultant, KJ Kuchling Consulting Ltd. ....2000 – Present
   - Senior Mining Engineer, Diavik Diamond Mines Inc., ... 1997 – 2000
   - Senior Mining Consultant, KJ Kuchling Consulting Ltd., ... 1995 – 1997
   - Senior Geotechnical Engineer, Terracon Geotechnique Ltd., ...1989 - 1995
   - Chief Mine Engineer, Mosaic, Esterhazy K1 Operation. .... 1985 – 1989
   - Mining Engineering, Syncrude Canada Ltd.. .... 1980 – 1983
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 19 and 24 and co-authoring Sections 15, 16, 18, 21, 22, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer and the property that is the subject of this Technical Report, applying all of the tests in section 1.5 of National Instrument 43-101.
7. I have had no prior involvement with the project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[Kenneth Kuchling]

____
Kenneth Kuchling, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

DAVID A. ORAVA, P. ENG.

I, David A. Orava, M. Eng., P. Eng., residing at 19 Boulding Drive, Aurora, Ontario, L4G 2V9, do hereby certify that:

1. I am an Associate Mining Engineer at P&E Mining Consultants Inc. and President of Orava Mine Projects Ltd.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of McGill University located in Montreal, Quebec, Canada at which I earned my Bachelor Degree in Mining Engineering (B.Eng. 1979) and Masters in Engineering (Mining - Mineral Economics Option B) in 1981. I have practiced my profession continuously since graduation. I am licensed by the Professional Engineers of Ontario (License No. 34834119).

   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.

   My summarized career experience is as follows:

   - Mining Engineer – Iron Ore Company of Canada. 1979-1980
   - Mining Engineer – J.S Redpath Limited / J.S. Redpath Engineering. 1981-1986
   - Mining Engineer & Manager Contract Development – Dynatec Mining Ltd. 1986-1990
   - Vice President – Eagle Mine Contractors...1990
   - Senior Mining Engineer – UMA Engineering Ltd. 1991
   - General Manager - Dennis Netherton Engineering 1992-1993
   - Senior Mining Engineer – SENES Consultants Ltd. 1993-2003
   - President – Orava Mine Projects Ltd. ....2003 to present
   - Associate Mining Engineer – P&E Mining Consultants Inc. ....2006 to present

4. I have not visited the Property that is the subject of this report.
5. I am responsible for authoring Section 20 and coauthoring Sections 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am an independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[David Orava]

____
David Orava, M. Eng., P. Eng.

CERTIFICATE OF QUALIFIED PERSON

BRIAN RAY M.SC., P.GEO

I, Brian Ray M.Sc., P.Geo residing at 11770 Wildwood Crescent, Pitt Meadows, BC. V2Y 1L9, do hereby certify that:

1. I am an independent geological consultant contracted by P& E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of School of Mining and Geology "Hristo Botev", Pernik, (1980) Specialty – Geology and Exploration of Minerals and University of Mining Engineering and Geology "St. Ivan Rilsky", Sofia. (1990) Specialty – Geology and Exploration of Mineral Resources. I am a geological consultant currently licensed by the Association of Professional Geoscientist of British Columbia (License No 33418). I specialized for the last 20 years in Database managing, 3D modeling and Resource Estimate

   Based on the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") I 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. My relevant experience for the purpose of compiling and preparing a 43-101 compliant Technical Report is:

   - Geological Institut (Bulgarian Academy of Sciences), Senior Geologist.................................1982-2002;
   - Barrick Gold Corporation (Williams Mine), Senior Geologist, Marathon, ON 2002-2005;
   - Chief Geologist, Ketza River Gold Mine, Yukon, ...2005-2006;
   - Resource Program Manager (Miramar Mining Corporation), Hope Bay Nunavut 2006-2007;
   - Senior District Geologist, (Newmont Mining Corporation)), Hope Bay Nunavut 2007-2008;
   - Country Exploration Manager, Sandspring Resources Ltd., Guyana 2008-2011;
   - Independent Geological Consultant... 2011-present;

4. I have not visited the Property that is the subject of this report.
5. I am responsible for coauthoring Sections 12, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I do have had no prior involvement with the Property that is the subject of this Technical Report.
7. I am an independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[Brian Ray]

____
Brian Ray M.Sc., P.Geo.
APEGBC # 33418

CERTIFICATE OF QUALIFIED PERSON

ERNEST BURGA, P. GEO.

I, Ernest Burga, P. Eng., residing at 3385 Aubrey Rd., Mississauga, Ontario, L5L 5E3, do hereby certify that:

1. I am an Associate Mechanical Engineer and President of Andeburg Consulting Services Inc.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective of January 14, 2015.
3. I am a graduate of the National University of Engineering located in Lima, Peru at which I earned my Bachelor Degree in Mechanical Engineering (B.Eng. 1965). I have practiced my profession continuously since graduation and in Canada since 1975. I am licensed by the Professional Engineers of Ontario (License No. 6067011).

   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. My summarized career experience is as follows:

   - Maintenance Engineer – Backus and Johnston Brewery of Peru. 1966-1975
   - Design Mechanical Engineer – Cambrian Engineering Group..1975-1978
   - Design Mechanical Engineer – Reid Crowther Bendy..1979-1981
   - Lead Mechanical Engineer – Cambrian Engineering Group...1981-1987
   - Project Engineer – HG. Engineering..1988-2003
   - Lead Mechanical Engineer – AMEC Americas...2003-2005
   - Sr. Mechanical Engineer – SNC Lavalin Ltd. 2005-2009
   - President – Andeburg Consulting Services Inc. ....2004 to present
   - Contracted Mechanical Engineer – P&E Mining Consultants Inc. ....2009 to present

4. I have not visited Property that is the subject of this report.
5. I am responsible for authoring Sections 13 and 17 and coauthoring Sections 21, 25 and 26 of this Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective Date: January 14, 2015
Signing Date: April 29, 2015

{SIGNED AND SEALED}
[Ernest Burga]

____
Ernest Burga, P. Eng.

CERTIFICATE of AUTHOR

ANDREW BRADFIELD, P. ENG.

I, Andrew Bradfield, P. Eng., residing at 5 Patrick Drive, Erin, Ontario, N0B1T0, do hereby certify that:

1. I am an independent mining engineer contracted by P&E Mining Consultants as Chief Operating Officer.
2. This certificate applies to the technical report titled "Resource Estimate and Preliminary Economic Assessment on the San Albino Deposit, San Albino – Murra Concession, and El Jicaro Concession, Republic of Nicaragua", (the "Technical Report") with an effective date of January 14, 2015.
3. I am a graduate of Queen's University, with an honours B.Sc. degree in Mining Engineering in 1982. I have practiced my profession continuously since 1982. I am a Professional Engineer of Ontario (License No.4894507). I am also a member of the National CIM.

   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.

   My relevant experience for the purpose of the Technical Report is:

   - Various Engineering Positions – Palabora Mining Company 1982-1986
   - Mines Project Engineer – Falconbridge Limited 1986-1987
   - Senior Mining Engineer – William Hill Mining Consultants Limited 1987-1990
   - Self-Employed Mining Engineer 1990-1991
   - GM Toronto – Bharti Engineering Associates Inc. 1991-1996
   - VP Technical Services, GM of Australian Operations – William Resources Inc. 1996-1999
   - Self-Employed Mining Engineer 1999-2001
   - Principal Mining Engineer – SRK Consulting 2001-2003
   - COO – China Diamond Corp. 2003-2006
   - VP Operations – TVI Pacific Inc. 2006-2008
   - COO – Avion Gold Corporation 2008-2012
   - Self-Employed Mining Engineer 2012-2013
   - Self-Employed Mining Engineer, COO - P&E Mining Consultants 2014-Present

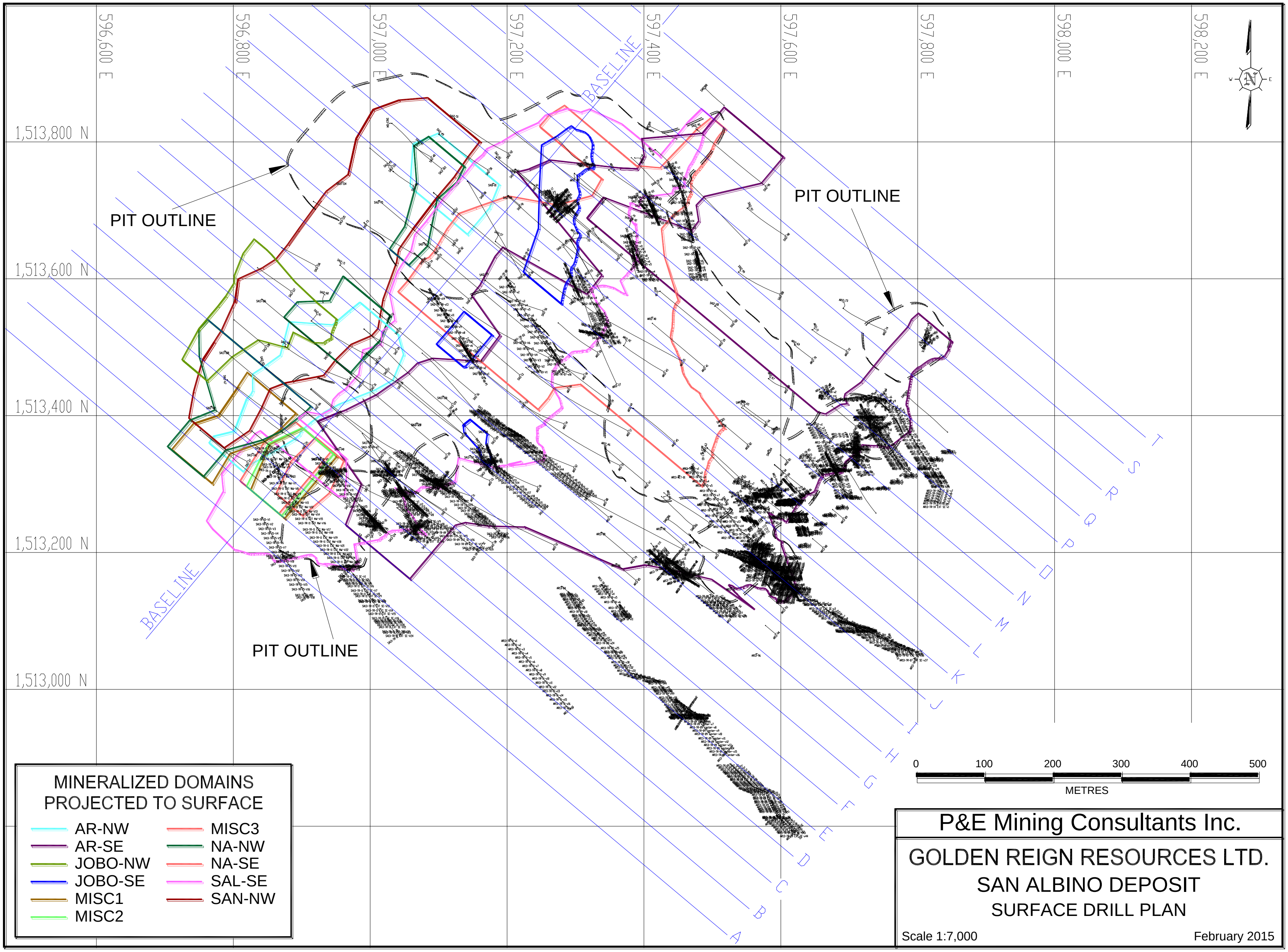
4. I visited the Property that is the subject of this report, from October 6 to 9, 2014.
5. I am responsible for coauthoring Sections 16, 18, 21, 22, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, 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.

Effective date: January 14, 2015
Signing date: April 29, 2015

{SIGNED AND SEALED}
[Andrew Bradfield]

____
Andrew Bradfield, P. Eng.

APPENDIX I. SURFACE DRILL HOLE PLAN



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597,000 E
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597,800 E
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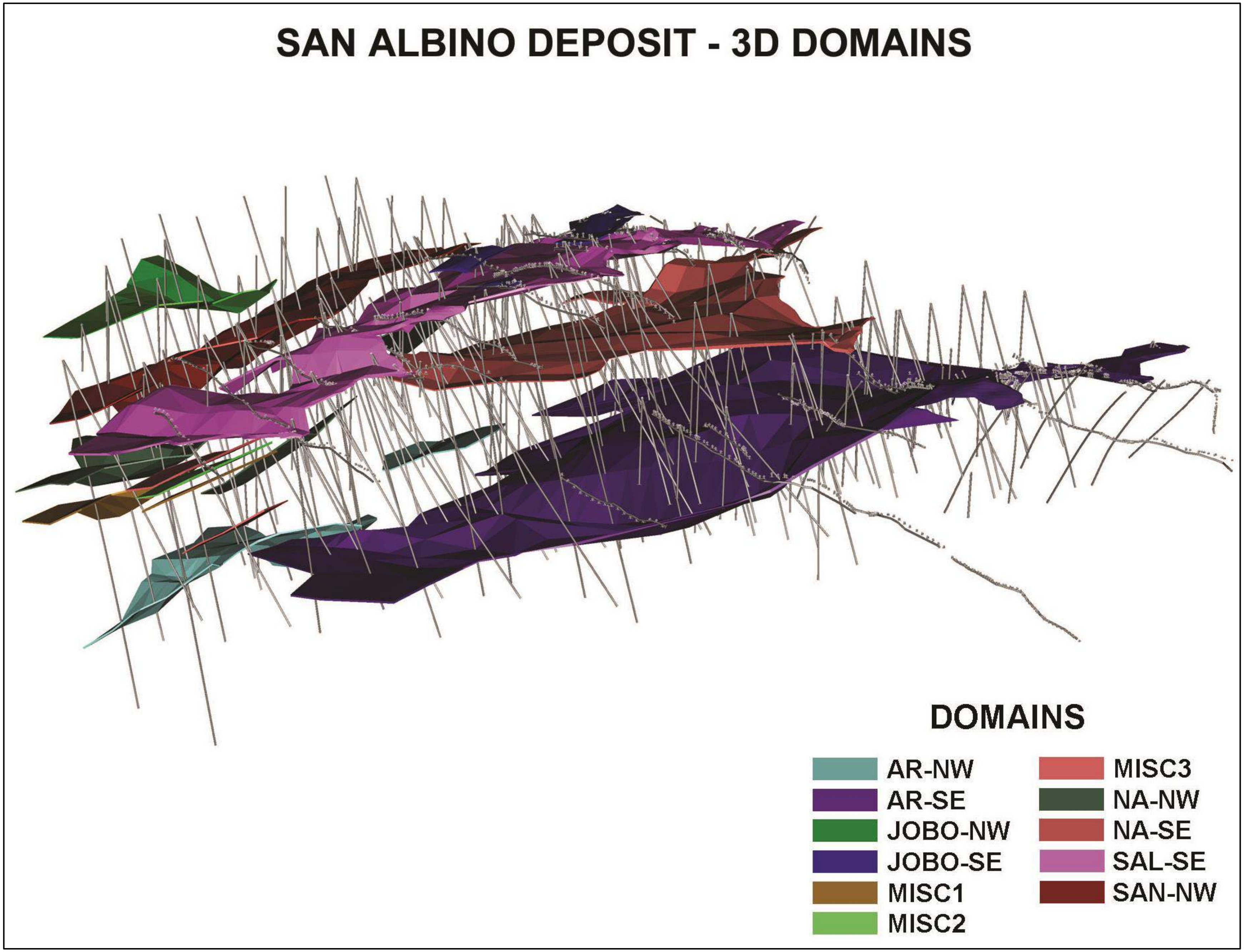
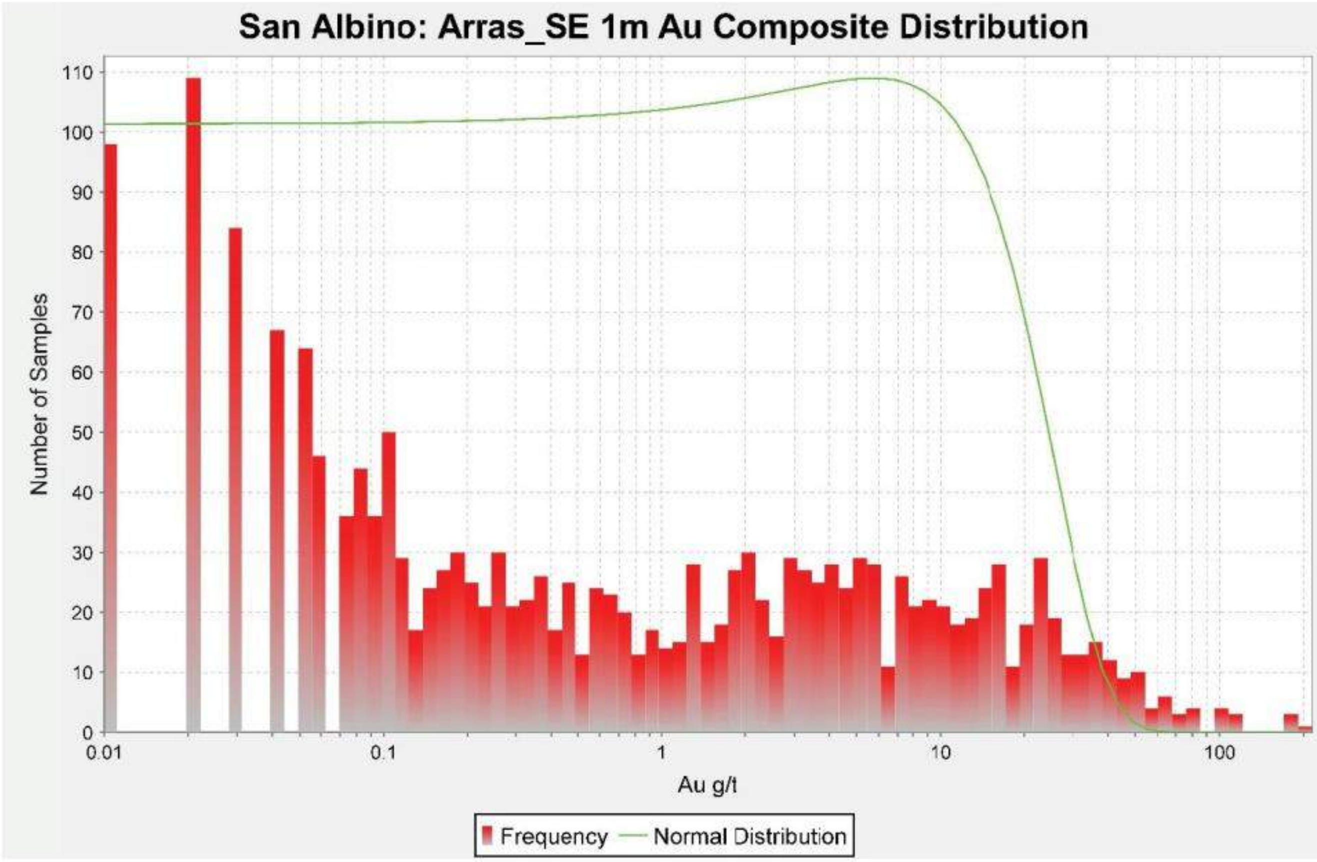
598,200 E
1,513,800 N
1,513,600 N
1,513,400 N
1,513,200 N
1,513,000 N
BASELINE
BASELINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
MINERALIZED DOMAINS
PROJECTED TO SURFACE
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
SURFACE DRILL PLAN
Scale 1:7,000
February 2015

