MINE DEVELOPMENT ASSOCIATES

MINE ENGINEERING SERVICES

Updated Technical Report and Preliminary Economic Assessment
Wind Mountain Gold-Silver Project
Washoe County, Nevada

Prepared for

BRAVADA GOLD CORPORATION

Effective Date: May 2, 2012
Report Date: May 11, 2012
(Revised January 15, 2014)

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CONTENTS

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TABLES

FIGURES

APPENDICES

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1.0 SUMMARY

Mine Development Associates ("MDA") has prepared this updated Technical Report on the Wind Mountain gold-silver project, located in the state of Nevada, at the request of Bravada Gold Corporation ("Bravada"). Bravada was formed as a spin-off of Bravo Gold Corporation's Nevada property holdings and began trading in May 2010. In August 2010, Bravada announced its intention to merge with Fortune River Resource Corporation ("Fortune River"), who held the Wind Mountain project through its wholly owned subsidiary Rio Fortuna Exploration (U.S.), Inc. ("Rio Fortuna"), to form an amalgamated company that retained the name "Bravada Gold Corp."; the merged company began trading in January 2011. Rio Fortuna is now a wholly owned U.S. subsidiary of Bravada. Bravada is referred to in this report as "Fortune River," "Rio Fortuna," or "Bravada," as appropriate for the subject and date discussed.

The purpose of this Technical Report is to provide an updated mineral resource estimate and an updated Preliminary Economic Assessment ("PEA") of the Wind Mountain gold-silver project for Bravada.

This report has been prepared in compliance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1. The resources are classified to be in compliance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Reserves, Definitions and Guidelines" ("CIM Standards") adopted by the CIM Council on November 27, 2010.

Gold and silver mineralization occurs at Wind Mountain in a low- to intermediate-sulfidation, hot spring-type epithermal system. The Wind Mountain gold-silver project was mined and leached from 1989 to 1999 under ownership of Amax Gold Inc. ("Amax") through its subsidiary Wind Mountain Mining, Inc. "Amax" is used in this report to refer to both Amax Gold Inc. and Wind Mountain Mining, Inc., except in Section 4.4, where Wind Mountain Mining, Inc. ("WMMI") is used for accuracy in discussing environmental permitting issues. Amax Gold Inc. and Wind Mountain Mining, Inc. were merged with Kinross Gold USA, Inc. ("Kinross") in 1998.

1.1 Location and Land

The Wind Mountain gold-silver project is located in the northern portion of Washoe County, Nevada, approximately 20 miles by road south of the small town of Gerlach and approximately 65 miles by road north of the larger town of Fernley. It is approximately two hours by vehicle north-northeast of Reno, Nevada.

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The Wind Mountain property is located in Sections 3, 4, and 10, T.29N., R.23E., and Sections 15, 20, 21, 22, 27, 28, 29, 33, and 34, T.30N., R.23E. of the Mount Diablo Base and Meridian. The property is composed of 206 unpatented lode mining claims that total approximately 3,606 acres. The claims are currently in good standing, and all holding costs have been paid through September 1, 2012. The claims are wholly owned or leased by Rio Fortuna, Bravada's wholly owned U.S. subsidiary. The 196 claims owned by Rio Fortuna are subject to a 2% net smelter return ("NSR") royalty to Agnico-Eagle, which can be reduced to 1% NSR by payment of US$1 million; the 10 leased claims are subject to a 3% NSR royalty payable to Harold J. Fuller, which can be reduced to 1% NSR by payment of US$2 million, and are also subject to the Agnico-Eagle royalty.

1.2 Geology and Mineralization

The Wind Mountain property lies in the Basin and Range physiographic province, a region marked by moderate to high mountain ranges separated by desert valleys. The Wind Mountain project area is underlain by weakly metamorphosed Mesozoic sedimentary rocks, which are exposed on the southern portion of the property. Upper Miocene volcanic and volcaniclastic rocks exposed at the surface overlie the Mesozoic units and host nearly all of the known gold and silver mineralization. Strong hydrothermal alteration of the volcaniclastic rocks is found over an area of 2.5 square miles. This area is cut by several large north-striking normal faults as well as a series of northeast-striking normal faults that drop down stratigraphy to the west. Intense silicification occurs in and adjacent to major structures with broad envelopes of moderate to weak argillization peripheral to the stronger alteration.

Gold and silver at Wind Mountain were most likely deposited in a low- to intermediate-sulfidation, hot spring-type epithermal system. Both structures and favorable stratigraphic horizons were receptive hosts for mineralizing fluids. The main Wind Mountain deposit strikes north-south for about 8,400ft. The mineralization is tabular and sub-horizontal, extending in places east-west over a distance of 2,500ft. The deposit is faulted into three separate zones: the Wind, Breeze, and Deep Min, with the latter two being dropped down to the west by about 800ft on the south end and with little offset on the north end. Most of the offset is along the Wind Mountain fault.

Gold mineralization in the Wind and Breeze deposits occurs as electrum and also may be associated with pyritic coatings on an early barren form of pyrite, prior to oxidation. The host mineral of the silver mineralization has not been identified. Oxidation and leaching are strongly developed to depths of up to and over 600ft. The degree of oxidation can have a significant impact on the metallurgical recovery of gold and silver.

1.3 Exploration and Mining History

Modern exploration activities on the Wind Mountain property began in 1978. Amax Exploration, Inc. first leased the property in 1980 and drilled 10 holes but relinquished the property in 1982. Santa Fe Pacific Gold Corp. and Chevron Resources conducted exploration programs in 1983-1986 that included drilling 38 reverse circulation holes. Amax (which had become Amax Gold Inc.) returned to the property in 1987 and drilled a total of 416 drill holes. Most of the Amax exploration activities were directed toward the discovery and development of relatively shallow oxide gold-silver mineralization that was mined in two small- to medium-sized open pits (Breeze deposit and Wind deposit) and then heap leached. A total of 433,194 ounces of gold were contained in the mined and processed material, which consisted of approximately 24.6 million tons of ore averaging 0.018oz Au/T. Although silver was recovered from the ore during heap leaching, a pre-mining evaluation of the silver content of the ore was never completed.

Amax produced 299,259 ounces of gold and 1.77 million ounces of silver from the Wind Mountain mine by open pit mining and heap leaching from 1989 through 1999. The property was considered one of the lowest-grade mines of its time but was still profitable because of a combination of factors including low stripping ratio, good cyanide leaching recoveries, and low process costs.

Mining was done by conventional loader and truck operations in two open pits. A mining cutoff grade of 0.010oz Au/T was used. Two leach pads were operated, and 61% of the leached material was run-of-mine while the remaining leach material was crushed before placement on the pads. Total gold recovery was 69% after rinsing of leach pads. Through historic mining, approximately 5.9 ounces of silver were recovered for every recovered ounce of gold.

Prior to completion of permitted pits, mining was stopped in 1992 due to rising costs, low metal prices, and disputes over royalty positions. Gold production continued through 1999 through additional leaching and rinsing of material on the heap leach pads.

Fortune River acquired the property in February 2006. Fieldwork conducted by Fortune River through 2010 included surface rock-chip sampling, geologic mapping, a ground magnetics survey, dump sampling, and drilling of 13 holes in 2007 and 14 holes in 2008. Fortune River also collected historic data and developed a 3-D computer model of geology and mineralization. This work indicated that disseminated gold was deposited over a broad area along relatively flat-lying permeable horizons, with higher concentrations along fracture sets and small-scale faults trending north, northeast, and northwest.

Since its acquisition of Fortune River in 2011, Bravada has conducted mapping and biological and archeological studies that will be necessary for mine permitting. In addition, Bravada completed 50 drill holes during 2011.

Both Fortune River and Bravada have conducted metallurgical testing.

Drilling by Fortune River and Bravada produced the following results:

- Verified that a portion of the original Breeze deposit had not been mined and confirmed that potentially leachable gold and silver remain unmined underneath and adjacent to the existing pits;
- Identified a new pod of gold mineralization, called Deep Min, on the west side of the Wind Mountain fault where the westward extension of mineralization has been dropped down approximately 700ft;
- Identified other targets with shallow oxide gold-silver mineralization; and
- Confirmed that some of the historic waste dumps contain grades of gold and silver above currently anticipated cutoff grades.

1.4 Drilling

Five companies have drilled a total of 541 holes in the Wind Mountain property totaling 203,029ft. All but four of the holes were reverse circulation ("RC") holes; the four core holes were drilled in areas that have since been mined. Drill spacing for the entire resource averages 160ft. In addition to the drill-hole data, blast-hole data were available in the Amax archives that contained blast-hole coordinates with gold and silver assays for 81,275 blast holes.

During drilling, groundwater was encountered in many of the deep holes. Discharge from the RC rig was as much as 120 gallons per minute in one 1,000ft hole, and water temperature as high as 114° F was recorded. Although no drilling was conducted solely to test groundwater, sufficient exploration drilling has been done by Amax, Fortune River, and Bravada and indicates that no geothermal conditions will hinder the mining of the established near-surface resource.

1.5 Mineral Processing and Metallurgical Testing

Several metallurgical studies have been completed on the Wind Mountain gold-silver project, but the most compelling indication for gold and silver recovery is from historical production that occurred between 1989 and 1999.

The most significant metallurgical studies suggested gold recoveries of 51% to 67% would be possible, though most testwork anticipated crushing of ore. A McClelland Laboratories, Inc. ("McClelland") study (McClelland, 1990) suggested that gold recoveries of 58% would be possible as well as silver recovery of 17%.

Historic production confirmed the deposit is amenable to leaching with a total recovery, during active leaching, of gold of 67% and total recovery after rinsing of 69%. In addition, a total of 1.77 million ounces of silver was recovered during historical operations; however, the silver grade analysis lacked the confidence to properly track recovery.

In 2008, Fortune River commissioned McClelland to conduct column testing of two bulk dump samples from the Wind and Breeze pits. Leaching of the Wind pit material for 134 days recovered 60.7% of the gold and 14.6% of the silver. The dump sample from the Breeze pit had a high clay content which did not allow the leach solutions to pass through the column. A prominent clay layer was encountered within the trench from which the Breeze sample was derived, and no attempt was made to segregate the clay layer from the sample in order to indicate the probable results of a worst case scenario. According to Alan Noble, production records indicate that high-clay material was selectively sent to the waste dump, even if it had ore-grade mineralization.

Cold cyanide extraction tests were also conducted by BSI Inspectorate and ALS Chemex Labs on pulps from intervals of two holes from Deep Min. The mineralization that was tested is Inferred. It lies at depths of more than 600ft beneath the surface and ranges from partially to totally unoxidized. Cold cyanide extraction tests yielded average extraction of between 10% and 41% of the gold and between 31% and 44% of the silver.

Waste dumps were constructed while the mine was operating using a 0.010oz Au/T cutoff grade. In addition to the work by Fortune River described above, they conducted work to identify if the waste-dump material could be amenable to heap leaching. Testing was completed on dump surface samples on which BSI Inspectorate conducted one-hour cold cyanide extraction tests. The 108 dump samples were taken on a grid and two long trenches from the three largest dumps. Average extraction of 98% of the gold and 104% of the silver was achieved; however, the samples are not representative of all of the historical waste dumps.

In March 2011, eight metallurgical samples were taken from existing leach pads, existing waste dumps, and exposed open pit areas. All of the samples were subjected to size fraction analysis and bottle roll tests. Three of the samples, one from a leach pad, one from the Breeze pit, and one from the Wind pit were used for column leach testing at two different size reductions. The column testing showed that existing leach material is not readily amenable to further leaching but that material from the pit areas is amenable to leaching. The column test recoveries using 80% minus 1/2in and 80% minus 1/4in material were not particularly sensitive to crush size.

While there is ample information about global metallurgical recoveries, the bulk of this information is based on historical mining and recent surface sampling. This information may or may not be entirely representative of all future mining. To mitigate project risks, additional testing of changes in metallurgical recoveries spatially, particularly near oxidized/unoxidized boundaries, is needed.

1.6 Mineral Resource Estimate

The mineral resources at the Wind Mountain project were modeled and estimated by evaluating the drill data statistically, utilizing the geologic interpretations provided by Bravada to interpret mineral domains on cross sections, analyzing the modeled mineralization statistically to aid in the establishment of estimation parameters, and estimating grades into three-dimensional block models.

One gold mineral domain and two silver mineral domains were modeled on sections spaced 100ft apart. The gold domain ranges from around 0.004 to 0.006oz Au/T and up. The low-grade silver domain, which is a halo to all mineralization, consists of grades above about 0.05oz Ag/T; the higher-grade silver domain is a very consistently mineralized domain above about 0.15oz Ag/T. The Wind Mountain fault domain is a distinct and second gold domain and a distinct and third silver domain. The Wind Mountain fault domain is the same for both metals and is the fault zone, which has post-mineralization movement. Mineralization within it is discontinuous and interpreted as isolated, and therefore entirely classified as Inferred.

Inverse distance estimation (cubed and to-the-fourth power) was chosen for the reported estimate, but estimates were also made by nearest neighbor and kriging as checks. Each domain grade was estimated separately into each block and was then weight averaged by the percentage of each domain for the reported block-averaged model. The block model is not rotated, and the blocks are 25ft by 25ft by 20ft vertical. The dimensions were chosen to best reflect possible block sizes for mining.

MDA classified the Wind Mountain resources by a combination of distance to the nearest sample, number of samples, confidence in the underlying data, sample integrity, analytical precision/reliability, and geologic interpretations. None of the resource was classified as Measured because of the absence of supporting documentation for some historic data, the lack of quality control for much of the underlying historic database, minimal metallurgical data at depth and some indications of variable recoveries in what may be the reserve, and the disparity between grades of silver estimated from exploration data compared to grades of silver estimated from Amax blast-hole data. For some of the above reasons, all of the Deep Min mineralization is classified as Inferred but mostly because of minimal metallurgical data and the fact that it is defined by only nine holes, and they are all RC.

Table 1.1 presents the Indicated and Inferred Wind Mountain diluted resources. The oxide resource is reported at a cutoff of 0.005oz Au/T. The unoxidized and mixed zones are reported at a cutoff of 0.010oz Au/T based on the presumption that recoveries will be lower in the unoxidized material.

Table 1.1 Gold and Silver Resources for Wind Mountain

Cutoff oz Au/T	Tons	oz Au/T	oz Ag/T	oz Au	oz Ag
Oxide Mineralization					
Indicated					
0.005	58,816,000	0.010	0.25	564,600	14,539,000
Inferred					
0.005	19,866,000	0.006	0.17	125,200	3,443,000
Mixed and Unoxidized Mineralization					
Indicated					
0.010	498,000	0.012	0.40	5,900	197,000
Inferred					
0.010	14,595,000	0.016	0.46	229,100	6,672,000

In addition to the estimated and reported resources listed above, there are four mine dumps that total about 10 million tons of material. The dumps have variable amounts of sampling. All of the sampling indicates the dumps could average between 0.005oz Au/T and 0.013oz Au/T. Although there are currently insufficient data to estimate grades spatially and there is a potential sample-selection bias, MDA is optimistic that with further drilling and sampling much of these dumps' grade and tons could be quantified for economic evaluation.

1.7 Preliminary Economic Assessment ("PEA")

At the request of Bravada, MDA has completed a PEA for the Wind Mountain gold-silver project. Note that Canadian NI 43-101 guidelines define a PEA as follows:

> ***A preliminary economic assessment is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.***

The PEA assumes open-pit mining using conventional trucks and shovels and run-of-mine leaching of the Indicated and Inferred resources summarized in Table 1.2.

Table 1.2 In-pit PEA Resources

	K Tons	Ozs Au/t	K Ozs Au	Ozs Ag/T	K Oz Ag
Indicated	42,064	0.011	446	0.26	10,793
Inferred	2,208	0.008	18	0.18	404

In-pit resources are reported using a 0.006 oz Au/t cutoff

A gold price of $1,300 per ounce and a silver price of $24.42 per ounce were used for the economic evaluation. The PEA assumes that all material sent to run-of-mine ("ROM") leach pads is amenable to heap leaching. Economic highlights include:

- Undiscounted life-of-mine pre-tax cash flow of US$63.3 million and US$42.2 million after-tax;
- Net present value (5% discount rate) pre-tax of US$42.9 million and US$26.5 after-tax;
- Pre-tax internal rate of return of 29% and 21% after-tax;
- Payback period of 2.24 years;
- Life-of-mine cash cost of $859 per equivalent ounce of gold (includes silver as a credit and Nevada net proceeds tax and royalties as costs, but does not include corporate income tax);
- Total pre-tax cost of $1,080 per equivalent ounce of gold (includes silver as a credit and Nevada net proceeds tax and royalties as costs, but does not include corporate income tax);
- Strip ratio is 0.71 tons of waste for each ton of leachable material; and
- 288,000 ounces of gold and 1,680,000 ounces of silver are recovered (320,000 gold equivalent).

The project location and infrastructure are favorable for mine development, including: good access, favorable topography, a sparsely populated region, nearby availability of power and water, and previous disturbance of the site by mining. Improvements to necessary infrastructure (power, water, access, housing, *etc.*) should be reasonably inexpensive. Issues of archeological resources and a complication of the land status will need to be monitored as the program progresses, but none of these appears to constitute a significant impediment. There are no known environmental, social, or logistical impediments to developing a mine at Wind Mountain.

The following have been identified as risks:

- The remaining resources to be mined in the PEA have a low average gold grade of 0.011oz Au/T. Due to the low grades, the relative accuracy of assays can cause errors in classification. In addition, the lower grades may exhibit lower metallurgical recovery. During operations, ore control will be a critical issue in making a successful operation.
- A drop in metal prices can adversely impact the ability of the project to create a profit. This could be mitigated using a strategy of forward selling of gold and silver.

- During column testing of dumps, some clays were found to hinder permeability of fluids. The material should be better identified through studies to determine the potential impact and mitigation procedures.

The following have been identified as opportunities:

- The PEA uses a lagged timing for the production of gold from leach pads. Shorter lag time could be obtained with careful management of leach pads and optimization of the spray time for ore placed.

- Forward sales of gold and or silver can enhance the project economics. For example, a forward selling strategy that would lock in a 20% increase in metal prices could increase the NPV (5%) by $62.2 million.

- Existing waste dumps were made using a 0.010oz cutoff grade. Some of the existing dump material may be economic though selective mining may be required.

- With the relatively short mine life, there may be a process equipment salvage value that can help enhance the project economics. Additionally, the project may lend itself to the use of used equipment, which would reduce initial capital requirements.

1.8 Conclusions and Recommendations

The Wind Mountain property is a property of merit and warrants additional exploration as well as economic studies. The project location and infrastructure are favorable for mine development, and should the project advance through feasibility with positive results, improvements to necessary infrastructure (power, water, access, housing, *etc*.) should be reasonably inexpensive. There are no known environmental, social, or logistical impediments to developing a mine at Wind Mountain. In addition, deeper targets of unoxidized mineralization and improved understanding of economic potential of historic waste dumps may add additional value to the project. Additional targets for oxidized mineralization have also been identified during geologic modeling. Two areas, North Hill and Zephyr, appear to be extensions of mineralization that have been down faulted by post-mineral faults; they have received very few drill holes to date.

In order to advance the Wind Mountain project, MDA has made several recommendations as follows:

- CN shaker tests on drill-sample pulps should be completed to better identify spatial changes in recoveries (estimated cost is $10,000);
- Metallurgical modeling is needed to better define spatial recoveries (estimated cost is $10,000);
- Additional metallurgical studies to define metal recoveries at grades similar to the remaining resources (estimated cost is $72,000);
- Collection of baseline data in the proposed heap leach facility area (estimated cost is $50,000);
- Reconciliation work to better understand the bias between resource model and blast-hole silver grades (estimated cost is $20,000);

- Pre-feasibility level geotechnical study is required to recommend pit slope parameters (estimated cost is $40,000);
- Hydrology study to identify water sources for the project (estimated cost is $30,000);
- Completion of a pre-feasibility study to determine the project economic viability (estimated cost is $200,000);
- Drilling of historic waste dumps and subsequent modeling to determine economic potential of dumps (estimated cost is $100,000); and
- Additional drilling to expand the North Hill and Zephyr targets (estimated cost is $196,000).

The total estimated cost of the above recommendations is $728,000.

2.0 INTRODUCTION AND TERMS OF REFERENCE

Mine Development Associates ("MDA") has prepared this updated Technical Report on the Wind Mountain gold-silver project, located in the state of Nevada, at the request of Bravada Gold Corporation ("Bravada"). Bravada is listed on the Toronto Venture Exchange ("TSX") under the symbol BVA and on the Frankfurt Stock Exchange under the symbol BRT. Bravada was formed as a spin-off of Bravo Gold Corporation's Nevada property holdings and began trading in May 2010. In August 2010, Bravada announced its intention to merge with Fortune River Resource Corporation ("Fortune River"), who held the Wind Mountain project through its wholly owned subsidiary Rio Fortuna Exploration (U.S.), Inc. ("Rio Fortuna"), to form an amalgamated company that retained the name "Bravada Gold Corp."; the merged company began trading in January 2011. Rio Fortuna is now a wholly owned U.S. subsidiary of Bravada. Bravada is referred to in this report as "Fortune River," "Rio Fortuna," or "Bravada," as appropriate for the subject and date discussed.

This report and the resource estimates have been prepared in compliance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1, as well as with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Reserves, Definitions and Guidelines" ("CIM Standards") adopted by the CIM Council on November 27, 2010.

Gold and silver mineralization occurs at Wind Mountain in a low- to intermediate-sulfidation, hot spring-type epithermal system. The Wind Mountain gold-silver project was mined and leached from 1989 to 1999 under ownership of Amax Gold Inc. ("Amax") through its subsidiary Wind Mountain Mining, Inc. "Amax" is used in this report to refer to both Amax Gold Inc. and Wind Mountain Mining, Inc., except in Section 4.4, where Wind Mountain Mining, Inc. ("WMMI") is used for accuracy in discussing environmental permitting issues. Amax Gold Inc. and Wind Mountain Mining, Inc. were merged with Kinross Gold USA, Inc. ("Kinross") in 1998. The project was previously described in a 2007 Technical Report (Noble and Ranta, 2007) prepared for Fortune River and in a 2010 Technical Report and Preliminary Economic Assessment (Dyer and Noble, 2010) prepared by MDA for Fortune River.

2.1 Project Scope and Terms of Reference

The purpose of this Technical Report is to provide an updated mineral resource estimate and an updated Preliminary Economic Assessment ("PEA") of the Wind Mountain gold-silver project for Bravada. This report has been prepared by Steven Ristorcelli, C.P.G., Principal Geologist for MDA, and by Thomas L. Dyer, P.E., Senior Engineer for MDA. The Mineral Resources were estimated and classified under the supervision of Mr. Ristorcelli. The PEA was updated under the supervision of Mr. Dyer. Mr. Ristorcelli and Mr. Dyer are Qualified Persons under NI 43-101. There is no affiliation between Mr. Ristorcelli or Mr. Dyer and Bravada except that of independent consultant/client relationships. No Mineral Reserves have been estimated for this report.

The scope of this study included a review of pertinent technical reports and data provided to the authors by Bravada relative to the general setting, geology, project history, exploration activities and results, methodology, quality assurance, interpretations, drilling programs, and metallurgy. MDA has relied on the data and information provided by Bravada for the completion of this report. Mr. Ristorcelli visited the Wind Mountain property on March 28, 2012. During this visit, Mr. Ristorcelli reviewed the pit, outcrops, the dumps, and leach pads. Mr. Dyer reviewed the pits, dumps, and leach pads during a site visit to the property on February 3, 2010. MDA has made such independent investigations as deemed necessary in the professional judgment of the authors to be able to reasonably present the conclusions discussed herein.

The authors have relied almost entirely on data and information derived from work done by Bravada and previous companies involved with the project, a small portion of which has been verified by independent sampling experts. The authors have reviewed much of the available data, made a site visit, and have 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.

The effective date of this report is May 2, 2012, which is the date of the completion of the PEA. The effective date of the database is March 21, 2012. The effective date of the resource estimate is March 22, 2012.

The revisions to this document on January 15, 2014 included the addition of text describing the 2007 resource estimate reported in a NI 43-101 Technical Report (Noble and Ranta, 2007), removal of a clause in the Authors' Certificate, addition of corporate taxes to the cash flow, and inclusion of some cautionary wording for the inclusion of Inferred resources in the cash flow and mine plan.

2.2 Frequently Used Acronyms, Abbreviations, Definitions, and Units of Measure

In this report, measurements are given in English units, except where the original information was reported in metric units (geophysics). Assays have been reported in the manner in which they were received; all early work is in English units (oz/T), and more recent work is reported in ppm.

Currency, units of measure, and conversion factors used in this report include:

Linear Measure		
1 centimeter	= 0.3937 inch	
1 meter	= 3.2808 feet	= 1.0936 yard
1 kilometer	= 0.6214 mile	
Area Measure		
1 hectare	= 2.471 acres	= 0.0039 square mile
Capacity Measure (liquid)		
1 liter	= 0.2642 US gallons	
Weight		
1 tonne (metric)	= 1.1023 short tons	= 2,205 pounds
1 kilogram	= 2.205 pounds	

Currency Unless otherwise indicated, all references to dollars ($) in this report refer to currency of the United States.

Frequently used acronyms and abbreviations

AA	atomic absorption spectrometry
Ag	silver
As	arsenic
Au	gold
Bi	bismuth
BLM	United States Department of the Interior, Bureau of Land Management
BMRR	Bureau of Mining Regulation and Reclamation
Cu	copper
ft	feet
G&A	general and administrative
g	grams
g/t	grams per tonne
Hg	mercury
ICP	inductively coupled plasma method of analysis
in	inches
km	kilometer
lb	pound (2000lb to 1 ton, 2204.6lb to 1 tonne)
IRR	internal rate of return
kwh	kilowatt hour
LOM	life of mine
m	meters
MDA	Mine Development Associates, the authors of this Technical Report
NDEP	Nevada Division of Environmental Protection
NPV	net present value
NSR	net smelter return
oz	troy ounce (12oz to 1 pound)
oz/T	troy ounce per short ton
Pb	lead
PEA	preliminary economic assessment
ppm	parts per million (1ppm to 0.0292oz/ton)
RC	reverse circulation drilling method
ROM	run of mine
Se	selenium
Tl	thallium
ton	short (imperial) ton
tonne	metric ton
Tpd	(short) tons per day
USD	currency of the United States
USGS	United States Geologic Survey
Zn	zinc

3.0 RELIANCE ON OTHER EXPERTS

The authors are not experts in legal matters, such as the assessment of the legal validity of mining claims, private lands, mineral rights, and property agreements. The authors rely on information provided by Bravada as to the title of the unpatented mining claims, and private mineral rights comprising the Wind Mountain project, the terms of property agreements, and the existence of applicable royalty obligations Section 4.2 is based on information provided by Bravada, and the authors offer no professional opinions regarding the provided information.

The authors did not conduct any investigations of the social-economic issues associated with the Wind Mountain gold-silver project, and the authors are not experts with respect to this issue. MDA has relied on Bravada to provide full information concerning the legal status of the company and related companies, as well as current legal title and material terms of all agreements relating to the property.

The authors are not experts with regard to environmental permitting or liabilities. For Section 4.4 and Section 20.0 on Environmental Considerations, MDA has relied on Debra W. Struhsacker, an environmental permitting and government relations consultant, who provided expertise for environmental and permitting issues. Ms. Struhsacker is a Certified Professional Geologist, Licensed Geologist, and Nevada Certified Environmental Manager (EM No. 1078), as defined by Nevada revised statutes and as designated by the Nevada Department of Conservation and Natural Resources, Division of Environmental Protection.

4.0 PROPERTY DESCRIPTION AND LOCATION

The authors are not experts in land, legal, environmental, and permitting matters. This Section 4.0 is based on information provided to the authors by Bravada. The authors present this information to fulfill reporting requirements of NI 43-101 and can express no opinion regarding the legal or environmental status of the Wind Mountain project.

4.1 Location

The Wind Mountain gold-silver project is located in the northern portion of Washoe County, northwest Nevada (Figure 4.1), at the northern end of the Lake Range and north-northeast of Pyramid Lake. The project area is flanked to the west and north by the San Emidio Desert. Wind Mountain lies approximately 20 miles by road south of the small town of Gerlach and approximately 65 miles by road north of the larger town of Fernley. Fernley is about 30 miles east of Reno. It is approximately two hours by car north-northeast of Reno, Nevada.

The topographic map covering the project area is the San Emidio Desert North quadrangle, Nevada, at 1:24,000-scale, published by the U.S. Geologic Survey. The approximate center of the project area is latitude 40° 25.75’ North and longitude 119° 23.6’ West.

4.2 Land Area

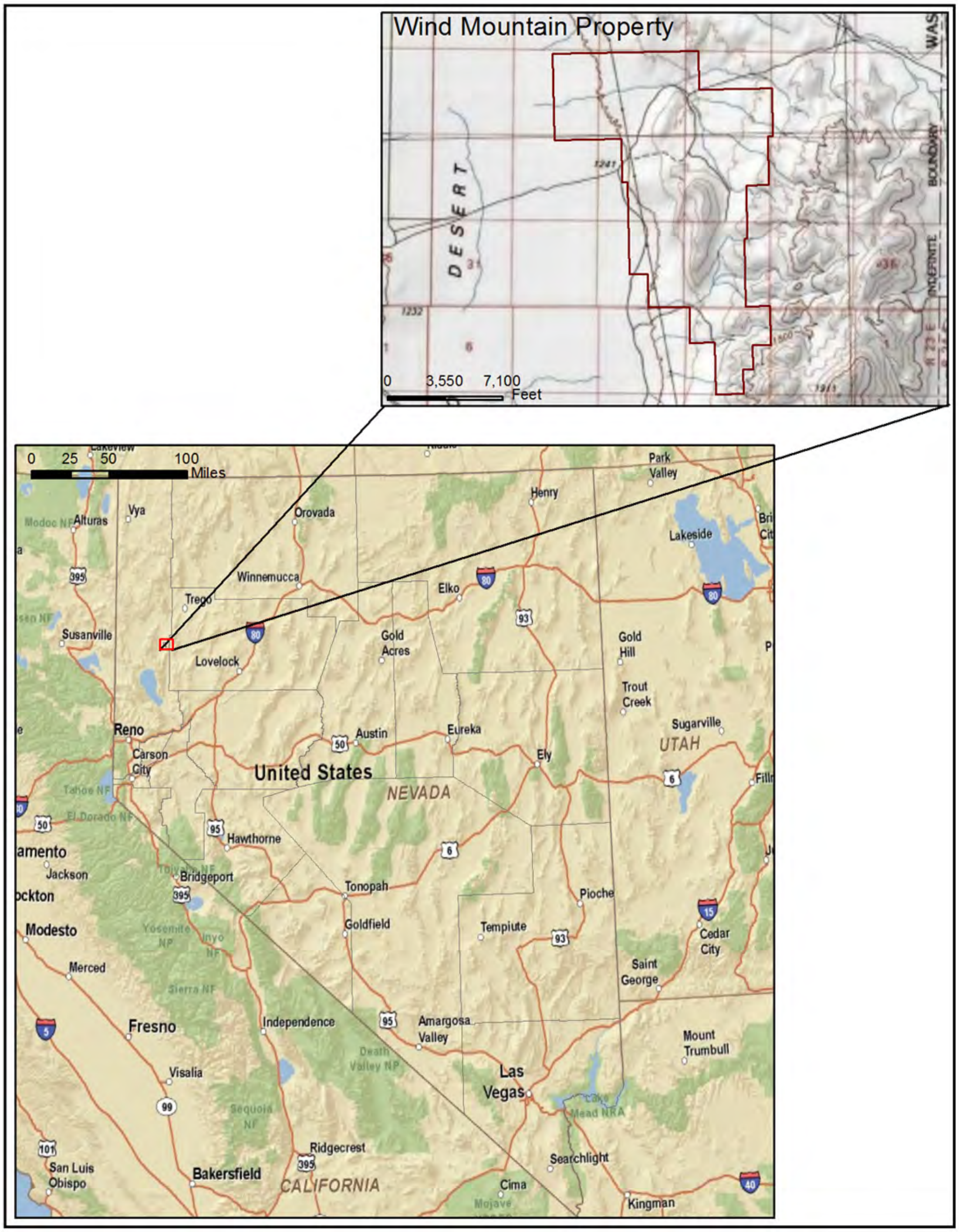
The project area comprises 206 unpatented lode mining claims covering an area of approximately 3,606 acres (Figure 4.2, Appendix A). All claims are located on U.S. federal land managed by the Winnemucca District of the Bureau of Land Management (“BLM”). The claims are in a contiguous block that is located in Sections 3, 4, and 10, T.29N., R.23E., and in Sections 15, 20, 21, 22, 27, 28, 29, 33, and 34, T.30N., R.23E., of the Mount Diablo Base and Meridian. Each claim within the property boundary is identified by 2 by 2in by 4ft wood posts marked with a scribe17+d aluminum tag as required by Nevada statutes. The claims have not been surveyed by a mineral land surveyor, but they are registered and recorded with both the BLM and Washoe County.

Bravada leases 10 of the claims as described in Section 4.3. The remaining 196 claims are owned by Bravada’s wholly owned subsidiary Rio Fortuna Exploration (U.S.), Inc.

There are no known conflicts or potential conflicts of land ownership in the immediate project area, with the exception of a private owner who submitted a filing for placer claims in the general location east and north of the Breeze pit to the BLM. These claims were apparently abandoned in September 2006 due to a lack of payment, but a similar group of placer claims with slightly different boundaries was again submitted to the BLM in October 2006. No field evidence of their location was discerned during an extensive search by two Fortune River consultants and an employee. With an abundance of caution, Fortune River’s legal counsel advised them to stake a second layer of lode claims over the area that BLM records showed as being partially covered by the placer claims. This was done by the filing of 17 claims (Viento 1 through 17) by Fortune River in November 2006 and January 2007. BLM records indicate that these claims lapsed on September 1, 2011 due to non-payment of maintenance fees.

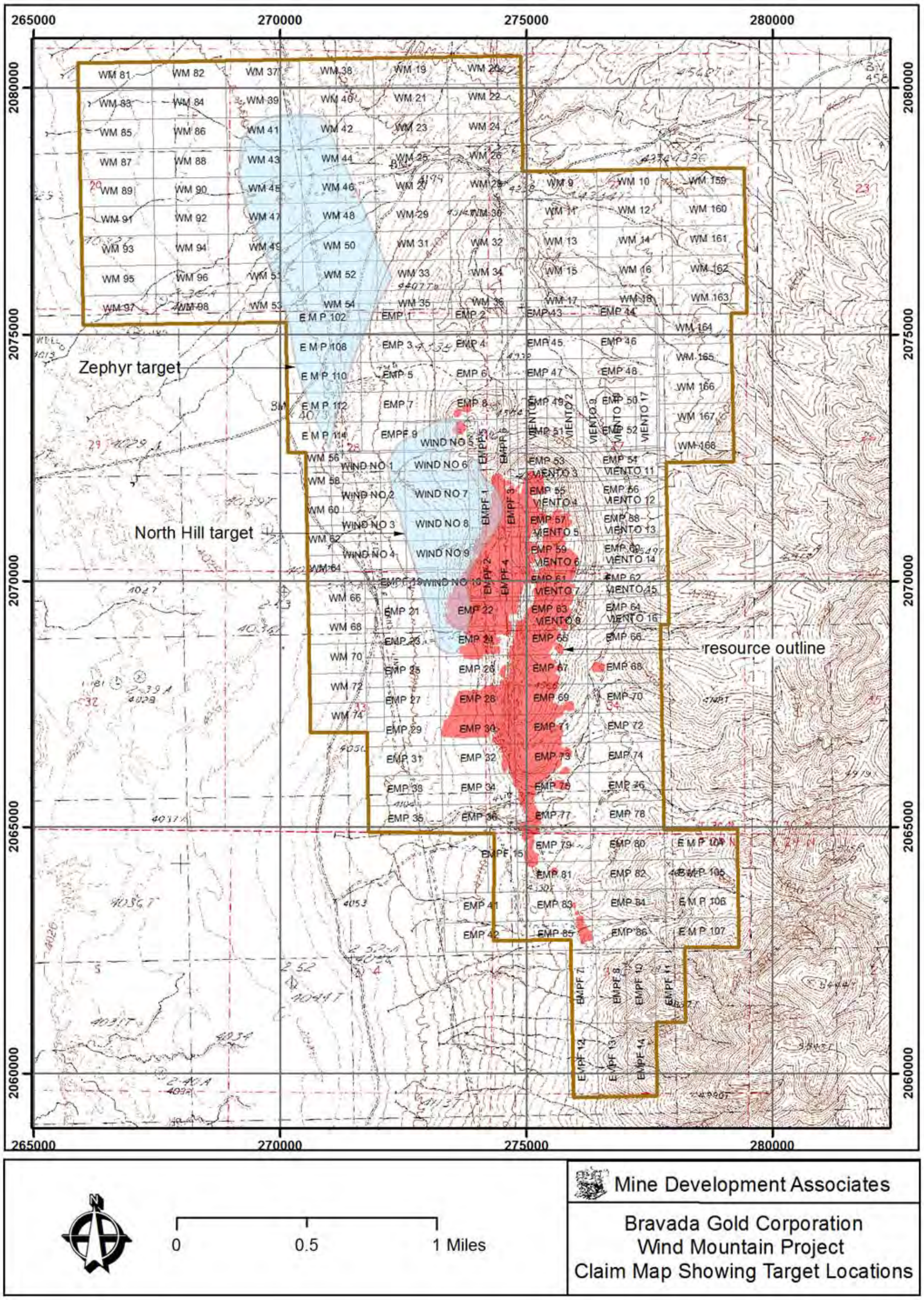
Current holding costs for unpatented mining claims are $140 Maintenance Fee per claim each year to the BLM and $10.50 Intent to Hold Fee per claim each year to Washoe County. Bravada reports that all federal and county fees to maintain the claims for another year have been paid through September 1, 2012.

Figure 4.1 Location Map



	Mine Development Associates
	Bravada Gold Corporation Wind Mountain Project Location Map

Figure 4.2 Land Status Map
(Provided by Bravada, 2012)



4.3 Agreements and Encumbrances

Fortune River initially acquired 86 unpatented claims (1,760 acres) in February 2006 from Agnico-Eagle (USA) Ltd. ("Agnico-Eagle"), a subsidiary of Agnico-Eagle Mines Ltd., which staked the property in January 2004 sometime after Amax had abandoned its claims. This agreement created a 1-mile area-of-interest around the 86 lode claims, and under the terms of the agreement, Fortune River acquired a 100% interest in these claims by spending in excess of $2.0 million. All 206 of the presently owned claims are within this area of interest. Agnico-Eagle held a right to either accept a 2% net smelter return ("NSR") royalty, of which 1% can be purchased for $1.0 million, or elect to earn back 60% interest by spending $4.0 million over a four-year period and producing a bankable feasibility document. Agnico-Eagle could have earned another 10%, for a total of 70%, by loaning or arranging for financing of Fortune River's share of capital required for mine development and construction costs. Fortune River spent approximately $2.2 million fulfilling their obligations to earn 100% interest in the project. On November 26, 2008, Agnico-Eagle acknowledged Fortune River's fulfillment of the agreement and stated in writing that they "*have decided not to exercise our back-in option. Instead we elect to reduce our interest to a royalty position as described in our exploration agreement*."

Fortune River leased 10 "Wind" unpatented claims that lie along the western portion of the Wind Mountain property in February 2007 from Harold J. Fuller ("Fuller"). The lease agreement requires annual minimum payments beginning at $3,000 on signing and escalating to a maximum of $25,000 on the fifth anniversary date of the agreement, and payment of a 3% NSR royalty. All annual payments subsequent to the initial payment are advanced minimum royalties, which can be subtracted from any future royalty payment. Up to 2% of the NSR royalty may be purchased at the rate of $1 million per percentage point. The Wind claims are within the Agnico-Eagle/Fortune River 1-mile area-of-interest of the Agnico-Eagle property and, at their discretion, would be included in the terms of the Agnico-Eagle agreement.

4.4 Environmental Considerations

Debra Struhsacker, an environmental permitting and government relations consultant, provided the following information on environmental liabilities and permitting.

Bravada's U.S. subsidiary, Rio Fortuna, is conducting the exploration at Wind Mountain, and environmental permits are in Rio Fortuna's name. For that reason, "Rio Fortuna" is used throughout this section.

4.4.1 Environmental Liabilities

There are no known environmental liabilities associated with the exploration activities at the Wind Mountain site that Rio Fortuna has conducted in the last several years. Rio Fortuna conducted much of its exploration activities on previously disturbed land, and is responsible for the limited, new, surface disturbance that it created in conjunction with its exploration drilling activities. Rio Fortuna obtained approval from the U.S. Bureau of Land Management ("BLM") for these activities. The company has already reclaimed some of the surface disturbance it created during its exploration program. Reclamation of the remaining unreclaimed surface disturbance for which Rio Fortuna is responsible is guaranteed by a $80,287 reclamation bond that Rio Fortuna has provided to BLM. Most of this bond ($64,726) is to cover the costs associated with removing the perimeter fence. The remainder ($15,561) is to reclaim the surface disturbance associated with the exploration drilling program. In April 2011, Rio Fortuna entered into a purchase and sale agreement with WMMI to take over the responsibility for maintaining and ultimately removing the perimeter fence around the former mine site.

In the 1980s-early 1990s timeframe, WMMI developed the Wind Mountain mining and heap leach processing project. WMMI was then a subsidiary of Amax Gold and is now a wholly owned subsidiary of Kinross. Kinross has successfully closed and reclaimed the Wind Mountain heap leach facilities. In 2009, the Nevada Division of Environmental Protection/Bureau of Mining Regulation and Reclamation ("NDEP/BMRR") closed the Water Pollution Control Permit for the site and authorized Kinross to plug and abandon the monitoring wells and the dosing tanks at the leach field down gradient from the reclaimed heaps. On August 12, 2011, the Winnemucca District Office/Black Rock Field Office of BLM issued a decision stating that WMMI had satisfied its reclamation responsibilities for the site. Therefore, BLM closed WMMI's Plan of Operations file and returned the reclamation bond to WMMI. With the closure of the Plan of Operations and the Water Pollution Control Permit and abandonment of the monitoring wells, Kinross is no longer responsible for the Wind Mountain site. Rio Fortuna now is responsible for the only remaining reclamation obligation associated with the former mine site which is to maintain and ultimately remove the perimeter fence.

Prior to developing new mining and heap leach facilities at Wind Mountain, Rio Fortuna should collect adequate baseline data to document the extent of the previous mining facilities and to determine whether there are any potential residual effects of the heap leach processing activities. These data should include information about the depth to groundwater and groundwater quality, the amount of previous surface disturbance which has been reclaimed, and the footprints associated with the existing open pit mines, and waste rock dumps.

Rio Fortuna will also have to hire qualified contractors to perform baseline studies to collect the data needed to support the permit applications and environmental analysis for a new mine. The additional baseline studies include but are not limited to waste characterization tests to determine if the project waste rocks may be acid generating or have the potential to leach metals, cultural resources surveys, wildlife surveys, and air quality monitoring.

Some of these baseline studies are already underway. Rio Fortuna initiated wildlife and cultural resources surveys in 2011. Preliminary discussions with regulatory personnel indicate that empirical observations from the existing waste rock dumps and pit walls can be incorporated into the waste characterization studies.

4.4.2 Permits Required

Like all Nevada mining projects on BLM-administered public land, renewed mining and mineral processing activities at the Wind Mountain gold project will require a number of federal and state permits. Rio Fortuna has a Notice approved and bonded with the BLM for its exploration activities. A Notice is the authorization BLM uses to approve surface exploration activities that disturb fewer than five acres. Presently, BLM has authorized Rio Fortuna to construct 78 drill sites; the company has drilled 77 holes to date. Future exploration drilling will require an amendment to the Notice. Rio Fortuna will have to submit a Plan of Operations to BLM if the surface disturbance associated with the drilling activities needs to exceed five acres. It may take BLM one to two months to approve an amended Notice. Approval of a Plan of Operations for an expanded drilling program will likely take nine to 12 months.

A new project will also require several permits from Washoe County including a Special Use Permit and an Air Quality Operating Permit. Section 20.3 describes the permitting and bonding requirements, and Table 20.1 lists the permits that are likely to be required to build and operate new surface mining and heap leaching facilities at Wind Mountain.

In addition to the permits, Rio Fortuna will have to acquire water for the project. Kinross transferred ownership of the two water wells that were used to support the previous mining and heap leaching operation to the nearby Empire Farms. The most expeditious way for Rio Fortuna to obtain water will probably be to negotiate a water purchase agreement from nearby sources.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

The information in this section has been largely taken from the Technical Report completed in 2007 (Noble and Ranta, 2007).

5.1 Access

Access to the Wind Mountain gold-silver project is very good, and the property is accessible year round barring any unusual snow accumulation. The project is accessible from either the north or the south via State Route 447. For access from Reno, Nevada, proceed east on I-80 for approximately 30 miles to the Wadsworth exit. From this exit, follow Route 447 northward for about 65 miles through the small towns of Wadsworth and Nixon to a paved west-trending road to Empire Farms and Empire Energy. From this intersection, proceed approximately 3.5 miles west on the paved road, which becomes gravel, towards Empire Farms, and at the next intersection with another good gravel road continue 2 miles south to the project area.

Direct access to the property is by existing roads that are permitted and bonded by the Notice filed with the BLM. Most of the project area is inside a fenced enclosure which includes the Wind and Breeze pits and is controlled by Bravada.

5.2 Physiography

The Wind Mountain gold-silver project lies near the western edge of the Basin and Range physiographic province, characterized by generally north-trending, fault-bounded ranges separated by sediment-filled valleys. The elevation on the property ranges from approximately 4,000ft to 4,800ft above sea level; the currently identified gold deposits are located between 3,900ft to 4,800ft elevation. Topography varies from moderate and hilly terrain with rocky knolls and peaks, to steep and mountainous terrain in the nearby higher elevations of the Lake Range.

