MINE DEVELOPMENT ASSOCIATES
MINE ENGINEERING SERVICES

Technical Report

on the

El Dorado Project Gold and Silver Resources,

Department of Cabañas, Republic of El Salvador

July 31, 2006

Prepared for

PACIFIC RIM MINING CORPORATION

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1.0 SUMMARY

Pacific Rim Mining Corporation (“Pacific Rim”) is exploring and developing the El Dorado Project in El Salvador. Pacific Rim engaged Mine Development Associates (“MDA”) to prepare new resource estimates for two of the deposits that form part of the project, South Minita and Nance Dulce. Concurrently with the preparation of the new resource estimates, MDA reviewed and re-stated resource estimates, originally done in 2003, for the Minita, Nueva Esperanza and La Coyotera deposits and updated the Minita area resource estimate with the few new holes drilled there since the previous estimate. The purpose of this report is to disclose the new resource estimates. Additionally, this opportunity is taken to update reporting on the exploration and development work that Pacific Rim has done since 2003.

The resource estimates were prepared by the principal author, Steven Ristorcelli of MDA. MDA requested that the second author, Peter A. Ronning (Ronning), assist in the preparation of the data underlying the resource estimate, and in the writing and compiling of the present report. Ken Reipas, P. Eng. and Tom Rannelli, P. Eng., Al Kuestermeyer, P. Eng., Terry Braun, P. Eng., all of SRK Consulting (“SRK”) and all Qualified Persons in their respective fields, have restated information related to past work done on the pre-feasibility, engineering, metallurgy and economics of the Minita Mine proper.

1.1 Property Description

The El Dorado project is located in the Department of Cabañas approximately 74 km northeast of San Salvador, the capital city of El Salvador, and 10 km southwest of the town of Sensuntepeque. Three Exploration Licenses and one pending Exploitation Concession, together covering approximately 15,639 hectares, comprise the El Dorado Property. Pacific Rim has obtained title opinions dated February 20th, 2006, prepared by Luis A. Medina of Rusconi, Valdez, Medina & Asociados, which state that the three Exploration Licenses were at that time in good standing (Medina, 2006a, 2006b). According to Medina (2006a), the El Dorado Exploitation Concession was not yet granted but the company “…holds the sole priority, unimpeachable right to obtain the concession …”

1.2 Geology

The El Dorado district can be subdivided into five sub-districts: North, Central, Central East, South and South West. The principal bedrock is fine-grained porphyritic andesite flows, andesite agglomerate and andesite porphyry of the Morazan Formation. Felsic volcanic rocks are rare to absent except in the South and South West El Dorado sub-districts, where dacitic to rhyolitic tuffs are intruded by andesite

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porphyry in a sub-volcanic vent complex. The northwest-trending Avila fault marks the southern limit of the Central El Dorado sub-district.

The El Dorado district mineralization is dominated by north-trending epithermal chalcedonic-quartz and carbonate veins, with lesser but still-significant chalcedonic-quartz and carbonate veins having northwesterly or northeasterly trends. The veins are controlled by two pronounced structural elements: N30°W- to N30°E-trending tensional faults and systems of northwest-trending strike-slip faults. The largest veins can be traced for up to three kilometers and can be up to tens of meters wide. The veins dip steeply, and generally form topographic ridges. The gold- and silver-bearing veins of the El Dorado district, of which at least 36 exceed one-meter in width, occur over an area exceeding 50 km^2. They belong to the low-sulfidation class of epithermal precious metal deposits.

The dominant components of the El Dorado veins are chalcedonic quartz and calcite. They generally contain less than 1% to 2% sulfides, with pyrite predominant in the wallrocks. The multistage paragenetic nature of the veins implies that quartz, calcite and gold- and silver-bearing minerals have been introduced in several stages. Massive chalcedony is cut by crustiform-colloform banded chalcedony and/or breccias containing massive to crustiform-colloform banded fragments. The vein minerals include adularia, sericite, pyrite, acanthite, electrum, native gold, native silver, chalcopyrite, sphalerite, and galena. The opaque minerals generally comprise less than 1% of the vein but may form a significant portion of individual gray to black bands. Individual gold grains, up to 0.1 mm in diameter, have been observed in polished sections, associated with chalcopyrite and lesser pyrite. There are no known instances of gold that is visible to the naked eye or with a low-power lens.

Exploration by Pacific Rim and its predecessors has resulted in the delineation of five deposits for which resources can be estimated at the present time. Three of them, the Minita, South Minita and Nueva Esperanza deposits, appear to be aligned along a northerly trend or structural zone. The other two deposits with resources, Coyotera and Nance Dulce, are each distinct from other known resources.

The main historic production at El Dorado was derived from four main veins in the Minita deposit, within an area about 700-m long and 300-m wide. These were the Minita, Zancudo, Minita 3 and El Dorado veins. The Minita and to a lesser extent Zancudo veins account for the bulk of historic production.

The Minita vein, the largest of the defined veins, trends roughly north-south over a strike length of at least 900 m. Widths average three meters but reach over nine meters. The Minita 3 vein, located just east of the Minita vein, trends roughly north-south over a strike length of close to 600 m. The mean thickness at Minita 3 is one and one half meters but the more productive parts average closer to two and one half meters. The Zancudo vein is located between the El Dorado vein, on the west, and the Minita vein on the east. It trends roughly north-south over a strike length of at least 700 m. Vein widths average about one meter. Ten other veins have been defined but due to their size and relatively low grade have not been estimated.

Less than one kilometer north and on strike of the central part of the Minita Area is the Nueva Esperanza vein. A small resource has been defined at Nueva Esperanza, which comprises sub-parallel, massive, primarily chalcedonic quartz veins, thinner veins, and various concentrations of quartz stockwork-mineralized andesite. The structure dips moderately to the west. Potential to increase the resource exists along strike to the north where the vein remains untested.

The South Minita deposit is a new discovery made in 2005 by Pacific Rim. The deposit begins about 200 m south of the southern extension of Minita. Ten veins contribute to the estimated South Minita resource but 75% of the resource lies in three veins, and one of these hosts 50% of the total South Minita resource. The South Minita veins dip steeply to moderately to the east. The total strike length of the South Minita resource area is approximately 1,000 m in a north direction, and it is about one third of the known total mineralized trend that extends northward as far as Nueva Esperanza. The South Minita veins are similar in character to those at Minita, though they are thinner and less continuous than the best veins in the Minita area.

Just over one kilometer to the northwest of Nueva Esperanza is the La Coyotera vein system. It has a strike length of over 1,200 m. The system trends approximately due north at its southern end and then bends to about N20°E for most of its length. Its dip is essentially vertical and it consists of one, two or locally more sub-parallel veins. The La Coyotera "vein" is a complex multistage lode made up of massive gray to white, mostly recrystallized chalcedony, banded colloform quartz, and possibly hydrothermal breccias containing fragments of vein material, barren silica cement, and wallrock.

About 2.4 kilometers south-southwest of the South Minita deposit, a series of northwest-trending veins forms the Nance Dulce deposit. The latter deposit contains multiple veins, dominated by two steeply northeast-dipping veins that are interpreted to have reasonable continuity from drill hole to drill hole. Those two veins make up the Nance Dulce Inferred resource. The mineralization is similar, in its style and constituents, to that in the Minita and South Minita systems. The veins that contribute to the Nance Dulce resource, as presently understood, are thinner and less continuous than the best veins in the Minita system. The Nance Dulce vein system requires more drilling in order to better define the mineralization, with the consequence of upgrading the classification of the resource and possibly expanding it.

1.3 Exploration

Exploration work completed and ongoing at El Dorado includes geological mapping, geochemical rock sampling (about 3,980 rock samples), hand trenching (over 500 samples), and drilling. Several campaigns of drilling have been completed on the El Dorado project throughout the last decade and one is ongoing as of this writing. The vast majority of the holes drilled on the El Dorado project are core holes. There are 3,356 down hole surveys, 18,725 drill hole samples with at least one gold assay, 18,608 drill hole silver assays, 466 drill holes, and multiple fields of geologic data for most intervals. Reverse circulation drilling was employed to pre-collar some core holes, but was used for the entirety of seven holes at Nueva Esperanza in earlier drill campaigns. In the past there have been instances of low core recovery at El Dorado, mainly at La Coyotera. Since Pacific Rim began operating the project in 2002, however, core recovery has with few exceptions been very good.

1.4 Metallurgy

The gold-silver mineralization had been identified as acanthite, electrum, and native gold and native silver. The sulfide mineralization is pyrite, chalcopyrite and trace sphalerite and galena. The gold and silver mineralization is fine grained. This confirms the absence of "nugget" gold. Gravity separation is not considered as a viable recovery process.

The leaching tests indicate that fine grinding (200 mesh), long leach times (48 hrs), and high cyanide strengths are required to achieve optimum gold and silver recoveries.

The operating recoveries for the El Dorado process plant are estimated to be 92% for gold and 88.3% for silver. In testing under optimum conditions, McClelland averaged 92.5% gold and 88.8% silver extractions. Pocock's counter-current decantation ("CCD") balances indicate soluble recoveries of 99.2% to 99.6% in a four-stage CCD circuit. The soluble recovery in the planned five-stage CCD circuit will be 99.5%. Other losses for the plant slag and unaccounted losses will total about 0.45% recovery loss.

The current El Dorado process plant has a design throughput rating of 750 tpd at 90% availability. The ball mill and thickeners are sized for a 1,000 tpd maximum throughput circuit. The design crushing system is rated at 130 tph, which will provide crushing on an eight-hour shift for a 835 tpd. The Merrill-Crowe and refinery systems are sized to handle the 1,000 tpd system. The leaching system is designed to provide 50 hours retention time at 835 tpd. In order to increase total plant throughput to 1,000 tpd, additional tanks will be required. Excess leaching time should be avoided. McClelland's test work indicates that even with pretreatment, slight preg robbing will occur at 48 to 72 hrs leach time. A conventional five-stage CCD plant with doré recovery by zinc precipitation (Merrill-Crowe) will be used. Other options are filtration with a zinc precipitation or Carbon in Leach ("CIL") with doré recovery by electrowinning. The favorable settling characteristics of the ore favor the CCD over filtration. Numerous studies of the economics of CIL vs. CCD indicate that when the recovered silver to gold ratio is over 3.5, the economics favor the CCD. The El Dorado ratio is 8.0:1. The CCD system reduces the amount of cyanide reporting to the Inco cyanide destruction unit by one-third to one-half, reducing the Inco reagent costs.

1.5 Resources

Estimates of the El Dorado resources were completed relying heavily on geology and cross sectional interpretations. Classic three dimensional block models were made for La Coyotera and Nueva Esperanza resource estimates and variable-width long sectional or grade-accumulation three dimensional models were made for the Minita, South Minita and Nance Dulce deposits. Estimation was by inverse distance methods but was checked against kriged and nearest neighbor models. Capping levels varied depending upon the vein, the deposit and the area. Bulk density values used ranged from 2.42 g/cm^3 for some veins to 2.62 g/cm^3 for wallrock.

MDA classified the resources in order of increasing geological, analytical, sample and estimation confidence, into Inferred, Indicated and Measured categories to be in compliance with Canadian National Instrument 43-101 and the "CIM Definition Standards - For Mineral Resources and Mineral Reserves". MDA classified the El Dorado resources by a combination of distance to the nearest sample, the number of samples used to estimate a block, the confidence in certain drill intercept interpretations, sample quality, and the core recovery. The project-wide undiluted resources are given in Table 1.1 through Table 1.4.

Table 1.1 El Dorado Project Measured Resources

El Dorado Project Total Resource - Measured							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	1,121,500	9.22	8.40	302,800	57.56	2,075,500	332,600
4.0	**780,100**	**12.39**	**11.31**	**283,600**	**75.76**	**1,900,200**	**310,800**
5.0	721,900	13.03	11.90	276,100	79.70	1,849,700	302,500
6.0	663,000	13.70	12.51	266,600	83.96	1,789,600	292,100
7.0	614,400	14.28	13.03	257,300	87.40	1,726,400	282,100
8.0	539,900	15.21	13.89	241,100	92.54	1,606,300	264,000
9.0	481,600	16.01	14.63	226,500	97.06	1,502,800	247,900

Table 1.2 El Dorado Project Indicated Resources

El Dorado Project Total Resource - Indicated							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	5,701,200	5.89	5.36	981,900	37.15	6,809,300	1,079,100
4.0	**2,930,000**	**9.67**	**8.83**	**831,900**	**58.64**	**5,524,300**	**910,700**
5.0	2,550,600	10.44	9.54	782,000	63.32	5,192,700	856,300
6.0	2,220,200	11.17	10.20	728,200	67.97	4,851,500	797,600
7.0	1,838,200	12.15	11.08	654,900	74.59	4,408,300	717,800
8.0	1,477,500	13.28	12.13	576,200	80.60	3,828,600	630,900
9.0	1,171,000	14.54	13.30	500,800	87.02	3,276,200	547,500

Table 1.3 El Dorado Project Measured and Indicated Resources

El Dorado Project Total Resource - Measured and Indicated							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	6,822,700	6.44	5.86	1,284,700	40.50	8,884,800	1,411,800
4.0	**3,710,100**	**10.24**	**9.35**	**1,115,500**	**62.24**	**7,424,500**	**1,221,500**
5.0	3,272,500	11.01	10.06	1,058,100	66.93	7,042,400	1,158,800
6.0	2,883,200	11.76	10.73	994,800	71.64	6,641,100	1,089,700
7.0	2,452,600	12.68	11.57	912,200	77.80	6,134,700	1,000,000
8.0	2,017,400	13.80	12.60	817,300	83.79	5,434,900	895,000
9.0	1,652,600	14.97	13.69	727,300	89.95	4,779,000	795,400

Table 1.4 El Dorado Project Inferred Resources

El Dorado Project Total Resource - Inferred							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	1,452,100	5.49	5.01	233,700	33.82	1,578,900	256,400
4.0	**558,100**	**11.30**	**10.33**	**185,300**	**68.16**	**1,223,000**	**202,800**
5.0	472,900	12.51	11.44	174,000	75.21	1,143,500	190,200
6.0	383,200	14.16	12.95	159,600	84.31	1,038,700	174,400
7.0	321,000	15.67	14.34	148,000	93.01	959,940	161,730
8.0	263,500	17.42	15.99	135,500	101.54	860,250	147,570
9.0	232,800	18.61	17.09	127,900	108.37	811,100	139,300

The estimates for each deposit, with more cutoff grades shown, appear in Appendix E.

It is likely that additional mineralization will be encountered within and around the principle resource veins as well as in veins throughout the district, which at present are defined by drill holes and surface mapping and sampling. The drill holes and surface samples often have gold and silver mineralization, sometimes with very significant grades. This is a rather mixed blessing for Pacific Rim, because on the one hand any one of those veins may or may not host resources similar to the Minita area, but on the other hand, each one deserves more exploration.

1.6 Recommendations

The recommendations in this report focus on drilling for resource enhancement and exploration. There is a feasibility study in progress at the time of writing. Matters that will be addressed in the feasibility study are beyond the scope of the present report.

The work recommended herein consists of, in round numbers, 28,000 meters of drilling, plus estimated costs to cover a year of continuing surface exploration, and an allowance for related quality control and quality assurance work. The estimated total cost is **US$ 4,250,000**
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2.0 INTRODUCTION

2.1 Terms of Reference

Pacific Rim Mining Corporation ("Pacific Rim") is exploring and developing the El Dorado Project in El Salvador. Pacific Rim engaged Mine Development Associates ("MDA") to prepare new resource estimates for two of the deposits that form part of the project, South Minita and Nance Dulce. Coincidentally with the preparation of the new resource estimates, MDA reviewed and re-stated resource estimates that were originally done in 2003 for the Minita, Nueva Esperanza and La Coyotera deposits and updated the Minita resource estimate. The purpose of this report is to disclose the new resource estimates. Additionally, this opportunity is taken to update reporting on the exploration work that Pacific Rim has done since 2003.

The resource estimates were prepared by the principal author, Steven Ristorcelli of MDA. MDA requested that the second author, Peter A. Ronning (Ronning), assist in the preparation of the data underlying the resource estimate, and in the writing and compiling of the present report. Ken Reipas, P. Eng., and Tom Rannelli, P. Eng., Al Kuestermeyer, P. Eng., Terry Braun, P. Eng., all of SRK Consulting ("SRK") and all Qualified Persons in their respective fields, have restated information related to past work done on the feasibility, engineering, metallurgy and economics of the Minita Mine proper.

2.2 Sources of Information

The information that the authors used in the preparation of the resource estimates, and additional information reviewed in preparing this report, is listed in Section 21.0. The sources of information include exploration data accumulated by Pacific Rim and additional documents provided by that company, including a pre-feasibility study prepared in 2005 (SRK Consulting, 2005). In addition to the company data and documents, public domain information has been gathered from a number of sources. The authors had numerous conversations with employees and management of Pacific Rim, both in the field and at the company's project headquarters in Sensuntepeque, El Salvador.

2.3 Personal Inspection by the Authors

2.3.1 Ristorcelli

Ristorcelli has visited the site several times since 2003 but most recently, and specifically for the purpose of this resource estimate, twice in 2006. Ristorcelli spent the period from February 5th through February 9th and April 25th through May 2nd at the El Dorado project. Most of this time was spent modeling the South Minita deposit on section and reviewing the technical database. Some additional time was spent at the core logging and storage facility, examining drill core from South Minita and Nance Dulce.

2.3.2 Ronning

Ronning spent the period from 06 June 2003 to 16 June 2003 in El Salvador, reviewing the El Dorado Project and one other that Pacific Rim was working on at the time.[1]. He spent parts of 6 June, 11 June, 12 June, and 14 June in the field on the El Dorado Project, and while in the field collected 22 rock samples.

The remainder of his 2003 visit was spent at Pacific Rim's office in Sensuntepeque, reviewing and gathering data on the projects.

In 2006, Ronning spent the period from February 5th through February 9th and April 25th through May 4th at the El Dorado project. Most of this time was spent reviewing and auditing the project's technical database at Pacific Rim's office in Sensuntepeque and, during the latter visit, working on the geological model for the Nance Dulce veins. Two afternoons were spent at the core logging and storage facility, looking at drill core from South Minita and Nance Dulce.

2.3.3 SRK

SRK made a site visit to the El Dorado Project in May 2004. The site visit was conducted by Mr. William Tanaka, Principal Geological Engineer and Qualified Person as defined under NI43-101. SRK also made a visit to the El Dorado Project site in January 2004 to review the scope of the environmental and social baseline studies and environmental impact study. Bruce Murphy, P. Eng., and Ken Reipas, P. Eng. visited the property from June 24 to 26, 2006 and June 25 to 26, 2006, respectively, for their work leading towards the upcoming feasibility study.

2.4 Effective Date

The data used in preparing the resource estimates contained in this report were current as of 30th April 2006. The estimates were issued and made public in June and July of 2006. Exploration was continuing as the report was written. The nominal date of this report, which appears on the cover page and in the author's Certificate, is the date at which the writing of the report was completed. The effective date is 30th April 2006.

2.5 Note on Language, Terminology and Definitions

Most of the technical information concerning the El Dorado Project is in English. A few of the printed and electronic sources of information used in the preparation of this report are in Spanish. The authors are competent to read documents in Spanish, and the information that was originally in Spanish is presented in this report in English without further acknowledgement of the translation. Where appropriate, Spanish is retained, as in the case of proper nouns.

[1] Pacific Rim has since relinquished the other project, known as La Calera

The name "El Dorado" is used in several contexts relating to the project. The following explanation may clarify its various uses to readers unfamiliar with the project:

El Dorado Project	Refers to the project as a whole including all the sub-projects, concessions, resources, and deposits
El Dorado Exploitation Concession	The legally defined area for which Pacific Rim expects to be granted mining rights. This was formerly part of the El Dorado exploration licenses.
El Dorado Mine Area	Refers to the near vicinity of the former producing El Dorado Mine, including the El Dorado, Minita, Minita 3, Zancudo and other veins that were exploited or explored via interconnecting underground workings. This area is sometimes also referred to as the Minita Mine Area. The El Dorado Mine Area covers 30 to 40 hectares.
El Dorado Deposit	The mineral deposit situated in the El Dorado Mine Area, consisting of the veins noted above. In this report the authors have used the term "Minita Deposit" to mean the same thing.
El Dorado Vein	One of the veins in the Minita Mine Area

2.5.1 Definitions

Some frequently used acronyms and abbreviations that appear in this report are listed below. Some technical terms not listed below may be found in the glossary of technical terms that appears in Appendix F.

AA	atomic absorption spectrometry
Ag	silver
Au	gold
Cu	copper
dst	dry short tons
ft	feet
gpm	gallons per minute
g/t	grams per tonne
HP	horsepower
in.	inches
km	kilometer
lb	pound (2000 lbs to 1 ton, 2204.6 lbs to 1 tonne)
m	meters
mph	miles per hour
oz	Troy ounce (12 oz to 1 pound, 1 troy oz = 31.10348 grams)

RC	reverse circulation drilling method
st	short (imperial) ton
ton	short (imperial) ton
tonne	metric ton
tpd	(short) tons per day
tph or stph	(short) tons per hour
VBM	variable block model, MineSight data file
MDA	Mine Development Associates, the authors of this technical report
USGS	United States Geologic Survey

2.5.2 Map Coordinates

The cartographic reference system of the Republic of El Salvador uses the NAD27 datum, a Lambert Conic Conformal Projection and the Clark 1866 Ellipsoid[2]. In the text and figures in this report the term "El Salvador national grid" refers to this cartographic reference system.

[2] These technical terms refer to a model of the earth's shape and a mathematical procedure used to project the earth's curved surface onto a flat map.

3.0 RELIANCE ON OTHER EXPERTS

MDA has relied extensively on data, information and work compiled and completed by Pacific Rim and its predecessors as operators of the El Dorado Project. MDA reviewed the data, reports and geology and used those data believed to accurately represent the project. In estimating the mineral resources MDA used the geologic model jointly developed with Pacific Rim.

The assessment of adequacy, reasonableness and accuracy for the underlying database is presented in Section 14.0, Data Verification, of this report. By necessity, MDA has made judgments about the general reliability of the underlying data. Where deemed either inadequate or unreliable, the data were either eliminated from use or procedures were modified to account for lack of confidence in that specific information. This does not guarantee that all unreliable data has been eliminated from the database.

The contributors to this report are "Qualified Persons" according to the requirements needed for completing an NI43-101 compliant report for data evaluations, resource modeling, metallurgical studies, reserve estimation and mine planning, environmental issues, and economic evaluations. Though the two principal authors have had experience in most matters included in this report, they are not qualified to the extent of being "experts" in such issues as metallurgy, mine design, mineral economics, land title, legal issues and environmental matters. Information provided by Pacific Rim and other consultants has been included in discussions of these topics.

In addition to the principal authors, the Qualified Persons listed below participated in the editing of this report, dealing with the topics indicated:

Metallurgy:	Al Kuestermeyer, P. Eng., SRK
Environmental:	Terry Braun, P. Eng., SRK
Reserves:	Ken Reipas, P. Eng., SRK
Economic Analysis:	Tom Rannelli, P. Eng., SRK

Information concerning land status was obtained from two letters by the legal firm Rusconi, Valdez, Medina & Asociados, dated February 20, 2006, and from Pacific Rim Mining S.A. de C.V.

MDA, its employees and associates, have prepared this report for Pacific Rim to support the disclosure of the new resource estimates. The recommendations and conclusions contained in this report are based, for the most part, on information from sources outside the control of MDA. While MDA has exercised reasonable diligence and the information herein is believed to be accurate, MDA does not warrant or guarantee the accuracy thereof.

3.1 2005 Pre-Feasibility Study by SRK

SRK prepared a Pre-Feasibility Study (summarized in Section 18 of this document) which was posted on SEDAR in January 2005. The SRK Pre-Feasibility Study is based on information provided to SRK by Pacific Rim throughout the course of SRK's investigations at that time.

SRK is not an insider, associate or an affiliate of Pacific Rim, and neither SRK nor any affiliate has acted as advisor to Pacific Rim or its affiliates in connection with the El Dorado Project. The results of the study by SRK are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.
Subsequent to SRK's work, MDA has updated the estimate of Mineral Resources, as presented in this document. Therefore this report represents materially different technical and economic conditions and assumptions than those prepared and published by SRK in January 2005.

Pacific Rim is currently preparing a Feasibility Study which will include an updated Statement of Mineral Reserves.

4.0 PROPERTY DESCRIPTION AND LOCATION

(see Figure 4.1 and Figure 4.2)

The El Dorado Project, located in the Department of Cabañas, is approximately 74 km northeast of San Salvador, the capital city of El Salvador, and 10 km southwest of the town of Sensuntepeque. The El Dorado Deposit is located principally in the municipalities of San Isidro and Sensuntepeque. By road the travel time from the project site to downtown San Salvador is approximately 1.5 hours but can vary upwards depending upon the traffic. (*from 2001 Feasibility Study)*

The Republic of El Salvador is divided into 14 departments or states. Each state has its own Governor who is selected by the political party of the President. The Departments are divided into Municipalities which are overseen by the Mayor and the Municipal Board. Geographically the El Dorado Project covers parts of five municipalities, San Isidro, Sensuntepeque, Guacotecti, Santa Clara and San Esteban Catarina. The preponderance of the estimated resources is within San Isidro. A small part of the La Coyotera resource is within Sensuntepeque. There is no defined role for the Municipal government in the development and operation of the El Dorado Project. The Municipality will receive a 1% net smelter return ("NSR") royalty, should a mine go in to production.

4.1 Property Definition

Mineral rights in El Salvador belong to the Republic and are administered by the central government. Exploration and exploitation rights are granted to qualified companies as, respectively, licenses and concessions. The boundaries of Exploration Licenses and Exploitation Concessions are determined by stating the coordinates of their corners in an application, using the El Salvadoran national grid system.

4.1.1 Mineral Titles

(see Figure 4.2)

Three Exploration Licenses and one pending Exploitation Concession, listed in Table 4.1, comprise the El Dorado Property. Pacific Rim has obtained title opinions dated February 20th, 2006, prepared by Luis A. Medina of Rusconi, Valdez, Medina & Asociados, which state that the three Exploration Licenses were at that time in good standing (Medina, 2006a, 2006b). According to Medina (2006a), the El Dorado Exploitation Concession was not yet granted but "… the Company, by virtue of its compliance with the Mining Law of El Salvador and the requirements imposed thereby, holds the sole priority, unimpeachable right to obtain the concession (the "El Dorado Exploitation Concession") …"

Table 4.1 Mineral Titles Comprising the El Dorado Property

Name of Concession or License	Area in Hectares	Type	Date Granted	Latest Expiry Date
Huacuco	4,684.75	Exploration	Sept. 28, 2005	Sept. 28, 2013
		Point	*Easting meters*	*Northing meters*
coordinates ⇒		Northwest No. 1	528800	300600
		Northeast No. 2	533300	300600
		No. 3	533300	298550
		No. 4	536250	298550
		Southeast No. 5	536250	293500
		Southwest No. 6	528800	293500
Pueblos	4,938.00	Exploration	Sept. 29, 2005	Sept. 29, 2013
		Point	*Easting meters*	*Northing meters*
coordinates ⇒		Northwest No. 1	528800	310500
		Northeast No. 2	534000	310500
		No. 3	534000	303600
		No. 4	533300	303600
		Southeast No. 5	533300	300600
		Southwest No. 6	528800	300600

Guaco	4,747.16	Exploration	Sept. 28, 2005	Sept. 28, 2013
coordinates ⇒		*Point*	*Easting meters*	*Northing meters*
		No. 1	534000	303600
		Northwest No. 2	534000	310500
		Northeast No. 3	538000	310500
		Southeast No. 4	538000	293500
		Southwest No. 5	536250	293500
		No. 6	536250	301680
		No. 7	535450	301680
		No. 8	535450	301900
		No. 9	535350	301900
		No. 10	535350	302150
		No. 11	535250	302150
		No. 12	535250	302400
		No. 13	535150	302400
		No. 14	535150	302650
		No. 15	535050	302650
		No. 16	535050	302900
		No. 17	534950	302900
		No. 18	534950	303150
		No. 19	534850	303150
		No. 20	534850	303400
		No. 21	534770	303400
		No. 22	534770	303600

El Dorado	1,270.05	Exploitation	Pending	n/a
		Point	*Easting meters*	*Northing meters*
		Northwest No. 1	533300	303600
		Northeast No. 2	534770	303600
		No. 3	534770	303400
		No. 4	534850	303400
		No. 5	534850	303150
		No. 6	534950	303150
		No. 7	534950	302900
		No. 8	535050	302900
		No. 9	535050	302650
coordinates ⇒		No. 10	535150	302650
		No. 11	535150	302400
		No. 12	535250	302400
		No. 13	535250	302150
		No. 14	535350	302150
		No. 15	535350	301900
		No. 16	535450	301900
		No. 17	535450	301680
		No. 18	536250	301680
		No. 19	536250	298550
		No. 20	533300	298550

Notes: The legal location of the license or concession is dependent on the coordinates stated in the registry document, not on any monuments placed in the field. The legal location is established without a need for a legal field survey. The coordinates are given using the national geographic grid system used in El Salvador. The Salvadoran system uses North American Datum of 1927 (NAD 27) for Central America and a Lambert Conformal Conic map projection (These technical terms refer to a model of the earth's shape and the mathematical means used to illustrate the earth's curved surface on a flat map).

The Huacuco, Pueblos and Guaco Exploration Concessions are owned by Dorado Exploraciones S.A. de C.V., a 100% owned subsidiary of Pacific Rim Cayman. Pacific Rim Cayman is owned by Pacific Rim Mining Corp. The El Dorado Exploitation Concession, when granted, will be held by Pacific Rim El Salvador S.A. de C.V.

The geographic coordinates shown in this table were copied from exhibits attached to Medina, 2006a, 2006b.

4.1.2 Acquisition and Maintenance of Mineral Titles in El Salvador

This section is taken for the most part from Ronning, 2003. The original sources of the information are as indicated in the text. The authors compared this description of the applicable regulations to a copy of "Reglamento de la Ley de Mineria y Sus Reformas" ("The Mining Law"), provided to them by

Pacific Rim in February of 2006. Where the Mining Law was different from the 2003 description, the present text was amended to conform to the Mining Law.

The competent authority for regulating mining activities in El Salvador is the Executive Branch in the Ministry of Economy, acting through the Division of Hydrocarbons and Mines.

The 2001 Feasibility Study provided a useful summary of the current mining law in El Salvador. That summary appears below, modified by the present authors to reflect the current Mining Law:

(i) All mineral deposits remain the property of the State which has the sole right to award exploration licenses and exploitation concessions;

(ii) Mining rights will be issued to people (Salvadorans or foreigners) who can prove that they have technical and financial capabilities to develop mining projects;

(iii) Exploration Licenses:

- (a) To be granted for an initial term of four years, extendible by application and approval, for periods of two years, to a maximum of eight years. After that period, that part of the License still of interest to the holder must be converted to an Exploitation Concession;
- (b) Limitation to 50 square kilometers;
- (c) Surface access and damages to be negotiated with landowners or, failing agreement, by direction of the government;
- (d) Holder to execute a technical program as submitted to and approved by the authorities;
- (e) Holder to submit annual reports on progress relative to original program. The minimum contents of the annual reports are specified in the Mining Law; and
- (f) A fee ("canon" in Spanish), calculated according to the surface area of the License, is to be paid during the first month of each year that the license exists. Table 4.2 sets out the fee schedule:

Table 4.2 Schedule of Fees for Exploration Licenses

Year:	1	2	3	4-6	7-8
US$ per square kilometer or fraction:	$25	$50	$75	$100	$300

(iv) Exploitation Concession:

- (a) Granted by an Accord of the Ministry for a term of 30 years, which can be extended without specified limit(s);
- (b) If exploitation has not commenced within one year of the granting of the Concession, cancellation proceedings will commence (other than for reasons akin to Force Majeure);
- (c) Area of the Concession to be determined according to the known extents of the deposit, but in any case to be within the pre-existing Exploration License;
- (d) The holder of the Concession is to pay an annual fee of US $ 300 per square kilometer;

(e) Holder to submit annual reports. The minimum contents of the annual reports are specified in the Mining Law;

(f) Environmental impact study covering the entire area of the concession is required as part of the technical program submitted for approval for exploitation; and

(g) Post bond or guarantees not less than US$ 5,714 per square kilometer.

(v) Taxes to be paid at state and municipal levels. State taxes are specified but municipal taxes will have to be negotiated.

(vi) Royalties:

(a) NSR Royalty of 1% must be paid to the State; and
(b) An NSR of up to 1% must be paid to the Municipality.

According to Medina (2003), the main obligations that Pacific Rim as the license holder had and has to comply with in order to maintain the licenses are listed below. Requirements completed or removed since 2003 are omitted from this list; the changes in the regulations that have been effected since 2003, and that the authors are aware of, are reflected in the list.

1) To present the documentation required in article 37 of the mining law, especially that of the financial and technical capability of the Company, fulfilling the formal and technical requirements;

3) To fulfill with the technical and engineering standards required by the domestic legislation and by the norms internationally established for the protection of the environment, according to what is stated in Article 17 of the Mining Law;

4) To file annually or whenever it is required, reports on advances or problems detected, especially those related with environmental matters. Article 18 of the Mining Law;

5) To file annual reports with detailed information of the exploration activities conducted and the investment made within the reporting period. Art 22 of the Mining Law;

6) To request extensions of the exploration licenses within the terms and fulfilling to the requirements established in Article 19 of the Mining Law; and

7) To pay the annual fees for the Licenses, according to Articles 19, 22, and 66 of the Mining Law.

4.1.2.1 Conversion to Exploitation Concessions

Exploration licenses can be maintained for no more that eight years, at the end of which time a decision must be made as to whether to convert all or part of the license to an Exploitation Concession. Upon making a decision to convert to an Exploitation Concession, the license holder has a period of one year to complete the steps of the conversion process.

The pending El Dorado Exploitation Concession consists of parts of two former Exploration Licenses, El Dorado Norte and El Dorado Sur. The conversion of the parts of the two licenses to the new El

Dorado Exploitation Concession is proceeding. Pacific Rim has the exclusive right to acquire the concession (Medina, 2006a).

4.1.3 Applicable Agreements and Other Royalties

Pacific Rim holds the El Dorado concessions directly from the state. There are no third-party agreements that relate to the mineral rights. Pacific Rim originally acquired the El Dorado Project through an amalgamation with a predecessor company (Pacific Rim Annual Information Form, February 27th, 2004). The original acquisition by the predecessor company was based on a 1993 option agreement, since exercised, with Zinc Metal Corporation ("ZMC") of Toronto. Under the terms of that 1993 agreement, the El Dorado Property is subject to annual advance minimum royalty payments, those being the greater of US$ 50,000 per year or a 3% net smelter return royalty, in favor of ZMC. Pacific Rim has the right to purchase the royalty from ZMC for US$ 4,000,000, formulated as US$ 1,000,000 for the first one-half of the royalty and US$ 3,000,000 for the second one-half. To maintain this right, Pacific Rim must acquire at least one-half of the royalty within six months of the commencement of commercial production.

The outline of the area to which the royalty applies is shown on Figure 4.2. The royalty applies to all of the resources known at present on the El Dorado Project.

4.2 Environmental Liabilities

Pacific Rim has completed extensive environmental and permitting work for this project as described in Section 18.5.

The project is designed to meet El Salvador laws and regulations and international and North American good practices for engineering design and environmental management. Comprehensive environmental and social baseline studies have been completed to provide supporting information for project design and the project environmental impact study ("EIS"). The EIS has been prepared in accordance with the Terms of Reference issued by the Ministry of the Environment and Natural Resources ("MARN"), and World Bank Group/International Finance Corporation ("IFC") guidelines. The EIS was submitted to MARN in early September 2004.

Figure 4.1 Location Map

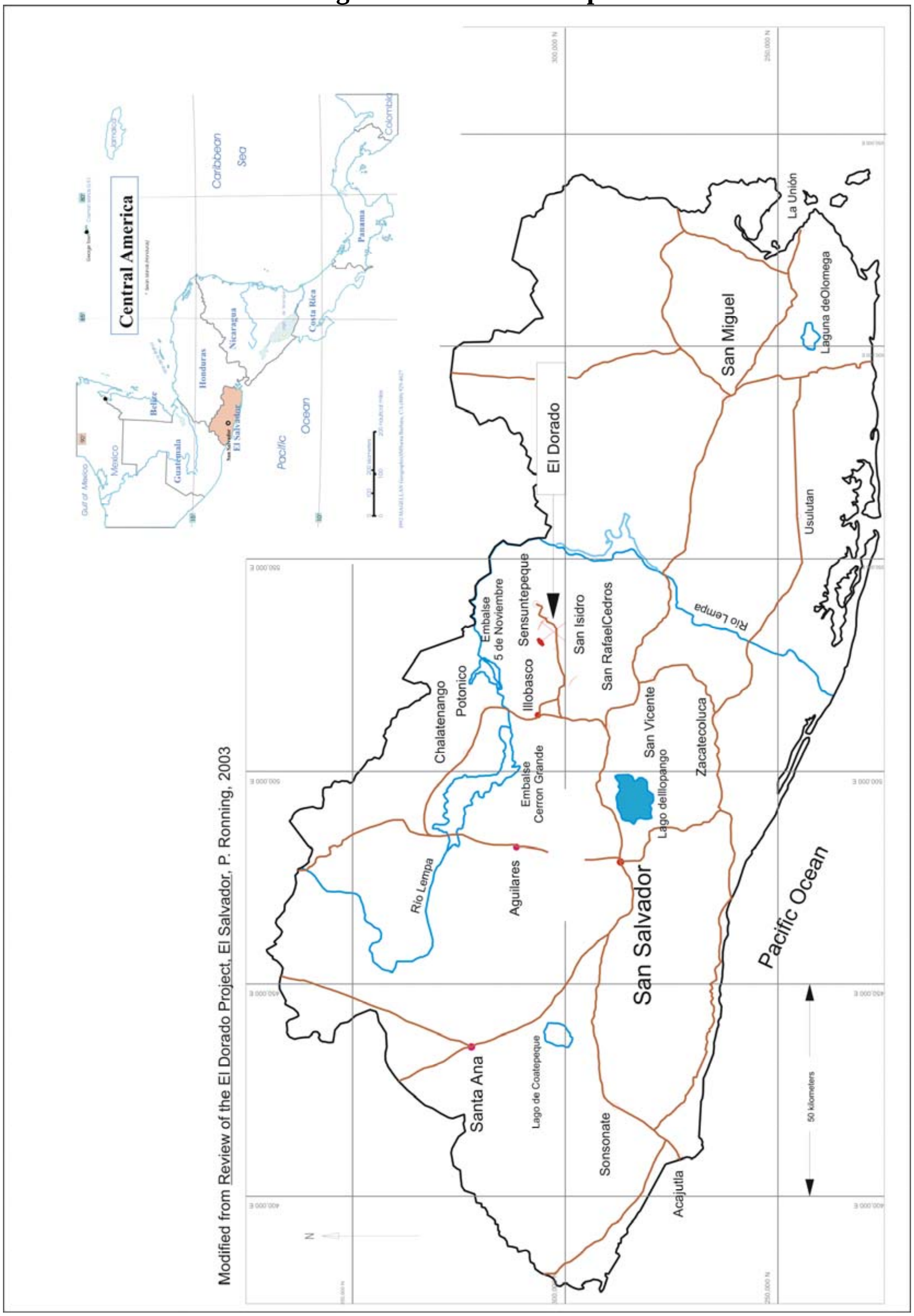
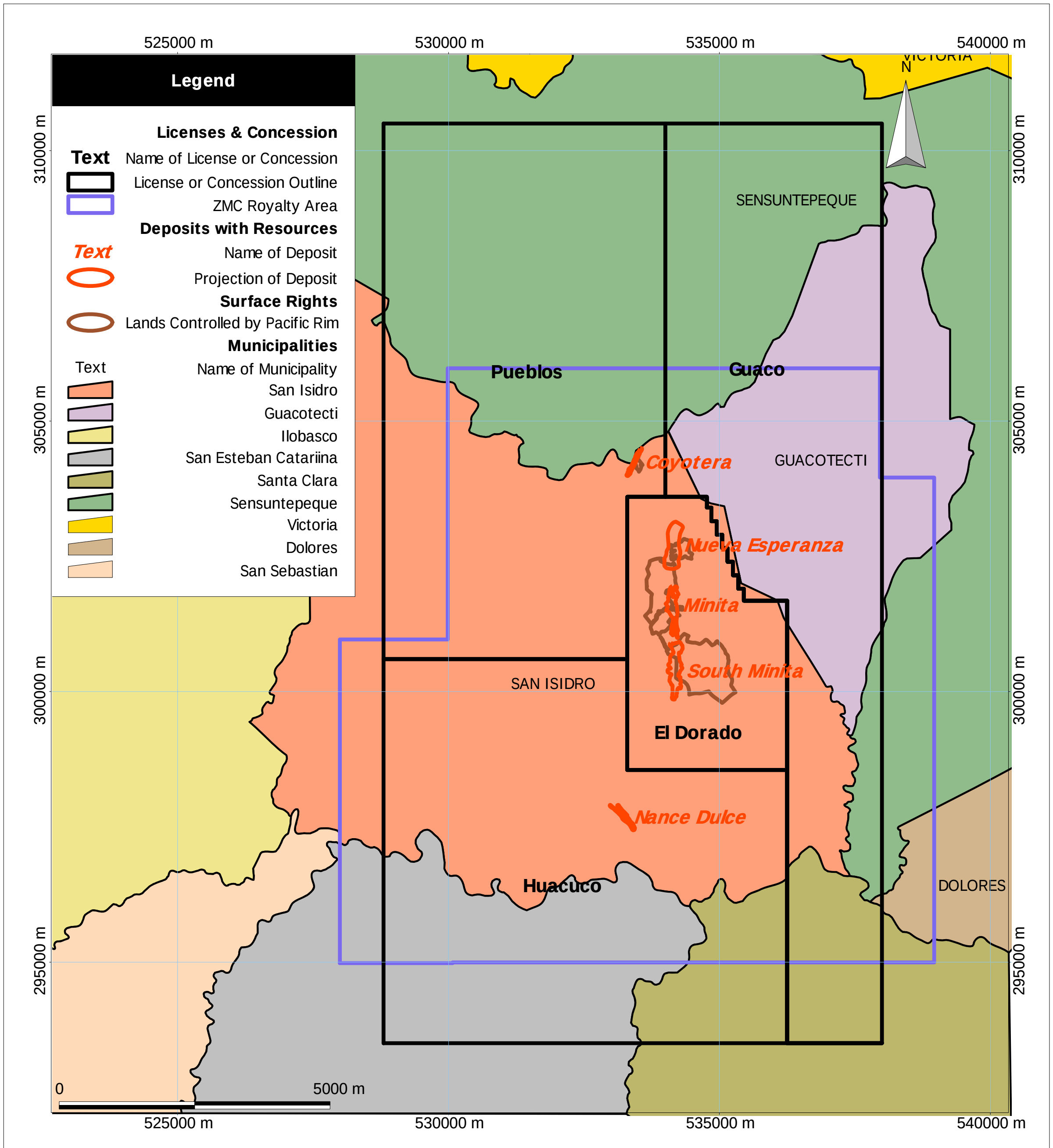


Figure 4.2 Exploration Licenses and Exploitation Concession



El Dorado Project	Compiled By: PAR	Exploration Licenses and Exploitation Concession	El Salvador National Grid Based on NAD 27	Figure Number: 4.2
Pacific Rim El Salvador S.A. de C.V.	Data from public sources, Pacific Rim and MDA			07-Jul-06

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Physiography and Climate

(Most of this section is derived from the 2001 feasibility study.)

5.1.1 Physiography

El Salvador can be divided into four morphological/geological regions: Coastal Plains, Coastal Ranges, the Great Interior Valley, and the Northern Mountain Ranges. The El Dorado project area is located on the border of the Great Interior Valley and the Northern Mountain Ranges.

The terrain in the El Dorado License area is one of moderate relief surrounded by higher hills to the north, east, and west. Elevations range between 200 m and 800 m above sea level. The project area contains shallow top soils and volcanic sub soils that are generally cultivated for seasonal crops. Five perennial streams or rivers traverse the license and concession area: Río Titihuapa, Río de Los Pueblos, Rio Gualuca, Rio San Francisco and Rio San Isidro. Water levels vary with the seasons with good flows being maintained during the wet season.

5.1.2 Climate

El Salvador has a tropical climate with pronounced wet (May to October) and dry seasons. Average annual rainfall at Sensuntepeque is about 2,000 mm. During the wet season, rainfall generally comes from low-pressure systems over the Pacific and usually falls in heavy afternoon thunderstorms. Hurricanes occasionally form in the Pacific; however, they seldom affect El Salvador. During the dry season (November through April), the weather patterns are controlled by the northeast trade winds. As the air from the Caribbean passes over Honduras, most of the precipitation is lost in the mountains, thus limiting rainfall for El Salvador. Extreme temperature ranges are from 7° to 38° C. Temperatures vary with elevation, with the hottest temperatures occurring in the Pacific lowlands.

5.1.3 Seismicity

Seismic activity is common in El Salvador. The activity is most pronounced to the south, in the Benioff Zone[3], and to the northwest of El Salvador along the North American-Caribbean plate boundary. Significant earthquakes that have occurred within 100 km of the El Dorado project include a magnitude 7.9 at a distance of 36 km from the site, a magnitude 7.8 (January 13, 2001) at 86 km, a magnitude 7.7 at 54 km, a magnitude 7.1 at a distance of 99 km, and two magnitude 7.0 earthquakes at 90 and 99 km from the site. These data indicate that there is potential for a major earthquake to occur near the site, and that there is a need for sophisticated seismic analyses of proposed mine facilities at appropriate levels of seismic risk.

[3] A plane beneath the trenches of the circum-Pacific seismic belt, along which earthquakes originate.

5.2 Access and Infrastructure

(*Most of this section is derived or adapted from the 2001 feasibility study.*)

An asphalt highway crosses the project area, providing excellent access to the national road network. The original mine site, now the center of exploration operations is, located about 200 m from the highway. Within the exploration license area, a network of compacted dirt and rock roads has been constructed that provides access throughout most of the central project area.

A primary 13,500 volt electrical transmission line passes along the highway and in front of the mine site and is connected to the current infrastructure via two-15 kva transformers, from which both 110 v and 220 v lines are distributed throughout the mine site area. Experience in the El Dorado district since July 1993 has shown that the local electricity supply is not reliable enough to be considered for a mining operation. Although there has been improvement in the continuity of supply over the past few years, disruptions, nevertheless, are still frequent and may last for up to 30 hours.

As a consequence it is probable that a company-owned diesel generating power plant will be required to provide power if a mine is developed. An alternative to the company owning and operating its own power plant is that of contracting supply and maintenance to an independent company.

Basic supplies, including lumber, steel, cement, sand, and gravel are available locally. Although limited in depth, a broad variety of services is available in Sensuntepeque.

5.2.1 Availability of Personnel

There exists a large labor pool of potential workers in the area surrounding the project site. A skilled mining workforce does not exist in El Salvador, so other sources, such as Nicaragua, Mexico and South America will need to be considered. Persons with skills such as secretarial, accounting, and administrative skills, as well as environmental and laboratory technicians, can be readily found in San Salvador, if not locally.

5.3 Surface Rights

(see Figure 4.2)

Most property in the area is private. Holdings are small to medium in size, ranging from 10 to 60 hectares with no large land ownership or undisturbed areas. Since most of the property is privately owned, it can be freely bought and sold. *(from 2001 Feasibility Study).*

At the time that Pacific Rim acquired the El Dorado Project through a merger of predecessor companies the project assets included a total of 68.86 hectares of surface real estate. This real estate is still part of the project assets. It includes the original Rosario mine site (see the discussion of "History" in Section 6.0) and contains all of the infrastructure that existed at the time of the merger. Additionally, it includes land in the areas of El Dorado, Nueva Esperanza and La Coyotera. Some of the land was acquired in the

1990's to accommodate future mine infrastructure envisioned in conceptual mine plans of the time. *(from 2001 Feasibility Study).*

Since acquiring the project, and guided by the requirements made apparent in the 2005 Pre-Feasibility study, Pacific Rim has acquired or obtained an option to acquire additional surface lands. The company holds a one-year option, expiring on March 29, 2007, to acquire a property consisting of approximately 93.7 hectares, intended for use as the site for the plant and tailings disposal facilities. If Pacific Rim elects to exercise the option, the purchase price will be US$ 971,218. That property is situated on the south side of the paved highway that connects Sensuntepeque with San Salvador. Pacific Rim has purchased land to accommodate a 10 meter border to the public road that will join the mine infrastructure to the highway.

The surface rights owned or otherwise controlled by Pacific Rim are illustrated on Figure 4.2, the same figure that illustrates the license and concession boundaries. Pacific Rim believes that those surface rights are sufficient for all needed mine infrastructure.

6.0 HISTORY

The history of the El Dorado Mine Area and some other occurrences within the El Dorado Project area is summarized below;

Colonial Period to 1953	The colonial Spanish discovered gold in the district in the early 1500's. They conducted shallow surface trenching and pitting in the El Dorado and surrounding areas. At El Dorado, limited operations ceased in 1894, and the deposit remained dormant until 1942 when the New York and El Salvador Mining Company (NYESMC), a subsidiary of the New York and Honduras Rosario Mining Company, acquired the property. NYESMC commenced mining and milling operations in 1948. Exploitation occurred between 1948 and 1953 on levels developed at 50 ft (15 m), 175 ft (53 m), 300 ft (91 m), and 425 ft (130 m). The levels were serviced by two vertical shafts to the deepest level. The mine is currently *(2001)* flooded to the 50 ft Level.
	Some 270,200 tonnes of material were milled by NYESMC, with about 72,500 troy ounces of gold extracted. (Production figures vary slightly amongst sources, but are generally similar to those given here.) The average vein width was 1.52 m and both shrinkage stoping and cut-and-fill mining techniques were utilized.
	The El Dorado mine was shut down in 1953 for reasons that are somewhat unclear. The Rosario reports suggest that the limited resources combined with high mining costs and low gold prices caused the mine's shutdown. According to a former Mine Manager at El Dorado between 1948 and 1951, the depressed gold price was the primary cause for mine closure (Homer Anderson, quoted in 2001 Feasibility Study). McNames (1969) indicated that rising costs due to a new labour law were also a factor.
	At the El Porvenir Breccia, about 3.5 kilometers southeast of the El Dorado Mine, the colonial Spanish constructed a shaft and cross-cut. In modern times, the property was worked sporadically from before the end of the 19th century until the 1940s. Five adits, with about 200 meters of drifting, were constructed, and a small mill was brought to the site in the early 1900s. The mill proved to be unsuitable for the oxidized mineralization.
1975-76	The New York And El Salvador Mining Company was Purchased By Bruneau Mining Corporation, a company controlled by

	Rosario. Bruneau conducted an exploration program that consisted of: i. 52.3 km of line cutting; ii. Geological mapping, rock and soil geochemistry, including 2,542 geochemical analyses of soil samples; iii. Clean up and resampling of 380 m of adit; iv. Trenching involving the movement of 820.5 cubic meters of material; and v. 1239.5 m of core drilling in four holes (Levy, 1977).
1991	New York And El Salvador Mining Company, then a subsidiary of Zinc Metal Corporation, sought funding for an exploration program based on the premise that an open pit resource could be developed on the El Dorado veins (Malouf, 1991).
1993	Mirage Resource Corporation entered into an agreement with NYESMC to acquire 100% of the El Dorado mining district. Kinross El Salvador, S.A. de C.V obtained its charter.
1993 – 1995	Surface mapping, trenching and drilling programs identified a number of deposits and prospects in addition to the El Dorado vein system, including the Nueva Esperanza and La Coyotera North veins
August – November 1995	Kinross drilled 2,239.41 meters of core on the La Coyotera North vein.
September 1995	A Pre-feasibility study was prepared for the El Dorado project by the international mineral consulting firm of James Askew and Associates, Inc. (JAA) on behalf of Mirage.
1996	Kinross El Salvador obtained the Exploration Licenses for El Dorado Norte and El Dorado Sur
April 2000	Dayton Mining Corporation acquired the El Dorado Project through the acquisition of all the outstanding shares of Mirage Resource Corporation. This resulted in the property being held by Kinross el Salvador S.A. de C.V., a 100% owned subsidiary of Dayton.
2001	Dayton produced a feasibility study based on an operation processing about 500 tonnes of ore per day
April 2002	Pacific Rim Mining Corp. and Dayton Mining Corp.

	amalgamated through a reverse take-over.
mid 2002	Pacific Rim began its exploration program
March 2003	The name of Kinross El Salvador S.A. de C.V. was formally changed to Pacific Rim El Salvador S.A. de C.V.

6.1 Historical Resource and Reserve Estimates

Since the early 1990's there have been a number of resource estimates done for several different veins. All available estimates are presented here for completeness and historical perspective, however, all are now considered outdated as extensive additional data has been obtained through drilling by Pacific Rim. Ronning (2003) listed and described in some detail most of the historic resource estimates, and that information is given in Appendix B.

Malouf (1991) did not perform a rigorous resource or reserve estimation, but rather presented an "ore reserve potential", a term that would not be accepted today but does describe the level of work done. His "ore reserve potential", with assumed dilution and internal low grade, was given at 5 million tonnes grading 3.99 g Au/t. Malouf assumed an open pit mining scenario.

Historic estimates for the El Dorado mine area are given in Table 6.1. Historic estimates for the La Coyotera area are given in Table 6.2. Historic estimates for the Nueva Esperanza area are given in Table 6.3. At Nueva Esperanza, because silver was not consistently reported and because it is relatively low grade, the silver is not reported in Table 6.3.

All of these estimates predate the implementation of Canadian National Instrument 43-101. These historic estimates are presented here only for the reader's information and comparison.

Table 6.1 Historic Resource Estimates of the El Dorado Mine Area

Historic Minita Area Resource Estimates

	Staff of Kinross Gold Corp., May 1996		Mirage - Kinross Gold Corp, July 1997		Kinross Gold restated, September 1997*		La Croix & Associates 2000	
	Indicated	Inferred	Indicated	Inferred	Indicated	Inferred	Indicated	Inferred
Minita Vein								
Gold Cut Off Grade (g/t)	4	4	3	3	4	4	6	6
Tonnes	258,500	139,400	608,200	225,100	563,100	177,300	626,100	103,100
Gold Grade (g/t)	12.37	12.57	11.90	9.60	12.50	11.20	14.17	10.92
Silver Grade (g/t)	**	**	75.00	64.00	80.00	75.00	99.60	77.60
Contained Gold (ounces)	102,800	56,540	232,000	69,000	227,000	64,000	285,000	36,000
Contained Silver (ounces)	**	**	1,472,000	465,000	1,443,000	427,000	2,005,000	257,000
Minita 3 Vein								
Gold Cut Off Grade (g/t)	4	4	3	3	4	4	6	6
Tonnes	396,500	169,000	332,000	70,000	299,400	53,300	141,100	3,300
Gold Grade (g/t)	10.86	9.88	11.30	6.30	12.20	7.10	11.95	8.62
Silver Grade (g/t)	**	**	89.00	31.00	97.00	35.00	89.00	69.50
Contained Gold (ounces)	138,440	53,680	121,000	14,000	117,000	12,000	54,000	1,000
Contained Silver (ounces)	**	**	954,000	70,000	929,000	60,000	404,000	7,000
Zancudo Vein								
Gold Cut Off Grade (g/t)	4	4	4	4	5	5	9	9
Tonnes	22,600	36,100	44,200	19,000	31,400	15,100	32,000	4,200
Gold Grade (g/t)	5.78	6.12	11.20	7.90	14.00	8.70	12.20	9.62
Silver Grade (g/t)	**	**	84.00	58.00	109.00	65.00	104.20	66.50
Contained Gold (ounces)	4,200	7,100	16,000	5,000	14,000	4,000	13,000	1,000
Contained Silver (ounces)	**	**	119,000	35,000	110,000	32,000	107,000	9,000

* Changes recommended by Strathocona Mineral Services

**In the 1996 estimate, silver grades were stated only in a summary table that combined indicated and inferred resources.

Table 6.2 Historic Resource Estimates of the La Coyotera Area

	Mirage - Kinross Gold Corp, July 1997		Kinross Gold restated, September 1997*		Kinross El Salvador, March 2000		La Croix & Associates 2000*	
Category	Indicated	Inferred	Indicated	Inferred	Indicated	Inferred		Not classified
Gold Cut Off Grade (g/t)	2	2	4	4	4	4	NA	5
Tonnes	1,724,100	273,100	1,055,900	149,400	932,725	326,368	NA	840,500
Gold Grade (g/t)	5.72	4.67	7.48	6.04	8.57	4.67	NA	8.06
Silver Grade (g/t)	45.93	44.42	56.79	59.96	76.00	55.12	NA	67.20
Contained Gold (ounces)	317,000	41,000	254,000	29,000	257,035	49,034	NA	218,000
Contained Silver (ounces)	2546000	390000	1,928,000	288,000	2,279,065	578,393	NA	1,816,000

** Hanging wall vein using unadjusted SG of 2.47 g/cm^3

Table 6.3 Historic Resource Estimates of the Nueva Esperanza Area

	Indicated			Inferred		
Estimator	**Tonnes**	**Gold grade (g/t)**	**Ounces Gold**	**Tonnes**	**Gold grade (g/t)**	**Ounces Gold**
Kinross Gold, 1996	462,500	3.36	49,960	481,700	2.90	44,910
Kinross Gold, 1997, restated	845,000	2.70	73,400	37,600	2.20	2,700
La Croix & Associates, 2000	538,700	4.26	73,800	766,600	2.25	55,500

7.0 GEOLOGICAL SETTING

This section was derived from Ronning (2003) and the El Dorado Feasibility Study of 2001, but has been modified and supplemented to address those issues related to the gold and silver resources or resource estimates. It has also been changed with input from Pacific Rim to reflect more recent work as the company has been performing extensive geologic work on the project and consequently has modified the geologic interpretations.

7.1 Regional Geology

The tectonics and seismicity of El Salvador are influenced by the Caribbean, Cocos and North American lithospheric plates. The Cocos plate is subducted beneath the Caribbean plate off the west coast of Central America in a convergent plate boundary, which forms the Middle American trench. A chain of active volcanoes along the Pacific coast from Guatemala to Costa Rica provides evidence for the presence of the subduction zone. The boundary between the Caribbean and North American plates forms a 200 km wide left lateral shear zone to the north of El Salvador.

El Salvador can be divided into four morphological-geological units: Coastal Plains, Coastal Ranges, Great Interior Valley, and the Northern Mountain Ranges. The Coastal Plains are in the western and southern part of the country and consist of alluvial deposits, spits, and mangrove swamps. The Coastal Ranges consist of the Tacuba, Balsam, and Jucuaran ranges which are composed of the Pliocene Balsamo formation. The Great Interior Valley is a heterogeneous basin with low mountain topography composed of eroded volcanoes and the intermountain basins (Metapan, Rio Lempa, Rio Titihuapa, and Olomega). There are active Pleistocene volcanoes in the southern part of the valley. The Northern Mountain Ranges are dominantly composed of the Tertiary Chalatenango and Morazan formations. Intrusive rocks, emplaced into Cretaceous-Lower Tertiary sedimentary rocks in the Metapan region, occur in the northwestern part of the country.

The Tertiary and Quaternary periods are dominated by terrestrial volcanic rocks. Radiometric dates are not available so the ages of the volcanic rocks are based on correlations with volcanic units in neighboring countries. The northern part of the country is crossed by a broad belt of Oligocene to Miocene (?) volcanic rocks that approximately parallel the Pacific Coast.

The El Dorado district is in the Great Interior Valley, underlain by Oligocene (?) acidic to basic volcanic rocks of the Morazan formation, which are overlain by the felsic volcanic rocks of the Miocene (?) Chalatenango formation. Miocene to Pliocene basic volcanic rocks of the Balsamo formation unconformably overly the earlier units. These three units comprise most of the surface geology at El Dorado.

The structural geology of El Salvador is dominated by several fault systems, the most important of which strikes east-west and extends from the Guatemalan border eastward to the northern edge of the Olomega basin. Northwest-trending faults are part of a prominent tectonic element that trends across Central America and includes the Nicaragua Depression. A major set of northeast-trending faults is referred to as the Trans-Salvador Fault Zone and may be the oldest of the three structural fabrics discussed above. The El Dorado district is situated where the three structural trends described above intersect. This structural intersection may have been important in localizing volcanic and hydrothermal activity on a regional scale.

7.2 Property Geology

(see Figure 7.2)

The El Dorado District can be subdivided into five sub-districts: North, Central, Central East, South and South West. The Northern El Dorado Sub-District contains the Iguana, La Coyotera, La Huerta, and San Matias veins. In addition to these there are a few smaller veins in the same area. Pacific Rim discovered an extensive system of mineralized veins to the northwest of San Matias. The geology is dominated by fine-grained porphyritic andesite, andesite agglomerate and andesite porphyry of the Morazan formation although rhyodacite porphyry dikes (age unknown) and young basalts of the Balsamo formation are locally important but not spatially associated with alteration and veining.

The Central Sub-District hosts the El Dorado mine as well as the San Francisco, Nueva Esperanza, Los Jobos and many other veins. The Hacienda Vieja Vein System, the Ganso Vein and the Kaka Vein, among others, are in the Central East Sub-District. As is the case in the north, the Central and Central East sub-district veins are entirely hosted by the Morazan formation. On the western margin of the El Dorado mine area, a small crystal-rich rhyolite plug intrudes the Morazan formation and is the northernmost example of rhyolite, ash flow tuff or intrusive in the concession area. Basalt and andesite of the Balsamo formation cap the ridge on the west side of the district and felsic air fall tuffs and epiclastic rocks assigned to the Chalatenango formation cap the ridge to the east. The northwest-trending Avila fault zone marks the southern limit of the Central El Dorado sub-district (Figure 7.2).

Basalt flows of the Miocene Balsamo formation, neither altered nor mineralized, are exposed south and east of the project area.

The El Dorado district contains two pronounced structural elements. One is N30°W- to N30°E-trending, mainly tensional, veins. The other is northwest-trending strike-slip faults mostly defined by major topographic linear features. Most, but not all of the mineralization is found in the north-trending tensional veins.

The Northern sub-district may be offset from the Central sub-district along one of the northwest-trending strike slip fault systems. However, the largest veins in the Northern sub-district, La Coyotera, La Huerta and San Matias, have a more northeasterly trend than the main veins in the Central sub-district. The Central sub-district appears to terminate along the northwest-trending Avila fault zone. Structural relationships with the Southern sub-district are not understood.

One structural model proposed by the prior operator for the Central and Northern sub-districts is that the north-trending tensional veins opened between shear couples formed along northwest-trending strike slip faults. Rotation of some veins is invoked to explain the variation in trends of veins. However, exposures of strike slip structures are poor (or non-existent) and essential geologic measurements needed to define the true kinematics of the structural formation of veins in all sub-districts are rare. Pacific Rim's approach has focused on understanding the local vein structures, looking to define maximum extension areas for exploration drilling.

Figure 7.1 Regional Geology

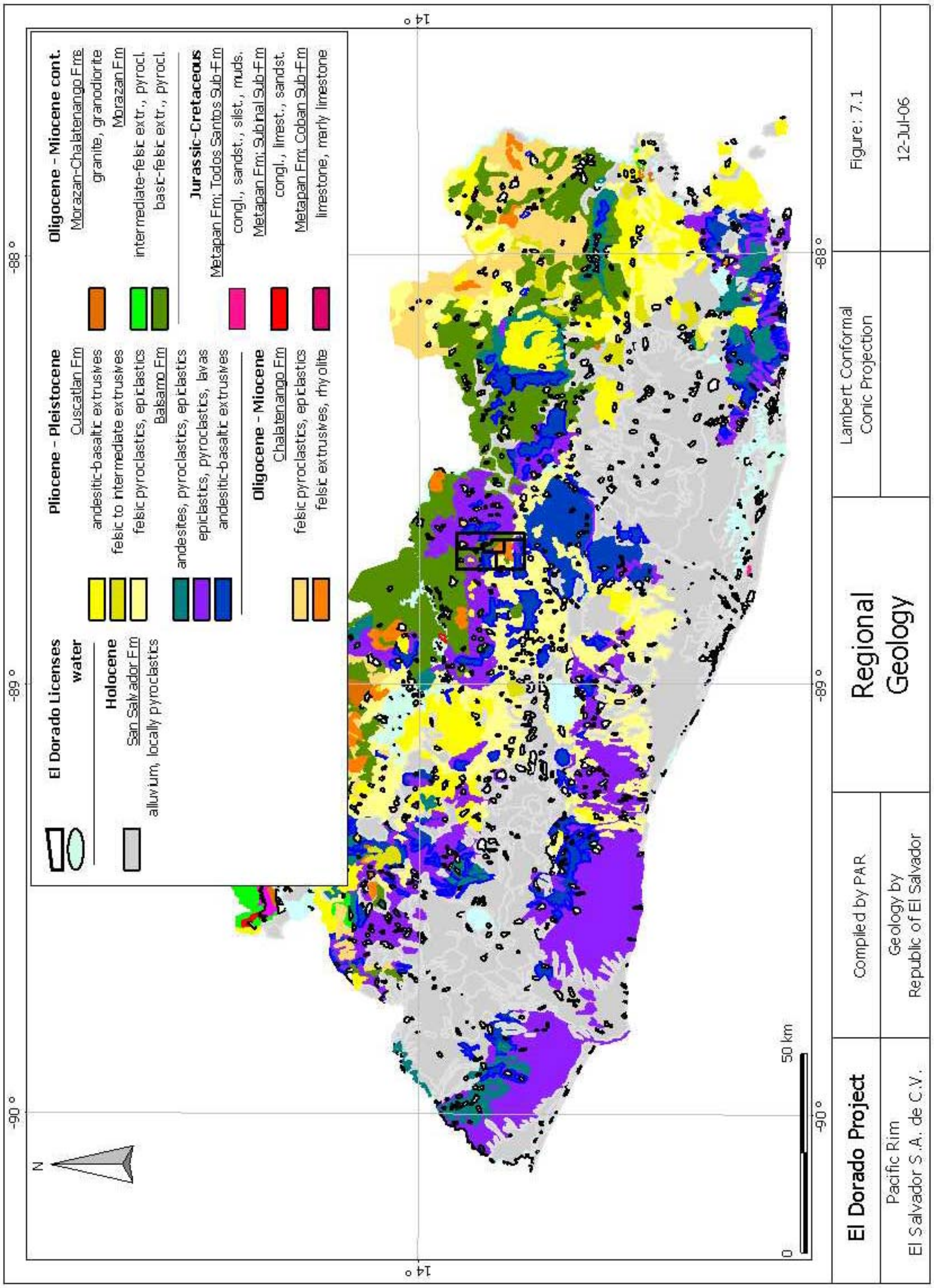
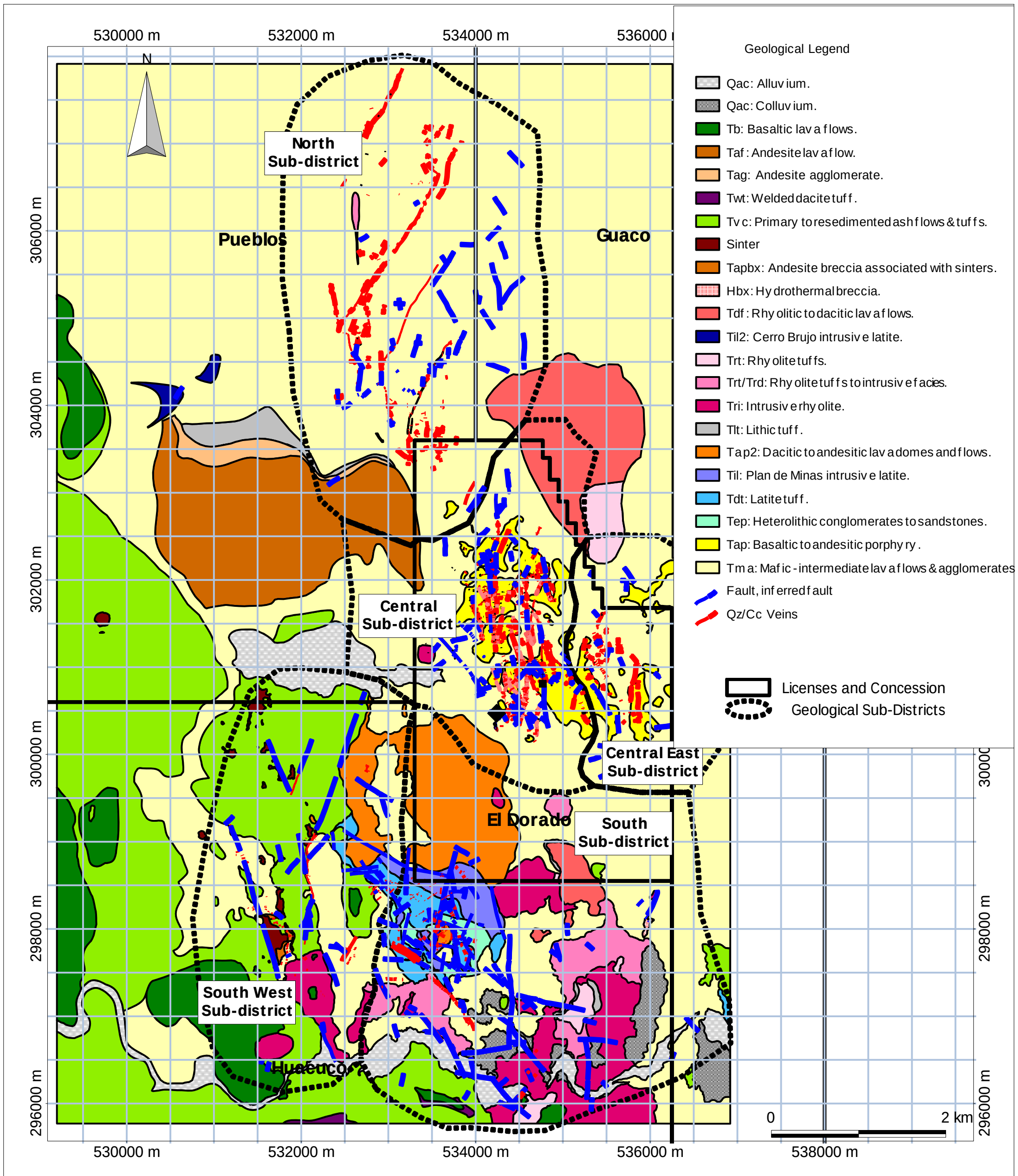


Figure 7.2 Property Geology



El Dorado Project	Compiled by PAR using drawings prepared by Pacific Rim Staff	Property Geology	El Salvador National Grid based on NAD 27	Figure: 7.2
Pacific Rim El Salvador S.A. de C.V.				12-Jul-06

8.0 DEPOSIT TYPES

The characteristics of the various deposits on the El Dorado property are consistent with low sulfidation type epithermal precious metal vein systems. The term "low sulfidation" refers to the chemically reduced (*i.e.*, not oxidized) state of the sulfur in these deposits. In more descriptive terms, mineralization is generally associated with quartz and/or chalcedony, plus lesser but variable amounts of adularia, calcite, rhodochrosite, potassium-bearing mica, chlorite and pyrite gangue. Gold typically occurs as electrum or more rarely as selenides and tellurides in association with acanthite, silver sulphosalts, base-metal sulfides and pyrite. (Cooke and Simmons, 2000). The depths of formation can range from the very shallow hot spring-related gold deposits to veins formed hundreds or even thousands of feet below the surface.

The gold- and silver-bearing veins of the El Dorado District, of which at least 36 exceed one-meter in width, occur over an area exceeding 50 km^2. Vein mineralization is dominated by chalcedonic quartz and calcite. Veins range in width between 0.25 and 15 m in surface exposures. Individual veins are generally less than 500-m long, but range up to 1000 m in length. Some systems of related, *en echelon* veins have been traced for up to three kilometers. The veins dip steeply, and generally form ridges.

Although the quartz/chalcedony/calcite veins dominate the mineralization known to date, other forms of silica-rich alteration and mineralization are found in the district. They include opaline to chalcedonic quartz veins, some replacement bodies, hydrothermal silica-rich breccias, and true sinter deposits. The different styles of mineralization may occur in close proximity to each other. Multiple and telescoped hydrothermal events are invoked to explain the juxtaposition of variant alteration types. Many veins, including most of the best-mineralized ones, exhibit evidence of multiple veining events. Some veins are zoned, with lower-temperature textures and opaline silica, near the present surface, and higher-temperature features such as banded, recrystallized chalcedonic-quartz and calcite, deeper in the vein.

Petrographic examination of the colloform-banded quartz reveals several minor, but important, components. Important minerals include adularia, sericite, pyrite, acanthite, electrum, native gold, native silver, chalcopyrite, sphalerite, and galena. Adularia and sericite have been observed in quantities up to 5%. The opaque minerals generally comprise less than 1% of the vein but may form a significant portion of individual gray to black bands. Individual gold grains up to 0.1 mm in diameter, associated with pyrite, have been observed in polished sections.

Variations amongst the deposits in the El Dorado district can be ascribed to different levels of present-day erosion, local variations in their conditions of formation and/or possibly multiple episodic, juxtaposed hydrothermal events.

9.0 MINERALIZATION

(see Figure 7.2 for the locations of the deposits and prospects referred to)

The El Dorado district contains many deposits, prospects and occurrences in veins, hot spring deposits and hydrothermal breccias. Pacific Rim's geological staff has divided the district into five sub-districts, the Northern, Central, Central-East, Southern and Southwest. The sub-districts are distinguished from each other by their dominant vein orientations, the depths to which the hydrothermal system has been eroded, and other characteristics of the veins. Complex, multi-stage paragenetic histories are best displayed in what appear to be higher level veins such as La Coyotera and San Matias in the Northern sub-district and Nueva Esperanza near the boundary of the Northern and Central sub-districts. Veins of the immediate Minita deposit area in the Central sub-district, such as Minita, Minita 3, Zancudo, El Dorado, and Rosario, appear to have been more deeply eroded.

In their 1999 "Summary of Exploration Activities", Turner and Johansing organized their descriptions of the deposits and zones into 33 targets, many of which comprise multiple veins. Ronning (2003) provided a very detailed description of many of the target areas and his report may be used to provide additional background information for this report. Since the time of the 1999 and 2003 reports, exploration by Pacific Rim has resulted in the recognition of additional deposits and prospects. One of those is South Minita, the first resource estimate for which appears in this report. Descriptions of the mineralization of the five resource areas, Minita, Minita South, La Coyotera, Nueva Esperanza and Nance Dulce, are provided in this section. Much of the following discussion is derived from information provided by Pacific Rim and prior operators.

9.1 General

The following section describes the mineralization in the main resource area, the northern part of the Central El Dorado sub-district. In this report this is referred to as the Minita area. Here, the best gold grades are in veins that display some form of crustiform-colloform banding. This banding is composed of a combination of chalcedony, quartz, adularia, black sulfides, clay and calcite. Often, these veins are composites of multiple vein events, and display multiple stages of banding and/or brecciation features. Banding can appear laminar or highly contorted, or can have brecciated forms. Higher gold values appear to be in veins where the vein and breccia events are less complex. In areas where massive, non-fractured wallrocks are cut by a single, discrete structure, as opposed to stockwork or sheeted vein zones, the vein grades tend to be better.

Grades are highest and banding is often best developed near the outer vein wall contacts. Where vein walls have symmetrical banding, grades are often significantly better in one wall than the other. However, veins normally contain asymmetrical banding, with the banding at one vein wall overprinted by a breccia, another veining event or some type of late structural deformation.

In brecciated zones, fragments are nearly always supported by some type of cementing matrix. The breccias often cross-cut the principal vein. Fragments from the immediate wallrocks are sometimes present, but the fragments are more commonly of foreign lithologies. They are angular to rounded and sometimes show "plastic" deformation features (locally named "corn-flake" and "mega-flake" breccias).

Chalcedony (cryptocrystalline quartz) is present where calcite is less abundant; it may occur with adularia. Fine-grained to coarse-grained quartz can have a primary origin, or can be recrystallized from chalcedony. It is generally interlayered with or interstitial to adularia, in bands and crystal aggregates. Breccia cement is commonly quartz, with small amounts of clay, calcite and/or adularia. Comb quartz, spar calcite, and zeolites are common in minor late-stage veins and vugs. References in the text to "quartz veins" or "banded quartz" refer to chalcedony and/or coarser-grained quartz recrystallized from chalcedony.

Calcite has many textures and variations but crystals are mostly equant to anhedral. Calcite occurs in coarse-grained, massive to crudely banded and recrystallized masses. Distinct growth zones with sub-microscopic inclusions are common. Some highly elongate calcite grains, with length to width ratios of up to 40:1, can occur concentrated in distinct bands that often have a quartz and/or calcite matrix cement. ,This texture has at times been mistakenly identified as "lattice" texture[4]. True lattice textures are locally present. Fine-grained spherulitic calcite growths consisting of pseudo-acicular calcite clusters are locally abundant and commonly give the calcite a mottled appearance.

Clay minerals are very fine-grained and occur as irregular masses, in distinct bands, and disseminated in massive chalcedony and/or calcite zones. X-ray diffraction analysis was used to identify the following colored clay mineral species: nontronite[5] (distinctly green), corrensite[6] (pale to dark brown to slightly greenish brown), and montmorillonite with interstratified illite (nearly colorless to tan). Corrensite appears to be the dominant mineral in the higher-grade, middle levels of the vein systems. Montmorillonite occurs at the higher levels, while nontronite is more common deeper in the veins.

Opaque minerals, which constitute a very small volume of the vein material, are very fine-grained and may not be visible to the unaided eye, even in productive veins. In decreasing order of abundance, opaque minerals identified from polished section analysis are: chalcopyrite, acanthite, gold, pyrite, galena, sphalerite and covellite. Native silver and electrum were also observed in earlier petrographic studies. Sulfide minerals can occur as independent grains and/or intergrowths. Gold encapsulated by chalcopyrite or acanthite is locally common, and gold has been reported in pyrite crystals. Base and precious metals are found together in the same bands; but pyrite rarely occurs with other opaque minerals except chalcopyrite. Adularia-rich bands tend to contain the greatest concentrations of opaque minerals. Calcite can have scattered inclusions of opaque minerals and spherulitic calcite often contains free gold and acanthite grains. Because of the very fine-grained nature of the sulfides, the term, "black sulfide", commonly used in the core logs, generally identifies concentrations of any fine-grained dark gray to black sulfide mineral. Identification of the individual sulfide minerals requires petrographic examination.

[4] Quartz replacing bladed calcite crystals due to retrograde solubility in cooling hydrothermal systems
[5] A member of the smectite group of phyllosilicate minerals.
[6] A mineral of the chlorite group.

In summary, key visual characteristics of higher-grade veins include (not necessarily in order of most importance):

1) Colloform banding with inter-layered dark bands,
2) Abundant corrensite,
3) Both real lattice and pseudo-lattice texture, mottled and/or corn-flake textures, and
4) Fine-grain disseminated to irregular coarse-grained clots of black sulfide.

These criteria, along with assay values, were used to help differentiate between high-grade vein domains and low-grade domains. However, when outside the main Minita and South Minita resource veins these characteristics may not always correlate with high gold grade.

The mineral trend that includes the Minita deposit is becoming a major resource area. The total extent of the trend could fairly be considered to be from Nueva Esperanza at the north to South Minita at the south, a total distance of 3,200 m. (Outlines of the resources, projected to the surface, appear in Figure 4.2). It is interesting to note that at Nueva Esperanza at the north end of the trend, the deposits dip to the west; at Minita, in what is now considered the core of the mineral trend, the veins become progressively steeper and eventually vertical and then, farther southward, roll over and dip steeply east. At South Minita on the southern end of the defined mineral trend the veins dip easterly at a slightly shallower angle.

9.2 Minita Area

The Minita mine area is in the core of the Central El Dorado sub-district. Ninety-two percent of the past production at El Dorado was derived from four main veins in an area about 700 m long and 300 m wide. These are the Minita, Zancudo, Minita 3 and El Dorado veins, the first two of which account for the bulk of historic production. Other prospective veins in the Minita area are Portillo, Rosario, Moreno, Montecristo, Candelaria, Guadalupe, Goose and Potrero. Much of the following discussion is derived from Turner and Johansing (1999).

9.2.1 Minita Vein

The Minita vein is located between the Zancudo vein, on the west, and the Minita 3 vein (Figure 9.1). The Minita vein trends roughly north-south over a strike length of at least 900 m. Surface vein exposures are limited, with widths generally less than 0.5 m; however, subsurface widths differ dramatically with true vein widths reaching over nine meters. The Minita vein was the most productive vein of the El Dorado mine operated by Rosario Resources between 1948 and 1953. The Minita vein is reported to have produced 95,922 tonnes of material or 35.5% of the total 270,197 tonnes milled. The Minita vein was mined on the 50-, 175-, 300-, and 425-ft levels, generally between 301,250 N and 301,600 N. However, development on the 175-ft level extends between about 301,200 N and about 301,820 N. Crosscuts were also driven connecting the veins in the El Dorado mine area on the 175, 300, and 425 foot levels.

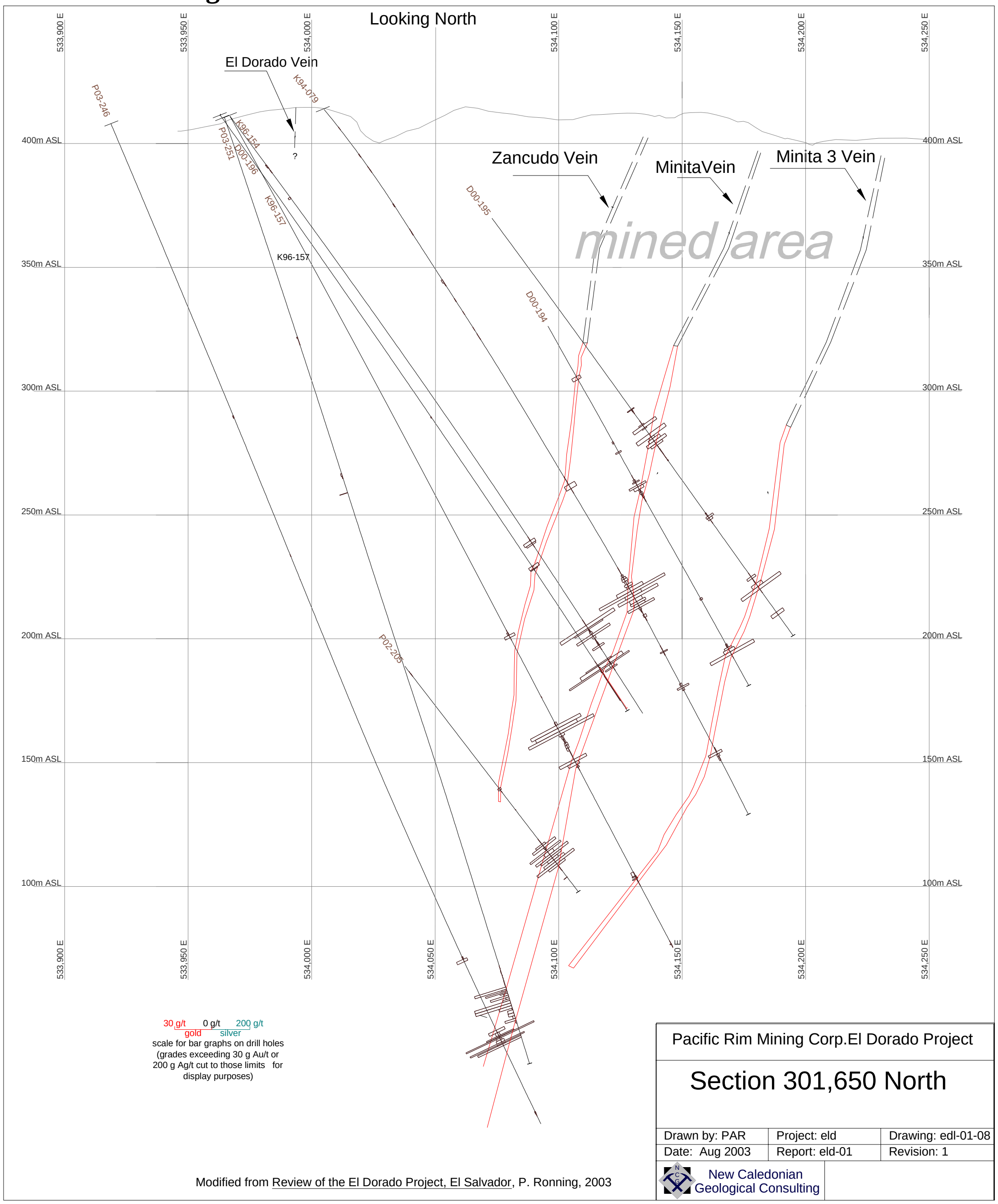
9.2.2 Minita 3 Vein

The Minita 3 vein is located just east of the Minita vein, (Figure 9.1) within the Minita area. The Minita 3 vein trends roughly north-south over a strike length of close to 600 m between 301,400 N and 302,000 N. Surface vein exposures are limited, with widths generally less than a meter. In the subsurface, widths can be greater than on surface, with true vein widths up to 6 m encountered in the drilling. The Minita 3 vein was the third most productive vein of the El Dorado mine. The vein is reported to have produced 41,676 tonnes of material or 15.4% of the total tonnes milled. The Minita 3 vein was mined on the 70-, 175-, 300-, and 425-ft levels generally between 301,500 N and 301,750 N. Development on the 175-ft level extends to approximately 301,780 N. Crosscuts were also driven connecting to other veins in the El Dorado mine area.

9.2.3 Zancudo Vein

The Zancudo vein is located between the El Dorado vein on the west, and the Minita vein on the east (Figure 9.1). It trends roughly north-south over a strike length of at least 700 m. Vein width, both surface and sub-surface, is generally less than 2 m and averages 1 m in the drilling. The Zancudo vein was the second most productive vein of the El Dorado mine area. The vein is reported to have produced 76,937 tonnes of material or 28.5% of the total tonnes milled. The Zancudo vein was mined on the 30-, 50-, 175-, 300-, and 425-ft levels. The 175-ft level was developed and locally mined between 301,090 N and 301,730 N. Cross-cuts were also created connecting the veins in the El Dorado mine area on the 175, 300, and 425 foot levels. Samples from the Zancudo vein revealed an average vein (sample) width of 0.85 m.

Figure 9.1 Cross Section of the Main Minita Veins

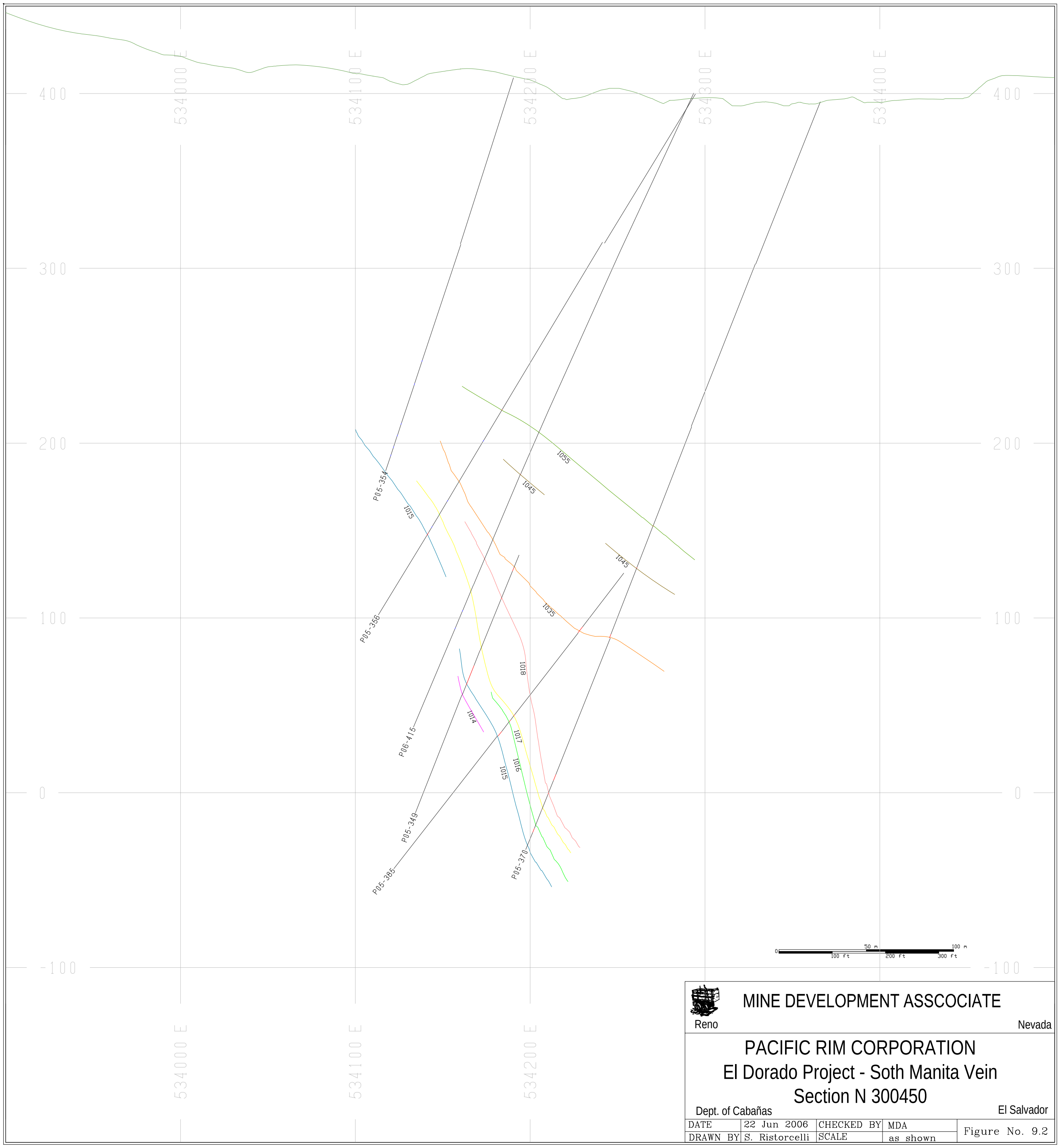


9.3 South Minita Area

The South Minita deposit is a new discovery made in 2005 by Pacific Rim. The deposit begins about 200 m south of the southern extension of Minita. The veins, of which ten contribute to the estimated South Minita resource, dip steeply to moderately to the east. The total length of the South Minita area proper is approximately 1,000 m in a northerly direction, constituting about one third of the known total mineralized trend that extends northward as far as Nueva Esperanza.

The South Minita veins occur within a 25-m to 75-m thick zone of fractured andesite, that Pacific Rim geologists refer to as the "lode". The lowest vein, the Footwall (1015) vein, identified on some illustrations as the "Pink" vein, contains about one half of the South Minita resource. There is a very thin and highly discontinuous vein/veinlet that occurs in the footwall to the lode and Footwall vein (designated 1014). This discontinuous vein was modeled only because it has some of the better grades encountered at South Minita. Three main veins at South Minita contain three quarters of the estimated resources: 1015 (50%) at the footwall, 1017 (10%) still within the lode, and 1035 (15%), which occurs mostly above the main fractured area of the lode. The entire set of 10 veins strikes for approximately 1000 m in a northerly direction and has a 400 m vertical extent, for a total dip distance of over 425 m. A typical cross section is given in Figure 9.2.

Figure 9.2 Cross Section of the South Minita Veins



9.4 La Coyotera Area

The La Coyotera vein system, located 1.5 km northwest of the Minita area, has been traced over a strike length of about 1,200 m. The system trends approximately due north at its southern end and then bends eastward to about N20°E for most of its length. Its dip is essentially vertical.

