

Moss Gold-Silver Project



NI 43-101 Technical Report Preliminary Economic Analysis Phase III, Mine Life Extension Mohave County, Arizona

Prepared For:



Qualified Persons:

David Stone, P.E.
Thomas L. Drielick, P.E.
Daniel K. Roth, P.E.
Robert G. Cuffney, CPG
Michael Grass, P.E.
Thomas L. Dyer, P.E.



MINEFILL SERVICES INC.

DATE AND SIGNATURES PAGE

The issue date of this report is November 22, 2017. See Appendix A for certificates of qualified persons.

(Signed) "David Stone"
David Stone, P.E.

November 22, 2017
Date

(Signed) "Thomas L. Drielick"
Thomas L. Drielick, P.E.

November 22, 2017
Date

(Signed) "Daniel K. Roth"
Daniel K. Roth, P.E.

November 22, 2017
Date

(Signed) "Robert G. Cuffney"
Robert G. Cuffney, CPG

November 22, 2017
Date

(Signed) "Michael Grass"
Michael Grass, P.E.

November 22, 2017
Date

(Signed) "Thomas L. Dyer"
Thomas L. Dyer, P.E.

November 22, 2017
Date

MOSS GOLD-SILVER PROJECT
FORM 43-101F1 TECHNICAL REPORT

TABLE OF CONTENTS

SECTION	PAGE
DATE AND SIGNATURES PAGE	I
TABLE OF CONTENTS	II
LIST OF FIGURES AND ILLUSTRATIONS.....	IX
LIST OF TABLES	XII
1 EXECUTIVE SUMMARY	1
1.1 ISSUER	1
1.2 MOSS MINE PROJECT.....	1
1.3 THIS TECHNICAL REPORT.....	1
1.4 GEOLOGY	2
1.5 2014 MINERAL RESOURCES.....	2
1.6 MINERAL RESERVES	2
1.7 METALLURGY	3
1.8 MINING	3
1.9 PROCESSING	3
1.10 INFRASTRUCTURE AND SERVICES	4
1.11 CAPITAL COSTS	4
1.12 OPERATING COSTS	4
1.13 FINANCIAL ANALYSIS	5
1.14 QUALIFIED PERSONS OPINION.....	5
2 INTRODUCTION.....	6
2.1 SOURCES OF INFORMATION.....	6
2.2 QUALIFIED PERSONS.....	7
2.3 TERMS AND DEFINITIONS.....	8
3 RELIANCE ON OTHER EXPERTS.....	10
4 PROPERTY DESCRIPTION AND LOCATION	11
4.1 PROPERTY DESCRIPTION AND LOCATION	11
4.2 PROPERTY LOCATION	12
4.3 MINERAL TENURE.....	12
4.3.1 Patented Claims	12
4.3.2 Unpatented Lode Claims.....	13

	4.3.3	Claim and Permit Overlaps	21
4.4		TAXES, MAINTENANCE FEES, AND RENT	22
	4.4.1	Patented Lode Claims	22
	4.4.2	Unpatented Lode Claims.....	22
	4.4.3	Arizona State Exploration Permit	22
4.5		PRINCIPAL AGREEMENTS	22
	4.5.1	MinQuest Agreement.....	22
	4.5.2	2011 Patriot Gold Agreement	23
	4.5.3	2016 Patriot Gold Sale Agreement.....	24
	4.5.4	La Cuesta Agreement.....	24
4.6		ROYALTIES	25
	4.6.1	MinQuest, Inc.	25
	4.6.2	Greenwood Agreement	26
	4.6.3	Finders Agreement	26
	4.6.4	La Cuesta International, Inc.....	27
	4.6.5	Patriot Gold	27
	4.6.6	Property Access Agreement	27
4.7		ENVIRONMENTAL LIABILITIES	28
	4.7.1	Historical Liabilities	28
	4.7.2	Phase I Liabilities	28
4.8		PERMIT HISTORY/BACKGROUND	28
	4.8.1	Phase I	28
	4.8.2	Phase II	29
	4.8.3	Jurisdictional Washes	29
	4.8.4	Property Access	29
	4.8.5	Aquifer Protection Permits (APP) – AZ DEQ.....	30
	4.8.6	Air Quality Permit – AZ DEQ.....	30
4.9		FACTORS AND RISKS (QUALIFIED PERSON’S OPINION)	30
5		ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY	31
	5.1	TOPOGRAPHY, ELEVATION AND VEGETATION	31
	5.2	POPULATION CENTERS AND TRANSPORTATION	31
	5.3	SITE ACCESS.....	32
	5.4	CLIMATE AND OPERATING SEASON.....	34
	5.5	SURFACE RIGHTS, POWER, WATER AND PERSONNEL	34
	5.5.1	Surface Rights	34
	5.5.2	Power and Water	34
	5.5.3	Personnel	35
	5.5.4	Project Facilities.....	35
6		HISTORY.....	36
	6.1	PROPERTY HISTORY.....	36

	6.1.1	Discovery and Early Mining (1863 to 1935).....	36
	6.1.2	Previous Exploration and Development (1982 to 2009)	37
	6.1.3	Historical Production.....	38
6.2		PHASE I PROJECT DESCRIPTION	38
6.3		PHASE II CONSTRUCTION	38
	6.3.1	Crushing Plant.....	39
	6.3.2	Power Station	39
	6.3.3	Leach Pad and Ponds.....	39
	6.3.4	Over Liner Drainrock Crushing.....	39
	6.3.5	Merrill Crowe.....	39
	6.3.6	Commercial Production	39
7		GEOLOGICAL SETTING AND MINERALIZATION.....	40
	7.1	SOURCES OF INFORMATION.....	40
	7.2	REGIONAL SETTING.....	40
	7.3	HOST ROCKS.....	40
	7.4	MINERALIZATION	41
	7.4.1	Moss Vein.....	41
	7.4.2	Gold-Silver Mineralization.....	43
	7.5	OXIDATION	47
	7.6	STRUCTURAL GEOLOGY.....	49
	7.6.1	Faults	49
	7.6.2	Dikes	50
8		DEPOSIT TYPES.....	52
9		EXPLORATION	54
	9.1	PREVIOUS OWNERS AND OPERATORS (1982 TO 2009).....	54
	9.2	THE COMPANY (2011 THROUGH 2015)	54
	9.2.1	Phase I - 2011 Exploration Program.....	54
	9.2.2	Phase II - 2012 Exploration Program.....	54
	9.2.3	Phase III - 2013/2014 Exploration Program.....	54
	9.2.4	2016 Mapping and Sampling	58
	9.2.5	2017 Sampling & Mapping	58
10		DRILLING.....	59
	10.1	PREVIOUS OWNERS AND OPERATORS (1982 TO 2009).....	59
	10.2	THE COMPANY (2011 THROUGH 2017)	62
11		SAMPLE PREPARATION, ANALYSES AND SECURITY	64
12		DATA VERIFICATION	65
13		MINERAL PROCESSING AND METALLURGICAL TESTING	66
	13.1	METALLURGY OVERVIEW	66

13.2	2015 WEST EXTENSION BOTTLE ROLL TESTING.....	67
13.2.1	Head Screen Analysis	68
13.2.2	Bottle Roll Tests	69
13.2.3	Tail Screen Analysis	70
13.2.4	Conclusions	72
13.3	PHASE I HEAP RECONCILIATION.....	74
13.3.1	Total Metal Recovery	74
13.3.2	Metal Recovery from P ₉₉ 6.35 mm (¼") Material	75
13.4	DELETERIOUS ELEMENTS.....	76
13.5	AMENABILITY TO CYANIDATION	77
13.6	PREDICTED RECOVERY	77
13.6.1	Recommended Recovery Rates	78
13.7	QUALIFIED PERSONS OPINION.....	78
13.7.1	Results' Repeatability.....	78
13.7.2	Metallurgical Test Coverage.....	82
14	MINERAL RESOURCE ESTIMATES	87
14.1	2014 MINERAL RESOURCE.....	87
14.2	FACTORS THAT MAY AFFECT THE MINERAL RESOURCE ESTIMATE.....	88
14.3	QUALIFIED PERSON'S OPINION.....	88
15	MINERAL RESERVE ESTIMATES.....	89
15.1	MINERAL RESERVE CLASSIFICATION.....	89
15.2	MINERAL RESERVE STATEMENT.....	89
15.3	FACTORS THAT MAY AFFECT THE MINERAL RESERVE ESTIMATE	90
15.4	QUALIFIED PERSON'S OPINION.....	90
16	MINING METHODS	91
16.1	OVERVIEW.....	91
16.2	PIT OPTIMIZATION.....	91
16.2.1	Slope Parameters.....	91
16.2.2	Economic Parameters	92
16.2.3	Cut-off Grades	92
16.2.4	Whittle Results	93
16.3	MINE PLANNING.....	95
16.3.1	Pit Design Slopes.....	95
16.3.2	Ramp Design	96
16.3.3	PEA In-Pit Heap-Leach Material	96
16.3.4	Mine Production Schedule.....	100
16.4	WASTE ROCK STORAGE	109

17	RECOVERY METHODS	110
17.1	PROCESS DESCRIPTION	110
17.1.1	Primary Crushing & Fine Crushing	113
17.1.2	Agglomeration and Ore Stacking	113
17.1.3	Heap Leach Pad & Solution Ponds	114
17.1.4	Merrill Crowe.....	117
17.1.5	Refinery	117
17.2	PROCESS DESIGN CRITERIA.....	118
18	PROJECT INFRASTRUCTURE	119
18.1	WATER SUPPLY.....	119
18.2	ELECTRIC POWER	119
18.3	FUEL STORAGE	120
18.4	WAREHOUSING.....	120
18.5	WORKSHOPS/MAINTENANCE.....	120
18.6	CAMP/ACCOMMODATIONS.....	121
18.7	COMMUNICATIONS.....	121
18.8	HEALTH AND SAFETY	121
18.9	SECURITY	121
18.10	ADMINISTRATION BUILDING	121
18.11	LABORATORY	122
18.12	SEWAGE.....	122
18.13	TRANSPORTATION	122
19	MARKET STUDIES AND CONTRACTS	123
20	ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT.....	124
20.1	ENVIRONMENTAL.....	124
20.1.1	Water Quality	124
20.1.2	Air Quality.....	125
20.1.3	Noise	125
20.1.4	Surface Water Management	125
20.1.5	Acid Base Accounting.....	125
20.1.6	Environmental Monitoring	126
20.1.7	Project HAZOP and Visual Impacts.....	126
20.1.8	Reclamation and Closure.....	127
20.2	PERMITTING.....	127
20.2.1	Mine Plan of Operations.....	127
20.2.2	Air Quality Control Permit Notification	128
20.2.3	Section 404 Permit	128
20.2.4	Aquifer Protection Permit	128
20.2.5	Mine Reclamation Plan.....	128

	20.2.6	Stormwater Discharge Authorization.....	129
20.3		SOCIAL AND COMMUNITY ISSUES	129
21		CAPITAL AND OPERATING COSTS.....	130
21.1		CAPITAL COST ESTIMATE.....	130
	21.1.1	Introduction.....	130
	21.1.2	Assumptions.....	130
	21.1.3	Estimate Accuracy.....	131
	21.1.4	Contingency.....	131
	21.1.5	Reference Documents.....	131
	21.1.6	Leach Pad and Ponds – Earthwork and Lining	131
21.2		OPERATING AND MAINTENANCE COSTS	131
	21.2.1	Introduction.....	131
	21.2.2	Contract Mining	132
	21.2.3	Process Plant Operating Cost.....	132
	21.2.4	Process Plant Labor & Fringes	133
	21.2.5	Power	133
	21.2.6	Reagents.....	134
	21.2.7	Maintenance Wear Parts and Consumables.....	134
	21.2.8	Process Supplies & Services	134
	21.2.9	General and Administration (G&A).....	134
	21.2.10	Labor Costs.....	134
22		ECONOMIC ANALYSIS.....	137
22.1		INTRODUCTION	137
22.2		MINE PRODUCTION STATISTICS	137
22.3		PLANT PRODUCTION STATISTICS	137
22.4		MARKETING TERMS	138
22.5		CAPITAL EXPENDITURES	138
	22.5.1	Capital Cost.....	138
	22.5.2	Mine Sustaining Capital	138
	22.5.3	Working Capital	139
	22.5.4	Salvage Value	139
22.6		REVENUE.....	139
22.7		OPERATING COSTS	139
22.8		OTHER CASH COSTS.....	139
22.9		TAXATION	139
	22.9.1	Income Taxes.....	139
	22.9.2	Depreciation.....	140
	22.9.3	Depletion	140
22.10		PROJECT FINANCIAL INDICATORS	140
22.11		SENSITIVITY ANALYSIS	140

22.12	FINANCIAL MODEL.....	141
23	ADJACENT PROPERTIES.....	148
24	OTHER RELEVANT DATA AND INFORMATION.....	149
25	INTERPRETATION AND CONCLUSIONS	150
25.1	OPPORTUNITIES.....	150
25.1.1	Owner Operated Mining Fleet.....	150
25.1.2	Long Term Supply Contracts	150
25.2	RISKS	150
25.2.1	Geotechnical Risks	150
25.2.2	In Pit Ramp Widths	151
25.2.3	Permitting Risks	151
25.2.4	Recovery Risks.....	151
25.2.5	Operational Risks.....	151
26	RECOMMENDATIONS	152
26.1	EXPANSION OF THE MINERAL RESOURCES	152
26.2	PRELIMINARY FEASIBILITY STUDY	152
26.3	SUBMISSION OF A MINE: PLAN OF OPERATIONS.....	152
27	REFERENCES.....	153
	APPENDIX A: FEASIBILITY STUDY CONTRIBUTORS AND PROFESSIONAL QUALIFICATIONS	155
	APPENDIX B: LIST OF UNPATENTED CLAIMS	165

LIST OF FIGURES AND ILLUSTRATIONS

FIGURE	DESCRIPTION	PAGE
Figure 4-1:	General Location of the Moss Gold-Silver Project	11
Figure 4-2:	Location Plan for the 15 Patented Lode Claims.....	13
Figure 4-3:	A Vulcan® Snapshot of the General Moss Mine Project Area Showing the Boundary of the Patented Claims and the Outcrops of the Moss Vein and West Extension	14
Figure 4-4:	A Colour-Coded General Claim Block Reference Plan for the Moss Mine Project Claims and Arizona State Exploration Permit	15
Figure 4-5:	A location Plan for the Moss 1 to Moss 148 (labeled in GREEN) and Moss 201 to Moss 209 (Labeled in RED) of Unpatented Lode Claims, Moss Mine Project Area	16
Figure 4-6:	A Location Plan for the Company's Block of Unpatented Lode Claims (GVC Series, Labeled in PURPLE), Northwest Sector, Moss Mine Project Area	17
Figure 4-7:	A Location Plan for the Company's Block of Unpatented Lode Claims (GVC Series, Labeled in Purple), Southwest Sector, Moss Mine Project Area	18
Figure 4-8:	A Location Plan for the Company's Unpatented Lode Claims (GVC Series, Labeled in PURPLE, and Silver Creek (SC) Series, Labeled in BLUE) and Arizona State Exploration Permit Area (Labeled in RED) Southeast and Central East Sectors, Moss Mine Project Area	19
Figure 4-9:	A Location Plan for the Company's Moss 210 and 211 Unpatented Lode Claims, Moss Mine Project Area	20
Figure 4-10:	A Location Plan for the Company's Optioned Unpatented Lode Claims (Silver Creek [SC] Series, labeled in BLUE), Northeast Area, Moss Mine Project Area	21
Figure 4-11:	A Color-Coded, General Claim Block Reference Plan for the Moss Mine Claims Showing the Extent of the One Mile Zone of Influence Defined in the Patriot Gold Agreement.....	23
Figure 4-12:	A Colour-Coded, General Claim Block Reference Plan for the Moss Mine Claims Showing the Extent of the One Mile Zone of Influence Defined in the MinQuest Agreement	26
Figure 5-1:	General View of Moss Gold-Silver Project Area	31
Figure 5-2:	Location of the Moss Mine Project Area Showing the Major Roads Linking Bullhead City and Las Vegas	33
Figure 5-3:	Monthly Average Temperatures and Rainfall for Bullhead City, Arizona	34
Figure 6-1:	Historical Photograph of the Allen Shaft at Moss Mine, 1920-1921	37
Figure 7-1:	Vein Mineralization Diagram.....	41
Figure 7-2:	Styles of Vein in the Main Moss Vein.....	43
Figure 7-3:	Occurrence of Gold/Electrum Grains.....	45
Figure 7-4:	Paragenesis of the Moss Deposit	47
Figure 7-5:	Cut core from hole AR 204c at 385 ft (272 ft vertical depth), showing partial oxidation (brown limonite) in the Moss vein	48
Figure 7-6:	Oblique Vulcan® Snapshot View.....	49
Figure 7-7:	Geologic Map of the Moss Vein and Surrounding Area	50

Figure 7-8: Lithology Color Coding	51
Figure 8-1: Bladed Calcite Partially Replaced by Quartz - Evidence of Boiling (AR 165 213 ft)	53
Figure 9-1: Overall Claim Area, Locations of Known Historical Workings, Magnetic Intensity and Related Structures	55
Figure 9-2: 2014 Rock and Chip Sampling	57
Figure 10-1: A Color-Coded Plan of Collar Locations of Drillholes Completed by Previous Owners for Known Collar Coordinates	60
Figure 10-2: A Color-Coded Plan of the Locations of the Collars of the Drillholes Completed by the Company During its Three-Phase (2011 to 2013) Drilling Program, Moss Mine Project.....	61
Figure 13-1: A Vulcan® Snapshot (looking north) of the Moss Deposit Showing the Positions of the Composites, McClelland Laboratories 2015 Test Program, Moss Mine Project.....	67
Figure 13-2: Bottle Roll Test Metallurgical Recovery Curves for P ₉₉ 6.35 mm (¼”) West Vein and Stockwork Material, McClelland Laboratories’ 2015 Test Program, Moss Mine Project.....	70
Figure 13-3: A Scatter Plot of Particle Size vs. Gold Recovery, McClelland Laboratories’ 2015 Test Program, Moss Mine Project	72
Figure 13-4: A Scatter Plot of Particle Size Distributions for 6.35 mm (¼”) Composites Tested During Various Metallurgical Programs, Moss Mine Project	73
Figure 13-5: Gold Recovery Curve for P ₉₉ 6.35 mm (¼”) Material Comprising Mineralization from the Moss Vein and Its Associated Stockwork, Moss Mine Project.....	76
Figure 13-6: Gold Recovery by Cyanide Leaching from Prepared Moss Vein + Stockwork Composites, with Best-Fit Upper, Average and Lower Recovery Trendlines.....	77
Figure 13-7: Silver Recovery by Cyanide Leaching from Prepared Moss Vein + Stockwork Composites, with Best-Fit Upper, Average and Lower Recovery Trendlines.....	78
Figure 13-8: A Scatter Plot of Gold Recoveries by Test Type, Moss Mine Project Metallurgical Programs.....	79
Figure 13-9: A Scatter Plot of Gold Recoveries by Test Type, Moss Mine Project Metallurgical Programs.....	80
Figure 13-10: A Scatter Plot of the Calculated Gold Head Grades of the Samples and Composites Used for Metallurgical Testing, by Test Type, Moss Mine Project	82
Figure 13-11: A Scatter Plot of the Calculated Silver Head Grades of the Samples and Composites Used for Metallurgical Testing, by Test Type, Moss Mine Project	83
Figure 13-12: A Long-Section Vulcan® Snapshot View (looking north) of the Moss Vein and West Vein Showing the Distribution of Metallurgical Test Samples (that are colour-coded by test program)	84
Figure 13-13: A Long-Section Vulcan® Snapshot View (looking north) of the Hangingwall Stockworks of the Moss Vein and West Vein Showing the Distribution of Metallurgical Test Samples.....	85
Figure 13-14: A Long-Section Vulcan® Snapshot View (looking north) of the Footwall Stockworks of the Moss Vein and West Vein Showing the Distribution of Metallurgical Test Samples (that are colour-coded by test program).....	86
Figure 16-1: Mining Overview	91
Figure 16-2: Whittle Base Case Pit by Pit Graph	95
Figure 16-3: Slope Parameters	96
Figure 16-4: 2015 Feasibility Pit Design	98

Figure 16-5: 2017 PEA Pit Design	99
Figure 16-6: Pit Map – Year 1	101
Figure 16-7: Pit Map Year 2	102
Figure 16-8: Pit Map Year 3	103
Figure 16-9: Pit Map Year 4	104
Figure 16-10: Pit Map Year 5	105
Figure 16-11: Pit Map Year 6	106
Figure 16-12: Pit Map Year 7	107
Figure 16-13: Pit Map Year 8	108
Figure 17-1: Summary Process Flow Diagram	111
Figure 17-2: General Arrangement Site Plan	112
Figure 18-1: Required Make-up Water	119
Figure 19-1: Five year gold price (source: Kitco.com).....	123

LIST OF TABLES

TABLE	DESCRIPTION	PAGE
Table 1-1:	Moss Mine Project Mineral Resource Estimate by David Thomas, P.Geo.	2
Table 1-2:	Direct and Indirect Capital Cost Estimate Summary	4
Table 1-3:	Operating Cost by Area at 5,000 tpd.....	4
Table 1-4:	Project Economics	5
Table 2-1:	Dates of Site Visits and Areas of Responsibilities.....	8
Table 2-2:	Terms and Definitions	9
Table 4-1:	List of Patented Claims	12
Table 5-1:	Most Direct Route from Las Vegas to Project Property	32
Table 6-1:	Summary of Exploration and Development Work Carried Out by Previous Owners and Operators on the Moss Mine Property (the 15 patented lode claims) to 2009	37
Table 7-1:	A Summary of Microscopic Gold Particle Size Analysis, Moss Vein Material	46
Table 8-1:	Comparison of Moss Deposit Characteristics with Typical Low Sulfidation Epithermal Gold Deposits.....	52
Table 10-1:	Holes Drilled by Previous Owners for Known Collar Positions.....	59
Table 10-2:	A Summary of Drillholes Completed by the Company Over Its Three-Phase, 2011 to 2013 Infill and Mineral Resource Expansion Drilling Program, Moss Mine Project	62
Table 10-3:	Summary of Drillholes Completed by the Company in the Phase Four Exploration Drilling Program, Moss Mine Project	63
Table 13-1:	A Summary of Metallurgical Testwork Programs on Samples of Mineralized Material from the Moss Vein, Moss Mine Project.....	66
Table 13-2:	A Summary of the West Extension Composites, McClelland Laboratories' 2015 Test Program, Moss Mine Project	67
Table 13-3:	A Summary of Head Screen Analysis Results, West Vein Material, McClelland Laboratories' 2015 Test Program, Moss Mine Project	68
Table 13-4:	A Summary of Head Screen Analysis Results, Hangingwall Stockwork Material, McClelland Laboratories' 2015 Test Program, Moss Mine Project	68
Table 13-5:	A Summary of Bottle Roll Test Results, McClelland Laboratories' 2015 Test Program	69
Table 13-6:	A Summary of the Head, Recovered and Tail Assays by Size Fraction, McClelland Laboratories' 2015 Test Program, Moss Mine Project	71
Table 13-7:	A Summary of Test Results for 6.35 mm ($\frac{1}{4}$ ") Feed from the Moss Vein and West Vein, Inclusive of their Associated Stockworks, Moss Mine Project	72
Table 13-8:	Quantities and Assay Grades of Materials Exposed to Cyanidation on the Phase I Heap	74
Table 13-9:	Recovered Ounces and Related Recovery Rates, Overall Phase I Heap Leach.....	74
Table 13-10:	Recovered Gold Ounces and Gold Recovery Rates for the 109,289 t of P99 6.35 mm Material Only, Phase I Heap Leach Operation	75
Table 13-11:	A Summary of Metal Recovery Rates by Test Type and Head Feed Particle Size, Moss Mine Project .	81

Table 13-12: A Summary of the Metallurgical Drillhole Samples that Intersect the Moss Vein, Moss Mine Project	84
Table 13-13: A Summary of the Metallurgical Drillhole Samples that Intersect the Hangingwall Stockwork of the Moss Vein, Moss Mine Project.....	85
Table 13-14: A Summary of the Metallurgical Drillhole Samples that Intersect the Footwall Stockworks of the Moss Vein, Moss Mine Project.....	86
Table 14-1: Moss Mine Project Mineral Resource Estimate by David Thomas, P. Geo.	87
Table 15-1: Total Mineral Reserves, Effective Date May 2015.....	89
Table 16-1: Pit Optimization Economic Parameters.....	92
Table 16-2: Cutoff Grades.....	92
Table 16-3: Pit Optimization Results.....	93
Table 16-4: Whittle Base Case Pit by Pit Results	94
Table 16-5: Pit Design Slope Parameters.....	95
Table 16-6: Summary of PEA Heap-Leach Material	97
Table 16-7: Mine Production Schedule	100
Table 16-8: Mined Material to Leach Pad	100
Table 17-1: Head Grades and Recoveries Used for Mass Balance Simulation	118
Table 18-1: Expected Power Demand	120
Table 20-1: Wet Chemistry Test Results	124
Table 20-2: Metal Content Chemistry Test Results.....	124
Table 20-3: Sulfur and CaCO ₃ Neutralizing (Tonnes of CaCO ₃ /kT rock) Content in Samples.....	126
Table 21-1: Direct and Indirect Capital Cost Estimate Summary	130
Table 21-2: Life of Mine Operating Costs	132
Table 21-3: Phase II Contract Mining Rates	132
Table 21-4: Process Plant Operating Cost.....	133
Table 21-5: Process Plant Labor.....	133
Table 21-6: Power Consumption Summary	133
Table 21-7: Reagents Summary	134
Table 21-8: Grinding Media and Liners.....	134
Table 21-9: Plant Operations Labor Positions.....	135
Table 21-10: General and Administrative Labor Costs	136
Table 22-1: Life of Mine Leach Material, Waste and Metal Grades	137
Table 22-2: Metal Recovery Factors and Production.....	138
Table 22-3: Marketing Terms.....	138
Table 22-4: Capital Costs (\$000)	138

Table 22-5: Metal Prices	139
Table 22-6: Project Financial Indicators	140
Table 22-7: Metal Price Sensitivity Analysis	141
Table 22-8: Operating Cost Sensitivity Analysis	141
Table 22-9: Capital Cost Sensitivity Analysis	141
Table 22-10: Financial Model.....	142

LIST OF APPENDICES

APPENDIX	DESCRIPTION
A	Study Contributors and Professional Qualifications <ul style="list-style-type: none">• Certificate of Qualified Person (“QP”)
B	List of Unpatented Claims

1 EXECUTIVE SUMMARY

1.1 ISSUER

This technical report has been prepared for Northern Vertex Mining Corporation (the “Company”) that is incorporated in British Columbia, Canada (“B.C.”). The Company has its offices at Vancouver, B.C., and it is listed on the TSX-V (trading symbol: NEE) and on the OTCQX (trading symbol: NHVCF). The Company’s focus is on the reactivation of the Moss Mine Gold-Silver Project in Mohave County, northwest Arizona, USA (the “Moss Mine Project”), which is the only project or property that the Company has an interest in. The Company is the 100% owner and operator of the Moss Project.

1.2 MOSS MINE PROJECT

The Moss Mine Project area is located approximately 22 km by road to the east of Bullhead City, in the historically significant Oatman Mining District of Mohave County, Arizona. It comprises a total area of approximately 4,150.0 hectares, centered on Latitude 35° 6’ 00” North, Longitude 114° 26’ 52” West, which was the approximate location of a historical headframe associated with (limited) historical underground mine workings that exploited the Moss Vein. The Company’s activities have thus far mainly focused on the exploitation of the Moss Vein, West Extension and their associated stockworks that contain the gold-silver mineralization of interest. The target mineralization outlined is contained within a central area of 15 patented lode claims (102.8 hectares).

From 2013 to 2014, the Company’s main focus was on its Phase I Pilot Plant activities (“Phase I”) that comprised open pit mining, on-site heap leaching and processing of a bulk sample of Moss Vein mineralized material, with off-site carbon stripping and doré production. All Phase I activities were completed during Q4 2014.

The second phase, or Phase II as it referred to in Company literature, is the subject of a 2015 Feasibility Study (“Moss Gold Silver Project NI 43-101 Feasibility Study Technical Report”) dated June 15, 2015 and filed on SEDAR. This phase involves the mining and processing of ores wholly contained within the patented land boundaries. Subsequent to the 2015 Feasibility Study, the project received the necessary permits and regulatory approvals, along with financing, to allow construction to proceed. The Phase II Moss mine, currently under construction, encompasses crushing, agglomeration and stacking of ore onto a conventional heap leach pad. Gold and silver recovery will be achieved by a Merrill Crowe process to produce doré bars at the project site. The Phase II mine was designed to have a 5-year mine life at a projected mining rate of 5,000 tonnes per day. The Phase II project is expected to be in production in late Q4 2017. At the time of this report, construction of the Phase II Moss Project was roughly 80% complete.

The third phase, or Phase III (the mine life extension) is the subject of this Preliminary Economic Assessment (PEA) Technical Report. This study will evaluate the gold and silver resources available on the unpatented ground and the economics for development of an extended mine life beyond Phase II.

1.3 THIS TECHNICAL REPORT

The Phase II mine plans detailed in the 2015 Feasibility Study were intentionally constrained to restrict all the surface disturbance and the mine facilities to the private property owned by the Company (the Moss Mine patented claims). The Phase II open pit design was thus constrained by property boundaries and not by economics. The result was that the Phase II pit design only recovered 50% of the Measured and Indicated mineral resources.

The Phase III mine design documented herein removes the patented claims boundary constraint by assuming the pit limits can be extended onto the adjacent Federal lands administered by the BLM. This allows the Phase III mine plan to access the mineral resources not available in the Phase II mine plan. Concurrent with expansion of the pit, the mine facilities would also need to be expanded onto the BLM lands. This would include an expanded heap leach pad to

accommodate the additional mineralized material, and an expanded waste rock facility to accommodate the additional waste rock.

1.4 GEOLOGY

The host rock for the Moss deposit is the Moss porphyry, a uniform monzonite to quartz monzonite porphyry intrusion. It is coarse grained with 4 mm to 10 mm diameter plagioclase phenocrysts with biotite and lesser hornblende. There is also a fine-grained quartz monzonite porphyry, with 1 mm to 2 mm diameter plagioclase phenocrysts with minor biotite and minor magnetite, which is a later phase intrusive that cross-cuts the coarse porphyry and forms an intrusive breccia matrix in places.

The gold-silver mineralization is contained within three main veins and their associated stockworks: the dominant Moss Vein; a western extension of the Moss Vein (the "West Vein"); and the Ruth Vein to the south of the Moss Vein. Moss Mine Project drillhole logs and assay database indicate a potential for other mineralized veins that are both similar to and sub-parallel to the Ruth Vein. For purposes of geological domaining they have been termed Vein No. 4.

The Moss mineralization is unique in comparison to many other epithermal deposits subject to heap leaching because, within the depths being exploited for mine operations, as they do not exhibit the traditional oxide-transition-sulphide boundaries. The sulphide zone is well below the depth the maximum depth of mining. The primary mineralization consists of free gold in quartz and calcite veins.

1.5 2014 MINERAL RESOURCES

The Mineral Resources that are the subject of this technical report (Table 1-1) were classified under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves, by application of a cut-off grade that incorporated mining and metallurgical recovery parameters. The estimated Mineral Resources are constrained to a pit shell based on commodity prices, metallurgical recoveries and operating costs. Long-term metal prices of US\$1,250/oz Au and US\$20.0/oz Ag were applied along with metallurgical recovery rates of 82% for gold and 65% for silver. The stated Mineral Resources have an Effective Date of October 31, 2014.

Table 1-1: Moss Mine Project Mineral Resource Estimate by David Thomas, P.Geo.
(undiluted, pit constrained, 100% in-pit recovery, Effective Date October 31, 2014)

Category (0.25 g/t Au Cut-Off)	Tonnes	Au (g/t)	Ag (g/t)	Au (oz)	Ag (oz)	AuEq (g/t)	AuEq (oz)
Measured	4,860,000	0.97	10.4	152,000	1,630,000	1.10	172,000
Indicated	10,620,000	0.66	8.7	225,000	2,980,000	0.77	263,000
<i>Measured + Indicated</i>	<i>15,480,000</i>	<i>0.76</i>	<i>9.3</i>	<i>377,000</i>	<i>4,610,000</i>	<i>0.87</i>	<i>435,000</i>
Inferred	2,180,000	0.55	5.6	38,000	390,000	0.62	43,000

* Refer to the footnotes on Table 14-1.

1.6 MINERAL RESERVES

The 2015 Feasibility Technical Report included a Mineral Reserve Estimate for the Phase II open pit. The Qualified Person for the 2015 Mineral Reserve Estimate was Mr. Scott Allan Britton, CEng. with an effective date of May 2015.

The Phase II mine is under construction and is near commercial production. The Phase II mine will exploit the mineral reserves stated in the 2015 Technical Report. These mineral reserves, while still current, are not relevant to the PEA.

1.7 METALLURGY

Since 1990 a total of nine metallurgical test programs have been carried out on mineralized material from the Moss deposit. Cyanidation test results for the first program are not available, however, detailed information covering a total of eight cyanide shake tests, 65 bottle roll tests and 14 column leach tests is available, along with various head and tail analyses and head and tail screen analyses.

The Moss Mine project metallurgical database, as well as the results of the Phase I Pilot Plant operation, demonstrate that mineralized material from the Moss deposit is amenable to cyanidation, especially gold recovery that is consistently rapid and comprehensive in fine grained and pulverized feeds. The predicted recoveries include 82% for gold, and 65% for silver. The Moss mineralization does not contain any deleterious elements such as mercury or arsenic.

The available test data shows that the Moss vein is metallurgically straightforward. It is not necessary to differentiate metallurgical responses by geographic position across the Moss deposit, including the West Extension. The Moss vein is not an oxide-transition-sulphide deposit so it is not necessary to differentiate between mineralized material located above and below the present water table. The economic minerals of interest are native gold and electrum, which are not susceptible to surface weathering effects, as well as minor acanthite (a silver sulphide).

1.8 MINING

Exploitation of the Moss vein and adjacent stockworks on the patented and unpatented lands will be by open pit mining methods with a conventional drill-blast-load-haul mining fleet. The PEA assumes that all of the mining will be carried out by a contract miner for the full mine life.

Controlled drilling and blasting techniques will be needed to minimize blast damage to the final pit walls. The slope designs presented in this report are predicated the use of angled drilling and controlled blasting in order to achieve stable final walls. An allowance has been made in the mining budget for the use of controlled perimeter blasting with an airtrack drill.

Grade control will be a critical item to ensure the success of the Moss project as excessive dilution will reduce the head grade of material placed on the leach pad, and the additional tonnes created by dilution add to the operating cost. For Phase II and Phase III operations, a robust grade control program will be established based on experience at other western US heap leach operations. The program will be a collaborative effort between the Company and the mining contractor.

1.9 PROCESSING

The PEA assumes that the Phase II flowsheet and processing methods will be used to process Phase III material. For Phase II, the most effective process was identified as one that consists of heap leaching of crushed and agglomerated ore, followed by a Merrill Crowe metal recovery plant and refinery to produce gold and silver doré bars on site.

The Phase II plant, now under construction, incorporates three stage crushing as was used in the pilot plant. The design is based on 350 days of operation per calendar year. The nominal crushing and ore stacking tonnage will be 2,500 tonnes per day (tpd) for the first two months of operation, increasing to 3,500 tpd in month three, followed by a tonnage increase to 5,000 tpd in month five through the end of the mine life.

The Phase II ore heap consists of a completed pad area of 242,500 m². The Phase III pad extension will be constructed west of the Phase II pad, using the same pad design and operating criteria. The leach pad will be designed to Arizona BADCT standards and consists of an LLDPE liner over a GCL, with an inter-liner leak detection drainage layer.

A 450m³/hr Merrill Crowe recovery plant will process the pregnant solutions to produce doré bars.

1.10 INFRASTRUCTURE AND SERVICES

The Moss Mine site is remote from the main electrical grid that serves Mohave County, hence the 2015 Feasibility Study assumed diesel power generation. For the PEA, however, it is assumed that the mine can be connected to the local utility grid in a reasonable time frame.

The primary water source for the heap leaching operations will be groundwater wells and dewatering of the open-pit. Hydrogeological investigations have proven up adequate groundwater resources for leach operations, and this has been confirmed with the continuous operation of several wells for construction water.

Site infrastructure, due to the proximity of Bullhead City and other major mining equipment supply centers (e.g. Phoenix) will be limited to operational support facilities (e.g. trailer offices, warehouses, workshops etc.).

1.11 CAPITAL COSTS

The PEA capital estimate includes \$33 million for construction of the Phase II facilities per the FS, and an additional \$4.5 million in committed costs for improvements in the Phase II FS designs. These costs include concrete foundations for a permanent crusher installation, installation of overhead power distribution at the mine site, and equipment upgrades. The estimate in Table 1-2 includes direct and indirect costs, including EPCM costs, well as a 25% contingency on Phase III expansion direct costs. The estimate does not include the cost of delivering utility power to the mine site.

Table 1-2: Direct and Indirect Capital Cost Estimate Summary

Capital Costs	\$US (millions)
Phase II Committed Costs	
Feasibility costs	33.0
Capital Improvements	4.5
Phase III Expansion Costs	
Permits	2.0
Infrastructure	17.9
Contingency	4.2
TOTAL	61.6

1.12 OPERATING COSTS

Operating costs were calculated in three areas – Mining, Process and G&A. Mining costs were derived directly from mining contractor bids. Process and G&A operating costs were largely taken from the 2015 Feasibility costs and from updated quotes for some of the major consumables including cyanide, cement, and fuel. The operating cost estimate is shown in Table 1-3 below:

Table 1-3: Operating Cost by Area at 5,000 tpd

	\$/t leached
Mining	\$5.53
Process Plant	\$5.26
General Administration	\$0.81
Treatment/Refining	\$0.11
Total Operating Cost	\$11.70

As was estimated for Phase II, the project would be expected to employ roughly 90 staff.

1.13 FINANCIAL ANALYSIS

The economic analysis was carried out using standard discounted cash flow modelling techniques.

The economic analysis was carried out on a 100% project basis. Given the location and relatively uncomplicated nature of the project, the Base Case uses a 5% discount factor in arriving at the project Net Present Value ("NPV"). Standard payback calculation methodology was also utilized.

The project is estimated to have a Pre-Tax NPV (5%) of \$133 million and an After-Tax NPV (5%) of \$93 million. The After-Tax Internal Rate of Return (IRR) is estimated at 52.5% with a payback of 2.2 years.

Table 1-4: Project Economics

	Pre-Tax	After-Tax
NPV @ 5%	\$132,569	\$92,980
IRR %	73.1%	52.5%
Payback (yrs)	1.8	2.2

1.14 QUALIFIED PERSONS OPINION

Based on the analysis herein, it is the opinion of the primary author that the proposed heap leach mining operation at the Moss Project, as assessed in this report, is technically and economically feasible. We are also of the view that the Phase III mine expansion can be permitted in a reasonable time frame. This report supports a positive decision by the project owners to advance Phase III to the Feasibility stage including additional definition and resource drilling.

2 INTRODUCTION

This document presents the results of a Preliminary Economic Analysis (PEA) of a Phase III (“Mine Life Extension” or “MLE”) for the Moss Gold-Silver Project located in Mohave County, Arizona. This document was prepared exclusively for Northern Vertex Mining Corp. (the “Company”) (TSX.V: NEE, OTCQX: NHVCF) and its 100% owned subsidiary Golden Vertex Mining Corp. (“Golden Vertex”).

The PEA was prepared in accordance with standard industry practices and in accordance with Canadian Securities Administrators NI 43-101 (Standards of Disclosure for Mineral Projects).

The Moss Gold-Silver Project encompasses 15 patented lode claims covering 102.8 hectares and 465 unpatented lode claims for a total of 4,030.8 hectares. The target at the Moss Project is gold and silver mineralization associated with the Moss Vein, the West Extension and adjacent stockworks.

The Moss Project was the focus of a previously reported Feasibility Study (“Moss Gold Silver Project NI 43-101 Feasibility Study Technical Report”) dated June 15, 2015 and filed on SEDAR. The 2015 Feasibility Study focused on the Phase II mine development. The Phase II mine plans were intentionally constrained to restrict all the surface disturbance and the mine facilities to the private property owned by the Company (the Moss Mine patented claims). The Phase II open pit design was thus constrained by property boundaries and not by economics. The result was that the Phase II pit design only recovered 50% of the Measured and Indicated mineral resources.

Subsequent to the 2015 Feasibility Study, the project received the necessary permits and regulatory approvals, along with financing, to allow construction to proceed. The Phase II Moss mine, currently under construction, encompasses crushing, agglomeration and stacking of ore onto a conventional heap leach pad. Gold and silver recovery will be achieved by a Merrill Crowe process to produce doré bars at the project site. The Phase II mine was designed to have a 5-year mine life at a projected mining rate of 5,000 tonnes per day. The Phase II project is expected to be in production in late Q4 2017. At the time of this report, construction of the Phase II Moss Project was roughly 80% complete.

The Phase III mine design documented herein removes the patented claims boundary constraint by assuming the pit limits can be extended onto the adjacent Federal lands administered by the BLM. This allows the Phase III mine plan to access the mineral resources not available in the Phase II mine plan. Concurrent with expansion of the pit, the mine facilities would also need to be expanded onto the BLM lands. This would include an expanded heap leach pad to accommodate the additional mineralized material, and an expanded waste rock facility to accommodate the additional waste rock.

The Phase III mine expansion plan and economic models are presented as an improved alternative to the Phase II mine plan. Specifically, the PEA does not assume that the Phase II mine is depleted first, but rather the PEA assumes that the required permits can be achieved in a reasonable time frame, after which the project development will no longer be constrained to the patented lands. This is expected to occur well before the Phase II pit is depleted, and hence would allow mining to follow a more efficient extraction plan with a more favorable production schedule.

The PEA was prepared by a team of independent consultants that included M3 Engineering and Technology of Tucson, AZ (process facility and site infrastructure design and costing), Golder Associates of Tucson, AZ (heap leach pad and waste dump), Mine Development Associates of Reno, NV (mine planning and production scheduling), and CDM Smith of Phoenix, AZ (project permitting). The PEA study team was managed by Dr. David Stone, PE, Project Manager for the Moss Mine Project.

2.1 SOURCES OF INFORMATION

The information contained in this Technical Report was compiled from various published and internal Company documents, news releases, and reports by contributing consultants and the Qualified Persons (authors) of this

Technical Report, as well as documents sourced by means of web searches and observations made during the Qualified Persons' site visits. The various reports, documents and files are cited, where appropriate. The key documents referenced herein include:

- Various news releases by the Company, sourced from its website (www.northernvertex.com);
- United States Bureau of Land Management status reports for the patented and unpatented lode claims that comprise the Moss Mine project area;
- Consultancy reports to the Company by Golder Associates related to groundwater resources, pit slope designs and heap leach facility designs.
- Consultancy reports to the Company by Mine Development Associates related to mine planning and production scheduling.
- Consultancy memos to the company by CDM Smith regarding project permitting.
- Consultancy reports to the Company by M3 Engineering & Technology Corp. on Process and Infrastructure Design.

The authors have relied almost entirely on information derived from work completed by the authors of published data sources, Company staff members and Company consultants. Although the authors have reviewed much of the available data and the principal author of this Technical Report has visited the Project area, these tasks only validate a portion of the entire dataset. The authors have made judgements about the general reliability of the underlying data that is assumed to be both accurate and valid, based on the professional status of the reports' authors and the nature of their reports.

Much of the background information on the Moss Mine Project, such as the history, past exploration, exploration drilling, sampling and assaying, has been reported in previous Technical Reports by others. This past information has been updated only when it was relevant to do so and/or when it was clear that additional information was required.

2.2 QUALIFIED PERSONS

The Qualified Persons for this Technical Report are as follows:

Dr. David Stone, P.E. – Mining Consultant and President of MineFill Services, Inc. of Bothell, Washington. Dr. Stone is the principal author of this Technical Report. He is responsible for all sections of this Technical Report. He has reviewed prior Technical Reports relating to the Moss Mine Project, and is a co-author and QP for both the December 2014 Technical Report and 2015 Feasibility Study Technical Report. Dr. Stone is the Project Manager for the Phase II Moss Mine construction.

Mr. Thomas L. Drielick, P.E. – Senior Vice President of M3 Engineering & Technology Corp. of Tucson, Arizona. Tom is responsible for Section 17 (Recovery methods) and Section 21.2.3 thru Section 21.2.8 (Process Plant Operating and Maintenance Costs).

Mr. Daniel K. Roth, P.E. – Project Manager of M3 Engineering & Technology Corp. of Tucson, Arizona. Daniel is responsible for Section 21.1 (Capital Cost Estimate).

Mr. Robert G. Cuffney, CPG. – Geological Consultant. Mr. Cuffney is responsible for Sections 7 (Geological Setting and Mineralization), Section 8 (Deposit Types), Section 9 (Exploration), Section 10 (Drilling), Section 11 (Sample Preparation, Analysis and Security), and Section 12 (Data Verification).

Mr. Michael Grass, P.E. – Arizona Registered Professional Engineer and Golder Associates, Inc. Principal and Senior Consultant. Michael is responsible for Section 17.1.3, the Heap Leach Pad and Solution Ponds.

Mr. Thomas L. Dyer, P.E. – Senior Engineer of Mine Development Associates. Tom is responsible for section 16.0 (Mining Methods) and section 21.2.2 (Mining Operating Cost).

Table 2-1: Dates of Site Visits and Areas of Responsibilities

Qualified Person	Site Visit Date	Area of Responsibility
David Stone	Multiple Visits October 2015	All Sections except those listed below
Thomas L. Drielick	N/A	Sections 17, 21.2.3 to 21.2.8
Daniel K. Roth	September 26, 2017	Section 21.1
Robert G. Cuffney	October 27, 2017	Sections 7, 8, 9, 10, 11, and 12
Michael Grass	August 10, 2017	Sections 17.1.3
Thomas L. Dyer	N/A	Sections 16 and 21.2.2

2.3 TERMS AND DEFINITIONS

Important terms used in this report are presented in Table 2-2. These are not all of the terms presented in the Technical Report, but include major terms that may not have been defined elsewhere.

Table 2-2: Terms and Definitions

Abbreviation	Unit or Description	Abbreviation	Unit or Description
AA	Atomic Absorption	ICP-AES	inductively coupled plasma atomic emission spectrometer
AAC	Arizona Administrative Code	ISGC	Idaho State Gold Company, LLC
AAS	atomic adsorption spectrophotometry	kg	kilogram
ADEQ	Arizona Department of Environmental Quality	kg/t	kilogram per tonne
Ag	silver	km	kilometre
APP	aquifer protection program	L	litre
ASLD	Arizona State Land Department	m	metre
Au	gold	M	million
AWQS	aquifer water quality standards	m ²	metre squared
BADCT	best available demonstrated control technology	MCF	mine call factor
B.C.	British Columbia, Canada	M+I	Measured plus Indicated (categories of Mineral Resource)
BDV	block dispersion variance	ml	milli-litre
BHL	Hartmut W. Baitis, Robert B. Hawkins & Larry L. Lackey	mm	millimetre
BLM	Bureau of Land Management	MRE	Mineral Resource estimate
cm	centimetre	MRM	Mineral Resource model
CSRM	certified standard reference materials	MSGP	multi-sector general permit
Cu	copper	Mt	million tonnes
CV	coefficient of variation	NaCN	sodium cyanide
EqAu	equivalent gold (ounces or grade)	oz	troy ounce (31.10346 g)
FAAS	flame atomic absorption spectrophotometric	oz/ton	troy ounce per short ton
FLPMA	Federal Land Policy and Management Act of 1976	P ₈₀ (or any other subscript number)	% of material (indicated by the number) passing a specified mesh size
ft	feet	PEA	Preliminary Economic Assessment
g	gram	RSE	relative standard error of a kriged estimate
g/t	grams per tonne	SA:V	surface area to volume ratio
ha	hectare	SD	standard deviation (statistical function)
Hg	mercury	SMU	selective mining unit
ICAP-OES	inductively coupled argon plasma – optical emission spectrophotometer	SWPPP	stormwater pollution prevention plan
		t	metric ton (or tonne)

Unless otherwise stated, all dollar figures are in United States dollars (US\$). The metric system is employed; for the sake of clarity equivalent US Customary units are sometimes stated in parentheses.

3 RELIANCE ON OTHER EXPERTS

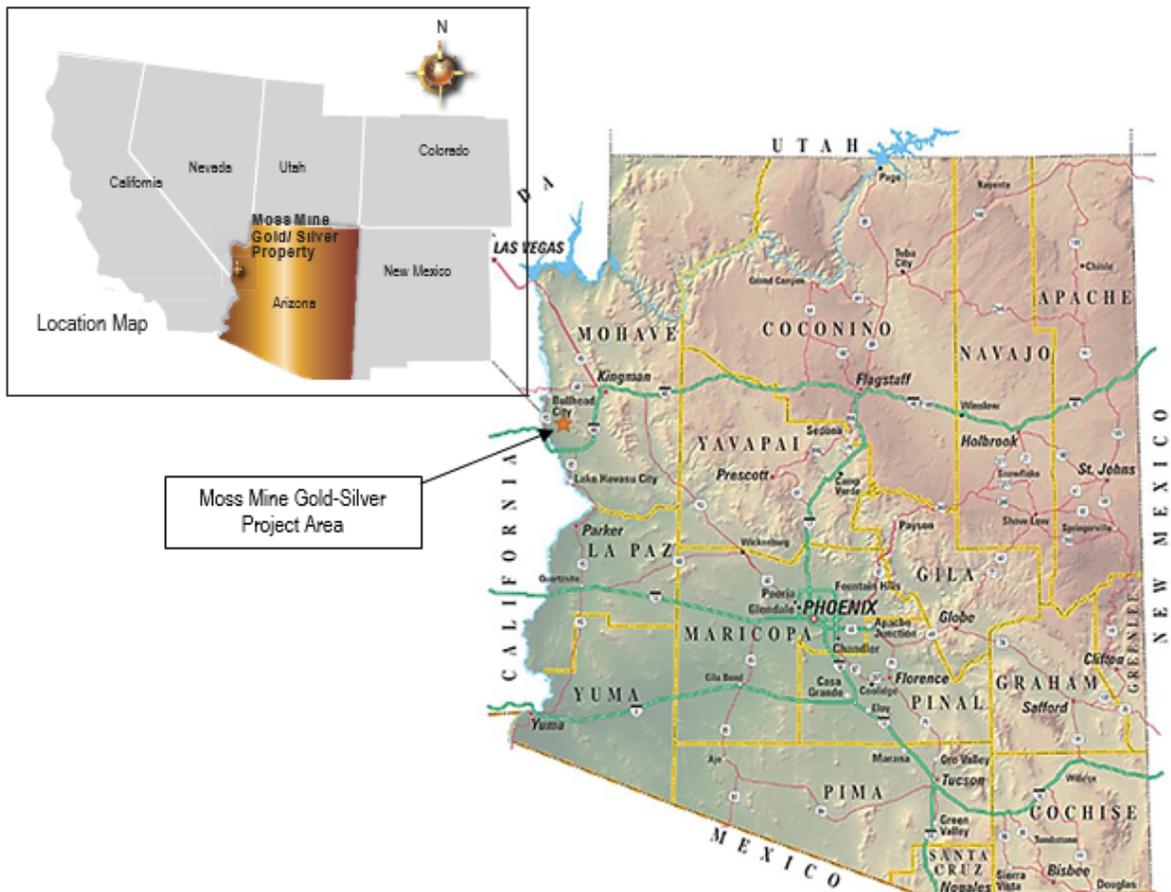
The authors have no expertise in mineral tenures, legal, or environmental issues hence have relied on the Company to provide the relevant information. The authors have made no attempt to verify the information provided.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY DESCRIPTION AND LOCATION

The Company is focused on the reactivation of the Moss Mine Gold-Silver Project in Mohave County, northwest Arizona, USA (the “Moss Mine Project”, Figure 4-1), where the Company is the 100% Owner and Operator. The project is being developed in 3 Phases:

- The first phase, Phase I (or pilot heap) consisted of roughly 122,000 tonnes of ore mined, crushed, agglomerated, and placed on a heap leach pad to recover roughly 4,150 ounces of gold. The intent of the pilot heap was to confirm the leach kinetics, metal recovery rates and recovery schedule for commercial operations. This work was completed in 2014.
- The second phase, or Phase II as it has been referred to, is the subject of a 2015 Feasibility Study and involves the mining and processing of ores wholly contained within the patented land boundaries. This phase is currently under construction.
- The third phase, Phase III (or mine life extension) is the subject of this Technical Report. This document will evaluate the combined gold and silver resources available on the patented and unpatented ground and the economics for development of the combined Phase II and Phase III resource.



(Source: www.northernvertex.com)

Figure 4-1: General Location of the Moss Gold-Silver Project

4.2 PROPERTY LOCATION

The Moss Mine Project area (the “Project area”) is centered on Latitude 35° 6’ 00” North, Longitude 114° 26’ 52” West (the “Property center”), which was the approximate location of the historical headframe associated with historical underground mine workings, at the western end of the Moss Vein outcrop. The headframe was relocated to Bullhead City in 2013. Bullhead City is approximately 10 km to the west and northwest of the Property center. See Figure 4-1.

The total Project area comprises approximately 4,150.0 hectares (“ha”), including:

- 102.8 ha in the 15 patented lode claims detailed above;
- approximately 3,946.4 ha in 465 unpatented lode claims to which various agreements and royalties apply; and
- one Arizona State exploration permit covering an area of 259 ha (640 acres or one section); but
- approximately 158.2 ha of overlap for a net area of approximately 4,150.0 ha.

The total area of the unpatented lode claims and total area of overlap are estimates only. They should not be considered definitive or absolute values; they are stated for information purposes only. This is emphasized because only the patented lode claim boundaries have been surveyed by a registered land surveyor. The areas of the unpatented claims and overlaps were estimated from AutoCAD® claims files supplied by the Company.

4.3 MINERAL TENURE

4.3.1 Patented Claims

The Moss Mine Project encompasses 15 patented claims covering 102.83 ha. The patented claims are owned by Golden Vertex Corp.

A list of the patented claims is provided in Table 4-1 below. The claim boundaries have been surveyed and a certified record of the survey was recorded by Eric L. Stephan (Registered Land Surveyor #29274) of Cornerstone Land Surveying, Inc., located at Bullhead City, Arizona 86439, which is dated 29 February 2012. A map of the patented claims is shown on Figure 4-2 and Figure 4-3.

Table 4-1: List of Patented Claims

Claim Name	Mineral Survey	Township/Range	Section	Date of Location	Date of Amended Location	Date of Mineral Survey	Claim Area (ha)
Key No. 1	MS4484	20 N / 20 W	19	Unknown	Not Applicable	April 1959	7.79
Key No. 2	MS4484	20 N / 20 W	19	Unknown	Not Applicable	April 1959	8.32
California Moss Lot 37 (Greenwood)	MS182	20 N / 20 W	19, 30	Unknown	Not Applicable	Before October 1888	8.20
California Moss Lot 38 (Gintoff)	MS796	20 N / 20 W	19, 20, 29, 30	Feb. 02, 1882	Not Applicable	Before October 1888	8.25
Moss Millsite	MS4484	20 N / 20 W	19	Unknown	Not Applicable	April 1959	5.51
Divide	MS4484	20 N / 20 W	19	Unknown	Not Applicable	April 1959	1.91
Keystone Wedge	MS4484	20 N / 20 W	19, 30	Unknown	Not Applicable	April 1959	4.05
Ruth Extension	MS4485	20 N / 20 W	29, 30	July 02, 1929	June 27, 1958	April 1959	7.78
Omega	MS4484	20 N / 20 W	19, 30	Unknown	Not Applicable	April 1959	8.29
Ruth	MS2213	20 N / 20 W	30	Oct. 15, 1888	Not Applicable	February 1906	7.33
Rattan Extension	MS4485	20 N / 20 W	30	July 02, 1929	June 27, 1958	April 1959	8.36
Rattan	MS857	20 N / 20 W	30	July 19, 1886	Not Applicable	October 1888	8.38
Partnership	MS4485	20 N / 20 W	30	June 27, 1958	June 27, 1958	April 1959	2.38
Mascot	MS4485	20 N / 20 W	30	June 27, 1958	June 27, 1958	April 1959	8.36
Empire	MS4485	20 N / 20 W	30	June 27, 1958	June 27, 1958	April 1959	7.91
<i>Total</i>							<i>102.82</i>

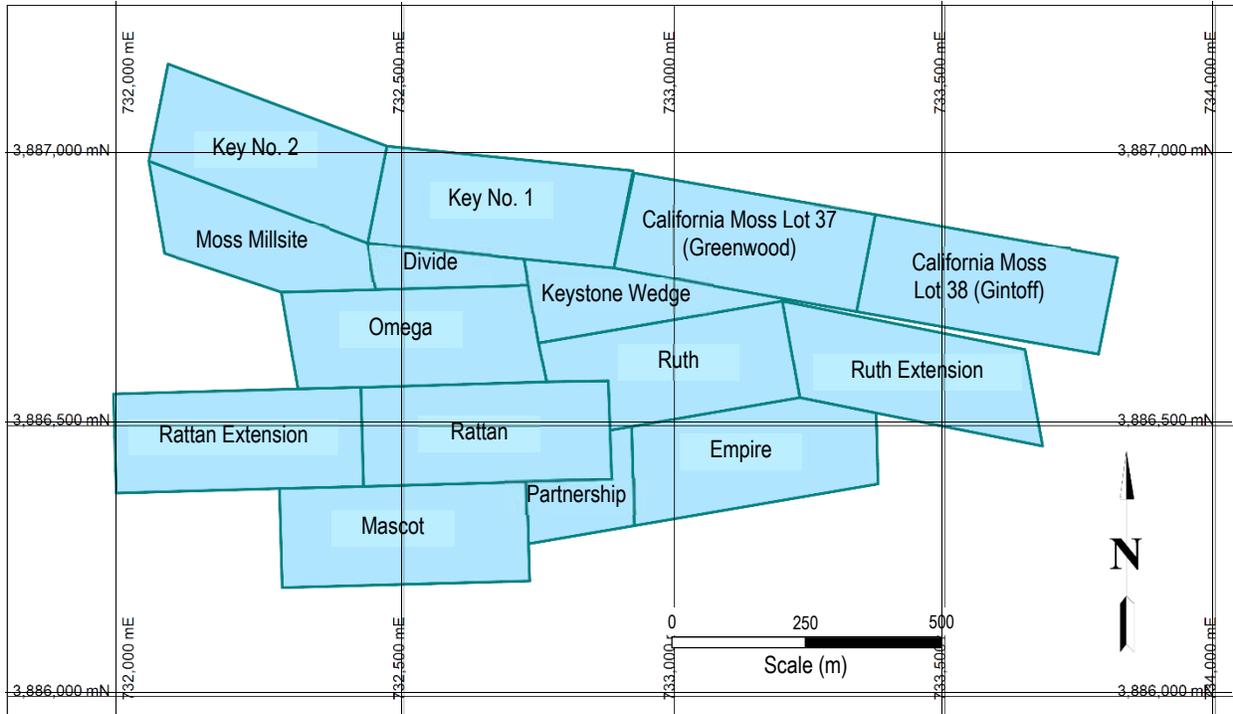


Figure 4-2: Location Plan for the 15 Patented Lode Claims

4.3.2 Unpatented Lode Claims

Figure 4-4 is a general reference, colour-coded location plan for the 465 unpatented lode claims that, with the 15 patented lode claims and the Arizona State exploration permit, comprise the overall Moss Mine Project area. Claim plans covering all of the Moss Mine Project related unpatented lode claims are provided as part of each following subsection relating to the various claim blocks. The total of 473 unpatented lode claims includes:

- 102 unpatented claims originally staked in the name of MinQuest, Inc. (of Reno, Nevada - “MinQuest”, a corporation that carries out geological consulting, contracting and exploration services), which have been transferred to Golden Vertex Corp., but are subject to a royalty as specified in the MinQuest Agreement (Sub-Section 4.5.1) –
 - 61 of the claims were staked by MinQuest on April 26, 27 and 28, 2004 (Moss 11 to Moss 32, Moss 34 to Moss 39, Moss 39F, Moss 40 to Moss 47, Moss 47B and Moss 48 to Moss 70),
 - 41 of the claims were staked by MinQuest on October 19, 2009 (Moss 1 to Moss 10 and Moss 118 to Moss 148);
- 167 unpatented lode claims staked by Golden Vertex Corp. on April 12 to 17 and May 01 to 04, 2011 (GVC 1 to GVC 31, GVC 33 to GVC 65, GVC 67 to GVC 139, GVC 149 to GVC 150, GVC 162, GVC 164 to GVC 168 and GVC 172 to GVC 193) –
 - not all the claims fall within the area of influence of the MinQuest Agreement, in some cases only portions of some the claims are subject to the terms of those agreements,
 - the total of 167 GVC claims does not include eight claims of the GVC series that were allowed to lapse for the reasons described in Sub-Section 4.3.2.2; nor GVC146, 147 and 148 which were allowed to lapse because the location monuments were on State Lands not open to staking;

- 11 unpatented lode claims (Moss 201 to 211) staked by Golden Vertex Corp. on June 27, 2012 and September 05, 2012, to fill-in gaps in the block of patented lode claims and along the southern boundary of the Moss 1 to Moss 148 block of claims –
- GVC301 staked by Golden Vertex Corp. on April 20, 2015 and Moss33X staked by Golden Vertex on September 4, 2015 along the northern boundary of the Moss patented claims to cover gaps which became evident when the area was surveyed.
 - all thirteen claims fall within the areas of influence of the MinQuest Agreement and are subject to the terms of those agreements (Section 4.5); and
- 183 unpatented lode claims (Silver Creek 1 to Silver Creek 22, Silver Creek 31 to Silver Creek 54, Silver Creek 63 to Silver Creek 97 and Silver Creek 108 to Silver Creek 209) staked by La Cuesta International, Inc. (of Kingman, Arizona - "La Cuesta") –
 - the Company has a 100% option agreement over all 183 claims (pursuant to the La Cuesta Agreement, which includes a royalty payment – see Sub-Sections 4.5.3 and 4.6.4), and
 - not all the claims fall within the area of influence of the MinQuest Agreement, in some cases only portions of some the claims are subject to the terms of those agreements.