The vegetation throughout the project area is typical of lower elevations of the Basin and Range Province. The property is also within the Great Basin salt desert shrub ecological zone typified by alkaline to saline soils and low shrubs, such as greasewood, shadscale, rabbitbrush, sagebrush, and four-wing saltbush. Cheat grass is prevalent throughout the area, and there are no trees on the site. Disturbed portions of the project area have been ripped and seeded. Cheat grass, and forbs (herbaceous flowering plant) in some areas, have been established.

5.3 Climate

The site is located in the arid San Emidio Desert, with 4in to 6in of precipitation annually, and evaporation well in excess of 40in. This relatively low elevation produces hot and dry summers with high temperatures in the 90 to 110°F range. Winters can be cold and windy with temperatures dropping to -30°F, with most precipitation falling as snow in the winter months. During the period from 1989 through 1992, the now-closed Wind Mountain mine operated throughout the year with only limited weather-related interruptions.

5.4 Local Resources and Infrastructure

A motel, restaurant, and gas station are available 20 miles north of the property on Route 447 in the nearby town of Gerlach. A greater variety of accommodations is available in Fernley, about 65 miles to the south on Route 447, which has the nearest available services for both mine development work and mine operations. It is likely that Fernley has housing, adequate fuel supplies, and sufficient infrastructure to provide basic needs. Necessary infrastructure, such as housing, etc., would be available in either town, or possibly in the Pyramid Lake Paiute Tribe's reservation towns of Nixon and Wadsworth.

High-capacity water wells are known to exist in the nearby San Emidio Desert, and a major power line runs within the western boundary of the project. Transportation of supplies would be primarily by truck from Fernley, which is located on Interstate 80. Rail service is available in both Gerlach and Fernley. Reno and Sparks are about 100 miles from the project area by road and would be major logistics centers for any materials required for mine development at Wind Mountain.

The previously active Wind Mountain gold mine site has been reclaimed to modern standards. The project boundary is fenced for public safety, and access to the pits and heap leach areas is gained through a locked gate controlled by Bravada. No buildings or local power lines remain, although a major electrical transmission line exists near the western boundary of the fenced area, and an electrical substation is located on the south end of the project. Water for the historical mining operations was supplied from a well field in the valley approximately 3,500ft south of the former mine site.

5.5 Geothermal Issues

U.S. Geothermal Inc. ("U.S. Geothermal") operates a geothermal plant approximately 4.3 miles south of the property that was formerly operated by Empire Geothermal Power LLC. The plant produces electricity from water as hot as 300^{o}F, according to E. M. Crist (2007a) based on his personal communication with plant personnel. A linear trend of recent surficial deposits of tufa (calcareous precipitate), native sulfur, and cinnabar, and U.S. Geothermal's geothermal well, define a north-trending segment of a range-front fault approximately 4.5 miles long. Two wells, located approximately 3,500ft southwest of the Wind pit, produced water for the mine and are within this trend. The casing of one of these wells leaks steam and is coated with native sulfur. Crist's conversations with plant personnel indicate that the temperature of the water in these two wells is approximately 240° F. He interprets these features to denote a north-trending, water-saturated, geothermal fault zone. All of the Wind Mountain targets are at least 1,800ft east of this fault zone.

The Wind Mountain fault zone is about 3,300ft east of the range-front fault and contains banded calcareous fault fill. This calcareous deposit is mostly within an open fracture within Tertiary volcaniclastic rocks. The calcareous deposits along the Wind Mountain fault zone have undergone an unknown amount of erosion. Horizontal dips of some of the banding suggest that the calcareous precipitates were either deposited at the paleo-surface or in a very wide, open fracture. The age of the Wind Mountain fault zone is uncertain; however, Crist (2007a) interprets it to be older than those structures described on the range-front fault.

No direct evidence suggests that hot water prohibitive to underground mining is present at depths that will be explored or mined. The elevation of the two former mine wells and the Quaternary calcareous deposits on the range-front fault are approximately 4,100ft, and the lowest bottom elevation of the main pit is approximately 4,200ft. Despite the similar elevation, no evidence of recent hot spring activity was seen in any of the extensive examinations of the pit. Fortune River contractors and employees visited the pit several times on days when the temperature was below 32^{o} F, and no evidence of steam effluent was seen from any of the walls or from the bottom of the pit. In fact, Crist's (2007a) personal communication with the former exploration and mine staff of Amax indicates that no significant water, either cold or hot, was intersected in drilling under the deposit. The water table appears to be generally more than 500ft below the former surface.

Fortune River drilled several relatively deep drill holes on the Wind Mountain fault zone in 2008. At depths below about 500ft, several holes penetrated strongly fractured silicified rock near the Wind Mountain fault zone that was saturated with ground water. The water effluent from the reverse circulation ("RC") drill rig was crudely measured at as much as 120 gallons per minute at depths of about 1,000ft by recording the length of time to fill a 5-gallon bucket. International Directional Services ("IDS") conducted down-hole surveying of the holes that included temperature measurements. The highest temperature measurement made by IDS was 114^{o} F at a true depth of 1,235ft in a hole that explores the Deep Min mineralization. Sufficient drilling has been done by Amax, Fortune River, and Bravada to indicate that no geothermal conditions will hinder the mining of the established near-surface resource. Down-hole temperature measurements of future deep drill holes should continue to be made to determine if geothermal conditions could be a threat to mining deep mineralization that may be discovered in the future.

The possibility of high geothermal temperatures beneath the Wind Mountain property cannot be totally discounted, but at this time there is no evidence that would indicate such conditions exist to discourage exploration and potential future development of the property.

6.0 HISTORY

This section describes exploration at Wind Mountain prior to acquisition by Fortune River. Exploration by both Fortune River and Bravada is described in Section 9.0.

6.1 Exploration History

Historic exploration of the Wind Mountain property is summarized well by Wood (1990), and the reader is referred to his published report on the past exploration activities and results.

The Wind Mountain property is not located near any of the established mining districts of Nevada. No record of prospecting activities is known until 1978. Since that time, a progression of companies, including Amax (at the time, Amax Exploration, Inc. and later Amax Gold Inc.) (10 drill holes in 1982), Santa Fe Pacific Gold Corp. ("Santa Fe") (32 drill holes in 1983-86), and Chevron Resources ("Chevron") (6 holes during 1983-86), conducted modern exploration activities on portions of the current property position. Amax leased the property in 1980 and relinquished it in 1982. Amax returned in 1987 and conducted the most extensive exploration program on the property, including drilling 416 holes for a total of 145,590ft. Many significant intercepts of gold are reported in the Amax drill-hole database. A substantial portion of this mineralized material was mined in two small- to medium-sized open pits (Breeze deposit and Wind deposit) and then heap leached, but a significant portion was not. Many drill intercepts of near-surface gold and silver are found beneath or lateral to the mined areas. A total of 464 holes were drilled on the property from 1980 through 1991 (Noble and Ranta, 2007).

Amax conducted mining at Wind Mountain from April 1989 through January 1992, with leaching and rinsing continuing until 1999. Production is described in Section 6.3. Amax was purchased by Kinross in 1998.

The claims at Wind Mountain were dropped by Kinross, and Agnico-Eagle staked claims in January 2004 covering the disturbed mine site and adjacent prospective ground. Fortune River acquired the property in February 2006 through an earn-in agreement with Agnico-Eagle (see Section 4.2). Kinross provided Fortune River with digital data for most of the exploration, development, and blast-hole drilling conducted by Amax, and additional paper files were acquired from a previous land owner.

Fortune River focused on exploring for both near-surface oxide gold mineralization and deeper high-grade precious-metal mineralization. Their exploration is described in Section 9.0. Bravada acquired the Wind Mountain property through its merger with Fortune River in January 2011. Bravada's exploration is also described in Section 9.0.

6.2 Historic Mineral Resources and Reserve Estimates

Amax announced that the Wind Mountain deposit contained 15 million tons averaging 0.021oz Au/T and 0.42oz Ag/T in 1988 (Nevada Bureau of Mines and Geology, 1995). This estimate was made before the inception of NI 43-101 reporting standards and is reported here for the historical record only. A Qualified Person has not done sufficient work to classify this historic estimate as a current mineral resource estimate. Bravada is not treating the historical estimate as current mineral resources or reserves. Subsequent mining is described in Section 6.3.

In December 2007, Ore Reserves Engineering (Noble and Ranta, 2007) documented “a new, 43-101 compliant resource model” in their Technical Report titled “Technical Report on the Wind Mountain Gold Deposit”. That Technical Report supported the disclosure of a “total measured plus indicated resource for the project … estimated as 33.7 million tons above a cutoff grade of 0.0075 opt Au [oz Au/t], with an average grade of 0.012 opt gold [oz Au/t], that contain 406,000 ounces of gold. There is also an inferred resource in the study area estimated as 9.8 million tons above a cutoff grade of 0.0075 opt Au [oz Au/t], with an average grade of 0.009 opt gold [oz Au/t], that contain 92,000 ounces of gold.” That report and work was done to industry standard, but that resource estimate is superseded and replaced by the current mineral resource estimate is described in Section 14.0.

Ore Reserves Engineering built a block model with block sizes of 25ft by 25ft by 25ft. They defined a domain using a cutoff of 0.006oz Au/t. That domain was used to control the grade estimation from 25ft bench composites. Block grades were estimated using inverse distance to the fourth power in the mineralized zones and “grades were capped to 0.10”oz Au/t before estimation.

No reserves were defined in the 2007 Ore Reserves Engineering work.

6.3 Historic Production

Production records, received from Kinross, indicate that a total of 299,259 ounces of gold and 1,769,426 ounces of silver were produced and sold from 1989 through 1999, when all heap leaching, rinsing, and final carbon cleanup were completed.

In the Wind Mountain project area, both the Breeze and Wind deposits were defined by drilling and partially mined. The annual gold and silver production from two pits at Wind Mountain, as reported by Amax, is tabulated in Table 6.1.

Table 6.1 Wind Mountain Gold Deposit Annual Gold and Silver Production
Wind Mountain Mine 1989-1999
(From Noble and Ranta, 2007)

Year	Gold Ounces	Silver Ounces	Ag:Au Ratio Ozs Produced	Comments
1989	30,903	334,768	10.83	Mining & Leaching
1990	81,733	560,802	6.86	Mining & Leaching
1991	91,063	405,149	4.45	Mining & Leaching
1992	54,689	297,403	5.44	Mining & Leaching
1993	19,296	86,514	4.48	Leaching
1994	10,513	72,609	6.91	Leaching
1995	5,312	7,487	1.41	Rinsing
1996	4,205	1,731	0.41	Rinsing
1997	964	202	0.21	Rinsing
1998	-	-	0.00	Heavy Precipitation
1999	581	2,760	4.75	Rinsing
Total	299,259	1,769,425	5.91	

Highlights of the historic mining are as follows:

- Mining took place from April 1989 through January 1992 by conventional loader and truck operations in two open pits. Prior to completion of permitted pits, mining was stopped due to rising costs, low metal prices, and disputes over royalty positions.
- The waste: ore stripping ratio was very low, and only 0.41 tons of waste were mined for each ton of ore.
- The mining cutoff grade was 0.010oz Au/T.
- Approximately 24.6 million tons of ore averaging 0.018oz Au/T for a total of 433,194 ounces of gold were placed on the heaps.
- The property was considered one of the lowest-grade mines of its time but was still profitable because of a combination of factors including low stripping ratio, good cyanide leaching recoveries, and low process costs.
- Two leach pads were operated, and 39% of the material placed on leach pads was crushed; 61% of the material was run-of-mine (Noble and Ranta, 2007).

Crushed ore	8.9 million tons (Pad 1)
Run-of-mine ore	13.7 million tons (Pads 1 & 2)
TOTAL	22.6 million tons @ 0.018oz Au/T

- Leaching and gold production took place from the spring of 1989 through June 1997; cyanide was added to leach solutions for two years (into 1994) after mining ceased, then rinsing and residual gold recovery continued for about three more years (until June 1997).

- Historic gold recovery was 67% through active leaching. Total gold recovery was 69% after rinsing of leach pads.

- The percent recovery of silver has not been determined because silver head grade was not reported in the production records, but based on resource reconciliations was probably less than 25%. Approximately 5.9 ounces of silver were recovered for every recovered ounce of gold.

- Gold and silver leached relatively quickly. Over 85% of the gold production was recovered during active mining and placement of material onto the pads.

- A heavy snow year in 1998 caused additional water to migrate through the heaps, and the water was collected into 1999, resulting in an unplanned recovery of 581 ounces of gold in 1999.

7.0 GEOLOGIC SETTING AND MINERALIZATION

The section has been taken from a combination of the Technical Report completed in 2007 (Noble and Ranta, 2007) and updated information provided by Bravada. The information was compiled in association with Fortune River's geologic staff and their consultants, including Elliott M. Crist, Licensed Professional Geologist (Utah), the Chief Consulting Geologist for Fortune River and John Cox, Manager of Development for Bravada.

7.1 Geologic Setting

7.1.1 Regional Geology

The Wind Mountain gold property lies in the Basin and Range physiographic province, a region marked by moderate to high mountain ranges separated by desert valleys. All of the previously mined mineralization at Wind Mountain is in late Tertiary volcaniclastic rocks.

The geologic setting of the Lake Range, which includes Wind Mountain and the surrounding region, is dominated by Triassic and Jurassic metamorphic rocks of the Nightingale Sequence (Bonham and Papke, 1969). These rocks are exposed along the northwest side of the range and consist of phyllite and minor slate and schist. Nightingale Sequence metasedimentary rocks are exposed only on the southern portion of the Wind Mountain property. Regional metamorphism, faulting, and erosion of these rocks occurred before the Tertiary period, and a well-developed pediment formed in the Wind Mountain area prior to Miocene volcanism and volcaniclastic deposition (Wood, 1990). Dacitic to basaltic volcanic rocks of the Miocene Pyramid Sequence overlie the Mesozoic rocks on the south and east sides of the Lake Range. In the northern part of the range, the Pyramid Sequence is overlain by volcaniclastic sedimentary rocks correlative with the Truckee Formation of the upper Miocene epoch (Bonham and Papke, 1969). The western margin of the Lake Range is bounded by a major fault zone, which has localized extensive geothermal activity that resulted in extensive hydrothermal alteration and deposition of the Wind Mountain gold deposit (Wood, 1990).

7.1.2 Project Geology

The geology at the Wind Mountain gold-silver project is illustrated in Figure 7.1.

7.1.2.1 Mesozoic Metamorphic Rocks

Nightingale Sequence: Exposures of Triassic to Jurassic rocks occur on the southern portion of the project and consist of low-grade metamorphic rocks including slate, phyllite, and chloritic schist of the Nightingale Sequence (Wood, 1990). Crist (2007a) conducted mapping on the southern portion of the property, where he found a silicified fault zone, more or less northeast-trending, separating the Nightingale Sequence from Tertiary volcanic rocks. This zone is as much as 50ft wide and drops down the Tertiary section to the north along a normal fault. The fault zone is intensely silicified and brecciated and is composed of fragments of metasedimentary rocks and/or Tertiary volcanic rocks in a siliceous matrix. The breccia is weakly anomalous in gold and other elements.

7.1.2.2 Tertiary Volcanic and Volcaniclastic Rocks

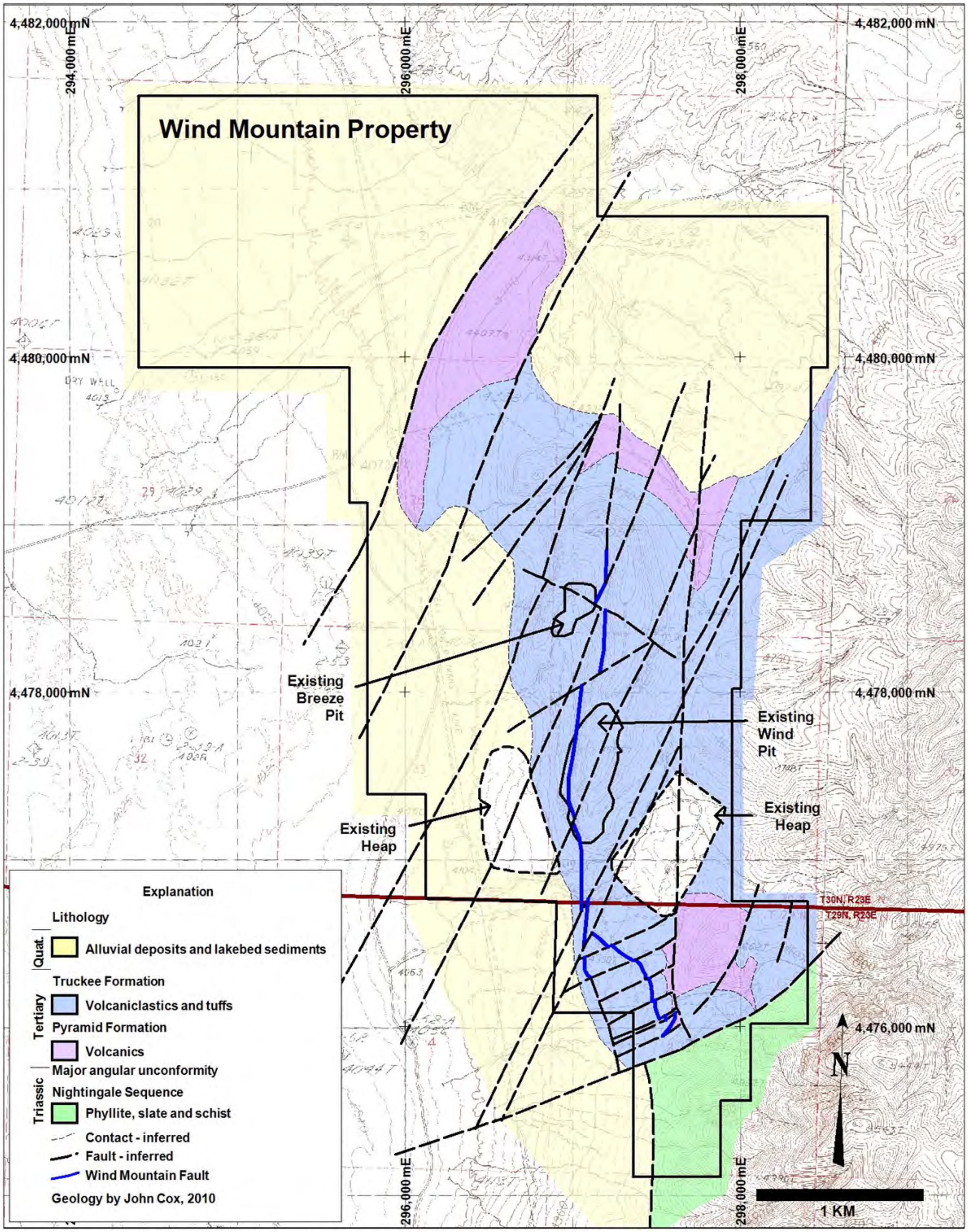
Pyramid Sequence: Tertiary (Miocene?) dacitic to basaltic lava flows and other volcanic units overlie the Mesozoic rocks. This unit is shown as Pyramid Formation on Figure 7.1. A strongly flow-foliated dacite at the top of this unit is exposed in the northern portion of the claim block and has been intersected in deeper drill holes. Immediately overlying this unit is a distinctive weathering horizon formed during the unconformity with overlying rocks, and it is an important marker horizon. Modeling this marker horizon in 3-D suggests the horizon dips gently to the south. It is identified by its rounded pebbles of flow-foliated dacite in a dull hematitic-red clay-rich matrix. The underlying unconformable contact with Mesozoic rocks has not been observed in the mineralized region; however, such unconformities can be attractive sites for mineralization, particularly where overlying dense rocks may act as aquitards.

Truckee Formation: Tertiary (late Miocene?) volcanic and volcaniclastic units exposed on or near the property are primarily tuffaceous conglomerate, finer-grained tuffaceous sedimentary rocks, and sinter; these are the primary host-rocks to known mineralization. Hot-spring sinter and other units constitute a large portion of the volcanic-sedimentary units locally, particularly in the Wind pit. Several extensive, fault-controlled, linear bodies of banded carbonate, some more than 100ft wide, also occur.

The most extensive unit areally exposed on the property is composed of coarsely to finely bedded volcanic sedimentary rocks. This unit is composed mostly of volcanic siltstone and sandstone. Cross bedding is apparent in some of the sandy portions of the unit. Tuffaceous sedimentary rocks hosted all of the mined precious metal mineralization at Wind Mountain. Hydrothermal alteration (silicification and argillization) has strongly affected most of the unit. The beds have been strongly silicified in the mine area and commonly are dark gray and contain a few percent pyrite, except where thoroughly oxidized. Clay alteration has affected large areas in both the mined area and the adjacent rock. Fossil reeds are present in the unit in several layers from the top of a ridge, overlooking the main pit, down to the deepest levels of the mine, a topographic difference of about 165 meters (540 feet). Some of the reeds are preserved in an upright position in highly silicified rock or sinter, indicating that they were probably buried in an environment that was undergoing rapid burial and silica introduction.

These reed-bearing beds, and other beds that exhibit flowage features and horizontal zones of vugs, are interpreted as hot-spring sinter and related sedimentary deposits. Crist (2007a) states that the majority of the unit may be strongly silicified tuffaceous sediments with substantial interlayers of sinter.

Figure 7.1 Geology of the Wind Mountain Property
(Provided by Bravada, 2012)



7.1.2.3 Hydrothermal Deposits

Silicified Hydrothermal Breccia Bodies: Hydrothermal breccia bodies are exposed in the Wind pit and in fault zones on the southern portion of the property between the Nightingale Sequence and the Tertiary volcanic rocks.

Breccia bodies within the Wind pit occur in several discrete zones that are generally associated with the north-trending structural zones. Monolithic silicified volcanic siltstone and sandstone fragments are encased in a light to dark gray siliceous matrix. Breccia textures are typically mosaic, but rotated fragments are also common in some bodies.

Another hydrothermal breccia body fills a northeast-trending fault zone that separates the Nightingale Sequence from the Tertiary volcanic rocks on the southern portion of the property. This zone is as much as 50ft wide and drops the Tertiary section down to the north along a normal fault. The fault and the breccia can be traced for a distance of about 3,300ft. The fault zone is intensely silicified and brecciated and is composed of fragments of metasedimentary rocks and/or Tertiary volcanic rocks in a siliceous matrix. The fault breccia is weakly anomalous in gold and other elements.

Calcareous and Silicified Breccia Bodies: Much of the Wind Mountain fault zone along a distance of about 6,600ft is occupied by fracture fillings of silicified breccia and banded calcareous material. This body is adjacent to both of the open pits. Both of these types of fracture fillings attain widths in excess of 100ft. Wood (1990) interprets the silicified breccia portion to be the product of alluvium falling into an open fracture. Silicification occurred later, but only at the upper levels. He indicates that at depth the silicified breccia turns into a unit rich in gray clay. The southern 4,300ft of this fracture-fill zone are dominated by a banded calcareous material. At the entrance to the main pit, an exposure displays vertical banding of the calcareous unit rotating to a nearly horizontal attitude at the surface. This fault zone is immediately west of the Wind pit and immediately east of the Breeze. The Wind Mountain fault had post-mineralization movement causing the displacement of the formerly contiguous Wind, Breeze, and Deep Min deposits.

7.2 Mineralization

The geologic controls of gold mineralization at Wind Mountain are a combination of: 1) proximity to steeply dipping north/northwest-trending structural zones that may have been “feeders;” 2) stratigraphic horizons that were favorable (porous and permeable) to mineral deposition; and 3) possibly paleo-elevation. The known gold deposits remaining at the property include the Wind deposit, which is over 5,000ft long by 1,200ft wide by 600ft thick, the Breeze deposit, which is 3,400ft long by 1,000ft wide by 200ft thick, and Deep Min, which is 900ft long by 700ft wide by 700ft. All deposits dip to the south-southeast at about 10^o from horizontal. This geometry is strongly influenced by post-mineralization faults, which have separated the original blanket–like deposit into blocks divided by generally barren fault zones.

Continuity of gold mineralization within these deposits is excellent for cutoff grades in the range of 0.005 to 0.015oz Au/T. Higher-grade mineralization forms pods with lateral dimensions up to 1,000ft long by up to 300ft wide and up to 100ft thick. Gold occurrences continue sporadically for thousands of feet beyond the known deposits, and these may present opportunities for further exploration.

According to Wood (1990), gold mineralization occurs as electrum and also may be associated with pyritic coatings on an early barren form of pyrite, prior to oxidation. Pyrite and minor marcasite are the most common sulfide minerals found within the gold deposit and at depth; traces of cinnabar also have been found. Within the near-surface oxide zone at Wind Mountain a small percentage of the rocks have traces of pyrite encapsulated in silica. Native sulfur is present in strongly bleached and leached zones within the deposit. Disseminated pyrite, in abundances of 0.5 to 3%, is found in shallow bedrock beneath the pediment surrounding Wind Mountain. The host mineral of the silver mineralization has not been identified.

Oxidation and leaching are developed to depths over 600ft. Surface leaching of rocks occurred throughout the deposit area and resulted in formation of goethite, jarosite, and hematite after sulfide minerals. The state of oxidation of the mineralization can have a significant impact on the metallurgical recovery of gold and silver.

Geochemical sampling of rocks and drill samples at Wind Mountain shows that gold, silver, mercury, and selenium are all strongly anomalous. Other anomalous elements at Wind Mountain include arsenic and antimony. Base metals are generally not anomalous at the levels of exposure and drilling of the deposit. Base metals are usually strongly anomalous only at the deeper levels of precious-metal deposition in low-sulfidation deposits but may occur throughout the productive precious-metal horizons in intermediate-sulfidation systems.

Crist (2007a) reports that he sampled material (talus) left behind at the toes of benches and at other surface locations in pits after mining and received several assays that exceed 1ppm Au from the formerly mined areas. The content of the highest gold grade sample taken by him from the property was 2.056 ppm Au, and the lowest gold grade was below the detection limit of 3ppb Au. Nearly all of the 168 samples taken by Crist were weakly to strongly anomalous in gold and attest to the wide distribution of anomalous gold on the property throughout an area of approximately 2.5 square miles. However, the surface sampling was unsuccessful in delineating high-grade veins within the pits. Crist also found silver values as high as 50ppm, mercury values as high as 9ppm, and selenium values as high as 104ppm. Wood (1990) reports a 5ft intercept of 161ppm Au (4.7oz Au/T) in a drill hole, but these intercepts are very rare, and the down-hole gold intercepts normally reflect the overall low grade of the deposit that was mined. Outside the broadly defined north-trending mineralized zones, gold values that are greater than 0.27ppm Au (0.008oz Au/T) are rare, and background levels of gold occur over broad intervals.

7.2.1 Wind Pit and Deep Min Areas

The axis of the Wind pit is oriented north-northeast, and a vague network of clay-filled vertical fractures of roughly this orientation runs through the pit. The blast-hole data reportedly indicate several plumes and shells of higher-grade gold mineralization that shift position from bench to bench rather than defining any through-going control, indicating lateral flow along permeable horizons. No obvious feeder structure is apparent from the data, and drilling below the clay-filled fractures indicates that the fractures do not contain enriched gold mineralization at depth. It is probable that the fractures were not feeder structures, but rather open conduits that allowed higher fluid flow once the hydrothermal fluids entered favorable stratigraphic horizons.

The Wind Mountain fault zone is adjacent to and slightly offset to the west from the deepest parts of the pit. This fault zone was host to dark grey, coarsely crystalline, banded calcite that was probably deposited following gold deposition.

In 2008, a new zone of gold mineralization, known as Deep Min, was partially defined by deep drilling on the west side (hanging wall) of the Wind Mountain fault, where the westward extension of the mineralization has been dropped down approximately 700ft. Nine holes penetrated thick zones of continuous gold mineralization. The abnormally thick mineralization at Deep Min forms a funnel-like base to mineralization, suggesting this area was a major zone of upwelling ore fluids.

7.2.2 Breeze Pit Area

The Breeze pit is the northern and smaller of the two open pits. Silicified volcaniclastic rocks host gold, though the degree of silicification is not as strongly developed as in the Wind pit. A vague network of more or less north- to northwest-trending fractures runs through the pit, but the locations of the feeder structures for the Breeze pit mineralization have not been identified with certainty.

The Breeze mineralization extends over 1,000 feet south of the existing Breeze pit with a shallow dip to the south.

East of the Breeze pit, the Wind Mountain fault zone lies west of, and parallel to, a long north-trending ridge capped by silicified, precious-metal-bearing rocks. No deep drilling has been conducted under this ridge, although mineralization occurs in many of the shallow holes along the ridge.

7.2.3 North Hill Target

A small resource of mineralization has been drilled on a hill approximately 3,000 feet northwest of the Breeze pit. The limits to this mineralization have not been defined, but it is likely the upper portions of a deposit that dips to the south similar to the Breeze deposit. This mineralization could be the down-faulted extension of the Breeze deposit. Considerable additional drilling will be required to fully define this target.

7.2.4 Zephyr Target

A similar geologic setting to that of the North Hill target occurs on trend approximately 3,000ft to the northwest, where a post-mineral fault has down dropped and preserved favorable stratigraphy beneath alluvium and lake sediments. A single historic drill hole exists in the target area, and it intersected 60ft of 0.009oz Au/T at the bottom of the 540ft hole. Geophysics could be used to target follow-up drilling.

8.0 DEPOSIT TYPES

The section has been largely taken from the 2007 Technical Report (Noble and Ranta, 2007) unless otherwise noted.

Gold and silver at Wind Mountain were deposited in a low- to intermediate-sulfidation, hot spring-type epithermal system. In this type of hydrothermal system, gold and silver are transported through open fault zones and deposited where fluid chemistry, temperature, and/or pressure changed in such a way to make gold less soluble. Often, the deposition of gold occurs within a boiling zone that is attributable to fluids traveling to lower pressure regimes, which might be closer to the surface or in more permeable zones. Other factors that may affect gold deposition are cooling, ground water mixing, chemical interaction of hydrothermal fluids with wall rock, or some combination of these factors. Precious metals in epithermal systems are usually preferentially deposited within a selective interval of elevation of the paleo-system. The productive portions of precious metal deposits may be at the paleo-surface or at an elevation interval that begins below the surface. Stacked precious metal horizons are present in some mining districts and may reflect multiple paleo-environments that were favorable for precious metal deposition.

Most of the gold was probably precipitated following the deposition of sediment and sinter. If the gold had been deposited synonymously with the sinter and silicification, silica encapsulation could have been a major metallurgical problem and would have resulted in a much lower recovery of gold than was obtained by Amax. The relatively high metallurgical recovery of nearly 70% suggests that the majority of the gold was deposited on pervasive fractures or within thin coatings on other minerals such as pyrite.

Volcanic epithermal deposits have been lumped into two geologic models, low sulfidation and high sulfidation, based on characteristic mineralogy and textures. The term intermediate sulfidation has been added to indicate a type of deposit intermediate between the two end members. Highly profitable production has been won from all of these types. The precious metal system at Wind Mountain is most likely of the low-sulfidation or intermediate-sulfidation type.

Silicification and clay formation (argillization) are characteristics of both low-sulfidation and intermediate-sulfidation vein deposits. Quartz deposition often coincides with the productive elevations of vein deposits of both types. High-grade, precious-metal-bearing bodies may be massive banded veins composed mostly of quartz, or strongly altered fault zones, sometimes called lodes, which have only minor quartz.

Common anomalous elements in these types of epithermal systems include mercury, arsenic, and antimony. Selenium is anomalous at some important epithermal precious metal deposits in northern Nevada, such as Midas. Base metals are usually strongly anomalous only at the deeper levels of precious-metal deposition in low-sulfidation deposits but may occur throughout the productive precious metal horizons in intermediate-sulfidation systems.

Epithermal precious metal deposits can be either disseminated or vein-like bodies. Disseminated deposits, such as Round Mountain, Nevada (>15 million ounces Au), are generally low-grade deposits in which the gold was deposited in a large body of permeable rock attributable either to primary host rock porosity or the presence of a wide zone of open fractures. Disseminated deposits are usually bulk mined through open-pit mining methods. Low-grade disseminated deposits may overlie higher-grade, more tightly controlled vein deposits but do not necessarily indicate the presence of deeper high-grade mineralization.

Vein deposits, such as Midas in northern Nevada (>2 million ounces Au), are tightly confined deposits that are controlled by individual open fractures, which are generally mined through underground mining methods. Profitable veins rarely exceed 50ft in width, and the average width may be less than 10ft. The volume of mineralized rock contained by vein deposits is much less than that of disseminated deposits, but the grade is generally much higher. Round Mountain has a grade of ≤0.02oz Au/T, while Midas has an average grade of >0.50oz Au/T (Meeuwig, 2005).

All of the past mining at the Wind Mountain gold deposit has utilized open-pit methods.

The Hycroft gold-silver mine, located approximately 50 miles northeast of the Wind Mountain property, is similar in age, style, and grade of mineralization to the Wind Mountain deposit. The following information provided to help establish the deposit type is taken from the website (http://www.alliednevada.com/properties/hycroft/geology.aspx) of Allied Nevada Gold Corp., who currently controls the Hycroft mine, and from a recent Technical Report (Allied Nevada Gold Corp. and Scott E. Wilson Consulting, Inc., 2012) available on SEDAR. Tertiary-to-recent, fault-controlled, low-sulfidation gold-silver deposits occur over about six square miles at Hycroft. Mineralization is hosted by conglomerates and lacustrine sedimentary rocks and is bounded by normal fault zones. Radiometric dates of adularia indicate that the main phase of gold and silver mineralization at Hycroft occurred 4 Ma. The following production history provides a sense of scale of these types of deposits. From 1983 to 1998, Hycroft produced 1.2 million ounces of gold and 2.5 million ounces of silver from an open-pit, heap-leach operation. Allied Nevada Gold Corp. reopened the mine in 2008. From 1983 to 2011, Hycroft produced 126.8 million tons with an average cyanide-soluble grade of 0.015oz Au/T, yielding 1.4 million ounces of gold (Allied Nevada Gold Corp. and Scott E. Wilson Consulting, Inc., 2012).

9.0 EXPLORATION

This section describes exploration by Bravada and by Fortune River before its amalgamation with Bravada. The section has been largely taken from the 2007 Technical Report (Noble and Ranta, 2007) with the addition of updated information by Bravada.

Fieldwork conducted at Wind Mountain by Fortune River through 2010 included surface rock-chip sampling, geologic mapping, detailed ground magnetic surveys, and drilling of 13 holes in 2007 and 14 holes in 2008. Fortune River also collected historic data and developed a 3-D computer model of geology and mineralization using Discover 3D and Go Cad computer programs. Crist (2007a) conducted the sampling and mapping for Fortune River as a consultant. He collected 168 rock samples from the surface, including many from within the pits. Follow-up sampling designed to identify cross faults that may control gold mineralization was conducted in 2007 by Fortune River's consulting geologist, Dr. Ellie Leavitt. Although several northeast- and northwest-trending faults were sampled, and some contained enrichment of gold, projections of those faults in 3D, where they were cut by historic drill holes, indicated that most were probably not important feeder faults.

Fortune River's surface-sample spacing (Crist, 2007a) was determined by the distribution of rock exposures and float of altered rock. The purpose of the surface-sampling program was to identify and confirm the presence and strength of gold anomalies on the property in order to identify higher-grade "feeder" structures and determine if metal zoning is present. The samples were believed to be representative of the mineralized material exposed (Noble and Ranta, 2007). Some samples from the open-pit benches were collected over measured distances, but the results were general in nature and did not demonstrate any specific width or length of mineralized material.

Fortune River completed detailed 3D modeling (through the services of V. Chevillon, consultant for Fortune River) of extensive data derived from blast holes and exploration drill holes carried out by previous holders of the ground when it was being explored and then operated as an open-pit mine. This modeling along with results of pit sampling and mapping and ground magnetic surveying indicated that disseminated gold was deposited over a broad area along relatively flat-lying permeable horizons, with higher concentrations along fracture sets and small-scale faults trending north, northeast, and northwest.

The geometric distribution of gold on the property was plotted from drill-hole data generated by Amax and reported by Wood (1990). Fortune River's sampling confirmed the presence of anomalous gold in these areas, and a few other areas as well.

Bravada conducted mapping and completed 50 drill holes totaling 13,479ft at Wind Mountain during 2011.

9.1 Drilling

Details of Fortune River's drilling and drill procedures are reported in Section 10.0. Fortune River completed reverse-circulation drilling of 13 relatively shallow holes during 2007 at Wind Mountain (Crist, 2007b). Two of these holes and adjacent Amax holes verified that a portion of the original Breeze deposit had not been mined, reportedly due to a royalty dispute during mining in the early 1990s. The pod of mineralization at Breeze is very close to the surface. These drill results also confirmed that potentially leachable gold and silver remain unmined underneath and adjacent to the existing pits. The program also indicated that there is considerable exploration potential along the entire 1.8-mile-long area of exposed mineralization.

In 2008, Fortune River drilled a total of 16,220ft in 14 holes that ranged between 420 and 1,520ft in depth. The vast majority of the drilling was done to test for high-grade precious metal mineralization at depth along a 4,000ft section of the Wind Mountain fault, including the span between the Wind and Breeze pits. The fault zone was encountered in several holes, but no bonanza-grade mineralization was encountered. The lava flows of the Pyramid Sequence, beneath the base of the Truckee Formation, were encountered in several holes and establish an untested target at depth where fluid flow along the Wind Mountain fault may have been more constrained in the less permeable lava flows.

A new pod of gold mineralization, known as Deep Min, was partially defined by deep drilling on the west side (hanging wall) of the Wind Mountain fault where the westward extension of the mineralization has been dropped down approximately 700ft. Nine holes penetrated thick zones of continuous gold mineralization ranging from 110ft of 0.448ppm Au to 540ft of 0.535ppm Au.

Drilling by Bravada in 2011 identified several areas of shallow oxide gold-silver mineralization, including the North Hill target, the North Breeze pit target, the South Wind pit target, and the South End target (Bravada news release, February 23, 2012). In addition, 2011 drilling intersected several extensions of higher-grade mineralization along mapped and postulated feeder zones. Drilling during 2011 and earlier confirmed that some of the "waste dumps" contain grades of gold and silver above currently anticipated cutoff grades. If quantified, some of these dumps could be converted to resources and if mined as "ore" would have an impact, albeit minor, on the strip ratios of the two pits.

9.2 Surface Dump Sampling

Fortune River sampled three major dumps at the Wind Mountain mine between March 3 and March 6, 2008. The objective of this program was to evaluate the average gold and silver grades of the dumps and determine if any difference in grade exists based on size distribution. (<4in and >4in). A total of 108 samples were collected from 55 locations. Sample sites were pre-selected on a grid with roughly 200ft spacing. At each site, two samples were collected from within a measured one-meter square area. A sample designated as F, or fine, was collected of <4in material that would pass through lateral 4in spaces between re-bar mounted in a wooden frame. Material that would not pass through the 4in-spaced bars was collected as a separate coarse sample.

The samples were taken to BSI Inspectorate ("Inspectorate") for analysis of gold and silver from a 500g pulp. Gold was analyzed by fire assay with an atomic absorption ("AA") finish, and silver was assayed by AA. All samples were weighed at the lab. Gold and silver were also analyzed by a one-hour shaker test using cold cyanide extraction with an AA finish. Results are discussed in Section 13.3.2.

The surface dump sampling program indicated the dumps may contain some gold mineralization which may be amenable to heap leaching. These results were used to design a bulk sampling study of the dumps as described in the following section.

9.3 Bulk Dump Sampling

In 2008, Fortune River commissioned McClelland Laboratories, Inc. ("McClelland") to conduct column testing of two bulk dump samples from dumps of the Wind and Breeze pits. The results of this work are described in Section 13.3.1.

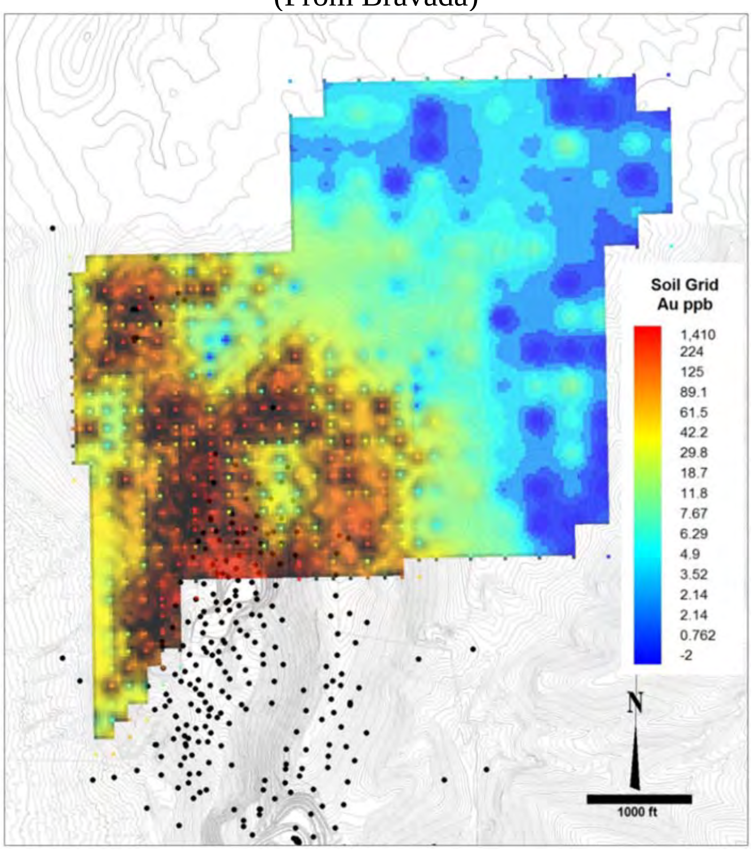
9.4 Heap-Leach Sampling

In 2011, Bravada collected large-size samples with an excavator to a depth of about 5m on heap piles. Metallurgical studies on that material indicated that past leaching had recovered very little gold and silver from the larger-size fractions, but further work is necessary to determine the residual grade of the heap material and if crushing and re-leaching would be economic (Bravada news release, February 23, 2012).

9.5 Soil Sampling

Bravada undertook soil sampling in January and February 2011 over an area northwest of the known deposits (Figure 9.1). A total of 406 soil samples were taken on a spacing of 50m. Gold values ranged from zero to 1.4g Au/t, with 29% of the samples containing +0.1g Au/t, and 8% of the samples containing +0.3g Au/t.

Figure 9.1 Map of Bravada Soil Geochemical Sampling
(From Bravada)



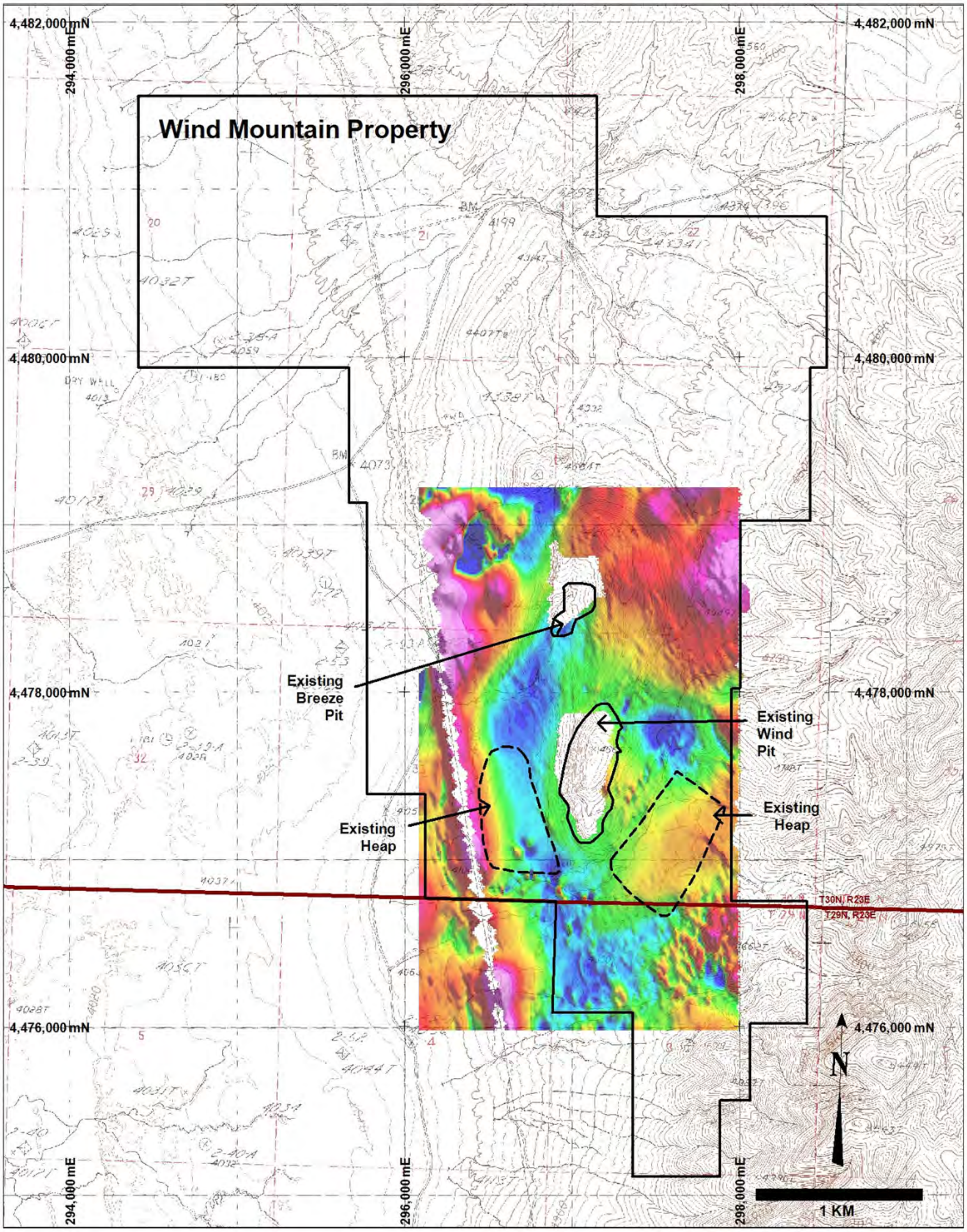
9.6 Ground Magnetics Survey

A ground magnetics survey program was conducted over the Wind Mountain property in April 2006 by Chris Magee (Crist, 2007b). Consulting geophysicist Bob Ellis reviewed and approved the quality of the data and then manipulated it but did not provide a formal interpretation. Ground coverage did not include the Wind and Breeze pits due to safety considerations.