APPENDIX II. 3D DOMAINS


SAN ALBINO DEPOSIT - 3D DOMAINS
DOMAINS
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW

APPENDIX III. LOG NORMAL HISTOGRAMS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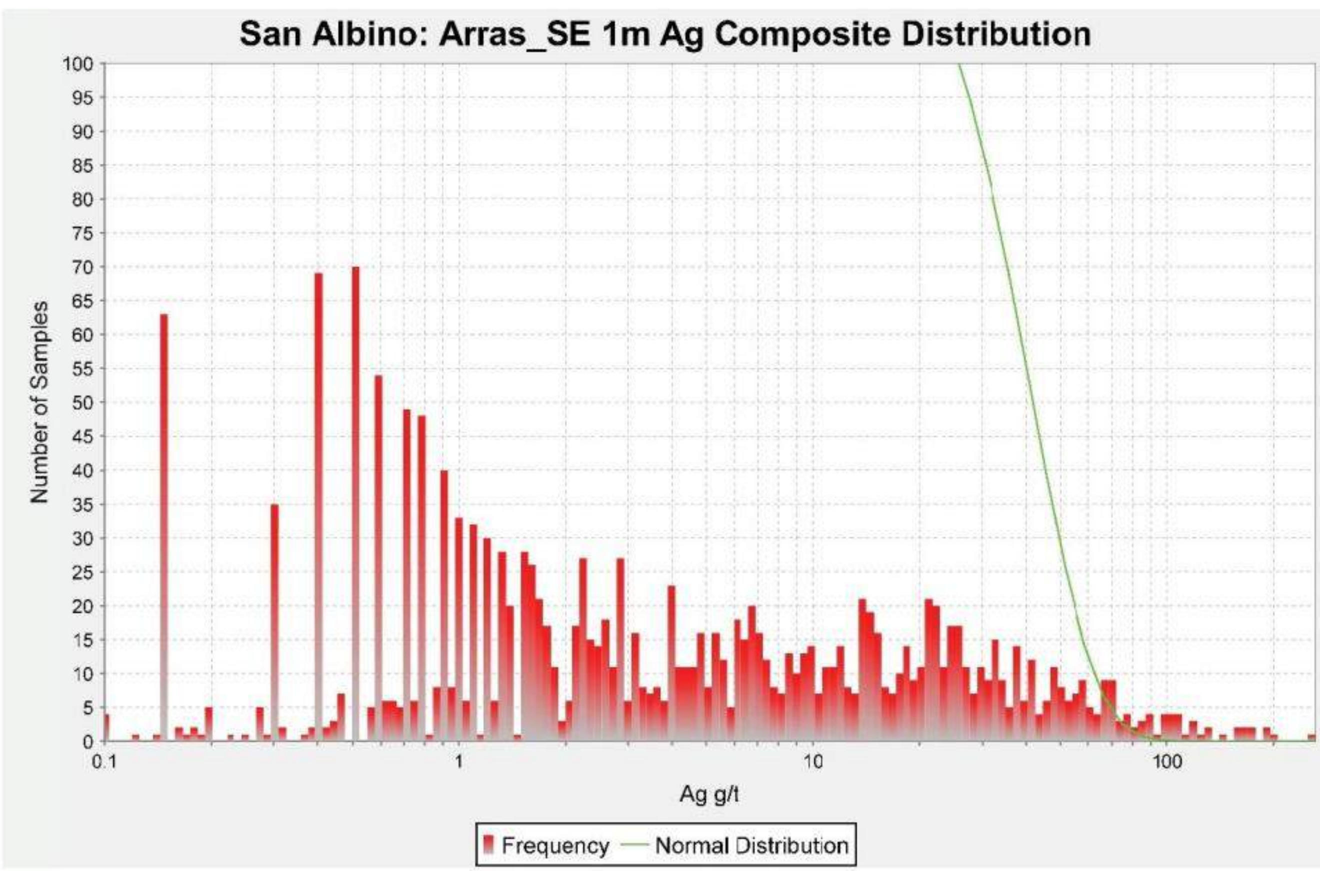
Number of Samples
Au g/t
Frequency
Normal Distribution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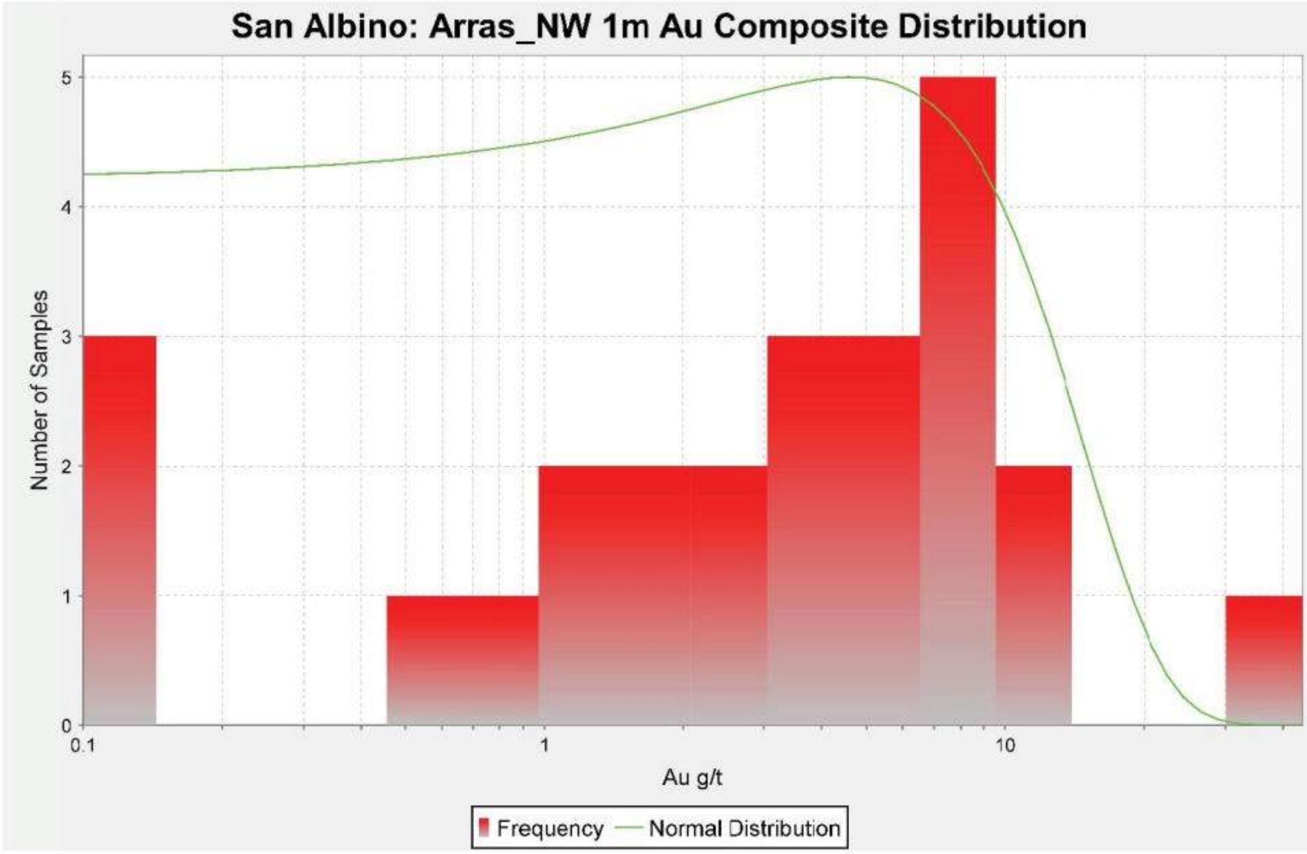
Number of Samples
Ag g/t
Frequency
Normal Distribution



San Albino: Arras_NW 1m Au Composite Distribution
Number of Samples
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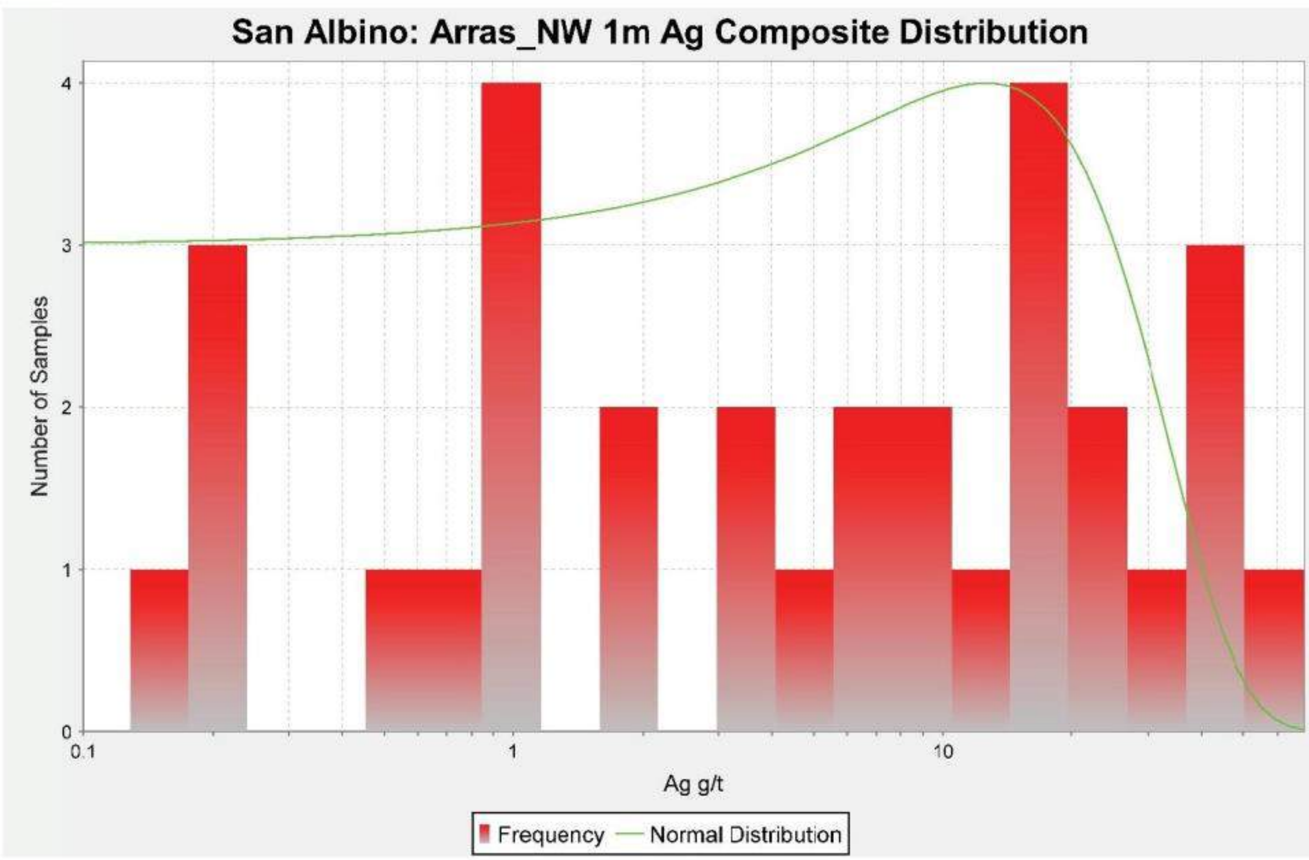
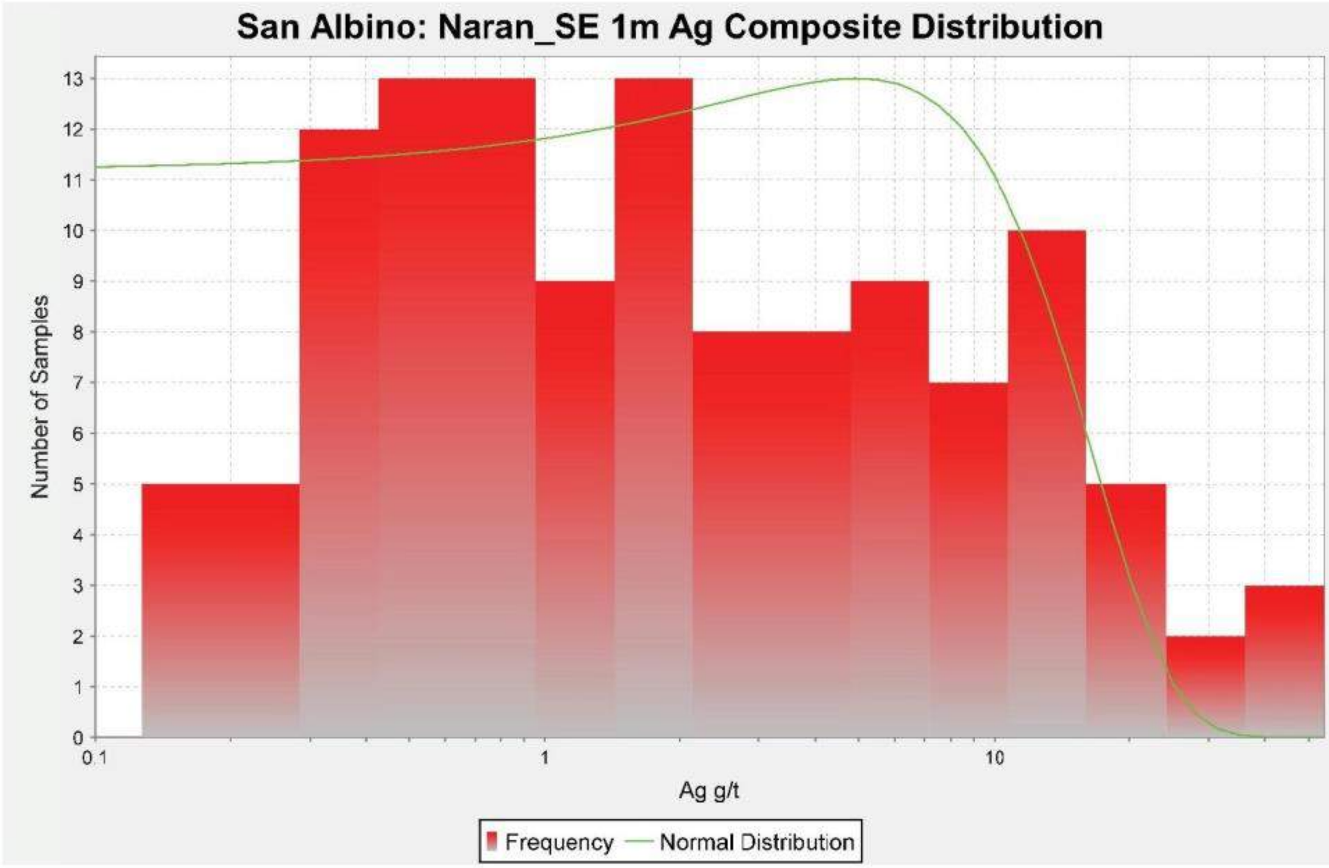
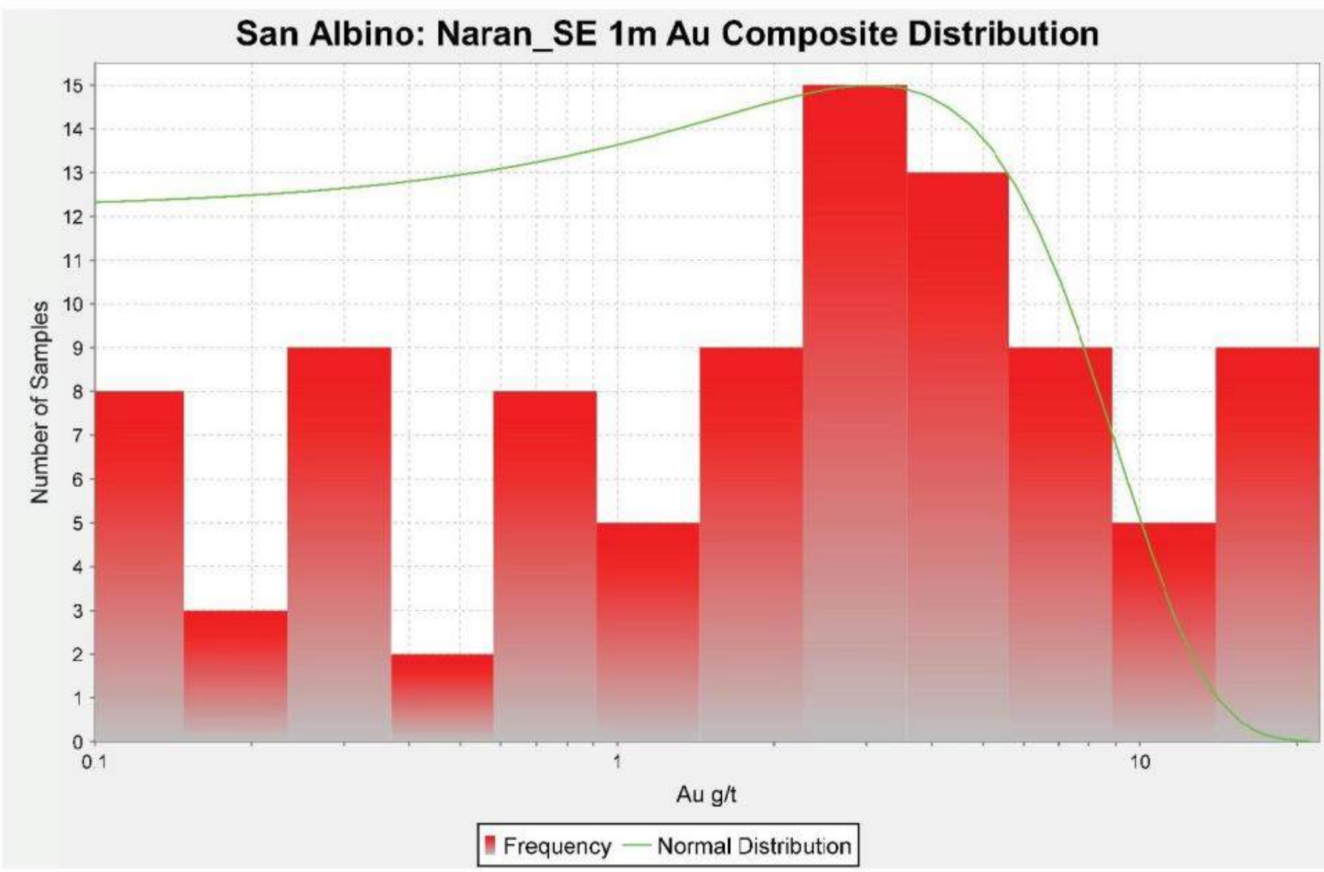
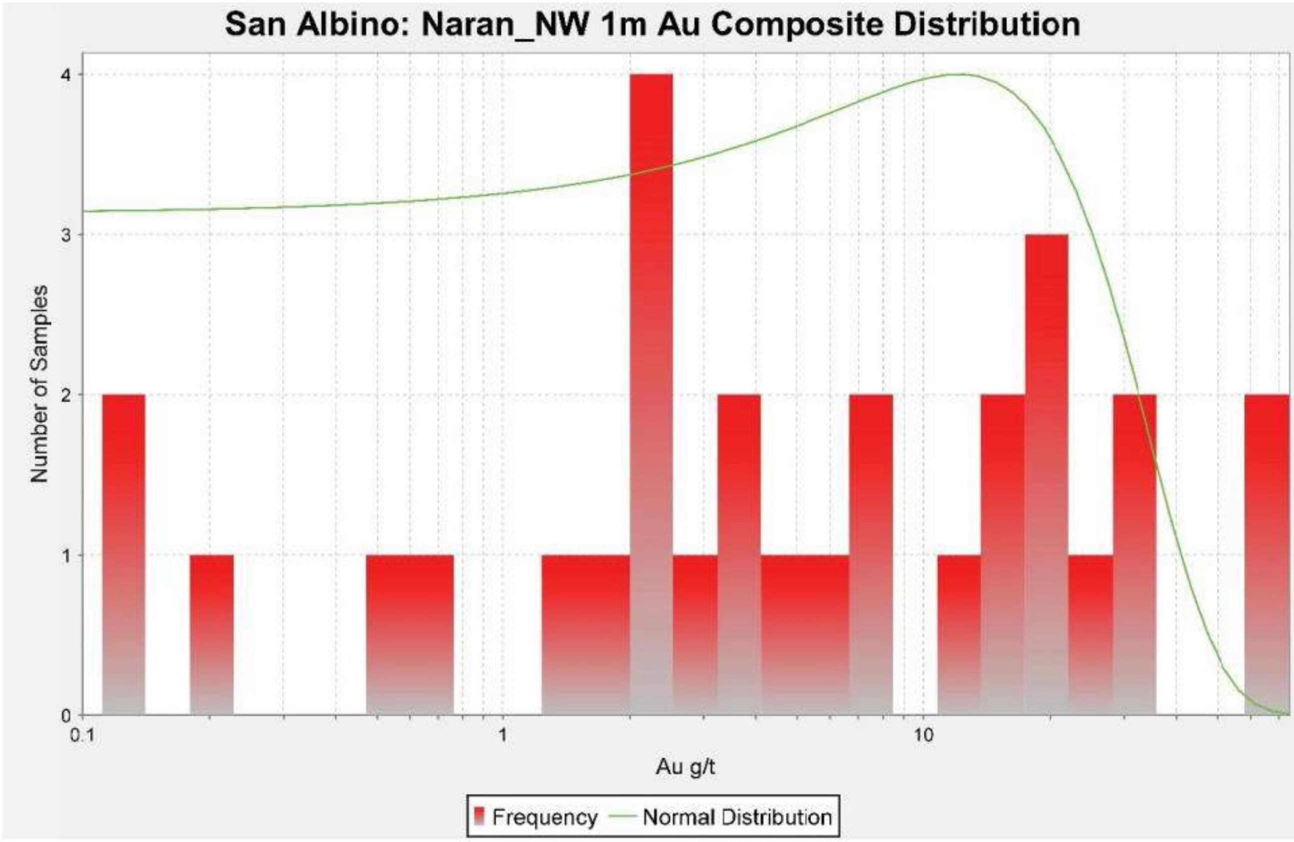
1
2
3
4
5
0.1
1
10
Au g/t
Frequency
Normal Distribution