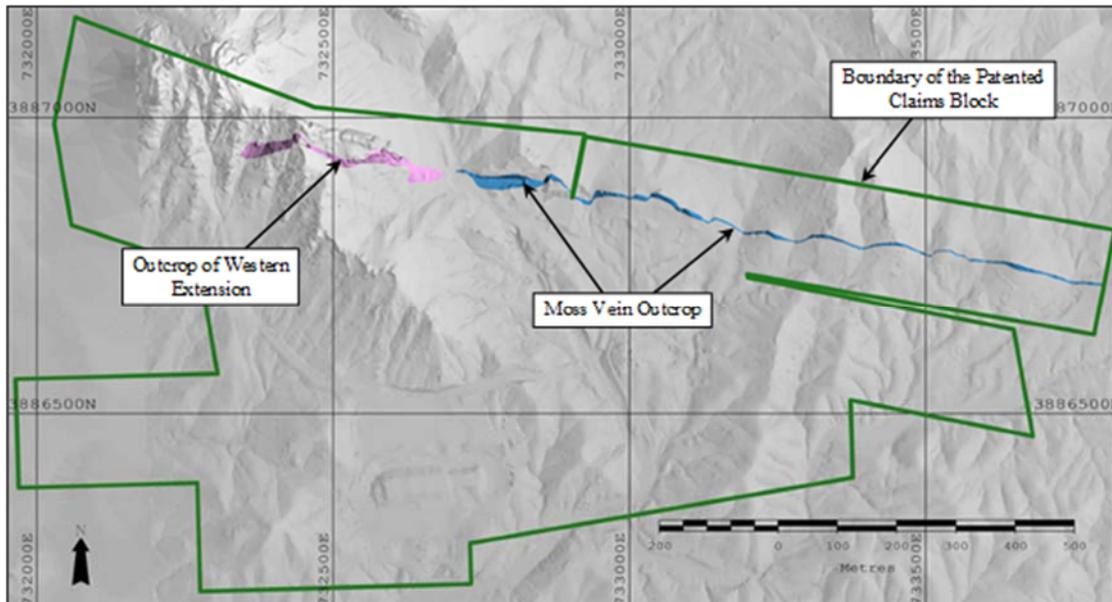
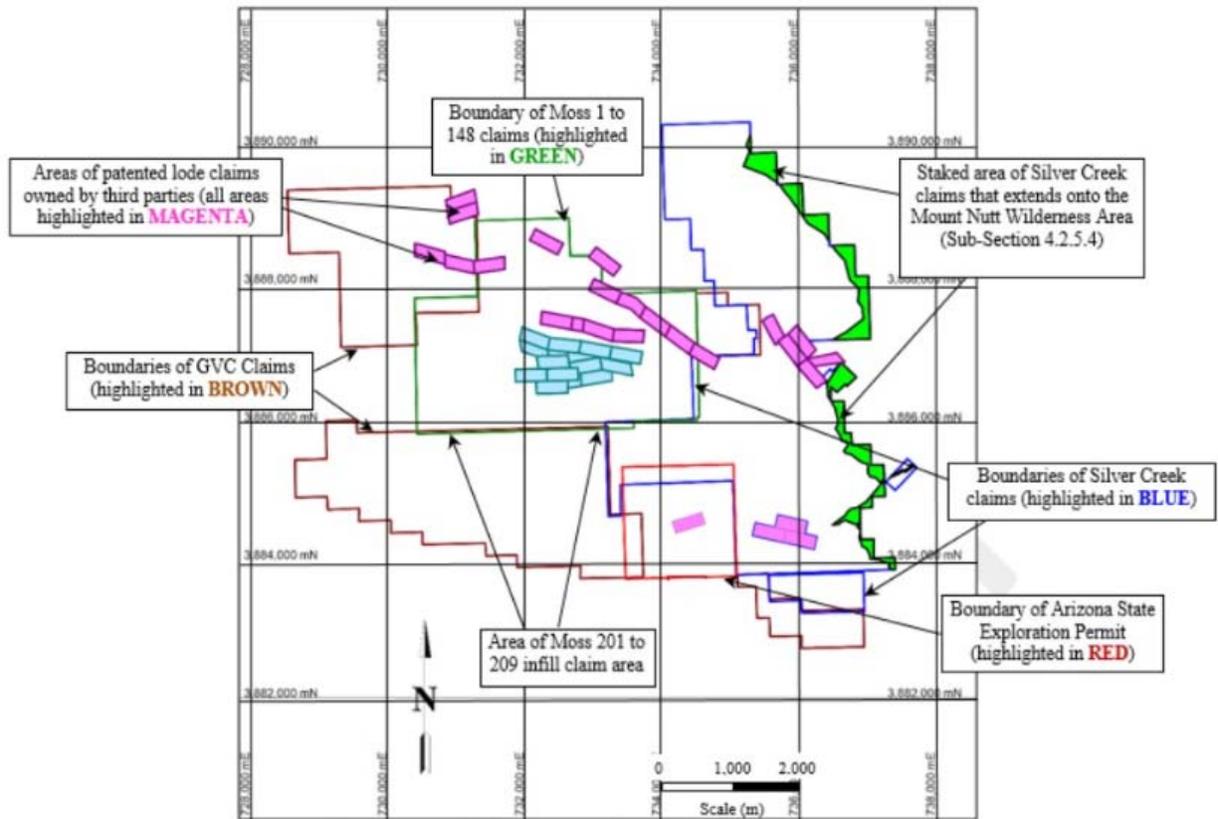


Figure 4-3: A Vulcan® Snapshot of the General Moss Mine Project Area Showing the Boundary of the Patented Claims and the Outcrops of the Moss Vein and West Extension



(compiled from AutoCad® files of the claim areas supplied by the Company)
refer to the following sub-sections for detailed claim plans)

Figure 4-4: A Colour-Coded General Claim Block Reference Plan for the Moss Mine Project Claims and Arizona State Exploration Permit

The maximum allowable size of unpatented lode claims in Arizona is 1,500 ft by 600 ft, which dimensions represent a regular unpatented lode claim. The equivalent area of such claims is 9,000 square feet or 8.361 ha. The vast majority of the various unpatented lode claims considered here have areas of 8.361 ha. The areas of individual claims with non-standard dimensions were from scrutiny of AutoCAD® claims files supplied by the Company.

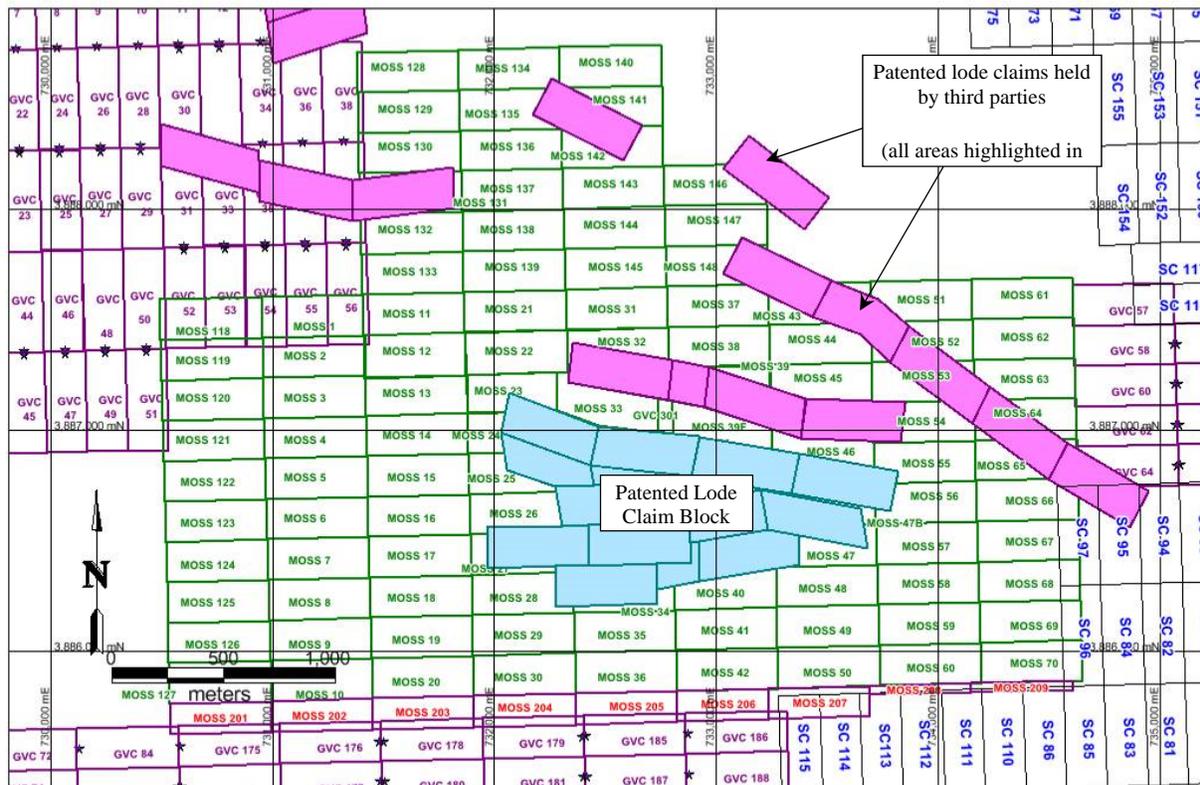
The same AutoCAD® files were used to estimate the portions of individual claims that overlap pre-existing claims and the portions of individual claims that fall within the areas of influence of the MinQuest Agreement. The results are stated on Appendix B, inclusive. It is emphasized that the results are estimates only, that the estimates are stated for information purposes only and they should not be considered as definitive or absolute values.

4.3.2.1 Moss 1 to Moss 148 Series

Appendix B and Figure 4-5 summarize the details and locations of the Moss 1 to Moss 148 series of 104 unpatented lode claims that form a single block that surrounds the block of 15 patented lode claims. The total staked area of the Moss 1 to Moss 148 series of claims is estimated at 869.54 ha. However, Moss 23 to Moss 28, Moss 34, Moss 39F, Moss 40, Moss 46, Moss 47, Moss 47B, Moss 55 and Moss 56 overlap the block of patented lode claims described in Section 4.3.1. Patented lode claims take precedence over unpatented lode claims. The active areas of the overlapping Moss claims are stated in Sub-Section 4.3.3 in which the total estimated claim overlap area is defined.

Some of the listed claims occur in two sections (for example Moss 43). Each section of such claims is stated on Appendix B; some details of individual claims are therefore repeated. The multi-section claims are indicated by the term 'ditto' in the Claim Name, BLM Serial Number and Lead File columns.

Patented lode claims, other than the 15 listed on Table 4-1, exist in the area covered by the Moss 1 to Moss 148 claim series. They are owned by third parties that are independent of the Company; their positions are indicated on Figure 4-5. As earlier outlined, patented lode claims have precedence over unpatented lode claims - unless through mutual agreement, activity on unpatented lode claims that overlap patented lode claims cannot take place.



(compiled from AutoCad® files of the claim blocks, supplied by the Company)
Note: This map has been updated to correct an error in the December 2014 Technical Report

Figure 4-5: A location Plan for the Moss 1 to Moss 148 (labeled in GREEN) and Moss 201 to Moss 209 (Labeled in RED) of Unpatented Lode Claims, Moss Mine Project Area

4.3.2.2 GVC Claim Series

Appendix B summarizes the details of the GVC series of 170 unpatented lode claims that have an estimated total staked area of 1,421.37 ha. The listed series of staked claims does not include GVC 158 to 161, GVC 163 and GVC 169 to 171 that were allowed to lapse as they over-staked an area of existing, active unpatented lode claims held by a third party. After the third-party claims lapsed, the area they covered was staked as part of the Silver Creek series of unpatented lode claims described in Section 4.3.2.4 to ensure the validity of the claims.

Each of the 170 GVC claims has the maximum allowed dimensions of 600 x 1500 feet, hence the area of a regular unpatented lode claim (8.361 ha). However, GVC 38, GVC 39 and GVC50 to GVC 56 overlap portions of the Moss 1 to Moss 148 series of claims described in Section 4.3.2.1. The Moss 1 to Moss 148 series of unpatented lode claims takes precedence as they were staked before the GVC series of unpatented claims. The estimated active areas of the overlapping GVC claims are stated in Section 4.3.3 in which the estimated total overlap area is defined.

Some of the listed GVC claims occur in two or even four sections (for example GVC 24 and GVC 26). Each section of such claims is stated on Appendix B so some details of individual claims are repeated.

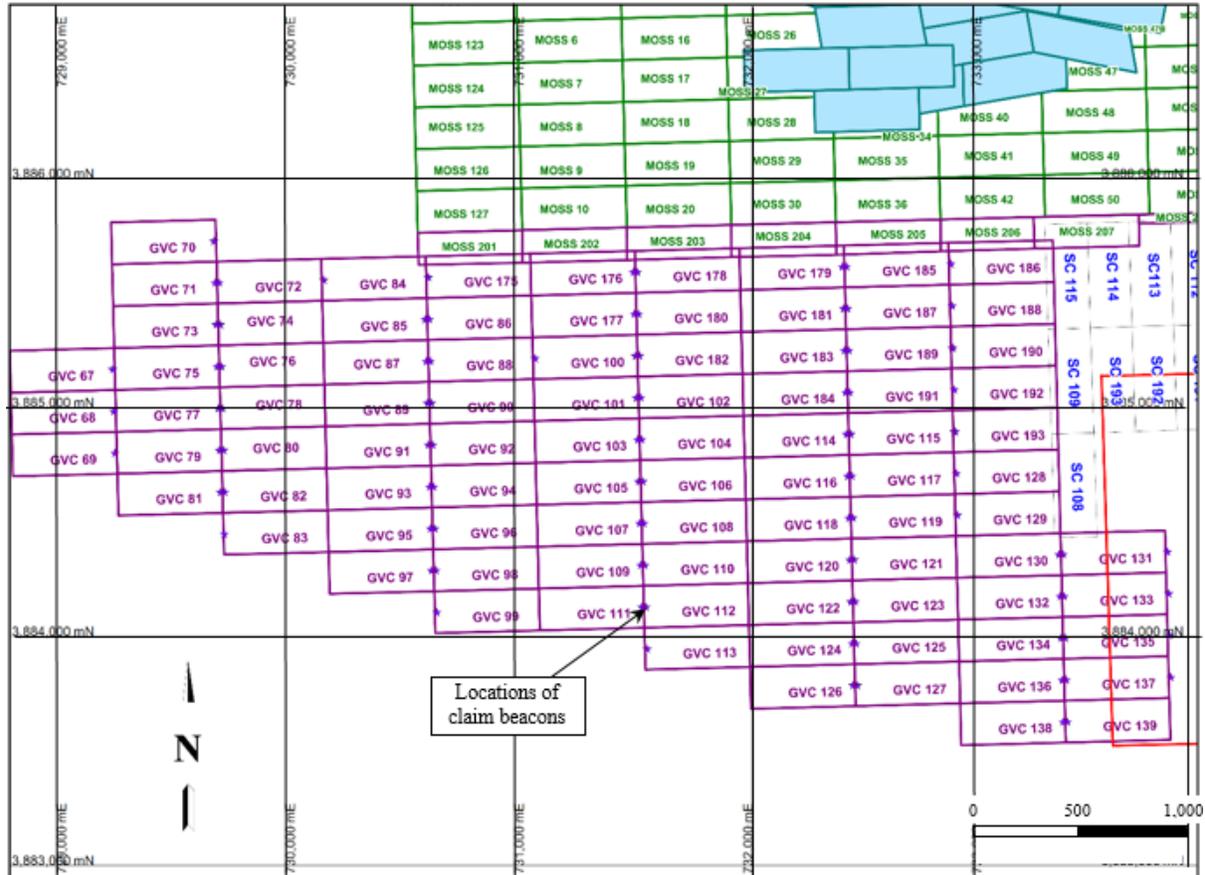
The percent areas of each claim that are subject to the MinQuest Agreement were estimated by consideration of the position of the one mile areas-of-interest around the blocks of unpatented lode claims subject to the agreements (see Sub-Sections 4.5.1 and 4.5.2 for details). The positions of the one mile areas-of-interest lines from the Moss claim block boundary were drawn and the areas of each GVC series claim it intersected were estimated using the AutoCad® claims files supplied by the Company. The percentages of each claim were then estimated by dividing the area of any claim located wholly or partially within the one mile line by the total area of the same claim.

To facilitate legibility, the locations of the GVC series of unpatented claims are presented on three plans (Figure 4-6 to Figure 4 8, inclusive). The plans include the blocks of third party patented lode claims that exist on the ground covered by the GVC claims. The position of each illustrated block of GVC series claims, relative to the 15-patented lode claims and the Moss 1 to Moss 148 series of unpatented lode claims, can be determined by reference to Figure 4-4.



(compiled from AutoCad® files of the claim blocks, supplied by the Company, refer to Figure 4-4 to determine the position of the illustrated claims within the Moss Mine Project Area)

Figure 4-6: A Location Plan for the Company's Block of Unpatented Lode Claims (GVC Series, Labeled in PURPLE), Northwest Sector, Moss Mine Project Area



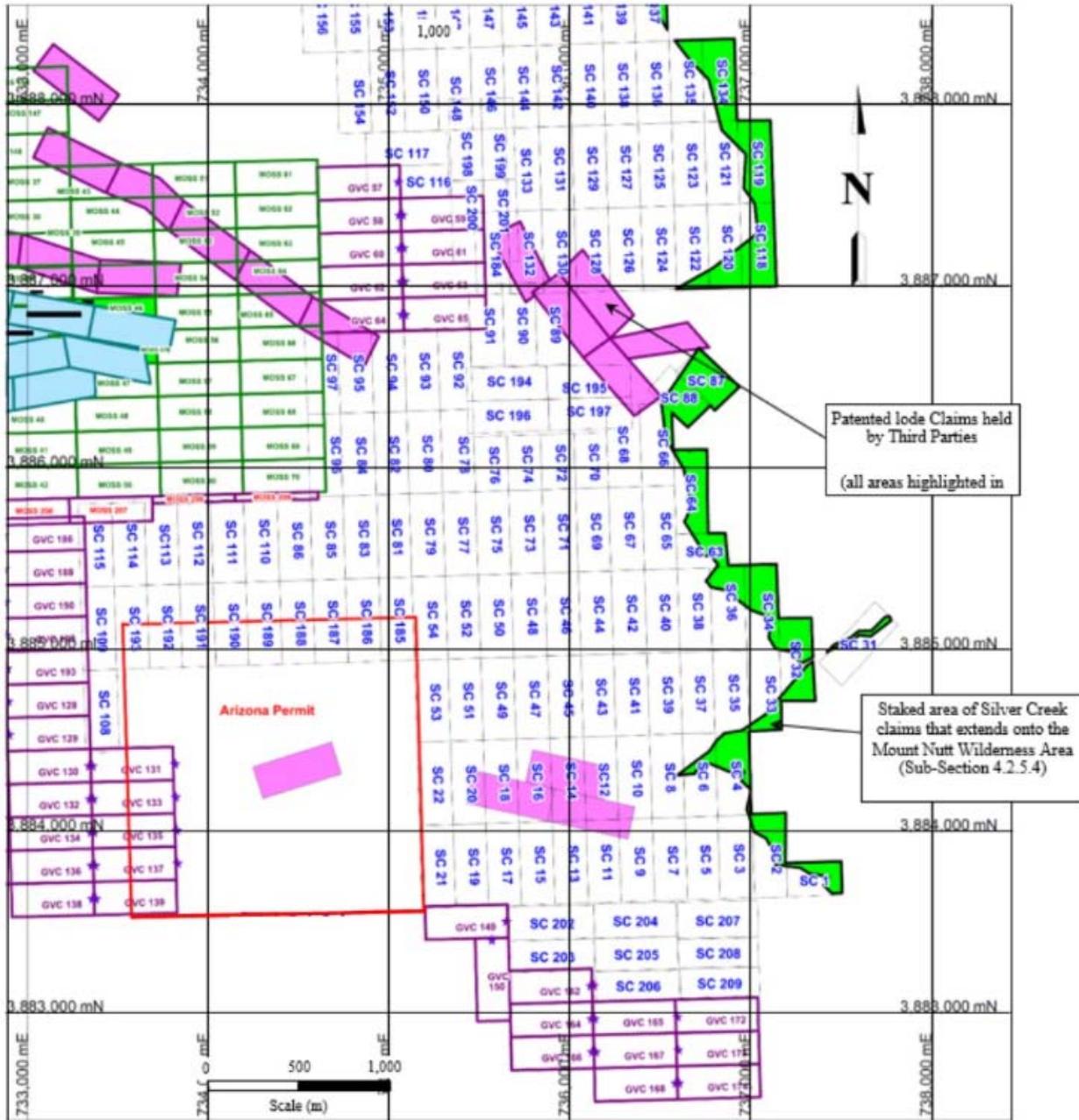
(compiled from AutoCad® files of the claim blocks, supplied by the Company, refer to Figure 4-4 to determine the position of the illustrated claims within the overall Moss Mine Project Area)

Figure 4-7: A Location Plant for the Company's Block of Unpatented Lode Claims (GVC Series, Labeled in Purple), Southwest Sector, Moss Mine Project Area

4.3.2.3 Moss 201 to Moss 211 Claim Series

Appendix B summarizes the details of the Moss 201 to Moss 211 series of 11 unpatented lode claims. Moss 201 to Moss 209 form a single strip along the southern boundary of the main block of Moss claims, to infill the otherwise open ground. Moss 210 and Moss 211 infill gaps between the surveyed boundaries of the 15 patented lode claims described in Sub-Section 4.3.1.

The claim areas stated on Appendix B are the staked areas of each listed claim, estimated using the AutoCad® claims files supplied by the Company. However, Moss 201 to Moss 207 overlap one or more claim of the GVC and SC series to the south. The affected GVC claims take precedence over the overlapping Moss claims. The active areas of the overlapping Moss 201 to Moss 207 claims are stated in Section 4.3.3 in which the total overlap area of the claims comprising the Moss Mine Project area is defined. The locations of the Moss 201 to Moss 209 claims are detailed on Figure 4-5. The locations of the Moss 210 and Moss 211 claims are detailed on Figure 4-9.



(compiled from AutoCad® files of the claim blocks, supplied by the Company, refer to Figure 4-4 to determine the position of the illustrated claims within the overall Moss Mine Project Area)

Figure 4-8: A Location Plan for the Company's Unpatented Lode Claims (GVC Series, Labeled in PURPLE, and Silver Creek (SC) Series, Labeled in BLUE) and Arizona State Exploration Permit Area (Labeled in RED) Southeast and Central East Sectors, Moss Mine Project Area



(compiled from AutoCad® files of the claim blocks, supplied by the Company)

Figure 4-9: A Location Plan for the Company's Moss 210 and 211 Unpatented Lode Claims, Moss Mine Project Area

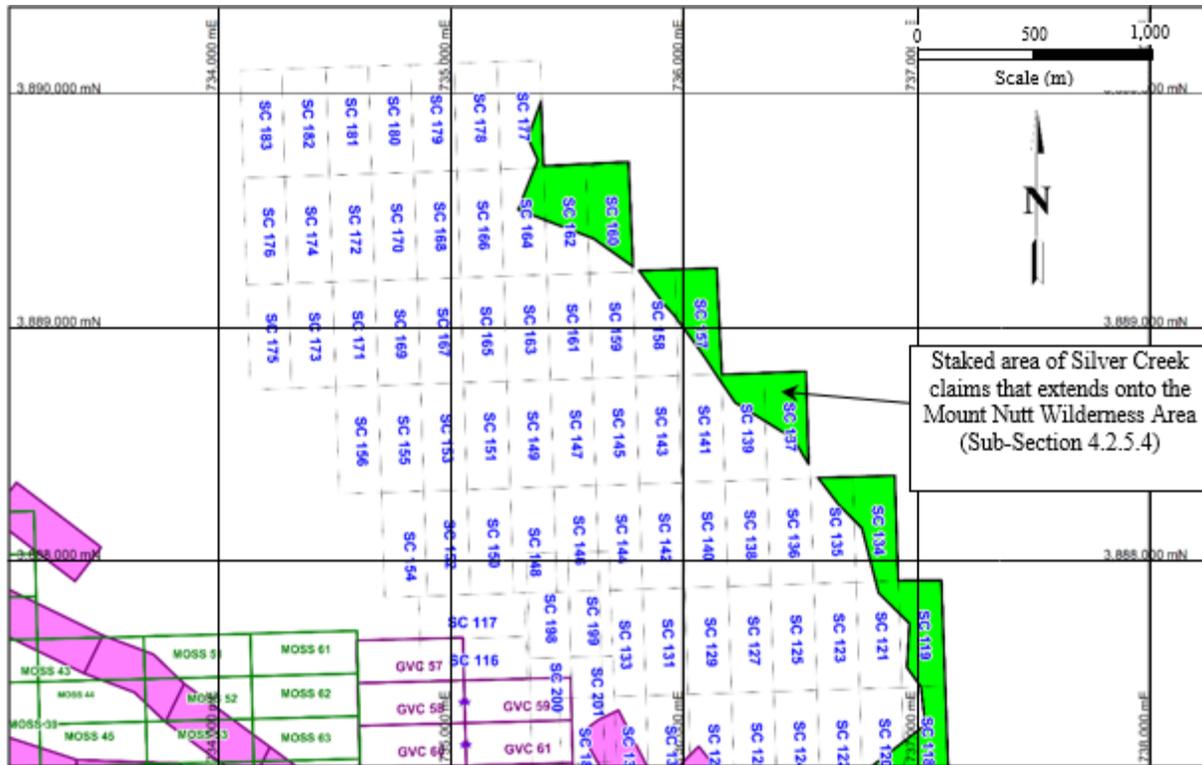
4.3.2.4 Silver Creek Claims

Appendix B summarizes the details of the Silver Creek series of 170 unpatented lode claims (1,487.77 ha). The locations of the claims in the southeast and central east sectors are included on Figure 4-8. Figure 4-10 is a location plan for the Silver Creek claims located in the northeast sector. Each of the plans includes the positions of active patented lode claims that are held by third parties.

Figure 4-8 and Figure 4-10 include the local boundary of the Mount Nutt Wilderness area to the east of the Moss Mine Project Area and highlight the staked areas of the Silver Creek claims that encroach onto the wilderness area. The wilderness area is not open to mineral location and no exploration or related activities are allowed. Pursuant to the La Cuesta Agreement (Sub-Section 4.5.3), the Silver Creek claims listed in Appendix B assert rights to only those portions of the claims that are located outside the wilderness preserve.

4.3.2.5 Arizona State Exploration Permit

The area covered by the Arizona State exploration permit (#08-116110, 259 ha) is identified on Figure 4-8. As can be seen, it overlaps both GVC and Silver Creek series claims. The 'active' area of the exploration permit area is estimated to equal approximately 186.8 ha.



(compiled from AutoCad® files of the claim blocks, supplied by the Company, refer to Figure 4-4 to determine the position of the illustrated claims within the overall Moss Mine Project Area)

Figure 4-10: A Location Plan for the Company's Optioned Unpatented Lode Claims (Silver Creek [SC] Series, labeled in BLUE), Northeast Area, Moss Mine Project Area

4.3.3 Claim and Permit Overlaps

Appendix B summarizes the various overlaps between the various claims and between the Arizona State exploration permit and claims. The active areas of each listed claim were estimated from scrutiny of the AutoCad® claims files supplied by the Company. The total overlap area (estimated at 158.16 ha) was deducted from the total estimated area of all the Moss Mine Project patented lode claims, unpatented lode claims and one Arizona State exploration license (rounded to 4,188.94 ha) to arrive at the estimated total Moss Mine Project area of 4,030.78 ha.

It is emphasized that, for the reasons stated in Section 4.3.2, the areas stated in Appendix B are estimates only: none of the unpatented lode claims have been surveyed by a licensed land surveyor; and the stated values are estimates based on scrutiny of AutoCad® claims files supplied by the Company.

4.4 TAXES, MAINTENANCE FEES, AND RENT

4.4.1 Patented Lode Claims

Taxes are levied by the State in respect of patented lode claims, for payment to the local county (Mohave County in the case of the Moss Mine Project). The value of a property comprising patented lode claims is assessed by the Property Tax Division of the State's Department of Revenue. The State then applies an assessment ratio to the assessed value to arrive at an assessed full cash value for the patented ground. Primary and secondary tax rates (for 2015, 8.142% and 1.5184%, respectively) are then levied on the assessed full cash value to determine the tax due for the stated patented lode claim or claims. If the tax liability is greater than US\$100, 50% of the tax due is payable on or before October 01 of the assessed tax year, with the balance due on or before the first of the following March. If the tax liability is less than US\$100, payment is due on or before December 01 of the assessed tax year.

The Company estimates that the tax liability for 2018 is approximately US\$36,000.

4.4.2 Unpatented Lode Claims

To maintain unpatented lode claims as active, hence in good standing, an annual maintenance fee is payable to BLM before September 01 of each year, in respect of the following 12 months. At the time of writing (November 2017) the maintenance fee for 2018 was US\$155 per unpatented lode claim. The fiscal year 2018 maintenance fees have been paid.

4.4.3 Arizona State Exploration Permit

Initial rental totaling US\$2.00 per acre for the first two years of an Arizona State exploration permit is payable to the Arizona State Land Department (ASLD), in advance, reducing to US\$1.00 per acre through to Year Five. Exploration permits expire after Year Five. A bond is established based on the proposed exploration activities (typically US\$3,000.00 for a single permit). A blanket bond of US\$15,000.00 can be paid for five or more permits held by an individual or company.

4.5 PRINCIPAL AGREEMENTS

4.5.1 MinQuest Agreement

The MinQuest Agreement is a mining lease/purchase agreement between MinQuest and Patriot Gold. It was entered into on March 04, 2004. Pursuant to its terms Patriot Gold purchased the Moss Property that is defined in the MinQuest Agreement as:

- seven patented lode claims (Key No. 1, Key No. 2, Moss Millsite, Divide, Keystone Wedge, California Moss Lot 37 [Greenwood] and California Moss Lot 38 [Gintoff]); and
- 63 unpatented lode claims (Moss 11 to Moss 33, Moss 33F, Moss 34 to Moss 39, Moss 39F, Moss 40 to Moss 47, Moss 47F and Moss 48 to Moss 70).

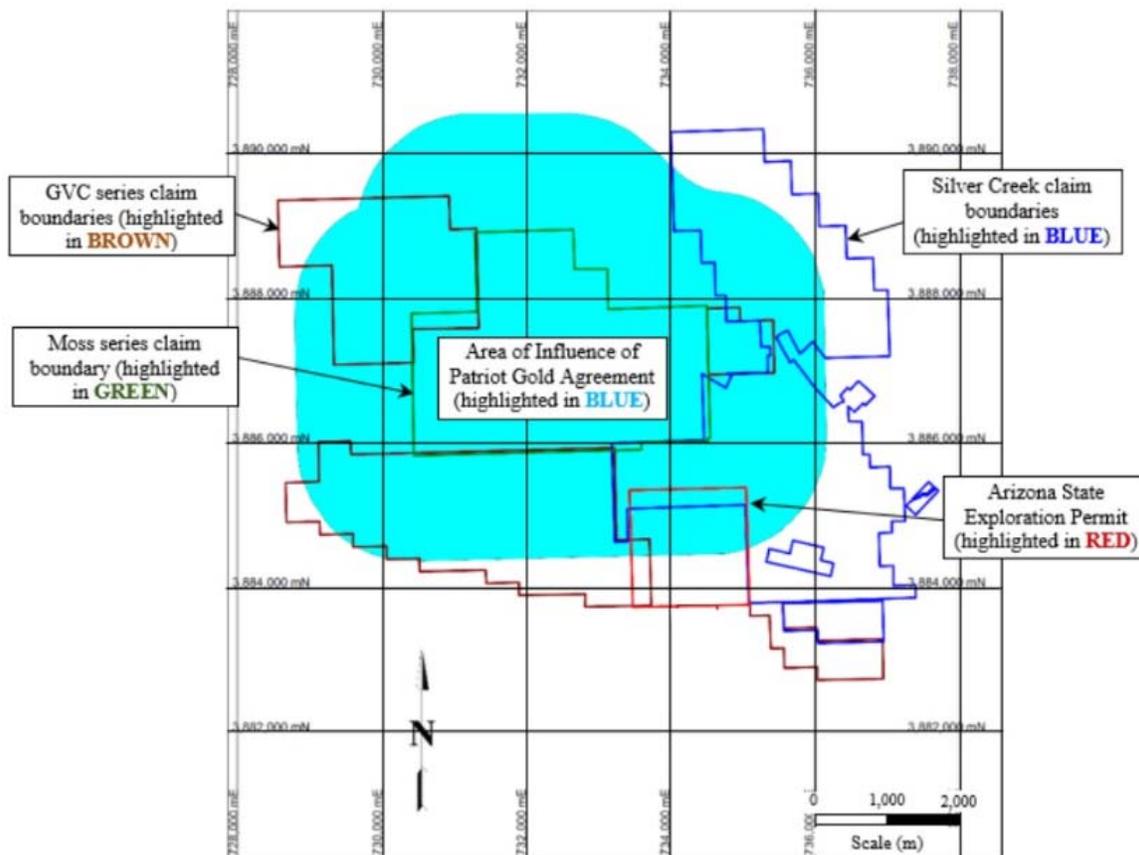
Pursuant to the MinQuest Agreement, a payment of US\$50,000 was made by Patriot Gold on signing the MinQuest Agreement, plus reimbursement of filing fees of US\$150 per patented and unpatented claim. The agreement is valid for 20 years from the date of signing (March 04, 2004) with automatic extensions 'so long as Patriot Gold holds all or portions of the Property. Royalties are payable in respect of the MinQuest Agreement, which are detailed in Section 4.6.1.

4.5.2 2011 Patriot Gold Agreement

The Patriot Gold Agreement covered all of the 15 patented lode claims listed in Sub-Section 4.3.1 and all of the 104 unpatented lode claims of the Moss 1 to Moss 148 series described in Sub-Section 4.3.2.1. The agreement was an Exploration and Option to Enter Joint Venture Agreement for the Moss Mine Project made between Patriot Gold and Idaho State Gold Company, LLC (“ISGC”), a company registered in Idaho, dated February 28, 2011. The terms of the agreement were for ISGC to earn a 70% interest in the claims by spending US\$8.0 million on work on the claims in five years, prepare a bankable feasibility study and make a cash payment of US\$0.5 million on signing the agreement.

After signing the Patriot Agreement, ISGC decided not to move forward with the Patriot Gold Agreement and instead assigned it to the Company by means of an Assignment and Assumption Agreement dated March 4, 2011. The Company assumed ISGC’s obligations in the Patriot Gold Agreement and the Company made the initial cash payment of US\$ 0.5 million to Patriot Gold. ISGC is independent of the Company, and ISGC received no payment in respect of the Assignment and Assumption Agreement.

The 2011 Patriot Gold Agreement includes a one mile area of influence around the exterior boundary of the claim blocks subject to the agreement. Pursuant to the agreement, any additional claims staked within this area, either by Patriot Gold or the Company, were to be subject to the Patriot Gold Agreement. Figure 4-11 identifies the area of influence defined by the one mile criterion.



(compiled using the AutoCad® claims files supplied by the Company)

Figure 4-11: A Color-Coded, General Claim Block Reference Plan for the Moss Mine Claims Showing the Extent of the One Mile Zone of Influence Defined in the Patriot Gold Agreement

4.5.2.1 2015 Arbitration

Subsequent to the assignment of the Patriot Agreement, the Company spent a total in excess of US\$8.0 million on developing the Moss Mine Project, including the successful construction and operation of the Phase I pilot plant. On November 17, 2014, the Company released the results of an updated Mineral Resource Estimate based on an updated geological model and resource block model. The Company also announced that it had commenced the preparation of a bankable feasibility study in accordance with the terms of the Patriot Agreement. On delivery of a Feasibility Study, the Company was entitled to earn-in a 70% interest in the Moss Project.

On January 26, 2015 Patriot Gold served a notice of arbitration on the Company pertaining to two matters in the 2011 Patriot Agreement. The first claim was that some or all of the gold and silver produced by the Phase I pilot plant constituted a “net operating profit” and hence should accrue to Patriot Gold. The second matter was a dispute about the scope of a “bankable feasibility study”. In this matter Patriot disputed the Company’s intent to limit the Feasibility Study to reserves solely on the patented claims. The Patriot position was that the Company was obligated to produce a feasibility study that would access all of the known resources including those only accessible from the unpatented claims.

On January 26, 2016, the Company announced that it had prevailed in the arbitration proceedings initiated by Patriot Gold. The Company prevailed on both disputed matters. The arbitration award confirmed that Northern Vertex’s Feasibility Study delivered to Patriot on July 20th, 2015, met the requirements of the 2011 Exploration and Option to enter Joint Venture Agreement. Northern Vertex thus earned a vested 70% interest in the Moss Mine Gold Silver Project. The arbitrator also dismissed Patriot Gold’s claims to be paid US\$5.5 million for the gold and silver proceeds from the 2013 Phase I pilot plant program.

4.5.3 2016 Patriot Gold Sale Agreement

On May 12, 2016, the Company announced the signing of a purchase and sale agreement with Patriot Gold wherein the Company would acquire Patriots remaining 30% working interest in the Moss Project for C\$1.5 million plus the retention of a 3% net smelter return royalty (NSR). The sale closed on May 26, 2016 with payment of C\$1.2 million in cash and C\$300,000 in common shares valued at C\$0.35 (857,140 shares). With the consolidation of ownership, the Company assumed all of the rights and obligations previously assigned in the 2011 Patriot Gold Agreement.

4.5.4 La Cuesta Agreement

The La Cuesta Agreement covers all of the 183 Silver Creek claims from #1 through #209, as well as the Arizona State exploration permit, that are held in the name of La Cuesta. The agreement is a Mineral Lease and Option Agreement made between the Company and La Cuesta, dated May 07, 2014. Pursuant to the terms of the agreement, full rights to the Silver Creek unpatented lode claims and to the Arizona State exploration permit are transferred to the Company. The primary period of the agreement is 35 years, with extensions allowed up to a maximum of 50 years (although the exploration permit will expire in 2017 the Company was able to acquire a second exploration permit in the name of Golden Vertex Corp).

Pursuant to the terms of the agreement, the Company has provided La Cuesta with 100,000 Company shares and must pay La Cuesta a total of US\$85,000 in six month installments over the first 42 months after the date of the agreement, and then US\$25,000 every six months thereafter. The payments are credited against future production royalties. Once the production royalty described in Section 4.5.3 starts, no further pre-production payments have to be made.

In addition to the payments outlined, the Company has to spend a minimum of US\$15,000 on ‘work commitments’ on the leases in Year 1 from the date of the agreement, rising to US\$20,000 in Year 2 and US\$200,000 in Year 3. No minimum work commitments are required thereafter.

4.6 ROYALTIES

The following royalty agreements apply to the patented and unpatented claims:

4.6.1 MinQuest, Inc.

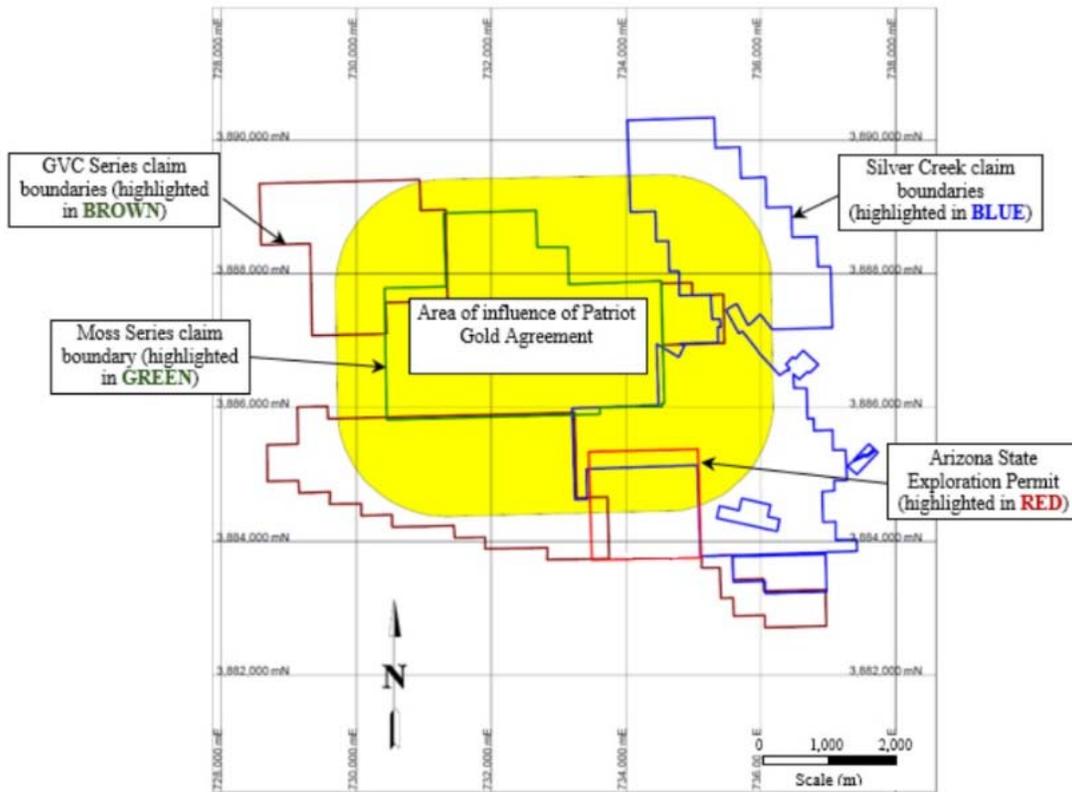
Pursuant to the MinQuest Agreement, MinQuest will receive:

- a 3% net smelter return (NSR) royalty in respect of all production from the 63 unpatented lode claims listed in the MinQuest Agreement and on public lands within one mile of the outer perimeter of the present claim boundary¹;
- a 1.0% NSR royalty on any and all production from the seven-patented lode claims to which no other royalties apply; and
- an over-riding 0.5% NSR royalty on all production from those patented lode claims with other royalty interests (limited to the California Moss Lot 37 [Greenwood] lode claim, under the terms of the Greenwood Agreement [Sub-Section 4.6.2]).

The position of the one mile boundary line from the claim block boundary that is the subject of the MinQuest Agreement was drawn and the areas of each claim it intersected were estimated using the AutoCad® claims files supplied by the Company. The percentages of each claim were determined by dividing the estimated area of any claim located wholly or partially within the one mile line by the total estimated area of the same claim.

Figure 4-12 shows the area of influence of MinQuest's one mile boundary line, in respect of the various unpatented lode claim blocks that surround the claim block boundary that is the subject of the MinQuest Agreement (note that the area is smaller than that defined by the Patriot Gold Agreement, per Figure 4-11, because the total block of claims that is subject to the MinQuest Agreement is smaller than the block of claims subject to the Patriot Gold Agreement). Details of the estimated percentages of each unpatented lode claim that is subject to the MinQuest Agreement (hence royalty) are presented in Appendix B. The percentages are estimates for the reasons previously outlined: none of the unpatented lode claims have been surveyed by a licensed land surveyor and the fractions of individual claims subject to the MinQuest Agreement were estimated from scrutiny of AutoCad® claims files supplied by the Company.

¹ Reader is advised that Table 4.7 in the December 2014 Technical Report contains an error and reports this royalty to apply to the patented claims, which it does not.



(compiled using the AutoCad® claims files supplied by the Company)

Figure 4-12: A Colour-Coded, General Claim Block Reference Plan for the Moss Mine Claims Showing the Extent of the One Mile Zone of Influence Defined in the MinQuest Agreement

4.6.2 Greenwood Agreement

The California Moss Lot 37 (Greenwood) claim is subject to a Purchase Agreement between Patriot Gold and various parties referred to as the Greenwood Agreement that is dated March 2004. The purchase price of US\$150,000.00 was paid by Patriot Gold, in addition to which a 3% NSR royalty is payable to the original owners, on gold and silver produced from the claim. In addition and as defined above, a royalty of 0.5% is payable to MinQuest in respect of the California Moss Lot 37 (Greenwood) claim and all other patented claims in which the original vendors have a royalty interest.

4.6.3 Finders Agreement

Pursuant to a Finders Agreement between the Company and BHL, the Company paid a Finder's Fee to BHL in respect of 'certain data, information and consulting services to Northern Vertex concerning the business opportunity and the mineral prospect known as the Moss Mine...' (extracted from the Finders Agreement). An initial payment of US\$15,000.00 (equal to 3% of the initial payment under the Patriot Agreement) was made to BHL. Subsequent payments equal to 3% of all Exploration and Drilling Work Expenditures incurred by the Company until the start of commercial production, as defined in the Patriot Agreement, have and will be made as quarterly installments, as required by the Finders Agreement.

On commercial production from the Moss Mine, as described in the Patriot Agreement, the Company will pay BHL, on or before 30 days after the end of each calendar quarter, an amount for each troy ounce of gold and silver produced, according to the following schedule:

- for a quarterly average gold price of less than US\$700 per troy ounce, US\$5.00 per troy ounce of gold produced;
- for a quarterly average gold price equal or greater than US\$700 per troy ounce but less than US\$1,000 per troy ounce, US\$10.00 per troy ounce of gold produced;
- for a quarterly average gold price of greater than US\$1,000 per troy ounce, US\$15.00 per troy ounce of gold produced;
- for a quarterly average silver price of less than US\$15.00 per troy ounce, US\$0.10 per troy ounce of silver produced;
- for a quarterly average silver price equal or greater than US\$15.00 per troy ounce but less than US\$25.00 per troy ounce, US\$0.20 per troy ounce of silver produced;
- for a quarterly average silver price of greater than US\$25.00 per troy ounce, US\$0.35 per troy ounce of silver produced.

The total amount of the payable fee is capped at US\$21.00 million and can be purchased by the Company for US\$2.40 million, in cash and/or shares, upon mutual agreement and within 90 days of the start of commercial production.

4.6.4 La Cuesta International, Inc.

Pursuant to the terms of the La Cuesta Agreement, the Company will pay La Cuesta a 1.5% NSR royalty on any gold or silver production from the area covered by the Silver Creek claims listed in Sub-Section 4.3.2.4, plus an additional 0.5% NSR royalty on any third-party claims.

4.6.5 Patriot Gold

In accordance with the terms of the 2016 purchase agreement with Patriot Gold, the Company will pay a 3.0% NSR royalty on all gold and silver production from the patented and unpatented claims covered by the 2011 Patriot Gold Agreement.

4.6.6 Property Access Agreement

The Moss Mine patented claims are surrounded by federal lands administered by the Bureau of Land Management ("BLM") on which unpatented lode claims registered to Golden Vertex Corp. are located. The patented claims are accessed by means of an unimproved dirt road (Moss Mine Access Road) that extends north from Silver Creek Road, (a County Regional Road) for a distance of approximately 2.0 kilometers. The unimproved road is identified as #7717 by the BLM, and is designated as open to motor vehicle use in the BLM Kingman Resource Area Resource Management Plan (1993).

In 2016, Mohave County formally exercised their rights under RS 24 77 – ("Revised Statute 24 77") which was enacted by the United States Congress in 1866 to encourage the settlement of the Western United States by the development of a system of highways. Its entire text is one sentence: "the right-of-way for the construction of highways across public lands not otherwise reserved for public purposes is hereby granted." The original grant did not require being recorded, meaning it was self-enacting, and in 1866 constructing a road often meant using a trail many times and perhaps filling low places, moving rocks and placing signs. It granted to counties and states a right-of-way across federal land when a highway was built.

Subsequently, Mohave County, in letter dated October 31, 2016, from Steven Latoski, P.E., Director of Public Works, addressed to L. J. Bardswich, P.E., General Manager, Golden Vertex Corp. confirmed that the Moss Mine Access Road is a right-of-way and road for public ingress/egress, and Mohave County Board of Supervisors Resolution 2016-116 permits property owners or residents to maintain public rights-of-ways and roads for the purpose of ingress and egress to their property.

In May 2017, the Company submitted plans for design approval to Mohave County to upgrade the Moss Mine Access Road to an AASHTO Class IV Rural Road with two – 12-foot wide lanes, 5 foot shoulders and a 15 foot clear zone to accommodate a power line. The County approved the design and the Company filed a Right of Way Permit Application to the Kingman Field Office of the BLM for construction of the road. The application is presently undergoing NEPA review.

4.7 ENVIRONMENTAL LIABILITIES

The Qualified Person for this section of the Technical Report is Dr. David Stone, P.E.

4.7.1 Historical Liabilities

The Moss Project site has been disturbed by previous “historical” mining activities dating back to the late 1800’s. These activities are separate from the Phase I activities carried out by the Company in 2013 and 2014.

There are no known environmental liabilities at the site from the historical activities. The Moss ores do not contain measurable quantities of sulphides hence there are no acid drainage issues. The previous activities have not resulted in the stockpiling of disposal of any hazardous substances.

There was a gold stamp mill on site in the early 1900’s and the ruins of the mill can be seen today. The historical milling included the use of mercury amalgam and a small stockpile of tailings is thought to contain measurable amounts of mercury. The Company was able to encapsulate these tailings in place under provisions of the 1980 Bevill Amendment to Public Law 96-482 in advance of the Phase II site grading which later buried the material.

4.7.2 Phase I Liabilities

The Phase I heap and associated works, such as the barren and pregnant ponds, have been dismantled and re-purposed as part of the current Phase II development now underway.

The spent ore from the Phase I heap was first detoxified, and subsequent testing proved the material was inert and met Arizona drinking water standards. In accordance with ADEQ permit requirements, this material was used as leach pad liner bedding under the Phase II leach pad. The Phase I leach pad and pond liners were then removed and buried in the Phase II waste dump.

The remainder of the Phase I facilities (the carbon columns, tanks and solution piping) were sold to a buyer in Mexico and the former Phase I laboratory structures are currently being retrofitted for use in Phase II.

4.8 PERMIT HISTORY/BACKGROUND

The Qualified Person for this section of the Technical Report is Dr. David Stone, P.E.

4.8.1 Phase I

The Company obtained permits and approvals for the Moss Mine pilot operation (Phase I) to produce gold in 2013. The approved operations included a 122,000 tonne cyanide heap leach, a lined pregnant pond, a lined barren pond, and a waste rock facility containing overburden and very low grade ore. The operation was authorized through permits

and approvals that were issued by Arizona State agencies. Access to the site by use of the #7717 road was authorized by the local Kingman field office of the BLM.

Because the ore crushing operations generated fugitive emissions that were below a specific threshold value of tons per year, the State of Arizona Department of Environmental Quality (ADEQ) issued a Letter of Non-Determination. As long as the Company operated at emissions levels below that threshold, there was no need to secure an individual emissions permit under the state authorized Clean Air Act permitting program. However, the letter did require the Company to report the actual tons of ore processed to demonstrate conformance to the threshold requirement.

The cyanide heap leach, pregnant solution pond, and barren solution pond are considered discharging facilities (i.e. facilities with the potential to discharge to groundwater) under the Arizona Aquifer Protection Program. An Arizona Aquifer Protection Program (APP) permit was required in order for the Company to operate the mine. The permit application was submitted on December 5th, 2012 and was formally accepted the same day. The permit was issued on July 19th, 2013. In conjunction with the permit, the Company had to post a \$510,700 bond to cover the costs of closure for the permitted facilities.

The open pit and waste rock facility were authorized under a Reclamation Plan approval that was issued by the Arizona State Mine Inspector's office on May 20th, 2013. The Reclamation Plan specifies the plan for reduction of pit slopes and for grading and stabilizing the waste rock facility when mining operations cease. The reclamation plan authorization required the posting of a bond in the amount of \$205,807 to cover the costs for post mining reclamation of the pit and waste facility, as well as for reclamation of roads, structure demolition, and site grading and stabilization.

The Company also filed a Notice of Intent (NOI) for coverage under the Arizona Multi Sector General Storm Water Permit (MSGP, Clean Water Act) for storm water discharges during operation of the Moss Mine during Phase 1. A Storm Water Pollution Prevention Plan (SWPPP) was also prepared to define best management practices (BMPs) for control of storm water discharges from the site.

The pilot phase of the operation (Phase I) was completed in late 2014 and the cyanide heap leach was flushed and rinsed in the spring of 2015. Approximately 4,150 ounces of gold were produced by the pilot operation.

4.8.2 Phase II

The current focus of the Company is the Phase II project as detailed in the 2015 FS.

4.8.3 Jurisdictional Washes

The project site is cut by several erosional features, one of which was been deemed to be a jurisdictional wash by the Army Corps of Engineers during the Phase II permitting process. Subsequent to the 2015 FS, the Company revised the Phase II plans to avoid this wash. This avoided any delay to the project associated with obtaining the Section 404 approvals.

4.8.4 Property Access

Pursuant to the previously referenced letter from the Director of Public Works for Mohave County, the Moss Mine Access Road is a right-of-way for public ingress/egress. The Mohave County Board of Supervisors Resolution 2016-116 permits property owners or residents to maintain public rights-of-ways and roads for the purpose of ingress and egress to their property.

In May 2017, the Company submitted plans for design approval to Mohave County to upgrade the Moss Mine Access Road to an AASHTO Class IV Rural Road with two – 12-foot wide lanes, 5-foot shoulders and a 15-foot clear zone to accommodate a power line. The County approved the design and the Company filed a Right of Way Permit Application

to the Kingman Field Office of the BLM for construction of the road. The application is presently undergoing NEPA review.

4.8.5 Aquifer Protection Permits (APP) – AZ DEQ

Prior to Phase I operations, the Moss Mine was determined to have the potential to discharge waters into the ground water of the Lake Havasu basin and as such, Golden Vertex was required to obtain an Aquifer Protection Permit (#64302). The permit requirements included compliance with State of Arizona BADCT (Best Available Demonstrated Control Technology) design, operating and monitoring criteria. The permit requires amendments for changes in any of the conditions, ranging from minor amendments to significant amendments. Minor amendments are usually of short duration (1 week to two months). A Significant Amendment was required for the change from Phase I to Phase II and took approximately 6 months and was granted on April 12, 2017.

It is expected that a Significant Amendment would be required for the process expansion that would be occasioned should Phase III move forward. It is estimated that the Significant Amendment would be approved within 6 to 8 months following submission.

4.8.6 Air Quality Permit – AZ DEQ

The Moss Mine was exempt from the requirement to obtain an Air Quality Permit in Phase I due to the short duration of the project. A permit was required for Phase II, and the application was submitted during the month of June 2016. The public hearing was held in Bullhead City on December 15, 2016. On December 16, 2016, the AZ DEQ issued and sent the proposed final permit to the Environmental Protection Agency for a 45-day review period. Air Quality Control Permit No. 64302, valid for five years, was issued on February 15, 2017.

4.9 FACTORS AND RISKS (QUALIFIED PERSON'S OPINION)

Based on the success of the Company in obtaining the required permits for Phase I and Phase II, the primary author does not foresee any permitting risks that could impact the proposed development.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

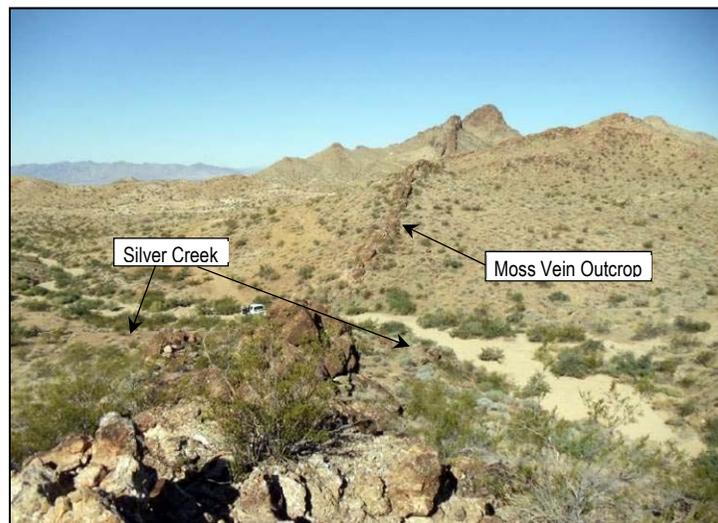
The Qualified Person for this section of the Technical Report is Dr. David Stone, P.E.

The Moss Mine Project area is located on the Davis Dam 1:100,000 scale topographic map (30 x 60 minute quadrangle) of the United States Geological Survey, BLM's surface management status and desert access guide maps and the Kingman, Arizona 1 x 2 degree, 1:250,000 topographical map (USGS).

5.1 TOPOGRAPHY, ELEVATION AND VEGETATION

The Moss Mine Project area is located in the Black Mountain Range in the southern part of the basin-and-range topographic province. Elevations in the general area vary from 200 m (at Davis Dam, on the Colorado River) to 1,543 m (the peak of Mount Nutt). Elevations across the Project area vary from an average low of approximately 658 m to a local maximum of approximately 820 m at the western end of the Property (see Figure 5-1 for a general view of the project area). The Moss vein forms a prominent east-west ridge across the northern portion of the block of 15 patented lode claims described in Section 4.3. It is the Moss Vein that is the principal target for mining in Phase II and Phase III.

The local Project area is drained by a minor tributary of Silver Creek at the eastern end of the block of 15 patented lode claims (Figure 4-2), which is dry for most of the year and which drains southwest and then west into Colorado River. Vegetation is in general sparse; it comprises bunch grass, sagebrush and cacti. The Fort Mojave Indian Tribe and other private companies have created an agricultural community that covers several square miles in the fertile fields of Mohave Valley and Fort Mohave, to the immediate south of Bullhead City. The main crops are cotton and alfalfa.



Looking approximately west, from the eastern boundary of the block of patented lode claims with the Local Topographic High in the Background
(Source: Northern Vertex)

Figure 5-1: General View of Moss Gold-Silver Project Area

5.2 POPULATION CENTERS AND TRANSPORTATION

The nearest cities to the Moss Mine property are Bullhead City in Arizona (10 km west) and Laughlin in Nevada (15 km northwest). According to the 2010 census, Bullhead City has a population of approximately 39,500 people with approximately 100,000 people living in the Bullhead City-Laughlin area, including adjacent communities.

The nearest town to the Project area is Oatman, Arizona, which is approximately 10 km to the south-southeast of the Property center. According to the 2010 census it had a population of 135 people. During the Oatman gold mining boom

it was a mining town with a population estimated at 10,000. Oatman is a historical gold mining town that hosted 3 underground gold mines at the turn of the century producing over 2 million ounces of gold.

The nearest major city to the Moss Mine Property is Las Vegas, Nevada, which is approximately 130 km northwest of the Property center (Figure 4-1 and Figure 5-2). According to the 2010 census, Las Vegas has a population of some 1.95 million people in the metropolitan area, including 0.58 million people in the city proper. Good quality paved roads (Highways 93 and 95 leading to Highways 68 and 163, respectively) link Las Vegas and Bullhead City, which is approximately 12 km by road and to the west of the Property center. Interstate Highway 40 is approximately 40 km to the south of the Property center. There is an international airport at Las Vegas from where chartered flights can be secured to the Laughlin/Bullhead City International Airport located on the Arizona side of Colorado River, which forms the local boundary between the two states. The nearest railway station is at Needles, California, approximately 32 km to the southwest of the Moss Mine Property center.

Kingman, Arizona, approximately 37 km due east of the Moss Mine Property center, is the Mohave County seat. According to the official city of Kingman's website, Kingman and the surrounding area have a population of approximately 45,000. The airport, formerly known as Kingman Army Airfield, is city owned for public use and is located about 15 km northeast of the central business district of Kingman. The city is approximately 59 km or 42 minutes from Bullhead City and 3 hours from Phoenix, Arizona.

Phoenix is the Arizona state capital, which is approximately 290 km to the southeast of the Moss Mine Property center. It is in Maricopa County in central Arizona where other cities make up what is known as the "Greater Phoenix" area. Access to supplies and equipment will most likely be found there if the surrounding towns and cities around the Moss Mine Property do not have the required items. This includes the potential need for quick access to contractors, laborers, and tools. The 2013 census estimates a population of 1.5 million not including neighboring areas such as Chandler, Tempe, Mesa, Gilbert, Scottsdale, Glendale, Cave Creek, Surprise, Peoria, and Avondale.

5.3 SITE ACCESS

Road access from Las Vegas to Bullhead City is straightforward: the approximately 155 km journey takes approximately 1.5 hours on improved U.S. Highways (see Table 5-1). From Bullhead City, the Moss Mine Property is reached by traveling south on the U.S. Highway 95 Bypass (also called Bullhead Parkway) to Silver Creek Road, an unimproved road maintained by Mohave County. Turning left (east) onto Silver Creek Road, travel approximately 9.0 km to an unimproved County road that is called #7717. Turning left (north) onto this road, travel approximately 2.5 km to the Moss Mine Property. There are currently no physical restrictions that would prevent the use of this road system for transporting equipment and supplies to the property. All materials and supplies have been and will continue to be transported in accordance with applicable federal and state transportation requirements.

Table 5-1: Most Direct Route from Las Vegas to Project Property

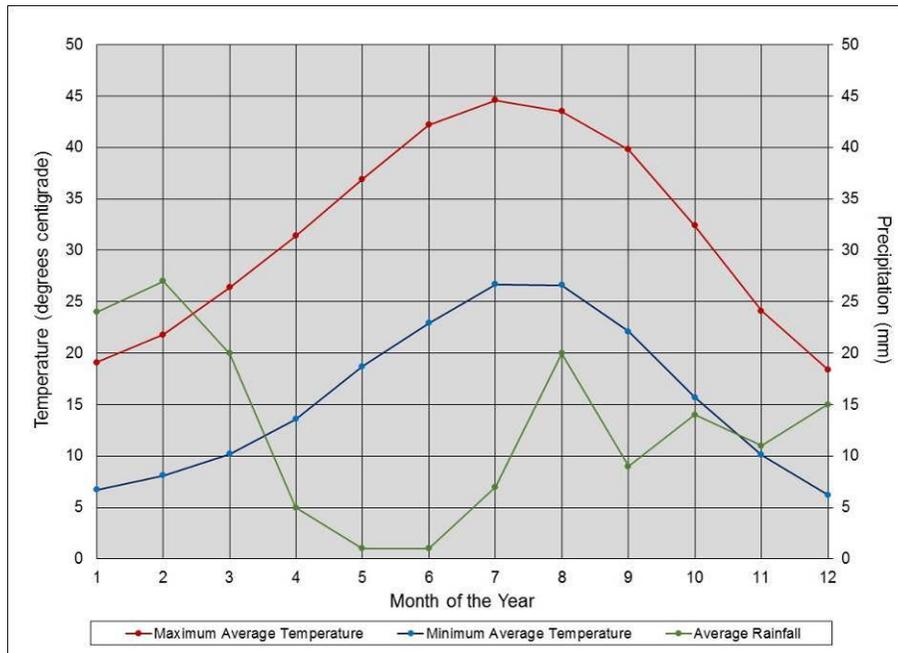
From	To	Road	Distance (km)
Downtown Las Vegas	US Highway 95 turning	Great Basin Highway (US Highways 93/95)	36.0
US Highway 95 turning (right)	Laughlin Highway via Searchlight and Cal-Nev-Ari	US Highway 95	88.5
Laughlin Highway turning (left)	Laughlin	Nevada State Highway 163	31.0
Laughlin	Silver Creek Road via Bullhead City	Arizona State Highway 95 By-pass (Bullhead City Parkway)	8.2
Silver Creek Road (left)	Moss Mine turn-off	Silver Creek Road (graded dirt road)	9.0
Turn north (left)	Moss Mine	Local dirt road	2.5
		<i>Total Distance</i>	<i>175.2</i>



Figure 5-2: Location of the Moss Mine Project Area Showing the Major Roads Linking Bullhead City and Las Vegas

5.4 CLIMATE AND OPERATING SEASON

The climate in the general Project area is classified as desert (Koppen climate classification BWh). In the Holdridge Life Classification zone it is in a warm temperate latitudinal region, pre-montane to lower montane altitudinal zone and a desert humidity province. There are no climatic constraints on the operating season, although daytime temperatures can exceed 40°C (104°F) during June, July and August (Figure 5-3). Heatwaves with temperatures in excess of 50°C (122°F) are not uncommon. The average annual rainfall at Bullhead City is 154 mm (6.06 inches, data ex. www.usclimatedata.com). No rain can fall for months and occasional heavy downpours occur.



(Source: Compiled from information contained on www.usclimatedata.com)

Figure 5-3: Monthly Average Temperatures and Rainfall for Bullhead City, Arizona

5.5 SURFACE RIGHTS, POWER, WATER AND PERSONNEL

5.5.1 Surface Rights

Activities during Phase I and Phase II were limited to the 15 patented lode claims described in Sub-Section 4.2.4. It is established in Sub-Section 4.2.4 that:

- a patented lode claim is one for which the Federal Government has passed title to the claim holder, thereby making it private land; and
- the patent gives the owner full and exclusive title to the surface area of these claims.

Phase III, however will require the project to extend onto Federally owned, BLM managed, land. Unlike a patented claim, unpatented lands only assert a right of possession, but not ownership. These rights are restricted to the development and extraction of mineral resources.

5.5.2 Power and Water

The Colorado River is approximately 12 km to the west of the Property center. It flows from north to south and divides the state of Arizona from Nevada and California. Hydroelectric power is generated at Davis Dam on Lake Mohave

(approximately 8 km north of Bullhead City) and at Hoover Dam on Lake Mead (approximately 100 km north-northeast of Bullhead City). A major powerline passes some 6.0 km to the west of the Moss Mine Property centre.

The project site is remote from the local power grid hence diesel generated power will be used for the Phase II operations. The PEA assumes the local power grid can be extended to the mine site at a reasonable cost, and the Company has already submitted an application for a right-of-way for construction of a powerline.

The principal water source for mine operations will be groundwater sourced from wells on the patented ground.

5.5.3 Personnel

Abundant accommodation, supplies, services and related recreational and light industry facilities are available in the Bullhead City-Laughlin area. The casinos and ancillary services at Laughlin provide much of the local employment, but there is a long history of mining in the area from where a potential workforce for the Moss Mine could be found. Technical and management roles will continue to be filled by suitable professionals, who would be housed in the Bullhead City-Laughlin area.

5.5.4 Project Facilities

The Phase II project is fully permitted for development on the patented lands.

The Company asserts there is adequate space in and around the Moss project unpatented lands for the Phase III expansion of the heap leach pad, waste dumps, and open pit. As noted above, any development on un-patented lands will require Federal approval.

6 HISTORY

This section has been extracted from the June 2015 Technical Report filed on SEDAR.

6.1 PROPERTY HISTORY

6.1.1 Discovery and Early Mining (1863 to 1935)

The Moss Mine Project was discovered in 1863 by John Moss (1839-1880). At the time, it was reported to be the first major gold discovery in Mohave County. The larger San Francisco Mining District of Mohave County was established in 1864 (Malach, 1977).

The available records show that John Moss was made aware of the Moss Mine area by stories about soldiers from nearby Fort Mojave prospecting for and finding gold. A popular, alternative account of the Moss Vein discovery is that Chief Irataba of the Mojave Tribe led Moss to what became known as the Moss Vein outcrop. Whatever the case, John Moss' name appeared on the first recorded mining claim called the Moss Lode, under the ownership of the San Francisco Gold and Silver Company. It was reported that a 'shoot containing more than \$200,000 in gold' was mined in a 3-m wide and 3 m deep glory hole on the claim, to the east of the later site of Allen Shaft (Figure 6-1).

The available records show that Moss sold the Moss Lode to Dahrean Black and that it was later sold to the Gold Giant Mining and Milling Company of Los Angeles. The area around the glory hole was explored by numerous holes and tunnels, but no other substantial quantities of gold are reported to have been found. The Ruth Vein was subsequently discovered and a 70 m (230 ft) shaft was sunk and 'hundreds of feet of tunnels' were developed (Malach, 1977). The Moss Mine is reported to have produced approximately 12,000 ounces of gold until it was closed in 1866 due to 'unfriendly Indians' (Durning & Buchanan, 1984).