One prominent feature defined by the magnetic survey is a north-trending, rhombic-shaped magnetic low with dimensions of about 3.5 by 2.0km elongate along trend (Figure 9.2). This magnetic anomaly, when integrated with geologic data, can be interpreted to define the boundaries of a postulated graben that is filled with volcanic and volcaniclastic rocks. The Wind pit is near the center of this broad low, and the Breeze pit occupies the northernmost corner. The strong northwest-trending linear high is a powerline. The prominent magnetic high in the northwestern corner of the survey has been interpreted as a buried intrusion, and according to Bravada, could be associated with gold mineralization.

A prominent, northwest-trending magnetic anomaly break appears to cut across the southwest portion of the Breeze pit and southeastward across the north-trending ridge north of the Wind pit. This possible structure also coincides with a prominent jog in the Wind Mountain fault zone.

Figure 9.2 Ground Magnetics Survey of the Wind Mountain Property
(Provided by Bravada, 2012)



10.0 DRILLING

Five companies have drilled a total of 541 holes on the Wind Mountain property, of which four were core holes that were drilled in areas that have since been mined. Table 10.1 lists the drilling in the drill-hole database used for the resource estimation in this report. Drill spacing for the entire resource averages 160ft. Within the Wind pit, drill spacing averages 130ft, and within the Breeze pit, it averages 120ft.

In addition to the drill-hole data, blast-hole data were available in the Amax archives that contained blast-hole coordinates with gold and silver assays for 81,275 blast holes. These were not used in this resource estimate.

Figure 10.1 shows the location of drill holes on the Wind Mountain property as well as the outlines of the Wind and Breeze resource areas.

Table 10.1 Drilling in the Wind Mountain Drill-Hole Database

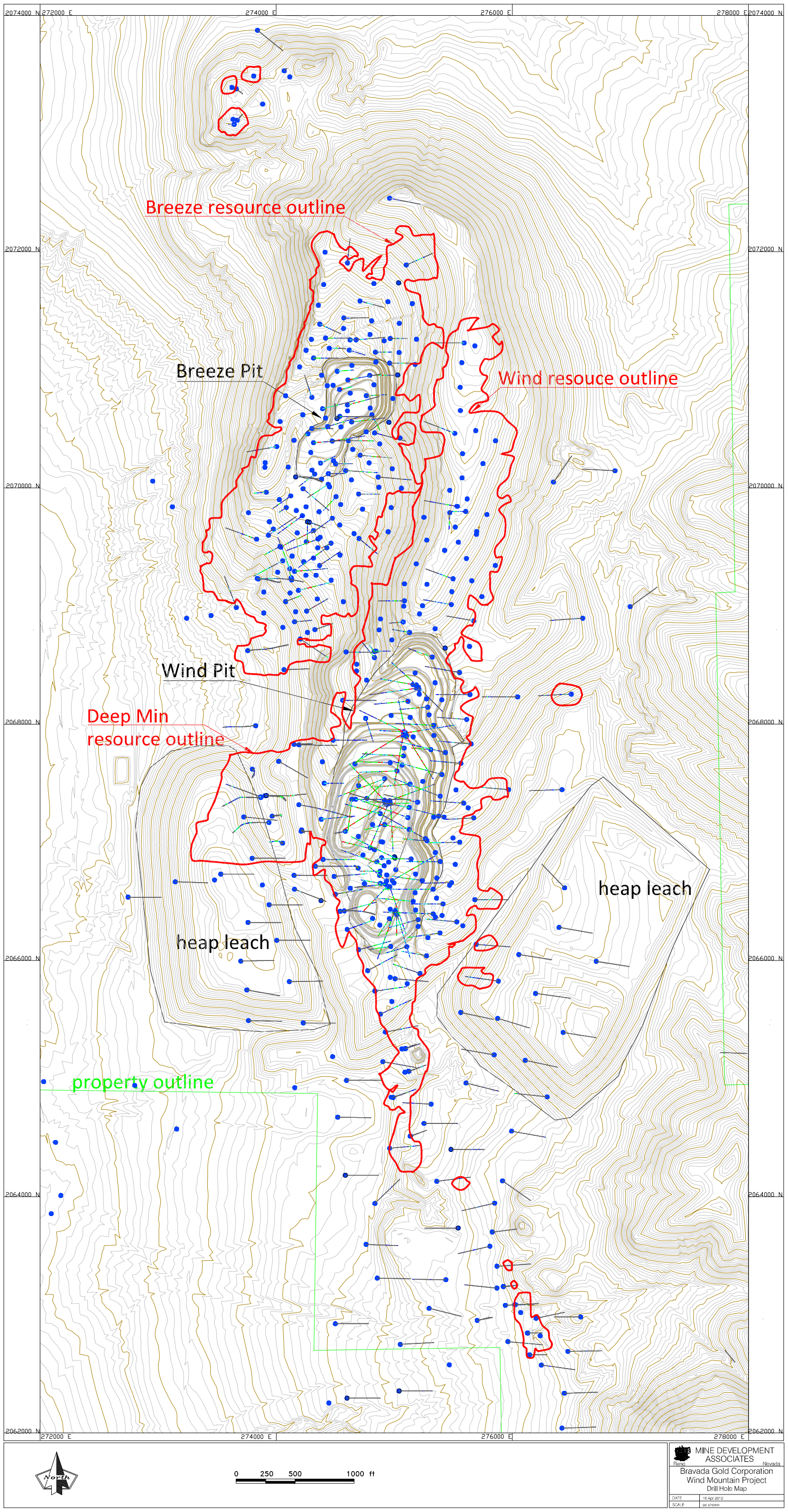
<table>
<tr><th>Company</th><th>Number of Holes</th><th>Total Footage</th></tr>
<tr><td>Amax (1982)</td><td>10</td><td rowspan="2">149,744</td></tr>
<tr><td>Amax (1987+)</td><td>416</td></tr>
<tr><td>Santa Fe Pacific Gold</td><td>32</td><td>12,075</td></tr>
<tr><td>Chevron Resources</td><td>6</td><td>1,740</td></tr>
<tr><td>Fortune River</td><td>27</td><td rowspan="2">39,470</td></tr>
<tr><td>Bravada</td><td>50</td></tr>
<tr><td>Total</td><td>541</td><td>203,029</td></tr>
</table>

10.1 Historic Drilling

The historic Wind Mountain drill-hole database consists of 464 holes totaling 163,539ft of drilling, including those drilled by Amax in 1982, Santa Fe, Chevron, and Amax when they returned to the property in 1987. These holes were drilled from 1982 through the final year of gold production in 1992. Most of the historic drilling was RC, but a limited amount of core drilling was completed. Details on drill contractors, drill rigs, and sampling methods and approaches by the previous exploration companies and mine operator have not been found.

Gold and silver assays on generally 5ft intervals are available for nearly all holes, and inductively coupled plasma (“ICP”) analyses for other elements are available for selected holes. A digital record of these holes is available, and it has been established that it was derived from Amax. Some of the drill chips from Santa Fe and Chevron were included in samples and data purchased from a previous land owner, but these have not been examined. Copies of summary drill logs were obtained as part of the same purchase.

Figure 10.1 Drill-Hole Location Map for the Wind Mountain Project Showing the Wind, Breeze, and Deep Min Resource Areas



10.2 Drilling by Fortune River Resource Corp.

Fortune River began Phase I of its drilling program at Wind Mountain on January 29, 2007 and ended it on May 4, 2007. A total of 9,755ft was completed in 13 RC holes ranging in depth from 265ft to 1,005ft. A geologist was present on site for most of this drilling. Drilling in the 2007 program was accomplished using a track-mounted MD-50 reverse-circulation drill rig owned by Drift Drilling. The rig was equipped with a rotating splitter mounted with a Y-splitter for further splitting for wet samples and a Gilson splitter for dry samples. Shallow portions of some of the holes were drilled dry. The diameter of the drill holes ranged from 4 5/8in to 5in. All of the drilling was completed with a down-the-hole hammer with a conventional interchange. Collar coordinates for the 13 drill holes that Fortune River drilled in 2007 were originally surveyed with a handheld GPS unit.

Fortune River contracted with Eklund Drilling Company to conduct Phase II and Phase III drilling. A total of 14 holes were drilled from January 14 to August 10, 2008. Eklund utilized TH-75 truck-mounted RC drill rigs in both phases. International Directional Surveying conducted down-hole surveying on 12 of the 14 holes and provided drill-hole directional information and down-hole temperature readings. All drilling, other than the initial 20ft, was done wet, and a rotating wet splitter was used to obtain the drill sample. The diameter of the drill holes ranged from 5 ¾in to 6in. Some holes were completed with a down-the-hole hammer aided by an auxiliary compressor, but many of the deeper holes required completion with a tricone drill bit. Fortune River employed a geologist or field agent trained in industry-standard practices to monitor the rig and to log the holes. A total of 16,220ft of drilling was accomplished in 14 holes that ranged between 420 and 1,520ft in depth.

Fortune River contracted with TNT Exploration LLC ("TNT") to professionally survey 25 of the 27 drill holes that they had drilled in 2007 and 2008. Two of the outlying holes were not surveyed professionally, but adequate location was provided by a hand-held GPS device.

The Wind Mountain fault, located on the west side of the Wind pit, is characterized by a strongly fractured zone. Sample split size retrieved by drilling through this structure was generally somewhat reduced but was usually adequate at 4lb. In some instances, intervals from several holes in this fault zone were not returned to the surface because of lost circulation. Any future deep drilling program through this structure (whether core or RC) should be prepared to deal with an interval of highly broken rock and voids, which could be over 100ft thick.

Fortune River directed both of their drilling contractors to conduct sampling utilizing the following procedure (Noble and Ranta, 2007). Normally, the RC drill-hole samples were collected every 5ft, and a duplicate was collected every 50ft. Some of the holes were drilled dry to depths of approximately 300ft, where drilling conditions (clay, broken rock, etc.) usually required drilling wet. When drilling dry, the entire sample was collected in a 5-gallon plastic bucket lined with a 20in by 24in bag. If dry samples were more than about 2/3 of a bucket, a 50% split was accomplished by pouring the material through a Gilson splitter. Wet samples were collected as an approximate 50% split from the wet rotating splitter in a 5-gallon bucket lined with a 20in x 24in cloth bag. The more fluid portion of the sample effluent generally overflowed the bucket during drilling, but the sampler was instructed to tie the bags so as to contain as much of the fluid portion of the sample as possible. Sample effluent overflow occurred most commonly during the drilling at Deep Min, where there was an increase flow of groundwater. Duplicate samples were taken every 50ft from a separate effluent from the wet splitter, or were collected from a

Gilson split of the dry samples in the 2007 program (written communication, Crist, 2010.). Sample recovery was generally very good except for difficulty when the Wind Mountain fault was penetrated.

10.2.1 Down-hole Surveys

Five of the 13 holes drilled in 2007 and 12 of the 14 drill holes in 2008 were surveyed down the hole in order to determine deviation from a straight-line projection of the surface bearing and dip of the drill stem. Considerable droop of the holes was detected, especially on shallow dipping (-45 degree) drill holes, where droop exceeded 1.5º (2.6ft per 100ft). The large amount of droop was due most likely to the thin pipe used by the track rig. Generally, the 2008 truck-mounted rig using 20ft drill stems and stabilizers was able to achieve a straighter hole.

10.2.2 Ground Water and Temperature

Groundwater discharge from 2007 drill holes was generally less than 15 gallons per minute and was noticed only in holes that penetrated more than 700 vertical feet beneath the surface. For purposes of this discussion, groundwater discharge refers to the estimated effluent of water from the splitter that was over and above that circulated by the drill rig from the surface. Although minor pockets of water may have been encountered above this elevation, no noticeable discharge was recorded. Discharge of groundwater was possibly more extreme in WM07006, where the geologist on site while drilling from 745ft to 870ft estimated a 50-gallon-per-minute discharge. The flow dissipated abruptly at 870ft to about 10 gallons per minute; thus, the hole either sealed off or a pocket of perched water was drained. Actual groundwater discharge from this hole was probably less than estimated because the hole was completed with the hammer bit, which would have become ineffective at this depth with 50 gallon per minute discharge. All holes, even the vertical 1,000ft hole, were completed with a hammer bit.

During the down-hole surveying discussed in Section 10.2.1, temperature of the water in the holes was also measured. Water temperature was measured on the five holes that were surveyed in 2007; a maximum measured temperature of 95.8^{o} F was recorded in WM07006 at a depth of 630ft. In this hole, and all other holes, the maximum temperature of the water was always estimated by feel to be cooler than comfortable bath water.

Fortune River drilled several relatively deep drill holes on the Wind Mountain fault zone in 2008. At depths as shallow as about 500ft, several holes penetrated strongly fractured silicified rock near the Wind Mountain fault zone in the area of Deep Min that was saturated with groundwater. The water effluent from the RC drill rig was crudely measured at as much as 120 gallons per minute at depths of about 1,000ft by recording the length of time to fill a 5-gallon bucket. IDS conducted down-hole surveying of the holes that included temperature measurements. The highest temperature measurement made by IDS was 114^{o} F at a true depth of 1,235ft (drill-hole depth of 1,301ft) in drill hole WM08-024, a hole that explored the Deep Min mineralization. Sufficient drilling has been done by Amax, Fortune River, and Bravada to indicate that no geothermal conditions will hinder the mining of the established near-surface resource. Down-hole temperature measurements of future deep drill holes should continue to be made to determine if geothermal conditions could be a threat to mining deep mineralization that may be discovered in the future.

10.3 Drilling by Bravada Gold Corp.

Bravada began RC drilling in June 2011 and completed 50 drill holes totaling 13,479ft at Wind Mountain during 2011. New Frontier Drilling was the drill contractor, using an MPD 1000 track-mounted RC rig.

Drill samples were collected every 5ft, and a duplicate was collected every 50ft except in rare instances where drilling problems were encountered. All drilling was done with water injection to reduce dust. Samples were collected as an approximate 50% split from a rotating wet splitter in a 5-gallon bucket lined with a 20in x 24in cloth bag. In most cases, the bag did not overflow and the sampler was instructed to tie the bags so as to contain as much of the fluid portion of the sample as possible. Duplicate samples were collected from the other 50% portion of the wet splitter. Sample recovery was generally very good except in highly sheared ground.

Bravada contracted with TNT to professionally survey their drill collars. No down-hole surveying was conducted on Bravada's holes because they were drilled to shallow depths.

10.4 Summary of Drilling Results

Drill spacing for the entire resource averages 160ft. Within the Wind pit, drill spacing averages 130ft, and within the Breeze pit, it averages 120ft.

Four Fortune River drill holes confirmed and expanded the known extent of the near-surface mineralization of above 0.010oz Au/T. Mineralization in these holes is contained in sinter and/or strongly silicified volcaniclastic rocks and is not known to be directly associated with a particular structure, but rather is part of the areally extensive halo of gold. Nine of the Fortune River drill holes have located and defined the DeepMin resource.

All of Fortune River drilling was done with RC rigs. Shallow portions of some of the 2007 holes and the initial 20ft of the 2008 holes were drilled dry; the remainder of their drilling was done with water injected. Reportedly, significant water was not encountered during their drilling. All their drilling was drilled close to perpendicular to the deposit thereby giving very close to true thickness of mineralization. MDA did not see their drilling in operation. Bravada's 50 holes were drilled with RC rigs, and all drilling was conducted with water injection.

Subject to any issues caused by injecting water for wet RC drilling and the use of a Y-splitter on the rotating wet splitter, the drill samples should represent a fair reflection of the material drilled.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Historic Sample Preparation and Analyses

Amax Exploration, Santa Fe, Chevron, and Amax are thought to have used standard sample collection, sample preparation, and analytical techniques in their exploration and evaluation efforts that were industry practice at the time, but detailed descriptions of the procedures have not been found.

Various commercial laboratories, including Bondar Clegg Inc. (for Amax), ALS Chemex (now ALS Minerals ("ALS")) (for Santa Fe), Rocky Mountain Geochemical Corp. (now part of Inspectorate), North American, and Cone Geochemical, Inc. were involved in the assaying at different phases of the exploration and mining activity. Blast holes appear to have been analyzed by Amax's in-house laboratory. MDA has no information about whether the laboratories were certified at the time of the historic drilling.

There is no assay quality control data available for the drilling completed by Amax Exploration, Chevron, or Santa Fe. Standards were inserted at the rate of one for every 50 samples in the Amax holes, but MDA has no further information about historic Quality Assurance/Quality Control ("QA/QC") procedures.

11.2 Sample Preparation and Analysis by Fortune River Resources Corp.

11.2.1 Surface Sampling

Fortune River's rock-chip samples generally consisted of approximately 2lb to 9lb of rock. The samples were collected and transported directly to the laboratories in Sparks, Nevada by Crist (2007a). The samples were crushed at the laboratory to 70% -10 mesh from which a 200g, 500g, or 1,000g pulp (90% -150 mesh) was prepared for each sample. A 30g digestion of the pulp material was assayed by fire assay with AA finish for gold, and a 0.5g split was digested for multi-element analysis by ICP.

ALS, American Assay Laboratories ("American Assay"), and Inspectorate conducted all analytical and sample preparation work done on Fortune River's surface samples from the Wind Mountain property. ALS's Reno analytical facility is individually certified to ISO 9001:2008 standards and has received accreditation to ISO/IEC 17025:2005 standards from the Standards Council of Canada for fire assay for gold by atomic absorption (ALS website as of February 22, 2012). American Assay does not have ISO certification, according to their website, but they do participate in a variety of testing programs. Inspectorate's laboratories are accredited to relevant national and international standards, including ISO 17025, according to their website.

Fortune River's quality control for the surface samples (Crist, 2007a) consisted of a limited number of blank pulps that were inserted among the surface samples from Wind Mountain. The blank samples did not contain significant geochemical values of gold, and no gold was reported for the blank samples by the lab. Internal standards and check assays utilized by the laboratories were relied upon for further quality control. Repeat gold analysis checked well within 10%.

Initial samples collected by Fortune River were from surface material, and the results were used to help guide their first exploration drilling program.

11.2.2 Drilling

A 250-g sample was prepared at Inspectorate from the 5ft interval rig sample for the first drill hole, after which Fortune River increased the pulp size to 500g. The pulps were assayed for gold using a 30g fire-assay with an AA finish and a multi-element ICP package that included silver. Samples over 1ppm Au were typically re-run using fire assay with a gravimetric finish.

Silver was analyzed as part of an ICP package using three-acid digestion. Some of the more important silver-bearing intervals were checked by fire assay with a gravimetric finish. The ICP silver values were generally higher than those from fire assay, especially when derived from samples that contained relatively low concentrations (less than 15ppm Ag). ALS and Inspectorate personnel both indicated that fire assay results are often lower than those derived from the same sample by ICP or AA when the silver content of the sample is less than 30ppm Ag, possibly due to volatilization of silver during the fire assay procedure. Crist (2007a) stated that he believed most of the ICP results are representative of the silver content of the sample intervals.

Several of the trace elements analyzed by the three-acid digestion ICP analysis, in particular Hg, were apparently precipitated or volatilized from solution by the three-acid attack and, therefore, were not detected (Noble and Ranta, 2007). In addition, there may have been problems with interferences using the three-acid digestion, as some unexpected elements were anomalously high (e.g. Bi, Tl). Ag, As, Cu, Pb, Zn, and Se analysis were probably relatively accurate values (Noble and Ranta, 2007). Mercury was consistently reported as below detection limits, but other Hg analyses detected anomalous Hg in Wind Mountain mineralization.

Assay quality control for the Fortune River drilling programs consisted of blank samples, standard samples, and rig duplicate samples. ALS assayed the duplicate samples for gold only, using a 30g fire assay followed by an AA finish. Approximately one standard and one blank were inserted into the sequence of normal 5ft samples for every increment of 500ft (e.g. 2 of each for holes between 500 and 1,000ft). Standards and blanks were given a number ending in 3 and assayed in sequence with the normal samples. Each sequence of samples submitted to Inspectorate began with a blank in order to identify any lab contamination and contained at least one standard.

11.3 Sample Preparation and Analysis by Bravada

Inspectorate conducted all analytical and sample-preparation work on the primary drill samples. American Assay conducted all analytical and sample-preparation work on duplicate drill samples.

A 500g sample pulp was prepared by both labs from the rig samples collected on 5ft intervals. The pulps were then assayed for gold using a 30g fire-assay with an AA finish. The pulps were also assayed for silver using a four-acid digestion with an AA finish.

Blank samples were included approximately every 150ft during drilling. Duplicate samples were collected approximately every 50ft during drilling. Standards were inserted approximately every 200ft during drilling. Each sequence of samples submitted to Inspectorate began with a blank in order to identify any lab contamination, and each sequence of samples contained at least one standard.

The standard samples were prepared by Mine Exploration Geochemistry and were certified for gold and silver.

11.4 Security

Nothing is known of the sample security used by Amax Exploration, Santa Fe, Chevron, and Amax, but all were substantial, experienced companies, and it is assumed that they used procedures common in the industry at the time.

During Fortune River's and Bravada's drilling programs, samples were laid out in order at the drill site and, with the exception of one hole, all samples were located securely behind the mine fence and a locked gate, well away from public access. Samples were either delivered by a Fortune River and Bravada geologist or were picked up by the laboratory within a day or so of completion of each drill hole. Samples were never left on the site during days off but were unattended at night in the 2007 program and in the 2008 program when there was no night drilling. No signs of sample tampering were noted by the geologists on site.

11.5 Summary Statement

Very little can be said about the historic drilling and sampling, because there are few records of procedures and quality control.

Subject to any issues caused by injecting water for wet RC drilling and the use of a Y-splitter set on the rotating wet splitter for further splitting, the drill samples should represent a fair reflection of the material drilled.

All of these issues are reflected in the classification of the resource by disallowing any Measured resources. The work done is adequate for production decisions but not for the highest level of classification.

12.0 DATA VERIFICATION

12.1 Database

Fortune River obtained from Kinross and a previous land owner most of the drill data generated by Amax, which was merged into Kinross' data in June 1998 after mining at Wind Mountain was completed in 1992. The database used for the 2012 resource estimate consisted of 541 drill holes.

In addition to the drill-hole data, blast-hole data were available in the Amax archives that contained blast-hole coordinates with gold and silver assays for 81,275 blast holes. MDA did not use the blast-hole data but did compare the tons and grade from the model completed by Mr. Noble in 2007 (Ranta and Noble, 2007) to the 2012 resource estimate. No certificates were available for the blast-hole data, and nothing is known about the sampling methods or assaying methods. Blast holes appear to have been analyzed by Amax's in-house laboratory.

Some historic assay certificates are missing and historic assays are reported in g/t and in oz/T. Historic assay documentation of analytical procedures is missing. This is one aspect of the data that has impacted resource classification. Based on Fortune River's tabulations, 1,328 assay intervals out of 32,218 do not have certificates. MDA audited 10% of the historic assays after Fortune River re-entered the data (see below for more details).

Two historic drill holes have down-hole surveys and down-hole surveying was done by Fortune River in 2007 and 2008. Collar coordinates for each of the drill holes were obtained from the digital database and are in Nevada State Plane West coordinate system, with NAD27 datum. Some of the drill-hole collars were surveyed, presumably by theodolite, but there is no indication as to how many and which of the drill-hole collars were surveyed. This data could not be audited.

MDA performed a manual audit of the drill-hole data against Fortune River's modifications on the database used by Noble. The first audit produced results of greater than 1% significant errors, and it was determined that most or all of the historic assay data were converted using both varying and rounded conversion factors. As a result, Fortune River re-entered the assay data, and once again MDA audited the data. This time about 10% of the historic assay data were audited, and the error rate was significantly less than 1%.

MDA also compiled all the assay lab certificates and performed an electronic audit of all of Bravada's assay data. Of 3,255 intervals, 420 discrepancies were found. These discrepancies were explained as intentional for reasons such as "*The decision is to always use the A Duplicate value*," "*The decision is to use AgGrav22 for the Ag values because the AgICP values are suspect*," and "*The decision is to use AgICP for Ag for the entire hole*." MDA used the data as suggested by Bravada.

Two analytical procedures - AA and ICP - were used for silver by Fortune River, and there is a clear bias between the results of these two methods of analysis with AA lower by 27%. ICP silver values represent 68% of the Fortune River silver values, and AA silver analyses represent the remainder. Combining analytical procedures with clear biases imparts uncertainty in the database, although the Fortune River data represent a minority of the total database, rending this complication much less significant.

12.2 Quality Assurance/ Quality Control

The following analysis of QA/QC data is based on the drilling programs by Fortune River and Bravada. As discussed in Section 11.1, there is no information on QA/QC for historic drilling.

12.2.1 Standards

Nineteen standards have been used at various times during the 2007, 2008, and 2011 drilling programs at Wind Mountain. All were obtained from and are certified by Minerals Exploration and Environmental Geochemistry ("MEG"). Specifications for the standards are summarized in Table 12.1. Standards MEG-Au.09.01, MEG-Au.09.02, and MEG-Au.09.03, the first three listed in Table 12.1, were employed during the 2011 program. These standards are certified for both gold and silver. The other standards listed were used during the 2007 and 2008 programs. They are certified only for gold.

Table 12.1 Specifications of Standards Used

Standard ID in Database	MEG ID	Number of Insertions	Sample Au ppm	Lab Au ppm	Sample Ag ppm	Lab Ag ppm
MEG-Au-09.01-.684	MEG-Au.09.01	24	0.684	0.687	9.498	9.585
MEG-Au-09.02-.184	MEG-Au.09.02	27	0.185	0.184	0.164	0.187
MEG-Au-09.03-2.09	MEG-Au.09.03	23	2.093	2.09	17.27	17.218
S104007X	MEG JOB # S104007X	7	0.727	0.75		
S104008X	MEG JOB # S104008X	1	0.662	0.662		
S104010X	MEG JOB # S104010X	4	5.096	5.097		
S104011X	MEG JOB # S104011X	4	7.129	7.129		
S105001X	MEG JOB # S105001X	1	1.841	1.843		
S105002X	MEG-S105002X	10	0.44	0.44		
S105003X	MEG JOB# S105003X	7	0.524	0.525		
S105004X	MEG-S105004X	8	3.752	3.752		
S105005X	MEG-S105005X	3	2.416	2.416		
S105006X	MEG-S105006X	3	4.516	4.516		
S107001X	MEG-S107001X	1	0.234	0.234		
S107002X	MEG JOB # S107002X	4	0.965	0.965		
S107005X	MEG-S107005X	5	1.347	1.343		
S107008X	MEG JOB # S107008X	6	1.911	1.911		
S107009X	MEG-S107009X	1	4.734	4.734		
S107020X	MEG-S107020X	1	0.321	0.32		

Notes: MEG provided both “Sample” and “Lab” average values for each standard, as shown in the table. MDA used the “Lab” average value as the best or accepted value when evaluating the results obtained for the standards.

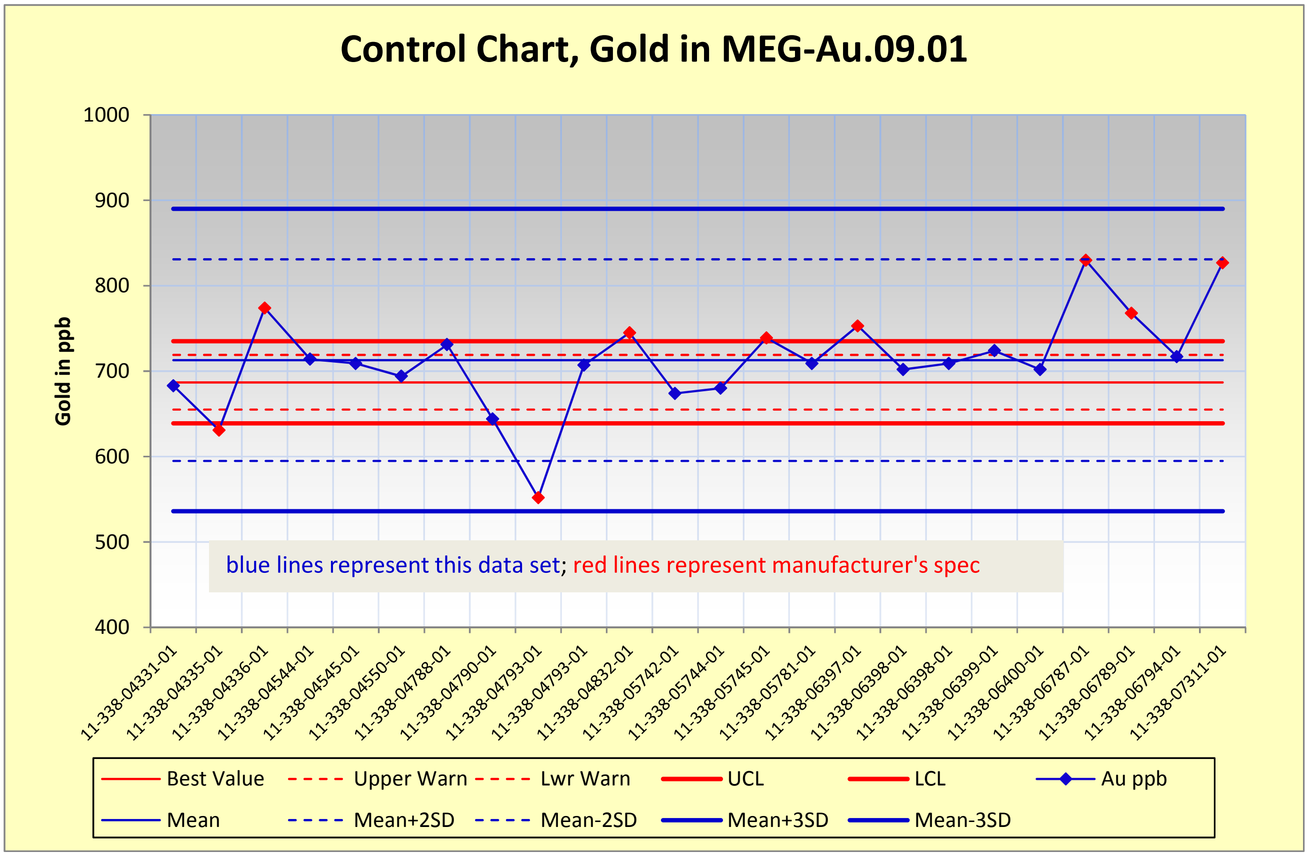
MDA evaluated the standards using charts such as the example shown in Figure 12.1. MDA used the following criteria for deciding whether the analytical result obtained for a standard was acceptable:

> The upper and lower control limits (“UCL” and “LCL” on Figure 12.1) are the “Lab” average shown in Table 12.1, plus or minus three times the standard deviation provided by the manufacturer. The “Lab” average is used as the “Best Value.”

On Figure 12.1 the Best Value, UCL, and LCL are shown as solid red lines. Blue lines indicate the average plus or minus three standard deviations, determined using Wind Mountain’s analytical data.

MEG-Au.09.01 is used as the example in Figure 12.1 because of the unusually high number of considered failures. Out of 24 instances shown, seven are deemed to be high failures, and two are deemed to be low failures.

Figure 12.1 Control Chart for Gold in MEG-Au.09.01



Appendix B lists all of the failures that MDA identified in analyses of standards. There are 15 high-side failures, amounting to about 11% of the analyses, and eight low-side failures, amounting to about 6% of the analyses. All of the high-side failures are in gold.

Also of interest when evaluating standards is the overall bias of the analyses, compared to the accepted values for the standards. Some bias will almost always be present, since it would be unusual for any single lab to produce an average result identical to the accepted value of a standard. The biases of the standards in the Wind Mountain data set are summarized in Table 12.2.

The biases exhibited in Table 12.2 are, for the most part, not unusually high or low. For those standards analyzed fewer than five times, the biases shown are not very meaningful. The results for MEG-Au.09.03 and S105004X do suggest that in a grade range of about 2000 to 4000 ppb Au, there is a risk that analyses could be biased 5% to 7% high.

Table 12.2 Biases in Analyses of Standards

Biases in Analyses of Standards						
Standard	**Count**	**Element (units)**	**Accepted Value**	**Average Obtained**	**Bias pct**	**Comment**
MEG-Au.09.01	24	Au ppb	687	713	+3.8	
MEG-Au.09.01	24	Ag ppm	9.585	9.8	+2.2	
MEG-Au.09.02	27	Au ppb	184	191	+3.8	
MEG-Au.09.02	27	Ag ppm	0.187	0.3	+60.4	given analytical precision at this grade, this bias is not meaningful
MEG-Au.09.03	23	Au ppb	2090	2202	+5.4	
MEG-Au.09.03	22	Ag ppm	17.2	17.7	+2.8	low failure at 2.066 ppm Ag not included in average.
S104007X	7	Au ppb	750	745	-0.7	
S104008X	1	Au ppb	662	718	+8.5	
S104010X	4	Au ppb	5097	4825	-5.3	
S104011X	4	Au ppb	7129	7029	-1.4	
S105001X	1	Au ppb	1843	1932	+4.8	
S105002X	10	Au ppb	440	444	+0.9	
S105003X	7	Au ppb	525	495	-5.7	
S105004X	8	Au ppb	3752	4029	+7.4	
S105005X	3	Au ppb	2416	2331	-3.5	
S105006X	3	Au ppb	4516	4503	-0.3	
S107001X	1	Au ppb	234	200	-14.5	
S107002X	3	Au ppb	965	1037	+7.5	low failure at 300 ppb Au not included in average.
S107005X	5	Au ppb	1343	1290	-3.9	
S107008X	6	Au ppb	1911	1939	+1.5	
S107009X	1	Au ppb	4734	4183	-11.6	
S107020X	1	Au ppb	320	432	+35	

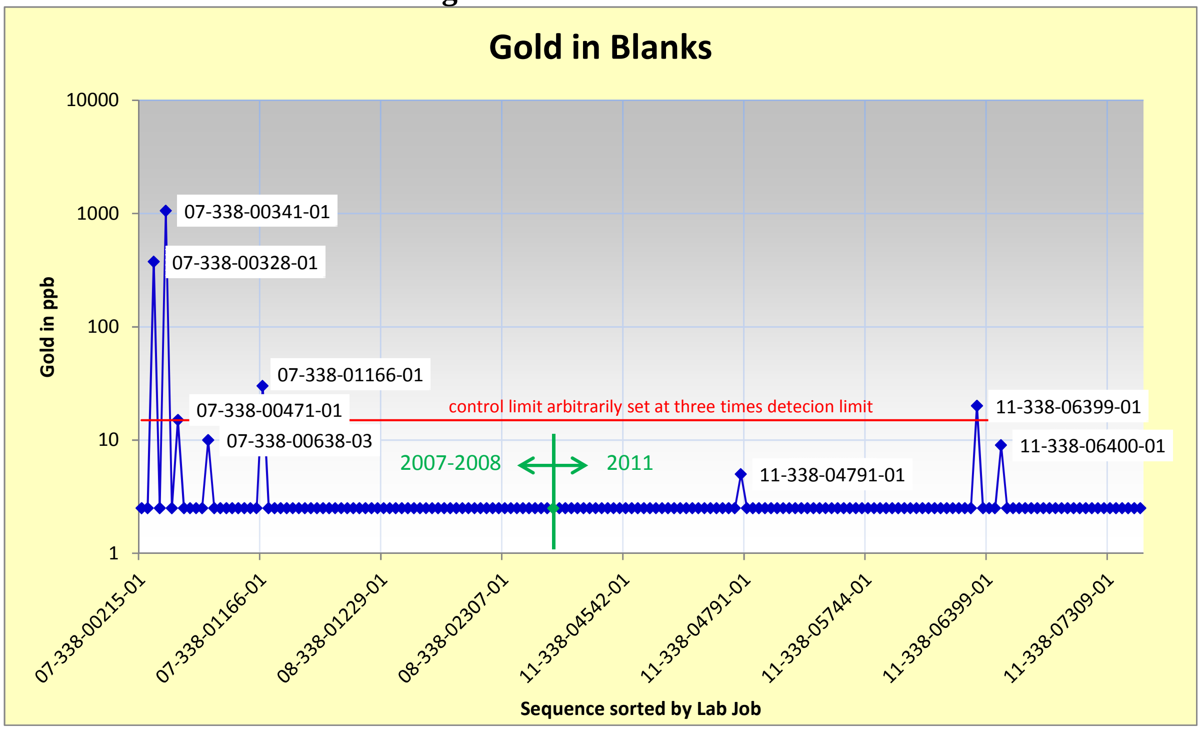
Note: except where otherwise indicated in the “Comment” column, the calculated averages include failed results.

12.2.2 Blanks

There are 166 analyses for gold in material identified as blanks. The results obtained are illustrated in Figure 12.2. Five moderately to very high gold values from blanks were reported in 2007. In 2011, three slightly to moderately high values were reported. MDA has no information as to the reasons for these occurrences. There are 163 analyses for silver in material identified as blanks. The results obtained are illustrated in Figure 12.3. It is notable that in 2007, starting with lab job 07-338-00951-01 and continuing until lab job 07-338-01236-01, there was a series of slightly high to very high silver analyses reported from blanks. There is cause for concern about the reliability of silver analyses from this period.

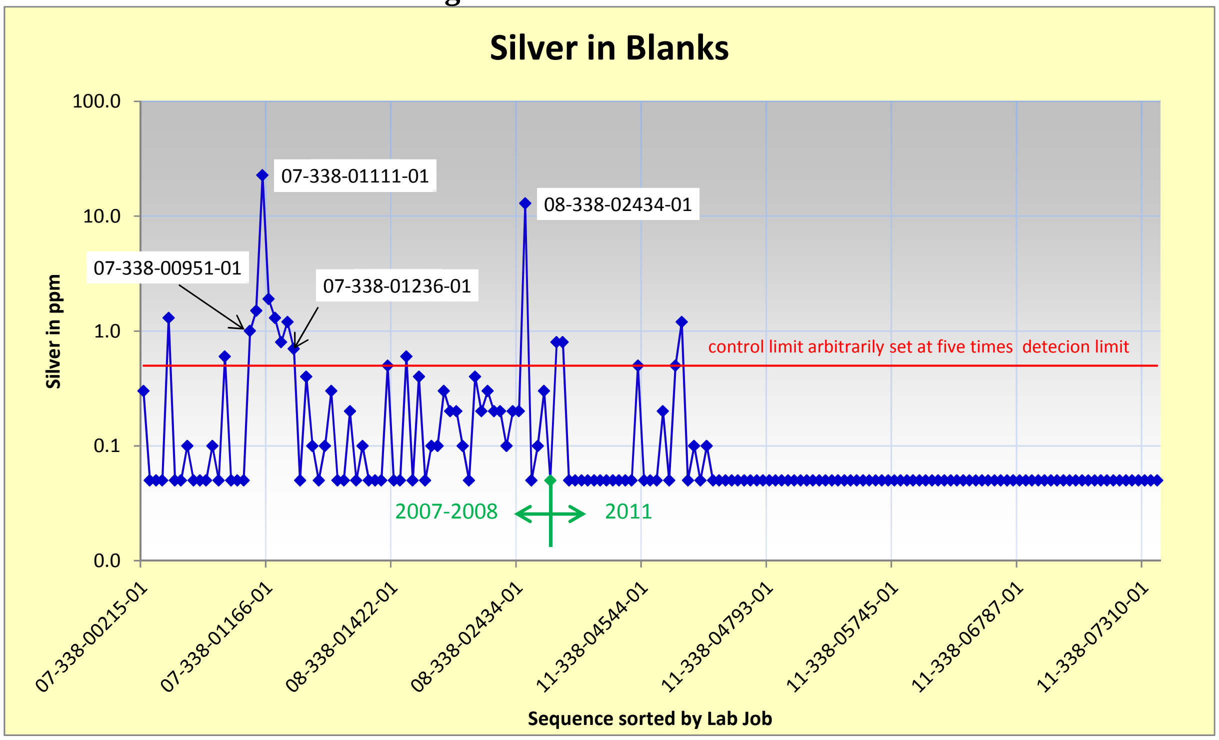
On Figure 12.2, the pattern for the period 2007-2008 is remarkably different than the pattern for 2011. Presumably either different "blank" material was in use or something was being done differently in the lab.

Figure 12.2 Gold in Blanks



Notes: A logarithmic scale is used on the Y axis for legibility.
Results reported as less than detection limit are plotted at 2.5 ppb Au.

Figure 12.3 Silver in Blanks



Notes: A logarithmic scale is used on the Y axis for legibility.
Results reported as less than detection limit are plotted at 0.05 ppm Ag.

12.2.3 Field Duplicates

It is MDA's understanding that RC field duplicates are collected at the rig, with one sample being sent to the primary lab for analysis and one sample being sent to the check lab for analysis. Normally RC field duplicates sent to a single lab would serve to check the repeatability of the sampling procedures at the rig and the sub-sampling protocol. Sending the duplicates to a second lab adds extra variables, those being the differences in precision, sub-sampling protocol, and the bias between the two labs. This makes the rig duplicates less effective as a check of sampling procedures.

MDA separated the duplicate analyses into four sets for evaluation. Those were:

- Gold duplicate analyses in 2011,
- Silver duplicate analyses in 2011,
- Gold duplicate analyses in 2007-2008, and
- Silver duplicate analyses in 2007-2008.

In 2011, Inspectorate was the primary lab (lab "A" in the charts), and American Assay was the check lab (lab "B" in the charts). In 2007-2008, Inspectorate was the primary lab ("A"), and ALS was the check lab ("B").

MDA evaluated the duplicate analyses using scatterplots similar to the example shown in Figure 12.4, and relative difference plots similar to the examples shown in Figure 12.5 and Figure 12.6. The examples are for gold in the 2011 program. Similar charts were done for the other three duplicate data sets described above.