The following information was compiled by Pacific Rim staff:

Much of the La Coyotera vein is really a lode rather than an individual or discrete vein. The lode is made of many veins and breccias, overlapping to form a sheeted zone with many of what may be either splays or step-overs in a shear zone. Commonly, thin horses of andesite occur between vein stages that cannot be correlated between holes. There are many styles of mineralization and their locations and extent are highly variable.

Leaching of calcite, recrystallization of chalcedony, and oxidation are common and extensive throughout the length and depth of the lode. The lode has two branches at the north end of the system, a narrow, generally lower-grade west branch and a larger, higher-grade east branch. The two branches converge but do not intersect at the surface. However, the near-surface, east-dipping east branch rolls over at depth to become west-dipping, and eventually merges with the west branch into one lode at depth and to the north. The best grades and most complex veining occur where the east branch rolls to the west and extends to just below where the two branches merge with depth. Although the hanging wall and footwall to the lode can be moderately to strongly fractured, the lode is usually poorly fractured. In addition, the adjacent wallrocks contain very strong potassic feldspar and clay alteration up to several meters out from the lode. This pervasive, strong replacement is not obvious and was only recognized after thin section and x-ray diffraction studies were completed.

The following vein styles and/or textures are noted:

- CB – banded chalcedony, adularia, less common corrensite and/or nontronite, black sulfides, and occasionally pyrite.
- CF – corn-flake breccias composed of finely banded, commonly plastically deformed fragments.
- FB – micro-breccia composed of mineralized, banded vein and non-mineralized rock fragments.
- BR – various types of breccia fragments rimmed by black sulfide and sometimes pyrite.
- XB – breccias composed of blocks and large clasts of CB, CF and/or FB styles.
- NC – contorted to brecciated calcite with up to 20% disrupted bands of nontronite.
- RQ – recrystallized vein chalcedony to fine-grain quartz with complete leaching of calcite, commonly with relict bands of corrensite/nontronite and minor manganese oxide staining.
- CP – sugary calcite veins or breccias with up to 3% pyrite.
- FF – fractures with trace pyrite and black sulfide, usually found in breccias and cross-cutting both matrix and clasts.
- BP – colloform pyrite along vein wall margins and rimming un-banded, gray chalcedony fragments.
- DS – disseminated pyrite and black sulfides (up to 3%) in varicolored, un-banded chalcedony.

- MB – bands of chalcedony with manganese oxide, traces of pyrite and/or iron oxides, interbanded with fibrous chalcedony bands up to 4 mm, with corrensite and/or hematite stains.

Typically, high-grade clasts appear to be paragenetically early and diluted by barren vein material and andesite clasts. The common breccia types have varied distribution and intensity. Most may be formed by collapse processes rather than by hydrothermal fluidization.

Opaque minerals consisting for the most part of fine-grained black sulfides are clear indicators of higher grades, although they make up only a very small percentage of the lode volume. Opaque minerals recognized in polished section are: acanthite, chalcopyrite (locally altered to covellite or chalcocite), pyrite, gold and traces of sphalerite and galena. Chalcopyrite appears to be the dominant sulfide in black sulfide bands. Precious metal deposition does not appear to have an obvious relationship to gangue mineralogy or texture but rather is related to a specific horizon and/or elevation.

In summary, key characteristics of higher-grade gold deposition are not clear, but if the criteria used to recognize high grade mineralization in the Minita Vein were indiscriminately applied to La Coyotera, the result would often be misleading. Gold is confined to a distinct horizon and can occur in many vein types and textures. The presence of relatively large amounts of black sulfides may be the only fairly consistent indicator for high-grade gold.

9.5 Nueva Esperanza Vein

No comprehensive study of the Nueva Esperanza vein has been completed by Pacific Rim. The following description is from Mirage Resources reports (Mirage Resources, 1997, Wallis, 1996).

Three distinct vein types have been defined:

1. An upper massive chalcedony vein zone with little or no calcite, and a vuggy, weakly banded texture, extending to about 50 m below the surface.
2. A middle zone composed of banded chalcedony and what may be breccia of hydrothermal origin, extending 120 m down-dip along the plane of the vein.
3. A lower broad calcite-rich zone with a narrow chalcedony vein commonly occurring in the footwall.

There is a core part of the vein that exhibits lattice textures and moderate to strong colloform banding. These are features that are indicative of the higher-grade areas in the Minita Vein system. Below this near-horizontal core zone, the vein appears to expand into a lode zone consisting of sheeted and/or stockwork veins and veinlets in weakly silicified wallrock and breccias of possibly hydrothermal origin.

9.6 Nance Dulce Veins

Mineralization in the Nance Dulce area was known as early as 1914, when a prospector was reported to have mined material with a value of $10/ton in gold from a small adit on Nance Dulce hill. No other records as to this early stage of work exist. During the first quarter of 1994, geological mapping by

Mirage in the southern-most part of the El Dorado Exploration License Area identified the Nance Dulce vein. Initial samples revealed "Bonanza" grades up to 270 g Au/t hosted by a colloform-banded chalcedony vein, 1-to 2-m wide. Further south along the same structure, widespread pyritic, siliceous hydrothermal breccia and strong argillic alteration after quartz/sericite/pyrite alteration are present in the hanging wall of the Nance Dulce structure.

Additional work done by Mirage and its successors, prior to Pacific Rim's acquisition of the project, included geological mapping at several scales, trenching, surface rock sampling, the construction of a 2.5 km access road, and in 1994, the drilling of ten holes totaling 1,321 m.

In 2004 Pacific Rim did a drilling program that traced the Nance Dulce vein system northwestward for approximately 1,000 m beyond the Mirage drilling. Pacific Rim has drilled approximately 7,565 m in 26 holes[7]. The drilling outlined what is now an Inferred resource on the northern part of the Nance Dulce vein system. The resource starts about 530 m northwest of the 1994 drilling.

In the resource area there are multiple veins, including two steeply northeast-dipping veins that are interpreted to have reasonable continuity from drill hole to drill hole. It is those two veins that comprise the Inferred resource described in Section 17.0. The mineralization is similar, in its style and constituents, to that in the Minita and South Minita systems. As known at present, from the relatively sparse drilling, the veins that contribute to the Nance Dulce resource are thinner and less continuous than the best veins in the Minita. The Nance Dulce vein system requires more drilling in order to better define the mineralization, with the objective of upgrading the classification of the resource and possibly expanding it.

9.7 Other Mineralized Areas

The primary purpose of this report is to document the resource estimates for the deposits discussed in the preceding parts of Section 9.0. The report by Ronning (2003) included descriptions, in varying detail, of 19 other named veins or prospect areas. The descriptions from Ronning (2003) are not repeated here, as the earlier report is NI43-101 compliant and available on SEDAR. Pacific Rim has done much exploration in many parts of the project area since 2003. This section is devoted to updating the information about mineralized prospects that have received significant new exploration since 2003, and describing newly-discovered prospects.

9.7.1 San Matias Vein and Northern Sub-District

(see Figure 9.4)

Reconnaissance studies by Mirage in 1993 identified the San Matias vein over a strike length of at least 2 km along a N35°E trend. Surface vein widths range from one meter at the northern extremity to approximately 10 m in the central and southern portions. Vein textures along the San Matias vein are highly variable and include massive and banded chalcedony, breccia and lattice texture. Surface gold

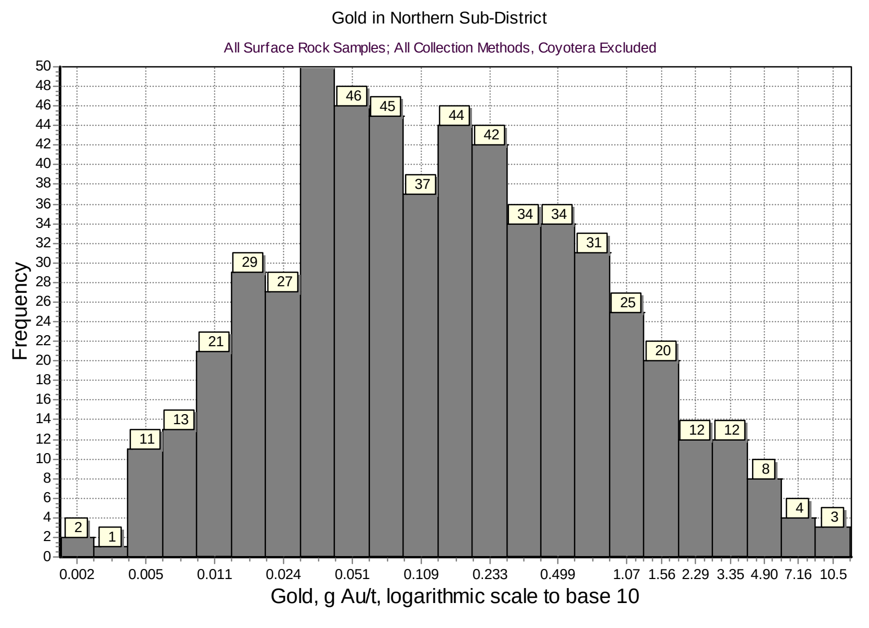
[7] These numbers are more than are ascribed to Nance Dulce in Section 17.0 because here they include holes that do not figure in the resource estimate.

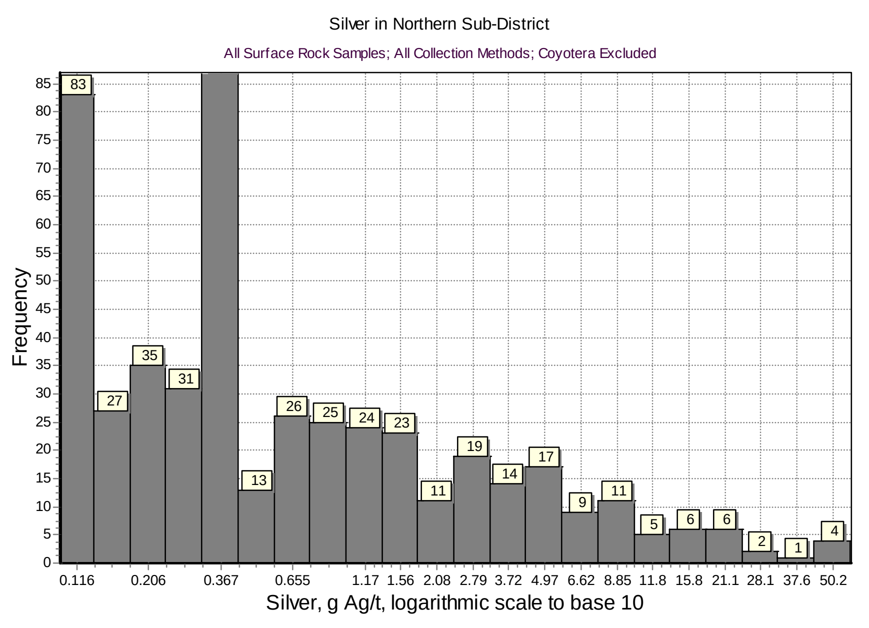
grades generally increase from less than 1 g Au/t in the northern portion to between 2 g Au/t and 5 g Au/t in the southern portion. In terms of surface dimensions, the San Matias vein is the largest single vein in the El Dorado district.

San Matias is situated in the Northern Sub-District (sub-districts are illustrated in Figure 7.2). Other veins in the Northern Sub-District include the Lajas and Los Loros Veins, the Huertas Vein, the Las Pupuseras Vein System, the Dulce Ana Vein, the Veta Max and the Graham Vein System. La Coyotera is also within the Northern Sub-District, but is discussed separately, in Section 9.4. With only a few exceptions, the significant veins in the Northern Sub-District have northeast trends.

Pacific Rim now has 826 rock samples from the Northern Sub-District, including chips, selected chips, channel samples, and a few unclassified types. If La Coyotera is excluded, there are 559 samples. All were collected prior to the end of 2003. A histogram and some basic statistics in Figure 9.3 provide a general idea of the levels of gold in the samples.

Figure 9.3 Histograms, Surface Rocks in Northern Sub-District





Variable	N	Mean	Median	Std.Dev.	Min	Max	Q1	Q3
Au (g/t)	559	0.55	0.12	1.3	<0.005	12.69	0.035	0.47
Ag (g/t)	559	2.00	0.35	6.0	<0.10	58.00	0.10	1.20

Statistical parameters are arithmetic

9.7.1.1 San Matias Vein Drilling

In 2003 and 2004 Pacific Rim drilled 7 new holes totaling about 2,875 m, to intercept the San Matias Vein. In total there are now 17 holes totaling about 4,640 m drilled to intercept the vein. With the exception of K94-051, the results, while demonstrating the presence of mineralization, have for the most part not shown potentially economic grades and widths.

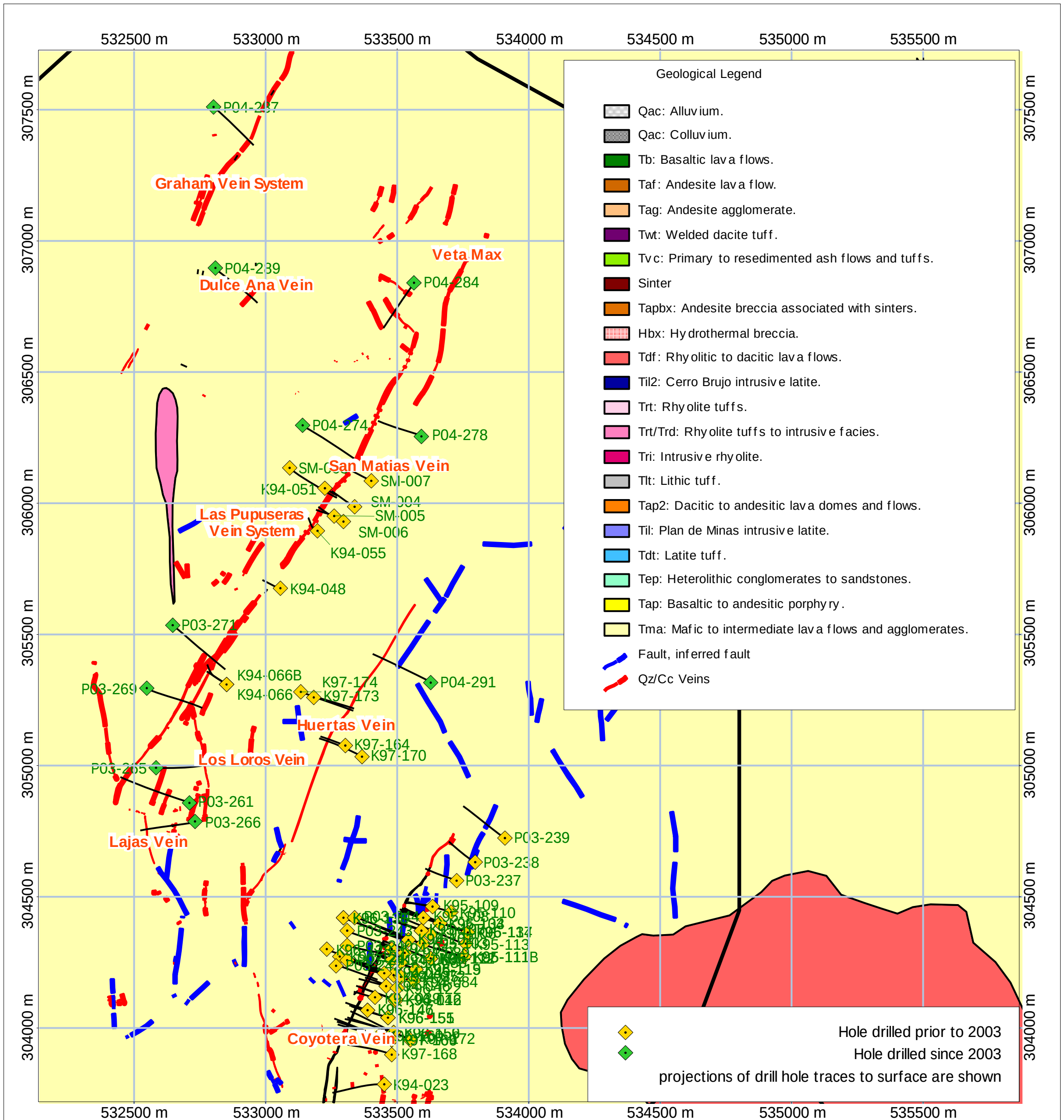
Table 9.1 Drill Hole Intercepts in San Matias Vein

Drill Hole	From (m)	To (m)	Length (m)	Gold (g Au/t)	Silver (g Ag/t)
K94-051	50.15	50.50	0.35	1.350	3.00
K94-051	57.00	57.50	0.5	1.680	6.80
K94-051	59.80	61.30	1.5	1.108	1.92
K94-051	64.45	70.35	5.9	6.067	5.26
K94-051	72.25	76.35	4.1	6.871	9.18
K94-051	77.25	77.90	0.65	2.800	3.50
K94-051	80.50	82.45	1.95	2.570	5.46
SM-004	149.75	151.70	1.95	1.487	4.49
SM-005	85.25	86.90	1.65	1.698	5.62
SM-005	95.20	96.95	1.75	8.086	8.51
SM-005	102.95	103.95	1	1.080	2.70
SM-008	360.85	361.75	0.9	1.230	2.90
SM-008	363.00	363.35	0.35	1.440	3.80
SM-008	368.80	369.75	0.95	3.080	1.90
SM-008	373.30	373.80	0.5	2.240	1.60
P03-271	412.80	413.75	0.95	1.267	1.40
P04-278	219.10	219.70	0.6	4.430	2.00

Notes: Only intervals exceeding 1 g Au/t are shown. Intervals are composited on a length-weighted basis allowing up to 1 m of internal waste.

Lengths shown are drill intercepts, not true widths.

Figure 9.4 San Matias Vein and the Northern Sub-District



El Dorado Project	Compiled By: PAR	San Matias Vein and Northern Area	El Salvador National Grid based on NAD 27	Figure Number: 9.4
Pacific Rim El Salvador S.A. de C.V.	Data by: Pacific Riim			07-Jul-06

9.7.2 Central East Sub-District

The Central-East Sub-District, as the name implies, lies to the east of the Central Sub-District. It is for the most part south of the main highway that enters Sensuntepeque from the southwest. At the time that Pacific Rim acquired the El Dorado Project, the best-known vein system in the Sub-District was the Hacienda Vieja Vein System. The description in the following paragraph is taken from Ronning (2003), but the original source was Turner and Johansing (1999).

> " Reconnaissance mapping done in the South El Dorado area in mid- to late-1994, identified a zone of chalcedony veining to the east of the San Francisco area, referred to as the Hacienda Vieja area. At least ten separate veins have been identified, collectively known as the Hacienda Vieja veins. Surface vein widths range from less than 1 meter up to 3 meters with local sheeted/stockwork vein zones up to 40 meters wide. Vein trends vary between north 34° west (326°) and north 29° east and are composed of mostly massive to diffusely banded white-beige-pink chalcedony with common drusy quartz filling vugs. Reconnaissance rock chip samples were commonly anomalous in gold with values up to 2.67 g/t."

The Central East Sub-District was not explored to any great extent by prior operators.

9.7.2.1 Ganso Vein Zone

At the time of the 2003 report (Ronning, 2003) the Ganso[8] Vein zone, which is exposed in the bank of the San Francisco River, along the northern end of the Hacienda Vieja area, was considered to be the most promising target. The zone is comprised of up to 40 m of sheeted chalcedony veins with individual widths up to 2 m. Its strike length as mapped on the surface is in the order of 150 m. Results for 28 samples collected by Pacific Rim from the Ganso vein and its vicinity are listed in Table 9.2 (this same table appeared as Table 47 in Ronning, 2003).

Table 9.2: Surface Rock Samples, Ganso Vein

Sample	Gold (g/t)	Silver (g/t)	Sample Type	Length (m)
12033	0.506	4.3	Selected chips	1.5
12034	0.386	3	Selected chips	1.5
12035	1.272	3.7	Selected chips	2
12036	0.627	8.5	Selected chips	2
12037	0.094	0.4	Chips	1
12038	0.039	0.1	Chips	2
12039	0.057	0.1	Chips	2
12049	0.596	7.5	Selected chips	1.7
12050	1.209	11.5	Selected chips	1.65
14250	0.674	4.8	selectiva	0

[8] In the 1993 report this was called the "Goose Vein Zone".

Sample	Gold (g/t)	Silver (g/t)	Sample Type	Length (m)
14501	1.917	9.1	Selected chips	n/a
14502	0.181	2.4	Chips	n/a
14503	2.833	15.2	Selected chips	n/a
14541	1.018	4.7	Selected chips	0.9
14542	0.809	2.5	Selected chips	0.7
14543	0.055	0.7	Chips	2.4
14549	0.038	0.2	Chips	0.5
14751	0.048	0.4	Chips	0.6
14752	0.266	2.2	Selected chips	2.55
14753	0.558	2.8	Chips	1.05
14785	0.976	10.9	Selected chips	n/a
14786	0.175	9.4	Chips	n/a
14787	0.639	11	Selected chips	n/a
14788	4.92	49.9	Selected chips	n/a
14789	0.442	5.3	Chips	n/a
14790	1.347	14.7	Selected chips	n/a
14791	0.288	4.3	Chips	n/a
14792	0.725	4.6	Chips	n/a

In 2003 and 2004 Pacific Rim drilled 3 holes intersecting the Ganso Vein. Significant intercepts from those holes are tabulated in Table 9.3. The drill holes are illustrated in Figure 9.5.

Table 9.3 Drill Hole Intercepts in or near Ganso Vein

Drill Hole	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)
Holes On Section in Figure 9.5					
P03-268	394.20	396.10	1.9	11.073	118.00
P03-268	408.25	409.60	1.35	1.016	9.50
P03-268	431.20	431.70	0.5	3.520	29.70
P03-268	441.90	442.25	0.35	1.037	5.50
P04-275	158.15	164.95	6.8	5.886	30.60
P04-275	167.10	169.85	2.75	5.992	44.10
P04-276	91.00	92.20	1.2	1.229	0.10
P04-276	110.55	111.80	1.25	6.410	52.00
North of Section in Figure 9.5					
P04-279	190.50	190.75	0.25	1.967	17.4
P04-279	247.35	248.50	1.15	1.033	3.50
P04-279	248.80	250.75	1.95	1.129	3.04
P04-279	251.65	252.55	0.9	1.502	4.90
South of Section in Figure 9.5					
P03-272	149.90	150.55	0.65	1.461	7.80
P03-272	428.45	431.00	2.55	1.374	2.54
P03-272	438.65	441.80	3.15	1.702	29.0

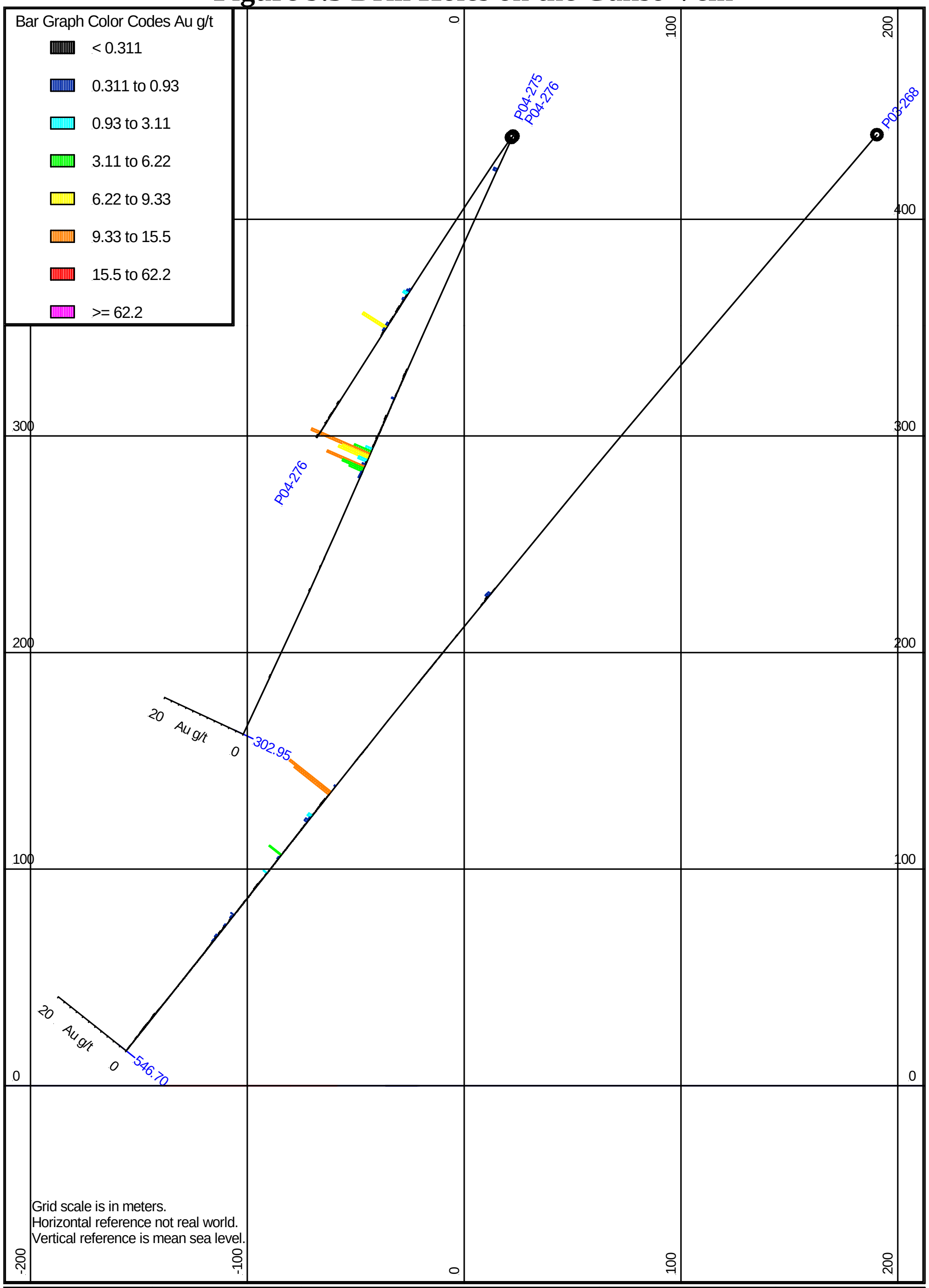
Notes: Only intervals exceeding 1 g Au/t are shown. Intervals are composited on a length-weighted basis allowing up to 1 m of internal waste.

Lengths shown are drill intercepts, not true widths.

P03-268, P04-275 and P04-276 appear in the section illustrated in Figure 9.5. P04-279 is about 100-m northeast of the section. P03-272 would intercept the projected trend of the Ganso Vein about 170 m southwest of the section, but none of the three intercepts in P03-272 can be correlated with confidence to the Ganso vein.

The limited drilling to date on the Ganso vein suggests that there may be some potential to discover a body of mineralization that could provide some incremental mill feed, should a mine be developed based on the known resources in other veins.

Figure 9.5 Drill Holes on the Ganso Vein



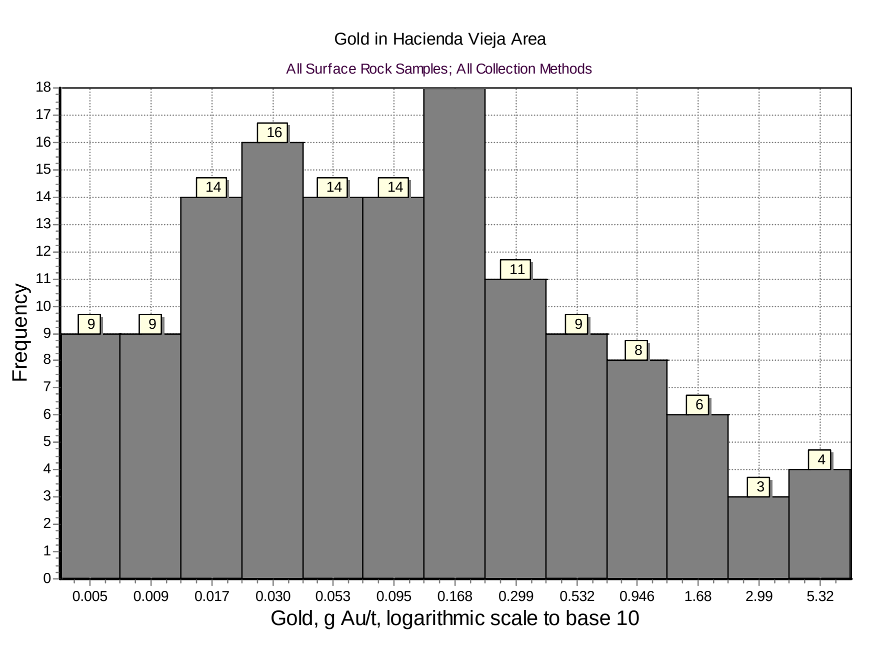
El Dorado Project	Drawn by: PAR	Drill Holes on the Ganso Vein	El Salvador National Grid based on NAD 27	Figure Number: 9.x
Pacific Rim El Salvador	Data by Pacific Rim		Section Looking NE in plane of P03-268	30 June 2006

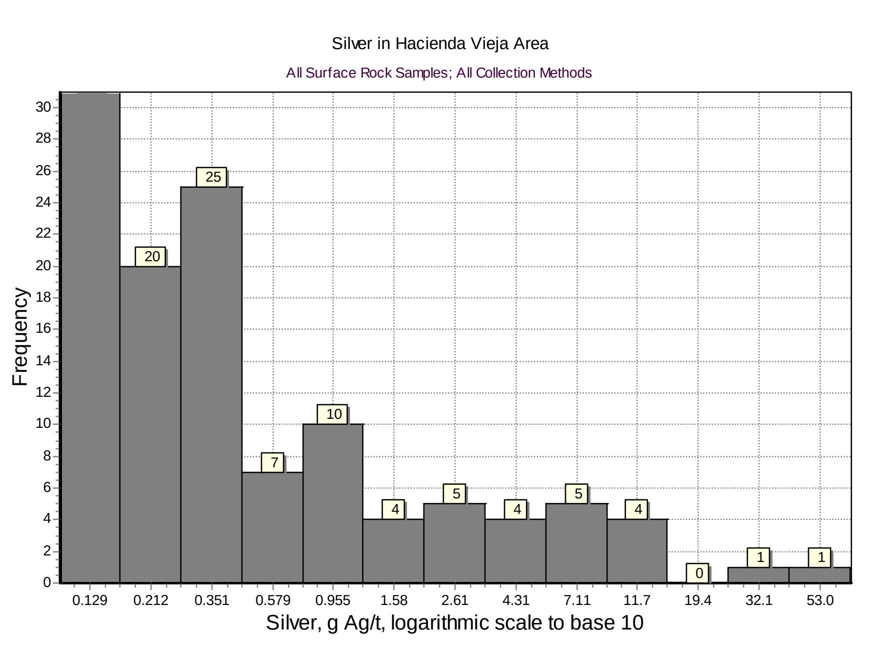
9.7.2.2 Hacienda Vieja Area

The Hacienda Vieja area contains several other veins or vein clusters besides the Ganso Vein, and Pacific Rim has done considerable prospecting and some drill testing of those. Excluding samples collected from the Ganso Vein, there is a database of approximately 137 rock samples collected from the surface in the Hacienda Vieja area.[9] Figure 9.6 contains histograms for gold and silver analyses in surface rock samples of various types from the 137 samples in the Hacienda Vieja area, followed by a tabulation of simple statistics for the samples.

[9] The word "approximately" is used because the limits the Hacienda Vieja area are not specifically defined. For the purpose of this discussion, it is considered to the Central East Sub-District north of 301,000 N, and south of the Ganso Vein.

Figure 9.6 Histograms, Surface Rocks in Hacienda Vieja Area





Variable	N	Mean	Median	Std.Dev.	Min	Max	Q1	Q3
Au (g/t)	137	0.46	0.08	1.09	<0.002	7.09	0.023	0.30
Ag (g/t)	137	1.84	0.20	6.66	<0.10	68.0	0.10	0.75

Statistical parameters are arithmetic

Pacific Rim drilled 8 holes directed at several targets in the Hacienda Vieja area. Intercepts from those 8 holes that exceeded 1 g Au/t are listed in Table 9.4. The cluster of intercepts in P04-277 may be related to the Kaka Vein whose surface trace is just to the north. The cluster of intercepts that starts at 455.65 m in P03-270 may correlate with the Kaka Vein and the intercepts in P04-277. One or both of the two deepest intercepts in P03-272 may also correlate with the Kaka Vein. It is difficult to correlate the other scattered intercepts shown in Table 9.4 with known veins or with each other.

It may be of interest that the best cluster of intercepts in Table 9.4, in P04-277, appears to be close to a conjunction of the trends of the Kaka Vein and a less well-defined, northwest-trending vein to the south.

Table 9.4 Drill Hole Intercepts in the Hacienda Vieja Area

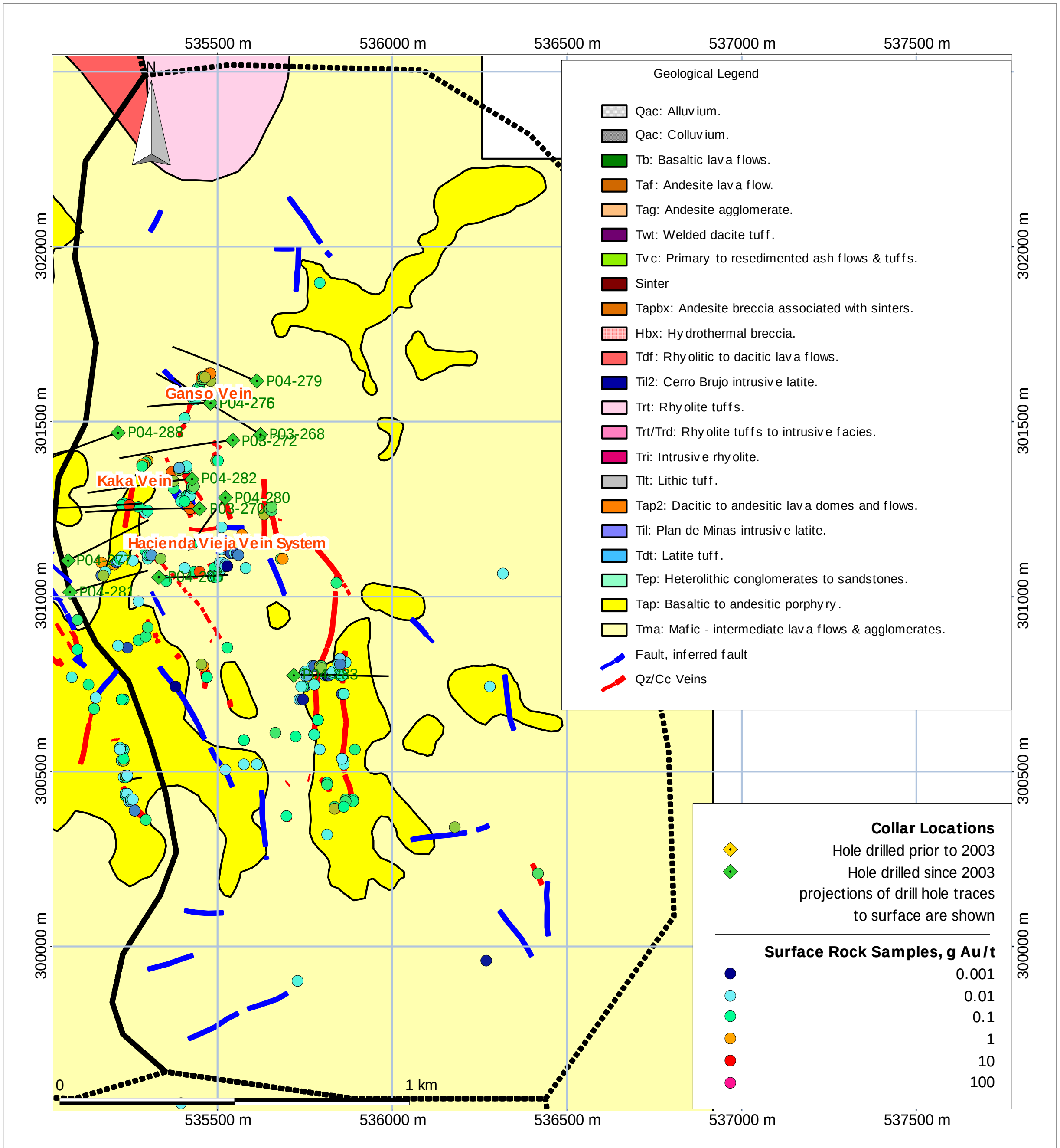
Drill Hole	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)
P03-270	59.65	59.80	0.15	1.712	19.30
P03-270	60.30	60.45	0.15	1.330	8.40
P03-270	85.45	85.60	0.15	1.175	0.80
P03-270	154.20	157.30	3.1	1.158	7.33
P03-270	455.65	456.95	1.3	2.230	12.30
P03-270	460.20	463.25	3.05	1.936	12.90
P03-270	471.50	473.50	2	1.184	9.15
P03-270	507.90	508.80	0.9	1.430	3.70
P03-272	149.90	150.55	0.65	1.461	7.80
P03-272	428.45	431.00	2.55	1.374	2.54
P03-272	438.65	441.80	3.15	1.702	29.00
P04-277	239.10	239.60	0.5	6.370	48.00
P04-277	241.00	244.15	3.15	4.053	39.10
P04-277	251.45	255.15	3.7	3.238	12.90
P04-277	265.60	265.95	0.35	8.880	26.90
P04-280	299.95	301.05	1.1	2.219	0.50
P04-281	114.85	115.00	0.15	2.143	-1.00
P04-282	7.80	8.15	0.35	1.022	8.30
P04-282	48.20	48.90	0.7	1.877	24.90
P04-282	109.85	110.55	0.7	1.743	11.90

Notes: Only intervals exceeding 1 g Au/t are shown. Intervals are composited on a length-weighted basis allowing up to 1 meter of internal waste.

Lengths shown are drill intercepts, not true widths.

P03-272 appears in both Table 9.3 and this table, as it crosses the trends of both the Ganso Vein and the Kaka Vein.

Figure 9.7 East Central Sub-District



El Dorado Project	Compiled By: PAR	East Central Sub-District	El Salvador National Grid based on NAD 27	Figure Number: 9.7
Pacific Rim El Salvador S.A. de C.V.	Data by: Pacific Riim			12-Jul-06

9.7.2.3 Southern Central East Sub-District

There has not been any drilling done in the Central East Sub-District south of Hacienda Vieja or, in terms of coordinates, south of 301,000 North. Pacific Rim has, however, done considerable rock sampling and reconnaissance mapping in that area. The current project database contains records for 115 surface rock samples of various types, collected in the southern part of the Central East Sub-District. Forty-seven of those contained gold greater than or equal to 0.1 g Au/t, including one, a selected chip sample from a 30 cm vein that contained 1.3 g Au/t. That was the only sample with more than 1 g Au/t. A summary of simple statistics from the surface samples appears below.

Variable	N	Mean	Median	Std.Dev.	Min*	Max	Q1	Q3
Au (g/t)	115	0.152	0.060	0.221	<0.005	1.298	0.013	0.205
Ag (g/t)	115	0.210	0.100	0.426	<0.100	4.100	0.100	0.200

The simple statistics suggest a sample population that has lower gold contents than samples from the northern part of the Central East Sub-District, including the Hacienda Vieja Area and the Ganso Vein. This does not eliminate the southern part of the sub-district from consideration for future exploration, but does place it at a comparatively low priority.

9.7.3 Southwest Sub-District

(see Figure 9.8)

The Southwest Sub-District contains several known target areas, including the Sinter Vein, El Llano Vein, Hacienda Vein, El Gallardo Stockwork, Volcancillo Vein System, Las Marias Vein System and the Culebra Vein System. All but the Culebra Vein System and the Sinter Vein were described in Ronning (2003).

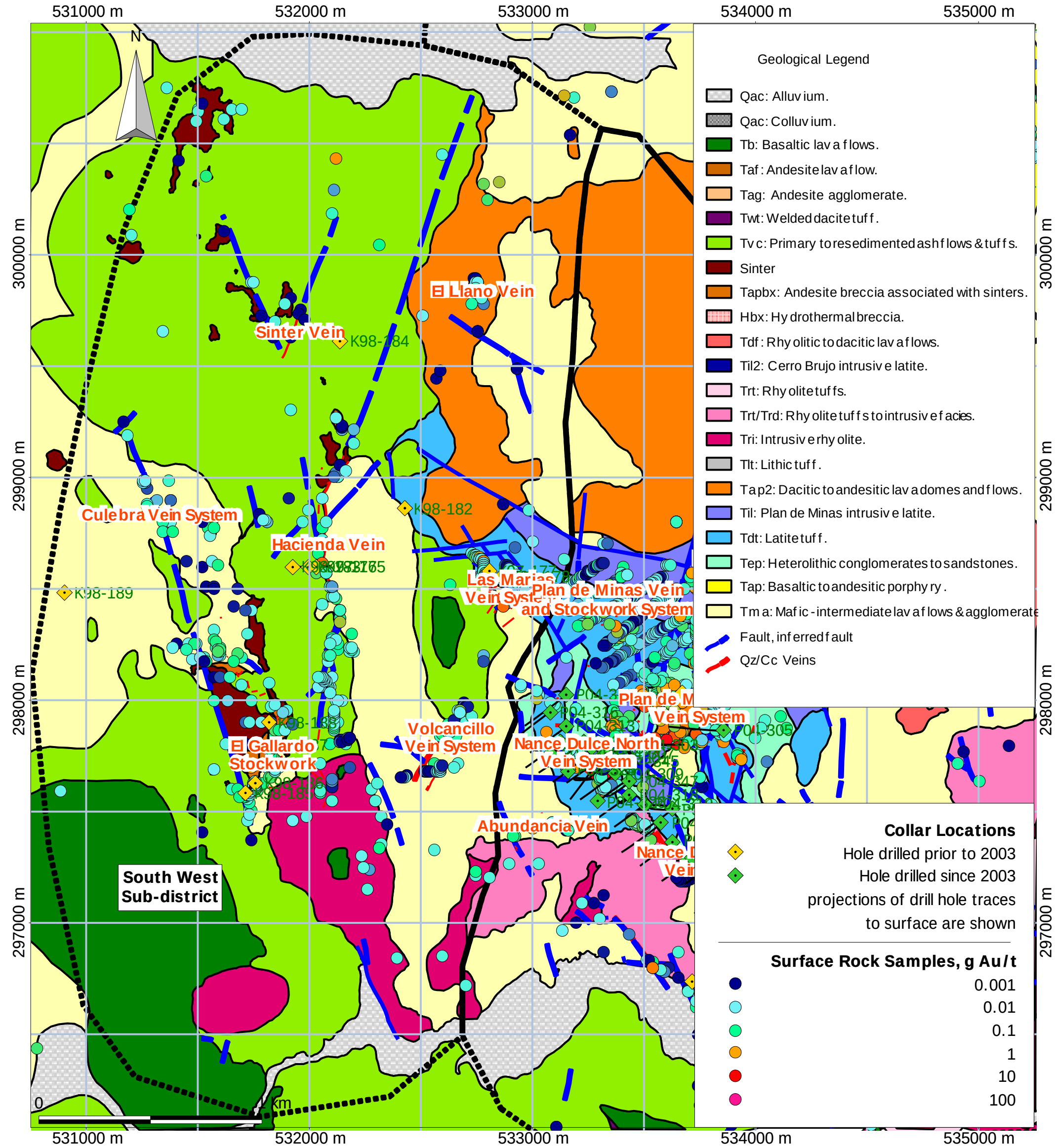
There have been 12 holes drilled in the Southwest Sub-District, all by a prior operator during 1997 and 1998. That drilling was summarized in Ronning (2003). Since 2003, Pacific Rim has done some surface mapping and prospecting in the more prospective parts of the Southwest Sub-District, accompanied by the collection of 76 surface rock samples whose methods of collection ranged from selected chips to channel samples. This brings the total number of rock samples, collected using varying sampling methods, from the Southwest Sub-District to 573.

Eighteen of the new samples collected by Pacific Rim came from the southwest side of the Rio San Isidro. Those 18 were all collected north of the El Gallardo Stockwork, approximately along the north-northwest trend of a fault structure. Of the 18 samples, 6 contained gold in the range 0.104 g Au/t to 0.345 g Au/t. The 6 are described as selected channel samples with lengths ranging from 0.2 to 0.8 m. Three of the 18 samples come from veins in the Culebra Vein System, a cluster of 5 mapped veins whose aggregate mapped length is about 125 m and whose typical width as measured on the surface is about 0.3 to 0.4 m. The highest gold grade in Pacific Rim's samples from the Culebra Vein System was 0.145 g Au/t over 0.3 m.

Another 14 new surface rock samples came from the Sinter Vein or nearby structures. The Sinter Vein is a 250 m long north-northeast trending vein whose surface manifestation consists of sintery, brecciated, opaline silica. It is described as being about 2 meters wide. Gold grades in samples collected from this vein and its vicinity were in general low, as is commonly the case in the shallower, near-surface, very low temperature parts of low sulfidation systems. Whether the Sinter Vein might contain higher grades at depth, as the deposit model suggests, is open to speculation. The highest grade surface sample amongst the new ones in this sub-district came from a colluvial boulder about 650 meters north-northeast of the Sinter Vein and 270 meters north of the structure on which the sinter vein lies. A "random" sample from the boulder contained 1.985 g Au/t.

The Southwest Sub-District is a large area that is, as yet, sparsely drilled. Surface samples from the area have in general yielded lower grades than those from other parts of the El Dorado District. Many of the surface exposures may be too shallow, in terms of the hydrothermal system, to contain good gold grades. The deposit model allows for the possibility that the same structures could contain more important gold grades at greater depths. Considerable scope remains for future exploration.

Figure 9.8 Southwest Sub-District



El Dorado Project	Compiled By: PAR	Southwest Sub-District	El Salvador National Grid based on NAD 27	Figure: 9.8
Pacific Rim El Salvador S.A. de C.V.	Data by: Pacific Riim			12-Jul-06

9.7.4 The South Sub-District

The South Sub-District contains several important prospects and one deposit, Nance Dulce, for which this report presents a new resource estimate, in Section 17.0.

Other target areas in the South Sub-District are Nance Dulce South, Plan de las Minas, also commonly called Plan de Minas, the Flor Vein, sometimes considered to be part of Plan de las Minas, and the El Porvenir Breccia. Each of these targets is described, in varying levels of detail, in Ronning (2003).

Since 2003 Pacific Rim has drilled 29 holes in the South Sub-District, totaling 8,874 m. Including the drilling by prior operators, the total number of drill holes in the South Sub-District is 44, totaling 10,848 m. Also since 2003, the Company has collected 226 surface rock samples of various sample types, bringing the total number of rock samples within the South Sub-District to 1,053. Ninety-three of the new surface samples, and approximately 185 of the total number of surface samples in the South Sub-District, come from the southern part of the Plan de las Minas area.

The Nance Dulce Vein system was the target of all but three of the new drill holes in the South Sub-District. As the subject of a new resource estimate, Nance Dulce is described in Sections 9.6 and 17.0 of this report.

Two holes, P04-303 and P04-305, tested the southern part of the Plan de las Minas area and one, P05-405, tested for a possible southward extension of the Minita South vein system. The latter hole did not intersect significant mineralization.

9.7.4.1 Plan de las Minas South

The following description of the Plan de las Minas area was in Ronning (2003), and originated with Turner and Johansing (1999).

> " Reconnaissance mapping and sampling conducted in the first quarter of 1994 identified a broad, N30°W-trending zone, approximately 1 km long and 1 km wide, of variable hydrothermal alteration, chalcedony veining and breccia. Preliminary sampling from surface outcrops and trenches showed anomalous gold grades up to 10.0 g/t Au in individual chalcedony veins, and continuous samples containing 1.35 g/t Au over 47 meters and 5.00 g/t Au over 20 meters.
>
> " Seven trenches were subsequently excavated with a bulldozer ranging in length from 256 meters to 492 meters and totaling 2,840 meters. A total of 252 samples were collected with an average sample length of 9 meters. All samples were channel samples and represent continuous intervals across the mineralized zone. Mineralization is hosted mainly by rhyodacite flows and overlying tuffs. Broad zones, up to 100 meters wide, of strong silicification, argillization and lesser sericitization are widespread. The trench sampling program produced values ranging from detection limits to 6.10 g/t Au. Although several anomalous zones were encountered in excess of 1.0 g/t Au, the majority of values were less.
>
> " The best surface samples were collected from the southernmost hand-dug trench, number 1 and, subsequently, Hole No. K94-60 was designed to test one of these anomalies at depth, below trench number. 2. The hole traversed rhyodacite porphyry with minor chalcedony veinlets (0.10 meter to 0.90 meter wide)

containing up to 7.40 g/t Au and 25.40 g/t Ag. The alteration was generally weak throughout the tested interval.

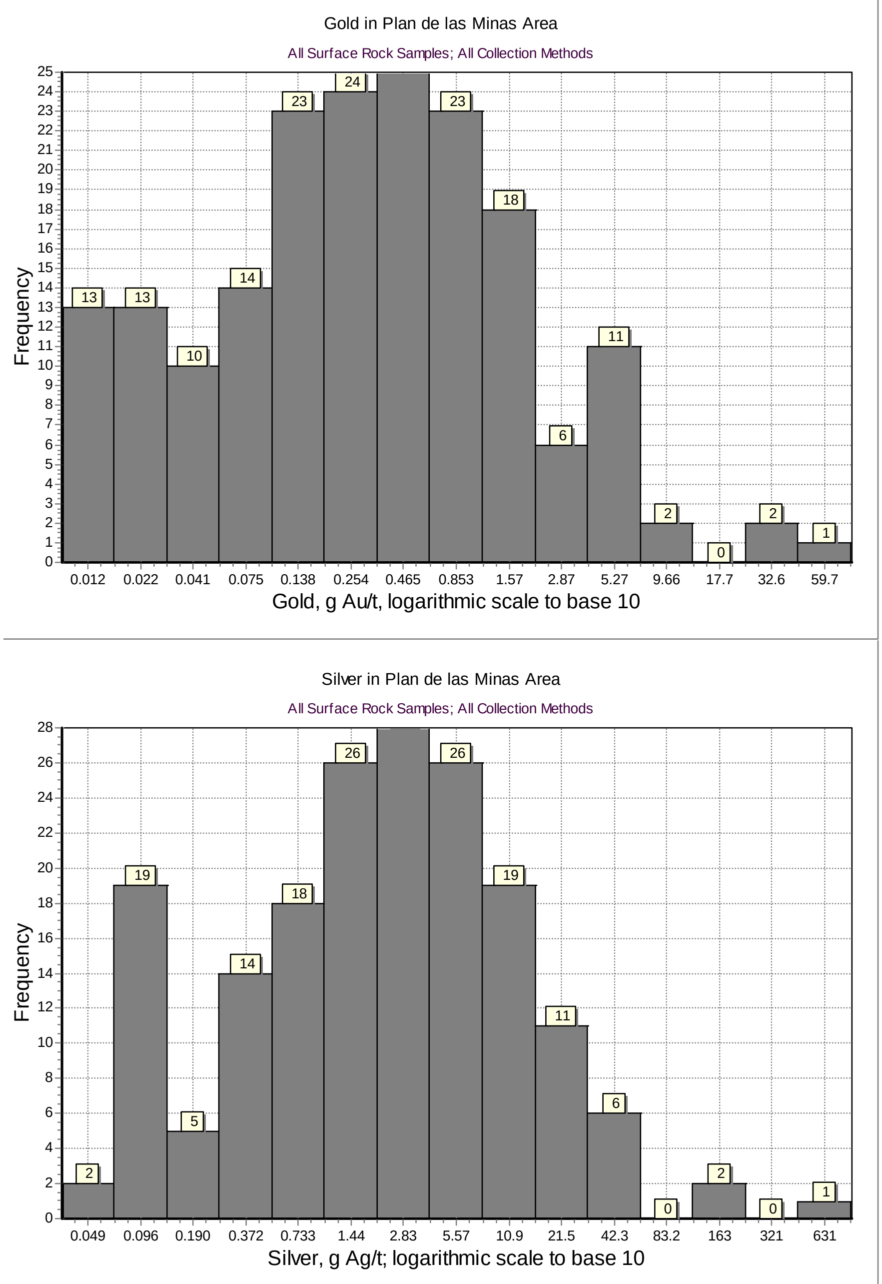
" Between mid-1994 and mid-1997, the Plan de Las Minas area did not receive any attention. In mid-1997, Plan de Las Minas and surrounding areas were revisited for additional mapping and sampling. The goal of this program was to better understand the principal controls upon the widespread gold mineralization and open the heavily vegetated areas around the previously explored zone defined by the trenches.

" Additional reconnaissance mapping during mid- to late-1997, around the perimeter of Plan de Las Minas, identified several additional zones of chalcedony veining and/or hydrothermal breccia. Subsequent surface trenching and sampling has revealed values up to 7.10 g/t Au and 97.70 g/t Ag. The new zones are referred to as Quebrada, Las Marias, SW Plan de Las Minas, SE Plan de Las Minas, and Cerro de La Flor. A limited Reverse Circulation (RC) drilling program (five holes) tested the Quebrada, Las Marias and Cerro de La Flor zones in late-1997 and early-1998."

Since 2003, Pacific Rim has collected 93 surface rock samples from the southern part of the Plan de las Minas area, bringing the total for that part of Plan de las Minas to 185. Most of Pacific Rim's new samples are described as selected channel samples, with lengths in the range 0.1 to 0.6 m, collected from veins and veinlets.

The average gold and silver grades of the surface rock samples from Plan de las Minas are amongst the highest from the El Dorado Project area. Compare for example the histograms and statistical parameters in Figure 9.9, to those for the Northern Sub-District (Figure 9.3) and to those for the Hacienda Vieja Area (Figure 9.6).

Figure 9.9 Histograms, Surface Rocks in Plan de las Minas South



Variable	N	Mean	Median	Std.Dev.	Min	Max	Q1	Q3
Au (g/t)	185	1.638	0.310	6.707	0.009	80.89	0.084	1.005
Ag (g/t)	185	12.22	2.10	68.153	<0.10	885.6	0.50	6.35

Statistical parameters are arithmetic

Pacific Rim has drilled 2 holes near the southern edge of the Plan de las Minas area, P04-303 and P04-305. A 1994 hole by a prior operator was drilled about 150 meters north of the Pacific Rim holes. Results for the 3 drill holes are summarized in Table 9.5.

Table 9.5 Drill Hole Intercepts in the Plan de las Minas South Area

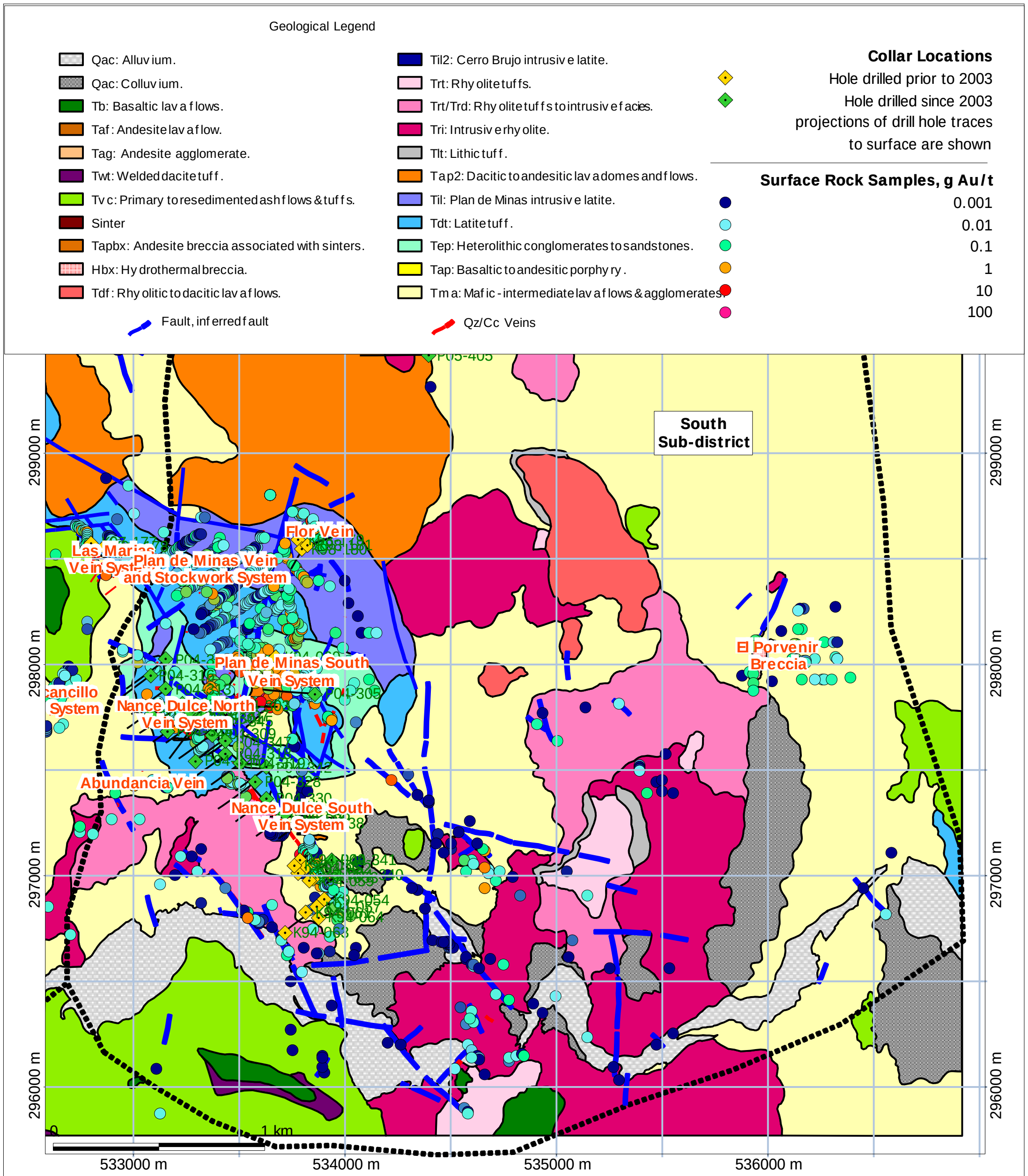
Drill Hole	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)
K94-060	68.70	68.80	0.10	3.080	11.20
K94-060	76.90	77.10	0.20	5.950	25.40
K94-060	152.15	152.35	0.20	7.400	23.50
P04-305	290.95	292.40	1.45	1.485	1.70

Notes: Only intervals exceeding 1 g Au/t are shown. Intervals are composited on a length-weighted basis allowing up to 1 m of internal waste.

Lengths shown are drill intercepts, not true widths.

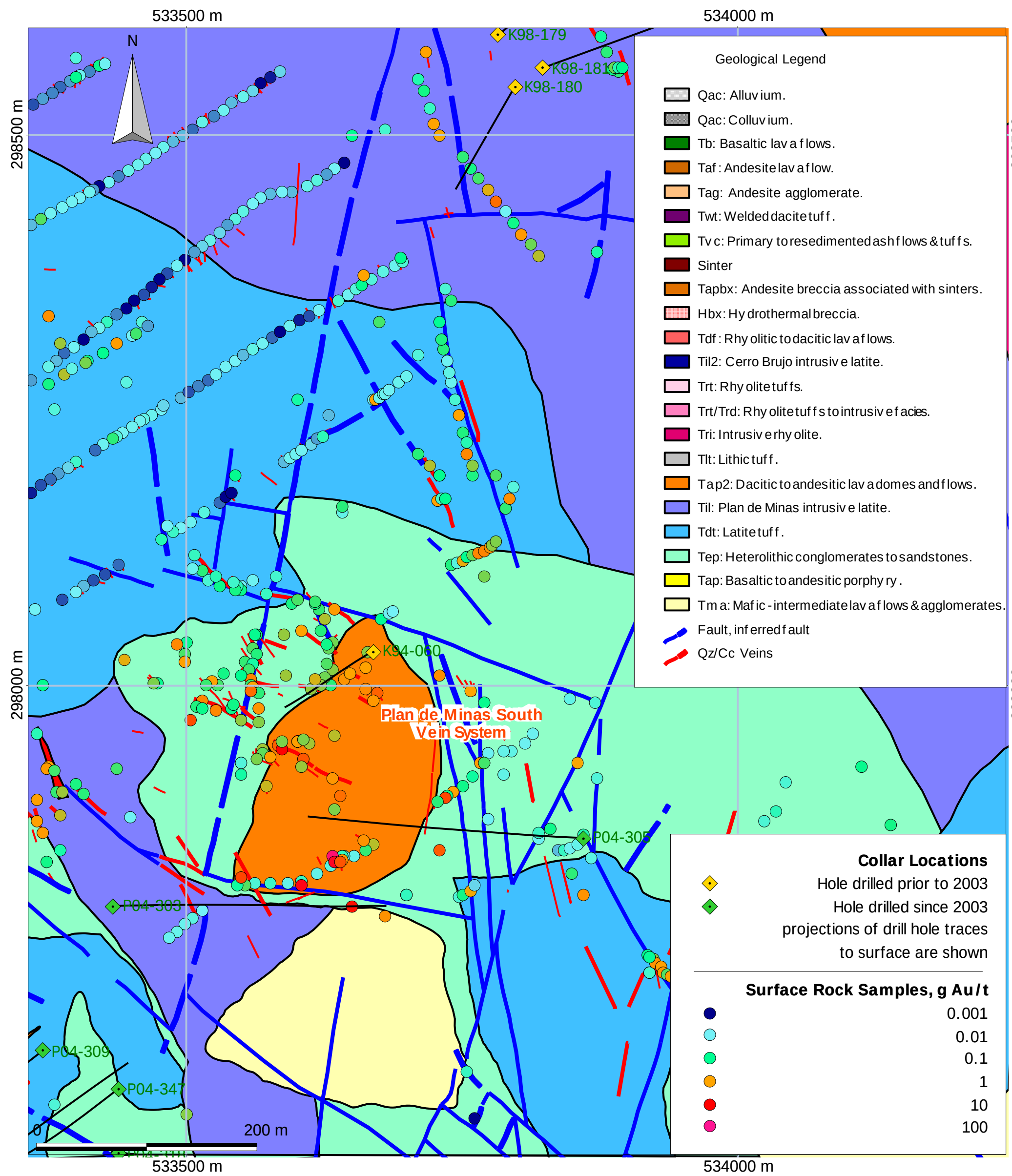
The 3-hole drill test of the southern part of Plan de las Minas does not explain the relatively high grades obtained from the surface, and is a small amount of drilling for the size of the area. Scope remains for further exploration.

Figure 9.10 South Sub-District



El Dorado Project	Compiled By: PAR	South Sub-District	El Salvador National Grid based on NAD 27	Figure: 9.10
Pacific Rim El Salvador S.A. de C.V.	Data by: Pacific Riim			12-Jul-06

Figure 9.11 Southern Plan de Las Minas Area



El Dorado Project	Compiled By: PAR	Southern Plan de las Minas	El Salvador National Grid based on NAD 27	Figure: 9.11
Pacific Rim El Salvador S.A. de C.V.	Data by: Pacific Riim			12-Jul-06

10.0 EXPLORATION

The more than a decade-long period of recent exploration on the El Dorado project includes extensive mapping of mineralized structures, lithogeochemical sample collection, trenching and drilling. There have been numerous ancillary studies including environmental baseline work. The results of the exploration work are described in the discussions of the individual exploration targets in Ronning (2003). Recent work done since the 2003 report is described in relevant parts of Section 9.0 of this report. The present section includes only a summary of the work done.

10.1 Geological and Geochemical Survey

Geologic mapping to varying levels of detail, done by Pacific Rim and its predecessors, covers approximately 4,400 hectares of the now nearly 16,000 hectare property, including most of the known vein systems. Digital maps have been generated at scales ranging from 1:1,000 to 1:10,000. In addition, the project archives contain numerous individual maps of trenches, veins and target areas at various scales. Volumes of this older historic mapping and sampling data have been digitized, geo-referenced to an accurate “true earth” coordinate system and compiled into Pacific Rim’s GIS database. Pacific Rim’s geologists continue to do supplemental mapping and sampling, filling gaps, resolving geologic problems as they arise, and mapping new discoveries. And most importantly, the geologists continue to discover previously unrecorded veins.

As of April 2006, the El Dorado Project database contained results for about 3,980 rock samples collected from within the El Dorado Project area. Pacific Rim’s predecessor operators collected approximately 2,360 of the samples and Pacific Rim’s exploration crews collected the remainder. The samples are described as channel samples, chip channel samples, selected chips, random chip samples and grab samples. It is believed that in almost all cases, and certainly in the case of Pacific Rim’s samples, the sampling was done by company geologists or by local laborers working under the direct supervision of company geologists.

10.2 Trenching

Hand trenching is a common method of exposing bedrock in areas of extensive soil cover. For the most part it is done on a small scale using local labor, although Pacific Rim’s predecessor operators did some bulldozer trenching. In the project database, 541 of the surface rock samples are identified as being from trenches. An additional 483 samples are contained in a database labeled as “Old Trench Samples”. They are not included in the discussions in this report. These samples appear to have been analyzed using less sensitive methods than the samples included in the main surface sample database, so the authors did not to include them.

11.0 DRILLING

Several campaigns of drilling have been completed on the El Dorado project throughout the last 14 years, by Pacific Rim and by preceding operators. Pacific Rim began drilling at El Dorado in May, 2002 and this campaign is still in progress as of this writing. The drilling database used in the preparation of this report was current as of the end of April, 2006. A map of the drill holes in the resource areas is given in Figure 11.1. The majority of the holes drilled on the El Dorado project are core holes.

Table 11.1 Descriptive Statistics of the El Dorado Project Drill Database

	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Hole	465							
East	26,568					530,900	535,982	
North	26,568					296,742	307,503	
Elevation	26,568					-178	699	
From	26,568					0.0	587	m
To	26,568					0.6	601	m
Length	26,568	1.3	5.5			0.01	539	m
Au-Average	19,027	0.15	1.22	5.68	4.66	0.00	306.30	g Au/t
Ag-Average	18,908	1.00	8.43	42.77	5.07	0.00	2809.80	g Ag/t
Au Equivalent	18,906	0.17	1.34	6.24	4.64	0.00	346.44	g AuEq/t
AgAu Ratio	18,893	7.84	19.93	105.31	5.28	0.00	12334.86	
Core Recovery	10,829	100	99	7	0	0	100	%
RQD	15,679	79	72	30	0	0	108	%
Vein Width	2,103	2.00	2.91	2.15	0.74	0.03	9.40	m

"-Average" is the average of all check and duplicate samples for an interval

According to Snider *et. al.* (1996), reverse circulation (RC) drilling was employed to pre-collar some core holes, but was also used to drill seven complete holes at Nueva Esperanza an earlier drill campaign. It is apparent that down-hole contamination occurred in the course of the reverse circulation drilling. This was considered in the selection of drill samples used in resource estimation. Core drilling is the only method now in use on the project.

Discussions of the drilling procedures and the core recovery follow in Sections 11.1 and 11.2 The results of the drilling campaigns are integrated into the discussions of the geology in Section 7.2, the mineralization in section 9.0 and the resource estimates in Section 17.0.

The proportional relationship between the length of a drill-hole intercept and the true thickness of the intersected body varies with each mineralized intercept. The best estimates of the true dimensions of mineralized veins are an integral part of the resource estimation process discussed in Section 17.0. The issue of "true thicknesses" is not addressed here, except to note that drill holes almost always intersect the veins at some angle less than 90°, so that drill hole intercepts are longer than true thicknesses. Standard trigonometric or graphical methods are used to estimate true thicknesses.

CAD CONTROL BLOCK REF:\\Stever\projects\El Dorado\Reports\2006\43-101Related\Figures\Figure11-1_dhmap6.dwg
DATE:13-Jul-06

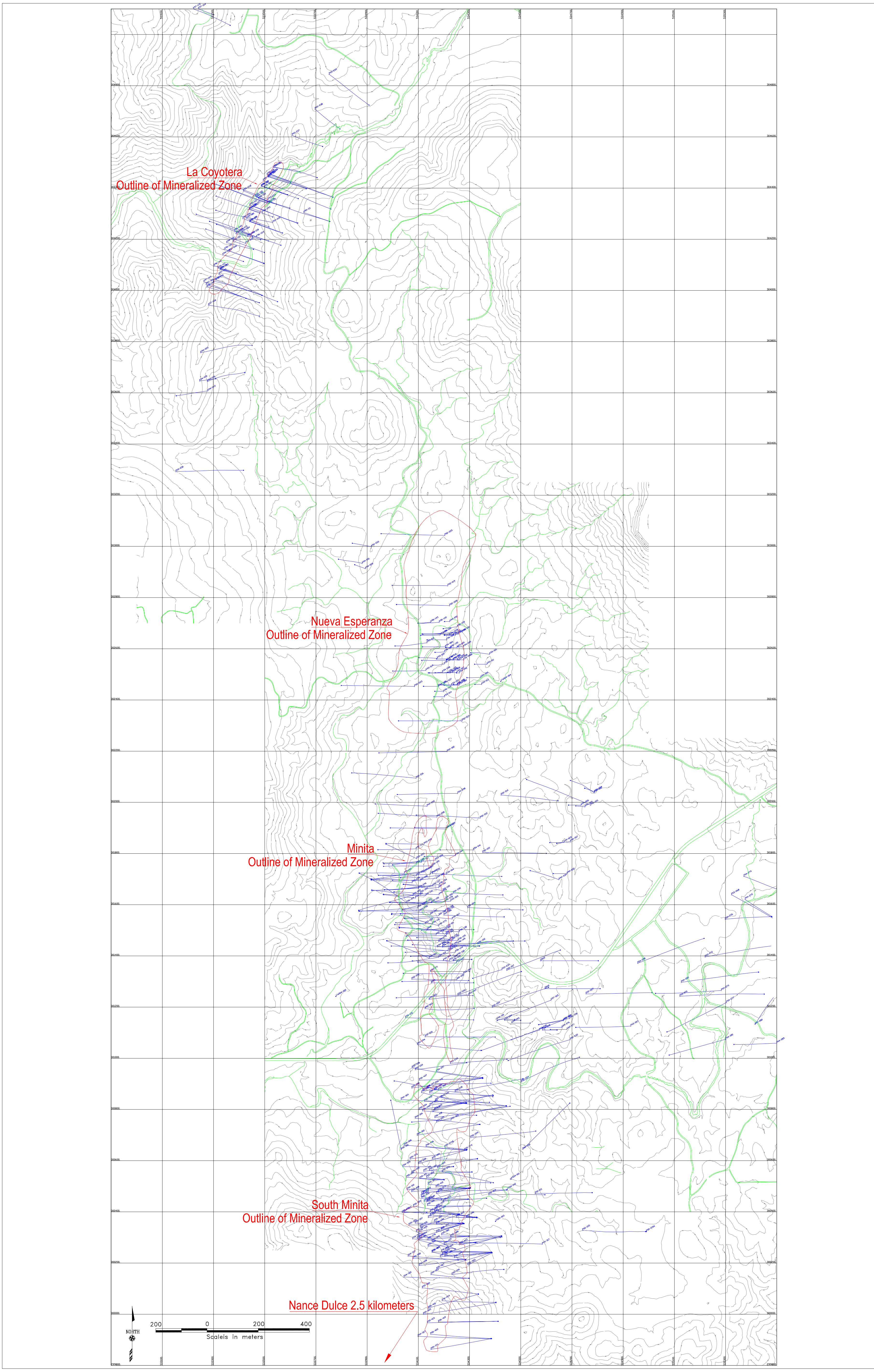


FIGURE NO. 11-1

PACIFIC RIM CORPORATION
El Dorado Project
Drill Hole Map

Dept. of Cabañas | El Salvador

MINE DEVELOPMENT ASSOCIATES
Reno | Nevada

DATE	01-JUL-2006
DRAWN BY	S Ristorcelli
CHECKED BY	MDA
SCALE	As shown

11.1 Drilling Procedures

At present core drilling is done using HQ equipment that produces 63.5 mm diameter core. If it is necessary to reduce to a smaller diameter to overcome drilling difficulties, NQ equipment is used, producing 47.625 mm diameter core. In order to better monitor and control core recovery in bad ground conditions, a split core tube is used. This device allows the core to be removed from the drill tube with less disruption than might be the case with more conventional equipment. The core is placed in specially-designed, 1.2 m-long wooden core boxes at the drill site. Special "closed" boxes are used when the core is extremely broken to reduce shifting and contamination within the box. However, instances of such bad ground conditions have been rare in Pacific Rim's experience and have never been encountered in the productive vein areas.

Drillers measure the core recovery and collect RQD data before the core is broken up and put into the core boxes. Loaded core boxes are trucked to Pacific Rim's core logging, sampling and storage facility in the El Dorado mine area.

The down-hole orientations of the drill holes have been measured using various instruments during the history of the project. The instruments used measured hole direction and inclination. From 2003 until recently the instrument in use was a digital down-hole survey device called a Reflex™. The drillers did the down-hole surveys. Measurements were taken approximately every 50 m down the hole. After the measurement at the bottom of the hole, measurements were repeated approximately every 50 m as the instrument was raised back up the hole. The drillers recorded raw azimuth data, uncorrected for declination. All survey data were recorded on drillers' daily logs as well as special survey forms. Both the driller and a helper were supposed to confirm the digital reading and recordation of each survey. If excessive deviation occurred, the driller was expected to repeat the survey. Down and up surveys were compared by Pacific Rim staff and, where duplicate intervals overlapped, an average was recorded in a master compilation. Both raw survey and declination corrected values were recorded.

Serious discrepancies were rare but did occur. After consultation with the driller representative, Pacific Rim personnel recorded a corrected survey reading. The correction methodology was recorded in the survey section of the original drill-hole archives. Discrepancies in pre-Pacific Rim data, when identified, have also been recorded in the above manner. Generally, the bad survey data are discarded and the average of a previous and later survey are recorded.

At the time of MDA's visit to the project in April of 2006, Pacific Rim was in the process of switching to the use of a Flexit™ down-hole instrument. This instrument is capable of collecting a nearly continuous series of orientation measurements as it is pulled up the drill hole. Recording is done automatically, into a memory module, and Pacific Rim staff subsequently load the data into the company's digital database.

Since 2003, Pacific Rim has used a differential GPS for surveying drill collars and other survey work. Before this, collars were surveyed by contract surveyors. After drill holes are completed, the collar locations are marked with poured concrete blocks.

Pacific Rim photographs drill core from the principal and significant vein sections, and from other intervals where samples or geotechnical data are collected, when drilling in or stepping out from known resource areas. Core from new exploration areas is not generally photographed unless a significant vein or alteration interval is intercepted. Due to recent pressure to complete drilling and logging in shorter time frames, a less than ideal amount of core has been photographed recently, and Pacific Rim should return to the more extensive photographing they had been doing in the past.

11.2 Core Recovery

Historically, core recovery issues have played a large role in the evaluation of the El Dorado project. In some cases, core recovery had been used in factoring grades and tonnages in resource estimates. Hence, a detailed discussion and analysis of this issue is given here, which presents analyses and conclusions which in some cases differ from historic “remedies” for poor core recovery.

While reading this section, the reader should be aware that overall core recovery in Pacific Rim’s drilling is very good. Table 11.2 gives a breakdown of core recovery in total and by campaign as of June 2003. To a large extent the success of Pacific Rim’s drilling program is due to the fact that it is using the same drilling company and group of drillers that drilled all previous holes in the El Dorado area since Mirage acquired the project.

This section remains the same as in previous reports as the issue with core recovery has been pretty well mastered. For example, core recovery at South Minita where the bulk of the drilling since 2003 has taken place is 99.5% for all samples coded to a modeled vein.

Table 11.2 Core Recovery by Campaign

	Valid N	Median	Mean	Std. Dev.	CV	Min.	Max.	Units
DDH*	127	98	90.8	21.9	0.24	5	100	%
Kinross	4,633	100	90.4	19.5	0.22	0	100	%
Dayton	285	100	94.9	16.4	0.17	5	100	%
Pacific Rim	2,005	100	99.1	5.8	0.06	26	100	%
San Matias Area	144	100	82.5	26.0	0.31	4	100	%
All Groups	7,194	100	92.1	18.1	0.20	0	100	%

* Four drill holes predating Kinross

The five deposits whose resources are described in this report, Nueva Esperanza, La Coyotera, Minita, South Minita and Nance Dulce, differ from one another in some of their geological characteristics. These geologic differences impact core recovery differently and could affect core recovery’s influence on *potential* sample bias differently. Hence, core recovery is discussed individually for each of three of the deposits: Minita, La Coyotera, and Nueva Esperanza. South Minita and Nance Dulce have core recovery characteristics similar to Minita.

11.2.1 Core Recovery at the Minita Deposit

Higher-grade mineralization at the Minita deposit is related to banded chalcedony veins. Within this material type alone, there should be no preferential bias caused by core loss. However, if this high-grade quartz is associated with calcite, the softer calcite *may* be preferentially lost, thereby potentially introducing a positive bias to grade estimates. Table 11.3 shows that grades initially decrease with lower core recovery down to 90% and then the grades *on average* increase. However, there is no statistically significant relationship, as the average increase is caused by a few outlier samples. Figure 11.2 through Figure 11.5 demonstrate this relationship graphically. There are four sets of data on each graph. “AuAvg” and “AgAvg” are the mean grades of gold and silver for each 5% increment in core recovery. “All Groups” is the mean grade of all core recovery increments. “% Relative Difference” is the relative difference in grade of that particular core recovery increment compared to the “100%” core recovery increment grade.

This non-systematic relationship between grade and core recovery suggests that core recovery cannot be used to factor grade. Furthermore, one cannot arbitrarily eliminate all samples with less than, say, 40% core recovery because doing so would introduce a positive bias to the sample set. Nevertheless, the confidence in samples with extremely low core recovery is minimal. For this reason, MDA has opted to eliminate the use of all samples with core recovery of less than 25%, while those blocks estimated from samples with core recoveries that average less than 80% will be classified no higher than Indicated.

Table 11.3 Core Recovery and Grade – Minita Deposit

All El Dorado Mine Resource Area Samples (greater than 1 g Au/t and 5 g Ag/t)

Core Rec. (%)	AuAvg Mean	% Relative Difference	Grouped (mean/diff%/N)	AgAvg Mean	% Relative Difference	Grouped (mean/diff%/N)
0	23.20	231%	11.74	185.00	265%	63.56
5	17.56	151%	68%	76.00	50%	25%
10	2.57	-173%	24	16.40	-209%	24
15	10.89	55%		60.04	18%	
20	4.70	-49%		14.09	-260%	
25	4.17	-68%		16.38	-210%	
30	2.00	-250%	15.33	13.50	-276%	101.80
35	2.55	-175%	119%	19.13	-165%	101%
40	42.15	501%	30	339.40	570%	30
45	20.10	187%		145.07	186%	
50	11.29	61%		39.54	-28%	
55	6.77	-4%		25.78	-97%	
60	7.13	2%	14.98	70.28	39%	103.93
65	12.65	81%	114%	89.75	77%	105%
70	12.04	72%	71	67.64	33%	71
75	36.92	427%		229.42	353%	
80	14.59	108%		94.27	86%	
85	8.20	17%		74.09	46%	
90	6.56	-7%	-10%	41.17	-23%	-7%
95	6.16	-14%	73	49.92	-2%	73
100	**7.01**	**0%**	**593**	**50.69**	**0%**	**593**
All Groups	8.11			57.49		

% Relative Difference of the increment over the 100% group

Figure 11.2 Core Recovery and Gold Grade – Minita Deposit

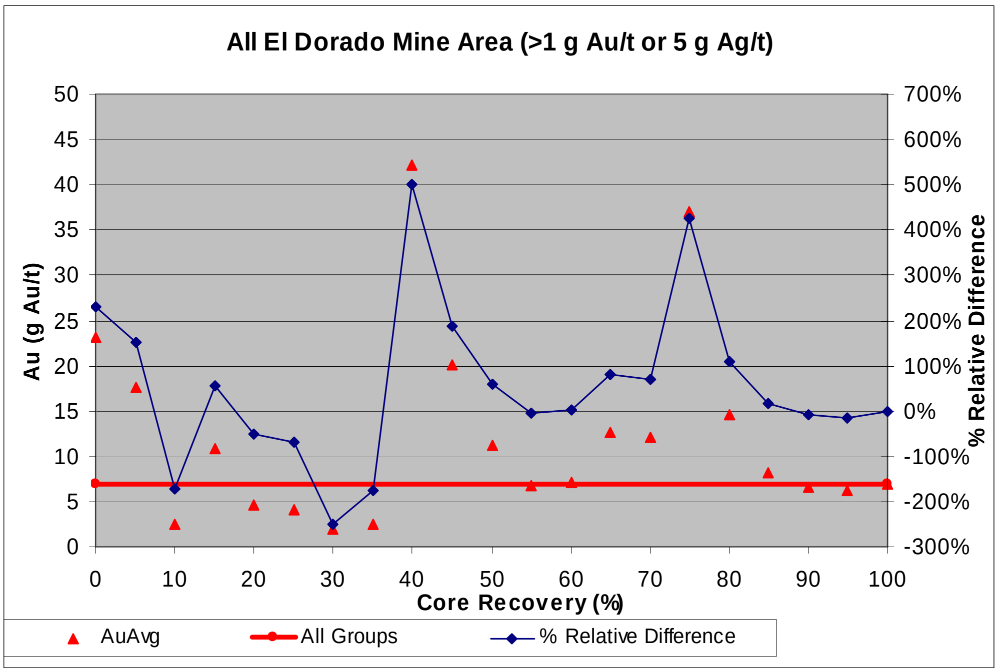


Figure 11.3 Core Recovery and Silver Grade – Minita Deposit

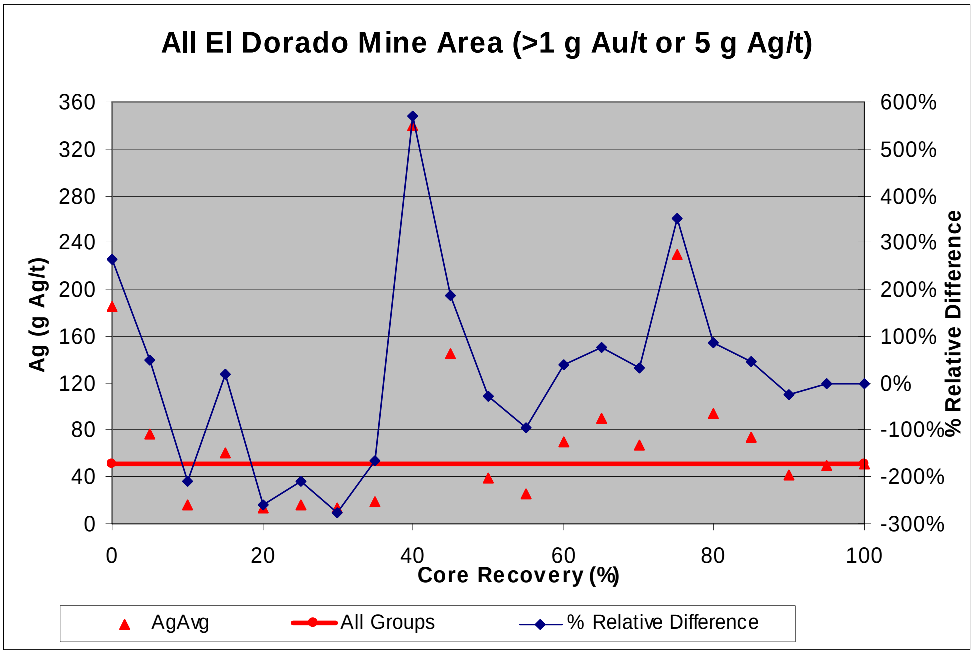


Figure 11.4 Core Recovery and Gold Grade Scatterplot– El Dorado Mine Area

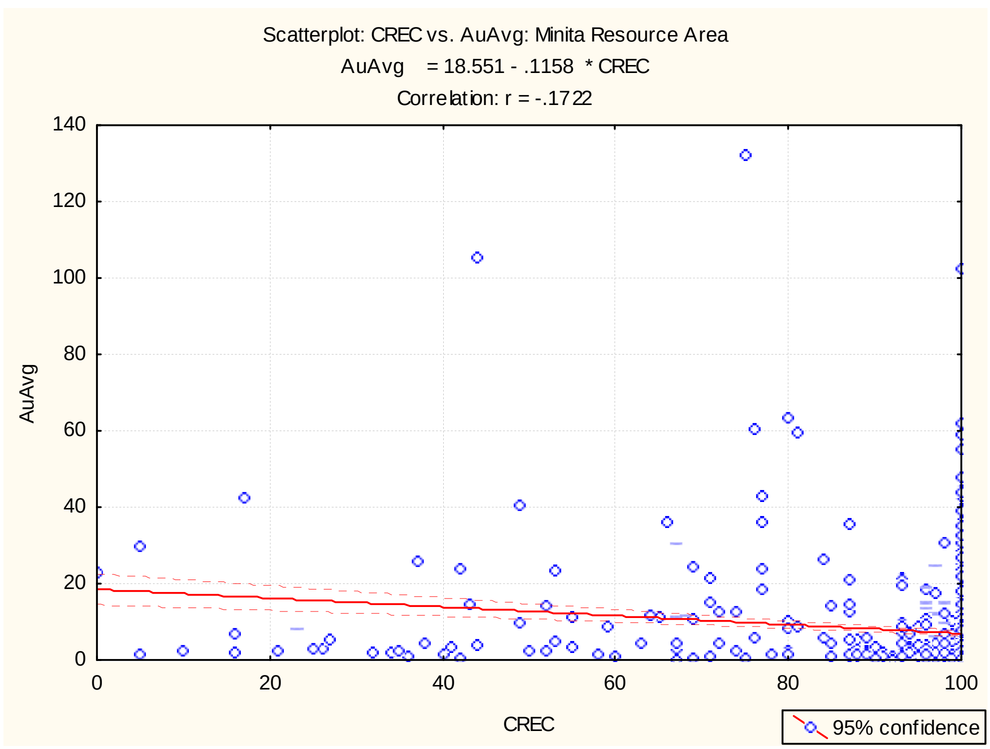
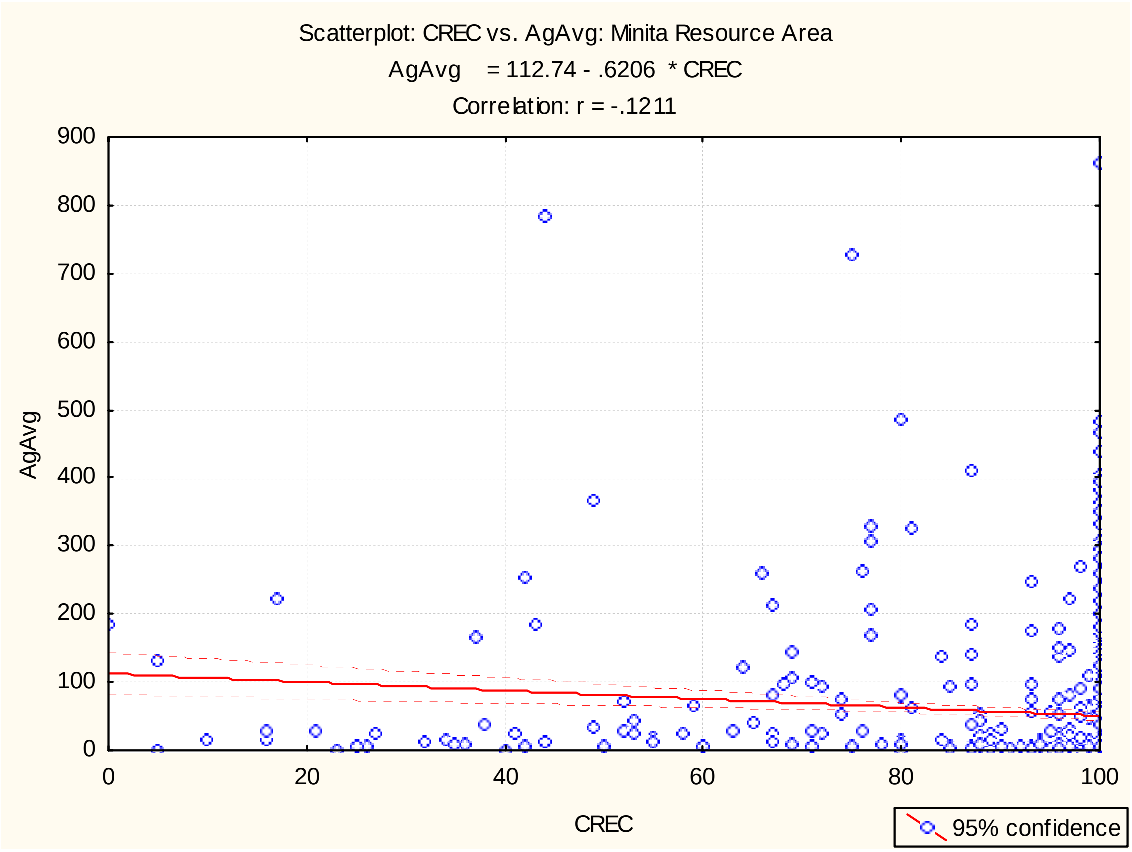


Figure 11.5 Core Recovery and Silver Grade Scatterplot– Minita Deposit



11.2.2 Core recovery at the Nueva Esperanza Area

Contrary to the findings at the Minita area, the geology at Nueva Esperanza could *potentially* introduce a bias through its effect on core recovery. Higher-grade mineralization at Nueva Esperanza is related to quartz vein material occurring within andesite, which is often clay-altered. This contrast in mineralogy *could* introduce a bias if, during drilling, the clays are washed out and the higher grade quartz vein material is retained. Table 11.4 demonstrates that, on average, lower core recoveries have higher grades but again, a statistically significant set of data does not exist (Figure 11.6 through Figure 11.9). The analysis in Table 11.4 also shows that silver and gold do not behave similarly with respect to core recovery. The gold grades from samples with low core recoveries are normally above the mean of all assays, and silver grades from samples with very low core recoveries are above the mean for all silver samples, but silver grades from samples with moderately low core recoveries do not have materially higher grades. There are four sets of data on each graph. "AuAvg" and "AgAvg" are the mean grades of gold and silver for each 5% core recovery increment. "All Groups" is the mean grade of all core recovery increments. "% Relative Difference" is the relative difference in grade of that particular core recovery increment compared to the "100%" core recovery increment grade.

Because of the tendency for erratic relationships between low core recovery and grades and because of the geologic features described above, samples with core recovery of less than 25% will be excluded from resource estimation and no material will be classified as Measured if a block is estimated from samples whose average core recovery is less than 80%. Figures 11.6 through 11.9 demonstrate this relationship graphically.