San Albino: Arras_NW 1m Ag Composite Distribution
Number of Samples
0
1
2
3
4
0.1
1
10
Ag g/t
Frequency
Normal Distribution


San Albino: Naran_SE 1m Ag Composite Distribution
Number of Samples
13
12
11
10
9
8
7
6
5
4
3
2
1
0
0.1
1
10
Ag g/t
Frequency
Normal Distribution


San Albino: Naran_SE 1m Au Composite Distribution
Number of Samples
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
0.1
1
10
Au g/t
Frequency
Normal Distribution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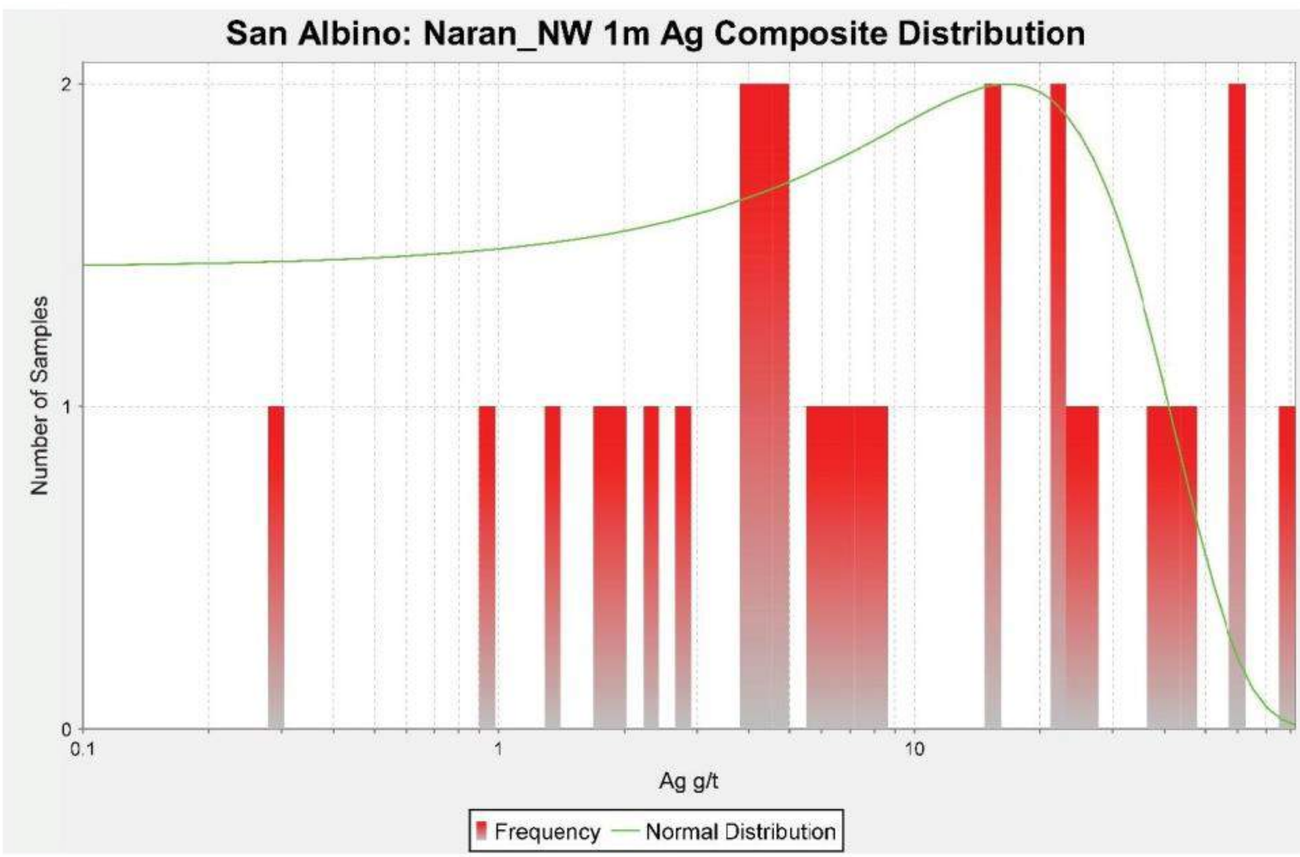
Number of Samples
0
1
2
3
4
0.1
1
10
Au g/t
Frequency
Normal Distribution