Figure 12.4 Gold Check Analysis vs. Original 2011

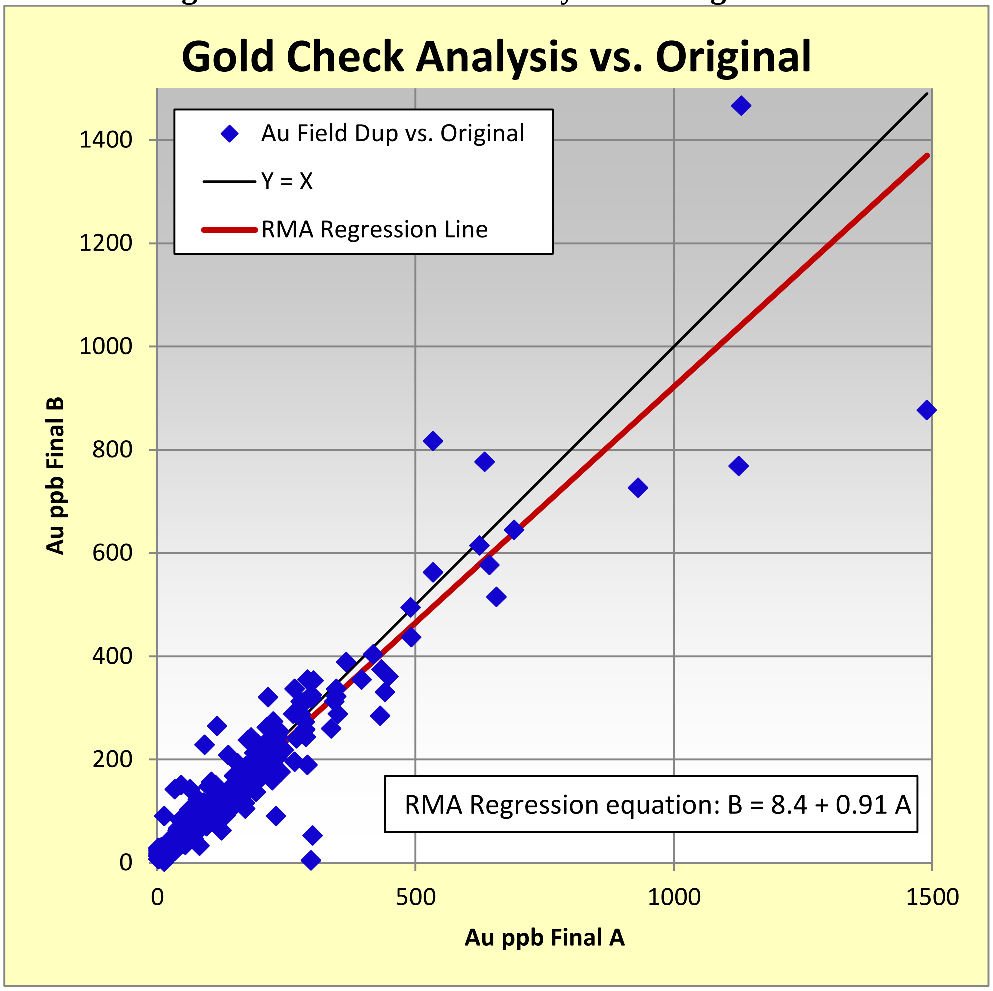
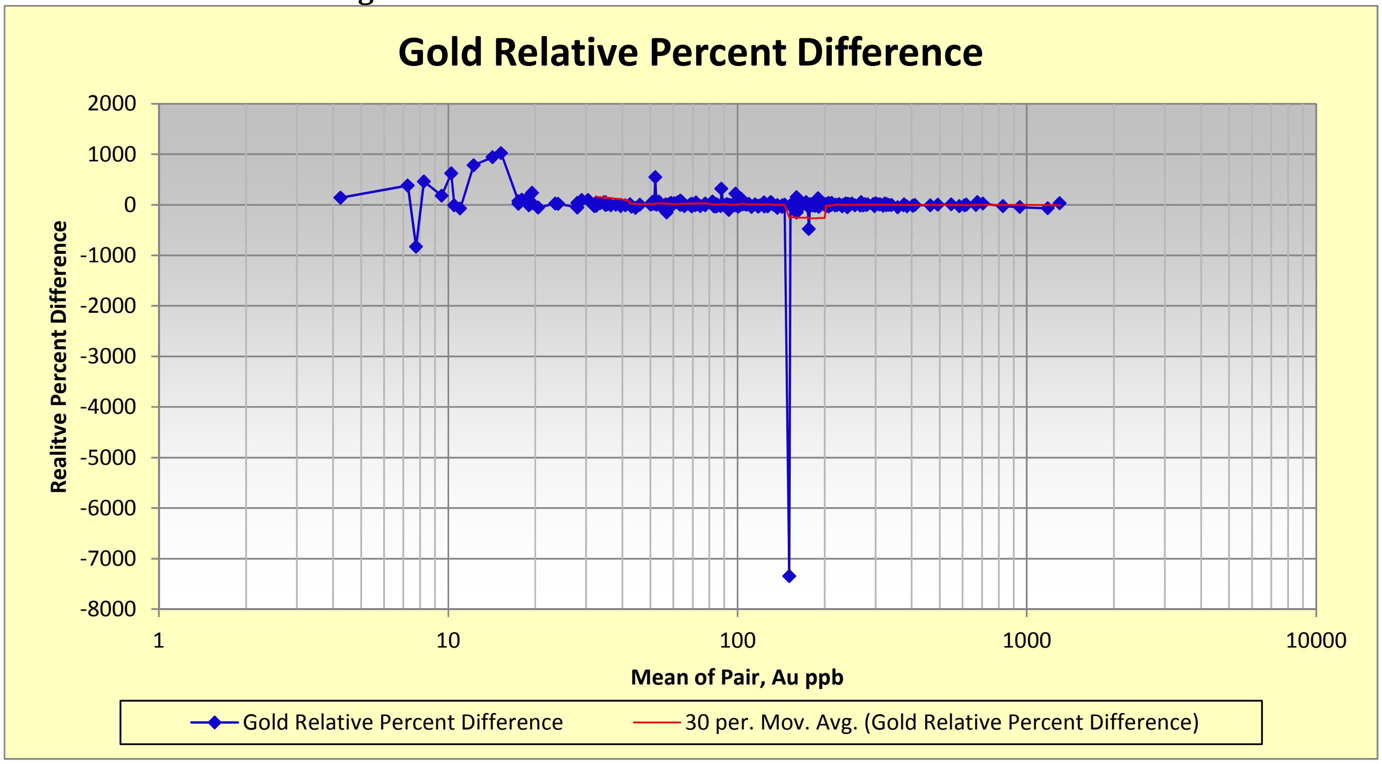
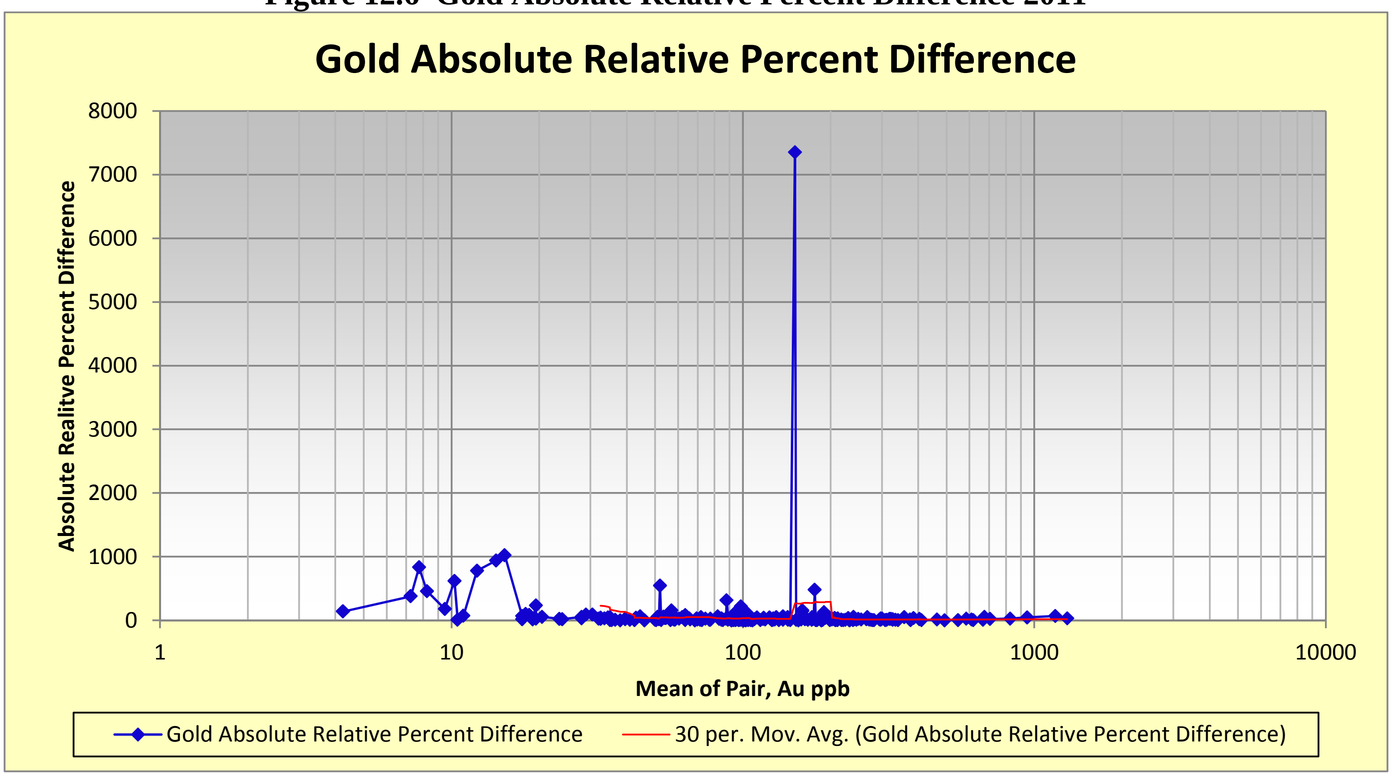


Figure 12.5 Gold Relative Percent Difference 2011



Note: Relative Percent Difference is calculated as 100 x (Duplicate – Original)/Lesser of(Duplicate, Original)

Figure 12.6 Gold Absolute Relative Percent Difference 2011



In Figure 12.4 through Figure 12.6 it is evident that the relationship between the originals and duplicates is skewed by some "outliers." Such outliers are important, in that they may indicate errors of some kind, and they should be investigated. However, they obscure the fundamental relationship between the two sets of analyses. For that reason, for each of the four duplicate data sets, MDA identified and removed some outliers and did some additional sub-setting of data, in an attempt to arrive at data sets that more clearly show fundamental relationships between the duplicates and originals. The reduction of the data sets was done by inspection and trial-and-error, rather than using a set of mathematical rules. For examples, the charts in Figure 12.4 through Figure 12.6 are reproduced in Figure 12.7, Figure 12.8, and Figure 12.9, using the reduced data set.

Figure 12.7 Gold Check Analysis vs. Original 2011 Reduced Data Set

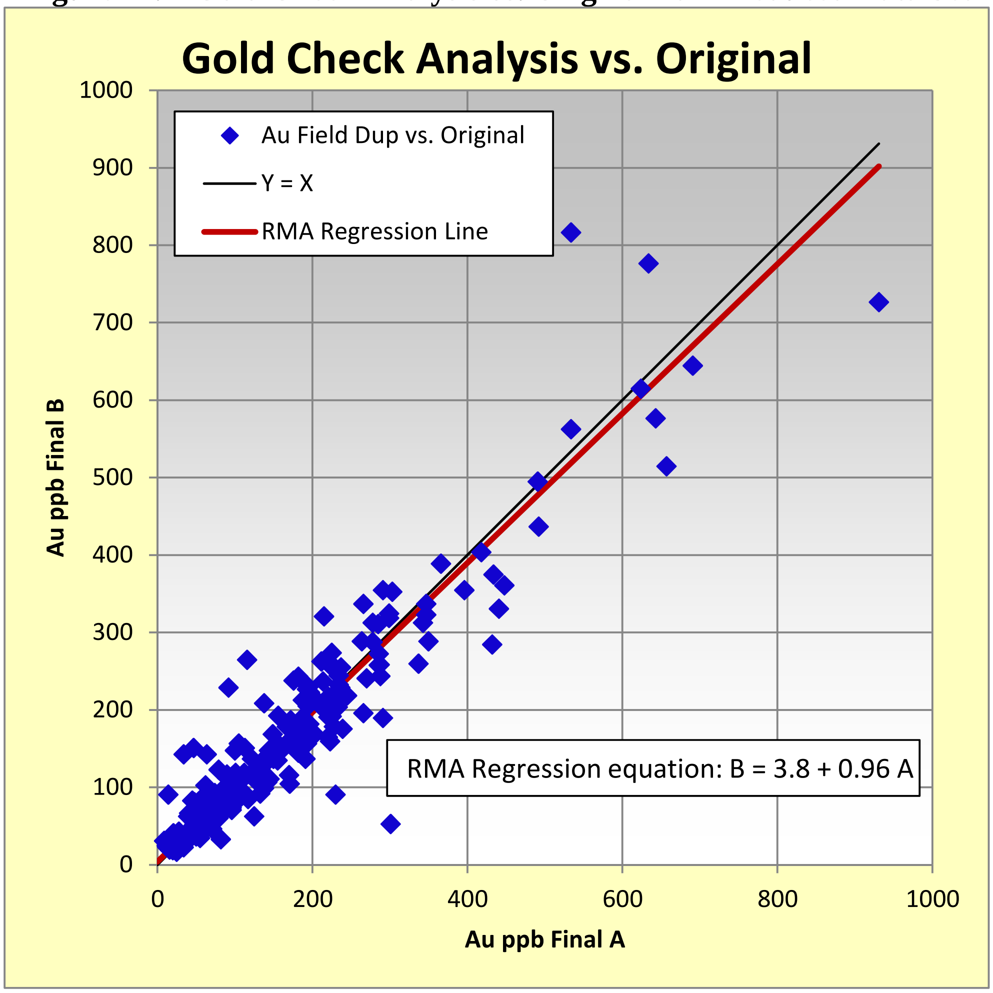


Figure 12.8 Gold Relative Percent Difference 2011 Reduced Data Set

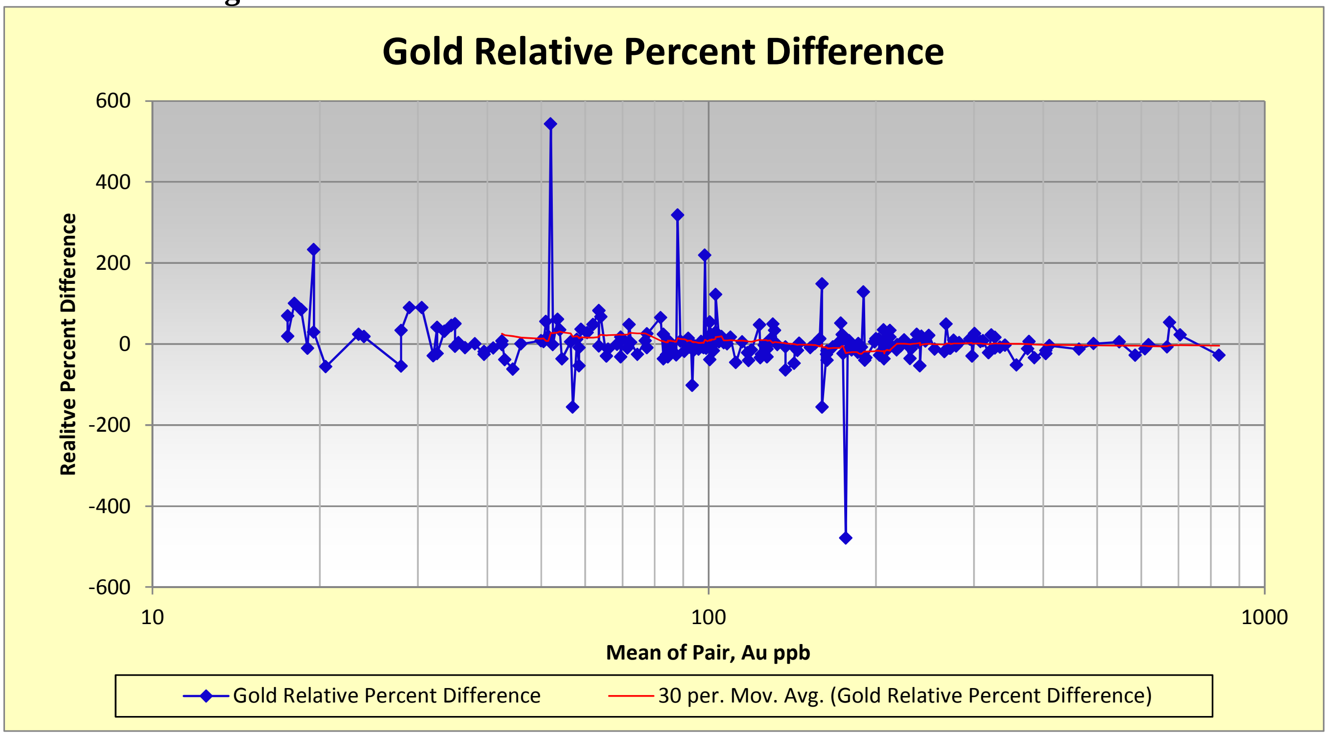
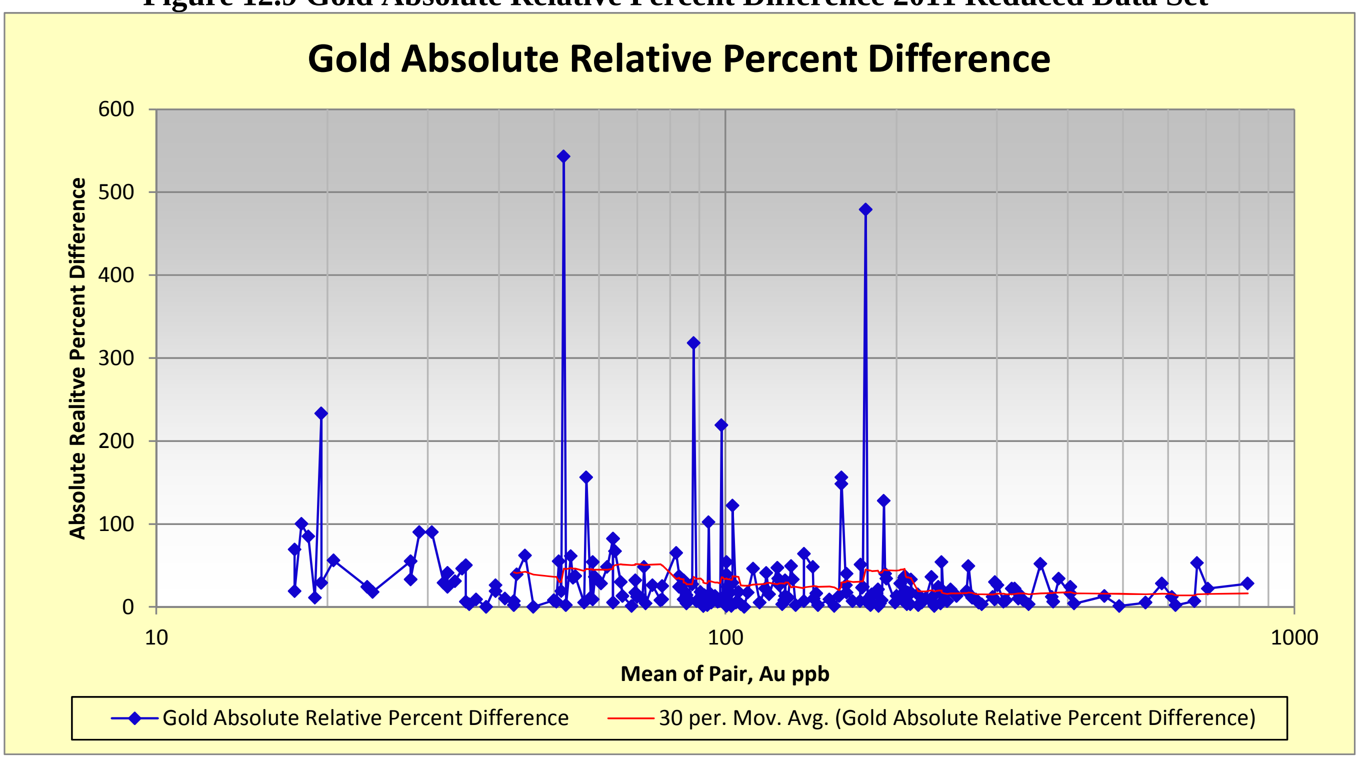


Figure 12.9 Gold Absolute Relative Percent Difference 2011 Reduced Data Set



It is evident in Figure 12.8 and Figure 12.9 that even using the reduced data set, many of the differences between the duplicate analysis and the original are greater than might be expected if the RC field sampling procedure has good repeatability.

A summary of the results for the field duplicates appears in Table 12.3. The reduced data sets have outliers removed, as well as the lowest and highest ends of the grade distributions. Using those reduced data sets, the 2011 gold duplicate samples have an average relative percent difference of +4.9%, while the equivalent 2007-2008 gold duplicate samples have an average relative percent difference of +13.3%, the duplicates tending to have higher gold values in both cases. MDA has no way to know how much of the difference is related to sampling issues and how much is analytical, due to the use of two different labs.

In contrast to gold, the silver duplicates have negative relative percent differences, indicating that the duplicates tend to have lower silver values. The average relative percent differences are -27.6% for 2011 and -5% for 2007-2008.

12.2.4 Metallic Screen Analyses

The data set in MDA's possession contains a small number of metallic screen analyses for gold and silver. These can be matched to conventional analyses for the same samples. MDA assumes that duplicate samples were used to obtain the metallic screen analyses.

A comparison of the metallic screen to conventional analyses was done using procedures similar to those described above. Results of the comparisons are summarized in Table 12.4. While there is a large difference in the mean of the differences, there is a 6% difference in the mean of the two sets with the metallic screen being lower.

12.3 Summary Statement

There is effectively no documentation of historic quality control work, which is reflected in the lack of any Measured resources.

Sufficient issues were found in the Bravada QA/QC data to disallow any Measured resources in the final classification.

Table 12.3 Averages of Comparative Values for Duplicate Samples

		Grades				Worst Case		Mean of Pair		
	Count	**A Sample**	**B Sample**	**Mean of Pair**	**Difference**	**Relative Pct Difference**	**Absolute Rel Pct Diff**	**Relative Pct Difference**	**Absolute Rel Pct Diff**	**Filters**
Full Data Set										
Gold 2011	246	167	161	164	-6	-9	84.3	5.2	28	no filter
Gold 2007 & 08	492	134	140	137	6	14.2	87.4	12.8	27.5	no filter
Silver 2011	246	8.3	7.9	8.1	-0.3	130.6	244.2	-5.7	43	no filter
Silver 2007 & 08	191	6.9	6.4	6.7	-0.5	24.3	73.2	5	28.9	no filter
										no filter
Reduced Data Set										
Gold 2011	229	161	159	160	-2	4.9	31.8	2	22.1	Mean of pair > 17, Au_ppb_final_A < 1000, 1 extreme difference removed
Gold 2007 & 08	387	162	168	165	5	13.3	27.9	9	20.5	Mean of pair > 15, Abs_Au_RPD_Max < 1000, four outliers identified on scatterplot removed
Silver 2011	201	7.4	6.8	7.1	-0.6	-27.6	47	-13.5	29.2	Mean of pair > 1, Ag_ppm_final_A < 30, Ag_ppm_final_B < 30, Abs_Ag_RPD_Max < 1000
Silver 2007 & 08	139	8.7	8.2	8.4	-0.4	-5	22.7	-4.6	17.3	Mean of pair > 0.6, Abs_Ag_RPD_Max < 1000, four outliers identified on charts removed

Notes: All gold analyses in ppb
All silver analyses in ppm

Table 12.4 Averages of Comparative Values for Metallic Screen Duplicates

		Grades				Worst Case		Mean of Pair		
	Count	**A Sample**	**B Sample**	**Mean of Pair**	**Difference**	**Relative Pct Difference**	**Absolute Rel Pct Diff**	**Relative Pct Difference**	**Absolute Rel Pct Diff**	**Filters**
Full Data Set										
Gold	50	299	261	280.1	-38	-63	90	-20	38	no filter
Silver	12	15.7	8.1	11.9	-8	-155	155	-69	69	no filter

Notes: All gold analyses in ppb
All silver analyses in ppm
“A” Sample analyzed by conventional method, “B” Sample analyzed using metallic screen.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Several historic metallurgical reports are available for the Wind Mountain gold-silver project, but the most compelling indication for gold and silver recovery is from historic production that occurred between 1989 and 1999. Fortune River and Bravada have conducted subsequent metallurgical testing.

A comprehensive review of this work and additional testing by a qualified metallurgist are recommended for the next level of study.

13.1 Historic Metallurgical Testing and Reports

MDA obtained five reports that described studies and tests that occurred prior to and during historic production. The following information is presented as a summary of the historic metallurgical work that has been completed. MDA believes that these reports are reasonable evidence of the amenability of the deposit to leaching for this level of study. Note that use of the term "ore" in these reports is in the metallurgical sense and is not a reflection of the economics of the mineralization.

13.1.1 Bottle-Agitation Cyanide Leach Tests – Western Testing Laboratories – 1985

In 1985, Western Testing Laboratories produced a "Report on Bottle-Agitation Cyanide Leach Tests" for Santa Fe Mining, Inc., describing bottle-agitation tests conducted on two samples taken from drill sample rejects. The test portions from the rejects were ground to minus 80-mesh and split for head assay and 72-hour bottle roll tests. The head assays for the two samples and resulting extractions for the bottle tests are shown on Table 13.1.

Table 13.1 Results of Bottle Roll Tests by Western Testing Laboratories
(From Western Testing Laboratories, 1985)

Sample	Au oz/T	Ag oz/T	Au Extraction	Ag Extraction
Group 1	0.034	0.78	88.6%	58.2%
Group 2	0.038	0.69	89.7%	51.4%

Reagent consumption was reported as 4.0 pounds of lime per ton of ore and 1.3 pounds of sodium cyanide per ton of ore.

The report recommended:

"… Since grade of the ore is such that only heap leaching is a viable production method, a series of column-percolation cyanide leach tests should be performed before a pilot heap is attempted. Such a series of tests would provide data on degree of crushing required, percolation characteristics, and recoveries that would more nearly approach those attained in a pilot heap leach."

13.1.2 Bottle-Agitation Cyanide Leach Tests – Heinen-Lindstrom Consultants – 1986

In 1986, Heinen-Lindstrom Consultants produced a report on "Preliminary Cyanidation of San Emidio Ore Samples" for Pegasus Gold Inc., who was bidding for the property; San Emidio refers to Wind Mountain samples. This report was based on two samples (B2028 and A-8), which were subjected to

72-hour leach bottle roll tests. Table 13.2 shows sample characteristics and extraction results as reported.

Table 13.2 Results of Bottle Roll Tests by Heinen-Lindstrom Consulting
(From Heinen-Lindstrom Consultants, 1986)

	Sample			
Metallurgical Results	B2028		A-8	
	Au Recovery	Ag Recovery	Au Recovery	Ag Recovery
2 hours	35.5%	2.8%	41.5%	6.3%
6 hours	55.7%	3.7%	52.4%	9.1%
24 hours	65.2%	6.1%	55.7%	13.0%
48 hours	80.7%	9.0%	59.0%	16.0%
72 hours	79.7%	10.6%	62.3%	17.7%
Extracted, oz/T ore	0.024	0.05	0.013	0.12
Tail Assay, oz/T ore	0.006	0.44	0.008	0.55
Calculated Head, oz/T ore	0.030	0.49	0.021	0.67
Assay Head, oz/T ore	0.023	0.26	0.024	0.62
Cyanide Consumption, lb/ton ore	0.10		0.30	
Lime Added, lb/ton ore	3.60		2.00	
Final Solution pH	10.0		9.7	

The discrepancies between assay head grades and calculated head grades were not discussed in the report. An additional discrepancy in the recovery between the 48 hour and 72 hour interval shows that the gold recovery for sample B2028 actually went down. It is uncertain if this discrepancy is due to ore characteristics or laboratory error.

Conclusions presented in the report are as follows:

- *"San Emidio samples are fairly amenable to agitated cyanidation at a nominal 3/8 inch feed size.*
- *Leaching rates are rapid for both samples.*
- *Cyanide consumptions were low.*
- *Lime requirements were low."*

13.1.3 Coarse Gold Study – Amax Minerals & Energy – 1987

In 1987 Amax conducted an in-house coarse gold study on Wind Mountain mineralization (referred to as the "Pyramid Lake prospect") by J. D. Wood (Wood, 1987). The study was initiated due to intercepts with traces of visible gold in rotary (assumed to be RC) drill cuttings. Cyanide leaching was performed on three samples.

Wood summarized the study and concluded:

> *"Small flecs of visible gold observed in DH-12 and DH-13 drill cuttings were the first indication of free gold at the Pyramid Lake prospect. Sieve fraction analysis indicated the gold values are consistently 9.3% higher in +20 mesh fractions and 20.6% higher in the -100 mesh fractions than in*

the intermediate fractions. This probably indicates gold is closely associated with, and contained along fractures of very hard silicified rhyolite and is liberated by drilling and crushing enabling small quantities of free gold to concentrate in the fine fractions.

Cyanide leaching of 3 samples resulted in an average gold recovery of 100 percent based on AMAX composite head assays ranging from 50 to 135 percent. Recoveries over 100 percent must reflect coarse gold not detected by fire-assay methods. The only other explanation is analytical error which does not seem likely. There appears to be 32 percent coarse gold in these samples resulting in total gold contents 47 percent higher than initial assays. The actual size of the coarse gold particles has not been determined. Two observed are about 1/2g or less in weight. Similarly the distribution or extent of the coarse gold is not known. Samples tested exceed 0.01oz Au/T so it may be expected to find coarse gold in rocks exceeding this grade."

13.1.4 Cyanide Tests – Kappes, Cassiday & Associates – 1988

The most extensive metallurgical testing report available was prepared by Kappes, Cassiday & Associates ("KCA") for Amax in 1988. The following is MDA's summary of this report:

A full range of testing was done on nine samples, including screen and head analyses, cyanide centrifuge tube tests, cyanide bottle roll tests, and cyanide column leach tests.

Nine core samples were provided to KCA for testwork. The core was crushed into two groups of samples: minus 5/8in and minus 1 ½in. In addition, eight chip samples from three rotary drill holes were provided for testing. Head grades for the core samples ranged from 0.006 to 0.033oz Au/T, and the chip sample head grades ranged from 0.011 to 0.066oz Au/T. Centrifuge tube tests were performed on pulverized portions of all core sample screen fractions. The tests indicated that the total cyanide soluble gold was greater than 80% in all fractions tested.

Agitated bottle roll tests were conducted on the core samples and on splits of the chip samples. The core bottle roll tests were conducted on pulverized core as well as the 5/8in and 1 ½in samples. Gold extractions on core samples ranged from 62.5% to 88.6% and averaged 80.2%. Cyanide consumption ranged from 0.3 to 1.1 pound sodium cyanide per ton of ore, and lime consumption ranged from 0.8 to 1.6 pounds per ton of ore.

Column tests were performed on the nine samples of minus 5/8 inch and nine samples of minus 1 ½ inch core. The column tests used 5ft to 6ft columns, which were 6in diameter for the 5/8 minus material and 8in diameter for the 1 ½ minus material. The column tests were run from 30 to 39 days. Extractions for the 5/8in material ranged from 42.7% to 87.5%, with a weighted average of 59.4%. Extractions for the 1 ½in material ranged from 33.3% to 80.0%, with an average of 54.3%.

KCA suggested that the actual recoveries for full-scale leach pads would be 3% less than the results or 56% and 51% for 5/8in and 1 ½in material, respectively.

13.1.5 Column Leach Tests on a Bulk Ore Composite – McClelland Laboratories, Inc. – 1990

A 5,500-pound bulk composite of Wind Mountain ores prepared by Wind Mountain mining personnel was tested by McClelland in 1990. (The sample was from mining activities, although the location of the sample was not described in the report.) Column leach tests were conducted using various crush sizes, including: 80% minus 3/4in, 80% minus 1in, and 80% minus 2in. Duplicate tests were conducted for each of the crush sizes, and a single test was performed on run-of-mine ore, which was 16.5% plus 4in. Average grade for the bulk sample was 0.019oz Au/T and 0.42oz Ag/T.

These columns had 50-day gold extractions of 67%, 66%, 62%, and 58% for the ¾in, 1in, 2in, and run-of-mine ("ROM") sizes, respectively. Average silver extraction of 11%, 14%, 13%, 17% was determined for the ¾in, 1in, 2in, and run-of-mine columns, respectively.

McClelland made the following conclusions:

- *"The bulk ore composite was amenable to heap leaching treatment at all four feed sizes evaluated.*
- *Gold extraction rates were fairly rapid.*
- *Cyanide consumptions were low, and should be substantially lower in commercial production.*
- *Lime requirements were low.*
- *Overall metallurgical results from the column tests and tail screen analysis results from the ROM leached residue, indicate that the metallurgically optimum feed size for the Wind Mountain bulk ore is 1 inch."*

McClelland recommended that *"an economic trade off study between leaching ROM and crushed 1 inch feed be conducted to determine whether or not the increased gold recovery obtained from the finer feed would warrant the crushing costs"*.

13.2 Metal Recovery from Historical Production

During the 1990s, Amax demonstrated favorable leaching characteristics of the oxide mineralization at Wind Mountain, obtaining 69% gold recovery from a combination of crushed and run-of-mine ore at grades. The silver recovery percentage is not known, but silver was a significant byproduct. Gold production from the Amax operation, as shown in Table 13.3, indicates a gold recovery of 67% during active leaching and an overall recovery of 69% after rinsing of leach pads.

Of the material placed on leach pads, 39% was crushed and 61% was run-of-mine.

Table 13.3 Annual Gold Recovery Wind Mountain Mine, 1989-1999

Year	Au Ozs to Pad	Recovered Au Ozs For Year	Recovered Au Ozs Cumulative	Total Recovery	Comments
1989	78,059	30,903	30,903	40%	Mining & Leaching
1990	147,648	81,733	112,636	50%	Mining & Leaching
1991	191,118	91,063	203,699	49%	Mining & Leaching
1992	16,369	54,689	258,388	60%	Mining & Leaching
1993		19,296	277,684	64%	Leaching
1994		10,513	288,197	67%	Leaching
1995		5,312	293,509	68%	Rinsing
1996		4,205	297,714	69%	Rinsing
1997		964	298,678	69%	Rinsing
1998		-	298,678	69%	Heavy Precipitation
1999		581	299,259	69%	Rinsing
Total	***433,194***	***299,259***			

13.3 Metallurgical Tests by Fortune River

13.3.1 Column Leach Testing of Dump Samples -- 2008

Fortune River commissioned McClelland to conduct column testing of two bulk dump samples from dumps of the Wind and Breeze pits in 2008. The samples weighed approximately 22 tons each and were split at the lab to 2.5 tons and dumped into 30in. columns. The head grade of the South dump, from the Wind pit, was 0.445ppm Au and 15.06ppm Ag. Leaching of this material for 134 days recovered 60.7% of the Au and 14.6% of the Ag. The dump sample from the Breeze pit had a head grade of 0.445ppm Au and 10.27ppm Ag. High clay content of the Breeze dump sample apparently did not allow the leach solutions to pass through the column. A prominent clay layer was encountered within the trench from which the Breeze sample was derived, and no attempt was made to segregate the clay layer from the sample in order to indicate the probable results of a worst case scenario.

13.3.2 Cold Cyanide Extraction Testing

Drill Samples In July 2008, Fortune River conducted cold cyanide extraction tests for gold and silver on pulps from intervals of two drill holes that encountered the Deep Min pod of gold and silver mineralization west of the Wind pit. The objective of this testing was preliminary determination of the amenability of this mineralization to direct cyanidation. Samples consisted of 500g pulps derived from individual 5ft drill samples from a continuous interval between 615ft and 950ft in drill hole WM08018 and from a continuous interval in drill hole WM08019 from 605ft to 1,050ft.

Inspectorate conducted the first round of testing on drill hole WM08019 only, which was selected because it was judged to contain the least oxidized representation of mineralization from Deep Min. Thirty grams of the pulp were subjected to cyanide extraction for one hour. The average extraction of gold from the entire interval (605ft to 1,050ft) was 18%. Extraction of gold from the less oxidized portion from 605ft to 900ft averaged only 10%, while a deeper more oxidized portion from 900ft to 1,005ft averaged 42%; the higher extraction and stronger oxidation are probably due to the proximity of this lower interval to the strongly fractured Wind Mountain fault zone.

ALS conducted a second round of tests on the less oxidized interval of WM08019 (from 605ft to 900ft as described above) and on an interval in drill hole WM08018 from 615ft to 900ft. ALS utilized a similar (one hour) procedure as Inspectorate and also analyzed Ag by AA from the same solution as the gold. ALS obtained an extraction of gold of 39% from WM08018and 15% from WM08019. ALS repeated the procedure on another 30g split and allowed the extraction to continue for 24 hours; they obtained extraction of 41% of the gold in WM08018 and 10% from WM08019. Extraction of silver from WM08018 averaged 39% and 41%, respectively, for the 1 hour and 24 hour tests and 31% and 32%, respectively, for WM08019.

Interestingly, the extraction of gold after 24 hours was actually less than that from the one hour test on the weakly oxidized interval from WM08019. Fortune River discussed these data with the chief geochemist with ALS, who suggested that the decreased extraction from the longer test was probably due to the presence of cyanide-consuming species in the sample, probably sulfur. No cyanide is added during the tests, and if the cyanide concentration drops below a certain level, depending on PH conditions, gold may drop out of solution. The longer extraction time of the 24 hour tests may have allowed the cyanide consumer to decrease the cyanide concentrations below a critical level. The interval tested in WM08019 was only very weakly oxidized, and trace amounts of iron sulfide were present throughout the interval.

Fortune River had similar analyses done on other samples from drilling in other parts of the deposit(s). These data show that there is variability in metallurgical recoveries spatially, something that requires additional testwork and review.

13.3.3 Surface Dump Samples

As discussed in section 9.2, in July 2008, Fortune River collected 108 samples from the surface of the three largest dumps. Inspectorate analyzed the samples for gold by fire assay followed by AA and also conducted ICP multi-element analysis. One hour, cold cyanide extraction tests for gold and silver were also conducted by Inspectorate on 30g pulp samples that were derived from surface dump samples. Average extraction by cold cyanide was 98% of the gold and 104% of the silver.

13.3.4 Bulk Dump Sampling

As discussed in section 9.2, in June 2008, two large approximately 20 to 25-ton samples were taken from trenches dug in two of the waste dumps at Wind Mountain. One was taken from the Breeze dump near the Breeze pit and measured approximately 350ft long and 20 to 25ft deep. The other was taken from the main dump near the Wind pit (referred to as Main Pit in report) and measured approximately 200ft long at 20 to 25ft deep. Both trenches were approximately 4 to 6ft wide.

Material from the trenches was quartered to obtain approximately one 2.5-ton sample from each trench. This material was shipped to McClelland for size fraction analysis and column leach testing. The Breeze

pit column reportedly blinded off due to some green-gray clays, which can reportedly be seen in the high-wall of the Breeze pit. It will be important to segregate this material during mining.
The other column test resulted in 61% gold and 15% silver recoveries.

Head screen analysis results also showed higher-grade assays in the minus 6in material indicating that upgrading of material may be possible with screening.

13.3.5 McClelland Report on Heap Leach Cyanidation Testing (Medina, 2012)

In March 2011, eight samples were sent to McClelland for size-fraction analysis, abrasion-index testing, size-reduction testing, and subsequent metallurgical testing. Three of these samples were from the Wind Mountain heap leach pads (samples #1 through #3), two samples were from waste dumps (samples #4 and #8), and the three remaining samples were from exposed pit areas (samples #5 through #7).

Each sample, weighing approximately 2,800lb, was blended and then quartered to produce sub-samples as follows: 330lb for size-fraction analysis, 45lb for abrasion-index testing, and 45lb for metallurgical testing. All testing was done at McClelland with the exception of the abrasion tests, which were done by Phillips Enterprises, LLC.

Size-fraction tests were run on each of the eight samples to determine the distribution of sizes and metal in those sample sizes. The results from the size-fraction tests are shown in Table 13.4 through Table 13.11.

The head grade of sample 8 from the waste dump was 0.003oz Au/T and 0.23oz Ag/T. As the gold grade was well below cutoff grade, no further metallurgical testing was done on this sample.

Bottle roll tests were conducted on heap leach samples 1 through 3, waste dump sample 4, South Wind pit (southern portion of the Wind pit) sample 5, North Wind pit (northern portion of the Wind pit) sample 6, and Breeze pit sample 7. Column tests were done on heap leach sample 1, North Wind pit sample 6, and Breeze pit sample 7. Bottle roll and column test sample results are summarized in Table 13.12. Samples were crushed to obtain 80% minus ½in and 80% minus ¼in samples for column testing. Bottle roll samples were crushed to 80% minus ½in and 80% minus 10 mesh.

Details of the column tests are shown in Table 13.13 and graphically in Figure 13.1. Column-test metallurgical balances are shown in Table 13.14.

The McClelland report also provided the physical characteristics of the samples received. These are shown in Table 13.15.

Table 13.4 Head Screen Analysis Results - Heap Sample #1
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	3.6	3.6	0.0117	0.46	5.8	5.8	5.2	5.2
-4+2"	17.0	20.6	0.0069	0.29	16.0	21.8	15.4	20.6
-2+1"	26.3	46.9	0.0083	0.35	29.8	51.6	28.7	49.3
-1+3/4"	8.0	54.9	0.0081	0.37	8.8	60.4	9.2	58.5
-3/4+1/2"	10.8	65.7	0.0077	0.40	11.4	71.8	13.5	72.0
-1/2+1/4"	12.3	78.0	0.0065	0.32	10.9	82.7	12.3	84.3
-1/4"+10M	11.2	89.2	0.0061	0.28	9.3	92.0	9.8	94.1
-10+20M	2.9	92.1	0.0057	0.25	2.3	94.3	2.3	96.4
-20+35M	1.9	94.0	0.0052	0.22	1.3	95.6	1.3	97.7
-35+65M	1.2	95.2	0.0040	0.20	0.7	96.3	0.7	98.4
-65+100M	0.5	95.7	0.0032	0.16	0.2	96.5	0.3	98.7
-100M	4.3	100.0	0.0060	0.10	3.5	100.0	1.3	100.0
Composite	100.0		0.0073	0.32	100.0		100.0	

Table 13.5 Head Screen Analysis Results - Heap Sample #2
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	18.5	18.5	0.0050	0.64	20.7	20.7	16.5	16.5
-4+2"	26.0	44.5	0.0062	1.00	36.1	56.8	36.2	52.7
-2+1"	19.2	63.7	0.0042	0.72	18.1	74.9	19.3	72.0
-1+3/4"	5.9	69.6	0.0041	0.74	5.4	80.3	6.1	78.1
-3/4+1/2"	7.0	76.6	0.0037	0.64	5.8	86.1	6.2	84.3
-1/2+1/4"	7.4	84.0	0.0021	0.60	3.5	89.6	6.2	90.5
-1/4"+10M	5.9	89.9	0.0026	0.55	3.4	93.0	4.5	95.0
-10+20M	1.8	91.7	0.0028	0.54	1.1	94.1	1.4	96.4
-20+35M	1.3	93.0	0.0024	0.56	0.7	94.8	1.0	97.4
-35+65M	1.1	94.1	0.0021	0.41	0.5	95.3	0.6	98.0
-65+100M	0.7	94.8	0.0011	0.29	0.2	95.5	0.3	98.3
-100M	5.2	100.0	0.0039	0.24	4.5	100.0	1.7	100.0
Composite	100.0		0.0045	0.72	100.0		100.0	

Table 13.6 Head Screen Analysis Results – Heap Sample #3
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	33.7	33.7	0.0065	0.17	37.6	37.6	17.1	17.1
-4+2"	22.9	56.6	0.0062	0.70	24.4	62.0	47.9	65.0
-2+1"	12.5	69.1	0.0060	0.29	12.9	74.9	10.8	75.8
-1+3/4"	4.1	73.2	0.0060	0.34	4.2	79.1	4.2	80.0
-3/4+1/2"	5.6	78.8	0.0051	0.36	4.9	84.0	6.0	86.0
-1/2+1/4"	6.1	84.9	0.0041	0.29	4.3	88.3	5.3	91.3
-1/4"+10M	5.7	90.6	0.0026	0.24	2.5	90.8	4.1	95.4
-10+20M	1.9	92.5	0.0022	0.20	0.7	91.5	1.1	96.5
-20+35M	1.4	93.9	0.0017	0.15	0.4	91.9	0.6	97.1
-35+65M	1.0	94.9	0.0016	0.14	0.3	92.2	0.4	97.5
-65+100M	0.4	95.3	0.0017	0.12	0.1	92.3	0.2	97.7
-100M	4.7	100.0	0.0095	0.16	7.7	100.0	2.3	100.0
Composite	100.0		0.0058	0.33	100.0		100.0	

Table 13.7 Head Screen Analysis Results - Waste Dump Sample #4
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	14.8	14.8	0.0083	0.34	14.0	14.0	15.5	15.5
-4+2"	16.3	31.1	0.0065	0.34	12.1	26.1	17.1	32.6
-2+1"	16.8	47.9	0.0108	0.32	20.6	46.7	16.6	49.2
-1+3/4"	4.9	52.8	0.0142	0.39	7.9	54.6	5.9	55.1
-3/4+1/2"	6.8	59.6	0.0112	0.48	8.7	63.3	10.1	65.2
-1/2+1/4"	8.7	68.3	0.0083	0.36	8.2	71.5	9.6	74.8
-1/4"+10M	10.7	79.0	0.0068	0.32	8.3	79.8	10.5	85.3
-10+20M	3.8	82.8	0.0060	0.28	2.6	82.4	3.3	88.6
-20+35M	2.9	85.7	0.0048	0.38	1.6	84.0	3.4	92.0
-35+65M	2.5	88.2	0.0041	0.20	1.2	85.2	1.5	93.5
-65+100M	1.1	89.3	0.0034	0.18	0.4	85.6	0.6	94.1
-100M	10.7	100.0	0.0118	0.18	14.4	100.0	5.9	100.0
Composite	100.0		0.0088	0.32	100.0		100.0	

Table 13.8 Head Screen Analysis Results - Waste Dump Sample #8
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	10.8	10.8	0.0011	0.25	3.5	3.5	11.8	11.8
-4+2"	14.4	25.2	0.0026	0.21	11.2	14.7	13.3	25.1
-2+1"	12.9	38.1	0.0030	0.22	11.6	26.3	12.4	37.5
-1+3/4"	5.7	43.8	0.0029	0.25	4.9	31.2	6.2	43.7
-3/4+1/2"	8.2	52.0	0.0028	0.22	6.8	38.0	7.9	51.6
-1/2+1/4"	13.1	65.1	0.0026	0.23	10.2	48.2	13.2	64.8
-1/4"+10M	13.9	79.0	0.0029	0.22	12.0	60.2	13.4	78.2
-10+20M	4.5	83.5	0.0026	0.23	3.5	63.7	4.5	82.7
-20+35M	3.0	86.5	0.0033	0.45	3.0	66.7	5.9	88.6
-35+65M	1.7	88.2	0.0043	0.33	2.2	68.9	2.5	91.1
-65+100M	0.6	88.8	0.0054	0.38	1.0	69.9	1.0	92.1
-100M	11.2	100.0	0.0090	0.16	30.1	100.0	7.9	100.0
Composite	100.0		0.0033	0.23	100.0		100.0	

Table 13.9 Head Screen Analysis Results South Wind Pit Sample #5
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	16.1	16.1	0.0168	1.20	17.6	17.6	27.9	27.9
-4+2"	18.1	34.2	0.0164	0.81	19.3	36.9	21.1	49.0
-2+1"	15.2	49.4	0.0166	0.74	16.4	53.3	16.2	65.2
-1+3/4"	6.0	55.4	0.0161	0.65	6.3	59.6	5.6	70.8
-3/4+1/2"	7.6	63.0	0.0168	0.66	8.3	67.9	7.2	78.0
-1/2+1/4"	11.1	74.1	0.0134	0.55	9.7	77.6	8.8	86.8
-1/4"+10M	12.9	87.0	0.0125	0.43	10.5	88.1	8.0	94.8
-10+20M	4.3	91.3	0.0111	0.35	3.1	91.2	2.2	97.0
-20+35M	2.5	93.8	0.0117	0.30	1.9	93.1	1.1	98.1
-35+65M	1.6	95.4	0.0099	0.26	1.1	94.2	0.6	98.7
-65+100M	0.5	95.9	0.0209	0.21	0.7	94.9	0.2	98.9
-100M	4.1	100.0	0.0192	0.19	5.1	100.0	1.1	100.0
Composite	100.0		0.0154	0.69	100.0		100.0	

Table 13.10 Head Screen Analysis Results - North Wind Pit Sample #6
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	21.1	21.1	0.0181	0.66	21.8	21.8	23.5	23.5
-4+2"	16.8	37.9	0.0195	0.61	18.7	40.5	17.3	40.8
-2+1"	15.9	53.8	0.0193	0.67	17.6	58.1	18.0	58.8
-1+3/4"	5.6	59.4	0.0190	0.63	6.1	64.2	5.9	64.7
-3/4+1/2"	9.2	68.6	0.0161	0.56	8.5	72.7	8.7	73.4
-1/2+1/4"	10.9	79.5	0.0157	0.60	9.8	82.5	11.0	84.4
-1/4"+10M	11.2	90.7	0.0140	0.53	9.0	91.5	10.0	94.4
-10+20M	2.8	93.5	0.0119	0.49	1.9	93.4	2.3	96.7
-20+35M	1.7	95.2	0.0109	0.43	1.0	94.4	1.2	97.9
-35+65M	0.9	96.1	0.0092	0.42	0.5	94.9	0.6	98.5
-65+100M	0.3	96.4	0.0099	0.41	0.2	95.1	0.2	98.7
-100M	3.6	100.0	0.0237	0.22	4.9	100.0	1.3	100.0
Composite	100.0		0.0175	0.59	100.0		100.0	