Following its abandonment in 1866, there was little mining activity in the district until the discovery of the regionally famous Gold Road Vein in 1902. The town of Vivian was founded in that year; its name was changed to Oatman in 1908. In 1906, the Tip Top and Ben Harrison mineralized shoots were discovered. In 1915 and 1916 the Big Jim, Aztec and United Eastern mineralized bodies were discovered on the Tom Reed Vein. Mining activity increased and the population of Oatman grew to a reported 10,000 (today referred to as the Oatman gold mining boom, 1915 to 1917). By the mid-1920s the population of Oatman had fallen to a few hundred. In 1933, an increase in the gold price from US\$20 to US\$35 per ounce resulted in a brief flurry of activity, but all the local mines were closed by 1942 (Ransome, 1923; Sherman & Sherman, 1969; Varney, 1994).

Historical underground mine plans of the Moss Mine in the Company's database are dated May 10, 1915 by Goldroad Mines Co. of Goldroad, Arizona, and September 25, 1920 by the Moss Mines Co. of Gold Road, Arizona. These show the Allen Shaft and levels at 60 feet (18.3 m), 75 feet (22.9 m), 125 feet (38.1 m) and 220 feet (67 m). The plans show that Moss Mine was operating between 1915 and 1920.

The available records show that the Ruth Mine was accessed by a 60° degree incline shaft to drifts on 100-, 200- and 300-ft Levels. Activity appears to have continued through to mid- 1935, by which time approximately 183 m (600 ft) of drifting is reported to have been completed.



(Looking approximately east-northeast, copied from Ransome [1923], Plate IX-B)

Figure 6-1: Historical Photograph of the Allen Shaft at Moss Mine, 1920-1921

6.1.2 Previous Exploration and Development (1982 to 2009)

Table 6-1 summarizes the work carried out on the Moss Mine Property by previous owners and operators, up to and including Patriot Gold's last exploration program in 2009. The comments contained in the following sub-sections apply.

Table 6-1: Summary of Exploration and Development Work Carried Out by Previous Owners and Operators on the Moss Mine Property (the 15 patented lode claims) to 2009

Company	Date	Work Completed	Comments
Moss Mine	1860 to 1920	Surface holes and underground mining	12,000 oz of gold reported to have been extracted
Ruth Mine	1900? to 1935	Underground mining	Approx. 24,400 t of mineralized material extracted
BF Minerals	1982	54 rotary air trac holes, four reverse circulation ("RC") holes for a total of approximately 1,885 m (6,190 ft)	Only assayed Moss Vein material.
Harrison Minerals	1987 to 1988 (exact dates unknown)	Rehabilitated Allen Shaft and deepened it to 91.4 m (300 ft)	Constructed headframe in 1987, reportedly left broken mineralized material in stopes, 3,000 to 5,000 short tons trucked to Tyrol mill.
Billiton Minerals	1990	21 RC holes for a total of 2,190.4 m (6,925 ft)	Preliminary analysis of gold and silver department, preliminary metallurgical tests.
Magma Copper Company	1991	21 RC holes for a total of 3,012.5 m (9,890 ft)	Developed local geological maps. Metallurgical testwork carried out by McClelland Laboratories.
Reynolds Metals Explorations, Inc.	1991	11 drillholes for 1482.9 m (4,865 ft), plus two RC holes (152.3 m, 500 ft)	Collar co-ordinates not available.
Golconda Resources	1993	19 RC holes for a total of 931.5 m (3,058 ft)	-
Addwest Minerals International Ltd.	1996 to 1997	30 RC holes for a total of 2,502.8 m (8,217 ft) plus six diamond drillholes for a total of 507.8 m (1,667 ft)	Developed a new geological model.
Patriot Gold Corporation	2004 to 2009	43 RC holes for a total of 3,596.4 m (11,807 ft) plus 12 diamond drillholes for a total of 2,085.3 m (6,846 ft)	Consolidated land position, carried out geological studies and surveys. Contracted Metcon Research to carry out metallurgical testwork.

6.1.3 Historical Production

Production details for the historical Moss mine are limited. A total of some 12,000 oz of gold is estimated to have been produced prior to 1920, and in 1988 a total of between 3,000 and 5,000 short tons were extracted and hauled to Tyro Mill in Mohave County.

The available records for Ruth mine suggest that prior to 1907, 'several hundred tons' of mineralized material had been extracted, for processing at Hardyville. During the Oatman boom the mine was extended and, according to Ross Barkley, mine superintendent in the 1930s, approximately 22,680 t (reported as 25,000 short tons) were mined on 100 Level. Mining ceased when a geological fault was encountered.

In 1933 Ross Barkley and two partners obtained a bond and lease on the Ruth Mine, found mineralized material on the other side of the intersecting geological fault and, during 1933 and 1934, 'shipped US\$25,000 worth' of mineralized material (reported to be worth US\$14.70 per short ton, thereby yielding an output of some 1,543 tonnes or 1,700 short tons of mineralized material) to the Tom Reed mill. When the mine changed hands in 1935 shipments totaling 500 short tons at US\$9.45/short ton were made in February, along with 900 short tons at US\$13.00/short ton in March and 1,200 short tons at US\$14.00/short ton in April. For the gold price prevailing at the time (US\$35/oz Au), the production records outlined suggest grades of between approximately 9.0 g/t and 14.0 g/t Au for the extracted material, hence selective high-grading along what were known as pay shoots (i.e. high-grade zones of mineralized material).

6.2 PHASE I PROJECT DESCRIPTION

The Phase I pilot heap operations were carried out in 2013 and 2014 to test the metallurgical parameters for commercial operations. The Phase I facilities included an open pit, heap leach pad, barren and pregnant solution ponds, a carbon recovery plant, and ancillary facilities such as an onsite laboratory, onsite diesel power, a medical/safety office and a general office trailer.

During Phase I, some 175,000 tonnes of material was mined from the Phase I open pit using conventional drill and blast mining methods. Roughly 112,500 tonnes was crushed to minus 6 mm, agglomerated with cement, and placed on the heap leach pad with a radial stacker. The material was placed in one 10 m lift.

The mining, crushing, agglomeration and stacking was carried out by a Contractor using mobile equipment. The operation was overseen and managed by Golden Vertex personnel.

The heap leach stage of the operation was carried out from August 2013 to September 2014. During this period, a weak cyanide solution was applied to the top of the heap using drip irrigation. Solutions were recovered to a pregnant solution pond and then circulated through conventional carbon-in-pulp (CIP) carbon columns. The loaded pregnant carbon was then shipped offsite to a stripping facility to recover the precious metals. The stripped carbon was then returned to the Moss project site for re-use.

Approximately 4,150 ounces of gold were recovered during the pilot heap operations representing 84% recovery to solution and 82% recovery to doré bar.

6.3 PHASE II CONSTRUCTION

The current focus of the Company is construction of the Phase II mine in accordance with the 2015 FS. As of the filing date of this Technical Report, the Phase II construction was roughly 80 percent complete as follows:

6.3.1 Crushing Plant

The crushing plant was considered mechanically complete at the end of October 2017 with the installation of the 4 crushing units, three rock boxes, 14 conveyors and the agglomeration circuit. The agglomeration circuit, consisting of the cement silo and agglomeration drum, was commissioned in early November 2017. The remaining work was primarily to finish the electrical work including the cable trays, cabling, conduit and instruments.

6.3.2 Power Station

Work commenced on the diesel power station for the project in late October 2017. Great Basin Industrial (“GBI”) of Kaysville, Utah poured the concrete pedestals for the 8 Caterpillar generators and transformers, and the first 2 generators were due onsite shortly thereafter. Rebel Oil of Kingman, Arizona supplied three 10,000-gallon fuel tanks, and Western Line Builders completed the erection of most of the poles needed for overhead power distribution across the mine site. Empire CAT supplied a temporary 2 Megawatt powerplant for commissioning.

6.3.3 Leach Pad and Ponds

N.A. Degerstrom, Inc. of Spokane, WA was responsible for the leach pad and pond earthworks, and American Environmental Group followed with liner installations. By the end of October 2017, the completed pond works included the West Event Pond, the South Event Pond, and the Pregnant Solution Pond. All the major grading in the leach pad was complete in October 2017, and roughly 90% of the pad was covered with at least one sheet of liner. Placement of inter-liner leak detection sand and piping continued advancing in the West and Central pad areas, and placement of overliner drainrock was progressing in the Central and East pad areas.

6.3.4 Over Liner Drainrock Crushing

Superstition Crushing of Mesa, Arizona was mobilized to site in late September 2017, and by the end of October 2017 they had produced 130,000 tons of the contracted 150,000 tons of clean drainrock for use as overliner in the completed portions of the leach pad. Roughly 100,000 tons of the overliner stockpile had been placed by November 2017.

6.3.5 Merrill Crowe

At the time of writing this report, GBI had made good progress in the Merrill Crowe and refinery areas. All the required tankage was complete along with the installation of the major equipment including the clarifier filters, precipitate filter presses, associated pumps and piping. The refinery building shell was erected and the focus of construction was shifting to electrical work.

6.3.6 Commercial Production

Once the Phase II facilities are complete in December 2017, the project will enter the commissioning and ramp-up phase towards a target of achieving commercial production by April 2018. This includes mining in the Phase II open pit at a nominal rate of 5,000 tonnes per day, crushing, agglomerating and stacking on the leach pad.

The Phase II mine will access the Mineral Reserves reported in the 2015 FS.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 SOURCES OF INFORMATION

The geology and mineralization of the Moss mine and vicinity were initially studied by Schrader (1909), Ransome (1923) and Lausen (1931). More recently, consultants for Golden Vertex and previous explorers have studied the deposit and its geology. Results are found in unpublished reports by Baum and Lherbier (1990), Hudson (2011), Brownlee (2014), Cuffney (2015), Cuffney and Eastwood (2013), and Larson (2013, 2015).

The Moss mine project lies within the western part of the Oatman mining district. The regional geology of the mining district was mapped by Ransome (1923), Lausen (1931), and Thorson (1971). Pearthree et al (2009) mapped the area surrounding the Moss mine project at 1:24,000 scale, providing a modern framework for the geological setting of the project area. The moss claim block was mapped by Eastwood (2011) for MinQuest, and the Moss patented claims were mapped in detail (1:1500 scale) by Cuffney (2013).

The section has been condensed from the 2015 Technical Report and updated by the Qualified Person for this section, Robert G. Cuffney, Certified Professional Geologist, and updated to reflect new data and interpretations gained from geological work conducted since 2014. The reader is referred to the 2015 Technical Report for further details on the geology of the Moss mine project and Oatman mining district.

7.2 REGIONAL SETTING

The Oatman mining district lies within a large Tertiary volcanic field, developed on a basement of Precambrian granitic and metasedimentary rocks. The Moss mine lies within an alkalic to sub-alkalic silicic volcanic center, the Silver Peak caldera, a large tectono-volcanic collapse feature, which was the source for the Peach Springs tuff. The Peach Springs tuff fills the caldera and its outflow ash-flow sheet extends for more than 40,000 km² across northwest Arizona and California (Glazner, et al, 1986). The main Oatman district lies just outside of the caldera rim, where mineralization is hosted in pre-caldera intermediate composition lava flows, whereas Moss lies inside the caldera.

Calderas are often excellent loci of epithermal precious metals deposits due to the combination of deep-seated structures (concentric and radial fractures), permeable volcanic and volcanoclastic host rocks, intrusive activity, and abundant water for development of hydrothermal fluids. Examples include Round Mountain, NV, Silverton, CO, Goldfield, NV, and Creede, CO. The main Oatman mining district, lying immediately to the east-southeast of the Moss mine produced more than two million ounces of gold from northwest to west-northwest-trending epithermal quartz-calcite veins, several of which contained bonanza grade ores and averaged more than 1 oz/t gold.

7.3 HOST ROCKS

The main host rock of the Moss deposit is the Moss porphyry, a polyphase monzonite to quartz monzonite porphyry, which intrudes volcanic tuffs, flows, and minor volcanoclastic sediments filling the caldera. The main mass of the Moss porphyry contains coarse grained (4 mm to 10 mm) plagioclase and biotite phenocrysts with lesser hornblende in a very fine grained groundmass of quartz and feldspar. The Moss stock contains more felsic phases and equigranular quartz monzonite to monzodiorite phases. Within the project area the porphyry has undergone weak early propylitic and potassic alteration. Sparsely porphyritic feldspar porphyry and rhyolite porphyry to aplite dikes with quartz eyes crosscut the porphyry and the volcanic wall rocks. Late (post-mineral) micro-gabbro to basalt dikes cut all units along north-trending faults.

The easternmost portion of the Moss project area and the western portion of the patented claims are underlain by the Peach Springs tuff, (formerly the Alcyone Formation), which forms the caldera fill. In the project area, the Peach Springs tuff is a thick highly variable unit composed dominantly of several welded trachytic ash-flow tuff sheets separated by coarse volcanoclastic sediments, debris flows, and volcanic breccias. Lithic-rich welded tuff is common

and locally large foundered blocks of Precambrian granite, representing landslide deposits from the caldera walls, occur within the tuff. Welded tuffs within the Peach Springs tuff are competent units capable of hosting both persistent veins and stockworks.

7.4 MINERALIZATION

Gold-silver mineralization at Moss occurs as high-level low-sulfidation epithermal veins and stockworks. The mineralization is very similar to that of the main Oatman mining district and may be considered an extension of the Oatman vein system, possibly of the Gold Road vein.

Three main veins and their associated stockworks host the bulk of mineralization defined to date at Moss: 1) the Moss Vein; 2) the western extension of the Moss Vein (the “West Vein”); and 3) the Ruth Vein to the south of the Moss Vein. The Moss vein strikes west-northwest and dips steeply to the south. The Ruth vein and other small veins in the hanging wall of the Moss vein are antithetic veins dipping to the north. Geological mapping combined with Moss Mine Project drill hole logs and assay database indicate the potential for other mineralized veins that are both similar to and sub-parallel to the Ruth Vein. For purposes of geological domains, they have been grouped under the term Vein No. 4. See Figure 7-1.

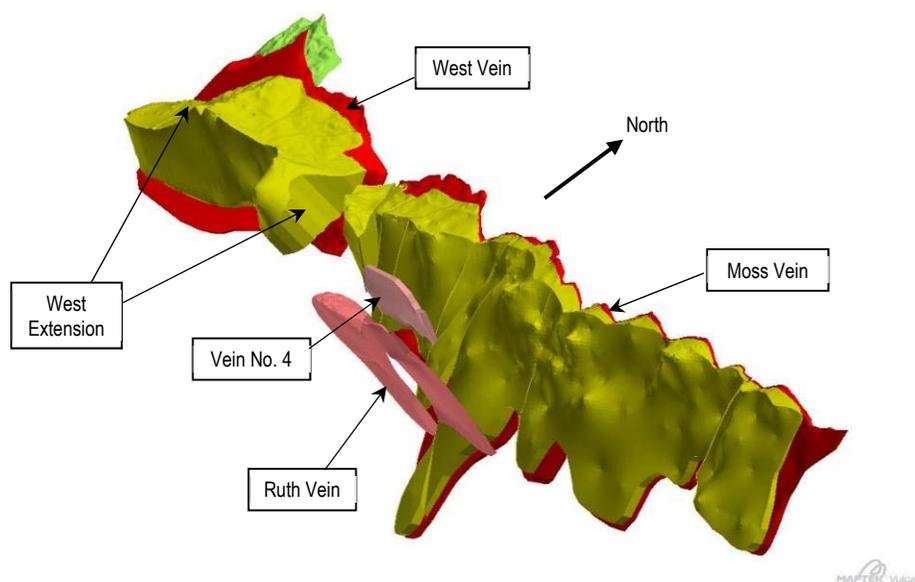


Figure 7-1: Vein Mineralization Diagram

Inferred Mineral Resources have been identified on the Ruth Vein, which, along with Vein No. 4, remains an exploration target. The focus of the feasibility development plans is the Moss Vein and associated stockworks and the West Vein and its associated stockworks in the West Extension area. The Ruth Vein resources are not considered in this study.

7.4.1 Moss Vein

The Moss vein strikes 206° and dips an average of 70° to the south (96o, 70o using the right-hand rule). The vein can be followed for more than 1.4 km across the property, where it forms a series of low west-northwest trending hogbacks with the vein footwall defining the north side of the ridges. The nature of the vein varies both along strike and down dip, from a massive quartz-calcite vein through quartz-calcite vein containing floating clasts of wallrock to stockwork veining. The vein is locally brecciated due to later tectonic movement. Stockwork veins and veinlets are concentrated in the vein hangingwall, where thick zones of low-grade economic mineralization occur. The footwall contact is a fairly sharp,

well-defined contact, which varies in nature from an undisturbed fissure-filling contact between vein and wallrock to a fault contact with brecciated vein juxtaposed against footwall host rock.

The footwall of the Moss vein is normally a clearly visible contact between vein and un-veined wallrock, although locally quartz-calcite stringers carrying low-grade precious metal values extend for a few meters into the footwall wallrock. Two such mineralized footwall zones may be associated with dilational flexure zones. In contrast, the position of the upper contact of the hangingwall stockwork is a less well defined contact, picked predominantly on the basis of gold assays as vein density in the hangingwall gradually decreases.

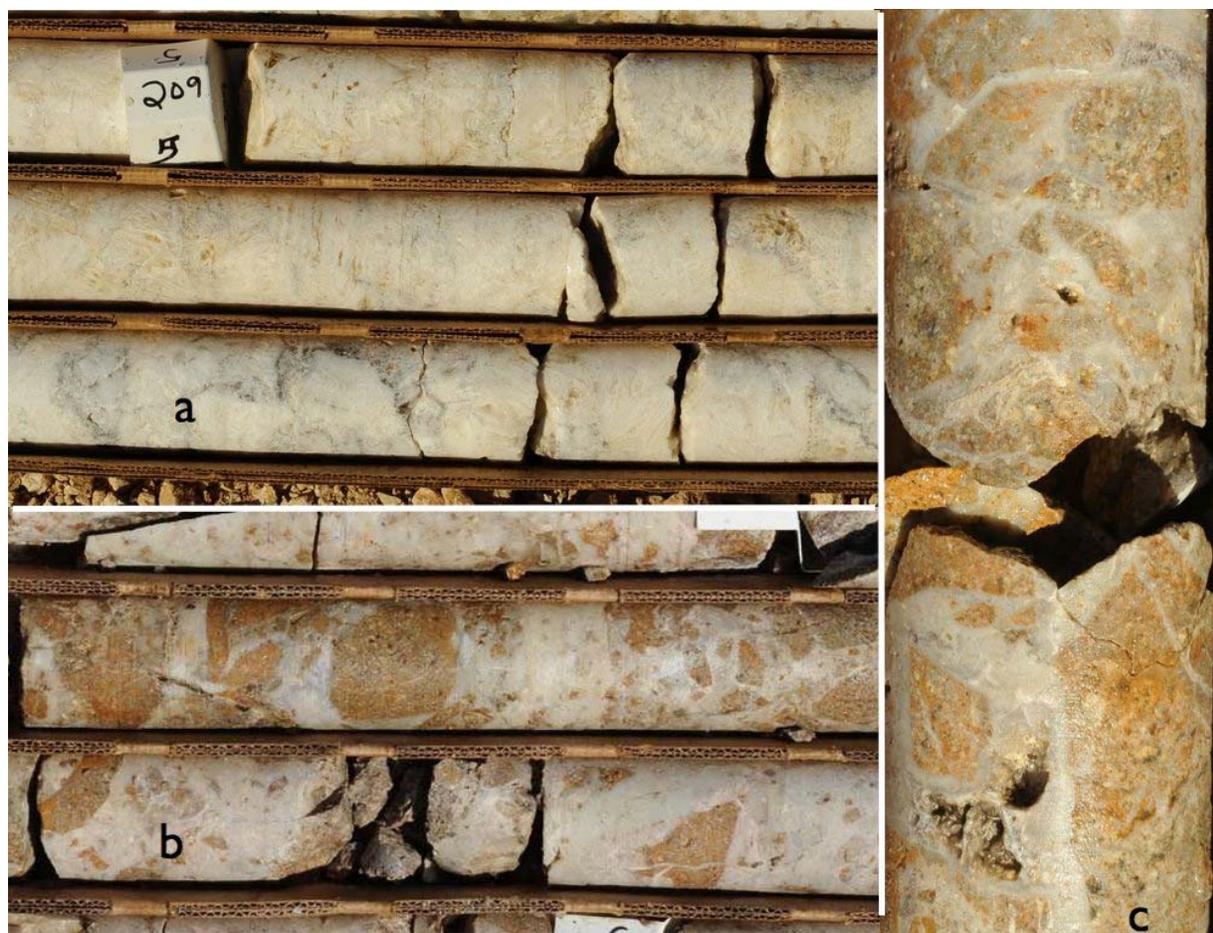
7.4.1.1 West Vein

The West Vein is an extension of the Moss Vein, lying to the west across the Canyon fault, a major north-northwest linear. The nature of the Moss vein changes across the fault, from a well-defined quartz-calcite vein with hangingwall stockwork on the east side to a wide zone of small veins and stockworks with a less well defined main vein on the west side of the fault. The West vein zone may be considered a zone of horsetailing of the Moss vein. Widespread strong silicification marks the footwall of the structure with only local development of quartz-calcite veining typical of the Moss vein. The stockwork associated with the West Vein (the "West Extension stockwork") is wider and more extensive than that on the hangingwall of the Moss Vein, but its gold-silver mineralization is lower grade than the Moss Vein. The West Extension stockwork is also contiguous to a stockwork developed to the immediate west of the Canyon fault. The structure of the Moss vein can be followed across the Canyon fault with the same orientation, but there is little apparent displacement across the fault. The Canyon fault may pre-date the Moss vein and have only minor post-mineralization movement.

7.4.1.2 Vein Morphology

The main vein is best described as a "breccia vein", a primary hydrothermal breccia, as opposed to a brecciated vein produced by post-mineral faulting. The moss vein occupies a major fault zone that was periodically opened during episodic boiling events, which deposited quartz together with calcite. Some of the pulses also deposited gold and silver. The main vein varies with decreasing quartz-calcite matrix from nearly solid white vuggy quartz and/or calcite (usually quartz-calcite mixtures) with occasional colloform banding through quartz-calcite vein with abundant floating clasts of wallrock (breccia vein), to brecciated wallrock veined and cemented by quartz-calcite stockworks. In places, the Moss vein consists only of stockwork veining. The hangingwall of the vein contains scattered thin quartz-calcite veins and breccia veins over a zone measuring several tens of feet up to 100 feet wide. Quartz-calcite veining in the hangingwall may occur either as thin planar veins (often quartz veins with calcite cores), irregular veins with sinuous borders, or highly irregular breccia infillings.

Locally, the Moss vein has been subjected to later movement within and across the fault along which the vein developed. This movement has created locally brecciated portions of the vein, both at the footwall contact and internal to the vein. Late post-mineral calcite often cements these tectonic breccias.



Styles of veining in the main Moss vein: a) massive quartz-calcite veining with bladed calcite and small vuggys, b) breccia vein with wallrock clasts floating in quartz-calcite matrix, c) stockwork veining cementing brecciated wallrock.

Figure 7-2: Styles of Vein in the Main Moss Vein

7.4.2 Gold-Silver Mineralization

7.4.2.1 Vein Mineralogy

The mineralogy of the Moss vein system is simple and the mineralization is nearly void of all deleterious elements. Key elements are:

- Gangue consists of quartz and calcite with minor fluorite locally occurring as late stage veins and vug fillings.
- Gold mineralization is predominantly in the form of very fine grained native gold and silver-rich native gold grading to electrum (an alloy of gold and silver with Ag:Au >1:5).
- Silver occurs as electrum and within the silver-rich gold. Minor native silver has also been identified. In addition, minor amounts of very fine grained, grey to black sulphides (dominantly acanthite, Ag_2S) are present as disseminations and occasionally in very thin grey bands in unoxidized or weakly oxidized parts of the veins. The silver minerals bring the overall Ag:Au ratio of the deposit to approximately 8:1.
- Base metals (Cu, Pb, Zn) are very low, especially in the upper parts of the system, but show a slight increase with depth, consistent with low-sulfidation epithermal veins.

- No arsenic or antimony minerals occur
- Mercury is negligible

7.4.2.2 Mode of Gold/Silver Occurrence

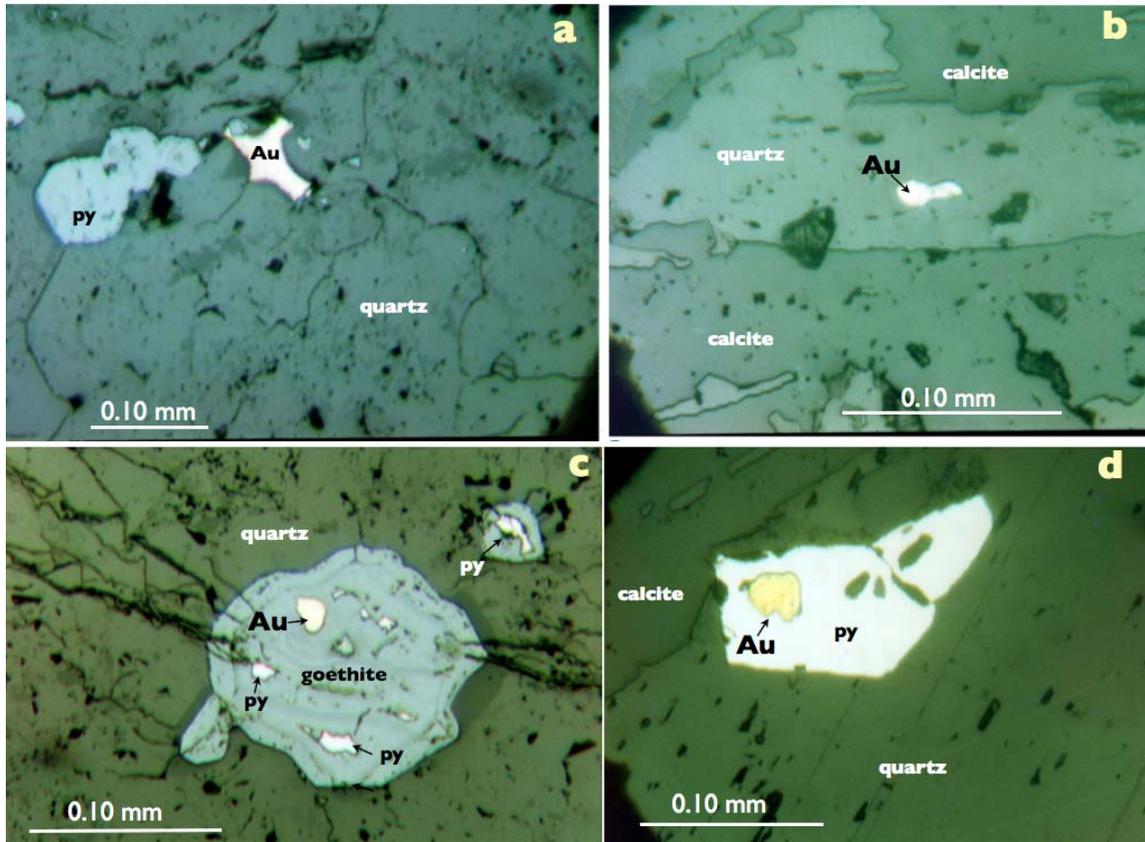
Petrographic study by Hudson (2011) identified native gold and electrum and tentatively identified acanthite (Ag₂S). Larson (2013, 2015) positively identified acanthite as well as minor native silver and found that gold and electrum occur in the following modes, in order of abundance:

- Grains interstitial to quartz grains or in small vugs in quartz (most common)
- Grains on or within goethite, after oxidized pyrite (common)
- Grains encapsulated in pyrite (rare)
- Grains encapsulated in quartz or calcite (rare)

Larson (2015) reports, "*Overall, quartz is the host for all of the metallics... With this generalization that quartz is the dominant host, the most common site(s) for precipitation of gold or acanthite are in open spaces such as vugs and intergranular between quartz grains.*" Such occurrence lends to good leach recoveries following secondary crushing, since the rock tends to break along quartz grain boundaries, rather than across them.

The Moss vein contains a very small amount of sulfide minerals, principally pyrite (<1% by volume). Although pyrite is only a very small component of the rock, pyrite was found to co-precipitate with quartz and electrum, and Larson (2015) writes, "Pyrite is present in small amounts in most of the samples, goethite formed by the oxidation of pyrite and usually retaining the shape of the original pyrite is in half of the sections. Of these, pyrite or goethite actually host (encapsulate) some of the electrum in five of the samples." Nearly all of the pyrite has been oxidized to goethite within the current limits of mining.

The mode of occurrence of gold within the Moss vein appears to be variable. Hudson (2011) determined that all the gold grains identified in the three core samples he studied were encapsulated in calcite. In contrast, Larson (2013, 2015), who studied a broader group of 18 sections of core spanning 3500 ft of strike length and 860 ft of vertical extent of the Moss vein, found only one occurrence of gold encapsulated in calcite, although several electrum grains were located adjacent to calcite grains. Baum & Lherbier (1990) estimated that 64% of electrum grains in sample 444-1-2 were associated with hydrous iron oxides (goethite), 26% were associated with quartz-calcite gangue, and 10% of gold grains were encapsulated in pyrite grains.



Occurrence of gold/electrum grains: a) gold filling interstices between quartz grains, (AR 141c 21.5'); gold grain is 98 microns across – the largest grain found by Larson, b) gold encapsulated within quartz (AR 169c 139.5'); gold grain measures ~16 microns across c) gold within goethite after oxidized pyrite (AR 204c 443.5') in fractured quartz, gold grain measures 19x12microns, 4) gold encapsulated in fresh pyrite (AR 201c 749'); gold grain measures ~28 microns across (note great depth of sample)

Figure 7-3: Occurrence of Gold/Electrum Grains

7.4.2.3 Gold Grain Size

Gold/electrum is dominantly very fine grained, but some exceptions occur. Larson (2013) found that most gold/electrum grains were very small with a range of 3 microns to 70 microns in diameter. Measurement of 48 grains of electrum from Larson's (2015) photomicrographs indicates a range in maximum grain dimension from 2 to 98 microns, with an average of 23 microns. Hudson found only very fine grains of gold/electrum with all grains measuring <10 microns in one polished section and all grains measuring <20 microns in another.

Baum & Lherbier (1990) studied two composite chip samples from Billiton's reverse-circulation drill holes. They found a large variation in grain size between the two composites, with one sample containing mostly very fine grained particles (81% <20 microns) and only 2% of grains measuring >100 microns. The second sample had significantly more coarse grains with 46% of grains being >20 microns and 18% measuring >100 microns to a maximum of 300 microns. Table 7-1 shows that between 60% and 90% of the gold grains studied by Baum & Lherbier are less than 50 microns (or 0.05 mm) in diameter.

Table 7-1: A Summary of Microscopic Gold Particle Size Analysis, Moss Vein Material
(Baum & Lherbier, 1990)

Grain Size		Percent of Gold Grains in Sample	
Microns	Millimeters	444-1-2	444-3
< 5	< 0.005	60%	21%
5 – 20	0.005 – 0.02	21%	15%
20 – 50	0.02 – 0.05	10%	24%
50 – 100	0.05 – 0.1	7%	22%
>100	>0.1	2%	18%
<i>Total</i>	-	<i>100%</i>	<i>100%</i>

(Compiled from information contained in Baum & Lherbier (1990))

7.4.2.4 Paragenetic Sequence

Petrographic work by Larson (2013, 2015) shed additional light on the alteration and mineralogical/paragenetic associations of gold-silver mineralization at Moss. Important observations include:

- Widespread early propylitic (chlorite, epidote calcite) and potassic (K-feldspar replacing plagioclase, magnetite veinlets and disseminations) affected the Moss porphyry and its wall rocks throughout the project area
- Ore stage alteration is limited to several phases of quartz and calcite precipitation in open spaces
- Small amounts of pyrite were deposited with quartz, both before and during ore-stage gold-silver mineralization
- Acanthite postdates most pyrite, occurring as rims on pyrite or infilling fractures in pyrite
- Very minor base metals mineralization (chalcopyrite, galena, sphalerite) narrowly predates precious metals deposition (evidenced by acanthite rimming and replacing sphalerite)
- Acanthite is more resistant to oxidation than pyrite (which is earlier and often fractured), often surviving as unaltered acanthite within goethite after oxidized pyrite
- Late calcite occurs as post-mineral breccia infillings

Figure 7-4 presents a revised paragenetic sequence of alteration and mineralization, based on logging of drill core and Larson's petrographic observations and interpretations.

Paragenesis of the Moss Vein system

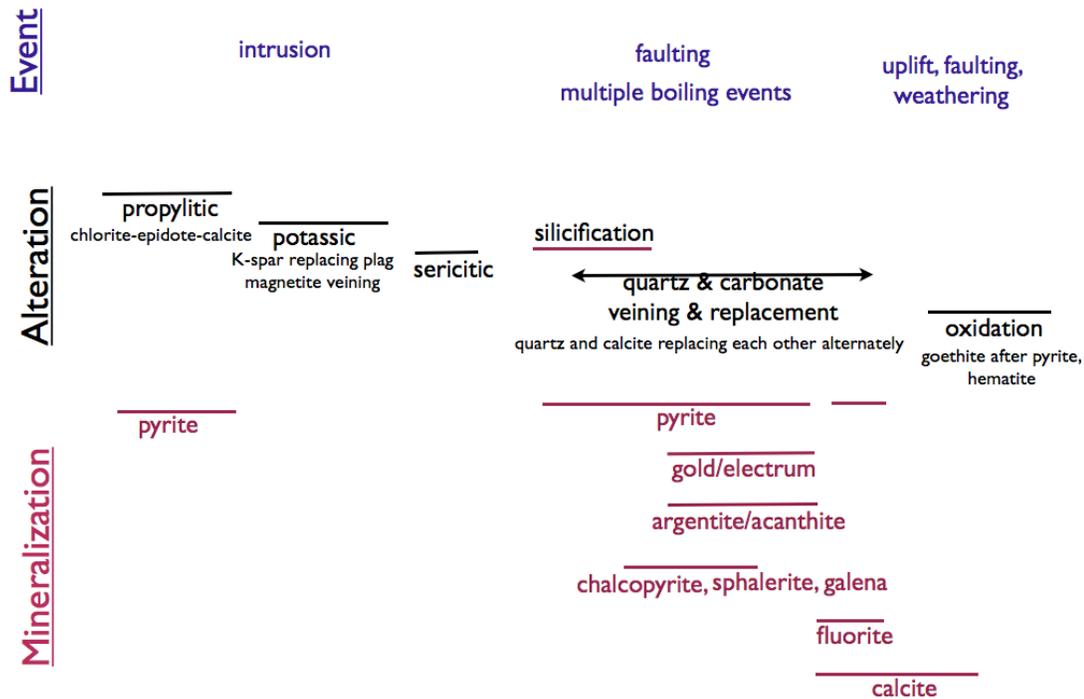


Figure 7-4: Paragenesis of the Moss Deposit

7.5 OXIDATION

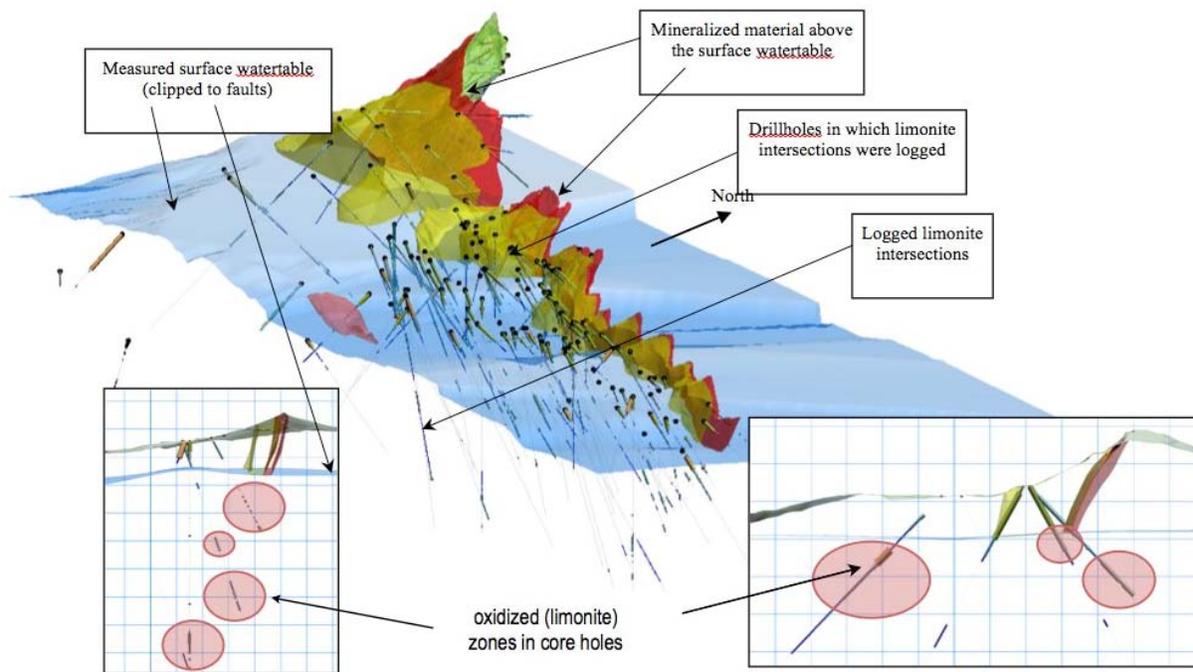
Fairly deep partial oxidation occurs along the Moss vein. Oxidation in the project area tends to be deeper along the Moss vein than outside of it. This is due to the vuggy nature of much of the vein and structural permeability created by brecciation within the vein due to post-mineral movement along the vein structure. The Moss vein forms a local aquifer along which oxygenated waters have moved as the water table fluctuated over time.

The Company's Moss Mine Project Core Logging Guide (Cuffney and Eastwood, 2013) states, "The REDOX zone at Moss is not a simple boundary and is not related to the present static water table" and "It is not uncommon for the vein to be oxidized to depths in excess of 500 ft (152 m), with unoxidized and thin, partially oxidized zones in the hangingwall." The authors further state, "The drill holes show that the water level is between 12.2 m and 45.7 m (40 to 150 feet) below surface. There is ample evidence of oxidized rock below the water level in several of the core holes. The fact that oxidation is deeper than the present water table is interpreted to indicate that oxidation is related to a lower water table in the past, and that the water table has risen to its present level after oxidation took place".

Hudson (2011) states that 'the depth of oxidation can be in excess of 91 m to 152 m (300 to 500 feet)'. A similar finding is detailed in a mining report by geologist M. C. Godbe III to BF Minerals (April 26, 1982) who states, "The Moss Mine was developed over a vertical range from surface to the 300 level. All (of the mined mineralized material was) within the oxidized zone". Drilling by Golden Vertex shows oxidation well below the present water table (~140 feet below the shaft collar), and partial oxidation (limonite on fractures) occurs locally to more than 500 feet below the present surface.



Figure 7-5: Cut core from hole AR 204c at 385 ft (272 ft vertical depth), showing partial oxidation (brown limonite) in the Moss vein



An Oblique Vulcan® Snapshot View (looking approximately northwest) of the Moss Deposit Above the Surface Watertable, Highlighting the Position of the Surface Watertable and the Extent of Oxidation (limonite) Below the Surface Watertable

Figure 7-6: Oblique Vulcan® Snapshot View

7.6 STRUCTURAL GEOLOGY

7.6.1 Faults

The Moss Vein follows a major west-northwest structure, which crosses the mine property and extends for at least another 1.8 km to the west beyond the resource area and 2.5 km to the east.

The northwest-trending Canyon fault forms the boundary between the main Moss Vein and the West Extension. Despite being a large through-going structure, the Canyon fault appears to displace the Moss Vein from the West Extension by a very small amount.

Within the project area, a series of small north-to-north-northwest trending faults offset the Moss vein. A total of 27 faults cutting across the Moss Vein have been mapped. A relative chronology was compiled based on surface topology and the interactions of the faults with adjoining intersecting faults. Fewer cross-faults have been identified in the area of West Extension.

Field measurements show that 24 of the mapped faults off-setting the Moss vein have dips that are equal to or greater than 80° (the exceptions are Fault 3 that dips at 50°, Fault 12 that dips at 65° and Fault 24 that dips at 40°). All the faults, except the Canyon fault and the four faults that trend a few degrees east of north, displace the Moss vein by small amounts in the left-lateral direction. This offset may be due to true left-lateral offset, or to vertical offset down to the east, producing the apparent left-lateral offset of the south dipping Moss vein.

7.6.2 Dikes

Four different types of dikes have been identified through geological mapping:

- Feldspar dykes with minor quartz (medium grained feldspar with occasional quartz in a fine grained, sugary/aplitic to aphanitic groundmass);
- Aplite dykes (thin aphyric to sparsely porphyritic dikes with a sugary/aplitic groundmass – may be a chilled version of the feldspar dikes); and
- Feldspar-biotite dykes (large feldspar and fine- to medium-grained biotite phenocrysts in an aphanitic groundmass).
- Mafic dikes (dark brown, aphanitic to finely crystalline basalt to gabbro dikes, which are weakly chloritized);

With the exception of the mafic dikes, which are late post-mineral feeders to basalt flows, the dikes predate the Moss vein, as evidenced by the development of Moss Vein-related stockworks within each type of dike. The mafic dikes tend to invade the small north-trending faults, which offset the Moss vein.

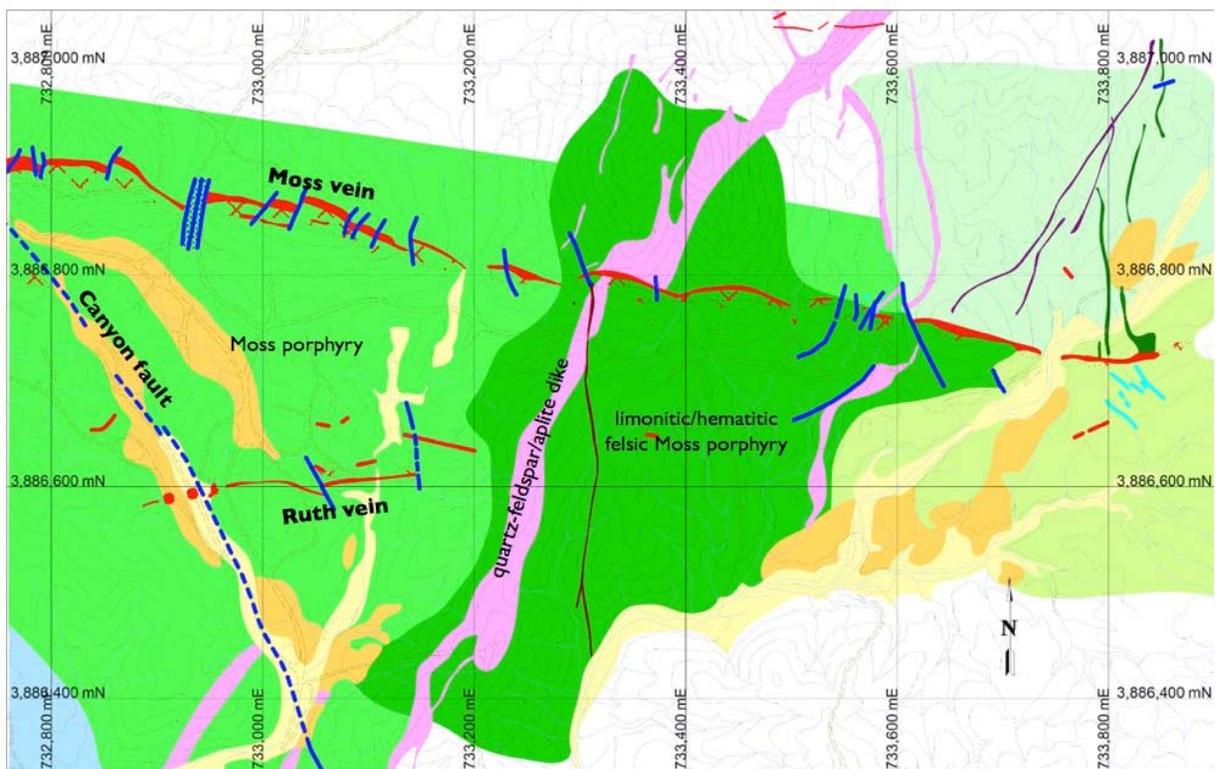


Figure 7-7: Geologic Map of the Moss Vein and Surrounding Area

Figure 7-8 shows the color coding for lithology used in Figure 7-7.

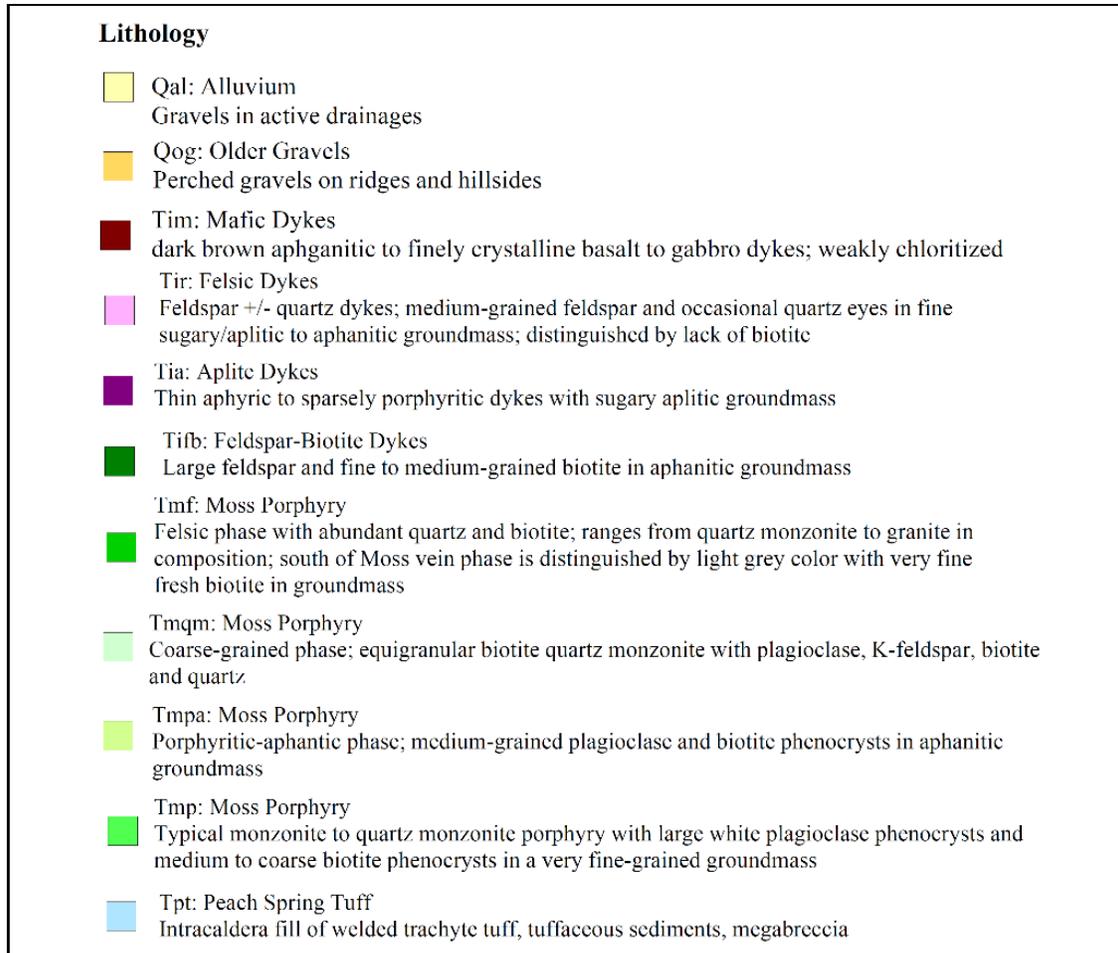


Figure 7-8: Lithology Color Coding

8 DEPOSIT TYPES

The Qualified Person for this section of the Technical Report is Robert G. Cuffney, Certified Professional Geologist.

The Moss deposit is a steeply dipping (average 70°) quartz-calcite vein and stockwork system, which extends over a strike length of approximately 1,400 m in the project area, but can be traced for more than 5.6 km in total length.

The Moss vein system is considered a high level, low-sulfidation (adularia-sericite) epithermal gold-silver deposit in the classification of Heald et al (1987) and White and Hedenquist (1995). Low sulfidation epithermal deposits form from hydrothermal waters in the relatively near-surface environment, typically within 1.5 km of the earth's surface (Taylor, 2007). They are commonly found associated with magmatism and volcanism, but are somewhat distal (vertically or laterally) from the actual center of magmatism, in environments where meteoric waters have mixed with and diluted magmatic waters.

Epithermal deposits comprise one of three sub-types: high sulphidation; intermediate sulphidation; and low sulphidation. Each sub-type is identified by characteristic alteration and ore-stage mineral assemblages, occurrences, textures and suites of associated geochemical elements. The designation of high sulfidation vs low sulfidation is based on the sulfidation state of the ore-stage sulfide suite, not the abundance of sulfides in the ore. However, precious metals mineralization at Moss is characterized by a low sulfidation suite of minerals and a very low sulfide content (<1%) as well.

The quartz-calcite vein textures at Moss (massive, breccia, vuggy, colloform), are typical of low sulphidation epithermal veins. Gold occurs as very fine native gold and electrum, and silver typically occurs as electrum and very fine grained acanthite, similar to other low-sulfidation precious metals deposits.

The very low (usually trace) levels of base metals in the Moss ores are also consistent with high-level low-sulfidation gold deposits. Alteration related to main-stage precious metals mineralization is confined to silicification and minor sericitization of wallrock adjacent to the veins.

The Moss mineralization differs from typical low-sulfidation precious metals deposits in its lack of adularia (possibly present, but not yet positively identified) and lack of deleterious elements such as arsenic, antimony, and mercury.

Table 8-1 summarizes the characteristics of the Moss vein system and compares them to characteristics of typical high-level low-sulfidation precious metals deposits.

Table 8-1: Comparison of Moss Deposit Characteristics with Typical Low Sulfidation Epithermal Gold Deposits

Characteristic	Moss Vein System	Typical Low Sulfidation Epithermal
Mineralization form	Vein and stockwork	Veins and stockworks, minor disseminations
Geological setting	Volcanic center (Intra-caldera)	Above or adjacent to magmatic center
Host rocks	shallow-level intrusion and Intra-caldera volcanics	Dominantly volcanics and epiclastic sediments
Alteration	Silicification, minor argillic	silicification, narrow argillic, illite, adularia
Vein textures	vuggy, breccia, colloform	Open space/cavity filling, bands/colloform, breccias, druses
Gangue minerals	quartz, calcite, fluorite	Quartz, chalcedony, calcite, adularia
Ore minerals	native Au & Ag, electrum, acanthite	Native Au & Ag, electrum, minor sphalerite, chalcocopyrite, galena
Elemental associations	Au, Ag (Zn, Cu)	Au, Ag, Zn, Pb, (Cu, As, Sb, Hg, Se, Te)

The high level of emplacement of the Moss mineralization is evidenced by the very fine grain size of ore-stage minerals (gold, silver, electrum, acanthite) and the highly vuggy nature of much of the vein. No paleosurface or near surface features, such as silica sinters, chalcedony or a steam-heated acid leach cap, are preserved in the Moss project area. This indicates that the top of the hydrothermal system has been eroded, thereby exposing the gold depositional zone. Larson (2015) notes that much of the quartz in the Moss vein was likely deposited as chalcedony or opal, which later converted to fine-grained quartz. This would place the upper part of the Moss vein system only slightly below the surficial hot-spring zone.

Bladed calcite, which is common in the Moss deposit, is indicative of the boiling zone of the hydrothermal fluid, where calcite and quartz are co-precipitate, after which calcite is partially replaced by quartz. The boiling zone is the main locus of gold deposition, since boiling destabilizes gold-bearing hydrothermal solutions, causing precipitation of gold. The boiling zone within the Moss vein, as defined by the occurrence of bladed calcite and quartz replacing bladed calcite, extends over a vertical extent of more than 150 m (500 feet) and likely continues much deeper (Cuffney, 2015). In many epithermal deposits, above the boiling zone, precious metals grades can be low, but bonanza grades often occur at the boiling zone. Although the overall grade of the Moss deposit is low, several pods of high-grade mineralization have been found in modern exploration; and during mining of the Phase I bulk sample. A small shoot of very high grade gold was reportedly mined in the early days of the mine, yielding nearly 10,000 ounces of gold \$200,000 at \$20.67/oz Au from a small (10 ft diameter x 10 ft deep) shaft (Malach, 1977). In addition to the Moss vein, a number of high-level veins throughout the Moss property present good opportunity for discovery of bonanza-grade ore shoots beneath outcrops that yield only low gold and silver values.



Figure 8-1: Bladed Calcite Partially Replaced by Quartz - Evidence of Boiling (AR 165 213 ft)

The Silver Creek claims contain both a low-sulfidation epithermal precious metals vein system and a high-sulfidation mineralization system. The latter is characterized by widespread strong argillic to advanced argillic alteration and silica caps. High-sulfidation systems are developed in close proximity to magmatic centers, often porphyry copper-gold systems; and are characterized by magmatic hydrothermal waters. Ore morphology varies from veins to breccias and breccia pipes. Very high-grade bonanza gold deposits can form within the boiling zone. Important examples include Goldfield, NV; El Indio, Chile; and Yanacocha, Peru.

9 EXPLORATION

This synopsis of the exploration programs conducted on the Moss property has been extracted from the 2015 Technical Report and updated by the Qualified Person for this section, Robert G. Cuffney, Certified Professional Geologist.

9.1 PREVIOUS OWNERS AND OPERATORS (1982 TO 2009)

Exploration by previous owners and operators on the Moss Mine property is summarized in Section 6.2. The reader is referred to the 2015 Technical Report for further details on the historical exploration and drilling programs.

9.2 THE COMPANY (2011 THROUGH 2015)

9.2.1 Phase I - 2011 Exploration Program

The main focus of the Company's 2011 exploration program was the Phase I infill and confirmation drilling program described in Section 10.2. In addition, a surface rock-chip sampling program was carried out to test for extensions to the Moss Vein. The results are presented in the Company's news release dated May 10, 2011.

9.2.2 Phase II - 2012 Exploration Program

In 2012, the Company's Phase II exploration effort on the Moss Mine Property was again focused on drilling (the Phase II program described in Section 10.3). The Company also carried out a channel sampling program at 1.52 m (5 ft) intervals across the backs/inverts/crowns of the accessible drifts and crosscuts of the historical underground workings in the vicinity of Allen Shaft (see Section 6.2).

The channel sample data supplement those compiled by previous owners and operators of the Moss Mine Property. The reader is referred to the 2015 Technical Report for details and results of the sampling program.

9.2.3 Phase III - 2013/2014 Exploration Program

In addition to the Phase III drilling program described in Section 10.4, the Company contracted an airborne magnetic survey conducted by Precision GeoSurveys, Inc. of Vancouver, B.C. Figure 9-1 provides a summary of the results of the airborne magnetic survey and its interpretation.

The results show that magnetics is an effective method of identifying potential mineralized structures on the Moss Mine Project area - both magnetic highs and lows correspond with known mineralized structures, including the Moss vein and nine sub-parallel structural zones.

To follow-up the magnetic survey results, the Company initiated a geological mapping and sampling program on both the Moss claims and the Silver Creek claim block in September 2014 to *'identify and prioritize areas for future drilling where new resources may be discovered.'*

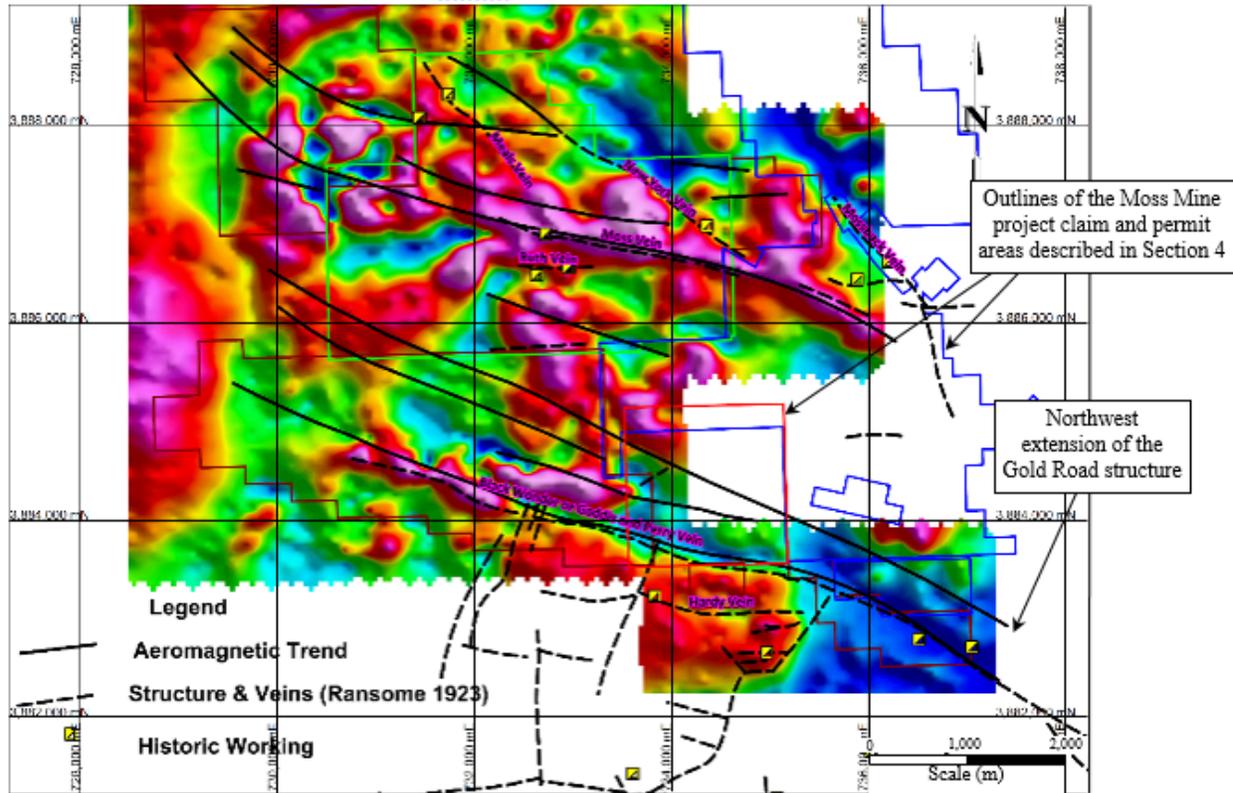


Figure 9-1: Overall Claim Area, Locations of Known Historical Workings, Magnetic Intensity and Related Structures

Mapping and rock-chip sampling focused on identification of epithermal veins and stockwork zones. Samples were collected by professional prospectors under the direction of the Qualified Person. The key target areas defined by the 2015 exploration program are:

- The West Oatman Vein System - This vein system is defined by a fault striking N70W mapped for a distance of 4.5 kilometers. The system is similar to the Moss vein system with both well-developed veins and quartz-calcite breccias and stockwork zones.
- The Silver Creek Spring Vein System - This vein system trends N80W for 1.2 kilometers and contains several historic shafts and surface diggings exposing quartz-calcite-fluorite veining. Surface vein exposures are up to 5m wide.
- The Old Timer Vein System - This historic vein system has a strike length of 1.0 kilometers, trending S80E. It is a series of en-echelon veins that appear to splay off the NNW-trending Canyon Fault similar to the setting of the Moss deposit.
- The Grapevine and Florence Hill System - A series of silica-capped hills underlain by strongly clay altered volcanic rocks were mapped on the Silver Creek claims. The silica caps are replacements of host volcanic rocks. Quartz veins are rare, but some narrow veins have highly anomalous gold values at West Grapevine. Preliminary mapping shows that NNE to NNW-trending silicified ribs cut the strongly clay altered volcanic rocks. Anomalous gold, molybdenum and fluorine were detected in the silica ribs in previous work. Preliminary indications are that surface alteration and mineralization are at a high level in the epithermal depositional system. The boiling or gold zone could be at some depth below the surface rock exposures.

A significant number of samples showed anomalous gold values with numerous samples from West Oatman, Old Timer, and West Grapevine having gold grades in excess of 1 gpt Au, indicating that a number of vein exposures on the property are auriferous at surface with others showing alteration and trace elements that indicate their surface expression is above the boiling zone where gold might be found lower in the system. Results of the exploration program, including significant assays, can be found in the Company's press release of March 24, 2015.

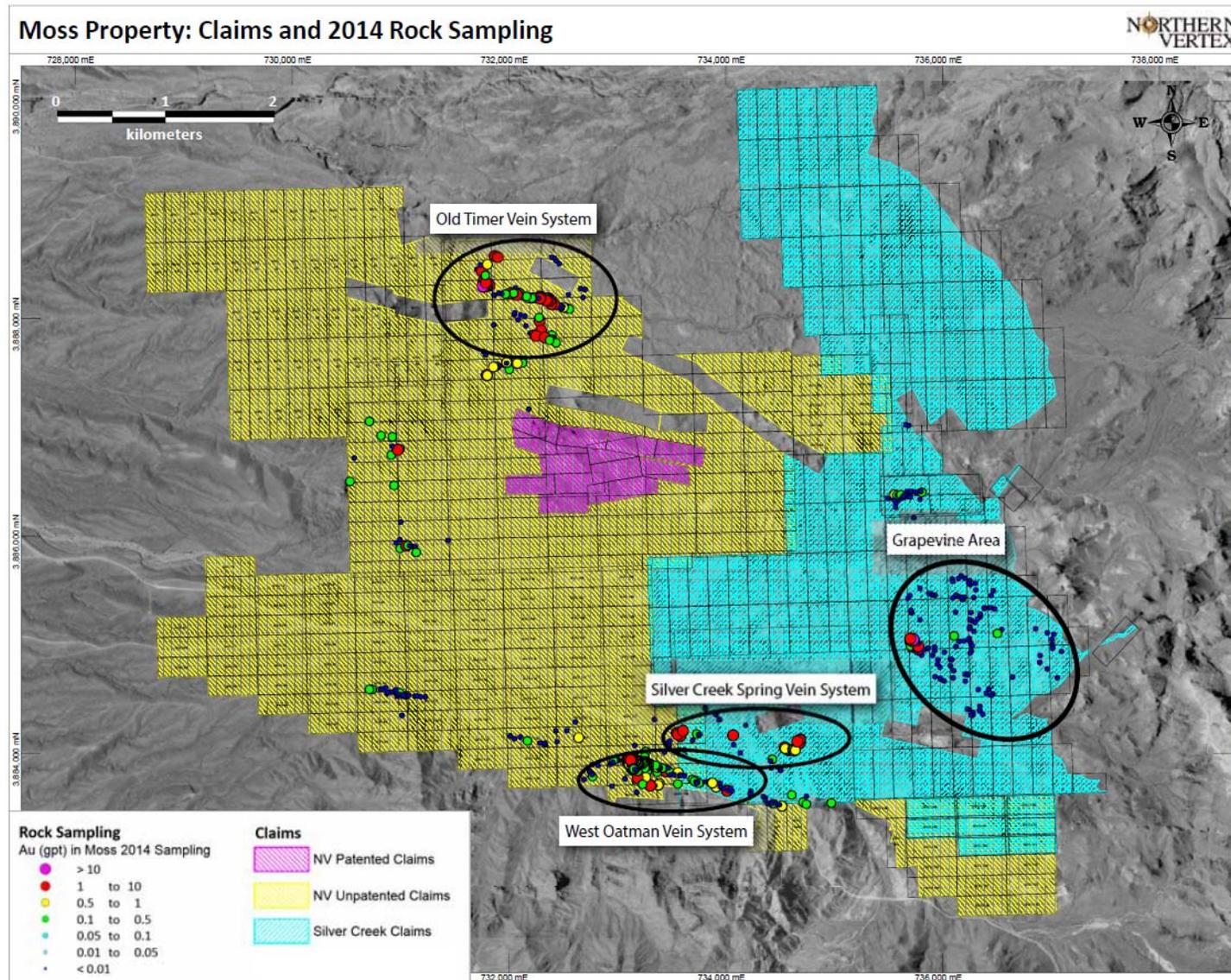


Figure 9-2: 2014 Rock and Chip Sampling

9.2.4 2016 Mapping and Sampling

Follow-up geological mapping and rock-chip sampling was conducted at the Grapevine West, Florence Hill, and Old Timer prospects in June-July 2016. The Arrastre and Far West areas were also evaluated. Further follow-up was conducted in October. The results from the 2015 and 2016 exploration program were used to develop drilling targets for the 2017 Exploration Program.

9.2.5 2017 Sampling & Mapping

Additional mapping and rock-chip sampling was conducted in 2017 in conjunction with the Phase IV drilling program. New high-grade zones were defined at Old Timer West, Rattan Extension, and the Mordor veins.