San Albino: Naran_NW 1m Ag Composite Distribution
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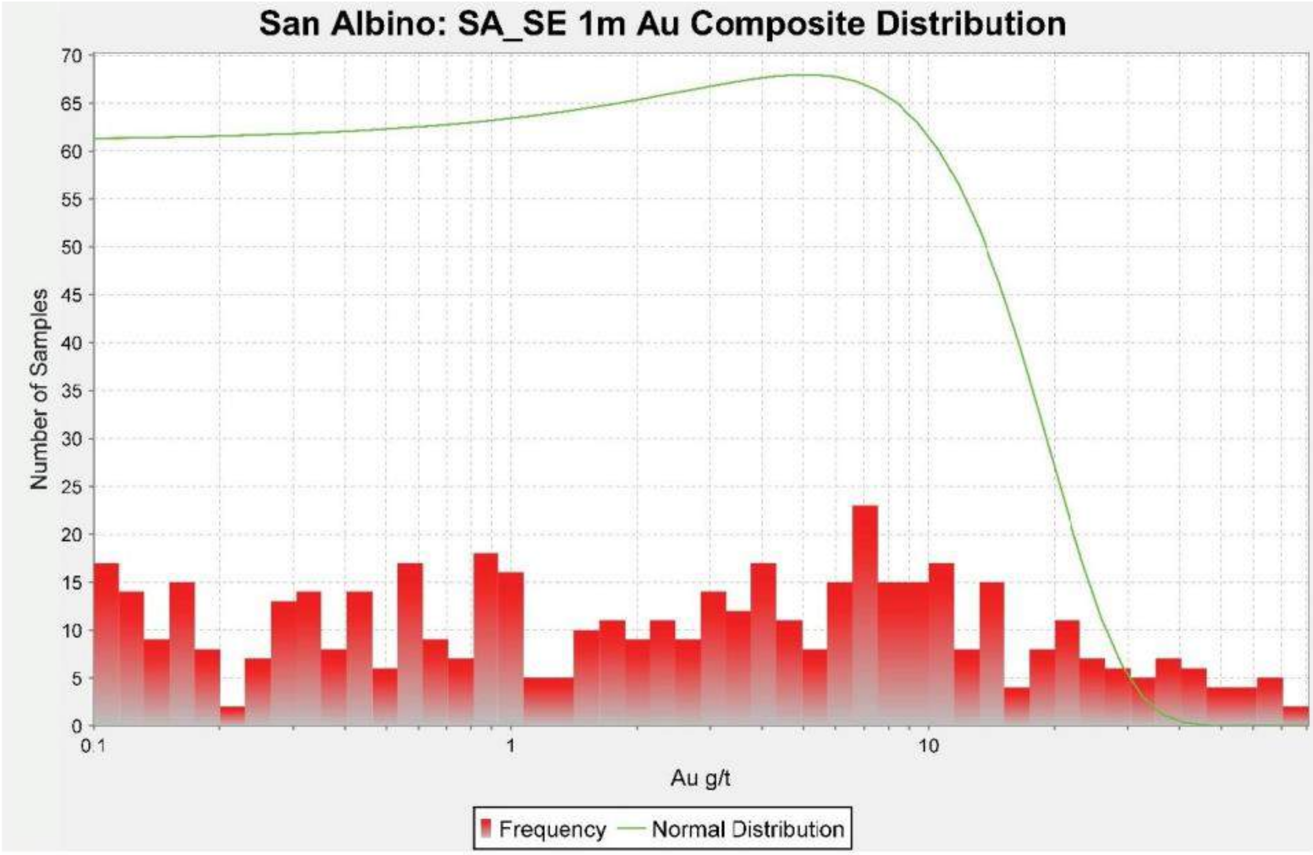
1
2
0.1
1
10
Ag g/t
Frequency
Normal Distribution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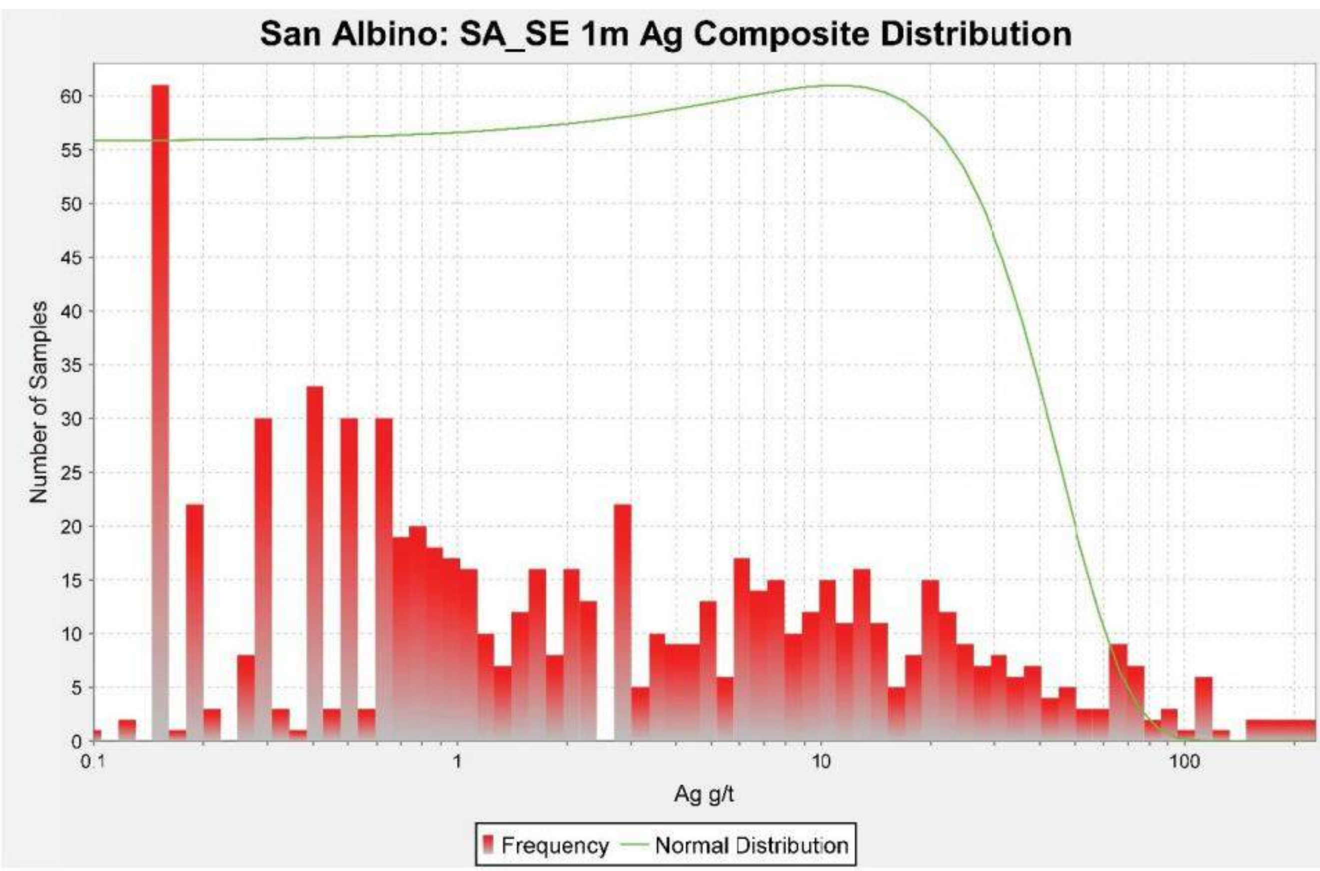
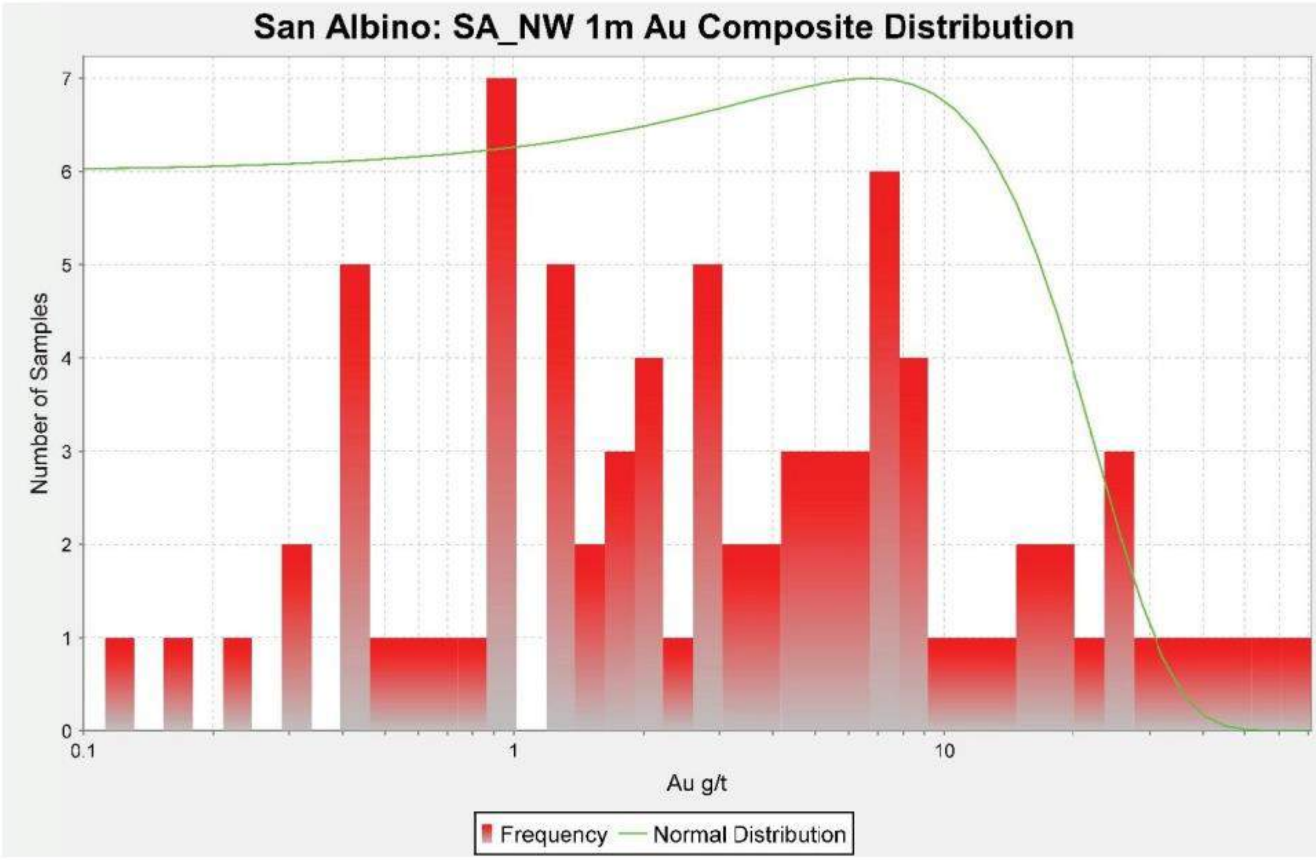
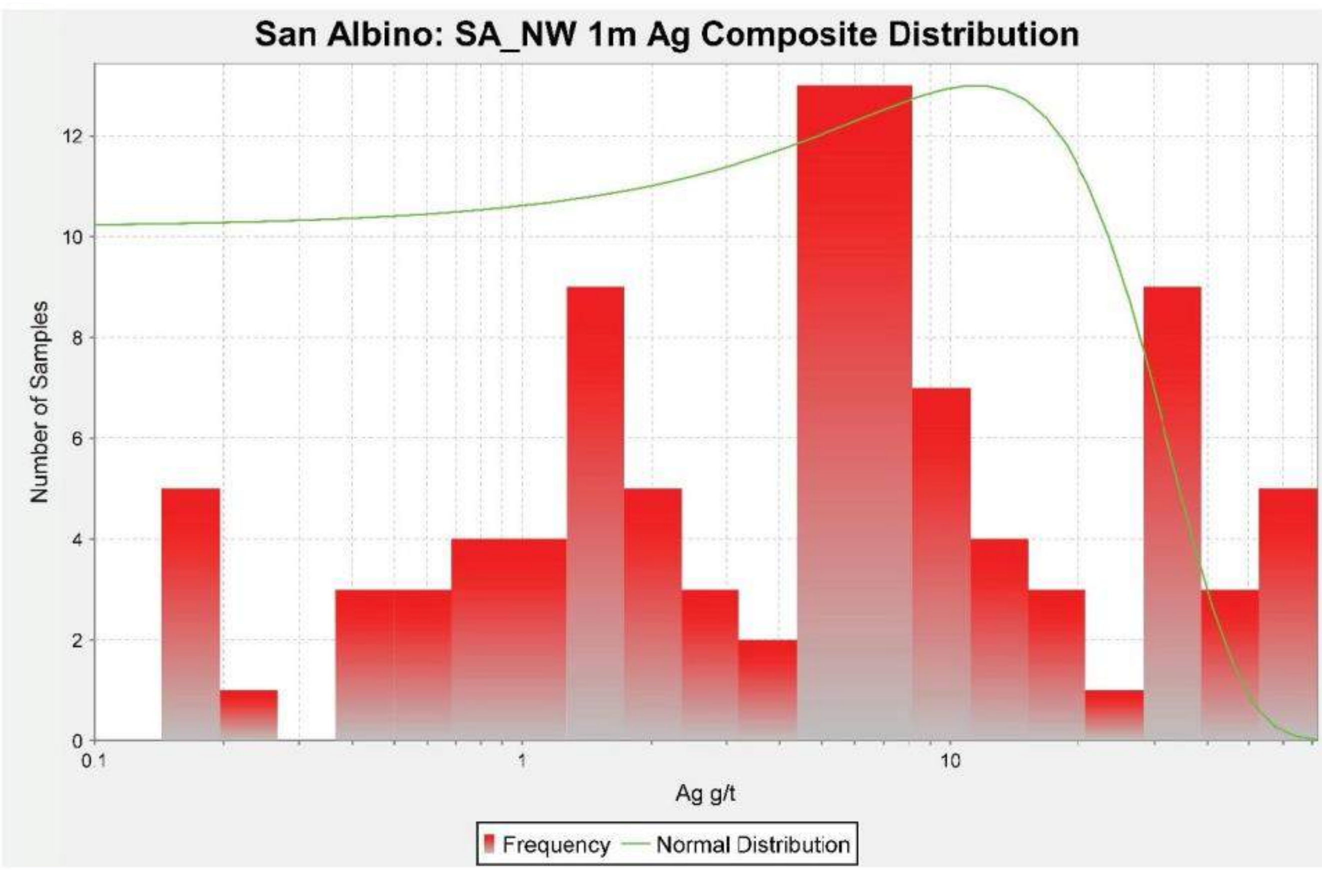
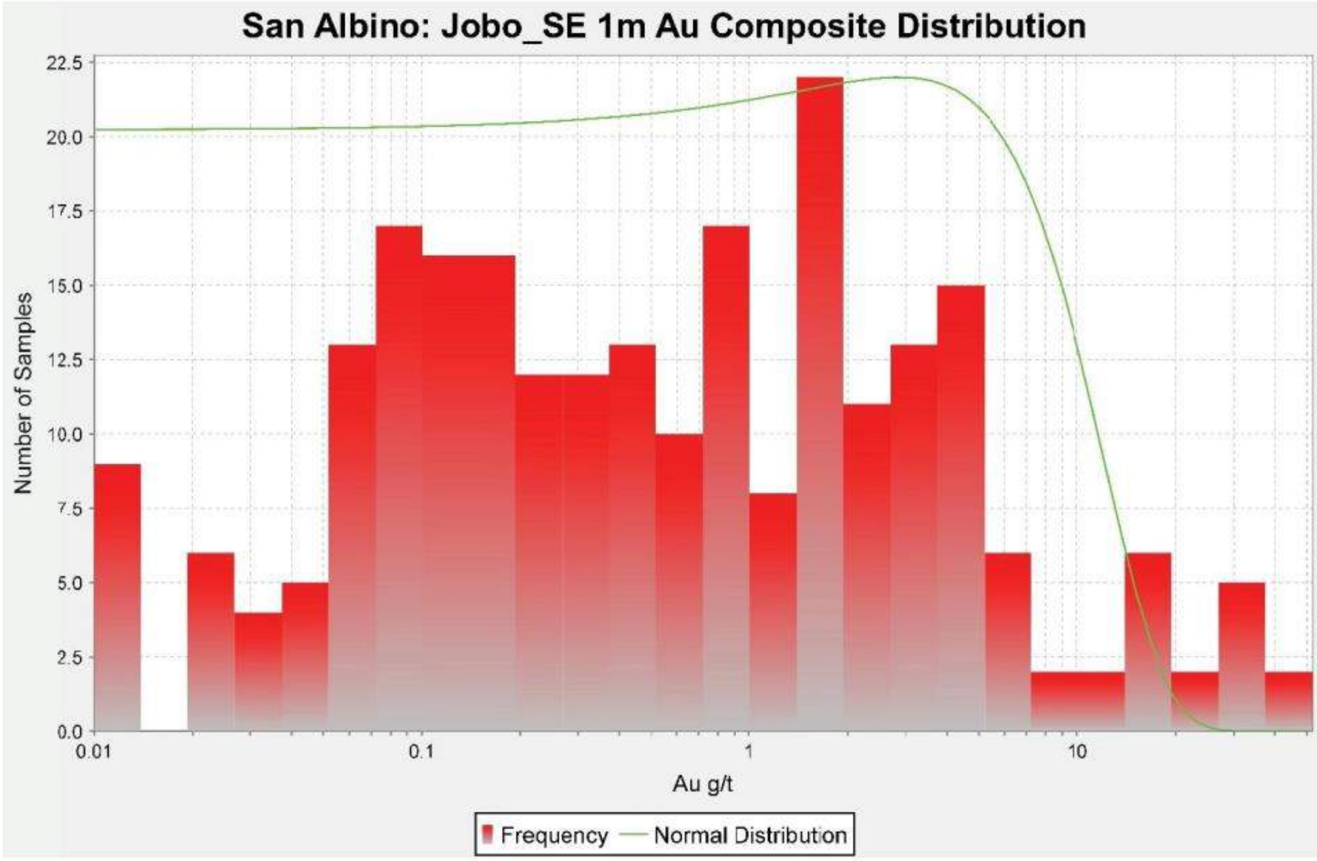
Number of Samples
Au g/t
Frequency
Normal Distribution


San Albino: SA_SE 1m Ag Composite Distribution
Number of Samples
Ag g/t
Frequency
Normal Distribution


San Albino: SA_NW 1m Au Composite Distribution
Number of Samples
0
1
2
3
4
5
6
7
0.1
1
10
Au g/t
Frequency
Normal Distribution


San Albino: SA_NW 1m Ag Composite Distribution
Number of Samples
0
2
4
6
8
10
12
0.1
1
10
Ag g/t
Frequency
Normal Distribution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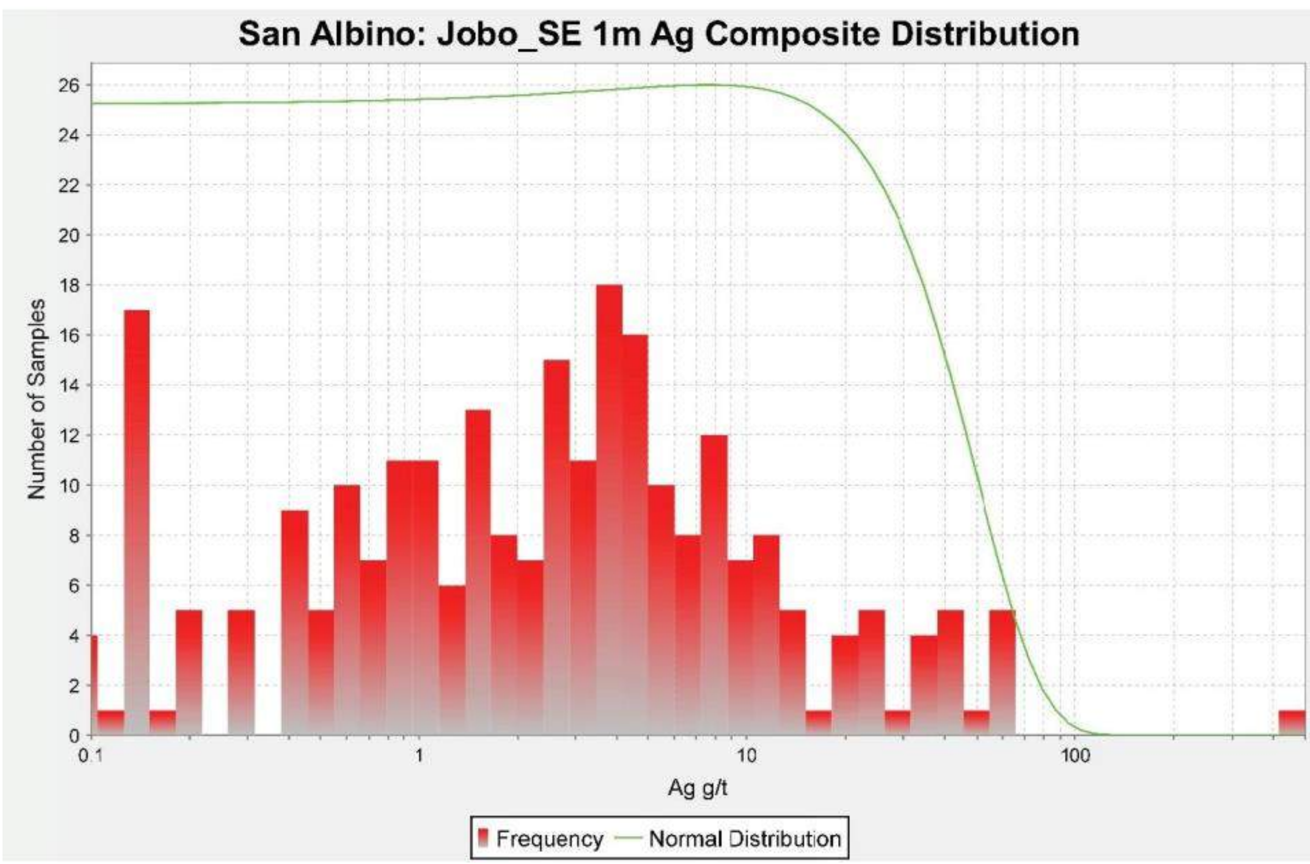
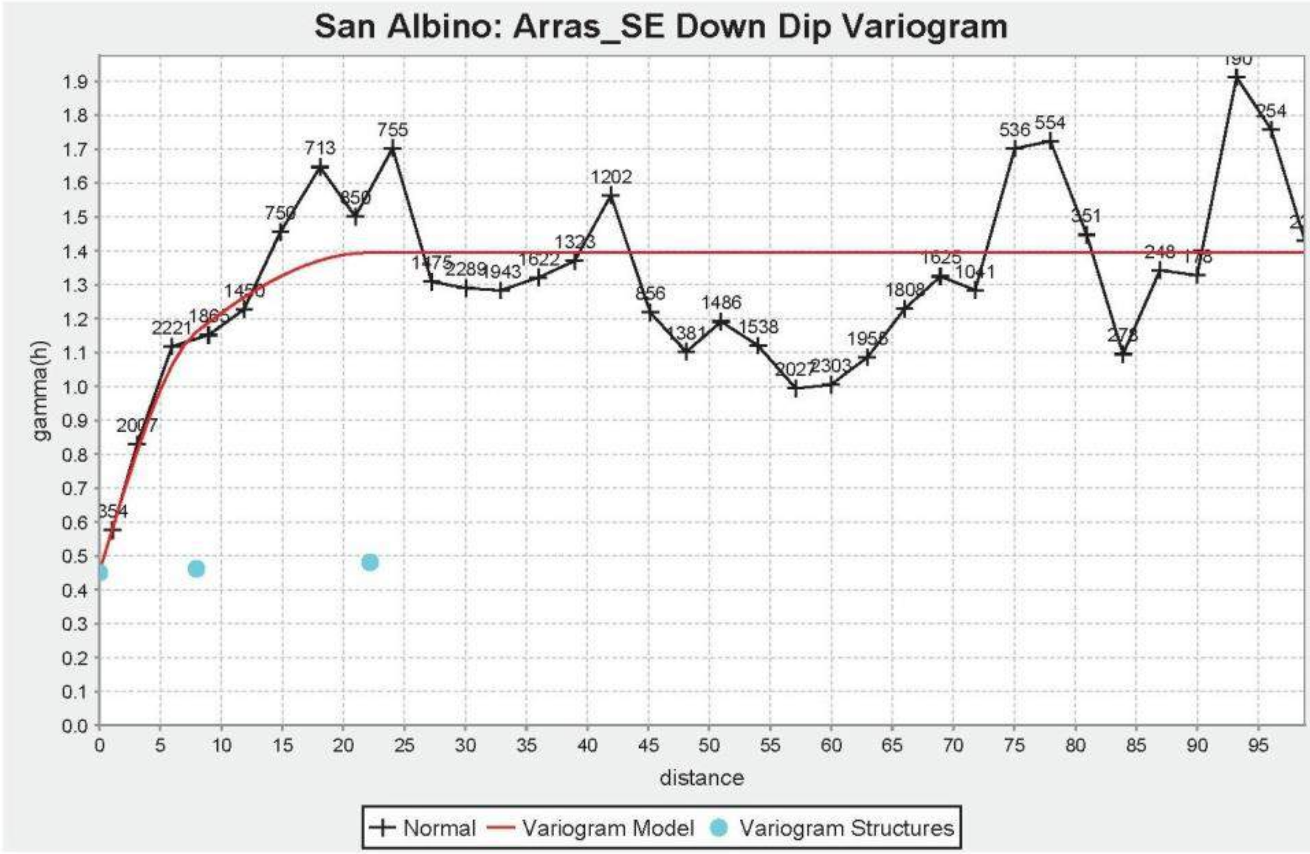
Number of Samples
Au g/t
Frequency
Normal Distribution