Table 13.11 Head Screen Analysis Results - Breeze Pit Sample #7
As Received Feed Size
(From Medina, 2012)

Size Fraction	Weight, %	Cum. Wt., %	Assay, oz/ton Au	Assay, oz/ton Ag	Distribution Au %	Distribution Au Cum. %	Distribution Ag %	Distribution Ag Cum. %
+4"	13.7	13.7	0.0186	0.69	9.7	9.7	12.4	12.4
-4+2"	17.6	31.3	0.0235	0.96	15.7	25.4	22.1	34.5
-2+1"	17.2	48.5	0.0305	0.80	19.9	45.3	18.0	52.5
-1+3/4"	7.0	55.5	0.0325	0.80	8.6	53.9	7.3	59.8
-3/4+1/2"	8.0	63.5	0.0316	0.75	9.6	63.5	7.8	67.6
-1/2+1/4"	12.0	75.5	0.0290	0.76	13.2	76.7	11.9	79.5
-1/4"+10M	13.0	88.5	0.0228	0.62	11.2	87.9	10.5	90.0
-10+20M	3.3	91.8	0.0190	0.65	2.4	90.3	2.8	92.8
-20+35M	2.0	93.8	0.0169	0.67	1.3	91.6	1.8	94.6
-35+65M	1.0	94.8	0.0164	0.93	0.6	92.2	1.2	95.8
-65+100M	0.4	95.2	0.0166	0.75	0.2	92.4	0.4	96.2
-100M	4.8	100.0	0.0417	0.60	7.6	100.0	3.8	100.0
Composite	100.0		0.0264	0.76	100.0		100.0	

Table 13.12 Wind Mountain Bulk Samples Metallurgical Results Summary

(From Medina, 2012; note that samples labeled South Pit and North Pit are from the southern and northern parts of the Wind pit, respectively)

																	Reagent Req. lbs./ton ore	
			Leach/Rinse	Sol. Applied		NaCn	Au	oz Au/ton ore				Ag	oz Ag/ton ore					
Sample	Test	Feed	Time	ton/ton ore		Conc.	Rec.		Tail	Calc'd.	Head	Rec.		Tail	Calc'd.	Head	NaCn	Lime
I.D.	Type	Size	Days	Leach	Rinse	Lbs/ton Sol	%	Ext'd.	Assay	Head	Assay	%	Ext'd.	Assay	Head	Assay	Cons.	Added
Heap #1	CLT	80%-1/2"	79	2.36	0.35	2	11.8	0.0008	0.0060	0.0068	0.0068	9.4	0.03	0.29	0.32	0.32	0.87	3.0
Heap #1	CLT	80%-1/4"	80	2.29	0.41	2	15.9	0.0011	0.0058	0.0069	0.0068	12.9	0.04	0.27	0.31	0.32	1.63	3.0
Heap #1	BRT	80%-1/2"	N/A	N/A	N/A	4	7.4	0.0005	0.0063	0.0068	0.0066	6.5	0.02	0.29	0.31	0.31	0.15	1.6
Heap #1	BRT	80%-10M	N/A	N/A	N/A	1	26.0	0.0019	0.0054	0.0073	0.0066	18.8	0.06	0.23	0.32	0.31	0.07	3.7
Heap #1	BRT	80%-10M	N/A	N/A	N/A	2	23.0	0.0017	0.0057	0.0074	0.0066	21.2	0.07	0.23	0.33	0.31	0.14	3.5
Heap #1	BRT	80%-10M	N/A	N/A	N/A	4	25.7	0.0018	0.0052	0.0070	0.0066	25.0	0.07	0.21	0.28	0.31	0.15	2.5
Heap #2	BRT	80%-1/2"	N/A	N/A	N/A	4	24.5	0.0012	0.0037	0.0049	0.0042	8.8	0.05	0.52	0.57	0.60	0.15	1.8
Heap #2	BRT	80%-10M	N/A	N/A	N/A	1	41.3	0.0019	0.0027	0.0046	0.0042	22.8	0.13	0.44	0.57	0.60	0.17	2.9
Heap #2	BRT	80%-10M	N/A	N/A	N/A	2	46.9	0.0023	0.0026	0.0049	0.0042	24.6	0.15	0.46	0.61	0.60	<0.05	2.8
Heap #2	BRT	80%-10M	N/A	N/A	N/A	4	46.9	0.0023	0.0026	0.0049	0.0042	25.9	0.15	0.43	0.58	0.60	<0.05	2.5
Heap #3	BRT	80%-1/2"	N/A	N/A	N/A	4	18.4	0.0007	0.0031	0.0038	0.0045	11.5	0.03	0.23	0.26	0.26	0.15	1.9
Heap #3	BRT	80%-10M	N/A	N/A	N/A	1	60.7	0.0034	0.0022	0.0056	0.0045	25.9	0.07	0.20	0.27	0.26	0.15	3.4
Heap #3	BRT	80%-10M	N/A	N/A	N/A	2	40.4	0.0023	0.0034	0.0057	0.0045	30.8	0.08	0.18	0.26	0.26	<0.05	3.4
Heap #3	BRT	80%-10M	N/A	N/A	N/A	4	56.9	0.0029	0.0022	0.0051	0.0045	33.3	0.08	0.16	0.24	0.26	0.14	2.9
Waste Dump #4	BRT	80%-1/2"	N/A	N/A	N/A	4	48.4	0.0045	0.0048	0.0093	0.0099	10.5	0.04	0.34	0.38	0.32	0.15	2.0
Waste Dump #4	BRT	80%-10M	N/A	N/A	N/A	1	68.9	0.0084	0.0038	0.0122	0.0099	25.0	0.09	0.27	0.36	0.32	0.14	4.3
Waste Dump #4	BRT	80%-10M	N/A	N/A	N/A	2	70.3	0.0083	0.0035	0.0118	0.0099	29.4	0.10	0.24	0.34	0.32	0.14	3.4
Waste Dump #4	BRT	80%-10M	N/A	N/A	N/A	4	71.4	0.0095	0.0038	0.0133	0.0099	28.6	0.10	0.25	0.35	0.32	0.29	3.3
South Pit #5	BRT	80%-1/2"	N/A	N/A	N/A	4	35.0	0.0063	0.0117	0.0180	0.0173	14.0	0.12	0.74	0.86	0.77	<0.05	1.8
South Pit #5	BRT	80%-10M	N/A	N/A	N/A	1	53.1	0.0103	0.0091	0.0194	0.0173	34.6	0.28	0.53	0.81	0.77	0.18	3.4
South Pit #5	BRT	80%-10M	N/A	N/A	N/A	2	53.5	0.0099	0.0086	0.0185	0.0173	36.3	0.29	0.51	0.80	0.77	0.14	3.2
South Pit #5	BRT	80%-10M	N/A	N/A	N/A	4	52.5	0.0106	0.0096	0.0202	0.0173	36.6	0.30	0.52	0.82	0.77	0.30	2.9
North Pit #6	CLT	80%-1/2"	136	4.58	0.35	2	60.0	0.0099	0.0066	0.0165	0.0153	14.8	0.09	0.52	0.61	0.55	1.78	2.5
North Pit #6	CLT	80%-1/4"	127	4.35	0.40	2	66.5	0.0111	0.0056	0.0167	0.0153	23.2	0.13	0.43	0.56	0.54	2.96	2.5
North Pit #6	BRT	80%-1/2"	N/A	N/A	N/A	4	43.4	0.0056	0.0073	0.0129	0.0131	6.4	0.03	0.44	0.47	0.49	0.16	1.2
North Pit #6	BRT	80%-10M	N/A	N/A	N/A	1	68.7	0.0125	0.0057	0.0182	0.0131	21.6	0.11	0.40	0.51	0.49	<0.05	3.4
North Pit #6	BRT	80%-10M	N/A	N/A	N/A	2	69.2	0.0110	0.0049	0.0159	0.0131	25.0	0.12	0.36	0.48	0.49	<0.05	2.7
North Pit #6	BRT	80%-10M	N/A	N/A	N/A	4	68.6	0.0116	0.0053	0.0169	0.0131	22.4	0.11	0.38	0.49	0.49	0.15	2.6
Breeze Pit #7	CLT	80%-1/2"	126	5.71	0.36	2	79.1	0.0197	0.0052	0.0249	0.0280	11.1	0.08	0.64	0.72	0.79	3.11	3.0
Breeze Pit #7	CLT	80%-1/4"	126	5.37	0.34	2	83.1	0.0207	0.0042	0.0249	0.0280	13.0	0.10	0.67	0.77	0.79	4.13	3.0
Breeze Pit #7	BRT	80%-1/2"	N/A	N/A	N/A	4	53.8	0.0143	0.0123	0.0266	0.0263	6.4	0.05	0.73	0.78	0.79	<0.05	1.4
Breeze Pit #7	BRT	80%-10M	N/A	N/A	N/A	1	82.7	0.0302	0.0063	0.0365	0.0263	20.7	0.17	0.65	0.82	0.79	<0.05	3.9
Breeze Pit #7	BRT	80%-10M	N/A	N/A	N/A	2	85.3	0.0266	0.0046	0.0312	0.0263	20.5	0.17	0.66	0.83	0.79	0.15	3.4
Breeze Pit #7	BRT	80%-10M	N/A	N/A	N/A	4	83.6	0.2960	0.0058	0.0354	0.0263	20.3	0.16	0.63	0.79	0.79	<0.05	2.4

CLT = Column Test
BRT = Bottle Roll Test

Table 13.13 Overall Metallurgical Results – Column Percolation Leach Tests
(From Medina, 2012)

	Heap #1				North Wind Pit #6				Breeze Pit #7			
Feed Size	80%-1/2"		80%-1/4"		80%-1/2"		80%-1/4"		80%-1/2"		80%-1/4"	
Metallurgical Results	(P-1)		(P-4)		(P-2)		(P-5)		(P-3)		(P-6)	
Extraction: % of total	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag
in 5 days	8.8	4.1	13.0	8.7	38.2	6.9	46.7	12.9	43.0	6.1	55.4	8.1
in 10 days	10.3	5.3	14.5	10.3	45.5	8.7	53.3	15.5	58.2	7.5	67.5	9.7
in 15 days	10.3	5.9	14.5	10.6	47.9	9.3	55.7	16.4	64.7	8.1	72.7	10.3
in 20 days	10.3	6.3	14.5	11.3	50.3	10.0	57.5	17.3	67.5	8.5	74.7	10.6
in 30 days	10.3	6.3	14.5	11.3	53.9	10.8	59.3	18.6	71.1	9.0	77.1	11.2
in 40 days	11.8	7.2	15.9	12.3	55.2	11.5	62.9	19.6	73.1	9.4	78.3	11.6
in 50 days	11.8	7.2	15.9	12.3	55.8	11.6	62.9	19.6	74.3	9.7	80.3	11.9
in 60 days	11.8	7.5	15.9	12.9	57.6	12.5	64.1	20.9	75.1	10.0	80.7	12.1
in 70 days	11.8	7.5	15.9	12.9	57.6	12.6	64.1	21.1	75.1	10.0	80.7	12.2
in 80 days			15.9	12.9	58.2	13.3	65.3	22.0	76.7	10.3	81.5	12.5
in 90 days					58.8	13.3	65.3	22.1	77.1	10.4	81.5	12.5
in 100 days					59.4	13.9	65.9	22.9	78.3	10.7	82.3	12.7
in 110 days					60.0	14.1	65.9	23.0	78.3	10.7	82.3	12.9
in 120 days					60.0	14.1	65.9	23.0	78.3	10.7	82.3	12.9
End of Leach/Rinse	11.8	9.4	15.9	12.9	60.0	14.8	66.5	23.2	79.1	11.1	83.1	13.0
Extracted, oz/ton ore	0.0008	0.03	0.0011	0.04	0.0099	0.09	0.0111	0.13	0.0197	0.08	0.0207	0.10
Tail Screen, oz/ton ore	0.0060	0.29	0.0058	0.27	0.0066	0.52	0.0056	0.43	0.0052	0.64	0.0042	0.67
Calculated Head, oz/ton ore	0.0068	0.32	0.0069	0.31	0.0165	0.61	0.0167	0.56	0.0249	0.72	0.0249	0.77
Average Head, oz/ton ore[1)]	0.0068	0.32	0.0068	0.32	0.0153	0.54	0.0153	0.54	0.0280	0.79	0.0280	0.79
NaCN Consumed, lb/ton ore	0.87		1.63		1.78		2.96		3.11		4.19	
Lime Added, lb/ton ore	3.0		3.0		2.5		2.5		3.0		3.0	
Final Solution pH	11.1		11.3		10.9		10.9		10.8		10.9	
pH After Rinse	11.4		11.0		10.9		10.7		11.1		10.8	
Leach/Rinse Cycle, Days	79		80		126		127		126		126	

1) Average of all head assay and head grade determinations.

Figure 13.1 Gold and Silver Leach Rate Profiles, Column Percolation Leach Tests
(From Medina, 2012)

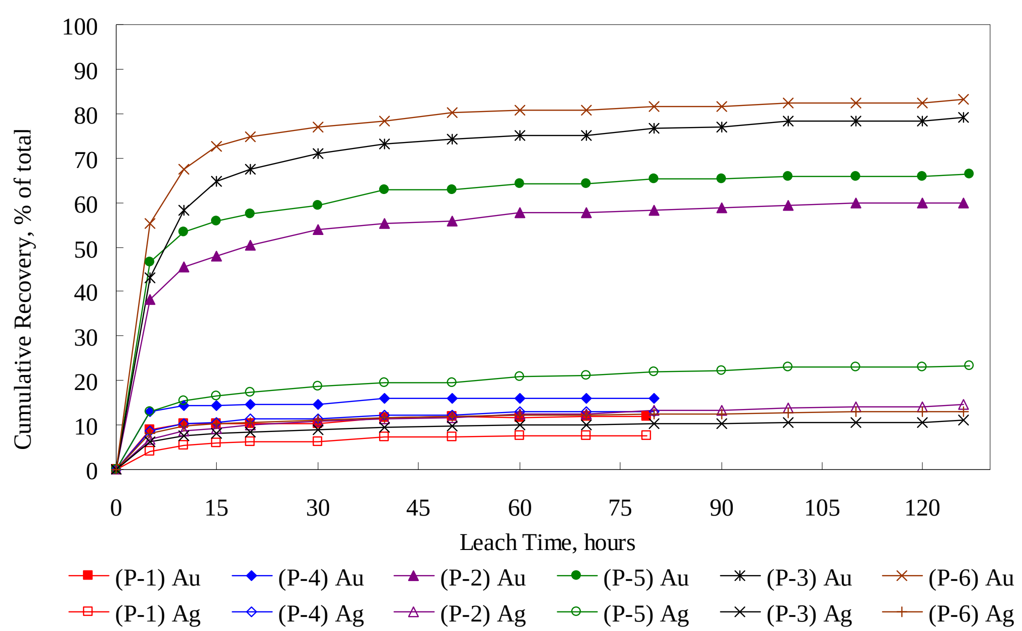


Table 13.14 Metallurgical Balances, Column Leach Tests, Various Feed Sizes
(From Medina, 2012)

	Metallurgical Balance		
	Sol. vs. Tail	Carbon vs. Tail	Head vs. Tail[2)]
Heap #1 (P-1), 80%-1/2" Feed Size			
Extracted, ozAu/T ore	0.0008	0.0009	0.0008
Tail Assay, ozAu/T ore	0.0060	0.0060	0.0060
Calculated, Head, ozAu/T ore	0.0068	0.0069	0.0068
Recovery, %	11.8	13.0	11.8
Deviation, ozAu/T ore[1)]	N/A	0.0001	0.0000
Precision, %	100.0	98.5	100.0
Heap #1 (P-4), 80%-1/4" Feed Size			
Extracted, ozAu/T ore	0.0011	0.0012	0.0010
Tail Assay, ozAu/T ore	0.0058	0.0058	0.0058
Calculated, Head, ozAu/T ore	0.0069	0.0070	0.0068
Recovery, %	15.9	17.1	14.7
Deviation, ozAu/T ore[1)]	N/A	0.0001	0.0001
Precision, %	100.0	98.6	98.6
North Wind Pit #6 (P-2), 80%-1/2" Feed Size			
Extracted, ozAu/T ore	0.0099	0.0106	0.0087
Tail Assay, ozAu/T ore	0.0066	0.0066	0.0066
Calculated, Head, ozAu/T ore	0.0165	0.0172	0.0153
Recovery, %	60.0	61.6	56.9
Deviation, ozAu/T ore[1)]	N/A	0.0007	0.0012
Precision, %	100.0	95.8	92.7
North Wind Pit #6 (P-5), 80%-1/4" Feed Size			
Extracted, ozAu/T ore	0.0111	0.0115	0.0097
Tail Assay, ozAu/T ore	0.0056	0.0056	0.0056
Calculated, Head, ozAu/T ore	0.0167	0.0171	0.0153
Recovery, %	66.5	67.3	63.4
Deviation, ozAu/T ore[1)]	N/A	0.0004	0.0014
Precision, %	100.0	97.6	91.6
Breeze Pit #7 (P-3), 80%-1/2" Feed Size			
Extracted, ozAu/T ore	0.0197	0.0216	0.0228
Tail Assay, ozAu/T ore	0.0052	0.0052	0.0052
Calculated, Head, ozAu/T ore	0.0249	0.0268	0.0280
Recovery, %	79.1	80.6	81.4
Deviation, ozAu/T ore[1)]	N/A	0.0019	0.0031
Precision, %	100.0	92.4	87.6
Breeze Pit #7 (P-6), 80%-1/4" Feed Size			
Extracted, ozAu/T ore	0.0207	0.0227	0.0238
Tail Assay, ozAu/T ore	0.0042	0.0042	0.0042
Calculated, Head, ozAu/T ore	0.0249	0.0269	0.0280
Recovery, %	83.1	84.4	85.0
Deviation, ozAu/T ore[1)]	N/A	0.0020	0.0031
Precision, %	100.0	92.0	87.6

1) Deviation from solution versus tail balance.
2) Calculated, based on average of all head grades and tail screen results.

Table 13.15 Physical Ore Characteristic Data, Column Leach Tests
(From Medina, 2012)

Sample Designation	Feed Size	Test No.	Ore Charge, lb	Moisture, wt. %: As Rec'd.	Moisture, wt. %: To Saturate*	Moisture, wt. %: Retained	Apparent Bulk Density, lb ore/ft³: Before	Apparent Bulk Density, lb ore/ft³: After
Heap #1	80%-1/2"	P-1	147.29	0.3	9.7	6.5	95.64	95.21
Heap #1	80%-1/4"	P-4	74.01	0.3	21.0	7.3	88.83	92.45
North Wind Pit #6	80%-1/2"	P-2	149.63	0.3	11.9	10.5	89.15	89.15
North Wind Pit #6	80%-1/4"	P-5	74.27	0.3	19.9	10.4	92.22	93.29
Breeze Pit #7	80%-1/2"	P-3	147.22	0.2	17.2	15.9	89.13	89.29
Breeze Pit #7	80%-1/4"	P-6	72.88	0.4	20.7	9.2	91.55	92.36

* Calculated on a dry ore weight basis.

Conclusions provided by McClelland (Medina, 2012) are as follows:

- *The Heap #1 (heap leached residue) sample was not readily amenable to simulated heap leaching treatment, at 80%-1/2" and 80%-1/4" recrush sizes. Low head grade and low recovery was most likely due to sample already being leached.*

- *The North* [Wind] *Pit #6 sample was moderately amenable to simulated heap leach cyanidation treatments at 80%-1/2" and 80%-1/4" recrush sizes.*

- *The Breeze pit #7 sample was more readily amenable to simulated heap leach cyanidation treatments at 80%-1/2" and 80%-1/4" recrush sizes.*

- *The three samples subjected to column testing were not particularly sensitive to crush size in the 1/2" to 1/4" feed size range evaluated.*

- *Cyanide consumptions were fairly high, but should be substantially lower during commercial production. Controlling pH was not difficult.*

These samples demonstrate that overall the material at Wind Mountain will be amenable to heap leaching. However, these samples are location specific and cannot be considered to represent all of the deposit(s). Additional work must be done to study and assess changes in metallurgical recovery spatially.

14.0 MINERAL RESOURCES

14.1 Wind Mountain Database

There are 541 drill holes in the Wind Mountain database, of which four are core and those were drilled in what has since been mined. Total drilled footage recorded in the database is 203,029ft. Records exist for four companies' drilling, of which by far Amax drilled the most (Table 14.1). Because there is conflicting information on the Santa Fe drill-hole locations, none of those holes were used in the estimate, although they were kept in the database. Descriptive statistics of the database are given in Table 14.2. There are no density samples in the Wind Mountain data set.

Table 14.1 Summary of Wind Mountain Drilling

Company	AMAX	Chevron	Bravada	Santa Fe	Grand Total
Holes	426	6	77	32	541
Footage	149,744	1,740	39,470	12,075	203,029

Table 14.2 Descriptive Statistics of the Wind Mountain Database

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
From	40181					0.0	1515.0	ft
To	40181					5.0	1520.0	ft
Length	40181		5.05			1.0	60.0	ft
Au	38953	0.003	0.006	0.026	4.044	0.000	4.790	oz/T
Ag	38476	0.117	0.173	0.217	1.254	0.000	10.232	oz/T
Ox_Unox_C	40181					1	3	
Rock	40181					1	2	
Use	40159					0	1	
Type	40159					1	2	
Ox_Logged	32842					0	1	%
Sil_Logged	34844					0	2	%
Clay_Logged	34158					0	80	%
QV_Logged	21596					0	80	%
CV_Logged	21107					0	1	%
Pyrite_Logged	18390					0	10	%

MDA added to the database a sample-type code and a use/no-use code. A sample-type code was assigned to each sample to distinguish between core and RC. The use/no-use code is one (1) for a usable sample and zero (0) for an unusable sample. The no-use code (0) was assigned to Santa Fe drilling and a few samples whose source data are unconfirmed.

It is reported that most of the historic RC drilling was done dry, but because of environmental regulations, recent drilling, unfortunately, was done wet with water injected to minimize the dust. The lack of core and the low-grade disseminated nature of the deposit make evaluation of sample integrity and contamination virtually impossible.

14.2 Wind Mountain Geological Model and Mineral Domains

In 2012, paper cross sections were plotted with drill data (geologic and analytical) and topography. Bravada interpreted the geology on these sections, including the upper contact of the Pyramid Formation, the boundary between oxidized and unoxidized rock, faults, feeder veins, the base of the leach pads and dumps, and the Wind Mountain fault. Three deposits were modeled: Wind, Breeze, and Deep Min.

These cross sections were digitized and used to guide domain modeling. Domain modeling for gold and silver was reviewed by Bravada prior to digitizing.

One gold mineral domain and two silver mineral domains were modeled on sections spaced 100ft apart (Figure 14.1 through Figure 14.4). Although in a general sense there is a correlation between the higher-grade silver domain and the gold domain, in detail the correlation is quite irregular. For example, the two zones may coexist in one drill hole but not in the adjacent drill hole, indicating that the gold and silver do occur in different minerals. The boundary between the low-grade domains and the country rock tends to be gradational, but the domains themselves form clear zones with consistent grades within them.

The gold domain ranges from around 0.004 to 0.006oz Au/T and up. Internal to this are higher grades, but these higher-grade zones occur in unpredictable ways. The low-grade silver domain forms a broad halo around both the gold and the higher-grade silver domain. The low-grade silver domain consists of grades above about 0.05oz Ag/T; the higher-grade domain is a very consistently mineralized domain above about 0.15oz Ag/T.

The Wind Mountain fault domain is a separate and second gold domain and a third silver domain. It is the same for both metals and incorporates the fault zone, which has post-mineralization movement. Mineralization within it is discontinuous and therefore entirely classified as Inferred.

The deposit strikes north-south for about 8,400ft. The mineralization is tabular and sub-horizontal, extending east-west over a distance of 2,500ft. The deposit is faulted into three separate zones: the Wind, Breeze, and Deep Min, with the latter two being dropped down to the west by about 800ft on the south end and with little offset on the north end. Most of the offset is along the Wind Mountain fault, which was treated as a separate domain, as described above.

Eighty-two cross sections were interpreted, checked, and then sliced to long section. A total of 124 long sections were re-interpreted.

Figure 14.1 Typical Section of the Gold Mineral Domains: Wind Mountain -- Section 2067000N

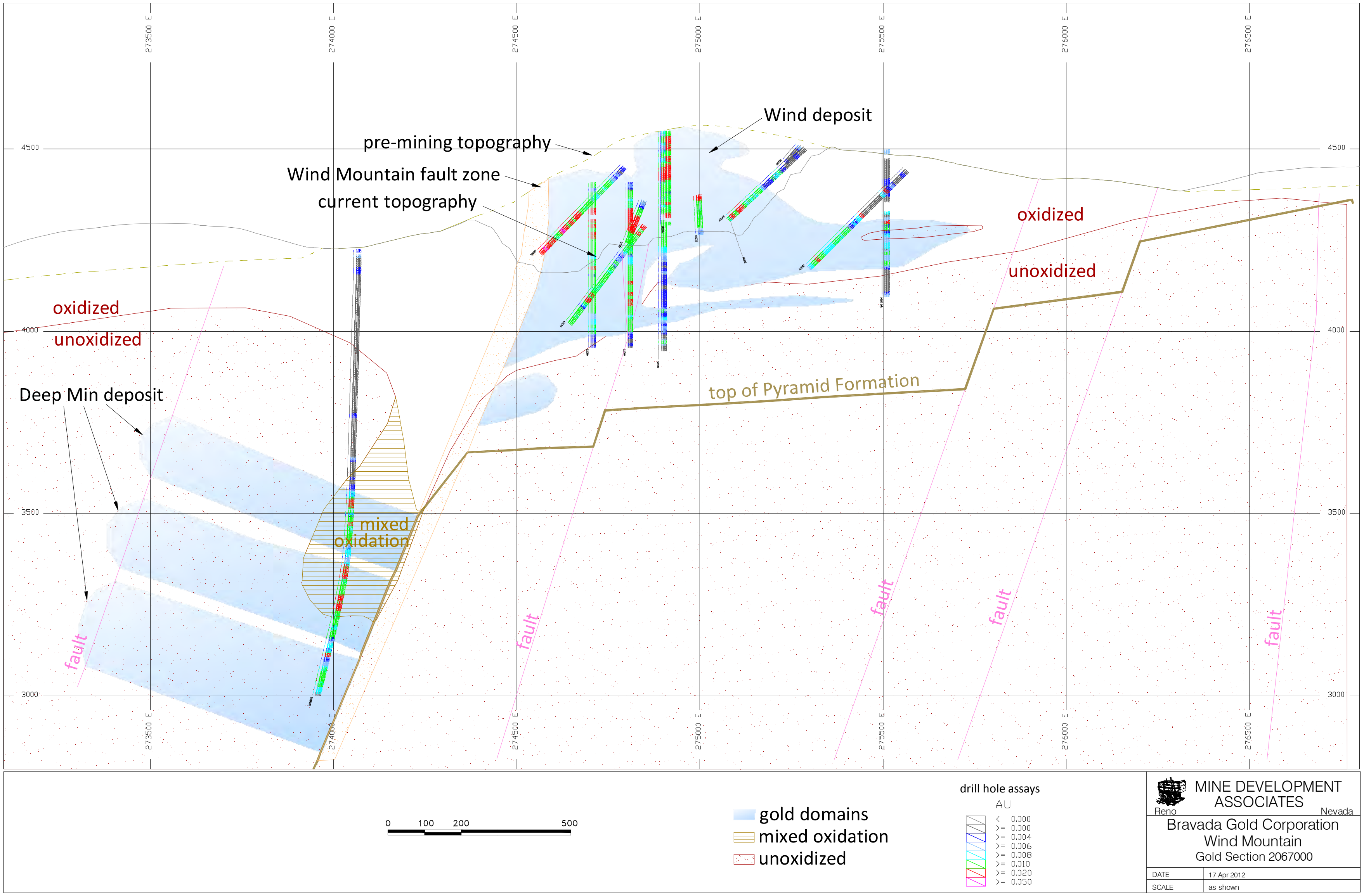


Figure 14.2 Typical Section of the Silver Mineral Domains: Wind Mountain -- Section 2067000N

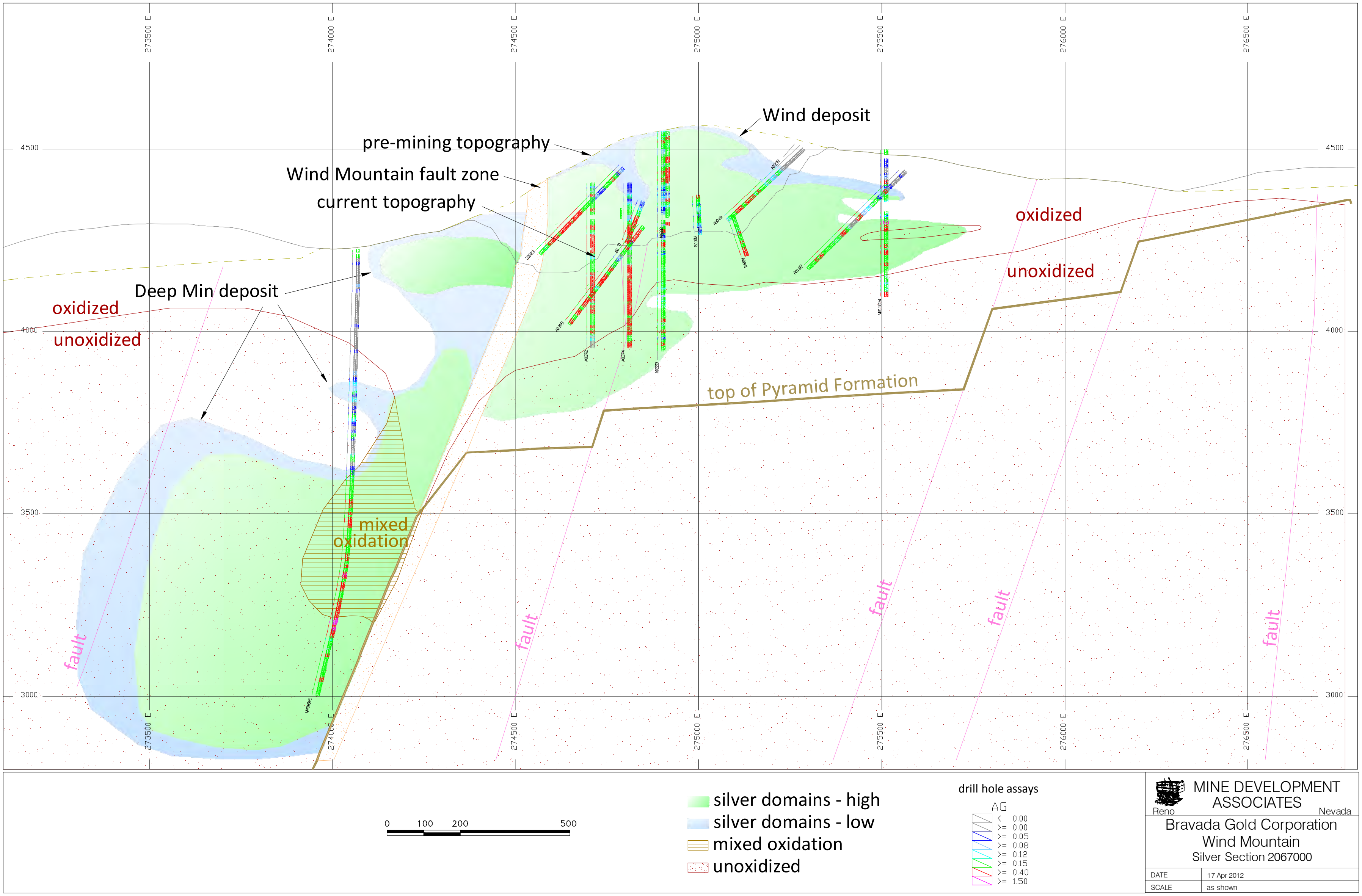


Figure 14.3 Typical Section of the Gold Mineral Domains: Wind Mountain -- Section 2069200N

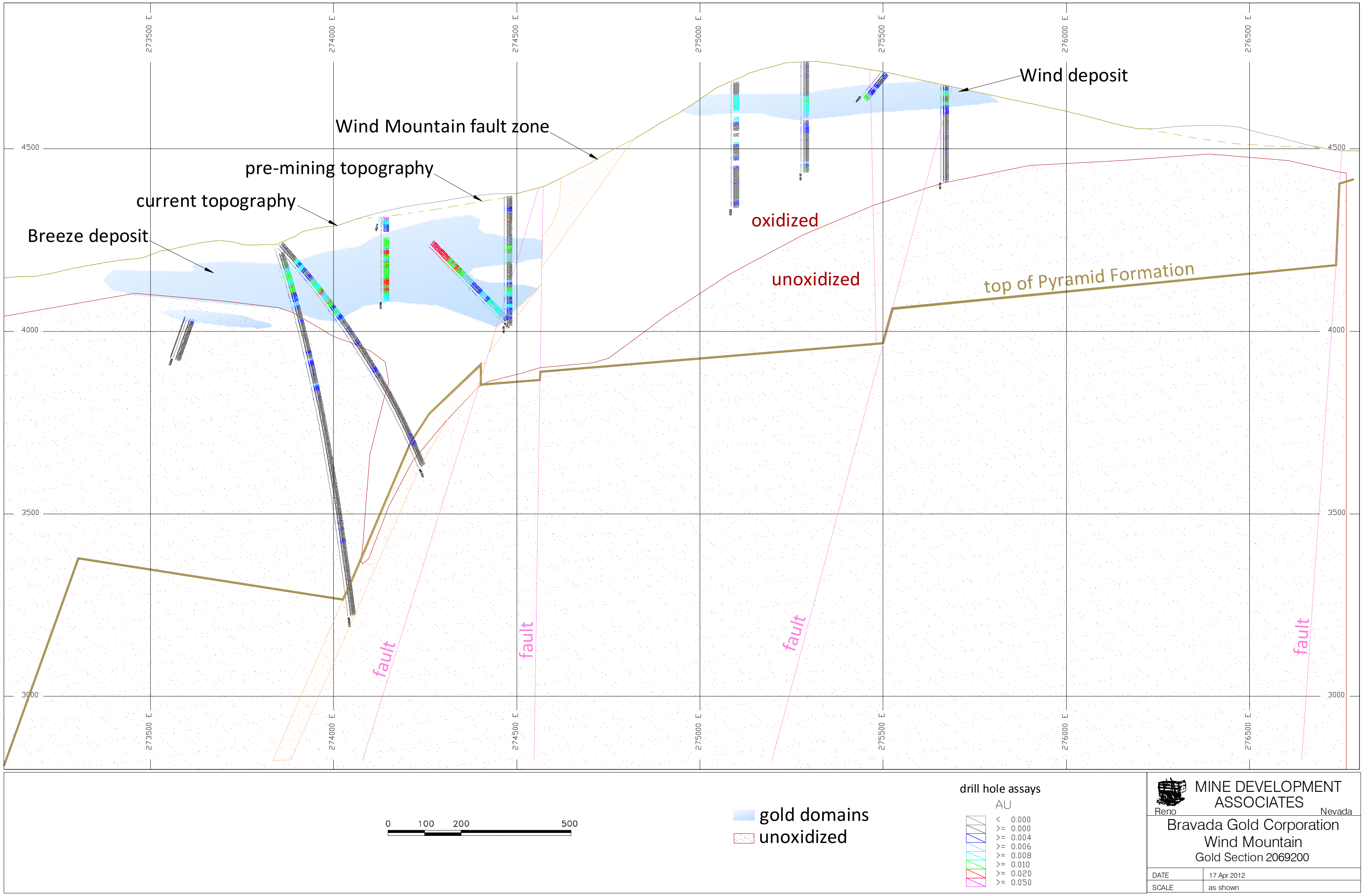
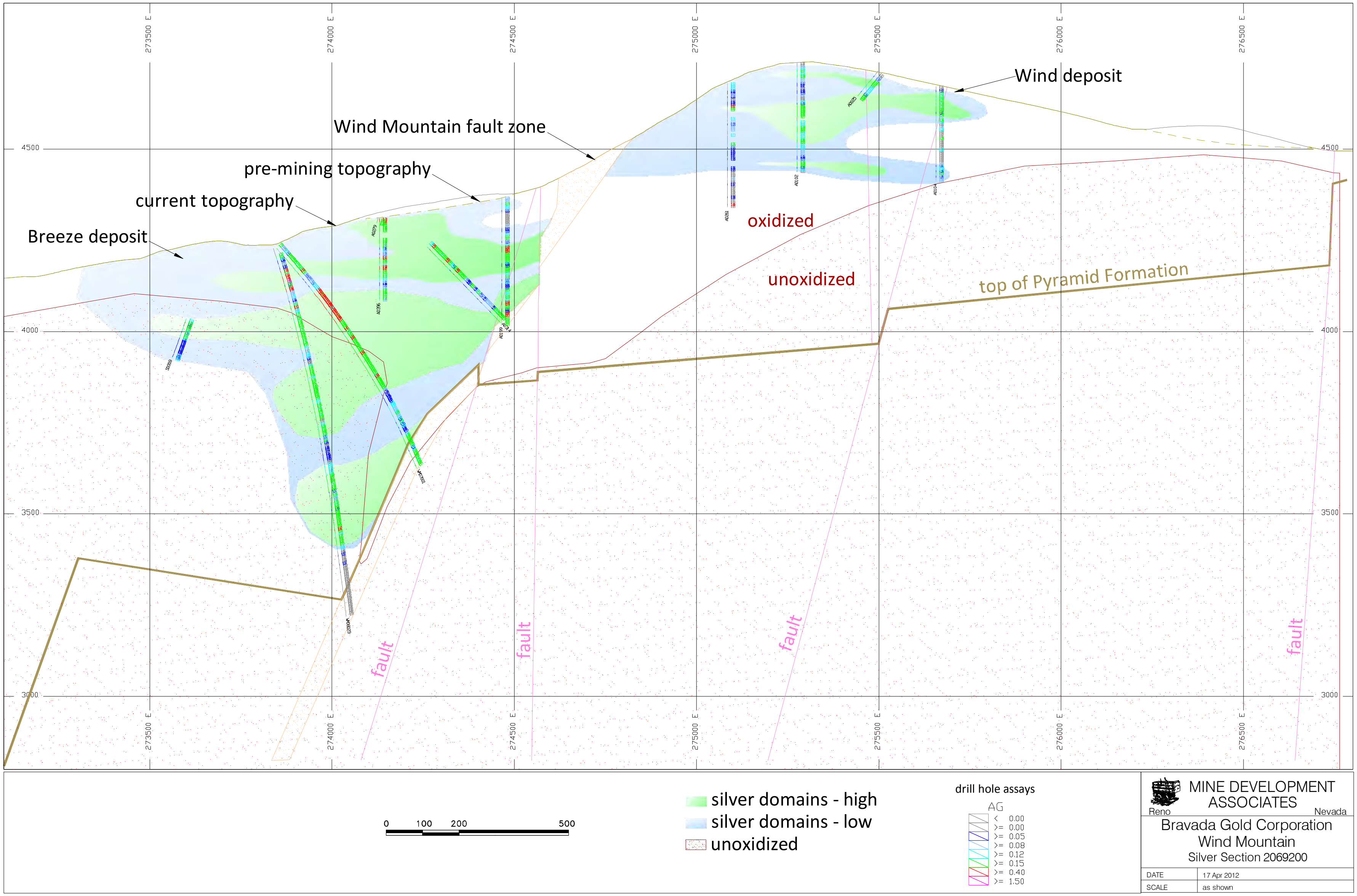


Figure 14.4 Typical Section of the Silver Mineral Domains: Wind Mountain -- Section 2069200N



Specific geologic features modeled are described below.

Pyramid Formation: The Pyramid Formation forms the basement of the mineralized zones. Mineralization occurs rarely in this unit, and the contact forms the basis of definition of the geometry.

Wind Mountain fault ("WMF"): Since the WMF is a filled fracture zone (hot springs deposits of both calcite and silica, material sloughing from wallrock or from above, and mixed breccias), mineralization within the defined boundaries of the fault was segregated from the gold and silver domains and modeled separately. The mineralization within the vein is discontinuous. The WMF bounds the mineralized zones and probably has destroyed and incorporated portions of them. The Wind deposit is on the east side, and the Breeze and Deep Min zones are on the west.

Other faults: In addition to the WMF, there are numerous high-angle faults interpreted and plotted on the geologic sections. These faults probably displace mineralization, but there is not enough geologic information available to detail this offset when modeling from section to section. Offset is inconsistent from section to section. In places along a fault, the apparent offset can appear contradictory. Because of this, in most instances the mineralization is modeled across faults except the WMF, and offset may be apparent as 'draping' or sudden thinning or thickening of the mineralized zone.

Feeder veins: Bravada geologists report that feeders mapped in the pit are seen to control or localize mineralization. This is not apparent in the sections, and while it is probably the case, mineralized zones are mapped across most feeders.

Base of the leach pads and dumps: Domain boundaries are snapped to the base of the dumps and leach pads, so no mineralization extends into them.

Oxidation: Oxidation, even in the upper part of the deposits, is not pervasive as there can be intervals of unoxidized material with the oxidized zone. However, the drilling typically encounters a clear transition from oxidized to unoxidized rock, typically below the mineralized zone but above the contact with the underlying Pyramid Formation. This oxidized-unoxidized boundary also correlates well with an increase in clay. In several sections, the boundary as drawn is contradictory to the logged oxidation. Bravada geologists explain that they used their judgment when interpreting historic logging as it was inconsistent. Bravada also considered potential "leachability" when defining the oxidation state. The materiality of these discrepancies is not great.

The zone defined as the mixed zone is relatively well oxidized. As far as the logged oxidation goes, the drilling in the mixed zone (Deep Min) looks similar to the drilling in the oxidized zone near the Wind Mountain fault and contains unoxidized pyrite away from that fault.

Silicification: There is a strong correlation between silicification and mineralization. Almost all mineralization is silicified, but not all silicified material is mineralized. In most places, strong silicification and strong clay alteration are mutually exclusive.

Clay: In most places, the mineralized material is not clay-rich, but there are places with a correlation between mineralization and clay, possibly spatially associated with the WMF. There is clay locally above the mineralization and a very distinct clay-rich contact below the mineralization.

Gold and pyrite: In some locations, there is a distinct correlation between pyrite and gold, but this is not consistent.

14.3 Wind Mountain Density

There are no density samples available. Likely there were density measurements made by previous workers, but none have been found. Historic work used a tonnage factor of $13.2ft^3/T$, although documentation of this is not available.

MDA calculated the volume of material between the original surface and the present day surface. That volume was $465{,}271{,}090ft^3$. It has been reported that the mine produced 24,635,000T of ore with a strip ratio of 0.41:1. Given these variables, a tonnage factor of $13.14ft^3/T$ gives the correct tonnage in said volume, and that tonnage was used in the block model for bedrock. Using similar logic and data, tonnage factors of $14.5ft^3/T$ and $16.8ft^3/T$ were calculated for the dumps and leach pads, respectively, and these were used in the model.

14.4 Wind Mountain Sample and Composite Statistics

Sample statistics were evaluated by domain and in total. Descriptive statistics and capping levels are given in Table 14.3.

Table 14.3 Descriptive Statistics of Sample Grades by Domain

ZoneG 1 Mineralized Domain

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	13733	0.0	5.0	0.0	0.0	1.0	12.0	ft
Au	13191	0.010	0.014	0.043	3.165	0.000	4.790	oz/T
AuCapped	13191	0.010	0.013	0.012	0.885	0.000	0.300	oz/T

ZoneG 5 Wind Mountain Fault Domain

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	956	0.0	5.0	0.0	0.0	5.0	45.0	ft
Au	869	0.002	0.004	0.005	1.489	0.000	0.048	oz/T
AuCapped	869	0.002	0.004	0.005	1.421	0.000	0.030	oz/T

ZoneG 9 Outside the Mineralized Domains

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	23138	0.0	5.1	0.0	0.0	1.0	60.0	ft
Au	22629	0.002	0.002	0.004	1.735	0.000	0.438	oz/T
AuCapped	22629	0.002	0.002	0.003	1.089	0.000	0.040	oz/T

ZoneS 9 Outside the Mineralized Domains

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	12631		5.1			1.0	60.0	ft
Ag	9912	0.03	0.05	0.09	1.76	0.00	1.46	oz/T
AgCapped	9912	0.03	0.04	0.03	0.89	0.00	0.10	oz/T

ZoneS 11 Mineralized Domain - Low-Grade

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	7795		5.0			1.0	12.0	ft
Ag	7467	0.10	0.12	0.11	0.97	0.00	3.35	oz/T
AgCapped	7467	0.10	0.12	0.11	0.91	0.00	2.00	oz/T

ZoneS 12 Mineralized Domain - Higher-Grade

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	16532		5.0			1.0	12.0	ft
Ag	15922	0.24	0.31	0.25	0.83	0.00	10.23	oz/T
AgCapped	15922	0.24	0.31	0.24	0.79	0.00	5.00	oz/T

ZoneS 15 Wind Mountain Fault Domain

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	864		5.1			5.0	45.0	ft
Ag	717	0.06	0.11	0.14	1.25	0.00	1.10	oz/T
AgCapped	717	0.06	0.11	0.14	1.25	0.00	1.10	oz/T

Outlier sample grades were capped; then the samples were composited into 10ft down-hole composites ignoring the domains. Then the composites were coded by the sections. By coding after compositing, the boundaries were "softened" to better reflect the style of mineralization with gradational boundaries. Descriptive statistics of the composite database used for gold and silver domains are given in Table 14.4.