10 DRILLING

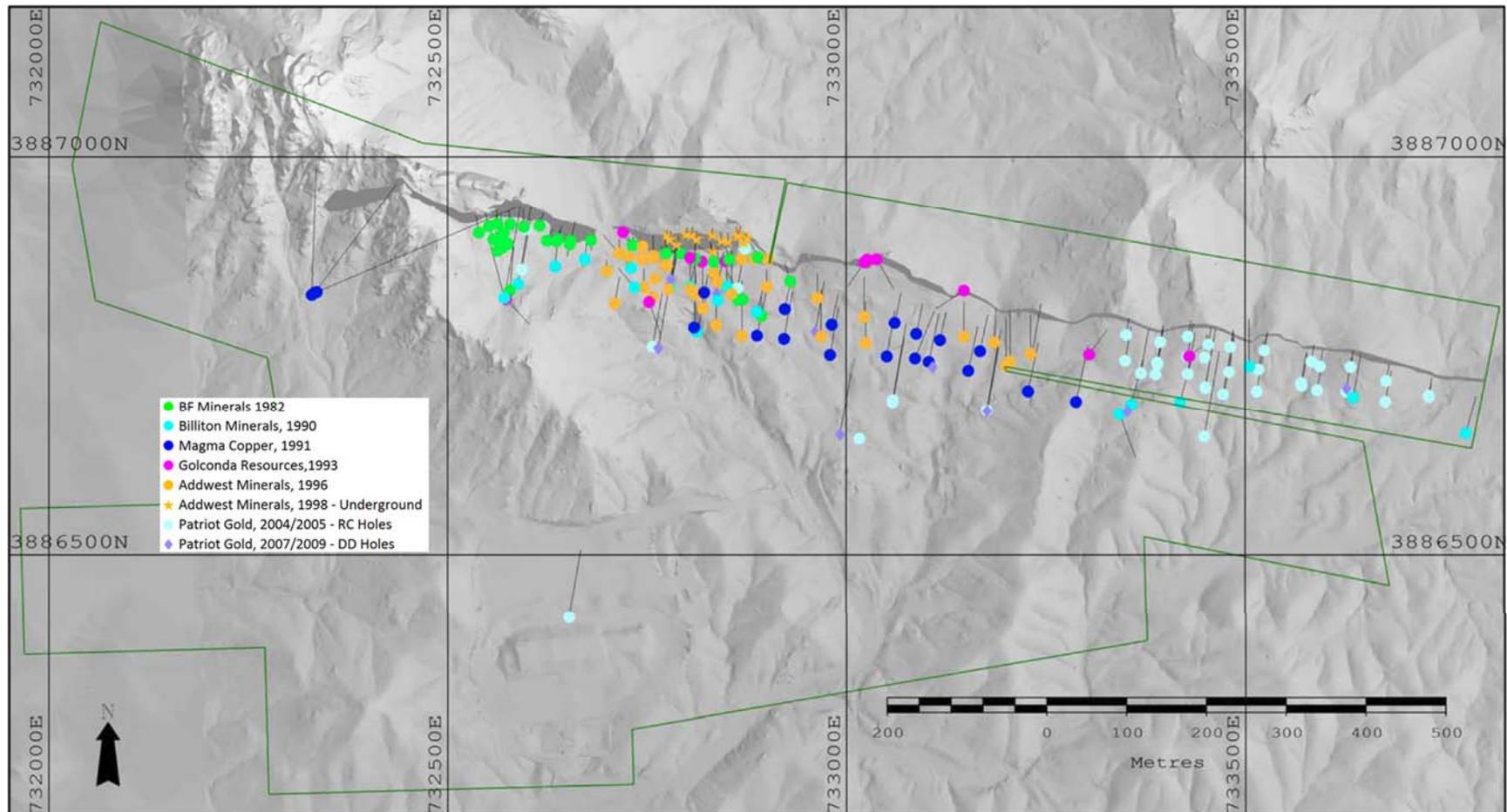
The following section is a condensed version of the information provided in the 2015 Technical Report filed on SEDAR, and updated by the Qualified Person for this section of the Technical Report, Robert G. Cuffney, Certified Professional Geologist.

10.1 PREVIOUS OWNERS AND OPERATORS (1982 TO 2009)

Table 10-1 summarizes the details of the 221 holes (16,706.75 m) completed by previous owners of the Moss Mine Property. The list identifies only those holes for which the collar co-ordinates are known and have been verified. The LH98-1 to LH98-15 holes completed by Addwest in 1998 were drilled as up-holes in the historical underground workings. In each case the holes were drilled to explore the Moss Vein, based on knowledge of its attitude and extent from field mapping and related geological fieldwork. The collar locations of the historical drillholes are shown in Figure 10-1.

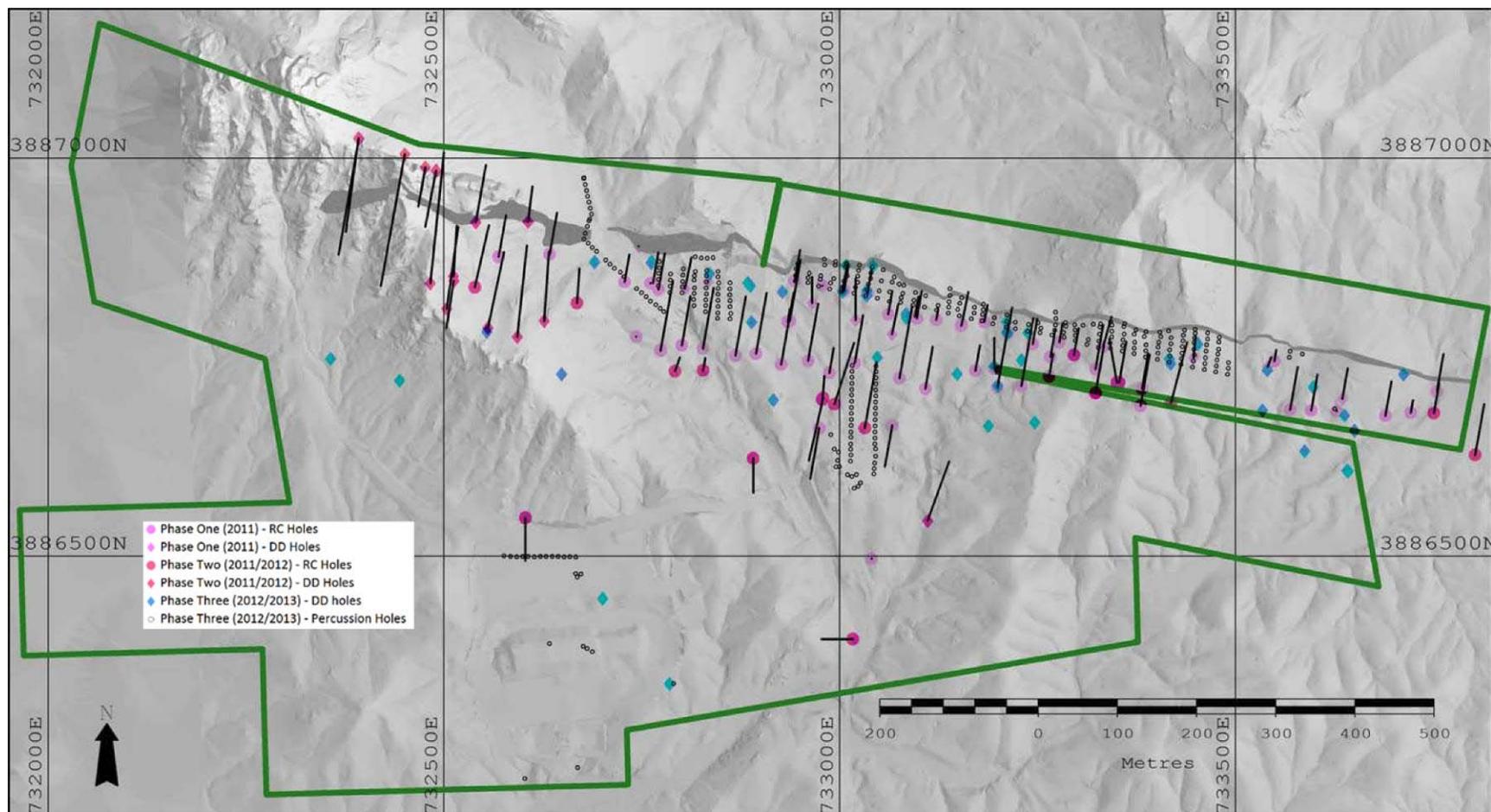
Table 10-1: Holes Drilled by Previous Owners for Known Collar Positions
(compiled from information supplied by the Company)

Company	Year	Type	Number	Total Meters	Average Depth (m)	Drillhole Series	
						From	To
BF Minerals	1982	Air Trac	54	1,438.66	26.6	M-1-30	M-25-60
		RC	3	356.62	118.9	M-27-68	M-29-60
Billiton Minerals	1990	RC	21	2,110.74	100.5	MM-1	MM-21
Magma Copper	1991	RC	21	3,014.47	143.5	MC-1	MC-21
Golconda Resources	1993	RC	14	822.35	58.7	MR-1	MR-14
		RC	3	143.29	47.8	BX-4	BX-6
Addwest Minerals	1996	RC	30	2,504.54	83.5	M96-1	M96-30
	1996	Core RX	6	508.10	84.7	MC96-1	MC96-6
	1998	Longhole	14	122.53	8.8	LH98-1	LH98-15
Patriot Gold	2004 to 2005	RC	43	3,598.78	83.7	AR-01	AR-44R
		Diamond Drillholes	12	2,086.66	173.9	AR-45C	AR-56C
<i>Totals</i>			<i>221</i>	<i>16,706.75</i>			



(compiled from data contained in the drillhole database supplied by the Company)

Figure 10-1: A Color-Coded Plan of Collar Locations of Drillholes Completed by Previous Owners for Known Collar Coordinates



(compiled from data contained in the drillhole database supplied by the Company)

Figure 10-2: A Color-Coded Plan of the Locations of the Collars of the Drillholes Completed by the Company During its Three-Phase (2011 to 2013) Drilling Program, Moss Mine Project

10.2 THE COMPANY (2011 THROUGH 2017)

Since entering into the joint venture agreement with Patriot Gold in February 2011, the Company has carried out four drilling programs on the Moss Mine Property. The programs are termed Phase One through Phase Four. Phase Four was completed in 2017 after publication of the 2015 Technical Report.

The Phase One drilling program was supervised by MinQuest; the Phase Two through Four programs were supervised directly by Golden Vertex. Table 10-2 summarizes the type and number of holes drilled during the first three drilling phases (2011-2013). Phase Four drilling in 2017 was conducted to test exploration targets outside of the Phase I and Phase II pit areas. Phase Four drilling results are not relevant to the current Moss mine plans. Table 10-3 summarizes the Phase Four drilling program.

Table 10-2: A Summary of Drillholes Completed by the Company Over Its Three-Phase, 2011 to 2013 Infill and Mineral Resource Expansion Drilling Program, Moss Mine Project
(compiled from information supplied by the Company)

Program Phase	Type	Number of Holes	Total Meters	Drillhole ID Numbers	
				From	To
Phase One	RC	54 (incl. AR-58RD)	6,277.36	AR-57R AR-78R AR101R MW-1R	AR-68R AR-99R AR119R -
	Diamond Drillhole	10	794.31	AR-70C AR-100C	AR-77C -
	<i>Sub-total</i>	<i>64</i>	<i>7,071.67</i>	-	-
Phase Two	RC	19	2,375.00	AR-120R	AR-138R
	Diamond Drillhole	23	2,720.25	AR-139C	AR-161C
	<i>Sub-total</i>	<i>42</i>	<i>5,105.25</i>	-	-
Phase Three	Diamond Drillhole	36	3,968.86	AR-162C AR-188C	AR-172C AR-212C
	Orientated Diamond Drillhole	15	1,453.29	AR-173C	AR-187C
	Percussion	323	8,603.28	0+00A ADIT-E-75-1 DIKE-1 RATTAN-CP1 RATTAN-S1 Ruth-1-3 Ruth-2-1 RuthShaft-1 RuthDump-3 MW2012-1 WW-1	21+50G ADIT-W-125-9 DIKE-29B RATTAN-CP3 RATTAN-S2-3 Ruth-1-19 Ruth-2-19 RuthShaft-3 RuthDump-11 MW2012-3 WW-2
	<i>Sub-total</i>	<i>349</i>	<i>10,594.29</i>	-	-
<i>Totals</i>	<i>RC</i>	<i>73</i>	<i>8,652.36</i>	-	-
	<i>Diamond Drill</i>	<i>84</i>	<i>8,936.71</i>	-	-
	<i>Percussion</i>	<i>323</i>	<i>8,603.28</i>	-	-
<i>Overall Totals</i>		<i>480</i>	<i>26,192.35</i>	-	-

Table 10-3: Summary of Drillholes Completed by the Company in the Phase Four Exploration Drilling Program, Moss Mine Project

Program Phase	Type	Number of Holes	Total Meters	Drillhole ID Numbers	
				From	To
Phase Four	Diamond core	19	1,397	AR-213 WO-1 OT-1	AR-215 WO-13 OT-4

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The Qualified Person for this section of the Technical Report is Robert G Cuffney, Certified Professional Geologist.

The following is a summary of the information provided in the 2015 Technical Report filed on SEDAR for exploration work conducted between 2011 and 2014.

According to the 2015 Technical Report:

- the Company's exploration drilling program, drillhole surveys, sampling, security, sample preparation and assaying procedures have been carried out in accordance with CIM Best Practice Guidelines and are suitable to support Mineral Resource estimation;
- the Company's exploration and drilling programs supply sufficient information for Mineral Resource estimation and classification; and
- the Company's sampling and assaying includes adequate quality assurance procedures.

The reader is referred to the 2015 Technical Report for additional details on the data verification.

Exploration work (rock-chip sampling, core drilling) conducted during the 2016 and 2017 exploration programs was conducted under the direction of the Qualified Person for this section and was performed to the same standards set forth in the CIM Best Practice Guidelines. Based on the previous disclosures, the Qualified Person for this section of the Technical Report is satisfied that there has been adequate sampling and assaying in accordance with industry best practices.

12 DATA VERIFICATION

The following section is a summary of the information provided in the 2015 Technical Report filed on SEDAR. According to the 2015 Technical Report “*All relevant, available data was utilized including reports, certificates, logs and ancillary data in digital format for all the holes drilled by previous owners and operators of the Moss Mine Property*” ... “*and for all the holes drilled by the Company over its three drilling programs*”.

“The verification focused on the available data and its format, what data was collected, back-up reference material, data consistency and the accuracy and reliability of the data. The Qualified Person was given unlimited access to all data stored on the Company’s digital storage site (hosted by Egnyte) and he was not limited as regards data acquisition and analysis. The results are presented in a consultancy report to the Company that is entitled ‘Verification of the Golden Vertex Corp. Moss Mine Drillhole Database’ and dated December 31, 2013.”

Verification of the Moss Mine drillhole database indicates that there are no errors or inconsistencies that would have any material effect on the database. In the opinion of the Qualified Person for this section of the Technical Report the database is accurate and suitable for use in Mineral Resource estimation.

No additional data relevant to the Moss mine plan has been added to the database since the 2014 Technical Report.

The reader is referred to the 2015 Technical Report for additional details on the data verification.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

The following section is a summary of the information provided in the 2015 Technical Report filed on SEDAR.

No additional metallurgical testing has been carried out since the last technical report filed on SEDAR which was the 2015 FS.

The Qualified Person for this section of the Technical Report is Dr. David Stone, P.E.

13.1 METALLURGY OVERVIEW

Since 1990 a total of nine metallurgical test programs have been carried out on mineralized material from the Moss deposit. Cyanidation test results for the first program are not available, however, detailed information covering a total of eight cyanide shake tests, 65 bottle roll tests and 14 column leach tests is available, along with various head and tail analyses and head and tail screen analyses. A breakdown of the testwork undertaken on Moss ores is shown in Table 13-1.

Table 13-1: A Summary of Metallurgical Testwork Programs on Samples of Mineralized Material from the Moss Vein, Moss Mine Project

Report Date	Laboratory	Test Program		
		Bottle Roll	Column Leach	Other Tests
December 1990	Billiton Minerals	-	-	Gravity separation
May 1991	McClelland Laboratories	15	-	Head & tail analysis (Au only)
January 1992	McClelland Laboratories	2	-	Head & tail analysis (Au and Ag)
June 2008	Metcon Research	4	3	Head & tail screen analysis Particle size vs. recovery analysis
January 2010	Kappes, Cassiday & Associates	2	4	Head & tail analysis Head screen analysis Cyanide shake tests
November 2012	Kappes, Cassiday & Associates	28	4	Head analysis Head & tail screen analysis Cyanide shake tests Variability testing
July 2012	Kappes, Cassiday & Associates	2	-	Head & tail analysis
February 2013, April 2013 and July 2014	McClelland Laboratories	6	3	Head analysis Head & tail screen analysis
March 2015	McClelland Laboratories	6	-	Head screen & tail analysis
Totals	-	65	14	-

The available test data shows that the Moss vein is metallurgically straightforward:

- It is not necessary to differentiate metallurgical responses by geographic position across the Moss deposit, inclusive of the West Extension (no discernible difference between the metallurgical response to cyanidation reported by the Moss Vein and its associated stockwork and by the West Vein and its associated stockwork can be identified);
- The Moss vein is not an oxide-transition-sulphide deposit type so it is not necessary to differentiate between mineralized material located above and below the present water table;
- The economic minerals of interest are native gold and electrum, which are not susceptible to surface weathering effects, as well as minor acanthite (a silver sulphide).

Apart from acanthite, the presence of sulphides is limited to minor to very minor pyrite (an iron sulphide) and very minor base metal sulphides that can thinly coat native gold and electrum grains. Downward percolating waters oxidized the minor sulphides across the Phase II depth range, with the effect that the gold and electrum grains were liberated, thereby turning otherwise refractory mineralization into leachable material. Hence:

- A single, simple cyanidation process can be used to extract both gold and silver; although
- A Merrill-Crowe type system is needed to maximize silver recovery into metal.

13.2 2015 WEST EXTENSION BOTTLE ROLL TESTING

Following recommendations made in the December 2014 Technical Report, McClelland Laboratories was contracted to carry out six bottle roll tests, with head and tail screen analyses, on composites compiled from RC drillhole samples from the West Extension. The objective of the test program was to establish data for mineralized material from the West Extension to facilitate its comparison with the results for mineralized material from the Moss Vein and its associated stockwork, thereby to establish whether any material differences in their metallurgical responses could be identified. Table 13-2 summarizes the drillhole numbers and sample intervals. Figure 13-1 is a Vulcan® snapshot of the Moss deposit (looking north), on which the locations of the samples are identified.

Table 13-2: A Summary of the West Extension Composites, McClelland Laboratories' 2015 Test Program, Moss Mine Project

(compiled from data in McClelland Laboratories' March 2015 project report)

RC Drillhole	Interval (m)		Composite #
	From	To	
<i>West Vein Material</i>			
AR-141C	87.78	97.84	MV Comp. 1
AR-142C	72.54	84.73	MV Comp. 2
AR-144C	64.92	77.42	MV Comp. 3
AR-149C	0.00	11.40	MV Comp. 4
<i>Hangingwall Stockwork</i>			
AR-142C	1.83	15.24	HWS Comp. 1
AR-142C	54.25	64.92	HWS Comp. 2

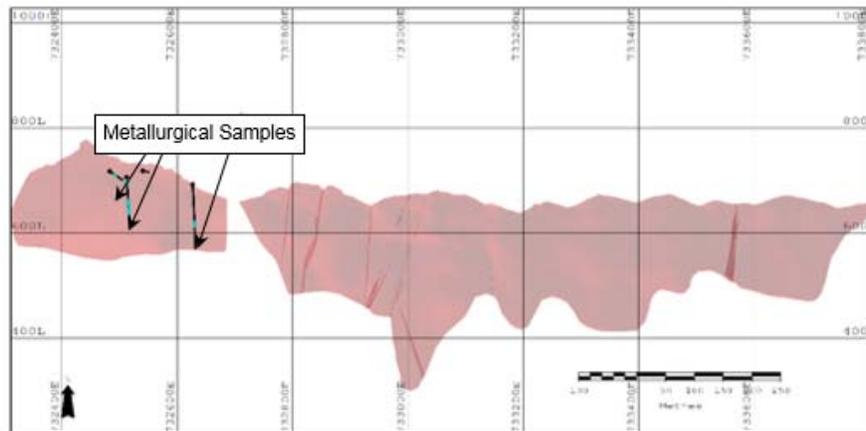


Figure 13-1: A Vulcan® Snapshot (looking north) of the Moss Deposit Showing the Positions of the Composites, McClelland Laboratories 2015 Test Program, Moss Mine Project

13.2.1 Head Screen Analysis

Head screen analyses were carried out on each of the received samples, at the as-received crush sizes, to determine head grades and value distributions. Each sample was wet screened to obtain top size to 100 mesh (0.074 mm) size fractions. Each sieved size fraction was dried, weighed, crushed (if coarser than 10 mesh), blended and split to obtain samples for gold and silver assay. The results are summarized on Table 13-3 and Table 13-4.

Table 13-3: A Summary of Head Screen Analysis Results, West Vein Material, McClelland Laboratories' 2015 Test Program, Moss Mine Project

(compiled from data contained in McClelland Laboratories' March 2015 project report)

Sample #	Passing (mm)	Retained (mm)	Distrib. (%)	Cumulative Weight (%)		Gold		Silver	
				Retained	Passing	g/t	Weight %	g/t	Weight %
MV Comp. 1 (P ₉₅ 6.35 mm [1/4"])	-	1.70	36.7	36.7	100.0	0.980	38.0	10.0	37.4
	1.70	0.85	15.0	51.7	63.3	0.912	14.5	9.9	15.1
	0.85	0.425	10.7	62.4	48.3	0.791	9.0	10.5	11.5
	0.425	0.21	8.5	70.9	37.6	0.605	5.4	8.9	7.7
	0.212	0.15	3.2	74.1	29.1	0.498	1.7	8.1	2.7
	0.15	Pan	25.9	100.0	25.9	1.145	31.4	9.7	25.6
<i>Totals and Averages</i>			<i>100.0</i>	-	-	<i>0.945</i>	<i>100.0</i>	<i>9.81</i>	<i>100.0</i>
MV Comp. 2 (P ₉₅ 6.35 mm [1/4"])	-	1.70	31.0	31.0	100.0	0.937	31.0	9.1	28.5
	1.70	0.85	15.6	46.6	69.0	1.040	17.3	10.4	16.4
	0.85	0.425	10.6	57.2	53.4	0.842	9.5	10.6	11.4
	0.425	0.21	10.5	67.7	42.8	0.686	7.7	10.2	10.8
	0.212	0.15	3.2	70.9	32.3	0.627	2.2	10.8	3.5
	0.15	Pan	29.1	100.0	29.1	1.040	32.3	10.0	29.4
<i>Totals and Averages</i>			<i>100.0</i>	-	-	<i>0.937</i>	<i>100.0</i>	<i>9.89</i>	<i>100.0</i>
MV Comp. 3 (P ₉₅ 6.35 mm [1/4"])	-	1.70	38.9	38.9	100.0	1.44	43.3	7.3	29.0
	1.70	0.85	14.5	53.4	61.1	1.29	14.5	8.1	12.0
	0.85	0.425	10.7	64.1	46.6	0.96	7.9	8.1	8.9
	0.425	0.21	8.3	72.4	35.9	0.75	4.8	6.6	5.6
	0.212	0.15	4.0	76.4	27.6	1.23	3.8	12.7	5.2
	0.15	Pan	23.6	100.0	23.6	1.41	25.7	16.3	39.3
<i>Totals and Averages</i>			<i>100.0</i>	-	-	<i>1.294</i>	<i>100.0</i>	<i>9.78</i>	<i>100.0</i>
MV Comp. 4 (P ₉₅ 6.35 mm [1/4"])	-	1.70	37.4	37.4	100.0	0.765	40.4	13.5	39.0
	1.70	0.85	14.9	52.3	62.6	0.658	13.8	10.7	12.3
	0.85	0.425	10.5	62.8	47.7	0.567	8.4	18.3	14.8
	0.425	0.21	9.1	71.9	37.2	0.448	5.8	15.7	11.0
	0.212	0.15	3.6	75.5	28.1	0.711	3.6	14.2	4.0
	0.15	Pan	24.5	100.0	24.5	0.810	28.0	10.0	18.9
<i>Totals and Averages</i>			<i>100.0</i>	-	-	<i>0.708</i>	<i>100.0</i>	<i>12.95</i>	<i>100.0</i>

Table 13-4: A Summary of Head Screen Analysis Results, Hangingwall Stockwork Material, McClelland Laboratories' 2015 Test Program, Moss Mine Project

(compiled from data contained in McClelland Laboratories' March 2015 project report)

Sample #	Passing (mm)	Retained (mm)	Distrib. (%)	Cumulative Weight (%)		Gold		Silver	
				Retained	Passing	g/t	Weight %	g/t	Weight %
HWS Comp. 1 (P ₉₅ 6.35 mm [1/4"])	-	1.70	29.7	29.7	100.0	1.40	32.3	24.5	29.3
	1.70	0.85	15.9	45.6	70.3	1.42	17.5	22.9	14.6
	0.85	0.425	11.0	56.6	54.4	1.18	10.1	26.9	11.9
	0.425	0.21	8.9	65.5	43.4	0.86	6.0	22.2	8.0
	0.212	0.15	4.7	70.2	34.5	0.75	2.7	20.1	3.8
	0.15	Pan	29.8	100.0	29.8	1.36	31.4	27.0	32.4
<i>Totals and Averages</i>			<i>100.0</i>	-	-	<i>1.289</i>	<i>100.0</i>	<i>24.84</i>	<i>100.0</i>
HWS Comp. 2 (P ₉₅ 6.35 mm [1/4"])	-	1.70	28.6	28.6	100.0	0.885	29.6	8.8	32.0
	1.70	0.85	15.3	43.9	71.4	0.604	10.8	8.3	16.1
	0.85	0.425	11.6	55.5	56.1	0.675	9.2	8.3	12.2
	0.425	0.21	9.2	64.7	44.5	0.552	5.9	8.0	9.4
	0.212	0.15	5.3	70.0	35.3	0.492	3.1	7.1	4.8
	0.15	Pan	30.0	100.0	30.0	1.180	41.4	6.7	25.5
<i>Totals and Averages</i>			<i>100.0</i>	-	-	<i>0.855</i>	<i>100.0</i>	<i>7.87</i>	<i>100.0</i>

13.2.2 Bottle Roll Tests

Direct agitation cyanidation tests of 96 hour duration were carried out on splits of each of the six composite samples, at the as-received crush sizes detailed on Table 13-3. The objective was to determine precious metal recovery, recovery rates and reagent requirements. All the tests were identically carried out:

- 2 kg charges of prepared material were slurried to achieve 40% solids pulp densities;
- the pH of each slurry was measured and hydrated lime was added to adjust the measured pH to between 10.8 and 11.0;
- sodium cyanide was added to the alkaline pulps to achieve a cyanide concentration equivalent to 1.0 g/L;
- rolling was temporarily stopped at two, six, 24, 48, 72 and 96 hours to take samples of pregnant solution to test for pH and cyanide concentration, and to assay for gold and silver (pH and cyanide concentrations were adjusted, as appropriate);
- after 96 hours the slurries were filtered, washed, dried, weighed and assayed in triplicate for gold and silver.

The results are summarized on Table 13-5 and Figure 13-2, from which it can be seen that:

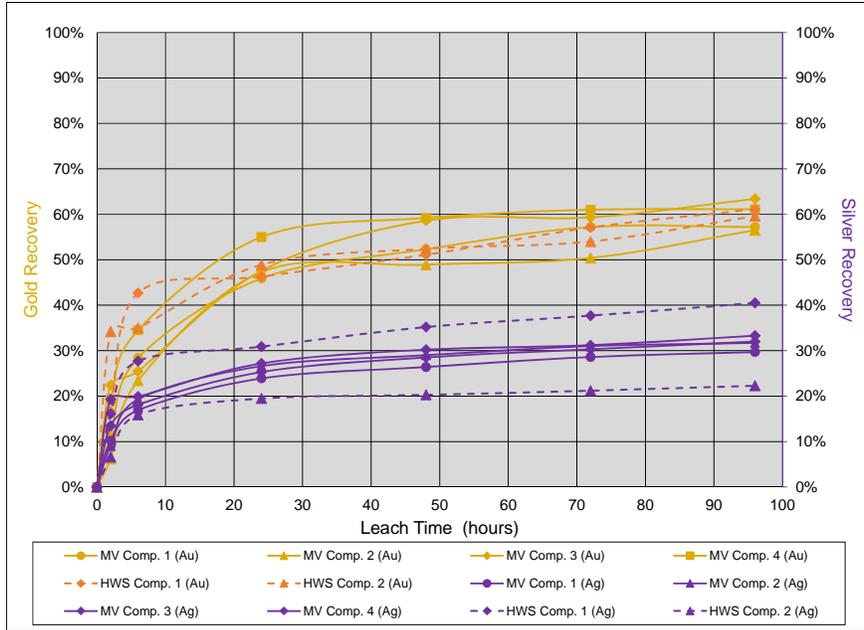
- there is very good repeatability between the gold recovery results, with all composites returning very similar recovery curves;
- there is very good repeatability between the silver recovery results for West Vein material, but the results for hangingwall stockwork material vary significantly;
- overall, only moderate gold and silver recovery rates were achieved but the results are very similar to those realized for bottle roll tests on P85 to P95 6.35 mm [$\frac{1}{4}$ "] material that were carried out during McClelland Laboratories' 2013 test program; and
- in common with all other previous tests, cyanidation was rapid with the majority of the recovered metal (gold and silver) leached into solution within 24 hours.

Table 13-5: A Summary of Bottle Roll Test Results, McClelland Laboratories' 2015 Test Program

(compiled from data contained in McClelland Laboratories' March 2015 project report)

Parameter	Sample											
	MV Comp. 1		MV Comp. 2		MV Comp. 3		MV Comp. 4		HWS Comp. 1		HWS Comp. 2	
	Au (%)	Ag (%)										
% Extracted Metal in 2 hours	11.6	10.2	6.2	9.5	22.4	19.3	19.4	13.5	16.6	16.1	34.2	6.6
.... 6 hours	28.4	16.9	23.4	19.3	25.5	19.9	34.5	18.1	42.7	27.7	35.0	15.9
.... 24 hours	45.9	23.9	47.3	26.6	47.6	27.2	55.0	25.3	46.3	30.9	48.9	19.5
.... 48 hours	52.3	26.4	48.9	29.0	58.6	30.2	59.2	28.5	51.1	35.2	52.4	20.3
.... 72 hours	57.2	28.6	50.4	31.0	59.3	31.2	61.0	30.3	57.1	37.7	54.0	21.2
.... 96 hours	57.2	29.7	56.5	31.7	63.4	33.3	61.1	32.0	61.1	40.5	59.6	22.3
Base Data												
Feed Size	P ₉₉ 6.35 mm ($\frac{1}{4}$ ")		P ₉₉ 6.35 mm ($\frac{1}{4}$ ")		P ₉₉ 6.35 mm ($\frac{1}{4}$ ")		P ₉₉ 6.35 mm ($\frac{1}{4}$ ")		P ₉₉ 6.35 mm ($\frac{1}{4}$ ")		P ₉₉ 6.35 mm ($\frac{1}{4}$ ")	
Tail Grade (g/t)*	0.389	7.02	0.422	8.42	0.465	10.46	0.241	11.00	0.527	14.97	0.312	4.98
Extracted Grade (g/t)	0.520	2.97	0.549	3.91	0.806	5.22	0.379	5.17	0.827	10.14	0.460	1.43
Calculated Head (g/t)	0.909	9.99	0.971	12.33	1.271	15.68	0.620	16.17	1.354	25.04	0.772	6.41
Average Head Assay (g/t)	0.931	9.10	0.891	10.89	1.170	13.11	0.663	15.15	1.267	23.96	0.742	6.47
Chemistry												
Cyanide Consumption (kg/t)	<0.05		<0.05		0.08		<0.05		<0.05		<0.05	
Lime Consumption (kg/t)	1.20		1.20		1.30		1.2		1.50		1.40	
Final pH	11.2		11.3		11.2		11.0		11.2		11.2	

Note: * - average of three assays



(compiled from data contained in McClelland Laboratories' March 2015 project report)

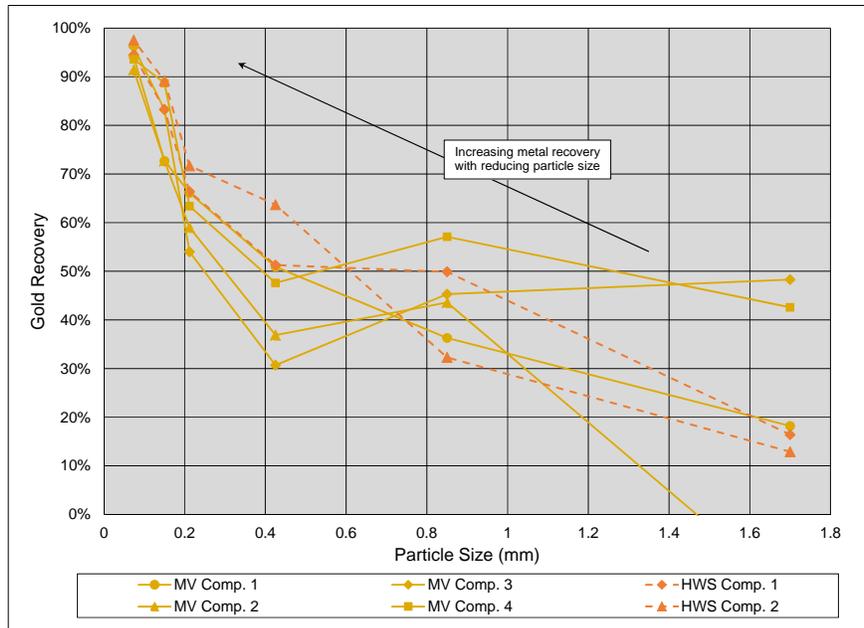
Figure 13-2: Bottle Roll Test Metallurgical Recovery Curves for P99 6.35 mm (1/4") West Vein and Stockwork Material, McClelland Laboratories' 2015 Test Program, Moss Mine Project

13.2.3 Tail Screen Analysis

Table 13-6 summarizes the tail screen analyses for the bottle roll feeds. Figure 13-3 is a line plot of size fractions versus gold recovery. It can clearly be seen that the results reflect the same, strong relationship between particle size and recovery that repeats the results of the analyses completed by Metcon in 2008, by KCA in 2011/2012 and by McClelland Laboratories in 2013.

Table 13-6: A Summary of the Head, Recovered and Tail Assays by Size Fraction, McClelland Laboratories' 2015 Test Program, Moss Mine Project

Composite	Screen Fraction (mm)	Head Screen Assays		Tail Screen Assays		Extraction by Fraction*	
		Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)	Au (%)	Ag (%)
MV Comp. 1 (P ₉₅ 6.35 mm [¼"])	1.70	0.980	10.0	0.802	10.6	18.2	-6.0
	0.85	0.912	9.9	0.581	9.1	36.3	8.1
	0.425	0.791	10.5	0.388	8.1	50.9	22.9
	0.212	0.605	8.9	0.205	6.9	66.1	22.5
	0.15	0.498	8.1	0.136	5.7	72.7	29.6
	Pan	1.145	9.7	0.068	3.2	94.1	67.0
MV Comp. 2 (P ₉₅ 6.35 mm [¼"])	1.70	0.937	9.1	1.090	12.9	-16.3	-41.8
	0.85	1.040	10.4	0.586	12.3	43.6	-18.3
	0.425	0.842	10.6	0.531	11.4	36.9	-7.5
	0.212	0.686	10.2	0.281	9.3	59.0	8.8
	0.15	0.627	10.8	0.171	7.5	72.7	30.6
	Pan	1.040	10.0	0.089	3.3	91.4	67.0
MV Comp. 3 (P ₉₅ 6.35 mm [¼"])	1.70	1.44	7.3	0.774	14.5	48.3	n/a
	0.85	1.29	8.1	0.705	14.3	45.3	n/a
	0.425	0.96	8.1	0.665	12.5	30.7	n/a
	0.212	0.75	6.6	0.345	9.7	54.0	n/a
	0.15	1.23	12.7	0.206	8.6	83.2	n/a
	Pan	1.41	16.3	0.055	4.5	96.1	n/a
MV Comp. 4 (P ₉₅ 6.35 mm [¼"])	1.70	0.765	13.5	0.439	15.2	42.6	-12.6
	0.85	0.658	10.7	0.282	15.1	57.1	-41.1
	0.425	0.567	18.3	0.297	12.8	47.6	30.0
	0.212	0.448	15.7	0.164	10.9	63.4	30.6
	0.15	0.711	14.2	0.080	9.7	88.7	31.7
	Pan	0.810	10.0	0.052	4.9	93.6	51.0
HWS Comp. 1 (P ₉₅ 6.35 mm [¼"])	1.70	1.40	24.5	1.170	27.2	16.4	-11.0
	0.85	1.42	22.9	0.711	21.1	49.9	7.9
	0.425	1.18	26.9	0.575	17.3	51.3	35.7
	0.212	0.86	22.2	0.290	12.5	66.4	43.7
	0.15	0.75	20.1	0.125	9.1	83.3	54.7
	Pan	1.36	27.0	0.075	4.2	94.5	84.4
HWS Comp. 2 (P ₉₅ 6.35 mm [¼"])	1.70	0.885	8.8	0.771	7.0	12.9	20.4
	0.85	0.604	8.3	0.409	6.5	32.3	21.7
	0.425	0.675	8.3	0.245	6.0	63.7	27.7
	0.212	0.552	8.0	0.156	5.7	71.7	28.8
	0.15	0.492	7.1	0.053	5.5	89.2	22.5
	Pan	1.180	6.7	0.029	2.5	97.5	62.7



(compiled from data in McClelland Laboratories' March 2015 project report)

Figure 13-3: A Scatter Plot of Particle Size vs. Gold Recovery, McClelland Laboratories' 2015 Test Program, Moss Mine Project

13.2.4 Conclusions

It may be concluded that material from the West Extension is metallurgically very similar to that from the Moss Vein and its associated stockwork. Table 13-7 further substantiates this finding: it summarizes the recovery rates, achieved over different metallurgical testwork programs, by bottle roll and column leach testing mineralized material with the same nominal particle size (6.35 mm, or 1/4") but with P80 to P100 values.

Table 13-7: A Summary of Test Results for 6.35 mm (1/4") Feed from the Moss Vein and West Vein, Inclusive of their Associated Stockworks, Moss Mine Project

(compiled from data presented in earlier sections of this report)

Sample	Testing Laboratory	Program Year	Particle Size	Recovery by Test Type (%)				Variance (CT→BT Recovery)	
				Column Leach		Bottle Roll		Gold	Silver
				Gold	Silver	Gold	Silver		
<i>Moss Vein and Associated Stockwork</i>									
#3	Metcon Research	2008	P ₈₀ 6.35 mm	66.3	42.1	-	-	-	-
1 x Thru' Rolls	McClelland Labs	2013	P ₈₅ 6.35 mm	75.3	61.3	53.2	38.1	-22.1%	-23.2%
2 x Thru' Rolls #1	McClelland Labs	2013	P ₉₅ 6.35 mm	84.6	76.6	59.0	44.6	-25.6%	-32.0%
2 x Thru' Rolls #2	McClelland Labs	2013	P ₉₅ 6.35 mm	82.7	36.0	67.6	33.3	-15.1%	-2.7%
<i>West Vein</i>									
Composite MV1	McClelland Labs	2015	P ₁₀₀ 6.35 mm	-	-	57.2	29.7	-	-
Composite MV2	McClelland Labs	2015	P ₁₀₀ 6.35 mm	-	-	56.5	31.7	-	-
Composite MV3	McClelland Labs	2015	P ₁₀₀ 6.35 mm	-	-	63.4	33.3	-	-
Composite MV4	McClelland Labs	2015	P ₁₀₀ 6.35 mm	-	-	61.1	32.0	-	-
<i>West Extension Stockwork</i>									
Composite HWS-1	McClelland Labs	2015	P ₁₀₀ 6.35 mm	-	-	61.1	40.5	-	-
Composite HWS-2	McClelland Labs	2015	P ₁₀₀ 6.35 mm	-	-	59.6	22.3	-	-

It can be seen on Table 13-7 that gold and silver recoveries for the bottle roll tests are very similar when the results for P₉₅ material from the Moss Vein and associated stockwork are compared with the results for the P₁₀₀ material from the

West Extension. There is, however, a significant increase in the recoveries from column leach tests compared with bottle roll tests, which is often the case as the relationship, in part, depends on nominal head feed size, with coarse feed often reporting similar results for bottle roll and cyanide leach tests.

Figure 13-4 summarizes the particle size distributions for the materials tested by column leaching, per Table 13-7, and compares these with both the particle size distributions for the bottle roll tested materials from the West Extension and the column leach recoveries. It can be seen that:

- in common with all other test programs where similar data is available, there is a strong relationship between particle size distribution and metal recovery for both gold and silver;
- the maximum recovery rate from column leach tests is 84.6% for gold and 76.6% for silver, as reflected in the results for McClelland Laboratories' 2013 composite 2 x Thru' Rolls #1, which has a slightly less fine particle distribution than composite 2 x Thru' Rolls #2;
- the particle size distributions of the composites from the West Extension match closely those for McClelland Laboratories' 2013 composites 2 x Thru' Rolls #1 and 2 x Thru' Rolls #2; and
- Table 13-7 demonstrates that the average recovery rates from bottle roll tests for the West Extension composites (59.82% Au and 33.44% Ag) are very similar to the bottle roll tests results for composites 2 x Thru' Rolls #1 and 2 x Thru' Rolls #2 (average 63.30% Au and 38.95% Ag); therefore,
- it may reasonably be expected that the recovery rates reported for the column leach tests on composites 2 x Thru' Rolls #1 and 2 x Thru' Rolls #2 would equally apply to the West Extension composites, if they were column leached.

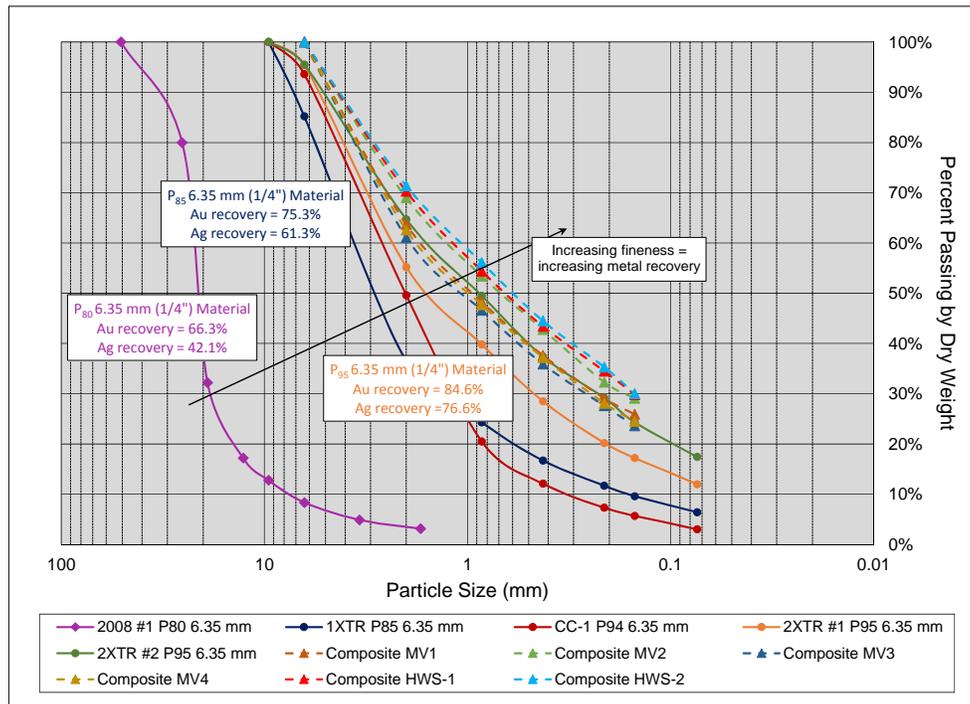


Figure 13-4: A Scatter Plot of Particle Size Distributions for 6.35 mm (1/4") Composites Tested During Various Metallurgical Programs, Moss Mine Project

13.3 PHASE I HEAP RECONCILIATION

In 2013 the Company mined and stacked approximately 122,000 tonnes of ore from the Moss deposit and the material was subjected to leaching with cyanide for roughly 415 days (August 2013 to September 2014). The purpose of the pilot heap was to confirm the viability of cyanidation of the Moss ores both in terms of recovery rates as well as recovery times. The pilot heap was considered a success having achieved an overall recovery of 84% of gold to cyanide solution, and some 38% for silver.

Table 13-8 summarizes the estimated quantities and assessed average grades of the various materials that were stacked or placed and then exposed to cyanidation on the Phase I heap. The drain rock (located above the heap leach pad liner and immediately below the stacked heap leach material) was included as it is mineralized and would have been exposed to cyanide solution and would, therefore, have contributed to the total amount of metal that was recovered into pregnant solution.

Table 13-8: Quantities and Assay Grades of Materials Exposed to Cyanidation on the Phase I Heap

Material Type and Date	Nominal Size	Tonnes	Average Grades		Contained Metal	
			Au (g/t)	Ag (g/t)	Au (oz)	Ag (oz)
<i>Drain Rock</i>						
June 2013	+12.7 mm to 25.4 mm (½" to 1")	8,788.5	0.664	6.60	187.62	1,863.70
<i>Crushed, Screened, Agglomerated and Stacked</i>						
July 21, 2013 to November 14, 2013	P ₉₉ 6.35 mm (-¼")	102,928.5	1.451	14.03	4,801.69	46,427.17
<i>Additional Placed Material</i>						
December 2013	Nominal 25.4 mm (1")	3,238.7	1.642	17.26	170.98	1,797.38
March 31, 2014	P ₉₆ 11.11 mm (-7/16")	2,058.9	0.600	5.97	39.72	395.30
May 23, 2014	P ₉₆ 11.11 mm (-7/16")	5,496.8	0.728	7.22	128.66	1,275.96
Overall	-	122,511.4	1.353	13.14	5,328.66	51,759.51

An audit of the onsite laboratory concluded that a fire assay method with a gravimetric finish, produced accurate and repeatable gold assay results for rock samples; but over-estimated silver grades for the same samples by an average of approximately 5%.

13.3.1 Total Metal Recovery

Table 13-9 summarizes the reconciled amounts of gold and silver recovered from the overall Phase I heap into pregnant solution, carbon and doré, along with the assessed recovery rates (expressed as percentages of the total amount of gold and silver contained on the Phase I heap).

Table 13-9: Recovered Ounces and Related Recovery Rates, Overall Phase I Heap Leach

Source	Gold Ounces	Silver Ounces	Recoveries	
			Gold	Silver
Total Metal on Phase I Heap	5,328.66	51,759.51	-	-
Total Metal Recovered to Pregnant Solution	4,269.81	19,504.85	80.13%	37.68%
Total Metal Recovered to Carbon	4,234.88	18,138.52	79.47%	35.04%
Total Metal Recovered to Doré (incl. residual carbon)	4,153.00	19,710.81	77.94%	38.08%

Table 13-9 shows a consistency in the recovered ounces, hence overall recovery rates into pregnant solution, carbon and doré: gold recoveries vary by as little as 2.16% ($\pm 1.08\%$) and silver recoveries by as little by 3.04% ($\pm 1.52\%$). This repeatability suggests that the recovery rates can be relied on for predicting recovery rates in the commercial operations.

The reported ounces of gold and silver in doré are based on off-site, independent data from the refiner. The total includes an amount for gold (4.04 oz Au) and silver (14.65 oz Ag) in the form of beads recovered from the fire assays carried out at the Company's on-site laboratory. As regards the quantity of metal recovered to carbon, it should be emphasized that:

- Carbon loading in the type of non-agitated carbon columns used during Phase I is not uniform; therefore
- Accurate determinations of the average grade of bulk amounts of loaded carbon are difficult at best; and
- The estimated quantity of metal contained in loaded carbon is heavily dependent on moisture content (the wet weight of a carbon lot is reduced by moisture content to determine the dry weight of carbon to which the average assay value applies).

Despite the limitations outlined above, differences between assays outcomes should, in theory, normalize if a sufficiently large database of results is available. This appears to be the case for the 14 carbon lots transported off-site for stripping, as suggested by the repeatability of the reconciled gold recoveries to carbon (79.47%) and to doré (77.94%).

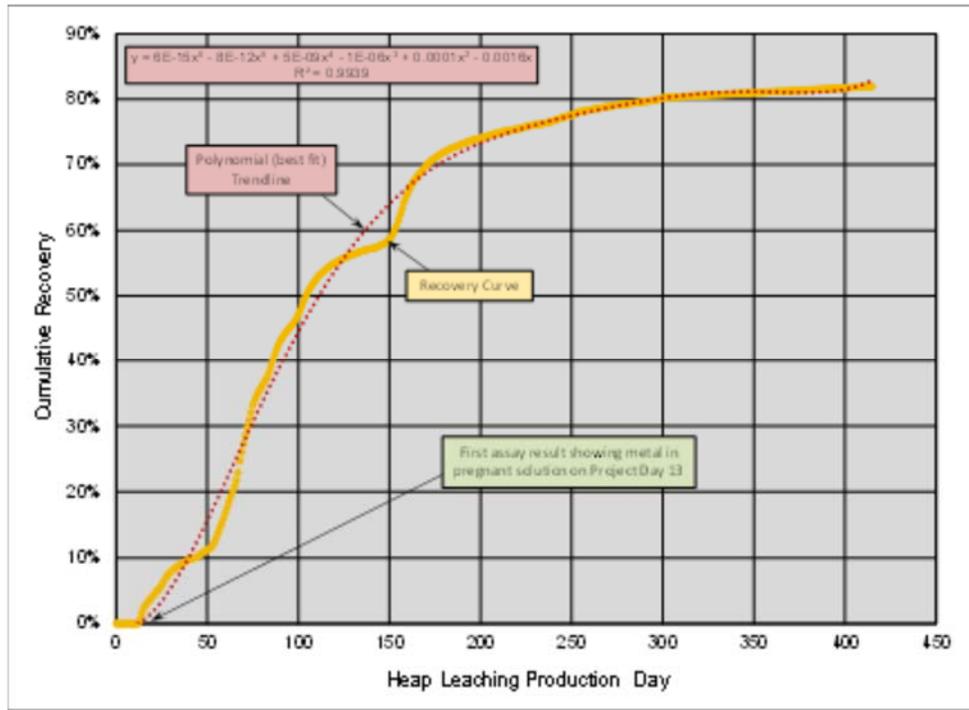
13.3.2 Metal Recovery from P₉₉ 6.35 mm (¼") Material

Table 13-10 summarizes the reconciled results for the P₉₉ 6.35 mm (¼") material that formed the bulk of the Phase I heap.

Table 13-10: Recovered Gold Ounces and Gold Recovery Rates for the 109,289 t of P₉₉ 6.35 mm Material Only, Phase I Heap Leach Operation

Source	Gold Ounces	Silver Ounces	Recoveries	
			Gold	Silver
Metal in P ₉₉ 6.35 mm (¼") Material on Phase I Heap	4,801.69	46,427.17	-	-
Predicted Metallurgical Recovery P ₉₅₊ 6.35 mm (¼") Material	3,983.00	+30,177.66	82.95%	+65%
Back-Calculated Metal Recovered to Pregnant Solution	4,052.92	-	84.40%	-
Back-Calculated Metal Recovered to Doré	3,936.11	-	81.97%	-

Figure 13-5 shows the gold recovery curve for P₉₉ 6.35 mm (¼") material comprising mineralized material from the Moss Vein and its associated stockwork, based on the Phase I heap leach results but limited to a maximum gold recovery rate of 82%. The equation that describes the best fit curve (a 6th order polynomial) is defined in the box located in the top left hand corner of Figure 13-5. This identifies that the best fit curve has a correlation coefficient ($r^2 = 0.9939$).



(compiled in part from information supplied by the Company)

Figure 13-5: Gold Recovery Curve for P₉₉ 6.35 mm (1/4") Material Comprising Mineralization from the Moss Vein and Its Associated Stockwork, Moss Mine Project

13.4 DELETERIOUS ELEMENTS

A typical low sulphidation, epithermal deposit has strong vertical zonation of trace elements. Mercury, antimony and arsenic occur high in the system above the boiling zone where precious metals are deposited. Base metals such as copper and zinc are found at the base of the system below the boiling zone. Many of these elements, especially base metals such as copper, reduce the efficiency of cyanidation sometimes resulting in significant reductions in gold and silver recovery.

However, a geological characterization of the Moss deposit through thin-section analysis, head analysis and multi-element analysis show that mercury, antimony, arsenic, thallium and copper are either absent or present in trace or minor amounts. In addition, no carbonaceous material has been identified in either hand samples of mineralized material or by means of thin-section analysis. Only very minor amounts of carbon have been identified by means of head analysis and multi-element analysis.

No significant amounts of clay, clay gouge or clay alteration are present in the Moss ores as evidenced in the drill cores. Only trace amounts of clay can be found on joint surfaces and this will have no impact on the leaching or permeability of heap.

It should be emphasized that no issues related to deleterious elements were identified during the Phase I Pilot Plant operation either, including clays.

13.5 AMENABILITY TO CYANIDATION

The Moss Mine project metallurgical database, as well as the results of the Phase I Pilot Plant operation, demonstrate that mineralized material from the Moss deposit is amenable to cyanidation, especially gold recovery that is consistently rapid and comprehensive in fine grained and pulverized feeds.

Silver recovery is a special case as it varies with silver grade (e.g. higher grade equals lower recovery) and hence varies with the amount of acanthite present in the mineralized material. Liberation of the acanthite would likely be variable, but moderate at best, in moderately coarse to coarse feed (e.g. a significant fraction would remain encapsulated in the gangue minerals). A cyanide solution is not likely to be able to effectively dissolve coarse grains of acanthite and sulphides which are known to yield lower and slower recovery rates compared to minerals such as electrum. Given the above, the overall silver recoveries are expected to be variable.

13.6 PREDICTED RECOVERY

There is a very strong relationship between gold and silver recovery and both the nominal crush size of the material subjected to cyanidation and its particle size distribution. The relationship:

- Clearly demonstrates that the more ‘work’ that is done on the mineralized material to be leached (i.e. crushing and grinding) the greater the fines fraction, hence the greater the quantity of economic minerals that are liberated, the greater the recovery and the faster the overall recovery rate; and
- May be attributed to the fine to very fine nature of the mineral grains and their encapsulation in (mainly) weathering/oxidation resistant gangue minerals.

The following figures were compiled from consideration of the particle size-recovery relationships outlined; they detail upper, average and lower recovery curves for gold (Figure 13-6) and silver (Figure 13-7).

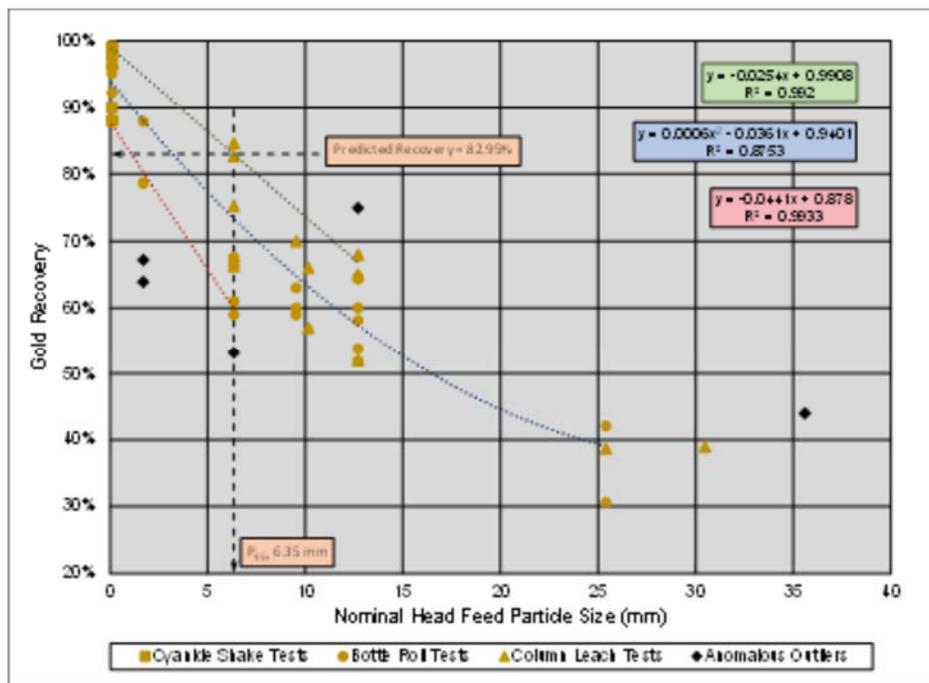


Figure 13-6: Gold Recovery by Cyanide Leaching from Prepared Moss Vein + Stockwork Composites, with Best-Fit Upper, Average and Lower Recovery Trendlines

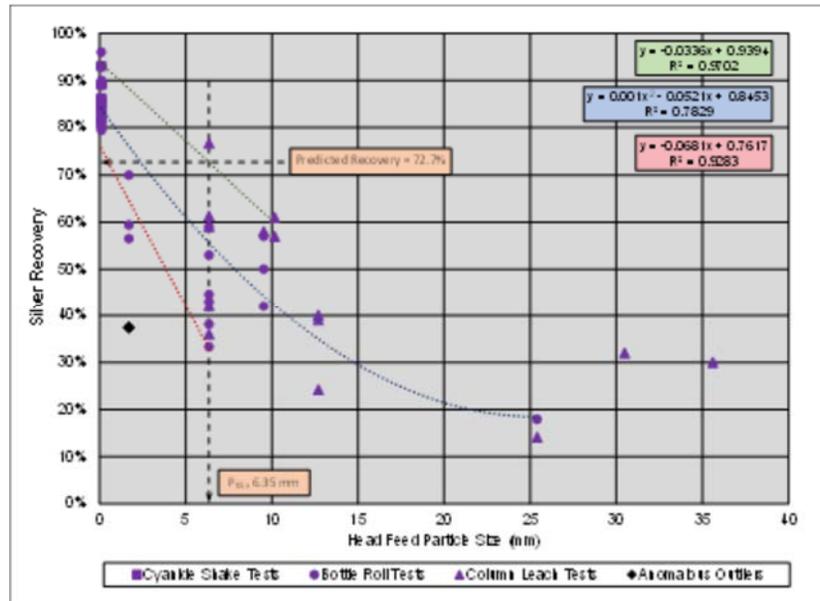


Figure 13-7: Silver Recovery by Cyanide Leaching from Prepared Moss Vein + Stockwork Composites, with Best-Fit Upper, Average and Lower Recovery Trendlines

It can be seen from Figure 13-6 and Figure 13-7 that the upper recovery curves predict recovery rates for P₉₅+ 6.35 mm (1/4") mineralized material of 82.95% for gold and 70.23% for silver.

13.6.1 Recommended Recovery Rates

A gold recovery rate of 82% was adopted for the Phase II plant, now under construction, based on the results of metallurgical testwork and the pilot heap. The gold recovery curve in Figure 13-5 (Section 13.3.2) was used to develop the time-recovery curves in the cash flow models presented in the Financial Analyses.

A silver recovery rate of 65% has likewise been adopted for recovery to a Merrill Crowe circuit. The rate has been discounted from the predicted recovery of 70.23% due to uncertainty in the grade distribution of the material targeted for exploitation during Phase II.

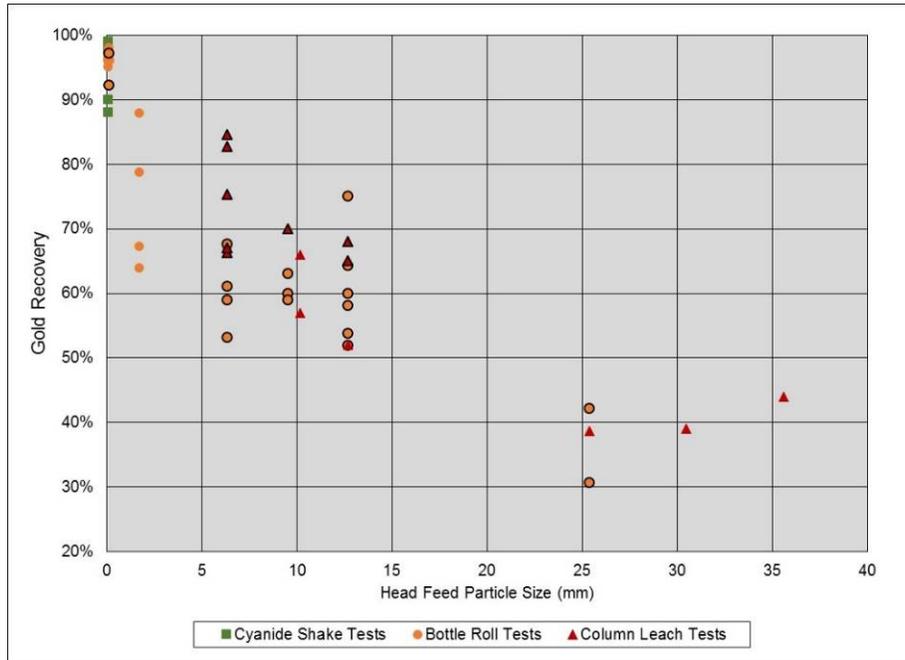
13.7 QUALIFIED PERSONS OPINION

The Qualified Person for this section of this Technical Report is Dr. David Stone, P.E. The following interpretation of the Moss Mine Project metallurgical testwork programs represents the opinion of the Qualified Person as regards the overall scope and applicability of the overall database of metallurgical testwork results and the amenability to cyanidation of mineralized material from the Moss deposit.

13.7.1 Results' Repeatability

Table 13-11 summarizes the recovery rates achieved over the eight metallurgical test programs completed to date. The results of the 18 bottle roll tests on the P100 12.7 mm (1/2") regional, grade and zone composites of KCA's 2011/2012 test program are not included since intermittent rolling (in bottle roll tests) resulted in gold recovery rates that were up to 50% lower, and approximately 30% lower on average, than the recoveries reported for similarly sized material in other test programs. This renders the results unsuitable for consideration in test repeatability. Figure 13-8 and Figure 13-9 are scatter plots of the same data for gold (Figure 13-8) and silver (Figure 13-9). All the data points are for P₈₀ material, except those with black borders that are for P₈₅ to P₁₀₀ material, as detailed on Table 13-11.

It may be seen that while there is results variability for each head feed particle size, the overall database of test results reflects a robust repeatability between test types: no test type consistently reports higher or lower results than any other test type. The results for each head feed particle size are instead mixed. In the opinion of the Qualified Person, this confirms the straightforward nature of the metallurgical response of the economic minerals of interest to cyanidation and it identifies that column leach tests are not ideally required to test the metallurgical response of mineralized material from the Moss Vein. Standard bottle roll tests may instead be used.