Table 11.4 Core Recovery and Grade – Nueva Esperanza Area

All Nueva Esperanza Samples greater than 1 g Au/t and 5 g Ag/t

Core Rec. (%)	AuAvg Mean	% Relative Difference	Grouped (mean/diff%/N)	AgAvg Mean	% Relative Difference	Grouped (mean/diff%/N)
0			2.32			11.65
5	7.84	158%	-23%	35.66	73%	-43%
10			9			9
15						
20	0.61	-398%		3.15	-552%	
25	1.10	-176%				
30			4.86			36.81
35	3.94	30%	60%	20.47	0%	79%
40	5.73	89%	48	50.43	145%	48
45	2.02	-50%		11.75	-75%	
50	2.19	-38%		22.97	12%	
55	5.71	88%		37.06	80%	
60	2.95	-3%	4.37	22.17	8%	26.57
65	5.71	88%	44%	50.86	147%	29%
70	3.41	12%	74	17.10	-20%	74
75	4.51	49%		23.46	14%	
80	1.83	-66%		10.58	-94%	
85	5.85	93%		25.76	25%	
90	5.91	94%	23%	11.42	-80%	-41%
95	2.52	-21%	31	12.45	-65%	31
100	**3.04**	**0%**	**129**	**20.56**	**0%**	**129**
All Groups	3.73			23.59		

% Relative Difference of the increment over the 100% group

Figure 11.6 Core Recovery and Gold Grade – Nueva Esperanza Area

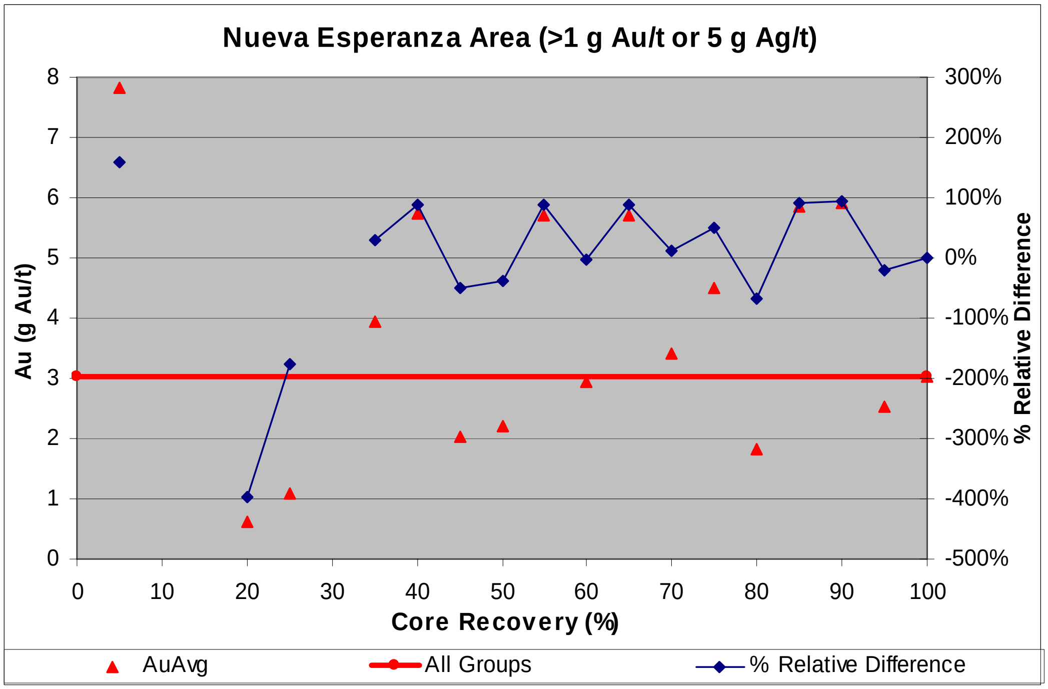


Figure 11.7 Core Recovery and Silver Grade – Nueva Esperanza Area

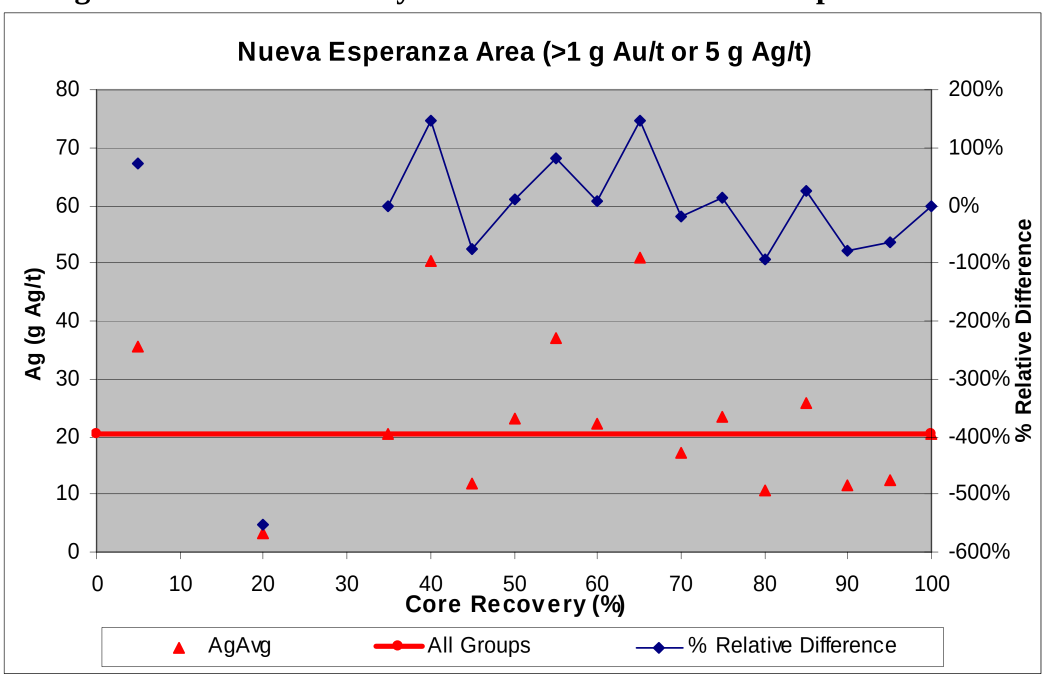


Figure 11.8 Core Recovery and Gold Grade Scatterplot – Nueva Esperanza Area

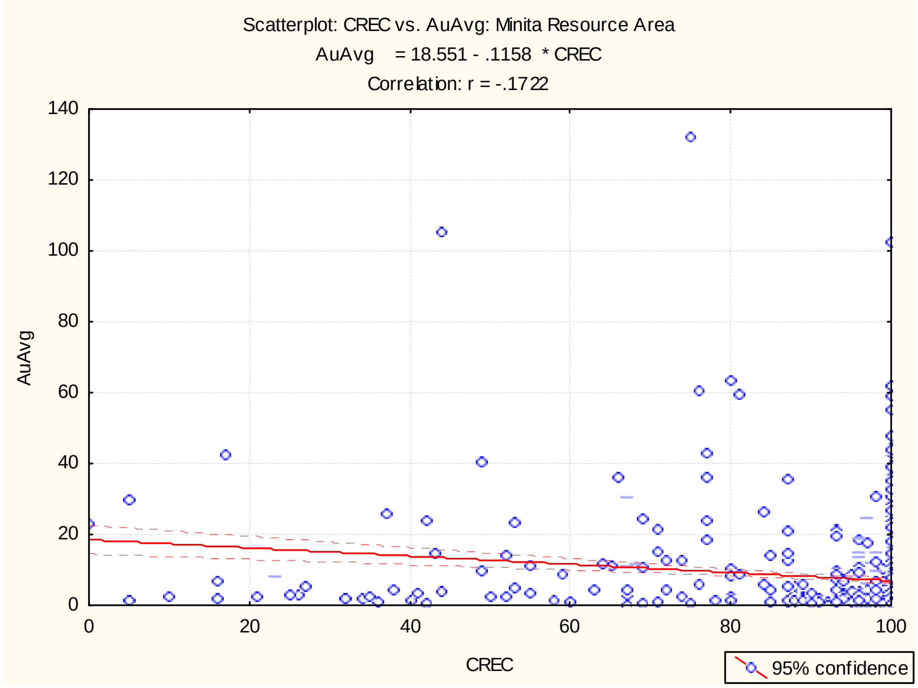
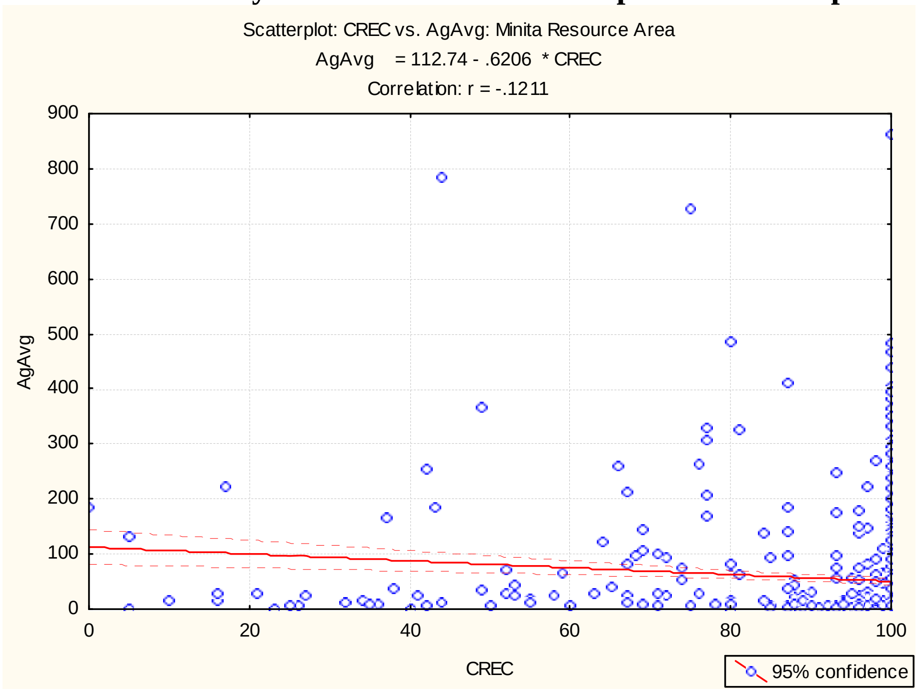


Figure 11.9 Core Recovery and Silver Grade Scatterplot – Nueva Esperanza Area



11.2.3 Core Recovery at the La Coyotera Area

Higher-grade gold mineralization at La Coyotera is preferentially associated with quartz veining. This veining is located within a wide zone of brecciated vein material, sometimes with calcite (presumed to be, in general, lower grade). This by itself does not suggest that grade biases might exist with core recovery. In fact, there is no relationship with grade and core recovery in the La Coyotera database as shown in Table 11.5 and Figure 11.10 through Figure 11.13. Rather, grades remain relatively consistent down to core recoveries of below 25%. There are four sets of data on each graph. "AuAvg" and "AgAvg" are the mean grades of gold and silver for each 5% core recovery increment. "All Groups" is the mean grade of all core recovery increments. "% Relative Difference" is the relative difference in grade of that particular core recovery increment compared to the "100%" core recovery increment grade.

MDA has opted, based on these analyses and geologic environment, to eliminate all samples with core recoveries of less than 25% from resource estimation while those blocks estimated from samples with core recoveries of less than 80% will be classified no higher than Indicated.

Table 11.5 Core Recovery and Grade – La Coyotera Area

All Coyotera Samples greater than 1 g Au/t and 5 g Ag/t

Core Rec. (%)	AuAvg Mean	% Relative Difference	Grouped (mean/diff%/N)	AgAvg Mean	% Relative Difference	Grouped (mean/diff%/N)
0			6.28			54.30
5			59%			84%
10	1.24	-220%	43	28.63	-3%	43
15	10.01	153%		46.17	56%	
20	15.37	289%		154.02	422%	
25	4.58	16%		41.91	42%	
30	6.61	67%	4.27	68.90	133%	43.48
35	5.06	28%	8%	51.88	76%	47%
40	4.27	8%	175	38.46	30%	175
45	2.93	-35%		37.03	25%	
50	3.55	-11%		30.05	2%	
55	4.68	18%		53.82	82%	
60	4.81	22%	3.40	58.99	100%	38.68
65	2.18	-82%	-14%	28.66	-3%	31%
70	3.05	-30%	222	28.96	-2%	222
75	3.56	-11%		44.58	51%	
80	2.88	-37%		42.75	45%	
85	4.02	2%		29.79	1%	
90	3.83	-3%	17%	30.99	5%	-3%
95	5.41	37%	73	26.54	-11%	73
100	**3.95**	**0%**	**481**	**29.52**	**0%**	**481**
All Groups	4.04			35.04		

% Relative Difference of the increment over the 100% group

Figure 11.10 Core Recovery and Gold Grade – La Coyotera Area

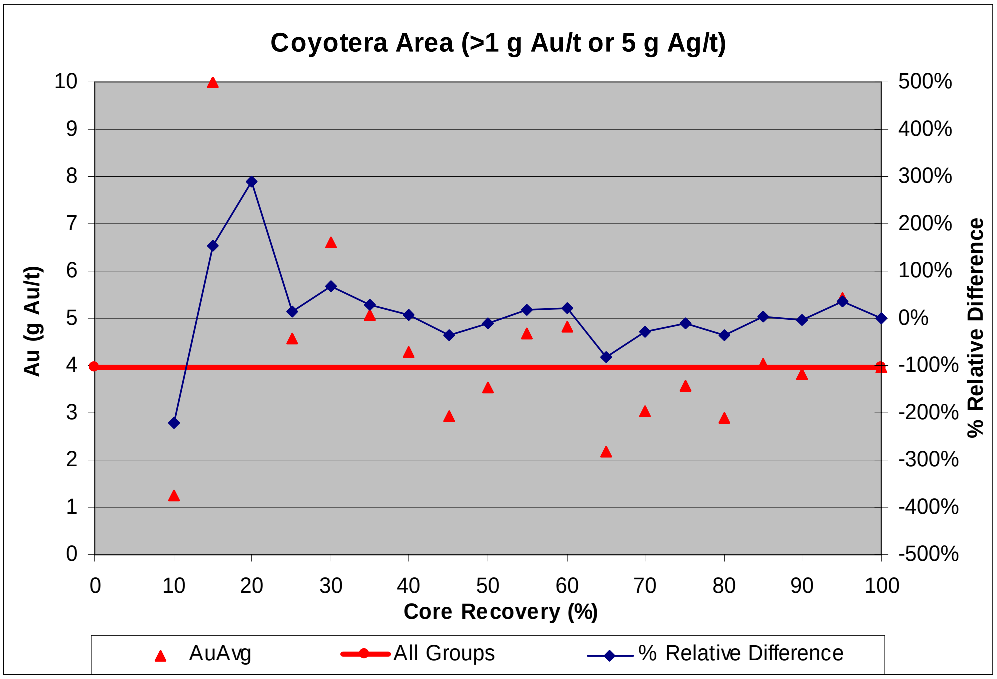


Figure 11.11 Core Recovery and Silver Grade – La Coyotera Area

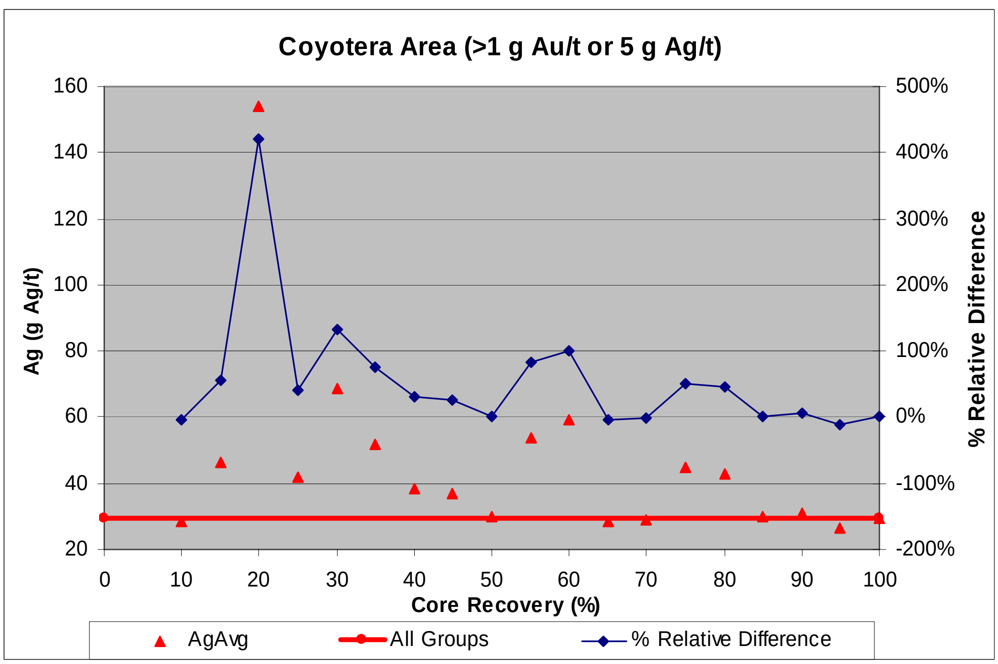


Figure 11.12 Core Recovery and Gold Grade Scatterplot – La Coyotera Area

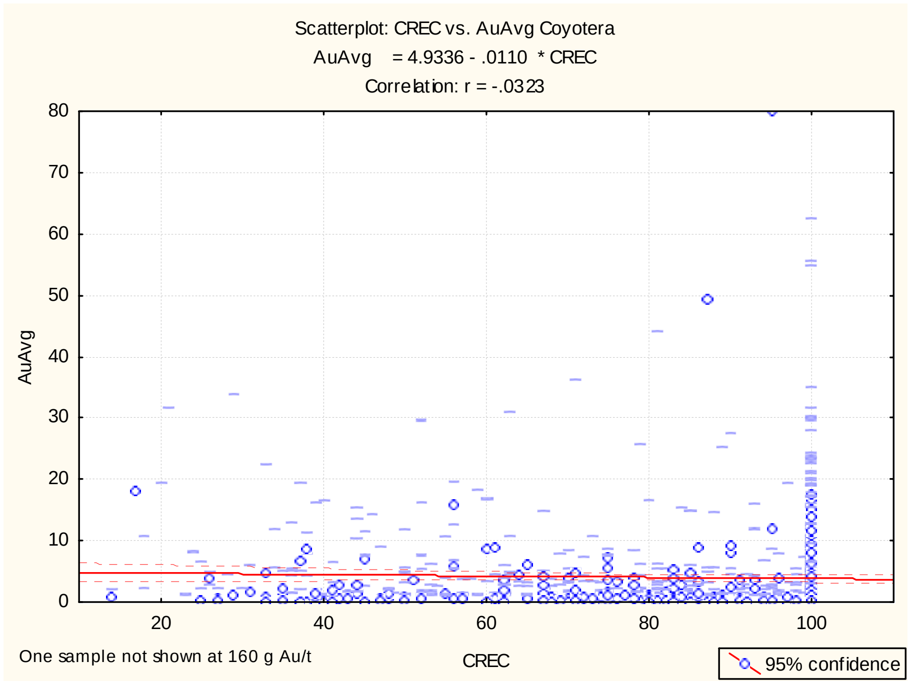
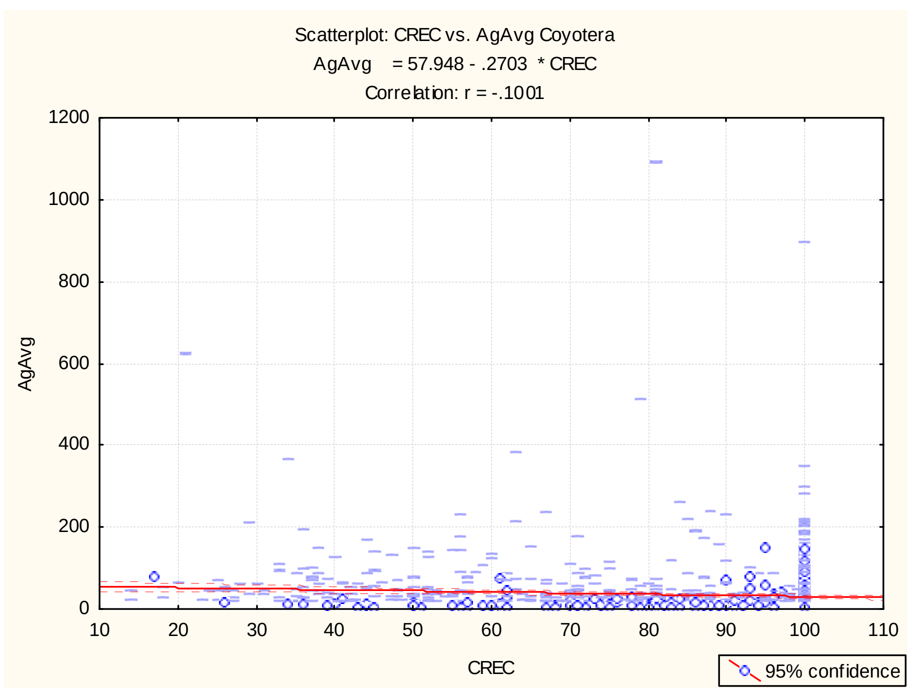


Figure 11.13 Core Recovery and Silver Grade Scatterplot – La Coyotera Area



12.0 SAMPLING METHOD AND APPROACH

Overall, the sampling procedures used by and geologic logging done by Pacific Rim are considered at or above industry standards and are producing a dataset of sufficient quality to produce resource estimates.

12.1 Pacific Rim Samples

12.1.1 Surface Samples

Ronning (2003) wrote "*The sampling method used by Pacific Rim field personnel varies with the purpose of the sample. Geologists doing initial reconnaissance or prospecting may collect selected grab samples from new discoveries. Such samples would be intended only to determine if minerals of interest are present, not to estimate grades for any volume of material.*

For more systematic sampling, outcrops are cleaned off and in some cases shallow hand trenches are dug. Continuous chip samples are collected over intervals selected by a geologist. In most cases local laborers do the sampling, under a geologist's supervision. The manner of sampling is recorded in field notes and is entered into the digital database of surface samples."

From the beginning, Pacific Rim has taken GPS readings at all sample sites. In addition, most trenches are photographed.

12.1.2 Samples from Drill Core

The geologists who log the drill core select the intervals to be sampled as they log. Sampling is done by local employees of Pacific Rim, under the direction of the geologists. The logging geologists and samplers are well trained and have extensive experience. The principal logging geologist as well as the core samplers have been on the project since at least 1997, and all have extensive knowledge of the rock types, sampling techniques and overall procedures. This results in excellent backward compatibility and comparisons with older data recorded by previous operators. The core is sawn in half along its axis, using a water cooled rock saw. Care is taken to choose the saw cut that will be most representative. In instances where core is too broken to be sawn, the fragments to be included in the sample are selected by hand, with care to keep the sample as representative as possible. Ronning (2003) reported that Pacific Rim's immediate predecessor operator, Dayton Mining, also used a rock saw for sampling core from the 13 holes it drilled in 2000. Operators prior to Dayton used a percussion core splitter.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

13.1 Samples Pre-Dating Pacific Rim

The following description of preparation and analytical procedures is derived from the El Dorado Feasibility Study, 2001:

> *From July 1993 until April 7, 1994, all gold and silver analyses were performed by Skyline Labs (Skyline) of Wheatridge, Colorado, U.S.A. Subsequently, all work was moved to Cone Geochemical, Inc. (Cone) in Lakewood, Colorado, U.S.A. who continued to provide analytical services to the El Dorado project through December 2000.*
>
> *Geochemical analyses performed by Skyline included Hole Nos. K93-1 through K94-37 and samples 0 through approximately 1,100. The samples were analyzed by gravimetric fire assaying.*
>
> *All core, reverse circulation cuttings, rock, and soil samples collected between April 7, 1994, and the time of the 2000 feasibility study were analyzed by Cone. Between April 7 and September 20, 1994, primary reduction of sample volume was done by Cone. In brief, gold was determined by Fire Assay with an AA (Atomic Absorption) finish. The detection limit is 0.001 ppm (1 ppb).*
>
> *During the 1994 to 2000 period all samples were dried, crushed to 90% passing at 10 mesh and split at the sample preparation facility located at the El Dorado mine. The facility, which consists of a drying oven, Rhino 6-inch Jaw Crusher, crushing hood with blowers, and a sample splitter, was purchased from Alicanto Minerals in San Jose, Costa Rica. The facility is staffed by two local employees who were instructed in sample preparation procedure and maintenance by Mr. Craig Barr of X-Ral Laboratories located in Hermosillo, Mexico.*
>
> *All samples were split down to a mass of approximately 600 g. This volume was split, with one half shipped to Cone for analysis while the other half is stored at the El Dorado mine.*
>
> *The results from several stages of check assay programs beginning in early-1994 did not reveal any obvious concerns regarding the process of sample collection, sample preparation or with the assaying. Internal checks along with checks between other labs such as Skyline Labs, Rocky Mountain Labs of Colorado, U.S.A. and most recently Chemex Labs (Chemex) and Bondar Clegg Labs (Bondar) both of Vancouver all showed good correlation with the initial results from Cone.*
>
> *An in-house check assay program was also developed to investigate the sample preparation procedures at the El Dorado sample prep lab. Approximately 100 samples were selected from the 300 g splits which are stored at the El Dorado site. The mean difference between the*

original split and the stored split is 1.37%, which indicates good correlation between the two sets.

Beginning in 1996 "blank" samples composed of sterile andesite or tuff were inserted systematically but at random positions into the assay stream at the rate of one every ten samples as a check on performance at the El Dorado prep lab. The assays of 103 "blank" samples ranged from <0.001 ppm Au to 0.257 ppm Au with an average assay of 0.009 ppm Au. Beginning with the May, 2000 drilling program, in conjunction with "blank" samples, one of three standard samples prepared from El Dorado vein material was inserted into the assay stream at the rate of one every 25 samples. The average difference between the inserted standard and the standard's pre-established value (A – 2.43 g/t Au; B – 8.40 g/t Au; or C – 20.23 g/t Au) for Au was 2.35%, indicating good correlation.

In September 2000 a check assay program was completed. The program was comprised of 55 samples collected from Hole Nos. D00-190 to –202. Twenty-two of these samples were sent for re-assay at Cone, 24 of the samples were sent to Bondar, and 25 of the samples were sent to Chemex. The Cone/Cone gold assay checks varied by an average of 0.66%; the Cone/Bondar gold assay checks varied by an average of 0.41%; and the Cone/Chemex gold assay checks varied by an average of 0.04%. Checks on both standards and splits from the same pulp material should deviate by no more than 10% for the assay process to be considered "in control". The results of all check assay programs are located in the Sensuntepeque office.

13.2 Pacific Rim Samples

Inspectorate America Corporation analyzes all of Pacific Rim's samples at its laboratory in Sparks, Nevada. The site and sequence for sample preparation varies depending on whether the sample in question is from the surface or from drill core.

13.2.1 Surface Sample Preparation

Pacific Rim's surface rock samples are crushed at the on-site preparation facility, which is clean and organized. The equipment and sample protocols are listed below:

- **Drying:** All samples (bagged) are placed on drying racks which are then placed in a wooden drying oven equipped with a Modine 20 KW Electric Space Heater and a Dayton ¾ hp Single Inlet Blower. Once samples are thoroughly dried at low temperatures, they are placed and organized on the work tables in preparation for crushing,

- **Crushing**: Samples are crushed using a TM Engineering Rhino Jaw Crusher. The entire sample is crushed to a fineness of -90% passing at -10 mesh. The crusher is periodically tested and adjusted as necessary to maintain the appropriate fineness of crush.

- **Splitting:** The crushed material is then split under a hood equipped with a DCE Volks Dust Collector. The entire sample is split down to less than 600 grams using a Stainless Steel Jones Riffle with ½" chutes. One final split produces two duplicate samples of less than 300 grams each. Each 300-g sample is placed into a 4 in. x 8 in. geochemical paper sample envelope and sealed using wire fasteners. One of the duplicate samples is kept in storage at the sample prep facility while the other is sent off for analysis. The leftover sample (bulk reject) is bagged and stored on site.

Before and after each sample is crushed and split, all equipment is thoroughly blown clean using a compressed air gun. All samples awaiting shipment are maintained in a secure and often locked enclosure under the supervision of the lab manager. Samples are picked up by Inspectorate's Guatemala City affiliate for pulverizing prior to shipment to North America. Rejects and pulps are returned to the El Dorado site for storage.

13.2.2 Drill Core Sample Preparation

Sawn drill core is shipped to Inspectorate's affiliate in Guatemala City, Guatemala, for preparation. Employees of Inspectorate pick up the samples from Pacific Rim at the core processing facility at the El Dorado mine. Once prepared, sub-samples are shipped to Inspectorate's laboratory in Sparks, Nevada for analysis. A flow chart illustrates the sample preparation sequence Appendix C.

13.2.3 Analytical Procedures

Pacific Rim's samples are analyzed at the laboratory of Inspectorate America Corporation in Sparks, Nevada. The methods employed are described in Appendix C.

13.2.4 Sample Security

Formal security procedures used prior to Pacific Rim consisted of maintaining all samples awaiting shipment in the locked sample preparation building under the supervision of the lab manager. The enclosure was located in a fenced compound that was locked at night and weekends and supervised at all times by a live-in security guard. Only authorized personnel were allowed in the compound unless accompanied by an employee. Sample preparation and handling were the same as those protocols and procedures currently in use by Pacific Rim.

In the case of Pacific Rim's operations, the drill core and prepared core samples are under the control of Pacific Rim's employees from the time they are picked up from the drill rig until the time the samples are turned over to Inspectorate's employees at the secure facility.

A permit is required to transport the samples across the border from El Salvador to Guatemala. Some of the sample bags are occasionally opened and the samples inspected by border agents. All pulps and rejects are eventually returned to and stored at the mine site and locked in one of the core storage buildings.

13.3 Quality Control and Quality Assurance

MDA has analyzed quality control and quality assurance ("QAQC") data provided by Pacific Rim.

13.3.1 "Blanks"

Early in its work at El Dorado, Pacific Rim collected a large quantity of unmineralized siliceous sinter from the San Isidro sinter deposit. The results from prior sampling on the surface and in trenches indicated that the sinter material is barren. This material is used as a "blank" that is inserted into the sample stream at a rate of approximately one in every batch of 25 samples. Enough sample material to fill two 55-gal drums was originally taken from the sinter material. In early 2004, Pacific Rim collected a new batch of "blank" sample material, but it is not known when this new sample material began to be inserted in the sample stream.

The sinter material was manually broken up and homogenized on a concrete slab and 15 splits were removed and 5 samples were sent to 3 different labs for testing. These results indicated the material was essentially "blank" with respect to gold. A study in 2003 of these "blank" sample assays indicated that a period of *possible* low-level, laboratory contamination may have occurred. The laboratory was contacted and corrective action was taken in 2003. Continued work on this aspect of the QAQC presents equivocal results suggesting that if there were contamination in the lab, it would be sporadic, nominal, and not necessarily from sample preparation. The amount of *possible* contamination was not and is not significant enough to render the data invalid.

A new study of the "blank" sample results was done in conjunction with the new resource estimates. Prior to working on the data set, MDA audited 60 of the 366 "blank" sample values in the project database and found only one insignificant error. Descriptive statistics are presented in Table 13.1 for both gold and silver. The grades of gold, silver and trace elements are in fact low. These results, including those from "blanks" inserted prior to November 2003, are presented graphically in Figure 13.1 for gold and Figure 13.2 for silver. A subtle change in either laboratory procedures or quality of the "blank" material occurred around sample 30000, about the time of drill hole P05-370. This may have been when the new "blank" sample material began to be inserted into the sample stream. Pacific Rim should investigate those batches where the "blank" material returned a grade significantly higher than two standard deviations above the mean (~4%). Furthermore, Pacific Rim should consider running another round robin analysis of the "blank" sample to determine if in fact the noted changes incurred were caused by the laboratory or by the "blank" sample. Curiously, background silver values in the "blank" increase around sample 30000 but there are fewer failures than early in the checking campaign. A change in associated trace element geochemistry suggests that some differences in the "blank" sample might have occurred.

Table 13.1 Descriptive Statistics of the "Blank" Sample Analytical Results

	g Au/t	g Ag/t	As ppm	Hg ppm	Sb ppm	Cu ppm	Pb ppm	Zn ppm
Count	366	362	361	361	358	361	361	357
Mean	0.024	0.30	1.3	0.4	5.6	9.3	1.9	6.4
Std. Dev.	0.072	0.89	2.3	0.7	10.4	15.2	2.8	9.3
Coeff Of Var	3.023	3.00	1.8	1.6	1.9	1.6	1.4	1.4
Minimum	0.000	0.03	0.5	0.3	0.5	1.0	0.3	0.3
Maximum	0.753	13.50	23.0	6.0	58.0	161.0	26.0	67.0

The assay results of each of the "blanks" are presented, along with the values of the preceding samples in Figure 13.3 and Figure 13.4. A review of these graphs suggests that any laboratory sample preparation contamination that might have existed since the 2003 study is neither pervasive nor material. Note the differences in relationship between the preceding samples and the "blanks" pre-2003 and since 2003. For gold, the relationship is weak to non-existent; for silver, there is somewhat of relationship. A group of failures, some with relatively high values, exists starting at about sample 32500 and these should be re-assayed.

Figure 13.1 Assays on "Blanks" Inserted into the Sample Stream

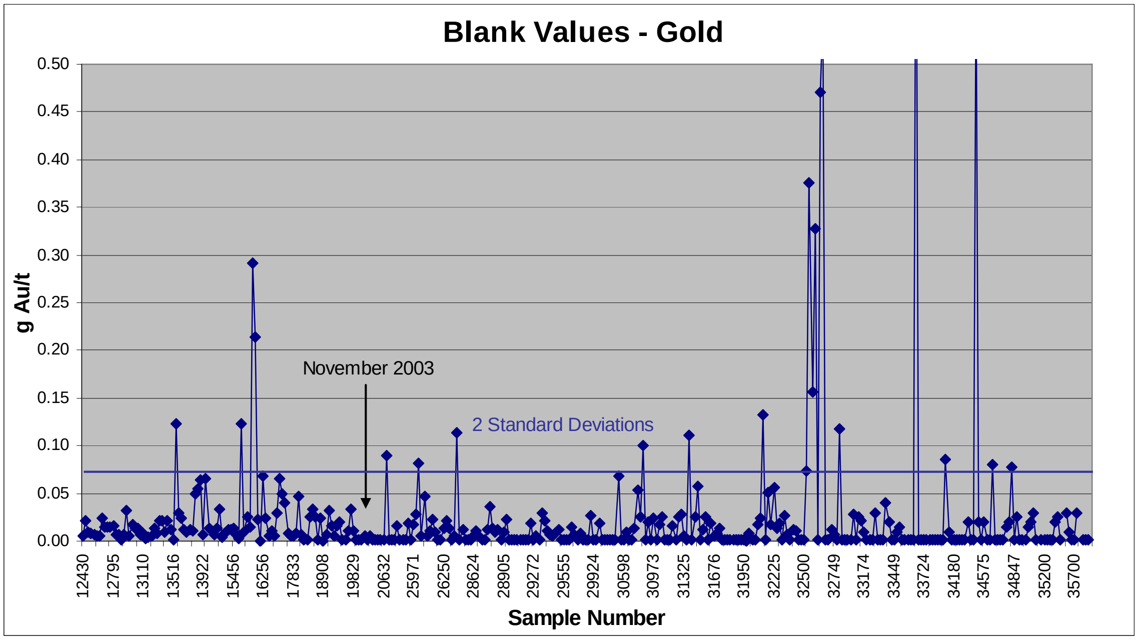


Figure 13.2 Assays on "Blanks" Inserted into the Sample Stream

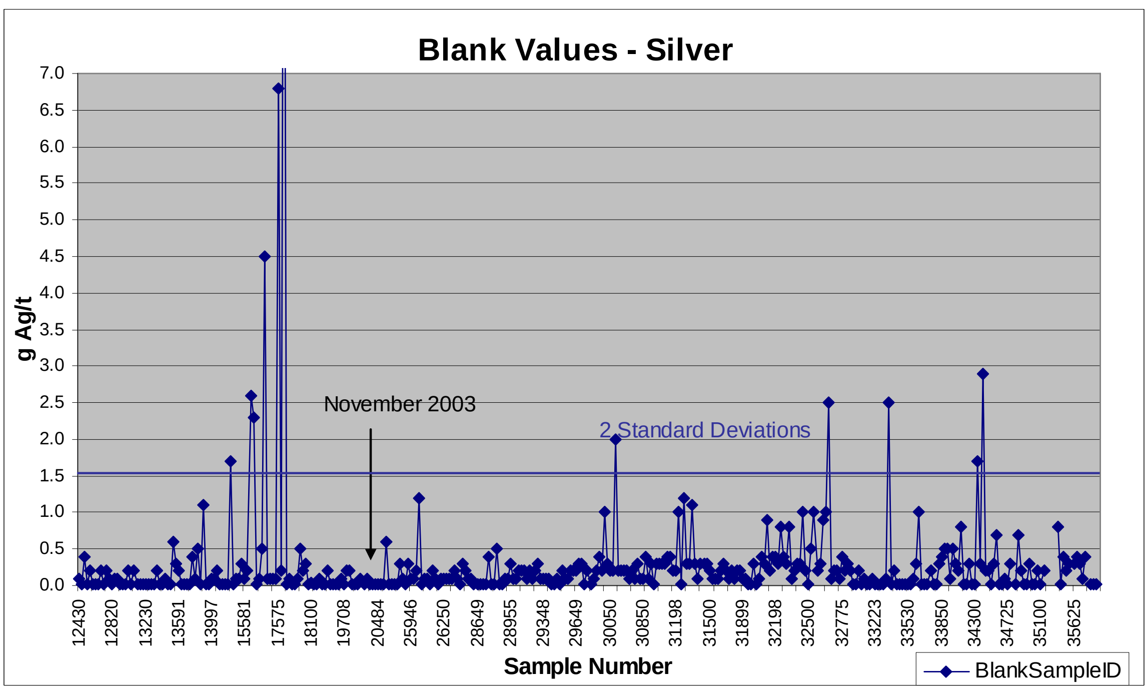


Figure 13.3 "Blank" Assays and Preceding Sample Values – Gold

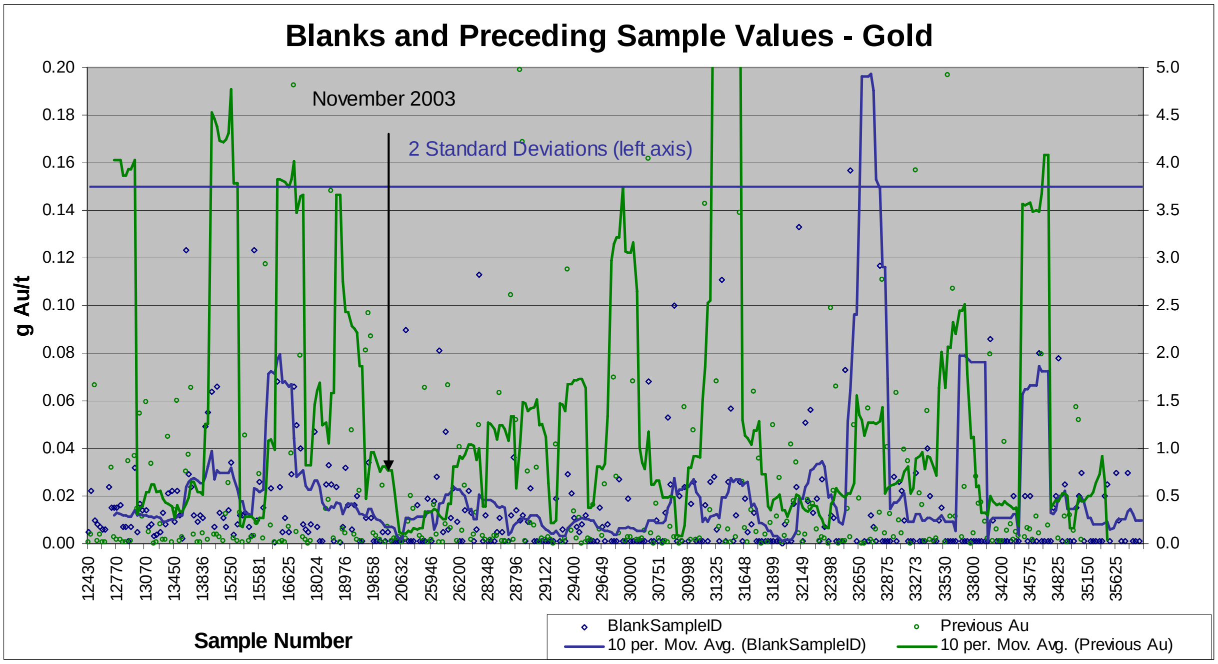
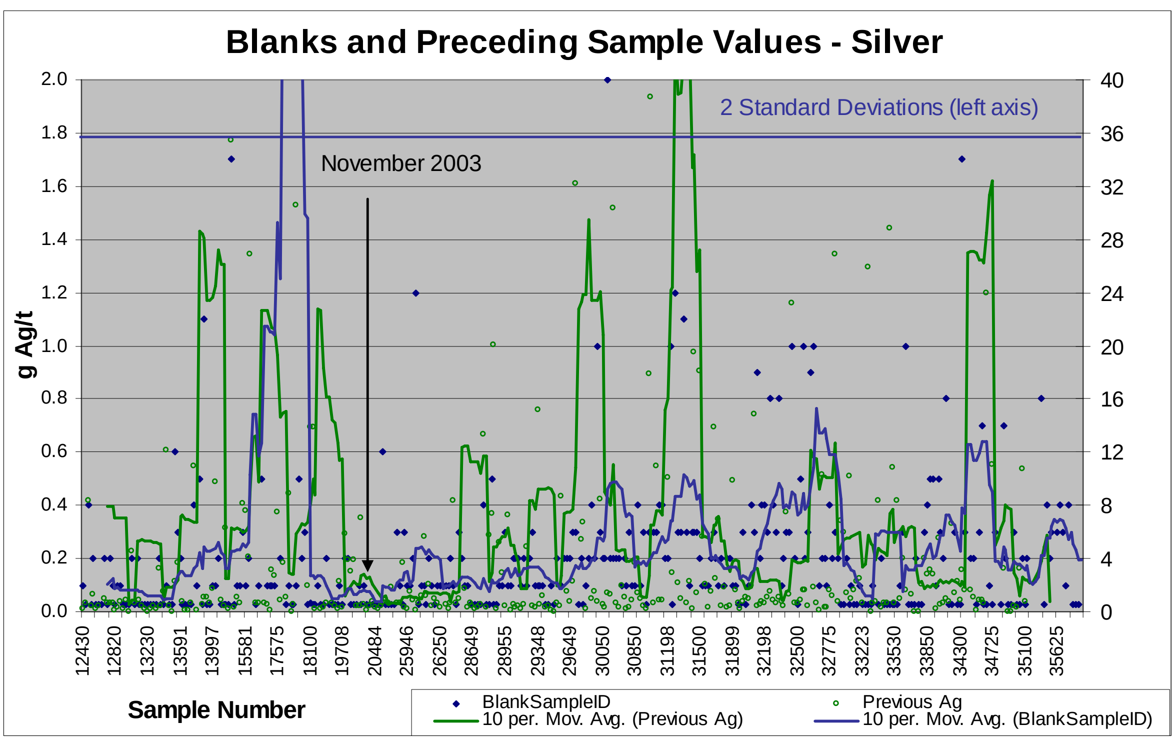


Figure 13.4 "Blank" Assays and Preceding Sample Values – Silver



13.3.2 Coarse Rejects

About 7% of Pacific Rim's samples are automatically analyzed in duplicate by randomly selecting samples from submittal batches for duplicate pulp generation. These pulps are sent to American Assay Lab in Reno, Nevada. Once the results of the original analysis are received, about 6% of the duplicated samples are selected for re-analysis, using geologic criteria, but this time taking the new sample from the coarse reject material. These latter samples are submitted to Inspectorate Labs, the primary laboratory. All samples which return gold results exceeding 3 g Au/t in the initial and all subsequent analyses are re-analyzed by taking a new sub-sample from the pulp and doing a fire assay with a gravimetric finish.

The results of the comparison done on coarse rejects for data obtained since the 2003 verification work demonstrated that most of the differences occur in the low grades and that above 3 g Au/t the mean of the absolute value of the differences is a tolerable 14%. Silver has a similar relationship although not as good. Table 13.2 and Table 13.3 give the results of that data and from data obtained since 2003; note the mean differences (absolute values) of less than 14% for gold and 32% for silver in the mineralized material. Figure 13.5 and Figure 13.6 graphically display the differences. These graphs show minor low bias in the coarse reject gold check assays and a slight high bias in the coarse reject silver check assays. As the same laboratory was used for these coarse reject check samples, the bias is unexpected.

Figure 13.7 and Figure 13.8 show the absolute value of the relative difference. It is important to note that variability above about 1 g Au/t is modest and actually low for an epithermal precious metal deposit. While this is considered acceptable for ongoing work, an effort should be made to determine the reason for and to decrease this sample grade variance. This would be a particularly important issue to improve grade control and therefore profits. The silver values are surprisingly similar to gold with respect to reproducibility but these but do not change as radically at the low grades as does the gold. The relative differences in gold grades between original samples and the coarse rejects are considered good but curiously high differences exist in the gold pulp check assays.

Table 13.2 Comparative Statistics of Coarse Reject Checks Post-2003 – Gold

	Mean of Pairs	Diff of the means	Original (g Au/t)	Reject (g Au/t)	Rel. Diff. (%)	Abs. Val. Rel. Diff. (%)
			All data			
Count	169		169	169	169	169
Mean	4.142	2%	4.224	4.061	17%	115%
Std Dev	7.680	3%	7.900	7.499	418%	402%
CV	1.854	1%	1.870	1.847		
Mininum	0.003	-95%	0.000	0.005		
Maximum	54.349	4%	56.712	51.986	3900%	3900%
			>3 g Au/t			
Count	62		62	62	62	62
Mean	10.238	2%	10.486	9.990	-7%	14%
Std Dev	10.098	3%	10.402	9.864	16%	11%
CV	0.986	1%	0.992	0.987		
Mininum	3.145	-9%	2.877	2.671		
Maximum	54.349	4%	56.712	51.986	29%	46%

Table 13.3 Comparative Statistics of Coarse Reject Checks Post-2003 - Silver

	Mean of Pairs	Diff. of the means	Original (g Ag/t)	Reject (g Ag/t)	Rel. Diff. (%)	Abs. Val. Rel. Diff. (%)
			All data			
Count	125		125	125	125	125
Mean	22.81	-1%	22.62	23.01	4%	35%
Std Dev	39.28	0%	39.30	39.52	68%	58%
CV	1.72	1%	1.74	1.72		
Mininum	0.20	0%	0.20	0.20		
Maximum	197.50	1%	200.00	198.00	182%	575%
			>6 g Ag/t			
Count	66		66	66	66	66
Mean	41.33	-1%	41.03	41.64	-6%	32%
Std Dev	46.94	0%	47.07	47.24	78%	71%
CV	1.14	1%	1.15	1.13		
Mininum	6.00	-23%	4.60	2.00		
Maximum	197.50	1%	200.00	198.00	114%	575%

Figure 13.5 Relative Difference in Coarse Reject Checks Post-2003 – Gold

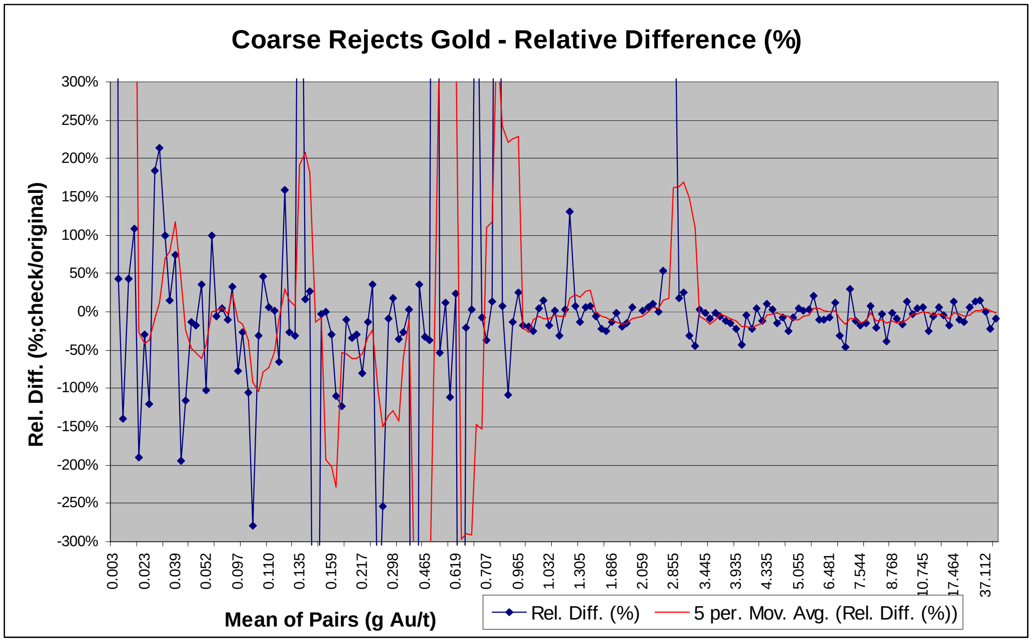


Figure 13.6 Relative Difference in Coarse Reject Checks Post-2003 – Silver

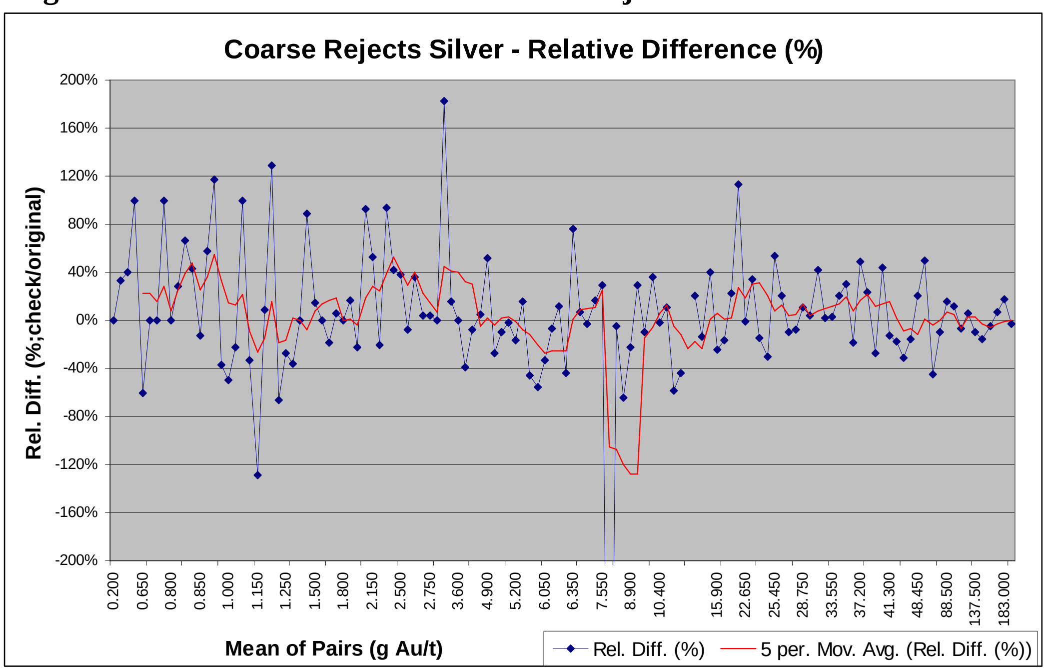


Figure 13.7 Absolute Value of Relative Difference in Coarse Reject Checks Post-2003 – Gold

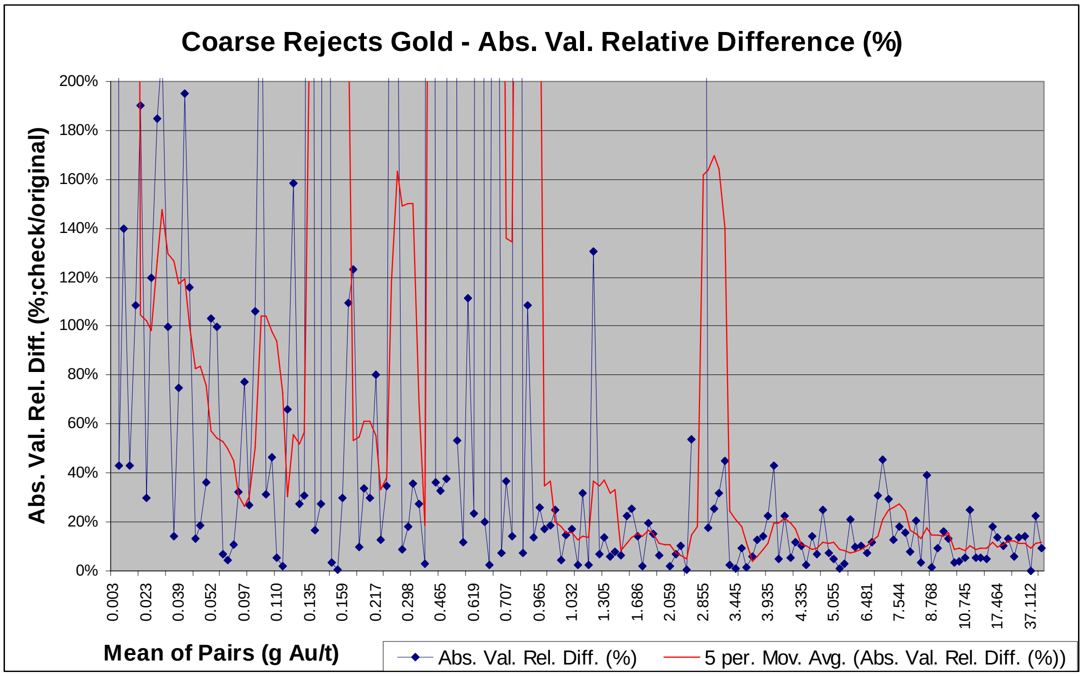
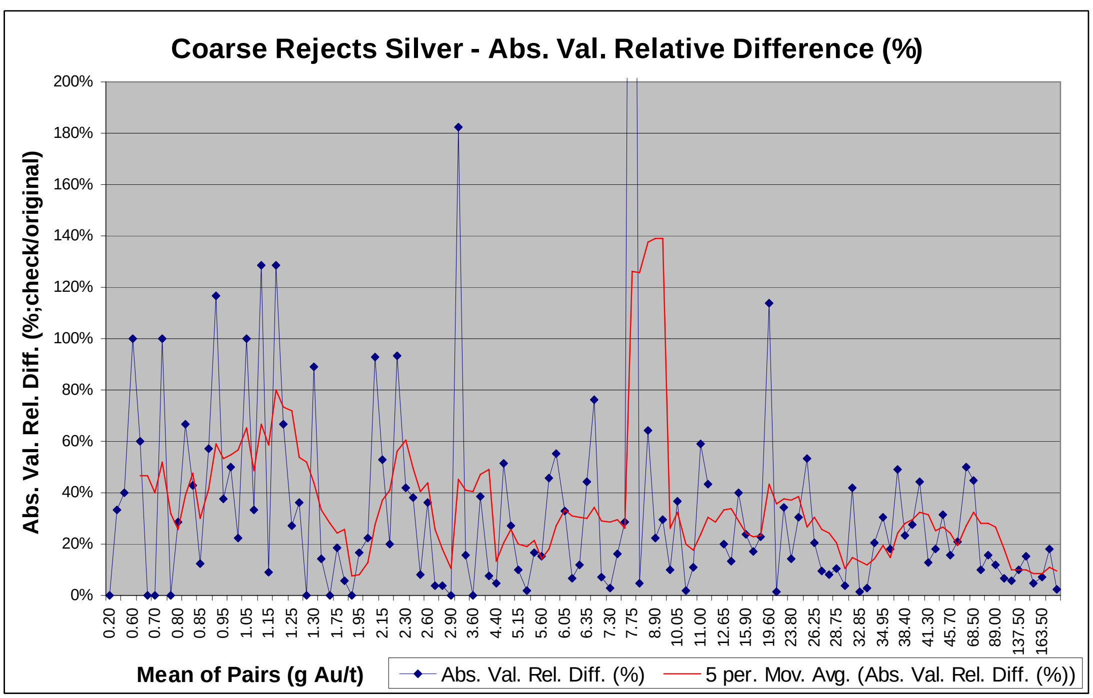


Figure 13.8 Absolute Value of Relative Difference in Coarse Reject Checks Post-2003 – Silver



13.3.3 Pulps

In this test of reproducibility of check assays using duplicate splits of pulps, the check laboratory was American Assay Lab in Sparks, Nevada. The same statistical analyses were done on pulp assay results as were done on the coarse rejects, except that the silver check assay results on pulps were extremely selective and limited and are not considered useful to verify the silver analyses. However, some issues were noted with the silver pulp check assays that *require* additional check sampling.

Table 13.4 presents the descriptive statistics of the analysis. Surprisingly, the error rate is high for pulp check assays and seems to account for the bulk of the differences found in the coarse rejects; 12% of the 14%. Figure 13.9 and Figure 13.10 graphically display the results. The relative difference graph in Figure 13.9 shows a low bias on the check assay lab above about 1 g Au/t and a high bias below 1 g Au/t. The absolute value of the relative difference in Figure 13.10 demonstrates the generally increasing difference with decreasing grades.

Table 13.4 Comparative Statistics of Pulp Checks Post-2003 – Gold

	Mean of Pairs	Original (g Au/t)	Diff of the means	Check (g Au/t)	Rel. Diff. (%)	Abs. Val. Rel. Diff.
			All			
Count	464	464		464	464	464
Mean	1.451	1.480	-4%	1.421	721%	806%
Standard De	3.971	4.088	-5%	3.870	4442%	4427%
CV	2.737	2.762	-1%	2.723		
Mininum	0.003	0.000	3900%	0.005		
Maximum	35.200	36.200	-6%	34.200	60700%	60700%
			> 3 g Au/t			
Count	56	56		56	56	56
Mean	9.319	9.569	-5%	9.069	-6%	12%
Standard De	7.662	7.889	-5%	7.492	14%	9%
CV	0.822	0.824	0%	0.826		
Mininum	3.126	2.877	8%	3.100		
Maximum	35.200	36.200	-6%	34.200	29%	39%

13.3.4 Duplicate Core Samples

Pacific Rim took 20 vein intersections and sawed these into halves and then one of those halves was sawn into quarters. Both quarters of one half were assayed and those two assays were evaluated relative to each other. A definitive analysis on their comparison cannot be made yet as there are only 20 duplicate core splits, however, the repeatability of those gold assays is considered good for duplicate ¼ core splits in an epithermal deposit (Figure 13.11 and Figure 13.12), with the exception of one extreme outlier which should be evaluated. The silver results are incomplete as of this writing and therefore those results are not presented.

Figure 13.9 Difference in Pulp Checks Post-2003 – Gold

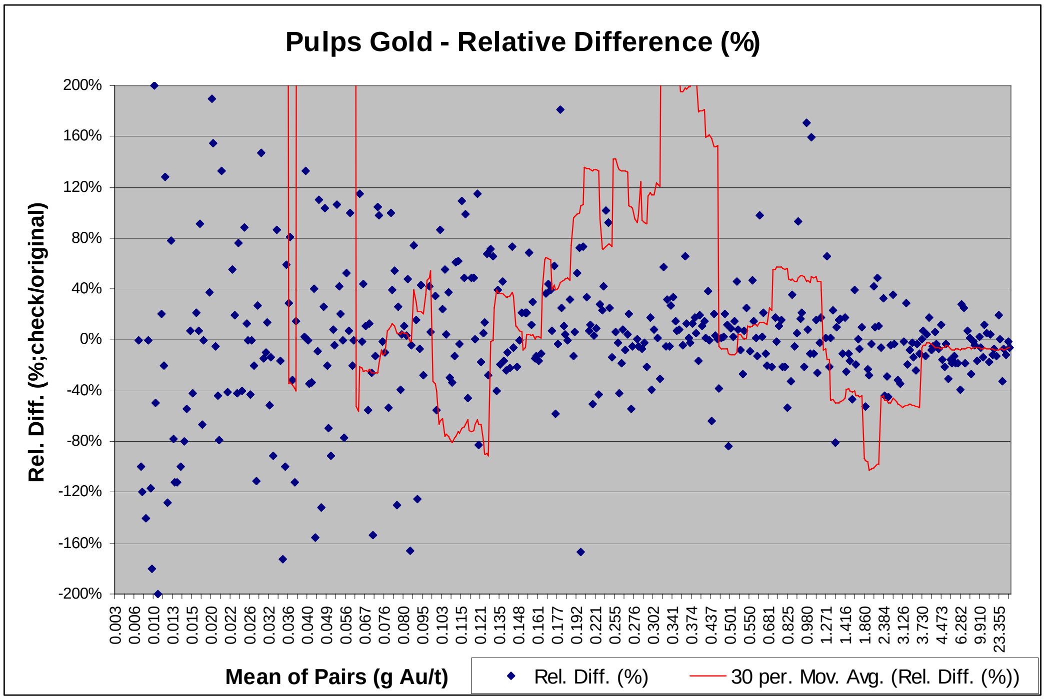


Figure 13.10 Absolute Value of the Relative Difference in Pulp Checks Post-2003 – Gold

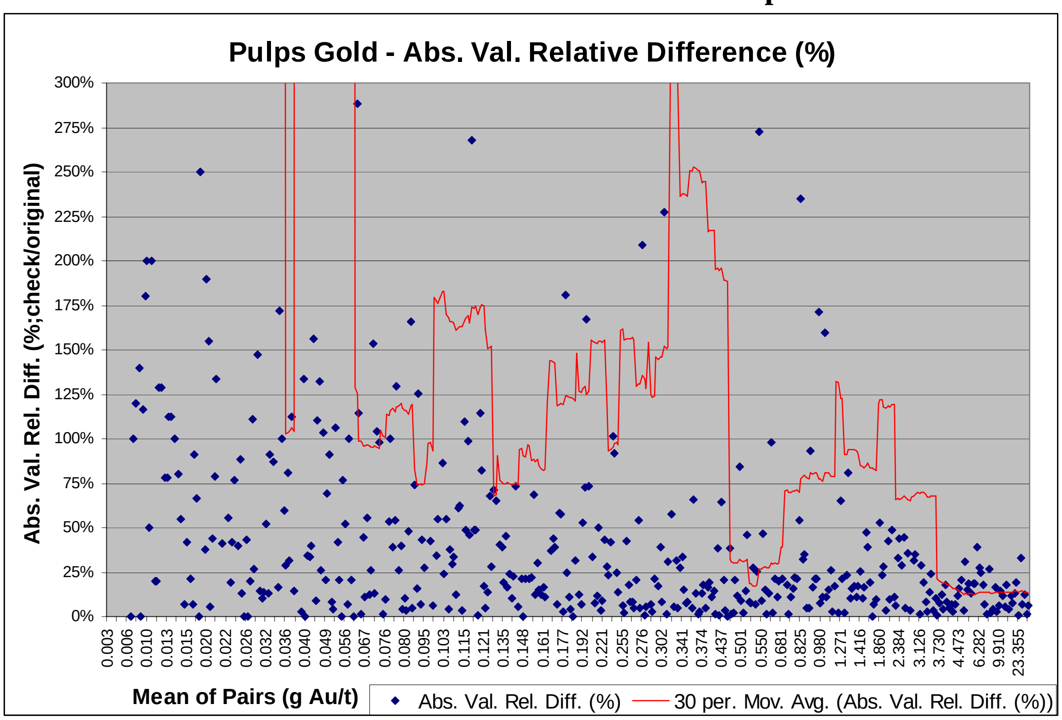


Figure 13.11 Relative Differences in Duplicate ¼ Core Splits – Gold

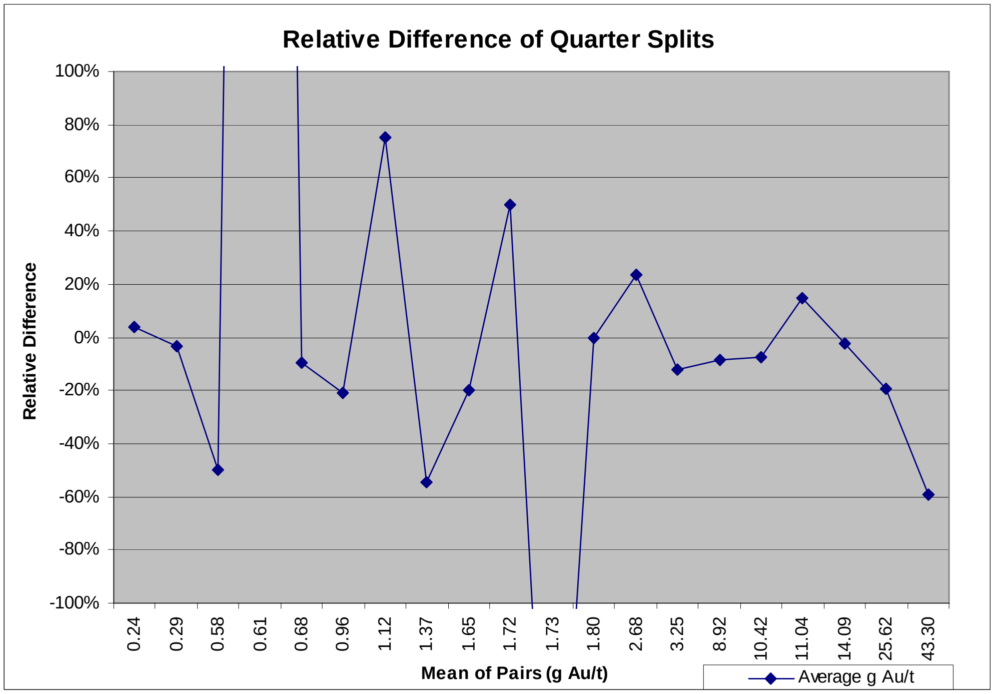
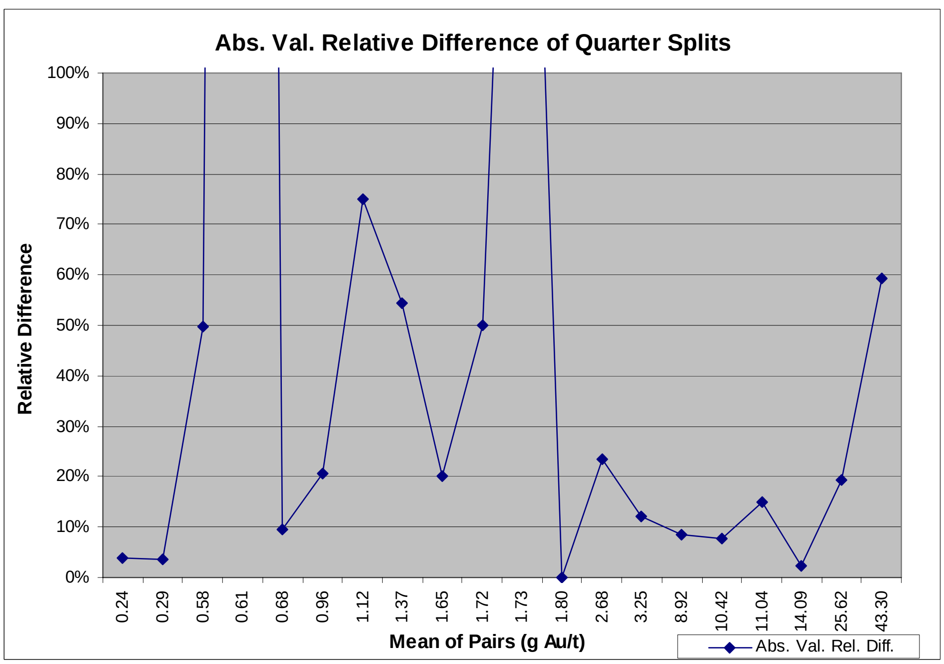


Figure 13.12 Absolute Value of the Relative Differences in Duplicate ¼ Core Splits – Gold



13.3.5 QAQC Conclusions

In conclusion, the QAQC program on gold analyses demonstrates a gold distribution at El Dorado that can be considered well-behaved but with some oddities. For example, the pulp check assays show relatively high differences compared to the original samples especially in light of the relatively small differences in the coarse reject check samples. The bulk of the high differences are in the lowest grades and therefore do not pose a serious issue with respect to resource estimation, but some attention should be given to finding the reason for and decreasing those differences.

The slight high bias in the check assay lab for gold along with the low bias in the check assay lab for silver should be evaluated, understood and rectified. And the potentially significant differences in pulp check sample silver grades should be investigated. Future work should incorporate more mineralized material in the check samples.

13.4 Assay Laboratory ISO 9002 Certification

Inspectorate America Corporation and American Assay Labs, at their laboratories in Sparks, Nevada, both hold ISO 9001:2000 certification. Inspectorate and American Assay are the primary laboratories for Pacific Rim's analyses.

In April of 2006 a brief abstract describing ISO 9001:2000 was available on the internet at http://www.iso.org/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=21823&ICS1=3&ICS2=120&ICS3=10&scopelist=. Documents describing the standards in more detail are available for a fee at the same web page. An unofficial description of the ISO 9000 standards is available at http://en.wikipedia.org/wiki/ISO_9001.

14.0 DATA VERIFICATION

Most of the data upon which this study is based originated with Pacific Rim and other sources as noted. Both Ronning and Ristorcelli have audited different parts of the database for internal consistency and accuracy. The results demonstrate that the database is reliable and accurate.

14.1 Database Audit

When Pacific Rim became the operator at the El Dorado project, it re-compiled and made preliminary edits and corrections to the database. Since then, Pacific Rim has continually worked with the data and has been making corrections. In 2003, MDA audited the entire database for collar and down-hole surveys and audited 1,000 assay samples for data entry. The error rate for significant errors was 0.3%, and the errors identified were corrected. MDA's audit of the 2003 database is described in some detail in Ristorcelli and Ronning (2003), a NI43-101-compliant report that is available on SEDAR. That description is not repeated here. The remainder of this section describes auditing done by MDA in February, April and May of 2006, in preparation for the present resource estimate.

14.1.1 February 2006 Database Audit

This description of the February 2006 database audit is adapted from one prepared by Ristorcelli and Ronning for inclusion in an informal, unpublished trip report issued to Pacific Rim after MDA's February 2006 visit to the El Dorado project.

On the arrival of Ristorcelli and Ronning at the El Dorado project, Pacific Rim gave MDA a database containing collar data up to hole P06-419, survey data up to hole P06-416, and assay data that were complete up to hole P05-411, with partial assay data for holes P05-412 and P05-413.

The database that MDA had used in 2003 was compared to the new database and found to be largely identical. Few changes had been made to the data that existed in 2003. MDA discussed such changes as were found with Pacific Rim's staff, and determined that the changes were minor corrections. MDA concluded that the auditing done in 2003 was still valid and only data added since 2003 required auditing for the purpose of the present resource estimates.

MDA proceeded to do an audit of the drill data from South Minita as of February 2006. The results of that audit are summarized in Table 14.1. All of the issues noted during the February 2006 audit were subsequently addressed in a satisfactory way by Pacific Rim's staff.

Table 14.1 Check Results from South Minita

Table	Total Records	Records Checked	Percent[1] Checked	Total Errors	Error Rate Percent[2]	Significant Errors	Percent[2]
Assays	4,788	1,965	41	32	1.6	18	0.9
Collars	93	30	32	5	5.4	0	0
Downhole Surveys	820	184	22	9	4.8	9	4.8

Notes: [1] Percent of total assay records for South Minita; [2] error rate as a percent of records checked.

In the assay table an error was deemed significant if the difference between the value entered and the correct value exceeded 0.1 g Au/t.

All of the nine errors in the downhole survey table were in one hole and were of the same type; no correction had been made for declination. This error was corrected and no similar errors were found.

MDA also audited the new data from drill holes in the Nance Dulce area. The results of that audit are summarized in Table 14.2. The error rate in the Nance Dulce assay table was higher than it was in the South Minita assay table and Pacific Rim had cleaned the database prior to resource estimation. MDA recommended that Pacific Rim do additional cleaning of the Nance Dulce data.

Table 14.2 Check Results from Nance Dulce

Table	Total Records	Records Checked	Percent[1] Checked	Total Errors	Error Rate Percent[2]	Significant Errors	Percent[2]
Assays	564	202	36	10	5.0	8	4.0
Collars	39	10	26	0	0	0	0
Downhole Surveys	199	59	30	6	10	1	1.6

Notes: [1] Percent of total assay records for Nance Dulce; [2] error rate as a percent of records checked.

In the assay table an error was deemed significant if the difference between the value entered and the correct value exceeded 0.1 g Au/t.

The one significant error in the down-hole surveys was an erroneous declination correction. The other five “errors” in the down-hole surveys were cases of missing data; no original data could be found to check those five surveys in the database.

14.1.2 April – May 2006 Database Audit

During a visit to Pacific Rim’s Sensuntepeque office in late April and early May of 2006, MDA augmented the February database audit with some additional work. The first step was to compare the then-current database to the one that had been audited in February of 2006. This comparison proved satisfactory, and MDA found that issues noted in February had been dealt with. The next step was to do an incremental audit of new data that had been added since February. Drill hole P05-412 was used as the starting point for this incremental audit. That hole was chosen because the data for it had been incomplete at the time of the February audit. The most recent hole included in the April – May audit was P06-442.

The results of the April – May audit are summarized in Table 14.3. These results are not separated by area.

Table 14.3 Check Results from April – May 2006 Audit

Table	Total Records	Records Checked	Percent[1] Checked	Total Errors	Error Rate Percent[2]	Significant Errors	Percent[2]
Assays	2,016	507	25	11	2	0	0
Collars	31	5	16	0	0	0	0
Down-hole Surveys	537	51	9	2	4	2	4

Notes: [1] Percent of total assay records for Nance Dulce; [2] error rate as a percent of records checked.

The errors in the assay table are more properly described as omissions; gravimetric gold assays were available but had not been added to the database. The omissions are not deemed significant because the gravimetric assays were very similar to the atomic absorption gold analyses that were in the database. Thus the omissions would have had no discernible effect on the resource estimates.

The errors in the down-hole survey table were in the azimuths; one was incorrect by 4.5° and the other was incorrect by 27°. The errors were in two different holes, each of which had 9 down-hole survey records, one of which was in error. The error rate, at 4%, is higher than is desirable, but the errors would not have had a significant effect on the resource estimate. The errors were corrected.

14.2 Modeling Procedures and Data Verification

The modeling procedures that MDA used are not formally part of the auditing process, but are in fact one of the most effective forms of data verification. MDA used paper plots of the drill-hole cross sections, with the assays plotted, and on these drew vein traces corresponding to each significant intercept. The original hand-written drill logs were consulted when drawing each vein trace. Consequently, every significant drill-hole intercept that contributed to the resource model was reviewed both on the section plot and in the original drill log. This procedure brings to light any discrepancies between the original drill logs and the digital database used to generate the section plots. While MDA does not maintain a formal error count while doing this work, MDA found that the digital database fairly and accurately represents the data in the drill logs.

14.3 Examination of Drill Core

In February and in April – May of 2006, MDA spent two afternoons examining drill core at Pacific Rim's core logging and storage facility on the El Dorado property. These examinations were in part intended to help resolve questions that arose during modeling of the South Minita and Nance Dulce deposits, and in part to compare the drill logs to the core. MDA found that the drill logs are of unusually high quality and accurately represent the features evident in the drill core.

15.0 ADJACENT PROPERTIES

The El Dorado license area essentially covers a mineralized district. The writers are unaware of any immediately adjacent mineral properties, with the exception of Pacific Rim's own Santa Rita Project, northwest of El Dorado. The southeast corner of the Santa Rita Exploration License is coincident with the northwest corner of the Pueblos Exploration License. Pacific Rim has recently discovered gold-bearing quartz veins on the Santa Rita License. Only preliminary surface mapping has been done at Santa Rita, but early indications are that it contains a low-sulfidation epithermal precious metal system, similar in its general characteristics to the El Dorado system.

A prospect known as La Calera is about 15 km west-southwest of the El Dorado mine area. In 2003 Pacific Rim explored the La Calera deposit, but the company has since dropped the property. The authors have heard, but have not confirmed, that another company is now exploring it. The deposit at La Calera is similar in type to the deposits on the El Dorado license area. La Calera is considerably less developed than the El Dorado project, and does not contain a resource.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Pacific Rim has completed extensive metallurgical testing and process design work for this project as described in Section 18.2.

The leaching tests indicate that fine grinding (200 mesh), long leach times (48hrs hours), and high cyanide strengths are required to achieve optimum gold and silver recoveries.

The operating recoveries for the El Dorado process plant are estimated to be 92% for gold and 88.3% for silver. In testing under optimum conditions, McClelland averaged 92.5% gold and 88.8% silver extractions. Pocock's counter current decantation ("CCD") balances indicate soluble recoveries of 99.2% to 99.6% in a 4-stage CCD circuit. The soluble recovery in the planned 5-stage CCD circuit will be 99.5%. Other losses for the plant slag and unaccounted losses will total about 0.45% recovery loss.

The current El Dorado process plant has a design throughput rating of 750tpd at 90% availability. The ball mill and thickeners are sized for a 1,000tpd maximum throughput circuit. The design crushing system is rated at 130tph, which will provide crushing on a 8-hour shift for a 835tpd. The Merrill-Crowe and refinery systems are sized to handle the 1,000tpd system. The leaching system is designed to provide 50 hours retention time at 835tpd. In order to increase total plant throughput to 1,000tpd, additional tanks will be required. Excess leaching time should be avoided. McClelland's test work indicates that even with pretreatment slight preg robbing will occur at 48-72 hours leach time. A conventional 5-stage CCD plant with doré recovery by zinc precipitation (Merrill-Crowe) will be used. Other options are filtration with a zinc precipitation or Carbon in Leach ("CIL") with doré recovery by electrowinning.

The favorable settling characteristics of the ore favor the CCD over filtration. Numerous studies of the economics of CIL vs. CCD indicate that when the recovered silver to gold ratio is over 3.5, the economics favor the CCD. The El Dorado ratio is 8.0:1. The CCD system reduces the amount of cyanide reporting to the Inco cyanide destruction unit by one-third to one-half, reducing the Inco reagent costs.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

There are now five deposits within the El Dorado Project area for which resources have been estimated, each with unique geologic characteristics requiring distinct modeling techniques. As such, each aspect of each area is discussed separately. The five areas for which resources were estimated are:

- the Minita mine area, which has 13 defined veins, of which only three are modeled;
- the South Minita area, which is composed of a set of at least ten anastomosing and bifurcating veins, all of which have been modeled;
- the La Coyotera area, composed of a vertical vein breccia;
- the Nueva Esperanza area, a complex, 45^{o}W-dipping mineralized zone; and
- The Nance Dulce area, containing two principal northwest-striking, steep to east-dipping veins and numerous smaller veins. Only the two principal veins were modeled and included in the Inferred resource.

This resource update has kept one estimate unchanged from 2003 (Nueva Esperanza), one model has been modified to smaller block sizes (La Coyotera), one estimate has been updated (Minita area), and new estimates have been produced for South Minita and Nance Dulce. The changes to the models are described as follows:

- Minita Area: A few new holes were drilled in this deposit, but the results have minimal effect on the resource model. Those new holes were updated to the model and the veins were remodeled and the resource tabulated on gold equivalent cutoff grades.
- South Minita Area: A considerable amount of exploration drilling, geology, and assaying were done in advance of the modeling described in this report. The entire area, model and resource estimate are new for the project and district. South Minita is a new discovery.
- La Coyotera: No new work was done on this deposit except for reconstructing the model with smaller block sizes (1 m by 2 m by 3 m) to better portray what would likely be an underground mining scenario.
- Nueva Esperanza: Nothing new was done on this deposit, in terms of either exploration or modeling, but the resource was re-tabulated using gold-equivalent cutoff grades.
- Nance Dulce: Pacific Rim did considerable drilling along the northern part of the Nance Dulce vein system, sufficient to delineate an inferred resource.

In all cases, the deposits are now tabulated on gold equivalent[10] cutoff grades.

17.1 Deposit Geology Pertinent to Resource Estimation

The total extent of mineralization along the Minita trend extends from Nueva Esperanza at the north to South Minita at the south, a total distance of 3,200 m. It is interesting to note that at the north end, the deposits dip to the west; at Minita the veins become progressively steeper and eventually vertical and then dip steeply east. At South Minita the veins dip easterly at a slightly shallower angle.

17.1.1 Minita Area

The Minita mine area, located in the Central El Dorado Sub-District, has multiple, classic epithermal quartz/carbonate veins. These veins range from less than one meter to nine meters thick. Although these veins do include multiple phases of mineralization, they have two dominant domains: a well-mineralized vein, and a weakly mineralized vein. The well-mineralized vein is made up of banded quartz and/or carbonate with distinctive colloform and related vein textures, with the clay mineral corrensite and/or distinct disseminated or banded black sulfides. Grades are generally greater than ~3 g Au/t in the well-mineralized material and greater than ~10 g Au/t for the colloform-textured quartz with corrensite. The weakly mineralized structures are quartz veinlets, sheeted zones, or often quartz/carbonate veins, all with grades generally lower than ~3 g Au/t. These two domains are adjacent to each other along strike. Wallrock contacts are generally sharp.

In the Minita vein, all but six intercepts are made up of the well-mineralized veins and the six exceptions are evenly distributed throughout the deposit. Unlike the Minita vein, Minita 3 and Zancudo have clusters of both well and poorly mineralized zones and were consequently modeled separately. The other 10 defined veins are less well-developed and/or less-well drilled out, and were not modeled.

The resources in the veins are best modeled along two-dimensional planes, with the third dimension (east-west) assigned as a thickness parameter.

17.1.2 South Minita

South Minita begins 200 m south of the southern extent of Minita and is a series of bifurcating and anastomosing veins and vein breccias. The veins at South Minita occur within what has been locally called a "lode zone" made up of fractured andesite, which ranges from approximately 25-m to 75-m thick. Ten veins have been defined to date. Continuity between drill-hole intercepts is predicted based on numerous structural, geological and spatial relationships, but the complexity makes it impossible to prove continuity between drill holes in many places, using the data available.

The style of mineralization is similar to what is described for the veins at Minita but clearly with more structural complications.

[10] Gold equivalent is calculated using a ratio of 70 silvers to one gold.

17.1.3 La Coyotera Area

La Coyotera is a unique deposit made up of well-banded quartz/carbonate veins, breccias, brecciated veins, and all gradations in between lying within a vertical structure with two limbs. There are multiple periods of mineralization and brecciation, lots of fragment rotation, some hydrothermal breccia and some tectonic breccia. These different zones are adjacent and parallel to each other. Even though the variation in mineralization style and lithology is great, the continuity is actually surprisingly good, despite its appearance. The deposit has a near vertical dip, with the modeled area extending for 300 to 400 m vertically and 500 m horizontally. Widths of the mineralized zone average between 10 and 15 m for individual mineralized structures while averaging over 30 m for the entire merged limbs or both limbs and the intervening horse. Widths of the potentially mineable material average 3.5 m. There are abundant open spaces and voids, possibly averaging up to 10%.

Three domains were modeled:

- Low-grade, which is dominantly brecciated andesite (zone 11);
- Mid-grade which is made up of both brecciated andesite and vein and brecciated vein (zone 12); and
- High-grade vein and brecciated vein material (zone 13).

17.1.4 Nueva Esperanza Area

Nueva Esperanza is made up of quartz veins within altered andesite. The altered andesite is generally between 0.1 g Au/t and 3 g Au/t, but almost always has 0.5 g Au/t and is modeled as zone 1. The vein material is quartz and is generally greater than 3 g Au/t and is modeled as zone 2. The quartz vein material occurs as single veins or in multiple parallel veins in a zone ranging up to more than seven-meters thick. The quartz is more crystalline and banded at depth, and in outcrop defines a ridge. In general, Nueva Esperanza is consistent in width. The modeled length is over 700 m while the modeled down-dip extent is 380 m. The total width of the mineralized zone averages about 15 m while the high-grade zones average about 3 m.

17.1.5 Nance Dulce

Nance Dulce is located about three kilometers south-southeast of the center of South Minita. Nance Dulce is composed of a set of 16 veins, most of which are sub-parallel to the overall northwest trend. Of the 16 defined veins and mineralized fractures, only two are considered consistent and strong enough to model for the purpose of resource estimation. Termed the East Vein and the West Vein, the two modeled veins would contain about 90% of the total metal in the known deposit area. Confidence in correlating drill-hole intercepts from hole to hole is considered reasonable but tentative, as choosing which of several intercepts in one hole to correlate with others in another hole is somewhat arbitrary. The drill-hole spacing is variable in the range 40 to 100 m, too wide to permit any of the resource to be classified any higher than Inferred at this time.

The veins in the Nance Dulce deposit have a similar appearance and composition to those in the Minita and South Minita deposits. The best mineralization is in strongly banded veins containing black opaque minerals. The Nance Dulce veins do tend to be thinner, and are more difficult to trace and correlate from drill hole to drill hole, than are the veins of the Minita and South Minita systems. The northwest trend of the Nance Dulce veins is distinctly different from the north trend of the apparently stronger and more consistent veins along the Minita trend. If one makes the assumption that the Nance Dulce Veins and the Minita Veins formed in fractures that opened in response to the same stress field, it may be that the Nance Dulce fractures were mostly brittle shears whereas the Minita fractures were much more like tensional breaks, creating larger openings.

17.2 Data

Pacific Rim's detailed El Dorado database contains the following information:

- Analytical – Gold and silver assays and check samples plus multi-element inductively coupled plasma (ICP) data for all the Pacific Rim data and most of the older principal vein data from the La Coyotera, Nueva Esperanza, Minita, Minita 3 and Zancudo systems.

- Geologic – Lithology, alteration, wallrock/vein mineralogy and detailed vein descriptions.

- Geotechnical – Collars, down-hole surveys, specific gravity or bulk density data, recovery, RQD, vein/fracture densities/orientations and structure.

- Topographic – Detailed one-meter topography, geo-coded air photos and sub-meter survey control.

- Other – 3D control for underground mine workings, underground mine tunnel samples, detailed trench maps, surface geologic outcrop maps, small structure database and surface gold/silver assays plus multi-element geochemistry.

The surface rock sample data set contains approximately 3,980 samples. There are 3,356 down-hole surveys, 18,725 drill-hole samples with at least one gold assay, 18,608 drill-hole silver assays, 466 drill holes, and multiple fields of geologic data for most intervals. Appendix A lists the drill holes in the database.

All samples were used to define the locations of zones but only the drill-hole data were used for grade estimation. Table 17.1 describes the entire El Dorado project database from which grade estimation was made.

The electronic database also includes details of the numerous and extensive workings in the El Dorado mine area. Excellent maps exist that show stopes, drifts and underground sampling, which have been digitized and entered into the database. These data were used to better locate the vein in well-defined areas, and also to exclude from the resources those areas mined. While compiling this data, it was noted that there were some discrepancies with recorded depths to workings. As a result, Pacific Rim surveyed three known mine portals, which were used to tie into the underground workings and modify the locations. All the digitized data including the samples were then adjusted to these surveyed levels. All the historical information, including a first-person account by an individual who was working at the mine at the time of its closure, indicates that the workings go down only as deep as the 280 m elevation (425 ft below the surface). However, there are six holes that hit voids, all at about 40 m below the lowest recorded workings. Curiously this is about one level below the bottom workings.

The topographic data are considered to be excellent. Pacific Rim commissioned airborne photographic surveys, from which digital maps with contours at 1-m intervals were produced.

Table 17.1 Descriptive Statistics of the El Dorado Project Drill Database

	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
East	26,568					530,900	535,982	m
North	26,568					296,742	307,503	m
Elevation	26,568					-178	597	m
From	26,568					0.0	587	m
To	26,568					0.6	601	m
Length	26,568	1.3	5.5			0.01	539	m
Au-Average	19,027	0.15	1.21	5.68	4.70	0.00	306.30	g Au/t
Ag-Average	18,908	1.00	8.276	42.774	5.168	0.000	2809.80	g Ag/t
Au Equivalent	18,906	0.17	1.33	6.24	4.69	0.00	346.44	g AuEq/t
AgAu Ratio	18,893	7.84	20	105	5	0	12335	
Core Recovery	15,810	100.00	95	12	0	0	100	%
RQD	12,436	73.00	64	30	0	0	100	%
Vein Width	2,106	2.00	2.54	2.15	0.85	0.03	9.40	m

"-Average" is the average of all check and duplicate samples for an interval

17.2.1 Minita Area Database

Table 17.2 describes the entire El Dorado database from which grade estimation was made at Minita and South Minita. There are 11,441 drill-hole gold assays and 11,406 drill-hole silver assays.

Table 17.2 Descriptive Statistics of the Minita and South Minita Area Drill Database

	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
East	16,491					533,778	534,400	m
North	16,491					299,769	302,198	m
Elevation	16,491					-178.4	477	m
From	16,491					0.0	587	m
To	16,491					3.30	601	m
Length	16,491	1.25	28.18	10.72	0.38	0.03	538.50	m
Au-Average	11,441	0.16	1.38	6.41	4.65	0.00	306.30	g Au/t
Ag-Average	11,406	1.00	9.16	47.63	5.20	0.00	2809.80	g Ag/t
Au Equivalent	11,404	0.18	1.51	7.04	4.65	0.00	346.44	g AuEq/t
AgAu Ratio	11,404	7	18	65	4	0	2360	
Core Recovery	9,521	100.00	98	9	0	0	100	%
RQD	8,363	78.00	72	25	0	0	100	%
Vein Width	2,020	2.00	2.62	2.15	0.82	0.05	9.40	m

"-Average" is the average of all check and duplicate samples for an interval

17.2.2 Nance Dulce Area Database

Table 17.3 describes all the samples coded to veins at Nance Dulce. There are 80 drill-hole intercepts that are coded to veins and these have uncapped mean grades of 10.11 g Au/t and 67.57 g Ag/t.

Table 17.3 Descriptive Statistics of the Nance Dulce Area Coded Samples

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
From	86	134.5	136.4			37.8	287.4	m
To	86	134.7	136.9			38.8	287.7	m
Length	86	0.3	0.5			0.0	1.8	m
Au Average	80	6.01	10.11	13.77	1.36	0.01	98.52	g Au/t
Ag Average	80	33.90	67.57	99.58	1.47	0.20	1043.60	g Ag/t
Au Equivalent	80	6.95	11.07	15.08	1.36	0.02	113.43	g AuEq/t
AgAu Ratio	80	7.07	13.15	18.85	1.43	1.20	101.44	
True Width	86	0.32	0.58	0.69	1.19	0.03	2.51	m

"-Average" is the average of all check and duplicate samples for an interval

17.2.3 La Coyotera Area Database

Table 17.4 describes the entire La Coyotera database from which grade estimation was made. There are 1,980 drill-hole gold assays and 1,954 drill-hole silver assays. There has been no exploration work done at La Coyotera since the publication of the last resource estimate in 2003.

Table 17.4 Descriptive Statistics of the La Coyotera Area Drill Database

	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
East	1,981					533,285	533,638	m
North	1,981					303,999	304,477	m
Elev	1,981	225.4	229.4			(29)	429	m
From	1,981	242.7	232.4			3	514	m
To	1,981	243.8	233.5			3	516	m
Length	1,981	1.1	1.1			0	9	m
AuAvg	1,980	0.25	1.96	6.02	3.07	0.00	156	g Au/t
AgAvg	1,954	3.65	17.27	47.58	2.75	0.03	1084	g Ag/t
AuEQ	1,954	0.3	2.2	6.6	3.0	0.0	168.4	g AuEq/t
AgAu	1,954	13	25	50	2	1	967	
Type	1,981					1	1	
Zone	1,981					9	13	
Crec	1,745	100	87	21	0	13	100	%
RQD	98	39	39	27	1	0	100	%

* 1 is DDH, 2 is RC

"-Average" is the average of all check and duplicate samples for an interval

17.2.4 Nueva Esperanza Area Database

Table 17.5 describes the Nueva Esperanza database from which grade estimation was made. There were 1,076 drill-hole sample gold assays and 1,064 drill-hole sample silver assays.

Table 17.5 Descriptive Statistics of the Nueva Esperanza Area Drill Database

	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
East	1,127					533,862	534,375	m
North	1,127					302,318	303,046	m
Elevation	1,127	353.1	342.4			107	451	m
From	1,127	90.4	106.8			0.00	438	m
To	1,127	91.4	108.0			1.30	438	m
Length	1,127	1.3	1.3			0.03	27	m
Au Average	1,076	0.34	1.59	3.41	2.15	0.00	36	g Au/t
Ag Average	1,064	1.45	9.23	24.13	2.61	0.00	295	g Ag/t
Au Equivalent	1,064	0.36	1.72	3.74	2.17	0.00	40	g AuEq/t
Ag/Au Ratio	1,064	5.16	11.14	48.69	4.37	0.00	1100	
Type*	1,127					1	2	
Zone	1,127					1	9	
Core Recovery	790	100.00	90.43	18.25	0.20	5.00	100	%
RQD	85	86.00	82.04	19.77	0.24	0.00	100	%

* 1 is DDH, 2 is RC

"-Average" is the average of all check and duplicate samples for an interval

17.3 Rock Density

Prior to Pacific Rim's involvement at El Dorado, few measurements of specific gravity or density were available. Pacific Rim has since made an effort to re-evaluate the rock density and has taken 114 measurements at Minita/Zancudo, 68 at La Coyotera and 46 at Nueva Esperanza, for a total of 228 measurements. In addition to the above, there are 58 post-2003 report density measurements from veins at South Minita. Some measurements involved a water immersion method that gives a specific gravity value. Other measurements involved different procedures, described in Section 17.3.1, that measure the mass per unit volume, or density. The values used in this report, measured by either method, are expressed as densities, in grams per cubic centimeter (g/cm^3). Neither of the measurement methods used involved large bulk samples, so MDA made some assumptions, described in the following text, to arrive at estimated bulk densities.