San Albino: Jobo_SE 1m Ag Composite Distribution
Number of Samples
Ag g/t
Frequency
Normal Distribution

APPENDIX IV. VARIOGRAMS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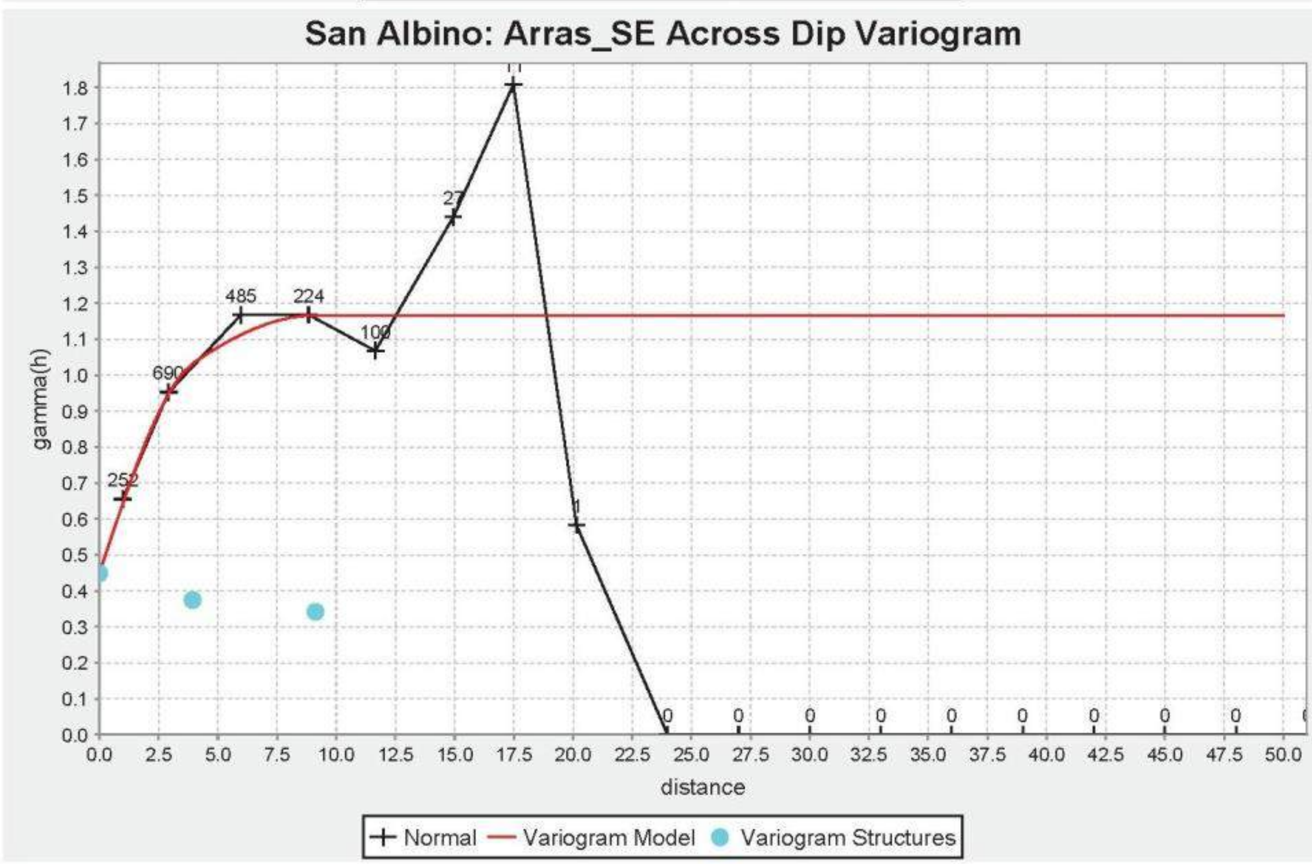
gamma(h)
distance
Normal
Variogram Model
Variogram Structures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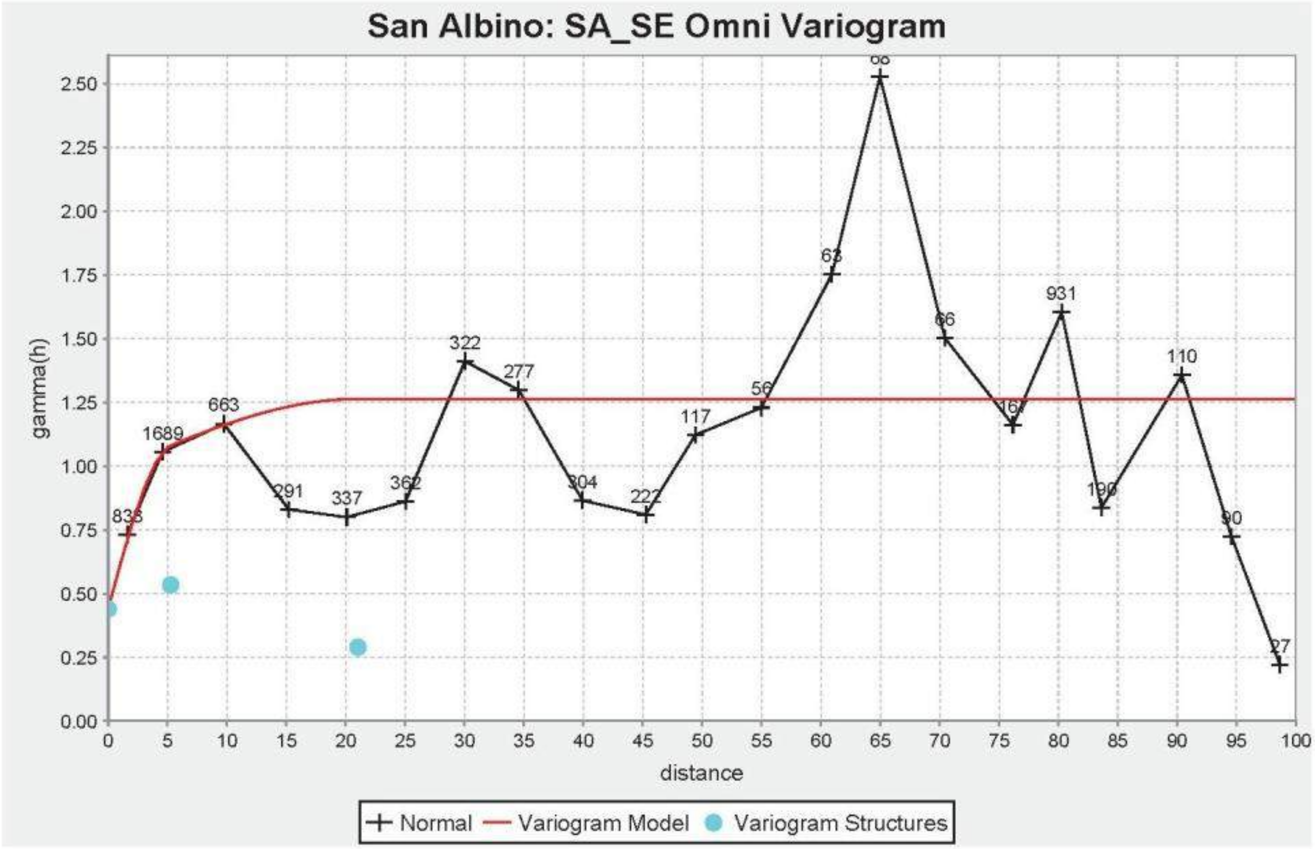
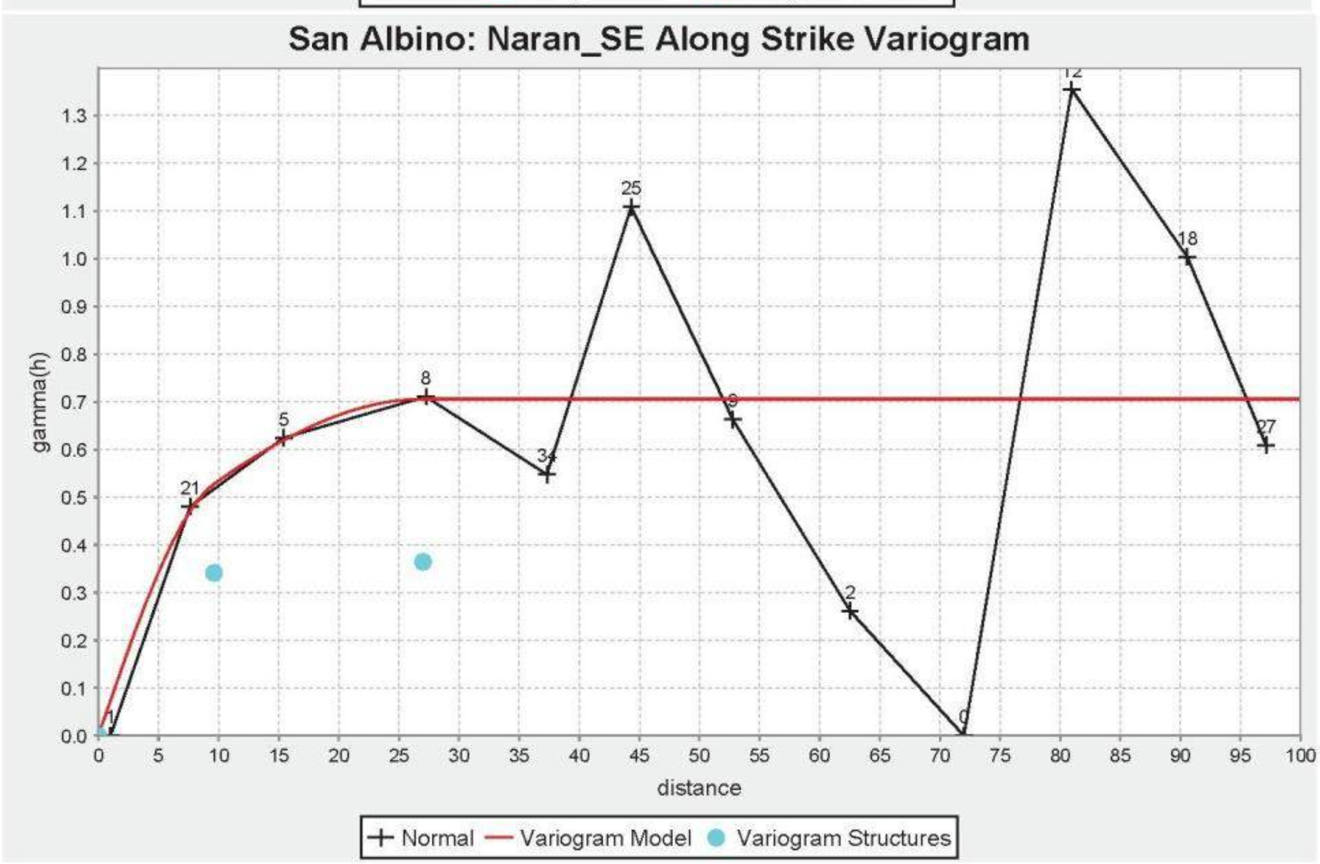
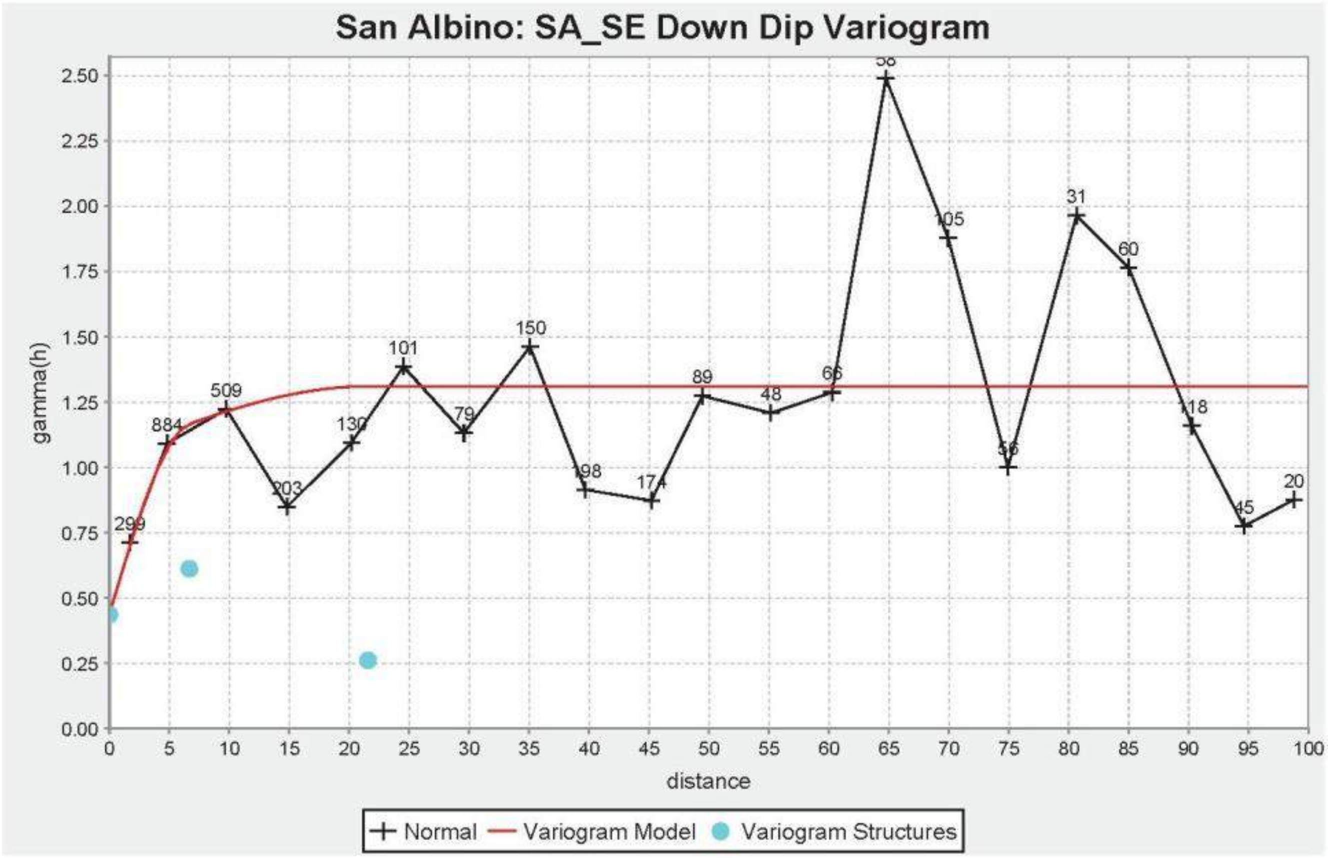
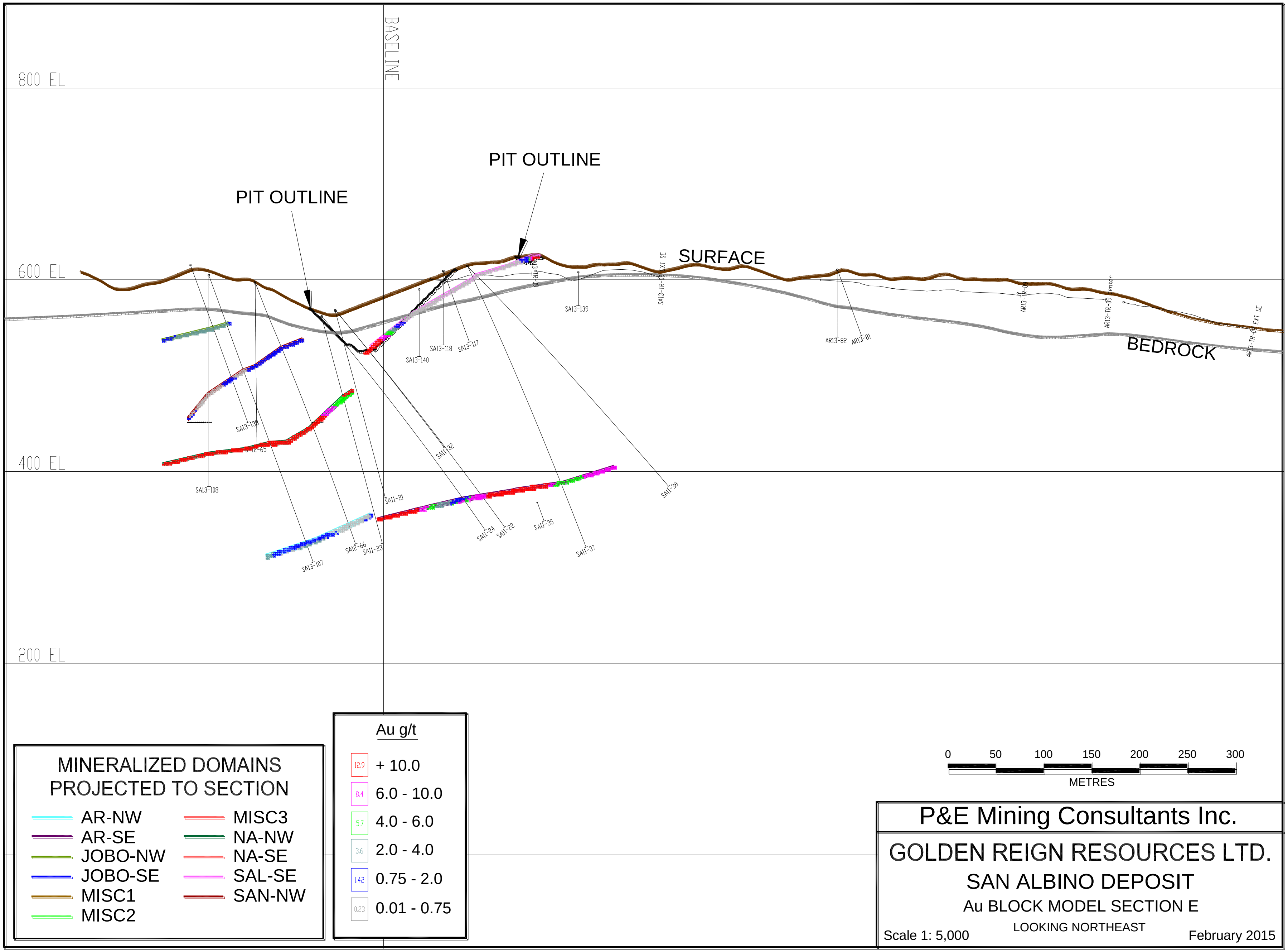
gamma(h)
distance
Normal
Variogram Model
Variogram Structures