(compiled from data contained in the metallurgical test program reports cited above)

Figure 13-8: A Scatter Plot of Gold Recoveries by Test Type, Moss Mine Project Metallurgical Programs

Table 13-11: A Summary of Metal Recovery Rates by Test Type and Head Feed Particle Size, Moss Mine Project

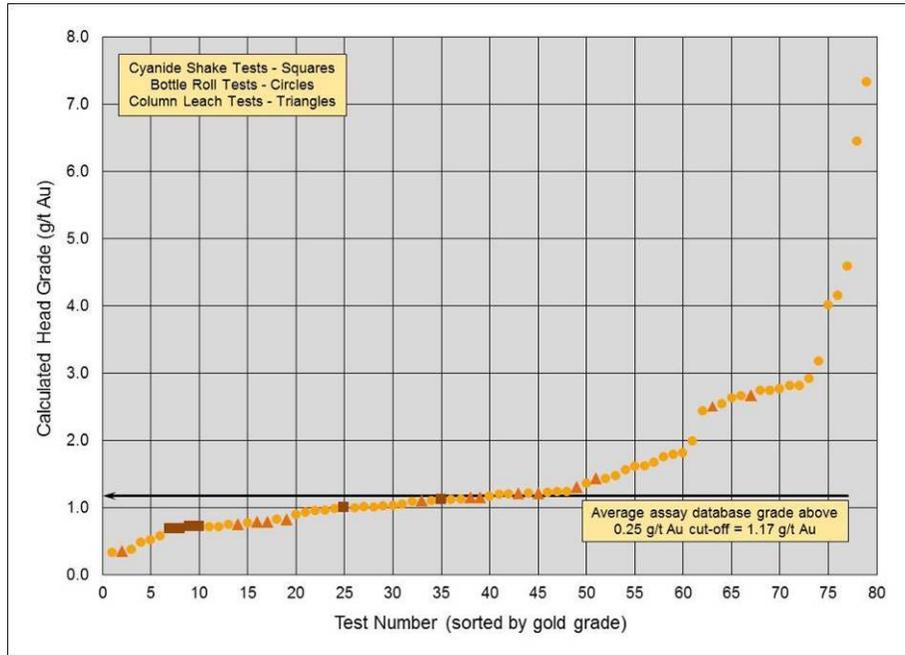
Source	Test Type	Sample Size (P ₈₀ unless otherwise stated)																					
		35.56 mm (1.4")		30.48 mm (1.2")		25.4 mm (1")		12.7 mm (1/2")		10.16 mm (2/5")		9.53 mm (3/8")		6.35 mm (1/4")		1.7 mm (10 mesh)		0.15 mm (100 mesh)		0.105 mm (150 mesh)		0.09 mm (200 mesh)	
		Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)	Au (%)	Ag (%)
McClelland Labs., 1991	BT	-	-	-	-	42.1	-	60.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	51.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	64.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	53.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	64.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McClelland Labs., 1992	BT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87.9	70.0	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	78.7	59.4	-	-	-	-	-	-
Metcon Research, 2008	BT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63.9	37.4	-	-	97.1	79.4	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	67.2	56.5	-	-	92.2	83.1	-	-
KCA, 2010	CT	-	-	-	-	38.7	14.1	52.0	24.2	-	-	-	-	-	66.3	42.1	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	82
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	81
KCA, 2011/2012	ST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	86
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	93
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	93
KCA, 2011/2012	BT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	85
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	84
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	89
KCA, 2011/2012	CT	-	-	-	-	-	-	65	40	-	-	70	58	67	59	-	-	-	-	-	-	-	99
		-	-	-	-	-	-	68	39	-	-	-	-	-	-	-	-	-	-	-	-	-	86
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	95
McClelland Labs., 2013	BT	-	-	-	-	30.6	17.9	-	-	-	-	-	-	53.2	38.1	-	-	-	-	-	-	96	89
		-	-	-	-	-	-	-	-	-	-	-	-	59.0	44.6	-	-	-	-	-	-	98	90
		-	-	-	-	-	-	-	-	-	-	-	-	67.6	33.3	-	-	-	-	-	-	96.5	80.0
McClelland Labs., 2013	CT	-	-	-	-	-	-	-	-	-	-	-	-	75.3	61.3	-	-	-	-	-	-	97.3	84.2
		-	-	-	-	-	-	-	-	-	-	-	-	84.6	76.6	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	82.7	36.0	-	-	-	-	-	-	-	-
McClelland Labs., 2015	BT	-	-	-	-	-	-	-	-	-	-	-	-	57.2	29.7	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	56.5	31.7	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	63.4	33.3	-	-	-	-	-	-	-	-
McClelland Labs., 2015	CT	-	-	-	-	-	-	-	-	-	-	-	-	61.1	32.0	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	61.1	40.5	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	59.6	22.3	-	-	-	-	-	-	-	-

Notes: ST = cyanide shake test, BT = bottle roll test, CT = column leach test
 All samples P₈₀, except those highlighted in GREEN (P₈₅), in RED (P₉₅) or PURPLE (P₁₀₀).
 The abnormally low Metcon results, highlighted in ORANGE, are attributed to the very low cyanide consumption realized during the tests.

13.7.2 Metallurgical Test Coverage

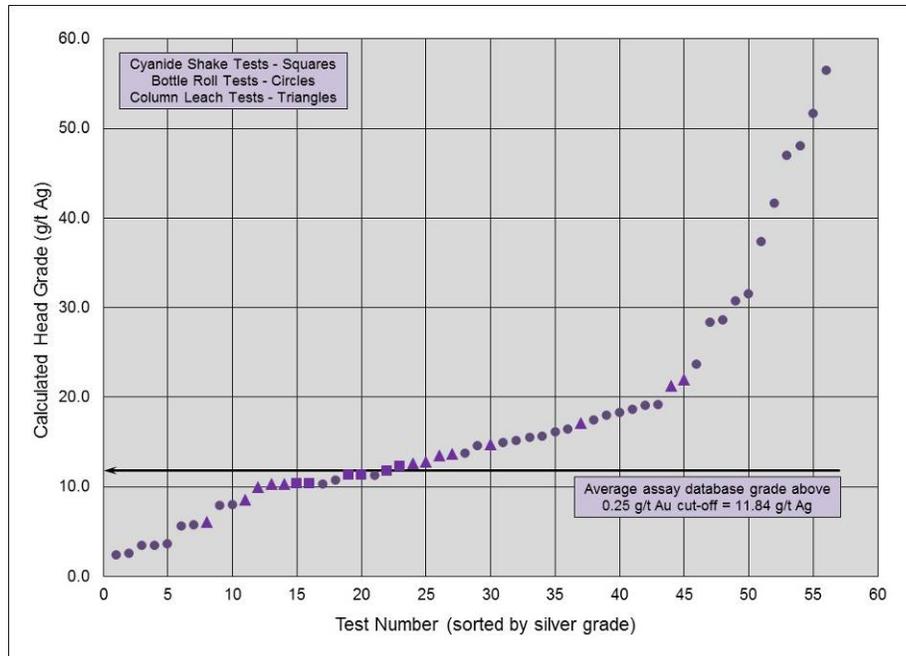
13.7.2.1 By Grade

Figure 13-10 and Figure 13-11 summarize the ranges of calculated head grades for gold (Figure 13-10) and silver (Figure 13-11) by test type for each of the cyanide shake-, bottle roll- and column leach-tests carried out over the seven test programs for which data is available. It may be seen that overall, the test series comprehensively covered the range of gold and silver grades available across the Moss deposit.



(compiled and interpreted from data contained in the metallurgical test program reports cited above)

Figure 13-10: A Scatter Plot of the Calculated Gold Head Grades of the Samples and Composites Used for Metallurgical Testing, by Test Type, Moss Mine Project



(compiled and interpreted from data contained in the metallurgical test program reports cited above)

Figure 13-11: A Scatter Plot of the Calculated Silver Head Grades of the Samples and Composites Used for Metallurgical Testing, by Test Type, Moss Mine Project

13.7.2.2 By Location and Depth

Figure 13-12 is a long-section, looking north, of the Moss Vein and West Vein on which are highlighted the sample intervals used over seven metallurgical test programs that included cyanidation test results. Table 13-12 summarizes the 22 intersecting metallurgical drillhole samples that total 377.50 m in length. A very good distribution of samples is evident across the Moss Vein and within the Phase II pit area hence additional tests to cover the possibility of metallurgical variability along the strike length of the Moss Vein are not required.

The same general conclusions apply as regards the hangingwall and footwall stockworks. Figure 13-13 is a snapshot view of the Moss Vein's hangingwall stockwork on which are highlighted the 30 intersecting, metallurgical drillhole samples that total 452.10 m in length (Table 13-13). Figure 13-14 is a snapshot view of the two, minor Moss Vein footwall stockworks looking approximately north on which are highlighted the seven, intersecting metallurgical drillhole samples that total 26.68 m in length (Table 13-14).

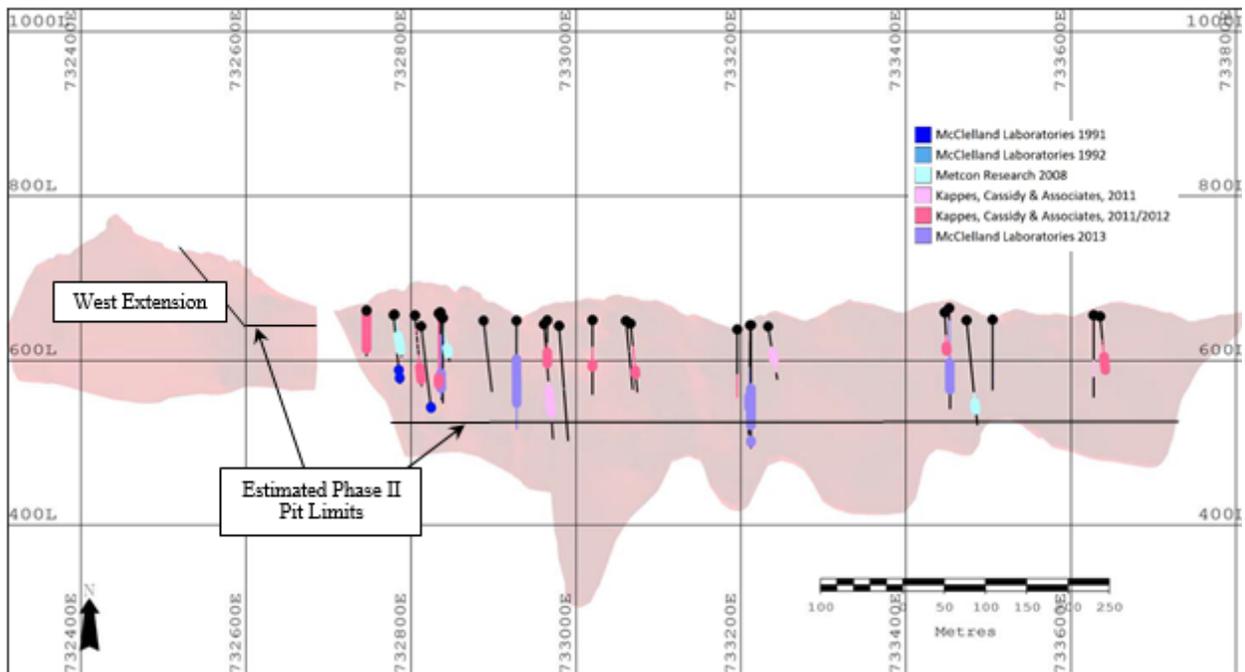


Figure 13-12: A Long-Section Vulcan® Snapshot View (looking north) of the Moss Vein and West Vein Showing the Distribution of Metallurgical Test Samples (that are colour-coded by test program)

Table 13-12: A Summary of the Metallurgical Drillhole Samples that Intersect the Moss Vein, Moss Mine Project

(compiled from data contained in the metallurgical test program reports cited above)

Drillhole	Sample Interval		Sample Length (m)	Test Program
	From (m)	To (m)		
MM-8	73.15	74.68	1.53	McClelland Laboratories, 1991
MM-8	83.82	85.14	1.32	
MM-14	108.20	61.89	1.53	
AR-48C	36.26	61.89	25.63	Metcon Research, 2008
AR-49C	51.60	61.75	10.15	
AR-50C	116.26	125.90	9.64	
AR-51C	88.61	118.74	30.13	Kappes, Cassidy & Associates, 2011
AR-52C	44.95	56.52	11.57	
AR-70C	61.57	65.96	4.39	Kappes, Cassidy & Associates, 2011/2012
AR-71C	62.26	68.58	6.32	
AR-72C	78.43	85.95	7.52	
AR-73C	3.05	46.94	43.89	
AR-74C	68.58	86.56	17.98	
AR-75C	44.70	60.95	16.24	
AR-76C	56.62	75.83	19.21	
AR-77C	46.39	53.34	6.95	
AR-188C	73.83	92.20	18.37	McClelland Laboratories, 2013
AR-189C	46.85	100.40	53.55	
AR-190C	86.58	99.97	13.39	
AR-191C	66.23	98.91	32.68	
AR-193C	77.19	121.92	44.73	
AR-193C	140.21	142.53	2.32	

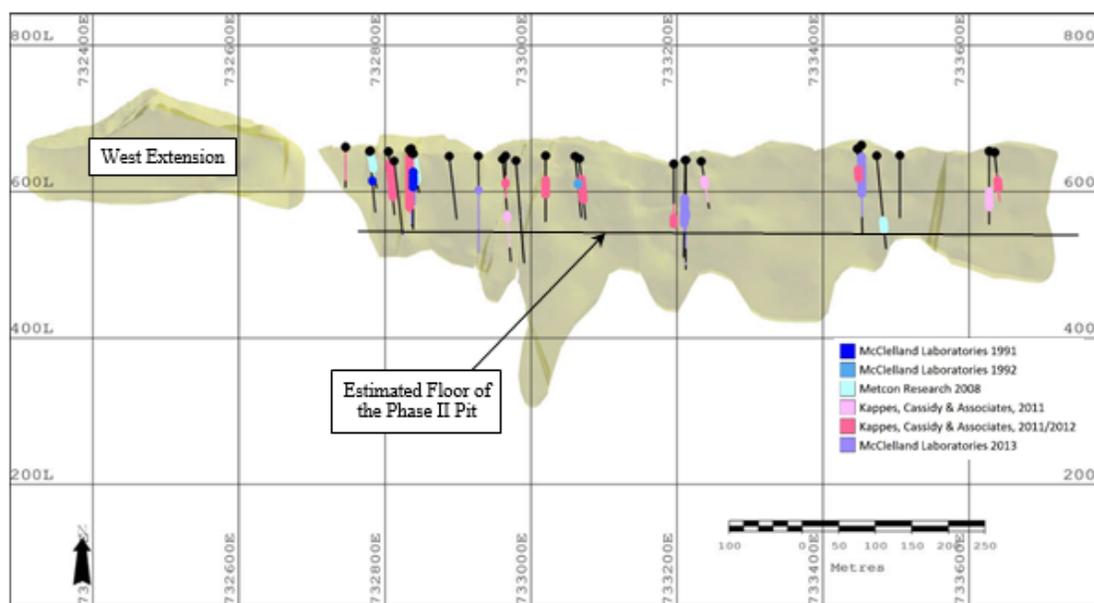


Figure 13-13: A Long-Section Vulcan® Snapshot View (looking north) of the Hangingwall Stockworks of the Moss Vein and West Vein Showing the Distribution of Metallurgical Test Samples

Table 13-13: A Summary of the Metallurgical Drillhole Samples that Intersect the Hangingwall Stockwork of the Moss Vein, Moss Mine Project

Drillhole	Sample Interval		Sample Length (m)	Test Program
	From (m)	To (m)		
MM-1	47.24	48.77	1.53	McClelland Laboratories, 1991
MM-2	35.05	38.10	3.05	
MM-2	45.72	47.24	1.52	
MM-2	48.77	50.29	1.52	
MM-2	53.34	56.39	3.05	
MM-8	44.20	45.72	1.52	
MM-14	41.45	42.67	1.22	McClelland Laboratories, 1992
AR-48C	9.14	34.26	25.12	Metcon Research, 2008
AR-49C	13.87	50.69	36.82	
AR-50C	102.11	116.19	14.08	
AR-51C	85.34	88.61	3.27	Kappes, Cassidy & Associates, 2011
AR-52C	35.05	44.81	9.76	
AR-53C	54.86	76.20	21.34	
AR-69C	80.77	90.83	10.06	Kappes, Cassidy & Associates, 2011/2012
AR-70C	38.86	61.57	22.71	
AR-71C	30.48	62.26	31.78	
AR-72C	9.14	78.43	69.29	
AR-74C	18.29	22.86	4.57	
AR-74C	25.91	28.96	3.05	
AR-74C	36.58	39.62	3.04	
AR-74C	45.72	47.24	1.52	
AR-74C	53.34	68.58	15.24	
AR-75C	42.67	44.70	2.03	
AR-76C	44.26	56.62	12.35	
AR-77C	32.00	45.87	13.87	
AR-188C	27.13	73.83	46.70	McClelland Laboratories, 2013
AR-189C	46.63	46.85	0.22	
AR-190C	51.66	86.58	34.92	
AR-191C	15.24	66.01	50.77	
AR-193C	71.32	77.19	5.87	
Total			452.10	

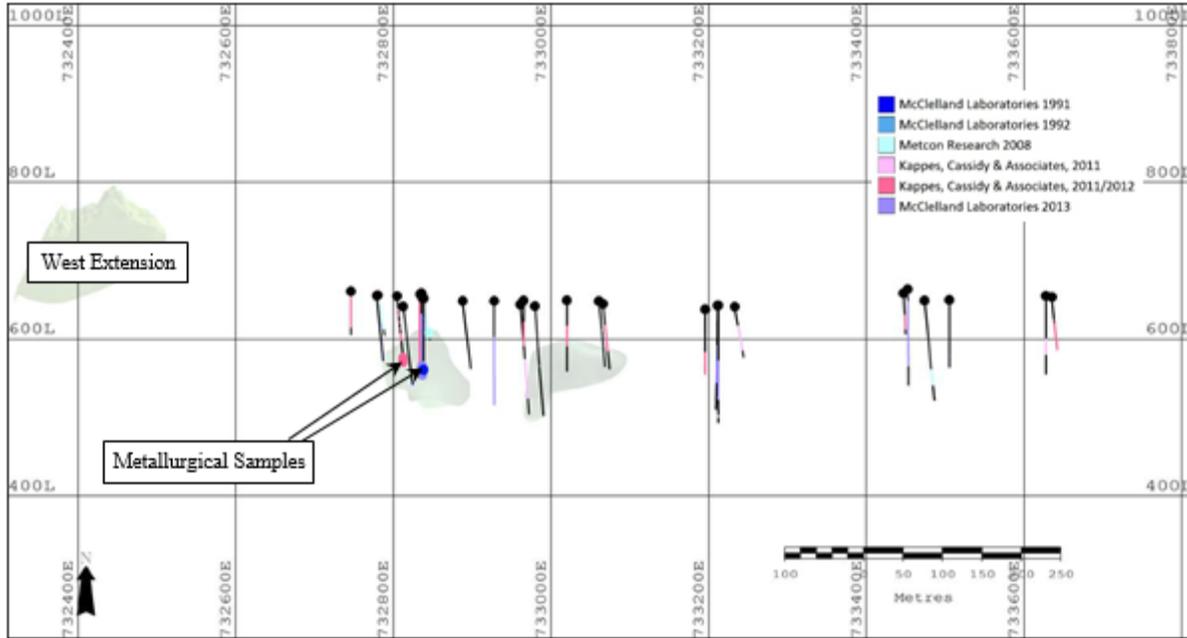


Figure 13-14: A Long-Section Vulcan® Snapshot View (looking north) of the Footwall Stockworks of the Moss Vein and West Vein Showing the Distribution of Metallurgical Test Samples (that are colour-coded by test program)

Table 13-14: A Summary of the Metallurgical Drillhole Samples that Intersect the Footwall Stockworks of the Moss Vein, Moss Mine Project

Drillhole	Sample Interval		Sample Length (m)	Test Program
	From (m)	To (m)		
MM-1	96.01	97.54	1.53	McClelland Laboratories, 1991
AR-49C	61.75	64.01	2.26	Metcon Research, 2008
AR-51C	118.87	124.97	6.10	Kappes, Cassidy & Associates, 2011
AR-70C	65.96	68.58	2.62	Kappes, Cassidy & Associates, 2011/2012
AR-74C	86.56	92.96	6.40	
AR-188C	92.20	100.20	8.00	McClelland Laboratories, 2013
AR-188C	103.20	104.97	1.77	
	<i>Total</i>		<i>28.68</i>	

14 MINERAL RESOURCE ESTIMATES

The Phase III mine plan is based on the previously reported Mineral Resource Estimate (MRE) prepared by David Thomas, P. Geo. with an effective date of October 31, 2014. This estimate encompasses the Moss and Ruth Veins, the West Extension to the Moss Vein, and associated stockworks.

This Technical Report does not include an update to the 2014 Mineral Resource Estimate hence it is considered current. No additional drilling, sampling or assaying has been carried out the Moss deposit since the filing of the 2014 Technical Report.

The Qualified Person for this section of the Technical Report is Dr. David Stone, P.E.

14.1 2014 MINERAL RESOURCE

The current Mineral Resource Estimate (MRE) for the Moss Project was reported in a December 30, 2014 Technical Report filed on SEDAR. These were classified under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves, by application of a cut-off grade that incorporated mining and metallurgical recovery parameters. The estimated Mineral Resources are constrained to a pit shell based on commodity prices, metallurgical recoveries and operating costs. Long-term metal prices of US\$1,250/oz Au and US\$20.0/oz Ag were applied along with metallurgical recovery rates of 82% for gold and 65% for silver. The 2014 MRE (Table 14-1) was prepared by David Thomas P. Geo and has an Effective Date of October 31, 2014. The reader is referred to the December 2014 Technical Report for a full description of the MRE analysis methodology and assumptions.

Table 14-1: Moss Mine Project Mineral Resource Estimate by David Thomas, P. Geo.
(undiluted, pit constrained, 100% in-pit recovery, Effective Date October 31, 2014)

Category (0.25 g/t Au Cut-Off)	Tonnes	Au (g/t)	Ag (g/t)	Au (oz)	Ag (oz)	AuEq (g/t)	AuEq (oz)
Measured	4,860,000	0.97	10.4	152,000	1,630,000	1.10	172,000
Indicated	10,620,000	0.66	8.7	225,000	2,980,000	0.77	263,000
<i>Measured + Indicated</i>	<i>15,480,000</i>	<i>0.76</i>	<i>9.3</i>	<i>377,000</i>	<i>4,610,000</i>	<i>0.87</i>	<i>435,000</i>
Inferred	2,180,000	0.55	5.6	38,000	390,000	0.62	43,000

Footnotes to Mineral Resource statement:

- David Thomas, P. Geo. reviewed the Company's QA/QC programs on the Mineral Resources data. After removing samples with data quality issues, the QP concludes that the collar, survey, assay, and lithology data are adequate to support Mineral Resources estimation.
- Domains were modelled in 3D to separate mineralized rock types from surrounding waste rock. The domains were modelled based on quartz veining and gold grades.
- Raw drillhole assays were composited to 1.52 m lengths broken at domain boundaries.
- Capping of high grades was considered necessary and was completed for each domain on assays prior to compositing.
- Block grades for gold and silver were estimated from the composites using ordinary kriging interpolation into 3 m x 3 m x 3 m blocks coded by domain.
- A dry bulk density of 2.51 g/cm³ was used for material with a depth less than 12 m from surface. A dry bulk density of 2.58 g/cm³ was used for all other material. The dry bulk densities are based on 506 specific gravity measurements.
- Blocks were classified as Measured, Indicated and Inferred in accordance with CIM Definition Standards 2014. Inferred resources are classified on the basis of blocks falling within the mineralized domain wireframes (i.e. reasonable assumption of grade/geological continuity) with a maximum distance of 100 m to the closest composite. Indicated resources are classified based on a drillhole spacing of 50 m. Measured resources are classified based on a 25 m x 12.5 m drillhole spacing.
- The Mineral Resource estimate is constrained within an optimized pit with a maximum slope angle of 65°.
- Metal prices of \$1,250/oz and \$20.0/oz were used for gold and silver, respectively.
- Metallurgical recoveries of 82% for gold and 65% for silver were applied.
- A 0.25 g/t gold cut-off was estimated based on a total process and G&A operating cost of \$6.97/t of mineralized material mined.
- The contained gold and silver figures shown are in situ. No assurance can be given that the estimated quantities will be produced. All figures have been rounded to reflect accuracy and to comply with securities regulatory requirements. Summations within the tables may not agree due to rounding.
- Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- The quantity and grade of reported inferred resources in this estimation are conceptual in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category.
- The gold equivalent ("AuEq") grades and ounces stated on Table 14-1 were determined by applying the following formulae: Factor A (gold) = 1/1.10346 x metallurgical recovery (82%) x smelter recovery (99%) x refinery recovery (99%) x unit Au price (US\$1,250/oz); Factor B (silver) = 1 / 1.10346 x

metallurgical recovery (65%) x smelter recovery (98%) x refinery recovery (99%) x unit Ag price (US\$20.0/oz) and AuEq = Au grade + (Ag grade x [Factor B / Factor A]).

14.2 FACTORS THAT MAY AFFECT THE MINERAL RESOURCE ESTIMATE

Areas of uncertainty that may materially impact the Mineral Resource estimate include:

- the applied, long-term commodity price and exchange rate assumptions;
- the operating cost assumptions;
- the applied metallurgical recovery rates and any changes that might result from additional metallurgical testwork;
- changes to the tonnage and grade estimates as a result of new assay and bulk density information;
- future tonnage and grade estimates may vary significantly as more drilling is completed;
- permitting of mining operations on land which is not registered as a patented lode claim; and
- any changes to the slope angle of the pit walls as a result of geotechnical information would affect the pit shell used to constrain the Mineral Resources.

14.3 QUALIFIED PERSON'S OPINION

The Qualified Person is of the opinion that the Mineral Resources for the Moss Mine Project have been performed to best industry practices and conform to the requirements of CIM 2014 Definition Standards for Mineral Resources and Mineral Reserves.

15 MINERAL RESERVE ESTIMATES

The 2015 Feasibility Technical Report included a Mineral Reserve Estimate for the Phase II open pit. This section summarizes the Phase II reserves as reported in the 2015 Technical Report. However, it should be emphasized that these reserves only apply to the Phase II pit and are not relevant to the PEA Mine Life Extension pit.

The 2015 Mineral Reserve Estimate is still current as the Phase II mine is under construction and is near commercial production. The Phase II mine will exploit the mineral reserves reported herein.

The following section is a summary of the information provided in the July 2015 Feasibility Technical Report filed on SEDAR. The reader is referred to the 2015 Technical Report for additional details on the mineral reserve estimate assumptions, parameters, and methodology used to derive this estimate. The 2015 Mineral Reserve Estimate was prepared by Mr. Scott Allan Britton, CEng. with an effective date of May 2015.

15.1 MINERAL RESERVE CLASSIFICATION

Mineral reserves are subdivided in order of increasing confidence into probable mineral reserves and proven mineral reserves. A probable mineral reserve has a lower level of confidence than a proven mineral reserve.

The reserves for the Moss Project are in both the proven and probable categories. Measured Resources (converted to Proven Reserves) are based on a drill grid with a minimum spacing of 25m x 25m. Indicated Resources (converted to Probable Reserves) are based on a drill grid with a minimum spacing of 50m x 50m.

The mineral reserves for the Moss Project were developed by applying the relevant economic and design criteria to the resource model in order to define the economically extractable portions of the resource. The reserve categories herein are in accordance with Canadian Institute of Mining and Metallurgy Definition Standards dated May 2014.

15.2 MINERAL RESERVE STATEMENT

Table 15-1 defines the total tonnes and grades within the ultimate pit design when the in-situ quantities are adjusted for mining losses and dilution.

Table 15-1: Total Mineral Reserves, Effective Date May 2015

Material	Category	ROM (kT)	Diluted Au (g/t)	Diluted Ag (g/t)	Contained Au (oz)	Contained Ag (oz)	Diluted AuEq (g/t)	Contained AuEq (oz)
Primary Ore	Proven	4,208	0.948	9.990	128,260	1,351,550	1.064	143,950
	Probable	3,304	0.754	9.22	80,090	979,400	0.861	91,460
	<i>Combined</i>	<i>7,512</i>	<i>0.863</i>	<i>9.65</i>	<i>208,350</i>	<i>2,330,950</i>	<i>0.975</i>	<i>235,410</i>
Low Grade Ore	Proven	251	0.215	2.98	1,740	24,050	0.25	2,020
	Probable	210	0.216	3.55	1,460	23,970	0.257	1,740
	<i>Combined</i>	<i>461</i>	<i>0.216</i>	<i>3.24</i>	<i>3,200</i>	<i>48,020</i>	<i>0.254</i>	<i>3,760</i>
Stockpiles	Proven	62	0.777	8.84	1,550	17,620	0.880	1,750
ALL	Combined	8,035	0.825	9.28	213,100	2,396,590	0.933	240,920

- The Mineral Reserve estimate is constrained within a pit-constrained LG pit with maximum slope angles of 65°. Metal prices of US\$1,250/oz and US\$18.50/oz were used for gold and silver respectively. Metallurgical recoveries of 82% for gold and 65% for silver were applied.
- A variable gold cut-off was estimated based on a mining cost of US\$2.75/t mined, and a total process and G&A operating cost of US\$6.48/t of ore mined. Primary ore is based on a cut-off of 0.25 g/t Au, and low-grade ore is based on a cut-off of 0.2 g/t Au.
- The gold equivalent ("AuEq") formulae, applied for purposes of estimating AuEq grades and ounces, are as follows:
 - Factor A (gold) = $1 / 31.10346 \times \text{metallurgical recovery (82\%)} \times \text{smelter recovery (99\%)} \times \text{refinery recovery (99\%)} \times \text{unit Au price (US\$1,250 / oz)}$

- $Factor\ B\ (silver) = 1 / 31.10346 \times metallurgical\ recovery\ (65\%) \times smelter\ recovery\ (98\%) \times refinery\ recovery\ (99\%) \times unit\ Ag\ price\ (US\$18.50 / oz)$
- $AuEq\ grade = Au\ grade + (Ag\ grade \times (Factor\ B / Factor\ A))$
- $AuEq\ ounces = (AuEq\ grade \times material\ tonnes) / 31.10346$
- *All figures have been rounded to reflect accuracy and to comply with securities regulatory requirements. Summations within the tables may not agree due to rounding.*
- *The Mineral Reserves were defined in accordance with CIM Definition Standards dated May 10, 2014.*
- *The Measured and Indicated Resources are inclusive of those Mineral Resources modified to produce the Mineral Reserves.*
- *Tonnages listed (ROM) are in millions of tonnes ("MT").*

15.3 FACTORS THAT MAY AFFECT THE MINERAL RESERVE ESTIMATE

Areas of uncertainty that may materially impact the Mineral Reserve estimate include:

- the applied, long-term commodity price and exchange rate assumptions;
- the operating cost assumptions, in particular labor costs and fuel costs;
- the applied metallurgical recovery rates and any changes that might result from additional metallurgical testwork;
- additional dilution during mining will lower the overall head grade of the leached material
- permitting of mining operations on land which is not registered as a patented lode claim; and
- any changes to the slope angle of the pit walls as a result of geotechnical information would affect the pit shell used to constrain the Mineral Reserves.

15.4 QUALIFIED PERSON'S OPINION

The Qualified Person is of the opinion that the Mineral Reserves for the Moss Mine Project have been performed to best industry practices and conform to the requirements of CIM 2014 Definition Standards for Mineral Resources and Mineral Reserves.

16.2.2 Economic Parameters

The economics parameters herein were provided by Northern Vertex based on the 2015 Moss Mine Feasibility Study. These are summarized in Table 16-1. The mining cost has been assumed based on previous work and updated contracting costs. The contracting costs were given based on bank cubic feet mined and converted into dollars per tonne (\$/t) for use in pit optimization.

Process cost, rehabilitation costs, and general and administrative (“G&A”) costs were provided by Northern Vertex and their consultants.

Table 16-1: Pit Optimization Economic Parameters

Mining	\$2.20	\$/t Mined
Rehab Cost	\$0.15	\$/t Processed
Process	\$5.01	\$/t Processed
G&A	\$0.77	\$/t Processed
Au Recovery	82%	
Ag Recovery	65%	
Royalty	6%	NSR
Selling	\$0.44	\$/oz Recovered

16.2.3 Cut-off Grades

Cut-off grades were calculated based on the economic parameters. The resulting cut-off grades are shown in Table 16-2. The \$1,250 per ounce of gold cut-off grades are highlighted as the base price for the PEA. The external cut-off grade is a break-even cut-off that considers all of the costs, with the result that revenue equals cost at the resulting grade. The internal cut-off grade is applied within the economic pit and assumes that the decision between processing and waste is made at the pit crest. Thus, the mining cost is considered a sunk cost, though the incremental cost of hauling material to the process facility is included in the calculation.

Table 16-2: Cutoff Grades

Au Price	Internal g Au/t	External g Au/t
\$ 1,000	0.24	0.33
\$ 1,025	0.23	0.32
\$ 1,050	0.23	0.31
\$ 1,075	0.22	0.31
\$ 1,100	0.22	0.30
\$ 1,125	0.21	0.29
\$ 1,150	0.21	0.29
\$ 1,175	0.20	0.28
\$ 1,200	0.20	0.27
\$ 1,225	0.20	0.27
\$ 1,250	0.19	0.26
\$ 1,275	0.19	0.26
\$ 1,300	0.18	0.25
\$ 1,325	0.18	0.25
\$ 1,350	0.18	0.24
\$ 1,375	0.17	0.24
\$ 1,400	0.17	0.23

Though the internal cutoff is calculated to be 0.19 g Au/t, a minimum cutoff grade of 0.20 g Au/t was used in this study. This was also used in the Whittle pit optimization as a minimum grade of material to be processed.

16.2.4 Whittle Results

The Whittle slope and economic parameters discussed previously were used in Whittle (Version 4.7) to run Lerches Grossman ("LG") pit optimizations. LG pits were generated with revenue factors representing \$300 to \$2,000 gold prices in increments of \$25 per ounce of gold. Table 16-3 shows a summary of the LG results in \$100 increments with the addition of the \$1,250 price which is highlighted as the base case pit optimization in Table 16-3.

Table 16-3: Pit Optimization Results

Pit	Au Price	Ag Price	Material Processed				Waste	Total	Strip	
			K Tonnes	g Au/t	K Ozs Au	g Ag/t	K Ozs Ag	K Tonnes	K Tonnes	Ratio
1	300	\$ 4.80	735	1.80	43	17.40	411	398	1,133	0.54
5	400	\$ 6.40	2,187	1.44	101	14.28	1,004	3,020	5,207	1.38
9	500	\$ 8.00	3,756	1.28	155	13.23	1,597	6,865	10,622	1.83
13	600	\$ 9.60	5,373	1.10	191	11.85	2,046	8,810	14,183	1.64
17	700	\$ 11.20	7,050	0.99	225	10.92	2,475	11,497	18,546	1.63
21	800	\$ 12.80	10,509	0.84	284	9.65	3,260	16,762	27,270	1.60
25	900	\$ 14.40	14,582	0.74	347	8.71	4,083	22,963	37,545	1.57
29	1000	\$ 16.00	15,798	0.71	363	8.42	4,277	24,331	40,130	1.54
33	1100	\$ 17.60	16,497	0.70	373	8.29	4,400	26,249	42,747	1.59
37	1200	\$ 19.20	18,094	0.70	406	8.27	4,808	35,909	54,004	1.98
39	1250	\$ 20.00	18,222	0.70	408	8.25	4,836	36,455	54,677	2.00
41	1300	\$ 20.80	18,373	0.69	410	8.23	4,864	37,089	55,462	2.02
45	1400	\$ 22.40	19,254	0.69	426	8.21	5,083	42,366	61,620	2.20
49	1500	\$ 24.00	19,498	0.69	430	8.21	5,144	43,960	63,457	2.25
53	1600	\$ 25.60	19,668	0.69	433	8.21	5,192	45,490	65,158	2.31
57	1700	\$ 27.20	20,018	0.68	440	8.22	5,291	48,489	68,506	2.42
61	1800	\$ 28.80	20,202	0.68	443	8.22	5,340	50,131	70,333	2.48
65	1900	\$ 30.40	20,295	0.68	445	8.22	5,363	51,209	71,504	2.52
69	2000	\$ 32.00	20,361	0.68	446	8.21	5,376	51,763	72,124	2.54

A Whittle pit by pit analysis was done for each scenario to determine the ultimate pit limits and which pits could be used for pit phasing. The analysis uses each of the pit shells developed in the LG run as a volume to be mined. The gold price is fixed to one price, and a fixed rate for either mining or processing is used. A rough production schedule is used in the background so that the program can provide a discounted operating cash-flow. The discounted cash-flows are graphed and the ultimate pit is chosen based on the best discounted cash-flow. The mill throughput was limited to 1,750,000 tonnes per year and the discount rate applied for the analysis was 5%.

Three discounted cash-flows are produced: Worst case, best case, and specified case. The worst case is what one would expect to get if no early pit phases are chosen. The best case would use each pit as a mining phase and, while it provides the best discounted cash-flow, it generally is not realistic because it does not provide sufficient mining width. The specified case shows the discounted cash-flow produced when the initial pit phases are specified by the user.

The pit by pit results are presented in Table 16-4 and the graph of pit by pit results is shown in Figure 16-2. In the graph, the green line shows the specified case, which is a result of choosing pit shells to act as pit phases to be mined prior to the ultimate pit. Pit shells 4, 11, 18, 20, and 23 were selected as pit phases for the specified case. The final pit limits were chosen based on pit shell 37, which was used as a guide for pit design.

Table 16-4: Whittle Base Case Pit by Pit Results

Pit	Material Processed					Waste K Tonnes	Total K Tonnes	Strip Ratio	Disc. Cash (M USD)			Years
	K Tonnes	g Au/t	K Ozs Au	g Ag/t	K Ozs Ag				Best	Specified	Worst	
1	910	1.55	45	15.07	441	220	1,130	0.24	\$ 39.94	\$ 39.94	\$ 39.94	0.52
2	1,385	1.39	62	13.81	615	659	2,044	0.48	\$ 52.11	\$ 52.11	\$ 52.11	0.79
3	1,866	1.28	77	12.79	767	1,034	2,900	0.55	\$ 62.31	\$ 62.30	\$ 62.30	1.07
4	2,816	1.15	104	11.46	1,037	1,850	4,666	0.66	\$ 80.96	\$ 80.66	\$ 80.66	1.61
5	3,070	1.13	112	11.27	1,112	2,126	5,196	0.69	\$ 85.68	\$ 85.30	\$ 85.27	1.75
6	3,327	1.12	120	11.24	1,202	2,550	5,878	0.77	\$ 90.82	\$ 90.37	\$ 90.28	1.90
7	3,456	1.11	123	11.19	1,244	2,733	6,189	0.79	\$ 93.00	\$ 92.52	\$ 92.40	1.97
8	4,539	1.08	158	11.24	1,640	5,423	9,962	1.19	\$ 113.67	\$ 112.93	\$ 112.30	2.59
9	4,820	1.06	165	11.03	1,709	5,779	10,599	1.20	\$ 117.39	\$ 116.60	\$ 115.73	2.75
10	5,227	1.05	176	11.06	1,859	6,640	11,867	1.27	\$ 123.51	\$ 122.64	\$ 121.43	2.99
11	5,447	1.04	182	11.00	1,927	7,054	12,501	1.30	\$ 126.44	\$ 125.54	\$ 124.22	3.11
12	6,075	0.99	193	10.64	2,079	7,489	13,564	1.23	\$ 132.25	\$ 131.23	\$ 129.12	3.47
13	6,392	0.97	199	10.44	2,146	7,743	14,136	1.21	\$ 134.97	\$ 133.89	\$ 131.26	3.65
14	6,761	0.95	207	10.36	2,252	8,423	15,184	1.25	\$ 138.61	\$ 137.47	\$ 134.21	3.86
15	7,213	0.93	216	10.21	2,367	9,176	16,389	1.27	\$ 142.19	\$ 140.99	\$ 136.98	4.12
16	7,484	0.92	221	10.10	2,430	9,577	17,061	1.28	\$ 144.25	\$ 143.02	\$ 138.63	4.28
17	7,786	0.90	226	9.95	2,490	9,915	17,701	1.27	\$ 146.28	\$ 145.01	\$ 140.09	4.45
18	8,293	0.88	236	9.73	2,594	10,692	18,985	1.29	\$ 149.57	\$ 148.24	\$ 142.26	4.74
19	10,189	0.80	262	9.09	2,977	11,935	22,124	1.17	\$ 158.53	\$ 157.15	\$ 147.05	5.82
20	11,098	0.79	282	9.05	3,231	14,746	25,844	1.33	\$ 164.91	\$ 163.50	\$ 151.93	6.34
21	11,331	0.79	286	9.00	3,280	15,211	26,541	1.34	\$ 166.07	\$ 164.65	\$ 152.66	6.47
22	13,609	0.72	317	8.44	3,693	16,948	30,556	1.25	\$ 174.03	\$ 172.56	\$ 155.68	7.78
23	14,627	0.72	337	8.38	3,941	20,386	35,013	1.39	\$ 178.41	\$ 176.83	\$ 158.06	8.36
24	14,924	0.71	343	8.36	4,013	21,131	36,055	1.42	\$ 179.57	\$ 177.97	\$ 158.65	8.53
25	15,144	0.71	347	8.35	4,068	21,877	37,021	1.44	\$ 180.39	\$ 178.77	\$ 159.09	8.65
26	15,423	0.71	352	8.33	4,133	23,073	38,496	1.50	\$ 180.70	\$ 179.06	\$ 158.85	8.81
27	15,654	0.71	356	8.32	4,185	23,759	39,413	1.52	\$ 181.39	\$ 179.72	\$ 159.03	8.95
28	15,839	0.70	358	8.28	4,217	24,136	39,976	1.52	\$ 181.81	\$ 180.13	\$ 159.02	9.05
29	15,930	0.70	359	8.25	4,228	24,189	40,120	1.52	\$ 181.95	\$ 180.27	\$ 158.92	9.10
30	16,107	0.70	363	8.24	4,266	24,873	40,980	1.54	\$ 182.39	\$ 180.68	\$ 159.10	9.20
31	16,225	0.70	365	8.22	4,290	25,221	41,446	1.55	\$ 182.57	\$ 180.84	\$ 159.02	9.27
32	16,322	0.70	366	8.21	4,306	25,486	41,808	1.56	\$ 182.70	\$ 180.95	\$ 158.91	9.33
33	16,443	0.70	369	8.20	4,334	26,198	42,640	1.59	\$ 182.88	\$ 181.09	\$ 158.86	9.40
34	16,496	0.70	369	8.20	4,346	26,422	42,918	1.60	\$ 182.94	\$ 181.14	\$ 158.79	9.43
35	16,561	0.70	370	8.19	4,360	26,653	43,214	1.61	\$ 183.01	\$ 181.19	\$ 158.70	9.46
36	16,654	0.70	372	8.17	4,376	27,111	43,764	1.63	\$ 183.09	\$ 181.28	\$ 158.46	9.52
37	17,980	0.69	400	8.17	4,724	35,526	53,507	1.98	\$ 183.82	\$ 181.70	\$ 157.33	10.27
38	18,035	0.69	401	8.16	4,733	35,681	53,716	1.98	\$ 183.83	\$ 181.70	\$ 157.19	10.31
39	18,101	0.69	402	8.16	4,749	36,013	54,115	1.99	\$ 183.82	\$ 181.68	\$ 157.07	10.34
40	18,152	0.69	402	8.15	4,757	36,214	54,365	2.00	\$ 183.81	\$ 181.65	\$ 156.90	10.37
41	18,234	0.69	404	8.14	4,772	36,520	54,754	2.00	\$ 183.77	\$ 181.59	\$ 156.71	10.42
42	18,844	0.68	414	8.12	4,918	39,975	58,819	2.12	\$ 183.29	\$ 180.87	\$ 155.58	10.77
43	19,009	0.68	417	8.12	4,965	41,072	60,080	2.16	\$ 183.12	\$ 180.60	\$ 155.13	10.86
44	19,035	0.68	418	8.12	4,970	41,201	60,237	2.16	\$ 183.09	\$ 180.55	\$ 155.03	10.88
45	19,077	0.68	418	8.12	4,979	41,489	60,566	2.17	\$ 183.02	\$ 180.46	\$ 154.84	10.90

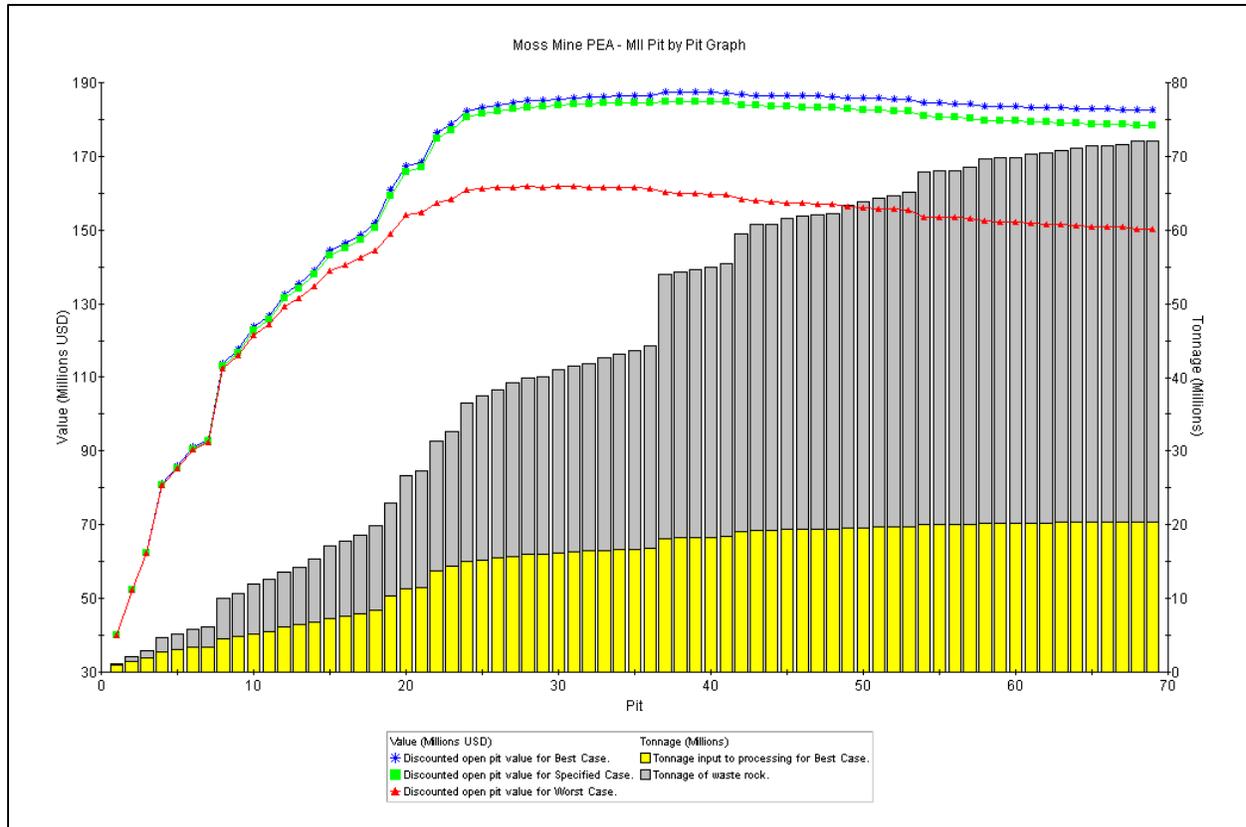


Figure 16-2: Whittle Base Case Pit by Pit Graph

16.3 MINE PLANNING

Pit designs were completed using Surpac® mine planning software (version 6.8). The 2015 Feasibility Study pits were used as initial pit phases as they represent a logical progression with respect to the mining sequence. These make up pit phases 1 through 8. The ultimate Whittle pit shell 37 from the pit by pit analysis was used to guide the ultimate pit design. The eastern portion of the design achieves final pit walls in the southern area of the pit and was designated pit phase 9 while the western portion mines the higher hilltop and was designated phase 10. Note that in final scheduling, phase 10 is initiated first and phases 9 and 10 are mined somewhat simultaneously.

16.3.1 Pit Design Slopes

Pit design slope parameters were defined from previous geotechnical studies. The overall slope used for pit design was 60°. For pit design, the parameters used to represent the slopes include: bench face angle; bench height; number of benches between catch benches; and catch bench width. The values used for these are shown in Table 16-5. A description of the abbreviations shown in the Table 16-5 is illustrated in Figure 16-3.

Table 16-5: Pit Design Slope Parameters

	Solve For	
	Berm	IRA
BH	18m	18m
IRA	60°	59.7°
BFA	82°	82°
Berm	7.9m	8.0m

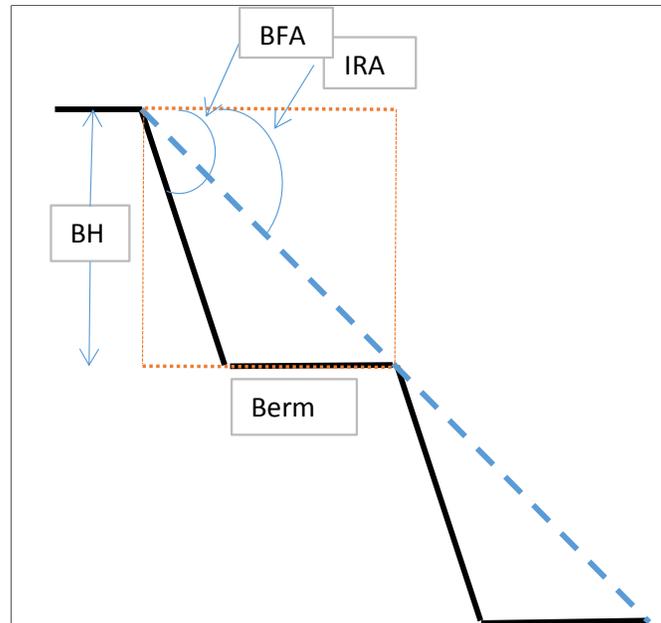


Figure 16-3: Slope Parameters

16.3.2 Ramp Design

In general, ramps were designed with a nominal 10% gradient at the centerline. In certain areas where switchbacks are required, the ramps are designed with a gradient of about 8% on the centerline. The inside gradient on switchbacks may be around 12% or higher for short distances.

Ramp widths anticipate the use of one-way traffic and rigid body haul trucks, though articulated trucks may be used in select areas. Ramp widths used were 11m, which is about 1.5 times the truck width. This ramp width is one meter wider than those used in the 2015 Feasibility Study.

The 11m ramp width is considered one of the risks in the project's efficiency. This narrow width will require the mine to have pullout areas so that one-way traffic can be maintained. Due to the relatively low volume of traffic on the ramps, this will not impede mining, though it will cause slowdowns and bunching of trucks. Expanding ramp widths will cause additional stripping, but would have an overall benefit to the project. MDA suggests that redesigning of the ramp widths should be considered in the next stage of mine design. Two-way ramps should be designed so that the running width is between 3.0 and 3.5 times the operating width of the haul trucks.

16.3.3 PEA In-Pit Heap-Leach Material

For the purpose of mine scheduling, the minimum cut-off grade was 0.20 g Au/t, instead of the internal cut-off grade (not including mining cost) of 0.19 g Au/t. PEA heap-leach materials inside of the pit designs were summarized in both Surpac® (version 6.8) and MineSched (version 9.1) software for comparison. Minimal differences were found, all of which are attributable to rounding errors. The total in-pit PEA heap-leach material has been tabulated from the MineSched results and is shown in Table 16-6. Note that heap-leach material from the initial 8 pit phases (the 2015 feasibility pits) only included Measured and Indicated resources so that Inferred material associated with reserves is not included in the PEA. Pit phases 9 and 10 include the Inferred resources shown in Table 16-6. These tonnages were used to develop the PEA production schedule.

Table 16-6: Summary of PEA Heap-Leach Material

<i>Greater or Equal to 0.25 g Au/t</i>	K Tonnes	g Au/t	K Ozs Au	g Ag/t	K Ozs Ag
Measured	4,840	0.98	153	10.57	1,645
Indicated	9,271	0.65	195	8.35	2,490
Measured & Indicated	14,111	0.77	348	9.11	4,134
Inferred	1,513	0.48	23	5.83	283
<i>Less than 0.25 g Au/t & Greater than 0.20 g Au/t</i>					
Measured Indicated	297	0.23	2	3.28	31
	890	0.23	6	3.58	102
Measured & Indicated	1,187	0.23	9	3.50	134
Inferred	271	0.22	2	2.82	25
<i>Total PEA Potential Mineable Resources</i>					
Measured	5,138	0.94	155	10.15	1,676
Indicated	10,161	0.62	201	7.93	2,592
Measured & Indicated	15,299	0.72	357	8.68	4,268
Inferred	1,785	0.44	25	5.37	308

As required by NI 43-101, the author cautions the reader that the PEA is preliminary in nature, that it includes Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized.

A map of the ultimate 2015 Feasibility Study pit is shown in Figure 16-4. Pit phases 9 and 10 for the PEA are shown in Figure 16-5 with pit phase 9 on the east side and pit phase 10 on the west.

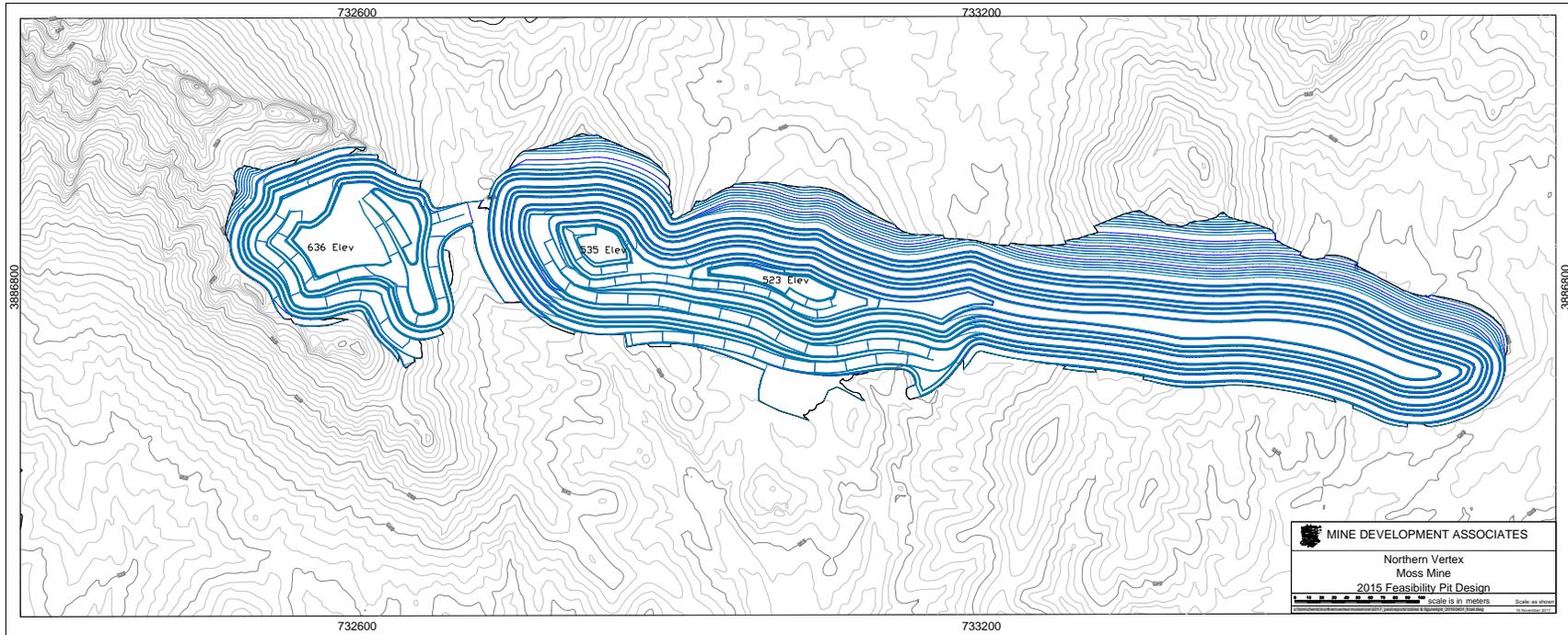


Figure 16-4: 2015 Feasibility Pit Design

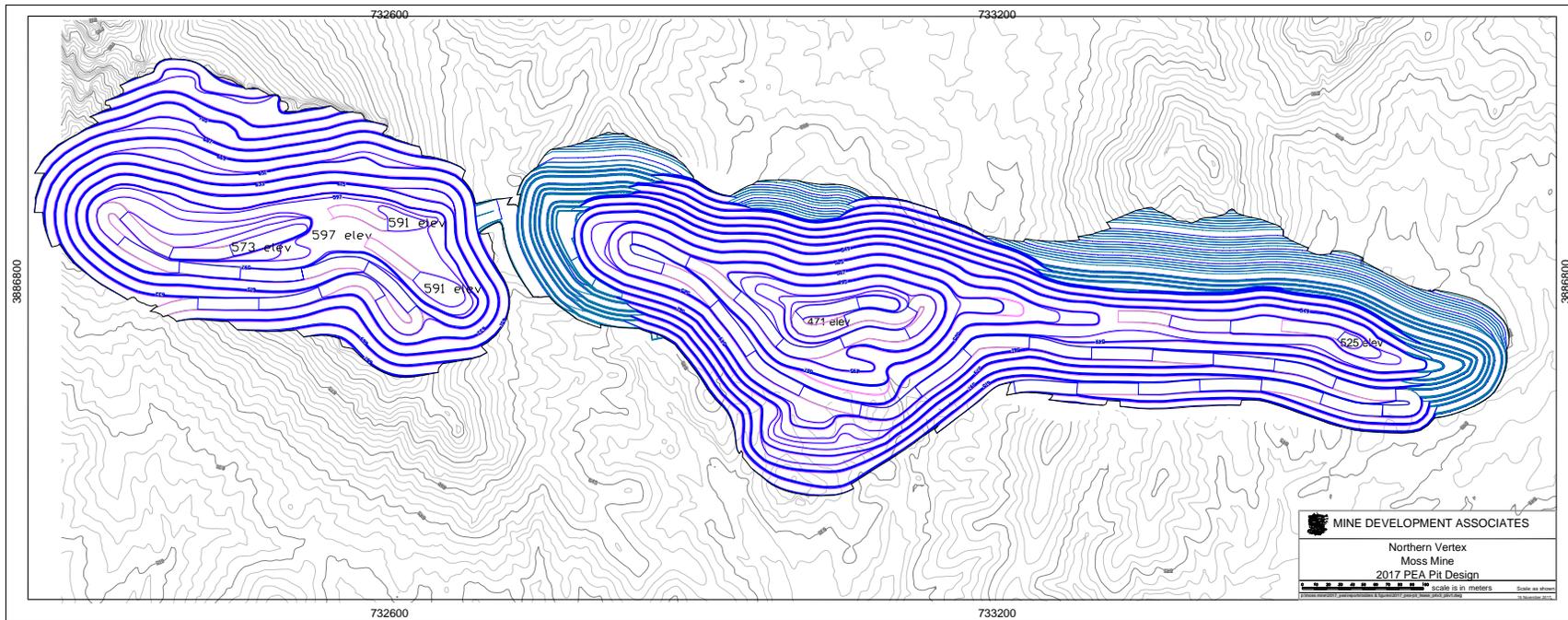


Figure 16-5: 2017 PEA Pit Design

16.3.4 Mine Production Schedule

Mine production schedules were created using MineSched software (version 9.0). The scheduling goals and constraints were provided by Northern Vertex. Production was modeled using locations for the 10 pit phases. Dumps were modeled using a static stockpile location. Three stockpiles were considered: low-grade; medium-grade; and high-grade. These were used to maximize the grade to the crusher by giving high-grade material a priority over the medium and low-grade material.

Table 16-7 shows the mine production schedule. The leach production schedule shown in Table 16-8 shows the material scheduled to the leach pad based on the mining and stockpiling of material.

End of year surfaces from the mine production schedule were generated using MineSched. These were used to generate conceptual maps as shown in Figure 16-6 through Figure 16-13.