For comparative purposes, values used for bulk density in the past were 2.54, 2.47, and 2.33 g/cm^3 for the Minita veins, La Coyotera, and Nueva Esperanza, respectively.

17.3.1 Minita Area Rock Density

Pacific Rim took 114 El Dorado mine area samples of whole core and measured the diameter and length of each sample, in order to calculate the volume. The samples were then weighed, dried and weighed again. The samples were described for the percent voids and coded by rock type into four groups: wallrock andesite, vein, sheeted zone and breccia. As recovery was very good in Pacific Rim's drill campaign, and vugs are common, this was the most appropriate method of measuring sample density.

MDA analyzed the results and grouped them into zones that would be used for modeling wallrock and mineralization. The results are given in Table 17.6 and Figure 17.1 and Figure 17.2. Nothing has changed since the 2003 resource estimate that suggests a need to re-evaluate the bulk density estimate for material from Minita.

Table 17.6 Descriptive Statistics of Minita Area Density Measurements

Description	Measured Density (g/cm3)	Estimated Void (%)
All Data	2.56	7%
Minita	2.56	7%
Zancudo	2.60	6%
Wallrock	2.65	2%
All Mineralization	2.54	8%
Vein	2.53	10%

Figure 17.1 Minita Area Density Test Work

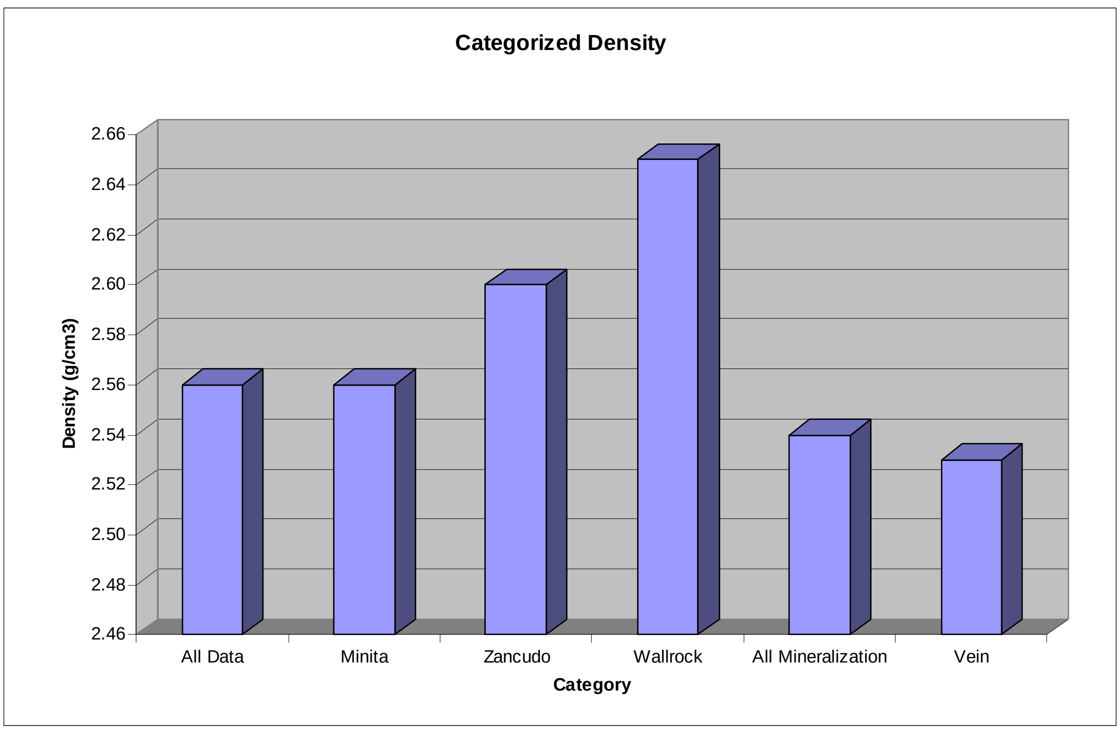
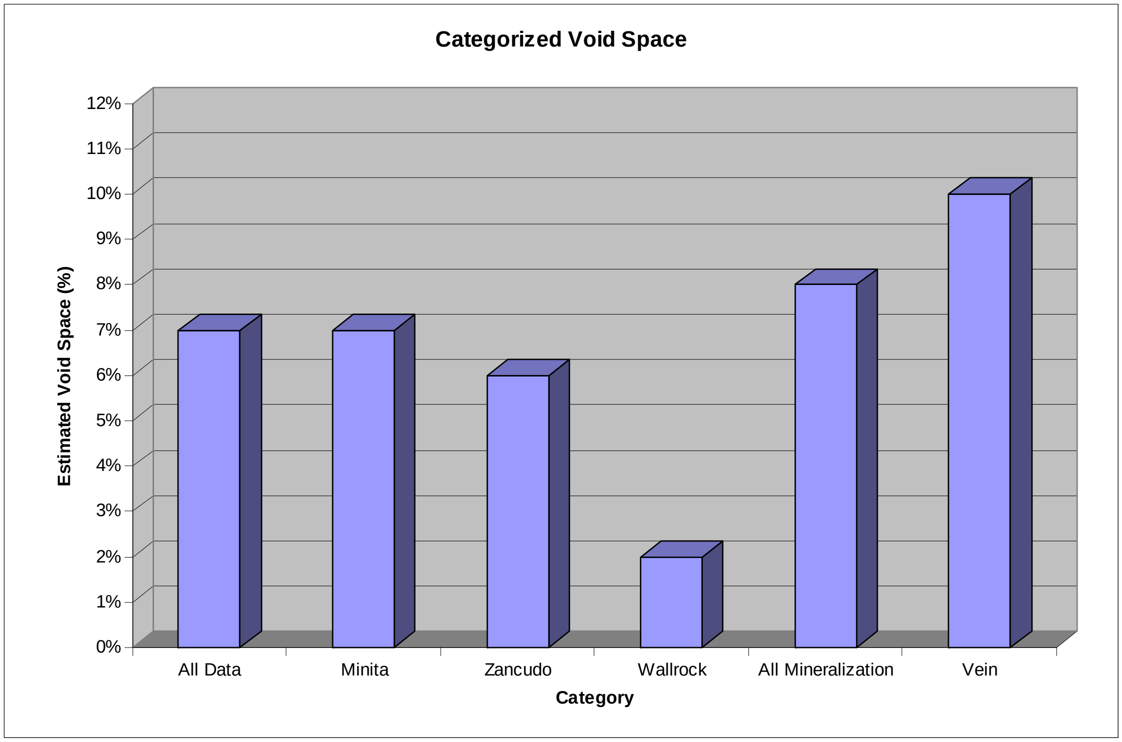


Figure 17.2 Minita Area Void Space Estimate



Even though void space was taken into account while measuring the density of the chosen samples, the values to be used still needed to be modified to account for the unavoidable bias of measuring only samples that were not broken. Modifications must also account for those voids that are reported to occur in the vein but are too large to be incorporated in the core measurements. MDA therefore decreased the vein/mineralization density by 3%, to arrive at an estimated bulk density of 2.46 g/cm^3. Although it is not used in this resource estimate, future work should use the wallrock density reduced by 1% to an estimated bulk density of 2.62 g/cm^3.

17.3.2 South Minita Rock Density

Fifty-eight measurements of density were made in vein material coded to any one of the ten defined veins. Similar measurement procedures were used in these more recent samples as were used earlier for the Minita Samples. The sample results were evaluated statistically together and by vein. Due to the very similar density data amongst the veins, as well as the similar geological and mineralogical characters of the different veins, a single bulk density value was used for all veins. The value is 2.50 g/cm^3, which is the mean of all samples reduced by 3% to compensate for unavoidable sample bias. By comparison, the bulk density value used at Minita is 2.46 g/cm^3.

17.3.3 Nance Dulce Rock Density

Due to the similarity of vein mineralogy and texture and the early stage of resource definition at Nance Dulce, a bulk density value was assigned to the Nance Dulce veins that is similar to those used at Minita (2.46 g/cm^3) and South Minita (2.50 g/cm^3). For Nance Dulce 2.50 g/cm^3 was selected.

17.3.4 La Coyotera Area Rock Density

Because the core from La Coyotera was already split prior to the initiation of the rock density measurement campaign, Pacific Rim was forced to use pieces of split core for density determinations. This required coating the samples with paraffin and using the total immersion method to measure their specific gravity. The results of the specific gravity measurements are expressed herein as densities. Pacific Rim took 68 samples of core, selected by mineral zone, described them, and sent them to Inspectorate Labs in Reno, Nevada. Pacific Rim geologically grouped the material and percentages by each chosen intercept and within each zone used for modeling. The results were weighted by percent of that material in each zone and by weight of each sample. The weighted averages were then decreased by 5% to compensate for the unavoidable bias introduced by not being able to measure broken core, *i.e.*, low density material, and to account for larger voids not included in the core samples. The resulting bulk density estimates used in modeling are:

- Low-grade, brecciated andesite: 2.47 g/cm^3;
- Mid-grade, brecciated andesite and/or vein/brecciated vein: 2.45 g/cm^3; and
- High-grade, vein/brecciated vein: 2.42 g/cm^3.

The bulk density used for the country rock is 2.6 g/cm^3.

17.3.5 Nueva Esperanza Area Rock Density

For the same logic and reasons, specific gravity measurements were done the same way for Nueva Esperanza as for La Coyotera. There were 46 measurements taken. The weighted averages were then decreased by 5% to compensate for the unavoidable bias introduced by not being able to measure broken core and to account for larger voids not included in core, giving the following results for estimated bulk densities:

- Low-grade, altered andesite: 2.53 g/cm^3; and
- High-grade, veins and sheared veins: 2.47 g/cm^3.

17.4 Mineral Zone Descriptions

17.4.1 Minita Area

The veins at the Minita area were defined on cross sections. Determinations of vein coding used angles to core axes, locations, geologic descriptions, and historic workings and samples. Once defined, the sample intervals were coded by vein, the intervals were given a measured (from the geologic log) true thickness as well as an azimuth and dip of the vein at that intersection. The El Dorado mine area drill hole map is given in Figure 17.3.

17.4.1.1 Minita Vein

The Minita vein is a particularly well-defined and predictable or "well-behaved" vein. It is consistent in both grade and width, with the best thickness and grade being in the central area. Descriptive statistics of the Minita vein are given in Table 17.7. QQ plots were made to help determine capping values. Gold was capped at 65 g Au/t and silver was capped at 550 g Ag/t. This represents 3% of the sample metal value for both gold and silver (Table 17.7).

Table 17.7 Descriptive Statistics of Minita Vein Samples

Minita		55 and 155 Capping			65 g Au/t		550 g Ag/t	
	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Au-Average	402	8.03	13.08	15.61	1.19	0.00	132.0	g Au/t
Difference (%)			-3%					
Au-Capped	402	8.03	12.70	13.63	1.07	0.00	65.00	g Au/t
Ag-Average	402	43.25	87.27	117.42	1.35	0.00	864	g Ag/t
Difference (%)			-3%					
Ag-Capped	402	43.25	85.05	105.66		0	550	g Ag/t
Au Equivalent	402	8.83	14.32	17.09	1.19	0.01	142.4	g Aueq/t
Ag/Au Ratio	402	6.50	10.86	74.59	6.87	0.00	1400.00	
Core Recovery	412	100	91	23	0	0	100	%
RQD	210	80	72	27	0	0	100	%
Vein Measured True Th.	413	5.15	4.73	1.94	0.41	0.30	9.40	m
Vein Azimuth	413	173	169	22	0	0	339	deg.
Vein Dip	413	-75	-75	5	0	-90	-65	deg.
Vein Code	413					55	155	
Confidence Code**	413					1	3	
Void*	11					1	1	

* 1 is void ** 1 is lowest, 3 is highest

"-Average" is the average of all check and duplicate samples for an interval

The sample data were then composited twice, once to full length for vein thickness determinations, and once excluding all samples with core recovery less than 25% for grade determinations.
Table 17.8 gives the statistics of the Minita vein composites. These composites were chosen based on geology, mineralogy, textures, location and grade. Except for near the south end of the modeled area, the vein is predictable and there is high confidence in composite definition. In the central area, the vein splits and the hanging wall split is modeled separately. Vein determinations could include internal weakly mineralized material or even "horses" of unmineralized material if they were considered part of the vein system. If the vein splayed into sheeted zones these were coded as weakly mineralized. If there was a well-defined and well-mineralized vein distinctly separate from surrounding sheeted material or stockwork, this too was segregated, although this was a rare occurrence. Because the Minita vein is well defined and is such a strong structure, it was modeled first and was used as the "anchor" for defining the surrounding veins.

Table 17.8 Descriptive Statistics of Minita Vein Composites

All	55 and 155							
	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Length	73	3.8	5.4	5.3	1.0	0.3	28.5	m
To	73	271.6	270.8			22.7	543.7	m
AuAvg	73	9.06	12.85	8.76	0.68	0.01	55.50	g/t
AuCap	73	9.06	12.44	7.69	0.62	0.01	38.91	g/t
AuAvgXCW	73	25.1	41.4	47.7	1.2	0.0	253.2	g/t * m
AuCapXCW	73	25.1	39.9	43.0	1.1	0.0	202.5	g/t * m
AuAvgXMW	73	24.8	41.2	45.0	1.1	0.0	244.2	g/t * m
AuCapXMW	73	24.8	39.8	40.8	1.0	0.0	195.3	g/t * m
AgAvg	73	59.79	87.73	66.17	0.75	0.65	306.71	g/t
AgCap	73	59.79	85.38	61.86	0.72	0.65	306.71	g/t
AgAvgXCW	73	134.2	277.2	362.1	1.3	0.0	1711.2	g/t * m
AgCapXCW	73	134.2	270.3	339.7	1.3	0.0	1575.7	g/t * m
AgAvgXMW	73	133.2	273.3	336.4	1.2	0.2	1650.4	g/t * m
AgCapXMW	73	133.2	267.2	318.3	1.2	0.2	1519.7	g/t * m
AuEq	73	9.55	14.10	9.60	0.68	0.03	57.77	g/t
Ag/Au	73	6.35	6.95	4.58	0.66	1.31	75.00	
Crec	71	100	96	9	0.1	55	100	%
RQD	49	79	75	20	0	6	100	%
VnMTW	73	2.80	3.25	2.03	0.62	0.25	9.40	m
VnDipAZ	73	170	168	42	0	0	339	degrees
Vn_Dip	73	-75	-75	6	0	-90	-60	degrees
Vn_Code	73	55	66	31	0	55	155	
ConfCode	73	3	3	0	0	2	3	
VnCTW	73	2.6	3.2	2.2	0.7	0.0	9.2	m
VnCDW	73	4.2	5.6	5.3	0.9	0.4	28.6	m
VnCHW	73	2.7	3.4	2.3	0.7	0.0	9.8	m
Void	0							

"Avg" is the average of all check and duplicate samples for an interval; Note: CTW and CW are calculated true widths; MTW and MW are measured true widths

17.4.1.2 Minita 3 Vein

The Minita 3 vein is considerably smaller than Minita in width and strike length, and the grades are less persistent. Minita 3 mineralization displays clusters of well-mineralized areas and poorly mineralized areas, which pointed to modeling them separately. Descriptive statistics of the well-mineralized domain (65), the only one of economic interest, are given in Table 17.9. Minita 3 QQ plots and low CVs (coefficient of variation = standard deviation / mean) suggest that capping is not necessary (Table 17.9). The sample data were composited to full vein width for width determinations but excluded all samples with core recovery less than 25% for grade determinations (see section 11.2). Table 17.10 gives the composite statistics by vein of Minita 3.

Minita 3 parallels Minita and merges with Minita at its southern end. There is either another weakly mineralized vein, or a splay of Minita 3, that continues south beyond the merger.

Table 17.9 Descriptive Statistics of Minita 3 Vein Samples

Minita 3	(65)			Capping	None g Au/t		None g Ag/t	
	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Au-Average	45	4.86	8.55	9.48	1.11	0.11	39.6	g Au/t
Difference (%)			0%					
Au-Capped	45	4.86	8.55	9.48	1.11	0.11	39.6	g Au/t
Ag-Average	45	24.80	59.84	72.67	1.21	0.70	309.0	g Ag/t
Difference (%)			0%					
Ag-Capped	45	24.80	59.84	72.67		0.70	309.0	g Ag/t
Au Equivalent	45	5.22	9.40	10.47	1.11	0.12	44.0	g Aueq/t
AgAu Ratio	45	6.32	6.50	3.17	0.49	0.82	18.67	
Vein Measured True Th.	46	2.31	2.44	1.05	0.43	0.40	4.10	m
Vein Azimuth	46	180	169	16	0	140	195	deg.
Vein Dip	46	-67	-69	6	0	-84	-62	deg.
Vein Code	46					65	65	
Confidence Code**	46					2	3	
Void*	2					1	1	

"-Average" is the average of all check and duplicate samples for an interval

Table 17.10 Descriptive Statistics of Minita 3 Vein Composites

	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Length	16	2.8	2.7	1.6	0.6	0.4	6.3	m
To	16	263.0	250.7			58.2	354.2	m
AuAvg	16	6.85	7.59	5.10	0.67	0.70	20.90	g/t
AuCap	16	6.85	7.59	5.10	0.67	0.70	20.90	g/t
AuAvgXCW	16	6.7	17.1	17.6	1.0	1.4	59.4	g/t * m
AuCapXCW	16	6.7	17.1	17.6	1.0	1.4	59.4	g/t * m
AuAvgXMW	16	6.5	16.0	15.8	1.0	1.3	47.4	g/t * m
AuCapXMW	16	6.5	16.0	15.8	1.0	1.3	47.4	g/t * m
AgAvg	16	36.74	51.72	39.44	0.76	3.07	159.79	g/t
AgCap	16	36.74	51.72	39.44	0.76	3.07	159.79	g/t
AgAvgXCW	16	51.5	118.3	132.4	1.1	3.4	453.8	g/t * m
AgCapXCW	16	51.5	118.3	132.4	1.1	3.4	453.8	g/t * m
AgAvgXMW	16	49.9	110.9	119.5	1.1	3.6	362.7	g/t * m
AgCapXMW	16	49.9	110.9	119.5	1.1	3.6	362.7	g/t * m
AuEq	16	7.30	8.33	5.62	0.67	0.74	23.18	g/t
Ag/Au	16	6.14	6.48	2.52	0.39	1.33	10.88	
Crec	15	98	93	15	0.2	34	100	%
RQD	7	53	67	25	0	3	97	%
VnMTW	16	1.83	2.05	1.18	0.58	0.40	4.10	m
VnDipAZ	16	180.0	170.9	15.4	0.1	140.0	195.0	degrees
Vn_Dip	16	-67.5	-69.2	4.5	-0.1	-80.0	-62.0	degrees
Vn_Code	16	65	65	0	0	65	65	
ConfCode	16	3	3	0	0	2	3	
VnCTW	16	2.1	2.2	1.4	0.6	0.3	5.0	m
VnCDW	16	2.8	2.7	1.6	0.6	0.4	6.3	m
VnCHW	16	2.3	2.4	1.5	0.7	0.3	5.3	m
Void	0							

"-Average" is the average of all check and duplicate samples for an interval. Note: CTW and CW are calculated true widths; MTW and MW are measured true widths

17.4.1.3 Zancudo Vein

Zancudo, the smallest of the modeled veins, is a fairly well-understood vein, at least with respect to its location. It is a thin vein that, similar to Minita 3, does have clusters of well-mineralized areas and poorly mineralized areas. As in the case of Minita 3, the well-mineralized and poorly mineralized areas were modeled separately and the single well-mineralized domain (45) statistics are given in Table 17.11. Zancudo QQ plots and relatively low CVs suggest that capping of silver be done to 100 g Ag/t, and that no capping of the gold is necessary (Table 17.11). Capping the silver removed a considerable amount of the sample metal content (27%). The sample data were composited in a similar fashion to Minita and Minita 3. Table 17.12 gives the composite statistics of Zancudo vein composites.

Table 17.11 Descriptive Statistics of Zancudo Vein Samples

	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Au-Average	65	4.36	5.95	6.87	1.15	0.00	34.7	g Au/t
Difference (%)			0%					
Au-Capped	65	4.36	5.95	6.87	1.15	0.00	34.7	g Au/t
Ag-Average	65	25.20	42.50	63.91	1.50	0.10	294.0	g Ag/t
Difference (%)			-27%					
Ag-Capped	65	25.20	30.97	31.45	1.02	0.10	100.0	g Ag/t
Au Equivalen	65	4.79	6.56	7.74	1.18	0.01	38.9	g Aueq/t
AgAu Ratio	65	6.33	7.01	4.24	0.61	0.02	25.0	
Vein Measur	71	1.20	1.54	0.97	0.63	0.10	3.23	
Vein Azimuth	71	160	133	67	0.5	0	195	
Vein Dip	71	-80	-79	6	-0.1	-90	-60	
Confidence C	71					1	3	
Void	7					1	1	

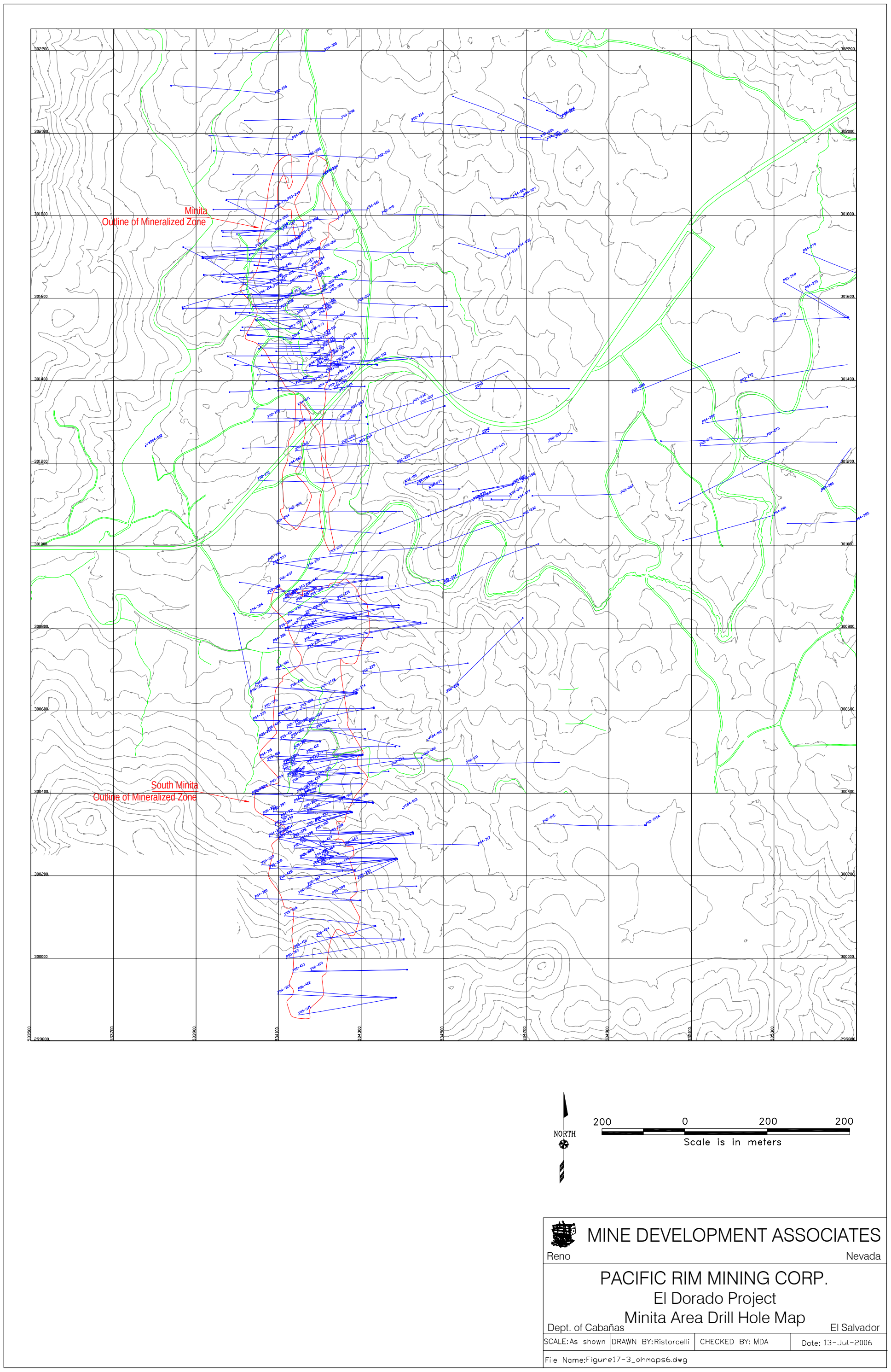
"-Average" is the average of all check and duplicate samples for an interval

Table 17.12 Descriptive Statistics of Zancudo Vein Composites

	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Length	41	1.4	1.6	1.2	0.7	0.2	5.8	m
To	41	219.6	219.5			56.6	453.8	m
AuAvg	38	4.13	5.22	5.39	1.03	0.03	34.70	g/t
AuCap	38	4.13	5.22	5.39	1.03	0.03	34.70	g/t
AuAvgXCW	38	3.7	5.4	5.9	1.1	0.0	30.5	g/t * m
AuCapXCW	38	3.7	5.4	5.9	1.1	0.0	30.5	g/t * m
AuAvgXMW	38	3.9	6.3	8.0	1.3	0.0	36.9	g/t * m
AuCapXMW	38	3.9	6.3	8.0	1.3	0.0	36.9	g/t * m
AgAvg	38	19.76	36.44	47.39	1.30	0.17	294.00	g/t
AgCap	38	18.93	23.00	13.66	0.59	0.17	60.00	g/t
AgAvgXCW	38	24.3	38.7	48.9	1.3	0.2	258.7	g/t * m
AgCapXCW	38	22.3	23.8	16.8	0.7	0.2	73.1	g/t * m
AgAvgXMW	38	21.5	47.5	70.8	1.5	0.2	332.2	g/t * m
AgCapXMW	38	21.5	27.5	26.7	1.0	0.2	155.0	g/t * m
AuEq	38	4.50	5.74	6.04	1.05	0.04	38.90	g/t
Ag/Au	41	5.82	5.76	3.21	0.56	1.00	13.79	
Crec	29	100	93	16	0.2	28	100	%
RQD	18	82	80	13	0	0	94	%
VnMTW	41	1.20	1.50	0.76	0.51	0.10	3.23	m
VnDipAZ	41	162	144	57	0	0	195	degrees
Vn_Dip	41	-80	-79	7	0	-90	-60	degrees
Vn_Code	41	45	45	0	0	45	45	
ConfCode	41	3	3	1	0	1	3	
VnCTW	41	0.9	1.0	0.7	0.7	0.1	3.9	m
VnCDW	41	1.4	1.7	1.3	0.7	0.2	7.0	m
VnCHW	41	0.9	1.0	0.7	0.7	0.1	4.0	m
Void	0							

"-Average" is the average of all check and duplicate samples for an interval; Note: CTW and CW are calculated true widths; MTW and MW are measured true widths

Figure 17.3 Minita Area Drill Hole Plan Map



17.4.2 South Minita Area

All ten veins in the South Minita area were estimated as "2D" models[11] in 3D space, the same way as at Minita. For brevity, the discussion in this report will present statistical data on the three main veins, which represent 51%, 10%, and 15% of the total South Minita resource based on ounces of metal; that is 75% of the entire South Minita Indicated resource. All of the veins, however, had similar analyses, as are presented below. In all cases, the South Minita veins were modeled in their entirety, meaning that the distinction between well-mineralized and not-well-mineralized veins was made using inverse distance to a higher power in the estimation process rather than by using hard boundaries.

17.4.2.1 Footwall Vein (1015)

Throughout the exploration of South Minita, the Footwall Vein was always considered the most persistent and dominant vein of the set. It is called the "Pink Vein" in some compilations, and has been assigned the number 1015 in the resource database. It lies along the footwall of the lode zone and is present in most of the drill holes that intersect the lode. Footwall QQ plots suggest that capping of silver be done at 250 g Ag/t and of the gold be done at 60 g Au/t (Table 17.13). The sample data were composited in a similar fashion to the Minita veins. Table 17.14 gives the composite statistics of South Minita Footwall vein composites.

Table 17.13 Descriptive Statistics of the Footwall Vein Samples – South Minita

		(1015 and 1115)		Capping	60 g Au/t		250 g Ag/t	
	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Au-Average	315	3.30	6.95	11.21	1.61	0.00	148.40	g Au/t
Difference			-2%					
Au-Capped	315	3.30	6.84	10.19	1.49	0.00	60.00	g Au/t
Ag-Average	315	11.80	43.94	68.26	1.55	0.40	680.9	g Ag/t
Difference			-3%					
Ag-Capped	315	11.80	42.78	61.08	1.43	0.40	250.0	g Ag/t
Au Equivalent	315	3.54	7.58	12.06	1.59	0.02	158.1	g AuEq/t
AgAu Ratio	315	5.89	25.05	170.15	6.79	0.20	2000.0	
Core Recovery	259	100	100	2	0	80	100	%
RQD	259	69	67	19	0	0	100	%
Vein Width	316	3.2	3.4	2.2	0.7	0.1	8.6	m
Confidence Code	316	2	2	1	0	1	3	
Void	0							

[11] These truly are estimated in 3D space but have variable block dimensions in the horizontal east-west direction representing variable vein widths. These models are sometimes referred to as grade accumulation models. These types of models are made by estimating, on a block by block basis, metal (also referred to as accumulation or grade times thickness) and vein thickness and dividing the "accumulation" of grade and thickness by the estimated vein thickness to determine grade.

Table 17.14 Descriptive Statistics of the Footwall Vein Composites – South Minita

(1015 and 1115)

	Sum of w	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
AuAvg	91	4.19	6.95	8.70	1.25	0.03	148.40	g/t
AuCap	91	4.19	6.84	7.35	1.07	0.03	60.00	g/t
AuAvgXCW	91	6.8	14.6	23.7	1.6	0.0	179.0	g/t*m
AuCapXCW	91	6.8	14.4	23.6	1.65	0.0	179.0	g/t*m
AuAvgXMW	91	6.0	13.9	20.8	1.5	0.0	140.8	g/t*m
AuCapXMW	91	6.0	13.7	20.8	1.5	0.0	140.8	g/t*m
AgAvg	91	22.72	44.02	54.93	1.25	0.50	680.90	g/t
AgCap	91	22.72	44.02	54.93	1.25	0.50	680.90	g/t
AgAvgXCW	91	25.5	92.7	148.9	1.6	0.1	991.7	g/t*m
AgCapXCW	91	25.5	92.7	148.9	1.61	0.1	991.7	g/t*m
AgAvgXMW	91	26.7	87.8	135.2	1.5	0.2	779.8	g/t*m
AgCapXMW	91	26.7	87.8	135.2	1.5	0.2	779.8	g/t*m
Au Equivalent	91	4.71	7.58	9.41	1.24	0.04	158.12	g/t
Ag/Au	92	6.52	7.38	5.60	0.76	0.69	40.74	
Core Recovery	72	100	100	1	0	92	100	%
RQD	72	68	67	16	0	30	100	%
Vein MTW	92	1.4	2.0	1.8	0.9	0.1	8.6	m
Vein Azimuth	92	360.0	356.2	36.5	0.1	10.0	360.0	m
Vein Dip	92	-60	-62	10	0	-85	-35	degrees
Vein Code	92	1015	1052	49	0	1015	1115	degrees
Confidence Code	92	2	2	1	0	1	3	
Vein CTW	92	1.4	2.0	1.9	0.9	0.1	9.0	m
Vein CDW	92	1.7	2.6	2.5	0.9	0.1	12.4	m
Vein CHW	92	1.5	2.4	2.3	1.0	0.1	10.6	m
Void	0							

Note: CTW and CW are calculated true widths; MTW and MW are measured true widths

17.4.2.2 Hanging Wall to Footwall Vein (1017)

There are three veins defined in the hanging wall of the Footwall Vein and still within the lode: 1017, which dominates, and two others 1016 and 1018. Vein 1017 lies above 1016, which in turn lies above 1015, the main Footwall Vein. QQ plots suggest that capping of the silver be done to 250 g Ag/t and capping of the gold be done at 60 g Au/t (Table 17.15). The sample data were composited in a similar fashion to the Minita veins. Table 17.16 gives the composite statistics of South Minita second hanging wall vein to the Footwall vein, the 1017 vein.

Table 17.15 Descriptive Statistics of 1017 Vein Samples – South Minita

	(1017 and 1117)			Capping	40 g Au/t		500 g Ag/t	
	Valid N	Median	Mean	Std.Dev.	CV	Min.	Max.	Units
Au-Average	113	2.72	6.56	12.11	1.85	0.01	99.34	g Au/t
Difference			-10%					
Au-Capped	113	2.72	5.92	8.22	1.39	0.01	40.00	g Au/t
Ag-Average	113	19.10	45.98	91.22	1.98	0.50	795.6	g Ag/t
Difference			-5%					
Ag-Capped	113	19.10	43.60	74.24	1.70	0.50	500.0	g Ag/t
Au Equivalent	113	3.00	7.22	13.35	1.85	0.02	110.7	g Aueq/t
AgAu Ratio	113	8.22	9.93	9.99	1.01	0.29	70.0	
Core Recovery	73	100	99	6	0	50	100	%
RQD	73	68	66	19	0	0	100	%
Vein Width	114	1.3	2.1	1.9	0.9	0.1	6.2	m
Confidence Coc	114	2	2	1	0	1	3	
Void	0							

Table 17.16 Descriptive Statistics of 1017 Vein Composites – South Minita
(1017 and 1117)

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
AuAvg	53	4.26	6.78	6.76	1.00	0.01	22.10	g/t
AuCap	53	4.26	6.14	5.72	0.93	0.01	21.79	g/t
AuAvgXCW	53	2.0	7.4	19.8	2.7	0.0	138.6	g/t*m
AuCapXCW	53	2.0	6.7	15.8	2.35	0.0	106.7	g/t*m
AuAvgXMW	53	2.1	6.9	16.6	2.4	0.0	113.2	g/t*m
AuCapXMW	53	2.1	6.3	13.5	2.1	0.0	87.2	g/t*m
AgAvg	53	28.29	47.10	52.68	1.12	0.60	201.00	g/t
AgCap	53	28.29	44.73	48.15	1.08	0.60	201.00	g/t
AgAvgXCW	53	9.8	51.5	161.5	3.1	0.0	1136.4	g/t*m
AgCapXCW	53	9.8	49.0	145.0	2.96	0.0	1007.3	g/t*m
AgAvgXMW	53	10.5	47.4	135.3	2.9	0.1	928.3	g/t*m
AgCapXMW	53	10.5	45.4	122.2	2.7	0.1	822.9	g/t*m
Au Equivalent	53	4.66	7.45	7.44	1.00	0.02	23.64	g/t
Ag/Au	53	7.50	7.39	3.00	0.41	0.29	70.00	
Core Recovery	36	100	99	7	0	50	100	%
RQD	36	66	68	15	0	12	100	%
Vein MTW	53	0.6	1.1	1.2	1.1	0.1	6.2	%
Vein Azimuth	53	360.0	360.0	0.0	0.0	360.0	360.0	m
Vein Dip	53	-60	-64	10	0	-90	-40	degrees
Vein Code	53	1117	1074	50	0	1017	1117	degrees
Confidence Code	53	2	2	1	0	1	3	
Vein CTW	53	0.7	1.1	1.4	1.2	0.1	7.6	m
Vein CDW	53	0.9	1.5	1.9	1.3	0.1	11.1	m
Vein CHW	53	0.7	1.3	1.6	1.2	0.1	8.4	m
Void	0							

Note: CTW and CW are calculated true widths; MTW and MW are measured true widths

17.4.2.3 Lowest Hanging Wall Vein (1035)

In the hanging wall of the lode are several veins, the lowest and most prominent of which is 1035. Capping in this zone was done to 40 g Au/t and 250 g Ag/t (Table 17.14), representing 2% and 4% of the metal, respectively. The sample data were composited in a similar fashion to the Minita veins. Table 17.15 gives the composite statistics of South Minita Footwall vein.

Table 17.17 Descriptive Statistics of 1035 Vein Samples – South Minita

		(1035 and 1135)		Capping	40 g Au/t		250 g Ag/t	
	Valid N	**Median**	**Mean**	**Std.Dev.**	**CV**	**Min.**	**Max.**	**Units**
Au-Averag	149	2.13	6.01	9.48	1.58	0.01	64.25	g Au/t
Difference			-2%					
Au-Cappe(	149	2.13	5.88	8.88	1.51	0.01	40.00	g Au/t
Ag-Averag	149	14.50	48.75	74.03	1.52	0.40	414.1	g Ag/t
Difference			-4%					
Ag-Cappe(	149	14.50	46.73	66.72	1.43	0.40	250.0	g Ag/t
Au Equival	149	2.26	6.70	10.50	1.57	0.02	70.2	g Aueq/t
AgAu Ratio	149	8.11	12.21	22.74	1.86	0.76	381.0	
Core Reco	115	100	100	1	0	97	100	%
RQD	115	74	70	20	0	0	100	%
Vein Width	149	1.6	1.8	1.3	0.8	0.1	4.3	m
Confidence	149	2	2	1	0	1	3	
Void	0							

Table 17.18 Descriptive Statistics of 1035 Vein Composites – South Minita

(1035 and 1135)

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
AuAvg	74	3.69	6.02	7.52	1.25	0.01	38.98	g/t
AuCap	74	3.69	5.89	7.21	1.22	0.01	38.98	g/t
AuAvgXCW	74	1.8	6.4	10.0	1.6	0.0	47.6	g/t*m
AuCapXCW	74	1.8	6.3	9.7	1.55	0.0	47.6	g/t*m
AuAvgXMW	74	2.0	6.7	10.4	1.6	0.0	46.0	g/t*m
AuCapXMW	74	2.0	6.6	10.2	1.6	0.0	46.0	g/t*m
AgAvg	74	23.42	48.75	60.50	1.24	0.40	324.80	g/t
AgCap	74	23.42	46.69	54.76	1.17	0.40	250.00	g/t
AgAvgXCW	74	14.5	52.2	82.1	1.6	0.1	361.3	g/t*m
AgCapXCW	74	14.5	49.9	77.8	1.56	0.1	361.3	g/t*m
AgAvgXMW	74	15.4	53.7	83.8	1.6	0.0	349.7	g/t*m
AgCapXMW	74	15.4	51.4	79.6	1.5	0.0	349.7	g/t*m
Au Equivalent	74	3.88	6.72	8.36	1.24	0.02	43.62	g/t
Ag/Au	74	7.94	9.10	6.17	0.68	1.02	41.67	
Core Recovery	56	100	100	1	0	97	100	%
RQD	56	78	70	17	0	29	100	%
Vein MTW	74	0.7	1.0	1.0	1.0	0.1	4.3	%
Vein Azimuth	74	360.0	360.0	0.0	0.0	360.0	360.0	m
Vein Dip	74	-55	-54	12	0	-80	-25	degrees
Vein Code	74	1035	1081	50	0	1035	1135	degrees
Confidence Code	74	2	2	1	0	1	3	
Vein CTW	74	0.6	1.1	1.1	1.0	0.1	4.8	m
Vein CDW	74	0.7	1.2	1.2	1.0	0.1	5.6	m
Vein CHW	74	0.8	1.5	1.7	1.1	0.1	7.6	m
Void	0							

Note: CTW and CW are calculated true widths; MTW and MW are measured true widths

17.4.3 Nance Dulce Area

Only two of the 16 veins were modeled. These veins were modeled in a similar way to Minita and South Minita, namely as 2D models in 3D space. The discussion in this report will present statistical data on only those two veins, the West Vein (2035) and the East Vein (2075). The East and West Veins were modeled in their entirety without distinction between well-mineralized and not-well-mineralized veins, although some grade restrictions were placed on the high-grade intercepts.

17.4.3.1 West Vein (2035)

The West Vein is smaller in total tonnes but is substantially higher in grade than the East Vein. The West Vein is not the most westerly of the veins but it is the western-most of the two prominent veins. Three discontinuous veins occur to the west of the West Vein. West Vein QQ plots suggest that capping is not necessary; the final composite statistics of the West Vein are given in Table 17.19. The sample data were composited to the entire vein intervals.

Table 17.19 Descriptive Statistics of the West Vein Composite Samples – Nance Dulce

West Vein (2035 and 2135)

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Au-Average	12	17.41	14.02	15.04	1.07	0.10	50.02	g Au/t
Difference			0%					
Au-Capped	12	17.41	14.02	15.04	1.07	0.10	50.02	g Au/t
Ag-Average	12	85.91	89.16	86.38	0.97	2.23	255.30	g Ag/t
Difference			0%					
Ag-Average	12	85.91	89.16	86.38	0.97	2.23	255.30	g Ag/t
Au Equivalent	12	18.87	15.29	16.15	1.06	0.21	52.84	g AuEq/t
AgAu Ratio	12	6.68	23.45	33.46	1.43	2.53	87.58	
Confidence Code	11	3.0	2.5	0.7	0.3	1.0	3.0	
Vein Width	12	0.5	0.6	0.4	0.8	0.1	1.6	m

17.4.3.2 East Vein (2075)

The East Vein is larger in total tonnes but lower grade than the West Vein. The East Vein is not the most easterly of the veins but it is the eastern-most of the two prominent veins. Three discontinuous veins occur to the east of the East Vein. QQ plots suggest that capping was necessary for the East Vein and the gold was capped to 45 g Au/t and the silver was capped to 300 g Ag/t. Composite statistics of the East Vein are given in Table 17.20. The sample data were composited to the entire vein intervals.

Table 17.20 Descriptive Statistics of the East Vein Composite Samples – Nance Dulce

West Vein (2075 and 2175)

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Au-Average	11	6.85	9.77	12.31	1.26	0.03	39.32	g Au/t
Difference			-4%					
Au-Capped	11	5.98	9.38	12.22	1.30	0.03	39.32	g Au/t
Ag-Average	11	51.51	67.05	75.44	1.13	1.76	225.02	g Ag/t
Difference			-4%					
Ag-Average	11	44.46	64.09	75.09	1.17	1.76	220.05	g Ag/t
Au Equivalent	11	7.59	10.73	13.36	1.25	0.06	42.39	g AuEq/t
AgAu Ratio	11	7.50	11.36	13.72	1.21	2.22	53.33	
Confidence Code	11	2.0	2.2	0.6	0.3	1.0	3.0	
Vein Width	11	0.6	0.9	0.8	0.8	0.1	2.7	m

17.4.4 La Coyotera Area

La Coyotera was modeled using a conventional three dimensional block model. Block sizes were 2 (north) m by 5 m by 5 m. The domains described in section 17.1.2 were modeled on section, digitized and used to code the sample data. The sample statistics are given in Table 17.21. The samples were composited to 2.5 m intervals, excluding all samples with core recovery of less than 25%. Capping levels were determined for each zone separately and represented between 1% and 9% of the metal value. Capping was done prior to compositing, and compositing honored the domains. Descriptive statistics of the composite database by zone are given in Table 17.22. Figure 17.4 is a drill hole map of the La Coyotera area. The cross sectional model was taken to plan and also reconciled with the composite data. These zones were used to code the model and for final volumes and grade estimation controls.

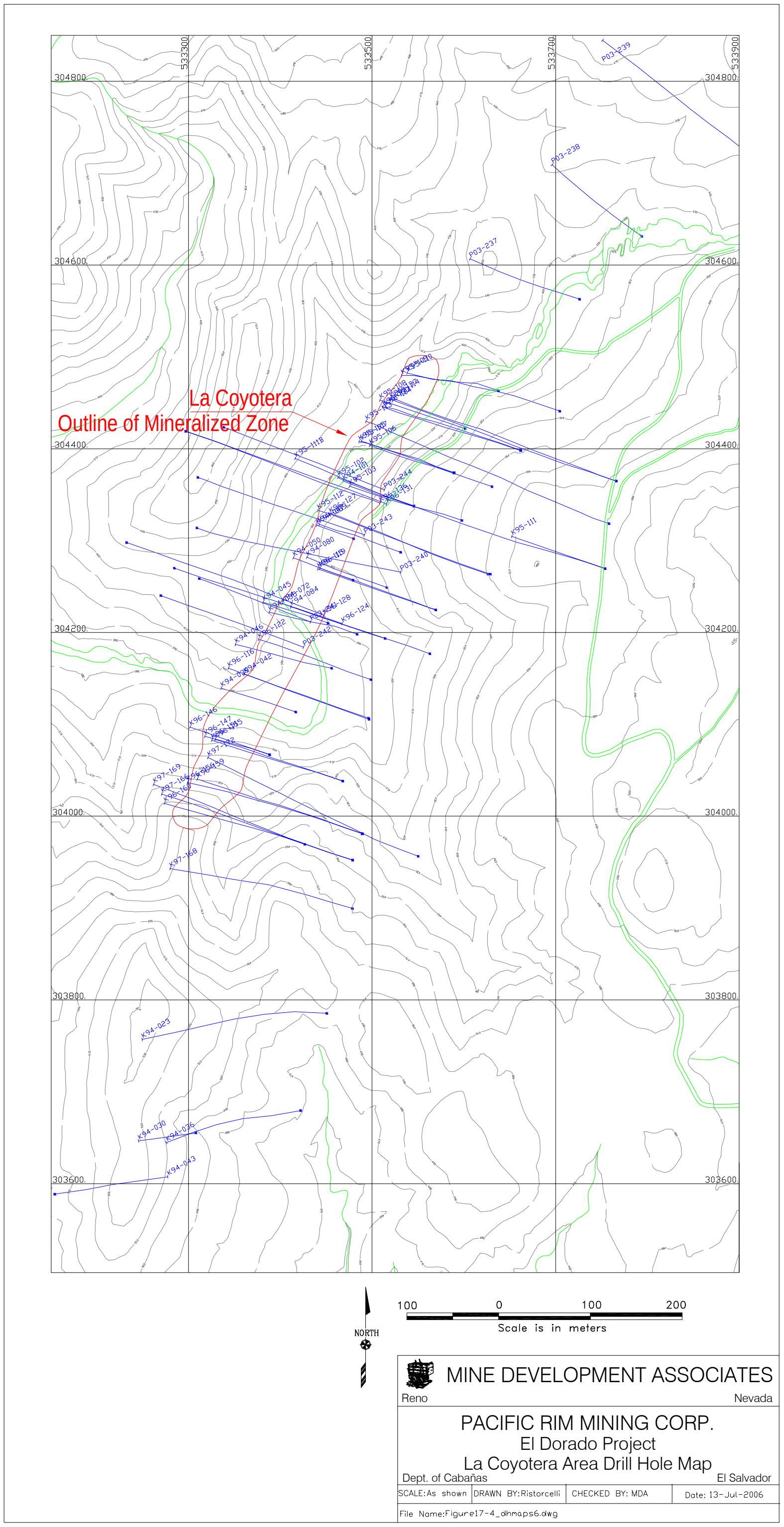
Table 17.21 Descriptive Statistics of La Coyotera Area Samples

Coyotera		**Zone 11**		**Capping Level (Au/Ag)**			**4.5**	**60**
	Valid N	**Median**	**Mean**	**Std. Dev**	**CV**	**Min.**	**Max.**	**Units**
Au-Average	909	0.33	0.67	0.96	1.43	0.01	13.9	g Au/t
Difference			-3%					
Au-Capped	909	0.33	0.65	0.80	1.23	0.01	4.5	g Au/t
Ag-Average	890	4.50	7.89	9.56	1.21	0.03	96	g Ag/t
Difference			-1%					
Ag-Capped	890	4.50	7.82	9.12	1.16	0.03	60	g Ag/t
Au Equivalent	857	0.39	0.72	1.04	1.43	0.01	15	g Aueq/t
Ag/Au Ratio	857	12.1	18.8	23.9	1.3	1.0	472.0	
Zone	924					11	11	
Core Recovery	786	100	88	21	0	17	100	%
RQD	34	21	26	18	1	0	52	%
Coyotera		**Zone 12**		**Capping Level (Au/Ag)**			**6.0**	**100**
	Valid N	**Median**	**Mean**	**Std. Dev**	**CV**	**Min.**	**Max.**	**Units**
Au-Average	194	1.65	2.12	2.16	1.02	0.02	18.1	g Au/t
Difference			-9%					
Au-Capped	194	1.65	1.95	1.38	0.70	0.02	6.0	g Au/t
Ag-Average	189	20.05	24.50	20.76	0.85	1.70	206	g Ag/t
Difference			-2%					
Ag-Capped	189	20.05	23.98	17.22	0.72	1.70	100	g Ag/t
Au Equivalent	187	2.04	2.50	2.33	0.93	0.07	19	g Aueq/t
Ag/Au Ratio	187	13.2	20.8	27.2	1.3	0.7	272.9	
Zone	202					12	12	
Core Recovery	189	89	77	25	0	0	100	%
RQD	14	0	15	19	1	0	57	%
Coyotera		**Zone 13**		**Capping Level (Au/Ag)**			**40.0**	**400**
	Valid N	**Median**	**Mean**	**Std. Dev**	**CV**	**Min.**	**Max.**	**Units**
Au-Average	343	6.05	9.64	12.60	1.31	0.02	155.8	g Au/t
Difference			-7%					
Au-Capped	343	6.05	8.99	8.48	0.94	0.02	40.0	g Au/t
Ag-Average	342	48.95	74.37	100.02	1.34	0.10	1084	g Ag/t
Difference			-6%					
Ag-Capped	342	48.95	70.14	71.90	1.03	0.10	400	g Ag/t
Au Equivalent	335	6.88	11.00	13.90	1.26	0.02	168	g Aueq/t
Ag/Au Ratio	335	7.5	10.4	9.4	0.9	0.8	103.7	
Zone	350					13	13	
Core Recovery	303	100	77	28	0	14	100	%
RQD	9	0	6	11	2	0	22	%

Table 17.22 Descriptive Statistics of La Coyotera Composites

Coyotera	Zone 11							
	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
Length	461	2.50	2.04			0.00	2.5	m
Au-Average	461	0.40	0.61	0.68	1.11	0.01	10.2	g Au/t
Difference			-4%					
Au-Capped	461	0.40	0.59	0.57	0.96	0.01	5	g Au/t
Ag-Average	454	5.05	7.51	7.58	1.01	0.16	81	g Ag/t
Difference			-1%					
Ag-Capped	454	5.05	7.44	7.29	0.98	0.16	60	g Ag/t
Zone	461					11	11	
Core Recovery	424	98	88	17	0	27	100	%
RQD	14	22	25	15	1	0	52	%
Coyotera	**Zone 12**							
	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
Length	101	2.50	1.91			0.00	2.5	g/t
AuAvg	99	1.87	2.13	1.47	0.69	0.22	10.9	g/t
Difference			-9%					
AuCap	99	1.87	1.96	0.99	0.51	0.22	6	g/t
AgAvg	97	22.01	24.54	15.08	0.61	3.91	93	g/t
Difference			-2%					
AgCap	97	22.01	23.97	13.14	0.55	3.91	72	g/t
Zone	101					12	12	
CRec	96	81	78	22	0	25	100	
RQD	3	15	15	0	0	15	15	%
Coyotera	**Zone 13**							
	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
Length	157	2.50	1.93			0.10	2.5	g/t
AuAvg	157	7.00	9.91	9.95	1.00	0.19	83.0	g/t
Difference			-8%					
AuCap	157	7.00	9.17	6.61	0.72	0.19	36	g/t
AgAvg	156	64.36	75.32	75.66	1.00	1.50	569	g/t
Difference			-5%					
AgCap	156	64.36	71.51	55.94	0.78	1.50	321	g/t
Zone	157					13	13	g/t
CRec	146	88	80	22	0	26	100	
RQD	2	9	6	5	1	0	9	%

Figure 17.4 La Coyotera Area Drill Hole Map



17.4.5 Nueva Esperanza Area

Nueva Esperanza, like La Coyotera, was modeled using a conventional three dimensional block model. Block sizes are 10 (north) m by 5 m by 5 m. Two domains were modeled (section 17.1.2) on section, digitized and used to code the sample data. These sectional zones were taken to plan and used to code the block model and control grade estimation and give volumes.

The sample statistics are given in Table 17.23. The samples were composited to 2.5 m intervals excluding all samples with core recovery of less than 25%. Capping levels were determined for each of the two zones separately, which represented between 2% and 7% of the metal value. Capping was done prior to compositing. Descriptive statistics of the composite database by zone are given in Table 17.24. Figure 17.5 is a drill hole map of the Nueva Esperanza area.

Table 17.23 Descriptive Statistics of Nueva Esperanza Samples

Nueva Esperanza — Zone 1

	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
Length	562	1.3	1.4			0	6	m
Au-Average	542	0.38	0.84	1.45	1.73	0.00	17	g Au/t
Difference			-7%					
Au-Capped	542	0.38	0.78	1.05	1.34	0.00	6	g Au/t
Ag-Average	531	1.50	4.59	9.44	2.06	0.03	91	g Ag/t
Difference			-3%					
Ag-Capped	531	1.50	4.47	8.52	1.90	0.03	60	g Ag/t
Au Equivalent	474	0.39	0.75	1.13	1.52	0.00	13	g Aueq/t
Ag/Au Ratio	474	4.71	7.73	10.73	1.39	0.03	99	
Zone	562					1	1	
Core Recovery	404	100	90	18	0	22	100	%
RQD	36	88	86	18	0	0	100	%

Nueva Esperanza — Zone 2

	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
Length	139	1.1	1.3			0	10	m
Au-Average	132	4.18	6.95	7.12	1.03	0.09	36	g Au/t
Difference			-2%					
Au-Capped	132	4.18	6.81	6.61	0.97	0.09	30	g Au/t
Ag-Average	131	24.00	41.68	56.32	1.35	0.17	295	g Ag/t
Difference			-6%					
Ag-Capped	131	24.00	39.35	46.97	1.19	0.17	200	g Ag/t
Au Equivalent	124	4.59	7.86	8.21	1.04	0.09	40	g Aueq/t
Ag/Au Ratio	124	5.68	6.95	8.35	1.20	0.76	99	
Zone	139					2	2	
Core Recovery	102	89	77	23	0	5	100	%
RQD	7	84	85	1	0	84	86	%

Table 17.24 Descriptive Statistics of Nueva Esperanza Composites

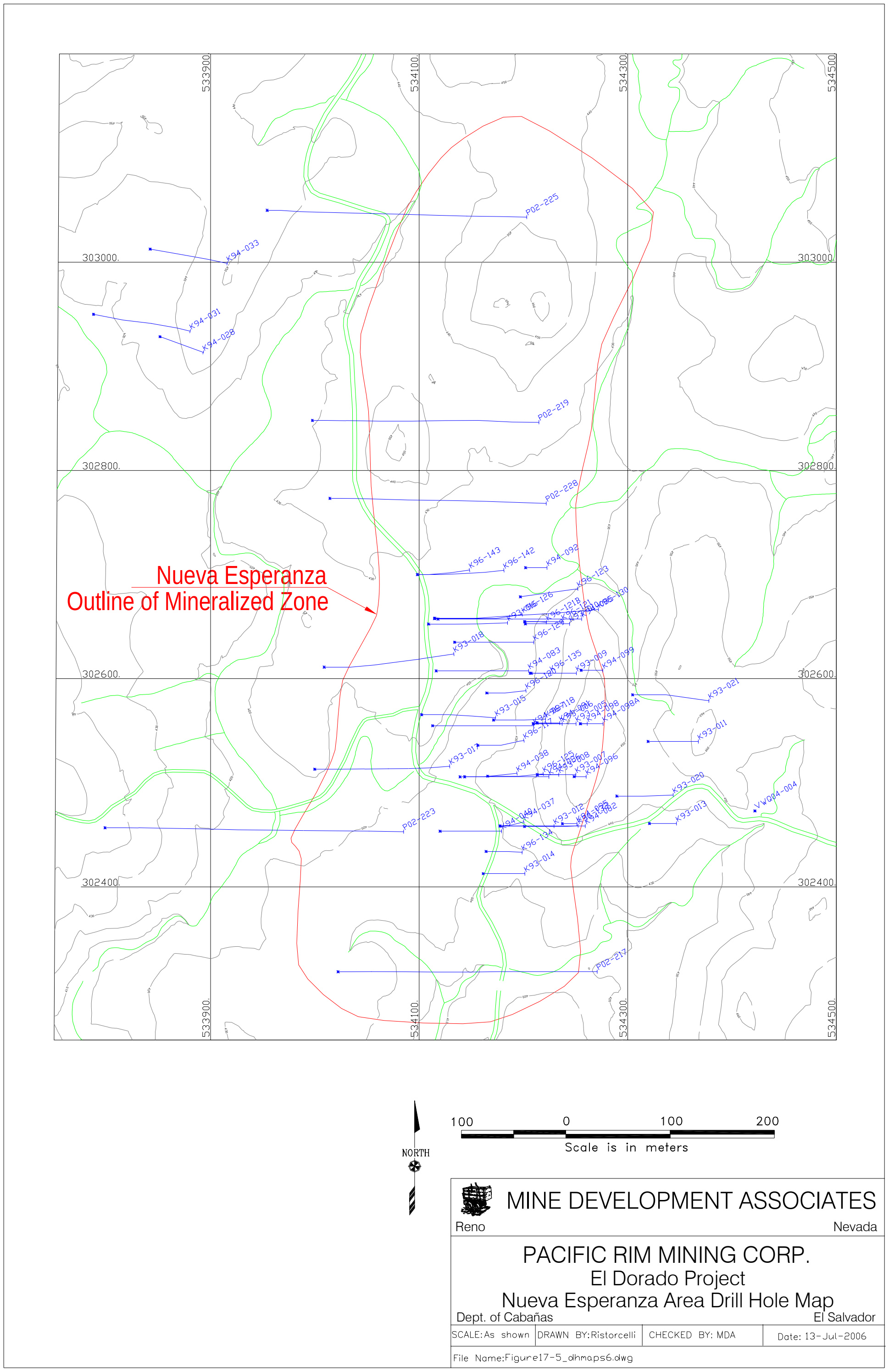
Nueva Esperanza **Zone 1**

	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
Length	301	2.5	2.0			-	3	m
Au-Average	296	0.45	0.69	0.78	1.13	0.03	6.0	g Au/t
Difference			-3%					
Au-Capped	296	0.45	0.67	0.67	1.00	0.03	4.0	g Au/t
Ag-Average	290	1.64	4.23	7.05	1.67	0.17	52	g Ag/t
Difference			-3%					
Ag-Capped	290	1.64	4.10	6.33	1.54	0.17	41	g Ag/t
Zone	301					1	1	
Core Recovery	244	100	91	16	0	29	100	%
RQD	19	87	85	18	0	14	100	%

Nueva Esperanza **Zone 2**

	Valid N	Median	Mean	Std. Dev	CV	Min.	Max.	Units
Length	83	1.9	1.7			-	3	m
Au-Average	75	4.94	7.16	6.17	0.86	0.45	31.8	g Au/t
Difference			-2%					
Au-Capped	75	4.94	7.01	5.74	0.82	0.45	30.0	g Au/t
Ag-Average	74	27.95	46.07	52.53	1.14	0.50	295	
Difference			-6%					
Ag-Capped	74	27.95	43.37	43.25	1.00	0.50	200	g Ag/t
Zone	83					2	2	
Core Recovery	59	82	79	19	0	38	100	%
RQD	2	85	85	1	0	84	85	%

Figure 17.5 Nueva Esperanza Area Drill Hole Map



17.5 Modeling

Modeling the three resource areas began with discussions with Pacific Rim geologists, who gave insight and guidance as to the styles of mineralization. Modeling then went on to construction of cross sections and definition of domains; the Pacific Rim staff was heavily involved in the geologic modeling so as to incorporate their knowledge. Procedures then went on to coding, capping and compositing, classical statistics, and geostatistics, prior to grade estimation. Several grade models were made for each metal for validation, along with volume and point validation checking.

MDA only modeled three of the thirteen defined veins at Minita but all ten at South Minita. Someday, all the veins should be modeled because in spite of the relatively low-quality resource the smaller veins might provide, they could add some mine life to the project.

17.5.1 Minita Area Modeling

Once defined on cross section, the composites and interpreted extents of the vein were taken to long section. This was used for the ultimate control on vein area. Estimations of veins widths were used for volume determination along with the long section area.

Geostatistical analyses were performed on thickness, gold and gold grade times thickness, silver and silver grade times thickness. Ristorcelli and Ronning (2003) presented the variograms for this work; as nothing new has been done for this update, the reader is referred to the 2003 reports. After each vein was defined on section, the outlines were digitized. The footwall of each vein was then used to make a three dimensional surface. This surface, within the bounds or limits of the vein defined on long section, was used to code the location of the vein in the model and for all further modeling. MDA plotted all underground workings and underground samples and removed these volumes from the model and resource estimate.

Because of the unique method of estimating vein deposits, extra features were collected and estimated. A list of those items is given below:

> **Core recovery (CRec):** Core recovery was always estimated as it was used in resource classification. The values were estimated with the same parameters and weighting as gold times thickness values.
>
> **Confidence Code (ConfC):** This is a classification of confidence in a particular intercept. It is a subjective code that considers location, sample quality, and certainty that the composite is and properly represents the vein intercept. This value is used for evaluating the need for future development drilling, as well as in resource classification at the Minita mine area. This was always estimated by the nearest neighbor method.

Measured true width (MTW): MTW is the measured true width measured from drill log geologic data and, in particular, graphic data, taking into account sample lengths and angles to core axes. This was used as a check on the calculated true width.

Calculated true width (CTW): CTW is the calculated true width, which is based on the angle of the drill hole at the intercept and the strike and dip of the vein at the intercept.

Horizontal true width (HTW): HTW is the calculated horizontal width, which is based on the angle of the drill hole at the intercept and the strike and dip of the vein at the intercept. This value is used for tonnage calculations in the "vertical" GSM (gridded seam model) block model.

17.5.1.1 Minita Vein Modeling

At the Minita vein, continuity of metal and thickness was demonstrated to be good to very good, both from a visual standpoint and from a geostatistical standpoint, with ranges up to 100 m (Appendix D). As the composites are of varying length, grade thickness modeling was required. Models were estimated by kriging, inverse distance cubed (ID^3), and nearest neighbor. Comparing the estimate to the composite data, it was determined that the ID^3 model was the best fit. So the calculated vein true width (CTW), the capped gold grade times calculated true width (AuC * CTW), and capped silver grade times calculated true width (AgC * CTW) were estimated with the parameters given in Table 17.25. At Minita, the high-grade or well-mineralized domain (55) was modeled together with the weakly mineralized domains (155) because the few weakly mineralized samples occurred interspersed with the well-mineralized samples. Minita long sections are given in Figure 17.6 and Figure 17.17. MDA also estimated core recovery (CRec), confidence code (ConfC), and measured true width (MTW). Estimation parameters are given in 17.16.

Tonnes per block were calculated by multiplying the block volume (height [3 m] times length [5 m] by width [HTW]) by the specific gravity (2.46 g/cm^3). The number of samples and the distance to the nearest sample were stored for each estimated block.

Due to the distribution and limited nature of the drilling at the north end of the Minita vein, one hole with a high-grade assay (37.466 g Au/t; at ~301,950N) estimates ~2.0% of the ounces in the Minita vein. A hard boundary constrains it at the north, eliminating extrapolation. Following all other parameters and conditions, this falls into the Measured and Indicated classification, which is justified throughout the rest of the deposit. However, this area requires further drilling for better definition, while it could also generate a larger resource extending to the north and down dip. This potential exaggeration of tonnes and grade and metal is compensated for by the south end (~301,300N) where drilling intersected the Minita vein but, due to complex configurations and conflicting drill data evidence, the vein in that part of the deposit was eliminated entirely from the resource.

17.5.1.2 Minita 3 Vein Modeling

Continuity of metal and thickness is more variable for the Minita 3 Vein than for the Minita Vein. The study showed that the weakly mineralized structures (coded as 165) clustered separately from the well-mineralized veins (65). As such, MDA defined these zones using nearest neighbor and then estimated the grades separately for each. Essentially all the low-grade zone (ZONE 2 or VNCD 165) is well below economic grade. Like the highest grades at Minita, the highest grades at Minita 3 are associated with colloform banding and corrensite. No variograms could be generated because the points were too few. As in the case of Minita, grade thickness modeling was required. Models were estimated only by inverse distance cubed (ID^3) and checked with nearest neighbor. The calculated vein true width (CTW), the capped gold grade times calculated true width (AuC * CTW), and capped silver grade times calculated true width (AgC * CTW) were estimated with the parameters given in Table 17.25. The Minita3 long sections are given in and Figure 17.9. MDA also estimated core recovery (CRec), confidence code (ConfC), measured true width (MTW). Tonnes per block were calculated by multiplying the block volume (height (3 m) times length (10 m) by width (HTW)) by the specific gravity (2.46 g/cm^3). The number of samples and the distance to the nearest sample were stored for each estimated block.

17.5.1.3 Zancudo Vein Modeling

For the same reasons as at Minita 3, the same logic and parameters (except for a shorter distance) were used in the Zancudo modeling. Estimation parameters are given in Table 17.25.

Table 17.25 Estimation Parameters for Minita Area Veins

Parameter	Item	Minita Vein	Minita 3 Vein	Zancudo Vein
Estimation method	CTW	ID^3	ID^3	ID^3
Min/Max composites	CTW	1 / 8	1 / 8	1 / 8
Zones used	CTW	55 and 155	65 and 165 separately	45 and 145 separately
Distance (m)	CTW	200	200	150
Estimation method	AUC*CTW	ID^3	ID^3	ID^3
Min/Max composites	AUC*CTW	1 / 10	1 / 8	1 / 8
Zones used	AUC*CTW	55 and 155	65 and 165 separately	45 and 145 separately
Distance (m)	AUC*CTW	200	200	150
Estimation method	AGC*CTW	ID^3	ID^3	ID^3
Min/Max composites	AGC*CTW	1 / 10	1 / 8	1 / 8
Zones used	AGC*CTW	55 and 155	65 and 165 separately	45 and 145 separately
Distance (m)	AGC*CTW	200	200	150

17.5.2 South Minita Area Modeling

Geostatistical analyses were performed on thickness, gold grade times thickness, and silver grade times thickness (Appendix D). After each vein was defined on section, the outlines or extents were digitized. The footwall of each vein was then used to make a three dimensional surface. This surface, within the bounds or extents of the vein, was used to code the footwall (west wall) location of the vein. There are no underground workings at South Minita. As at Minita, other features were estimated as well (see list in section 17.5.1).

At South Minita, vein continuity, metal content, and thickness are based on geologic interpretation and geostatistics. These parameters have been shown to be less predictable than at Minita. Correlogram ranges rarely reached 100 m and then only for thickness (Appendix D). As the composites are of varying length, grade thickness ("accumulation") modeling was required. Models were estimated only by inverse distance estimation and nearest neighbor. Because of the inappropriate estimation results at Minita in 2003 that were derived using kriging estimation, kriging was not attempted at South Minita. MDA segregated the well-mineralized vein from the less well-mineralized vein during estimation. Rather peculiar results were obtained. While there may in fact be hard boundaries between the well-mineralized (banded, black sulfides, leached texture) vein material and the weakly mineralized vein material (<~3 g Au/t), the drill spacing and apparently complex nature of this relationship did not produce appropriate estimation results when these two types were modeled separately. To compensate for the lack of segregation of these two domains and to insert sharper grade changes between them, inverse distance estimation to the fourth power (ID^4) was chosen as the final estimation method. MDA also estimated core recovery (CRec), confidence code (ConfC), and measured true width (MTW), for those reasons described in Section 17.5.1. Estimation parameters are given in Table 17.26.

Tonnes per block were calculated by multiplying the block volume (height [3 m] times length [5 m] times width [HTW]) by the specific gravity (2.50 g/cm^3). The number of samples and the distance to the nearest sample were stored for each estimated block, as were the nearest neighbor grades, grade thicknesses, widths, and vein azimuths and dips.

MDA made eight different models for each vein in order to assess which model best portrayed the style of mineralization. The model results were evaluated relative to the composite data, visual inspections and by quantifying changes between the models. In the end, total ounces and grade in the models varied no more than ~10%, giving confidence to the controls on estimation. Estimation parameters are given in Table 17.26. Long sections for South Minita veins 1015, 1017 and 1035 are presented in Figure 17.10 through Figure 17.15.

Table 17.26 Estimation Parameters for South Minita Area Veins

All Veins	
Parameter	**Calculated True Width (CTW)**
Estimation method	ID^3
Min/Max composites	1 / 8
Samples used	low- and high-grade domains together
Distance (m)	100 horizontal by 50 vertical
Gold grade time thickness (g Au/t-capped times calculated true width)	
Estimation method	ID^4
Min/Max composites	1 / 8
Samples used (only with CREC>25%)	low- and high-grade domains together
Distance (m)	100 horizontal by 50 vertical
Silver grade time thickness (g Ag/t-capped times calculated true width)	
Estimation method	ID^4
Min/Max composites	1 / 8
Samples used (only with CREC>25%)	low- and high-grade domains together
Distance (m)	100 horizontal by 50 vertical
* (only with CREC>25%)	

Figure 17.6 Long Section of the Minita Vein Resource - Gold Equivalent Grades

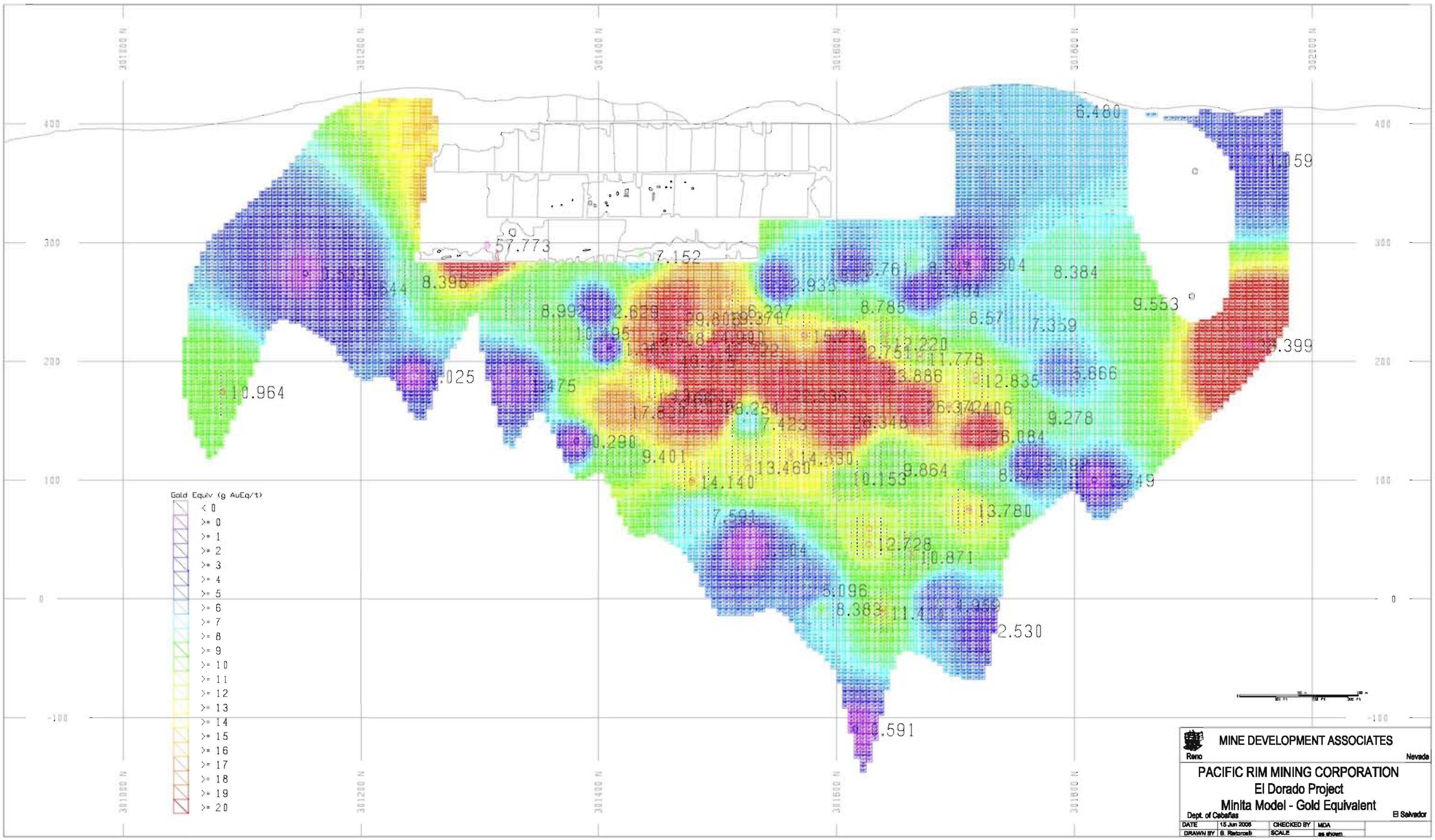


Figure 17.7 Long Section of the Minita Vein Resource - True Thickness

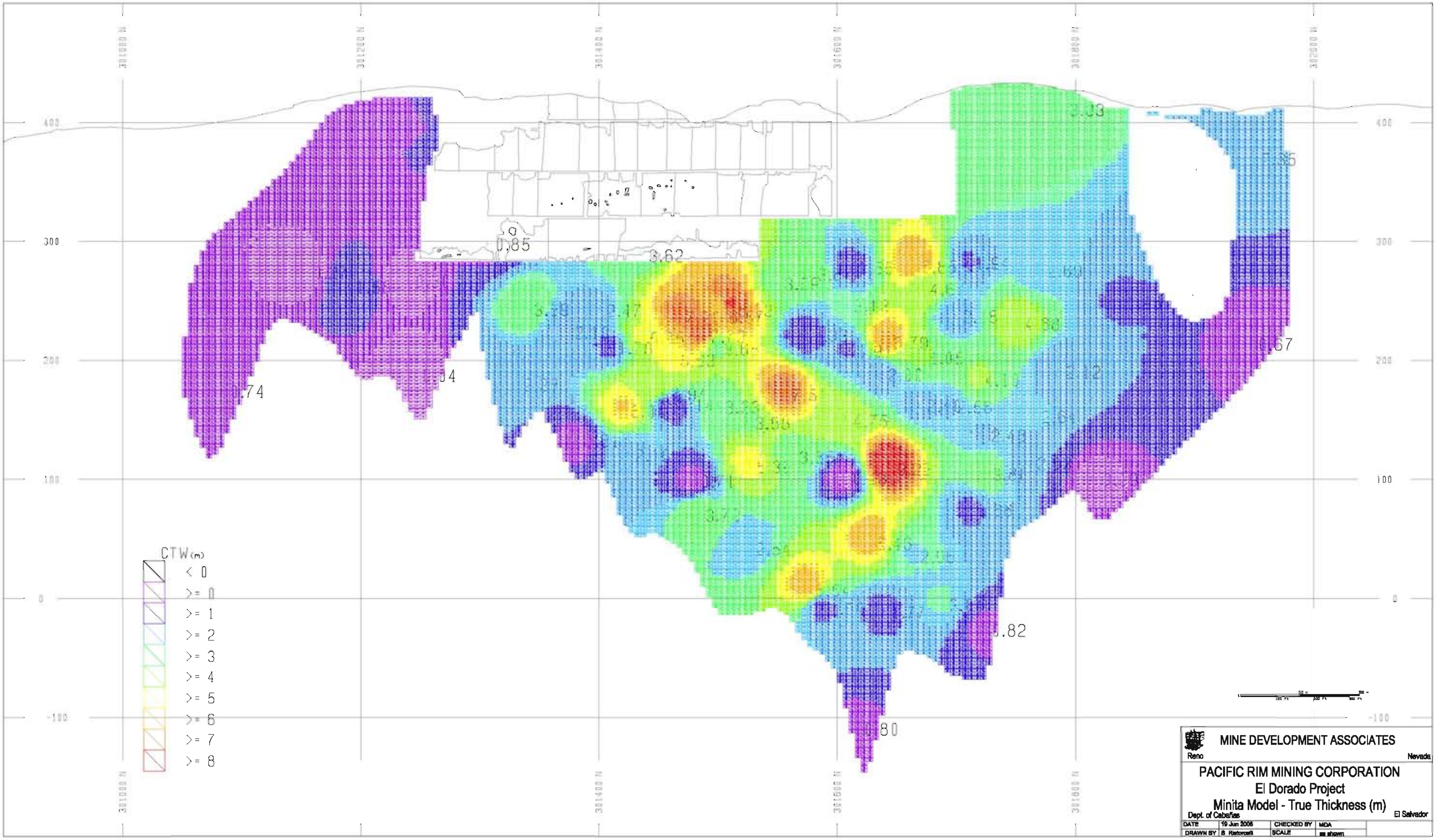


Figure 17.8 Long Section of the Minita3 Vein Resource – Gold Equivalent Grades

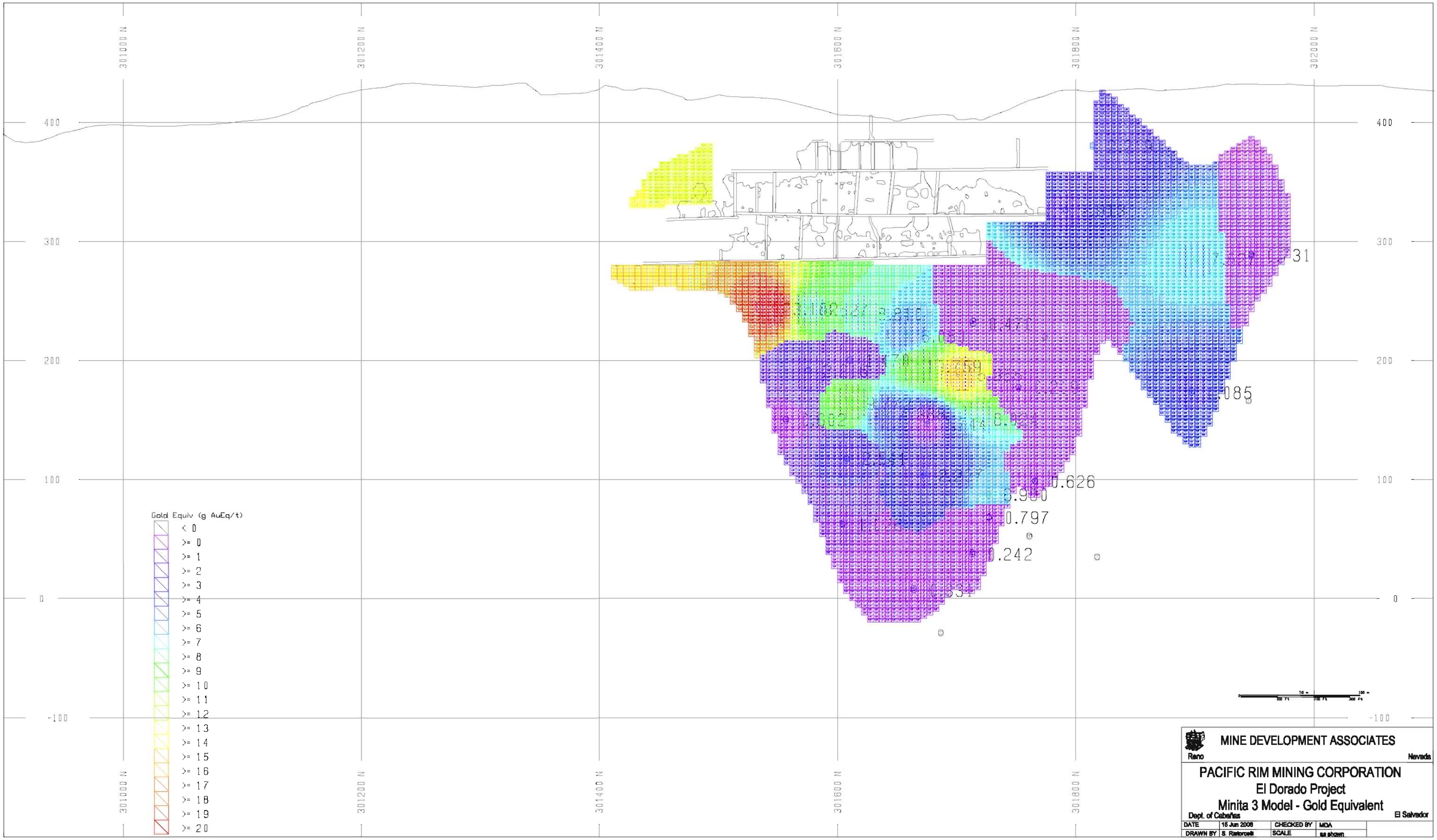


Figure 17.9 Long Section of the Minita3 Vein Resource – True Thickness

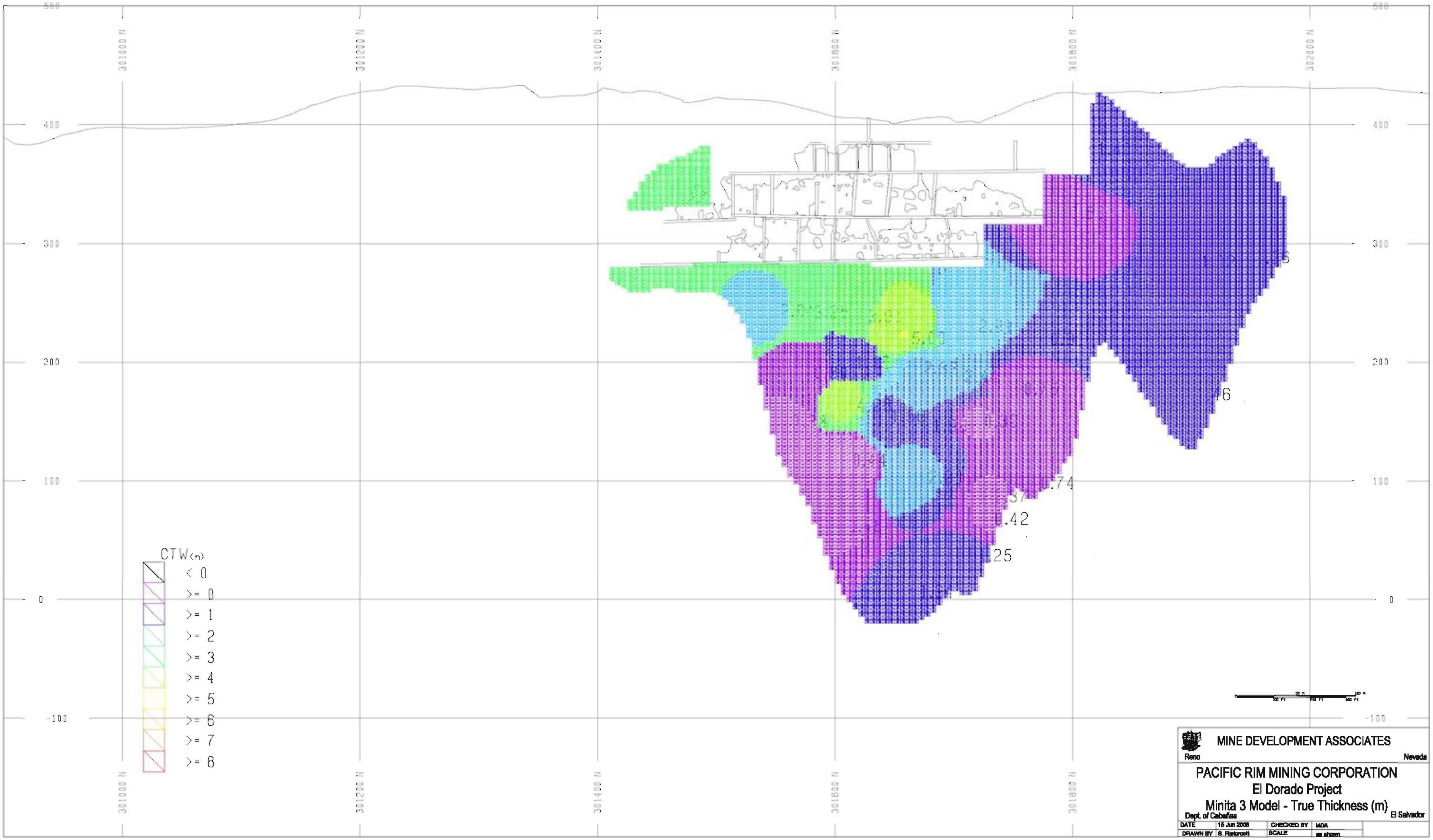


Figure 17.10 Long Section of the South Minita Vein 1015 Resource – Gold Equivalent Grades

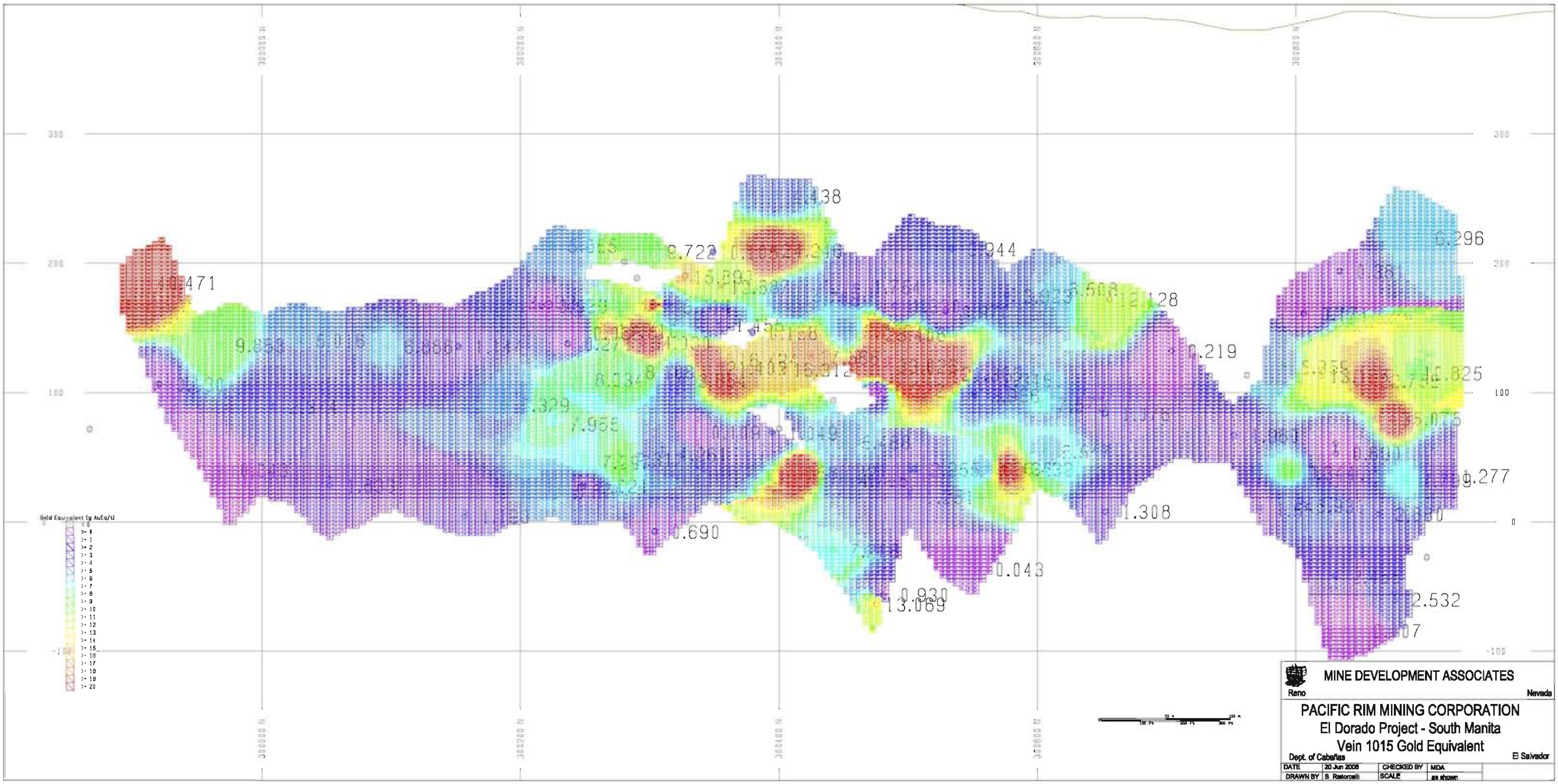


Figure 17.11 Long Section of the South Minita Vein 1015 Resource – True Thickness

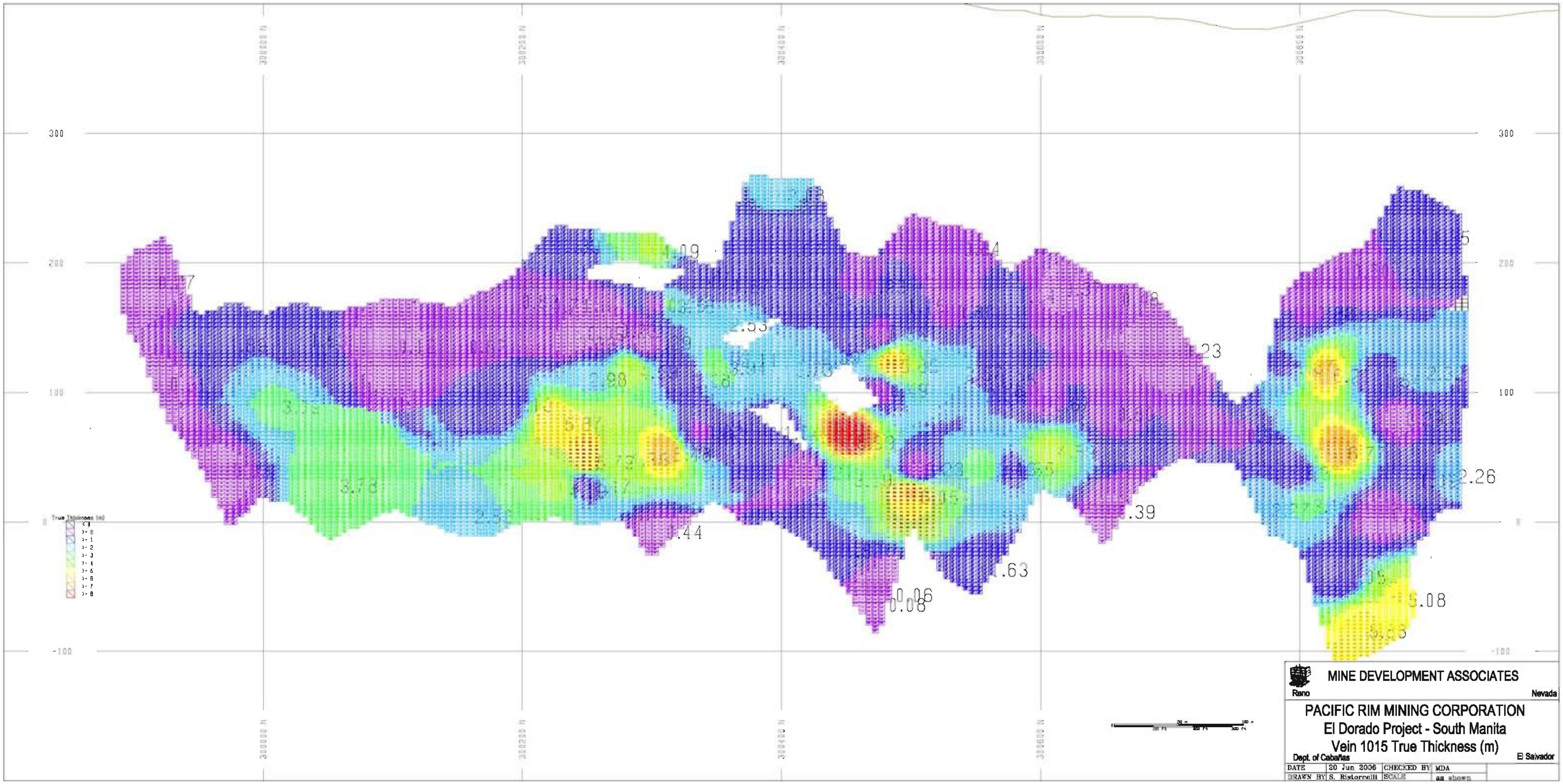


Figure 17.12 Long Section of the South Minita Vein 1017 Resource – Gold Equivalent Grades