Correlograms were made for the gold and silver mineralization. The structures were nested spherical models with three ranges. For gold, the models are well defined with the nugget at 20% of the total sill for gold and 90% of the total sill at ranges of 80ft to 200ft, and the remaining 10% of the total sill has a range of up to 500ft, depending upon orientation. For silver, the models are well defined with the nugget at 35% of the total sill for gold and 80% of the total sill at ranges of 80ft to 120ft, and the remaining 20% of the total sill has a range of up to 500ft, depending upon orientation.

14.5 Wind Mountain Estimation

The estimation parameters were selected to honor understood geologic controls and sample distributions and the deposit grade statistics. The estimation parameters are given in Appendix C.

Inverse distance estimation was chosen for the reported estimate, but estimates were also made by nearest neighbor and kriging. Each domain was estimated separately and was then weight averaged for the reported block-averaged model.

The block model is not rotated, and the blocks are 25ft by 25ft by 20ft vertical. The dimensions were chosen to best reflect possible block sizes for open pit mining.

Table 14.4 Descriptive Statistics of Composite Grades by Domain

Gold Domain 1 — Mineralized Domain

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	6677		0.0			1.0	10.0	ft
Au	6677	0.011	0.014	0.031	2.276	0.001	2.409	oz/T
AuCapped	6677	0.011	0.013	0.010	0.772	0.001	0.169	oz/T

Gold Domain 5 — Wind Mountain Fault Domain

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	417		0.0			5.0	10.0	ft
Au	417	0.002	0.003	0.005	1.562	0.000	0.043	oz/T
AuCapped	417	0.002	0.003	0.005	1.480	0.000	0.030	oz/T

Gold Domain 9 — Outside the Mineralized Domains

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	11540		0.0			2.0	10.0	ft
Au	11540	0.002	0.003	0.003	1.353	0.000	0.220	oz/T
AuCapped	11540	0.002	0.002	0.002	0.981	0.000	0.031	oz/T

Silver Domain 9 — Outside the Mineralized Domains

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	6108		9.92			2.0	10.0	ft
Ag	6108	0.02	0.05	0.08	1.82	0.00	1.72	oz/T
AgCapped	6108	0.02	0.04	0.07	1.59	0.00	0.70	oz/T

Silver Domain 11 — Mineralized Domain - Low-Grade

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	3804		9.86			2.0	10.0	ft
Ag	3804	0.10	0.12	0.10	0.81	0.00	3.06	oz/T
AgCapped	3804	0.10	0.12	0.10	0.81	0.00	3.06	oz/T

Silver Domain 12 — Mineralized Domain - Mid-Grade

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	8070	0	9.88	0	0	1.0	10.0	ft
Ag	8070	0.25	0.31	0.22	0.72	0.02	5.22	oz/T
AgCapped	8070	0.25	0.31	0.22	0.72	0.02	5.22	oz/T

Silver Domain 15 — Wind Mountain Fault Domain

	Valid N	Median	Mean	Std.Dev.	CV	Minimum	Maximum	Units
Length	417	0	9.69	0	0	5.0	10.0	ft
Ag	417	0.06	0.10	0.13	1.26	0.00	0.92	oz/T
AgCapped	417	0.06	0.10	0.12	1.21	0.00	0.70	oz/T

14.6 Wind Mountain Gold and Silver Resources

MDA classified the Wind Mountain resources by a combination of distance to the nearest sample, number of samples, confidence in the underlying database, sample integrity, analytical precision/reliability, and geologic interpretations. The criteria for resource classification are given in Table 14.5. MDA did not classify any of the resource as Measured because of the absence of supporting documentation for some historic data, the lack of quality control for much of the underlying historic database, minimal metallurgical data at depth and some indications of variable recoveries in what may be the reserve, and the disparity between grades of silver estimated from exploration data compared to grades of silver estimated from Amax blast-hole data. For some of the above reasons, all of the Deep Min mineralization is classified as Inferred but mostly because of minimal metallurgical data and the fact that it is defined by only nine holes, and they are all RC.

Table 14.5 Classification Criteria

Indicated	
Inside the mineralized domain but excluding the Wind Mountain fault zone and	
No. of holes / samples / closest distance	>=4 / >=4 / 150ft from closest sample
Or	
No. of holes / samples / closest distance	>=2 / >=1 and <=50ft from closest sample
Or	
No. of samples / distance	>=1 and <=10m from closest sample
Inferred Inside any mineral domain that is not Indicated, can be in any of the defined domains and below the post mineralization units Or All material in Deep Min	

Table 14.7 presents the Indicated and Inferred Wind Mountain diluted model resources for the oxide resources. These are at the reporting cutoff of 0.005oz Au/T. Table 14.8 presents the Indicated and Inferred Wind Mountain diluted model resources for the mixed and unoxidized resources. The mixed material does seem to recover better in CN solution than the unoxidized material, but for this study and because there is limited data, the mixed is tabulated with the unoxidized. The unoxidized and mixed zones are reported at a cutoff of 0.010oz Au/T based on the presumption that recoveries will be lower in the unoxidized material. While this is a surprisingly low cutoff, it is based on costs presented in the mining section of the preliminary economic assessment. Reporting does not take into account the value of silver in gold equivalent because of the very low silver recoveries defined to date.

Figure 14.5 through Figure 14.8 present the same cross sections as Figure 14.1 through Figure 14.4, respectively, but with block model grades also plotted.

In addition to the estimated and reported resources listed above, there are four mine dumps that total about 10 million tons of material. The dumps have variable amounts of sampling:

- Breeze dump: 12 surface samples, one trench, and five RC holes;
- West central dump: 11 surface samples;
- South dump: 32 surface samples, one trench, one RC hole, and two bulk met samples; and
- East dump: no sampling.

All of the sampling indicates the dumps could average between 0.005oz Au/T and 0.013oz Au/T. The only sampling available at depth in these dumps consists of the six RC holes that penetrated the dumps. Those holes indicate that there may be some grade segregation, with better grades near the surface. MDA cannot yet classify this material as a resource as it is not possible, with the data at hand, to estimate grades spatially and there is a potential sample-selection bias. However, MDA is optimistic that with further drilling and sampling much of these dumps' grade and tons could be quantified for economic evaluation.

MDA compared this estimate's tons, grade and ounces to that which was reported as production and that which was estimated using the blast-hole data by Noble and Ranta referenced in Dyer and Noble (2010) (Table 14.6). The comparison of tons and grade is good, with an understatement at the cutoff of 0.01oz Au/T and an overstatement at 0.005oz Au/T. There is a significant difference between the blast-hole model silver grades and the 2012 estimate silver grades, with the blast-hole model silver grades being substantially higher. MDA cannot speculate as to why this occurred, but the same magnitude of differences occurred between with previous resource estimates and the blast-hole data.

Table 14.6 Production Compared to 2012 Resource Estimate

Cutoff	**Cutoff 0.005oz Au/T**				
oz Au/T	**Tons**	**oz Au/T**	**oz Ag/T**	**oz Au**	**oz Ag**
2012 est.	29,325,518	0.015	0.32	483,541	9,494,598
	-5%	-9%	-38%	-3%	-40%
blast holes	30,746,387	0.016	0.52	498,521	15,898,090
Cutoff	**Cutoff 0.01oz Au/T**				
oz Au/T	**Tons**	**oz Au/T**	**oz Ag/T**	**oz Au**	**oz Ag**
2012 est.	24,589,061	0.018	0.34	449,959	8,472,976
	4%	-4%	-42%	1%	-39%
blast holes	23,615,876	0.019	0.59	444,572	13,874,543

Table 14.7 Gold and Silver Resources for Wind Mountain: Indicated and Inferred – Oxide

Indicated

Cutoff oz Au/T	Tons	oz Au/T	oz Ag/T	oz Au	oz Ag
0.003	65,022,000	0.009	0.24	585,200	15,631,000
0.004	63,149,000	0.009	0.24	581,000	15,326,000
0.005	**58,816,000**	**0.010**	**0.25**	**564,600**	**14,539,000**
0.008	38,151,000	0.012	0.27	438,700	10,335,000
0.009	29,931,000	0.012	0.28	371,100	8,473,000
0.010	22,785,000	0.014	0.30	307,600	6,735,000
0.011	17,118,000	0.015	0.30	251,600	5,218,000
0.012	13,223,000	0.016	0.31	208,900	4,128,000
0.015	6,251,000	0.019	0.33	119,400	2,042,000
0.020	1,944,000	0.025	0.35	48,400	681,000
0.025	752,000	0.030	0.37	22,600	281,000
0.050	7,000	0.057	0.43	400	3,000

Inferred

Cutoff oz Au/T	Tons	oz Au/T	oz Ag/T	oz Au	oz Ag
0.003	107,906,000	0.004	0.14	431,600	15,344,000
0.004	59,742,000	0.005	0.16	286,800	9,380,000
0.005	**19,866,000**	**0.006**	**0.17**	**125,200**	**3,443,000**
0.008	3,519,000	0.011	0.23	37,700	808,000
0.009	2,395,000	0.012	0.24	28,700	585,000
0.010	1,619,000	0.013	0.26	21,700	417,000
0.011	1,184,000	0.015	0.28	17,300	327,000
0.012	849,000	0.016	0.29	13,700	245,000
0.015	508,000	0.018	0.30	9,300	153,000
0.020	135,000	0.024	0.38	3,200	51,000
0.025	34,000	0.029	0.47	1,000	16,000
0.050	NA	NA	NA	-	-

Table 14.8 Gold and Silver Resources for Wind Mountain: Indicated and Inferred – Mixed and Unoxidized

Indicated

Cutoff oz Au/T	Tons	oz Au/T	oz Ag/T	oz Au	oz Ag
0.003	2,747,000	0.007	0.32	20,300	885,000
0.004	2,648,000	0.008	0.32	19,900	858,000
0.005	2,370,000	0.008	0.33	18,700	782,000
0.008	1,182,000	0.010	0.37	11,600	433,000
0.009	774,000	0.011	0.38	8,400	292,000
0.010	**498,000**	**0.012**	**0.40**	**5,900**	**197,000**
0.011	311,000	0.013	0.41	4,000	128,000
0.012	214,000	0.014	0.42	2,900	90,000
0.015	57,000	0.016	0.47	900	27,000
0.020	-	NA	NA	-	-
0.025	-	NA	NA	-	-
0.050	-	NA	NA	-	-

Inferred

Cutoff oz Au/T	Tons	oz Au/T	oz Ag/T	oz Au	oz Ag
0.003	72,172,000	0.007	0.24	476,300	17,538,000
0.004	51,943,000	0.008	0.28	415,500	14,466,000
0.005	33,630,000	0.010	0.32	343,000	10,869,000
0.008	17,945,000	0.014	0.43	256,600	7,645,000
0.009	16,221,000	0.015	0.44	243,300	7,170,000
0.010	**14,595,000**	**0.016**	**0.46**	**229,100**	**6,672,000**
0.011	13,037,000	0.016	0.47	213,800	6,164,000
0.012	11,228,000	0.017	0.49	193,100	5,514,000
0.015	6,868,000	0.020	0.55	137,400	3,752,000
0.020	2,561,000	0.025	0.60	65,000	1,526,000
0.025	1,156,000	0.030	0.66	34,700	757,000
0.050	NA	NA	NA	-	-

Figure 14.5 Typical Section of the Gold Mineral Domains with Block Model: Wind Mountain -- Section 2067000N

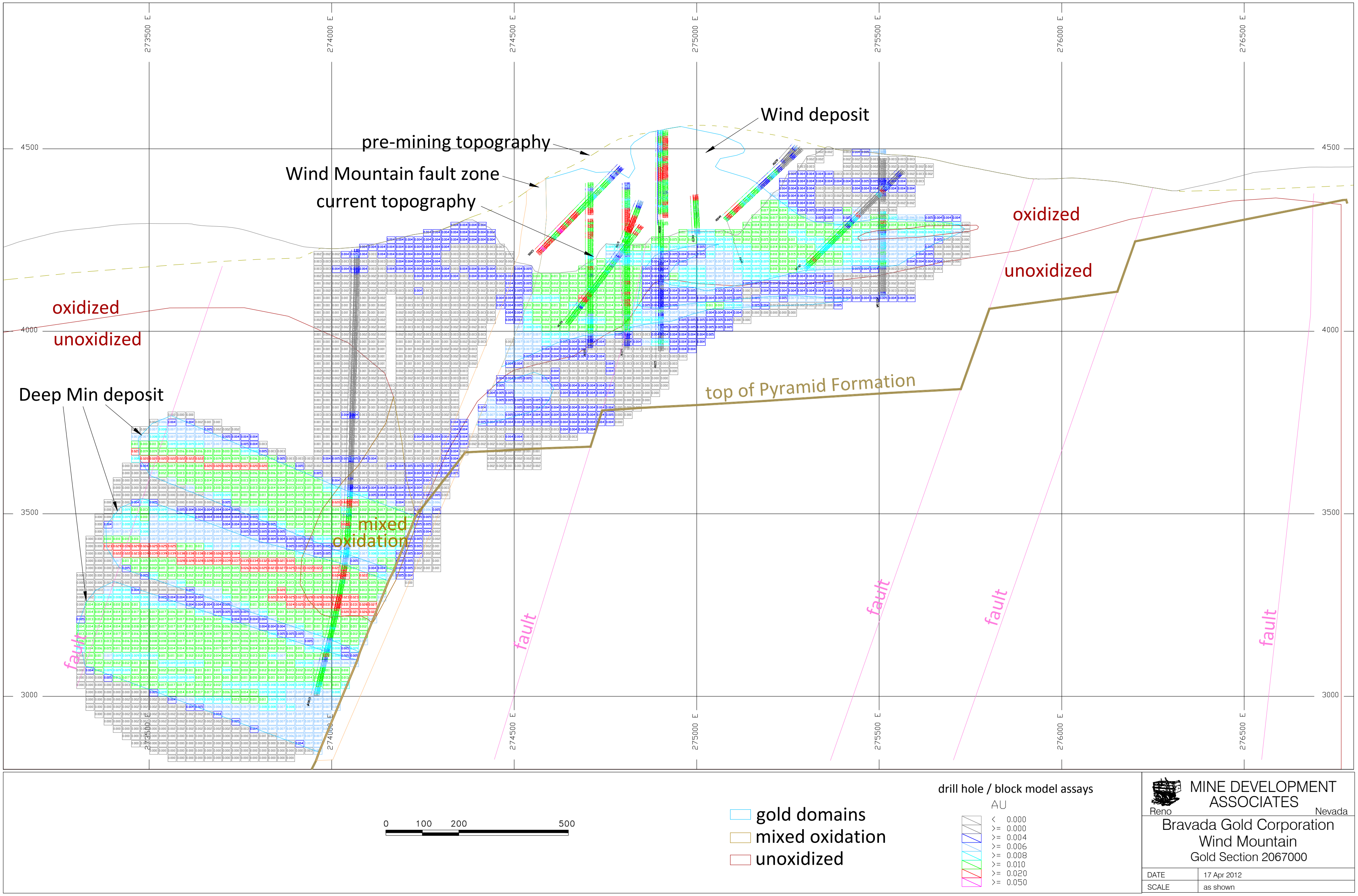


Figure 14.6 Typical Section of the Silver Mineral Domains with Block Model: Wind Mountain -- Section 2067000N

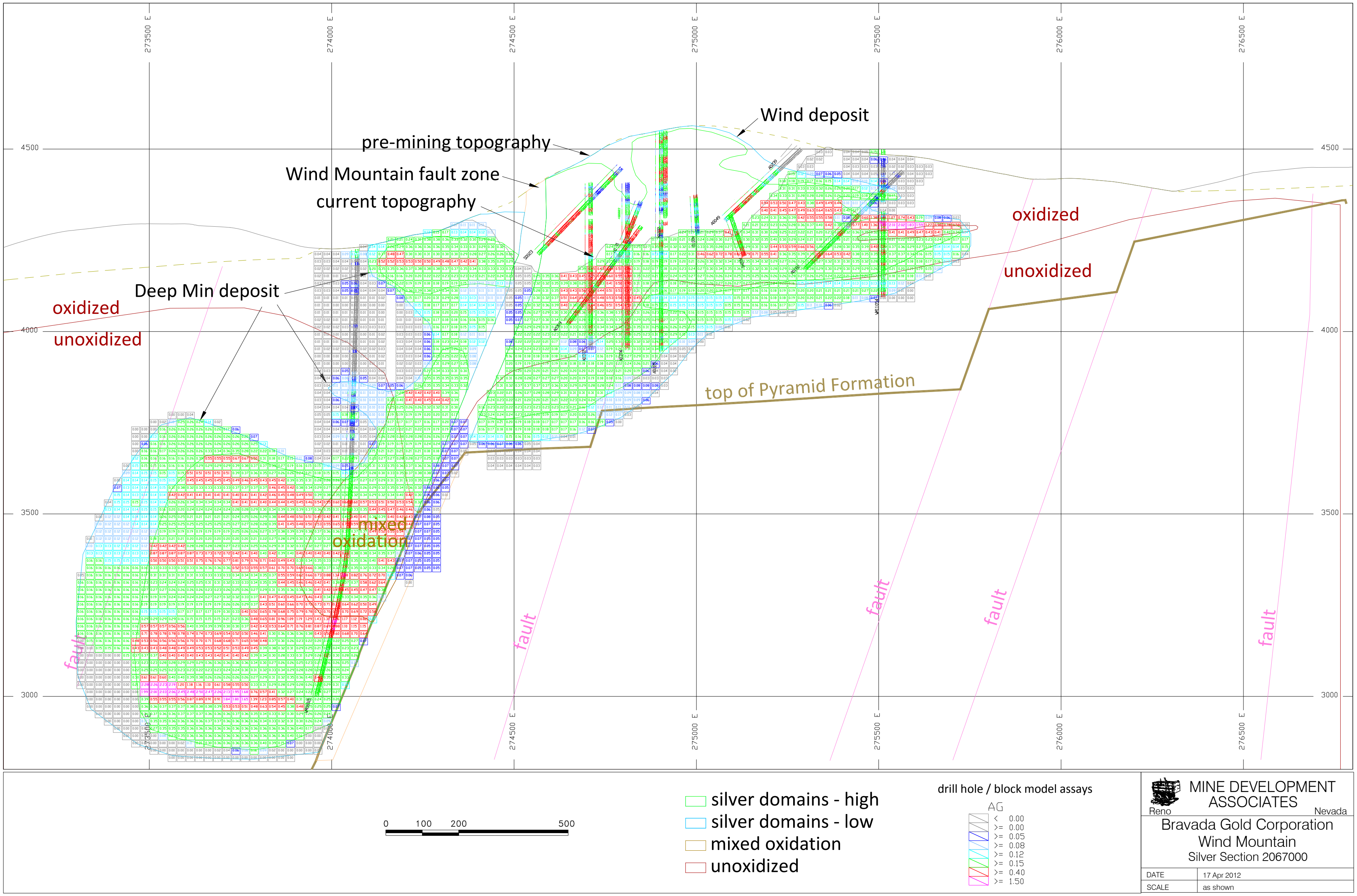


Figure 14.7 Typical Section of the Gold Mineral Domains with Block Model: Wind Mountain -- Section 2069200N

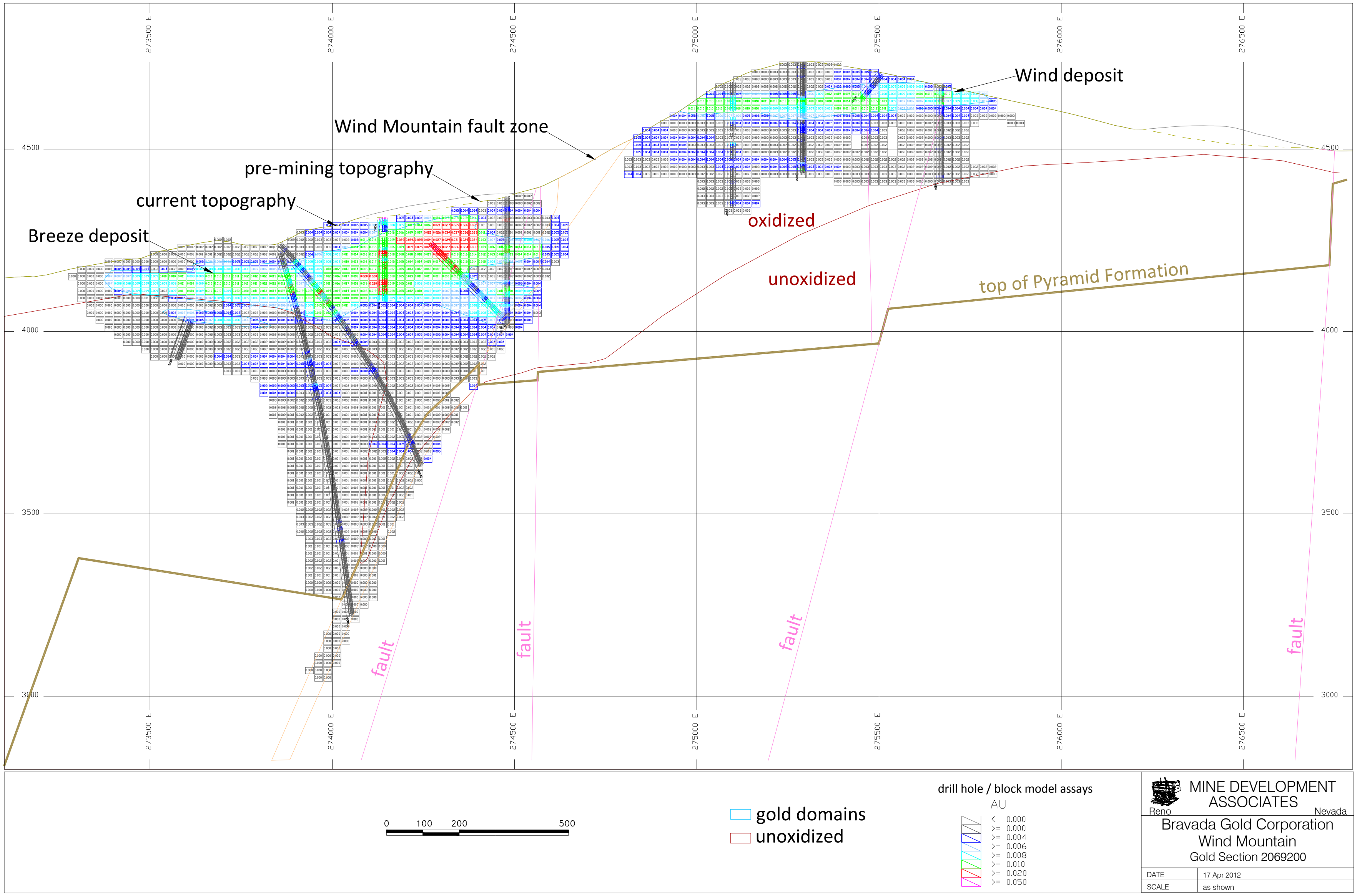
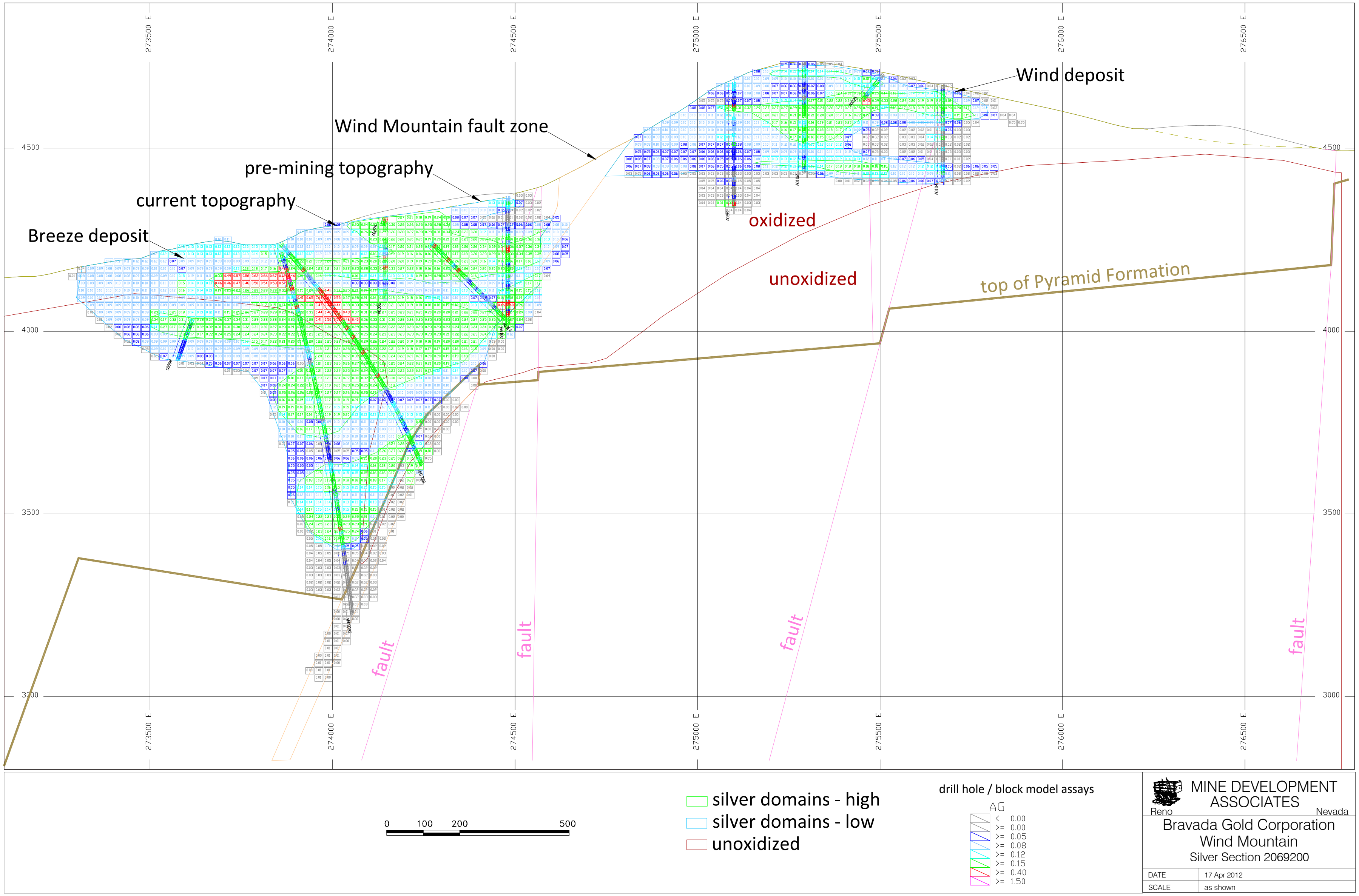


Figure 14.8 Typical Section of the Silver Mineral Domains with Block Model: Wind Mountain -- Section 2069200N



14.7 Blast-Hole Grades Compared to Exploration Drill-Hole Grades

Noble and Ranta (2007) compared blast-hole gold and silver grades to exploration drill-hole grades by pairing blast holes to drill-hole composites with a maximum of 25ft between the paired samples. This study showed that there was very little difference between blast-hole and drill-hole gold grades. Blast-hole silver grades are 66% higher than exploration drill-hole silver grades, however, and the reason for this difference is not understood. The results of the blast-hole vs. drill-hole study are shown in Figure 14.9 and Figure 14.10.

14.8 Blast-Hole Model

Noble and Ranta (2007) built blast-hole gold and silver grade block models using ordinary kriging and variograms they had modeled. Blast-hole grade estimation was limited to the area sampled by blast holes plus a 25ft margin around the edge of the blast-hole area. The blast-hole model was created using a constant bench height of 25ft, even though the actual mining benches above the 4,480ft elevation in the Wind pit were 20ft high.

The blast-hole model compares well to the estimated resource based on historical exploration data for gold, but not silver (Table 14.6). Review of mine production records for 1991-1992 suggests that the production cutoff grade may have been lower than 0.01oz Au/T during those years, which would account for higher production tonnages compared to blast-hole model tonnages. An additional difference between the blast-hole model and production is that 2.0 million tons of high-clay material with an average grade of 0.013oz Au/T was sent to the waste pads rather than the heap-leach pads. It was noted by Noble and Ranta that blast-hole model tonnage increases to 26.7 million tons with a grade of 0.017oz Au/T, which is virtually the same as reported production, including the discarded clay material. A full reconciliation of all of the differences between production and the blast-hole model is not possible.

Figure 14.9 Blast-Hole Gold Grade vs. Drill-Hole Gold Grade for Paired Samples
(from Noble and Ranta, 2007)

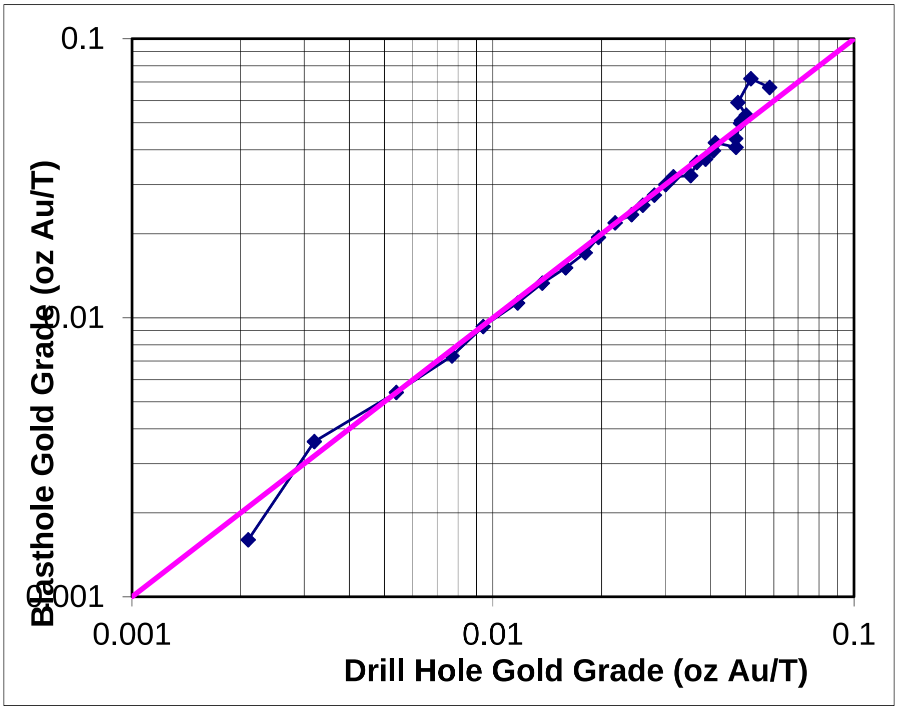
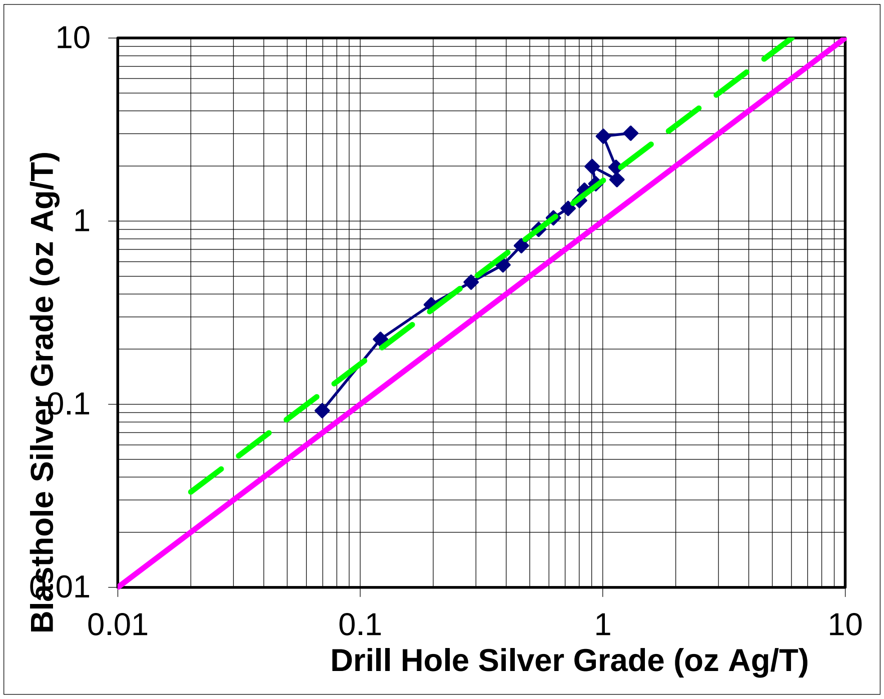


Figure 14.10 Blast-Hole Silver Grade vs. Drill-Hole Silver Grade for Paired Samples
(from Noble and Ranta, 2007)



14.9 Resource Potential of Existing Heaps and Dumps

According to Noble and Ranta, based on production records, the existing heap-leach piles at Wind Mountain consist of 24.6 million tons of material with an estimated residual gold grade of 0.0067oz Au/T. Since previous metallurgical testing consistently showed that gold recovery averaged less than 30% for particle sizes above one inch, it is possible that additional gold may be extracted by screening and re-crushing material on the heaps. The quantity and grade of potentially re-leachable material in the heaps is unknown at this time and can only be established through systematic sampling and testing of the heaps. It is likely, according to Noble and Ranta, that the residual grade for the plus one inch material in the heaps will be in the range of 0.008 to 0.012oz Au/T.

According to Noble and Ranta, and based on the blast-hole model and production history, the waste dumps at Wind Mountain are estimated to contain 10.6 million tons of material averaging 0.007oz Au/T. It is likely that the finer size fractions of the waste rock are concentrated at the tops of the waste piles and that the upper/finer portions of the waste dumps are relatively enriched in gold compared to the bottoms of the waste dumps. Other areas of the dumps may contain higher gold grades if there was poor grade control during mining. For example, hole WM07012 intersected a 25ft vertical thickness of dump material averaging 0.024oz Au/T in the Breeze dump.

14.10 Discussion of the Wind Mountain Resource

MDA performed several estimate iterations and checks on the model, supporting the conclusion that the model represents a fair reflection of the Wind Mountain gold and silver resources. MDA performed volume checks from section to long-section and long-section to model, did assigned-grade, nearest neighbor, kriged, and inverse distance estimates, and did comparisons between all these estimates and assay and composite grades, visual inspections of drill-hole sample grades and block grades, and grade-distribution plots. MDA believes that these studies suggest that the resource estimate presented herein provides a reasonable basis on which to make financial decisions.

Both positive and negative features affect the resource estimate. On the one hand, the mineralization is a very well behaved and predictable, the deposit has had successful production, and geologic interpretations give good support for the data and model. On the other hand analytical procedures are undocumented for much of the historic data and have changed during recent exploration for silver; there is little core drilling; QA/QC data are missing in historic drilling; and there is minimal testwork on spatial variability of CN recovery of gold and silver. While there is a lack of density measurement data, this is compensated for by density calculated from reported production and calculated volumes of the dumps, leach pads, and mined material.

The risks are offset by the successful historic production and the ability to check the model's performance against historic production. MDA believes that the missing historic data are not so significant as to preclude Indicated classification. Probably the largest variance between data and eventual production will be that the silver grades encountered in production may well not meet predicted grades. This latter subject is very much worth additional study.

15.0 MINERAL RESERVE ESTIMATES

No reserves have been estimated for this report.

16.0 MINING METHODS

MDA has completed a PEA for the Breeze and Wind deposits which anticipates mining using conventional open pit truck and loader methods. This assessment assumes that waste material would be loaded into 60-ton haul trucks and hauled to waste rock facilities. Ore would be mined from the pit and placed on a heap leach. MDA assessed the economic impact of different process rates using both run-of-mine ("ROM") and crushed leaching. Ultimate pit limits were developed using pit optimization techniques, and preliminary pit designs have been created. Production schedules have been developed using the resources from these pit designs.

The following sections discuss the methodology used to define the pit designs, waste dump designs, and the production schedule with relation to the PEA.

16.1 Pit Optimization

Pit optimization was completed using Whittle software. Economic and geometrical parameters were provided to Whittle to complete the work. The economic parameters were developed for six different mining/processing scenarios based on two processing methods and three different throughput rates.

Processing methods considered include: ROM leaching, where trucks would be used to place ore directly on leach pads, and crushed leaching, in which trucks would deliver ore to a primary crusher, where it would then be crushed down to ¾in minus, and then placed on the leach pad with conveyors. The three throughput rates considered were 5,000, 10,000, and 20,000 tons per day.

Whittle pit shells for varied metal prices were used to determine pit phases and ultimate pits for each scenario. Whittle was then used to generate production schedules and preliminary cash-flows for each scenario.

16.1.1 Economic Parameters

Economic parameters were developed for each scenario and included mining costs, process costs, General and Administrative ("G&A") costs, reclamation costs, and metallurgical recoveries. These are shown in Table 16.1.

Table 16.1 Economic Parameters

	Run-of-Mine Leaching			Crushed Leaching			
	5,000 TPD	10,000 TPD	20,000 TPD	5,000 TPD	10,000 TPD	20,000 TPD	
Mining Cost	$ 2.10	$ 1.95	$ 1.80	$ 2.10	$ 1.95	$ 1.80	$/T Mined
Incremental Ore Haulage	$ 0.40	$ 0.37	$ 0.35	$ 0.40	$ 0.37	$ 0.35	$/T Processed
Process Cost	$ 2.54	$ 2.23	$ 1.90	$ 4.54	$ 3.60	$ 2.91	$/T Processed
Pad Replacement	$ 0.50	$ 0.36	$ 0.28	$ 0.57	$ 0.40	$ 0.31	$/T Processed
G&A Cost per Ton	$ 1.14	$ 0.57	$ 0.29	$ 1.29	$ 0.64	$ 0.32	$/T Processed
Reclamation	$ 0.25	$ 0.25	$ 0.25	$ 0.25	$ 0.25	$ 0.25	$/T Processed
NSR Royalty	1%	1%	1%	1%	1%	1%	

	Au	Ag		Au	Ag	
Recovery - Oxide	62%	15%		70%	20%	
Recovery - Mixed	20%	0%		25%	5%	
Recovery - Unoxidized	15%	0%		20%	5%	
Selling Cost	$ 3.00	$ 1.50	$/Oz	$ 3.00	$ 1.50	$/Oz
Price	$ 1,300.00	$ 24.42	$/Oz	$ 1,300	$ 24.42	$/Oz

The 5,000 ton per day throughput scenario assumes contract mining at a cost to similar projects in Nevada. This rate was scaled down to assume rates for the higher throughput scenarios. All of the scenarios assumed that leaching would be done north of the Breeze pit, and that due to the length of the haul, additional costs would be incurred due to the location of the leach pad.

Process costs were assumed based on processing models provided by InfoMine estimation services. These rates were factored up to reflect current cost trends in similar operations.

General and Administrative costs were based on personnel, supplies, and other costs that would be incurred in support of the operation. No corporate support is included. Reclamation costs were included separate of G&A and assumed to be consistent with the previous PEA on the property.

Recoveries have been assumed based on historical recoveries and current metallurgical testwork.

While various metal prices were considered in the pit optimizations, base metal prices of $1,300 per ounce of gold and $24.42 per ounce of silver were used. These prices are near the three year rolling average of metal prices based on Kitco data.

16.1.2 Geometrical Parameters

Geometrical parameters will often include property and royalty boundaries as well as pit slope parameters. As the mineral resources are all within current property boundaries, none were considered as a restriction to the pit optimization. A single royalty factor of 1% was imposed on the entire Whittle model assuming that royalties are bought down, and no additional boundary was imposed for separation of royalties at the time of pit optimization. While this does not fully account for the Fuller royalty, the assumption was made that due to the minimal resources on the Fuller leased claims, the royalty is negligible.

There are no recent pit slope stability studies, and pit slopes were assumed to be a constant 45º in all sectors. Previous Breeze and Wind pits do contain overall angles in excess of 50º based on fly-over topography measurements. Thus, MDA considers these 45 degree slopes to be conservative.

16.1.3 Pit Optimization Results

Pit optimizations used both Indicated and Inferred resources. Note that Canadian NI 43-101 guidelines define a PEA as follows:

> ***A preliminary economic assessment is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.***

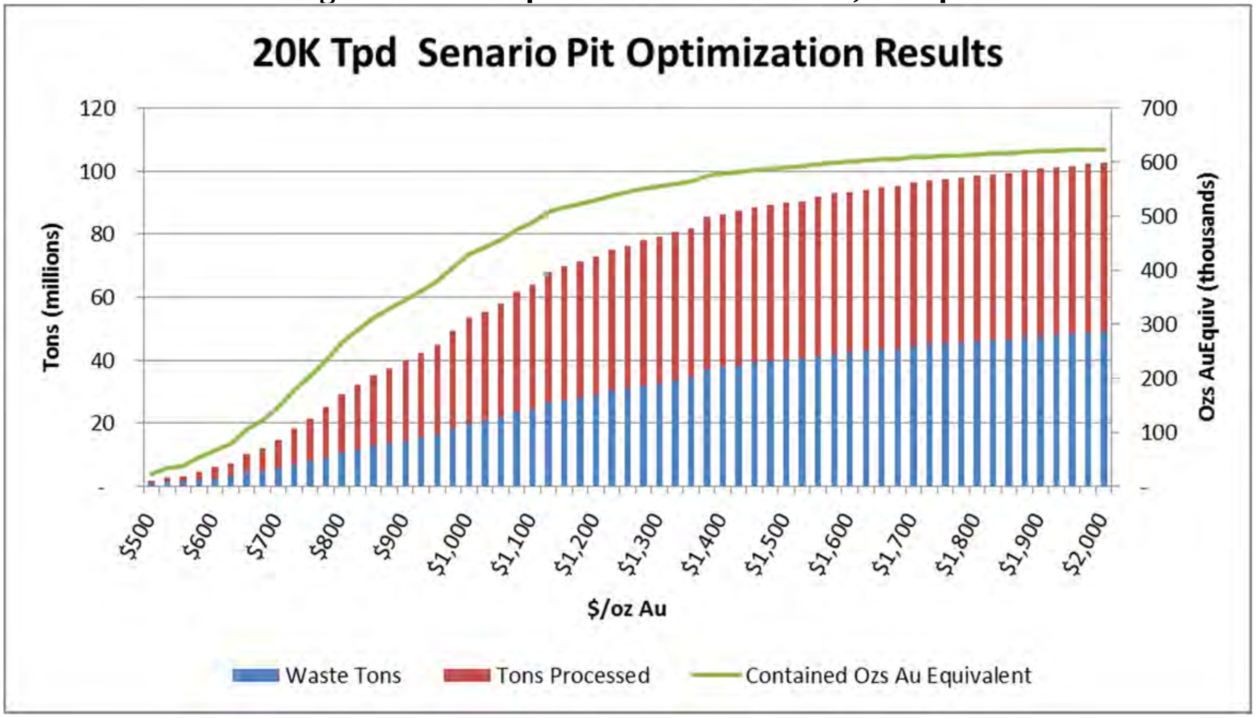
Pit optimizations were run to determine appropriate pit phasing and ultimate limits for each scenario. Whittle was then used to generate preliminary production and cash-flows for each. The results showed the 5,000 Tpd crushed leaching scenario to be the weakest with respect to net present value (“NPV”) and internal rate of return (“IRR”). The best scenario was determined to be the 20,000 Tpd ROM scenario based on the parameters used and assumed capital costs for each.

Optimized pits were generated for various metal prices ranging from $500/oz Au to $2,000/oz Au using $25/oz Au increments. Silver metal prices were kept at a constant ratio with gold and ranged from $9.39/oz Ag to $37.57/oz Ag in increments of $0.47/oz Ag increments. Results of the 20,000 Tpd ROM scenario pit optimization are shown in Table 16.2 in $100/oz Au increments and the full results are shown in Figure 16.1. The $1,300/oz Au result is highlighted in the table as the base case pit.

Table 16.2 20 Pit Optimization Results – 20,000 Tpd ROM

		Leach						Waste	Total	Strip	LOM
Au Price	Ag Price	K Tons	Oz Au/T	K Ozs Au	Oz Ag/T	K Ozs Ag	K Ozs AuEq	K Tons	K Tons	Ratio	Years
$ 500.00	$ 9.39	950	0.021	20	0.341	324	22	836	1,786	0.88	0.14
$ 600.00	$ 11.27	3,531	0.017	60	0.313	1,105	67	2,533	6,064	0.72	0.50
$ 700.00	$ 13.15	8,923	0.015	130	0.294	2,625	146	5,635	14,558	0.63	1.27
$ 800.00	$ 15.03	18,430	0.013	235	0.274	5,045	266	10,617	29,047	0.58	2.63
$ 900.00	$ 16.91	25,535	0.012	304	0.265	6,776	345	14,320	39,856	0.56	3.65
$ 1,000.00	$ 18.78	33,753	0.011	377	0.261	8,804	431	19,751	53,504	0.59	4.82
$ 1,100.00	$ 20.66	39,519	0.011	426	0.259	10,220	488	24,484	64,004	0.62	5.65
$ 1,200.00	$ 22.54	43,831	0.011	461	0.255	11,190	529	28,979	72,810	0.66	6.26
$ 1,300.00	$ 24.42	46,581	0.010	484	0.254	11,815	555	32,652	79,233	0.70	6.65
$ 1,400.00	$ 26.30	48,766	0.010	504	0.255	12,429	579	37,654	86,421	0.77	6.97
$ 1,500.00	$ 28.18	50,073	0.010	514	0.254	12,714	592	40,139	90,213	0.80	7.15
$ 1,600.00	$ 30.06	51,123	0.010	523	0.253	12,952	601	42,273	93,397	0.83	7.30
$ 1,700.00	$ 31.93	51,966	0.010	530	0.253	13,130	609	44,385	96,351	0.85	7.42
$ 1,800.00	$ 33.81	52,635	0.010	535	0.252	13,252	615	45,936	98,571	0.87	7.52
$ 1,900.00	$ 35.69	53,223	0.010	539	0.251	13,384	620	47,642	100,865	0.90	7.60
$ 2,000.00	$ 37.57	53,604	0.010	542	0.251	13,480	624	49,080	102,684	0.92	7.66

Figure 16.1 Pit Optimization Results – 20,000 Tpd ROM



16.2 Pit Designs

Pit design was done based on the optimized pit shells for the 20,000 Tpd ROM scenario and provides access to the resources for equipment and personnel. The Breeze pit was completed in two phases with the first phase of mining to the south and the remaining north mining to be done in phase 2. The Wind pit was designed as a single pit. The Breeze phase 1 design is shown in Figure 16.2, phase 2 is shown in Figure 16.3, and the ultimate pit design for both Breeze and Wind is shown in Figure 16.4.