Table 16-7: Mine Production Schedule

	Units	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	Total
Pit to Crusher	k Tonnes	1,398	1,602	1,581	1,814	1,491	1,598	1,591	1,687	1,345	-	14,107
	Au g/t	1.00	0.92	1.13	0.88	0.45	0.50	0.45	0.53	0.96	-	0.75
	k Au Oz	45	47	57	51	21	26	23	29	41	-	341
	Ag g/t	10.67	9.33	13.15	10.02	5.32	5.33	6.19	8.04	12.42	-	8.89
	k Ag Oz	480	481	669	585	255	274	317	436	537	-	4,032
Pit to Stockpile	k Tonnes	72	254	470	245	175	310	525	352	573	-	2,976
	Au g/t	0.30	0.37	0.78	0.60	0.26	0.27	0.28	0.30	0.47	-	0.43
	k Au Oz	1	3	12	5	1	3	5	3	9	-	41
	Ag g/t	3.44	4.57	9.29	7.81	3.63	3.32	4.24	4.16	6.75	-	5.68
	k Ag Oz	8	37	140	62	20	33	72	47	124	-	544
Total Mined Material to Process	k Tonnes	1,470	1,856	2,051	2,059	1,666	1,907	2,116	2,039	1,919	-	17,083
	Au g/t	0.96	0.84	1.05	0.85	0.43	0.46	0.41	0.49	0.81	-	0.70
	k Au Oz	45	50	69	56	23	28	28	32	50	-	382
	Ag g/t	10.32	8.68	12.27	9.76	5.14	5.01	5.70	7.37	10.73	-	8.33
	k Ag Oz	488	518	809	646	276	307	388	483	662	-	4,576
Pit to Dump	k Tonnes	2,702	5,170	4,810	821	1,109	2,473	5,204	3,430	5,883	-	31,601
Total Mined	k Tonnes	4,172	7,025	6,861	2,880	2,775	4,380	7,320	5,469	7,801	-	48,684
Strip Ratio	W:O	1.84	2.79	2.35	0.40	0.67	1.30	2.46	1.68	3.07		1.85

Table 16-8: Mined Material to Leach Pad

Units	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	Total
k Tonnes	1,405	1,887	1,902	1,925	1,925	1,925	1,909	1,925	1,906	375	-	17,083
Au g/t	0.99	0.83	1.05	0.92	0.43	0.46	0.42	0.51	0.80	0.34	-	0.70
k Au Oz	45	51	65	57	27	28	26	31	49	4	-	382
Ag g/t	10.63	8.61	12.37	10.41	5.28	5.00	5.84	7.64	10.49	5.22	-	8.33
k Ag Oz	480	522	756	644	327	309	359	473	643	63	-	4,576

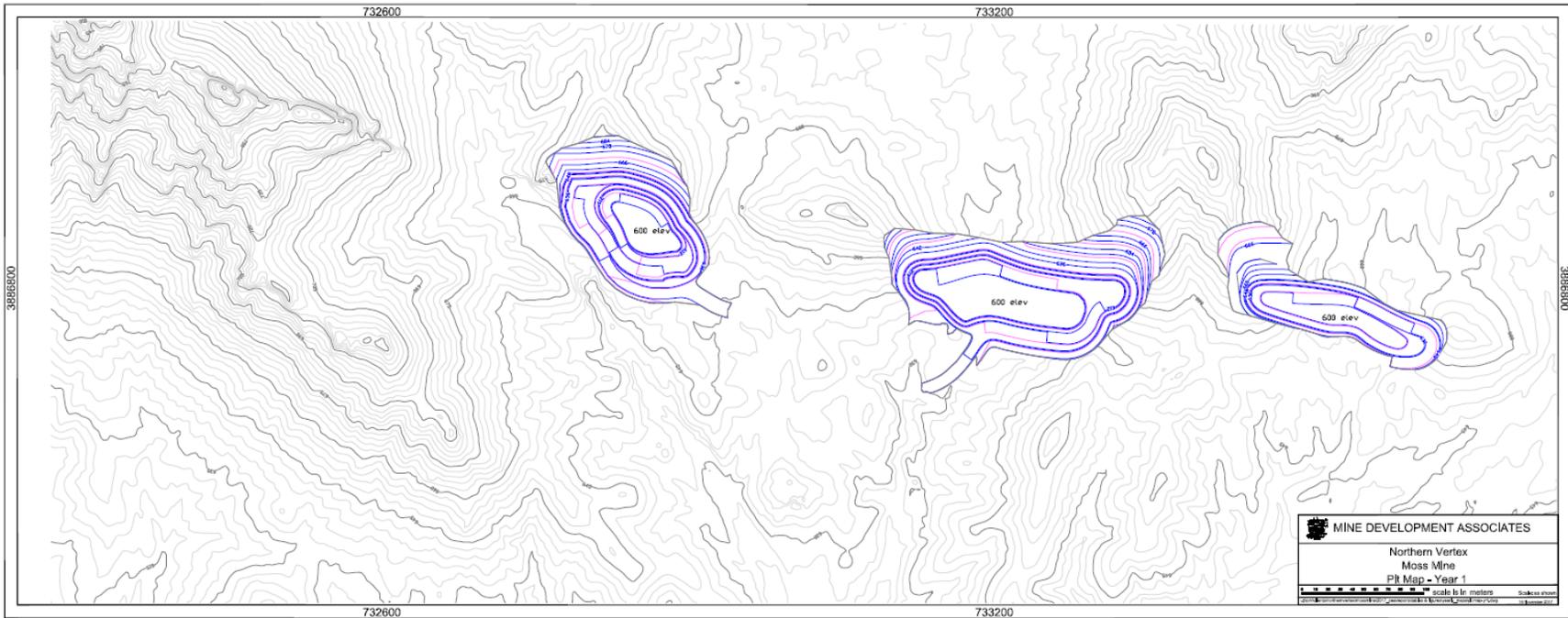


Figure 16-6: Pit Map – Year 1

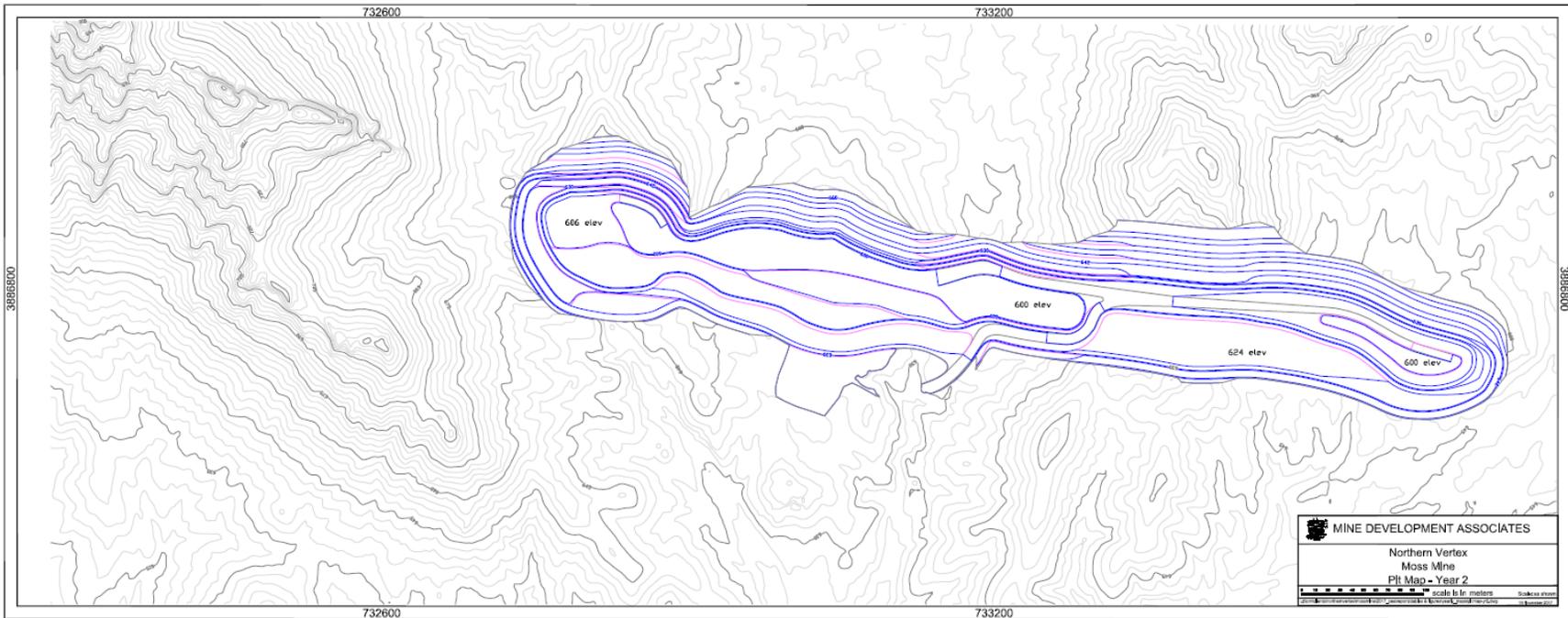


Figure 16-7: Pit Map Year 2

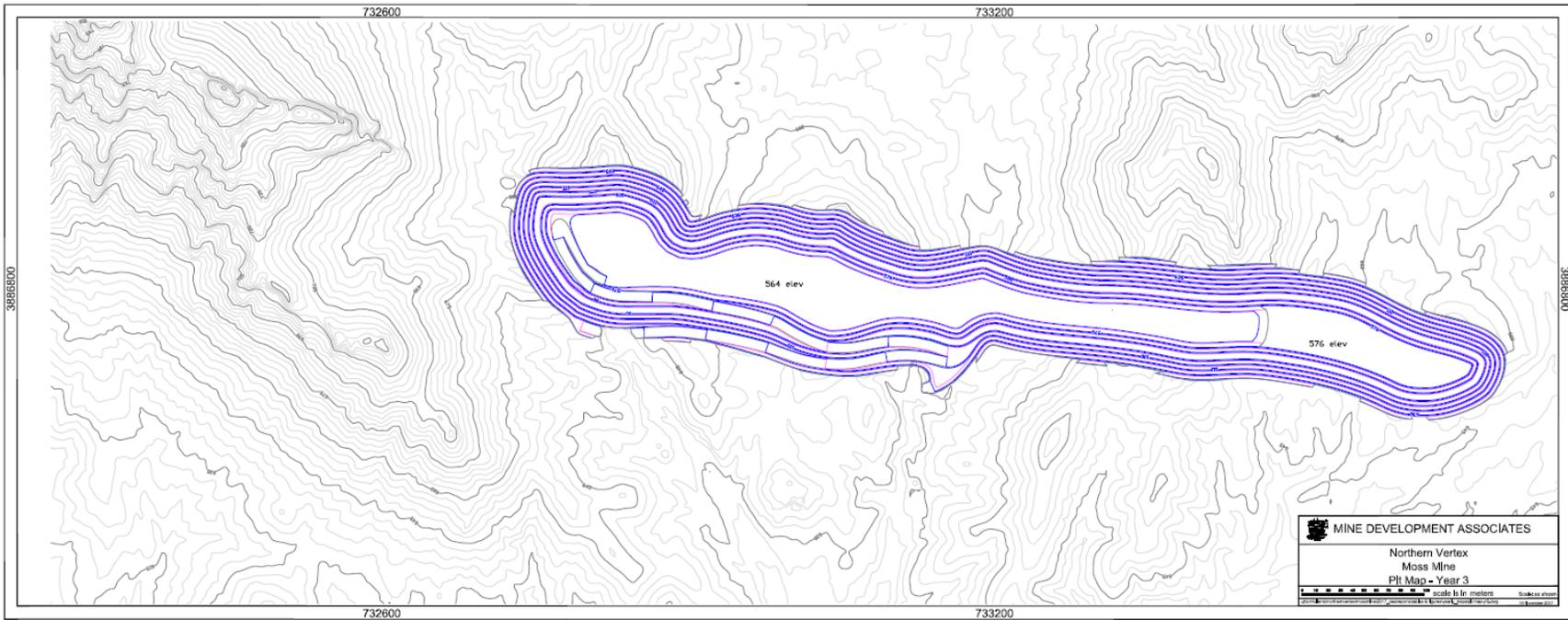


Figure 16-8: Pit Map Year 3

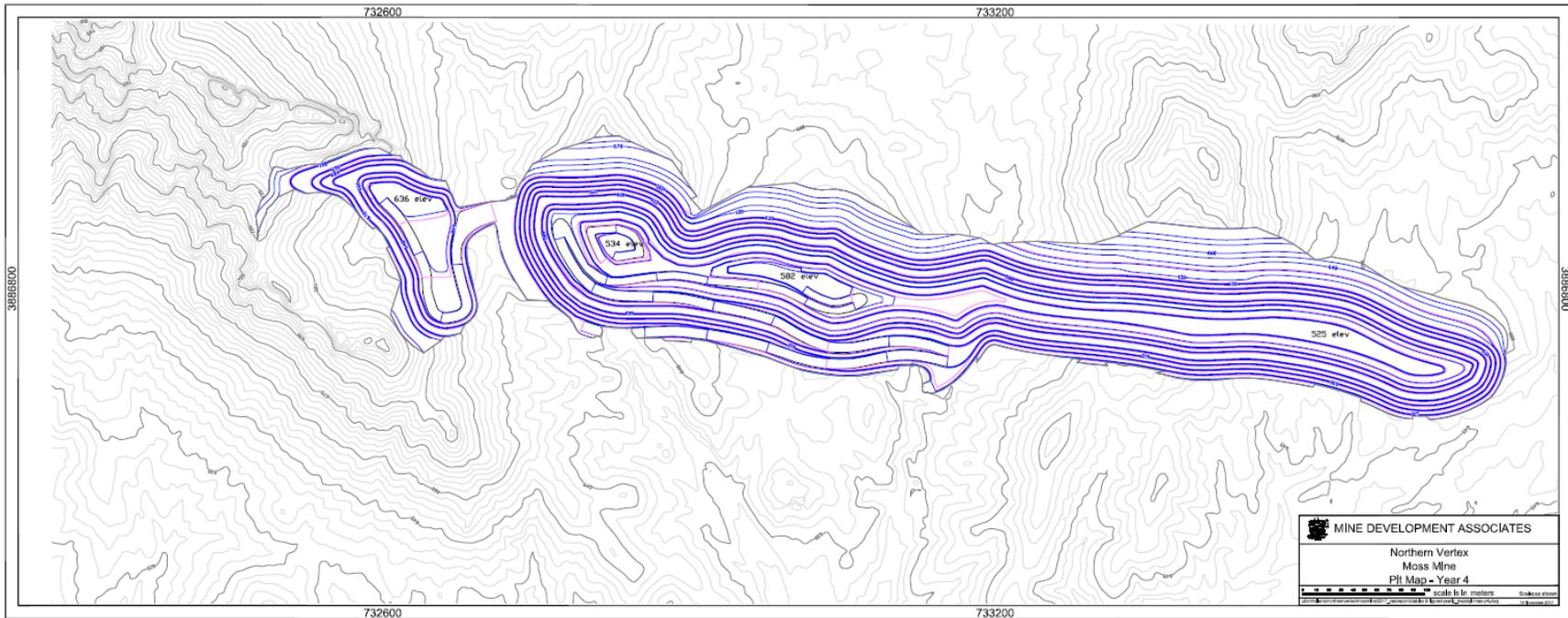


Figure 16-9: Pit Map Year 4

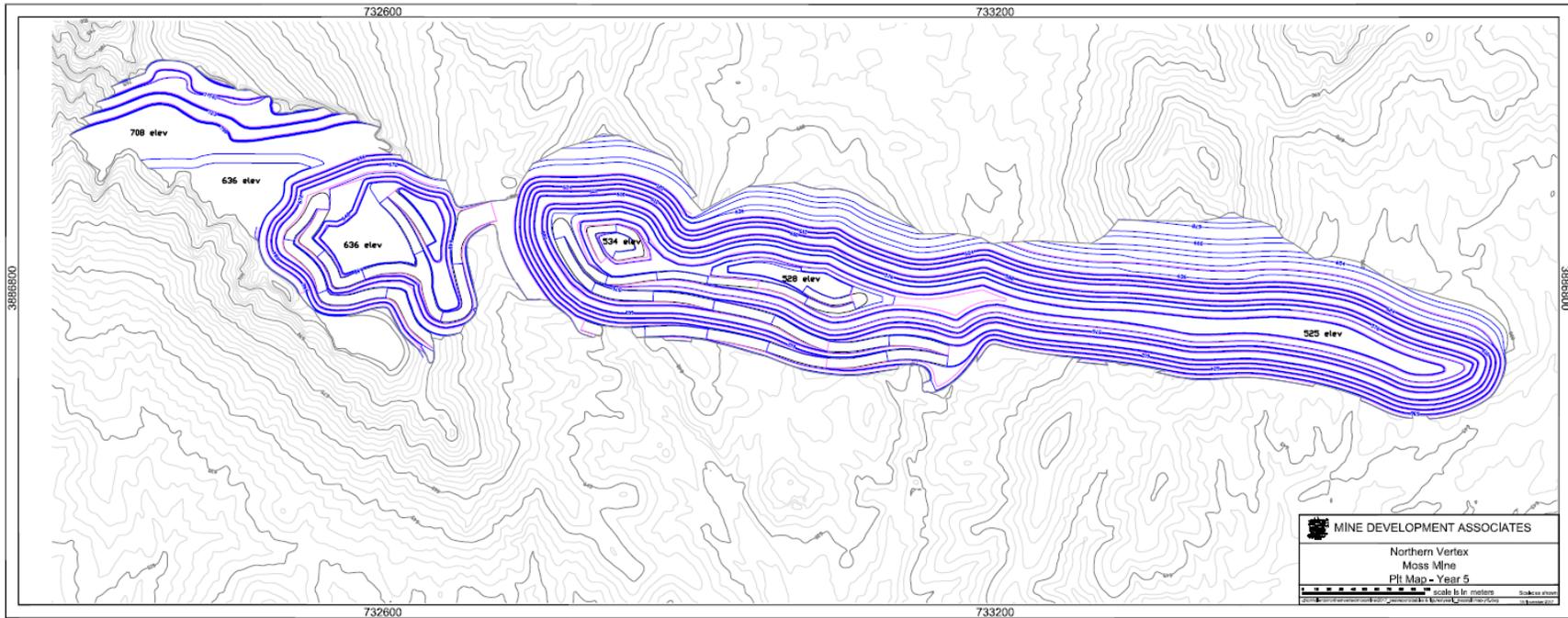


Figure 16-10: Pit Map Year 5

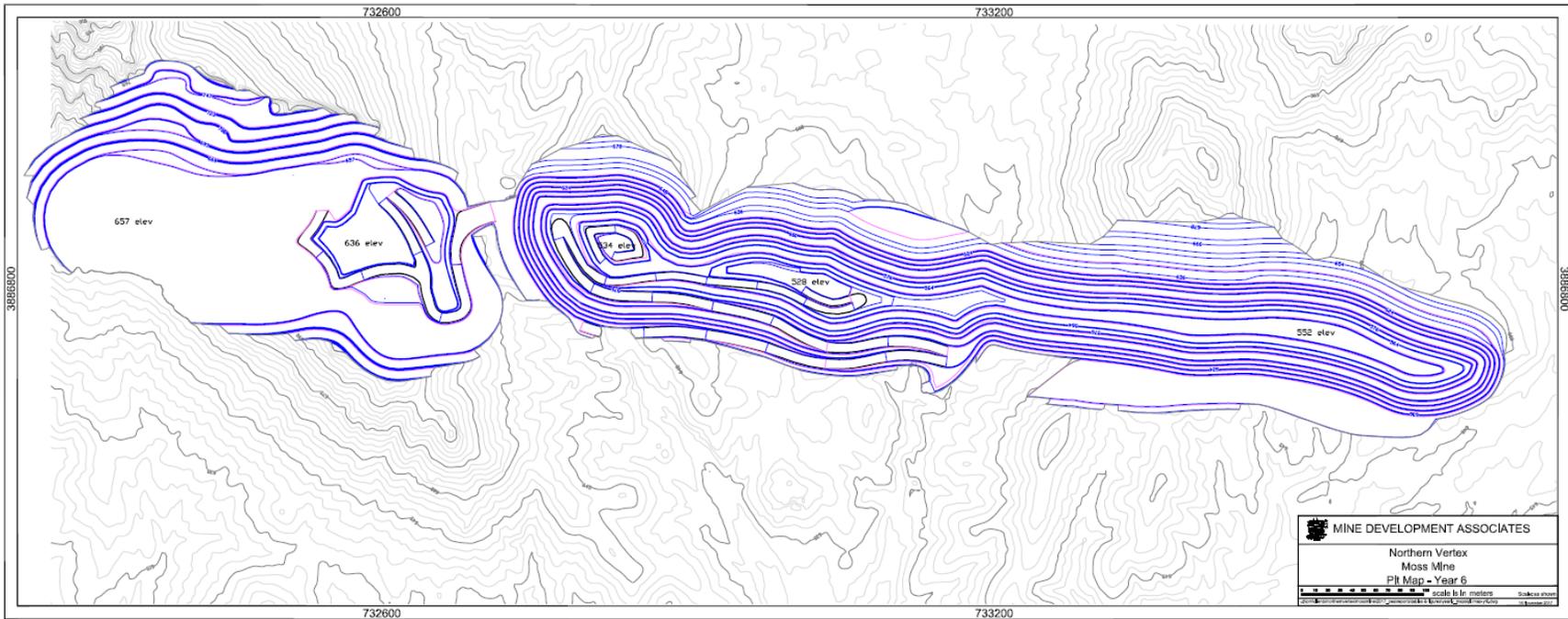


Figure 16-11: Pit Map Year 6

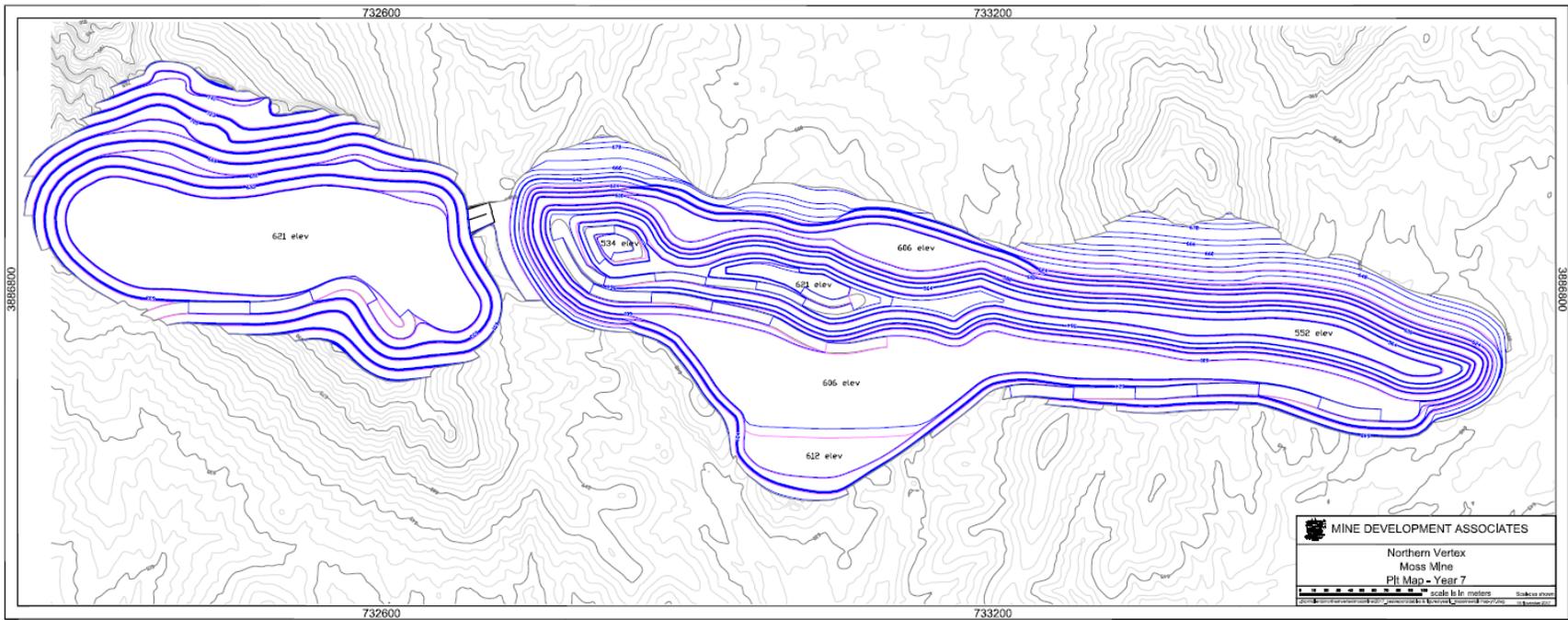


Figure 16-12: Pit Map Year 7

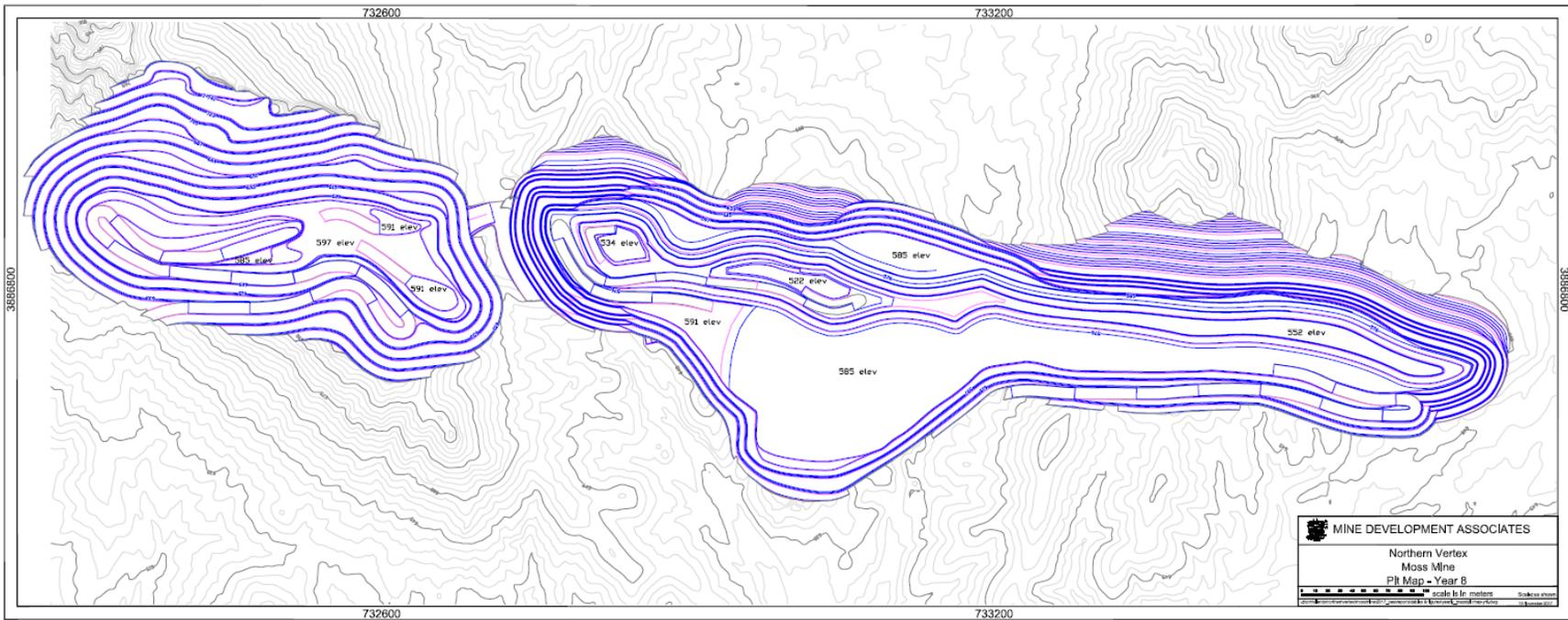


Figure 16-13: Pit Map Year 8

16.4 WASTE ROCK STORAGE

The Qualified Person for this Section is Thomas L. Dyer, PE of MDA.

The PEA mine will generate over 31 million tonnes of waste rock over the life of mine. This tonnage exceeds the capacity that can be stored on the patented lands, hence the revised waste rock dump has been designed to accommodate up to 35 million tonnes. This was accomplished by expanding the dump footprint to the east and south onto the BLM lands. The Phase III waste dump is depicted on Figure 17-2.

The extended waste dump footprint will cross "Wash D" which has been designated as a Jurisdictional Wash by the Army Corps of Engineers. This disturbance will trigger the need for a Section 404 Dredge and Fill permit which was avoided in the Phase II development plan. Given the potential timeline of 18 to 24 months to obtain a Section 404 approval, there is adequate waste stacking space on the patented lands to allow the Phase III mine plan to proceed in parallel with obtaining the Section 404 permit.

As in Phase II FS, the waste rock dump will be developed in 10m to 15m high lifts, with benches, placed at angle of repose.

17 RECOVERY METHODS

The following sections describe the Phase II processing facilities, now under construction. The PEA assumes that the Phase III mine will utilize these same facilities for mining and processing. As has been noted previously the Phase III plan offers the potential to extend the mine life from 5 years (for Phase II mining only) to 10 years.

17.1 PROCESS DESCRIPTION

Metallurgical testwork to date, along with the completion of the Pilot Plant Operations - Phase I, validate that the Moss Mine orebody is amenable to gold and silver recovery via cyanidation. The most economically effective process has been identified as one that consists of heap leaching of crushed and agglomerated ore, followed by a Merrill Crowe metal recovery plant and refinery to produce gold and silver doré bars on site.

For Phase II, the design of the crushing circuit and the metal recovery plant was based on 350 days of operation per calendar year. The nominal crushing and ore stacking tonnage will be 2,500 tonnes per day (tpd) for the first two months of operation. The tonnage will increase to 3,500 tpd in month three, followed by a tonnage increase to 5,000 tpd in month five. For Phase III, the nominal crushing and ore stacking tonnage will be maintained at 5,000 tpd through the end of the mine life.

Figure 17-1 is a simplified schematic of the overall process for Moss ore processing facility. This provides the basis for the process description that follows.

Figure 17-2 is the general arrangement site plan showing the process facilities and boundaries of the pit heap leach and waste dump.

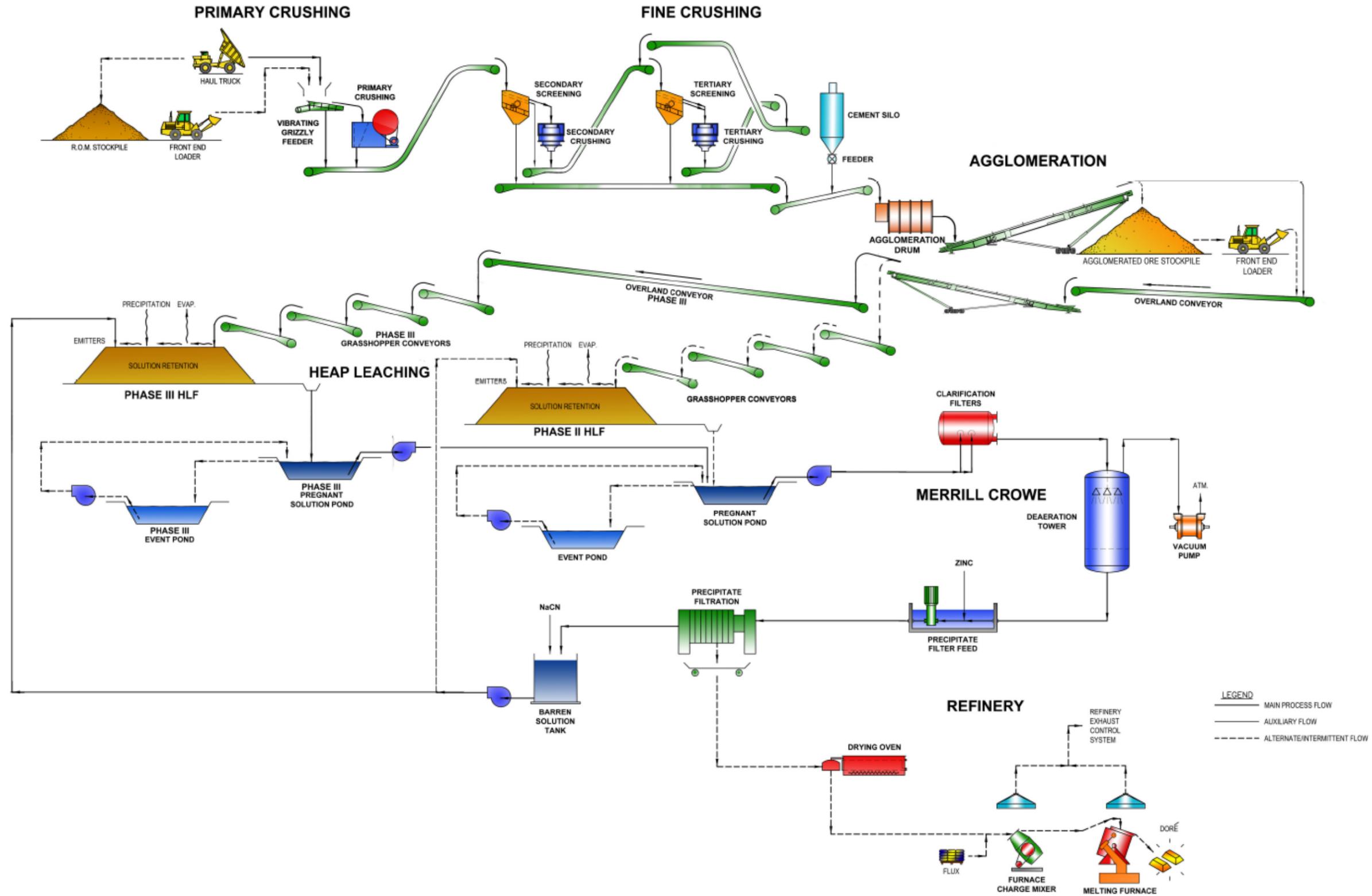


Figure 17-1: Summary Process Flow Diagram

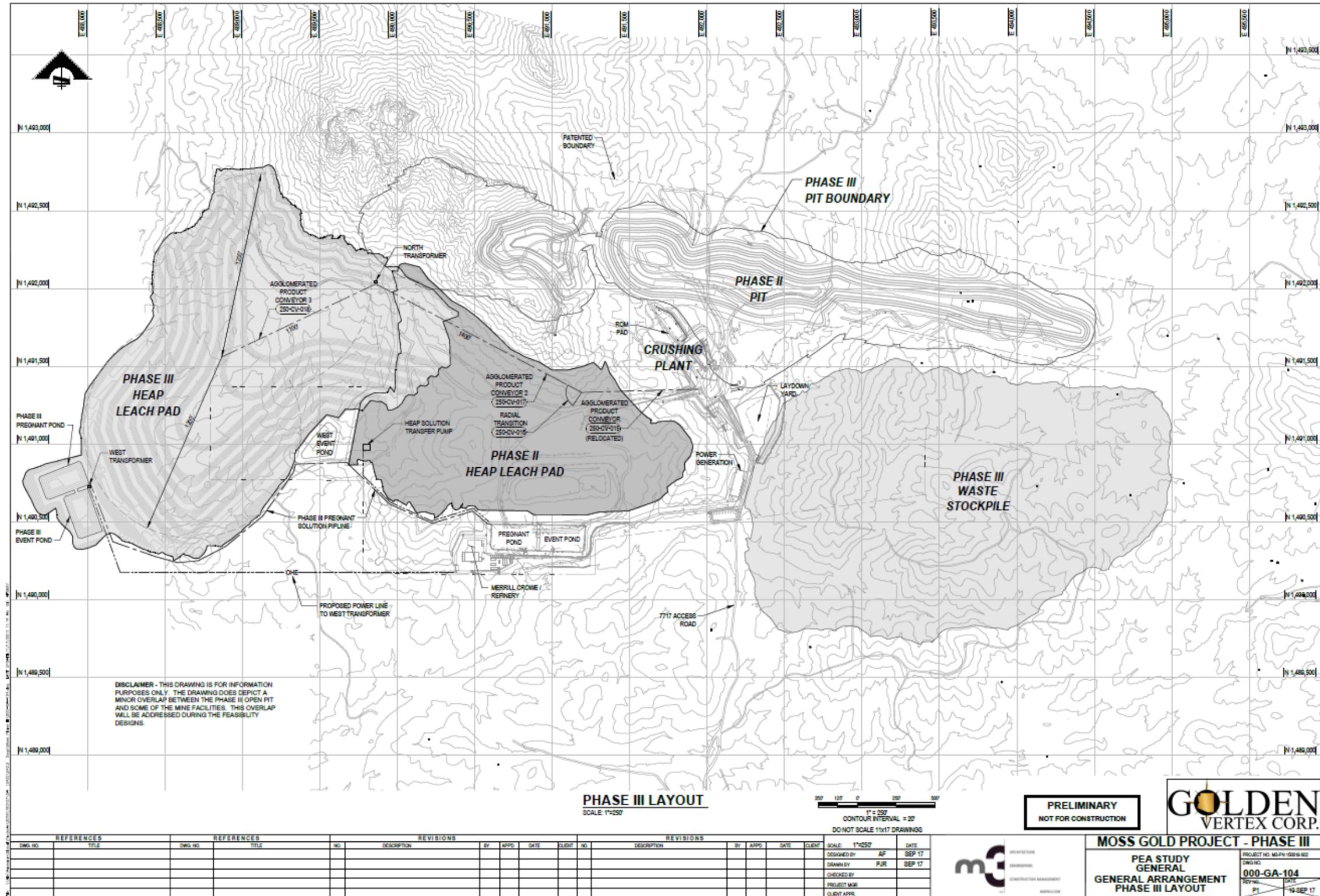


Figure 17-2: General Arrangement Site Plan

17.1.1 Primary Crushing & Fine Crushing

Run-of-Mine (ROM) ore will be trucked from the mine to the primary crushing circuit. The mine trucks will normally direct dump into the crusher feed hopper. Alternatively, ROM may be trucked to a stockpile close to the primary crusher and later reclaimed with a front-end loader (FEL). A vibrating grizzly feeder will draw ore from the crusher feed hopper, with the feeder oversize reporting to a jaw crusher, which will be equipped with an 110 kW, or equivalent, drive. The grizzly feeder undersize material will bypass the crusher and will combine with the crusher product on the crusher discharge belt conveyor.

Primary crushed ore, at approximately 80 percent passing 80 mm, will be conveyed to a 60-tonne surge bin ahead of the secondary crushing circuit. A belt feeder will draw ore from the surge bin and feed a vibrating, inclined, triple-deck screen. The undersize fraction from the screen will bypass the secondary and tertiary crushing circuit, and will report to the fine crushing product belt conveyor. Screen oversize will report to the secondary cone crusher, which will be equipped with a 300 kW, or equivalent, drive. Material retained on the bottom deck of the screen will bypass the secondary crusher, but will combine with the crusher product and report to the tertiary crushing circuit.

Secondary crushed ore, at approximately 80 percent passing 33 mm, will be conveyed to a 130-tonne surge bin ahead of the tertiary crushing circuit. Two belt feeders will draw ore from the surge bin and independently feed the two tertiary screen/crusher units. Each unit consists of one vibrating, inclined, triple-deck screen. The undersize fraction from each screen is the product of the fine crushing circuit and will report to the fine crushing product belt conveyor. Each screen oversize will report to a tertiary cone crusher, which will each be equipped with a 375 kW, or equivalent, drive. The tertiary crushed ore will be conveyed back to the tertiary screens for re-classification. The product of the fine crushing circuit, at approximately 80 percent passing 5 mm, will be conveyed to the agglomeration circuit.

Water sprays will be utilized for dust suppression at the truck dump into the crusher feed hopper and at transfer points for the screen undersize material. All other transfer points within the crushing circuit will have dust suppression consisting of baghouses or single-point, cartridge-type dust collectors.

17.1.2 Agglomeration and Ore Stacking

Crushed ore will be conveyed to an agglomeration drum, approximately 2.7 meters in diameter and 9.2 meters in length. Cement will be added to the agglomeration drum feed conveyor and raw water will be added in the drum for the binding process, at a moisture content of approximately seven percent by weight. The agglomerated, crushed ore will discharge from the drum onto a conveyor which feeds a radial stacker. The agglomerated ore stockpile capacity will be approximately 9,000 tonnes, which will allow for reasonable decoupling of the crushing/agglomeration circuit and the subsequent ore stacking circuit. The radial stacker may also be positioned such that the material discharges onto the overland conveyor, which bypasses the stockpile.

Alternatively, agglomerated ore can be reclaimed from the stockpile with a front-end loader, which will transfer the ore to a feed hopper. A belt feeder will draw ore from the hopper and transfer the agglomerated ore to an overland conveyor for transfer to the heap leach pad. The overland conveyor will discharge onto a series of several mobile, grasshopper-type conveyors. Units of grasshopper-type conveyors will be added or removed as required dependent upon the stacking location on the pad. The final conveyor will be a radial-type mobile stacker that will place agglomerated ore in lifts, up to ten meters in height.

17.1.3 Heap Leach Pad & Solution Ponds

The Qualified Person for this section of the Technical Report is Michael Grass, P.E.

17.1.3.1 General

Golder Associates of Tucson, AZ have provided a preliminary layout for a 9 million tonne leach pad located west of, and adjacent to, the current 8.5 million tonne Phase II pad, the construction of which is well advanced. While the Phase II leach pad is located on the patented lands, the PEA leach pad expansion will almost entirely be founded on BLM lands (see Figure 17-2).

The expanded leach pad is based on the same operating parameters as the Phase II leach pad in terms of tonnes stacked daily, solution application rates, and lift heights. The expanded leach pad geotechnical design will be in accordance with Arizona BADCT protocols, and stacking will be accomplished via grasshopper conveyors and a radial stacker. During peak operations, some 45,000 m² of leach pad area will be under leach.

The expanded leach pad will share some of the Phase II facilities for solution collection and circulation since the solution application rates will be the same. The solutions collected from the PEA leach pad expansion will be pumped over to the Phase II PLS pond.

The PEA leach pad expansion is intended to operate in parallel with the Phase II leach pad so as to allow an increase in leach time for the upper lifts of the Phase II pad. As such the intention is to construct the PEA pad expansion well before the Phase II pad is fully loaded, likely as soon as the required permits are approved. This should allow material to be stacked on the PEA leach pad as soon as the end of Year 3.

17.1.3.2 Geotechnical Conditions

The leach pad site can be characterized as flat lying with steep backslopes of exposed bedrock to the north, and The Phase II leach pad site can be characterized as flat lying with steep backslopes of exposed bedrock to the north, and steep slopes adjacent to the ridge that bisects the leach pad into south and west draining sections. The Phase III leach pad site will immediately abut and be located to the west of the Phase II leach pad. The Phase III leach pad site can be characterized as gently sloping to the southwest in the lower half of the pad, with steep backslopes of exposed bedrock to the northeast and to the west. The Alcyone Formation underlies most of the leach pad area. Alcyone Formation andesite flows outcrop on the northern portion of the future construction area and the tuff breccia outcropping in the southern, toe area of the Phase III footprint. Deposits of surficial soils are thin and discontinuous. As such, the availability of native clay materials for leach pad liner and pond construction is limited.

17.1.3.2.1 Foundation Rippability

Test pit excavations were completed with a track mounted CAT 320C backhoe. Test pit excavation was found to be difficult, and the local bedrock is weakly weathered and locally silicified. Excavation depth in competent rock was generally on the order of 1 meter. Locally, accumulations of colluvium and regolith were removable to excavation equipment depth; however, the distribution of colluvium and weathered regolith is limited. As such, ripping to a depth greater than one meter is not expected to be possible without drilling and blasting. This conclusion has been proven to be correct throughout Phase II construction as well as from Phase 1 construction, where drilling and blasting on 10-foot centers was reported in the construction of the Phase 1 leach pad and crusher area.

Cut and fill depths have been estimated for the leach pad and pond construction areas to enable estimation of excavation depth. Several locations will require excavation below a depth of 1 meter. Excavation to depths exceeding 1 meter has been assumed to require drilling and blasting for construction cost estimation.

17.1.3.2.2 Geotechnical Testing

Rock samples obtained from test pit excavations were crushed to minus 1/4 inch and minus 3/8 inch to simulate the production of the leach pad sand drain layer fill and liner bedding fill, respectively, from locally available foundation materials and mine waste rock. Crushed foundation materials and spent ore from the Phase 1 leach pad were used in large scale direct shear testing to evaluate liner interface shear strength and support leach pad stability evaluation.

The interface shear strength tests involved placing geomembrane samples on a rigid plate and placing spent ore and crushed foundation materials in contact with the geomembrane sample. Confining loads were applied and the interface was subject to shearing. Interface friction tests included the following:

- Spent ore against 2.0 mm textured LLDPE;
- -1/4" crushed rock (sand drain fill material) against 2.0 mm textured LLDPE;
- -1/4" crushed rock (sand drain fill material) against 1.5 mm textured LLDPE; and
- -3/8 inch crushed rock (liner bedding fill) against 1.5 mm LLDPE

The peak interface friction angles ranged from 29.6 to 31.5 degrees while the residual, post displacement interface friction angles ranged from 16.4 to 20.5 degrees. It should be noted that liner interface shear strength testing conducted against a rigid plate provides conservative strength estimates because the planar interface created in the test apparatus does not reflect the irregular interface that will be developed under actual field conditions. A residual interface friction angle of 20 degrees was assumed for the leach pad area underlain by the sand drain layer liner system. The sand drain layer was incorporated in the design to enhance the stability of the leach pad.

A composite liner consisting of a geocomposite clay liner (GCL) base and LLDPE geomembrane will be used over the majority of the Phase 2 leach pad. Interface testing was not conducted on the GCL base liner because it is composed of engineered products for which an extensive test database exists.

17.1.3.3 Leach Pad Design

The design of Phase II and Phase III facilities have been completed in accordance with the Arizona Department of Environmental Quality (ADEQ) prescriptive design guidance for heap leach facilities (referred to as BADCT – Best Available Demonstrated Control Technology), process solution ponds, and non-stormwater (contingency stormwater storage) ponds except as noted below.

As noted above, the availability of fine grained and low permeability materials typically required for the construction of leach pad and process pond soil liner bedding is limited at the Moss Project. Thus, the liner systems for the leach pad and process solution ponds have been designed to accommodate the lack of available native clays for lining, and enhance the stability of the leach pad.

The Phase II and Phase III leach pad will be constructed with two lining systems. The majority of the leach pad will be lined with a single 2.0 millimeter LLDPE geomembrane liner placed over a geosynthetic clay composite liner (GCL) base. The GCL will be placed on a prepared foundation of graded and compacted native foundation materials and where needed for GCL protection, locally derived crushed rock or spent ore from the Phase 1 heap. GCL is provided as a substitute for the low permeability liner bedding fill material specified in the ADEQ/BADCT prescriptive design guidance. ADEQ typically accepts GCL as meeting prescriptive design guidance.

A dual liner system consisting of an upper 2.0 mm and lower 1.5 mm LLDPE geomembrane with an intervening sand drain layer will be constructed in selected areas of the leach pad. The primary purpose of the sand drain liner system is to enhance stability as it provides greater interface friction relative to the GCL base liner system. The sand drain liner system is also intended to reduce the potential for leakage into the foundation of the leach pad by minimizing the head on the lower geomembrane, and serves as a substitute for a low permeability liner bedding layer. The sand drain

serves as a leach pad leakage collection and recovery system (LCRS) and contains an internal LCRS drainage pipe network. The leakage collected in the leach pad LCRS will be routed to the new pregnant process solution pond. The sand layer liner system does not meet prescriptive design criteria but for Phase II construction has been approved for use by ADEQ.

Prior to ore stacking and routing equipment traffic over the constructed leach pad liner, the leach pad will be covered with a minimum 450 mm thickness of crushed ore overliner cover. The overliner cover layer will contain an internal leach solution collection pipe network.

17.1.3.4 Phased Construction

The Phase II leach pad will be constructed in two stages for a total pad area of 260,800 m². Phase IIA construction will include the central and western portions of the leach pad, the pregnant solution pond, and contingency ponds. To minimize the potential for damage to constructed Phase IIA facilities, Phase IIB rough grading will be completed as part of Phase IIA construction. The Phase III leach pad will also be constructed in two stages, for a total pad area of 334,600 m². Phase IIIA construction will include the lower elevations of the pad to the southwest, along with the Phase III pregnant solution pond and contingency pond. All ponds constructed as part of Phase II work will remain and continue to be utilized during Phase III operations. As with Phase II, Phase III leach pad rough grading will be completed as part of Phase IIIA construction.

In Phase IIIB, the leach pad will be extended to its final limits to the north and west. Phase IIIB construction will include fine grading, GCL base liner installation, anchor trenching and backfilling, overliner cover placement, and extension of the solution collection pipe network.

17.1.3.5 Leach Solution Management

The Phase II leach pad footprint contains a central ridge that will cause the leach pad LCRS and solution collection systems to drain to the south and west. Separate LCRS and leach solution collection systems that drain to the west and south will be required. The Phase III leach pad drains toward the central portion of the pad, and will drain to the southwest.

Risers for collection of leakage from the leach pad LCRS will be constructed on the south and west limits of the Phase II leach pad and to the southwest limit of the Phase III leach pad. LCRS risers will be fitted with submersible pumps to recover accumulated leakage, which will be pumped to the pregnant solution pond.

Pregnant solution ponds will be located on the south leach pad boundary of Phase II, and on the southwest leach pad boundary of Phase III. For Phase II, leach solution from the eastern portion of the leach pad will drain by gravity to the pregnant solution pond through the internal solution collection piping network. A steel wet well will be constructed within the ore heap to collect leach solution that drains from the western portion of the Phase II leach pad. A submersible pump will be installed in the wet well and leach solution will be pumped to the pregnant solution pond. Phase III will drain by gravity to the Phase III pregnant solution pond and will be pumped to the Phase II PLS pond.

Additional solution storage will be provided in-heap on the western portion of the Phase II leach pad and the southern portion of the Phase III leach pad, within the pore space of the ore heap. A berm constructed across the west leach pad drainage for Phase II and across the southwest portion of Phase III develops the in-heap storage capacity.

The pregnant solution ponds will be constructed with upper and lower 1.5 mm high density polyethylene (HDPE) geomembranes placed on a GCL base. An HDPE drain net will be placed between the geomembranes to serve as a pregnant pond LCRS. The pregnant pond design meets ADEQ/BADCT prescriptive design criteria for a process solution pond.

17.1.3.6 Contingency Stormwater Storage

The pregnant solution pond has been designed to contain sufficient volume to support recovery pumping operations and additional storage for upset conditions. The pregnant ponds and contingency ponds have been designed to contain 24 hours of leach pad draindown plus direct precipitation resulting from the 100-year, 24-hour design storm event of 98 mm. Contingency ponds are located west and south of the Phase II leach pad, and to the southwest of the Phase III leach pad.

Flow into the south contingency pond will occur when the pregnant solution pond water surface reaches the level of the spillway to the south contingency pond. Flow into the west contingency pond will occur when the in-heap storage and wet well pregnant solution pumping capacity are exceeded. Stormwater will be routed to the west contingency pond via an HDPE geomembrane lined channel and spillway, and will be routed to the south and Phase III contingency ponds by spillway from their respective pregnant ponds

Contingency ponds will be constructed with a single 1.5 mm HDPE geomembrane placed over a prepared bedding layer.

17.1.4 Merrill Crowe

Pregnant solution from the Phase III ponds will be pumped to the Phase II Pregnant Solution Pond. Pregnant solution from the Phase II pond will be fed to the Merrill Crowe facility. The pregnant solution will be pumped to clarification filters to remove suspended solids. The filtered pregnant solution will flow to the deaeration column where dissolved oxygen will be reduced to a concentration of less than 1 ppm. The column will be operated at a near full vacuum condition.

Zinc powder will be added to the pipeline from the deaeration column to precipitate the solubilized gold and silver. An inline, vertical turbine pump will transfer the solution with the cemented gold and silver to plate and frame pressure filters. The cemented gold and silver precipitate will be filtered to approximately 40-50 percent solids by weight, prior to being transferred to the refinery. The filtrate, barren solution, will report to a storage tank, where cyanide will be added to achieve an operator defined cyanide concentration. The cyanide bearing solution will be pumped back to the heap leach pad for re-application to dissolve gold and silver from the ore placed on the pad.

17.1.5 Refinery

Filtered precipitate will be collected in pans. The pans will be placed in a drying oven for several hours. The temperature in the drying oven will be ramped up and held at different temperatures ranging from 200 to 600 degrees Celsius to remove the moisture in the cake, followed by a cool down period.

The dried precipitate will be mixed with fluxes and charged to a diesel fired, crucible furnace. Slag, containing fused fluxes and impurities, will be poured first into conical pots. Once slag has been removed, the melted gold and silver will be poured into molds to form Doré bars.

Bars will be cooled, cleaned, weighed, and stamped with an identification number and weight. Doré bars will be the final product of the plant. Armored, secure vehicles will be scheduled to be on site for safe and expeditious off-site transfer of the bars.

Slag will be crushed and screened to recover high-grade chips that will be returned to the melting furnace. Remaining slag will be stored for transfer or disposal. Fumes from the melting furnace will be collected through ductwork and cleaned in a bag house dust collector system, followed by a wet scrubber, before discharging to atmosphere.

17.2 PROCESS DESIGN CRITERIA

The design of the Phase II Moss facility is based on a nameplate capacity of 5,000 tonnes per day. The current mine plan developed for the project is based on a 350-day calendar year; therefore, the maximum yearly ore tonnage is 1.75 million tonnes.

For clarity and simplicity, the term “availability” indicated below, is defined as estimated actual run time of equipment. This would, therefore, include both “mechanical availability” and “use of mechanical availability” factors in an operating plant. For equipment design of the crushing circuit, the agglomeration circuit, and for ore stacking on the pad, an availability factor of 65% was utilized. For equipment design of the solution application and recovery circuit, as well as the Merrill Crowe plant, an availability factor of 95% was utilized. These availabilities are in concert with equipment manufacture recommendations, as well as those commonly utilized in design of comparable plants in process complexity and throughput.

The mass balance was developed for the Moss process using MetSim™ software. The process simulation assumed overall grades and recoveries for gold and silver as indicated in Table 17-1.

Table 17-1: Head Grades and Recoveries Used for Mass Balance Simulation

Metal	Head Grade	Overall Recovery
Gold	1.07 grams per tonne	84 percent
Silver	11.1 grams per tonne	65 percent

The MetSim™ balance forms the basis for equipment sizing, including pipes and pumps, as well as tanks, and defines the parameters used in the process design criteria.

18 PROJECT INFRASTRUCTURE

The Qualified Person for this section of the Technical Report is Dr. David Stone, P.E. except as noted otherwise.

18.1 WATER SUPPLY

The principal source for water supply at the Moss project will be groundwater. Heap leaching, by its nature, consumes vast quantities of water which is needed to pre-wet the ore prior to leaching.

The total water demand at Moss is estimated to be in the order of 160 US gpm on average and 205 gpm at its peak. The water consumption has been estimated as follows:

- 50 gpm for dust control
- 35 gpm for the agglomeration circuit
- 75 gpm on average for leaching (120 gpm at the peak)

The make-up water demand at Moss is seasonal due to variations in the temperature, humidity and precipitation over the year. The wettest months are January, February and March with an average of 25 mm of precipitation, and the driest months are May and June with less than 2 mm of precipitation. The highest evaporation months are June and July.

The peak demand of 205 gpm is in June every year, and lowest water demand of 115 gpm is in either January or February. A chart showing the seasonal variations in the make-up water needed for leaching can be seen in Figure 18-1.

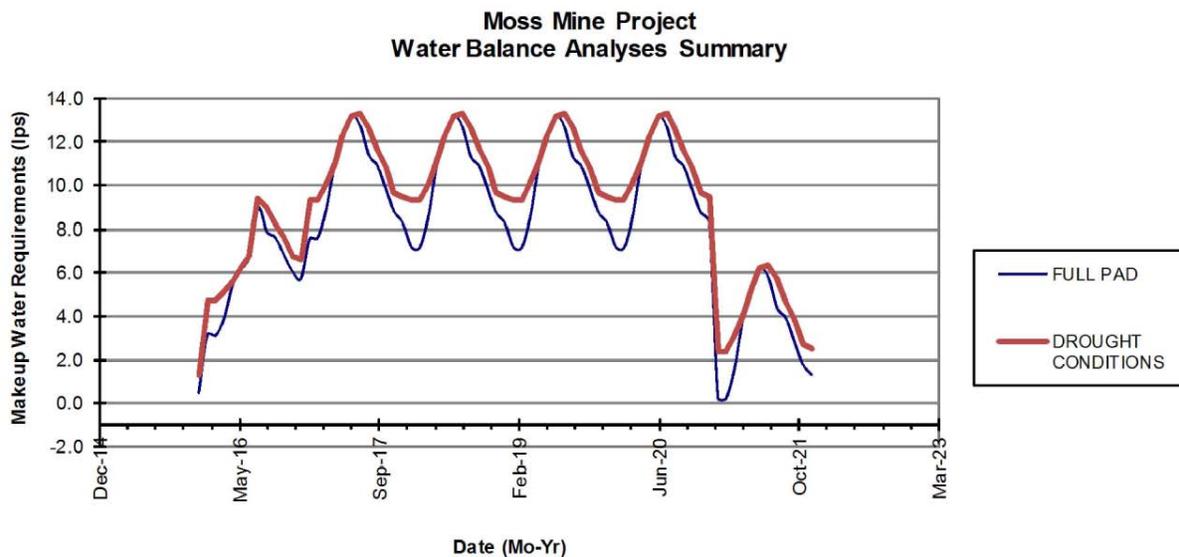


Figure 18-1: Required Make-up Water

18.2 ELECTRIC POWER

Currently the Moss project site is not connected to the main County electrical grid, hence the Phase II project, now under construction, is designed to be powered by diesel generators. However, the use of utility power offers a number

of economic and environmental advantages that benefit both the project and the local community. Hence the one departure from the Phase II assumptions is the use of utility power for the Phase III project.

For the project, the benefits include:

- A reduction in power cost from about \$0.20 per kW-hr to a bulk industrial rate of \$0.065 per kW-hr.
- A reduction of traffic on the mine access road

For the community, the benefits include:

- The elimination of diesel particulate emissions from the generators
- The elimination of diesel exhaust from the trucks delivering diesel fuel.
- Reduced traffic on Silver Creek road

The expected power demand, based on the motor sizes, is listed in Table 18-1 below. The calculations show, that at full load, the project has about 4.2 MW of motors installed, however due to cyclic demands, the actual operating load is estimated at 2.46 MW.

Table 18-1: Expected Power Demand

AREA	Estimated Load - kW	Operating Load - Kw	Monthly Usage - kW-hr
AREA 100 — PRIMARY CRUSHING	218	152	72,555
AREA 200 — FINE CRUSHING	1398	1,088	519,198
AREA 250 — CRUSHED ORE TRANSFER	252	183	87,561
AREA 300 — LEACH PAD	440	251	119,783
AREA 350 — PONDS	216	77	53,439
AREA 400 — MERRILL CROWE	797	302	210,971
AREA 500 — REFINERY	293	189	131,609
AREA 650 — WATER SYSTEMS	388	144	100,197
AREA 800 — REAGENTS	21	5	3,757
TOTALS	4,184	2,464	1,350,282

Power for the project will be supplied by a 24.9 kV overhead line along Silver Creek road from the Bullhead city limits.

18.3 FUEL STORAGE

Very limited fuel storage will be needed on site. The only consumers of diesel will be the mining contractor, and miscellaneous fuel needs in the refinery and small mobile equipment owned by Golden Vertex. The mining Contractor will be responsible for their own fueling and fuel deliveries.

18.4 WAREHOUSING

Due to space constraints, and the proximity to Bullhead City, no warehouse space will be made available on site. A 1500 sq. foot warehouse and 2-acre laydown yard has been leased in Bullhead City and materials will be delivered to site as needed.

18.5 WORKSHOPS/MAINTENANCE

The project plan does not allow for any maintenance workshops or a truck shop for the mining Contractor. It is anticipated that the Company will provide a concrete pad area with a cleanup sump for vehicle fueling, and light maintenance. The Contractor will provide a fabric or other cover over this area as needed.

18.6 CAMP/ACCOMMODATIONS

Given the proximity to Bullhead City, and the limited space, the Company will not be providing camp facilities for either construction or for operations. In lieu of a camp, it is expected that the Contractors will provide a crew bus for moving staff to and from the project site. The Company will not be providing any parking facilities on site and personal vehicles, unless authorized, will not be allowed.

Company technical staff and supervisory personnel will likely travel back and forth in company vehicles. This includes the laboratory staff, the grade control personnel, the mine geologist and mine engineer.

18.7 COMMUNICATIONS

Communications at the project site have been upgraded to allow a UHF/VHF multi-channel mine radio system to be installed. Dedicated channels will be provided for the mining Contractor, construction contractors and subcontractors, security, administration and technical staff.

The upgrade included microwave based voice and data communications over a VOIP network which provides an internet connection at the mine site which allow the use of mobile devices such as iPads and mobile computers.

18.8 HEALTH AND SAFETY

The entire project site will be fenced to restrict access to the public, and in particular off-road recreational vehicles. The heap, ponds and other facilities containing cyanide may have secondary fencing to restrict access to these areas.

The open pit will be bunded off with an earth bund to prevent accidental entry from the adjacent un-patented ground. Warning signs will be posted at key locations to warn of the hazard of entry into the open pit.

The project plan includes a small 8-ft x 20-ft trailer which will serve as first-aid room in the event of an emergency. The project is located within the range of emergency services from Bullhead City, so an onsite ambulance will not be provided. The Company does not intend to hire paramedics to staff the first-aid room, however selected company and contractor staff will be trained in first aid, and CPR, in the event of an incident.

A helicopter landing area has been constructed on the project site to allow a medical evacuation in the event of a serious injury.

All MSHA training and certifications will be done at the main administrative offices in Bullhead City, along with all of the required MSHA documentation and record keeping

18.9 SECURITY

The project is currently monitored 24-hours a day by a contract security service. Access to the site from the access road is gated, and site security requires visitors and other personnel to sign-in and out. A badge system was implemented in Phase II to restrict access to the site to authorized personnel only.

18.10 ADMINISTRATION BUILDING

The main administration offices for the project will be located in Bullhead City. This office will include human resources, purchasing, warehousing, accounting, and a safety officer. The office will also provide workspace for the technical services staff which includes engineering, geology and survey.

A 30x44 ft site office trailer will provide temporary office facilities for the mine engineer and geologists while on site.

18.11 LABORATORY

The existing assay laboratory is housed in three structures:

- A sea-container for sample preparation
- A 12x32 ft wooden shed to house the wet preparation laboratory
- A 12x32 ft wooden shed to house the fire assay laboratory

These facilities are currently being retro-fitted for re-use in the Phase II operations. The laboratory facilities have been inspected and have been judged to be capable of processing the required 150 samples per day on two shifts. Quality control has been conducted by routine duplicate samples shipped to external laboratories, including blanks and standards.

18.12 SEWAGE

The Phase II project plan includes restroom trailer blocks serviced by a local contractor. At the onset of Phase II the restrooms will discharge to a holding tank that will be pumped periodically, however it is anticipated that the system will be upgraded to discharge to a septic field once the necessary permits are obtained.

18.13 TRANSPORTATION

Golden Vertex has prepared a transportation plan to limit traffic on the mine access road. This plan includes the use of crew vans for all contractor and Company staff, and the availability of employee parking at the Company warehouse and yard in Bullhead City. No employee parking will be allowed at the mine site.

The Company will also maximize the use of carpooling for senior staff and management to reduce traffic on Silver Creek road.

19 MARKET STUDIES AND CONTRACTS

Gold and silver bullion sell on several international markets, the most well-known being the London Metals Exchange or LME. The LME establishes the exchange rate for metal traders in New York and other bourses. The gold price over the last 5 years has peaked at \$1751/oz in late 2012 and hit a low of \$1050/oz late 2015. Current gold prices are hovering around \$1300/oz.



Figure 19-1: Five year gold price (source: Kitco.com)

The Company intends to sell the Moss mine raw doré bars to a precious metal refiner who will separate the gold and silver to produce refined bullion metal for sale. The refiner will pickup the doré bars from the Moss mine site in an armoured car on a pre-arranged schedule, and will provide insurance during transport to the refinery. After refining the Company is paid a settlement based on the LME daily rate on the day of out-turn in accordance with the contract payment terms.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 ENVIRONMENTAL

20.1.1 Water Quality

Several water quality samples were collected during the hydrogeological investigation and they serve as a benchmark for water quality at the project site. The results of this testing are show in Table 20-1 and Table 20-2.

Table 20-1: Wet Chemistry Test Results

Test	Source	Value	Unit
Alkalinity	SM2320-B	160	mg/L
Bicarbonate	SM2320-B	160	mg/L
Carbonate	SM2320-B	<4.0	mg/L
Chloride	EPA 300.0	58	mg/L
Fluoride	SM4500-F-C	2.9	mg/L
Hydroxide	Calculation	<4.0	mg/L
Nitrogen, Nitrate	EPA 300.0	0.52	mg/L
Nitrogen, Nitrite	EPA 300.0	<0.20	mg/L
pH	SM4500-H-B	7.2 H1	pH Units
Temperature	SM4500-H-B	22	°C
Phosphate, Ortho	EPA 300.0	<0.50	mg/L
Solids, Total Dissolved	SM2540-C	1,400	mg/L
Sulfate	EPA 300.0	740	mg/L

Table 20-2: Metal Content Chemistry Test Results

Analyte	Result	RL	Unit
Aluminum	<0.10	0.10	mg/L
Antimony	<0.040	0.040	mg/L
Arsenic	<0.10	0.10	mg/L
Barium	0.022	0.010	mg/L
Beryllium	<0.0010	0.0010	mg/L
Cadmium	<0.0010	0.0010	mg/L
Calcium	240	2.0	mg/L
Chromium	0.014	0.010	mg/L
Cobalt	<0.010	0.010	mg/L
Copper	<0.010	0.010	mg/L
Iron	<0.10	0.10	mg/L
Lead	<0.015	0.015	mg/L
Magnesium	55	2.0	mg/L
Manganese	<0.010	0.010	mg/L
Nickel	<0.010	0.010	mg/L
Potassium	4.8	0.50	mg/L
Selenium	<0.10	0.10	mg/L
Silver	<0.010	0.010	mg/L
Sodium	96	0.50	mg/L
Thallium	<0.10	0.10	mg/L
Zinc	<0.50	0.050	mg/L

The water quality testing shows the water to be slightly alkaline with a pH of 7.2. No anomalous elemental values were detected and in summary the water appears to be very suitable for use as process water.

20.1.2 Air Quality

The major source of degradation to air quality will be dust from the crusher. The crusher dust will be mitigated with water spray bars at the jaw crusher in order to pre-wet the ore, and a combination of bag houses and cartridge filters at key locations such as the screen decks and rock boxes.

Dust from the mining operations will be confined to the pit floor and haul roads. This dust will be mitigated with frequent watering of the haul roads, and possibly through the application of a dust suppressant.

20.1.3 Noise

The major sources of noise at the project will be the crushing operations, and the mining operation. Noise emissions from the crusher will initially be mitigated by the location of the crusher behind the waste dump. It may become necessary to surround the crusher with a noise barrier, such as stockpiled waste, if the noise levels are deemed excessive.

The noise from the mining operation will be confined to the bottom of the open pit and is not expected to be noticeable beyond the pit margins. The vibrations from blasting operations should not be noticeable beyond the project site given the small charges that will be used.

20.1.4 Surface Water Management

A series of stormwater and sediment collection ponds will be constructed to contain sediment and stormwater from disturbed areas on the mine site. Runoff from unimpacted areas will be diverted around the site where possible. Small tributary drainages located north of the pit and the Moss Claim block will be allowed to drain into the open pit.

Stormwater and sediment collection ponds have been designed to contain stormwater and sediment associated with the 10-year, 24-hour storm of 58 mm. Diversions and sediment pond spillways have been designed to pass runoff associated with the 100-year, 24-hour storm event. All surface water management facilities will be constructed within the Moss patented claim block outside of jurisdictional waters.

20.1.5 Acid Base Accounting

ABA testwork was undertaken on 35 selected drill core and surface grab samples during the exploration program. The samples included:

- 8 drill core samples from AR-195C, AR-197C, AR-200C, AR-201C, AR-204C, AR-210C, AR-211C and AR-212C
- 27 grab samples from various locations along the Moss Vein.

The samples included intervals that were in ore and in waste, both from the hangingwall and the footwall of the Moss Vein.

The samples were analyzed for Sb, As, Se, Th, Be, Cd, Cr, Cu, Pb, Ni, Ag and Zn by ICP methods, and Hg by CVAA methods. The samples were also subjected to ABA testing and sulfur forms by the Modified Sobek method.

The vast majority of the samples returned values below the detection limits for all of the metals including Hg. Some of the samples returned extremely low As and Se values (less than 0.005%) that were just above the detection limit of 0.003%.

Most of the samples also returned sulphur values below the detection limit and a high acid neutralization potential (ANP) value due to the presence of CaCO₃. Ten samples returned measurable values of sulphur, but only two samples exceeded 1% and none of the samples exceeded 2% (see Table 20-3).

Table 20-3: Sulfur and CaCO₃ Neutralizing (Tonnes of CaCO₃/kT rock) Content in Samples

Sample ID	Total Sulfur	CaCO ₃
219564	0.02%	19.7
219574	0.14%	5.8
216852	0.73%	33.3
217237	0.71%	22.5
217297	1.50%	-14.8
AR-195C	0.07%	83.0
AR-197C	1.94%	-30.6
AR-201C	0.50%	54.6
AR-210C	0.33%	9.6
AR-212C	0.24%	20.4

In summary, the testing indicates the Moss ores have very low to negligible sulfur contents and both the ore and waste is considered to be non-acid generating. This is an important finding for closure as the spent heap ores will not require any long term water quality monitoring or treatment to abate metals leaching. Likewise, the waste dumps are expected to be inert at the end of the mine life and no long term remediation or treatment plans will be needed. The ore and waste is also self-neutralizing due to the high CaCO₃ contents throughout the deposit.

20.1.6 Environmental Monitoring

Environmental monitoring will be carried out during the life of the project to ensure compliance with all permit conditions and current best practices. The environmental program for Moss will include:

- Monitoring wells downstream and down-gradient from the heap leach pad and waste dumps to monitor for cyanide contamination and metals in the groundwater
- Piezometers installed on the perimeter of the open pit to monitor groundwater levels.
- Routine air quality sampling near the generators
- Furnace off gas emissions monitoring and reporting in accordance with the Phase II permit

The frequency and extent of the environmental monitoring is mandated by the existing Aquifer Protection Permit and the Air Quality Permit.

20.1.7 Project HAZOP and Visual Impacts

The Company has prepared a number of draft Hazard Operations Plans (HAZOP Plans) as follows:

- A cyanide management plan to set out the procedures and protocols for cyanide transportation, storage and handling.
- A traffic management plan to set out procedures and protocols for travel to and from the project site and to minimize traffic on the mine access road.
- A communications plan to set out procedures and protocols for effective communications at the project site to ensure everyone complies with the Health and Safety guidelines

- A biodiversity plan to ensure the protection of wildlife and plants at the project site

These plans will be updated and incorporated into the operating plans for the project site. All employees, contractors, vendors, suppliers and visitors will be expected to comply with these plans.

20.1.8 Reclamation and Closure

The “Arizona Mining BADCT Guidance Manual” provides guidance on the reclamation and closure of mining projects. In summary, the BADCT requirements are:

- Rinsing and detoxification to remove the cyanide from the heap leach
- Re-grading the heap and waste dumps to prevent erosion and/or minimize surface runoff
- Establishment of vegetation on the heap and waste dumps to promote moisture removal through evapo-transpiration, or the installation of a low permeability cover layer
- Elimination of the containment in the heap leach pad and removal of any stored liquids.
- Diversion of upslope runoff to prevent water ingress into the heap or waste dumps.
- Monitoring of groundwater quality to detect any leachates that may contain elevated metals or residual cyanide in the heap.