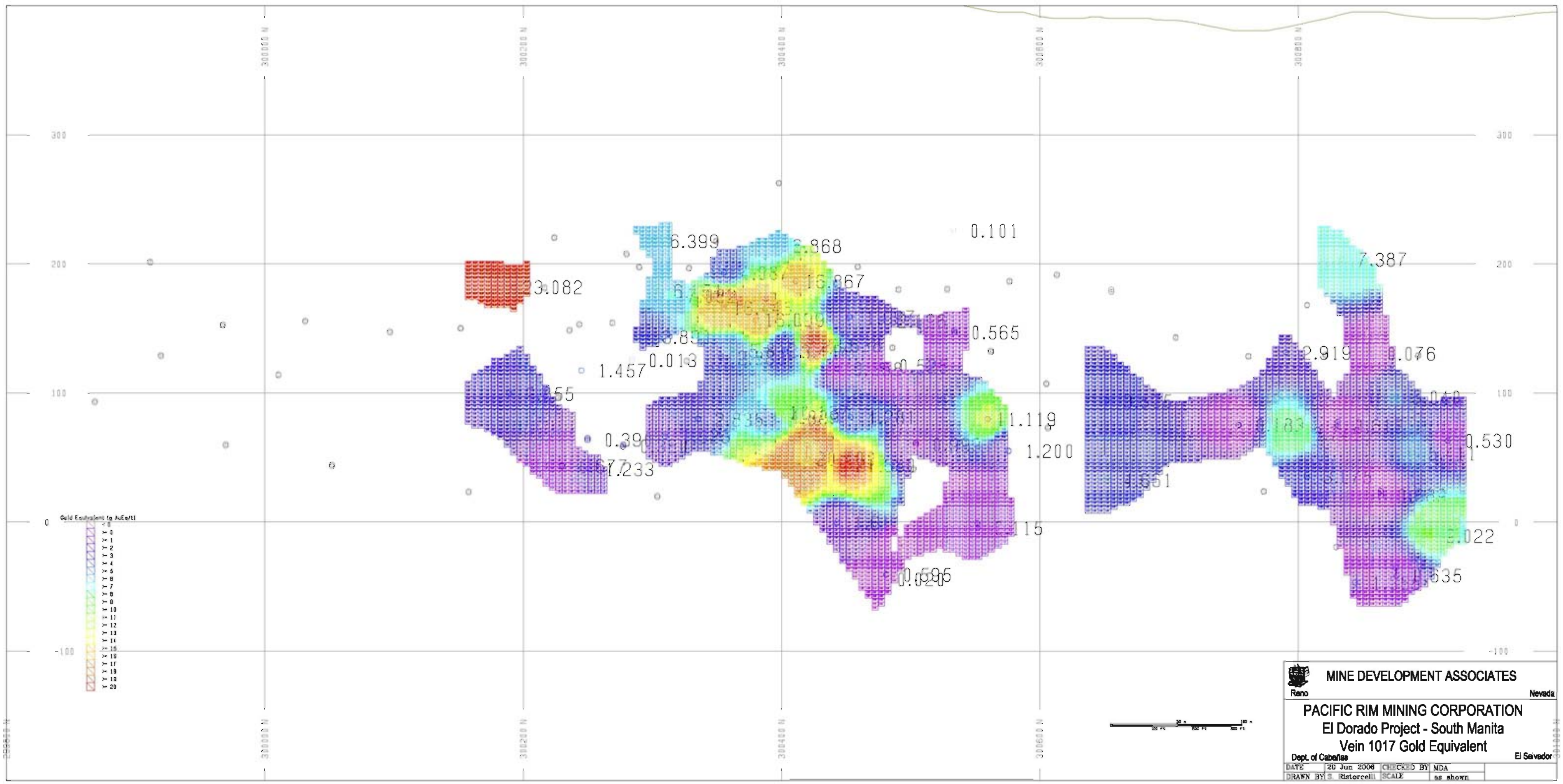


Figure 17.13 Long Section of the South Minita Vein 1017 Resource – True Thickness

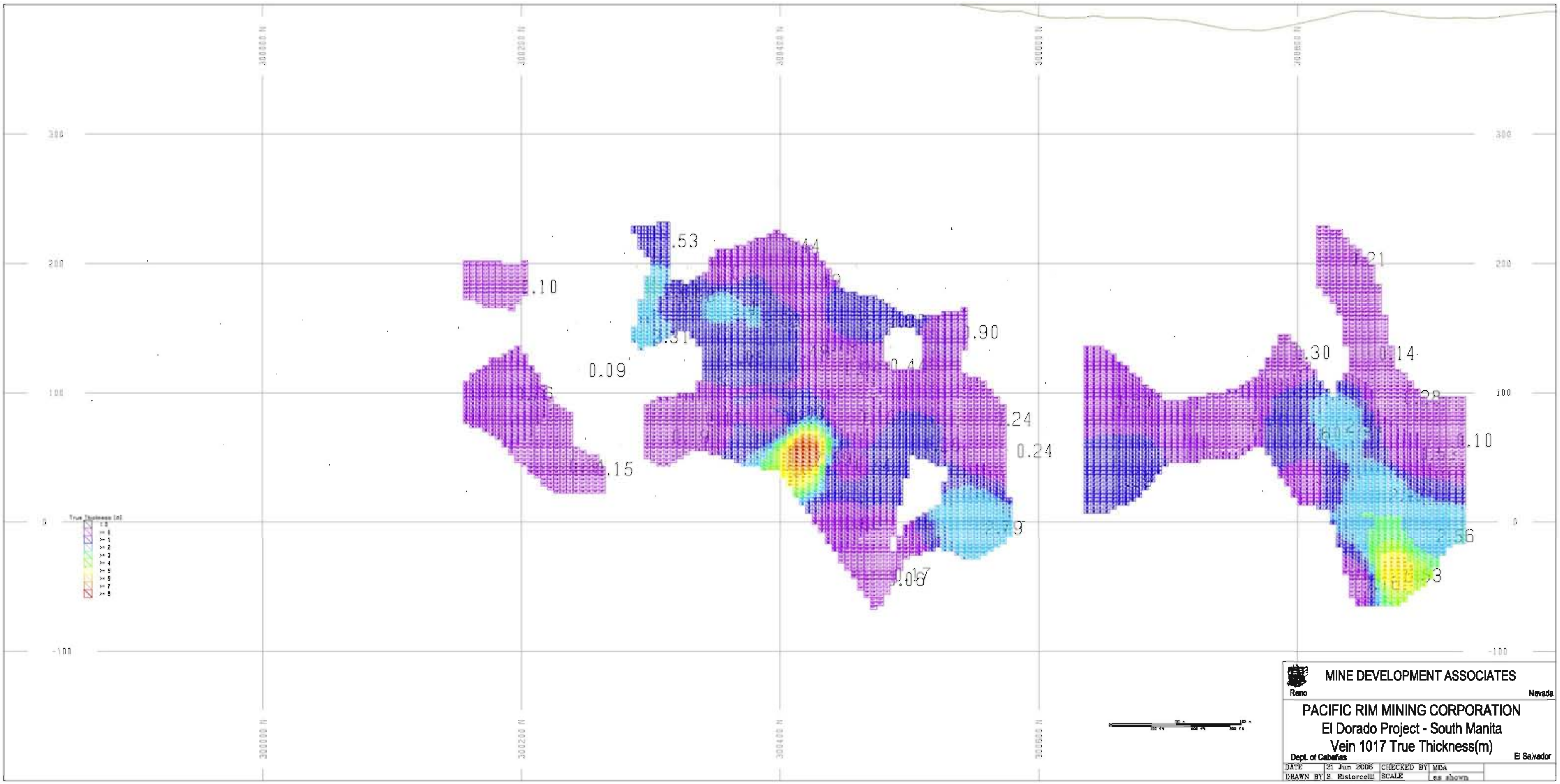


Figure 17.14 Long Section of the South Minita Vein 1035 Resource – Gold Equivalent Grades

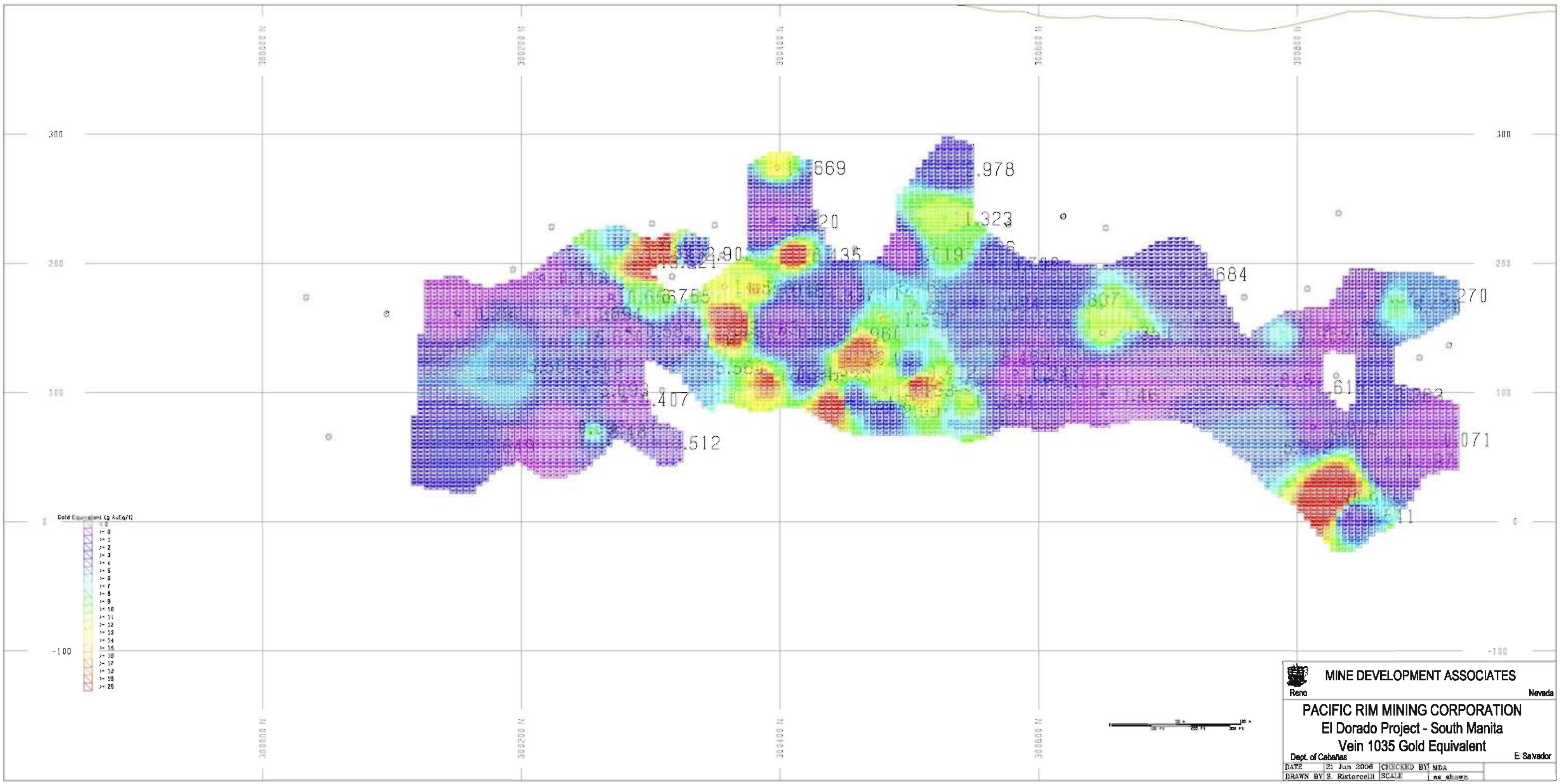
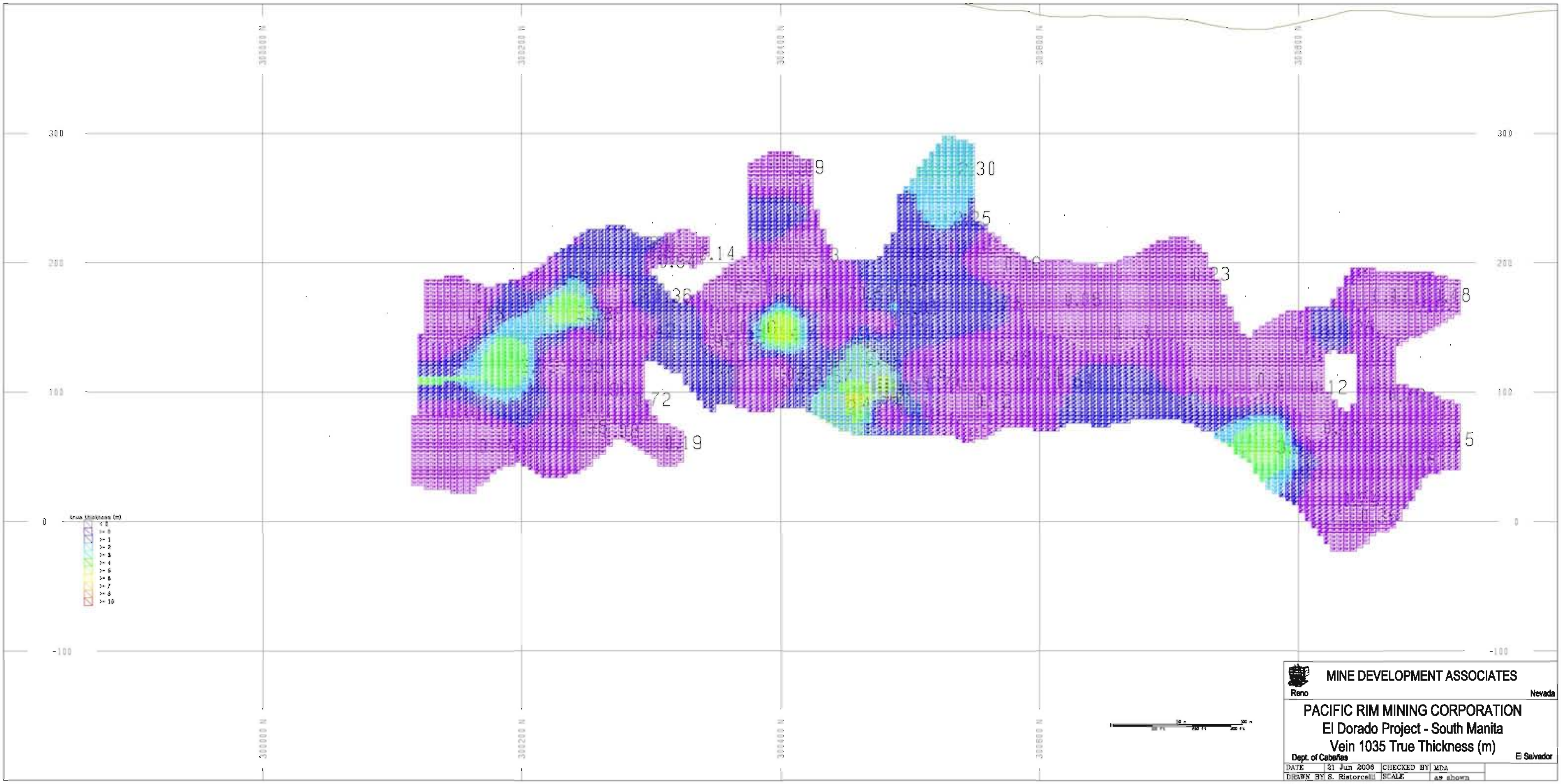


Figure 17.15 Long Section of the South Minita Vein 1035 Resource – True Thickness



17.5.3 Nance Dulce Area Modeling

After each vein was defined on section, the outlines or extents were digitized. The footwall of each vein was then used to make a three dimensional surface. This surface, within the bounds or extents of the vein, was used to code the footwall (west wall) location of the vein. There are no underground workings at Nance Dulce.

Vein interpretation, metal content, and thickness are, based on geologic interpretation. As the composites are of varying length, grade thickness (accumulation) modeling was required. Models were estimated by inverse distance estimation and nearest neighbor only. Kriging was not done at Nance Dulce. The well-mineralized vein material was estimated with the less-well mineralized vein material, but the well mineralized material was restricted in the distance it was projected. While there may in fact be hard boundaries between the well-mineralized (banded, black sulfides, leached texture) vein material and the weakly mineralized vein material (<~3 g Au/t), the drill spacing (~80 m) does not allow for appropriate estimation results when these two types are modeled separately. To compensate for the lack of segregation of these two domains and to insert sharper grade changes between them, inverse distance estimation to the fourth power (ID^4) was chosen as the final estimation method and the well-mineralized composite samples were restricted in their range of influence during estimation. Estimation parameters are given in Table 17.27.

Tonnes per block were calculated by multiplying the block volume (height [3 m] times length [5 m] times width [HTW]) by the specific gravity (2.50 g/cm^3). The number of samples and the distance to the nearest sample were stored for each estimated block, as were the nearest neighbor grades, grade thicknesses, widths, and vein azimuths and dips.

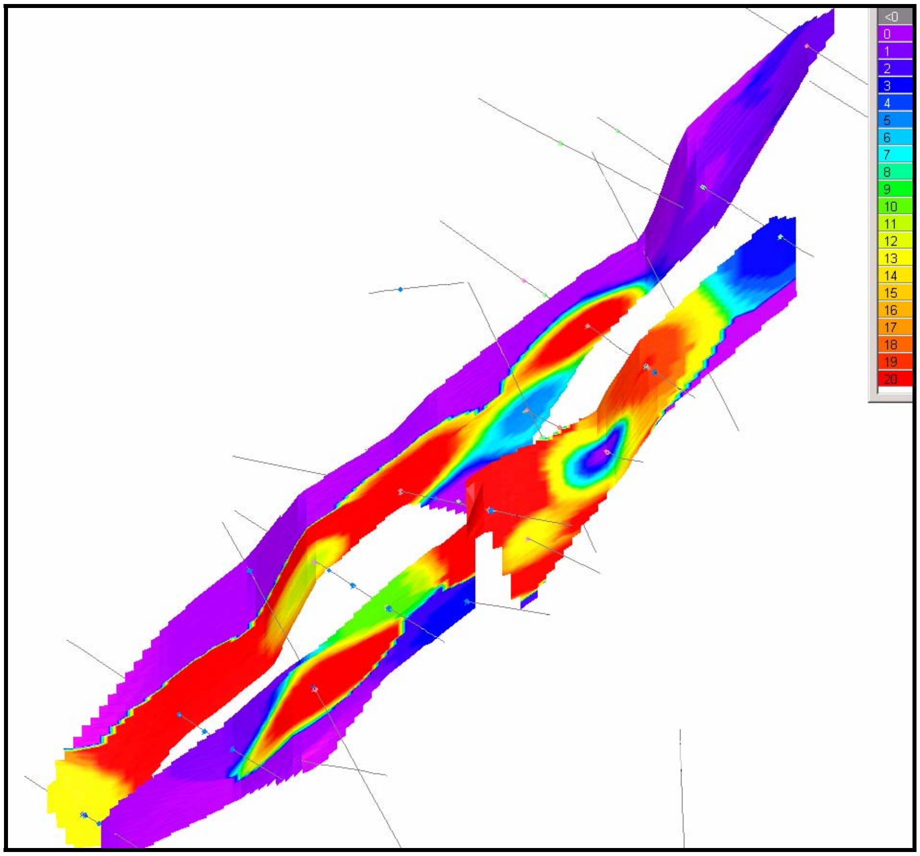
The model results were evaluated relative to the composite data, visual inspections and by quantifying differences between the nearest neighbor and inverse distance models. A pictorial of the two main veins at Nance Dulce is given in Figure 17.16.

Table 17.27 Estimation Parameters for Nance Dulce Area Veins

All Veins	
Parameter	**Calculated True Width (CTW)**
Estimation method	ID^3
Min/Max composites	1 / 8
Samples used	low- and high-grade domains together
Distance (m)	100 horizontal by 75 vertical
Gold grade (g Au/t-capped)	
Estimation method	ID^4
Min/Max composites	1 / 8
Samples used	low- and high-grade domains together
Weighting	true vein thickness
Distance (m)	100 horizontal by 50 vertical
Restrictions (g Au/t and m)	>4 and 50
Silver grade (g Ag/t-capped)	
Estimation method	ID^4
Min/Max composites	1 / 8
Samples used	low- and high-grade domains together
Weighting	true vein thickness
Distance (m)	100 horizontal by 50 vertical
Restrictions* (g Au/t and m)	>4 and 50

* The gold grades controlled the estimate

Figure 17.16 Pictorial of Nance Dulce – Gold Equivalent Grades Times True Thickness
(looking west and down at 70^o)



17.5.4 La Coyotera Area Modeling

La Coyotera was modeled as a classic three dimensional block model. Zones were defined on section, taken to plan and used to code percentages into each block. Grades were modeled using kriging. Specific gravity per block was calculated based on the percentage of each zone and each zone's measured specific gravity (see section 17.3). Correlograms were calculated for La Coyotera by zone (Appendix D) and each zone (11, 12, and 13) was modeled separately. These were used to define estimation parameters while point validation was used to fine-tune the estimate (Table 17.28). A typical cross section is given in Figure 17.17. Kriging was the final estimate used while ID^3 and nearest neighbor models were used as checks. In 2006, the model was rebuilt with 1-m by 2-m by 3-m (high) block sizes to have more appropriate block sizes for the more than likely underground mining that would take place.

17.5.5 Nueva Esperanza Area Modeling

Nueva Esperanza was modeled in a similar way to La Coyotera, as a classic three dimensional block model. Nueva Esperanza has two defined mineral zones: low-grade altered andesite (1) and higher-grade vein and sheeted vein (2). The zones were defined on section, taken to plan and used to code percentages into each block. Grades were modeled using kriging. Specific gravity per block was calculated based on the percentage of each zone and each zone's measured specific gravity. Correlograms were calculated for Nueva Esperanza on both zones combined (Appendix D) and each zone (1 and 2) was modeled separately. The correlograms were used to define estimation parameters (Table 17.29) while point validation was used to fine-tune the estimate. A typical cross section of the modeled vein is given in Figure 17.18. While kriging was the estimation method used, ID^3 and nearest neighbor models were used as checks.

Table 17.28 Estimation Parameters for La Coyotera

	First Pass – Gold (and CRec)		
Parameter	**Zone 1**	**Zone 2**	**Zone 3**
Samples: min/max/max per hole	1 / 12 / 3	1 / 12 / 3	1 / 12 / 3
Rotation/Dip/Tilt	30^o / 0^o / 0^o	30^o / 0^o / 0^o	30^o / 0^o / 0^o
Search (m)	80 / 40 / 80	80 / 26 / 80	60 / 25 / 60
C_0 / C_1 / C_2	.527 / .350 / .125	.412 / .286 / .303	0.358 / 0.642
R_1 (in rotation/dip/tilt directions)	27 / 27 / 23	17 / 9 / 17	49 / 13 / 19
R_2 (in rotation/dip/tilt directions)	42 / 42 / 82	51 / 25 / 106	49 / 13 / 19
Length-weighting	Yes	Yes	Yes
	Second Pass – Gold *		
Search (m)	40 / 20 / 40	40 / 13 / 40	NA
	First Pass – Silver		
Parameter	**Zone 1**	**Zone 2**	**Zone 3**
Samples: min/max/max per hole	1 / 12 / 3	1 / 12 / 3	1 / 12 / 3
Rotation/Dip/Tilt	30^o / 0^o / 0^o	30^o / 0^o / 0^o	30^o / 0^o / 0^o
Search (m)	80 / 40 / 80	80 / 26 / 80	60 / 25 / 60
C_0 / C_1 / C_2	.301 / .529 / .172	.285 / .715 / NA	0.358 / 0.642
R_1 (in rotation/dip/tilt directions)	15 / 5 / 30	19 / 10 / 19	49 / 13 / 19
R_2 (in rotation/dip/tilt directions)	49 / 16 / 68	NA	49 / 13 / 19
Length-weighting	Yes	Yes	Yes
	Second Pass – Silver *		
Search (m)	50 / 10 / 50	40 / 13 / 40	NA

* Those parameters not listed in the second pass remained the same

Figure 17.17 Cross Section of the La Coyotera Resource

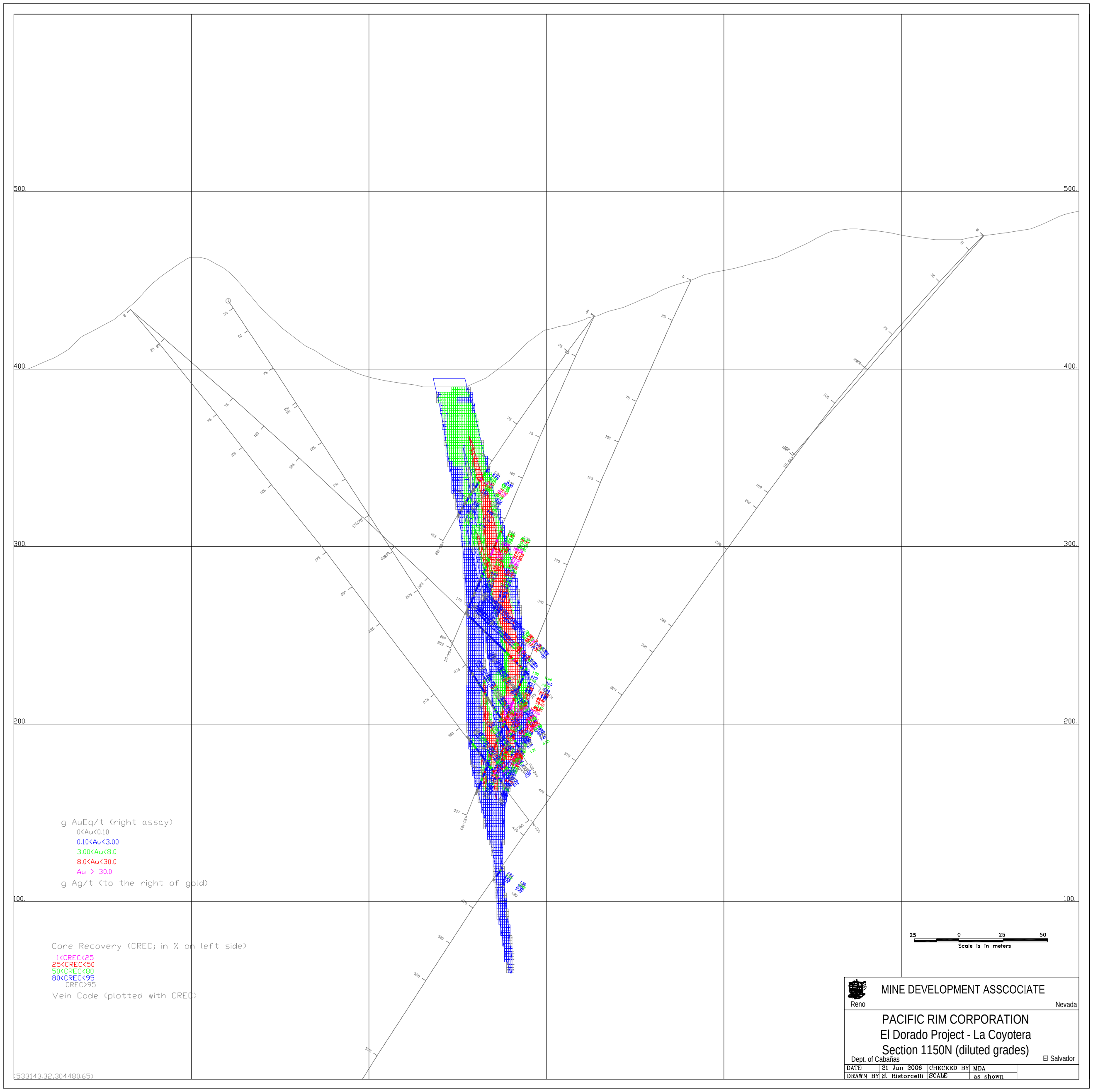


Figure 17.18 Cross Section of the Nueva Esperanza Resource

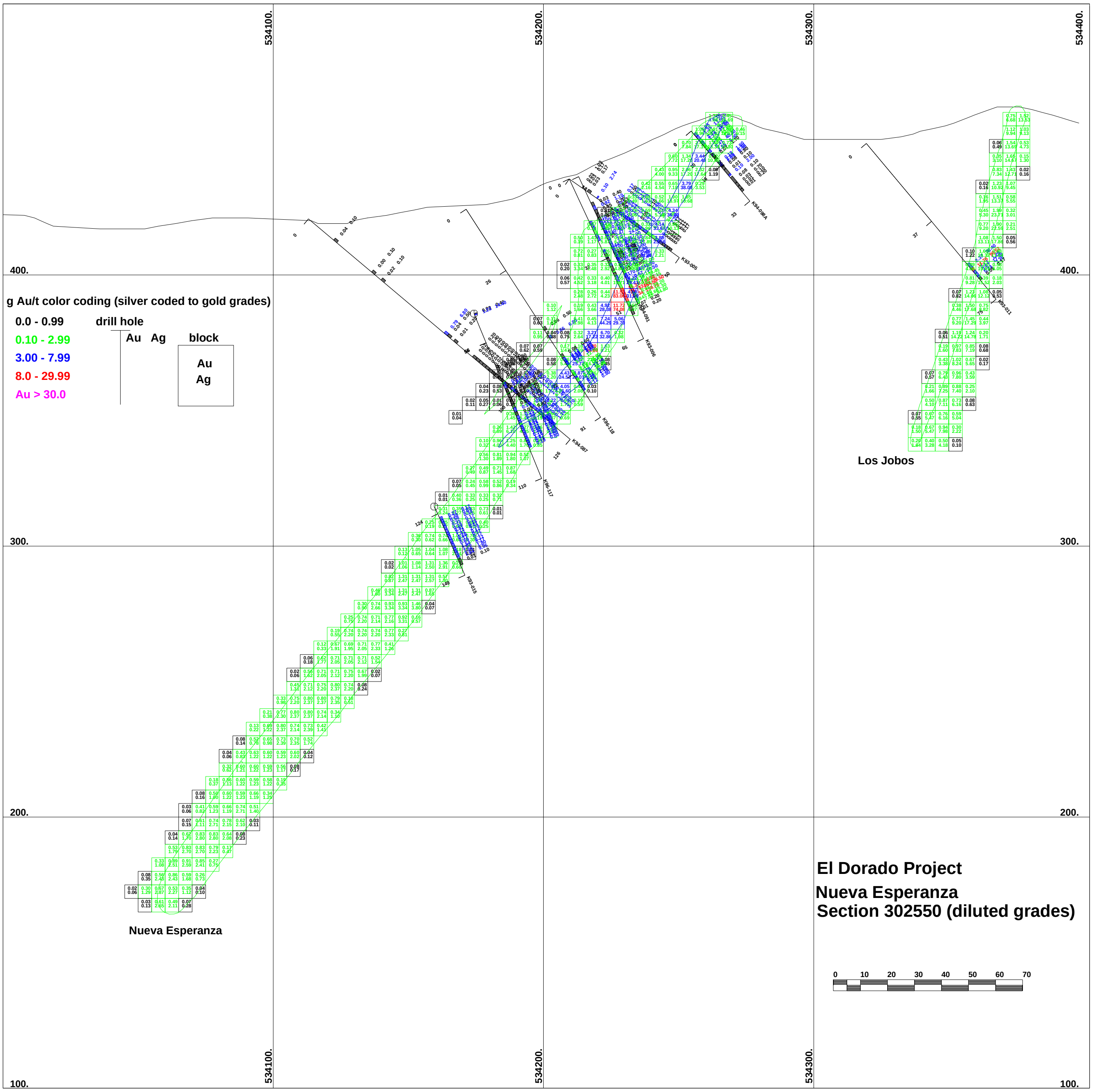


Table 17.29 Estimation Parameters for Nueva Esperanza

	First Pass – Gold (and CRec)		
Parameter	**Zone 1**	**Zone 2**	**Zone 3**
Samples: min/max/max per hole	1 / 12 / 3	1 / 12 / 3	1 / 12 / 3
Rotation/Dip/Tilt	30^o / 0^o / 0^o	30^o / 0^o / 0^o	30^o / 0^o / 0^o
Search (m)	80 / 40 / 80	80 / 26 / 80	60 / 25 / 60
C_0 / C_1 / C_2	.527 / .350 / .125	.412 / .286 / .303	0.358 / 0.642
R_1 (in rotation/dip/tilt directions)	27 / 27 / 23	17 / 9 / 17	49 / 13 / 19
R_2 (in rotation/dip/tilt directions)	42 / 42 / 82	51 / 25 / 106	49 / 13 / 19
Length-weighting	Yes	Yes	Yes
	Second Pass – Gold *		
Search (m)	40 / 20 / 40	40 / 13 / 40	NA
	First Pass – Silver		
Parameter	**Zone 1**	**Zone 2**	**Zone 3**
Samples: min/max/max per hole	1 / 12 / 3	1 / 12 / 3	1 / 12 / 3
Rotation/Dip/Tilt	30^o / 0^o / 0^o	30^o / 0^o / 0^o	30^o / 0^o / 0^o
Search (m)	80 / 40 / 80	80 / 26 / 80	60 / 25 / 60
C_0 / C_1 / C_2	.301 / .529 / .172	.285 / .715 / NA	0.358 / 0.642
R_1 (in rotation/dip/tilt directions)	15 / 5 / 30	19 / 10 / 19	49 / 13 / 19
R_2 (in rotation/dip/tilt directions)	49 / 16 / 68	NA	49 / 13 / 19
Length-weighting	Yes	Yes	Yes
	Second Pass – Silver *		
Search (m)	50 / 10 / 50	40 / 13 / 40	NA

* Those parameters not listed in the second pass remained the same

17.6 Gold and Silver Resources

MDA classified the resource in order of increasing geological and quantitative confidence, into Inferred, Indicated and Measured categories to be in compliance with Canadian National Instrument 43-101 and the "CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines", issued in 2000 and modified with adoption of the "CIM Definition Standards - For Mineral Resources and Mineral Reserves" in 2005. CIM mineral resource definitions are given below:

Mineral Resource

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase 'reasonable prospects for economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.

Inferred Mineral Resource

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or

Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

Indicated Mineral Resource

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.

Measured Mineral Resource

A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

Because of the requirement that the resource exists "in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction", MDA is reporting the resources at cutoffs that are reasonable for deposits of this nature and mining conditions of this type. Presently, MDA believes that all but Nueva Esperanza would be exploited by underground means and hence, expected underground cutoff grades are used: 4 g AuEq/t. For simplicity, and because Nueva Esperanza is such a small part of the total resource, it too, for the purposes of reporting, is presented at underground mining cutoffs. That cutoff of 4 g AuEq/t uses a straight ratio of 70 silver to 1 gold. Because of the many narrow veins at South Minita and Nance Dulce, a second criteria needed to be met in order for a block to be considered in the resource. A block needed to have greater than a 4 g AuEq/t times true thickness (a "GT of 4"), *i.e.*, any grade of 8 g AuEq/t needed to occur in a vein at least 0.5 m wide.

There are no Measured resources at South Minita at this time due to the complex structural setting and the difficulty in verifying the hole to hole interpretation. Additional drilling would be required to upgrade the Indicated to Measured. There are no Measured or Indicated resources at Nance Dulce, principally due to the relatively wide drill hole spacing of around 80 m.

MDA classified the El Dorado resources by a combination of distance to the nearest sample, the number of samples used to estimate a block, the confidence in certain drill intercepts and the core recovery. The criteria for resource classification are given in Table 17.30.

Measured, Indicated, Measured plus Indicated, and Inferred resources are given in Table 17.32, Table 17.33, Table 17.34 and Table 17.35. Several grade cutoffs are given to demonstrate changes with varying cutoffs but *the reported official resource is bolded and is at 4.0 g AuEq/t*. All reported numbers are undiluted in-situ resources except La Coyotera, which is diluted in the horizontal to 1-m by 2-m blocks. The resources are tabulated separately by vein and by area in Appendix E.

Descriptive statistics of classification criteria are given in Table 17.31.

17.7 Gold and Silver Mineralization Potential

Jointly, Pacific Rim and MDA coded all the intercepts in the Minita area. The work, while defining an additional seven veins in the El Dorado mine area, did not define additional Measured and Indicated resources. Small amounts of work could define and bring up the classification of the resources. The other seven veins were in general low-grade; *i.e.*, ~4-5 g Au/t, and small. However, these are structures that in some cases represent additional targets for exploration. In addition, to the east of the Minita area is the Rosario area. MDA and Pacific Rim began the exercise of interpreting geology and coding mineralized intercepts when it became apparent that additional drilling and more attention should be paid to that area. It is likely that additional mineralization will be encountered in those veins in the eastern El Dorado district in the Rosario area.

Throughout the district there are numerous veins, often with gold and silver mineralization and sometimes very significant grades. This is a rather mixed blessing for Pacific Rim in that on the one hand any one of those veins could host deposits similar to the Minita area, but on the other hand, each one needs further exploration to some extent.

Table 17.30 Criteria for Resource Classification

	Minita Vein		
	Measured	**Indicated**	**Inferred**
Distance (m)	1 to 20	21 to 75	>75 (within zone)
Confidence code*	2 or 3	NA	NA
Core recovery (%)**	>80	NA	NA
	Minita 3 Vein		
	Measured	**Indicated**	**Inferred**
Distance (m)	1 to 15	16 to 75	>75 (within zone)
Confidence code*	2 or 3	NA	NA
Core recovery (%)**	>80	NA	NA
	Zancudo Vein		
	Measured	**Indicated**	**Inferred**
Distance (m)	1 to 15	16 to 50	>50 (within zone)
Confidence code*	2 or 3	NA	NA
Core recovery (%)**	>80	NA	NA
	All South Minita Veins* **		
	Measured	**Indicated**	**Inferred**
Distance (m)	None	0 to 30	>30 (within zone)
Confidence code*	None	2 or 3	1, 2 or 3****
Core recovery (%)**	None	NA	NA
	Nance Dulce Veins* **		
	Measured	**Indicated**	**Inferred**
Distance (m)	None	None	<85 (within zone)
Confidence code*	None	None	1, 2 or 3****
Core recovery (%)**	None	None	NA
	La Coyotera		
	Measured	**Indicated**	**Inferred**
Distance (m)	1 to 12	13 to 50	>50 (within zone)
Number of samples	>=2	NA	NA
Core recovery (%)**	>70	>50	NA
	Nueva Esperanza		
	Measured	**Indicated**	**Inferred**
Distance (m)	NA	1 to 25	>25 (within zones)
Core recovery (%)**	NA	NA	NA

* 1 to 3, with 3 the highest; ** No samples with core recovery <25% were used; ***must have a gt (g AuEq/t times true thickness) >= 4; **** or <30 with a low confidence code of 1

Table 17.31 Descriptive Statistics of Resources by Classification

	Measured	Indicated	Inferred
		Minita Vein	
Mean number of samples	9.8	9.5	7.4
Mean closest point	12.7	35.4	97.4
Mean core recovery	97.7	93.3	95.0
Mean confidence code	2.8	2.6	2.4
		Minita 3 Vein	
Mean number of samples	7.6	7.2	4.8
Mean closest point	10.3	36.2	116.9
Mean core recovery	97.5	88.7	95.9
Mean confidence code	2.8	2.6	2.8
		Zancudo Vein	
Mean number of samples	7.2	6.7	4.0
Mean closest point	10.3	26.8	72.3
Mean core recovery	98.5	94.5	90.7
Mean confidence code	2.7	2.5	2.3
		All South Minita Veins	
Mean number of samples	NA	5.7	4.1
Mean closest point	NA	16.4	25.6
Mean core recovery	NA	99.6	99.7
Mean confidence code	NA	2.3	1.3
		All South Minita Veins	
Mean number of samples	NA	NA	4.2
Mean closest point	NA	NA	30.1
Mean core recovery	NA	NA	NA
Mean confidence code	NA	NA	2.3
		La Coyotera	
Mean number of samples	7.9	6.5	5.8
Mean closest point	8.2	25.5	55.9
Mean core recovery	90.1	83.9	82.5
		Nueva Esperanza	
Mean number of samples	NA	4.4	5.3
Mean closest point	NA	15.7	36.8
Mean core recovery	NA	NA	NA

Table 17.32 El Dorado Project Measured Resources

El Dorado Project Total Resource - Measured							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	1,121,500	9.22	8.40	302,800	57.56	2,075,500	332,600
4.0	**780,100**	**12.39**	**11.31**	**283,600**	**75.76**	**1,900,200**	**310,800**
5.0	721,900	13.03	11.90	276,100	79.70	1,849,700	302,500
6.0	663,000	13.70	12.51	266,600	83.96	1,789,600	292,100
7.0	614,400	14.28	13.03	257,300	87.40	1,726,400	282,100
8.0	539,900	15.21	13.89	241,100	92.54	1,606,300	264,000
9.0	481,600	16.01	14.63	226,500	97.06	1,502,800	247,900

Table 17.33 El Dorado Project Indicated Resources

El Dorado Project Total Resource - Indicated							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	5,701,200	5.89	5.36	981,900	37.15	6,809,300	1,079,100
4.0	**2,930,000**	**9.67**	**8.83**	**831,900**	**58.64**	**5,524,300**	**910,700**
5.0	2,550,600	10.44	9.54	782,000	63.32	5,192,700	856,300
6.0	2,220,200	11.17	10.20	728,200	67.97	4,851,500	797,600
7.0	1,838,200	12.15	11.08	654,900	74.59	4,408,300	717,800
8.0	1,477,500	13.28	12.13	576,200	80.60	3,828,600	630,900
9.0	1,171,000	14.54	13.30	500,800	87.02	3,276,200	547,500

Table 17.34 El Dorado Project Measured and Indicated Resources

El Dorado Project Total Resource - Measured and Indicated							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	6,822,700	6.44	5.86	1,284,700	40.50	8,884,800	1,411,800
4.0	**3,710,100**	**10.24**	**9.35**	**1,115,500**	**62.24**	**7,424,500**	**1,221,500**
5.0	3,272,500	11.01	10.06	1,058,100	66.93	7,042,400	1,158,800
6.0	2,883,200	11.76	10.73	994,800	71.64	6,641,100	1,089,700
7.0	2,452,600	12.68	11.57	912,200	77.80	6,134,700	1,000,000
8.0	2,017,400	13.80	12.60	817,300	83.79	5,434,900	895,000
9.0	1,652,600	14.97	13.69	727,300	89.95	4,779,000	795,400

Table 17.35 El Dorado Project Inferred Resources

El Dorado Project Total Resource - Inferred							
Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Oz Ag**	**Ounces** (AuEq)
1.0	1,452,100	5.49	5.01	233,700	33.82	1,578,900	256,400
4.0	**558,100**	**11.30**	**10.33**	**185,300**	**68.16**	**1,223,000**	**202,800**
5.0	472,900	12.51	11.44	174,000	75.21	1,143,500	190,200
6.0	383,200	14.16	12.95	159,600	84.31	1,038,700	174,400
7.0	321,000	15.67	14.34	148,000	93.01	959,940	161,730
8.0	263,500	17.42	15.99	135,500	101.54	860,250	147,570
9.0	232,800	18.61	17.09	127,900	108.37	811,100	139,300

17.8 Validation

Numerous checks were made throughout the process of estimating each deposit's resources. Checks began with comparing volumes from section to plan for the La Coyotera and Nueva Esperanza models. All La Coyotera volumes were within 3%. Nueva Esperanza volumes showed a conservative element in that the level plan volumes were 12% less than the sectional volumes for the high-grade zone. This was caused by pinching out the zones on level plan. The Nueva Esperanza low-grade zones were 6% different with the level plans being less, again resulting in a more conservative estimate.

Checks were made between the level plan volumes and the block model volumes. For the vein deposits (two dimensional models), checks were made between the block models and volumes defined by the vein outlines and applying a mean thickness. These tests all compared well. Total volume and mean grade tests were then done to get a sense of the magnitude of the resources.

The grade estimation was validated for each deposit by comparing assays, composites, nearest neighbor, inverse distance, and when applicable, kriging estimates. Modifications were made to improve the estimates. In the case of Nueva Esperanza in particular and less so for the other deposits, the data are clustered, making the comparisons more difficult.

Checks done for the South Minita resource included: volumetric checks (essentially manual *vs.* the estimated volume); comparisons between composite grades, "tonnes", and metal and with nearest neighbor models; and the eight separate estimates.

Checks done for the Nance Dulce resource included: volumetric checks (essentially manual *vs.* the estimated volume) and comparisons between composite grades, "tonnes", and metal and with nearest neighbor models.

17.9 Mineral Reserve Statement

This mineral reserve statement is extracted from SRK's Pre Feasibility Study, as stated in the following text. The reserves are based on resource estimates done in 2003 (Ristorcelli and Ronning, 2003). One *product of the feasibility study that is now in progress will be new reserve estimates based on the current resource estimates.*

The most recent estimate of Mineral Reserves is supported by a Pre Feasibility Study dated January 21, 2005, which has not been updated. The Pre Feasibility Study results are summarized in report Section 18.

Table 17.36 summarizes the mineral reserves (as of 21 January 2005) for Minita and Minita 3. Reserves were estimated using an equivalent gold cutoff grade of 5gpt and a gold and silver price of US$350/oz and US$5.00/oz, respectively. These reserves were based upon historic (21 January 2005) Mineral Resources which have been superseded by this Report.

PacRim is currently preparing a Feasibility Study which will include an updated Statement of Mineral Reserves.

Table 17.36 Mineral Reserve Statement (21 January 2005)

	Tonnes	Grade (g Au/t)	Ounces (Au)	Grade (g Ag/t)	Ounces (Ag)	Grade (g AuEq/t)	Ounces (AuEq)
Proven							
Minita	648,480	10.33	215,475	69.70	1,453,187	11.33	236,235
Minita 3	63,469	7.56	15,433	54.02	110,238	8.33	17,007
Total	**711,949**	**10.088**	**230,908**	**68.303**	**1,563,425**	**11.064**	**253,242**
Probable							
Minita	756,979	9.28	225,819	54.08	1,316,192	10.05	244,622
Minita 3	135,955	7.79	34,031	59.12	258,399	8.63	37,722
Total	**892,934**	**9.051**	**259,850**	**54.848**	**1,574,591**	**9.835**	**282,344**
Proven & Probable							
Proven	711,949	10.09	230,908	68.30	1,563,425	11.06	253,242
Probable	892,934	9.05	259,850	54.85	1,574,591	9.83	282,344
Total	**1,604,883**	**9.51**	**490,758**	**60.82**	**3,138,016**	**10.38**	**535,586**

Notes: Based upon a 5.0gpt cut-off grade, US$350/oz Au and US$5.00/oz Ag market price.

18.0 OTHER RELEVANT DATA AND INFORMATION

The following sections summarize the results of the El Dorado Pre Feasibility Study dated January 21, 2005. MDA has updated parts of Section 18 as appropriate to reflect items that have changed since SRK did the pre-feasibility report.

18.1 Mining Operations

Mining engineering performed to date is described in this section. Pacific Rim is in the process of updating this work using new and updated information. These updated results will be presented in a Feasibility Study which is currently under way.

The Project is a steeply dipping, narrow vein gold deposit with reserves of over 1.6Mt averaging 9.5gpt Au and 60.8gpt Ag (5.0gpt gold equivalent cutoff grade) for the principal veins considered, the Minita and Minita 3. The average widths of these veins are approximately 3.3m. Without considering cutoff, the mineral resources are estimated at 2.1Mt at 9.4gpt Au and 58.5gpt Ag.

18.1.1 Historical Mining Information

The deposits were discovered by the Spanish in the early 1500's and were worked by limited surface operations until 1894. From 1948 to 1953, a branch of Rosario Mining Company worked the deposits by underground methods. No mining has been done since, although exploration continued by various companies and at various times.

Past Production

Cut and fill mining and shrinkage stoping were the techniques previously used. Total production was 270,200t at an average grade of 9.59gpt Au. The old mine workings are not accessible because the shaft timbers collapsed and the shaft was not reopened below 15m from the collar. The old workings are currently flooded.

In 1975, Bruneau Mining Company purchased the property and an exploration program was initiated. The program ended in July 1976.

From 1979 to 1992, El Salvador experienced violent and persistent armed conflict. Since 1992, the country has been a peacefully governed democracy, although crime rates are a persistent problem. In 1993, during a period of high gold prices, exploration of the area commenced.

Previous Technical Studies

James Askew and Associates, majority owner at the time for Mirage Resource Corporation, completed a pre-feasibility study in 1995. Kinross Gold Corporation became involved in the exploration effort in 1996. In April 2000, Dayton Mining Corporation acquired Mirage and continued exploration. An internal feasibility study was completed by Kinross El Salvador in July 2001. Current project ownership rests with PacRim El Salvador. The task of modeling the resources and estimating the geologic tonnes and grades was assigned to Mine Development Associates ("MDA"). A report on the geotechnical design parameters was prepared by Call and Nicholas Inc., ("CNI") and issued in March 2004. Also in March 2004, McIntosh was asked to develop a conceptual mine design and pre-feasibility level cost estimate.

18.1.2 Mining Method

SRK has determined with the O'Hara method that the El Dorado deposit is amenable to the following mining methods: Sub-level stoping, shrinkage stoping, and cut and fill stoping. Normally, sub-level stoping is expected to be more cost effective as it is a bulk mining method. However, due to the narrow widths found in this deposit, cut and fill may prove to be comparatively similar.

Mining Method Selection

In the January 2005 report, McIntosh recommends utilizing a bench and fill mining method. SRK supports the selection of a bench and fill method (i.e. sub-level blasthole stoping).

Bench & Fill Mining Method Description

The planned mining method is bench and fill, utilizing uncemented rock backfill. Sub-level spacing is planned at 20m vertically from sill to sill. Sill development will be advanced by single-boom electric-hydraulic jumbos. The planned drift height is 3.2m, enough to accommodate the planned pneumatic drill. Drifting along the ore horizon is planned to follow the vein structure and the drift width is expected to vary from a minimum of 3.2m to the maximum of 9.4m. In areas where the vein thickness is less than the minimum drift widths, a technique called 'resuing' will be used to control dilution.

Drifting along the ore will be kept tight to the hangingwall side and wherever possible, a shanty style drift profile will be maintained to avoid undercutting the hangingwall. Once the sub-levels have been advanced to the extremities of the vein, the sublevels will be drilled off utilizing downholes (57mm diameter) averaging 16.8m in length, breaking through to the sublevel below. Slot raises will be developed at the extremities of the sublevels to begin the blasting cycle on each sublevel.

Advancing along strike, slices of ore will be blasted in manageable sizes and mucked from the sub-level below. Ground conditions will be monitored as the open stope becomes larger, and the backfill cycle will begin once a strike length of approximately 17m has been opened up (CNI Report, 2004). The LHDs will be equipped with remote controls to permit the operator to stand in a safe location when the LHD must operate beyond the safety of the supported brow. The mining direction is a retreat from both extremities towards the middle. This arrangement could require additional attention to drillholes and ground support in later stages of mining the block. The decreasing size of the central pillar will increase the stress on the mine openings.

Due to the tabular nature of the orebody, backfill will be placed after each blasting cycle to minimize the remote control mucking distance and to minimize the exposed hangingwall and footwall. This backfill material will be brought into the stope from the far end of the sub-level via a footwall access drift and placed from the sub-level above. Waste produced by mining the drifts and other excavations will be used for backfill "locally". Backfill will only be hauled underground from the surface stockpile when it is unavailable from underground sources. It is anticipated that additional backfill material will be required over the life of mine. Waste rock from development will only be hauled to the surface when underground storage areas are full and no stopes are in the backfill cycle.

When ore extraction of an entire sub-level is complete, the McIntosh mine plan includes the construction of a thin cemented floor to be placed over top of the backfill intended to minimize ore losses and maximize mucking efficiency by creating a working surface for the next mucking horizon. For costing purposes, the assumed nominal floor thickness is 10cm. The cemented floor is intended to serve as a visible and/or somewhat physical marker horizon for the LHD operator to ensure the mucking process recovers only the blasted ore material.

The mining sequence will start over again with the extraction of the sub-level above. This mining method primarily employs uncemented backfill for the bulk of the stopes. Based on the overall planned production sequence, an engineered sill pillar is required to enable mining the ore beneath the first production level. Stopes on the first and second sub levels will be backfilled with cemented backfill. The cemented backfill will serve as an artificial pillar to permit the stoping below to advance upward level by level until the stopes directly below the cemented fill are recovered. If the early stopes were backfilled with uncemented backfill, a pillar of potentially valuable ore would have been left unrecovered. The plan is to use cemented fill on the 145 and 165 elevations to maximize ore recovery.

In order to ensure these engineered sill pillars are constructed with quality in mind, only appropriately sized rock (crushed and screened) will be used for construction. The size distribution of the waste rock material used, and proper mixing of the cement mixture with the rock are important design constraints to monitor and control.

18.1.3 Proposed Mine Layout Development

The planned main access to the mine is by a decline (4.5m x 4.5m) from a portal near the plant area to a location on the footwall side of the Minita vein at the 245m elevation close to the center of the deposit on strike. A spiral ramp descends from there to the lowest level at -53m elevation.

The main decline and spiral ramp will be 2,414m in length to the point on the 145m elevation where the initial stopes are planned. The decline will start at the portal and descends at 14.4% gradient for 372m. The ramp will then make a 30m radius turn and descend 771m at a 14.5% gradient to the 245 elevation. This is close to the midpoint of the Minita vein where the stopes have above average width and grade. From the 245 elevation, the main ramp will continue down for 1,271m to the 145 elevation where production will begin. The ramp spirals are designed to return to the same approximate location along strike with each descent of 20m vertical m to the next sub-level. This keeps the ramp access in the midpoint of the ore zone to balance haulage distances and ventilation air flows.

Each ramp spiral includes a 15m straight and flat interval at the entry for the sublevel access crosscut. The spirals also have straight intervals opposite the footwall and at the south side to keep the ramp close to the vein. The curves are 30m radius. The length of each spiral is approximately 213m at a gradient of 9.4%. Accessing stopes from the 145m elevation down to the -53m elevation will require an additional 2,345m of main ramp. The shorter ramps planned to access small satellite stoping areas are designed with 20m radii and average grades of 13%.

From the sublevel access cross cuts, footwall access drifts will be driven in waste parallel to the ore body. In addition, ore development will be advanced to the extent of the vein at the prescribed sub-level interval spacing.

18.1.4 Mine Recovery

Crown Pillar

In the absence of a detailed analysis, a crown pillar thickness of 20m is planned to separate the proposed underground mine from previous mine workings established since 1953. The CNI report (2004) also supports a crown pillar in the range of 15m-19m in thickness between the 100m to 200m elevation.

Approximately 48,700 undiluted tonnes at 12.7gpt Au and 92.4gpt Ag is contained in the planned crown pillar (applying cut off grade of 5.0gpt Au-eq). The Minita and Minita 3 veins converge in this area to form a maximum width of just under 10m for a small section, but average 4.6m wide for the majority of the strike length.

If stress, rockmass and structures are favorable, the mining method of choice for pillar recovery is a simple longitudinal retreat towards the central access point with dumped upholes. Utilizing a 1:1 pillar width to height ratio, a 'skin' of thickness 5.0m will be left behind upon final retreat. This represents an extraction ratio of 75% and assumes that rib pillars will not be required in case of breaching the 'skin'. Furthermore, a mining loss factor of 10% was applied to account for potential stability problems.

Production Stopes

A mining stope recovery of 98% was used to account for ore losses. The challenge will be to balance ore grade with dilution in order to maximize mine recovery.

18.1.5 Geotechnical

CNI in Tucson, Arizona submitted a report titled "Geotechnical Design Parameters for the El Dorado Mine, March 2004". This report includes the following:

- Evaluation of the stope and pillar dimensions for mining the Minita vein;
- Evaluation of the layout of the ramp access to the mine;

- Evaluation of size of access excavations and support required, if any.

Based on the observations in the drill core and outcrops complemented by the RQD database compiled, CNI derived the geotechnical design parameters. Refer to Table 18.1.1.

Joint orientation data were not available. Core samples were collected for strength determination (i.e. triaxial tests, shear strength, tensile strength).

Table 18.1.1: Geotechnical Design Parameters (CNI, 2004)

Rock Type	Cohesion (MPa)	Friction Angle (degrees)	Density (t/m^3)	Intact UCS (MPa)	Tensile Strength (MPa)
Andesite – Chlorite Alteration	22.7	49.7	2.61	123.9	15.2
Andesite – Hematite Alteration	26.3	43.5	2.57	121.8	N/A

SRK has applied additional correction factors to the above geotechnical design parameters. Based on this limited amount of information, the net result categorically considers the rockmass to be 'good' under the Laubscher method.

SRK recommends that joint orientation data be collected to properly assess the structural design constraints. Furthermore, unfavorable structures (such as faults, dykes, shear zones) on a regional scale located immediate to the hangingwall and/or footwall need to be identified as their presence will affect stope stability. A review of the drill logs may be sufficient to determine the proximity and continuity of such planes of weakness.

Ground Support

CNI recommends that the access drifts be supported with 1.5m length split sets on a 2.0m x 2.0m bolting pattern. Depending on the in situ rockmass condition, the amount, type and level of ground support may need to be upgraded. This variability in ground conditions and hence ground support requirements represent a degree of risk to the project.

SRK is in agreement that a bolting pattern is required for main access routes. Further to this, SRK recommends an active bolt (i.e. mechanical bolt, resin rebar) because of the seismicity in the area and a longer bolt length (i.e. 2.4m length).

Cost estimates assume that only the back will be supported for stope headings and waste development. The installation of screen on the back will be considered for the main ramps as required.

Cemented & Uncemented Backfill

Backfill is generally used as a filler to provide passive support to the stope walls. By placing backfill, the unsupported stope length will be minimized. Based on a 20m stope height, CNI recommends a maximum unsupported stope length of 17m along strike.

The intended use of cemented backfill is to allow recovery of the sill pillars. In order to meet the production schedule, mining must begin at the 145m elevation which will create a sill pillar below that elevation. Cemented backfill will be placed in the stopes mucked from the 145m elevation to allow for recovery of the sill pillar below. CNI has recommended a cement content of 4%-5% to yield a 2.8MPa strength material.

18.1.6 Dilution

The dilution estimation methodology employed accounts for variations of the vein thickness. The purpose for proceeding with this method rather than assigning an overall dilution factor was to avoid over estimating dilution in the thicker portions of the vein and underestimating dilution in the thinner portions.

The estimation method employed results in an overall average dilution (both planned and unplanned) of 33%. Refer to Table 18.1.2 for the detailed breakdown.

Table 18.1.2: Overall Dilution Estimate (McIntosh, 2005)

	Material (t)	Gold (gpt)	Silver (gpt)	Proportion (%)
Planned	296,380	0.35	3.0	23.6
Unplanned	37,799	0.35	3.0	3.0
Backfill	80,893	0.00	0.0	6.4
Dilution	**415,135**			**33.2%**

18.1.7 Production Rate

Ore will be sourced from sill development and stope production.

A maximum achievable production rate of 995tpd can be realized assuming that headings are available and that cycle times are achieved for bench and fill stoping, resuing and non-resuing drifting as shown in Table 18.1.3. Given a maximum possible production rate of 995tpd, sustained production of 750tpd is achievable.

Table 18.1.3: Production Rate

	Production (t/blast)	Production (cycles/day)	Number of Headings	Production Rate (tpd)
Bench and Fill (downholes)	613	0.71	2.00	870
Ore Sill (resuing)	57	1.53	0.25	22
Ore Sill (non-resuing)	91	1.50	0.75	102
Total			**3.0**	**995**

Ground control issues will be evaluated in future studies to assure the achievability of the required production rate.

The estimated mineable ore reserve is 1.6Mt, based on a 1.5m minimum stope width, and recovering a portion of the crown pillar and the Minita 3 veins where possible. Due to the narrow nature of this deposit, the mining rate is considered to be high as the deposit is reduced at a rate of 56m (vertical) per year.

With planned drift heights of 3.2m, the ore production will be distributed as follows: 16% development sills, 84% stopes.

18.2 Recoverability (Metallurgy & Process Design)

Metallurgical testwork performed to date is described below. Based upon this work, the mineral processing plan, also described in this section has been developed. Pacific Rim are in the process of updating this work using new and updated information. These updated results will be presented in a Feasibility Study which is currently under way.

Ore Description

The El Dorado deposit is described by MDA and others as chalcedonic quartz/carbonate veins containing less than 2% sulfides. The veins range from 1m to 15m wide. The chalcedonic portion ranges from the massive form to banded to colloform chalcedony. In general, the massive chalcedony is low grade, while the banded and colloform chalcedony is ore grade. The calcite component is closely intermixed with the banded and colloform chalcedony and crosscutting and cementing on the massive chalcedony.

The gold-silver mineralization had been identified as acanthite, electrum, and native gold and native silver. The sulfide mineralization is pyrite, chalcopyrite and trace sphalerite and galena. The gold and silver mineralization is fine grained. While complete microscopic analysis has not been undertaken, extensive check assaying of geologic samples indicate a variance of less than 2% between sample splits. This confirms the absence of "nugget" gold. Gravity separation was not considered as a viable recovery process.

Metallurgical Test History

Metallurgical test work was completed for the previous owners by Colorado Mountain Research Institute (CMRI), Mountain States Research Institute (MSRD) and Dawson Laboratories. The test samples were primarily from the Minita vein. Bond and abrasion indices were done on the El Dorado dump ore as well as the Minita vein ore. The test programs included grind optimization studies, cyanide strength optimization studies, settling (thickener sizing) and cyanide destruction tests.

The leaching tests at all the laboratories indicated that fine grinding (270-325mesh), long leach times (96 hours), and high cyanide strengths were required to achieve optimum gold and silver recoveries.

The Dawson test work was the latest of the series, as summarized below in Tables 18.2.1 and 18.2.2.

Table 18.2.1: Gold Recovery Kinetic Leach Tests

Sample	Laboratory	NaCN kg/t	Mesh Size	Recovery (%) at Specified Leach Times in Hours 24hr	48hr	58hr	72hr	82hr	96hr
Middle/Minita	Dawson	0.5	270	53.8%	89.1%	93.5%	94.2%	94.9%	95.2%
Middle/Minita	Dawson	1.0	200	62.7%	86.5%	87.9%	89.3%	90.7%	92.3%
Middle/Minita	Dawson	1.0	270	60.2%	89.3%	92.9%	94.8%	95.5%	95.7%
Middle/Minita	Dawson	1.0	325	72.0%	90.4%	93.2%	94.1%	95.2%	96.3%
Deep/Minita	Dawson	1.0	270	74.5%	85.2%	90.2%	93.4%	95.0%	96.5%
Middle/Minita	Dawson	2.0	270	88.1%	90.0%	90.9%	93.8%	95.7%	96.5%
Shallow/Minita	Dawson	2.0	270	52.9%	76.9%	84.1%	85.5%	87.9%	90.3%

Table 18.2.2: Silver Recovery Kinetic Leach Tests

Sample	Laboratory	NaCN kg/t	Mesh Size	Recovery (%) at Specified Leach Times in Hours 24hr	48hr	58hr	72hr	82hr	96hr
Middle/Minita	Dawson	0.5	270	22.1%	39.4%	48.4%	53.3%	56.5%	58.0%
Middle/Minita	Dawson	1.0	200	25.8%	34.9%	53.3%	54.3%	56.1%	70.6%
Middle/Minita	Dawson	1.0	270	32.9%	48.6%	67.5%	70.5%	73.0%	77.5%
Middle/Minita	Dawson	1.0	325	37.0%	57.0%	70.7%	71.0%	71.3%	71.6%
Deep/Minita	Dawson	1.0	270	25.5%	45.8%	56.8%	62.3%	65.6%	74.1%
Middle/Minita	Dawson	2.0	270	45.6%	70.2%	82.4%	81.6%	84.5%	90.0%
Shallow/Minita	Dawson	2.0	270	30.5%	44.1%	51.8%	52.5%	53.2%	71.7%

Bond Work Indices for samples identified as Minita Vein ranged from 12.9kWh/st to 17.3kWh/st with an average of 14.9kWh/st (16.4kWh/t). High silica dump samples ran as high as 19.7kWh/t, while mixed silica-calcite and the site dump sample ran 12.9kWh/t, an average of 16.3kWh/st (17.96kWh/t).

Abrasion indices ranged from 0.608 to 0.451 on dump samples. In the sample whose description matched Minita vein most closely the abrasion index was 0.451.

Settling Tests were run on samples ground at p80 270mesh and p80 325mesh. Pocock Industrial tested several flocculants and arrived at a recommended 0.175m2/t-day for thickener sizing.

CMRI conducted cyanide detoxification tests utilizing the Inco process. The tests were successful in reducing cyanide levels to 0.5mg/l in the test sample albeit at high consumptions of sodium meta-bisulfite. The high consumption was attributed to the high levels of WAD CN in the sample and the presence of thiocyanite ions.

McClelland Laboratories

McClelland Laboratories was contracted by PacRim to review all the previous metallurgical testing, comment and make recommendations for further test work. McClelland recommended a new test series of grind optimization, Inco detoxification tests and zinc precipitation tests. Samples for the tests were selected from cores by PacRim. The samples were all from the Minita vein and represented the first 2-3 years of commercial production.

Staged grinding was used for all the McClelland tests. Previous test work utilized batch grinding. Stage grinding more closely replicates the actual grind curve obtained in a milling/classification circuit.

The results of the McClelland grind optimization series for gold were:

Time	100 mesh	150 mesh	200 mesh	270 mesh	325 mesh
24 hrs.	84.2% ext.	90.3% ext	97.5% ext.	97.8% ext.	96.5% ext.
48 hrs.	82.5% ext.	89.1% ext.	94.9% ext.	96.8% ext.	95.4% ext.
96 hrs.	79.9% ext.	87.5% ext.	87.9% ext.	90.1% ext.	95.4% ext.

The results of the McClelland grid optimization series for silver were:

Time	100 mesh	150 mesh	200 mesh	270 mesh	325 Mesh
24 hrs.	47.5% ext.	47.7% ext.	50.9% ext.	48.7% ext.	53.0% ext.
48 hrs.	59.9% ext.	59.9% ext.	64.1% ext.	60.3% ext.	61.8% ext.
96 hrs.	68.2% ext.	71.8% ext.	78.3% ext.	64.1% ext.	72.7% ext.

The results clearly indicate that preg robbing was occurring in the samples tested. As no organic carbon was found by assay in the sample, the preg robbing was attributed to the clays identified in the ore. McClelland proposed and tested a high lime pretreatment of the ore to pacify the clay activity. The high lime pretreatment eliminated the preg robbing characteristics at leach times of 24 to 48 hours and substantially minimized the effect at longer leach times.

In an attempt to raise silver recoveries McClelland ran optimization tests utilizing lead nitrate. The silver recovery and rate of recovery were improved by the addition of lead nitrate. Optimum results were obtained at additions of 0.05kg/tonne of lead nitrate.

McClelland ran an optimization series of cyanide strengths at 200 mesh grind. The cyanide optimization tests indicated that recoveries and rate of recovery were maintained at a 1.0g/l cyanide strength.

McClelland then conducted a confirmatory test utilizing the optimized conditions. The conditions were:

- Grind p80 200 mesh
- High Lime Pretreatment
- Sodium Cyanide 1.0g/l
- Lead Nitrate 0.05g/l

The results were:

Time Hrs.	Recovery, %	
	Gold	Silver
24	91.8	87.6
36	92.3	88.0
48	92.5	88.8

The tailings from the optimization tests were sent to Pocock Industrial in Salt Lake City for settling and viscosity tests. Pocock determined a thickener sizing of $0.08m^2$/t-day with flocculent. The samples settled quickly to densities of up to 70% solids. Pocock's viscosity tests indicated that the slurry should be limited to 60% solids for handling.

The tailings after thickening and viscosity testing were returned to McClelland for Inco cyanide testing. The samples were "spiked" with sodium cyanide to restore cyanide levels to the values expected in the operating circuit. Target conditions were 5:1 SO_2/CN ratio, Cu++ as catalyst at 15-20ppm, 120 minute retention time. The cyanide content was reduced from 477mg/l to 0.065mg/l WAD CN. The drinking water standard for WAD CN is 0.2mg/l.

McClelland did not conduct any Bond work index or abrasion index tests due to lack of sample.

18.2.1 Mineral Processing

The El Dorado process plant has a design throughput rating of 750tpd at 90% availability i.e., 835tpd. The ball mill and thickeners are sized for a 1,000tpd maximum throughput. The design crushing system is rated at 130tph, which will provide crushing on a 8-hour shift for 835tpd. The Merrill-Crowe and refinery systems are sized to handle the 1,000tpd throughput if desired. The leaching system is designed to provide 50 hours retention time at 835tpd. In order to increase total throughput to 1,000tpd, additional leach tanks will be required. Excess leaching time should be avoided. McClelland's test work indicates that even with pretreatment slight preg robbing will occur at 48-72 hours leach time. Figures 18.1 and 18.2 show the flow sheet for the El Dorado processing plant. Table 18.2.3 summarizes the design criteria. A conventional 5-stage counter current decantation ("CCD") plant with doré recovery by zinc precipitation (Merrill-Crowe) will be used. Other options are filtration with zinc precipitation or Carbon in Leach ("CIL") with doré recovery by electrowinning. The excellent settling characteristics of the ore favor the CCD over filtration. Numerous studies of the economics of CIL vs. CCD indicate that when the recovered silver to gold ratio is over 3.5, the economics favor the CCD. The El Dorado ratio is 8:1. The CCD system reduces the amount of cyanide reporting to the Inco cyanide destruction unit by one-third to one-half, thereby reducing the Inco reagent costs.

Table 18.2.3: El Dorado Process Plant Design Criteria

Plant Area	Description	Value(s)
Operating Schedule	Crushing	1 shift/day; 365 days/year
	Processing	3 shifts/day; 365 days/year
Design Throughput	Crushing	130tph
	Processing	835tpd; 750tpd @ 90% availability
Design Recovery	Gold	95% maximum
	Silver	91% maximum
Crushing	Impact index	9.80
	Abrasion index	0.50
	Product	95% -10 mm
Grinding	Bond index	18.0kWh/t
	Product	p80 -200mesh
	Calculated work index	19.04kWh/t
	Ball mill circulating load	250%
	Abrasion index	0.50
Leaching	Retention time	48 hours
	Air sparge	0.175l/m^3 pulp @ 68.65kPa
	Pulp density	50% solids
	Flow	Gravity
Thickeners	Feed	20% solids
(1 grind; 5 CCD)	Underflow	60% solids
	Design area	0.10m^2/tonne-day (flocculated)
Merrill-Crowe	Maximum flow rate	110m^3/hr
	Clarifier flow rate	0.61 l/s-m^2
	Filter press flow rate	0.61 l/s-m
	Press capacity	100kg precipitate
	Precoat and body feed	Diatomaceous earth
	Zinc addition rate	1.5g zinc/g doré
Retort and smelting	Mercury retort	200 kg capacity; wet precipitate
	Crucible furnace	Diesel-fired
	Flux/ precipitate ratio	1:1
	Furnace capacity	2 charges/8 hour shift
	Doré bars	175kg
Reagents	Lime (total)	2.6kg/t
	Lime (mill feed)	2.0kg/t
	Lime (leach/thickeners)	0.6kg/t
	Sodium cyanide (total)	0.30kg/t
	Sodium cyanide (leach)	0.29kg/t
	Sodium cyanide (MC)	0.01kg/t
	Flocculent (total)	0.045kg/t
Cyanide Destruction	Sodium meta-bisulfite	1.360kg/t
	SO_2 as meta-bisulfite	5:1 CN
	Cu as $CuSO_4$ concentration	17 g/l
	Air sparge	0.175l/m^3 pulp @ 68.65kPa
	Retention time	3 hours

Crushing

Run of Mine ore will be fed into a feed bin by a front end loader. The ore will be fed at a controlled rate by a pan feeder to a vibrating grizzly deck with 4" bar spacing. The oversize at +4" will report to a 22" x 36" jaw crusher with a close side setting ("CSS") of 4". The crushed product will join with the grizzly undersize and be conveyed to a 6' x 12' double deck screen with 1" and ⅜" screens. The +1" will be crushed in a Standard HP 200 (4.25 ft equivalent) crusher with a ⅞" CSS, operating in closed cycle with the screen. The –1"+⅜" will report to a short head HP200 (4.25ft equivalent) crusher with a CSS of 5/16" operating in open circuit. The 100% -⅜" material on the screen will join with the 90% -⅜" material from the short head crusher and be conveyed to a 1500t (live capacity) silo. The crushing system will be equipped with belt scales and electro-magnets. The 1500t silo will have a dust collection system.

Grinding

Ore will be withdrawn from the 1,500t bin at a controlled rate by a variable frequency drive ("VFD") belt feeder. The ore will be fed to the 10' x 14' 1,000hp ball mill by a series of belt conveyors. Pebble lime will be added to the belt conveyors from a 40 tonne silo by a VFD rotary valve. The ore feed rate and lime addition rate will be controlled by a programmable logic controller ("PLC"). The ball mill operates in closed cycle with a bank of 4 hydrocyclones (3 operating and 1 spare). Cyclone underflow returns to the mill feed for further grinding. The mill is designed for 250% circulating load. The cyclone overflow at 80% -200 mesh size and 30% solids is sampled, gravity flows to a trash screen and then to an 11.5m diameter conventional grind thickener.

Leaching

Leaching will be done in a series of five 9m x 9m agitated tanks. The tanks will be air sparged at the rate of 0.175 liter air/m^3 pulp. The slurry will flow tank to tank by gravity. The leached pulp will gravity flow to the first CCD thickener.

Counter-Current Decantation

CCD will be done in five 11.5m diameter thickeners. In the CCD circuit the thickener underflows at 60% solids will be pumped from thickener #1 to #5. Thickener overflows will flow counter current from thickener #5 to #1. Cyanide free water will be added to the feed of thickener 5. Overflow from thickener 1 will be pumped to the pregnant solution tank for feed to the Merrill-Crowe plant. Underflow from thickener 5 will be pumped to the Inco cyanide destruction unit.

Cyanide Destruction

The underflow from thickener 5 at an estimated 300ppm cyanide will be treated in an Inco destruction unit to levels of less than 0.2mg/l WAD CN. The feed will be diluted to 40% solids by make up water and agitated with sodium meta-bisulfate, copper sulfate and excess air for a minimum of 3.0hrs. in a 9m x 9m reactor vessel. The treated tails will be pumped to the tailings disposal area. A portion of the tailings will be hydrocycloned to provide suitable sand for mine backfill[12].

Precipitation (Merrill-Crowe)

Pregnant solution will be clarified in a pressure leaf filter, then deaerated in a vacuum tower. Pulverized zinc metal will be added to the clarified deaerated solution through a cone. Gold and silver sludge will be precipitated and recovered in a recessed plate filter press. The filter press will be manually cleaned as required. The clarifiers and filter presses are duplicated so that plant operations can continue without interruption during cleaning cycles.

Diatomaceous earth required as filter aid will be added to the clarifiers and presses as both pre- coat and body feed. The Merrill-Crowe unit will be equipped with flow meters, dissolved oxygen meters and samplers. The barren solution from the filter presses will be pumped to the mill barren solution tank.

Retorting & Smelting

The precipitate from the filter presses will be manually loaded into a retort for mercury removal. The retorted precipitate will be mixed with fluxes and smelted in a diesel fired crucible furnace. The resultant bar or button will be shipped off site. Clean slags from the smelting process will be processed through the mill. Slags containing visible doré beads will be crushed and resmelted.

Reagents

<u>Lime</u>

Pebble lime will be added to the mill feed belt. Lime for pH control in the leach and CCD system will be provided by a pulverized lime mixing system and a milk of lime loop.

<u>Sodium Cyanide</u>

Sodium cyanide in solid form will be dissolved in a mix tank and transferred to a day tank. A cyanide loop system will provide metered addition to the leach system. A separate metering pump will supply sodium cyanide solution to the MC zinc cone as necessary.

<u>Flocculent</u>

Dry flocculent will be mixed by an eductor to a 1% solution and aged. The aged flocculent will be pumped by individual Moyno-type pumps to each thickener in the circuit.

[12] The concept of using this material as backfill was first introduced in the 2005 pre-feasibility study. This prompted some questions from MARN as the concept had not appeared in the earlier EIS. Pacific Rim has resolved the matter with MARN.

Lead Nitrate

Dry lead nitrate will be mixed to a 20% solution and meter pumped to the leach circuit. A separate metering pump will be utilized to add the solution to the MC zinc cone as necessary.

Antiscalent

Antiscalent will be received in liquid form in returnable carboys. The antiscalent will be meter pumped to location as necessary.

18.2.2 Ancillaries

Assay and Sample Preparation Laboratory

The assay and sample preparation laboratory will be in a 10m x 18m pre-engineered steel building adjacent to the process building. The sample preparation laboratory will have the capability to process both mine and process plant samples for assaying. The assay lab will contain complete sample preparation facilities and metallurgical test facilities. The assay laboratory will be equipped with fire assay (“FA”) and atomic adsorption ("AA") capabilities. The laboratory will be capable of performing 50 FA analysis per shift. The AA will be utilized for plant solution assays and cyanide soluble solids analysis.

Cyanide Storage

Sodium cyanide will be stored in a 14m x 31m pre engineered steel structure. The storage structure will be constructed with appropriate containment and access control measures.

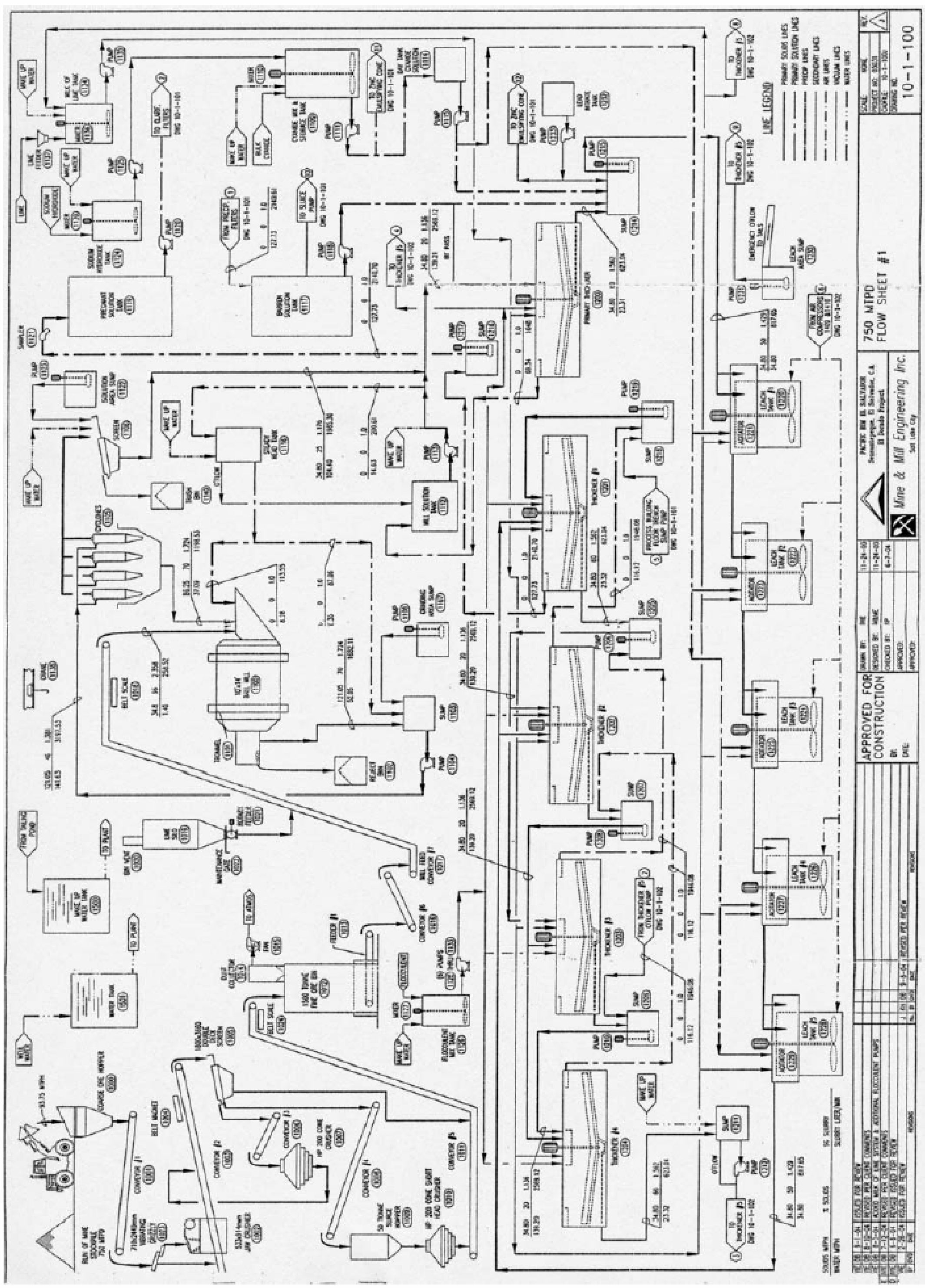
Plant Maintenance

Mechanical and electrical maintenance operations will be housed in a 12m x 15m pre-engineered steel building adjacent to the assay laboratories. The building will contain maintenance offices.

18.2.3 Metallurgical Recovery

The operating recoveries for the El Dorado process plant will be 92% for gold and 88.3% for silver. In testing, McClelland averaged 92.5% gold and 88.8% silver extractions. Pocock’s CCD balances indicate soluble recoveries of 99.2% to 99.6% in a 4-stage CCD circuit. The soluble recovery in the planned 5-stage CCD circuit will be 99.5%. Other losses for the plant slag and unaccounted losses will total about 0.45% recovery loss.

Figure 18.1: Process Flow Sheet for Crushing and Leaching

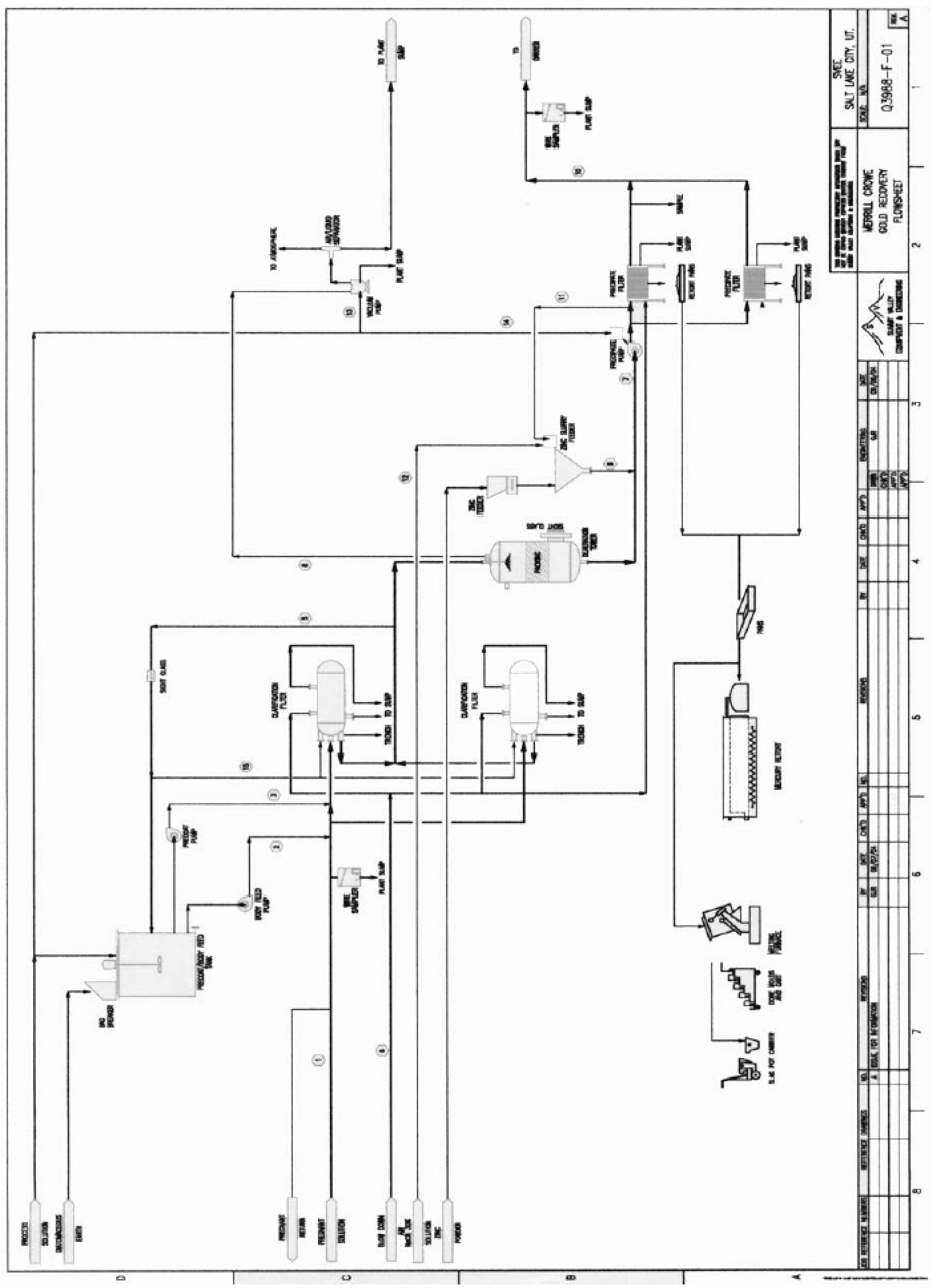


SRK Consulting
Engineers and Scientists

Project No.	Date	Revision
151401	January 2005	B

Process Flow Sheet for Crushing and Leaching

Figure 18.2: Process Flow Sheet for MC Precipitation – Dore



SRK Consulting Engineers and Scientists			Process Flow Sheet for MC Precipitation - Dore
Project No. 151401	Date January 2005	Revision B	

18.3 Markets

Gold markets are mature, global markets with reputable smelters and refiners located throughout the world. Demand is presently high with prices for gold showing a remarkable increase during the past year. London PM Fix price averaged US$596/ounce in June 2006.

18.4 Contracts

Gold produced at El Dorado will be sold shipped to a refinery and will be subject to conventional refining terms and conditions. Currently there are no signed refining agreements.

Pacific Rim may also choose to develop its decline into the mine using contractors. This decision has not been finalized and there are no agreements in place for contractor development.

18.5 Environmental Considerations

The project has been designed to meet El Salvador laws and regulations and international and North American good practices for engineering design and environmental management. Comprehensive environmental and social baseline studies have been completed to provide supporting information for project design and the project environmental impact study ("EIS"). The EIS has been prepared in accordance with the Terms of Reference issued by the Ministry of the Environmental and Natural Resources ("MARN"), and World Bank Group/International Finance Corporation ("IFC") guidelines. The EIS was submitted to MARN in early September 2004.

18.5.1 Legal Requirements

El Salvador Laws & Regulations

The EIS contains a detailed description of El Salvador environmental laws and regulations. A brief summary is provided below.

The Political Constitution of the Republic of El Salvador of 1983 declares that the protection, conservation, rational development and restoration of natural resources are of social interest. Mining and exploration projects are regulated under the Mining Law and Its Reforms, Decrees 544 and 475, 2001, and the Regulation of the Mining Law, Decree No. 68, July 19, 1996. Highlights of the Mining Law and its Regulation follow:

- Exploration, mining and processing must be conducted in accordance with technical and mining engineering requirements, as well as internationally established guidelines (Art. 117);
- An approved environmental impact statement is required to convert an exploration concession into an exploitation concession;
- The rights to land occupation, water supply and rights of way, etc. for the duration of the project are established;

- Accepted international norms on emission levels and effluent limits must be complied with (Art. 25 of the Regulation);
- A financial security (bond) must be posted; and
- Explosive and waste management requirements are specified.

The Environmental Law, Decree No. 233, 1998 and the General Regulation of the Environmental Law specify the following:

- An environmental permit from MARN, based on the approval of an Environmental Impact Assessment, is required for exploration, exploitation and industrial processing of minerals and fossil fuels;
- The environmental permit requires the company to implement prevention, minimization or compensation measures established in the environmental management program, which is a component of the Environmental Impact Assessment;
- Public consultation is required for the Environmental Impact Assessment; and
- A financial security (bond) is required that covers the total cost of the facilities or investment required to comply with the environmental management plans included in the Environmental Impact Assessment.

Numeric standards for ambient air quality; emissions from fixed sources; maximum environmental noise levels; water quality and effluent limits are specified in various norms and regulations, including the Special Regulation of Technical Norms for Environmental Quality, Decree No. 40, and the Special Regulations for Wastewater, Decree No. 39. Other environmental management regulations include:

- Special Regulation on Solid Waste Management, Decree No. 42;
- Special Regulation on Hazardous Substances and Wastes, Decree No. 41; and
- The Law Regulating the Deposit, Transport and Distribution of Petroleum Products.

The Law of Wildlife Conservation, Decree No. 844 covers the protection, restoration, management, development and conservation of wildlife. Activities such as hunting, collection, commercialization, use and development of wildlife are regulated under the law.

The Forest Law, Decree No. 268, regulates the forest industry. The Law covers the conservation, improvement, restoration and growth of forest resources according to the principles of multiple use, and the rational development and management of forest and forest areas and renewable natural resources.

Health and safety are regulated under the Health Code, Decree No. 955. The purchase of explosives is regulated under the Law of Control of Fire Arms, Munitions, Explosives and Similar Articles, and its Regulation. The National Civil Police are responsible for the transport of explosives.

Licenses & Approvals

PacRim holds three Exploration Licenses and has applied for an exploitation concession. These are described in Section 4.1.1.

In November 2003, PacRim submitted an EIS for exploration programs within the El Dorado exploration licenses, which was approved by MARN on June 15, 2004 (Resolution No. 151-2004).

For the proposed project, the most important permit required by the El Salvadoran government is the Environmental License. As noted above, the license is issued based on the review and approval of a comprehensive EIA by MARN. An EIS is also required for the following:

- Water use; and
- The use, disposal and transport of hazardous materials.

The review period for an EIS specified in the Environmental Law is 60 days, although the review period may be extended an additional 60 days for reasons of complexity. Once MARN has approved the EIS, the period specified for the issuance of the environmental license is 10 days.

According to a July 2006 draft of Pacific Rim's Annual Information Form:

> " The Company has undertaken the steps necessary to have and has presented in a timely manner all of the required documents for the conversion of a portion of the El Dorado exploration licenses with the exception of the approved environmental impact study. In September 2005, the Company received formal notification from MARN that its environmental impact study had passed the technical review process and should be submitted for a public comment period. The environmental impact study was posted for public comment according to El Salvadoran laws, which period ended in October 2005. In March 2006, the Company received from MARN a list of issues raised during the public comment period and was asked to amend the EIS to address these issues. The Company is currently preparing the EIS for resubmission to MARN, following which it will await further instructions or final acceptance of the EIS and granting of an environmental permit.
>
> " The Company has received assurances from the El Salvadoran Division of Hydrocarbons and Mines (Ministry of Economy) that the Company's rights for the conversion of the exploration licenses to an exploitation concession will not be affected in waiting for approval of the environmental impact study."