San Albino: SA_SE Omni Variogram
gamma(h)
distance
Normal
Variogram Model
Variogram Structures


San Albino: Naran_SE Along Strike Variogram
gamma(h)
distance
Normal
Variogram Model
Variogram Structures


San Albino: SA_SE Down Dip Variogram
gamma(h)
distance
Normal
Variogram Model
Variogram Structures

APPENDIX V. AU BLOCK MODEL CROSS SECTIONS AND PLANS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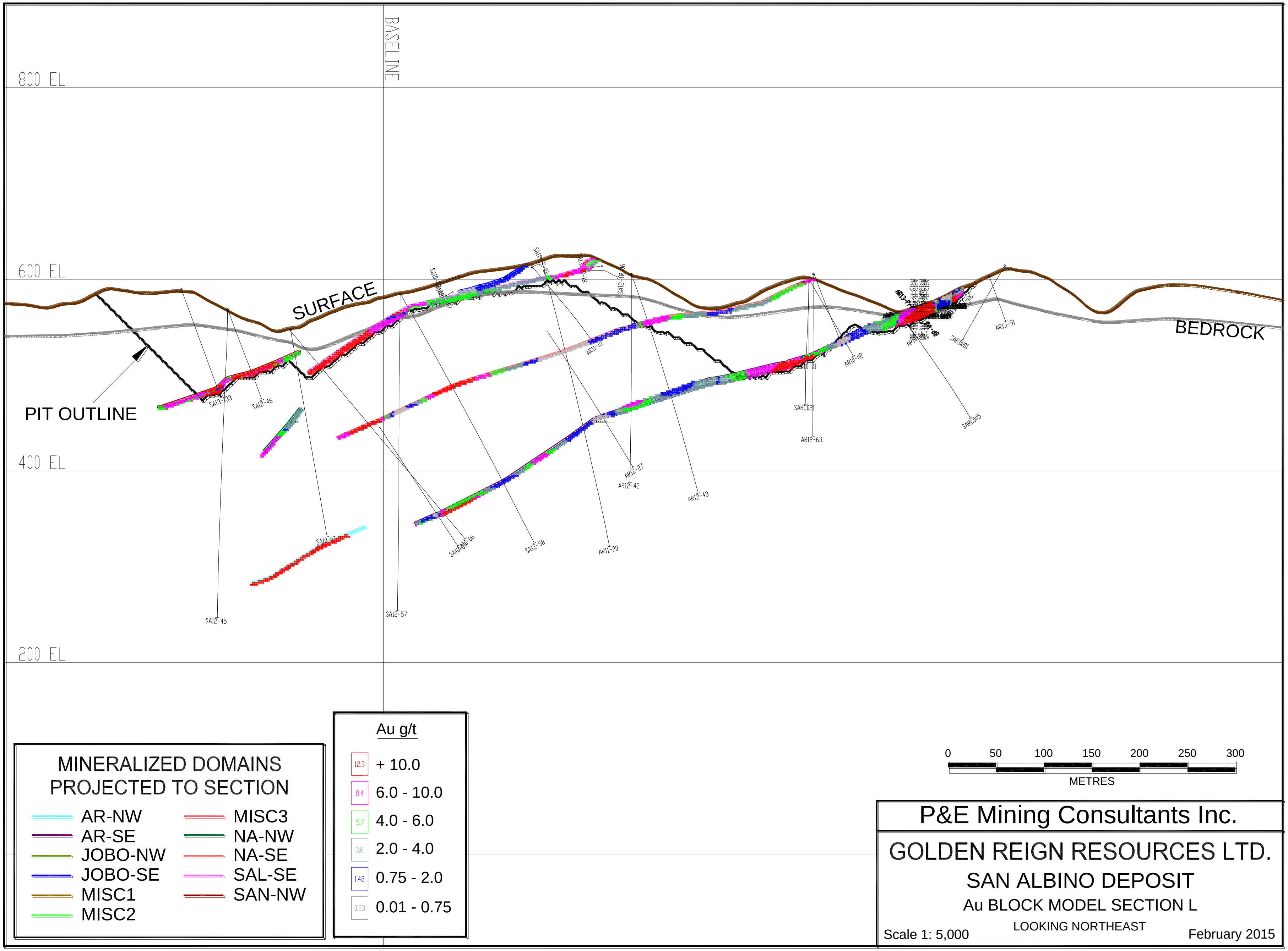
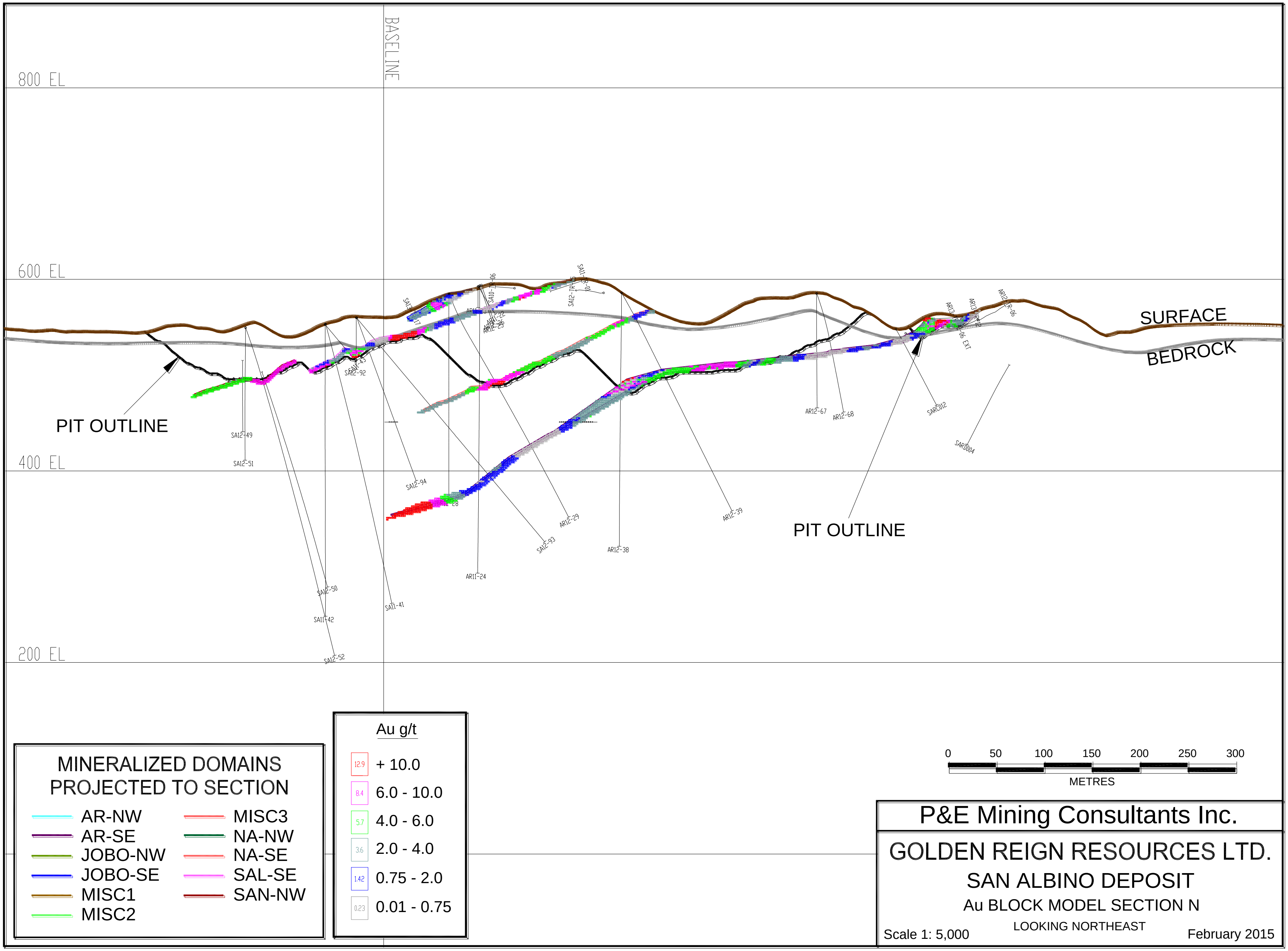
800 EL
600 EL
400 EL
200 EL
PIT OUTLINE
PIT OUTLINE
SURFACE
BEDROCK
MINERALIZED DOMAINS
PROJECTED TO SECTION
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
Au g/t
+ 10.0
6.0 - 10.0
4.0 - 6.0
2.0 - 4.0
0.75 - 2.0
0.01 - 0.75
0 50 100 150 200 250 300
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
Au BLOCK MODEL SECTION E
LOOKING NORTHEAST
Scale 1: 5,000
February 2015


BASELINE
800 EL
600 EL
400 EL
200 EL
SURFACE
BEDROCK
PIT OUTLINE
MINERALIZED DOMAINS
PROJECTED TO SECTION
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
Au g/t
+ 10.0
6.0 - 10.0
4.0 - 6.0
2.0 - 4.0
0.75 - 2.0
0.01 - 0.75
0 50 100 150 200 250 300
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
Au BLOCK MODEL SECTION L
LOOKING NORTHEAST
Scale 1: 5,000
February 2015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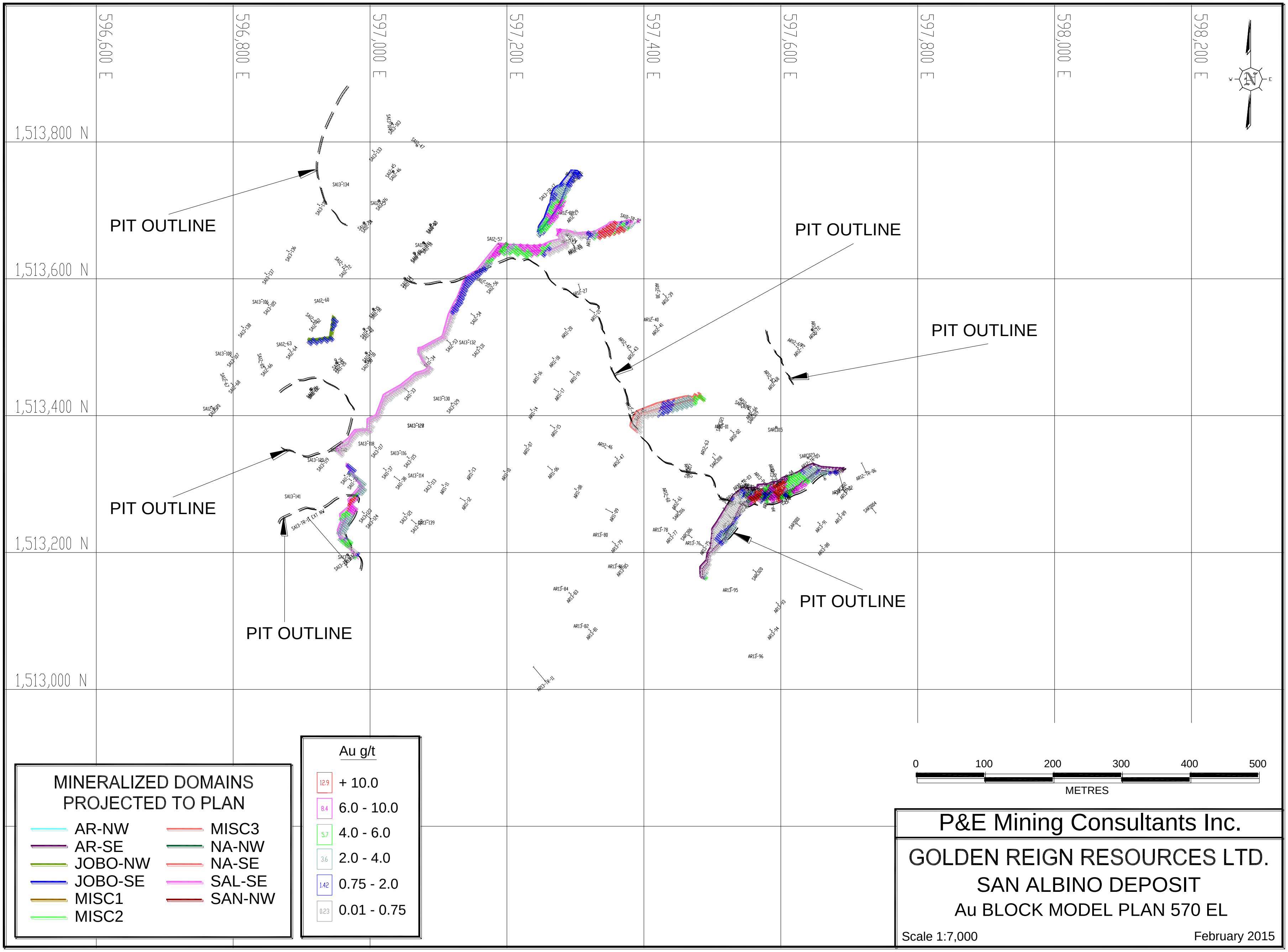
800 EL
600 EL
400 EL
200 EL
SURFACE
BEDROCK
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS
PROJECTED TO SECTION
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
Au g/t
+ 10.0
6.0 - 10.0
4.0 - 6.0
2.0 - 4.0
0.75 - 2.0
0.01 - 0.75
0 50 100 150 200 250 300
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
Au BLOCK MODEL SECTION N
LOOKING NORTHEAST
Scale 1: 5,000
February 2015