The ponds will be drained and the liners will be removed. The liner material will be disposed of on site, likely buried in the spent heap.

The Merrill Crowe plant will be disassembled and all the components and piping will be shipped offsite for sale to another user. The plant will carry a high residual value. The concrete foundations will be broken up and disposed of in the heap or buried in the bottom of the pond excavation.

The crushing plant will likewise be disassembled and moved offsite for sale to another user. This plant will also carry a high residual value.

The generators will be sold and moved offsite.

20.2 PERMITTING

20.2.1 Mine Plan of Operations

A Mining Plan of Operations (MPO), detailing the mining, leaching, waste rock stock-piling, construction activities, monitoring plans, reclamation, and closure plans must be prepared and submitted to the United States Department of the Interior Bureau of Land Management (BLM).

The MPO must contain relevant information and describe the proposed Phase III operations at a level of detail sufficient for the BLM to determine that the Plan prevents unnecessary or undue degradation of public lands. The MPO will focus on the proposed Phase III surface disturbance on federal lands administered by the BLM and be developed in accordance with BLM Surface Management Regulations in Part 43 of the Code of Federal Regulations (CFR) 3809 (Surface Management for Unpatented Mining Claims and Sites Situated on Land Administered by the Bureau of Land Management).

Once the MPO is determined to be administratively complete, BLM will engage an independent, third party to prepare an Environmental Assessment (EA) to assess and document the environmental impacts and associated mitigation measures. The EA will document the cultural surveys, biological surveys, surface water impacts, groundwater impacts, noise, dust, visual impacts, and other metrics associated with the proposed development. It is anticipated that BLM

approval of an MPO could be received within 18 to 24 months of submittal once determined to be administratively complete.

20.2.2 Air Quality Control Permit Notification

The Phase II facilities currently operate under Air Quality Control Permit No. 64302. In September 2017, CDM Smith successfully petitioned the Arizona Department of Environmental Quality (ADEQ) to authorize the installation of material transfer conveyors to transport crushed ore from the agglomeration circuit to the heap leach pad while still maintaining the current practice of ore hauling by truck. ADEQ agreed that the addition of process equipment met the substantive requirement of Arizona Administrative Code (A.A.C.) R18-2-317.A. and did not trigger New Source Review (NSR) threshold limits that would have required either a minor or major permit modification.

For the Phase III expansion, ADEQ will require a second notification under the current Air Quality Control Permit for the additional length and number of transfer conveyors needed to place the agglomerated ore on the heap leach pad extension (approximately 1 km in length). If the notification and emission calculations for the Phase III process revisions remain below certain emission threshold limits, ADEQ is expected to issue its authorization 5 to 7 days.

20.2.3 Section 404 Permit

The United State Army Corp. of Engineers (USACE) is the lead agency responsible for issuing Clean Water Act Section 404 permits, under authorization from the US Environmental Protection Agency (USEPA). A 404 permit is required when placing fill below the ordinary high-water mark (OHWM) of a jurisdictional drainage or to place fill within a wetland. The Phase III mine expansion will encroach on washes that have been judged to be jurisdictional by the USACE. A Section 404 permit under the Clean Water Act will be required. Approval of a Section 404 permit by the USACE could take 12 to 18 months and is expected to require mitigation for permanent fill in waterways and any wetlands.

20.2.4 Aquifer Protection Permit

An amended ADEQ Aquifer Protection Permit will be required for construction and operation of the Phase III leach pad extension. The leach pad extension will be designed and constructed in accordance with best available demonstrated control technology (BADCT), as was adopted for the Phase II leach pad. Golden Vertex will continue to operate the Phase II leach pad in accordance with the existing permit while the amendment procedure advances. Based on the permitting timeline for Phase II, Golden Vertex anticipates the amended APP permit could be approved by ADEQ 5 to 7 months after submission of the permit amendment.

20.2.5 Mine Reclamation Plan

Arizona Revised Statute (A.R.S.) Title 27, Chapter 5, § R27-927 requires mining units to submit a notice of proposed changes to the Arizona State Mine Inspector (Inspector) that describe the scope of the proposed changes and whether the proposed changes constitute a substantial change to the approved reclamation plan.

The Phase III project will modify the size and location of the open pit and waste rock stockpile by adding acreage of new surface disturbances, which will increase the estimated costs for reclamation. The Phase III disturbances necessary to respond to the reclamation requirements of the A.R.S. Title 27, Chapter 5, § R27-901 et seq. will be identified. The approved October 2016 Reclamation Plan narrative will be updated to incorporate the new disturbances and Standard Reclamation Cost Estimator (SRCE) spreadsheet will be revised to identify the new reclamation cost estimate. Reclamation strategies are expected to remain unchanged. Approval of the Mine Reclamation Plan is expected 2 to 3 months after submission.

20.2.6 Stormwater Discharge Authorization

The Phase III facilities will require stormwater discharge permit notification and an amendment to the stormwater pollution prevention plan (SWPPP). The notification can take place early in the Phase III planning. The SWPPP amendment will be updated to include feasible best management controls.

20.3 SOCIAL AND COMMUNITY ISSUES

The following information was provided by the Company for inclusion into this document.

Northern Vertex, through its US subsidiary, Golden Vertex, is endeavoring to be an organization recognized for its safety culture, community commitment, Tribal involvement, educational enhancement, open communication culture and transparency that will create a legacy for the stakeholders in the Bullhead City area for many years to come. Since December 2012, the Company has established the means to achieve this goal as follows:

- The Company's safety record during Phase I – Pilot Plant operations was exemplary with no loss time accidents or MSHA reportable incidents occurring. The Company was awarded two State/National awards as a result. The Company has maintained this safety record throughout the Phase II mine construction with over 80,000 contractor man-hours without a reportable accident or injury.
- A community enhancement plan was initiated to establish a cultural and heritage center in Bullhead City's Community Park. The first phase of that initiative was completed in August 2013 and the second phase is expected to be completed later this year. The intention is to have a central location to celebrate and showcase the unique and diverse local history of the Bullhead City area with specific recognition of the important role the Colorado River played in this history with various stakeholders providing exhibits.
- The Company has had continuous dialogue with the local Fort Mojave Tribe, to ensure the Tribe is informed and up to date about the Company's activities and to discuss possible job training programs for the mine when in production. Where possible, site visits have been conducted to illustrate the nature and location of the Company's mine development plans and site cultural surveys have been carried out. Other Tribes in the region have been visited and informed of the Company's activities.
- An educational enhancement program was initiated to facilitate the establishment of an Earth Sciences program at Mohave High School along with a pathway to a mining engineering degree – or related tertiary education – at the University of Arizona. Site visits by students are actively encouraged and the Company's goal is to have senior mine staff be locally educated.
- Continuous contact is also maintained with the local government institutions – Bullhead City Council, Mohave County Board of Supervisors, Arizona State government representatives and local Federal Congressional elected officials and staff. Site visits have been conducted with all these key parties.

The mine is removed from the nearest community – Bullhead City – and does not infringe upon any other land uses apart from periodic off-road recreational activities. The Company remains focused on working effectively and respectfully with local stakeholders to enhance the capacity of the local communities in the area.

21 CAPITAL AND OPERATING COSTS

21.1 CAPITAL COST ESTIMATE

Table 21-1 shows a summary of committed capital expenses for Phase II (currently under construction) and estimated capital expenses for Phase III. The Phase III expansion is not expected to commence prior to month 30 due to the permitting timeframe.

Table 21-1: Direct and Indirect Capital Cost Estimate Summary

Description	Cost (\$M)
Phase II Committed Costs	
Site General	\$ 0.76
Primary Crushing	\$ 2.73
Fine Crushing	\$ 6.43
Crushed Ore Transfer	\$ 2.00
Leach Pad Stacking	\$ 2.15
Heap Leach Pad and Ponds (Golder)	\$ 5.88
Solution Transfer	\$ 0.56
Merrill Crowe	\$ 4.09
Refinery	\$ 1.84
Water Systems	\$ 1.36
Power Generation	\$ 2.47
Reagents	\$ 0.45
Ancillaries	\$ 0.11
Indirects	\$ 6.67
Phase II Committed Costs	\$ 37.50
Phase III Expansion	
Conveyors	\$ 1.75
Heap Leach Pad	\$ 11.26
Solution Management	\$ 0.39
Power	\$ 0.41
Indirects	\$ 3.60
Contingency	\$ 4.20
Permits	\$ 2.00
Mine Dewatering	\$ 0.48
Phase III Expansion Costs	\$ 24.09
TOTAL	\$ 61.59

21.1.1 Introduction

In general, M3 based the Phase III expansion capital cost estimate on recent actual Phase II construction, labor, material and equipment costs. Indirects include freight, logistics, mobilization, EPCM, and owner's costs.

21.1.2 Assumptions

The Phase III project is assumed to be constructed in a conventional EPCM format, e.g. Northern Vertex will retain a qualified EPCM contractor to manage and design the project; bid and procure materials and equipment as agent for Northern Vertex; bid and award construction contracts as agent; and manage the construction of the facilities as agent.

Northern Vertex will order major material supplies. These will be issued to construction contractors on site using strict inventory control.

“Initial Capital” is defined as all capital costs through to the end of Phase II construction. Capital costs for the Phase III Expansion (Year 3) are carried as sustaining capital in the financial model.

All costs are in 4th quarter 2017 US dollars.

21.1.3 Estimate Accuracy

The accuracy of the Phase III expansion estimate for those items identified in the scope-of-work is estimated to be within the range of plus 20% to minus 20%; i.e., the cost could be 20% higher than the estimate or it could be 20% lower. Accuracy refers to the level of detail of the estimate, which is an issue separate from contingency which accounts for undeveloped scope.

21.1.4 Contingency

Contingency is intended to cover unallocated costs from lack of detailing. It is a compilation of aggregate risk from all estimated cost areas. Contingency is not simply a “buffer” to cover estimate inaccuracy. Properly calculated contingency will be spent.

21.1.5 Reference Documents

Documents available to the estimators include the following:

Design Criteria	(Yes)
Equipment List	(Yes)
Equipment Specifications	(Partial)
Flowsheets	(Yes)
P&IDs	(No)
General Arrangements	(Yes)
Civil Drawings	(No)
Electrical Schematics	(No)
Vendor Quotations	(Partial)

21.1.6 Leach Pad and Ponds – Earthwork and Lining

Material take-offs for the earthwork and lining of the Phase III leach pad, pregnant solution pond and event pond were provided by Golder Associates. The capital cost was based on recent actual Phase II construction material and labor rates.

21.2 OPERATING AND MAINTENANCE COSTS

21.2.1 Introduction

This section addresses the following costs:

- Mining Costs
- Process Plant Operating & Maintenance Costs
- General and Administrative Costs

The life of mine operating costs for the Moss Mine operations are summarized by areas of the plant, and shown in Table 21-2.

Table 21-2: Life of Mine Operating Costs

	\$/t leached
Mining	\$5.53
Process Plant	\$5.26
General Administration	\$0.81
Treatment/Refining	\$0.11
Total Operating Cost	\$11.70

21.2.2 Contract Mining

The PEA assumes contract mining for the full 10-year mine life as was adopted in the Phase II Feasibility Study. The PEA financial model is based on the actual contractor mining costs provided for Phase II mining. It should be noted that no escalation is assumed in mining costs over the PEA mine life of 10 years. This was done intentionally to be able to benchmark the PEA project returns against the 2015 Feasibility Study.

The PEA mining costs may need to be updated if the Phase III project is advanced to Feasibility.

The Phase II Contractor mining costs are shown in Table 21-3. This includes unit rates that were given in bank cubic yards ("BCY").

Along with the rates by BCY, the contractor also specified a onetime charge of \$190,000 for mobilization and setup along with a yearly charge of \$671,000 per year for road maintenance and dust suppression.

Table 21-3: Phase II Contract Mining Rates

	Units	Year 1	Year 2	Year 3	Year 4	Year 5	Wtd. Average
Ore Mining	\$/BCY	\$3.55	\$3.90	\$4.05	\$3.95	\$3.90	\$3.89
	\$/BCM	\$4.64	\$5.10	\$5.30	\$5.17	\$5.10	\$5.08
Waste Mining	\$/BCY	\$4.25	\$4.55	\$4.60	\$4.70	\$4.30	\$4.50
	\$/BCM	\$5.56	\$5.95	\$6.02	\$6.15	\$5.62	\$5.89
Mobilization/Setup	K USD	\$190					
Haul Road Maint.	K USD	\$171	\$171	\$171	\$171	\$171	

21.2.3 Process Plant Operating Cost

The process plant operating costs are summarized by areas of the plant and then by cost elements of labor, power, reagents, maintenance parts and supplies and services. Table 21-4 summarizes the monthly cost for each production phase. Note that the costs in Table 21-3 do not match those in Table 21-2 because of the production ramp up at the beginning of the mine life, and the residual leach tail at the end of the mine life.

Table 21-4: Process Plant Operating Cost

Process Tonnes	2,500 tpd		3,500 tpd		5,000 tpd	
	Month Cost	\$/t	Month Cost	\$/t	Month Cost	\$/t
Primary Crushing	\$53,324	\$0.73	\$61,044	\$0.60	\$67,368	\$0.46
Fine Crushing	\$94,148	\$1.29	\$135,390	\$1.33	\$180,086	\$1.23
Leaching	\$139,367	\$1.91	\$181,504	\$1.78	\$239,454	\$1.64
Merrill Crowe/Refinery	\$80,960	\$1.11	\$105,309	\$1.03	\$127,275	\$0.87
Ancillaries	\$94,598	\$1.30	\$108,694	\$1.06	\$123,860	\$0.85
Total Process Plant	\$462,398	\$6.34	\$591,940	\$5.80	\$738,042	\$5.06

21.2.4 Process Plant Labor & Fringes

Process labor costs were derived from a staffing plan and based on prevailing daily or annual labor rates (circa-2015) in the Bullhead City area. Labor rates and fringe benefits for employees include all applicable social security benefits as well as all applicable payroll taxes. The staffing plan summary and gross annual labor costs are shown in Table 21-5.

Table 21-5: Process Plant Labor

Area	Staff	Month Cost
Primary Crushing	8	\$37,557
Leaching	8	\$37,557
Merrill Crowe/Refinery	6	\$29,213
Ancillary	10	\$63,661
Maintenance	17	\$83,048
Total	49	\$251,037

21.2.5 Power

Power costs were based on line power and the overall power rate is estimated at \$0.065 per kWh. Power consumption was based on the equipment list connected kW, discounted for operating time per day and anticipated operating load level. A power consumption summary is shown in Table 21-6 by area for each production phase.

Table 21-6: Power Consumption Summary

Process Tons	72,917	102,083	145,833
Summary	Month kWh	Month kWh	Month kWh
Area 100 — Primary Crushing	36,278	50,789	72,555
Area 200 — Fine Crushing	259,601	363,438	519,198
Area 250 — Crushed Ore Transfer	43,781	61,293	87,561
Area 300 — Leach Pad	59,892	83,848	119,783
Area 350 — Ponds	26,719	37,407	53,439
Area 400 — Merrill Crowe	105,486	147,680	210,971
Area 500 — Refinery	65,805	92,126	131,609
Area 650 — Water Systems	50,099	70,138	100,197
Area 655 — City Raw Water System	25,606	35,848	51,212
Area 800 — Reagents	1,879	2,630	3,757
Total	675,146	945,196	1,350,282

21.2.6 Reagents

Consumption rates were determined from the metallurgical test data or industry practice. Budget quotations were received for reagents supplied from local sources where available with an allowance for freight to site.

Table 21-7: Reagents Summary

	kg/t	\$/kg
Leaching		
Cement	2.00	\$0.157
Sodium Cyanide	0.38	\$2.35
Merrill Crowe/Refinery		
Zinc Dust	0.016	\$5.49
Diatomaceous Earth	0.05	\$0.94
Flux	0.05	\$1.35
Ancillary		
Antiscalant	0.05	\$4.34

21.2.7 Maintenance Wear Parts and Consumables

Grinding media consumption and wear items (liners) were based on industry practice for the crusher and grinding operations. These consumption rates and unit prices are shown in Table 21-8.

Table 21-8: Grinding Media and Liners

	kg/t	\$/kg
Primary Crusher Liners	0.01	\$4.55
Secondary Crusher Liners	0.04	\$4.55
Tertiary Crusher Liners	0.09	\$4.55

An allowance was made to cover the cost of maintenance of all items not specifically identified and the cost of maintenance of the facilities. The allowance was calculated using the direct capital cost of equipment times a percentage for each area, which totaled approximately \$143,000 per month.

21.2.8 Process Supplies & Services

Allowances were provided in process plant for outside consultants, outside contractors, vehicle maintenance, and miscellaneous supplies which amounted to approximately \$0.07/ore ton. The allowances were estimated using M3's information from other operations and projects.

21.2.9 General and Administration (G&A)

General and administration costs include labor and fringe benefits for the administrative, human resources, safety environmental and accounting personnel. Also included are office supplies, communications, insurance, employee transportation, and other expenses in the administrative area. Labor costs are based on a staff of 16. Monthly wages and benefits amounted to approximately \$91,000 and offices expenses were estimated at approximately \$21,000 per month.

21.2.10 Labor Costs

The annual costs for hourly and salaried staff are summarized in Tables 21-8 and 21-9 below.

Table 21-9: Plant Operations Labor Positions

Department and Position	Annual	Annual	Total
	Base Salary	Benefits	Annual
	US\$	US\$	Cost
Process Plant Administration - Operations			
Plant Manager	\$83,200	\$33,280	\$116,480
Metallurgical Engineer	\$73,028	\$29,211	\$102,239
Plant Supervisor	\$68,000	\$27,200	\$95,200
Administrative Assistant	\$32,000	\$12,800	\$44,800
Process Plant Operations			
Primary Crushing			
Crusher Operator	\$42,480	\$16,992	\$59,472
Crusher Helper	\$38,000	\$15,200	\$53,200
Fine Crushing			
Fine Crushing Operator	\$42,480	\$16,992	\$59,472
Fine Crushing Helper	\$38,000	\$15,200	\$53,200
Leaching			
Leaching Operator	\$42,480	\$16,992	\$59,472
Leaching Helper	\$38,000	\$15,200	\$53,200
Merrill Crowe/Refinery			
Merrill Crowe Operator	\$42,480	\$16,992	\$59,472
Refinery Operator	\$42,480	\$16,992	\$59,472
Merrill Crowe/Refinery Helper	\$38,000	\$15,200	\$53,200
Laboratory			
Lab Supervisor	\$68,000	\$27,200	\$95,200
Assayer	\$44,720	\$17,888	\$62,608
Sample Prep	\$32,000	\$12,800	\$44,800
Plant Administration - Maintenance			
Plant Maintenance Supervisor	\$68,000	\$27,200	\$95,200
Maintenance Planner	\$52,628	\$21,051	\$73,679
Maintenance Clerk	\$32,000	\$12,800	\$44,800
Plant Maintenance			
Plant Mechanic	\$42,480	\$16,992	\$59,472
Mechanical Helper	\$38,000	\$15,200	\$53,200
Electrician	\$42,480	\$16,992	\$59,472
Electrician Helper	\$38,000	\$15,200	\$53,200

Table 21-10: General and Administrative Labor Costs

Area	Position	Annual Wages	Labor Benefits	
Office	General Manager	\$112,000	\$44,800	
	Accountant & Purchasing & Personnel	\$48,000	\$19,200	
	Clerks	\$28,000	\$11,200	
	Secretaries	\$24,000	\$9,600	
	Community Relations Officer	\$60,000	\$24,000	
	Mine Superintendent	\$88,000	\$35,200	
	Mine Engineer (senior)	\$72,000	\$28,800	
	Mine Geologist (senior)	\$64,000	\$25,600	
	Chief Surveyor	\$64,000	\$25,600	
	Surveyor Assistant	\$32,000	\$12,800	
	Grade Control Technician	\$20,000	\$8,000	
	Other	Safety Officer	\$60,000	\$24,000
		Security, Safety & First Aid	\$30,000	\$12,000

22 ECONOMIC ANALYSIS

The Qualified Person for this section of the Technical Report is Dr. David Stone, P.E.

22.1 INTRODUCTION

The financial evaluation presents the determination of the after-tax Net Present Value (NPV), payback period (time in years to recapture the initial capital investment), and the Internal Rate of Return (IRR) for the project. Monthly cash flow projections were estimated over the life of the mine based on the estimates of capital expenditures and production cost and sales revenue. The sales revenue is based on the production of a gold and silver bullion. The estimates of capital expenditures and site production costs have been developed specifically for this project and have been presented in earlier sections of this report.

The PEA economic model timeline extends the full life of mine including what was previously reported as Phase II. This is because the PEA mine plan has been prepared as an alternative to the Phase II mine plan. As such, the PEA capital is inclusive of the capital costs reported in the Phase II FS.

The base assumptions assume a gold price of US\$1,250/oz and a silver price of US\$20/oz for the life of the project. Consumable prices for process reagents, cement, cyanide and fuel are based on recent Phase II quotes or contracts with local vendors.

22.2 MINE PRODUCTION STATISTICS

Mine production is reported as leach material, low grade leach material and waste from the mining operation. The annual production figures were obtained from the mine plans as reported earlier in this report.

The life of mine leach material and waste quantities and metal grades are presented in Table 22-1.

Table 22-1: Life of Mine Leach Material, Waste and Metal Grades

	K Tonnes	g Au/t	k Ozs Au	g Ag/t	k Ozs Ag
≥0.25 g Au/t	15,624	0.74	371	8.79	4,418
≥0.20 g Au/t and <0.25 g Au/t	1,459	0.23	11	3.83	158
Total PEA Leach Material	17,083	0.70	382	8.33	4,576
Waste	31,601				
Total PEA Tonnage	48,684				
Strip Ratio	1.85				

As required by NI 43-101, the author cautions the reader that the PEA is preliminary in nature, that it includes Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized.

22.3 PLANT PRODUCTION STATISTICS

Leach material will be processed with crushing, agglomeration and stacking onto a conventional heap leach pad. Gold and silver will be recovered using a Merrill Crowe process to produce a doré bar. The estimated metal recoveries are presented in Table 22-2.

Table 22-2: Metal Recovery Factors and Production

	%	Recovered Metal (kcozs)
Gold	82.0%	313.16
Silver	65.0%	2,974.73

22.4 MARKETING TERMS

Doré bars will be produced and sent to a precious metal refinery. The refining charges are negotiable at the time of the agreement. The refining terms and transportation charges used in the analysis are shown below.

Table 22-3: Marketing Terms

Payable - Au %	99.9%
Payable - Ag %	99.5%
Refinery Charge - \$/oz	\$0.70
Freight/Insurance - \$/oz	\$1,500

22.5 CAPITAL EXPENDITURES

22.5.1 Capital Cost

The financial model assumes 100% equity financing of the required capital with no debt. The initial capital for Phase II construction is shown in Table 22-4. The Phase III capital expenditures start in month 30 of the cashflow model.

Table 22-4: Capital Costs (\$000)

CAPITAL COSTS	\$US (millions)
Phase II Committed Costs	
Feasibility costs	33.0
Capital Improvements	4.5
Phase III Expansion Costs	
Permits	2.0
Infrastructure	17.9
Contingency	4.2
TOTAL	61.6

The capital estimate includes \$33 million for construction of the Phase II facilities per the FS, and an additional \$4.5 million in committed costs for improvements in the Phase II FS designs. These costs include concrete foundations for a permanent crusher installation, installation of overhead power distribution at the mine site, and equipment upgrades. The estimate in Table 22-4 includes direct and indirect costs, including EPCM costs, well as a 25% contingency on Phase III expansion direct costs. The estimate does not include the cost of delivering utility power to the mine site.

22.5.2 Mine Sustaining Capital

An allowance for mine sustaining capital expenditures during the production period has been included in the financial analysis. The sustaining capital contained in the financial model is estimated at \$0.4 million primarily for pit dewatering.

22.5.3 Working Capital

A 19-day delay of receipt of revenue from sales is used for accounts receivables. A delay of payment for accounts payable of 15 days is also incorporated into the financial model. Supply inventory was based on 1% of the cost of capital equipment which is estimated at \$137,000. All the working capital is recaptured at the end of the mine life and the final value of these accounts is \$0.

22.5.4 Salvage Value

An allowance for salvage value has been included in the cash flow analysis which was based on 20% of the capital cost of equipment and is estimated at \$2.7 million.

22.6 REVENUE

Monthly revenue was determined by applying estimated metal prices to the monthly payable metal estimated for each month. Sales prices have been applied to all life of mine production without escalation or hedging. The revenue is the gross value of payable metals sold before treatment and transportation charges. Metal sales prices used in the evaluation are as shown in Table 22-5.

Table 22-5: Metal Prices

Gold (\$/oz.)	\$1,250.00
Silver (\$/oz.)	\$20.00

22.7 OPERATING COSTS

Operating costs were assumed to be the same as the Phase II FS costs except where more recent data was available. The mining costs were derived from the mining contract with N.A. Degerstrom which closely mirrors the costs in the Phase II FS. Process and general/administrative (G&A) operating costs were likewise matched to the Phase II FS numbers except for the cost of electric power (\$0.065 based on bulk industrial rates from Mohave Electric) and updated reagent costs.

22.8 OTHER CASH COSTS

Other cash costs include a royalty payment, reclamation/closure cost and salvage value at the end of the mine life:

- Royalty payments are included for several royalties; the estimated royalty payments for the life of the mine are \$26.957.4 million.
- Reclamation and closure costs are estimated to be \$2.0 million.
- Salvage value at the end of the mine life was estimated at 20% of the cost of capital equipment which are \$2.7 million.

22.9 TAXATION

22.9.1 Income Taxes

Taxable income for income tax purposes is defined as metal revenues minus operating expenses, royalty, property and severance taxes, reclamation and closure expense, depreciation and depletion. Income tax rates for state and federal are as follows:

- State rate 6.5%
- Federal rate 34.2%

Income taxes were calculated on the taxable income described above using the federal and state rates.

22.9.2 Depreciation

Depreciation is calculated using the units of production method starting with first year of production.

22.9.3 Depletion

The percentage depletion method was used in the evaluation. It is determined as a percentage of gross income from the property, not to exceed 50% of taxable income before the depletion deduction. The gross income from the property is defined as metal revenues minus downstream costs from the mining property (smelting, refining and transportation). Taxable income is defined as gross income minus operating expenses, overhead expenses, and depreciation and state taxes.

Also included in the analysis was the Arizona severance tax which is based on the 50% of the net gross revenue times a rate of 2.5%. It is estimated that \$2.52 million will be paid for the Arizona severance tax.

22.10 PROJECT FINANCIAL INDICATORS

The economic analysis was carried out using standard discounted cash flow modelling techniques. The production and cost estimates were estimated on a monthly basis for all pre-production costs and for the first twelve months of production. Quarterly estimates were used for the remaining forty-eight months of production.

Applicable royalties were applied along with current Federal and Arizona State taxes and incorporated into the cash flow model and the “unit of production” depreciation method was used to calculate net taxable income. The economic analysis was carried out on a 100% project basis. Given the location and relatively uncomplicated nature of the project, the Base Case uses a 5% discount factor in arriving at the project Net Present Value (“NPV”). Standard payback calculation methodology was also utilized.

The project generates a Before-Tax cashflow of \$172 million (\$125 million After-Tax) over 10 years or roughly \$17 million in free cashflow per year. The project financial indicators are shown in Table 22-7 below.

Table 22-6: Project Financial Indicators

	Pre-Tax	After-Tax
NPV @ 0%	\$172,600	\$124,988
NPV @ 5%	\$132,569	\$92,980
NPV @ 10%	\$103,647	\$69,998
IRR %	73.1%	52.5%
Payback (yrs)	1.8	2.2

22.11 SENSITIVITY ANALYSIS

Table 22-8, Table 22-9 and Table 22-9 illustrate the Base Case project economics and the sensitivity of the project to changes in the base case metal prices, operating costs and capital costs. As is typical with precious metal projects, the Moss project is most sensitive to metal prices, followed by operating costs, and initial capital costs. The NPV in these tables is in thousands.

Table 22-7: Metal Price Sensitivity Analysis

	Gold Price (\$/oz)	Silver Price (\$/oz)	NPV @ 0%	NPV @ 5%	NPV @ 10%	IRR	Payback (yrs)
Base Case	\$1,250	\$20	\$124,988	\$92,980	\$69,998	52.5%	2.2
+20%	\$1,500	\$24	\$187,581	\$143,336	\$111,555	75.1%	1.8
+10%	\$1,375	\$22	\$156,780	\$118,565	\$91,117	64.1%	2.0
0%	\$1,250	\$20	\$124,988	\$92,980	\$69,998	52.5%	2.2
-10%	\$1,125	\$18	\$92,677	\$66,901	\$48,425	40.3%	2.5
-20%	\$1,000	\$16	\$56,364	\$37,007	\$23,300	24.8%	3.5

Table 22-8: Operating Cost Sensitivity Analysis

	NPV @ 0%	NPV @ 5%	NPV @ 10%	IRR	Payback (yrs)
Base Case	\$124,988	\$92,980	\$69,998	52.5%	2.2
+20%	\$97,596	\$71,177	\$52,204	43.0%	2.4
+10%	\$111,508	\$82,309	\$61,329	48.0%	2.3
0%	\$124,988	\$92,980	\$69,998	52.5%	2.2
-10%	\$138,161	\$103,374	\$78,422	56.9%	2.1
-20%	\$150,788	\$113,323	\$86,476	61.0%	2.0

Table 22-9: Capital Cost Sensitivity Analysis

	NPV @ 0%	NPV @ 5%	NPV @ 10%	IRR	Payback (yrs)
Base Case	\$124,988	\$92,980	\$69,998	52.5%	2.2
+20%	\$121,674	\$89,827	\$67,028	49.9%	2.2
+10%	\$123,336	\$91,407	\$68,516	51.2%	2.2
0%	\$124,988	\$92,980	\$69,998	52.5%	2.2
-10%	\$126,637	\$94,550	\$71,477	53.9%	2.2
-20%	\$128,276	\$96,112	\$72,951	55.3%	2.2

22.12 FINANCIAL MODEL

A detailed financial model is shown in Table 22-11.

Table 22-10: Financial Model

NORTHERN VERTEX - MOSS GOLD HEAP LEACH PROJECT
PHASE III PEA FINANCIAL MODEL

	Total	-6	-5	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Mining Operations																									
Mineralized Material																									
Beginning Inventory (kt)	14,107	14,107	14,107	14,107	14,107	14,107	14,107	14,107	14,100	14,082	14,021	13,949	13,795	13,637	13,486	13,322	13,171	13,031	12,872	12,709	12,546	12,417	12,338	12,179	12,016
Mined (kt)	14,107	-	-	-	-	-	-	7	18	61	73	154	158	151	163	151	140	158	163	129	79	138	163	163	163
Ending Inventory (kt)	-	14,107	14,107	14,107	14,107	14,107	14,107	14,100	14,082	14,021	13,949	13,795	13,637	13,486	13,322	13,171	13,031	12,872	12,709	12,546	12,417	12,338	12,179	12,016	12,016
Gold Grade (g/t)	0.752	-	-	-	-	-	-	1.86	1.63	1.65	1.27	1.03	0.89	0.85	1.00	0.87	0.94	0.94	0.84	0.84	0.75	0.80	0.80	1.24	1.24
Silver Grade (g/t)	8.891	-	-	-	-	-	-	20.25	15.39	16.88	12.40	9.71	8.81	8.96	10.61	9.92	10.45	11.63	10.97	7.53	7.36	7.36	8.12	12.94	12.94
Combined Gold (kcoz)	341	-	-	-	-	-	-	0	1	3	3	5	5	4	5	4	4	5	5	4	3	2	4	7	7
Combined Silver (kcoz)	4,033	-	-	-	-	-	-	4	9	33	29	48	45	44	56	48	47	59	58	40	30	19	41	68	68
Low Grade Material																									
Beginning Inventory (kt)	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,975	2,975	2,969	2,969	2,969	2,927	2,904	2,904	2,904	2,904	2,895	2,895
Mined (kt)	2,976	-	-	-	-	-	-	-	-	-	-	-	1	-	6	-	43	23	-	-	-	9	47	47	47
Ending Inventory (kt)	-	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,976	2,975	2,975	2,969	2,969	2,969	2,927	2,904	2,904	2,904	2,904	2,895	2,895	2,895
Gold Grade (g/t)	0.428	-	-	-	-	-	-	-	-	-	-	-	0.25	-	0.26	-	-	0.31	0.30	-	-	-	0.27	0.34	0.34
Silver Grade (g/t)	5.684	-	-	-	-	-	-	-	-	-	-	-	3.79	-	2.42	-	-	3.65	3.30	-	-	-	2.47	3.96	3.96
Combined Gold (kcoz)	41	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	0	0	-	-	-	0	1	1
Combined Silver (kcoz)	544	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	5	2	-	-	-	1	6	6
Waste																									
Beginning Inventory (kt)	31,601	31,601	31,601	31,601	31,601	31,601	31,601	31,601	31,481	31,384	31,253	31,140	30,922	30,721	30,500	30,173	29,844	29,488	29,209	28,899	28,458	28,041	27,516	27,098	27,098
Mined (kt)	31,601	-	-	-	-	-	-	120	97	131	113	218	201	221	327	329	356	279	310	441	417	525	418	394	394
Ending Inventory (kt)	-	31,601	31,601	31,601	31,601	31,601	31,601	31,481	31,384	31,253	31,140	30,922	30,721	30,500	30,173	29,844	29,488	29,209	28,899	28,458	28,041	27,516	27,098	26,704	26,704
Total Material Mined (kt)	48,684	-	-	-	-	-	-	127	115	192	186	372	360	372	496	480	496	480	486	604	546	604	585	604	604
Process Plant Operations																									
Beginning Leach Inventory (kt)	17,083	17,083	17,083	17,083	17,083	17,083	17,083	17,083	17,076	17,058	16,997	16,924	16,771	16,612	16,460	16,297	16,140	16,000	15,842	15,678	15,515	15,367	15,242	15,083	15,083
Leach - Processed (kt)	17,083	-	-	-	-	-	-	7	18	61	73	154	158	152	163	157	140	158	163	163	148	126	138	163	163
Ending Ore Inventory	-	17,083	17,083	17,083	17,083	17,083	17,083	17,076	17,058	16,997	16,924	16,771	16,612	16,460	16,297	16,140	16,000	15,842	15,678	15,515	15,367	15,242	15,083	14,920	14,920
Gold Grade (g/t)	0.695	-	-	-	-	-	-	1.86	1.63	1.65	1.27	1.03	0.89	0.84	1.00	0.85	0.94	0.94	0.84	0.84	0.78	0.57	0.80	1.24	1.24
Silver Grade (g/t)	8.333	-	-	-	-	-	-	20.25	15.39	16.88	12.40	9.71	8.81	8.92	10.61	9.65	10.45	11.63	10.97	7.54	7.00	5.78	8.12	12.94	12.94
Combined Gold (kcoz)	381.901	-	-	-	-	-	-	0.41	0.94	3.24	2.98	5.09	4.52	4.12	5.25	4.30	4.23	4.76	4.96	4.42	3.71	2.30	4.05	6.51	6.51
Combined Silver (kcoz)	4,577	-	-	-	-	-	-	4	9	33	29	48	45	44	56	49	47	59	58	40	33	23	41	68	68
Recovery Gold (%)	455.125	-	-	-	-	-	-	0.484	1.087	3.766	3.446	5.858	5.235	4.822	6.142	5.073	4.981	5.708	5.885	5.049	4.245	2.673	4.713	7.603	7.603
Recovery Silver (%)	82.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recovered Gold (kcoz)	313.119	-	-	-	-	-	-	0	0	1	1	2	2	3	3	3	3	3	4	4	4	3	3	3	3
Recovered Silver (kcoz)	2,974.727	-	-	-	-	-	-	0	1	4	8	13	15	21	20	24	26	29	31	34	30	27	28	27	27
Payable Metals	360.755	-	-	-	-	-	-	0	1	4	8	13	15	20	20	24	25	29	31	33	30	27	28	27	27
Payable Gold (kcoz)	313	-	-	-	-	-	-	0	0	1	1	2	2	3	3	3	3	3	4	4	4	3	3	3	3
Payable Silver (kcoz)	2,960	-	-	-	-	-	-	0	1	4	8	13	15	20	20	24	25	29	31	33	30	27	28	27	27
Income Statement (\$000)																									
Metal Prices																									
Gold (\$/oz)	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
Silver (\$/oz)	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
Revenues																									
Gold Revenues (\$ 000)	\$22,900	\$391,155	\$0	\$0	\$0	\$0	\$0	\$52	\$195	\$684	\$1,215	\$2,085	\$2,452	\$3,280	\$3,153	\$3,676	\$3,795	\$4,133	\$4,399	\$4,864	\$4,560	\$4,119	\$4,233	\$4,156	\$4,156
Silver Revenues (\$ 000)	\$3,470	\$9,197	\$0	\$0	\$0	\$0	\$0	\$7	\$25	\$87	\$152	\$260	\$298	\$409	\$405	\$482	\$508	\$578	\$617	\$667	\$596	\$534	\$556	\$540	\$540
Total Revenues	\$26,370	\$400,352	\$0	\$0	\$0	\$0	\$0	\$59	\$220	\$772	\$1,367	\$2,345	\$2,750	\$3,689	\$3,558	\$4,158	\$4,303	\$4,710	\$5,015	\$5,331	\$5,156	\$4,654	\$4,789	\$4,696	\$4,696
Operating Cost																									
Mining	\$5,310	\$90,690	\$0	\$0	\$0	\$0	\$0	\$276	\$253	\$381	\$368	\$679	\$637	\$679	\$892	\$867	\$897	\$859	\$889	\$800	\$722	\$775	\$778	\$814	\$814
Process Plant	\$4,930	\$84,244	\$0	\$0	\$0	\$0	\$0	\$462	\$462	\$462	\$462	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738
General Administration	\$0,780	\$13,336	\$0	\$0	\$0	\$0	\$0	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112
Treatment & Refining Charges																									
Dues																									
Treatment Charge	\$0,050	\$822	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1	\$2	\$4	\$4	\$6	\$6	\$7	\$7	\$8	\$9	\$9	\$8	\$8	\$8	\$8	\$8
Refinery Charge	\$0,010	\$156	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1	\$1	\$1	\$1	\$1	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2
Freight/Insurance	\$0,050	\$774	\$0	\$0	\$0	\$0	\$0	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7
Total Operating Cost	\$11,120	\$199,021	\$0	\$0	\$0	\$0	\$0	\$577	\$834	\$963	\$951	\$1,540	\$1,519	\$1,543	\$1,756	\$1,752	\$1,762	\$1,725	\$1,756	\$1,688	\$1,589	\$1,640	\$1,645	\$1,680	\$1,680
Royalty	\$1,158	\$26,951	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$62	\$0	\$0	\$386	\$0	\$0	\$683	\$0	\$0	\$840	\$0	\$0	\$919	\$0	\$0
Salvage Value	-\$0,160	-\$2,736	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reclamation & Closure	\$0,120	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Production Cost	\$12,060	\$226,237	\$0	\$0	\$0	\$0	\$0	\$577	\$834	\$963	\$1,013	\$1,540	\$1,519	\$1,529	\$1,756	\$1,752	\$1,762	\$1,725	\$1,756	\$1,688	\$1,589	\$1,640	\$1,645	\$1,680	\$1,680
Operating Income	\$13,700	\$234,115	\$0	\$0	\$0	\$0	\$0	-\$799	-\$614	-\$192	\$354	\$805	\$1,231	\$1,760	\$1,803	\$2,426									

MOSS GOLD-SILVER PROJECT
FORM 43-101F1 TECHNICAL REPORT

NORTHERN VERTEX - MOSS GOLD HEAP LEACH PROJECT
PHASE III PEA FINANCIAL MODEL

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Mining Operations																								
Mineralized Material																								
Beginning Inventory (kt)	12,016	11,838	11,694	11,531	11,429	11,318	11,221	11,107	10,992	10,853	10,690	10,531	10,368	10,210	10,125	10,061	9,968	9,848	9,689	9,526	9,366	9,218	9,055	8,897
Mined (kt)	158	163	163	102	111	97	114	115	139	163	158	163	158	85	64	93	121	158	163	160	148	163	158	163
Ending Inventory (kt)	11,858	11,694	11,531	11,429	11,318	11,221	11,107	10,992	10,853	10,690	10,531	10,368	10,210	10,125	10,061	9,968	9,848	9,689	9,526	9,366	9,218	9,055	8,897	8,733
Gold Grade (g/t)	1.17	1.14	0.91	0.86	0.67	0.73	0.75	0.77	1.20	0.95	1.33	1.40	1.27	1.00	0.87	1.08	0.88	1.19	1.22	1.42	0.98	1.32	1.25	1.27
Silver Grade (g/t)	11.49	12.14	9.08	8.62	7.15	8.45	8.89	8.93	12.61	11.21	14.05	15.61	15.61	13.92	11.29	13.66	11.33	14.11	13.27	15.46	11.17	15.06	14.65	15.14
Continued Gold (kcoz)	6	6	5	3	2	2	3	3	5	5	7	7	6	3	2	3	3	6	6	7	5	7	6	7
Continued Silver (kcoz)	58	64	48	28	25	26	32	33	56	59	71	82	79	38	23	41	44	72	70	80	53	79	75	80
Low Grade Material																								
Beginning Inventory (kt)	2,848	2,762	2,661	2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,584	2,497	2,439	2,346	2,346	2,346	2,346	2,346	2,260	2,180	2,180	2,180	2,156	2,135
Mined (kt)	85	101	11	-	-	-	-	-	-	66	87	58	93	-	-	-	-	86	80	-	-	25	21	74
Ending Inventory (kt)	2,762	2,661	2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,584	2,497	2,439	2,346	2,346	2,346	2,346	2,346	2,260	2,180	2,180	2,180	2,156	2,135	2,061
Gold Grade (g/t)	0.42	0.36	0.26	-	-	-	-	-	-	0.36	0.72	0.39	1.18	-	-	-	-	0.94	0.83	-	-	0.39	0.38	0.92
Silver Grade (g/t)	5.75	4.20	3.23	-	-	-	-	-	-	4.32	8.68	5.00	14.72	-	-	-	-	10.44	9.63	-	-	5.81	5.12	10.96
Continued Gold (kcoz)	1	1	0	-	-	-	-	-	-	1	2	1	4	-	-	-	-	3	2	-	-	0	0	2
Continued Silver (kcoz)	16	14	1	-	-	-	-	-	-	9	24	9	44	-	-	-	-	29	25	-	-	5	3	26
Waste																								
Beginning Inventory (kt)	26,704	26,363	26,038	25,624	25,156	24,677	24,205	23,730	23,240	22,814	22,439	22,099	21,716	21,382	20,908	20,414	19,967	19,530	19,234	18,920	18,801	18,696	18,605	18,514
Mined (kt)	342	324	415	468	478	473	475	489	426	468	340	383	334	473	494	447	437	296	315	119	104	91	91	41
Ending Inventory (kt)	26,363	26,038	25,624	25,156	24,677	24,205	23,730	23,240	22,814	22,439	22,099	21,716	21,382	20,908	20,414	19,967	19,530	19,234	18,920	18,801	18,696	18,605	18,514	18,473
Total Material Mined (kt)	585	589	589	570	589	570	589	604	565	604	585	604	585	558	558	540	558	540	558	279	252	279	270	279
Process Plant Operations:																								
Beginning Leach Inventory (kt)	14,920	14,762	14,598	14,435	14,276	14,113	13,955	13,791	13,642	13,503	13,340	13,181	13,018	12,860	12,696	12,533	12,374	12,211	12,053	11,889	11,726	11,578	11,415	11,256
Leach - Processed (kt)	158	163	163	158	163	158	163	149	139	163	158	163	158	85	64	93	121	158	163	160	148	163	158	163
Ending Ore Inventory	14,762	14,598	14,435	14,276	14,113	13,955	13,791	13,642	13,503	13,340	13,181	13,018	12,860	12,696	12,533	12,374	12,211	12,053	11,889	11,726	11,578	11,415	11,256	11,093
Gold Grade (g/t)	1.17	1.14	0.91	0.77	0.58	0.56	0.60	0.64	1.20	0.95	1.33	1.40	1.27	1.00	0.87	0.77	0.72	1.19	1.22	1.42	0.98	1.32	1.25	1.27
Silver Grade (g/t)	11.49	12.14	9.08	8.31	6.48	6.50	7.13	7.54	12.61	11.21	14.05	15.61	15.61	16.13	8.70	9.88	9.46	14.11	13.27	15.47	11.17	15.06	14.65	15.14
Continued Gold (kcoz)	5.94	5.99	4.76	3.89	3.07	2.86	3.15	3.08	5.35	5.01	6.74	7.37	6.45	6.73	3.63	3.90	3.79	6.04	6.43	7.46	4.65	6.94	6.36	6.66
Continued Silver (kcoz)	58	64	48	42	34	33	37	36	56	59	71	82	79	38	23	41	44	72	70	81	53	79	75	80
Recovery Gold (%)	6.879	7.011	5.525	4.569	3.616	3.386	3.749	3.657	6.254	5.949	7.886	8.684	7.718	8.090	4.364	4.699	4.588	7.186	7.544	8.759	5.494	8.208	7.551	7.936
Recovery Silver (%)																								
Recovered Gold (kcoz)	4	4	4	4	4	3	3	3	3	4	4	4	4	5	5	4	4	4	4	5	5	5	4	5
Recovered Silver (kcoz)	31	36	35	34	28	25	25	29	29	32	34	36	40	42	42	39	37	40	40	46	44	49	40	46
Payable Metals:																								
Payable Gold (kcoz)	4	4	4	4	4	3	3	3	3	4	4	4	4	5	5	4	4	4	4	5	5	5	4	5
Payable Silver (kcoz)	31	35	35	34	28	25	25	29	29	32	34	36	40	42	41	39	36	40	39	46	44	48	40	46
Income Statement (\$000)																								
Metal Prices:																								
Gold (\$/oz)	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
Silver (\$/oz)	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
Revenues:																								
Gold Revenues (\$ 000)	\$4,826	\$5,197	\$5,313	\$5,335	\$4,464	\$3,705	\$3,710	\$4,175	\$4,205	\$4,539	\$4,995	\$5,071	\$5,746	\$5,640	\$5,499	\$5,130	\$4,803	\$5,096	\$5,376	\$6,356	\$6,032	\$6,573	\$5,492	\$6,270
Silver Revenues (\$ 000)	\$624	\$708	\$706	\$684	\$562	\$504	\$502	\$582	\$572	\$635	\$683	\$715	\$800	\$838	\$828	\$781	\$729	\$799	\$789	\$919	\$885	\$969	\$800	\$923
Total Revenues	\$5,449	\$5,906	\$6,019	\$6,018	\$5,026	\$4,209	\$4,212	\$4,757	\$4,777	\$5,175	\$5,678	\$5,786	\$6,545	\$6,478	\$6,327	\$5,911	\$5,532	\$5,895	\$6,165	\$7,275	\$6,917	\$7,542	\$6,292	\$7,193
Operating Cost																								
Mining	\$801	\$812	\$785	\$742	\$766	\$740	\$767	\$820	\$781	\$857	\$838	\$854	\$840	\$755	\$748	\$736	\$766	\$784	\$805	\$1,060	\$952	\$952	\$935	\$761
Process Plant	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738
General Administration	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112
Treatment & Refining Charge																								
Down																								
Treatment Charge	\$9	\$10	\$10	\$10	\$8	\$7	\$7	\$8	\$8	\$9	\$10	\$10	\$11	\$12	\$11	\$11	\$10	\$11	\$11	\$13	\$12	\$13	\$11	\$13
Refinery Charge	\$2	\$2	\$2	\$2	\$2	\$1	\$1	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$3	\$2	\$3	\$2	\$3
Freight/Insurance	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7
Total Operating Cost	1,668	1,681	1,654	1,610	1,632	1,606	1,632	1,687	1,647	1,724	1,707	1,723	1,711	1,625	1,618	1,605	1,635	1,654	1,675	1,932	1,823	1,823	1,805	1,633
Royalty	\$0	\$894	\$0	\$0	\$1,075	\$0	\$0	\$805	\$0	\$0	\$881	\$0	\$0	\$1,079	\$0	\$0	\$1,121	\$0	\$0	\$1,053	\$0	\$0	\$1,302	\$0
Salvage Value	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reclamation & Closure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Production Cost	\$1,668	\$2,575	\$1,654	\$1,610	\$2,707	\$1,606	\$1,632	\$2,492	\$1,647	\$1,724	\$2,387	\$1,723	\$1,711	\$2,704	\$1,618	\$1,605	\$2,756	\$1,654	\$1,675	\$2,986	\$1,823	\$1,823	\$1,805	\$1,633
Operating Income	\$3,781	\$3,331	\$4,365	\$4,408	\$2,319	\$2,604	\$2,580	\$2,265	\$3,130	\$3,450	\$3,090													

Moss Gold-Silver Project
Form 43-101F1 Technical Report

NORTHERN VERTEX - MOSS GOLD HEAP LEACH PROJECT
PHASE III PEA FINANCIAL MODEL

	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
Mining Operations																								
Mineralized Material																								
Beginning Inventory (kt)	8,733	8,575	8,447	8,283	8,125	7,990	7,868	7,712	7,548	7,427	7,345	7,238	7,116	6,981	6,818	6,654	6,540	6,438	6,331	6,221	6,057	5,910	5,784	5,626
Mined (kt)	158	128	163	158	135	122	156	163	121	83	106	122	135	163	163	114	102	107	110	163	148	126	158	119
Ending Inventory (kt)	8,575	8,447	8,283	8,125	7,990	7,868	7,712	7,548	7,427	7,345	7,238	7,116	6,981	6,818	6,654	6,540	6,438	6,331	6,221	6,057	5,910	5,784	5,626	5,507
Gold Grade (g/t)	0.96	0.62	0.46	0.51	0.54	0.50	0.57	0.64	0.53	0.41	0.38	0.40	0.40	0.43	0.34	0.40	0.41	0.46	0.51	0.57	0.62	0.49	0.52	0.46
Silver Grade (g/t)	12.14	7.01	6.50	7.30	4.92	2.62	5.01	7.05	7.00	5.17	4.34	4.67	4.83	6.92	3.56	4.95	4.32	5.11	5.07	6.18	6.50	5.53	5.79	4.62
Commined Gold (ktons)	5	3	2	3	2	2	3	3	2	1	1	2	2	2	2	1	1	2	2	3	3	2	3	2
Commined Silver (ktons)	62	29	34	37	21	10	25	37	27	14	15	18	21	36	19	18	14	18	18	33	31	22	29	18
Low Grade Material																								
Beginning Inventory (kt)	2,061	2,020	2,005	1,978	1,957	1,953	1,951	1,935	1,899	1,883	1,871	1,854	1,836	1,826	1,803	1,774	1,773	1,772	1,766	1,760	1,747	1,703	1,702	1,670
Mined (kt)	41	15	27	21	3	3	15	36	17	12	17	17	10	24	29	0	2	6	6	13	44	1	31	11
Ending Inventory (kt)	2,020	2,005	1,978	1,957	1,953	1,951	1,935	1,899	1,883	1,871	1,854	1,836	1,826	1,803	1,774	1,773	1,772	1,766	1,760	1,747	1,703	1,702	1,670	1,659
Gold Grade (g/t)	0.93	0.23	0.28	0.30	0.23	0.23	0.23	0.26	0.23	0.23	0.23	0.23	0.23	0.28	0.35	0.20	0.22	0.22	0.23	0.24	0.28	0.23	0.28	0.23
Silver Grade (g/t)	12.44	3.21	4.88	4.64	2.92	2.20	3.01	3.20	3.47	3.66	3.39	3.93	4.10	4.73	3.55	2.07	2.87	2.30	2.53	2.42	2.82	3.85	3.10	3.07
Commined Gold (ktons)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commined Silver (ktons)	16	2	4	3	0	0	1	4	2	1	2	2	1	4	3	0	0	0	0	1	4	0	3	1
Waste																								
Beginning Inventory(kt)	18,473	18,402	18,334	18,314	18,290	18,217	18,138	18,099	18,075	18,011	17,882	17,790	17,706	17,635	17,574	17,519	17,393	17,248	17,122	16,990	16,794	16,650	16,405	16,234
Mined (kt)	71	68	20	25	73	79	39	24	64	129	92	84	71	61	55	126	145	127	132	196	144	245	171	242
Ending Inventory (kt)	18,402	18,334	18,314	18,290	18,217	18,138	18,099	18,075	18,011	17,882	17,790	17,706	17,635	17,574	17,519	17,393	17,248	17,122	16,990	16,794	16,650	16,405	16,234	15,992
Total Material Mined (kt)	270	211	211	204	211	204	211	223	202	223	216	223	216	248	248	240	248	240	248	372	336	372	360	372
Process Plant Operations:																								
Beginning Leach Inventory (kt)	11,093	10,935	10,771	10,608	10,449	10,286	10,128	9,964	9,801	9,633	9,490	9,331	9,168	9,010	8,846	8,683	8,524	8,361	8,203	8,039	7,876	7,728	7,565	7,406
Leach - Processed (kt)	158	163	163	158	163	158	163	163	148	163	158	163	163	163	163	158	163	158	163	163	148	163	158	163
Ending Ore Inventory	10,935	10,771	10,608	10,449	10,286	10,128	9,964	9,801	9,633	9,490	9,331	9,168	9,010	8,846	8,683	8,524	8,361	8,203	8,039	7,876	7,728	7,565	7,406	7,243
Gold Grade (g/t)	0.96	0.81	0.46	0.51	0.70	0.73	0.61	0.64	0.70	0.42	0.36	0.37	0.39	0.43	0.34	0.39	0.34	0.39	0.42	0.57	0.62	0.45	0.52	0.40
Silver Grade (g/t)	12.14	9.11	6.50	7.30	6.96	5.86	5.53	7.05	8.70	5.40	4.53	4.64	4.79	6.92	3.56	4.74	4.08	4.61	4.56	6.18	6.50	5.05	5.79	4.21
Commined Gold (ktons)	4.88	4.24	2.42	2.57	3.69	3.70	3.22	3.37	3.33	2.19	1.86	1.95	1.97	2.24	1.81	1.97	1.80	1.96	2.20	3.02	2.93	2.35	2.66	2.12
Commined Silver (ktons)	62	46	34	37	37	30	29	37	41	28	23	24	24	36	19	24	21	23	24	33	31	27	29	22
Recovery Gold (%)	5.864	5.006	2.966	3.165	4.273	4.177	3.685	3.965	3.988	2.645	2.225	2.338	2.364	2.821	2.112	2.354	2.147	2.334	2.583	3.538	3.420	2.774	3.135	2.478
Recovery Silver (%)																								
Recovered Gold (ktons)	4	5	4	4	3	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Recovered Silver (ktons)	41	46	39	38	29	32	28	29	27	25	21	20	20	18	17	19	18	18	14	16	17	20	17	18
Payable Metals:																								
Payable Gold (ktons)	4	5	4	4	3	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Payable Silver (ktons)	41	46	39	38	29	32	28	29	27	25	21	20	20	18	17	19	17	17	14	16	17	20	16	18
Income Statement (\$000)																								
Metal Prices:																								
Gold (\$/oz)	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
Silver (\$/oz)	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
Revenues:																								
Gold Revenues (\$ 000)	\$5,369	\$6,079	\$5,271	\$5,121	\$3,740	\$4,463	\$4,168	\$4,210	\$3,868	\$3,591	\$2,751	\$2,486	\$2,707	\$2,544	\$2,354	\$2,418	\$2,314	\$2,096	\$1,942	\$2,183	\$2,359	\$2,574	\$2,419	\$2,471
Silver Revenues (\$ 000)	\$819	\$910	\$782	\$761	\$585	\$634	\$566	\$579	\$542	\$494	\$420	\$399	\$394	\$363	\$347	\$382	\$348	\$350	\$285	\$324	\$336	\$397	\$329	\$350
Total Revenues:	\$6,188	\$6,989	\$6,053	\$5,883	\$4,325	\$5,098	\$4,733	\$4,789	\$4,409	\$4,085	\$3,172	\$2,886	\$3,102	\$2,907	\$2,701	\$2,800	\$2,663	\$2,446	\$2,228	\$2,508	\$2,695	\$2,972	\$2,748	\$2,821
Operating Cost																								
Mining	\$857	\$731	\$545	\$549	\$748	\$761	\$619	\$800	\$671	\$660	\$683	\$720	\$712	\$837	\$844	\$722	\$725	\$721	\$742	\$720	\$667	\$702	\$705	\$703
Process Plant	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738
General Administration	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112
Treatment & Refining Charges																								
Dore																								
Treatment Charge	\$11	\$13	\$11	\$11	\$8	\$9	\$8	\$8	\$8	\$7	\$6	\$6	\$5	\$5	\$5	\$5	\$5	\$5	\$4	\$5	\$5	\$6	\$5	\$5
Refinery Charge	\$2	\$2	\$2	\$2	\$1	\$2	\$2	\$2	\$2	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
Freight/Insurance	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7
Total Operating Cost	1,727	1,602	1,415	1,419	1,614	1,628	1,485	1,666	1,337	1,325	1,347	1,383	1,375	1,700	1,707	1,385	1,387	1,383	1,603	1,382	1,529	1,383	1,367	1,363
Royalty	\$0	\$1,178	\$0	\$0	\$1,133	\$0	\$0	\$847	\$0	\$0	\$795	\$0	\$0	\$548	\$0	\$0	\$503	\$0	\$0	\$439	\$0	\$0	\$489	\$0
Salvage Value	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reclamation & Closure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Production Cost	\$1,727	\$2,781	\$1,415	\$1,419	\$2,748	\$1,628	\$1,485	\$2,314	\$1,337	\$1,325	\$2,342	\$1,383	\$1,375	\$2,248	\$1,707	\$1,385	\$2,090	\$1,383	\$1,603	\$2,020	\$1,329	\$1,363	\$2,036	\$1,363
Operating Income	\$4,461	\$4,208	\$4,638	\$4,464	\$1,577	\$3,470	\$3,248	\$2,276	\$2,872	\$2,560	\$830	\$1,302	\$1,5											

Moss Gold-Silver Project
Form 43-101F1 Technical Report

NORTHERN VERTEX - MOSS GOLD HEAP LEACH PROJECT
PHASE III PEA FINANCIAL MODEL

	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	
Mining Operations																												
Mineralized Material																												
Beginning Inventory (kt)	5,507	5,349	5,185	5,098	4,940	4,776	4,682	4,623	4,460	4,307	4,202	4,159	4,028	3,870	3,706	3,614	3,505	3,341	3,183	3,032	2,940	2,793	2,629	2,471	2,346	2,188	2,024	
Mined (kt)	158	163	87	158	163	95	58	163	153	105	43	131	158	163	93	109	163	158	151	92	148	163	158	125	158	163	163	
Ending Inventory (kt)	5,349	5,185	5,098	4,940	4,776	4,682	4,623	4,460	4,307	4,202	4,159	4,028	3,870	3,706	3,614	3,505	3,341	3,183	3,032	2,940	2,793	2,629	2,471	2,346	2,188	2,024	1,861	
Gold Grade (g/t)	0.47	0.50	0.47	0.46	0.44	0.43	0.47	0.46	0.42	0.41	0.38	0.47	0.46	0.40	0.39	0.46	0.49	0.51	0.46	0.52	0.51	0.50	0.49	0.48	0.50	0.44	0.45	
Silver Grade (g/t)	5.13	4.52	4.77	5.15	4.85	4.98	5.82	5.33	4.80	4.88	3.38	6.01	6.10	5.38	5.22	5.43	6.74	9.70	8.21	4.27	6.34	8.08	9.84	8.36	6.84	7.18	8.75	
Continued Gold (ktons)	2	3	1	2	2	1	1	2	2	1	1	2	2	2	1	2	3	3	2	2	2	3	3	2	3	2	2	
Continued Silver (ktons)	26	24	13	26	26	15	11	28	24	16	5	25	31	28	16	19	35	49	40	13	30	42	50	34	35	38	46	
Low Grade Material																												
Beginning Inventory (kt)	1,659	1,642	1,579	1,573	1,538	1,475	1,454	1,450	1,412	1,366	1,331	1,318	1,306	1,228	1,195	1,172	1,160	1,054	949	926	918	850	764	710	694	622	597	
Mined (kt)	17	63	6	35	64	21	4	39	45	35	13	12	78	33	23	12	105	105	23	7	69	85	54	16	71	25	19	
Ending Inventory (kt)	1,642	1,579	1,573	1,538	1,475	1,454	1,450	1,412	1,366	1,331	1,318	1,306	1,228	1,195	1,172	1,160	1,054	949	926	918	850	764	710	694	622	597	579	
Gold Grade (g/t)	0.24	0.29	0.23	0.27	0.27	0.22	0.23	0.29	0.24	0.22	0.22	0.23	0.29	0.24	0.23	0.23	0.32	0.31	0.23	0.23	0.31	0.32	0.28	0.23	0.30	0.29	0.30	
Silver Grade (g/t)	3.64	3.51	2.72	3.76	3.24	4.10	4.33	4.14	3.58	4.29	5.67	4.01	4.27	4.00	3.27	3.53	4.76	4.41	3.36	3.63	4.50	4.23	3.62	3.51	4.28	4.80	3.76	
Continued Gold (ktons)	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	1	0	0	
Continued Silver (ktons)	2	7	1	4	7	3	1	5	5	5	2	2	11	4	2	1	16	15	3	1	10	12	6	2	10	4	2	
Waste																												
Beginning Inventory (kt)	15,992	15,808	15,662	15,383	15,216	15,071	14,826	14,517	14,099	13,717	13,237	12,693	12,216	11,853	11,429	10,925	10,446	10,095	9,758	9,313	8,884	8,625	8,347	8,050	7,664	7,383	7,169	
Mined (kt)	184	146	279	167	145	245	310	418	382	480	544	477	364	423	504	479	351	337	445	428	259	278	297	386	280	215	221	
Ending Inventory (kt)	15,808	15,662	15,383	15,216	15,071	14,826	14,517	14,099	13,717	13,237	12,693	12,216	11,853	11,429	10,925	10,446	10,095	9,758	9,313	8,884	8,625	8,347	8,050	7,664	7,383	7,169	6,948	
Total Material Mined (kt)	360	372	372	360	372	360	372	620	580	620	600	620	600	620	620	600	620	600	620	527	476	527	510	527	510	403	403	
Process Plant Operations																												
Beginning Leach Inventory (kt)	7,243	7,085	6,921	6,758	6,599	6,436	6,278	6,114	5,951	5,798	5,634	5,477	5,334	5,176	5,012	4,849	4,691	4,527	4,369	4,205	4,042	3,894	3,731	3,572	3,409	3,251	3,087	
Leach - Processed (kt)	158	163	163	158	163	158	163	163	153	163	157	143	158	163	163	158	163	158	163	148	163	158	163	158	158	163	163	
Ending Ore Inventory	7,085	6,921	6,758	6,599	6,436	6,278	6,114	5,951	5,798	5,634	5,477	5,334	5,176	5,012	4,849	4,691	4,527	4,369	4,205	4,042	3,894	3,731	3,572	3,409	3,251	3,087	2,924	
Gold Grade (g/t)	0.47	0.50	0.38	0.46	0.44	0.38	0.31	0.46	0.42	0.36	0.26	0.45	0.46	0.40	0.35	0.39	0.49	0.51	0.46	0.45	0.51	0.50	0.49	0.48	0.50	0.44	0.45	
Silver Grade (g/t)	5.13	4.52	4.15	5.15	4.85	4.47	4.13	5.33	4.80	4.57	3.72	5.85	6.10	5.38	4.90	4.84	6.74	9.70	8.12	4.68	6.34	8.08	9.84	7.70	6.84	7.18	8.75	
Continued Gold (ktons)	2.41	2.63	2.01	2.36	2.32	1.92	1.65	2.44	2.05	1.91	1.34	2.06	2.32	2.10	1.86	1.98	2.55	2.62	2.44	2.36	2.41	2.64	2.52	2.50	2.55	2.29	2.39	
Continued Silver (ktons)	26	24	22	26	26	23	22	28	24	24	19	27	31	28	26	25	49	43	25	30	42	50	40	50	40	35	46	
Recovery Gold (%)	2.827	3.008	2.364	2.779	2.727	2.281	1.993	2.885	2.427	2.292	1.637	2.493	2.818	2.551	2.267	2.372	3.117	3.409	3.127	2.750	2.888	3.317	3.318	3.147	3.105	2.894	3.125	
Recovery Silver (%)																												
Recovered Gold (ktons)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Recovered Silver (ktons)	17	16	16	17	17	16	16	15	16	16	14	16	16	17	16	18	18	20	21	22	22	22	23	23	25	27	27	
Payable Metals																												
Payable Gold (ktons)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Payable Silver (ktons)	17	16	16	17	17	16	16	15	16	16	14	16	16	17	16	17	18	20	21	22	22	22	23	23	25	27	27	
Income Statement (\$000)																												
Metal Prices																												
Gold (\$/oz)	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	
Silver (\$/oz)	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
Revenue																												
Gold Revenue (\$ 000)	\$2,422	\$2,294	\$2,455	\$2,545	\$2,494	\$2,405	\$2,245	\$2,120	\$2,219	\$2,303	\$1,893	\$2,090	\$2,028	\$2,096	\$1,903	\$2,170	\$2,154	\$2,219	\$2,155	\$2,343	\$2,471	\$2,443	\$2,385	\$2,432	\$2,565	\$2,602	\$2,508	
Silver Revenue (\$ 000)	\$335	\$314	\$327	\$332	\$339	\$327	\$321	\$307	\$323	\$318	\$288	\$320	\$316	\$339	\$325	\$350	\$352	\$390	\$423	\$447	\$433	\$434	\$467	\$460	\$502	\$540	\$540	
Total Revenue	\$2,758	\$2,607	\$2,782	\$2,878	\$2,833	\$2,731	\$2,566	\$2,427	\$2,542	\$2,621	\$2,181	\$2,410	\$2,344	\$2,435	\$2,228	\$2,520	\$2,506	\$2,609	\$2,577	\$2,790	\$2,904	\$2,877	\$2,852	\$2,892	\$3,067	\$3,143	\$3,048	
Operating Cost																												
Mining	\$700	\$737	\$690	\$706	\$738	\$678	\$679	\$1,129	\$1,063	\$1,107	\$1,045	\$1,108	\$1,109	\$1,127	\$1,098	\$1,068	\$1,153	\$1,119	\$1,119	\$942	\$902	\$996	\$955	\$957	\$961	\$774	\$772	
Process Plant	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	
General Administration	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	
Treatment & Refining Charges																												
Dore																												
Treatment Charge	\$5	\$4	\$5	\$5	\$5	\$5	\$4	\$4	\$5	\$4	\$4	\$4	\$4	\$5	\$4	\$5	\$5	\$5	\$6	\$6	\$6	\$6	\$6	\$6	\$7	\$7	\$7	
Refinery Charge	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	
Freight/Insurance	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	
Total Operating Cost	1,562	1,599	1,532	1,568	1,600	1,541	1,541	1,991	1,925	1,989	1,908	1,970	1,971	1,989	1,960													