Institutional Capacity

There are no modern mining operations in El Salvador; therefore, the government regulators have not had the opportunity to develop a complete understanding of mining processes and mining environmental management. Nor has El Salvador established comprehensive mining environmental management regulations. The primary concerns associated with limited institutional capacity include:

- Limited technical resources for reviewing permit applications (i.e. the EIS), potentially resulting in approval delays;

- Unclear permitting requirements, potentially resulting in approval delays and/or perceived non-compliance; and
- Potential for development of regulations or compliance criteria that are not relevant and/or applicable to mining operations.

These concerns can generally be avoided by frequent and consistent communications with government officials and by providing educational assistance. PacRim has been in regular communication with the economic and environmental ministries on the progress of the project and the EIS.

PacRim has approached the government with suggestions for educational support. MARN has been very sensitive to potential perceptions of conflict of interest and to date has not accepted invitations from PacRim for educational tours of modern mining operations in other countries. However, an educational seminar on Mining and the Environment sponsored by PacRim in August 2004 was well attended by personnel from both MARN and the Division of Hydrocarbons and Mines.

18.5.2 PacRim Requirements

Environmental Policy

PacRim's Environmental Policy, dated January 2004, is provided in the EIS. The Policy states that PacRim is committed to the concept of Sustainable Development, which includes the balancing the management of resources with the protection of human health and the environment, and the needs of economic growth. Commitments include:

- Implementing administrative and operational practices to ensure that the installations comply with applicable legislation for protection of the workers, the public and the environment.
- Maintaining ongoing auditing and review to ensure compliance with government and company policies.
- Ongoing evaluation of available technologies for reducing environmental effects and improving levels of compliance.
- Applying norms and procedures, in the absence of legislation, to promote environmental protection and minimize environmental risks.
- Maintaining communication and coordination with authorities, workers and the public to protect the environment.
- Supporting cost effective improvements and solutions to environmental problems.
- Reporting the progress of the company regarding environmental compliance.

International Good Practices

The project has been designed to meet international good practices for engineering design and environmental management. These practices have been developed by international nongovernmental organizations ("NGOs") such as the World Bank Group, the World Health Organization ("WHO") and the United Nations, or adopted from laws and regulations developed by government organizations of the industrialized nations.

Financial institutions typically require that mining projects being considered for project financing meet World Bank Group environmental guidelines. On June 4, 2003, ten leading banks from seven countries announced the adoption of the "Equator Principles", a voluntary set of guidelines that are used to standardize the review of social and environmental issues associated with projects being considered for financing, and to promote environmentally and socially responsible development. The Principles outline the specific World Bank Group policies and guidelines that would be considered during the financial and due diligence review for a project, and emphasize the development of a project specific Environmental Impact Assessment, Environmental Management Plan and public consultation program.

An overview of the environmental policies and guidelines from the World Bank Group and other international guidelines applicable to El Dorado are summarized in Section 3.4 of the EIS. The EIS also provides a summary of numeric guidelines from World Bank Group industry sector guidelines for wastewater effluent, ambient air quality and noise, and comparisons to the El Salvadorian standards.

Environmental Impact Assessment

PacRim contracted Vector Colorado, an international environmental engineering firm, to conduct environmental baseline studies and prepare the EIS in November 2003. Vector assembled a multidisciplinary team of engineers, scientists and sociologists with experience in environmental impact assessment for mining projects located in Central America to prepare the EIS. The team included Consultoria y Tecnología Ambiental, S.A. ("CTA"), a Guatemalan environmental firm, which was responsible for local management and preparation of many of the environmental baseline studies and for preparing the Spanish EIS report. CTA has extensive experience preparing environmental impact assessments and in 2003 prepared the EIS for Montana Exploradora's Marlin project located in western Guatemala. Montana Exploradora is a subsidiary of Glamis Gold.

MARN issued initial Terms of Reference for the EIS in the fall of 2003. Final Terms of Reference were issued July 30, 2004. The EIS was completed in early September 2004 and submitted to MARN for review.

Environmental & Social Baseline Studies

Comprehensive environmental and social baseline studies were conducted for the EIS in accordance with World Bank/IFC guidelines. The baselines studies incorporated information from previous studies conducted at the site, including:

- SRK, Inc & Enertech, S.A. 1997. Baseline Study El Dorado Project El Salvador. Prepared for Kinross Gold USA, Inc. SRK Project No. 73403.
- Hydro-Triad, Ltd., Mina El Dorado Prefeasibility Report, March, 1995.

Information in these studies was supplemented by additional studies conducted between January and July 2004. The results of the environmental and social baseline studies are reported in Section 5 of the

EIS. The following provides a brief summary of the results of the physical and biological baseline studies:

Ambient Air Quality and Noise

Low air pollutant concentrations are expected in the vicinity of the project due to its remote location from industrial sources of particulate matter and gases. In late 2003, PacRim initiated monitoring of baseline concentrations of respirable particulate matter. Monitoring was conducted every 6 days in accordance with US Environmental Protection Agency (USEPA) standards. The results indicate that background concentrations of respirable PM10 (particulate matter less than 10 microns in aerodynamic diameter) are well below World Bank guidelines. Ambient noise levels are also within World Bank guidelines.

Water Resources

The Exploration License areas are located within the river basins formed by the Copinolapa River and the Titihuapa River; and are drained by tributaries of these rivers. The rivers flow into the Lempa River which empties into the Pacific Ocean.

The principal drainage within the project area is the San Francisco River, which flows west to San Isidro where it flows into the San Isidro River. The San Isidro River flows south to empty into the Titihuapa River south of the project area. Water from the rivers is used for irrigation and livestock watering.

There are many springs in the study area. The springs located in the upper San Francisco and Cacahuatal Rivers, upgradient of the project area, are used as a water supply by communities in the vicinity of San Francisco and San Isidro. Groundwater resources in the area have not been developed; during the dry season, water supplies for both human consumption and agriculture are limited.

In 1995 a surface water quality monitoring program was initiated, which included 6 stations within the study area. Quarterly monitoring continued through 1999. PacRim resumed the water quality monitoring program in the fall of 2003. Two sites were added to the monitoring program at this time; one on the San Francisco River and another on the Quebrada Las Lauras.

The results of the surface water quality studies indicate that the water is hard to very hard and has a slightly alkaline to neutral pH. With the exceptions of fecal coliform bacteria and seasonal sediment loading, the data indicate that the water quality is generally good with low to fairly low alkalinity, conductivity, nitrates, sulfates, total suspended solids and metals.

Groundwater quality appears to be relatively good and comparable to surface water quality. The groundwater is generally classified as hard to very hard, with a slightly alkaline to neutral pH, and low to fairly low alkalinity, conductivity, nitrates, sulfates, and metals.

Soils

Land in the study area is used primarily for grazing and farmland. Soils are generally clayey and topsoil is shallow, which is likely due to erosion. In general, the soils are poor and contain little organic matter. The capability of the soils indicate crop limitations or unsuitability for cultivation, which limit the use of the majority of the project area to pasture or forest.

Flora and Fauna

Extensive agricultural operations and livestock grazing have altered the natural environment of El Salvador. The countryside in the project area consists of gently rolling hills in the valleys surrounding higher flat topped mesas and steep cinder cone hills. The land within the valleys has been heavily impacted by human activities for agricultural use and cattle ranching, which has resulted in a countryside characterized as patches of cultivated areas mixed with herbaceous areas. No native tropical rainforest remains in the study area. Where trees exist, they are very dispersed. Small patches of secondary forest exist along rivers and sometimes along fences and roadways. No protected, threatened or rare species were found with the study area, and no protected areas exist near the study area. Five different species of fish were found in the rivers of the study area.

Impact Assessment Results

The impact analysis (Section 6 of the EIS) was applied to all physical, biological and socioeconomic resources that have the potential to be affected by the proposed project during the construction, operations and closure phases of the project. No significant negative impacts were identified. Most potential impacts will be mitigated by proper engineering design and construction and the use of standard international good practices for environmental management.

The following provides a brief summary of the physical and biological impact assessment results:

Air Quality

An emissions inventory of gaseous and particulate emissions was completed for the project. The results of the emission inventory indicated that project would be considered a minor source for gaseous pollutants and a major source for particulate pollutants. Ambient air quality impacts due to emissions of PM10 and Total Suspended Particulates (TSP) were assessed using an Industrial Source Complex – Short Term model Version 3 (ISCST3), an air quality dispersion model developed by the USEPA. The results of the model indicate that daily and annual ambient air quality concentrations of PM10 and TSP would be in compliance with World Bank and El Salvador criteria. Monitoring of PM10 will be conducted to verify performance of dust control mitigation measures and the results of the impact assessment.

Noise

Ambient noise in the vicinity of the project will increase. Noise emissions from the project were estimated, and a noise model conducted to determine potential impacts. The results of the model indicated that the level of noise at the closest receivers outside of the project area will not surpass World Bank guidelines. Noise monitoring will be conducted to confirm the prediction and additional measures will be taken if necessary.

Flora and Fauna

The ecosystems in the disturbance areas are dominated by pasturelands and thickets with dispersed trees. Potential impacts to flora and fauna will not be significant. All disturbance areas will reclaimed using native species of trees and other vegetation. In addition, PacRim plans to implement a reforestation program along the San Francisco River and in other areas of the project site.

Negative impacts to water quality would also impact aquatic life. Water quality impacts are discussed in more detail below. In general, short term increases in turbidity and suspended solids would be expected during earthwork activities until the disturbance areas are stabilized and revegetated.

Water Resources

Concerns regarding impacts to water resources were carefully reviewed in the impact analyses. The results of the water resources impact analyses are summarized in the following subsections.

Mine & Ramp Dewatering

During construction and operation, groundwater will be pumped from the ramp and old mine workings and discharged into the San Francisco River. Currently much of the water in the river is diverted for agricultural and ranching uses upstream of the project area. Therefore, the additional flows would be considered a positive impact by downstream water users.

At closure, dewatering will cease. Groundwater will no longer be discharged from the mine into the San Francisco River and the stream flow will return to pre-mining levels.

Mine Development Rock Management

In general, potential negative impacts to water quality associated with the development rock stockpile are low. The mining operation will produce a relatively small quantity of development rock that would be stored in a stockpile near the portal. All development rock will be returned to the mine for use as backfill prior to the end of operations. The results of waste characterization testing, discussed in Section 4.7.4.4 of the EIS, indicate that the potential for water quality impacts due to runoff or seepage from the development rock stockpile is low. Acid generation is currently not occurring, and the potential for acid generation to occur in the future is low due to high excess neutralization potential in the rocks. In the absence of acid generation, the potential for high concentrations of leachable constituents from mine wall rock and development waste rock is also low.

Tailings Impoundment Development & Effluent Discharges

Tailings characterizations studies indicate good quality in the detoxified process water and the extract from leach testing of detoxified tailings solids. Arsenic and mercury concentrations in the detoxified process water are slightly elevated and are in excess of benchmark effluent levels proposed for the project. The detoxified process water and the tailings extract also contain elevated sulfate and total dissolved solids content.

The tailings impoundment will be sized to contain surface water run on and provide water storage capacity for dry season ore processing. The region experiences a wet season when high rates of precipitation and low evaporation will result in a positive water balance. Discharge of excess water that accumulates in the impoundment may be required on a periodic basis during the wet season.

Impacts to surface water will be minimized by detoxifying process water placed in the tailings impoundment, and scheduling discharge to coincide with the maximum rate of dilution both within the impoundment, and at the point of discharge.

The method of effluent discharge proposed in Pacific Rim's EIS was as follows, in italicized text. That proposal has been superseded by subsequent developments, but the description is retained for the information it contains concerning the conditions that were anticipated:

A preliminary discharge analysis was performed by Vector Colorado (July 2004) to evaluate potential cyanide concentrations in water discharged from the tailings impoundment. Bench scale cyanide detoxifications tests indicate that the Inco SO_2/Air process was successful in reducing WAD cyanide concentration to 0.064mg/l. In the analysis, it was assumed that the process water discharged to the tailings impoundment has a cyanide concentration of 1mg/l. A range of wet and dry season conditions as well as various options regarding upstream surface water runoff capture and diversion were evaluated. Natural degradation of cyanide was not considered in the assessment. Cyanide reduction was limited to dilution from direct precipitation and/or surface water run on.

In all cases examined, cyanide within the impoundment was predicted to be diluted to levels of 1.0mg/l or less. Maximum discharge rates of 30 l/s to 80 l/s were also predicted.

Local flow rates at candidate discharge points ranged from a minimum of 130 l/s to 765 l/s during the wet period when a discharge could be required. Depending upon the discharge point, additional minimum dilution rates of 4 to 9 times are possible. Under the assumptions presented above, the discharge could be managed to produce in-stream cyanide concentrations as low as 0.1mg/l for the assumed cyanide concentrations. For reference, the El Salvador effluent limit for total cyanide is 0.5mg/l.

Note that the forgoing discussion of cyanide in the impoundment discharge is based on a conservative assumption regarding cyanide concentration in the process water and the effectiveness of cyanide detoxification. The bench scale tests indicate a high degree of cyanide detoxification is possible. Under a range of operational conditions with respect to impoundment water quality it is anticipated that the cyanide content in process water can be managed to meet effluent limitations.

Other constituents present in the detoxified process water will be diluted to low levels within the impoundment and at the point of discharge. Based on the bench scale tailings studies, a three-fold dilution may be required to reduce sulfate to an acceptable level. Arsenic and mercury could require a two-fold dilution to reach effluent benchmark levels. Because dilution rates between 4 and 9 times are possible at the candidate discharge locations, it is anticipated that process water can be managed to meet all proposed benchmark effluent limits under a range of actual operating conditions. Discharges from the tailings dam will occur only when the water quality meets discharge water quality requirements.

In June of 2006 Pacific Rim agreed that it would treat effluent before discharge into a river. According to Pacific Rim, initially a reverse osmosis plant will be operated to treat all of the water to be discharged. Bio-remediation technology will subsequently be used to treat part of the discharge. As a consequence, the operation will not require a well for domestic water consumption. The treated water from the impoundment will be used for showers, in the laboratory, for dust control and for other purposes.

18.5.3 Social Aspects

Social Baseline Studies

El Salvador is the smallest and the most densely populated of the Central American countries. It is also one of the poorest of the Central American countries. The project area is located in the Department of Cabañas, which contains the highest level of poverty in the country (65% of the population is poor and 37% live in absolute poverty). Literacy is 30% and 42% of the population does not have access to potable water.

In 1992 the Department of Cabañas had a population of 138,000 people, a population density of 135 persons/km2 and growth rate of 1.5%. In 2003 the population had increased to 155,000 persons.

The primary economic activity is agriculture. Approximately 30% of the land is used to grow corn, beans and sorghum in small parcels and 28% is used to grow sugar cane in large plantations. Cattle ranching uses 22 % of the land in Cabañas.

Within Cabañas, the project area is located within the municipality of San Isidro. In 2002, the population was approximately 10,000 people; 59% of the population is rural. Agriculture is the principle economic activity, although as discussed above, the soil quality for agriculture is poor. Approximately 80% of the population receives remittances from family members that live principally in the US. This has contributed to the creation of a dependent class of people that does not work.

No significant archeological finds were encountered in the study area.

Public Consultation

The Environmental Law includes a requirement for public consultation following the submittal of the EIS. World Bank Group/IFC and the Equator Principle guidelines require two rounds of public consultation during the EIS for Category A mining projects. One round should occur early enough in the EIS process so that public issues, concerns and opportunities can be addressed in the EIS. The second round of meetings should present the EIS findings to the public.

In February 2004, the first round of public meetings was held in the communities that would be affected by the project. Eleven meetings were held in 11 communities between February 23 and February 27. More than 600 people participated in the meetings, including members of the communities, government officials and NGOs that are active in the area.

The primary issues and concerns identified during the meetings included.

- Deterioration in the quantity and quality of water;
- Impacts to the social and economic situation;
- Industrial and natural hazards;
- Current water shortages; and
- Waste management.

Other issues and concerns identified included:

- Impacts to flora and fauna;
- Impacts to land;
- Contamination of air; and
- Noise contamination.

The public consultation activities and the results of the meetings are described in Section 7.6.3 of the EIS. The second round of public consultation was held during the first week of October 2004. A total of 11 meetings were held and total attendance was 759, including government officials and NGOs that are active in the area.

After achieving technical approval of the EIS in August 2005, PacRim was instructed to publish the EIS in its final version. The final version of the EIS was available the latter part of September 2005. In October 2005 the company was instructed to proceed to public consultation. In accordance with the requirements of the law, the EIS was available for public comment and review in the offices of the government October 5-18, 2005. PacRim received the resulting public comments on March 29th and is currently preparing the appropriate response.

Ongoing public consultation and information programs will continue throughout the project. PacRim employed a Public Relations Director in early-2004 who is responsible for public relations, public information and community development.

Social Impact Assessment

Royalties and taxes paid to the federal government will contribute to the fiscal income of the country, but not in a significant way. The income of the municipality of San Isidro will increase significantly; it is expected that the municipality will use the funds to improve public services.

Socioeconomic impacts related to employment opportunities are significant. Construction of the decline will be awarded to an experienced underground mining contractor. Total decline development labor requirements (including supervision, engineering, maintenance and operating labor) are estimated to be 40 workers during the first year and 60 workers during the second year. The construction workforce for the surface facilities is estimated to be 400 people over a 10 month period.

The total number of employees during operations is estimated to average 252 for the first 2 years of operations. Indirect jobs are estimated to be on the order of 1.7 jobs for each direct job. It is estimated that 150 to 160 of the new jobs at the project will be filled by the local population. Families of the workers will have an opportunity for improved health care, education and quality of life.

Skilled and specialty labor will be required for the remaining 92 to 102 new jobs. It is likely that these jobs will be filled by skilled workers from other locations in El Salvador or Central America.

PacRim plans to maximize employment opportunities for local community members. Local labor will be contracted for training as underground miners by the mining contractor in order to replace contractor labor with qualified local labor in the shortest time practical.

Basic reading and math skills are a prerequisite for employment. Pre-employment basic education (reading and math) opportunities will be made available to those interested in applying for jobs. On-the-job training programs for operating personnel will also be provided. Job training will increase the opportunities for the workers to find jobs when the project closes.

Compared to current traffic levels, the increase in traffic caused by the project would not be significant. Visual impacts would not be significant; as most of the facilities are located within a large valley surrounded by hills and would not be seen from the majority of roads and residential areas in the area.

Community Development

The baseline socioeconomic studies and the public meeting results provided information on the needs of the local communities, and the capacity of the communities and NGOs to effectively assist in community development activities. Components of the community development program will include:

- The formation of a Community Development Committee. This committee will be trained to identify and evaluate development activities, and will be responsible for recommending projects to be supported.
- Community participation and capacity creation. Assistance to community groups and community members will be given priority.
- Coordination with existing development plans. PacRim will coordinate with the local communities in order to avoid duplicating efforts and to increase the effectiveness of development activities.
- Associations. PacRim will partner with NGOs and government agencies to help provide improvements in health care and education.

The actual financial contribution to Community Development from PacRim over the life of the project will be based on the recommendations developed by the Community Development Committee, and the effectiveness of the Community Development Program in meeting its goals.

Opposition

The Company believes that its plans for the El Dorado Project have the support of the majority of the local residents and community leaders. Unemployment in the vicinity of the project area is high and the local communities look forward to the development of the project. International NGOs with environmental and/or social development objectives that, in their view, are inconsistent with mine development, have staged opposition to the project. This opposition has found limited support amongst some members of the local population. Pacific Rim is working with all willing stakeholders to address issues of concern.

As described in Section 18.5.1 on page 179, the company has submitted all the documents required by law in a timely manner. The environmental impact statement has been posted for public comment and MARN has given Pacific Rim a list of the issues that were raised during the public comment period. At present the Company is amending the EIS to address those issues. Pacific Rim will re-submit the document to MARN and will then await further instructions or final acceptance of the EIS.

Environmental & Social Management

It is generally the role of the government to provide the oversight required to confirm that the project is planned, operated and closed within legal and industry parameters. With the limited capacity of the government, as discussed above, it will be necessary for PacRim to assume this role.

Comprehensive environmental and social management plans (Plans) will be developed and implemented to ensure that the project is constructed, operated and closed in accordance with El Salvadoran environmental requirements and international good practices. An overall Environmental Management Plan (EMP) will be developed that will provide: general requirements and objectives for environmental/social management, organization and responsibilities, implementation schedules, capacity development and training, budgeting and cost-benefit analysis requirements; communication, ongoing review and improvement, record keeping and reporting.

All compliance requirements will be outlined in each Plan, as applicable, including: those specified in the El Salvadoran environmental laws and regulations, in international good practice guidelines and in PacRim's environmental policy. Mitigation measures outlined in the EIS and all permit conditions will also be outlined in the applicable Plan(s).

The Environmental Law requires compliance with the environmental management program outlined in the EIS. Conceptual versions of the EMP and the individual plans are provided in the EIS.

The specific plans are listed below:

- Environmental Management Plans
  - Biodiversity Management Plan
  - Forest Management Plan
  - Wastewater Treatment Plan
  - Natural and Manmade Hazard Management Plan
  - Mine Waste Management Plan
  - Tailings Facility Management and Monitoring
  - Cyanide Management Plan
  - Surface Water and Groundwater Management Plan
  - Particulate Matter Control Plan
  - Solid & Hazardous Materials Management Plan
  - Cultural Resources Management Plan
  - Monitoring Plan
- Closure and Reclamation Plan
- Accident Prevention and Contingency Plan

Social Management Plans include:

- Public Consultation and Information Plan
- Community Development Plan

Other management plans that support and complement the Plans include:

- Occupation Health and Safety Plan
- Fire Prevention Plan
- Environmental Costs

18.5.4 Environmental Management Costs

Environmental management costs are estimated to be US$5.0million over the life of the project, as shown on Table 18.5.1. The costs are based on the development and implementation of the environmental management plans outlined above and described in the EIS. Some of these costs overlap with other costs components of the project.

It should be noted that all of the costs provided in Table 18.5.1 that are not included in the environmental cost component of the economic model, are included in the general and accounting or safety cost components of the economic model.

Table 18.5.1: Environmental Management Plan Cost Estimate

Plan	Cost Estimate (US$)
Environmental Management Plan	172,500
Individual Environmental Management Plans	
Biodiversity Management Plan	3,500
Forest Management Plan	25,300
Wastewater Treatment Plan	15,000
Natural and Manmade Hazard Management Plan	29,500
Mine Waste Management Plan	45,050
Tailings Facility Management and Monitoring	157,720
Cyanide Management Plan	44,380
Surface Water and Groundwater Management Plan	73,750
Particulate Matter Control Plan	196,188
Solid & Hazardous Materials Management Plan	172,500
Cultural Resources Management Plan	3,000
Monitoring Plan	92,000
Closure and Reclamation Plan (including consulting fees)	2,369,600
Accident Prevention and Contingency Plan	77,500
Social Management Plans	
Public Consultation and Information Plan	325,000
Community Development Plan	664,000
Related Management Plans	
Occupation Health and Safety Plan	460,000
Fire Prevention Plan	149,500
Total	**5,075,988**

Closure & Reclamation Costs

Approximately US$2.3million of the US$5.1million environmental management cost is for final closure and reclamation. Table 18.5.2 provides a summary of closure costs by facility. As shown on Table 4.1.2, the costs include a contingency of 15%.

- Major activities during closure will include:
- Removal of physical structures;
- Closure of the tailings storage facility; and
- Regrading, replacement of growth media and revegetation.

Table 18.5.2: Closure Cost Estimate

Facility or Item	Cost Estimate (US$)
Mine Surface Facilities	119,000
Underground Facilities	43,000
Plant Facilities	498,000
Office and Changehouse Facilities	93,000
Landfill	4,000
Tailings Storage Facility (includes mob/demobilization & contingency)	1,289,000
Post-Closure Monitoring	135,000
Subtotal	2,181,000
Contingency (15%)	134,000
Total	2,315,000

Following decommissioning of all project facilities, buildings, structures and equipment will be removed from the site. All scrap iron; equipment tools, piping, and general debris will be removed, properly scrapped, recycled, or disposed of in an appropriate manner. Underground pipes and duct banks will be disconnected from services and left in place to avoid unnecessary surface disturbance.

An analysis of surface soils quality in the vicinity of the mine, the ore and concentrates storage areas, and the roadways will be conducted in order to assess the potential for metals exposure via dust generation and metals migration to surface water. All contaminated soils identified will be removed.

Disturbed areas will be covered with topsoil or fill material and re-contoured to provide positive drainage and minimize erosion. The facilities areas will be contour ripped, some areas will be covered with topsoil, and the entire disturbed area will be re-vegetated. Mine access roads will likely remain in place to provide access for future land uses.

Although reclamation and closure activities will occur as feasible during mine life, for this study, it is assumed that the major closure and reclamation activities will begin following the operations phase. Once mining ends the process plant will be decommissioned and post-closure activities will commence.

Underground Mine Closure

The proposed closure and reclamation approach for the underground mine includes:

- Removing salvageable equipment, power transformers, petroleum products and any motors;
- Sealing the portal and ventilation boreholes at the surface; and
- Allowing the mine workings to flood with ground water.

Underground workings will be the first of the mine site facilities to be closed. Initially all of the salvageable equipment and petrochemical components will be removed. The shaft and opening portal will be sealed using a reinforced concrete cap. The cap will be positioned at or below grade on bedrock or a secure base and will be covered with soil and re-vegetated. The soil will be graded to prevent accumulation of surface water over the caps. A monument will be placed over the backfilled shaft to allow relocation and survey inspections.

Process Plant & Surface Facilities

The proposed closure and reclamation for the surface facilities, mill and ancillary facilities includes the following activities:

- Material and equipment removal and salvage;
- Plant site and building decommissioning/dismantling;
- Concrete slab fracturing/removal of foundations/tracks and steel beams;
- Debris disposal; and
- Soil removal (spills and contaminated soil only).

Following decommissioning of the mill and associated process facilities, building structures and equipment will be removed from the site. All scrap iron, equipment tools, piping, and general debris will be removed, properly scrapped, recycled, or disposed of in an appropriate manner.

Tank area closure and reclamation will include:

- Proper removal and disposal of tank content;
- Thorough rinsing;
- Removal of tank and foundation;
- Removal of contaminated soils from beneath foundation and from around foundation area, if necessary;
- Place clean topsoil over excavated area; and
- Vegetate, as required.

Tailings Storage Facility

The focus of the closure and reclamation plan will be to provide stability to the tailings in critical areas of the impoundment and to achieve isolation of the tailings from the surrounding environment. Upon termination of tailings disposal, process water in the impoundment will be treated to meet effluent water quality requirements and then discharged. The pipelines associated with tailings transport will be disconnected, cleaned of tailings, removed section by section, and disposed of in a proper manner. A soil cover will be placed over the tailings surface to permanently encapsulate the tailings and to provide a medium for vegetating the surface of the impoundment.

The tailings cover will be designed based on results of a tailings consolidation analysis and on the geochemical characteristics of the materials used to construct the cover. The cover may include geotextile and natural soils. For costing purposes, it is assumed that this activity will require placing approximately 1m of soil over the tailings impoundment surface and contouring of the surface to provide positive drainage towards the spillway.

A vegetative cover will be established on the tailings embankment and the impoundment surface for controlling erosion, minimizing impacts to water quality and for aesthetic purposes. Precipitation and surface runoff onto the tailings cover surface will be conveyed by water diversion channels to the spillway.

A spillway will be constructed one or two years prior to closure. The spillway will be designed to pass the flows from the probable maximum precipitation storm, while maintaining sufficient freeboard to prevent overtopping of the dam. Ultimately the reclaim and water discharge system will be dismantled and removed.

Financial Security

The Mining Law Regulation, Decree No. 68, requires that a financial security be posted for the project. The amount of the security is specified as "not less than" US$5,714/km^2 (see Section 1.8.1.2). PacRim has elected to convert 12.7 km^2 from within the limits of the Exploration License areas to an Exploitation Concession. The resulting minimum financial security is estimated to be US$ 73,000.

The Environmental Law requires that a financial security be registered with MARN in an amount equivalent to the total cost required to comply with the environmental management plans. All inclusive environmental management plan costs are estimated to be US$5.0million over the life of the project including environmental, operating costs, monitoring, and closure costs.

18.6 Taxes and Royalties

Taxes to be paid at state and municipal levels:

- State taxes are specified and municipal taxes will be negotiated within the framework of existing regulations.

Royalties:

- NSR of 1% must be paid to the State; and
- An NSR of up to1% must be paid to the Municipality.

Rental Fees:

- Licensees are required to pay an annual rental fee to the national government. For the El Dorado licenses the fee now stands at US$300/km^2-yr, for an annual total of US$22,500 per year. The annual fee for an exploitation concession is also US$300/km^2. The annual total cost is dependent on the size of the concession.

18.7 Capital and Operating Cost Estimates

LoM capital and operating cost summaries are shown in Tables 18.7.1 and 18.7.2, respectively.

Table 18.7.1: LoM Operating Cost Summary

Cost Category		Unit Cost (US$/t-milled)	Total Cost (US$ million)
Mining Cost		$27.15/t	$44.280
Mill Processing		$14.00t	$22.835
G&A		$8.53/t	$13.913
TOTAL OPERATING (1)		**$49.68/t**	**$81.029**
	US$/oz-Au	*$162.61/oz-Au*	

(1) Excludes royalties and refining charges.

Table 18.7.2: LoM Capital Cost Summary

Cost Center	-2	-1	1	2	3	4	5	6	7	8	9	10	Total
Mine	6.03	14.38	7.73	2.61	2.55	2.56	.05	0	0	0	0	0	**35.92**
Processing	0.95	12.64	0	0	0	0	0	0	0	0	0	0	**13.59**
Tailings	1.90	2.78	0	0	0	0	0	0	0	0	0	0	**4.68**
Infrastructure	2.63	1.12	0	0	0	0	0	0	0	0	0	0	**3.76**
Env. Mgmt.	0.21	0.35	0	0	0	0	0	0	0	0	0	0	**0.56**
Closure/Recl.	0	0	0	0	0	0	0	0	0.21	1.53	0.59	.16	**2.49**
Owner	2.55	2.31	1.00	0	0	0	0	0	0	0	0	0	**5.86**
Total	**14.27**	**33.59**	**8.73**	**2.61**	**2.55**	**2.56**	**.05**	**0.00**	**0.21**	**1.53**	**0.59**	**.16**	**66.86**

18.8 Economic Analysis

The technical-economics are based upon work performed by PacRim's engineers and consultants and has been prepared on an annual basis. The economic model was developed by SRK. Assumptions used are discussed in detail throughout this report and are summarized in Table 18.8.1.

Table 18.8.1: Technical-Economic Model Parameters

Model Parameter	Technical Input
General Assumptions	
Pre-Production Period	2years
Mine Life	6.2years
Operating Days	365days
Production Rate (avg.)	750tpd
Stockpile (avg.)	10days
Market	
Gold Price	US$400.00/oz
Silver Price	US$6.00/oz
Refinery Charges	
Treatment	US$0.17/oz doré
Gold Refining	US$0.50/oz
Transportation (500kg or less)	US$1,875/shipment
Transportation (over 500kg)	US$3,000/shipment
Air Freight (45kg or less)	US$6.00/kg
Air Freight (over 45kg)	US$4.50/kg
Royalty	
Government	2.00%
Owner	1.50%

Economic Results are summarized in Table 18.8.2. The project cash cost is US$162.61/Au Eq oz, (or US$49.68/t-milled). The pre-tax base case valuation result of $NPV_{8\%}$ (US$17.0million).

Table 18.8.2: Technical-Economic Results

Description		**Technical Input or Result**
Ore		
Ore Milled		1,631kt
Recovered Gold		457koz
Recovered Silver		2,791koz
Revenue (US$000s)		
Gross Revenue		**$199,320**
Market Price Gold	*US$400/oz*	
Market Price Silver	*US$6.00/oz*	
Refinery & Transport Charges		$1,488
Net Smelter Return		**$197,832**
Government Royalty		$3,986
Credit for Advance Royalty		($600)
NSR Royalty		$2,967
Gross Income From Mining		**$191,478**
Realized Price (Gold)	*US$419.31/Au-Eq oz*	
Operating & Capital Cost (US$000s)		
Mining		$44,280
Process		$22,835
G&A		$13,913
Total		**$81,029**
Cash Cost (US$/oz)	*$162.61/oz*	
Cash Cost (US$/t-milled)	*$49.68/t*	
Cash Operating Margin		**$110,450**
(US$/oz)	*$221.65/oz*	
(US$/t-milled)	*$67.72/t*	
Capital Cost (US$000s)		
Mining		$35,917
Mill & Infrastructure		$22,021
Other Capital		$8,917
Total		**$66,855**
Cash Flow ($NPV_{0\%}$)		**$43,594**
($NPV_{8\%}$)		**$16,992**

Project sensitivities are summarized in Table 18.8.3. As seen, the project is most sensitive to gold production and gold price. Sensitivity on operating and capital cost is closely matched, with the project being only slightly more sensitive to operating costs.

Table 18.8.3: Project Sensitivity ($NPV_{0\%}$, US$million)

Parameter	**-10%**	**-5%**	**Base**	**+5%**	**+10%**
Gold Grade (Market Price)	$24.4	$34.0	$43.6	$53.2	$62.8
Operating Costs	$53.4	$48.5	$43.6	$38.7	$33.8
Capital Costs	$48.3	$46.0	$43.6	$41.2	$38.9

18.9 Project Payback

Based upon the analysis parameters used in the 2005 Pre-Feasibility Study, project payback will occur approximately 3.5 years from the start of production.

18.10 Mine Life

A 2 year pre-production period is used primarily to allow for access ramp development to the ore body. The mine will have an estimated 6.2 year life given the reserves reported in 2005 and a designed 750tpd average mine production rate. The mining model assumes that ore will be transported to the mill from the mine-site stockpile, which is designed to contain an average 10 day (±7.5kt) supply of ore.

The present report, specifically in Section 17, describes new resource estimates for two deposits, South Minita and Nance Dulce, an updated estimate for Minita, and two restated estimates for Nueva Esperanza and Coyotera. Some of the newly-estimated resource at South Minita is classed as Indicated and may have an impact on mine scheduling, design and production. Work that is underway at present as part of a feasibility study will determine the effect of the newly defined resources on the projected mine life.

Section 9.7 of the present report describes a number of additional exploration targets that do not figure in the feasibility study now in progress. If Pacific Rim's exploration efforts continue to be successful, new discoveries at these targets, or at others yet to be identified, may have an effect on the mine life that is impossible to quantify at the present time.

19.0 INTERPRETATION AND CONCLUSIONS

MDA finds the resources on the El Dorado project to be generally of good quality, made better by the quality of work conducted by Pacific Rim personnel. The gold distribution and the quality of work and sampling on the project give the resource estimates a high degree of confidence. The database, because of the diligence demonstrated by Pacific Rim, is reliable. The general predictability of the deposits makes the El Dorado project resource good quality. More importantly, Pacific Rim's technical work, especially the core logging, is of very high quality, above the industry norm.

Notwithstanding the above, as in any estimate some risks exist. For the El Dorado resources, the greatest risks lie along the strike and down dip extremities of the vein models where locations and distributions of the resources are less certain and where drilling is less dense. A case in point is the one drill hole at the north end of the Minita vein that carries with it about 2% of the Minita resource. In other instances, where conflicting data exist, the affected mineralization could not be included in the present resource estimate. Additional drilling in problem areas, or where the drill pattern is now sparse, will inevitably result in changes and improvements in future estimates. The new resource area at South Minita is particularly complex structurally and this is reflected through the lack of Measured resources. In the Nance Dulce deposit, the combination of geological complexity and a sparse pattern of drill holes makes it possible to estimate only an Inferred resource at this time. With further drilling it may be possible to upgrade this classification and augment the resource.

At present there are five deposits with estimated resources in the El Dorado District; Minita, South Minita, La Coyotera, Nueva Esperanza and Nance Dulce. The issue of potential to discover more resources is interesting for the El Dorado project. In the area of the defined resources and on the defined structures, there is the possibility of increasing the resources incrementally. Numerous other veins near the Minita area but not included in this resource estimate because they are not well defined, deserve additional drilling and could add to the resource base. In addition, the El Dorado district contains many other mineralized quartz veins, some unexplored and some incompletely explored. The deposit model, and the work in the El Dorado district to date, indicate that each vein requires some level of exploration. While the deposit is now at a development stage, it still possesses excellent exploration potential.

Ninety-two percent of the past production at El Dorado was derived from four main veins in an area about 700-m long and 300-m wide. Other prospective veins and areas described in this report that do not have known resources but that do have potential are the Ganso Vein, the Hacienda Vieja Area, prospects in the Southwest Sub-District, and the Plan de las Minas area.

The 2003 reports (Ronning, 2003 and Ristorcelli and Ronning, 2003) mentioned a number of prospects that merited exploration, but are not mentioned in the present report because they have not received substantial new work since 2003. Those and most probably other targets not yet recognized will be the basis of future exploration work.

20.0 RECOMMENDATIONS

The new resource estimates that triggered the present report are a prelude to a new feasibility study of the El Dorado Project that is in progress at the time of writing. It would be redundant and beyond the scope and purpose of the present report to make recommendations relating to that work in progress. The recommendations herein are limited to work that will enhance the quality of future resource estimates and possibly lead to the discovery of additional resources.

In the case of recommendations for future drilling, the authors recommend justifiable quantities of drilling based on the information in hand. The authors decline to specify drill hole locations or orientations, believing that Pacific Rim's exploration staff is better able to design specific drilling projects to meet the company's needs. The estimated costs are all-inclusive, covering direct drill costs, geological supervision, analyses, room and board as applicable, data management and interpretation.

20.1 Minita and Central Sub-District Drilling

The defined resources in the Minita, Minita 3, and Zancudo veins will probably increase incrementally with additional drilling. For example, as noted in Section 19.0, some known mineralized intercepts could not be included in the present resource estimate because they could not be correlated with other known intercepts. Additional infill drilling might make it possible to include some of those intercepts in a future resource estimate.

There are numerous known veins in the Central Sub-District, east and southeast of the Minita Deposit, that were tested with widely-spaced drill holes by prior operators, and to a lesser extent by Pacific Rim. Named veins in the eastern part of the Central Sub-District include Rosario, Chica and many others. This area has not been discussed in the present report as there has not been substantial new work there since the 2003 reports (Ronning, 2003, Ristorcelli and Ronning, 2003). However, based on the earlier work, the authors believe that potential exists to discover resources in the eastern Central Sub-District to augment those of the Minita Deposit.

Infill drilling in the Minita area and exploration drilling in the eastern part of the Central Sub-District that would together amount to about 8,000 meters is readily justified. At an all-inclusive cost of US$ 150 per meter, this drilling would cost in the order of: **US$ 1,200,000**

20.2 Infill Drilling at the South Minita Deposit

Better definition of the South Minita veins is warranted. This drilling can take place from the surface, which could reach 25 holes for roughly 9000 meters of drilling. This drilling program should be designed after mine planning so as to optimize the drill program. If the drilling were done from the development workings, costs would decrease, and possibly significantly. The cost of the surface drilling program would be in the order of: **$1,350,000**

20.3 Infill Drilling at the Nance Dulce Deposit

Some additional drilling, if successful, could lead to the upgrading of the classification of the Nance Dulce resource. The resource would need to be upgraded to at least the Indicated category before it could be considered for inclusion in any future mine plans. Approximately 4,000 meters of drilling in 10 to 15 holes would bring the deposit database to a point at which another review of the resource would be warranted. The cost for the drilling would be in the order of: **US$ 600,000**

20.4 Drilling Other Target Areas

The Ganso Vein, the Hacienda Vieja area, and the Plan de las Minas area merit additional exploration drilling. A reasonable allowance for such exploration drilling would be in the order of 5,000 meters. At US$ 150 per meter, the cost for that would be about: **US$ 750,000**

20.5 Other Exploration

The most effective early stage exploration tools for identifying and refining drill targets in the El Dorado District have proven to be geological mapping combined with rock chip sampling. This type of work continues to be useful and could likely continue almost indefinitely. For the immediately foreseeable future of about a year, the cost for that continuing work is likely to be in the order of **US$ 300,000**

20.6 Continuing Quality Control Monitoring

In Section 13.3 an issue with respect to the reproducibility of duplicate splits from sample pulps was identified. Some additional checks and re-analyses are needed in order to determine and eliminate the source of the reproducibility issue. The cost of determining the cause is likely to be in the order of a few thousands of dollars. The cost of that and continued quality control and quality assurance monitoring for one year would be in the order of **US$ 50,000**

Total Estimated Cost of Recommendations **US$ 4,250,000**

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22.0 DATE AND SIGNATURE PAGE

Effective Date of report: April 30th 2006

The data on which the contained resource estimates are based was current as of the Effective Date.

Completion Date of report: July 31st, 2006

"Steve Ristorcelli" ***July 31st, 2006***

______________________________ Date Signed:

Steven Ristorcelli, P. Geo.

"Peter Ronning" ***July 31st, 2006***

___________________________ Date Signed:

Peter A. Ronning, P.Eng.

"Ken Reipas" ***July 31st, 2006***

______________________________ Date Signed:

Ken Reipas, P. Eng.

"Al Kuestermeyer" ***July 31st, 2006***

______________________________ Date Signed:

Al Kuestermeyer P. Eng.

"Terry H. Braun" ***July 31st, 2006***

______________________________ Date Signed:

Terry Braun, P. Eng.

"Tom Ranelli" ***July 31st, 2006***

______________________________ Date Signed:

Tom Rannelli, P. Eng.

23.0 CERTIFICATES OF AUTHORS

STEVEN RISTORCELLI, P. GEO.

I, Steven Ristorcelli, P. Geo., do hereby certify that I am currently employed as Principal Geologist by Mine Development Associates, Inc., 210 South Rock Blvd., Reno, Nevada 89502 and:

1. I graduated with a Bachelor of Science degree in Geology from Colorado State University in 1977 and a Master of Science degree in Geology from the University of New Mexico in 1980. I have worked as a geologist for a total of 28 years since my graduation from undergraduate university.
2. I am a Registered Professional Geologist in the states of California (#3964) and Wyoming (#153) and a Certified Professional Geologist (#10257) with the American Institute of Professional Geologists.
3. 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 am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
4. I am responsible for the preparation of sections 17 and parts of section 13 but contributed to, reviewed and am familiar with all other sections of this technical report titled Technical Report on the El Dorado Project Gold and Silver Resources, Republic of El Salvador dated July 31, 2006 (the "Technical Report"). I visited numerous times over the years and most recently the project April 25 to May 3, 2006.
5. I have had prior involvement with the property having visited it four times in the last 3 years and having estimated resources of the project.
6. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
7. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
8. I consent to the filing of the Technical Report with any securities regulatory authority, stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 31st day of July, 2006.

"Steve Ristorcelli"

Steven Ristorcelli
Print Name of Qualified Person

Re: the report entitled "Technical Report on the El Dorado Project Gold and Silver Resources, Department of Cabañas, Republic of El Salvador" with the effective date of July 31, 2006, completed on July 31st, 2006.

(hereinafter referred to as "The Technical Report")

I, Peter Arthur Ronning, P.Eng. of 1450 Davidson Road, Gibsons, B.C., V0N 1V6, hereby certify that:

1. I am a consulting geological engineer, doing business under the registered name New Caledonian Geological Consulting, at the address set out above.
2. I am a graduate of the University of British Columbia in geological engineering, with the degree of B.A.Sc. granted in 1973. I also hold the degree of M.Sc. (applied) in geology, granted by Queen's University in Kingston, Ontario, in 1983.
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, Registration Number 16,883.
4. I have worked as a geologist and latterly as a Professional Engineer in the field of mineral exploration since 1973, in many parts North and South America.
5. I have read the definition of "qualified person" set out in National Instrument 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 with respect to the contents those parts of The Technical Report that I prepared.
6. I am a co-author of the Technical Report. I am the principal author of sections 2.0, 4.0 through 10.0, 11.1, 13.1, 13.2, 14.0, and 15.0. I contributed to sections 1.0, 3.0, 12.0, 19.0 and 20.0. I have reviewed and participated in the editing of all sections of the report. I spent the following periods at the El Dorado Project: June 6th 2003 to June 16th 2003, February 5th through February 9th 2006, and April 25th through May 4th, 2006. During those periods I spent some time reviewing geology in the field, some time examining drill core, and some time working with data at the project office.
7. Prior to undertaking to prepare a technical report in 2003, I had not had any involvement with the El Dorado Project.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in said report, the failure to disclose which makes The Technical Report misleading.

(certificate continues on next page)

9. I am independent of the issuer, applying the tests set out in section 1.5 of NI 43-101. Except as herein noted, I neither own, control, nor expect to receive a beneficial interest in the El Dorado property, nor in any corporation or entity whose value one could reasonably expect to be affected by the conclusions expressed in the report. I may inadvertently be the beneficial owner of an interest in any publicly traded company through participation in mutual funds over whose portfolios I have no control.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with those documents.

11. I authorize Pacific Rim to use the Technical Report for any lawful purpose. In particular, the report may be filed and my name may be used in the fulfillment of relevant reporting, disclosure and publishing requirements of any stock exchange or regulatory authority that recognizes my professional qualifications. Should it be necessary to use abridgments of or excerpts from the Technical Report such abridgments or excerpts must be made so as to retain their original meaning and context. All reasonable efforts must be made to allow me to approve such abridgments or excerpts. I waive my right of approval in cases where it is impossible to comply as a result of my own unavailability within a reasonable period of time.

12. The Technical Report contains information relating to mineral titles, permitting, regulatory matters, legal agreements and environmental matters. While I am generally knowledgeable concerning these issues in the context of the mineral industry I am not a legal, regulatory or environmental science professional. The information in the report concerning these matters is provided as required by Form 43-101F1 but is not a professional opinion.

13. A copy of this report is submitted as a computer readable file in Adobe Acrobat© PDF© format. The requirements of electronic filing necessitate submitting the report as an unlocked, editable file. I accept no responsibility for any changes made to the computer file after it leaves my control.

"Peter Ronning"

Peter A. Ronning, P.Eng.

July 31st, 2006

CERTIFICATE AND CONSENT

To Accompany the July 2006 Technical Report, "Technical Report on the El Dorado Project Gold and Silver Resources, Department of Cabañas, Republic of El Salvador" dated July 31, 2006, and prepared by Mine Development Associates ("MDA") for Pacific Rim Mining Corporation.

I, Ken S. Reipas, residing at 43 Deverell Street, Whitby, Ontario, Canada, do hereby certify that:

1) I am a Principal Mining Engineer with the firm of Steffen Robertson and Kirsten (Canada) Inc. (SRK) with an office at Suite 1000, 25 Adelaide Street E, Toronto, Ontario.

2) I am a graduate of Queen's University with a B.Sc in Mining Engineering in 1981, and have practiced my profession continuously since 1981.

3) I am a Professional Engineer registered with the Professional Engineers of Ontario (PEO).

4) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the El Dorado Project or securities of Pacific Rim Mining Corporation.

5) I am not aware of any material fact or material change with respect to the subject matter of the July 2006 Technical Report, which is not reflected in the report, the omission to disclose which makes the report misleading.

6) I, as a qualified person, am independent of the issuer as defined in NI 43-101.

7) I have not had any prior involvement with the property that is subject to the technical report.

8) I have read NI 43-101 and Form 43-101F1. To the best of my knowledge, the July 2006 Technical Report has been prepared in compliance with this Instrument and Form 43-101F1.

9) SRK Consulting (US) Inc. was retained by Pacific Rim Mining Corporation in 2005 to prepare a Prefeasibility Study on their El Dorado Project in El Salvador. The Prefeasibility Study included a 2005 estimate of Mineral Reserves which is referenced in the current Technical Report by MDA. I visited the project site on April 25 and 26, 2006.

10) I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, registration as Professional Engineer, review of the 2005 Prefeasibility Study, personal knowledge of the previous QP for Mineral Reserves, and my current involvement in the project, I fulfill the requirements to be a "qualified person".

11) I am the qualified person responsible for the 2005 estimate of Mineral Reserves referenced in this current July 2006 Technical Report.

12) I hereby consent to use of the July 2006 Technical Report for submission to any Provincial regulatory authority.

"Ken Reipas"

Toronto, Canada
July 31, 2006

Ken S. Reipas, P.Eng.
Principal Mining Engineer

CERTIFICATE AND CONSENT

To Accompany the July 2006 Technical Report, "Technical Report on the El Dorado Project Gold and Silver Resources, Department of Cabañas, Republic of El Salvador" dated July 31, 2006, and prepared by Mine Development Associates ("MDA") for Pacific Rim Mining Corporation.

I, **Alva L. Kuestermeyer**, with a business address at SRK Consulting (U.S.), Inc., 7175 W. Jefferson Avenue, Suite 3000, Lakewood, Colorado, U.S. 80235 hereby state that:

1. I am a Principal Metallurgical Engineer/Mineral Economist with the firm, SRK Consulting (U.S.), Inc.
2. I am a graduate of South Dakota School of Mines and Technology with a B.S. in Metallurgical Engineering in 1973.
3. I am a graduate of Colorado School of Mines with an M.S. in Mineral Economics in 1982.
4. I have practiced my profession continuously for some 32 years since graduating, have variously managed, authored and co-authored over twenty mining feasibility studies, feasibility audits and due diligences for a variety of mineral deposit types in numerous countries and as a Competent Person.
5. I am a member of the Society of Mining, Metallurgical and Exploration Engineers.
6. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the El Dorado Project or securities of Pacific Rim Mining Corporation.
7. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
8. I am independent of the issuer as defined in NI 43-101.
9. I have read NI 43-101 and Form 43-101F1. To the best of my knowledge, the July 2006 Technical Report has been prepared in compliance with this Instrument and Form 43-101F1.
10. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
11. I am the qualified person responsible for the Metallurgical/Process Summary referenced in this current July 2006 Technical Report.
12. I hereby consent the use of this report for submission to any Provincial regulatory authority.

July 2006

Alva L. Kuestermeyer
Principal Metallurgical Engineer/Mineral Economist

CERTIFICATE AND CONSENT

To Accompany the July 2006 Technical Report, "Technical Report on the El Dorado Project Gold and Silver Resources, Department of Cabañas, Republic of El Salvador" dated July 31, 2006, and prepared by Mine Development Associates ("MDA") for Pacific Rim Mining Corporation.

I, Terry H Braun, residing at 11045 West Grand Place, Littleton, Colorado USA, do hereby certify that:

1) I am a Principal Engineer with the firm of SRK Consulting (U.S.), Inc. (SRK) with an office at Suite 3000, 7175 West Jefferson Avenue, Lakewood, Colorado USA.

2) I am a graduate of the University of Colorado Boulder with a B.Sc in Civil Engineering in 1988, the Colorado School of Mines in Golden, Colorado with a M.S. in Environmental Engineering in 1993, and have practiced my profession continuously since 1988.

3) I am a Professional Engineer registered with the Colorado State Board of Technical Registration.

4) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the El Dorado Project or securities of Pacific Rim Mining Corporation.

5) I am not aware of any material fact or material change with respect to the subject matter of the July 2006 Technical Report, which is not reflected in the report, the omission to disclose which makes the report misleading.

6) I, as a qualified person, am independent of the issuer as defined in NI 43-101.

7) I have not had any prior involvement with the property that is subject to the technical report.

8) I have read NI 43-101 and Form 43-101F1. To the best of my knowledge, the July 2006 Technical Report has been prepared in compliance with this Instrument and Form 43-101F1.

9) SRK Consulting (US) Inc. was retained by Pacific Rim Mining Corporation in 2005 to prepare a Prefeasibility Study on their El Dorado Project in El Salvador. The Prefeasibility Study included a 2005 estimate of Mineral Reserves which is referenced in the current Technical Report by MDA. I visited the project site on April 25 and 26, 2006.

10) I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, registration as Professional Engineer, review of the 2005 Prefeasibility Study, and my current involvement in the project, I fulfill the requirements to be a "qualified person".

11) I am the qualified person responsible for the Environmental Summary referenced in this current July 2006 Technical Report

12) I hereby consent to use of the July 2006 Technical Report for submission to any Provincial regulatory authority.

Lakewood, Colorado
July __ , 2006

Terry H. Braun, P.E.
Principal Engineer

CERTIFICATE AND CONSENT

To Accompany the July 2006 Technical Report, "Technical Report on the El Dorado Project Gold and Silver Resources, Department of Cabañas, Republic of El Salvador" dated July 31, 2006, and prepared by Mine Development Associates ("MDA") for Pacific Rim Mining Corporation.

I, Thomas D. Rannelli, residing at 103 Orion Court, Oakville, Ontario, Canada, do hereby certify that:

1) I am a Principal Mining Engineer with the firm of Steffen Robertson and Kirsten (Canada) Inc. (SRK) with an office at Suite 1000, 25 Adelaide Street E, Toronto, Ontario.
2) I am a graduate of Queen's University with a B. Sc in Mining Engineering in 1985, and have practiced my profession continuously since 1985.
3) I am a Professional Engineer registered with the Professional Engineers of Ontario (PEO).
4) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the El Dorado Project or securities of Pacific Rim Mining Corporation.
5) I am not aware of any material fact or material change with respect to the subject matter of the July 2006 Technical Report, which is not reflected in the report, the omission to disclose which makes the report misleading.
6) I, as a qualified person, am independent of the issuer as defined in NI 43-101.
7) I have not had any prior involvement with the property that is subject to the technical report.
8) I have read NI 43-101 and Form 43-101F1. To the best of my knowledge, the July 2006 Technical Report has been prepared in compliance with this Instrument and Form 43-101F1.
9) SRK Consulting (US) Inc. was retained by Pacific Rim Mining Corporation in 2005 to prepare a Prefeasibility Study on their El Dorado Project in El Salvador. The Prefeasibility Study included Technical –Economics which is referenced in the current Technical Report by MDA.
10) I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, experience, registration as Professional Engineer, review of the 2005 Prefeasibility Study, and my current involvement in the project, I fulfill the requirements to be a "qualified person".
11) I am the qualified person responsible for the 2005 Technical-Economics referenced in this current July 2006 Technical Report
12) I hereby consent to use of the July 2006 Technical Report for submission to any Provincial regulatory authority.

(Signed and Sealed)

Toronto, Canada
July 31, 2006

T. D. Rannelli, P.Eng.
Principal Mining Engineer

Appendix A List of Drill Holes

Hole_ID	Easting	Northing	Elevation	Azimuth	Dip	Total Depth	Type
D00-190	534,077.0	301,444.0	416.7	90.0	-56.5	273.0	Core
D00-191	534,051.1	301,490.0	409.4	90.0	-50.5	254.0	Core
D00-192	534,044.2	301,547.8	396.8	87.9	-62.5	306.9	Core
D00-193	534,058.7	301,461.7	413.4	89.2	-55.5	312.8	Core
D00-194	534,041.1	301,679.9	411.0	90.0	-54.0	267.6	Core
D00-195	534,041.7	301,680.0	411.0	98.0	-52.0	261.0	Core
D00-196	533,963.0	301,641.0	411.5	90.0	-54.5	291.6	Core
D00-197	534,029.9	301,564.0	393.4	87.7	-68.0	322.6	Core
D00-198	533,915.3	301,701.0	403.7	90.0	-52.5	322.4	Core
D00-199	533,964.0	301,750.1	405.1	88.0	-51.5	305.9	Core
D00-200	534,036.3	301,300.1	415.2	90.0	-48.0	321.7	Core
D00-201	534,037.0	301,580.0	396.9	90.0	-43.5	245.1	Core
D00-202	534,036.8	301,579.9	396.8	72.8	-42.5	242.3	Core
DDH1	534,316.3	301,295.1	402.3	270.0	-55.0	305.0	Core
DDH2	534,810.0	301,272.0	440.0	270.0	-45.0	305.8	Core
DDH3	534,803.0	301,381.0	433.0	270.0	-42.0	297.8	Core
DDH4	534,316.8	301,502.8	417.7	270.0	-53.0	331.0	Core
K93-001	534,112.0	301,500.8	403.8	90.0	-60.0	215.0	Core
K93-002	534,025.5	301,512.3	401.3	95.0	-55.0	350.0	Core
K93-003	534,025.6	301,602.9	400.4	90.0	-50.0	350.1	Core
K93-004	534,030.1	301,705.1	413.7	90.0	-50.0	304.2	Core
K93-005	534,209.6	302,556.7	435.4	90.0	-35.0	50.0	Core
K93-006	534,209.6	302,556.7	435.4	90.0	-65.0	65.0	Core
K93-007	534,213.3	302,507.7	439.9	90.0	-35.0	45.0	Core
K93-008	534,213.3	302,507.7	439.9	90.0	-70.0	60.0	Core
K93-009	534,207.7	302,605.3	427.6	90.0	-45.0	60.9	Core
K93-010	534,201.9	302,652.7	425.6	90.0	-45.0	60.0	Core
K93-011	534,319.5	302,539.6	448.5	90.0	-50.0	75.0	Core
K93-012	534,177.5	302,458.5	427.6	90.0	-45.0	73.4	Core
K93-013	534,320.8	302,460.9	437.1	90.0	-45.0	36.6	Core
K93-014	534,161.4	302,412.7	421.4	90.0	-60.0	79.7	Core
K93-015	534,102.4	302,565.4	422.1	90.0	-60.0	149.6	Core
K93-016	534,109.1	302,652.4	429.1	90.0	-60.0	162.0	Core
K93-017	534,000.0	302,513.0	421.0	90.0	-60.0	301.0	Core
K93-018	534,009.0	302,611.1	423.6	90.0	-60.0	273.1	Core
K93-019	533,981.3	301,372.8	408.3	90.0	-50.0	358.2	Core
K93-020	534,289.6	302,487.2	443.5	90.0	-60.0	114.0	Core
K93-021	534,304.8	302,584.5	439.8	90.0	-50.0	117.4	Core
K94-022	534,693.7	302,085.9	427.6	110.0	-60.0	218.5	Core
K94-023	533,450.8	303,785.4	471.1	273.0	-45.0	319.4	Core
K94-024	534,749.8	302,055.2	426.7	110.0	-60.0	80.2	Core
K94-025	534,714.8	301,985.9	423.8	95.0	-54.0	61.1	Core
K94-026	534,686.4	301,989.4	420.5	90.0	-70.0	150.0	Core
K94-027	534,640.7	301,839.8	421.2	82.0	-50.0	83.0	Core
K94-028	533,851.5	302,928.4	434.6	110.0	-50.0	68.7	Core
K94-029	534,613.5	301,842.9	419.0	90.0	-70.0	177.7	Core
K94-030	533,308.1	303,655.3	504.5	262.0	-50.0	101.6	Core
K94-031	533,787.8	302,950.0	428.5	101.0	-55.0	175.0	Core
K94-032	534,626.7	301,721.6	430.1	90.0	-55.0	93.4	Core
K94-033	533,842.2	303,012.6	432.5	100.0	-55.0	136.1	Core
K94-034	534,536.6	301,733.2	422.2	104.0	-55.0	205.2	Core
K94-035	533,483.9	304,198.1	386.6	290.0	-60.0	212.0	Core
K94-036	533,422.2	303,679.6	465.3	260.0	-50.0	263.3	Core
K94-037	534,177.5	302,458.5	427.6	85.0	-77.0	99.7	Core

K94-038	534,139.3	302,505.7	425.8	90.0	-63.0	120.6	Core
K94-039	533,416.9	304,113.4	386.0	289.0	-50.0	135.3	Core
K94-040	534,120.1	302,453.5	423.3	90.0	-65.0	139.3	Core
K94-041	534,185.2	301,814.2	424.1	90.0	-50.0	203.3	Core
K94-042	533,496.9	304,105.3	392.0	290.0	-60.0	306.0	Core
K94-043	533,154.3	303,588.6	491.5	82.0	-50.0	200.0	Core
K94-044	534,123.2	301,788.6	427.8	90.0	-50.0	194.1	Core
K94-045	533,452.3	304,210.1	390.2	290.0	-60.0	148.3	Core
K94-046	533,456.1	304,161.0	387.3	282.0	-51.0	176.2	Core
K94-047	533,479.9	304,302.2	407.5	290.0	-60.0	84.6	Core
K94-048	533,055.2	305,673.0	596.7	295.0	-50.0	123.3	Core
K94-049	533,788.8	297,074.6	231.7	50.0	-50.0	60.3	Core
K94-050	533,479.4	304,256.9	399.7	290.0	-60.0	142.4	Core
K94-051	533,226.9	306,054.3	570.6	117.0	-60.0	105.0	Core
K94-052	533,813.7	297,036.6	239.0	41.0	-50.0	97.9	Core
K94-053	533,851.6	296,986.8	246.3	53.0	-55.0	77.5	Core
K94-054	533,901.5	296,884.2	269.0	80.0	-50.0	120.3	Core
K94-055	533,196.3	305,894.5	598.6	290.0	-50.0	107.2	Core
K94-056	533,781.7	297,011.2	236.3	50.0	-50.0	104.0	Core
K94-057	533,865.1	296,848.7	256.5	72.0	-50.0	106.2	Core
K94-058	533,761.5	297,049.5	222.3	45.0	-58.0	107.8	Core
K94-059	533,827.7	296,972.7	239.3	50.0	-58.0	87.0	Core
K94-060	533,669.1	298,031.2	356.3	240.0	-50.0	157.1	Core
K94-061	533,814.0	296,826.0	233.0	75.0	-52.0	154.7	Core
K94-062	534,313.2	301,244.9	399.4	270.0	-50.0	314.0	Core
K94-063	533,712.6	296,733.7	186.7	50.0	-55.0	295.8	Core
K94-064	533,875.0	296,801.0	250.0	70.0	-50.0	110.0	Core
K94-065	534,318.0	301,194.9	396.9	265.0	-50.0	355.1	Core
K94-066	532,854.6	305,307.2	549.8	305.0	-50.0	154.3	Core
K94-066B	532,854.6	305,307.2	549.8	305.0	-50.0	189.1	Core
K94-067	534,047.5	301,545.4	396.9	90.0	-45.0	273.0	Core
K94-068	534,641.7	301,110.4	435.0	270.0	-50.0	88.4	RC
K94-069	534,308.8	301,386.3	411.5	270.0	-60.0	326.5	Core
K94-070	534,339.0	301,438.7	431.3	270.0	-60.0	330.5	Core
K94-071	534,300.2	301,338.9	409.4	270.0	-55.0	301.0	Core
K94-072	533,514.2	304,193.5	395.7	289.0	-61.0	250.7	Core
K94-073	533,995.5	301,562.2	406.0	95.0	-50.0	361.0	Core
K94-074	533,994.2	301,438.5	402.5	90.0	-50.0	453.1	Core
K94-075	534,339.0	301,438.7	431.3	270.0	-55.0	334.3	Core
K94-076	534,584.9	301,120.8	428.9	90.0	-50.0	117.4	RC
K94-077	534,615.4	301,112.8	434.0	90.0	-50.0	100.6	RC
K94-078	533,988.0	301,609.4	411.4	90.0	-50.0	377.0	Core
K94-079	534,005.0	301,650.3	413.8	90.0	-50.0	333.1	Core
K94-080	533,516.3	304,248.9	409.6	290.0	-65.0	230.0	Core
K94-081	534,339.0	301,438.7	431.3	270.0	-45.0	213.0	Core
K94-082	534,177.5	302,458.4	427.6	90.0	-45.0	115.8	RC
K94-083	534,116.4	302,607.5	426.3	90.0	-56.0	158.5	RC
K94-084	533,563.1	304,176.8	413.1	290.0	-61.0	376.7	Core
K94-085	534,118.1	302,657.2	429.2	90.0	-40.0	179.9	RC
K94-086	534,143.7	302,505.8	425.6	90.0	-53.0	134.1	RC
K94-087	534,113.0	302,554.8	420.7	90.0	-40.0	126.5	RC
K94-088	533,999.1	301,695.7	410.9	90.0	-52.0	300.9	Core
K94-089	533,531.3	304,287.3	427.8	290.0	-60.0	198.1	Core
K94-090	534,308.8	301,386.3	411.5	270.0	-59.0	155.5	Core
K94-091	534,213.0	302,557.4	436.3	90.0	-65.0	51.8	RC
K94-092	534,202.1	302,706.6	424.2	90.0	-75.0	79.3	RC

K94-093	534,537.0	301,137.5	429.4	270.0	-50.0	112.8	RC
K94-094	534,499.8	301,148.3	440.2	270.0	-50.0	99.1	RC
K94-095	534,237.4	302,460.7	443.8	90.0	-50.0	21.5	Core
K94-096	534,248.7	302,505.9	450.8	90.0	-50.0	17.9	Core
K94-097	534,415.0	301,458.0	438.7	265.0	-55.0	495.8	Core
K94-098	534,254.7	302,556.8	453.1	90.0	-50.0	10.2	Core
K94-098A	534,254.7	302,556.8	453.1	90.0	-50.0	33.8	Core
K94-099	534,255.4	302,608.0	445.5	90.0	-50.0	32.4	Core
K94-100	534,476.9	301,151.9	438.3	270.0	-50.0	109.8	RC
K94-101	533,545.7	304,337.6	430.0	290.0	-65.0	203.8	Core
K95-102	533,545.7	304,337.6	430.0	289.0	-53.0	153.3	Core
K95-103	533,597.9	304,322.0	450.2	289.0	-65.0	327.1	Core
K95-104	533,662.2	304,398.4	449.7	289.0	-59.0	326.9	Core
K95-105	533,589.4	304,373.9	436.6	289.0	-65.0	273.5	Core
K95-106	533,630.8	304,358.8	454.3	289.0	-63.0	335.4	Core
K95-107	533,589.4	304,373.9	436.6	289.0	-53.0	182.0	Core
K95-108	533,601.5	304,421.9	423.0	289.0	-58.0	188.1	Core
K95-109	533,637.7	304,463.2	416.7	289.0	-61.0	230.7	Core
K95-110	533,704.7	304,440.9	437.6	289.0	-58.0	369.1	Core
K95-111	533,754.1	304,269.5	475.2	289.0	-49.0	164.1	Core
K95-111B	533,754.1	304,269.5	475.2	289.0	-45.5	600.8	Core
K95-112	533,626.4	304,263.4	460.4	289.0	-55.0	403.9	Core
K95-113	533,758.3	304,318.5	475.2	289.0	-50.0	467.5	Core
K95-114	533,766.3	304,364.7	470.9	289.0	-50.0	415.9	Core
K96-115	533,569.4	304,224.6	431.8	289.0	-63.0	300.3	Core
K96-116	533,496.4	304,106.8	390.3	289.0	-45.0	235.1	Core
K96-117	534,156.3	302,536.0	426.1	90.0	-65.0	110.2	Core
K96-118	534,171.4	302,560.3	424.2	90.0	-57.0	91.5	Core
K96-119	533,569.4	304,224.6	431.8	289.0	-69.0	404.5	Core
K96-120	534,164.9	302,586.3	422.8	90.0	-70.0	110.0	Core
K96-121	534,201.2	302,654.7	426.9	90.0	-69.0	100.0	Core
K96-121B	534,201.2	302,654.7	426.9	90.0	-72.0	67.9	Core
K96-122	533,498.9	304,148.6	390.7	289.0	-58.0	251.4	Core
K96-123	534,197.2	302,678.6	425.7	82.0	-34.0	66.8	Core
K96-124	533,284.6	304,270.0	423.4	109.0	-45.0	275.0	Core
K96-125	534,165.8	302,506.3	432.3	90.0	-53.0	91.8	Core
K96-126	534,114.6	302,657.6	429.3	90.0	-54.0	149.9	Core
K96-127	533,629.1	304,263.5	460.3	289.0	-54.0	318.7	Core
K96-128	533,232.6	304,297.9	429.6	109.0	-52.0	380.0	Core
K96-129	534,134.1	302,634.9	428.1	90.0	-51.0	120.6	Core
K96-130	534,115.0	302,658.0	429.3	90.0	-40.0	212.6	Core
K96-131	533,297.0	304,419.0	433.7	109.0	-40.5	315.0	Core
K96-132	534,201.0	302,458.0	433.8	90.0	-38.0	65.6	Core
K96-133	533,662.0	304,398.0	449.1	289.0	-55.0	280.3	Core
K96-134	534,164.2	302,434.0	426.7	90.0	-65.0	83.0	Core
K96-135	534,206.6	302,605.2	428.3	90.0	-76.0	80.0	Core
K96-136	533,297.3	304,419.1	433.7	109.0	-50.0	365.0	Core
K96-137	533,766.0	304,365.0	470.9	289.0	-54.0	447.2	Core
K96-138	534,025.8	301,509.4	401.5	90.0	-49.0	365.6	Core
K96-139	534,094.2	301,471.4	415.8	90.0	-56.0	240.3	Core
K96-140	534,070.1	301,399.1	415.1	90.0	-49.0	288.6	Core
K96-141	534,012.0	301,529.8	395.0	90.0	-65.0	334.3	Core
K96-142	534,098.4	302,699.9	429.0	90.0	-63.0	197.1	Core
K96-143	534,098.4	302,699.9	429.0	90.0	-78.0	255.0	Core
K96-144	534,070.1	301,399.1	415.1	86.0	-55.0	319.7	Core
K96-145	533,976.8	301,459.8	402.1	90.0	-48.0	421.3	Core

K96-146	533,388.6	304,067.0	405.3	289.0	-42.0	127.8	Core
K96-147	533,388.6	304,067.0	405.3	289.0	-64.0	175.0	Core
K96-148	533,996.3	301,565.8	406.3	90.0	-47.5	325.0	Core
K96-149	534,471.2	301,458.3	447.3	270.0	-57.0	441.0	Core
K96-150	533,989.4	301,609.4	411.3	90.0	-61.0	370.6	Core
K96-151	533,468.2	304,038.3	425.3	289.0	-56.0	284.1	Core
K96-152	534,516.1	301,458.3	430.2	270.0	-57.0	364.9	Core
K96-153	533,989.4	301,609.4	411.3	90.0	-70.0	401.6	Core
K96-154	533,966.9	301,658.4	411.0	90.0	-53.0	380.0	Core
K96-155	533,468.2	304,038.3	425.3	289.0	-67.0	371.7	Core
K96-156	533,489.5	303,980.9	437.6	289.0	-50.0	328.1	Core
K96-157	533,966.9	301,658.4	411.0	90.0	-61.0	401.4	Core
K96-158	534,570.0	301,131.4	425.7	80.0	-54.0	218.0	Core
K96-159	533,489.5	303,980.9	437.6	289.0	-61.0	419.6	Core
K96-160	533,426.7	303,969.4	457.3	289.0	-53.0	275.1	Core
K97-161	533,944.3	301,715.1	400.0	90.0	-50.0	340.6	Core
K97-162	534,570.0	301,131.4	425.7	80.0	-68.0	278.7	Core
K97-163	533,944.3	301,715.1	400.0	90.0	-60.0	385.3	Core
K97-164	533,300.9	305,077.6	486.9	290.0	-60.0	197.8	Core
K97-165	534,408.1	301,147.5	420.2	70.0	-50.0	367.1	Core
K97-166	533,479.0	303,952.1	445.6	288.0	-54.0	373.7	Core
K97-167	533,962.2	301,763.6	403.1	90.0	-64.0	354.6	Core
K97-168	533,478.8	303,899.6	459.6	286.0	-60.0	463.7	Core
K97-169	533,479.0	303,952.1	445.6	288.0	-61.0	434.7	Core
K97-170	533,365.0	305,036.0	511.0	297.0	-60.0	400.0	Core
K97-171	533,942.1	301,815.1	392.8	90.0	-68.0	393.0	Core
K97-172	533,550.3	303,956.4	423.7	291.0	-60.0	528.0	Core
K97-173	533,183.0	305,262.0	547.0	110.0	-61.0	341.0	Core
K97-174	533,131.0	305,281.0	546.0	110.0	-61.0	460.2	Core
K97-175	532,034.0	298,600.0	382.0	90.0	-50.0	94.2	Core
K97-176	531,994.0	298,600.0	378.0	90.0	-58.0	125.1	Core
K97-177	532,804.0	298,576.0	322.0	144.0	-60.0	158.5	RC
K97-178	532,859.0	298,555.0	321.0	150.0	-45.0	152.4	RC
K98-179	533,783.0	298,591.0	395.0	50.0	-45.0	166.1	RC
K98-180	533,798.0	298,544.0	388.0	210.0	-45.0	152.4	RC
K98-181	533,823.0	298,561.0	391.0	70.0	-45.0	176.8	RC
K98-182	532,426.0	298,858.0	360.0	360.0	-90.0	48.8	RC
K98-183	531,923.0	298,600.0	376.0	90.0	-63.0	242.2	Core
K98-184	532,140.0	299,610.0	340.0	360.0	-90.0	39.6	Core
K98-185	531,710.0	297,581.0	247.6	40.0	-55.0	178.3	RC
K98-186	531,756.0	297,625.0	254.4	220.0	-55.0	152.4	RC
K98-187	531,775.0	297,798.0	297.9	180.0	-60.0	161.5	RC
K98-188	531,817.0	297,898.0	303.5	180.0	-60.0	152.4	RC
K98-189	530,900.0	298,480.0	344.0	360.0	-90.0	33.5	RC
P02-203	534,462.8	301,072.2	395.6	70.0	-54.0	383.2	Core
P02-204	534,508.4	301,580.0	422.5	270.0	-54.0	389.2	Core
P02-205	533,866.9	301,578.3	407.0	72.3	-50.0	397.7	Core
P02-206	534,296.6	301,304.0	408.0	270.0	-50.0	358.2	Core
P02-207	534,654.7	301,423.0	444.1	250.0	-51.0	373.6	Core
P02-208	533,943.2	301,957.1	398.4	92.0	-50.0	370.4	Core
P02-209	534,691.7	300,825.1	424.8	225.0	-50.0	413.6	Core
P02-210	534,599.8	301,800.7	423.2	270.0	-50.0	410.3	Core
P02-211	534,779.0	300,474.9	431.3	270.0	-50.0	351.4	Core
P02-212	534,092.1	301,950.4	405.5	90.0	-50.0	404.3	Core
P02-213	534,594.5	300,466.8	422.0	270.0	-50.0	359.0	Core
P02-214	534,645.5	302,006.2	427.6	274.0	-50.0	358.3	Core

P02-215	534,987.6	300,322.9	426.6	270.0	-50.0	392.5	Core
P02-215A	534,990.5	300,323.0	427.0	360.0	-90.0	90.8	Core
P02-216	533,839.7	302,115.1	415.0	90.0	-50.0	413.4	Core
P02-217	534,022.4	302,318.5	423.2	90.0	-50.0	394.4	Core
P02-218	534,508.2	300,920.0	392.5	258.5	-51.0	423.7	Core
P02-219	533,997.8	302,848.0	428.4	90.0	-50.0	340.0	Core
P02-220	534,400.0	301,083.0	389.8	270.0	-50.0	444.3	Core
P02-221	534,523.0	302,089.2	430.7	112.0	-50.0	413.6	Core
P02-222	534,608.5	301,277.1	447.7	250.0	-55.0	423.6	Core
P02-223	533,798.9	302,456.7	446.7	90.0	-50.0	453.3	Core
P02-224	534,729.2	301,004.4	412.4	251.0	-50.0	423.3	Core
P02-225	533,954.3	303,049.8	442.7	90.0	-50.0	391.9	Core
P02-226	534,502.6	301,339.1	444.5	251.5	-50.0	407.6	Core
P02-227	535,012.7	301,256.5	428.1	271.0	-50.0	401.9	Core
P02-228	534,014.5	302,773.1	433.7	90.0	-60.0	422.9	Core
P02-229	534,558.4	300,715.6	446.7	260.0	-50.0	407.0	Core
P02-230	534,346.3	301,030.7	391.4	70.0	-52.0	395.0	Core
P02-231	534,315.8	301,150.2	400.2	270.0	-50.0	429.3	Core
P02-232	534,450.9	300,991.3	395.9	69.0	-50.0	404.3	Core
P03-233	534,446.2	300,996.1	394.6	264.0	-50.0	356.3	Core
P03-234	534,312.5	301,312.4	403.8	70.0	-70.0	355.7	Core
P03-235	534,458.4	300,812.5	424.6	260.0	-50.0	468.5	Core
P03-236	533,417.3	303,297.5	447.5	270.0	-50.0	413.1	Core
P03-237	533,726.2	304,562.8	418.1	290.0	-74.0	468.5	Core
P03-238	533,794.1	304,631.2	424.5	305.0	-65.0	294.9	Core
P03-239	533,907.5	304,724.4	450.1	305.0	-62.0	400.0	Core
P03-240	533,309.2	304,313.8	442.7	110.0	-55.0	400.0	Core
P03-241	533,311.8	304,258.6	422.1	110.0	-59.0	257.6	Core
P03-242	533,270.0	304,240.1	408.8	110.0	-55.0	289.9	Core
P03-243	533,310.3	304,368.8	459.9	110.0	-55.0	346.8	Core
P03-244	533,338.5	304,423.3	464.0	110.0	-55.0	341.7	Core
P03-245	534,098.4	301,376.0	419.6	90.0	-60.0	308.2	Core
P03-246	533,918.8	301,655.8	408.0	90.0	-67.0	462.0	Core
P03-247	533,916.5	301,698.9	403.7	81.0	-63.0	446.6	Core
P03-248	533,965.7	301,760.1	402.8	89.0	-70.0	380.4	Core
P03-249	533,973.7	301,839.2	393.5	90.0	-56.0	231.0	Core
P03-250	534,008.0	301,522.3	394.6	90.0	-71.0	395.6	Core
P03-251	533,964.7	301,639.4	410.5	98.0	-71.0	401.8	Core
P03-252	533,917.2	301,697.0	403.2	85.5	-65.0	426.6	Core
P03-253	533,973.5	301,836.9	392.9	115.0	-59.0	261.3	Core
P03-254	533,999.1	301,755.8	411.1	81.0	-49.0	260.8	Core
P03-255	533,918.3	301,657.4	408.3	96.0	-71.0	472.0	Core
P03-256	534,048.9	301,414.2	407.5	90.0	-60.0	354.3	Core
P03-257	533,868.3	301,574.3	406.8	85.5	-61.5	500.0	Core
P03-258	533,868.5	301,576.0	407.1	90.0	-58.0	480.0	Core
P03-259	533,915.4	301,697.1	403.2	93.0	-70.0	481.0	Core
P03-260	534,052.5	301,477.4	409.7	90.0	-70.0	492.4	Core
P03-261	532,707.1	304,860.7	521.5	286.0	-50.0	451.6	Core
P03-262	534,076.6	301,380.4	418.4	90.0	-68.0	401.7	Core
P03-263	534,041.2	301,331.9	412.8	90.0	-52.0	401.4	Core
P03-264	534,013.7	301,236.3	413.4	87.0	-48.0	423.8	Core
P03-265	532,585.5	304,991.0	481.8	88.0	-55.0	350.1	Core
P03-266	532,733.9	304,784.7	506.2	257.0	-55.0	380.7	Core
P03-267	534,714.9	301,120.8	412.6	88.0	-60.0	428.5	Core
P03-268	535,622.1	301,463.2	439.1	301.0	-50.0	546.7	Core
P03-269	532,547.8	305,292.4	450.7	110.0	-53.0	406.5	Core

P03-270	535,451.0	301,251.0	435.2	270.0	-50.0	538.5	Core
P03-271	532,645.7	305,534.6	499.0	123.0	-50.0	462.2	Core
P03-272	535,543.7	301,446.7	434.4	262.0	-50.0	515.1	Core
P04-273	535,026.3	301,253.6	428.2	90.0	-50.0	401.3	Core
P04-274	533,141.0	306,294.9	517.7	118.0	-55.0	451.0	Core
P04-275	535,480.7	301,554.0	438.4	300.0	-65.0	303.0	Core
P04-276	535,479.6	301,553.6	437.7	267.0	-50.0	300.0	Core
P04-277	535,071.0	301,103.0	423.7	70.0	-50.0	400.7	Core
P04-278	533,595.8	306,257.1	586.1	295.0	-60.0	374.0	Core
P04-279	535,614.3	301,616.8	452.6	255.0	-50.0	416.3	Core
P04-280	535,524.4	301,283.0	431.6	220.0	-55.0	336.9	Core
P04-281	535,079.5	301,012.6	415.5	75.0	-55.0	401.3	Core
P04-282	535,428.9	301,336.8	425.8	265.0	-50.0	510.0	Core
P04-283	535,718.3	300,777.1	432.6	90.0	-50.0	425.4	Core
P04-284	533,564.6	306,839.1	594.1	216.0	-55.0	378.2	Core
P04-285	535,332.5	301,054.1	424.5	90.0	-55.0	309.7	Core
P04-286	534,435.2	301,552.5	436.0	270.0	-55.0	406.3	Core
P04-287	532,804.8	307,508.6	464.3	128.0	-55.0	381.0	Core
P04-288	535,216.0	301,468.4	433.6	250.0	-50.0	444.7	Core
P04-289	532,808.2	306,893.8	476.6	128.0	-55.0	386.0	Core
P04-290	534,430.3	301,638.2	418.4	270.0	-57.0	352.0	Core
P04-291	533,630.7	305,317.8	525.7	295.0	-50.0	401.8	Core
P04-292	534,426.1	301,710.5	411.1	270.0	-50.0	416.3	Core
P04-293	533,990.3	301,900.2	405.6	90.0	-55.0	375.9	Core
P04-294	534,344.9	301,030.8	391.4	270.0	-50.0	400.5	Core
P04-295	533,931.8	301,994.0	398.4	90.0	-60.0	400.2	Core
P04-296	534,085.8	301,901.7	403.6	90.0	-55.0	202.8	Core
P04-297	534,351.0	300,924.0	422.6	276.0	-60.0	376.7	Core
P04-298	534,017.8	302,030.7	418.4	90.0	-55.0	409.8	Core
P04-299	534,391.4	300,855.8	424.6	259.0	-55.0	418.8	Core
P04-300	533,946.1	302,193.2	427.6	90.0	-50.0	412.2	Core
P04-301	533,305.4	297,741.6	287.6	212.0	-50.0	370.2	Core
P04-302	534,340.9	300,741.7	422.3	260.0	-50.0	407.2	Core
P04-303	533,433.3	297,799.9	305.8	90.0	-50.0	401.2	Core
P04-304	534,286.8	300,823.5	394.9	275.0	-50.0	407.3	Core
P04-305	533,859.4	297,861.7	310.6	270.0	-50.0	408.6	Core
P04-306	534,339.0	300,741.8	422.7	275.0	-54.0	450.5	Core
P04-307	533,330.9	297,756.4	277.2	232.0	-55.0	392.3	Core
P04-308	534,287.4	300,641.3	406.7	270.0	-50.0	398.0	Core
P04-309	533,369.2	297,668.0	275.1	232.0	-50.0	307.2	Core
P04-310	534,303.9	300,493.3	393.4	270.0	-50.0	404.2	Core
P04-311	533,232.1	297,812.7	290.4	232.0	-50.0	393.6	Core
P04-312	533,992.3	300,836.2	387.5	165.0	-50.0	326.3	Core
P04-313	533,152.7	297,881.5	298.1	232.0	-50.0	319.0	Core
P04-314	533,151.4	298,022.5	321.2	232.0	-50.0	368.4	Core
P04-315	534,321.7	300,279.9	435.5	270.0	-50.0	406.0	Core
P04-316	533,077.6	297,946.6	313.4	232.0	-50.0	270.1	Core
P04-317	534,330.9	300,278.3	435.7	90.0	-50.0	421.0	Core
P04-318	533,437.7	297,574.4	240.2	232.0	-50.0	318.2	Core
P04-319	533,505.2	297,533.2	242.3	232.0	-50.0	271.8	Core
P04-320	534,297.1	300,140.5	475.8	270.0	-50.0	412.1	Core
P04-321	533,084.1	297,757.6	286.3	52.0	-55.0	234.1	Core
P04-322	533,122.3	297,808.8	299.7	232.0	-55.0	334.9	Core
P04-323	534,298.5	300,140.7	475.1	270.0	-70.0	450.9	Core
P04-324	533,159.7	297,686.0	286.7	52.0	-60.0	241.6	Core
P04-325	533,159.7	297,683.4	286.0	232.0	-70.0	256.5	Core

P04-326	533,291.3	297,544.0	261.6	52.0	-50.0	305.2	Core
P04-327	534,383.6	299,904.2	485.9	270.0	-50.0	452.5	Core
P04-328	533,579.3	297,447.4	272.3	232.0	-50.0	351.2	Core
P04-329	534,259.0	300,391.2	399.5	270.0	-50.0	351.5	Core
P04-330	533,632.0	297,365.6	250.4	232.0	-50.0	294.6	Core
P04-331	534,260.2	300,389.9	398.8	250.0	-50.0	376.7	Core
P04-332	533,697.0	297,278.0	256.0	270.0	-50.0	110.6	Core
P04-333	534,288.9	300,982.7	388.3	260.0	-60.0	422.6	Core
P04-334	533,698.7	297,279.1	256.4	90.0	-60.0	405.9	Core
P04-335	534,237.3	300,577.3	397.1	270.0	-60.0	425.2	Core
P04-336	533,717.6	297,289.8	250.7	232.0	-60.0	350.2	Core
P04-337	534,284.3	300,212.8	450.4	270.0	-50.0	355.7	Core
P04-338	533,782.5	297,248.9	248.6	232.0	-60.0	243.9	Core
P04-339	534,326.0	300,280.0	435.4	270.0	-65.0	438.7	Core
P04-340	533,965.0	297,002.6	252.2	232.0	-70.0	194.2	Core
P04-341	533,938.4	297,076.9	245.1	232.0	-65.0	140.0	Core
P04-342	533,628.5	297,510.3	239.4	232.0	-53.0	300.0	Core
P04-343	534,351.9	300,922.0	422.4	260.0	-58.0	463.3	Core
P04-344	533,268.2	297,782.7	285.5	232.0	-65.0	250.0	Core
P04-345	533,353.3	297,728.0	272.0	232.0	-65.0	292.4	Core
P04-346	534,390.1	300,856.6	424.3	255.0	-60.0	497.7	Core
P04-347	533,438.1	297,633.5	245.7	232.0	-65.0	250.0	Core
P04-348	534,288.9	300,642.0	406.4	253.0	-65.0	483.9	Core
P05-349	534,302.8	300,494.8	394.7	250.0	-65.0	442.9	Core
P05-350	534,199.6	300,526.8	400.0	270.0	-55.0	263.7	Core
P05-351	534,237.3	300,576.6	398.3	260.0	-71.0	359.8	Core
P05-352	534,200.8	300,526.7	399.7	270.0	-76.0	309.5	Core
P05-353	534,275.1	300,355.5	402.3	267.0	-50.0	320.4	Core
P05-354	534,191.5	300,448.6	408.8	275.0	-71.0	258.1	Core
P05-355	534,275.4	300,355.6	402.6	269.0	-70.0	326.0	Core
P05-356	534,294.7	300,450.2	399.5	271.0	-58.0	348.9	Core
P05-357	534,276.9	300,353.6	402.3	254.0	-60.0	380.2	Core
P05-358	534,284.2	300,214.3	450.9	270.0	-63.0	450.2	Core
P05-359	534,259.4	300,392.3	398.1	278.0	-61.0	376.9	Core
P05-360	534,005.7	300,911.4	386.5	97.0	-60.0	368.7	Core
P05-361	534,301.7	300,491.6	394.1	273.0	-70.0	464.3	Core
P05-362	534,074.3	300,751.0	382.5	83.0	-70.0	381.6	Core
P05-363	534,328.5	300,378.5	409.9	274.0	-69.0	503.4	Core
P05-364	534,384.7	300,242.9	438.2	270.0	-65.0	444.5	Core
P05-365	534,403.2	300,045.1	465.0	260.0	-59.0	554.6	Core
P05-366	534,334.6	300,079.5	485.3	275.0	-64.0	529.8	Core
P05-367	534,386.6	300,241.3	438.4	252.0	-67.0	473.7	Core
P05-368	534,426.1	300,301.6	423.3	270.0	-63.0	487.2	Core
P05-369	534,327.8	300,377.2	409.9	270.0	-80.0	502.3	Core
P05-370	534,366.4	300,453.2	395.1	265.0	-67.0	460.0	Core
P05-371	534,385.8	299,904.9	486.3	258.0	-63.0	521.5	Core
P05-372	534,392.9	300,513.7	417.2	286.0	-64.0	524.0	Core
P05-373	534,445.7	300,485.4	398.7	270.0	-59.0	539.2	Core
P05-374	534,287.0	300,641.0	406.0	275.0	-78.0	30.5	Core
P05-374B	534,289.8	300,643.6	406.5	275.0	-78.0	431.2	Core
P05-375	534,329.0	300,377.7	410.1	279.0	-60.0	351.7	Core
P05-376	534,287.8	300,641.2	406.5	261.0	-51.0	350.2	Core
P05-377	534,278.7	300,354.7	402.0	252.0	-76.0	400.6	Core
P05-378	534,297.6	300,304.6	427.8	265.0	-65.0	383.0	Core
P05-379	534,296.5	300,493.3	394.0	263.0	-62.0	388.6	Core
P05-380	534,309.3	300,555.9	401.5	270.0	-67.0	436.6	Core

P05-381	534,242.8	300,254.8	439.8	280.0	-65.0	350.0	Core
P05-382	534,426.0	300,305.8	423.8	270.0	-59.0	463.2	Core
P05-383	534,386.7	300,240.9	437.9	264.0	-62.0	443.1	Core
P05-384	534,391.0	300,850.0	405.0	275.0	-65.0	538.9	Core
P05-385	534,446.7	300,486.1	399.0	264.0	-54.0	550.9	Core
P05-386	534,385.3	300,242.0	438.4	265.0	-70.0	529.6	Core
P05-387	534,244.5	300,255.1	439.6	293.0	-65.0	405.2	Core
P05-388	534,351.0	300,924.0	423.0	260.0	-54.0	472.7	Core
P05-389	534,285.6	300,214.1	450.0	281.0	-70.0	422.9	Core
P05-390	534,133.2	300,398.6	418.1	270.0	-67.0	251.4	Core
P05-391	534,443.1	300,814.1	424.5	279.0	-62.0	577.9	Core
P05-392	534,323.2	300,279.4	435.7	267.0	-60.0	401.2	Core
P05-393	534,387.7	300,239.6	438.3	244.0	-76.0	529.8	Core
P05-394	534,286.5	300,826.8	394.8	260.0	-58.0	370.9	Core
P05-395	534,288.0	300,824.0	395.0	282.0	-61.0	395.9	Core
P05-396	534,326.9	300,378.4	409.6	270.0	-57.0	72.8	Core
P05-397	534,272.7	300,356.9	402.1	270.0	-57.0	341.0	Core
P05-398	534,350.7	300,924.6	422.3	273.0	-62.0	596.9	Core
P05-399	534,434.0	300,175.0	435.0	268.0	-65.0	502.0	Core
P05-400	534,424.0	300,306.1	423.6	254.0	-64.0	539.4	Core
P05-401	534,444.0	300,814.7	424.4	270.0	-62.0	600.6	Core
P05-402	534,426.8	299,768.1	445.4	270.0	-50.0	600.0	Core
P05-403	534,278.2	300,353.5	402.8	256.0	-70.0	349.0	Core
P05-404	533,977.1	301,458.6	401.9	112.0	-67.0	477.1	Core
P05-405	534,393.8	299,464.9	409.2	270.0	-50.0	498.8	Core
P05-406	534,287.9	300,825.4	395.1	261.0	-68.0	416.5	Core
P05-407	534,056.7	301,481.5	410.3	90.0	-75.0	458.7	Core
P05-408	534,297.5	300,491.8	393.2	273.0	-60.0	451.2	Core
P05-409	534,330.9	300,606.4	403.0	268.0	-68.0	476.0	Core
P05-410	533,868.8	301,724.1	393.8	90.0	-68.0	500.0	Core
P05-411	534,200.3	300,525.1	400.2	269.0	-71.0	312.5	Core
P05-412	534,382.6	300,513.0	417.1	273.0	-60.0	500.8	Core
P05-413	534,411.4	299,972.6	474.1	270.0	-53.0	450.2	Core
P06-414	533,869.0	301,723.0	393.7	113.0	-68.0	577.3	Core
P06-415	534,294.2	300,449.4	400.0	270.0	-64.0	396.9	Core
P06-416	534,334.7	300,078.2	485.7	254.0	-59.0	431.7	Core
P06-417	534,299.8	300,492.7	393.8	270.0	-76.0	587.0	Core
P06-418	534,443.7	300,813.1	424.1	260.0	-58.0	531.3	Core
P06-419	534,411.4	299,972.2	473.6	271.0	-60.0	500.0	Core
P06-420	534,309.7	300,555.5	401.8	266.0	-61.0	481.2	Core
P06-421	534,386.5	300,242.2	439.7	270.0	-60.0	402.7	Core
P06-422	534,384.2	299,905.3	486.4	272.0	-65.0	471.4	Core
P06-423	534,330.7	300,608.4	402.9	259.0	-65.0	401.5	Core
P06-424	534,403.5	300,046.8	465.0	268.0	-65.0	500.3	Core
P06-425	534,385.7	300,242.6	438.3	270.0	-53.0	400.4	Core
P06-426	534,392.6	300,855.1	424.0	270.0	-59.0	501.9	Core
P06-427	534,424.9	300,304.8	423.7	261.0	-61.0	466.5	Core
P06-428	534,255.3	300,211.7	451.0	260.0	-65.0	350.0	Core
P06-429	534,258.5	300,390.7	399.2	269.0	-65.0	303.6	Core
P06-430	534,328.9	300,376.4	409.7	279.0	-65.0	400.9	Core
P06-431	534,302.8	300,422.9	406.5	270.0	-63.0	358.5	Core
P06-432	534,377.9	300,828.0	414.7	270.0	-59.0	501.9	Core
P06-433	534,302.8	300,422.9	406.5	270.0	-72.0	426.0	Core
P06-434	534,296.6	300,304.7	427.8	270.0	-47.0	297.3	Core
P06-435	534,297.6	300,491.1	394.6	267.0	-56.0	352.7	Core
P06-436	534,290.3	300,643.4	406.7	270.0	-68.0	428.6	Core

P06-437	534,350.2	300,921.3	422.0	270.0	-60.0	510.2	Core
P06-438	534,294.0	300,877.3	412.9	270.0	-61.0	402.2	Core
P06-439	534,273.9	300,355.7	402.4	257.0	-56.0	301.3	Core
P06-440	534,327.5	300,777.3	415.9	270.0	-63.0	425.0	Core
P06-441	534,383.8	300,902.6	410.7	270.0	-63.0	500.6	Core
P06-442	534,274.1	300,356.0	402.5	257.0	-72.0	323.1	Core
P06-443	534,420.0	300,300.0	424.0	261.0	-68.0	502.4	Core
P06-444	534,388.0	300,240.0	440.0	263.0	-74.0	538.5	Core
P06-445	534,328.0	300,377.0	401.2	270.0	-65.0	401.2	Core
SM-004	533,335.1	305,988.6	580.2	300.0	-50.0	163.8	Core
SM-005	533,261.3	305,952.4	587.5	288.0	-50.0	123.2	Core
SM-006	533,298.3	305,928.2	589.5	295.0	-55.0	212.2	Core
SM-007	533,403.0	306,085.0	584.6	295.0	-48.0	169.0	Core
SM-008	533,092.0	306,134.0	545.0	131.0	-56.0	416.6	Core
VG04-001	534,462.0	300,528.3	421.0	360.0	-90.0	22.1	Core
VG04-002	534,446.5	300,487.4	398.7	360.0	-90.0	49.5	Core
VG04-003	534,401.4	300,363.0	415.6	360.0	-90.0	51.2	Core
VWQ04-002	533,778.0	301,241.8	382.7	360.0	-90.0	19.9	Core
VWQ04-003	531,790.4	303,371.7	428.0	360.0	-90.0	18.0	Core
VWQ04-004	534,422.0	302,473.0	445.0	360.0	-90.0	28.3	Core

Appendix B Summary and Brief Description of Historic Resource Estimates

(from Ronning, August 22, 2003 with additions by Ristorcelli)

From: Review of the El Dorado Project, El Salvador

By Peter Ronning, August 22, 2003

Historical Resource and Reserve Estimates

There have been a number of resource estimates produced, for several different veins, since the early 1990's. These are:

- El Dorado Mine Area
- La Coyotera
- Nueva Esperanza

It is important to note that all of the resource estimates discussed in this report are, to varying degrees, out of date. The most recent estimates were done by Lacroix in 2000 and 2001. For that reason, the Lacroix estimates are described in more detail than earlier ones.