Figure 16.2 Breeze Phase 1 Pit Design

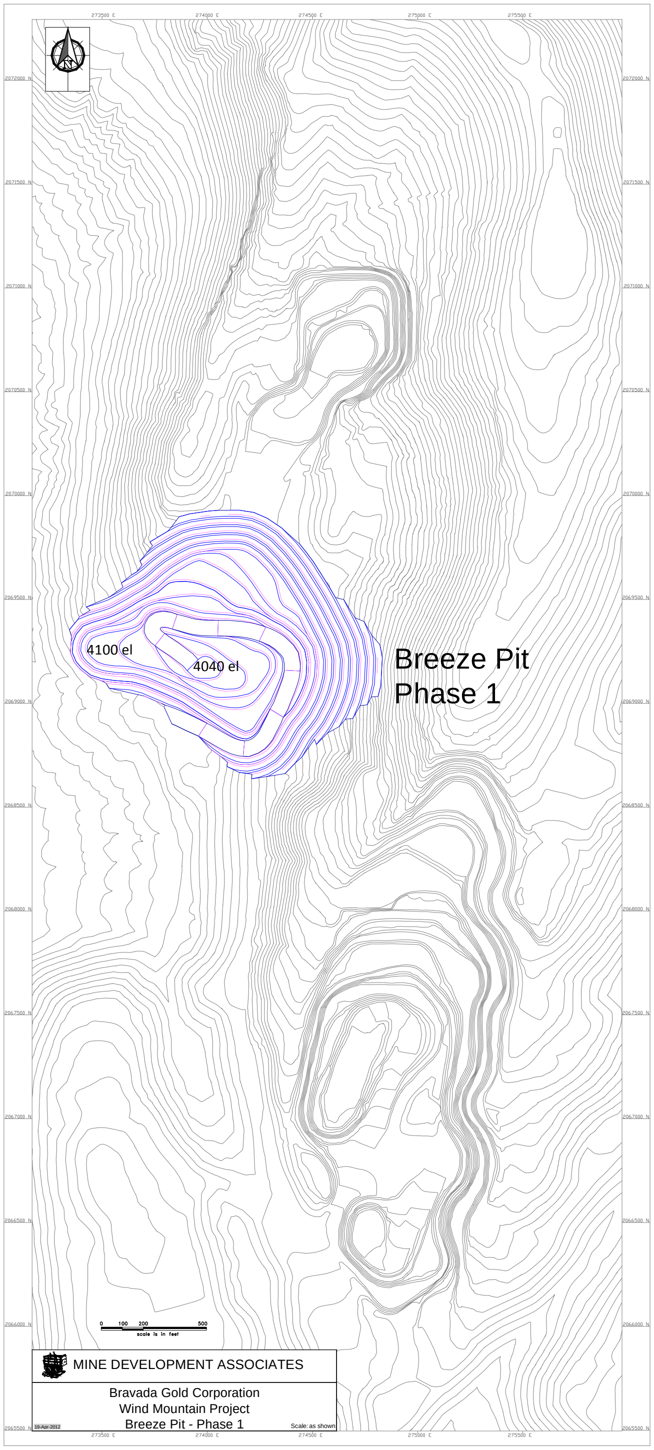


Figure 16.3 Breeze Phase 2 Pit Design

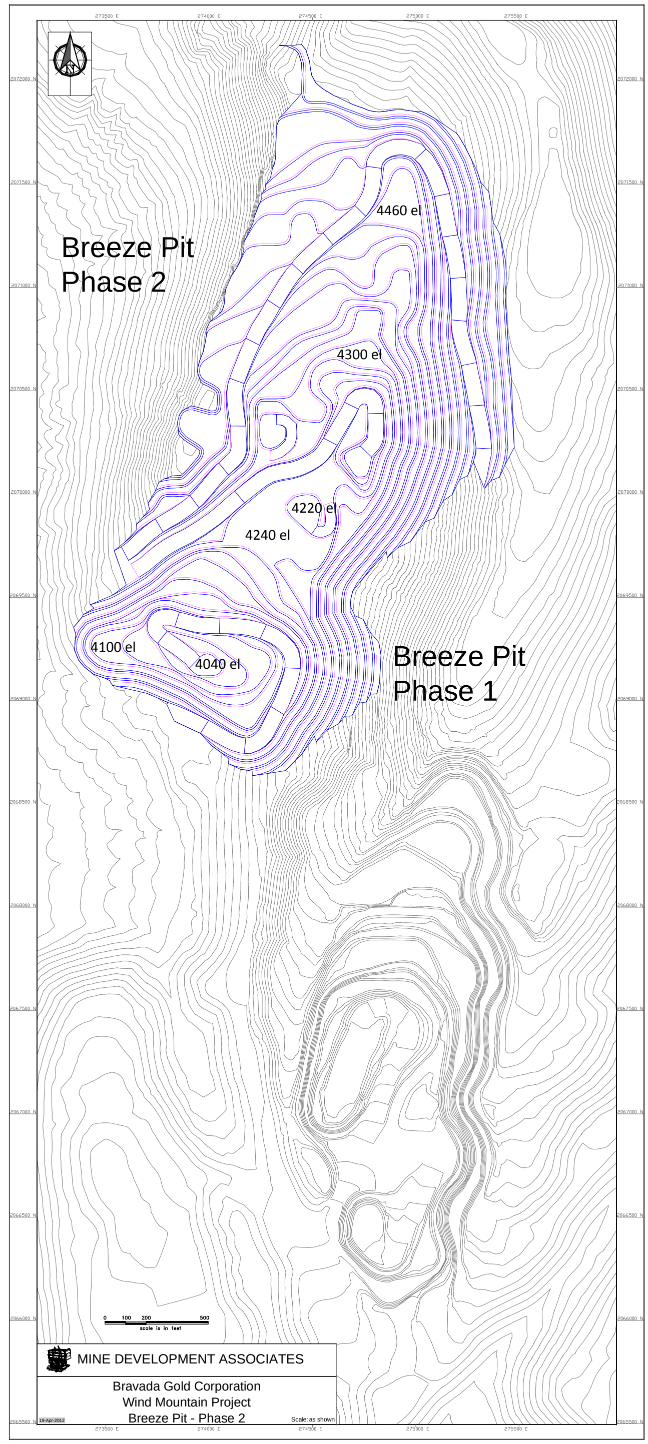
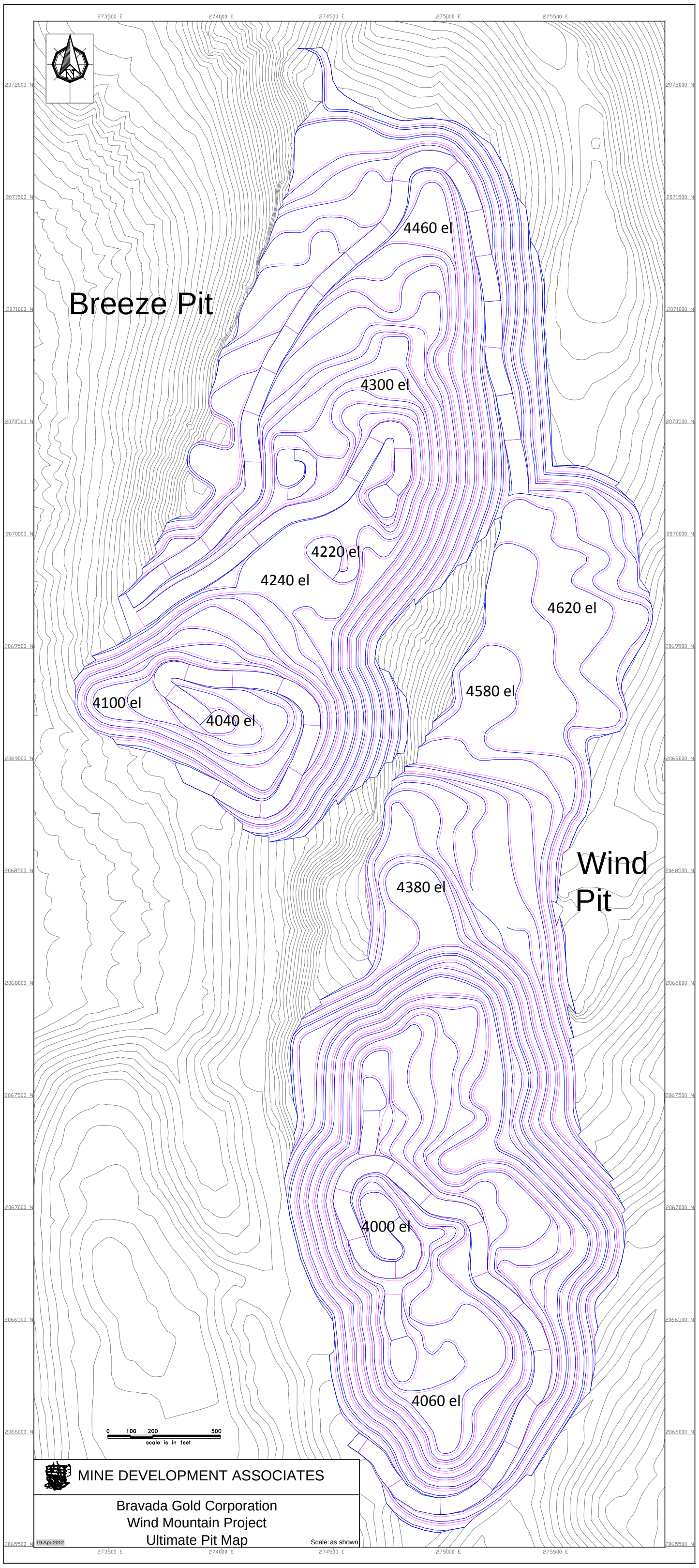


Figure 16.4 Ultimate Pit Designs



The following sections discuss the parameters used to determine the resources inside of the pit designs.

16.2.1 Bench Height

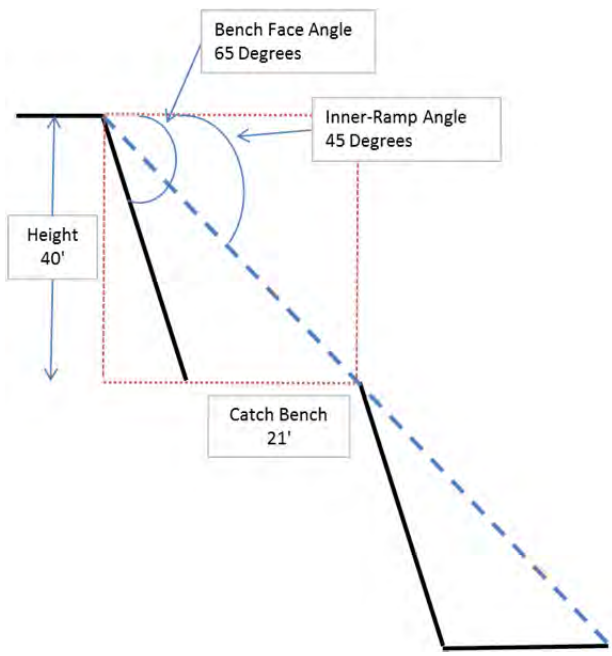
A bench height of 20ft was used to reflect the block model bench height and the reach of equipment to be used in mining. This bench height will provide for reasonable selectivity during mining.

16.2.2 Pit Design Slope Parameters

While no definitive geotechnical study has been provided to MDA, it is evident that slopes of near 50º are possible based on observations of current pits. However, MDA has designed pits targeting an overall angle of 45º until such time that geotechnical studies can be completed.

Pit slopes use definition of height between catch benches, bench face angle, and catch bench width. Ore and most waste material will be mined on 20ft benches. Every other bench will have a catch bench 21ft wide. A bench face angle of 65º has been assumed, providing an inner-ramp slope of 45º. The slope design parameters are shown in Figure 16.5.

Figure 16.5 Pit Design Slope Parameters



16.2.3 Haul Roads

In-pit ramps and haul roads were designed to allow safe operation of haul trucks while allowing for two-way traffic. A ramp width of 75ft was used in the pit and allows for 3.5 times the running width of a 775F CAT truck and a safety berm of 13.17ft. Ramps use a maximum design gradient of 10%; however, some steeper sections may exist on the inside of curves for short distances.

16.2.4 Cutoff Grade

Cutoff grades were calculated based on gold values only. Internal and external cutoff grades were calculated for each material type as shown in Table 16.3. The internal cutoff grade excludes mining cost and is the cutoff grade that would be used for operations. Whittle pit optimizations were based on economic value as opposed to cutoff grade; however, due to potential for misclassification errors at low cutoff grades, a minimum cutoff grade of 0.006 oz Au/T was used for pit optimizations and definition of the ultimate pit limit.

Production scheduling used the internal cutoff grades as shown in Table 16.3 to define material that would be processed.

Table 16.3 Calculated Cutoff Grades ($1,300 per Oz Au)

	Au Cutoffs (oz Au/t)	
	Internal	External
Oxide	0.006	0.009
Mixed	0.019	0.027
Unoxidized	0.025	0.036

16.2.5 Dilution

The resource block model is 25ft by 25ft by 20ft high and contains grades that are diluted to this block size. The equipment that has been selected will provide reasonable selectivity with respect to these block sizes. As the resource estimate has been diluted to the block size, MDA believes that appropriate dilution has been accounted for in the resource modeling and has not added any additional dilution factors.

16.2.6 In-Pit Resources

Resources inside of the final pit designs were calculated using Surpac software. Due to the higher cutoff grade used for mixed and unoxidized material and the nature of the low-grade deposit, no mixed or unoxidized material inside of the pit was used for processing in the production schedule. The in-pit resources are shown in Table 16.4.

Table 16.4 In-Pit Resources

	Indicated					Inferred					Waste	Total	Strip
Phase	K Tons	Ozs Au/T	K Ozs Au	Ozs Ag/T	K Oz Ag	K Tons	Ozs Au/T	K Ozs Au	Ozs Ag/T	K Oz Ag	K Tons	K Tons	Ratio
Breeze Phase 1	5,949	0.013	75	0.23	1,378	764	0.009	7	0.15	115	5,379	12,091	0.80
Breeze Phase 2	11,370	0.011	128	0.25	2,865	547	0.008	4	0.20	110	10,354	22,271	0.87
Wind Ultimate Pit	24,745	0.010	243	0.26	6,550	897	0.008	7	0.20	180	15,918	41,560	0.62
Total	42,064	0.011	446	0.26	10,793	2,208	0.008	18	0.18	404	31,651	75,923	0.71

In-pit resources are reported using a 0.006 oz Au/t cutoff

Note that Canadian NI 43-101 guidelines define a PEA as follows:

> ***A preliminary economic assessment is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.***

16.3 Mine-Waste Facilities

Three waste dumps were designed and are shown in the site-plan map in Figure 18.1. The Breeze waste dump is located to the west of the Breeze pit and is used for all of the Breeze pit waste and some of the lower Wind pit waste. The other two waste dumps are located on the east side of the Wind pit and are named Wind North and Wind South dumps.

The waste dumps were designed using an assumed angle of repose of 34º. The design was completed using 25ft lift-heights. Catch benches of 25ft were used on each lift providing an overall design slope of 2.5H:1V. This allows for final reclamation at the overall slope.

The total dump capacity is 34.3 million tons assuming a swell factor of 1.4 and a loose density of 0.055 tons per ft^3. The waste dump capacities are shown in Table 16.5 along with the capacity of the heap leach pad. The heap leach pad design is discussed in a different section.

Table 16.5 Waste Dump and Heap Leach Pad Capacities

	Cubic Feet (millions)	Tonnage (millions)
Breeze Dump	380.4	20.9
Wind North Dump	98.3	5.4
Wind South Dump	145.6	8.0
Total Dump Capacity	624.3	34.3
Heap Leach Pad Capacity	924.8	50.9

16.4 Production Scheduling

Mine production scheduling was done using MineSched software. Scheduling targets the sending of 7.3 million tons of material per year to the leach pad. Constraints on tonnage mined per day and number of benches mined per period prohibited the mine from producing to full capacity during some years, but allowed for a more realistic schedule.

Waste material was modeled as either fill waste or rock waste to better separate mining costs. Fill waste is material mined from the historical dumps. Rock waste is all other waste material mined is assumed to require drilling and blasting. It should be noted that the PEA pit designs do not mine any material from the historic leach pads.

Material sent to the leach pad was modeled to reflect the oxidation, resource classification, and royalty region and used a 0.006, 0.019, and 0.025 cutoff grade for oxide, mixed, and unoxidized. Due to the resource grades within the designed pit, no mixed or unoxidized material was scheduled to the leach pad.

The production schedule was created using monthly periods so that appropriate lag times for gold recovery could be used for the process production schedule. The schedule was then summarized in yearly periods as shown in Table 16.6. The "Pre-Prod" is used to represent pre-production. Note that some material is sent to the leach pad during pre-production. This represents low-grade material mined with pre-strip waste that would be sent to a contract crushing plant to create over-liner material. No metal production is attributed to this material until year 1.

Table 16.6 Mine Production Schedule

		Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Total
Breeze Phase 1	***Leach to Pad***	K Tons	101	6,612	-	-	-	-	-	-	-	6,713
		Ozs Au/T	0.007	0.012	-	-	-	-	-	-	-	0.012
		K Ozs Au	1	82	-	-	-	-	-	-	-	82
		Ozs Ag/T	0.13	0.22	-	-	-	-	-	-	-	0.22
		K Ozs Ag	13	1,480	-	-	-	-	-	-	-	1,493
	Rck_Wst	K Tons	963	3,478	-	-	-	-	-	-	-	4,441
	Dmp_Wst	K Tons	712	226	-	-	-	-	-	-	-	938
	Waste to Dump	K Tons	1,675	3,704	-	-	-	-	-	-	-	5,379
	Total Mined	K Tons	1,775	10,316	-	-	-	-	-	-	-	12,091
	Strip Ratio	W:O	16.65	0.56								0.80
Breeze Phase 2	***Leach to Pad***	K Tons	-	529	7,200	4,188	-	-	-	-	-	11,917
		Ozs Au/T	-	0.007	0.011	0.011	-	-	-	-	-	0.011
		K Ozs Au	-	4	81	47	-	-	-	-	-	132
		Ozs Ag/T	-	0.24	0.25	0.24	-	-	-	-	-	0.25
		K Ozs Ag	-	128	1,832	1,016	-	-	-	-	-	2,975
	Rck_Wst	K Tons	-	3,976	5,201	688	-	-	-	-	-	9,865
	Dmp_Wst	K Tons	-	-	489	-	-	-	-	-	-	489
	Waste to Dump	K Tons	-	3,976	5,691	688	-	-	-	-	-	10,354
	Total Mined	K Tons	-	4,505	12,890	4,875	-	-	-	-	-	22,271
	Strip Ratio	W:O		7.51	0.79	0.16						0.87
Wind Phase 1	***Leach to Pad***	K Tons	-	-	100	3,132	7,131	7,300	7,300	679	-	25,643
		Ozs Au/T	-	-	0.009	0.010	0.010	0.010	0.010	0.010	-	0.010
		K Ozs Au	-	-	1	30	74	70	70	7	-	251
		Ozs Ag/T	-	-	0.16	0.18	0.25	0.27	0.30	0.36	-	0.26
		K Ozs Ag	-	-	16	551	1,769	1,991	2,156	247	-	6,729
	Rck_Wst	K Tons	-	-	298	2,227	4,930	3,502	2,744	94	-	13,795
	Dmp_Wst	K Tons	-	-	-	-	1,636	487	-	-	-	2,123
	Waste to Dump	K Tons	-	-	298	2,227	6,566	3,989	2,744	94	-	15,918
	Total Mined	K Tons	-	-	399	5,360	13,697	11,289	10,044	772	-	41,560
	Strip Ratio	W:O			2.97	0.71	0.92	0.55	0.38	0.14		0.62
Total Mining	***Leach to Pad***	K Tons	101	7,141	7,300	7,320	7,131	7,300	7,300	679	-	44,272
		Ozs Au/T	0.007	0.012	0.011	0.011	0.010	0.010	0.010	0.010	-	0.011
		K Ozs Au	1	85	82	77	74	70	70	7	-	465
		Ozs Ag/T	0.13	0.23	0.25	0.21	0.25	0.27	0.30	0.36	-	0.25
		K Ozs Ag	13	1,609	1,847	1,566	1,769	1,991	2,156	247	-	11,198
	Rock Waste	K Tons	963	7,454	5,499	2,915	4,930	3,502	2,744	94	-	28,101
	Fill Waste	K Tons	712	226	489	-	1,636	487	-	-	-	3,550
	Waste to Dump	K Tons	1,675	7,680	5,989	2,915	6,566	3,989	2,744	94	-	31,651
	Total Mined	K Tons	1,775	14,822	13,289	10,235	13,697	11,289	10,044	772	-	75,923
	Strip Ratio	W:O	16.65	1.08	0.82	0.40	0.92	0.55	0.38	0.14		0.71

16.4.1 Mine Equipment Requirements

The PEA mining is based on contract mining, and equipment requirements will be the responsibility of the contractor to maintain production. However, for the purpose of estimating the equipment and personnel requirements, 70-ton CAT 775F trucks and CAT 990H wheeled loaders were assumed to be used as the primary production equipment. During the mine life, three loaders and up to 11 haul trucks will be required.

Drilling for blasting operations will be done using crawler type blast-hole drills. Six-inch hole diameters have been used for design purposes, and up to three blast-hole drills will be required during full production.

Support equipment will be used to maintain roads, pit benches, and dumping areas clean and safe. Support equipment will include dozers, graders, water trucks, excavators, and other such equipment.

16.4.2 Mine Operations Personnel

Mine operations personnel was estimated based on the production schedule and equipment requirements assuming that the mining would be done by a contractor. Mine operations personnel attributed to the Wind Mountain mine is estimated to be 14 people for oversight of mining operations. This includes a Mine Superintendent, a clerk, engineering staff, and geology staff. The mine personnel would be in charge of overseeing the contractor, providing planning for the operation, and ore control.

The contractor personnel were estimated based on management and operators. A 24 hour per day / 7 day a week operation was assumed using four crews working 12 hours per day rotating with four days on and four days off. The total number of people supplied by the mining contractor is estimated to be 96 on average.

17.0 RECOVERY METHODS

Heap leaching has been assumed for metal recovery using conventional ROM loading of the leach pad followed by spraying of a weak NaCN solution to dissolve gold and silver. The process flow sheet has not yet been fully developed; however, processing of solutions would be done by a carbon adsorption-desorption recovery ("ADR") plant. Costs models from the Western Mine Division of InfoMine USA, Inc. ("InfoMine") have been used based on 20,000 Tpd leaching operation. In addition, Whittle pit optimizations used 5,000 and 10,000 Tpd cost model parameters for a tradeoff study on throughput rates.

17.1 Process Flow

The leaching model used assumes that the leach pad is built with suitable linings and collection network. Over-liner material is placed on top of the liner and collection pipes for protection. ROM leach material is dumped directly in place by dump trucks. Prior to placement of ore on the leach pad, each truck drives under a silo that drops lime on the ore to maintain a proper pH level. A track dozer is used to maintain gradient of each lift placed between 15 and 20ft deep.

After enough area has been placed, a dozer with a ripper is used to rip the placed material to loosen it and promote percolation of fluids. After pad preparation, an irrigation system is placed on the material and a spray of weak NaCN is applied to the lift. The solution flows downward through the pad, leaching metals in the ore, and is then collected through the collection system and sent to a pregnant pond. The solution from the pregnant pond is passed through columns containing activated carbon. The solution then flows through to the barren pond, where additional NaCN and lime are added prior to the solution being recycled to the heap leach pad.

The carbon is rotated through the carbon circuit until it contains enough gold for processing. The carbon is processed using a cyanide solution with elevated temperature and pressure putting the metals back into a concentrated solution, and then metals are recovered in an electro-winning cell where they are plated onto steel wool cathodes. The cathodes are then mixed with fluxes and fired into doré bars.

After stripping of metals, the carbon is sized, washed in dilute hydrochloric acid, neutralized, regenerated in a kiln, and then recycled into the carbon column. Some additional carbon is added to account for carbon losses in the system.

The ADR model does not normally recover silver very well. Where silver recovery is of importance, a Merrill-Crowe finishing process may be preferred. While the silver recoveries used in the PEA are reasonable with respect to processing the ore, it may be worthwhile to investigate Merrill-Crowe processing of solutions in future studies. In either event, the Merrill-Crowe process has similar operating characteristics and costs.

17.2 Process Facilities

Leaching facilities include a single large leach pad, solution pregnant and barren ponds, an emergency drain-down pond, carbon columns and associated building, and an ADR plant. The design of these facilities has not been completed, and they are shown conceptually in Figure 18.1.

17.3 Process Hydrology

Process hydrology has not yet been completed. For the PEA it is assumed that sufficient water for processing will be obtained.

17.4 Reagents and Consumables

Reagent consumption is based on the InfoMine model for ROM heap leaching (Table 17.1).

Table 17.1 Model Reagent Consumption
(InfoMine Mine Cost Service, 2011)

	Reagent Consumption		Reagent Costs	
	Units	Units/Yr	Unit Cost	Cost Units
Sodium Cyanide	lbs	771.62	$ 1.250	$/lb
Lime	ton	19,290	$ 0.096	$/lb
Carbon	lbs	192.9	$ 2.750	$/lb
Caustic	lbs	115.7	$ 0.400	$/lb
Hydrochloric Acid (2%)	lbs	96.5	$ 0.267	$/gallon
Anti-Scale	lbs	23.1	$ 1.820	$/lb
Propane	gallons	84,883	$ 2.190	$/gallon
Borax	lbs	15.4	$ 1.480	$/lb
Sodium Carbonate	lbs	7.7	$ 0.540	$/lb
Silica Sand	lbs	7.7	$ 0.230	$/lb

In addition, the process plant is estimated to consume 11,835,000 kwh of electricity a year at a cost of 0.073 per kwh.

17.5 Process Production Schedule

The process production schedule has been developed from a detailed monthly mine production schedule, and then summarized into yearly periods. The detailed schedule was used to apply lag time for recoveries to model the time it takes to produce gold and silver after it is placed. The lagging delays any recovery from placed material during the month the material is placed. This allows time for material to be placed and prepped before spraying. The following months allow for 50%, 30%, 15%, and 5% recovery of the total recoverable ounces. This effectively provides a lagging of the recoveries over a period of five months or about 150 days.

During construction, 101,000 tons of leach material are placed on the pad. This is assumed to be material that has been crushed as part of construction, and then placed over liner material on the pad. In this case, the recovery is delayed until the start of the production year.

Table 17.2 shows the process production schedule. This shows approximately 46,000 ounces of gold and 264,000 ounces of silver per year of production for six years. Based on the gold and silver prices used, this equates to 51,000 ounces gold equivalent per year.

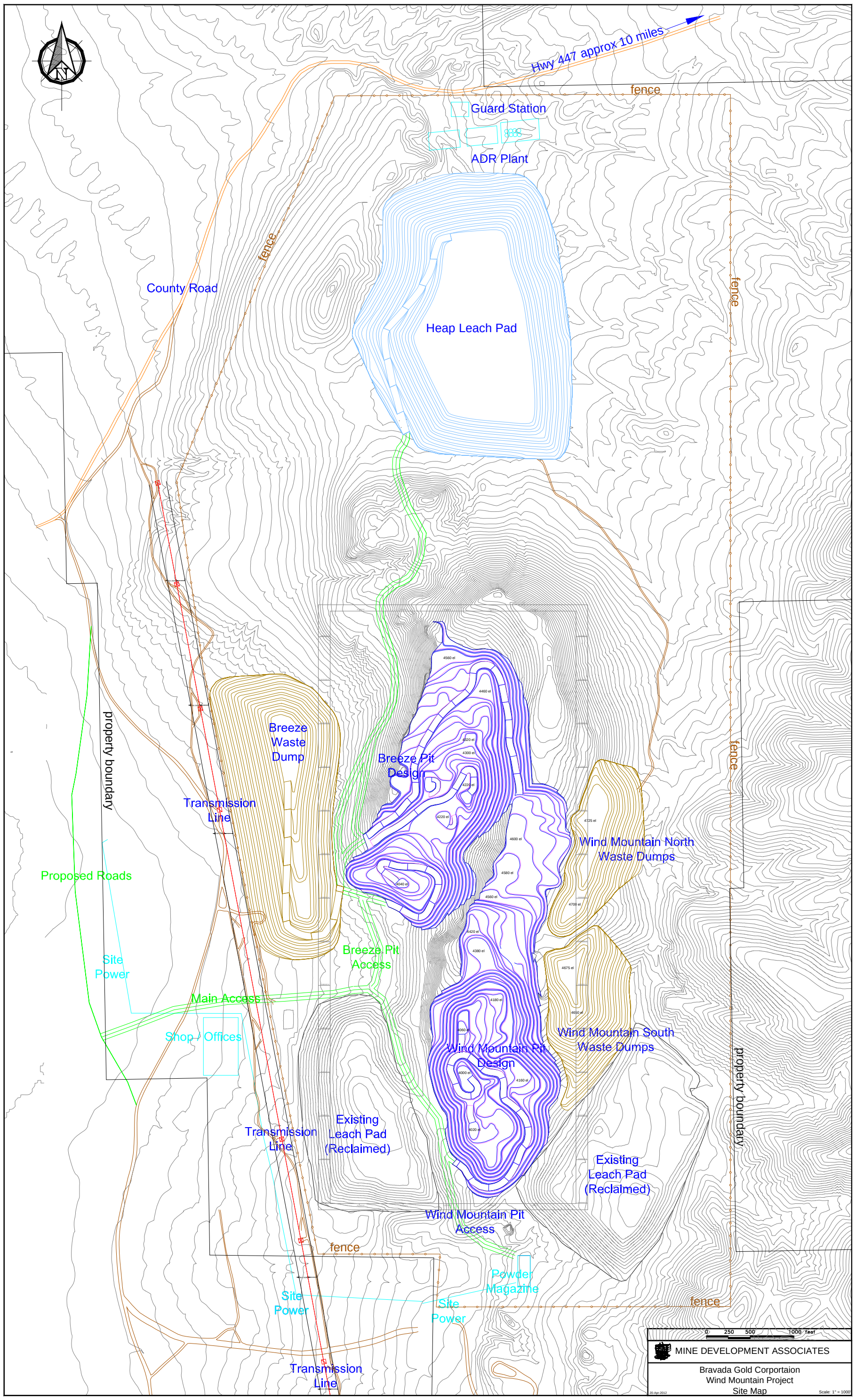
Table 17.2 Process Production Schedule

	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Total
Total	K Tons	101	7,141	7,300	7,320	7,131	7,300	7,300	679	-	44,272
	Ozs Au/T	0.007	0.012	0.011	0.011	0.010	0.010	0.010	0.010	-	0.011
	K Ozs Au	1	85	82	77	74	70	70	7	-	465
	K Ozs Au Recoverable	0	53	51	48	46	43	43	4	-	288
	K Ozs Au Recovered	-	49	47	50	46	44	42	11	-	288
	Cumulative Au Recovery	56.3%	56.8%	57.3%	59.5%	60.0%	60.6%	60.6%	62.1%	62.1%	
	Ozs Ag/T	0.13	0.23	0.25	0.21	0.25	0.27	0.30	0.36	-	0.253
	K Ozs Ag	13	1,609	1,847	1,566	1,769	1,991	2,156	247	-	11,198
	K Ozs Ag Recoverable	2	241	277	235	265	299	323	37	-	1,680
	K Ozs Ag Recovered	-	208	277	240	255	297	307	95	-	1,680
	Cumulative Ag Recovery	12.9%	13.0%	14.0%	14.4%	14.4%	14.5%	14.5%	15.0%	15.0%	

18.0 PROJECT INFRASTRUCTURE

Project infrastructure is shown conceptually on the site plan map in Figure 18.1.

Figure 18.1 Wind Mountain Project Site Map



18.1 Access Roads

Primary access to site is via state Hwy 477. This is followed by 10 miles of county road to reach the site as shown in Figure 18.1. Road distances to access the leach pad facility, pits, and other infrastructure from the county road are minimal.

18.2 Power

Power is readily available to the site. Upgrading of the power will be required to install a substation. The power distribution has not yet been designed.

18.3 Buildings

Buildings will be built to house the shop, mine operations offices, and administrative offices. It is anticipated that these will consist of portable office buildings which have been used for capital cost estimates. Conceptual locations are shown in Figure 18.1.

19.0 MARKET STUDIES AND CONTRACTS

No market studies have been undertaken for this project; however, the commercial products of this project will be gold and silver bullion. Gold and silver are readily sold to various refineries throughout the world, and it is reasonable to assume that bullion from the Wind Mountain mine is salable.

A selling price of $1,300/oz Au and $24.42/oz Ag has been used for the PEA. This is based on a three-year rolling average of metal prices as tabulated from public data as of the end of February. As of the end of March, the price continues to increase, and the 3-year rolling average was $1,320 and $24.98 per ounce of gold and silver, respectively. Table 19.1 shows the 2012 monthly average, high, and low prices as published by Kitco. Table 19.1 also shows the 3-year rolling average prices based on Kitco data.

Table 19.1 2012 Kitco Gold and Silver Prices

	Gold Price ($US/Oz)			Silver Price ($US/Oz)		
	Jan-12	**Feb-12**	**Mar-12**	**Jan-12**	**Feb-12**	**Mar-12**
Monthly Average	$ 1,656	$ 1,742	$ 1,652	$ 30.77	$ 34.14	$ 32.96
Monthly High	$ 1,744	$ 1,781	$ 1,677	$ 33.60	$ 37.23	$ 35.21
Monthly Low	$ 1,598	$ 1,711	$ 1,621	$ 28.78	$ 33.18	$ 31.54
3-Year Average	**$ 1,277**	**$ 1,299**	**$ 1,320**	**$ 23.85**	**$ 24.42**	**$ 24.98**

Other than land obligations previously explained, no other contracts have been negotiated with regards to the Wind Mountain property.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Debra Struhsacker, an environmental permitting and government relations consultant, provided the following information on environmental liabilities and permitting.

Bravada's U.S. subsidiary, Rio Fortuna, is conducting the exploration at Wind Mountain, and environmental permits are in Rio Fortuna's name. For that reason, "Rio Fortuna" is used throughout this section.

20.1 Environmental Study Results and Known Issues

The environmental studies performed to date have not identified any issues of significant concern that could materially impact Rio Fortuna's ability to secure the permits needed to develop the Wind Mountain deposit. The Wind Mountain mine site does not include habitat for the greater sage-grouse or any officially listed threatened or endangered species. The arid setting, barren landscape, and sparse vegetation limit the habitat values in the project area.

As currently planned, the project facilities will not impact the Native American quarry known as the Lake Range Quarries District that outcrops in the project area. The quarry district is eligible for the National Register of Historic Places. Any zones of debitage (the lithic debris created from the manufacturing of stone tools) in the vicinity of this quarry that are deemed to be a contributing element to the quarry district would need to be mitigated if project facilities are likely to impact these zones. Although there would be some costs associated with the required mitigation measures, the presence of such sites would not preclude project development.

20.2 Waste Rock Disposal, Monitoring, Water Management

The Wind Mountain mine and mineral processing facilities will be a conventional open-pit mine and heap leach processing facility. As currently planned, the project does not include a mill or a tailings disposal facility.

The waste rocks to be mined will be placed in new waste rock disposal facilities similar to the waste rock dumps that are already present at the site. Like the waste rocks that were mined for the previous operation, the dominantly oxide waste rock material to be mined during renewed mining activity above the water table is not anticipated to be a source of acid generation or metals leaching.

The water management facilities for the new mine facilities will be similar to those that were built to manage storm water for the previous Wind Mountain mine. These facilities will be designed to handle the maximum projected flow from infrequent, short-duration, high-intensity storms. Because the Wind Mountain gold-silver project is located in an area where evaporation exceeds precipitation, the project must be designed to contain all process solutions and to be a zero-discharge facility.

The state and federal permits to be issued for the Wind Mountain gold-silver project will require project monitoring to verify that the project facilities are operating as designed and comply with project permit limits. The heap leach facility will require monitoring of the leak detection systems to document the integrity of the liners for the pads, solution containment ponds, and ditches. Additionally, groundwater monitoring wells will be installed downgradient from the heap leach processing facilities to verify that groundwater is not impacted by these facilities. Depending on the design of the processing facility, there may be air quality monitoring requirements as well to confirm that project equipment like crushers, baghouses, conveyors, etc. are complying with project emission limits for each specific piece of equipment.

The post-closure monitoring requirements will be similar to the monitoring required for the previous Wind Mountain mine. These requirements will include routine sampling of the groundwater monitoring wells downgradient from the project facilities. Rio Fortuna will also be required to monitor the performance of the closed heap leach facility. The post-closure monitoring required for the heap will include the volume and quality of the heap draindown solutions. If the closure design includes an engineered cap or cover on the heap, monitoring will also be required to confirm the integrity of any such cover or cap. Post-closure monitoring will also determine the progress and success of plant growth on revegetated areas within the reclaimed mine site.

20.3 Project Permitting and Bonding Requirements

The federal, state and local permitting requirements anticipated to be necessary for the Wind Mountain project are shown in Table 20.1. Rio Fortuna has not yet submitted any permit applications for renewed mining activity at Wind Mountain. However, Rio Fortuna has had preliminary discussions with BLM. It is anticipated that permitting the currently envisioned project to mine the oxide ore above the water table will be relatively straightforward. (Generally speaking, projects that do not create pit lakes or have waste rock materials that have the potential to generate acid or leach metals are much easier to permit because they do not require extensive waste characterization tests or groundwater modeling studies.)

Both BLM and NDEP/BMRR will require a bond for the Wind Mountain gold-silver project. One bond can be used to satisfy both agencies' reclamation bonding requirements. The amount of the bond will be based on a site-specific calculation to determine third-party costs to reclaim the site. The NDEP/BMRR's bonding requirements also include a water management component to maintain the pumps in the event an operator abandons a site. It is premature at this point to determine the bond amount for the project. Based on bond requirements for other similar sites it will probably be on the order of $5 to $10 million.

Table 20.1 Required Permits, Licenses, and Approvals

Permits, Licenses, and Approvals that are Likely to be Required for New Mining and Heap Leach Processing Facilities at the Wind Mountain Project		
Permit/Approval	**Granting Agency**	**Permit Purpose**
Federal Permits		
Plan of Operations	U.S. Bureau of Land Management	Authorize use of public lands for mining purposes under the General Mining Law and 43 CFR 3809 regulations and to impose mitigation measures to prevent undue & unnecessary degradation. BLM will prepare

Permits, Licenses, and Approvals that are Likely to be Required for New Mining and Heap Leach Processing Facilities at the Wind Mountain Project		
Permit/Approval	**Granting Agency**	**Permit Purpose**
		either an Environmental Assessment or an Environmental Impact Statement to evaluate the Plan. Coordinated with NDEP Reclamation Permit.
Explosives Permit	U.S. Bureau of Alcohol, Tobacco & Firearms	Storage and use of explosives
EPA Hazardous Waste ID No.	U.S. Environmental Protection Agency	Registration as a small-quantity generator of wastes regulated as hazardous
Notification of Commencement of Operations	Mine Safety & Health Administration	Mine safety issues, training plan, mine registration
Nationwide Section 404 Permit	U.S. Army Corps of Engineers	Could be necessary if project facilities affect water of the U.S.
Endangered Species Act Consultation & Biological Assessment	U.S. Fish & Wildlife Service	Required if project affects species listed as threatened or endangered
Federal Communications Commission	FCC	Frequency registrations if project includes radio and/or microwave communication facilities
State Permits		
Nevada Mercury Control Program Permit	NV Division of Environmental Protection/Bureau of Air Quality Planning. (May need to be issued by Washoe County if the facility is located in Washoe County.)	Regulates mercury emissions from thermal units like retorts, furnaces, electrowinning circuits. Would be required if project emissions exceed the *de minimis* level of 5 pounds of mercury/year
Reclamation Permit	NV Division of Environmental Protection/Bureau of Mining Regulation & Reclamation	Reclamation of surface disturbance due to mining and mineral processing. Includes financial assurance requirements. Coordinated with BLM Plan of Operations
Water Pollution Control Permit	NV Division of Environmental Protection/Bureau of Mining Regulation & Reclamation	Establishes minimum facility design and containment requirements to prevent degradation of waters of the state from mining.
Petroleum-Contaminated Soil Management Plan	NV Division of Environmental Protection/Bureau of Mining Regulation & Reclamation	On-site treatment and management of hydrocarbon-contaminated soils
Solid Waste Class III Landfill Waiver	NV Division of Environmental Protection/Bureau of Solid Waste	On-site disposal of non-mining, non-hazardous solid wastes
General Stormwater Discharge Permit	NV Division of Environmental Protection/Bureau of Water Pollution Control	Management of site stormwater
Permit to Appropriate Water	NV Division of Water Resources	Water appropriation
Permit to Construct Impoundments	NV Division of Water Resources	Design and construction of embankments or other structures

Permits, Licenses, and Approvals that are Likely to be Required for New Mining and Heap Leach Processing Facilities at the Wind Mountain Project		
Permit/Approval	**Granting Agency**	**Permit Purpose**
		with a crest height 20 feet or higher, as measured from the downstream toe to the crest, or that impound 20 acre-feet or more
Industrial Artificial Pond Permit	NV Department of Wildlife	Ponds containing chemicals directly associated with the processing of ore.
Liquefied Petroleum Gas License	NV Board of the Regulation of Liquefied Petroleum Gas	Tank specification and installation, handling, and safety requirements
Potable Water System Permit	NV Bureau of Safe Drinking Water	Water system for drinking water and other domestic uses (e.g., lavatories)
Radioactive Materials License	NV Bureau of Safe Drinking Water	Nuclear flow and mass measurement devices if used in the lab/mineral processing facility.
Septic Treatment Permit Sewage Disposal System	NV Division of Environmental Protection/Bureau of Water Pollution Control	Design, operation, and monitoring of septic and sewage disposal systems. (Washoe County may also regulated septic systems.)
Hazardous Materials Storage Permit	Nevada Fire Marshall	Hazardous materials safety
Local Permits		
Air Quality Operating Permit	Washoe County Health District Air Quality Management Division	Air quality monitoring, air pollution control and compliance with federal, state, and local environmental laws governing air quality
Building or Zoning Permits	Washoe County Department of Building and Safety	Compliance with national and local building codes
Special Use Permit	Washoe County Department of Planning and Board of County Commissioners	Compliance with land use designations and other county requirements, compatibility with the Washoe County Regional Open Space Program.
County Road Use and Maintenance Permit	Washoe County Public Works Department/Roads Division	Maybe required for use and maintenance of county roads

20.4 Social and Community Issues

No difficult social or community issues are anticipated to be associated with development of the Wind Mountain gold-silver project. Rio Fortuna met with the Gerlach Community Advisory Board in July

2011 to introduce the company to the community and to discuss some very preliminary plans for the Wind Mountain project. The company's presentation was well received by the community which is in dire need of new jobs following the closure in early 2011 of a nearby gypsum mine and wallboard manufacturing facility. Rio Fortuna will continue to work with area residents throughout the permitting process for the mine in order to look for potential synergies with the local community.

20.5 Mine Closure

The closure requirements for the Wind Mountain mine are anticipated to be similar to the successfully closed mine at the Wind Mountain site. The former Wind Mountain mine is one of the few mines in Nevada that has satisfied all state and federal closure requirements, where BLM and NDEP have closed their permit files, and the reclamation bond has been released to the operator. This successful closure strongly suggests there will be no unusual or problematic closure issues associated with a similar, new, above-the-water-table mine at Wind Mountain. As stated above, it is premature to know the closure costs for a new mine. However, it is reasonable to assume based on similar projects that the reclamation bond required for the new project will be on the order of $5 to $10 million.

21.0 CAPITAL AND OPERATING COSTS

Process capital and operating costs have been estimated by MDA based on InfoMine estimation guides that were last updated at the end of 2011. Mining is assumed to be done by contractor at rates reflecting recent contractor rates in similar Nevada mining projects. Additional mining capital has been assumed based on the size of the proposed operation. General and administration costs have been estimated by MDA based on assumed personnel requirements and typical requirements for Nevada mining operations.

Table 21.1 shows the estimate for capital and operating costs.