596,600 E
596,800 E
597,000 E
597,200 E
597,400 E
597,600 E
597,800 E
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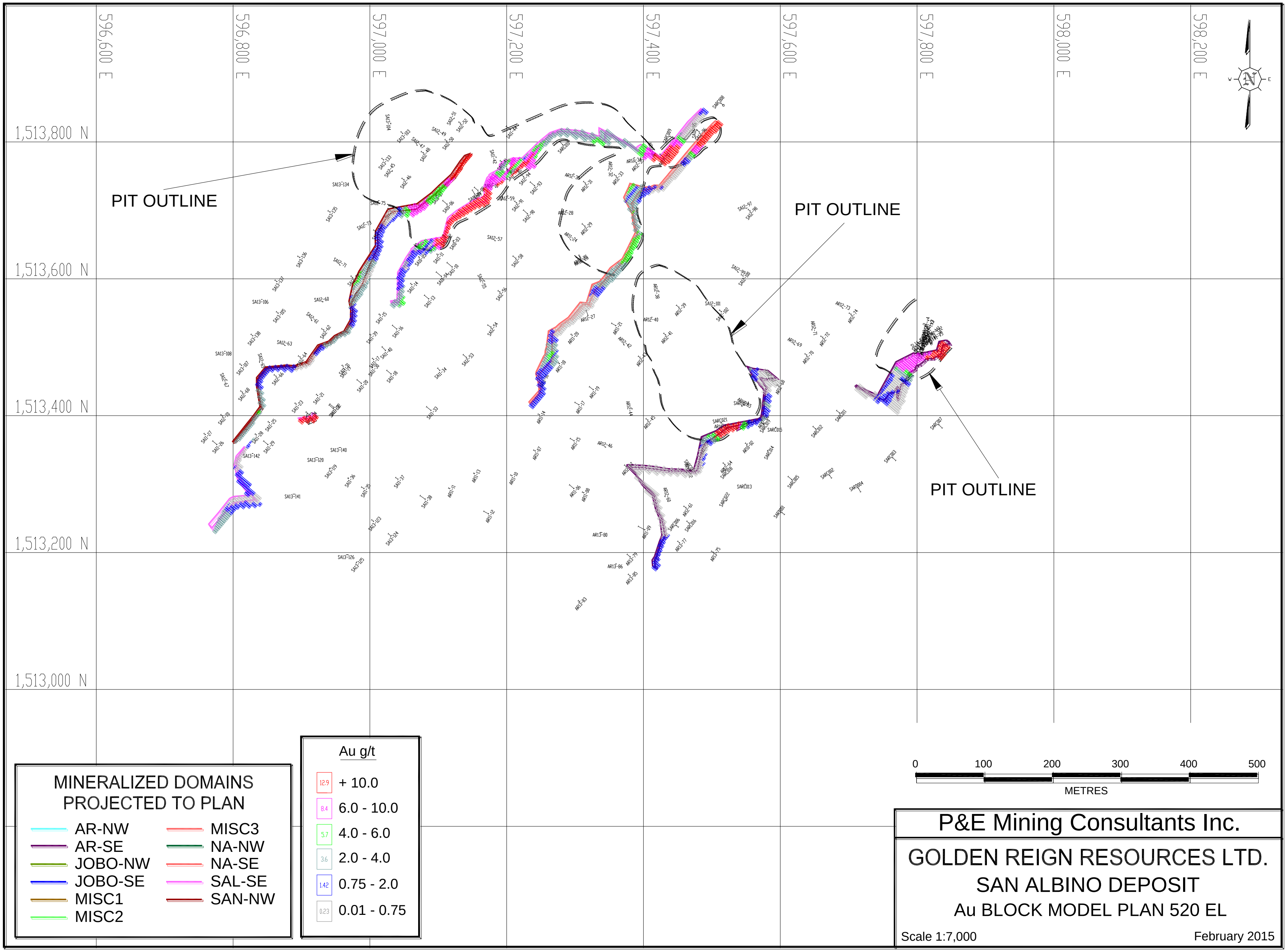
598,200 E
1,513,800 N
1,513,600 N
1,513,400 N
1,513,200 N
1,513,000 N
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
Au g/t
+ 10.0
6.0 - 10.0
4.0 - 6.0
2.0 - 4.0
0.75 - 2.0
0.01 - 0.75
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
Au BLOCK MODEL PLAN 570 EL
Scale 1:7,000
February 2015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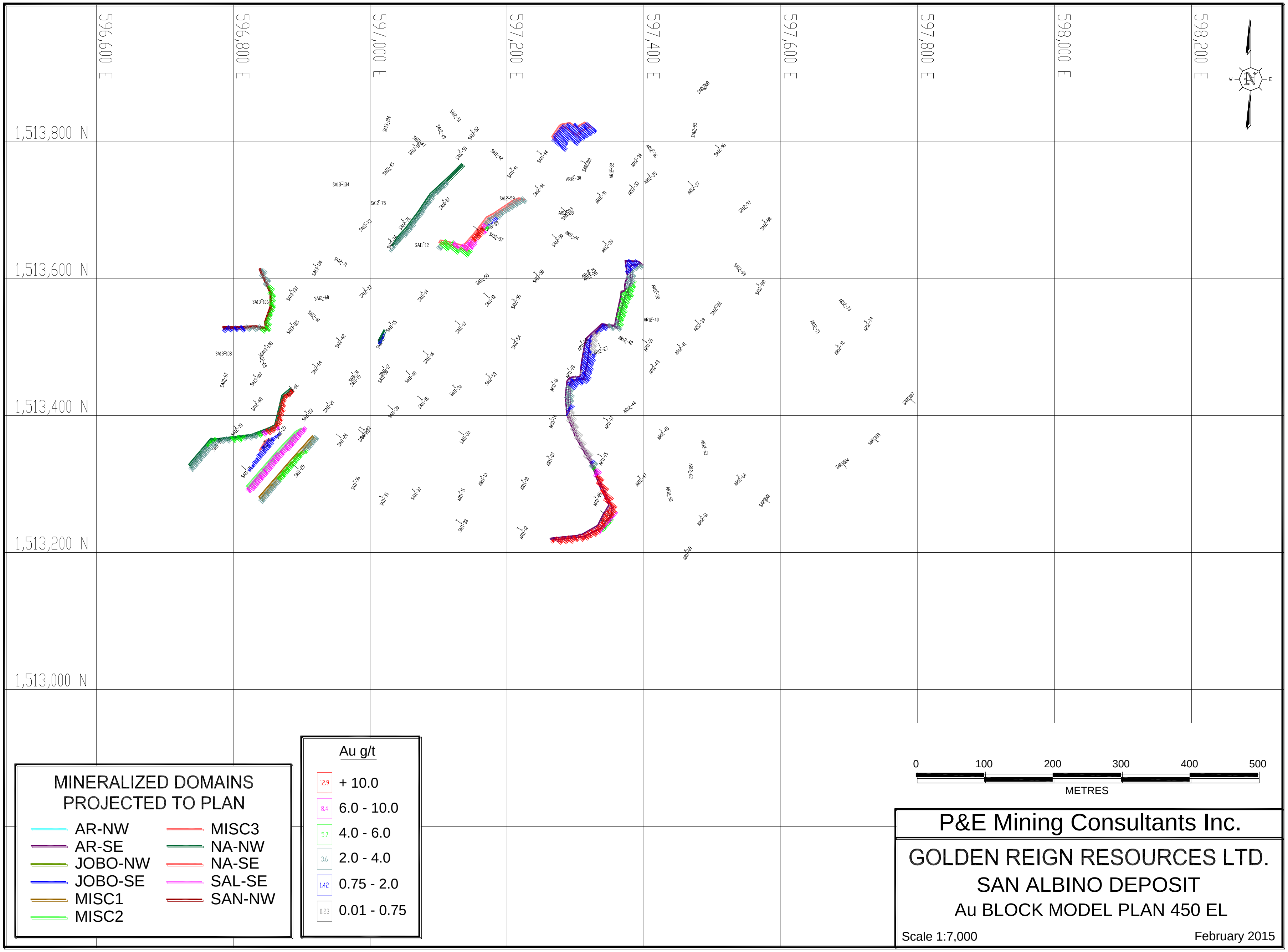
1,513,600 N
1,513,400 N
1,513,200 N
1,513,000 N
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
Au g/t
+ 10.0
6.0 - 10.0
4.0 - 6.0
2.0 - 4.0
0.75 - 2.0
0.01 - 0.75
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
Au BLOCK MODEL PLAN 520 EL
Scale 1:7,000
February 2015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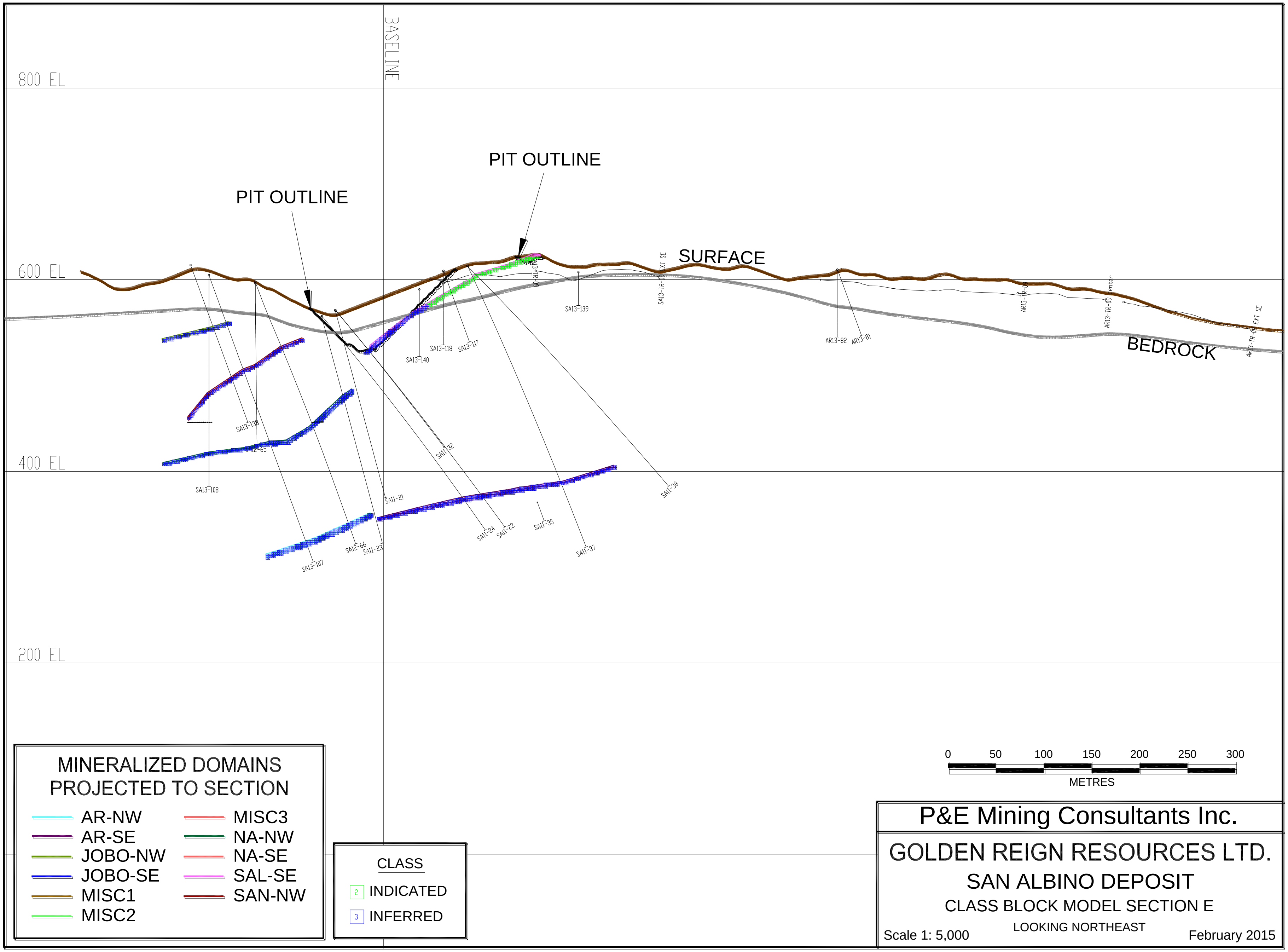
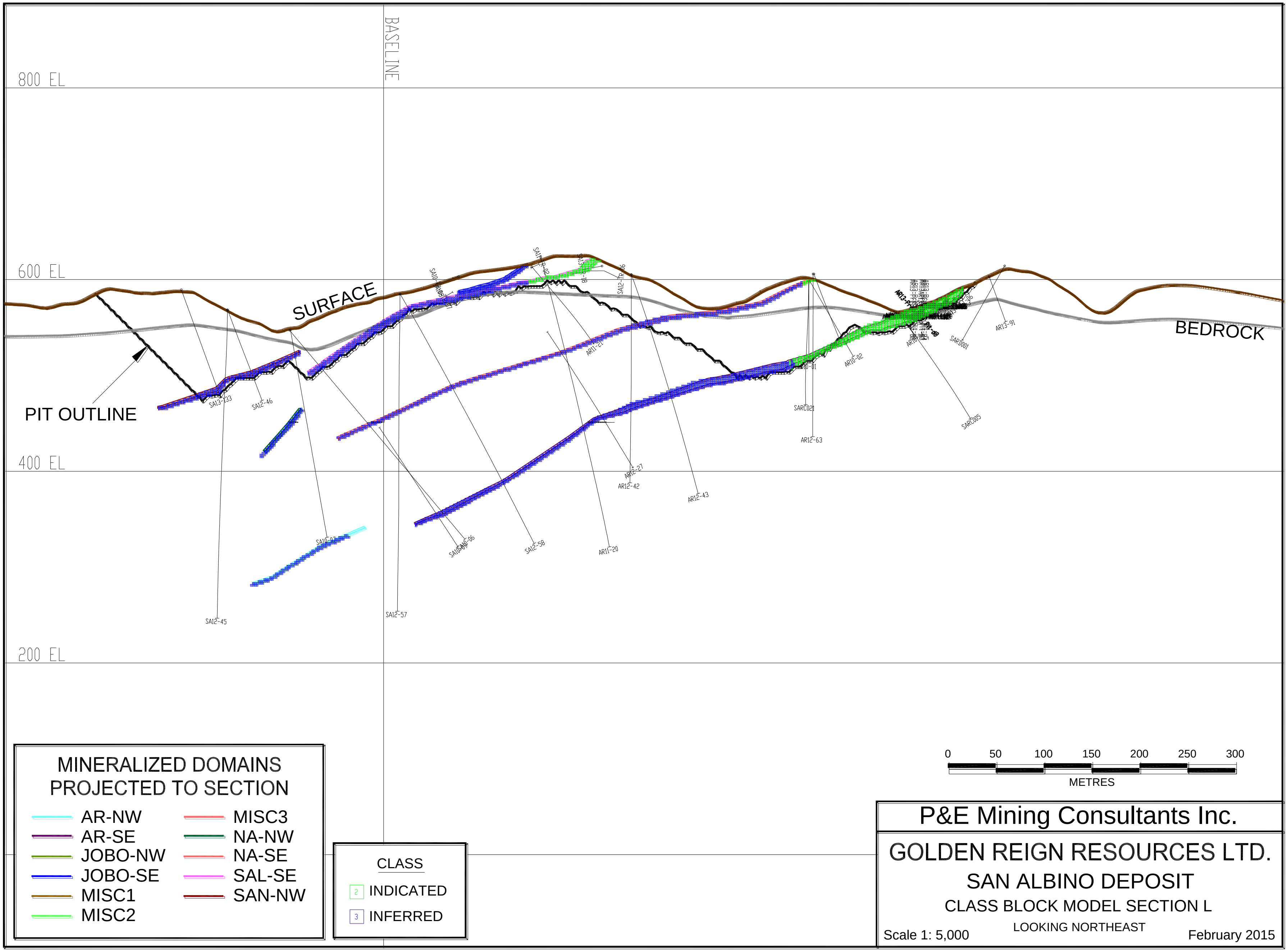
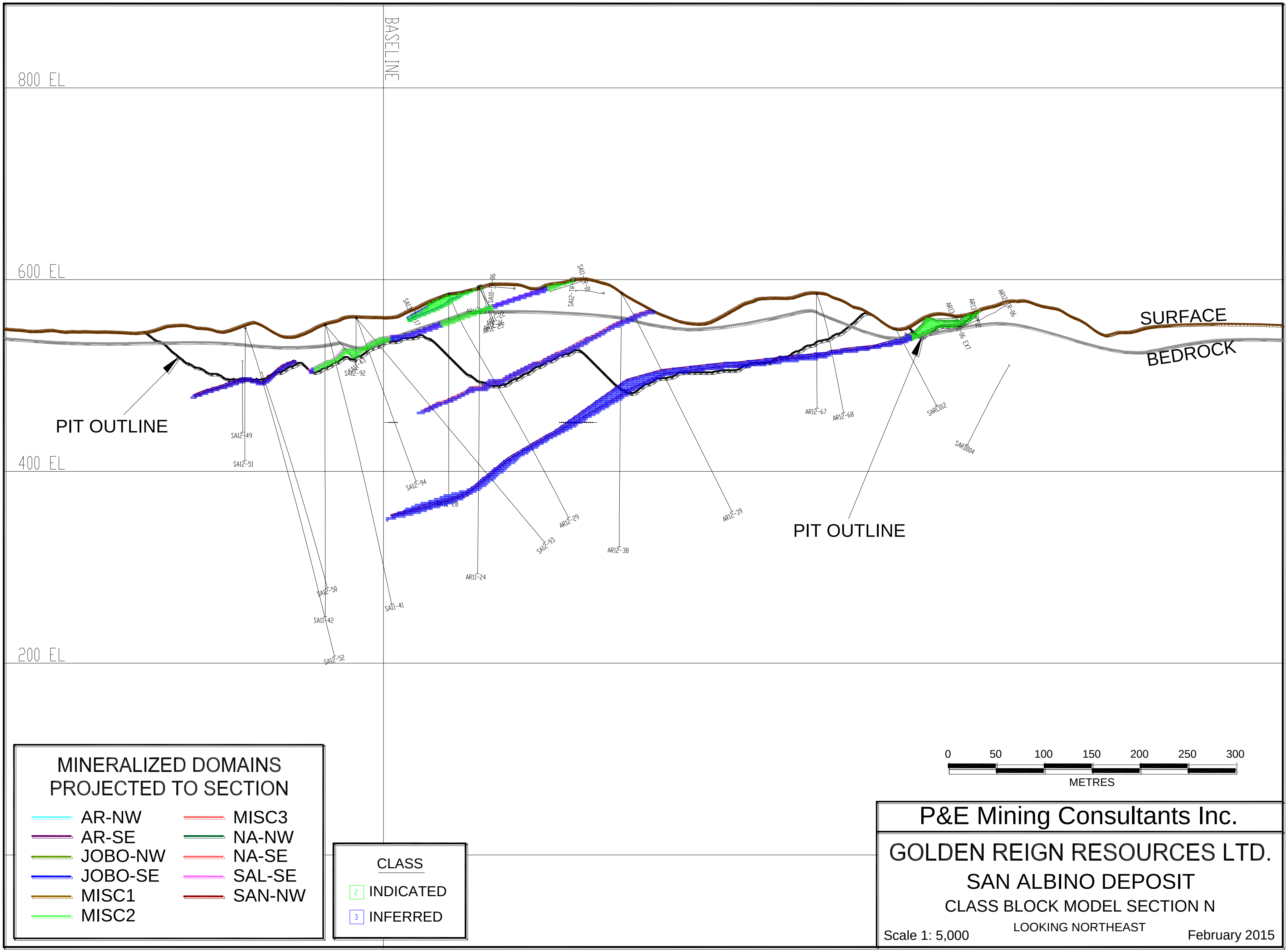
1,513,600 N
1,513,400 N
1,513,200 N
1,513,000 N
N
MINERALIZED DOMAINS PROJECTED TO PLAN
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
Au g/t
+ 10.0
6.0 - 10.0
4.0 - 6.0
2.0 - 4.0
0.75 - 2.0
0.01 - 0.75
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
Au BLOCK MODEL PLAN 450 EL
Scale 1:7,000
February 2015