Pacific Rim has done considerable in-fill and step-out drilling since the time of the Lacroix estimates. The company has commissioned the preparation of new resource estimates. These are not completed at the time of writing. While this report documents recent work by Pacific Rim, it does not present any new or current resource estimates.

RESOURCE ESTIMATES – EL DORADO MINE AREA

There have been at least 5 estimates of the resources in the El Dorado Mine Area since 1995, including:

1. James Askew and Associates in 1995. The results of this estimate are not presented in this report, as JAA was working with fewer drill holes than were available to later estimators.

2. Kinross Gold USA estimate in 1996. The 1996 Kinross estimate incorporated approximately 4,900 meters of diamond drilling done in early 1996, which would not have been available at the time of the JAA estimate in 1995.

3. Kinross Gold USA estimate in 1997.

4. Strathcona Mineral Services in 1997. Strathcona did not do a complete new estimate, but re-stated the 1997 Kinross estimate using a higher cut off grade.

5. The Lacroix estimate of 2000, considered to be the most current. The Lacroix estimate is presented in this report in more detail than earlier ones.

Table B1 Comparison of El Dorado Area Resource Estimates prior to 2000

Estimators and Date >	Staff of Kinross Gold Corp., May 1996		Mirage - Kinross Gold Corp, July 1997		Strathcona Mineral Services, September 1997	
Category >	**Indicated***	**Inferred**	**Indicated**	**Inferred**	**Indicated**	**Inferred**
Minita Vein						
Gold Cut Off Grade (gpt)	4	4	3	3	4	4
Tonnes	258,500	139,400	608,200	225,100	563,100	177,300
Gold Grade (gpt)	12.37	12.57	11.90	9.60	12.5	11.2
Silver Grade (gpt)	**	**	75.0	64.0	80	75
Contained Gold (ounces)	102,800	56,540	232,000	69,000	227,000	64,000
Contained Silver (ounces)	**	**	1,472,000	465,000	1,443,000	427,000
Minita 3 Vein						
Gold Cut Off Grade (gpt)	4	4	3	3	4	4
Tonnes	396,500	169,000	332,000	70,000	299,400	53,300
Gold Grade (gpt)	10.86	9.88	11.3	6.3	12.2	7.1
Silver Grade (gpt)	**	**	89	31	97	35
Contained Gold (ounces)	138,440	53,680	121,000	14,000	117,000	12,000
Contained Silver (ounces)	**	**	954,000	70,000	929,000	60,000
Zancudo Vein						
Gold Cut Off Grade (gpt)	4	4	4	4	5	5
Tonnes	22,600	36,100	44,200	19,000	31,400	15,100
Gold Grade (gpt)	5.78	6.12	11.2	7.9	14	8.7
Silver Grade (gpt)	**	**	84	58	109	65
Contained Gold (ounces)	4,200	7,100	16,000	5,000	14,000	4,000
Contained Silver (ounces)	**	**	119,000	35,000	110,000	32,000

Notes: *Table 5.5 of Snider et al, 1996, contained the perplexing statement that “Use of measured/indicated category for comparative purposes only; considered inferred for resource classification.”

The writer believes that the use of the terms indicated and inferred in the 1997 estimates is generally consistent with the CIM Standards on Mineral Resources and Reserves of August 2000.

**In the 1996 estimate, silver grades were stated only in a summary table that combined indicated and inferred resources.

Lacroix Resource Estimate

The most current resource estimate for the El Dorado Mine Area, including the Minita, Minita 3 and Zancudo veins, is Lacroix' estimate of October 2000. The following description is from Lacroix' summary in his 2000 report:

> *"An update of the El Dorado Mine Area resources has been completed by Lacroix & Associates in collaboration with Dayton Mining Corporation and their consultants. This update includes estimates for the Zancudo, Minita and Minita 3 veins, all of which are located within close proximity of the El Dorado Mine Area. The up-dip portions of these veins as well as other en-echelon vein structures in the area were the subject of mining activity from 1949 to 1955. The estimates follow a recently completed drilling program designed primarily to improve the confidence levels associated with the known extent of the above-mentioned veins.*
>
> *"Indicated resources are estimated to contain 0.80 million tonnes grading 13.7 grams per tonne gold and 98 grams per tonne silver or 15.3 grams per tonne gold equivalent. An additional resource of 0.11 million tonnes grading 12.2 grams per tonne gold equivalent has been estimated. This resource, which lies mostly below and contiguous to the indicated resource within the same structures, is classified as inferred.*
>
> *"The above-stated inventories, which total[13] 0.91 million tonnes grading 13.4 grams per tonne gold and 95 grams per tonne silver or 14.9 grams per tonne gold equivalent, are reported at an in-situ gold equivalent cut-off value of 6.0 grams per tonne for Minita and Minita 3 and 9.0 grams per tonne for Zancudo. With exception to the Zancudo vein, which is narrow (0.75m) and spotty in grade, the resources hold together well at increasing cut-off grades. In particular, the Minita vein, which represents over 80% of the in-situ resource, maintains continuity at cut-off grades up to 10 or 11 grams per tonne.*
>
> *"The resource estimate is based on a number of intercepts in which substantially lower core recovery is co-incident with some of the higher-grade samples. It is believed that the poor recovery is due in part to an abundance of lattice texture, which is both difficult to drill and recover. Should the lost core material be composed primarily of unmineralized material, an upward grade bias may exist. Alternatively, the lost core may also represent void space, suggesting that the overall bulk density of the vein is lower in these areas. This could lead to an upward bias in tonnage for areas where low recovery was observed. In recognition of these concerns, grades for individual assays have been weighted according to recovered length as opposed to measured drill length. As well, the specific gravity for each composite interval has been adjusted downward by the percentage of lost core. The net result of these adjustments was to lower the overall specific gravity from 2.54 to 2.35 with a slight bias toward lower densities in zones of higher grade, thereby impacting the grade as well as the tonnage. These adjustments*

[13] current practice does not accept the reporting of a total in which an inferred resource is added to indicated or measured resources. Such a total appears in this quote, but it is from a report completed in 2000, not a current statement.

are consistent with observations made during earlier historic mining operations, where observed bulk density was consistently lower than theoretical values obtained from intact core.

"The above-stated resource classifications provide reasonable conformity with both Australasian (JORC) and the SME-AIME guidelines. The deposit is drilled from the lowest historic mining level (285 meters elevation) down to an elevation of about 100 meters on a nominal 50 to 100 meter spacing. Below this, as well as on the extremities, the drill density is much less. This change in drill intercept density coincides with the change in classification from indicated to inferred. Based on variogram data coupled with observed structural continuity, grades cannot be predicted with an accepted level of confidence where the drill spacing is greater than 95 meters or the distance to the closest composite exceeds half the maximum prescribed spacing.

"None of the resource has been classified as measured. It is believed that, in addition to reducing the overall drill spacing to a 48 meter staggered pattern, the issues surrounding core recovery and sample voids will have to be addressed through bulk sampling in order to classify any portion of the resource as measured. There has been no recent mining experience with the deposit and it would be premature to assume that the level of confidence associated with measured resources can be applied to this resource without further work. Although historic mining has demonstrated the continuity of the vein structures, substantial underground development (raising & drifting) was necessary to define resources with sufficient confidence to commence mining operations. While necessary to formulate any detailed mine plans, it is not advised that any additional drilling be completed from surface in the area of the indicated resource. A limited surface program designed to upgrade resources along the peripheries of deposit as well as determine the full down-plunge extent of the Minita resource could be considered as an addendum to the recently completed program."

Some of the parameters and assumptions that Lacroix used were:

- At the time of the estimate, 52 core holes had been completed in the El Dorado Mine Area. Lacroix used 49 holes in the resource estimate.
- The drill holes used intercepted the veins between the lowest historic mining level at about 285 meters asl and an elevation of about 100 meters.
- The drill hole data base contained 2,216 assayed sample intervals, 303 of which were located within the interpreted boundaries of the mineralized zones.
- Gold assays from the Minita and Minita 3 veins were capped, or cut, at 55.0 g Au/tonne before compositing. Those from the Zancudo Vein were cut to 25.0 g Au/tonne.
- In order to compensate for low core recovery in a number of drill holes, when compositing intervals each assay was weighted by the recovered core length rather than the drilled length. In order to compensate for the "missing mass", for calculation purposes the specific gravity for each drilled length was reduced by the percent of missing core.

- Underground data were used to assist in modeling the deposit, but assays from underground were not used in the estimate.
- Cut-off values were based on equivalent gold grades, estimated using US$290 per ounce & 92% recovery for gold and US$5.00 per ounce and 85% recovery for silver.
- Recommended minimum in-situ cut-off grades of 6.0 g/tonne gold equivalent for the Minita veins and 9.0 g/tonne gold equivalent for the Zancudo Vein were used.
- After testing various methods, ordinary kriging was selected as the best estimation procedure.

Table B2 Lacroix 2000 Resource Estimate, El Dorado Area

In Situ Resource – Indicated								
Sample Distance less than 48 m; Drill Spacing less than 95 m								
	Cutoff	**Tonnes**	**Au Equiv**	**Au Equiv**	**Au**	**Ag**	**H.Thick**	**SG**
Vein	**(Au Eq g/t)**	**(x 1,000)**	**(KOz)**	**(g/t)**	**(g/t)**	**(g/t)**	**(m)**	
Zancudo	9	32.0	14.3	13.86	12.20	104.2	0.70	2.52
Minita	6	626.1	317.2	15.76	14.17	99.6	3.90	2.34
Minita 3	6	141.1	60.6	13.37	11.95	89.0	2.64	2.37
Subtotal	**Indicated**	**799.2**	**392.1**	**15.26**	**13.70**	**97.9**	**3.55**	**2.35**
In Situ Resource – Inferred								
Sample Distance between 48 and 95 meters; Drill Spacing between 95 meters and 2 x 95 meters								
	Cutoff	**Tonnes**	**Au Equiv**	**Au Equiv**	**Au**	**Ag**	**H.Thick**	**SG**
Vein	**(Au Eq g/t)**	**(x 1,000)**	**(KOz)**	**(g/t)**	**(g/t)**	**(g/t)**	**(m)**	
Zancudo	9	4.2	1.4	10.68	9.62	66.5	0.50	2.53
Minita	6	103.1	40.3	12.15	10.92	77.6	2.68	2.45
Minita 3	6	3.3	1.0	9.73	8.62	69.5	2.66	2.10
Subtotal	**Inferred**	**110.6**	**42.7**	**12.02**	**10.80**	**76.94**	**2.60**	**2.44**
This table is taken from Table 3.5 of Lacroix, 2000, with minor re-formatting but no alteration of content. Au equivalent calculated using 62.8 grams silver per gram gold ($5/oz Ag, R=85%; $290/oz Au, R=92%)								

HISTORICAL RESOURCE ESTIMATES – LA COYOTERA

There have been at least five estimates of the resource at La Coyotera since 1995, including:

1. James Askew and Associates in 1995. This early estimate incorporated data from only 25 drill holes, and so it is not directly comparable to subsequent estimates using a larger data base. The results are not presented in this report.
2. Kinross Gold USA estimate in 1996. Kinross identified what they considered to be inconsistencies in the JAA estimate, and did what was referred to as an in-house "in situ geologic resource estimate". [Kinross] is stated that the 1996 estimate used the same 25 hole data base as the 1995 one. However, later in the same 2000 report and in Snider et al (1996) it is stated that composites from 35 holes were used. The larger number of holes is correct, since more holes were drilled during the 1995 – 96 period. The results of the 1996 estimate are not presented in this report.
6. Kinross Gold USA estimate in 1997. This estimate incorporated the results of 52 drill holes. It was done using the Datamine software package and the following parameters:
   - specific gravity of vein material 2.47
   - search distances of 40 meters for indicated and 60 meters for inferred material
   - spherical search
   - maximum and minimum sample values of 10 and 3
   - 2 meter down hole composites
   - no cutting factor
7. Strathcona Mineral Services, 1997. Strathcona started its review of the La Coyotera resource as part of a due diligence effort for another party, and completed it on behalf of Kinross. Strathcona made a number of recommendations for improving the estimating procedures. However, in its revision of the Kinross estimate of 1997, the only change Strathcona made was to use the higher cut off grade that appears in Table 3.
8. Kinross Gold El Salvador S.A. de C.V. estimate in 2000. Kinross re-estimated the La Coyotera resource using the following parameters:
   - specific gravity of vein material 2.45
   - minimum grade of 4 g Au/tonne. That is, on a section contoured by grade, only material that falls within the 4 g Au/tonne contour was used.
   - a polygonal method was used. For the indicated category, areas of influence for each drill hole were constructed using perpendicular bisectors between adjacent drill hole intersections, or a maximum distance of 25 meters away from the drill hole in any direction.
   - inferred material was that supported only by single drill hole intercepts or lying outside the 25 meter radius from a drill hole.

- vein dilution by wallrock was not considered except that vein limits were modified to consider incompetent low grade or waste that would inevitably mix with vein material during mining. Also considered was low grade vein material that could not be readily distinguished from ore during mining.

The tabulation that follows is adapted from one that appeared in the report by Kinross Staff (2000).

Lacroix Resource Estimate

The most current work relating to a resource estimate for the La Coyotera veins is contained in a memo from P. Lacroix dated March 2001. The memo is based on "a very preliminary review" of the La Coyotera resource. The memo included a "Preliminary Estimate". Lacroix chose not to assign the preliminary estimate to any of the categories, measured, indicated or inferred. He stated that such assignment would be subject to the completion of a more rigorous model. The memo of March 2001 is essentially a working document prepared for discussion, and the preliminary estimates included in it are not used in the present report.

Table B3 Comparison of 1997 - 2000 La Coyotera Resource Estimates

Estimator and Date	Mirage - Kinross Gold Corp, July 1997		Strathcona Mineral Services, September 1997 (Thalenhorst)		Staff of Kinross El Salvador S.A. de C.V., March 2000	
Category	**Indicated**	**Inferred**	**Indicated**	**Inferred**	**Indicated**	**Inferred**
Gold Cut Off Grade (gpt)	2.00	2.00	4.00	4.00	4.00	4.00
Tonnes	1,724,100	273,100	1,055,900	149,400	932,725	326,368
Gold Grade (gpt)	5.72	4.67	7.48	6.04	8.572	4.673
Silver Grade (gpt)	45.93	44.42	56.79	59.959	76.00	55.12
Contained Gold (ounces)	317,000	41,000	254,000	29,000	257,035	49,034
Contained Silver (ounces)	2,546,000	390,000	1,928,000	288,000	2,279,065	578,393

Notes: These resource estimates pre-date the implementation of National Instrument 43-101. Nevertheless the writer believes that the terms "Indicated" and "Inferred" were used in a way that is generally consistent with the CIM Standards on Mineral Resources and Reserves of August 2000. The present writer is not aware of the status of any of the resource authors with respect to the current definition of a "Qualified Person".

HISTORICAL RESOURCE ESTIMATES – NUEVA ESPERANZA

There have been at least 5 estimates of the resource at Nueva Esperanza since 1995, including:.

1. James Askew and Associates in 1995. This early estimate incorporated data from only 31 drill holes, and so is not directly comparable to subsequent estimates using a larger data base. The results are not presented in this report.
2. Kinross Gold Corporation did an in-house resource estimate in 1996, using 33 core holes. Kinross' results are summarized in Table B4, which is a copy of part of Table 5.4 in Snider et al, 1996.

Table B4 1996 Nueva Esperanza Resource Estimate

In Situ Geologic Resource* above 300 meters Elevation						
	Indicated 20 meter oriented search			**Inferred** 60 meter oriented search		
Cutoff Grade (g Au/tonne)	**Tonnes**	**Gold Grade (g Au/tonne)**	**Contained gold, troy ounces**	**Tonnes**	**Gold Grade (g Au/tonne)**	**Contained gold, troy ounces**
0.0	591,100	2.78	52,830	527,000	2.72	46,090
0.7	521,500	3.08	51,640	513,700	2.78	45,910
1.0	462,500	3.36	49,960	481,700	2.9	44,910
2.0	304,100	4.35	42,530	306,000	3.67	36,110
3.0	197,000	5.37	34,010	168,200	4.68	25,310
4.0	118,600	6.60	25,170	91,500	5.71	16,800
5.0	67,000	8.23	17,730	57,300	6.44	11,860

Notes: *"Geologic Resource" is not a current term but corresponds in general to "Resource". The writer (Ronning) believes that the terms indicated and inferred are used in a manner consistent with the current CIM Standards.

A density of 2.33 tonnes/cubic meter was used

This resource was estimated using substantially the same data base as the later estimate by Lacroix (section 0) but differs in some details

The later (Lacroix) estimate included some material below 300 meters elevation in the inferred category. This 1996 estimate is restricted to material above 300 meters.

This estimate used data from trenches, whereas the later estimate did not

In both estimates interpolation was done using the mathematical procedure known as "kriging". However, different parameters, such as search radii, were used. See the two source reports for details.

3. Kinross Gold Corp. did another in-house estimate in 1997.
4. Kinross' Estimate was reviewed by Thalenhorst (1997). Thalenhorst made a number of recommendations for improving the resource estimate, but did not re-estimate the resource implementing those recommendations. He did re-state the 1997 Kinross

estimate using a higher cut-off grade, with the comment that the original cut-off used by Kinross was unrealistically low.

Table B5 below, is extracted from Thalenhorst's Table 1.

Table B5 1997 Nueva Esperanza Resource Estimates

	Indicated			Inferred		
Cutoff Grade g Au/tonne	**Tonnes**	**Gold g Au/tonne**	**Silver g Ag/tonne**	**Tonnes**	**Gold g Au/tonne**	**Silver g Ag/tonne**
Kinross 1997 estimate:						
1.0	845,000	2.7	16	37,600	2.2	13
Thalenhorst re-statement of Kinross estimate:						
3.0	266,400	4.6	26	4,800	3.8	19

Lacroix Resource Estimate

The most current resource estimate for the Nueva Esperanza Vein is Lacroix' estimate of October 2000. It is described here in somewhat more detail than the earlier estimates. The following description is from Lacroix' summary in his 2000 report:

"An update of the Nueva Esperanza resources and their potential economic contribution to the El Dorado Project has been completed. Indicated resources are estimated to be 0.54 million tonnes grading 4.3 grams per tonne gold and 27.6 grams per tonne silver or 4.7 grams per tonne gold equivalent. This resource is reported at a 0.0 gram per tonne gold cut-off. At a 2.0 gram per tonne cut-off, the resource is estimated at 0.50 million tonnes grading 4.5 grams gold and 29.1 grams silver per tonne with a 5.0 gram per tonne gold equivalent grade.

"An additional resource of 0.9 million tonnes grading 2.2 grams per tonne gold equivalent at a 0.0 cut-off grade has been estimated. This resource, which lies below and contiguous to the indicated resource within the same structure, is classified as inferred. Reported at a 2.0-gram cut-off, the (inferred) resource totals 0.4 million tonnes grading 3.3 grams per tonne gold equivalent. Caution is advised in use of the higher cut-off values for both indicated and inferred, as blocks are not necessarily contiguous.

"A large portion of the higher-grade resource is based on samples from only three drill hole intercepts. As well, a zone of substantially lower core recovery is co-incident with some of the higher-grade intercepts. It is estimated that if the lost core represents void space or unmineralized material, the reduction in contained metal could be as high as 23% in the indicated category. Although it is unlikely to be this high, the full magnitude of the correction does serve to demonstrate the level of risk associated with the deposit. The foremost component of any drilling undertaken to upgrade the Nueva Esperanza deposit should be directed at improving the confidence level for the grade estimates

associated with the three high-grade holes as well as resolving the issues surrounding the low core recovery. Potential extension of the known resource along strike and down dip, if any, should also be investigated

"The above-stated resource classifications provide reasonable conformity with both Australasian (JORC) and the SME-AIME guidelines. The deposit is drilled from surface (425 to 450 m. elev.) down to about 375 meters to 325 meters elevation on an approximate spacing of 50 meters along strike by 25 meters down dip. Below this, as well as on the extremities, the drill density is much less. This change in drill intercept density coincides with the change in classification from indicated to inferred. None of the resource has been classified as measured. It is believed that, in addition to reducing the overall drill spacing to a 25 meter staggered pattern, the issues of core recovery and sample voids will have to be addressed in order to classify any portion of the Nueva Esperanza resource as measured. There has been no recent mining experience with the deposit and it would be premature to assume that the level of confidence associated with measured resources can be applied to this resource without further work. While necessary to formulate any detailed mines, it is not advised that any additional drilling be completed in the area of the indicated resource unless more favorable economics can be demonstrated. Also, given the increase in incremental stripping beyond the depth of the indicated resource, it is doubtful that upgrading the inferred resource would be of substantial benefit at this time."

Some of the parameters used in the Lacroix estimate for Nueva Esperanza were:

At the time of the estimate, a total of 37 core holes, 7 RC holes and 12 trenches had been completed at Nueva Esperanza. The resource model was restricted to the use of sample data from 35 of the core holes.

The deposit had been drilled from surface (425 to 450 m. elev.) down to about 375 meters to 325 meters elevation on an approximate spacing of 50 meters along strike by 25 meters down dip. All holes had been collared from the hanging wall of the vein, drilled toward the east at a dip of 35 to 80 degrees from horizontal. Overall, drilling had covered an area about 300 meters in strike length down to an elevation of 200 meters.

The Nueva Esperanza drill hole data base (core holes only) contained 705 assayed samples from core holes, 255 of which were located within the interpreted boundaries of the mineralized zone or "vein".

all assay grades for gold were capped or cut at 27.0 g/tonne before compositing. This capping was adopted from earlier work by Kinross staff.

Assays intervals were composited down the hole from collar to final depth in length-weighted averages each representing 2.0 meters of continuous sample.

The resource estimate for Nueva Esperanza was based on a 3-D computer block model
The indicated resource is that part of the resource where the drill hole spacing is less than 55 meters, the spacing having been selected using variography.

Table B6 contains a summary the results of Lacroix' estimate.

Table B6 Lacroix Resource Estimate for Nueva Esperanza

Indicated Resource				
Au Eq (G/T) Cut-off	**Tonnes X1,000**	**Au (G/T) Equivalent**	**Au (G/T)**	**Ag (G/T)**
0.0	539.1	4.70	4.26	27.63
0.5	539.0	4.70	4.26	27.63
1.0	538.7	4.70	4.26	27.65
1.5	525.3	4.79	4.34	28.17
2.0	495.4	4.97	4.51	29.13
2.5	452.9	5.23	4.74	30.54
3.0	411.0	5.48	4.97	32.04
3.5	358.3	5.81	5.27	33.99
4.0	290.9	6.28	5.69	36.99
Notes: SG = 2.33, Avg. Drill Spacing less than 55 Meters				
Inferred Resource				
Au Eq (G/T) Cut-off	**Tonnes X1,000**	**Au (G/T) Equivalen t**	**Au (G/T)**	**Ag (G/T)**
0.0	905.4	2.18	2.03	9.43
0.5	899.2	2.19	2.04	9.48
1.0	766.6	2.42	2.25	10.87
1.5	578.4	2.80	2.59	12.86
2.0	395.3	3.30	3.04	15.81
2.5	293.1	3.67	3.39	17.87
3.0	186.3	4.18	3.86	20.39
3.5	126.6	4.63	4.29	21.49
4.0	91.5	4.97	4.62	22.26
Notes: SG = 2.33, Avg. Drill Spacing > 55 Meters				
Au equivalent calculated using 62.8 grams silver per gram gold ($5/oz Ag, R=85%; $290/oz Au, R=92%)				
This table is taken from Table 3.6 of Lacroix, 2000, with minor re-formatting and the addition of explanatory notes, but no alteration of content.				

Lacroix (2000) noted that in parts of the Nueva Esperanza deposit core recoveries were poor. The estimates in Table B6 are not adjusted for core recovery. Lacroix included the following discussion of the issue:

> *"With respect to the issue of core recovery, a number of explanations have been theorized as to the reason for the poor recovery. Depending on which is more likely, the impact on the resource inventory will be different. Should the lost core be composed primarily of unmineralized material, an upward grade bias could exist and grades may have to be adjusted downward. If the lost core represents void space, the bulk specific gravity of the vein may be lower than the assumed 2.33. This would lead to an overall upward bias in tonnage, but may have very little impact on grade. To assess the impact of the latter, core recovery was modeled as an additional grade item based on the average recovery for each composite. This allowed a separate calculation of specific gravity for each block based on the modeled recovery. The individual SG values were then applied to each block tonnage to arrive at an adjusted estimate of the resource inventory. The results of the adjustments are summarized in* Table B7.

Table B7 Nueva Esperanza Resource, SG Adjusted by Core Recovery[14]

	SG=2.33			SG=2.33 * Core Recovery			
	KTonnes	Au Equiv (G/T)	KOz Au	KTonnes	Au Equiv (G/T)	KOz Au	Difference
Indicated	539.1	4.70	81.5	424.4	4.58	62.5	23.3%
Inferred	905.4	2.18	63.5	770.5	2.17	53.8	15.3%
Total	**1,444.5**	**3.12**	**145.0**	**1,195.0**	**3.03**	**116.3**	**19.8%**

> *"As can be observed, the differences are significant and the impact is higher in the indicated resource. There has also been a slight reduction of grade (3%) in this portion of the resource, indicating that the lower core recovery is slightly more prevalent in the higher-grade areas. Should the lost core be related to lost calcite material, a reduction in grade of up to 23% in the indicated category could be evident."*

[14] This table is copied directly from Lacroix. The table number has been changed to correspond to the numbering sequence in the present report.

Appendix C Inspectorate Sample Handling and Assaying Procedures

(from Ronning, August 22, 2003 with additions by Ristorcelli)

Pacific Rim/Inspectorate Sample Preparation Procedures

SAMPLE INVENTORY

Submittal Form Matched to Samples Received & Dried

→ LIMS login & inventory matched against samples

↓

JAW CRUSHER

Primary Crushing Entire Sample to 1/4' ~5MM

↓

ROLL MILL CRUSHER

Secondary Crushing Entire Sample >80% –10 Mesh/2MM

← Course "blank" inserted at 1st position in WO prior to crushing and run thru fire assay for Au.QA/QC determined at –10 mesh and checked for compliance. Forced air and wire brush clean between all samples

↓

HOMOGENIZATION SPLITTING

Split - Jones Riffle to 250-300 grams

→ Submittal , inventory & sample preparation checked for QA/QC compliance prior to remote prep dispatch & arrival at Reno Laboratory

↓

PULVERIZATION

Reduce split >90% -150 Mesh Ring & Puck Pulverizer

← Tested barren sand is used for cleaning between each sample

→ QA/QC determined at 150 mesh and checked for compliance, recorded & charted

↓

WEIGHING

Sample Pulps - Weighing

←

↓

TO FIRE ASSAY

Fire Assay Gravimetric or Atomic Absorption Finish

↓ Base, Trace, & Toxic Metals Pathfinders ↓

↓

→ **TO GEOCHEMICAL LAB**

Geochemical Trace Level Overlimit and Concentrate Assaying

↓

ADMINISTRATION-REPORTING

Initial QA/QC data accessed by quality manager - samples for validation identified & submitted for cross reference - report generation.

Pacific Rim/Inspectorate Analytical Procedures

Pacific Rim's samples are analyzed at the laboratory of Inspectorate America Corporation in Sparks, Nevada using the following methodology:

Element	Inspectorate America Procedure Description	Lower Detection Limit	Description of Method
gold	FA-AA 30 g subsample	2 ppb	fire assay fusion of 30 gram sub-sample; analysis by atomic absorption spectrometer
gold	FA	0.005 gpt	fire assay fusion, gravimetric determination
silver	FA-AAS	0.1 ppm	cold vapour atomic absorption spectrometry
30 other elements	Aqua/ICP	varies by element	aqua regia acid digestion and ICP-AES analysis

Independent Sample Preparation and Analytical Procedures (Ronning and Ristorcelli)

The sample preparation sequence followed was:

- Samples were logged in to the laboratory's tracking system.
- Samples were dried in a drying oven.
- Samples were crushed using jaw and/or roller crushers to better than 70% minus 2 millimeters.
- 50 to 250 gram sub-samples were split from the crushed material using a riffle splitter.
- The sub-samples were pulverized to better than 85% passing through a 75 micron screen.

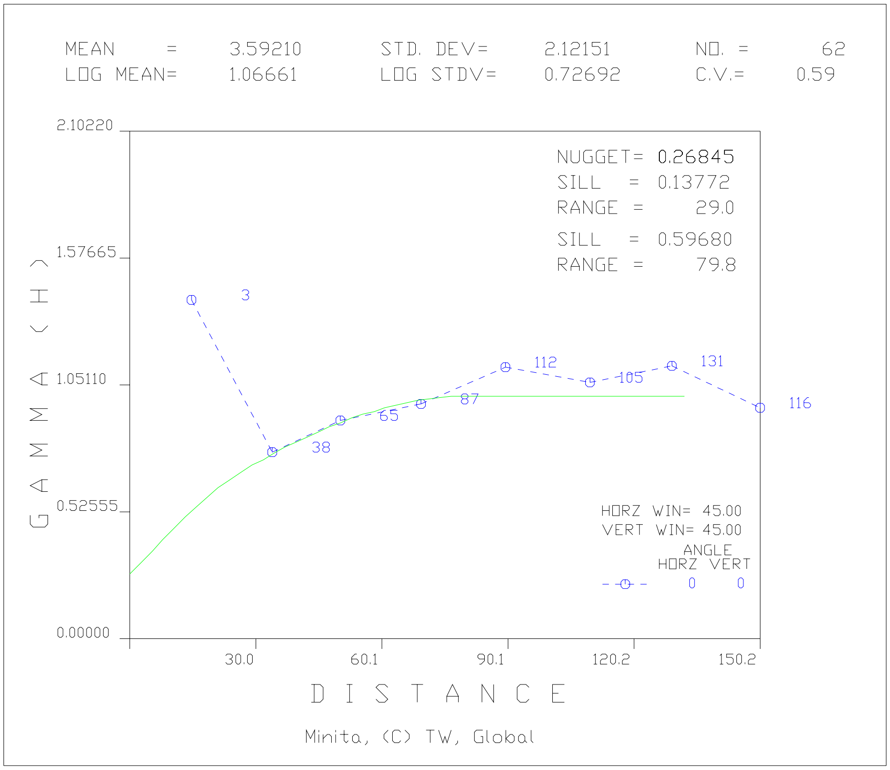
The analytical methods employed by ALS Chemex are:

Analytical Procedures Used on Independent Samples

Element	ALS Chemex Procedure Code	Detection Range, ppm	Description of Method
gold	Au-AA25	0.01 to 100	fire assay fusion of 30 gram sub-sample; analysis by atomic absorption spectrometer
silver	Ag-AA45	0.2 to 100	aqua regia acid digestion; analysis by atomic absorption spectrometry
silver	Ag-AA46	1 to 1,500	aqua regia acid digestion; analysis by atomic absorption spectrometry

Appendix D Correlograms, Minita, La Coyotera, Nueva Esperanza and South Minita Veins

MINITA VEIN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STD. DEV= 2.12151
LOG STDV= 0.72692
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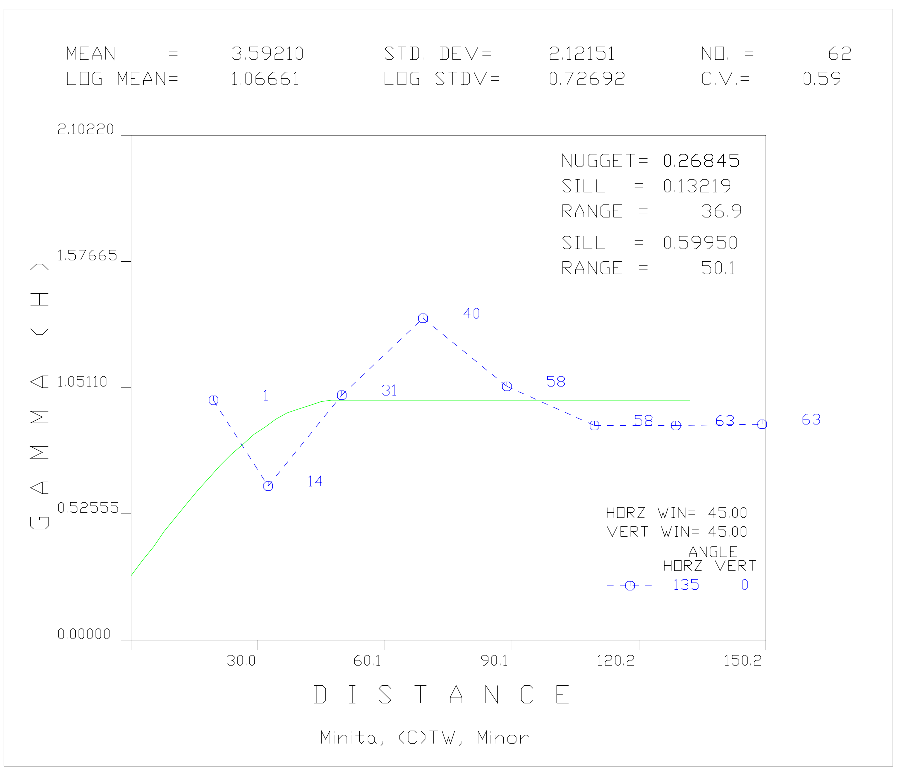
C.V.= 0.59
NUGGET= 0.26845
SILL = 0.13772
RANGE = 29.0
SILL = 0.59680
RANGE = 79.8
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
2.10220
1.57665
1.05110
0.52555
0.00000
GAMMA (H)
30.0
60.1
90.1
120.2
150.2
DISTANCE
Minita, (C) TW, Global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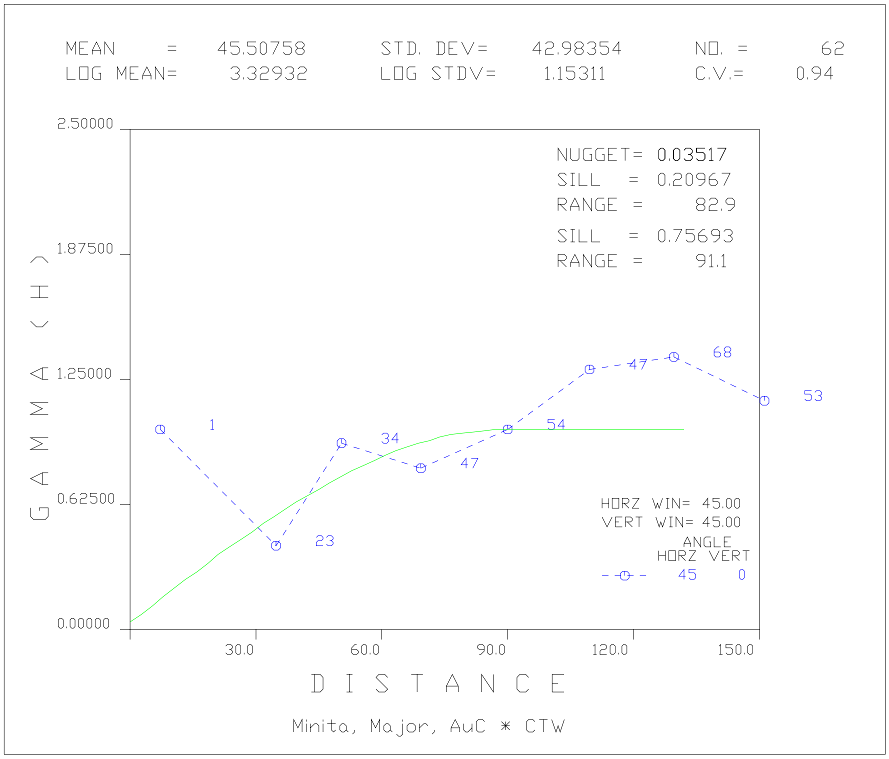
LOG MEAN= 1.06661
STD. DEV= 2.12151
LOG STDV= 0.72692
NO. = 62
C.V.= 0.59
NUGGET= 0.26845
SILL = 0.13219
RANGE = 36.9
SILL = 0.59950
RANGE = 50.1
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
135 0
2.10220
1.57665
1.05110
0.52555
0.00000
GAMMA (H)
30.0
60.1
90.1
120.2
150.2
DISTANCE
Minita, (C)TW, Minor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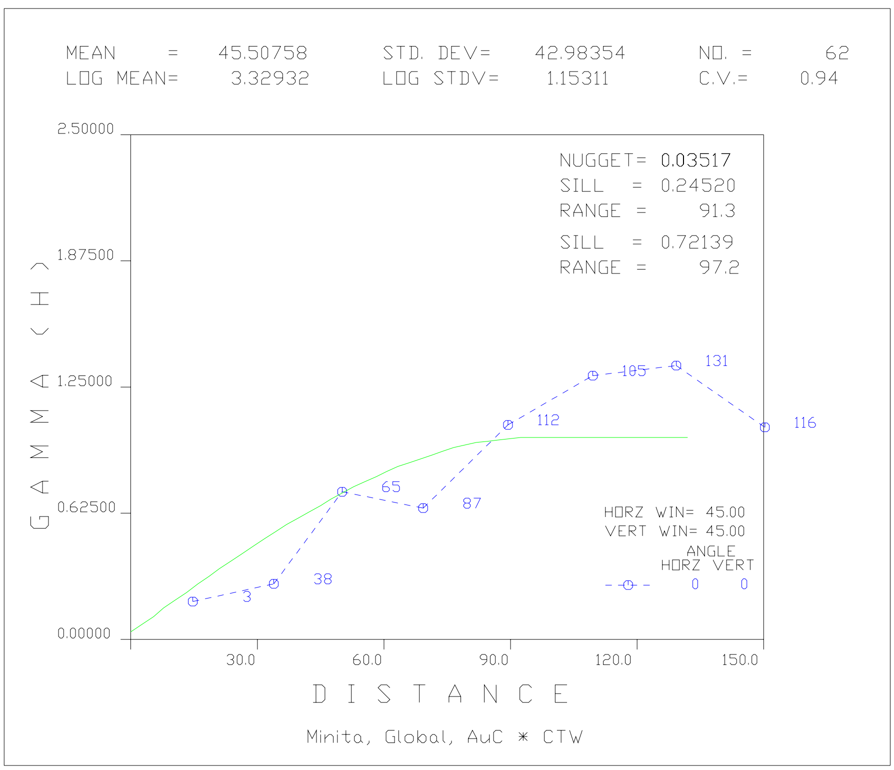
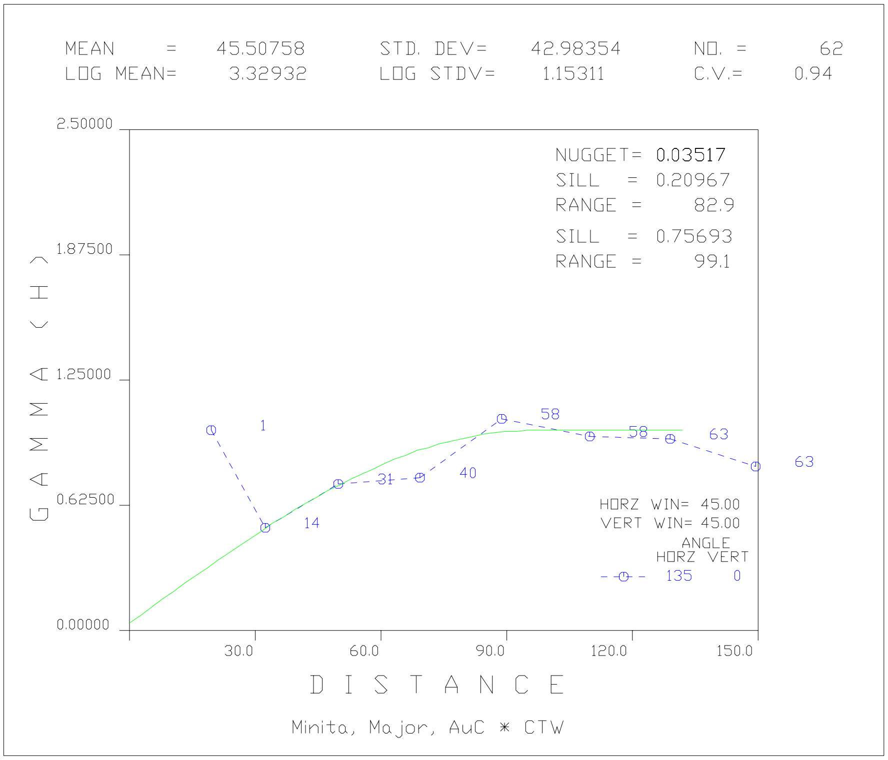
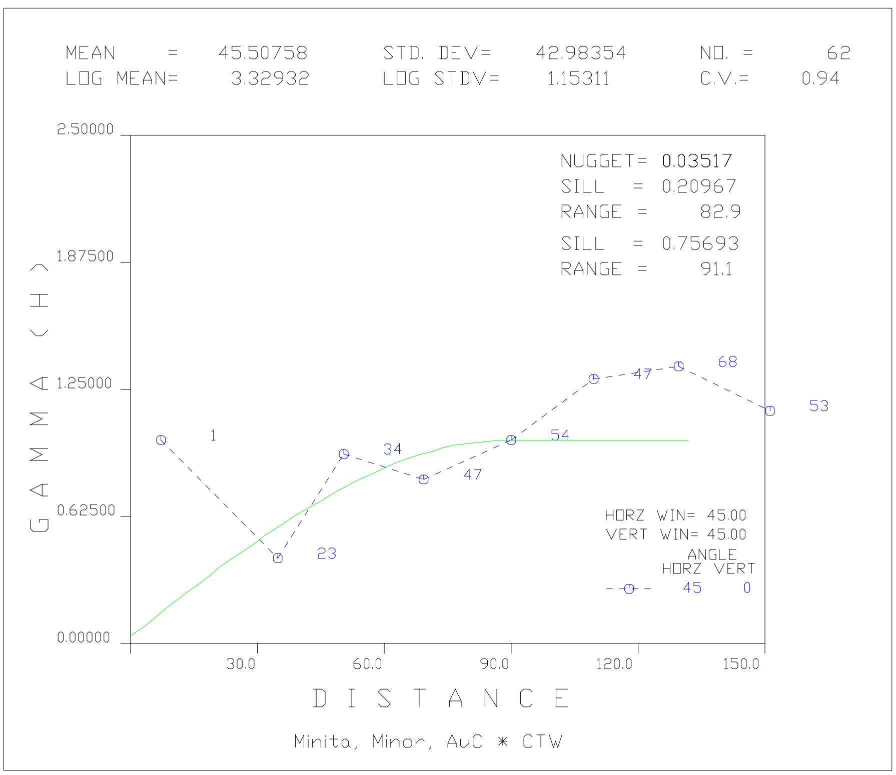
NO. = 62
LOG MEAN= 3.32932
LOG STDV= 1.15311
C.V.= 0.94
NUGGET= 0.03517
SILL = 0.20967
RANGE = 82.9
SILL = 0.75693
RANGE = 91.1
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
45 0
GAMMA (H)
DISTANCE
Minita, Major, AuC * CTW


MEAN = 45.50758
STD. DEV= 42.98354
NO. = 62
LOG MEAN= 3.32932
LOG STDV= 1.15311
C.V.= 0.94
NUGGET= 0.03517
SILL = 0.24520
RANGE = 91.3
SILL = 0.72139
RANGE = 97.2
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Minita, Global, AuC * CTW


MEAN = 45.50758
STD. DEV= 42.98354
NO. = 62
LOG MEAN= 3.32932
LOG STDV= 1.15311
C.V.= 0.94
NUGGET= 0.03517
SILL = 0.20967
RANGE = 82.9
SILL = 0.75693
RANGE = 99.1
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
135 0
G A M M A (H)
D I S T A N C E
Minita, Major, AuC * CTW


MEAN = 45.50758
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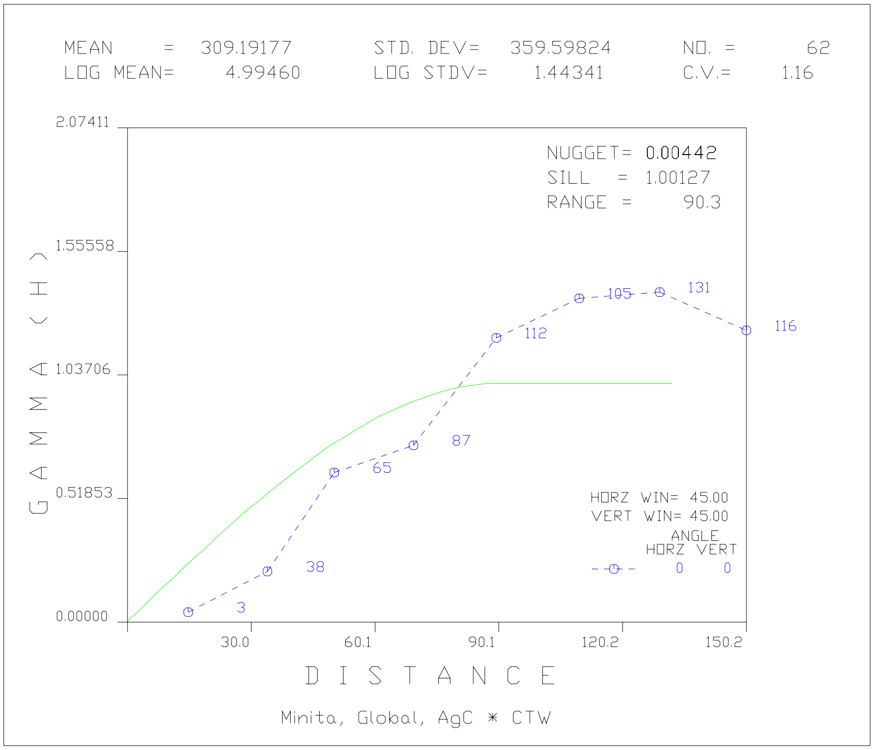
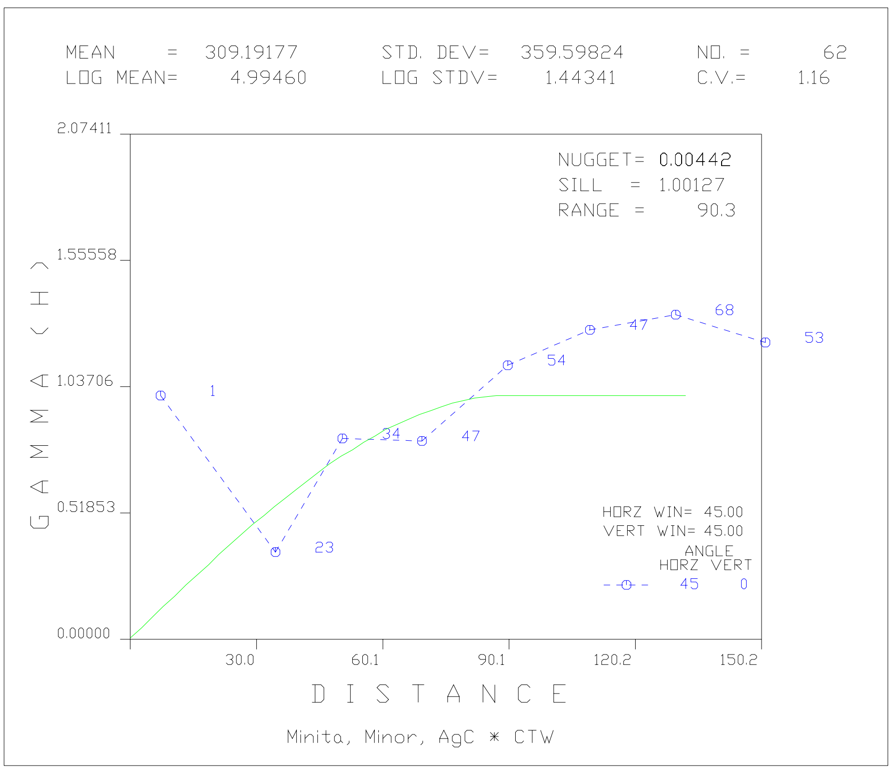
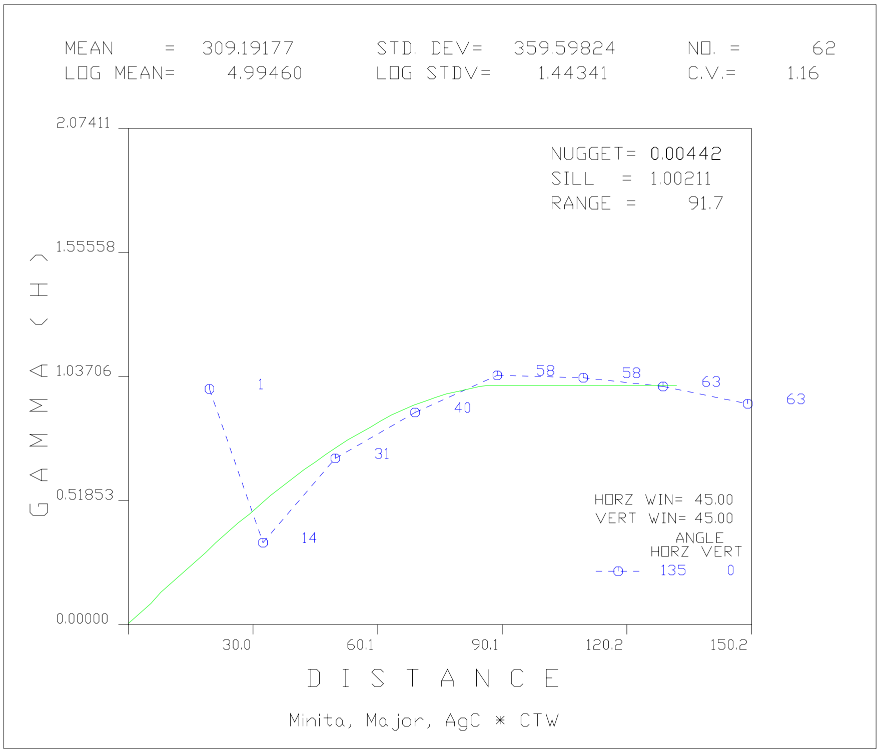
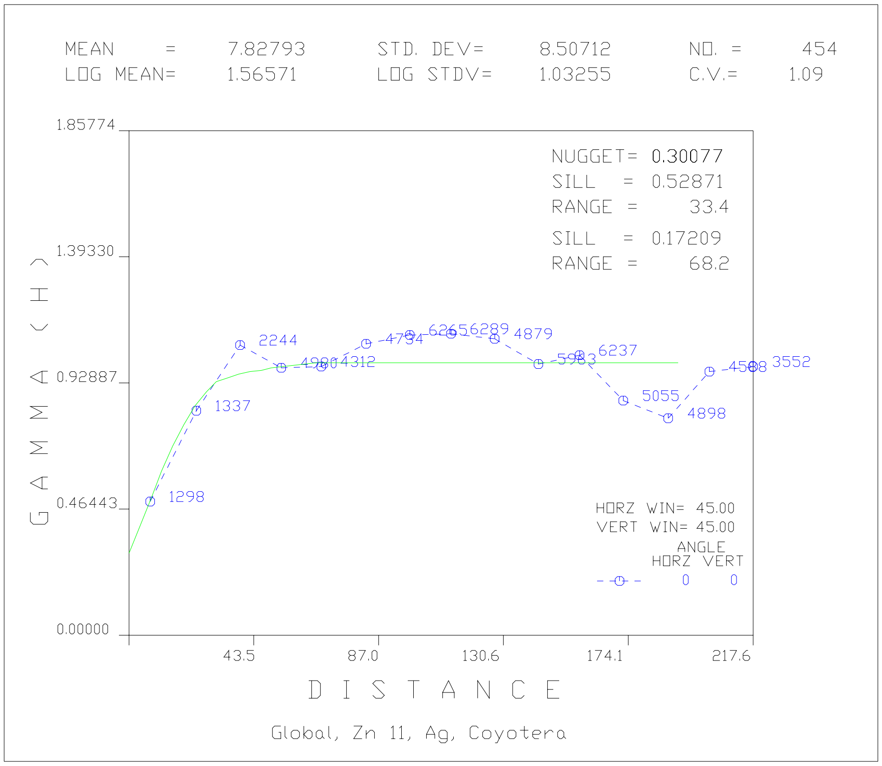
NO. = 62
LOG MEAN= 3.32932
LOG STDV= 1.15311
C.V.= 0.94
NUGGET= 0.03517
SILL = 0.20967
RANGE = 82.9
SILL = 0.75693
RANGE = 91.1
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
45 0
G A M M A (H)
D I S T A N C E
Minita, Minor, AuC * CTW

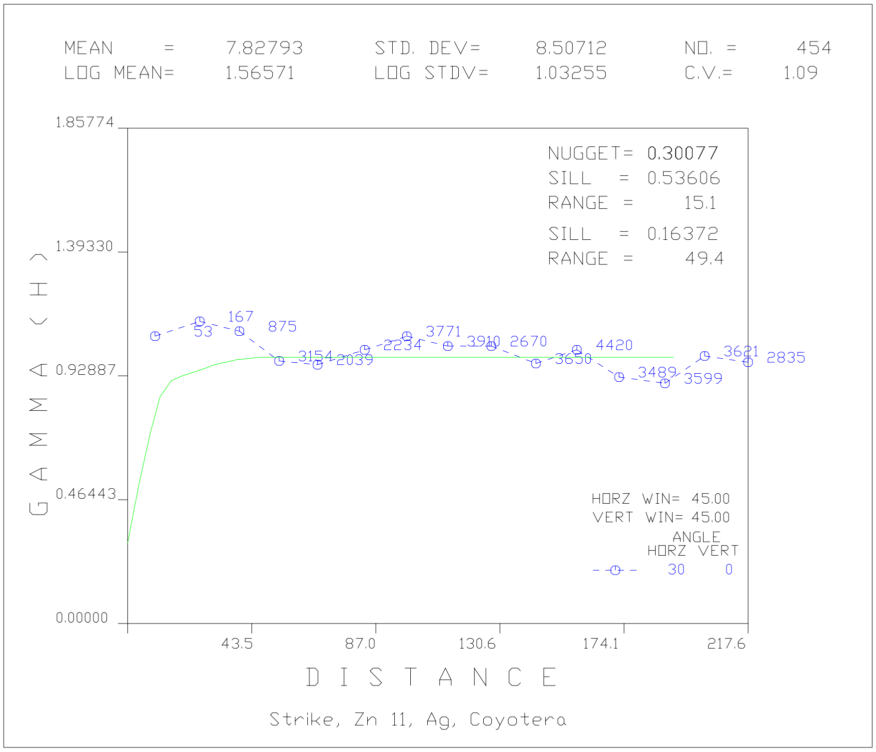

MEAN = 309.19177
STD. DEV= 359.59824
NO. = 62
LOG MEAN= 4.99460
LOG STDV= 1.44341
C.V.= 1.16
NUGGET= 0.00442
SILL = 1.00127
RANGE = 90.3
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
G A M M A (H)
D I S T A N C E
Minita, Global, AgC * CTW

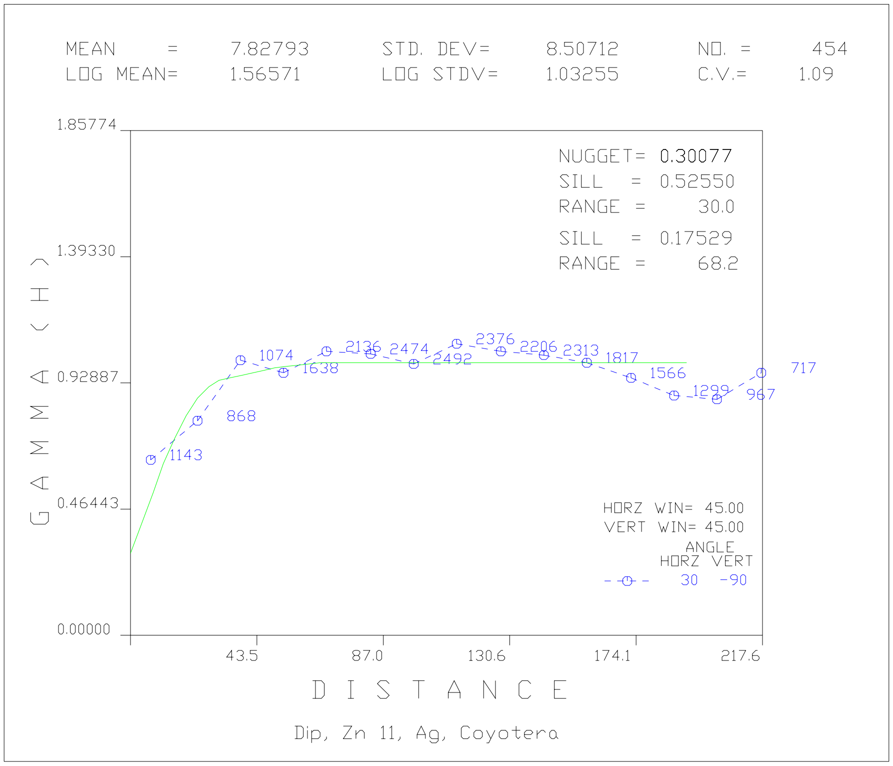

MEAN = 309.19177
STD. DEV= 359.59824
NO. = 62
LOG MEAN= 4.99460
LOG STDV= 1.44341
C.V.= 1.16
NUGGET= 0.00442
SILL = 1.00127
RANGE = 90.3
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
45 0
G A M M A (H)
D I S T A N C E
Minita, Minor, AgC * CTW


MEAN = 309.19177
STD. DEV= 359.59824
NO. = 62
LOG MEAN= 4.99460
LOG STDV= 1.44341
C.V.= 1.16
NUGGET= 0.00442
SILL = 1.00211
RANGE = 91.7
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
135 0
G A M M A (H)
2.07411
1.55558
1.03706
0.51853
0.00000
30.0
60.1
90.1
120.2
150.2
D I S T A N C E
1
14
31
40
58
58
63
63
Minita, Major, AgC * CTW

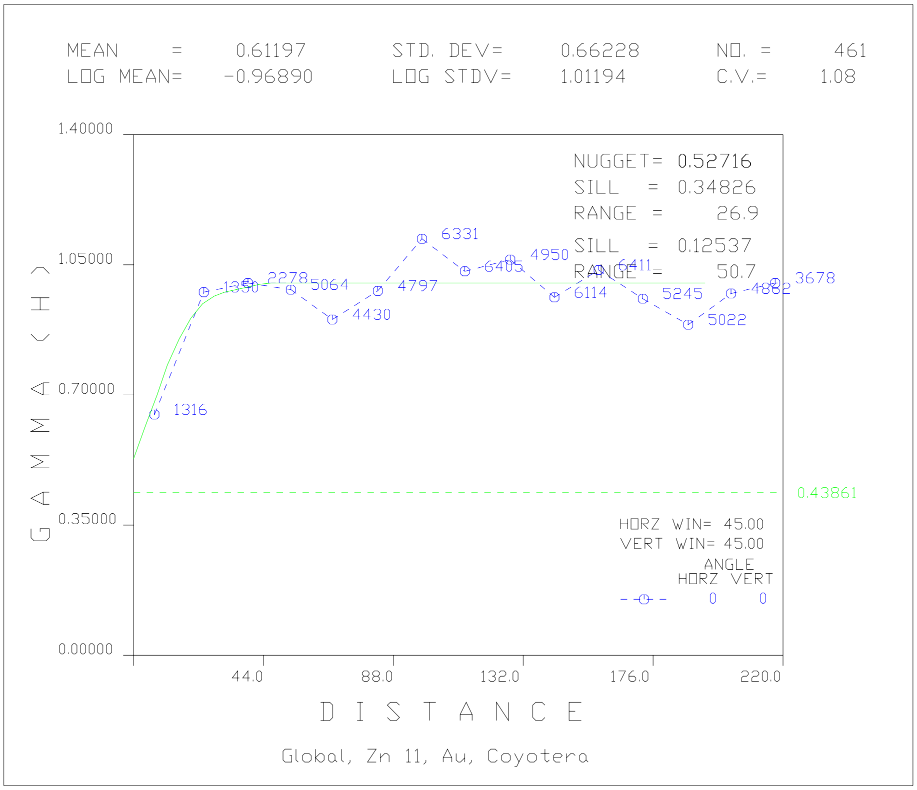
LA COYOTERA VEIN

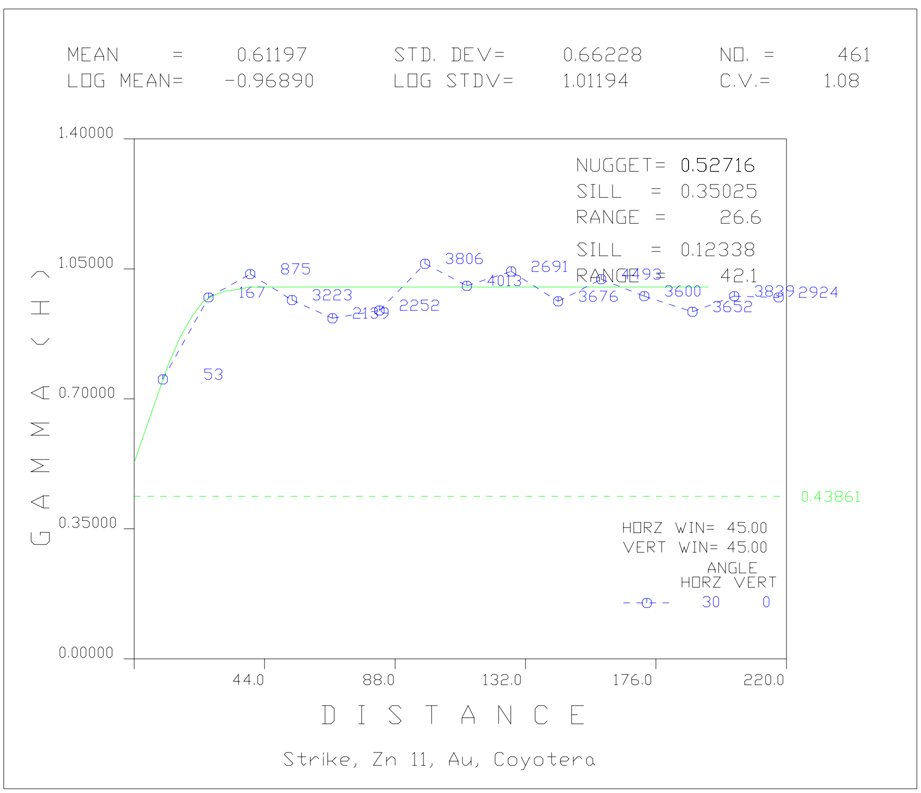


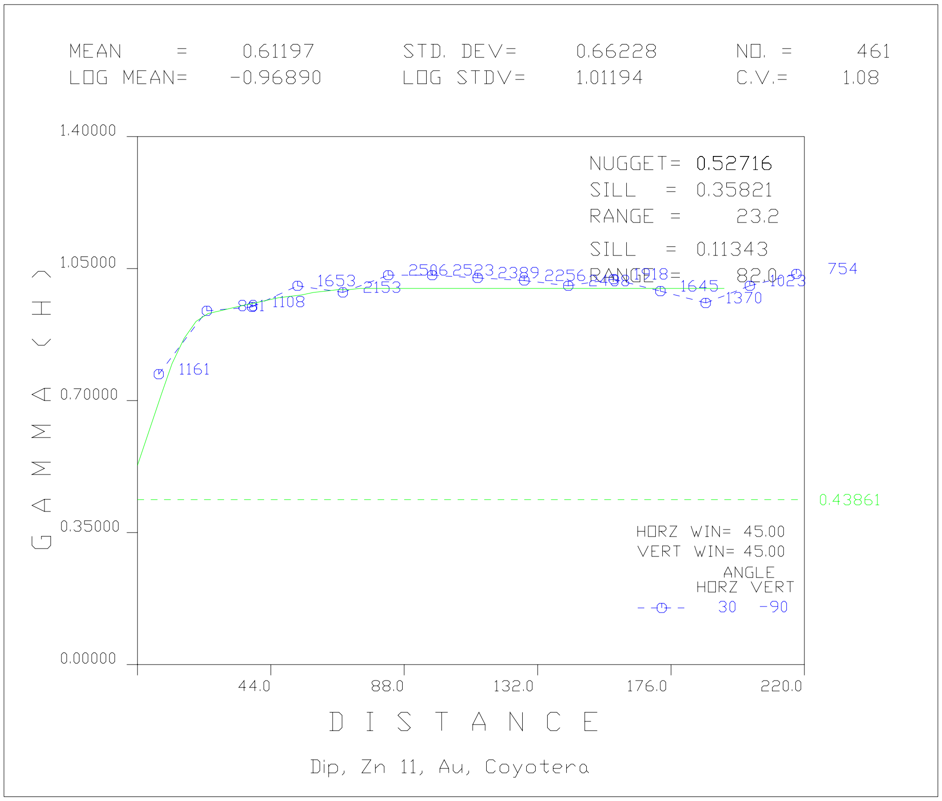




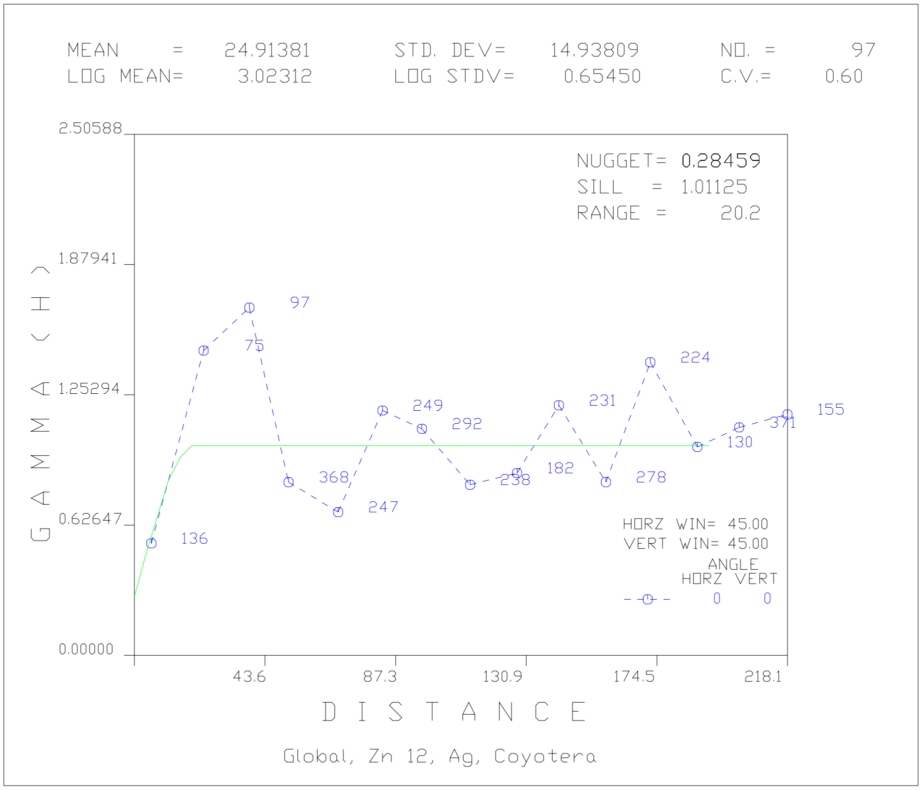
Across, Zone 11, Ag, La Coyotera not plotted due to insufficient samples and no structure

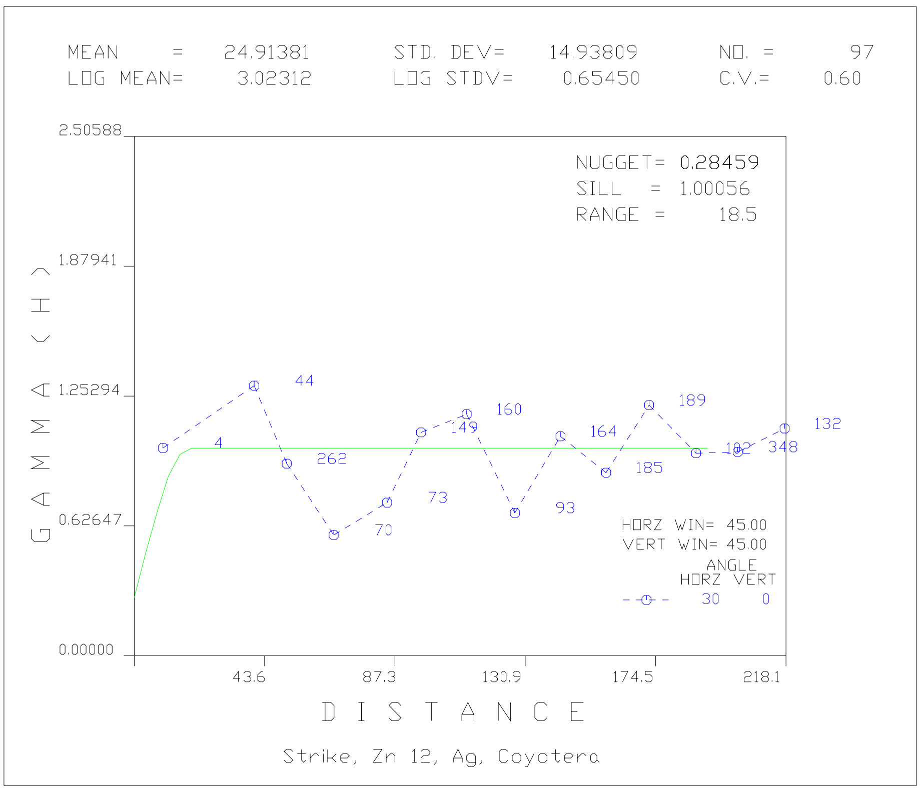

MEAN = 0.61197 STD. DEV= 0.66228 NO. = 461
LOG MEAN= -0.96890 LOG STDV= 1.01194 C.V.= 1.08
NUGGET= 0.52716
SILL = 0.34826
RANGE = 26.9
SILL = 0.12537
RANGE = 50.7
0.43861
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, Zn 11, Au, Coyotera

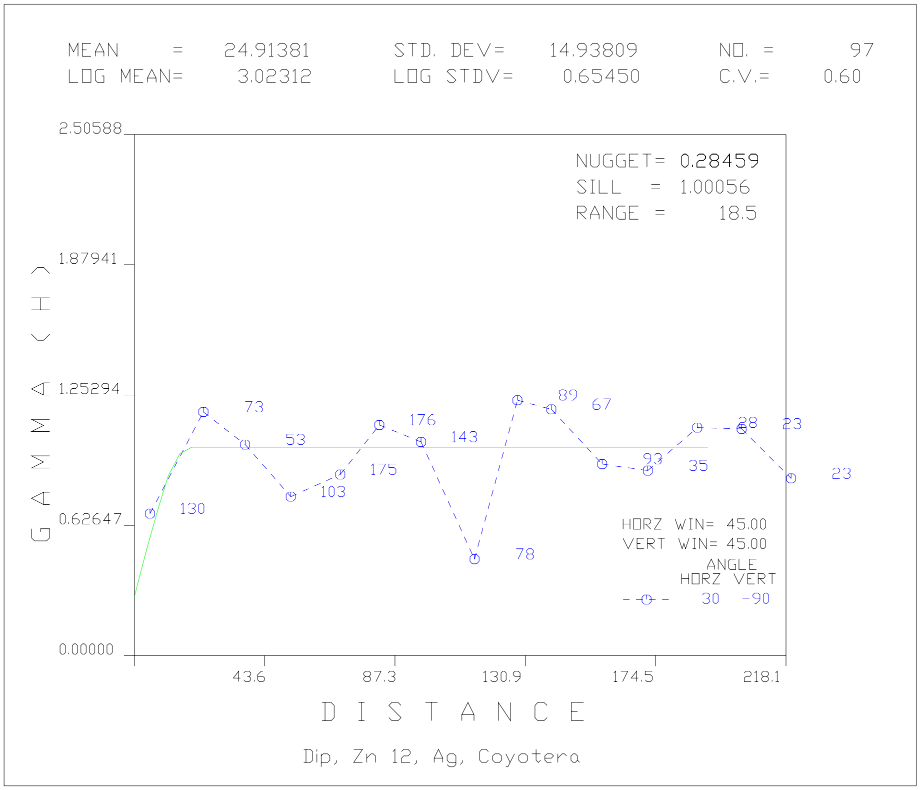

MEAN = 0.61197 STD. DEV= 0.66228 NO. = 461
LOG MEAN= -0.96890 LOG STDV= 1.01194 C.V.= 1.08
NUGGET= 0.52716
SILL = 0.35025
RANGE = 26.6
SILL = 0.12338
RANGE = 42.1
0.43861
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
30 0
GAMMA (H)
DISTANCE
Strike, Zn 11, Au, Coyotera



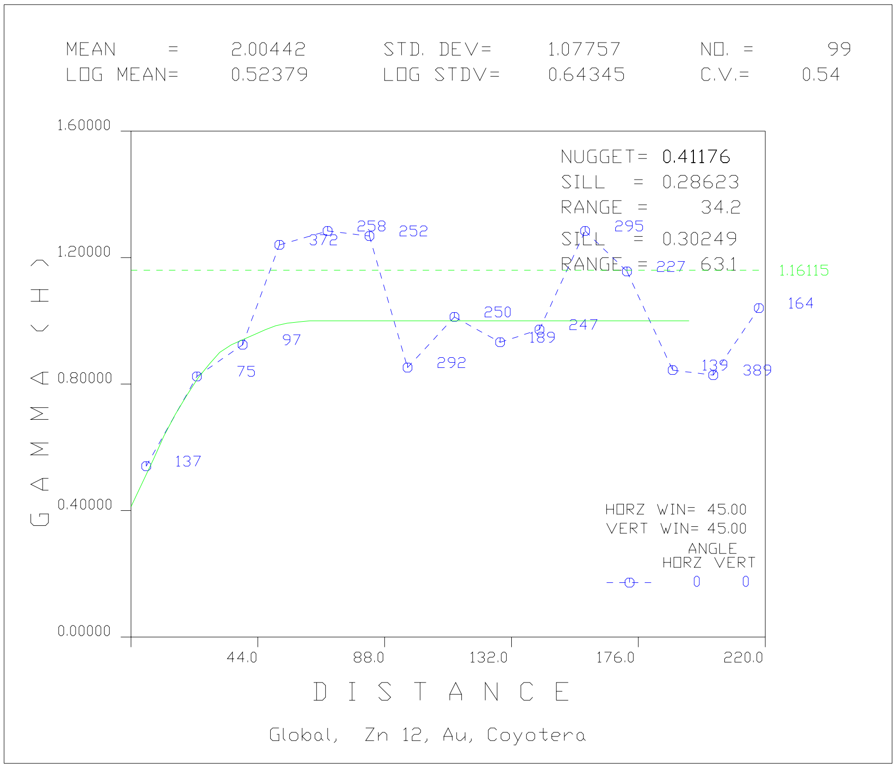
Across, Zone 11, Au, La Coyotera not plotted due to insufficient samples and no structure


MEAN = 24.91381
LOG MEAN= 3.02312
STD. DEV= 14.93809
LOG STDV= 0.65450
NO. = 97
C.V.= 0.60
NUGGET= 0.28459
SILL = 1.01125
RANGE = 20.2
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
G A M M A (H)
D I S T A N C E
Global, Zn 12, Ag, Coyotera

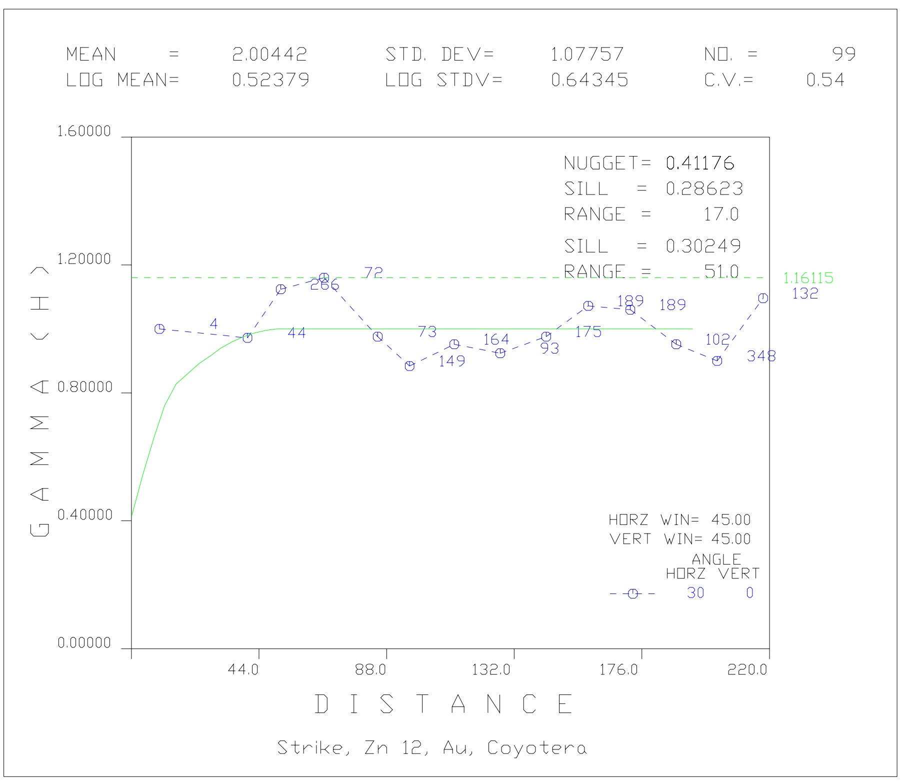

MEAN = 24.91381
LOG MEAN= 3.02312
STD. DEV= 14.93809
LOG STDV= 0.65450
NO. = 97
C.V.= 0.60
NUGGET= 0.28459
SILL = 1.00056
RANGE = 18.5
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
30 0
G A M M A (H)
D I S T A N C E
Strike, Zn 12, Ag, Coyotera



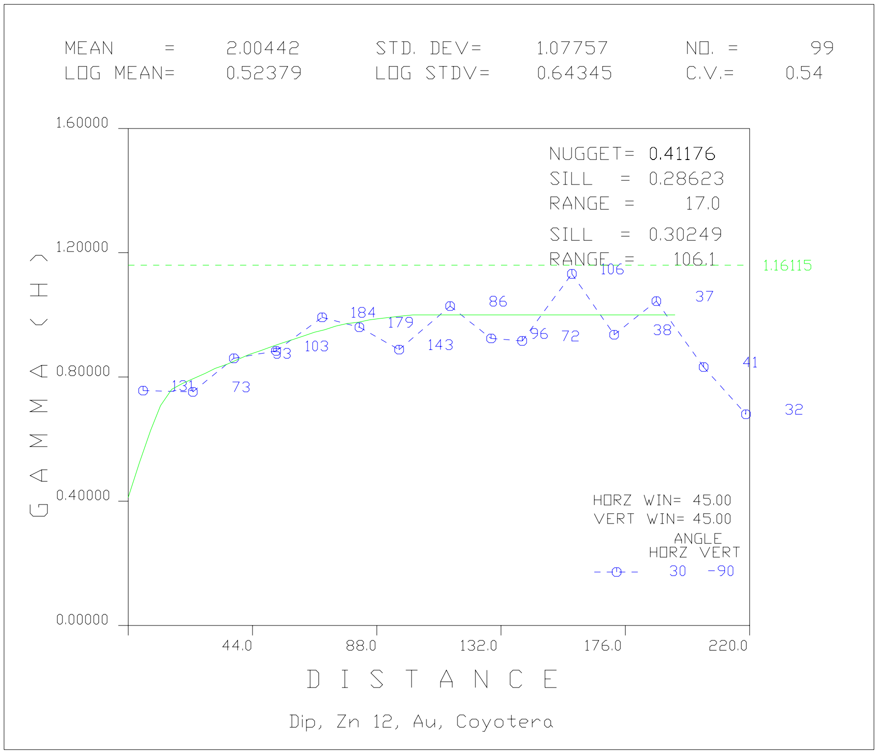
Across, Zone 12, Ag, La Coyotera not plotted due to insufficient samples and no structure



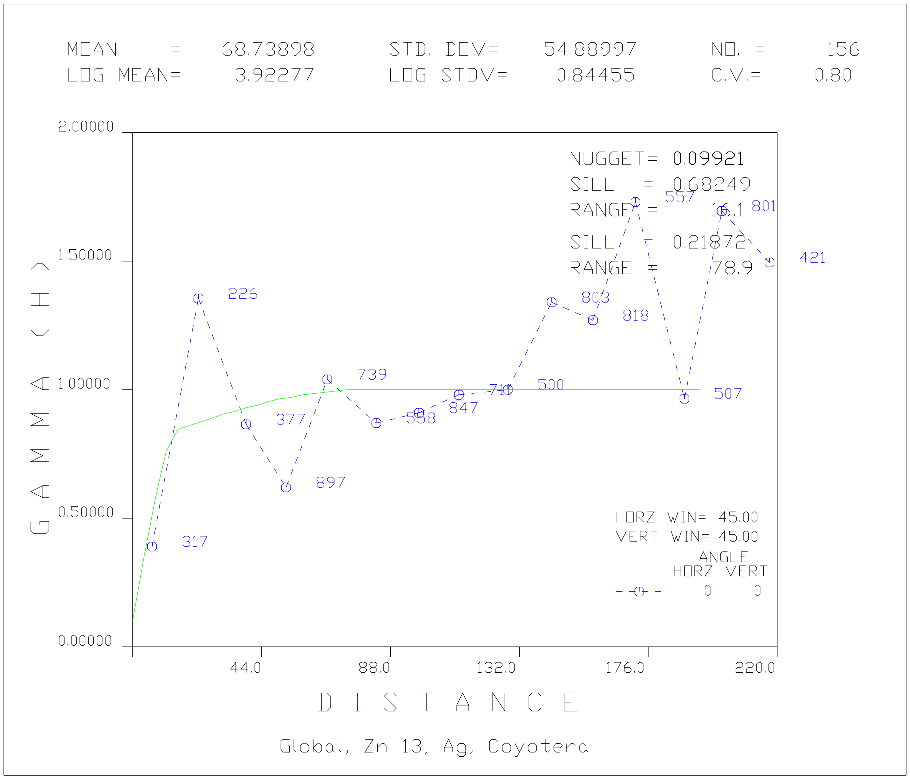
MEAN = 2.00442
LOG MEAN= 0.52379
STD. DEV= 1.07757
LOG STDV= 0.64345
NO. = 99
C.V.= 0.54
NUGGET= 0.41176
SILL = 0.28623
RANGE = 34.2
SILL = 0.30249
RANGE = 63.1
1.16115
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
G A M M A (H)
D I S T A N C E
Global, Zn 12, Au, Coyotera

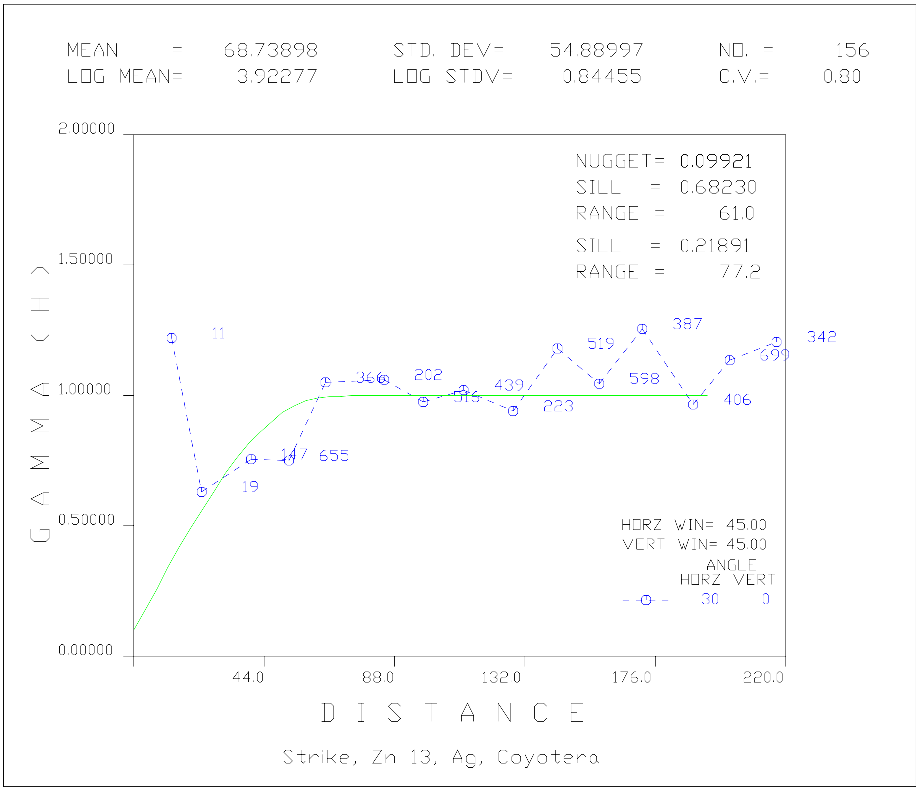


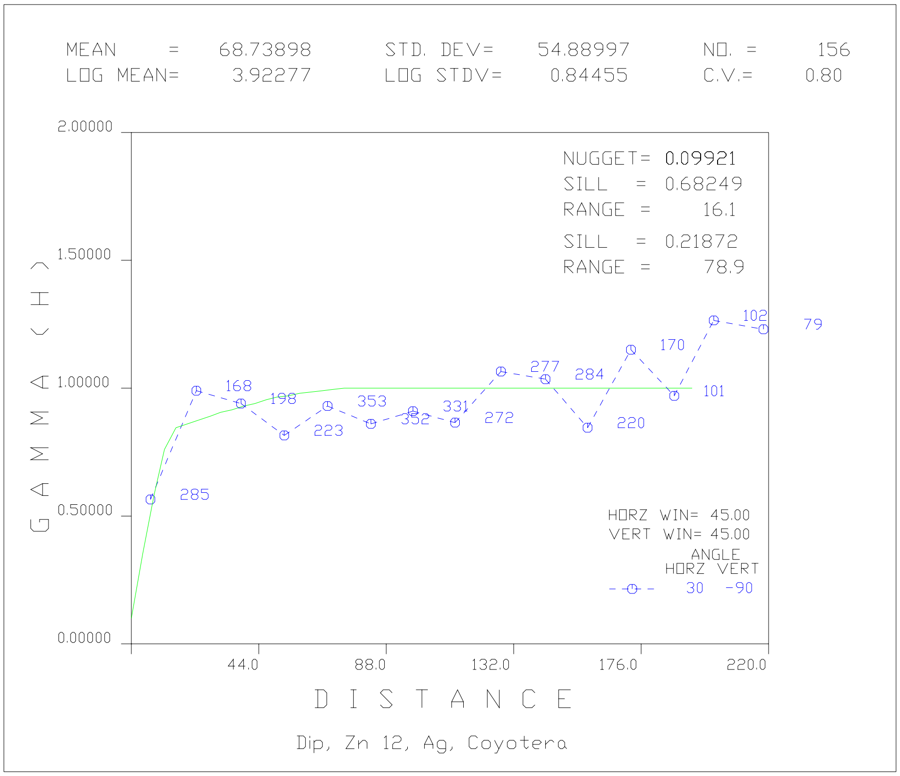
MEAN = 2.00442
LOG MEAN= 0.52379
STD. DEV= 1.07757
LOG STDV= 0.64345
NO. = 99
C.V.= 0.54
NUGGET= 0.41176
SILL = 0.28623
RANGE = 17.0
SILL = 0.30249
RANGE = 51.0
1.16115
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
30 0
G A M M A (H)
D I S T A N C E
Strike, Zn 12, Au, Coyotera