Table 21.1 Capital and Operating Cost Summary

Production		Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Total
Mining Cost	K USD		$ 28,161	$ 25,249	$ 19,447	$ 26,024	$ 21,450	$ 19,084	$ 1,468	$ -	$ 140,881
Process Cost	K USD		$ 14,497	$ 14,819	$ 14,860	$ 14,476	$ 14,819	$ 14,819	$ 1,378	$ -	$ 89,668
Ore Transportation	K USD		$ 2,500	$ 2,555	$ 2,562	$ 2,496	$ 2,555	$ 2,555	$ 238	$ -	$ 15,460
G&A Cost	K USD		$ 2,670	$ 2,670	$ 2,670	$ 2,669	$ 2,670	$ 2,670	$ 455	$ -	$ 16,473
Reclamation	K USD		$ -	$ -	$ -	$ -	$ -	$ -	$ 5,534	$ 5,534	$ 11,068
Net Proceeds Tax	K USD		$ 955	$ 1,080	$ 1,473	$ 941	$ 1,078	$ 1,116	$ 633	$ -	$ 7,276
Net Operating Cost	K USD	$ -	$ 48,783	$ 46,373	$ 41,011	$ 46,606	$ 42,572	$ 40,243	$ 9,706	$ 5,534	$ 280,826
Capital Costs											
Mine Pre-Stripping	K USD	$ 4,754	-	-	-	-	-	-	-	-	$ 4,754
Mining Capital	K USD	$ 1,231	$ -	$ -	$ -	$ 201	$ -	$ -	$ -	$ 200	$ 1,632
Process Capital	K USD	$ 25,488	$ 2,521	$ 7,563	$ 3,781	$ 2,298	$ 2,263	$ 210	$ -	$ -	$ 44,124
Mainenance	K USD	$ 417	$ -	$ -	$ -	$ 67	$ -	$ -	$ -	$ -	$ 484
Other Capital	K USD	$ 1,889	$ -	$ -	$ -	$ 329	$ -	$ -	$ -	$ -	$ 2,218
Sub-Total	K USD	$ 33,779	$ 2,521	$ 7,563	$ 3,781	$ 2,895	$ 2,263	$ 210	$ -	$ 200	$ 53,213
Working Capital	K USD	$ 4,878	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (4,878)	$ -
Contingency	K USD	$ 6,756	$ 504	$ 1,513	$ 756	$ 579	$ 453	$ 42	$ -	$ 40	$ 10,643
Salvage	K USD	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital	K USD	$ 45,413	$ 3,025	$ 9,076	$ 4,537	$ 3,474	$ 2,716	$ 253	$ -	$ (4,638)	$ 63,855
Total Cost	K USD	$ 45,413	$ 51,808	$ 55,448	$ 45,548	$ 50,080	$ 45,287	$ 40,495	$ 9,706	$ 896	$ 344,681

21.1 Mine Capital

Mine pre-stripping capital is estimated to be $4.4 million based on the year -1 operating cost.

Other mining capital was estimated assuming contract mining; thus there would be no major mining equipment capital cost. The mine capital requirement is estimated to be $1.4 million dollars and includes:

- Initial Mine Capital estimate is $1.2 million including:
  - $201,000 for light vehicles;
  - $480,000 for office equipment and software;
  - $300,000 for contractor mobilization; and
  - $250,000 for portable buildings.

- Sustaining Mine Capital of $201,000 in year four for light vehicles and $200,000 for contractor demobilization in year eight.

21.2 Process Capital

Process capital was estimated using InfoMine leaching models. Initial capital of $25.2 million is assumed for plant, pad, and pond construction. In addition, another $35,000 was added for light vehicles, and $250,000 was added for a portable office building.

Sustaining capital is added for pad expansions as needed. This capital is based on InfoMine costs through year three, and then includes an additional $0.31 per ton in sustaining capital for material placed years five through seven starting in year four (sustaining capital estimated by tonnage is applied one year prior to the placement of the material). In addition, process sustaining capital includes $35,000 in year four for light vehicle replacement.

21.3 Other Capital

Other capital includes:

- $484,000 for maintenance light vehicles, tooling, and buildings;
- $1,218,000 for General and Administration capital including light vehicles, office equipment, buildings, and an ambulance;
- $1,000,000 to buy down the Agnico-Eagle royalty from 2% to 1% net smelter return;
- $4.9 million for working capital, which is credited back at the end of the mine life; and
- $6.8 million in contingency calculated as 20% of capital costs.

21.4 Mine Operating Cost

The mine operating costs assume contract mining and have been estimated using a flat rate of $1.90 per ton mined plus an additional cost of $0.35 per ton processed.

21.5 Process Operating Costs

Process cost is assumed to be $2.03 per ton processed.

21.6 Other Operating Costs

G&A costs were built up based on personnel salaries, supplies, light vehicle costs, and outside services costs. The costs were estimated by department including administrative services, safety services, security services, human resources, and environmental. In addition, additional costs were included to cover legal services, land/claim maintenance, and property taxes.

A reclamation cost charged over a two-year period starting the last year of mining is estimated to be $0.25 per ton processed.

Net proceeds tax is charged at a rate of 5% of the revenue after royalties and deduction of operating costs. This tax is collected by the State of Nevada for all mineral mining operations that have a net operating income over $4.0 million per year.

22.0 ECONOMIC ANALYSIS

22.1 Economic Parameters and Assumptions

The mine and process production schedules were used along with the economic parameters to estimate the project cash-flow. The base case cash-flow assumes $1,300/oz Au and $24.42/oz Ag for revenue. The Agnico-Eagle royalty is assumed to be bought down to 1% NSR; however, the Fuller royalty is paid at the rate of 3% NSR due to the smaller amount of gold and silver ounces produced from the royalty area.

Nevada proceeds tax has been included into the operating costs. Deductions for exploration and acquisition costs are made on a straight-line 5-year basis. Capital expenditures are also depreciated on a 5-year basis. Corporate taxes are calculated assuming a 34% rate.

22.2 PEA Cash-Flow

The PEA cash-flow analysis was completed including Inferred resources. Note that Canadian NI 43-101 guidelines define a PEA as follows:

> ***A preliminary economic assessment is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.***

Table 22.1 shows the estimated cash-flow for the Wind Mountain gold and silver project. This estimate shows a 29% pre-tax internal rate of return and a $42.9 million pre-tax NPV (5%) over a 6.24 year mine life. The life-of-mine cash cost is estimated to be $878 per oz Au equivalent produced (excluding royalties, capital, and taxes). The life-of-mine total cost is estimated to be $1,078 per oz Au equivalent produced (excluding royalties or taxes).

Table 22.1 2012 PEA Cash-Flow Estimate

Production		Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total
Material Processed	K Tons	101	7,141	7,300	7,320	7,131	7,300	7,300	679	-	-	-	44,272
	Oz Au/t	0.007	0.012	0.011	0.011	0.010	0.010	0.010	0.010	-	-	-	0.011
	K Ozs Au	1	85	82	77	74	70	70	7	-	-	-	465
	Cum. Au Rec.	0.0%	56.3%	57.1%	59.3%	59.9%	60.5%	60.5%	62.0%	62.0%	62.0%	62.0%	
	K Ozs Au Rec.	-	49	47	50	46	44	42	11	-	-	-	288
	Oz Ag/t	0.13	0.23	0.25	0.21	0.25	0.27	0.30	0.36	-	-	-	0.25
	K Ozs Ag	13	1,609	1,847	1,566	1,769	1,991	2,156	247	-	-	-	11,198
	Cum. Ag Rec.	12.9%	13.0%	14.0%	14.4%	14.4%	14.5%	14.5%	15.0%	15.0%	15.0%	15.0%	
	K Ozs Ag Rec.	-	208	277	240	255	297	307	95	-	-	-	1,680
	K Ozs AuEq Rec.	-	52	52	54	51	49	48	13	-	-	-	320
Rock Waste	K Tons	963	7,454	5,499	2,915	4,930	3,502	2,744	94	-	-	-	28,101
Fill Waste	K Tons	712	226	489	-	1,636	487	-	-	-	-	-	3,550
Waste to Dump	K Tons	1,675	7,680	5,989	2,915	6,566	3,989	2,744	94	-	-	-	31,651
Total Mined	K Tons	1,775	14,822	13,289	10,235	13,697	11,289	10,044	772	-	-	-	75,923
Strip Ratio	W:O	16.65	1.08	0.82	0.40	0.92	0.55	0.38	0.14				0.71
Revenues													
Gold Revenue	K USD	$ -	$ 63,089	$ 61,427	$ 64,403	$ 59,412	$ 57,017	$ 55,147	$ 14,228	$ -	$ -	$ -	$ 374,723
Gold Refining Costs	K USD	$ -	$ (146)	$ (142)	$ (149)	$ (137)	$ (132)	$ (127)	$ (33)	$ -	$ -	$ -	$ (865)
Silver Revenue	K USD	$ -	$ 5,091	$ 6,761	$ 5,849	$ 6,239	$ 7,258	$ 7,500	$ 2,319	$ -	$ -	$ -	$ 41,017
Silver Refining Costs	K USD	$ -	$ (313)	$ (415)	$ (359)	$ (383)	$ (446)	$ (461)	$ (142)	$ -	$ -	$ -	$ (2,519)
Net Revenue	K USD	$ -	$ 67,722	$ 67,631	$ 69,744	$ 65,131	$ 63,697	$ 62,059	$ 16,372	$ -	$ -	$ -	$ 412,355
Agnico Royalty	K USD	$ -	$ (677)	$ (676)	$ (697)	$ (651)	$ (637)	$ (621)	$ (164)	$ -	$ -	$ -	$ (4,124)
Fuller Royalty	K USD	$ -	$ (117)	$ (60)	$ (46)	$ (0)	$ -	$ -	$ -	$ -	$ -	$ -	$ (223)
Revenue After Royalties	K USD	$ -	$ 66,928	$ 66,895	$ 69,001	$ 64,479	$ 63,060	$ 61,438	$ 16,208	$ -	$ -	$ -	$ 408,009
Operating Costs													
Mining Cost	K USD		$ 28,161	$ 25,249	$ 19,447	$ 26,024	$ 21,450	$ 19,084	$ 1,468	$ -	$ -	$ -	$ 140,881
Process Cost	K USD		$ 14,497	$ 14,819	$ 14,860	$ 14,476	$ 14,819	$ 14,819	$ 1,378	$ -	$ -	$ -	$ 89,668
Ore Transportation	K USD		$ 2,500	$ 2,555	$ 2,562	$ 2,496	$ 2,555	$ 2,555	$ 238	$ -	$ -	$ -	$ 15,460
G&A Cost	K USD		$ 2,670	$ 2,670	$ 2,670	$ 2,669	$ 2,670	$ 2,670	$ 455	$ -	$ -	$ -	$ 16,473
Reclamation	K USD		$ -	$ -	$ -	$ -	$ -	$ -	$ 5,534	$ 5,534	$ -	$ -	$ 11,068
Net Proceeds Tax	K USD		$ 955	$ 1,080	$ 1,473	$ 941	$ 1,078	$ 1,116	$ 633	$ -	$ -	$ -	$ 7,276
Net Operating Cost	K USD	$ -	$ 48,783	$ 46,373	$ 41,011	$ 46,606	$ 42,572	$ 40,243	$ 9,706	$ 5,534	$ -	$ -	$ 280,826
Capital Costs													
Mine Pre-Stripping	K USD	$ 4,754	-	-	-	-	-	-	-	-	-	-	$ 4,754
Mining Capital	K USD	$ 1,231	$ -	$ -	$ -	$ 201	$ -	$ -	$ -	$ 200	$ -	$ -	$ 1,632
Process Capital	K USD	$ 25,488	$ 2,521	$ 7,563	$ 3,781	$ 2,298	$ 2,263	$ 210	$ -	$ -	$ -	$ -	$ 44,124
Mainenance	K USD	$ 417	$ -	$ -	$ -	$ 67	$ -	$ -	$ -	$ -	$ -	$ -	$ 484
Other Capital	K USD	$ 1,889	$ -	$ -	$ -	$ 329	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,218
Sub-Total	K USD	$ 33,779	$ 2,521	$ 7,563	$ 3,781	$ 2,895	$ 2,263	$ 210	$ -	$ 200	$ -	$ -	$ 53,213
Working Capital	K USD	$ 4,878	-	-	-	-	-	-	-	(4,878)	-	-	$ -
Contingency	K USD	$ 6,756	$ 504	$ 1,513	$ 756	$ 579	$ 453	$ 42	$ -	$ 40	$ -	$ -	$ 10,643
Salvage	K USD	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital	K USD	$ 45,413	$ 3,025	$ 9,076	$ 4,537	$ 3,474	$ 2,716	$ 253	$ -	$ (4,638)	$ -	$ -	$ 63,855
Total Cost	K USD	$ 45,413	$ 51,808	$ 55,448	$ 45,548	$ 50,080	$ 45,287	$ 40,495	$ 9,706	$ 896	$ -	$ -	$ 344,681
Operating Cash Flow	K USD	$ -	$ 18,145	$ 20,522	$ 27,990	$ 17,874	$ 20,489	$ 21,195	$ 6,502	$ (5,534)	$ -	$ -	$ 127,183
Net Cash Flow (Before Tax)	K USD	$ (45,413)	$ 15,120	$ 11,446	$ 23,453	$ 14,400	$ 17,773	$ 20,943	$ 6,502	$ (896)	$ -	$ -	$ 63,328
Cash Cost	$/Oz AuEq	-	926	866	735	909	833	800	706	-	-	-	859
Total Cost	$/Oz AuEq	-	988	1,058	827	985	895	806	706	-	-	-	1,080
Exploration & Acquisition Amortisation	K USD	-	1,560	1,560	1,560	1,560	1,560	-	-	-	-	-	7,800
Capital Allowance (20% declining balance)	K USD	-	7,260	7,321	6,613	5,869	5,148	4,160	3,328	-	-	-	39,699
Taxable Income	K USD	-	6,300	2,566	15,280	6,970	11,065	16,783	3,173	-	-	-	62,137
Corporate Tax (34%)	K USD	-	2,142	872	5,195	2,370	3,762	5,706	1,079	-	-	-	21,127
Net After Tax Cash Flow	K USD	(45,413)	12,978	10,574	18,258	12,030	14,011	15,237	5,423	(896)	-	-	42,201

		Pre-Tax	After Tax
Undiscounted Cash Flow	K USD	$ 63,328	$ 42,201
NPV @ 5%	K USD	$ 42,898	$ 26,478
NPV @ 10%	K USD	$ 28,203	$ 15,203
Internal Rate of Return	%	29%	21%

22.3 Cash-Flow Sensitivity

Pre-tax cash-flow ("CF") sensitivity to revenue, operating cost, and capital cost was evaluated from +/- 30% of the values in 10% increments. Table 22.2 shows the CF sensitivity results in tabular form, and Figure 22.1 shows the sensitivities in graphical form.

Of note, the 130% revenue case would be equivalent to using a $1,690/oz Au price, which is not far from what current prices are at the time of this report. The breakeven cost where the net cash-flow before tax equals $0.00 occurs at about $1,090/oz Au.

Table 22.2 Pre-Tax Cash-Flow Sensitivity

Revenue

	Undisc. CF	NPV @ 5%	NPV @ 10%	IRR
70%	$ (53,030)	$ (50,466)	$ (48,022)	NA
80%	$ (14,194)	$ (19,301)	$ (22,574)	-8%
90%	$ 24,567	$ 11,799	$ 2,814	12%
100%	$ 63,328	$ 42,898	$ 28,203	29%
110%	$ 102,088	$ 73,997	$ 53,592	44%
120%	$ 140,849	$ 105,097	$ 78,981	59%
130%	$ 179,610	$ 136,196	$ 104,369	74%

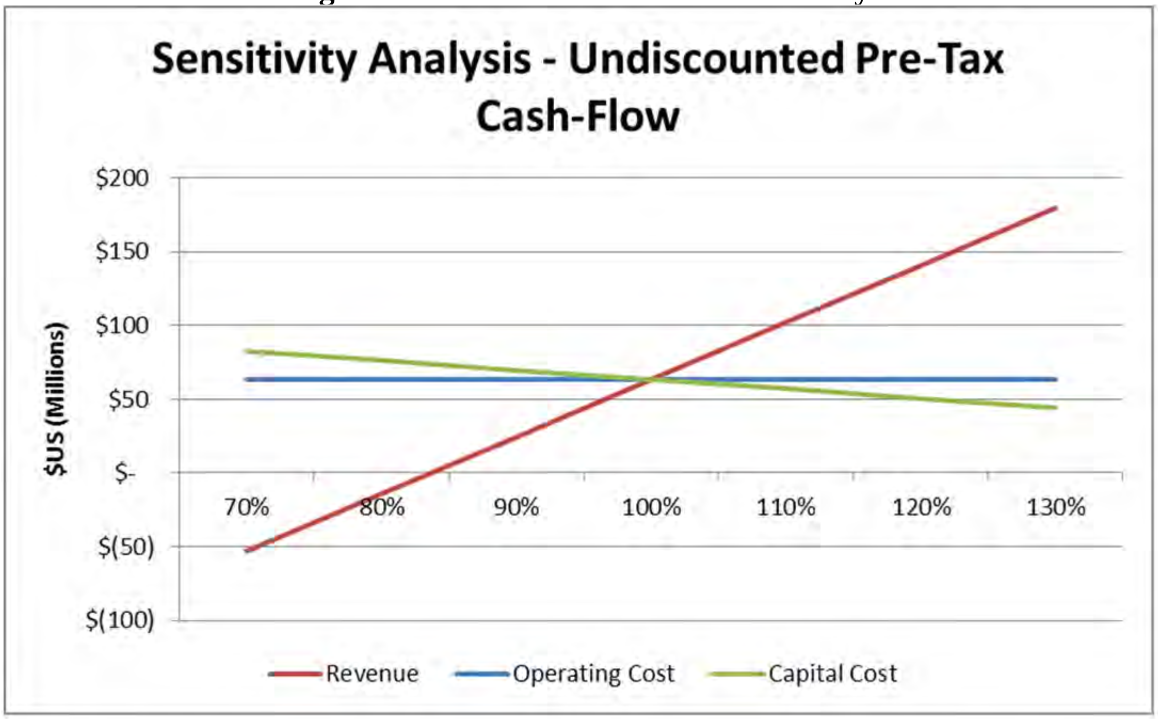
Operating Cost

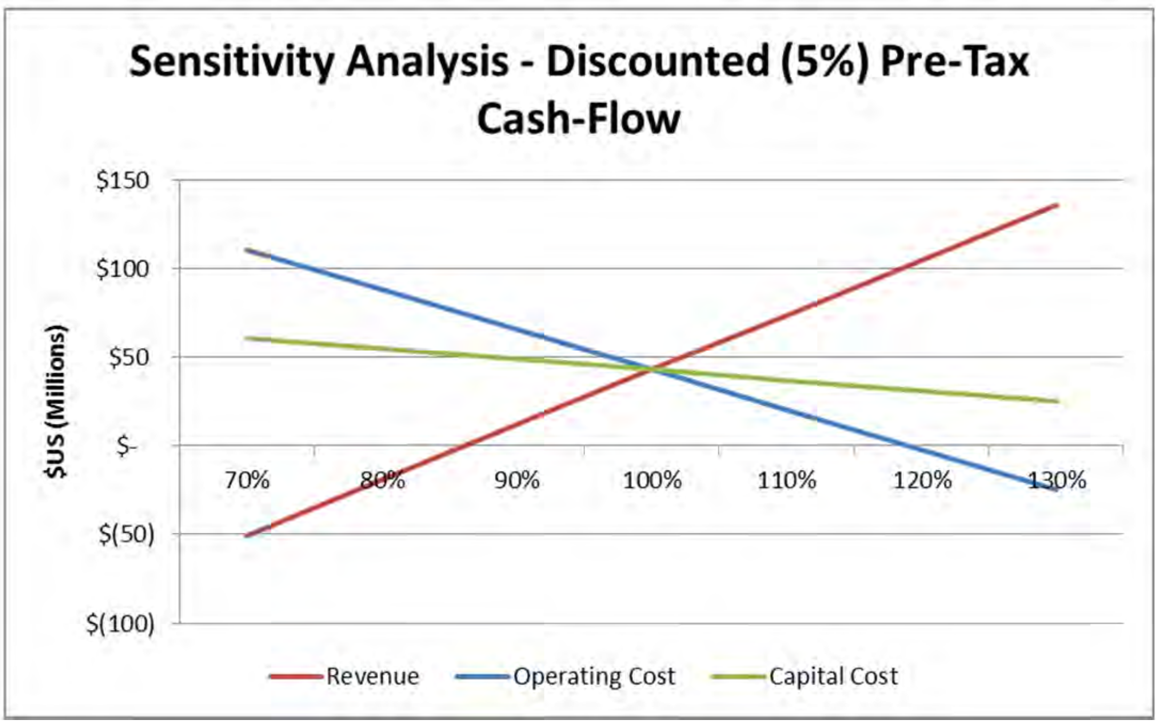
	Undisc. CF	NPV @ 5%	NPV @ 10%	IRR
70%	$ 63,328	$ 110,868	$ 84,012	64%
80%	$ 63,328	$ 88,212	$ 65,409	53%
90%	$ 63,328	$ 65,555	$ 46,806	41%
100%	$ 63,328	$ 42,898	$ 28,203	29%
110%	$ 63,328	$ 20,241	$ 9,600	17%
120%	$ 63,328	$ (2,415)	$ (9,002)	4%
130%	$ 63,328	$ (25,072)	$ (27,605)	-11%

Capital Cost

	Undisc. CF	NPV @ 5%	NPV @ 10%	IRR
70%	$ 82,484	$ 60,750	$ 44,870	50%
80%	$ 76,099	$ 54,799	$ 39,314	42%
90%	$ 69,713	$ 48,849	$ 33,759	35%
100%	$ 63,328	$ 42,898	$ 28,203	29%
110%	$ 56,942	$ 36,948	$ 22,648	24%
120%	$ 50,556	$ 30,997	$ 17,092	20%
130%	$ 44,171	$ 25,046	$ 11,537	16%

Figure 22.1 Pre-Tax Cash-Flow Sensitivity





23.0 ADJACENT PROPERTIES

There are no other known significant occurrences of gold in the immediate vicinity of Wind Mountain.

Nevada hosts many significant precious metal mines in multiple geologic environments. Volcanic-hosted systems in northern Nevada with more than a million ounces of production include Sleeper, Midas, and the Comstock, which are all located more than 100 miles from the Wind Mountain property. Several other districts with smaller amounts of gold production occur within about 100 miles of the Wind Mountain property.

24.0 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant information known to the authors that is not included in this report.

25.0 INTERPRETATION AND CONCLUSIONS

The Wind Mountain property is a volcanic-hosted, epithermal gold system that is a property of merit and warrants additional exploration as well as further economic studies. Surface sampling by Fortune River confirms the existence of strongly anomalous gold over large areas. Recent drilling by Fortune River and Bravada intersected gold and silver mineralization that is consistent with mineralization previously mined by Amax but also discovered a deep unoxidized to partially oxidized deposit that remains open ended and will likely increase in size.

Additional deeper drilling is warranted to determine the extent of unoxidized mineralization and to explore for higher-grade mineralization. The funnel-like shape of the Deep Min deposit suggests it was a zone up up-welling hydrothermal fluids, and other zones of upwelling may exist. Denser lava flows within the underlying Pyramid Formation may have constrained fluids in these zones of upwelling to form high-grade vein deposits and the unconformity between the Pyramid Formation and metamorphosed Mesozoic rocks may be particularly well mineralized.

The project location and infrastructure are favorable for mine development, including: good access, favorable topography, a sparsely populated region, nearby availability of power and water, and previous disturbance of the site by mining. Should the project advance through feasibility with positive results, improvements to necessary infrastructure (power, water, access, housing, etc.) should be reasonably inexpensive. Issues of archeological resources and high geothermal temperatures at depth will need to be monitored as the program progresses, but none of these appears to constitute a significant impediment. There are no known environmental, social, or logistical impediments to developing a mine at Wind Mountain.

The PEA demonstrates that the Wind Mountain gold-silver project may be developed as an economic mine; however, the low-grade nature of the remaining resources makes the mitigation of the project's risks crucial.

26.0 RECOMMENDATIONS

- Changes in metallurgical recoveries occur within and around the PEA pits, so additional work testing for spatial changes and defining the magnitude of those changes to metallurgical recoveries should be done. The testwork is minimal consisting of CN shaker tests but may require additional drilling. The first step is to do the testwork on those Fortune River and Bravada pulps that exist ($10,000). Based on the results of that work, additional drilling may be required for pre-feasibility level work to obtain metallurgical samples within limits of the PEA pits.

- Although preliminary indications are that much of the resource is oxidized, preparation of a metallurgical model is recommended. MDA estimates the cost of this work will be $10,000, but will require the previous bullet item of spatial variability testwork to be completed.

- Additional metallurgical studies should be conducted to determine recoveries of gold and silver similar to the remaining resources. MDA estimates the cost for these studies to be approximately $72,000 USD.

- Prior to developing new mining and heap leaching facilities at Wind Mountain, additional baseline data may be required in the proposed heap leach facility area. Collection of the baseline data will require addition of two or more monitor wells at an estimated cost of $50,000 for two wells.

- Additional reconciliation work should be conducted to better understand the bias between the resource model and blast-hole silver grades. This should be done to increase the confidence in silver grade estimates. MDA estimates these costs to be approximately $20,000.

- A geotechnical study will need to be completed for pre-feasibility study. The goal of this study should be to provide pit slope recommendations to a pre-feasibility level and suggest any additional geotechnical study or data gathering that would need to be completed prior to putting the property into production. MDA estimates the cost of this study to be approximately $40,000.

- A hydrology study will be required to identify water sources for the project prior to putting the property into production. MDA estimates the cost of this study to be approximately $30,000.

- As the PEA economics shows a positive return on investment, the project should be elevated to a pre-feasibility-level study. The pre-feasibility study should incorporate many of the recommendations listed above. In addition, a trade-off study between crushing and ROM leaching should be revisited with updated costs and recoveries. MDA estimates the cost of a pre-feasibility study, but excluding testwork and drilling necessary to elevate the project's data to pre-feasibility level, to be approximately $200,000.

- If the testwork suggests that the dumps and leach pads are potentially economic from an extraction standpoint, drilling the dumps, and if warranted, the heaps, should elevate some of that material to resource class. MDA estimates drilling, sampling, and modeling of the dumps to cost approximately $100,000.

- There is good exploration potential to find additional deposits of oxidized gold mineralization beneath relatively shallow post-mineralization gravel and lake sediments at the North Hill and Zephyr targets (Figure 4.2). Approximately 2000ft of drilling in four holes is recommended at each of these targets for a total cost of $196,000 for both targets. Additional drilling would be contingent upon the success of this initial program. Additional geological studies to help in targeting deeper and potentially higher-grade mineralization is recommended as is exploration drilling for shallower oxide deposits. Bravada may access some of the geothermal holes planned to be drilled nearby by the geothermal company, and in so doing could gain insight for additional exploration.

Table 26.1 shows the estimated budget for the recommendations.

Table 26.1 Cost Estimate for Recommendations

Item	Estimated Cost
Pulp sample CN Shaker tests	$ 10,000
Metallurgical modeling	$ 10,000
Metallurgical studies	$ 72,000
Baseline data documentation	$ 50,000
Silver reconciliation work	$ 20,000
Geotechnical Studies	$ 40,000
Hydrological study	$ 30,000
Pre-Feasibility study	$ 200,000
Drilling of dumps	$ 100,000
Exploration drilling	$ 196,000
Total	$ 728,000

27.0 REFERENCES

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28.0 DATE AND SIGNATURE PAGE

Effective Date of report: May 2, 2012

The data on which the Preliminary Economic Assessment is based were current as of the Effective Date.

Completion Date of report: May 11, 2012

"Steven Ristorcelli" Date Signed: May 11, 2012

Steven Ristorcelli, C.P.G.

"Thomas L. Dyer" Date Signed: May 11, 2012

Thomas L. Dyer, P.E.

29.0 CERTIFICATE OF AUTHORS

STEVEN RISTORCELLI, C. P. G.

I, Steven Ristorcelli, C. P. G., do hereby certify that:

1. I am currently employed as Principal Geologist by:
Mine Development Associates, Inc., 210 South Rock Blvd., Reno, Nevada 89502.

2. 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.

3. 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.

4. I have worked as a geologist continuously for 35 years since graduation from undergraduate university.

5. 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.

6. I am one of the authors of the report entitled "Updated Technical Report and Preliminary Economic Assessment, Wind Mountain Gold Project, Washoe County, Nevada" prepared for Bravada Gold Corp. and dated May 11, 2012. I take co-responsibility for Sections 1.0 through 6.0 and 23.0 through 29.0. I take full responsibility for Sections 7.0 through 12.0 and 14.0. My reliance on other experts identified in 3.0.

7. I have had no prior involvement with the Wind Mountain gold project. I visited the property on March 18, 2012.

8. To the best of my knowledge, information, and belief, this technical report contains all the scientific and technical information that is required to be disclosed to make this technical report not misleading.

9. I am independent of Bravada Gold Corp. and all their subsidiaries as defined in Section 1.5 of NI 43-101 and in Section 1.5 of the Companion Policy to NI 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

12. 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 file after it leaves my control.

Dated this 11th day of May, 2012

"Steven Ristorcelli"

Signature of Qualified Person
Steven Ristorcelli

THOMAS L. DYER, P.E.

I, Thomas L. Dyer, P. E., do hereby certify that I am currently employed as Senior Engineer by Mine Development Associates, Inc., 210 South Rock Blvd., Reno, Nevada 89502 and:

1. I graduated with a Bachelor of Science degree in Mine Engineering from South Dakota School of Mines & Technology in 1996. I have worked as a mining engineer for a total of 16 years since my graduation.

2. I am a Registered Professional Engineer in the state of Nevada (#15729) and a SME founding registered member in good standing (#4029995).

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.

4. I am one of the authors of this report titled "*Updated Technical Report and Preliminary Economic Assessment, Wind Mountain Gold Project, Washoe County, Nevada,*" prepared for Bravada Gold Corp. and dated May 11, 2012 (the "Technical Report"). I take co-responsibility for Sections 1.0 through 6.0 and 23.0 through 29.0. I take full responsibility for Sections 13.0, and 15.0 through 22.0. My reliance on other experts is identified in 3.0.

5. I have had prior involvement with the Wind Mountain property that is the subject of the Technical Report and co-authored a 2010 Technical Report on the same property for Fortune River Resource Corp. I visited the Wind Mountain Gold project property on February 3, 2010.

6. As of the date of the certificate, to the best of my knowledge, information and belief, the Technical Report contains the necessary technical information that is required to make the Technical Report not misleading.

7. I am independent of Bravada Gold Corp. and all their subsidiaries as defined in Section 1.5 of NI 43-101 and in Section 1.5 of the Companion Policy to NI 43-101.

8. 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.

10. 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 file after it leaves my control.

11. 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 May 11, 2012.

"Thomas L. Dyer"

Thomas L. Dyer
Print Name of Qualified Person

APPENDIX A
List of Claims for the Wind Mountain Project

Location: All claims are located in Sections 3, 4, and 10, T 29 N, R 23 E, and in Sections 15, 20, 21, 22, 27, 28, 29, 33, and 34, T 30 N, R 23 E in Washoe County, Nevada.

BLM Serial Number	Claim Name	Ownership	Location Date
NMC852569	WIND NO 1	Harold L. Fuller	7/27/2003
NMC852570	WIND NO 2	Harold L. Fuller	7/27/2003
NMC852571	WIND NO 3	Harold L. Fuller	7/27/2003
NMC852572	WIND NO 4	Harold L. Fuller	7/27/2003
NMC852573	WIND NO 5	Harold L. Fuller	7/27/2003
NMC852574	WIND NO 6	Harold L. Fuller	7/27/2003
NMC852575	WIND NO 7	Harold L. Fuller	7/27/2003
NMC852576	WIND NO 8	Harold L. Fuller	7/27/2003
NMC852577	WIND NO 9	Harold L. Fuller	7/27/2003
NMC852578	WIND NO 10	Harold L. Fuller	7/27/2003
NMC865484	EMP 8	Rio Fortuna Exploration US Inc.	1/16/2004
NMC865498	EMP 22	Rio Fortuna Exploration US Inc.	1/16/2004
NMC865500	EMP 24	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865501	EMP 25	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865502	EMP 26	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865503	EMP 27	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865504	EMP 28	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865505	EMP 29	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865506	EMP 30	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865507	EMP 31	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865508	EMP 32	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865509	EMP 33	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865510	EMP 34	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865511	EMP 35	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865512	EMP 36	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865525	EMP 49	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865527	EMP 51	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865529	EMP 53	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865531	EMP 55	Rio Fortuna Exploration US Inc.	1/15/2004
NMC865533	EMP 57	Rio Fortuna Exploration US Inc.	1/14/2004
NMC865535	EMP 59	Rio Fortuna Exploration US Inc.	1/14/2004
NMC865537	EMP 61	Rio Fortuna Exploration US Inc.	1/14/2004
NMC865539	EMP 63	Rio Fortuna Exploration US Inc.	1/14/2004
NMC865541	EMP 65	Rio Fortuna Exploration US Inc.	1/14/2004
NMC865543	EMP 67	Rio Fortuna Exploration US Inc.	1/13/2004
NMC865545	EMP 69	Rio Fortuna Exploration US Inc.	1/13/2004
NMC865547	EMP 71	Rio Fortuna Exploration US Inc.	1/13/2004
NMC865549	EMP 73	Rio Fortuna Exploration US Inc.	1/13/2004
NMC865551	EMP 75	Rio Fortuna Exploration US Inc.	1/13/2004
NMC865553	EMP 77	Rio Fortuna Exploration US Inc.	1/13/2004
NMC922680	EMP 1	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922681	EMP 2	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922682	EMP 3	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922683	EMP 4	Rio Fortuna Exploration US Inc.	1/27/2006

BLM Serial Number	Claim Name	Ownership	Location Date
NMC922684	EMP 5	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922685	EMP 6	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922686	EMP 7	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922693	EMP 21	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922694	EMP 23	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922699	EMP 41	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922700	EMP 42	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922701	EMP 43	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922702	EMP 44	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922703	EMP 45	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922704	EMP 46	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922705	EMP 47	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922706	EMP 48	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922707	EMP 50	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922708	EMP 52	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922709	EMP 54	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922710	EMP 56	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922711	EMP 58	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922712	EMP 60	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922713	EMP 62	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922714	EMP 64	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922715	EMP 66	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922716	EMP 68	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922717	EMP 70	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922718	EMP 72	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922719	EMP 74	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922720	EMP 76	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922721	EMP 78	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922722	EMP 79	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922723	EMP 80	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922724	EMP 81	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922725	EMP 82	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922726	EMP 83	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922727	EMP 84	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922728	EMP 85	Rio Fortuna Exploration US Inc.	1/27/2006
NMC922729	EMP 86	Rio Fortuna Exploration US Inc.	1/27/2006
NMC924674	EMPF 1	Rio Fortuna Exploration US Inc.	4/4/2006
NMC924675	EMPF 2	Rio Fortuna Exploration US Inc.	4/4/2006
NMC924676	EMPF 3	Rio Fortuna Exploration US Inc.	4/4/2006
NMC924677	EMPF 4	Rio Fortuna Exploration US Inc.	4/4/2006
NMC924678	EMPF 5	Rio Fortuna Exploration US Inc.	4/4/2006
NMC924679	EMPF 6	Rio Fortuna Exploration US Inc.	4/4/2006
NMC924680	EMPF 7	Rio Fortuna Exploration US Inc.	4/12/2006
NMC924681	EMPF 8	Rio Fortuna Exploration US Inc.	4/12/2006
NMC924682	EMPF 9	Rio Fortuna Exploration US Inc.	4/4/2006
NMC924683	EMPF 10	Rio Fortuna Exploration US Inc.	4/12/2006
NMC924684	EMPF 11	Rio Fortuna Exploration US Inc.	4/21/2006

BLM Serial Number	Claim Name	Ownership	Location Date
NMC924685	EMPF 12	Rio Fortuna Exploration US Inc.	4/21/2006
NMC924686	EMPF 13	Rio Fortuna Exploration US Inc.	4/21/2006
NMC924687	EMPF 14	Rio Fortuna Exploration US Inc.	4/21/2006
NMC924688	EMPF 15	Rio Fortuna Exploration US Inc.	4/12/2006
NMC924689	EMPF 19	Rio Fortuna Exploration US Inc.	4/4/2006
NMC945657	VIENTO 1	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945658	VIENTO 2	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945659	VIENTO 3	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945660	VIENTO 4	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945661	VIENTO 5	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945662	VIENTO 6	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945663	VIENTO 7	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945664	VIENTO 8	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945665	VIENTO 9	Rio Fortuna Exploration US Inc.	1/31/2007
NMC945666	VIENTO 10	Rio Fortuna Exploration US Inc.	1/31/2007
NMC945667	VIENTO 11	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945668	VIENTO 12	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945669	VIENTO 13	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945670	VIENTO 14	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945671	VIENTO 15	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945672	VIENTO 16	Rio Fortuna Exploration US Inc.	11/12/2006
NMC945673	VIENTO 17	Rio Fortuna Exploration US Inc.	1/31/2007
NMC949882	E M P 102	Rio Fortuna Exploration US Inc.	2/21/2007
NMC949884	E M P 104	Rio Fortuna Exploration US Inc.	2/9/2007
NMC949885	E M P 105	Rio Fortuna Exploration US Inc.	2/9/2007
NMC949886	E M P 106	Rio Fortuna Exploration US Inc.	2/9/2007
NMC949887	E M P 107	Rio Fortuna Exploration US Inc.	2/9/2007
NMC949888	E M P 108	Rio Fortuna Exploration US Inc.	2/21/2007
NMC949890	E M P 110	Rio Fortuna Exploration US Inc.	2/21/2007
NMC949892	E M P 112	Rio Fortuna Exploration US Inc.	2/21/2007
NMC949894	E M P 114	Rio Fortuna Exploration US Inc.	2/21/2007
NMC1021945	WM 56	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021947	WM 58	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021949	WM 60	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021951	WM 62	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021953	WM 64	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021955	WM 66	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021957	WM 68	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021959	WM 70	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021961	WM 72	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1021963	WM 74	Rio Fortuna Exploration US Inc.	12/30/2009
NMC1035938	WM 9	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035939	WM 10	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035940	WM 11	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035941	WM 12	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035942	WM 13	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035943	WM 14	Rio Fortuna Exploration US Inc.	11/16/2010

BLM Serial Number	Claim Name	Ownership	Location Date
NMC1035944	WM 15	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035945	WM 16	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035946	WM 17	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035947	WM 18	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035948	WM 28	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035949	WM 30	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035950	WM 32	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035951	WM 34	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035952	WM 36	Rio Fortuna Exploration US Inc.	11/16/2010
NMC1035953	WM 159	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035954	WM 160	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035955	WM 161	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035956	WM 162	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035957	WM 163	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035958	WM 164	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035959	WM 165	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035960	WM 166	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035961	WM 167	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1035962	WM 168	Rio Fortuna Exploration US Inc.	11/17/2010
NMC1063433	WM-19	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063434	WM-20	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063435	WM-21	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063436	WM-22	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063437	WM-23	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063438	WM-24	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063439	WM-25	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063440	WM-26	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063441	WM-27	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063442	WM-29	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063443	WM-31	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063444	WM-33	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063445	WM-35	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063446	WM-37	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063447	WM-38	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063448	WM-39	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063449	WM-40	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063450	WM-41	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063451	WM-42	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063452	WM-43	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063453	WM-44	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063454	WM-45	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063455	WM-46	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063456	WM-47	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063457	WM-48	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063458	WM-49	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063459	WM-50	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063460	WM-51	Rio Fortuna Exploration US Inc.	11/27/2011

BLM Serial Number	Claim Name	Ownership	Location Date
NMC1063461	WM-52	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063462	WM-53	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063463	WM-54	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063464	WM-81	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063465	WM-82	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063466	WM-83	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063467	WM-84	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063468	WM-85	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063469	WM-86	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063470	WM-87	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063471	WM-88	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063472	WM-89	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063473	WM-90	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063474	WM-91	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063475	WM-92	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063476	WM-93	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063477	WM-94	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063478	WM-95	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063479	WM-96	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063480	WM-97	Rio Fortuna Exploration US Inc.	11/27/2011
NMC1063481	WM-98	Rio Fortuna Exploration US Inc.	11/27/2011

Appendix B

Standards Failure List

Failure List (using supplier's statistics)						
Sample ID	**MEG ID**	**Lab Job ID**	**Analytical Method**	**Au ppb final**	**UCL**	**LCL**
Gold MEG-Au.09.01						
WM11-033 253'	MEG-Au.09.01	11-338-04336-01	Au_ppm_FAA	774	735	639
WM11-049 53'	MEG-Au.09.01	11-338-04832-01	Au_ppm_FAA	745	735	639
WM11-056 253'	MEG-Au.09.01	11-338-05745-01	Au_ppm_FAA	739	735	639
WM11-065 253'	MEG-Au.09.01	11-338-06397-01	Au_ppm_FAA	753	735	639
WM11-074 53'	MEG-Au.09.01	11-338-06787-01	Au_ppm_FAA	830	735	639
WM11-072 53'	MEG-Au.09.01	11-338-06789-01	Au_ppm_FAA	768	735	639
WM11-075 53'	MEG-Au.09.01	11-338-07311-01	Au_ppm_FAA	827	735	639
WM11-032 53'	MEG-Au.09.01	11-338-04335-01	Au_ppm_FAA	631	735	639
WM11-048 53'	MEG-Au.09.01	11-338-04793-01	Au_ppm_FAA	552	735	639
Silver MEG-Au.09.01						
no failures						
Gold MEG-Au.09.02						
no failures						
Silver MEG-Au.09.02						
no failures						
Gold MEG-Au.09.03						
WM11-039 53'	MEG-Au.09.03	11-338-04547-01	Au_ppm_FAA	2950	2588	1592
WM11-066 253'	MEG-Au.09.03	11-338-06795-01	Au_ppm_FAA	3203	2588	1592
Silver MEG-Au.09.03						
WM11-058 53'	MEG-Au.09.03	11-338-05747-01	unknown	2.066	22.7	11.8
Gold S104007X						
WM08020 893	MEG JOB # S104007X	08-338-01422-01	FAA	808	798	702
WMO7013 273	MEG JOB # S104007X	07-338-01167-01	FAA	680	798	702
WM08020 453	MEG JOB # S104007X	08-338-01347-01	FAA	682	798	702
Gold S104008X						
WM07005 793	MEG JOB # S104008X	07-338-00539-01	FAA	718	713	611
Gold S104010X						
no failures						
Gold S104011X						
no failures						
Gold S105001X						
no failures						
Gold S105002X						
no failures						
Gold S105003X						
WM07012 143	MEG JOB# S105003X	07-338-01166-01	FAA	380	603	447
Gold S105004X						
WM08026 1003	MEG-S105004X	08-338-02434-01	Au_ppb_GRAV	4800	4352	3152
Gold S105005X						
WM08024 773	MEG-S105005X	08-338-02027-01	FAA	2060	2665	2167

Gold S105006X						
WM08017 1113	MEG-S105006X	08-338-00237-01	Au_ppb_GRAV	4868	4813	4219
Gold S107001X						
WM08023 953	MEG-S107001X	08-338-01949-01	FAA	200	258	210
Gold S107002X						
WM08023 493	MEG JOB #S107002X	08-338-01929-01	FAA	300	1124	806
Gold S107005X						
no failures						
Gold S107008X						
no failures						
Gold S107009X						
no failures						
Gold S107020X						
WM08018 473	MEG-S107020X	08-338-01010-01	FAA	432	422	218

Appendix C

Wind Mountain Gold and Silver Estimation Parameters

Estimation parameters for the gold domains (exclusive of dumps and leach pads)

Description	**Parameter**
Mineralized domain – Pass One (Inside domain only, Inferred)	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / -5^o
Search (m): major/semimajor/minor (vertical)	600 / 600 / 300
Inverse distance power	3
High-grade restrictions (grade in g Au/T and distance in ft)	n/a
Anisotropic weighting	yes
Mineralized domain – Pass Two (Inside domain only)	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / -5^o
Search (m): major/semimajor/minor (vertical)	300 / 300 / 150
Inverse distance power	3
High-grade restrictions (grade in g Au/T and distance in ft)	n/a
Anisotropic weighting	yes
Wind Mountain Fault Domain	
Samples: minimum/maximum/maximum per hole	1 / 8 / 2
Rotation/Dip/Tilt (variogram and searches):	10^o / 0^o / 65^o
Search (m): major/semimajor/minor (vertical)	500 / 500 / 500
Inverse distance power	4
High-grade restrictions (grade in oz Au/T and distance in ft)	0.01 / 50
Anisotropic weighting	No
Outside the Mineralized Domains	
Samples: minimum/maximum/maximum per hole	2 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / -5^o
Search (m): major/semimajor/minor (vertical)	250 / 250 / 250
Inverse distance power	3
High-grade restrictions (grade in oz Au/T and distance in ft)	0.005 / 40
Anisotropic weighting	yes

Estimation parameters for the silver domains (exclusive of dumps and leach pads)

Description	**Parameter**
Mineralized Domain - Low-Grade – Pass One (Inferred Inside Domain)	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / -5^o
Search (m): major/semimajor/minor (vertical)	600 / 600 / 300
Inverse distance power	3
High-grade restrictions (grade in g Ag/T and distance in ft)	N/a
Anisotropic weighting	yes
Mineralized Domain - Low-Grade – Pass Two	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / -5^o
Search (m): major/semimajor/minor (vertical)	300 / 300 / 100
Inverse distance power	3
High-grade restrictions (grade in g Ag/T and distance in ft)	0.3 50
Anisotropic weighting	yes
Mineralized Domain - Mid-Grade– Pass One (Inferred Inside Domain)	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / -5^o
Search (m): major/semimajor/minor (vertical)	600 / 600 / 300
Inverse distance power	3
High-grade restrictions (grade in g Ag/T and distance in ft)	n/a
Anisotropic weighting	yes
Mineralized Domain - Mid-Grade– Pass Two	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / -5^o
Search (m): major/semimajor/minor (vertical)	300 / 300 / 100
Inverse distance power	3
High-grade restrictions (grade in g Ag/T and distance in ft)	n/a
Anisotropic weighting	yes
Wind Mountain Fault Domain	
Samples: minimum/maximum/maximum per hole	1 / 8 / 2
Rotation/Dip/Tilt (variogram and searches):	10^o / 0^o / 65^o
Search (m): major/semimajor/minor (vertical)	500 / 500 / 500
Inverse distance power	4
High-grade restrictions (grade in oz Ag/T and distance in ft)	0.1 / 50
Anisotropic weighting	no
Outside the Mineralized Domains	
Samples: minimum/maximum/maximum per hole	2 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10^o / 5^o / 15^o
Search (m): major/semimajor/minor (vertical)	250 / 250 / 50
Inverse distance power	3
High-grade restrictions (grade in oz Ag/T and distance in ft)	0.05 / 40
Anisotropic weighting	yes