APPENDIX VI. CLASSIFICATION BLOCK MODEL CROSS SECTIONS AND PLANS

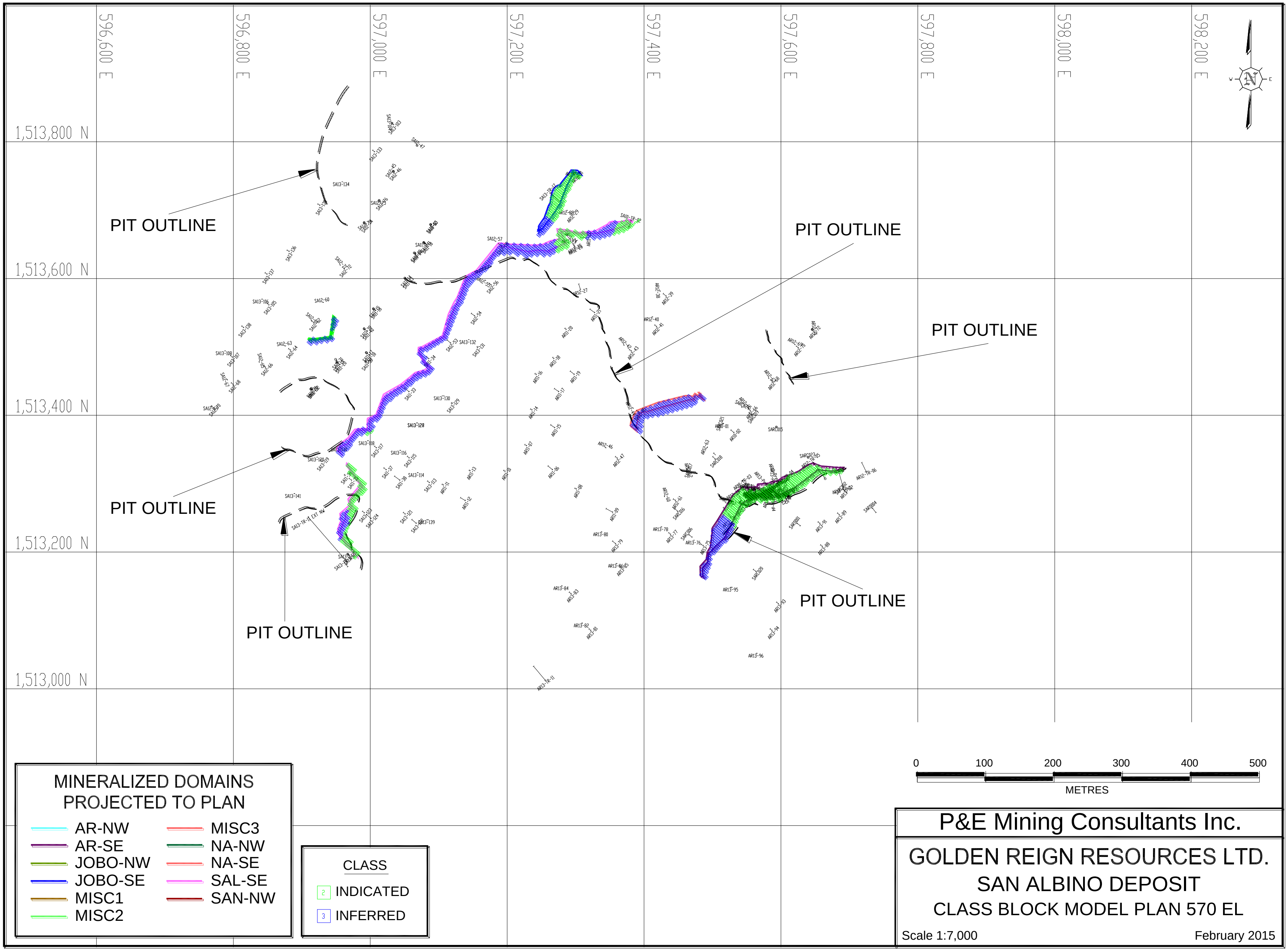


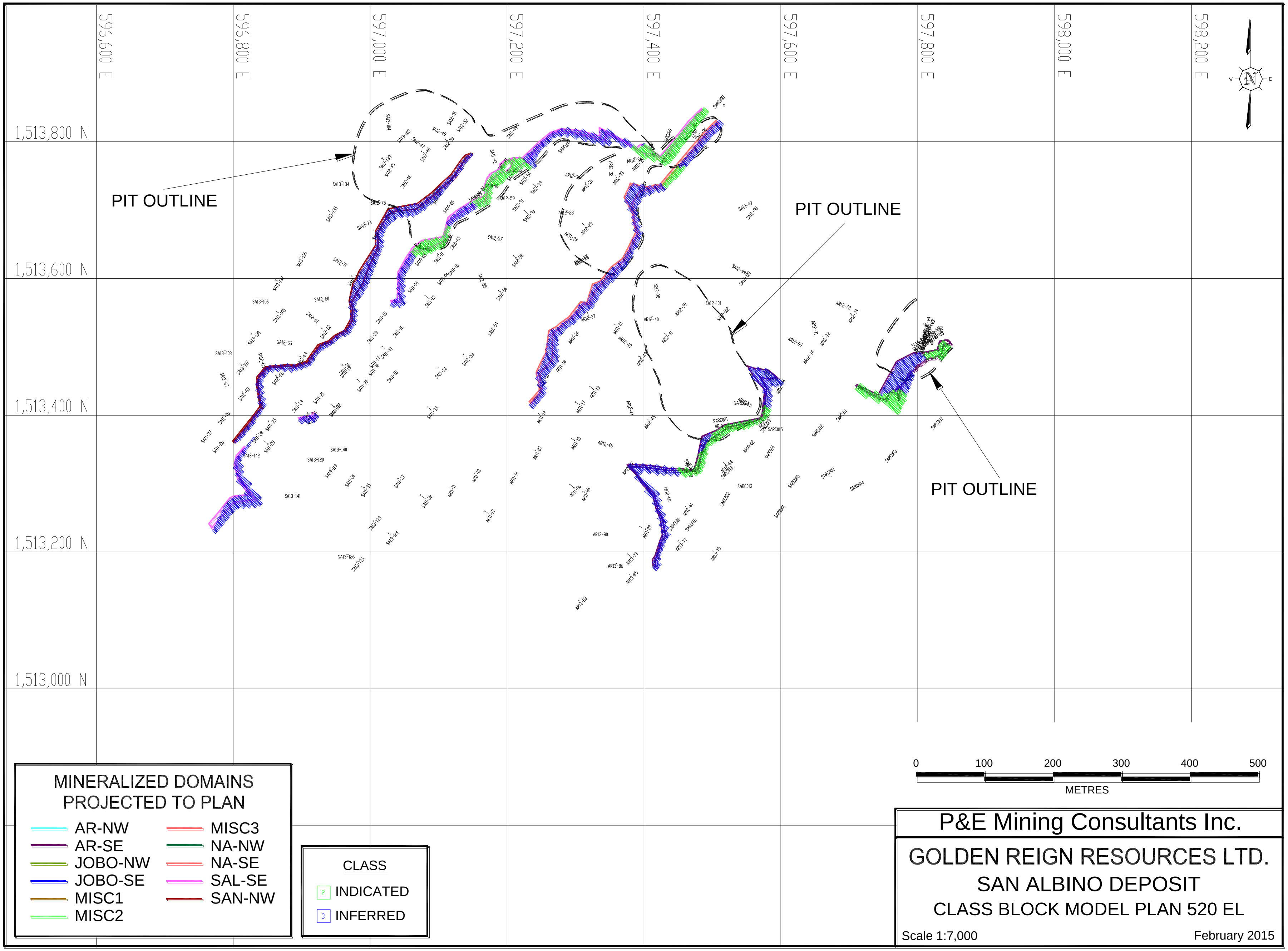
BASELINE
800 EL
600 EL
400 EL
200 EL
PIT OUTLINE
PIT OUTLINE
SURFACE
BEDROCK
MINERALIZED DOMAINS PROJECTED TO SECTION
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
CLASS
INDICATED
INFERRED
0
50
100
150
200
250
300
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
CLASS BLOCK MODEL SECTION E
LOOKING NORTHEAST
Scale 1: 5,000
February 2015

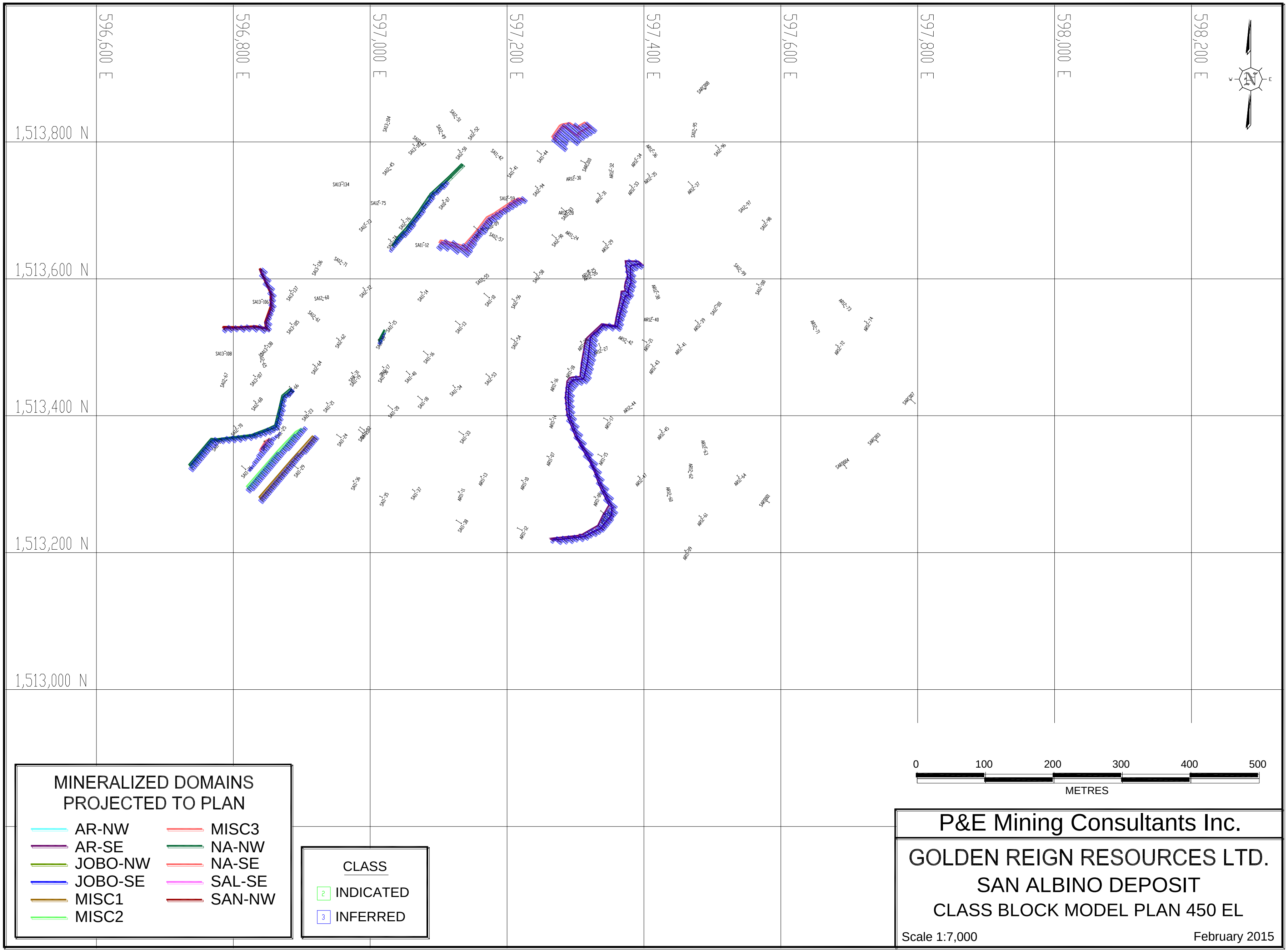

800 EL
600 EL
400 EL
200 EL
BASELINE
SURFACE
BEDROCK
PIT OUTLINE
MINERALIZED DOMAINS
PROJECTED TO SECTION
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
CLASS
INDICATED
INFERRED
0
50
100
150
200
250
300
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
CLASS BLOCK MODEL SECTION L
LOOKING NORTHEAST
Scale 1: 5,000
February 2015



BASELINE
800 EL
600 EL
400 EL
200 EL
SURFACE
BEDROCK
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS
PROJECTED TO SECTION
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
CLASS
INDICATED
INFERRED
0 50 100 150 200 250 300
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
CLASS BLOCK MODEL SECTION N
Scale 1: 5,000
LOOKING NORTHEAST
February 2015

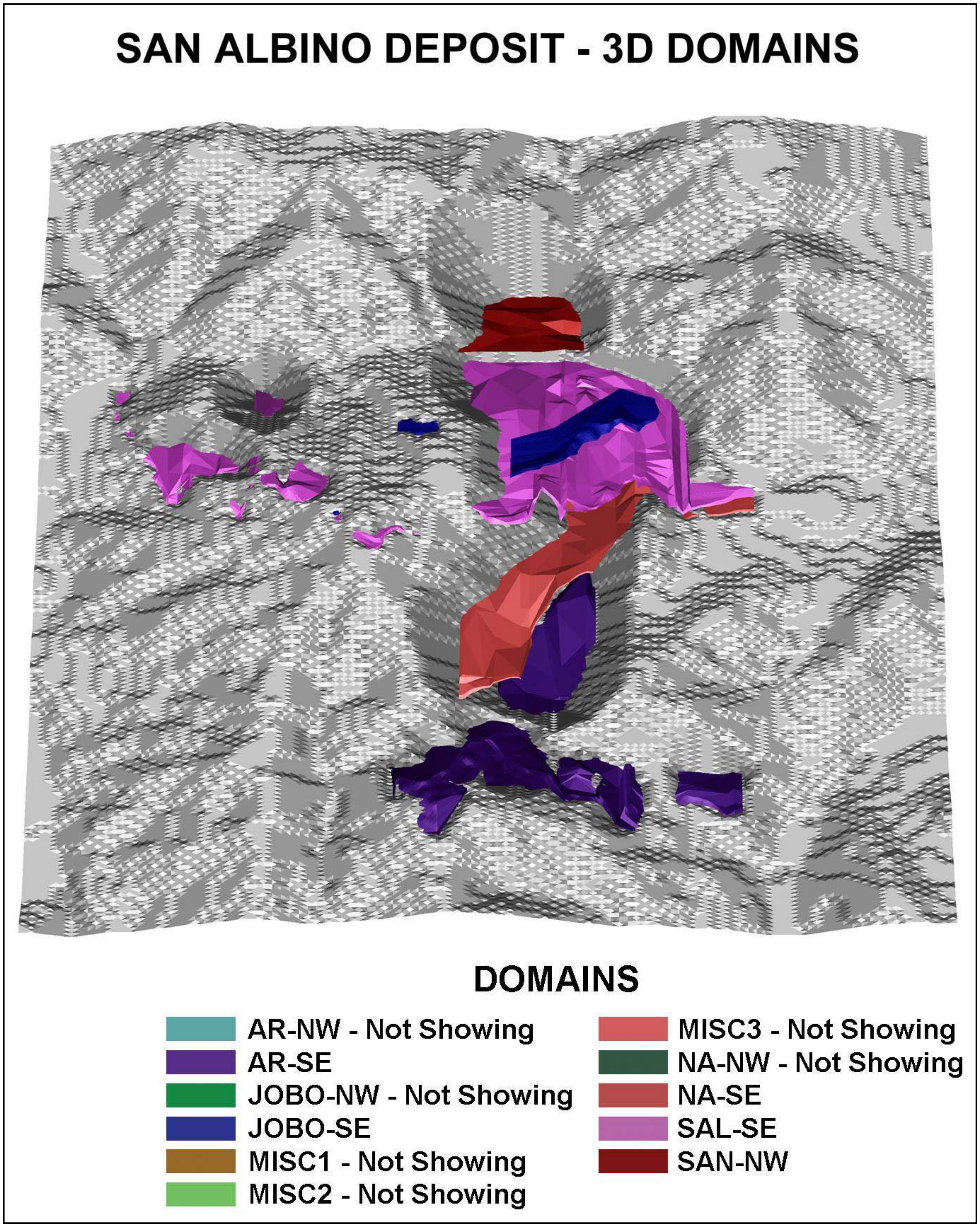

596,600 E
596,800 E
597,000 E
597,200 E
597,400 E
597,600 E
597,800 E
598,000 E
598,200 E
1,513,800 N
1,513,600 N
1,513,400 N
1,513,200 N
1,513,000 N
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS
PROJECTED TO PLAN
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
CLASS
2 INDICATED
3 INFERRED
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
CLASS BLOCK MODEL PLAN 570 EL
Scale 1:7,000
February 2015


596,600 E
596,800 E
597,000 E
597,200 E
597,400 E
597,600 E
597,800 E
598,000 E
598,200 E
1,513,800 N
1,513,600 N
1,513,400 N
1,513,200 N
1,513,000 N
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS
PROJECTED TO PLAN
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
CLASS
INDICATED
INFERRED
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
CLASS BLOCK MODEL PLAN 520 EL
Scale 1:7,000
February 2015



596,600 E
596,800 E
597,000 E
597,200 E
597,400 E
597,600 E
597,800 E
598,000 E
598,200 E
1,513,800 N
1,513,600 N
1,513,400 N
1,513,200 N
1,513,000 N
N
MINERALIZED DOMAINS PROJECTED TO PLAN
AR-NW
AR-SE
JOBO-NW
JOBO-SE
MISC1
MISC2
MISC3
NA-NW
NA-SE
SAL-SE
SAN-NW
CLASS
2 INDICATED
3 INFERRED
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
GOLDEN REIGN RESOURCES LTD.
SAN ALBINO DEPOSIT
CLASS BLOCK MODEL PLAN 450 EL
Scale 1:7,000
February 2015

APPENDIX VII. OPTIMIZED PIT SHELLS


SAN ALBINO DEPOSIT - 3D DOMAINS
DOMAINS
AR-NW - Not Showing
AR-SE
JOBO-NW - Not Showing
JOBO-SE
MISC1 - Not Showing
MISC2 - Not Showing
MISC3 - Not Showing
NA-NW - Not Showing
NA-SE
SAL-SE
SAN-NW