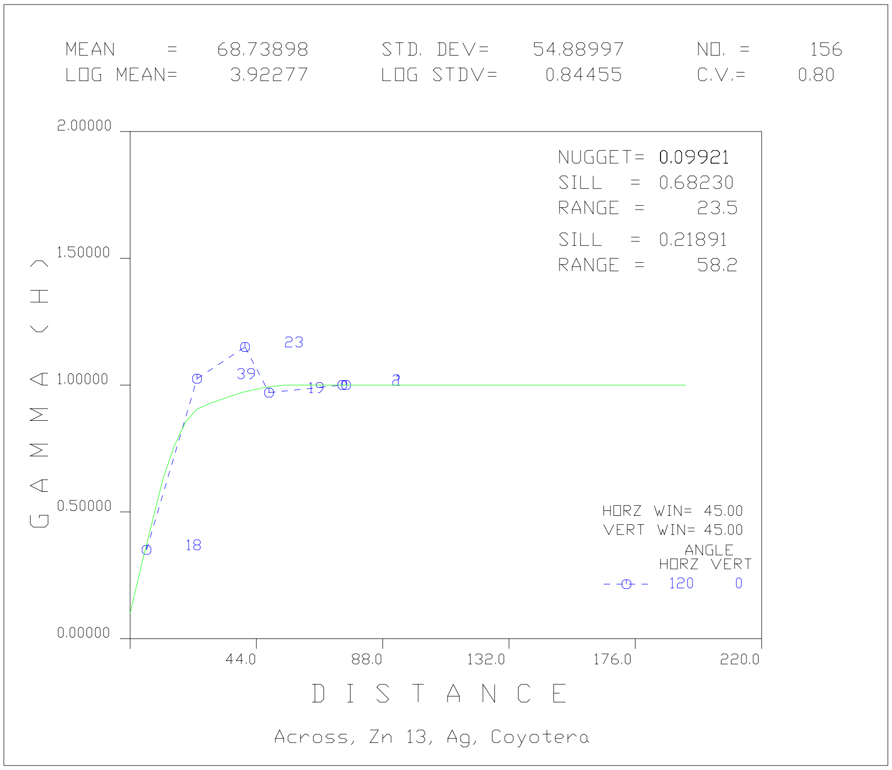


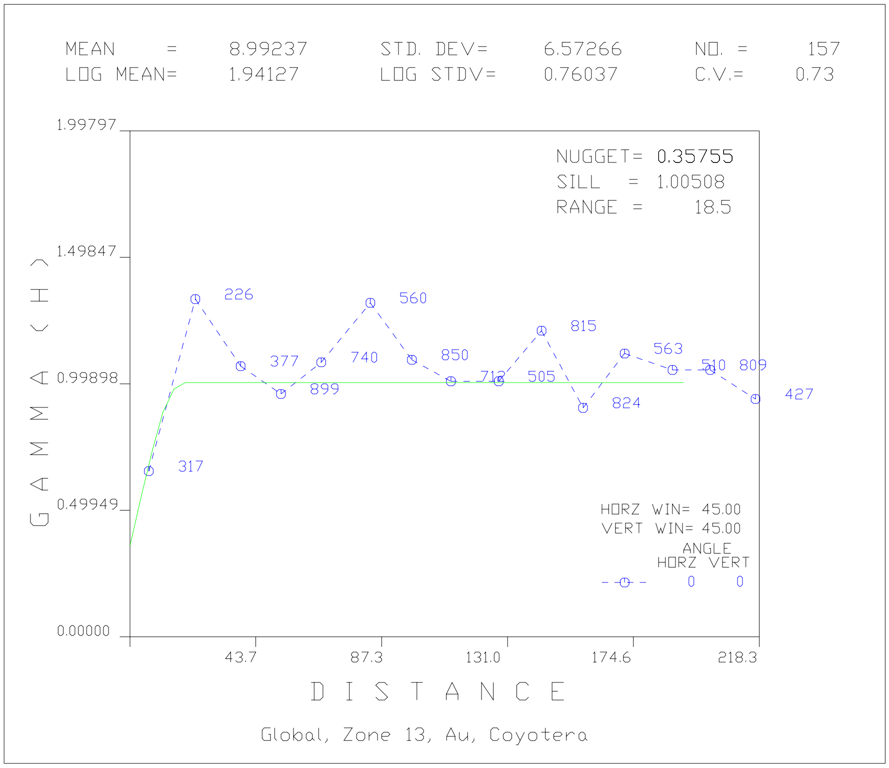
Across, Zone 12, Au, La Coyotera not plotted due to insufficient samples and no structure

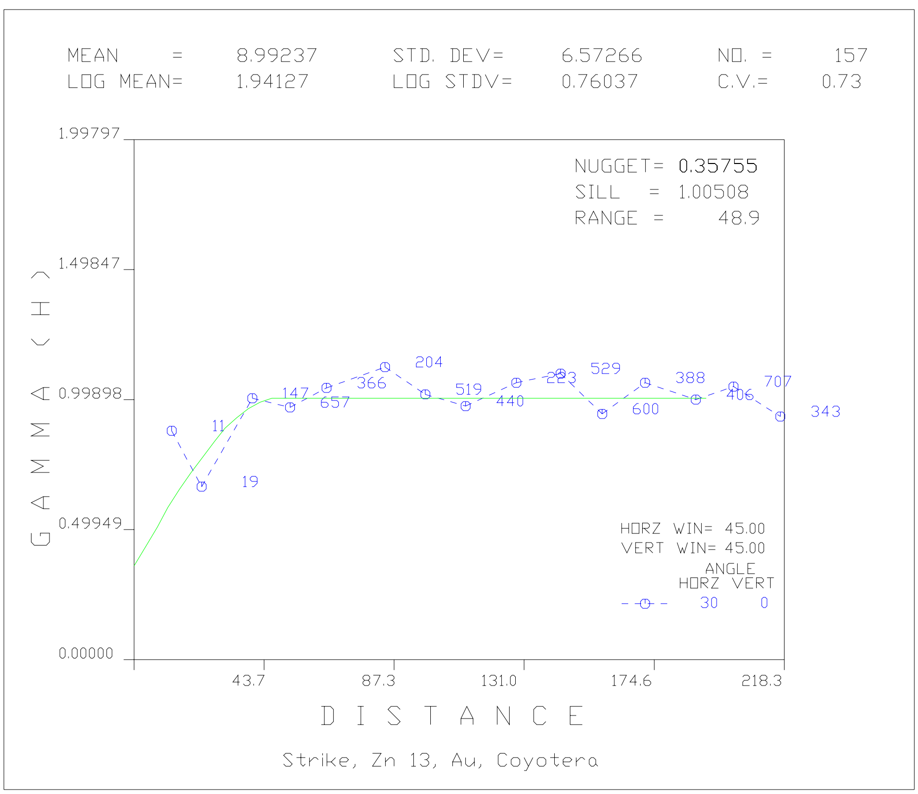

MEAN = 68.73898 STD. DEV= 54.88997 NO. = 156
LOG MEAN= 3.92277 LOG STDV= 0.84455 C.V.= 0.80
NUGGET= 0.09921
SILL = 0.68249
RANGE = 16.1
SILL = 0.21872
RANGE = 78.9
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
G A M M A (H)
D I S T A N C E
Global, Zn 13, Ag, Coyotera

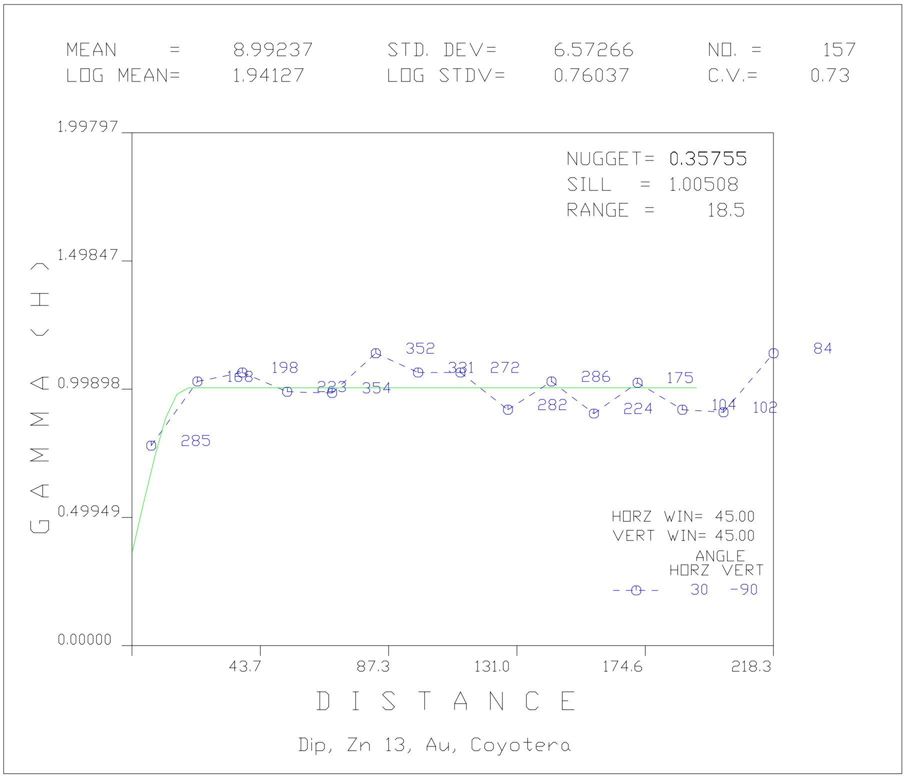

MEAN = 68.73898 STD. DEV= 54.88997 NO. = 156
LOG MEAN= 3.92277 LOG STDV= 0.84455 C.V.= 0.80
NUGGET= 0.09921
SILL = 0.68230
RANGE = 61.0
SILL = 0.21891
RANGE = 77.2
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
30 0
G A M M A (H)
D I S T A N C E
Strike, Zn 13, Ag, Coyotera


MEAN = 68.73898
STD. DEV= 54.88997
NO. = 156
LOG MEAN= 3.92277
LOG STDV= 0.84455
C.V.= 0.80
NUGGET= 0.09921
SILL = 0.68249
RANGE = 16.1
SILL = 0.21872
RANGE = 78.9
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
30 -90
G A M M A (H)
D I S T A N C E
Dip, Zn 12, Ag, Coyotera


MEAN = 68.73898
STD. DEV= 54.88997
NO. = 156
LOG MEAN= 3.92277
LOG STDV= 0.84455
C.V.= 0.80
NUGGET= 0.09921
SILL = 0.68230
RANGE = 23.5
SILL = 0.21891
RANGE = 58.2
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
120 0
G A M M A (H)
D I S T A N C E
Across, Zn 13, Ag, Coyotera

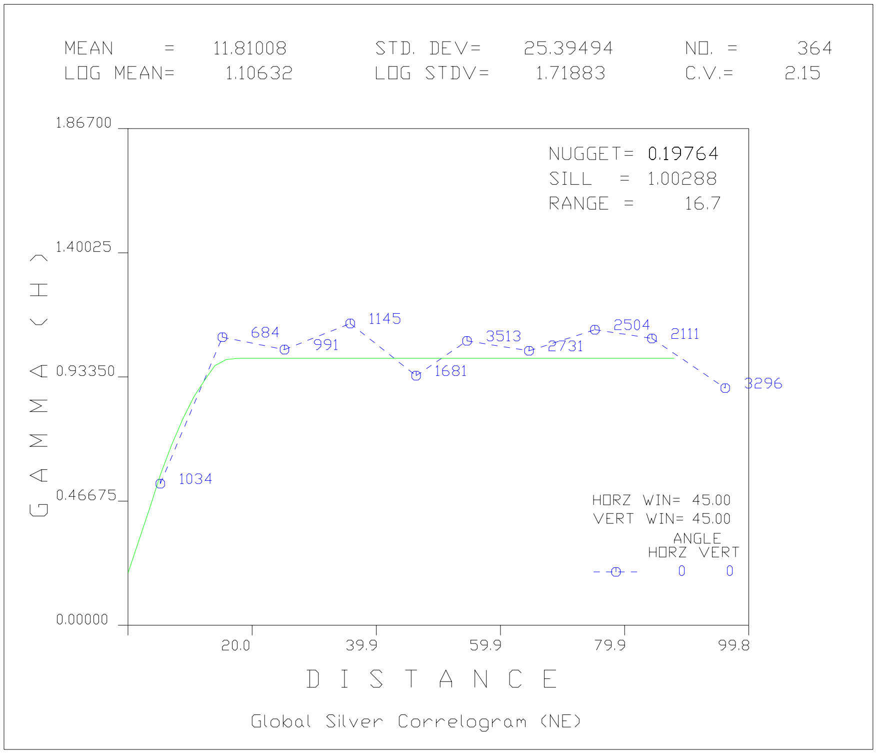

MEAN = 8.99237 STD. DEV= 6.57266 NO. = 157
LOG MEAN= 1.94127 LOG STDV= 0.76037 C.V.= 0.73
NUGGET= 0.35755
SILL = 1.00508
RANGE = 18.5
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
G A M M A (H)
D I S T A N C E
Global, Zone 13, Au, Coyotera

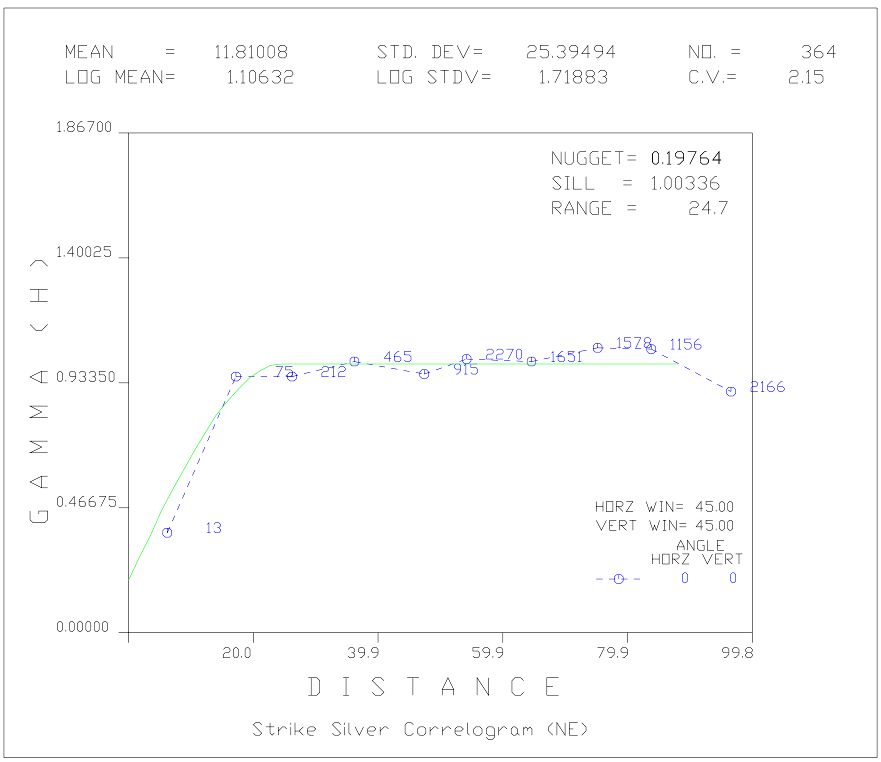

MEAN = 8.99237 STD. DEV= 6.57266 NO. = 157
LOG MEAN= 1.94127 LOG STDV= 0.76037 C.V.= 0.73
NUGGET= 0.35755
SILL = 1.00508
RANGE = 48.9
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
30 0
G A M M A (H)
D I S T A N C E
Strike, Zn 13, Au, Coyotera

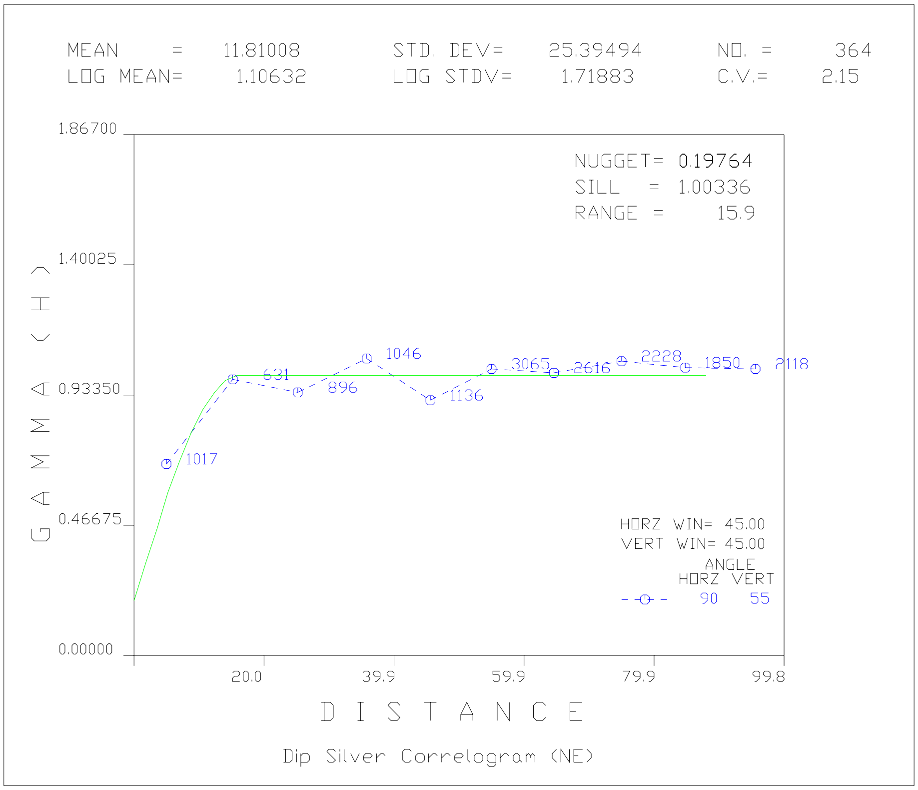


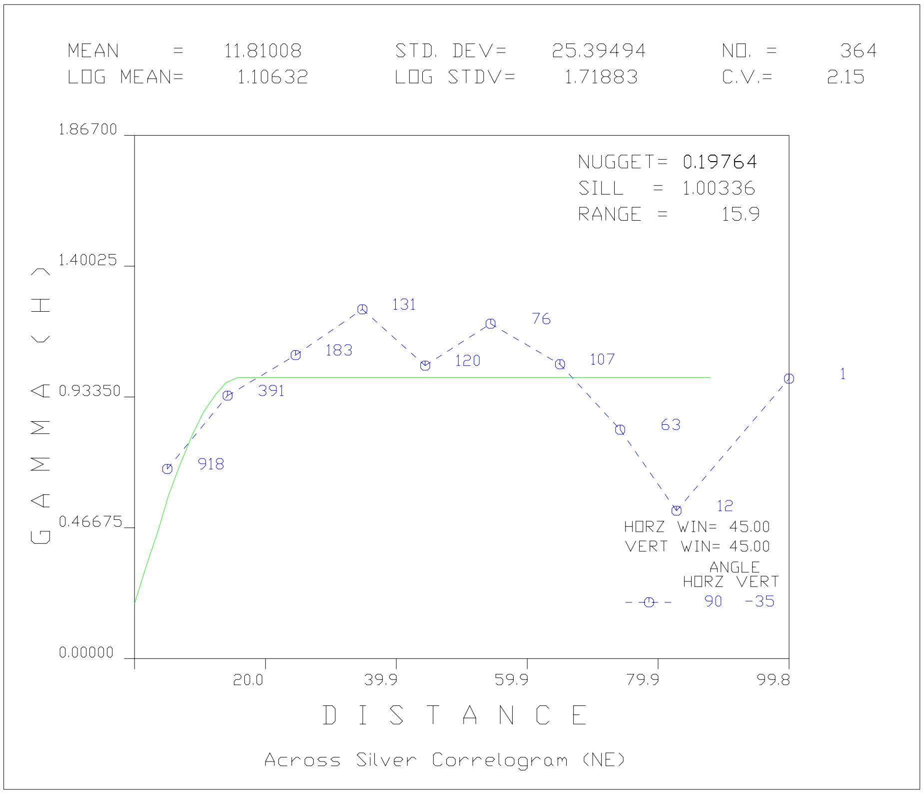
Across, Zone 13, Au, La Coyotera not plotted due to insufficient samples and no structure

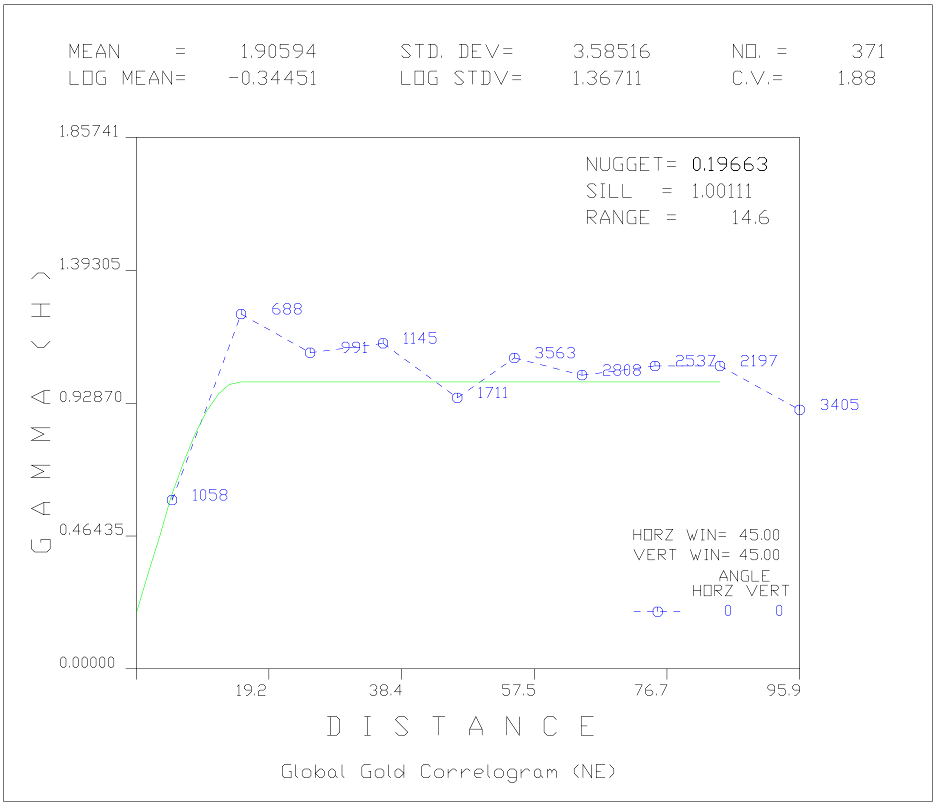
NUEVA ESPERANZA



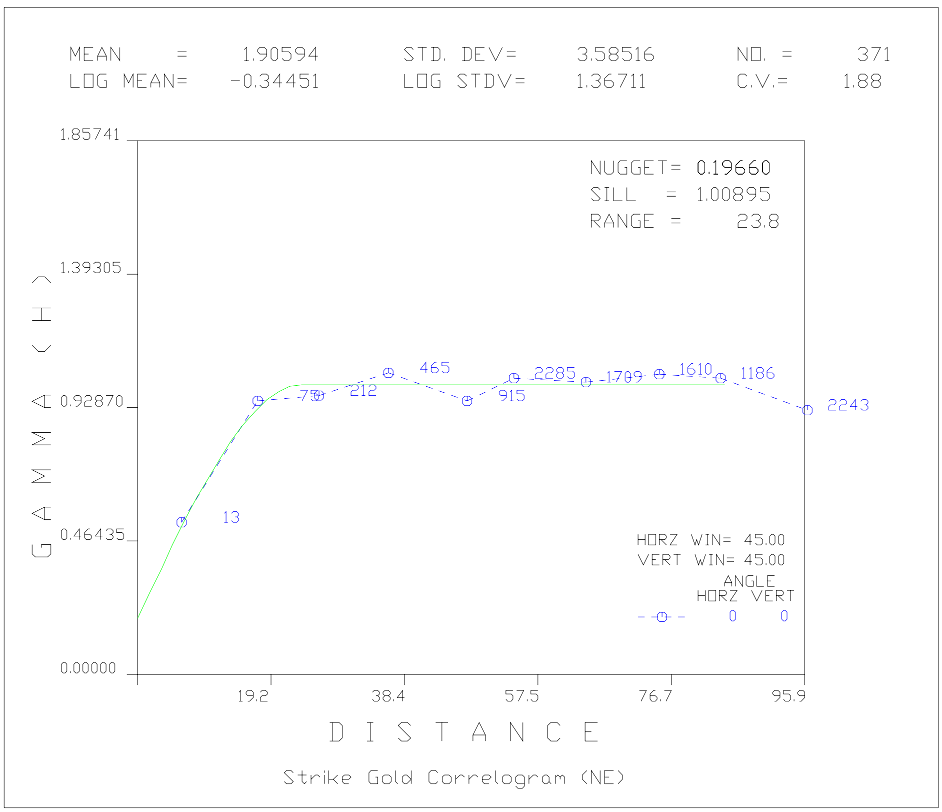



MEAN = 11.81008
STD. DEV= 25.39494
NO. = 364
LOG MEAN= 1.10632
LOG STDV= 1.71883
C.V.= 2.15
NUGGET= 0.19764
SILL = 1.00336
RANGE = 15.9
GAMMA (H)
1.86700
1.40025
0.93350
0.46675
0.00000
1017
631
896
1046
1136
3065
2616
2228
1850
2118
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
90 55
20.0
39.9
59.9
79.9
99.8
DISTANCE
Dip Silver Correlogram (NE)

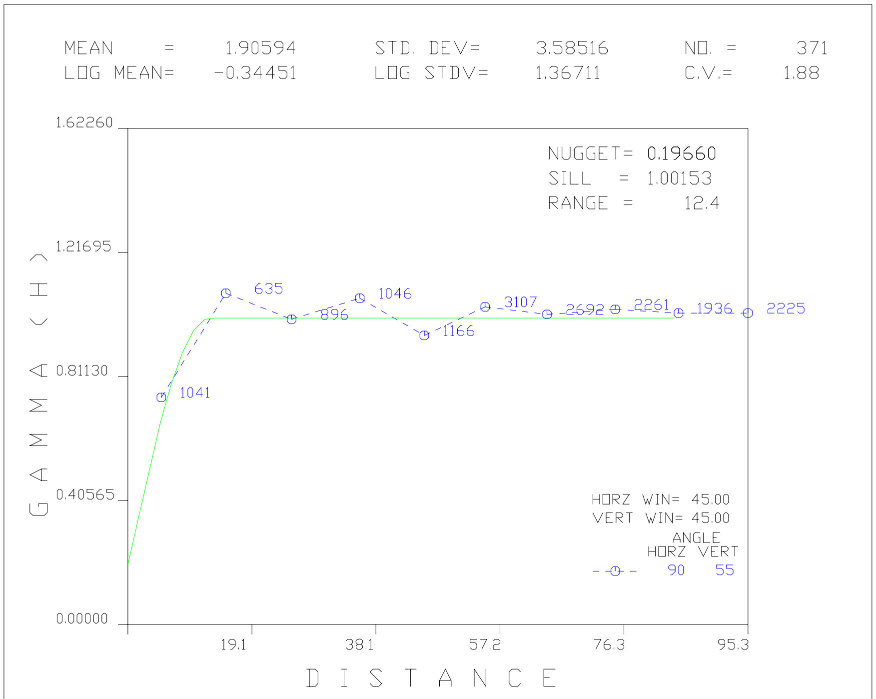

MEAN = 11.81008
STD. DEV= 25.39494
NO. = 364
LOG MEAN= 1.10632
LOG STDV= 1.71883
C.V.= 2.15
NUGGET= 0.19764
SILL = 1.00336
RANGE = 15.9
GAMMA (H)
1.86700
1.40025
0.93350
0.46675
0.00000
918
391
183
131
120
76
107
63
12
1
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
90 -35
20.0
39.9
59.9
79.9
99.8
DISTANCE
Across Silver Correlogram (NE)



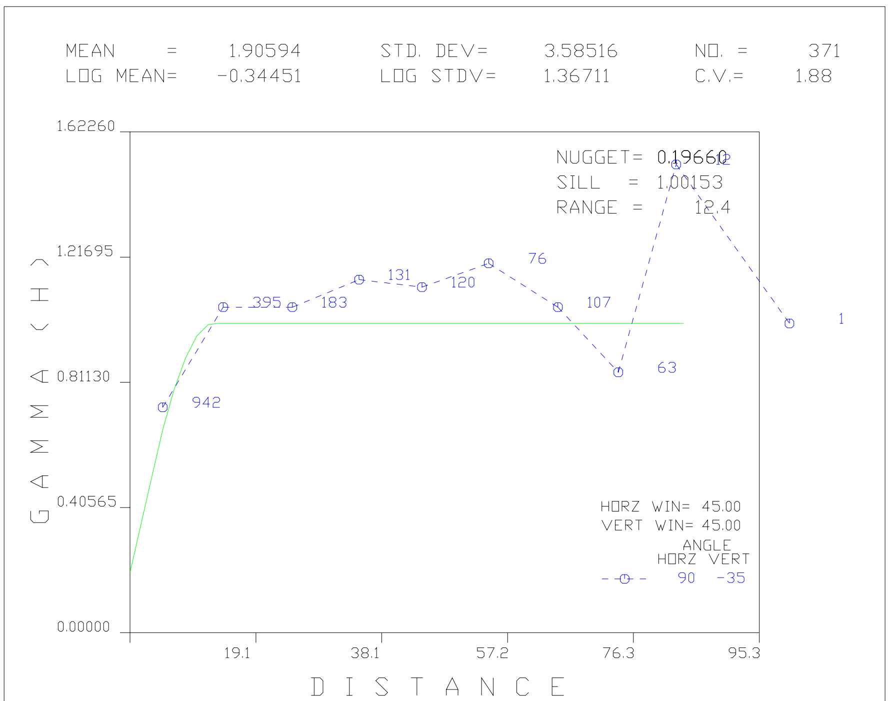
Global Gold Correlogram (NE)



Strike Gold Correlogram (NE)



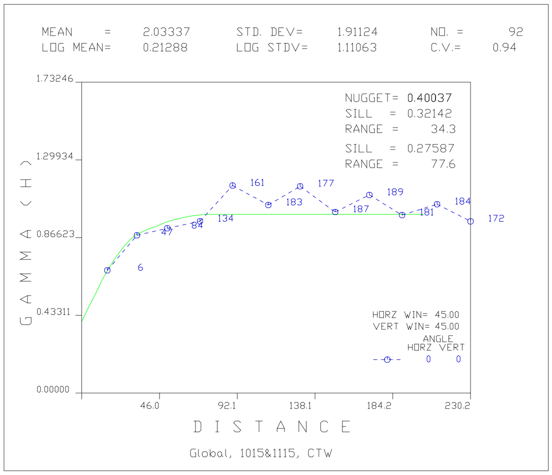
Dip Gold Correlogram (NE)



Across Gold Correlogram (NE)

SOUTH MINITA

Calculated True Width (CTW)



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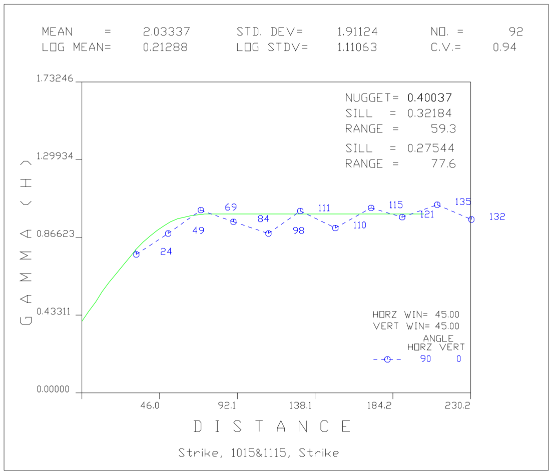
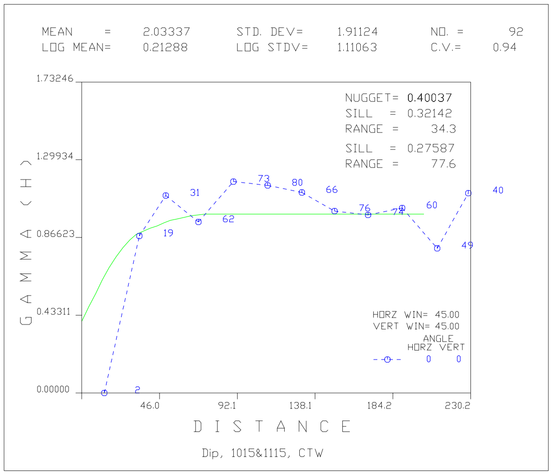
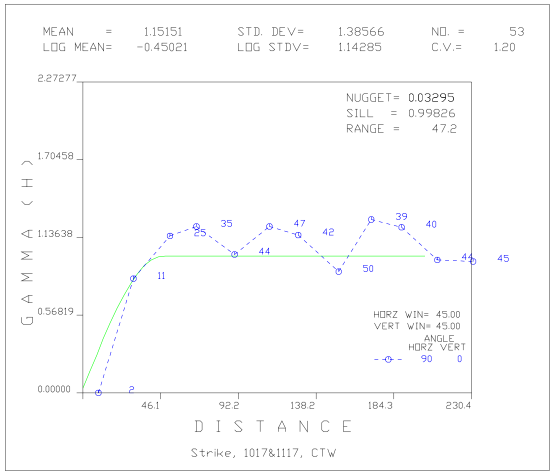
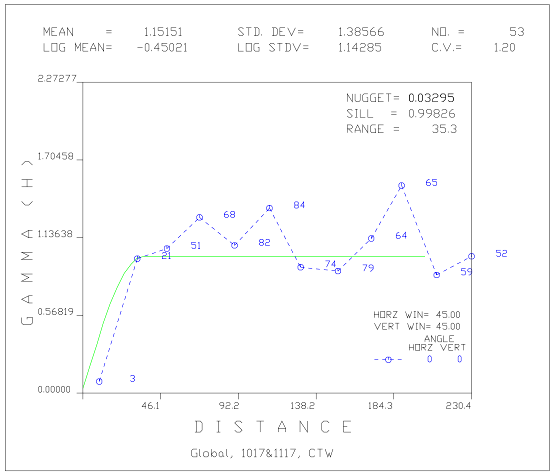
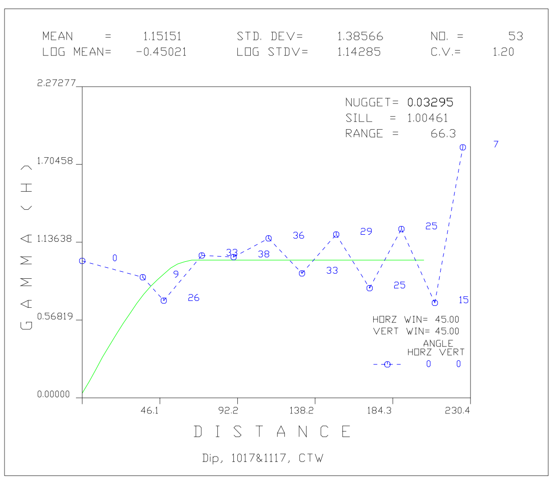
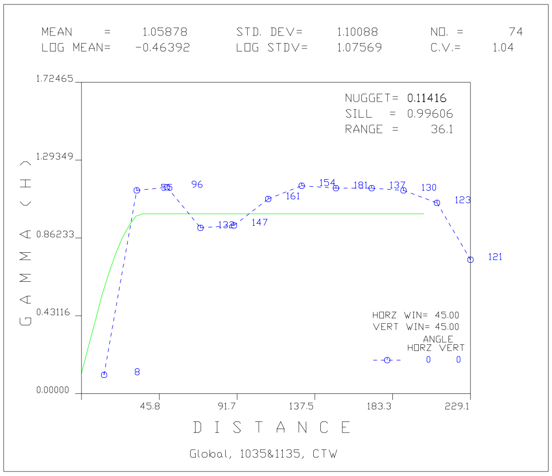




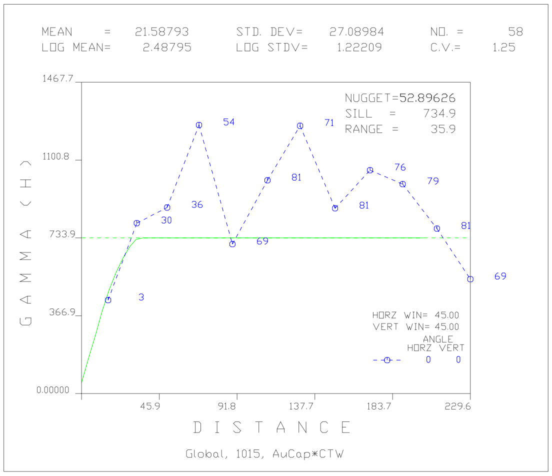

MEAN = 1.15151
LOG MEAN= -0.45021
STD. DEV= 1.38566
LOG STDV= 1.14285
NO. = 53
C.V.= 1.20
NUGGET= 0.03295
SILL = 0.99826
RANGE = 47.2
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE HORZ VERT 90 0
GAMMA (H)
DISTANCE
Strike, 1017&1117, CTW

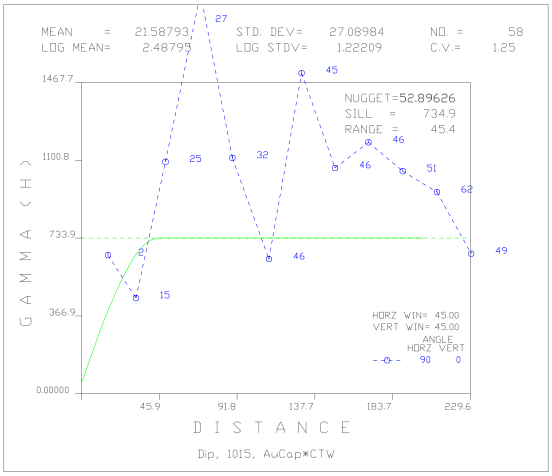

MEAN = 1.15151
LOG MEAN= -0.45021
STD. DEV= 1.38566
LOG STDV= 1.14285
NO. = 53
C.V.= 1.20
NUGGET= 0.03295
SILL = 0.99826
RANGE = 35.3
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE HORZ VERT 0 0
GAMMA (H)
DISTANCE
Global, 1017&1117, CTW

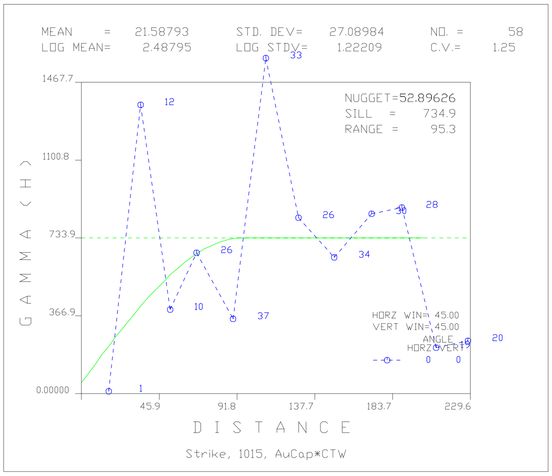

MEAN = 1.15151
LOG MEAN= -0.45021
STD. DEV= 1.38566
LOG STDV= 1.14285
NO. = 53
C.V.= 1.20
NUGGET= 0.03295
SILL = 1.00461
RANGE = 66.3
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE HORZ VERT 0 0
GAMMA (H)
DISTANCE
Dip, 1017&1117, CTW

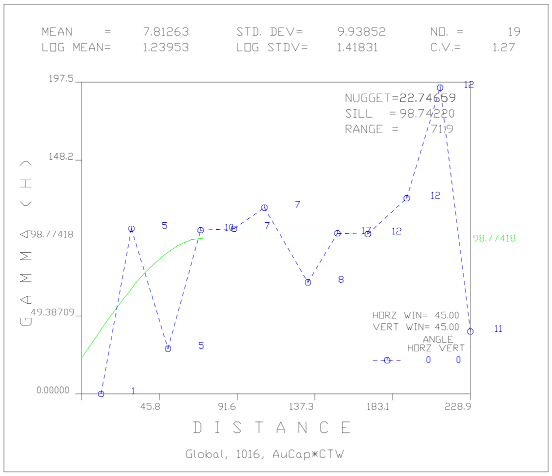

MEAN = 1.05878
STD. DEV= 1.10088
NO. = 74
LOG MEAN= -0.46392
LOG STDV= 1.07569
C.V.= 1.04
NUGGET= 0.11416
SILL = 0.99606
RANGE = 36.1
GAMMA (H)
1.72465
1.29349
0.86233
0.43116
0.00000
8
95
96
132
147
161
154
181
137
130
123
121
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
45.8
91.7
137.5
183.3
229.1
DISTANCE
Global, 1035&1135, CTW

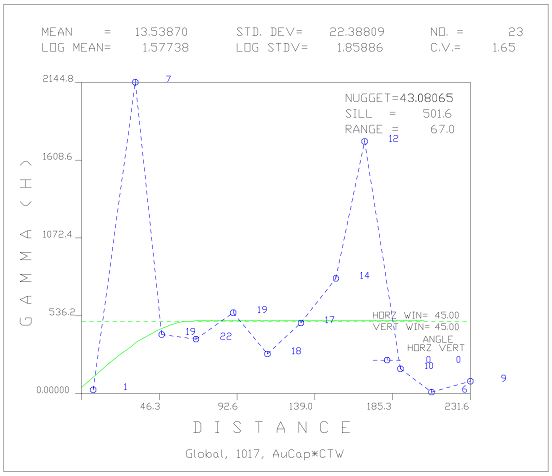
AuCap times Calculated True Width (AuCap*CTW)

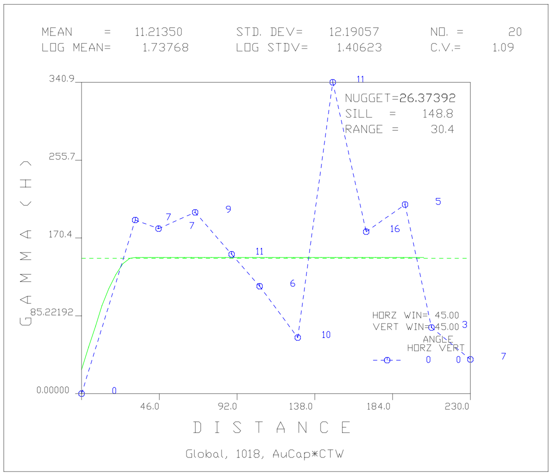


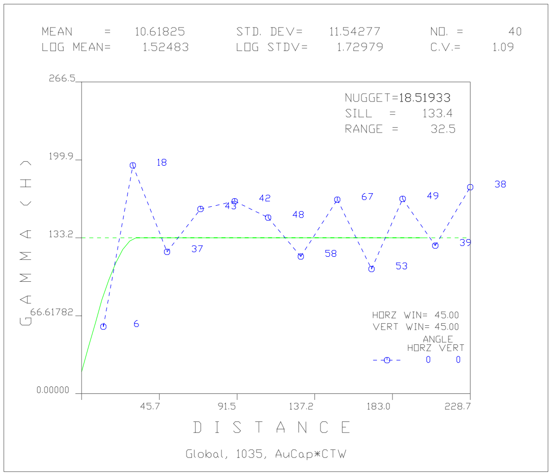


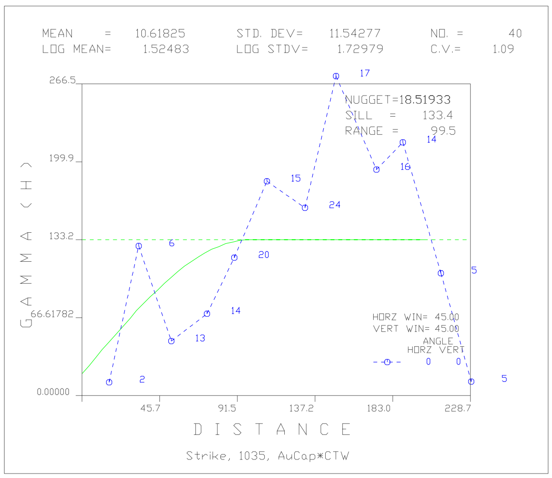


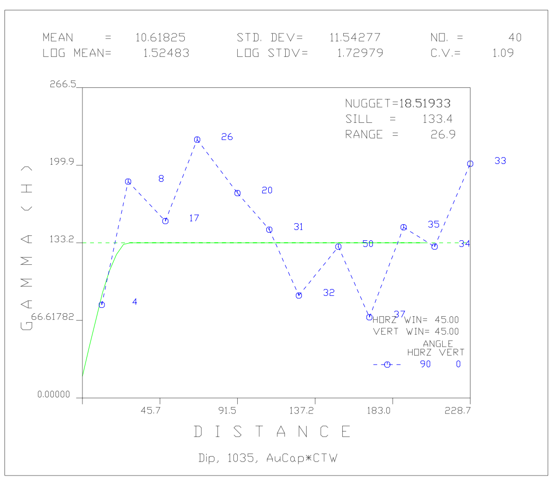

MEAN = 7.81263 STD. DEV= 9.93852 NO. = 19
LOG MEAN= 1.23953 LOG STDV= 1.41831 C.V.= 1.27
NUGGET=22.74659
SILL = 98.74220
RANGE = 71.9
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, 1016, AuCap*CTW


MEAN = 13.53870 STD. DEV= 22.38809 NO. = 23
LOG MEAN= 1.57738 LOG STDV= 1.85886 C.V.= 1.65
NUGGET=43.08065
SILL = 501.6
RANGE = 67.0
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, 1017, AuCap*CTW

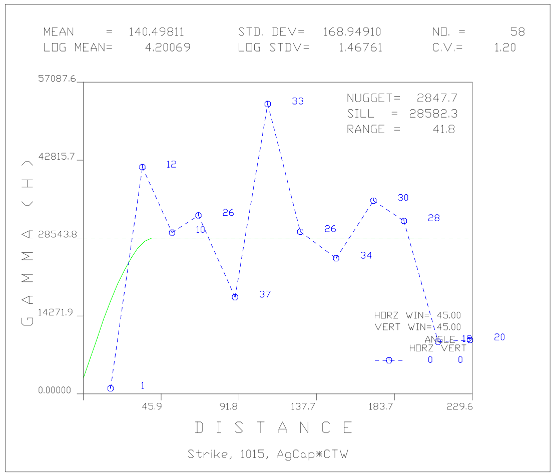

MEAN = 11.21350 STD. DEV= 12.19057 NO. = 20
LOG MEAN= 1.73768 LOG STDV= 1.40623 C.V.= 1.09
NUGGET=26.37392
SILL = 148.8
RANGE = 30.4
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, 1018, AuCap*CTW

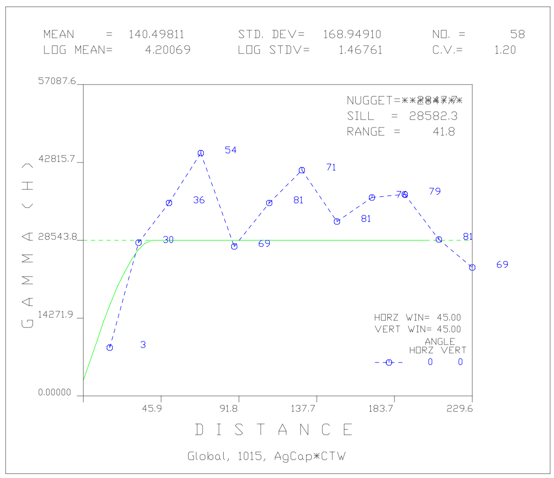

MEAN = 10.61825
STD. DEV= 11.54277
NO. = 40
LOG MEAN= 1.52483
LOG STDV= 1.72979
C.V.= 1.09
NUGGET=18.51933
SILL = 133.4
RANGE = 32.5
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, 1035, AuCap*CTW

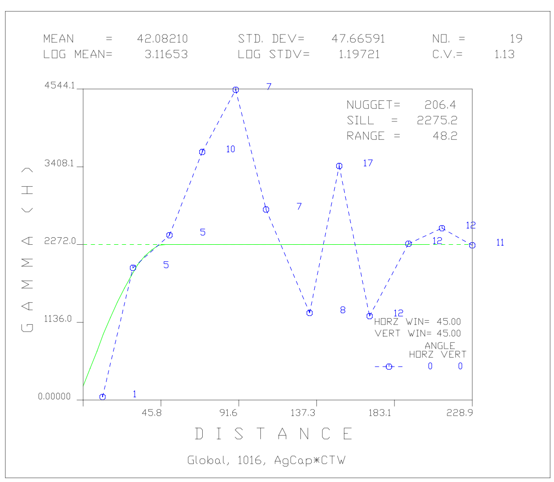

MEAN = 10.61825
STD. DEV= 11.54277
NO. = 40
LOG MEAN= 1.52483
LOG STDV= 1.72979
C.V.= 1.09
NUGGET=18.51933
SILL = 133.4
RANGE = 99.5
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Strike, 1035, AuCap*CTW

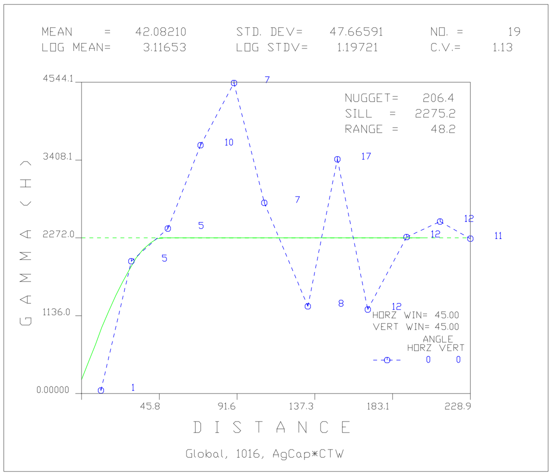

MEAN = 10.61825
STD. DEV= 11.54277
NO. = 40
LOG MEAN= 1.52483
LOG STDV= 1.72979
C.V.= 1.09
NUGGET=18.51933
SILL = 133.4
RANGE = 26.9
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
90 0
GAMMA (H)
DISTANCE
Dip, 1035, AuCap*CTW

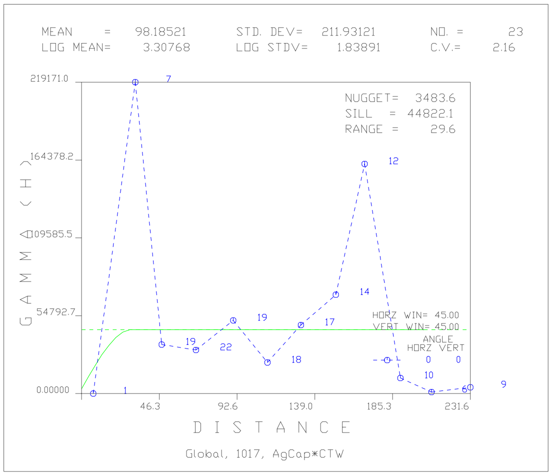
AgCap times Calculated True Width (AgCap*CTW)

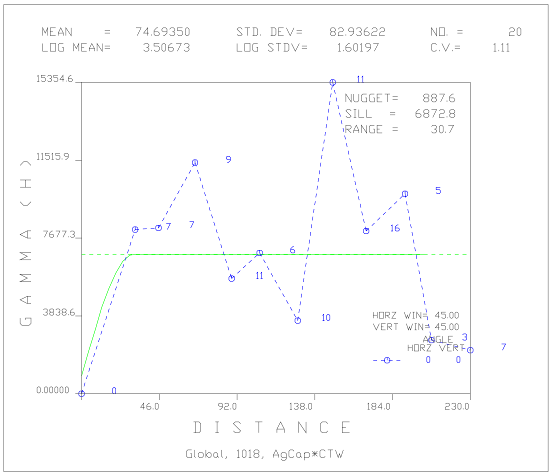


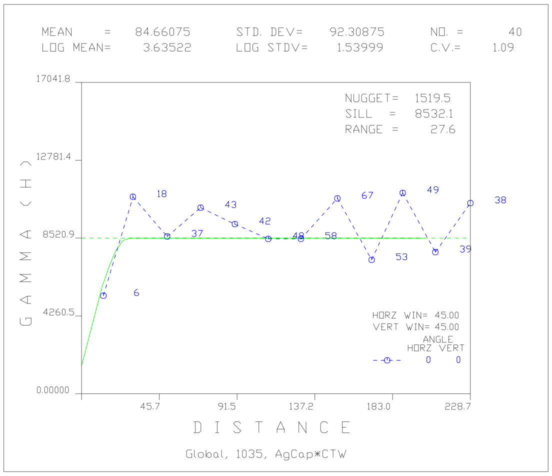




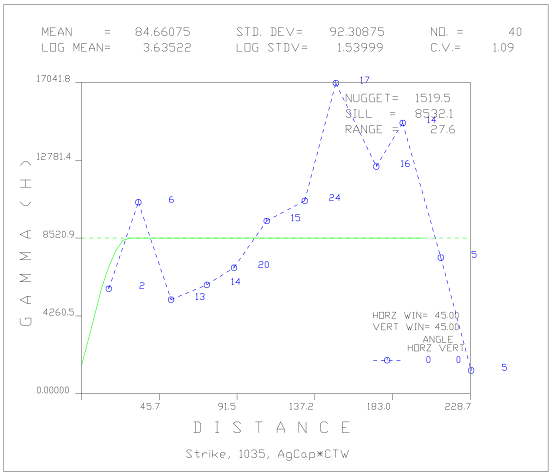

MEAN = 42.08210 STD. DEV= 47.66591 NO. = 19
LOG MEAN= 3.11653 LOG STDV= 1.19721 C.V.= 1.13
NUGGET= 206.4
SILL = 2275.2
RANGE = 48.2
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, 1016, AgCap*CTW


MEAN = 98.18521 STD. DEV= 211.93121 NO. = 23
LOG MEAN= 3.30768 LOG STDV= 1.83891 C.V.= 2.16
NUGGET= 3483.6
SILL = 44822.1
RANGE = 29.6
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, 1017, AgCap*CTW

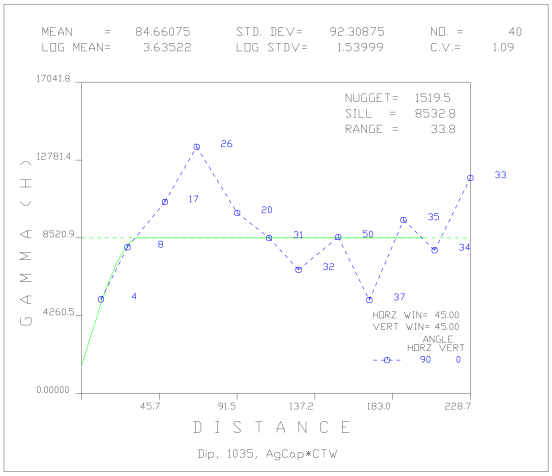

MEAN = 74.69350 STD. DEV= 82.93622 NO. = 20
LOG MEAN= 3.50673 LOG STDV= 1.60197 C.V.= 1.11
NUGGET= 887.6
SILL = 6872.8
RANGE = 30.7
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE
HORZ VERT
0 0
GAMMA (H)
DISTANCE
Global, 1018, AgCap*CTW



MEAN = 84.66075 STD. DEV= 92.30875 NO. = 40
LOG MEAN= 3.63522 LOG STDV= 1.53999 C.V.= 1.09
NUGGET= 1519.5
SILL = 8532.1
RANGE = 27.6
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE HORZ VERT 0 0
GAMMA (H)
DISTANCE
Global, 1035, AgCap*CTW



MEAN = 84.66075 STD. DEV= 92.30875 NO. = 40
LOG MEAN= 3.63522 LOG STDV= 1.53999 C.V.= 1.09
NUGGET= 1519.5
SILL = 8532.1
RANGE = 27.6
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE HORZ VERT 0 0
GAMMA (H)
DISTANCE
Strike, 1035, AgCap*CTW



MEAN = 84.66075 STD. DEV= 92.30875 NO. = 40
LOG MEAN= 3.63522 LOG STDV= 1.53999 C.V.= 1.09
NUGGET= 1519.5
SILL = 8532.8
RANGE = 33.8
HORZ WIN= 45.00
VERT WIN= 45.00
ANGLE HORZ VERT 90 0
GAMMA (H)
DISTANCE
Dip, 1035, AgCap*CTW

Appendix E Detailed Breakdown of El Dorado Resources

Minita Area – Total Minita Resource

Table E1 Total Minita Area Measured and Indicated Resources Individually

Total Minita Area - Measured

Cutoff (g AuEq/t)	Tonnes	Grade (g AuEq/t)	Grade (g Au/t)	Ounces (Au)	Grade (g Ag/t)	Ounces (Ag)	Ounces (AuEq)	Tr. Width (m)	H. Width (m)
0.0	729,000	11.55	10.56	247,500	69.43	1,627,300	270,800	2.78	2.91
0.5	709,900	11.86	10.84	247,300	71.24	1,625,900	270,600	2.83	2.96
1.0	692,500	12.14	11.09	246,900	72.96	1,624,500	270,300	2.93	3.06
2.0	664,500	12.59	11.51	245,800	75.66	1,616,400	268,900	3.05	3.19
3.0	633,100	13.09	11.96	243,500	78.80	1,604,000	266,500	3.20	3.35
3.5	624,000	13.23	12.09	242,600	79.69	1,598,700	265,400	3.24	3.39
4.0	**614,100**	**13.39**	**12.23**	**241,500**	**80.59**	**1,591,200**	**264,300**	**3.28**	**3.43**
4.5	591,500	13.73	12.55	238,700	82.76	1,573,800	261,100	3.35	3.51
5.0	579,900	13.92	12.72	237,100	83.92	1,564,700	259,500	3.39	3.55
5.5	555,700	14.30	13.05	233,200	86.48	1,545,100	255,400	3.38	3.54
6.0	541,000	14.52	13.27	230,800	88.00	1,530,600	252,600	3.40	3.56
6.5	524,000	14.80	13.52	227,700	89.64	1,510,200	249,300	3.42	3.59
7.0	513,400	14.97	13.67	225,600	90.66	1,496,400	247,100	3.45	3.61
7.5	491,700	15.30	13.98	221,000	92.13	1,456,400	241,800	3.45	3.62
8.0	456,900	15.88	14.51	213,200	95.60	1,404,300	233,300	3.48	3.64
8.5	440,600	16.16	14.78	209,300	97.36	1,379,200	228,900	3.53	3.70
9.0	416,600	16.58	15.16	203,100	99.58	1,333,800	222,100	3.57	3.73

Total Minita Area - Indicated

Cutoff (g AuEq/t)	Tonnes	Grade (g AuEq/t)	Grade (g Au/t)	Ounces (Au)	Grade (g Ag/t)	Ounces (Ag)	Ounces (AuEq)	Tr. Width (m)	H. Width (m)
0.0	1,515,600	8.40	7.73	376,800	46.39	2,260,700	409,100	2.08	2.17
0.5	1,385,400	9.14	8.42	375,200	50.55	2,251,500	407,300	2.14	2.23
1.0	1,289,800	9.77	9.00	373,300	54.10	2,243,300	405,300	2.22	2.31
2.0	1,261,500	9.96	9.17	372,100	55.11	2,235,200	404,100	2.27	2.36
3.0	1,217,300	10.23	9.42	368,700	56.68	2,218,100	400,400	2.33	2.42
3.5	1,195,600	10.36	9.54	366,700	57.45	2,208,500	398,200	2.36	2.46
4.0	**1,175,100**	**10.47**	**9.65**	**364,400**	**58.16**	**2,197,300**	**395,700**	**2.39**	**2.49**
4.5	1,123,900	10.76	9.90	357,900	59.75	2,159,000	388,800	2.45	2.55
5.0	1,086,700	10.96	10.09	352,600	60.98	2,130,700	383,000	2.50	2.61
5.5	1,043,200	11.20	10.31	345,700	62.45	2,094,600	375,600	2.55	2.65
6.0	1,001,300	11.43	10.51	338,500	63.79	2,053,500	368,000	2.59	2.70
6.5	896,000	12.02	11.06	318,600	67.89	1,955,600	346,400	2.59	2.71
7.0	823,900	12.49	11.48	304,100	70.61	1,870,300	330,800	2.64	2.76
7.5	750,600	13.00	11.95	288,400	73.21	1,766,700	313,700	2.68	2.80
8.0	680,200	13.55	12.47	272,600	75.89	1,659,600	296,300	2.72	2.84
8.5	610,100	14.15	13.03	255,500	79.10	1,551,600	277,600	2.75	2.88
9.0	558,800	14.65	13.48	242,200	81.94	1,472,200	263,200	2.78	2.91

Minita Area – Total Minita Resource (continued)

Table E2 Total Minita Area Measured plus Indicated Resources and Inferred

Total Minita Area - Measured and Indicated

Cutoff (g AuEq/t)	Tonnes	Grade (g AuEq/t)	Grade (g Au/t)	Ounces (Au)	Grade (g Ag/t)	Ounces (Ag)	Ounces (AuEq)	Tr. Width (m)	H. Width (m)
0.0	2,244,600	9.42	8.65	624,300	53.88	3,888,000	679,900	2.31	2.41
0.5	2,095,300	10.06	9.24	622,500	57.56	3,877,400	677,900	2.37	2.48
1.0	1,982,300	10.60	9.73	620,200	60.69	3,867,800	675,600	2.46	2.57
2.0	1,926,000	10.87	9.98	617,900	62.20	3,851,600	673,000	2.54	2.65
3.0	1,850,400	11.21	10.29	612,200	64.25	3,822,100	666,900	2.63	2.74
3.5	1,819,600	11.34	10.42	609,300	65.08	3,807,200	663,600	2.66	2.78
4.0	**1,789,200**	**11.47**	**10.53**	**605,900**	**65.86**	**3,788,500**	**660,000**	**2.70**	**2.81**
4.5	1,715,400	11.78	10.82	596,600	67.68	3,732,800	649,900	2.76	2.88
5.0	1,666,600	11.99	11.01	589,700	68.97	3,695,400	642,500	2.81	2.94
5.5	1,598,900	12.27	11.26	578,900	70.80	3,639,700	631,000	2.83	2.96
6.0	1,542,300	12.52	11.48	569,300	72.28	3,584,100	620,600	2.87	3.00
6.5	1,420,000	13.05	11.97	546,300	75.91	3,465,800	595,700	2.90	3.03
7.0	1,337,300	13.44	12.32	529,700	78.30	3,366,700	577,900	2.95	3.09
7.5	1,242,300	13.91	12.75	509,400	80.70	3,223,100	555,500	2.99	3.13
8.0	1,137,100	14.49	13.29	485,800	83.81	3,063,900	529,600	3.02	3.17
8.5	1,050,700	14.99	13.76	464,800	86.76	2,930,800	506,500	3.08	3.22
9.0	975,400	15.48	14.20	445,300	89.48	2,806,000	485,300	3.12	3.26

Total Minita Area - Inferred

Cutoff (g AuEq/t)	Tonnes	Grade (g AuEq/t)	Grade (g Au/t)	Ounces (Au)	Grade (g Ag/t)	Ounces (Ag)	Ounces (AuEq)	Tr. Width (m)	H. Width (m)
0.0	141,300	6.58	6.03	27,400	38.87	176,600	29,900	1.68	1.77
0.5	136,300	6.80	6.23	27,300	40.19	176,100	29,800	1.71	1.81
1.0	78,400	11.39	10.39	26,200	67.40	169,900	28,700	2.08	2.21
2.0	78,400	11.39	10.39	26,200	67.44	170,000	28,700	2.08	2.21
3.0	78,400	11.39	10.39	26,200	67.44	170,000	28,700	2.08	2.21
3.5	78,400	11.39	10.39	26,200	67.44	170,000	28,700	2.08	2.21
4.0	**78,400**	**11.39**	**10.39**	**26,200**	**67.44**	**170,000**	**28,700**	**2.08**	**2.21**
4.5	78,400	11.39	10.39	26,200	67.44	170,000	28,700	2.08	2.21
5.0	77,900	11.38	10.42	26,100	67.68	169,500	28,500	2.10	2.23
5.5	77,100	11.46	10.53	26,100	68.14	168,900	28,400	2.13	2.26
6.0	75,800	11.57	10.63	25,900	68.81	167,700	28,200	2.15	2.29
6.5	62,100	12.72	11.67	23,300	76.18	152,100	25,400	2.21	2.36
7.0	60,100	12.94	11.85	22,900	77.58	149,900	25,000	2.24	2.40
7.5	56,900	13.28	12.14	22,200	79.97	146,300	24,300	2.29	2.46
8.0	53,800	13.59	12.43	21,500	82.50	142,700	23,500	2.34	2.52
8.5	53,200	13.62	12.51	21,400	83.02	142,000	23,300	2.36	2.54
9.0	52,300	13.68	12.55	21,100	83.91	141,100	23,000	2.39	2.57

South Minita Area (there are no Measured resources)

Table E3 South Minita Indicated Resource

South Minita Indicated

Cutoff (g AuEq/t)	Tonnes	Grade (g AuEq/t)	Grade (g Au/t)	Ounces (Au)	Grade (g Ag/t)	Ounces (Ag)	Ounces (AuEq)	True Width (m)	Hor. Width (m)
0.0	1,462,800	8.09	7.37	346,800	49.85	2,345,000	380,300	1.48	1.92
0.5	1,462,800	8.09	7.37	346,800	49.85	2,345,000	380,300	1.48	1.92
1.0	1,451,400	8.14	7.43	346,500	50.22	2,343,000	380,000	1.46	1.91
2.0	1,342,600	8.68	7.91	341,500	53.83	2,324,000	374,700	1.42	1.86
3.0	1,172,500	9.59	8.73	329,100	60.12	2,266,000	361,500	1.32	1.74
3.5	1,128,300	9.84	8.95	324,800	61.85	2,244,000	356,900	1.31	1.72
4.0	**1,070,900**	**10.16**	**9.25**	**318,400**	**63.99**	**2,203,000**	**349,900**	**1.28**	**1.68**
4.5	1,004,300	10.55	9.60	310,000	66.62	2,151,000	340,800	1.25	1.64
5.0	938,900	10.96	9.97	300,900	69.24	2,090,000	330,800	1.23	1.62
5.5	884,800	11.31	10.29	292,600	71.50	2,034,000	321,700	1.22	1.62
6.0	806,900	11.84	10.76	279,200	75.60	1,961,000	307,200	1.21	1.60
6.5	736,700	12.37	11.23	266,100	79.82	1,890,000	293,100	1.20	1.60
7.0	682,300	12.82	11.64	255,300	82.94	1,819,000	281,300	1.20	1.59
7.5	614,200	13.44	12.20	240,900	86.64	1,711,000	265,300	1.18	1.57
8.0	539,300	14.23	12.92	224,000	91.41	1,585,000	246,700	1.14	1.49
8.5	471,100	15.10	13.73	208,000	95.63	1,448,000	228,700	1.10	1.44
9.0	433,200	15.66	14.25	198,400	98.73	1,375,000	218,000	1.09	1.43

Table E4 South Minita Inferred Resource

South Minita Inferred

Cutoff (g AuEq/t)	Tonnes	Grade (g AuEq/t)	Grade (g Au/t)	Ounces (Au)	Grade (g Ag/t)	Ounces (Ag)	Ounces (AuEq)	True Width (m)	Hor. Width (m)
0.0	552,500	5.28	4.84	85,900	31.06	552,000	93,800	1.75	2.17
0.5	552,500	5.28	4.84	85,900	31.06	552,000	93,800	1.75	2.17
1.0	505,800	5.69	5.21	84,800	33.33	542,000	92,500	1.64	2.00
2.0	432,600	6.38	5.83	81,100	37.96	528,000	88,700	1.55	1.90
3.0	349,400	7.30	6.67	74,900	44.26	497,000	82,000	1.41	1.73
3.5	321,400	7.65	6.99	72,200	46.72	483,000	79,100	1.37	1.67
4.0	**302,800**	**7.89**	**7.20**	**70,100**	**48.23**	**470,000**	**76,800**	**1.35**	**1.65**
4.5	280,100	8.19	7.47	67,300	50.15	452,000	73,700	1.33	1.62
5.0	236,100	8.83	8.06	61,200	54.26	412,000	67,000	1.31	1.60
5.5	198,100	9.51	8.68	55,300	58.40	372,000	60,600	1.27	1.56
6.0	166,600	10.22	9.33	50,000	62.53	335,000	54,800	1.20	1.49
6.5	143,400	10.87	9.91	45,700	66.88	308,000	50,100	1.16	1.45
7.0	129,000	11.33	10.34	42,900	69.17	287,000	47,000	1.14	1.43
7.5	111,600	11.97	10.95	39,300	70.98	255,000	42,900	1.09	1.37
8.0	96,400	12.63	11.58	35,900	73.78	229,000	39,100	1.06	1.33
8.5	85,600	13.19	12.09	33,300	76.71	211,000	36,300	1.04	1.31
9.0	73,700	13.90	12.74	30,200	81.48	193,000	32,900	1.00	1.27

La Coyotera

Table E5 La Coyotera Measured Resource

				Measured			
Cutoff	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Ounces** Silver	**Ounces** Gold Eq.
0.0	1,286,000	1.81	1.61	66,500	14.22	588,000	74,900
0.2	1,126,000	2.06	1.83	66,100	16.12	583,000	74,500
0.4	918,000	2.45	2.18	64,500	18.97	560,000	72,500
0.5	802,000	2.75	2.45	63,000	20.97	541,000	70,800
0.6	694,000	3.09	2.76	61,500	23.22	518,000	68,900
0.8	530,000	3.83	3.43	58,300	28.20	480,000	65,200
1.0	429,000	4.52	4.06	55,900	32.75	451,000	62,300
1.2	367,000	5.10	4.58	54,000	36.54	431,000	60,100
1.4	321,000	5.65	5.08	52,300	40.23	415,000	58,200
1.6	295,000	6.00	5.40	51,300	42.47	403,000	57,000
1.8	282,000	6.21	5.58	50,600	43.71	396,000	56,300
2.0	268,000	6.44	5.80	49,900	44.99	387,000	55,400
2.5	226,000	7.22	6.51	47,200	49.31	358,000	52,400
3.0	195,000	7.93	7.17	44,900	53.26	333,000	49,600
4.0	**166,000**	**8.69**	**7.86**	**42,100**	**57.79**	**309,000**	**46,500**
5.0	142,000	9.40	8.51	39,000	62.15	285,000	43,000
6.0	122,000	10.05	9.11	35,800	65.94	259,000	39,500
7.0	101,000	10.81	9.79	31,700	71.25	230,000	35,000
8.0	83,000	11.50	10.42	27,900	75.44	202,000	30,700
9.0	65,000	12.34	11.18	23,400	81.03	169,000	25,800

Table E6 La Coyotera Indicated Resource

				Indicated			
Cutoff	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Ounces** Silver	**Ounces** Gold Eq.
0.0	6,309,000	1.37	1.18	239,500	12.90	2,617,000	276,900
0.2	5,475,000	1.56	1.35	237,800	14.71	2,589,000	274,700
0.4	4,633,000	1.79	1.55	231,200	16.63	2,477,000	266,500
0.5	4,097,000	1.97	1.71	224,800	18.08	2,381,000	258,800
0.6	3,561,000	2.18	1.90	217,200	19.70	2,255,000	249,400
0.8	2,703,000	2.65	2.32	201,800	22.92	1,992,000	230,300
1.0	1,989,000	3.28	2.89	184,900	27.28	1,745,000	209,800
1.2	1,627,000	3.77	3.33	174,300	30.57	1,599,000	197,200
1.4	1,251,000	4.51	4.00	160,800	35.91	1,444,000	181,400
1.6	1,067,000	5.03	4.47	153,300	39.52	1,355,000	172,600
1.8	966,000	5.38	4.79	148,700	41.66	1,294,000	167,200
2.0	879,000	5.72	5.10	144,100	43.99	1,244,000	161,800
2.5	714,000	6.53	5.83	133,800	49.26	1,131,000	150,000
3.0	609,000	7.19	6.43	125,800	53.31	1,043,000	140,700
4.0	**501,000**	**7.99**	**7.15**	**115,200**	**58.68**	**945,000**	**128,700**
5.0	415,000	8.71	7.81	104,200	63.60	849,000	116,400
6.0	349,000	9.33	8.37	93,800	67.49	757,000	104,600
7.0	288,000	9.92	8.91	82,700	70.79	657,000	92,000
8.0	228,000	10.58	9.53	69,700	73.40	537,000	77,400
9.0	161,000	11.42	10.32	53,500	76.84	398,000	59,200

La Coyotera (continued)

Table E7 La Coyotera Measured Plus Indicated Resource

			Total Meas and Indicated				
Cutoff	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Ounces** Silver	**Ounces** Gold Eq.
0.0	7,595,000	1.44	1.25	306,000	13.13	3,205,000	351,800
0.2	6,601,000	1.65	1.43	303,900	14.95	3,172,000	349,200
0.4	5,551,000	1.90	1.66	295,700	17.02	3,037,000	339,100
0.5	4,899,000	2.09	1.83	287,800	18.55	2,922,000	329,500
0.6	4,255,000	2.33	2.04	278,700	20.27	2,773,000	318,300
0.8	3,233,000	2.84	2.50	260,100	23.78	2,472,000	295,400
1.0	2,418,000	3.50	3.10	240,800	28.25	2,196,000	272,200
1.2	1,994,000	4.01	3.56	228,300	31.67	2,030,000	257,300
1.4	1,572,000	4.74	4.22	213,100	36.78	1,859,000	239,700
1.6	1,362,000	5.25	4.67	204,600	40.15	1,758,000	229,700
1.8	1,248,000	5.57	4.97	199,300	42.12	1,690,000	223,400
2.0	1,147,000	5.89	5.26	194,000	44.23	1,631,000	217,300
2.5	940,000	6.69	5.99	181,000	49.27	1,489,000	202,300
3.0	804,000	7.37	6.60	170,700	53.23	1,376,000	190,400
4.0	**667,000**	**8.17**	**7.34**	**157,300**	**58.48**	**1,254,000**	**175,200**
5.0	557,000	8.90	8.00	143,200	63.32	1,134,000	159,400
6.0	471,000	9.52	8.56	129,600	67.09	1,016,000	144,100
7.0	389,000	10.16	9.15	114,400	70.92	887,000	127,100
8.0	311,000	10.82	9.76	97,600	73.91	739,000	108,200
9.0	226,000	11.70	10.58	76,900	78.03	567,000	85,000

Table E8 La Coyotera Inferred Resource

			Inferred				
Cutoff	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Ounces** Silver	**Ounces** Gold Eq.
0.0	626,000	0.92	0.77	15,400	10.40	209,000	18,400
0.2	516,000	1.09	0.92	15,200	12.45	206,000	18,100
0.4	410,000	1.30	1.09	14,300	14.86	196,000	17,100
0.5	338,000	1.48	1.24	13,500	17.04	185,000	16,100
0.6	301,000	1.60	1.33	12,900	18.41	178,000	15,500
0.8	233,000	1.86	1.56	11,600	21.40	160,000	13,900
1.0	170,000	2.22	1.85	10,100	26.05	143,000	12,200
1.2	101,000	3.00	2.51	8,200	34.05	111,000	9,800
1.4	86,000	3.29	2.76	7,700	37.04	103,000	9,200
1.6	75,000	3.57	2.99	7,200	40.31	97,000	8,600
1.8	63,000	3.91	3.27	6,700	44.66	91,000	8,000
2.0	58,000	4.07	3.41	6,400	46.27	87,000	7,700
2.5	45,000	4.63	3.91	5,600	50.32	72,000	6,600
3.0	30,000	5.57	4.72	4,500	59.58	57,000	5,300
4.0	**19,000**	**6.86**	**5.83**	**3,600**	**72.12**	**44,000**	**4,200**
5.0	14,000	7.66	6.52	3,000	80.38	37,000	3,500
6.0	11,000	8.39	7.11	2,400	89.43	31,000	2,900
7.0	8,000	9.11	7.75	1,900	94.99	24,000	2,300
8.0	5,000	10.22	8.78	1,300	100.55	15,000	1,500
9.0	3,000	11.33	9.78	900	108.11	10,000	1,000

Nueva Esperanza

Table E9 Nueva Esperanza Indicated Resource

			Indicated				
Cutoff	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Ounces** Silver	**Ounces** Gold Eq.
0.2	2,481,000	1.37	1.26	100,500	7.68	613,000	109,200
0.3	2,204,000	1.51	1.39	98,400	8.49	601,000	107,000
0.4	1,925,000	1.68	1.54	95,500	9.48	586,000	103,900
0.5	1,726,000	1.82	1.67	92,900	10.28	570,000	101,000
0.6	1,525,000	1.99	1.83	89,600	11.24	551,000	97,500
0.8	1,159,000	2.40	2.20	82,100	13.72	511,000	89,400
1.0	**971,000**	**2.69**	**2.47**	**77,200**	**15.32**	**478,000**	**84,000**
1.2	799,000	3.03	2.79	71,600	17.11	440,000	77,900
1.4	667,000	3.38	3.11	66,600	18.91	406,000	72,400
1.6	593,000	3.61	3.33	63,400	19.94	380,000	68,800
1.8	533,000	3.83	3.53	60,400	20.86	357,000	65,500
2.0	471,000	4.08	3.77	57,100	21.78	330,000	61,800
2.5	348,000	4.74	4.39	49,200	24.49	274,000	53,100
3.0	277,000	5.26	4.88	43,400	26.45	236,000	46,800
4.0	**183,000**	**6.20**	**5.77**	**33,900**	**30.47**	**179,000**	**36,400**
5.0	110,000	7.36	6.86	24,300	34.76	123,000	26,100
6.0	63,000	8.72	8.16	16,700	39.27	80,000	17,800
7.0	44,000	9.77	9.13	12,800	44.49	62,000	13,700
8.0	30,000	10.76	10.07	9,900	47.96	47,000	10,500
9.0	18,000	12.29	11.53	6,700	53.83	31,000	7,100

Table E10 Nueva Esperanza Inferred Resource

			Inferred				
Cutoff	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Oz Au**	**Grade** (g Ag/t)	**Ounces** Silver	**Ounces** Gold Eq.
0.2	5,679,000	0.66	0.62	112,300	3.24	591,000	120,700
0.3	4,851,000	0.73	0.68	106,100	3.60	561,000	114,100
0.4	4,050,000	0.81	0.75	97,700	3.99	520,000	105,200
0.5	3,210,000	0.90	0.84	86,300	4.54	468,000	93,000
0.6	2,340,000	1.04	0.96	72,200	5.38	405,000	78,000
0.8	1,162,000	1.39	1.27	47,500	7.96	298,000	51,800
1.0	**569,000**	**1.89**	**1.72**	**31,500**	**11.91**	**218,000**	**34,700**
1.2	381,000	2.30	2.09	25,600	14.85	182,000	28,200
1.4	307,000	2.54	2.30	22,700	16.54	163,000	25,100
1.6	258,000	2.74	2.48	20,600	17.87	149,000	22,700
1.8	221,000	2.92	2.64	18,800	19.14	136,000	20,700
2.0	184,000	3.13	2.83	16,700	20.64	122,000	18,500
2.5	120,000	3.61	3.27	12,600	24.10	93,000	13,900
3.0	78,000	4.07	3.67	9,200	27.63	69,000	10,200
4.0	**29,000**	**5.17**	**4.67**	**4,300**	**35.49**	**33,000**	**4,800**
5.0	16,000	5.75	5.21	2,600	37.64	19,000	2,900
6.0	4,000	7.01	6.54	800	33.10	4,000	800
7.0	1,000	8.16	7.79	300	25.98	1,040	330
8.0	1,000	8.39	8.01	200	26.99	550	170
9.0	-	0.00	0.00	-	0.00	-	-

The 1 g AuEq/t cutoff is an open pit mining cutoff while the 4 g AuEq/t cutoff is an underground cutoff. Likely this project would be mined by open pit methods but all the other deposits and tabulation would be mined by underground methods.

Table E11 Nance Dulce Inferred Resource

Nance Dulce Inferred

Cutoff (g AuEq/t)	**Tonnes**	**Grade** (g AuEq/t)	**Grade** (g Au/t)	**Ounces** (Au)	**Grade** (g Ag/t)	**Ounces** (Ag)	**Ounces** (AuEq)
0.0	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
0.5	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
1.0	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
2.0	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
3.0	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
3.5	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
4.0	**128,900**	**21.30**	**19.56**	**81,100**	**121.98**	**506,000**	88300.00
4.5	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
5.0	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
5.5	128,900	21.30	19.56	81,100	121.98	506,000	88300.00
6.0	125,800	21.68	19.90	80,500	123.99	501,000	87700.00
6.5	124,900	21.79	20.01	80,400	124.60	500,000	87500.00
7.0	122,900	22.04	20.24	80,000	125.93	498,000	87100.00
7.5	111,900	23.48	21.57	77,600	133.37	480,000	84500.00
8.0	107,300	24.16	22.20	76,600	137.00	473,000	83300.00
8.5	105,500	24.42	22.45	76,100	138.47	470,000	82800.00
9.0	103,800	24.69	22.69	75,700	139.87	467,000	82400.00

Appendix F Glossary of Technical Terms and Geologic Time Scale

Glossary of Technical Terms

adularia-sericite deposit type	a category of epithermal precious metal deposit that is associated with magmas but forms in the earth's crust several kilometers above the site of intrusion. The deposits commonly include quartz veins. The name "adularia-sericite" refers to minerals associated with the quartz veins. The term is used interchangeably with "low sulphidation type", the different terms emphasizing different aspects of the deposits.
adit	a horizontal passage from the surface into a mine
Ag	silver.
alteration	chemical and mineralogical changes in a rock mass resulting from reaction with hydrothermal fluids or changes in pressure and temperature.
anomalous	adjective describing a sample, location or area at which either (i) the concentration of an element(s) or (ii) a geophysical measurement is significantly different from (generally higher than) the average background concentrations in an area. Though it may not constitute mineralization, an anomalous sample or area may be used as a guide to the possible location of mineralization.
anomaly	the geographical area corresponding to anomalous geochemical or geophysical concentrations.
arsenopyrite	an iron, arsenic and sulphur-bearing mineral (FeAsS)
As	arsenic.
assay	an analysis to determine the quantity of one or more elemental components. Usually implies accuracy and precision suitable for use in mineral resource or reserve calculations. See also "geochemical analysis".
assay ton	approximately 29.2 grams; a size of sub-sample that is commonly used when analyzing for precious metals. Recently laboratories sometimes refer to a 30 gram sub-sample as an assay ton
Au	gold.
azurite	a bright blue copper-bearing mineral sometimes found in the oxidized part of copper deposits
background	the modal concentration of an element or typical geophysical response in an area, generally referring to concentrations below some threshold level, above which concentrations are designated as anomalous.
batholith	a large mass of igneous rock, generally with a surface area exceeding 100 square kilometers
bleached	an informal adjective describing rock in which the dark coloured minerals have been removed by alteration processes.
boxwork	where metallic sulphide minerals have been dissolved out of a rock by weathering processes, it is common to see cavities left behind, often outlined by oxide minerals. Clusters of such cavities are called boxworks.
breccia	a rock type with angular fragments of rock of one or more composition(s) surrounded by a matrix rock of another composition and/or texture.
brittle shear	a break in a body of rock that causes two adjacent parts of the body to slide relatively to each other along the plane of the break. The shear is considered brittle if the rock breaks before 5% deformation has taken place.
chalcedony	a form of quartz in which the crystals are so fine as to not be discernible with the naked eye or low power magnifier

chalcopyrite	a mineral composed of copper, iron, and sulphur ($CuFeS2$).
conjugate fault set	a set of faults formed at the same time by the same stresses, having two different orientations. The angle between the two orientations is typically in the 60º to 80º range.
continuous chip sample	a rock sample taken by collecting a series of chips across a measured distance along a rock face. The chips are so closely spaced that there is no gap between them.
crackle breccia	a breccia in which the density of fractures is so great that the rock has a crackled appearance. There is typically less rotation of the fragments than there is in a true breccia.
Cu	copper
detection limit	in chemical analysis, a limit below which the analytical method cannot reliably detect the element being sought.
EM	electromagnetic; in mineral exploration usually refers to a particular type of geophysical survey
epithermal	adjective referring to hydrothermal processes and deposits taking place or formed at comparatively low temperatures in the 50°C to 200°C range, and to mineral deposits formed by such processes.
fault	a fracture in a rock across which there has been displacement.
fracture	a break in a rock, usually along a flat or gently curved surface.
felsic	adjective applied to light-coloured rock-forming minerals and to rocks containing an abundance of such minerals
float	loose fragments of rock found displaced from the outcrop in which they originated
galena	a lead sulphide mineral
geochemical analysis	an analysis to determine the quantity of one or more elemental components in some earth material, usually rock, soil or water. Customarily refers to analyses that are accurate enough for the early stages of exploration work but not accurate enough for use in mineral resource or reserve estimations. See also “assay”.
geophysics, geophysical survey	a group of techniques that employ instruments to measure electrical, physical, radiological and other characteristics of rocks in the field, usually in the subsurface. Examples include induced polarization, electromagnetics, gravity and many others.
gneiss	a rock whose textures and mineralogy have changed as a result of it being buried deep within the earth’s crust. One of many types of metamorphic rock
gossan	a rock containing a high proportion of iron oxides, formed as metal-bearing minerals are oxidized and leached away, leaving the iron oxide residue. Colloquially, a gossan is “rusty”.
grab sample	a sample of rock selected, not to represent any defined area or volume of rock, but simply to exhibit some specific feature of interest. It may consist of one or more pieces of rock, but any analyses obtained from a grab sample cannot be used to represent anything other than the sample itself, and cannot be used in characterizing the grades of a deposit.
grade	The concentration of an ore metal in a rock sample, given either as weight per cent for base metals (e.g. Cu, Zn, Pb) or in grams per tonne (g/t) or ounces per short ton (oz/t) for gold, silver, and platinum group metals.

gpt, g/t	Grams per tonne (metric tonne, 1,000 kilograms).
granodiorite	a type of igneous rock
hectare	an area totaling 10,000 square meters, e.g., an area 100 meters by 100 meters.
Hg	Mercury.
hydrothermal	adjective applied to hot water, usually from an external source, that interacts with a body of rock, and to the products of that interaction. In some cases hydrothermal fluids interacting with a body of rock produce mineralization.
indicator element	a chemical element that may indicate the presence nearby of another element. For example arsenic, antimony and mercury are commonly present in and near epithermal gold deposits. Early geochemical sampling might detect one or more of the indicator elements but not the gold itself. The presence of the indicator element(s) might induce prospectors to do more sampling and thus discover the gold.
induced polarization	a geophysical survey that involves the application of an electrical current to a body of rock, via electrodes. The effects of the electrical current are measured and used to make inferences about the mineralogical and physical characteristics of the rock in the subsurface. See also “resistivity”.
IP	a common abbreviation for induced polarization
KM, km	kilometer.
mafic	a rock type consisting predominantly of calcium-rich plagioclase feldspar and silicates of iron and magnesium, with little quartz or potassium feldspar.
malachite	a bright green copper-bearing mineral sometimes found in the oxidized part of copper deposits
Max-min	a horizontal loop electromagnetic (or HLEM) technique to test resistivity and conductivity of rocks.
median	the value of the middle item in a set of data arranged in rank order. Half of the rest of the data set contains values above the median and half contains values below the median. Though different from the average, the median is, like the average, an indicator of the central tendency of a set of data.
mineral deposit	a mineral occurrence of sufficient size and grade that it might, under the most favorable of circumstances, be considered to have economic potential (from United States Geological Survey Bulletin 1693)
mineral occurrence	a concentration of a mineral (usually, but not necessarily, considered in terms of some commodity, such as copper, barite or gold) that is considered valuable by someone somewhere, or that is of scientific or technical interest. In rare instances (such as titanium in a rutile-bearing black sand), the commodity might not even be concentrated above its average crustal abundance. (from United States Geological Survey Bulletin 1693)
mineralization	a general term, commonly used to describe minerals of potential value occurring in rocks.
Mo	molybdenum.
molybdenite	a molybdenum sulphide mineral
NSR	net smelter royalty.
ore	a natural occurrence of one or more minerals that may be legally mined and sold at a profit, or from which some part may be profitably separated.
outcrop	an exposure of bedrock at the earth’s surface.

overburden	any natural soil or aggregate material covering bedrock.
Pb	lead.
porphyry	in the context of mineral deposits, a large deposit containing mineralization dispersed throughout the rock. Commodities of interest in these types of deposits are primarily copper, gold and sometimes molybdenum. Such deposits are typically mined using open pit, bulk mining methods.
ppb	parts per billion.
ppm	parts per million (l ppm = 1000 ppb = 1 gram/tonne).
pyrite	a mineral composed of iron and sulfur (FeS2).
pyroclastic	a rock made up of fragments ejected from a volcanic vent
quartering	a field method for taking a subset from a sample. The sample material is shoveled into a conical pile, which is then divided into four parts taking vertical divisions centered on the vertical axis of the cone. May be done several times in order to reduce the sub-sample to the desired size.
quartz	a common rock-forming mineral comprised of silicon and oxygen (SiO2)
relict	said of a mineral, texture or structure of an earlier rock that has persisted in a recognizable form even though the rock itself has undergone substantial chemical or physical changes
resistivity	a measurement of the resistance of a body of rock to the flow of electrical current; typically this is one of the parameters measured during an induced polarization survey
Sb	antimony.
scheelite	a mineral containing calcium, tungsten and oxygen
sheeted veins or veinlets	a collection of sub-parallel veins or veinlets
silica	silicon dioxide; some of its forms are quartz, chalcedony and opal
silicification	a form of alteration in which quartz or other forms of silicon dioxide are introduced into a rock
sinter	a form of silica deposited as an incrustation by precipitation from the waters of hot springs
stockwork	a three-dimensional network of planar to irregular veinlets
sphalerite	a zinc sulphide mineral
stibnite	an antimony and sulphur-bearing mineral
sub-sample	in a laboratory, the small part of a field sample that is actually subjected to analysis
sulphidation	a term used in the discussion of epithermal precious metal deposits to characterize the sulphide mineral assemblage and the physio-chemical processes that produced it.
sulphide	a mineral characterized by the linkage of sulphur with a metal
syenite	an igneous rock that superficially resembles a granite but contains little or no quartz, an important constituent of true granites
ultramafic	a rock type consisting of almost entirely iron and magnesium silicate minerals with less than 10% calcic plagioclase feldspar and no quartz or potassium feldspar.

UTM	when used in describing a location, refers to an international system of geographic coordinates, given in meters and based on a universal transverse mercator map projection.
vein	a tabular mineral deposit formed in or adjacent to faults or fractures by the deposition of minerals from hydrothermal fluids
veinlet	a small vein; the distinction between vein and veinlet tends to subjective
VLF	very low frequency; refers to the frequency range used in some electromagnetic surveys.
winze	a vertical passageway within a mine that leads downward from a horizontal passage or opening. Unlike a shaft, a winze does not reach the surface.
Zn	zinc

Geologic Time Scale

The following is a cursory listing of the geological time scale, for reference regarding any mention of geological ages within this report.

Era	**Epoch**	**approximate beginning**	**approximate ending**
		million years before present	
Cenozoic	Quaternary	2.0	0.01
	Pliocene	5.1	2.0
	Miocene	24.6	5.1
	Oligocene	38.0	24.6
	Eocene	54.9	38.0
	Paleocene	65	54.9
Mesozoic	Cretaceous	144	65
	Jurassic	213	144
	Triassic	248	213
Paleozoic	Permian	286	248
	Pennsylvanian	320	286
	Mississippian	360	320
	Devonian	408	360
	Silurian	438	408
	Ordovician	505	438
	Cambrian	590	505
Precambrian			590