MOSS GOLD-SILVER PROJECT
FORM 43-101F1 TECHNICAL REPORT

NORTHERN VERTEX - MOSS GOLD HEAP LEACH PROJECT
PHASE III PEA FINANCIAL MODEL

	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
Mining Operations																											
Mineralized Material																											
Beginning Inventory (kt)	1,861	1,715	1,564	1,412	1,345	1,310	1,286	1,200	1,123	959	801	643	480	322	158	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
Mined (kt)	146	151	133	86	35	24	86	77	163	158	158	163	158	163	158	-	-	-	-	-	-	-	-	-	-	-	
Ending Inventory (kt)	1,715	1,564	1,412	1,345	1,310	1,286	1,200	1,123	959	801	643	480	322	158	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
Gold Grade (g/t)	0.53	0.55	0.61	1.12	0.80	0.77	0.74	0.82	1.18	1.33	1.00	0.91	0.75	0.75	1.02	-	-	-	-	-	-	-	-	-	-	-	
Silver Grade (g/t)	9.30	7.76	8.77	11.37	12.40	10.61	9.65	9.65	13.66	15.74	13.48	12.39	8.35	8.65	17.91	-	-	-	-	-	-	-	-	-	-	-	
Combined Gold (koz)	2	3	3	2	1	1	2	2	6	7	5	5	4	4	5	-	-	-	-	-	-	-	-	-	-	-	
Combined Silver (koz)	43	38	43	24	14	8	27	24	72	80	68	65	42	45	91	-	-	-	-	-	-	-	-	-	-	-	
Low Grade Material																											
Beginning Inventory (kt)	579	576	575	574	573	570	568	557	544	488	414	406	290	219	140	-	-	-	-	-	-	-	-	-	-	-	
Mined (kt)	3	1	1	0	3	2	11	13	56	74	8	116	71	79	140	-	-	-	-	-	-	-	-	-	-	-	
Ending Inventory (kt)	576	575	574	573	570	568	557	544	488	414	406	290	219	140	-	-	-	-	-	-	-	-	-	-	-	-	
Gold Grade (g/t)	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.34	0.48	0.23	0.48	0.35	0.45	0.63	-	-	-	-	-	-	-	-	-	-	-	
Silver Grade (g/t)	4.10	4.57	3.26	3.34	7.40	4.99	5.62	4.56	5.32	6.55	3.03	6.47	5.16	5.36	9.68	-	-	-	-	-	-	-	-	-	-	-	
Combined Gold (koz)	0	0	0	0	0	0	0	0	1	1	0	2	1	1	3	-	-	-	-	-	-	-	-	-	-	-	
Combined Silver (koz)	0	0	0	0	1	0	2	2	10	16	1	24	12	14	44	-	-	-	-	-	-	-	-	-	-	-	
Waste																											
Beginning Inventory (kt)	6,948	6,707	6,455	6,219	5,883	5,177	4,531	3,884	3,254	2,730	2,242	1,664	1,200	709	207	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
Mined (kt)	241	252	236	336	705	646	647	630	324	488	578	464	491	502	207	-	-	-	-	-	-	-	-	-	-	-	
Ending Inventory (kt)	6,707	6,455	6,219	5,883	5,177	4,531	3,884	3,254	2,730	2,242	1,664	1,200	709	207	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
Total Material Mined (kt)	390	403	390	403	744	672	744	720	744	720	744	744	720	744	505	-	-	-	-	-	-	-	-	-	-	-	
Process Plant Operation:																											
Beginning Leach Inventory (kt)	2,924	2,766	2,602	2,444	2,280	2,117	1,969	1,806	1,667	1,503	1,345	1,182	1,018	860	697	538	375	211	64	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
Leach - Processed (kt)	138	163	138	163	163	148	163	139	163	158	163	163	158	163	158	163	163	148	64	-	-	-	-	-	-	-	
Ending Ore Inventory	2,766	2,602	2,444	2,280	2,117	1,969	1,806	1,667	1,503	1,345	1,182	1,018	860	697	538	375	211	64	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
Gold Grade (g/t)	0.52	0.53	0.60	0.63	0.41	0.33	0.50	0.56	1.18	1.33	1.00	0.91	0.75	0.75	1.02	0.80	0.42	0.29	0.23	-	-	-	-	-	-	-	
Silver Grade (g/t)	9.01	7.50	8.62	7.10	5.97	4.79	6.85	7.10	13.66	15.74	13.37	12.39	8.35	8.65	17.91	10.39	6.06	4.87	3.85	-	-	-	-	-	-	-	
Combined Gold (koz)	2.66	2.80	3.03	3.32	2.13	1.55	2.61	2.48	6.21	6.77	5.26	4.80	3.81	3.94	5.21	4.21	2.21	1.37	0.46	-	-	-	-	-	-	-	
Combined Silver (koz)	46	39	44	37	31	23	36	32	72	80	70	65	42	45	91	55	32	23	8	-	-	-	-	-	-	-	
Recovery Gold (%)	3.391	3.427	3.729	3.918	2.636	1.910	3.188	2.987	7.356	8.052	6.383	5.840	4.489	4.670	6.671	5.084	2.723	1.736	0.587	-	-	-	-	-	-	-	
Recovery Silver (%)																											
Recovered Gold (koz)	2	2	2	2	2	2	2	2	2	3	4	4	4	3	3	3	4	3	3	2	1	1	1	1	0	0	
Recovered Silver (koz)	24	25	27	29	26	22	22	23	27	29	38	36	37	33	34	36	41	33	32	22	12	11	16	9	5	4	
Payable Metals:																											
Payable Gold (koz)	2	2	2	2	2	2	2	2	2	3	4	4	4	3	3	3	4	3	3	2	1	1	1	1	0	0	
Payable Silver (koz)	24	25	27	28	26	22	22	23	27	29	38	36	36	33	34	36	41	33	32	22	12	10	16	9	5	4	
Income Statement (\$000)																											
Metal Prices																											
Gold (\$/oz)	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	
Silver (\$/oz)	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
Revenues:																											
Gold Revenue (\$ 000)	\$2,469	\$2,584	\$2,715	\$2,818	\$2,832	\$2,649	\$2,355	\$2,475	\$3,016	\$3,670	\$4,792	\$4,642	\$4,488	\$4,163	\$4,077	\$4,097	\$4,757	\$4,201	\$3,288	\$2,528	\$1,557	\$1,307	\$1,460	\$1,104	\$580	\$358	
Silver Revenue (\$ 000)	\$484	\$503	\$543	\$569	\$526	\$443	\$446	\$454	\$533	\$584	\$763	\$725	\$728	\$655	\$682	\$714	\$812	\$665	\$631	\$446	\$246	\$210	\$323	\$181	\$106	\$77	
Total Revenues	\$2,953	\$3,088	\$3,258	\$3,387	\$3,358	\$3,092	\$2,800	\$2,929	\$3,549	\$4,255	\$5,555	\$5,367	\$5,216	\$4,818	\$4,759	\$4,811	\$5,569	\$4,836	\$3,919	\$2,973	\$1,803	\$1,517	\$1,782	\$1,286	\$686	\$435	
Operating Cost																											
Mining	\$739	\$761	\$741	\$730	\$1,271	\$1,150	\$1,292	\$1,251	\$1,336	\$1,301	\$1,316	\$1,357	\$1,300	\$1,344	\$978	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Process Plant	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$738	\$462	\$462	\$462	\$462	\$462	\$462	\$462	\$462	
General Administration	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	\$112	
Treatment & Refining Charges																											
Dore																											
Treatment Charge	\$7	\$7	\$7	\$8	\$7	\$6	\$6	\$6	\$7	\$8	\$11	\$10	\$10	\$9	\$9	\$10	\$11	\$9	\$9	\$6	\$3	\$3	\$4	\$3	\$1	\$1	
Refinery Charge	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$1	\$1	\$1	\$1	\$0	\$0	\$0	\$0	
Freight/Insurance	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	
Total Operating Cost	1,603	1,625	1,606	1,596	2,136	2,014	2,155	2,114	2,201	2,187	2,185	2,226	2,189	2,211	1,846	868	870	887	591	588	585	584	588	584	583	582	
Royalty	\$0	\$547	\$0	\$0	\$582	\$0	\$0	\$553	\$0	\$0	\$642	\$0	\$0	\$966	\$0	\$0	\$861	\$0	\$0	\$859	\$0	\$0	\$376	\$0	\$0	\$224	
Salvage Value	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Reclamation & Closure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Production Cost	\$1,603	\$2,172	\$1,606	\$1,596	\$2,718	\$2,014	\$2,155	\$2,668	\$2,201	\$2,187	\$2,828	\$2,226	\$2,189	\$3,177	\$1,846	\$868	\$1,731	\$887	\$591	\$1,447	\$585	\$584	\$962	\$584	\$583	\$806	
Operating Income	\$1,350	\$916	\$1,653	\$1,791	\$640	\$1,078	\$645	\$262	\$1,348	\$2,067	\$2,727	\$3,142	\$3,047	\$1,641	\$2,913	\$3,943	\$3,838	\$3,998	\$3,328	\$1,526	\$1,218	\$832	\$821	\$702	<		

MOSS GOLD-SILVER PROJECT
FORM 43-101F1 TECHNICAL REPORT

NORTHERN VERTEX - MOSS GOLD HEAP LEACH PROJECT
PHASE III PEA FINANCIAL MODEL

Mining Operations	120	121	122	123
Mineralized Material				
Beginning Inventory (kt)	(0)	(0)	(0)	(0)
Mined (kt)	-	-	-	-
Ending Inventory (kt)	(0)	(0)	(0)	(0)
Gold Grade (g/t)	-	-	-	-
Silver Grade (g/t)	-	-	-	-
Contained Gold (koms)	-	-	-	-
Contained Silver (koms)	-	-	-	-
Low Grade Material				
Beginning Inventory (kt)	-	-	-	-
Mined (kt)	-	-	-	-
Ending Inventory (kt)	-	-	-	-
Gold Grade (g/t)	-	-	-	-
Silver Grade (g/t)	-	-	-	-
Contained Gold (koms)	-	-	-	-
Contained Silver (koms)	-	-	-	-
Waste				
Beginning Inventory(kt)	(0)	(0)	(0)	(0)
Mined (kt)	-	-	-	-
Ending Inventory (kt)	(0)	(0)	(0)	(0)
Total Material Mined (kt)	-	-	-	-
Process Plant Operations:				
Beginning Leach Inventory (kt)	(0)	(0)	(0)	(0)
Leach - Processed (kt)	-	-	-	-
Ending Ore Inventory	(0)	(0)	(0)	(0)
Gold Grade (g/t)	-	-	-	-
Silver Grade (g/t)	-	-	-	-
Contained Gold (koms)	-	-	-	-
Contained Silver (koms)	-	-	-	-
Recovery Gold (%)	-	-	-	-
Recovery Silver (%)	-	-	-	-
Recovered Gold (koms)	-	-	-	-
Recovered Silver (koms)	-	-	-	-
Payable Metals:				
Payable Gold (koms)	-	-	-	-
Payable Silver (koms)	-	-	-	-
Income Statement (\$000)				
Metal Prices:				
Gold (\$/oz)	\$1,250	\$1,250	\$1,250	\$1,250
Silver (\$/oz)	\$20	\$20	\$20	\$20
Revenue:				
Gold Revenue (\$ 000)	\$0	\$0	\$0	\$0
Silver Revenue (\$ 000)	\$0	\$0	\$0	\$0
Total Revenue:	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Operating Cost				
Mining	\$0	\$0	\$0	\$0
Process Plant	\$0	\$0	\$0	\$0
General Administration	\$0	\$0	\$0	\$0
Treatment & Refining Charges				
Down				
Treatment Charge	\$0	\$0	\$0	\$0
Refinery Charge	\$0	\$0	\$0	\$0
Freight/Insurance	\$0	\$0	\$0	\$0
Total Operating Cost	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Royalty	\$0	\$34	\$0	\$0
Salvage Value	\$0	\$0	\$0	-\$2,736
Reclamation & Closure	\$0	\$0	\$0	\$2,000
Total Production Cost	<u>\$0</u>	<u>\$34</u>	<u>\$0</u>	<u>-\$736</u>
Operating Income	\$0	-\$34	\$0	\$736
Initial Capital Depreciation	\$0	\$0	\$0	\$0
Sustaining Capital Depreciation	\$0	\$0	\$0	\$0
Total Depreciation	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net Income After Depreciation	<u>\$ -</u>	<u>\$ (34)</u>	<u>\$ -</u>	<u>\$ 736</u>
Taxes	-	-	-	-
Net Income After Taxes:	<u>-</u>	<u>(34)</u>	<u>-</u>	<u>736</u>

23 ADJACENT PROPERTIES

There are no adjacent properties that are of relevance to the Moss Mine Project.

24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data to report.

25 INTERPRETATION AND CONCLUSIONS

The technical and economic viability of the Moss Project was previously assessed in a 2015 Feasibility Study which focused on the Phase II mine development. The Phase II FS converted a portion of the 2014 mineral resources to a reserve classification based on estimated capital and operating costs.

The Phase III mine plan documented herein encompasses all of the reserves previously reported in the Phase II FS, plus additional mineral resources not previously accessible due to property boundary constraints. The Phase III mine plan and financial models are based on substantially the same technical, operating and economic parameters as that documented in the Phase II FS. The PEA variances from the FS are limited to updated pricing, and a potential increase in crushing capacity; however, these variances are considered insignificant.

The PEA mine plan is not intended as an update or replacement to the Phase II FS but rather is presented as an alternative plan. It is important to note that the Company is fully permitted for the construction, commissioning and operation of the Phase II project, and the mining of the Phase II reserves. The Phase II construction schedule is almost complete and mining in the Phase II pit has commenced. The PEA provides guidance as to the potential optimization of operations at the Moss Mine to achieve maximum utilization of the resources identified in the 2014 Technical Report, subject to the additional permits being acquired in a timely manner. In the meantime, the Company is proceeding to production and the mining and recovery of the precious metals in the Feasibility reserves as originally detailed in the FS. As such the Company is of the view that the PEA does not supersede the Phase II FS and the Feasibility reserves are considered current.

While the Moss Project has largely been de-risked, both from a financial and implementation perspective, there are a number of remaining risks that must be realized. On the other hand, the project offers a number of opportunities to improve on the returns and further de-risk the project. These are outlined in the following sections.

25.1 OPPORTUNITIES

25.1.1 Owner Operated Mining Fleet

A 10-year mine life presents an opportunity to switch from Contractor mining to self-mining with an Owner operated mining fleet. This was not an option that could be explored in Phase II because there would be little financial benefit over the short mine life. However, over a 10-year mine life the Contractor margins could either pay for leasing or outright purchase of a mining fleet, and the hiring of operators.

25.1.2 Long Term Supply Contracts

Many of the consumables are open to long term supply contracts which can both reduce the unit costs, as well as provide a stable cost structure that reduces the risk of price escalations over the life of the mine. Some of the consumable items that should be pursued in long term bulk supply contracts include cyanide, cement, and diesel fuel.

25.2 RISKS

25.2.1 Geotechnical Risks

The geotechnical stability of pit slopes has previously been identified as a risk factor for mine development at the Moss project. Subsequent to the 2015 Feasibility Study, the Company engaged Golder Associates to re-evaluate the pit slope designs for Moss and provide recommendations. The final Golder recommendations included a nominal flattening of slopes, from 65-degrees to 60-degrees, and this has been incorporated into the geotechnical design of the PEA pit shell. However, as is the case on every new mining project, there are geotechnical risks that must be assessed as

mining proceeds in order to mitigate any impacts on the mine plan. Typically, this is managed by a program of ongoing bench mapping, walk over highwall inspections, and regular surveys.

25.2.2 In Pit Ramp Widths

Mining the narrow widths of the Moss vein results in a long “trench-like” pit geometry with limited maneuvering space. The current pit design incorporates an 11m wide in pit ramp which is too narrow for two lane traffic with 70-ton rigid frame trucks. The current ramp widths will create congestion in the pit and bunching of trucks at the turnouts. The ramps will need to be widened at the Feasibility Stage of the study, however this will create more waste and increase the strip ratio.

25.2.3 Permitting Risks

The Moss Project is a fully permitted going concern for Phase II operations. While most of the permits for Phase III can be considered routine, the two key approvals that are needed in a timely manner include:

- A “Record of Decision” on an approved Mine Plan of Operations that will be filed with the BLM. It is anticipated that this approval can be obtained within 12 to 18 months
- A Section 404 Dredge and Fill permit that will allow expansion of the waste dump over a jurisdictional wash. Again, this permit is expected to take 12 to 18 months to obtain, and the PEA mine plan allows at least 3 years of operations on the patented lands before this approval is needed.

If these approvals were delayed or withheld it would impact the Companies plan to continue to operate the mine beyond Phase II.

25.2.4 Recovery Risks

Metallurgical testing has shown the Moss deposit to be amenable to cyanide extraction of the precious metals, however the material requires a very fine crush size (minus 6mm) to achieve the gold recovery targets. The pilot heap also revealed the Moss materials exhibit very slow leach kinetics and leach cycle times in excess of 250 days are needed to achieve a +80% gold recovery.

The long leach cycles require large areas of the pad to remain under leach. During peak operations, some 45,000 m² of pad area will be under continuous leach. This becomes problematic during the last year of the Phase II leach pad where the top surface area begins to shrink due to the space constraints imposed by the patented boundaries.

The proposed expansion onto the Phase III leach pad will alleviate this issue and hence it is anticipated that construction of the Phase III pad would commence around month 30 so that stacking can commence in month 36. This will extend the leach cycle times in the Phase II pad for years 4 and 5.

25.2.5 Operational Risks

The success of the Moss Project is reliant on minimizing dilution to maximize head grades reporting to the heap. Excessive dilution can add to the operating costs as well as additional material must be moved and stacked to achieve the gold production.

The key to minimizing dilution during operations is grade control. The Company intends to adopt industry standard grade control practices.

26 RECOMMENDATIONS

26.1 EXPANSION OF THE MINERAL RESOURCES

Past exploration drilling on the Moss Property has largely been focused on the patented lands in accordance with the intent of the Phase II development plan. However, the full strike and down-dip extents of the Moss Vein have not been fully established which offers the potential to add additional mineral resources. The surface trace of the Moss Vein can be traced for at least a kilometer east of the patented lands, and none of this area has been explored to date. Likewise, the groundwater well drilling on the patented lands has encountered Moss Vein intercepts well below the ultimate pit floor and well below the base of the existing resource model.

Another highly prospective area for exploration is the Western Extension, west of the Canyon Fault. This area hosts a significant inferred resource base that could be upgraded with drilling, and the block model suggests that grades increase with depth – possibly indicating a high-grade feeder zone at depth. This needs to be drill tested.

The authors suggest that a budget of \$2 million be allowed for additional drill testing in the West Extension, an additional \$1 million for deep drilling in the eastern portion of the main Moss open pit, and \$1 million for additional drilling along the Moss Vein extension east of the patented lands.

26.2 PRELIMINARY FEASIBILITY STUDY

The authors recommend the mine life extension studies be upgraded to a Preliminary Feasibility Study (PFS) to allow the conversion of additional mineral resources into reserve status.

26.3 SUBMISSION OF A MINE: PLAN OF OPERATIONS

The project development plan is sufficiently well detailed to allow the preparation and submission of a Mine Plan of Operations (MPO) to the BLM Kingman Field Office. This will start the clock on an ROD which would then facilitate the exploitation of additional resources in the Moss open pit, and to allow detailed engineering and permitting of the expanded mine facilities. This could be done in parallel with the PFS.

27 REFERENCES

- Addwest Minerals International Ltd. Moss Mine Project, Arizona. Company report, June 1997.
- Arizona Department of Environmental Quality. Moss Mine Pilot Project, Permit Determination No. 57435. 2013.
- Baum, W. and Lherbier, L. W. Cyanide Leach Tests and Mineralogical Characterization of Gold Ore Samples from the Moss Mine Project. Consultancy report to Billiton Minerals dated December 17, 1990.
- Bureau of Land Management. Various reports secured online (www.blm.gov) relating to the Company's claims. December 2014.
- Brownlee, D. Report on Geological Model, Moss Project, Arizona, USA. August 23, 2014.
- Brownlee, D. Verification of Golden Vertex Corp., Moss Mine Drill Hole Database. December 31, 2013.
- Cuffney, R. Moss Mine Project Logging Guide, February 2013.
- Durning, W.P. and Buchanan, L.J. The Geology and Mineral Deposits of Oatman, Arizona. Arizona Geological Society Digest, Vol. 15, pp.141-158. 1984.
- Godden, S.J. Consultancy report to Golden Vertex Corporation entitled 'Moss Mine Gold-Silver Project, Mineralogical and Metallurgical Review'. November 23, 2014.
- Godden, S.J. Consultancy report to Golden Vertex Corporation entitled 'Moss Mine Gold-Silver Project, 2013 to 2014 Mineral Resource Estimates' Reconciliation (Summary). October 09, 2014.
- Godden, S.J. Consultancy report to Golden Vertex Corporation entitled 'Moss Mine Gold-Silver Project, Phase I Heap Leach Metallurgical Performance and Gold Recovery Analysis'. October 22, 2014.
- Godden, S.J. Consultancy report to Golden Vertex Corporation entitled 'Moss Mine Gold-Silver Project, Updated Phase I Reconciliation – Extracted Material to 2014 Mineral Resource Model'. October 27, 2014.
- Heald, P., Foley, N.K. and Hayba, D.O. Comparative Anatomy of Volcanic-Hosted Epithermal Deposits: Acid-Sulfate and Adularia-Sericite Types. Economic Geology, Vol.82, pp.1-26. 1987.
- Henley, R.W. and Ellis, A.J. Geothermal Systems Ancient and Modern: A Geochemical Review. Earth-Science Reviews, Vol. 19, pp. 1-50. 1983.
- Hudson, D. M., 2011. Petrography of selected samples from the Moss Mine, Mojave County, Arizona. Consultancy report for Kappes, Cassidy & Associates, Reno, Nevada, September 2011.
- John, D. A. Miocene and Early Pliocene Epithermal Gold-Silver Deposits in the Northern Great Basin, Western United States: Characteristics, Distribution, and Relationship to Magmatism. Economic Geology, Vol. 96, pp. 1827-1853. 2001.
- Kappes, Cassidy & Associates. Consultancy report to Patriot Gold Corporation. Moss Mine, Report on Metallurgical Testwork, March 2011'.
- Kappes, Cassidy & Associates. Consultancy report to Patriot Gold Corporation. Moss Mine Project, Report on Metallurgical Testwork, November 2012'.
- Kappes, Cassidy & Associates. Consultancy report to Golden Vertex Corporation. Moss Mine, Report on Metallurgical Testwork. July 30, 2012.
- Malach, R. Adventurer John Moss: Gold Discovery in Mohave County. Kingman, Arizona, Mohave County Board of Supervisors. 1977.
- McClelland Laboratories, Inc. Direct Agitation Cyanidation Testwork – Moss Bulk Ore and Cuttings Samples. Consultancy report to Magma Copper Company. May 29, 1991.

- McClelland Laboratories, Inc. Direct Agitation Cyanidation Testwork – Moss Cuttings Intervals. Consultancy report to Magma Copper Company. January 29, 1992.
- McClelland Laboratories, Inc. Heap Leach Amenability Evaluation - Various Crusher Product Ore Samples from the Moss Project. Consultancy report to Northern Vertex Mining Corporation. February 11, 2013.
- McClelland Laboratories, Inc. Heap Leach Amenability Evaluation – Lower Grade Moss Composite, 2 x Thru Rolls #2. Consultancy report to Northern Vertex Mining Corporation. April 26, 2013.
- Metcon Research. Crush Size Study – Locked Cycle Column Leach on Oxide Composite. Consultancy report to Patriot Gold Corporation. June 2008.
- MineFill Services, Inc., Technical Report on the 2014 Mineral Resource Update – Moss Mine Gold-Silver Project, Mohave County, Arizona, USA for Northern Vertex Corporation. Effective Date October 31, 2014. Report Date December 30, 2014.
- Ransome, F.L. Geology of the Oatman Gold District, Arizona. USGS Bulletin 743. 1923.
- Schrader, F.C. Mineral Deposits of the Cerbat Range, Black Mountains and Grand Wash Cliffs, Mohave County, Arizona. USGS Bulletin 397. 1909.
- Sherman, J.E. & Sherman, B.H. (1969) Ghost Towns of Arizona. University of Oklahoma Press, 10th printing, 1980.
- Sillitoe, R.H. Rifting, Bimodal Volcanism, and Bonanza Gold Veins. Society of Economic Geologists Newsletter, No. 48, pp. 24-26. January 2002.
- Taylor, B.E. Epithermal Gold Deposits, in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, pp. 113-139. 2007.
- Thomas, D. A consultancy report to Golden Vertex Corp. entitled '2014 Model Reconciliation to 2013 PEA Model'. October 03, 2014.
- Thomas, D. A consultancy report to Golden Vertex Corp. entitled 'Moss Mine Project, 2014 Mineral Resource Update'. October 24, 2014.
- Varney, P. (1994). Arizona Ghost Towns and Mining Camps: a travel guide to history. Arizona Highways, 10th edition 2010.

APPENDIX A: FEASIBILITY STUDY CONTRIBUTORS AND PROFESSIONAL QUALIFICATIONS

CERTIFICATE OF QUALIFIED PERSON

DR. DAVID STONE, P.E.

I, David Stone, P.E., of PO Box 725, Bothell, Washington, USA, as the principal author of this technical report titled "Moss Gold-Silver Project, NI 43-101 Technical Report, Preliminary Economic Analysis, Phase III, Mine Life Extension", (the "Technical Report"), dated effective November 22, 2017, which was prepared for Northern Vertex Mining Corporation (the "Issuer"), do hereby certify that:

1. I am currently employed as President of MineFill Services, Inc., that is a Washington, USA, domiciled Corporation.
2. I am a graduate of the University of British Columbia with a B.Ap.Sc in Geological Engineering, a Ph.D. in Civil Engineering from Queen's University at Kingston, Ontario, Canada, and an MBA from Queen's University at Kingston, Ontario, Canada.
3. I have practiced my profession for over 30 years and have considerable experience in the preparation of engineering and financial studies for base metal and precious metal projects, including Preliminary Economic Assessments, Preliminary Feasibility Studies and Feasibility Studies.
4. I am a licensed Professional Engineer in Ontario (PEO #90549718) and I am licensed as a Professional Engineer in a number of other Canadian and US jurisdictions.
5. I have read the definition of 'Qualified Person' set out in National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("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 first visited the subject property November 2014. I have made regular visits since October 2015.
7. I am responsible for the entire contents of this report.
8. I am independent of the Issuer applying all the tests in Section 1.5 of NI 43-101.
9. I have had prior involvement with the property that is the subject of the Technical Report as a Qualified Person and signatory to both the December 2014 Technical Report filed on SEDAR and the July 2015 Feasibility Technical Report filed on SEDAR.
10. I have read NI 43-101 and NI 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.
11. As of the Effective Date of the Technical Report (November 22, 2017), to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public, of the Technical Report.

(Signed) _____

David Stone, P.E.

DATED at Tucson, Arizona, USA, this 22nd day of November 2017

CERTIFICATE of QUALIFIED PERSON

Thomas L. Drielick

I, Thomas L. Drielick, P.E., do hereby certify that:

1. I am Sr. Vice-President by:

M3 Engineering & Technology Corporation
2051 W. Sunset Road, Ste. 101
Tucson, Arizona 85704
2. I am a graduate of Michigan Technological University and received a Bachelor of Science degree in Metallurgical Engineering in 1970. I am also a graduate of Southern Illinois University and received an M.B.A. degree in 1973.
3. I am a Registered Professional Engineer in good standing in the State of Arizona (No. 22958). I am also a Registered Professional Engineer in good standing in the State of Michigan (No. 6201055633). I am also a Member in good standing of the Society for Mining, Metallurgy and Exploration, Inc. (No. 850920).
4. I have practiced metallurgical and mineral processing engineering and project management for 47 years. I have worked for mining and exploration companies for 18 years and for M3 Engineering and Technology, Corporation for 28 years.
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 a contributing author for the preparation of the technical report titled "Moss Gold-Silver Project, NI 43-101 Technical Report, Preliminary Economic Assessment, Phase III, Mine Life Extension", (the "Technical Report"), dated November 22, 2017, prepared for Northern Vertex; and am responsible for Sections 17 and 21.2.3 through 21.2.8. I have not visited the project site.
7. I have prior involvement with the property that is the subject of the Technical Report. I am a contributing author for the preparation of the technical report titled "Moss Gold-Silver Project NI 43-101 Feasibility Study" for Northern Vertex Mining Corporation dated July 13, 2015. M3 Engineering & Technology Corporation is responsible for the ongoing engineering, procurement, and construction management of the phase II process plant.
8. I have not had any additional involvement with the project or collaboration with the issuer to disclose.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
10. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
11. 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. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 22nd day of November, 2017.

(Signed) (Sealed)

Signature of Qualified Person

Thomas L. Drielick

Print name of Qualified Person

CERTIFICATE OF QUALIFIED PERSON

I, Daniel Roth, PE, P.Eng. do hereby certify that:

1. I am currently employed as a project manager and civil engineer at M3 Engineering & Technology Corp. located at 2051 West Sunset Rd, Suite 101, Tucson, AZ 85704.
2. I graduated with a Bachelor's of Science degree in Civil Engineering from The University of Manitoba in 1990.
3. I am a registered professional engineer in good standing in the following jurisdictions:
 - British Columbia, Canada (No. 38037)
 - Alberta, Canada (No. 62310)
 - Ontario, Canada (No. 100156213)
 - Yukon, Canada (No. 1998)
 - New Mexico, USA (No. 17342)
 - Arizona, USA (No. 37319)
 - Alaska, USA (No. 102317)
 - Minnesota, USA (No. 54138)
4. I have practiced engineering and project management for 25 years. I joined M3 Engineering in November 2003.
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 responsible for Sections 21.1 of the technical report titled "Moss Gold-Silver Project, NI 43-101 Technical Report, Preliminary Economic Analysis, Phase III, Mine Life Extension" for Northern Vertex dated November 22, 2017 ("Technical Report").
7. I have prior involvement with the property that is subject of the Technical Report. M3 Engineering is performing ongoing engineering, procurement and construction management for the Phase II process plant. I last visited the Moss Project site on September 26, 2017.
8. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I am independent of Northern Vertex and all their subsidiaries as defined by Section 1.5 of NI 43-101.
10. I have read the National Instrument 43-101 and Form 43-101F1. The sections of the Technical Report that I am responsible for have been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public, of the Technical Report.

Dated 22 November 2017.

(Signed)

Signature of Qualified Person

Daniel Roth

Print Name of Qualified Person

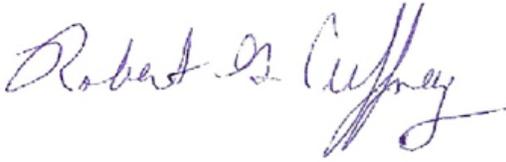
AUTHOR'S CERTIFICATE and SIGNATURE PAGE

CERTIFICATE OF AUTHOR

I Robert G. Cuffney, Certified Professional Geologist #11063, do hereby certify that:

1. I am an independent Consulting Geologist residing at:
7750 W 4th St #321
Reno, NV 89523 USA
2. I am a graduate of the Colorado School of Mines with a Bachelor of Science degree in Geological Engineering (1972) and a Master of Science degree in Geology (1977).
3. This certificate applies to the technical report entitled "Moss Gold-Silver Project, NI 43-101 Technical Report, Preliminary Economic Analysis, Phase III, Mine Life Extension" with an Effective Date of November 22, 2017 (the "Technical Report") that was prepared for the Issuer.
4. I have worked as a geologist for a total of 40 years since my graduation from university, including more than 25 years exploring for precious metals deposits in the western USA, Mexico, Chile, and Asia.
5. I am a member in good standing of the American Institute of Professional Geologists and the Geological Society of Nevada.
6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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 purpose of NI 43-101.
7. I am responsible for Sections 7, 8, 9, 10, 11, and 12 of the technical report, "Moss Gold-Silver Project, NI 43-101 Technical Report, Preliminary Economic Analysis, Phase III, Mine Life Extension" dated November 22, 2017, relating to geology and mineralization, deposit type, exploration, drilling, sample security, and data verification.
8. I have not had prior involvement with the property that is the subject of the technical report.
9. I have performed consulting geological work on the subject property intermittently since 2011. My most recent visit to the property was on October 27, 2017, the Current Personal Inspection.
10. I am independent of the Issuer. In accordance with Part I, section 1.4 of National Instrument 43-101 (Independence), I certify that there is no circumstance that, in the opinion of a reasonable person aware of all relevant facts, could interfere with my judgment regarding the preparation of the technical report. I am also independent of the Vendor and there is no circumstance that, in the opinion of a reasonable person aware of all relevant facts, could interfere with my judgment regarding the preparation of the technical report.
11. I have read National Instrument 43-101 and Form 43-101F1, and the technical report has been written and prepared in compliance with that instrument and form.
12. I certify that, as of the date of the certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
13. I consent to the filing of the technical report with any stock exchange and any other regulatory authority and publication of the technical report by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public.

Dated this 22nd day of November, 2017



Robert G. Cuffney
Certified Professional Geologist





November 22, 2017

1777828

CERTIFICATE OF QUALIFIED PERSON

MICHAEL GRASS

I, Michael Grass, PE, do hereby certify that:

1. I am a Principal and Practice Leader of:

Golder Associates Inc.
4730 North Oracle Road, Suite 210
Tucson, Arizona 85705
2. I graduated with a Bachelor's degree in Geological Engineering from the University of Nevada, Reno in 1994 and a Master's degree in Geological Engineering from the University of Nevada, Reno in 1997.
3. I am a registered Professional Civil Engineer in good standing in the State of Arizona in the area of Civil Engineering (Certification Number 40977) in Arizona. I am also registered as a Professional Engineer in the State of Utah (Reference Number 7318281-2202).
4. I have worked as an engineer for a total of 20 years. My experience includes the design of mining related facilities including heap leach pads, process solution ponds, and stormwater containment ponds. Additional experience includes geologic and geotechnical evaluation of sites, construction quality assurance, and construction management.
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 a contributing author for the preparation of the technical report titled "Moss Gold-Silver Project, NI 43-101 Technical Report, Preliminary Economic Analysis, Phase III, Mine Life Extension", (the "Technical Report"), dated effective November 22, 2017, prepared for Northern Vertex; and am responsible for Section 17.1.3. I have visited the project site on August 10, 2017.
7. I have prior involvement with the property that is the subject of the Technical Report. I am the principal engineer for Golder Associates Inc. for the design and on-going construction of the Phase II heap leach pad and ponds.
8. I have no other additional involvement with the client or this property.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
10. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.

x:\tucson\projects\17 pro\1777828 moss phase 3\001\rev 0\1777828-1-001-rev0-20171120.docx

Golder Associates Inc.
4730 N. Oracle Road, Suite 210
Tucson, AZ 85705 USA

Tel: (520) 888-8818 Fax: (520) 888-8817 www.golder.com



Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation



November 22, 2017

2

1777828

11. 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. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 22nd day of November 2017



Signature of Qualified Person

Michael Grass, PE
Print Name of Qualified Person



EXPIRES: 6/30/2019

CERTIFICATE OF QUALIFIED PERSON

Thomas L. Dyer, P.E.

I, Thomas Dyer, P.E., do hereby certify that:

1. I am currently employed as a Senior Engineer of:
Mine Development Associates
210 South Rock Blvd. Reno, Nevada 89502
2. I graduated with a with a Bachelor's of Science degree in Mine Engineering from South Dakota School of Mines & Technology in 1996.
3. I am registered as a Professional Engineer in good standing with the state of Nevada (Mining # 15729). I am also a Registered Member of SME (# 4029995RM) in good standing.
4. I have worked as a Mining Engineer for 21 years since graduation. During my Engineering career, I have held various positions of increasing responsibility at operating mined performing life-of-mine planning and cost estimates. During the last 10 years I have been engaged in consulting on various lead, zinc, gold, silver, copper, and limestone deposits both for underground and open pit operations. This consulting work primarily consists of providing mine designs, production scheduling, mine cost estimates, and cash-flow analysis.
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 a contributing author for the preparation of the technical report titled "Moss Gold-Silver Project, NI 43-101 Technical Report, Preliminary Economic Analysis, Phase III, Mine Life Extension", (the "Technical Report"), dated effective November 22, 2017, prepared for Northern Vertex; and am responsible for Section 16 (Mining Methods) and Section 21.2.2 (Contract Mining). I have not visited the Moss Mine project.
7. I have not had prior involvement with the property that is the subject of the Technical Report.
8. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 22nd day of November 2017.

"Thomas L. Dyer"
Signature of Qualified Person

Thomas L. Dyer
Print Name of Qualified Person

APPENDIX B: LIST OF UNPATENTED CLAIMS

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

CUSTOMER INFORMATION

Admin State: AZ
Geo State: AZ
Claimant Name: GOLDEN VERTEX CORP
Address: 2440 ADOBE RD STE 101
City: BULLHEAD CITY **State:** AZ **Zip:** 86442-4486 **Int Rel:** CLAIMANT **Customer ID:** 2317154

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC361998	AMC361998	MOSS 11	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 024	NE,SE
AMC361999	AMC361998	MOSS 12	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 024	SE
AMC362000	AMC361998	MOSS 13	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 024	SE
AMC362001	AMC361998	MOSS 14	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 024	SE
AMC362002	AMC361998	MOSS 15	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 024	SE
AMC362003	AMC361998	MOSS 16	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 025	NE
AMC362004	AMC361998	MOSS 17	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 025	NE
AMC362005	AMC361998	MOSS 18	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 025	NE
AMC362006	AMC361998	MOSS 19	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 025	NE
AMC362007	AMC361998	MOSS 20	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 025	NE,SE
AMC362008	AMC361998	MOSS 21	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 019	NW,SW
AMC362009	AMC361998	MOSS 22	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 019	SW
AMC362010	AMC361998	MOSS 23	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 019	SW
AMC362011	AMC361998	MOSS 24	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 019	SW
AMC362012	AMC361998	MOSS 25	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 019	SW
AMC362013	AMC361998	MOSS 26	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NW
AMC362014	AMC361998	MOSS 27	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NW
AMC362015	AMC361998	MOSS 28	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NW
AMC362016	AMC361998	MOSS 29	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NW
AMC362017	AMC361998	MOSS 30	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NW,SW
AMC362018	AMC361998	MOSS 31	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	NE,NW,SW,SE
AMC362019	AMC361998	MOSS 32	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	SW,SE
AMC362022	AMC361998	MOSS 34	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NE,NW
AMC362023	AMC361998	MOSS 35	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NE,NW
AMC362024	AMC361998	MOSS 36	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NE,NW,SW,SE
AMC362025	AMC361998	MOSS 37	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	NE,SE
AMC362026	AMC361998	MOSS 38	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	SE
AMC362027	AMC361998	MOSS 39	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	SE
AMC362028	AMC361998	MOSS 39F	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	SE
AMC362029	AMC361998	MOSS 40	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NE
AMC362030	AMC361998	MOSS 41	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NE
AMC362031	AMC361998	MOSS 42	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 030	NE,SE
AMC362032	AMC361998	MOSS 43	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	NE,SE
								14 0200N 0200W 020	NW,SW
AMC362033	AMC361998	MOSS 44	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	SE
								14 0200N 0200W 020	SW
AMC362034	AMC361998	MOSS 45	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 019	SE
								14 0200N 0200W 020	SW
AMC362035	AMC361998	MOSS 46	MOHAVE	ACTIVE	LODE	2018	04/28/2004	14 0200N 0200W 019	SE
								14 0200N 0200W 020	SW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC362036	AMC361998	MOSS 47	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 029	NW
								14 0200N 0210W 030	NE
AMC362037	AMC361998	MOSS 47B	MOHAVE	ACTIVE	LODE	2018	04/28/2004	14 0200N 0200W 029	NW
AMC362038	AMC361998	MOSS 48	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 029	NW
								14 0200N 0210W 030	NE
AMC362039	AMC361998	MOSS 49	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 029	NW
								14 0200N 0210W 030	NE
AMC362040	AMC361998	MOSS 50	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0210W 029	NW,SW
								14 0200N 0210W 030	NE,SE
AMC362041	AMC361998	MOSS 51	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	NW,SW
AMC362042	AMC361998	MOSS 52	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	SW
AMC362043	AMC361998	MOSS 53	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	SW
AMC362044	AMC361998	MOSS 54	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	SW
AMC362045	AMC361998	MOSS 55	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 020	SW
AMC362046	AMC361998	MOSS 56	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 020	SW
								14 0200N 0200W 029	NW
AMC362047	AMC361998	MOSS 57	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NW
AMC362048	AMC361998	MOSS 58	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NW
AMC362049	AMC361998	MOSS 59	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NW
AMC362050	AMC361998	MOSS 60	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NW,SW
AMC362051	AMC361998	MOSS 61	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	NE,NW,SW,SE
AMC362052	AMC361998	MOSS 62	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	SW,SE
AMC362053	AMC361998	MOSS 63	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	SW,SE
AMC362054	AMC361998	MOSS 64	MOHAVE	ACTIVE	LODE	2018	04/27/2004	14 0200N 0200W 020	SW,SE
AMC362055	AMC361998	MOSS 65	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 020	SW,SE
AMC362056	AMC361998	MOSS 66	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 020	SW,SE
								14 0200N 0200W 029	NE,NW
AMC362057	AMC361998	MOSS 67	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NE,NW
AMC362058	AMC361998	MOSS 68	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NE,NW
AMC362059	AMC361998	MOSS 69	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NE,NW
AMC362060	AMC361998	MOSS 70	MOHAVE	ACTIVE	LODE	2018	04/26/2004	14 0200N 0200W 029	NE,NW,SW,SE
AMC398978	AMC398978	MOSS 1	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	NE,NW,SW,SE
AMC398979	AMC398978	MOSS 2	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW,SE
AMC398980	AMC398978	MOSS 3	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW,SE
AMC398981	AMC398978	MOSS 4	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW,SE
AMC398982	AMC398978	MOSS 5	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW,SE
AMC398983	AMC398978	MOSS 6	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NE,NW
AMC398984	AMC398978	MOSS 7	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NE,NW
AMC398985	AMC398978	MOSS 8	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NE,NW
AMC398986	AMC398978	MOSS 9	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NE,NW
AMC398987	AMC398978	MOSS 10	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NE,NW,SW,SE
AMC398988	AMC398978	MOSS 118	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	NW,SW
AMC398989	AMC398978	MOSS 119	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW
AMC398990	AMC398978	MOSS 120	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW
AMC398991	AMC398978	MOSS 121	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW
AMC398992	AMC398978	MOSS 122	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	SW
AMC398993	AMC398978	MOSS 123	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NW
AMC398994	AMC398978	MOSS 124	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC398995	AMC398978	MOSS 125	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NW
AMC398996	AMC398978	MOSS 126	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NW
AMC398997	AMC398978	MOSS 127	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 025	NW,SW
AMC398998	AMC398978	MOSS 128	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 013	SE
AMC398999	AMC398978	MOSS 129	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 013	SE
AMC399000	AMC398978	MOSS 130	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 013	SE
								14 0200N 0210W 024	NE
AMC399001	AMC398978	MOSS 131	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	NE
AMC399002	AMC398978	MOSS 132	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	NE
AMC399003	AMC398978	MOSS 133	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0210W 024	NE
AMC399004	AMC398978	MOSS 134	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 018	SW
AMC399005	AMC398978	MOSS 135	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 018	SW
AMC399006	AMC398978	MOSS 136	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 018	SW
								14 0200N 0200W 019	NW
AMC399007	AMC398978	MOSS 137	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NW
AMC399008	AMC398978	MOSS 138	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NW
AMC399009	AMC398978	MOSS 139	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NW
AMC399010	AMC398978	MOSS 140	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 018	SW,SE
AMC399011	AMC398978	MOSS 141	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 018	SW,SE
AMC399012	AMC398978	MOSS 142	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 018	SW,SE
								14 0200N 0200W 019	NE,NW
AMC399013	AMC398978	MOSS 143	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NE,NW
AMC399014	AMC398978	MOSS 144	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NE,NW
AMC399015	AMC398978	MOSS 145	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NE,NW
AMC399016	AMC398978	MOSS 146	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NE
AMC399017	AMC398978	MOSS 147	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NE
AMC399018	AMC398978	MOSS 148	MOHAVE	ACTIVE	LODE	2018	10/19/2009	14 0200N 0200W 019	NE
AMC408939	AMC408939	GVC 1	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	NW,SW
AMC408940	AMC408939	GVC 2	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	NW,SW
AMC408941	AMC408939	GVC 3	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	NW,SW
AMC408942	AMC408939	GVC 4	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	NW,SW
AMC408943	AMC408939	GVC 5	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	NE,NW,SW,SE
AMC408944	AMC408939	GVC 6	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	NE,SE
AMC408945	AMC408939	GVC 7	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	NE,SE
AMC408946	AMC408939	GVC 8	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 014	NE,SE
AMC408947	AMC408939	GVC 9	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 013	NW,SW
								14 0200N 0210W 014	NE,SE
AMC408948	AMC408939	GVC 10	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 013	NW,SW
AMC408949	AMC408939	GVC 11	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 013	NW,SW
AMC408950	AMC408939	GVC 12	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 013	NW,SW
AMC408951	AMC408939	GVC 13	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 013	NW,SW
AMC408952	AMC408939	GVC 14	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	SW
								14 0200N 0210W 023	NW
AMC408953	AMC408939	GVC 15	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	SW
								14 0200N 0210W 023	NW
AMC408954	AMC408939	GVC 16	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	SW
								14 0200N 0210W 023	NW
AMC408955	AMC408939	GVC 17	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 014	SW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC408955	AMC408939	GVC 17	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	NW
AMC408956	AMC408939	GVC 18	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 014	SW,SE
								14 0200N 0210W 023	NE,NW
AMC408957	AMC408939	GVC 19	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 023	NE,NW
AMC408958	AMC408939	GVC 20	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 014	SE
								14 0200N 0210W 023	NE
AMC408959	AMC408939	GVC 21	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 023	NE
AMC408960	AMC408939	GVC 22	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 014	SE
								14 0200N 0210W 023	NE
AMC408961	AMC408939	GVC 23	MOHAVE	ACTIVE	LODE	2018	04/13/2011	14 0200N 0210W 023	NE
AMC408962	AMC408939	GVC 24	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 014	SE
								14 0200N 0210W 023	NE
AMC408963	AMC408939	GVC 25	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 023	NE
AMC408964	AMC408939	GVC 26	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 013	SW
								14 0200N 0210W 014	SE
								14 0200N 0210W 023	NE
								14 0200N 0210W 024	NW
AMC408965	AMC408939	GVC 27	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 023	NE
								14 0200N 0210W 024	NW
AMC408966	AMC408939	GVC 28	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 013	SW
								14 0200N 0210W 024	NW
AMC408967	AMC408939	GVC 29	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW
AMC408968	AMC408939	GVC 30	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW
AMC408969	AMC408939	GVC 31	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW
AMC408971	AMC408939	GVC 33	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW
AMC408972	AMC408939	GVC 34	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 013	SW
								14 0200N 0210W 024	NW
AMC408973	AMC408939	GVC 35	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW
AMC408974	AMC408939	GVC 36	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 013	SW,SE
								14 0200N 0210W 024	NE,NW
AMC408975	AMC408939	GVC 37	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NE,NW
AMC408976	AMC408939	GVC 38	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 013	SE
								14 0200N 0210W 024	NE
AMC408977	AMC408939	GVC 39	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NE
AMC408978	AMC408939	GVC 40	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	NE,NW,SW,SE
AMC408979	AMC408939	GVC 41	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	SW,SE
AMC408980	AMC408939	GVC 42	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	NE,SE
AMC408981	AMC408939	GVC 43	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	SE
AMC408982	AMC408939	GVC 44	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	NE,SE
AMC408983	AMC408939	GVC 45	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	SE
AMC408984	AMC408939	GVC 46	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	NE,SE
AMC408985	AMC408939	GVC 47	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	NE,SE
AMC408986	AMC408939	GVC 48	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	NE,SE
								14 0200N 0210W 024	NW,SW
AMC408987	AMC408939	GVC 49	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 023	SE
								14 0200N 0210W 024	SW
AMC408988	AMC408939	GVC 50	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 024	NW,SW
AMC408989	AMC408939	GVC 51	MOHAVE	ACTIVE	LODE	2018	04/12/2011	14 0200N 0210W 024	SW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC408990	AMC408939	GVC 52	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW,SW
AMC408991	AMC408939	GVC 53	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW,SW
AMC408992	AMC408939	GVC 54	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NW,SW
AMC408993	AMC408939	GVC 55	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NE,NW,SW,SE
AMC408994	AMC408939	GVC 56	MOHAVE	ACTIVE	LODE	2018	04/17/2011	14 0200N 0210W 024	NE,SE
AMC408995	AMC408939	GVC 57	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	NE,SE
AMC408996	AMC408939	GVC 58	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
AMC408997	AMC408939	GVC 59	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
								14 0200N 0200W 021	SW
AMC408998	AMC408939	GVC 60	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
AMC408999	AMC408939	GVC 61	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
								14 0200N 0200W 021	SW
AMC409000	AMC408939	GVC 62	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
AMC409001	AMC408939	GVC 63	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
								14 0200N 0200W 021	SW
AMC409002	AMC408939	GVC 64	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
								14 0200N 0200W 029	NE
AMC409003	AMC408939	GVC 65	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 020	SE
								14 0200N 0200W 021	SW
								14 0200N 0200W 028	NW
								14 0200N 0200W 029	NE
AMC409004	AMC408939	GVC 67	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SW
AMC409005	AMC408939	GVC 68	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SW
								14 0200N 0210W 035	NW
AMC409006	AMC408939	GVC 69	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 035	NW
AMC409007	AMC408939	GVC 70	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SW,SE
AMC409008	AMC408939	GVC 71	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SW,SE
AMC409009	AMC408939	GVC 72	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SE
AMC409010	AMC408939	GVC 73	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SW,SE
AMC409011	AMC408939	GVC 74	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SE
AMC409012	AMC408939	GVC 75	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SW,SE
AMC409013	AMC408939	GVC 76	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SE
AMC409014	AMC408939	GVC 77	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SW,SE
								14 0200N 0210W 035	NE,NW
AMC409015	AMC408939	GVC 78	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 026	SE
								14 0200N 0210W 035	NE
AMC409016	AMC408939	GVC 79	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 035	NE,NW
AMC409017	AMC408939	GVC 80	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 035	NE
AMC409018	AMC408939	GVC 81	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 035	NE,NW
AMC409019	AMC408939	GVC 82	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 035	NE
AMC409020	AMC408939	GVC 83	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 035	NE
AMC409021	AMC408939	GVC 84	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 025	SW
								14 0200N 0210W 026	SE
AMC409022	AMC408939	GVC 85	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 025	SW
								14 0200N 0210W 026	SE
AMC409023	AMC408939	GVC 86	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 025	SW
AMC409024	AMC408939	GVC 87	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 025	SW
								14 0200N 0210W 026	SE

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC409025	AMC408939	GVC 88	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 025	SW
AMC409026	AMC408939	GVC 89	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 025	SW
								14 0200N 0210W 026	SE
								14 0200N 0210W 035	NE
								14 0200N 0210W 036	NW
AMC409027	AMC408939	GVC 90	MOHAVE	ACTIVE	LODE	2018	04/14/2011	14 0200N 0210W 025	SW
								14 0200N 0210W 036	NW
AMC409028	AMC408939	GVC 91	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 035	NE
								14 0200N 0210W 036	NW
AMC409029	AMC408939	GVC 92	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	NW
AMC409030	AMC408939	GVC 93	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 035	NE
								14 0200N 0210W 036	NW
AMC409031	AMC408939	GVC 94	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	NW
AMC409032	AMC408939	GVC 95	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 035	NE
								14 0200N 0210W 036	NW
AMC409033	AMC408939	GVC 96	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	NW
AMC409034	AMC408939	GVC 97	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 035	NE,SE
								14 0200N 0210W 036	NW,SW
AMC409035	AMC408939	GVC 98	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	NW
AMC409036	AMC408939	GVC 99	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	SW
AMC409037	AMC408939	GVC 100	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 025	SW,SE
AMC409038	AMC408939	GVC 101	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 025	SW,SE
								14 0200N 0210W 036	NE,NW
AMC409039	AMC408939	GVC 102	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 030	SW
								14 0200N 0200W 031	NW
								14 0200N 0210W 025	SE
								14 0200N 0210W 036	NE
AMC409040	AMC408939	GVC 103	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	NE,NW
AMC409041	AMC408939	GVC 104	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NW
								14 0200N 0210W 036	NE
AMC409042	AMC408939	GVC 105	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	NE,NW
AMC409043	AMC408939	GVC 106	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NW
								14 0200N 0210W 036	NE
AMC409044	AMC408939	GVC 107	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0210W 036	NE,NW
AMC409045	AMC408939	GVC 108	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NW
								14 0200N 0210W 036	NE
AMC409046	AMC408939	GVC 109	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0210W 036	NE,NW,SW,SE
AMC409047	AMC408939	GVC 110	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	NW,SW
								14 0200N 0210W 036	NE,SE
AMC409048	AMC408939	GVC 111	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0210W 036	SW,SE
AMC409049	AMC408939	GVC 112	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SW
								14 0200N 0210W 036	SE
AMC409050	AMC408939	GVC 113	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SW
								14 0200N 0210W 036	SE
AMC409051	AMC408939	GVC 114	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NW
AMC409052	AMC408939	GVC 115	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NE,NW
AMC409053	AMC408939	GVC 116	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NW
AMC409054	AMC408939	GVC 117	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NE,NW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC409055	AMC408939	GVC 118	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NW
AMC409056	AMC408939	GVC 119	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NE,NW
AMC409057	AMC408939	GVC 120	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NW,SW
AMC409058	AMC408939	GVC 121	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	NE,NW,SW,SE
AMC409059	AMC408939	GVC 122	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	SW
AMC409060	AMC408939	GVC 123	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	SW,SE
AMC409061	AMC408939	GVC 124	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	SW
AMC409062	AMC408939	GVC 125	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	SW,SE
AMC409063	AMC408939	GVC 126	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	SW
AMC409064	AMC408939	GVC 127	MOHAVE	ACTIVE	LODE	2018	04/15/2011	14 0200N 0200W 031	SW,SE
AMC409065	AMC408939	GVC 128	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	NE
AMC409066	AMC408939	GVC 129	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	NE
AMC409067	AMC408939	GVC 130	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	NE,SE
AMC409068	AMC408939	GVC 131	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	NE,SE
								14 0200N 0200W 032	NW,SW
AMC409069	AMC408939	GVC 132	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
AMC409070	AMC408939	GVC 133	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
								14 0200N 0200W 032	SW
AMC409071	AMC408939	GVC 134	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
AMC409072	AMC408939	GVC 135	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
								14 0200N 0200W 032	SW
AMC409073	AMC408939	GVC 136	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
AMC409074	AMC408939	GVC 137	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
								14 0200N 0200W 032	SW
AMC409075	AMC408939	GVC 138	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
AMC409076	AMC408939	GVC 139	MOHAVE	ACTIVE	LODE	2018	04/16/2011	14 0200N 0200W 031	SE
								14 0200N 0200W 032	SW
AMC409085	AMC408939	GVC 149	MOHAVE	ACTIVE	LODE	2018	05/03/2011	14 0190N 0200W 004	NW
								14 0200N 0200W 033	SW
AMC409086	AMC408939	GVC 150	MOHAVE	ACTIVE	LODE	2018	05/03/2011	14 0190N 0200W 004	NW
AMC409091	AMC408939	GVC 162	MOHAVE	ACTIVE	LODE	2018	05/03/2011	14 0190N 0200W 004	NE,NW
AMC409093	AMC408939	GVC 164	MOHAVE	ACTIVE	LODE	2018	05/03/2011	14 0190N 0200W 004	NE,NW
AMC409094	AMC408939	GVC 165	MOHAVE	ACTIVE	LODE	2018	05/03/2011	14 0190N 0200W 004	NE
AMC409095	AMC408939	GVC 166	MOHAVE	ACTIVE	LODE	2018	05/03/2011	14 0190N 0200W 004	NE,NW,SW,SE
AMC409096	AMC408939	GVC 167	MOHAVE	ACTIVE	LODE	2018	05/03/2011	14 0190N 0200W 004	NE,SE
AMC409097	AMC408939	GVC 168	MOHAVE	ACTIVE	LODE	2018	05/04/2011	14 0190N 0200W 004	SE
AMC409101	AMC408939	GVC 172	MOHAVE	ACTIVE	LODE	2018	05/04/2011	14 0190N 0200W 003	NW
								14 0190N 0200W 004	NE
AMC409102	AMC408939	GVC 173	MOHAVE	ACTIVE	LODE	2018	05/04/2011	14 0190N 0200W 003	SW
								14 0190N 0200W 004	SE
AMC409103	AMC408939	GVC 174	MOHAVE	ACTIVE	LODE	2018	05/04/2011	14 0190N 0200W 003	SW
								14 0190N 0200W 004	SE
AMC409104	AMC408939	GVC 175	MOHAVE	ACTIVE	LODE	2018	05/02/2011	14 0200N 0210W 025	SW
AMC409105	AMC408939	GVC 176	MOHAVE	ACTIVE	LODE	2018	05/02/2011	14 0200N 0210W 025	SW,SE
AMC409106	AMC408939	GVC 177	MOHAVE	ACTIVE	LODE	2018	05/02/2011	14 0200N 0210W 025	SW,SE
AMC409107	AMC408939	GVC 178	MOHAVE	ACTIVE	LODE	2018	05/02/2011	14 0200N 0200W 030	SW
								14 0200N 0210W 025	SE
AMC409108	AMC408939	GVC 179	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC409109	AMC408939	GVC 180	MOHAVE	ACTIVE	LODE	2018	05/02/2011	14 0200N 0200W 030	SW
								14 0200N 0210W 025	SE
AMC409110	AMC408939	GVC 181	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW
AMC409111	AMC408939	GVC 182	MOHAVE	ACTIVE	LODE	2018	05/02/2011	14 0200N 0200W 030	SW
								14 0200N 0210W 025	SE
AMC409112	AMC408939	GVC 183	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW
AMC409113	AMC408939	GVC 184	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW
								14 0200N 0200W 031	NW
AMC409114	AMC408939	GVC 185	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW,SE
AMC409115	AMC408939	GVC 186	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW
AMC409116	AMC408939	GVC 187	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW,SE
AMC409117	AMC408939	GVC 188	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW
AMC409118	AMC408939	GVC 189	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW,SE
AMC409119	AMC408939	GVC 190	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW
AMC409120	AMC408939	GVC 191	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SW,SE
								14 0200N 0200W 031	NE,NW
AMC409121	AMC408939	GVC 192	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 030	SE
								14 0200N 0200W 031	NE
AMC409122	AMC408939	GVC 193	MOHAVE	ACTIVE	LODE	2018	05/01/2011	14 0200N 0200W 031	NE
AMC416914	AMC416914	MOSS 201	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0210W 025	SW
AMC416915	AMC416914	MOSS 202	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0210W 025	SW,SE
AMC416916	AMC416914	MOSS 203	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0210W 025	SE
AMC416917	AMC416914	MOSS 204	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0200W 030	SW
AMC416918	AMC416914	MOSS 205	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0200W 030	SW,SE
AMC416919	AMC416914	MOSS 206	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0200W 030	SE
AMC416920	AMC416914	MOSS 207	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0200W 029	SW
								14 0200N 0200W 030	SE
AMC416921	AMC416914	MOSS 208	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0200W 029	SW
AMC416922	AMC416914	MOSS 209	MOHAVE	ACTIVE	LODE	2018	06/27/2012	14 0200N 0200W 029	SW,SE
AMC420117	AMC420117	MOSS 210	MOHAVE	ACTIVE	LODE	2018	09/05/2012	14 0200N 0200W 029	NW
								14 0200N 0200W 030	NE
AMC420118	AMC420117	MOSS 211	MOHAVE	ACTIVE	LODE	2018	09/05/2012	14 0200N 0200W 019	SE
AMC432054	AMC432054	GVC 301	MOHAVE	ACTIVE	LODE	2018	04/20/2015	14 0200N 0200W 019	SE
AMC433744	AMC433744	MOSS 33X	MOHAVE	ACTIVE	LODE	2018	09/04/2015	14 0200N 0200W 019	SW,SE

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

CUSTOMER INFORMATION

Admin State: AZ
Geo State: AZ
Claimant Name: LA CUESTA INTERNATIONAL INC
Address: 1790 E RIVER RD STE 213
City: TUCSON **State:** AZ **Zip:** 85718-5958 **Int Rel:** CLAIMANT **Customer ID:** 40944

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC349367	AMC349367	LCI-1	MOHAVE	ACTIVE	LODE	2018	10/10/1997	14 0270N 0210W 029	NE,NW
AMC349368	AMC349367	LCI-2	MOHAVE	ACTIVE	LODE	2018	10/10/1997	14 0270N 0210W 029	NE,NW
AMC349369	AMC349367	LCI-3	MOHAVE	ACTIVE	LODE	2018	10/10/1997	14 0270N 0210W 029	NW,SW
AMC349370	AMC349367	LCI-4	MOHAVE	ACTIVE	LODE	2018	10/10/1997	14 0270N 0210W 029	NW,SW
AMC349373	AMC349367	LCI-7	MOHAVE	ACTIVE	LODE	2018	10/10/1997	14 0270N 0210W 029	SW
AMC6629	AMC6629	MACE	MOHAVE	ACTIVE	LODE	2018	05/02/1975	14 0190N 0200W 015	NE,NW
AMC6630	AMC6629	MACE EXTENSION	MOHAVE	ACTIVE	LODE	2018	05/02/1975	14 0190N 0200W 014	NW
								14 0190N 0200W 015	NE

Admin State: AZ
Geo State: AZ
Claimant Name: LA CUESTA INTERNATIONAL INC
Address: 3349 S STALLION DR
City: KINGMAN **State:** AZ **Zip:** 86401-8722 **Int Rel:** CLAIMANT **Customer ID:** 2354577

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC407863	AMC407863	SILVER CREEK 1	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 034	SW
AMC407864	AMC407863	SILVER CREEK 2	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 034	SW
AMC407865	AMC407863	SILVER CREEK 3	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 034	SW
AMC407866	AMC407863	SILVER CREEK 4	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 034	NW,SW
AMC407867	AMC407863	SILVER CREEK 5	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	SE
								14 0200N 0200W 034	SW
AMC407868	AMC407863	SILVER CREEK 6	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NE,SE
								14 0200N 0200W 034	NW,SW
AMC407869	AMC407863	SILVER CREEK 7	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	SE
AMC407870	AMC407863	SILVER CREEK 8	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NE,SE
AMC407871	AMC407863	SILVER CREEK 9	MOHAVE	ACTIVE	LODE	2018	03/02/2011	14 0200N 0200W 033	SE
AMC407872	AMC407863	SILVER CREEK 10	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NE,SE
AMC407873	AMC407863	SILVER CREEK 11	MOHAVE	ACTIVE	LODE	2018	03/02/2011	14 0200N 0200W 033	SE
AMC407874	AMC407863	SILVER CREEK 12	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NE,SE
AMC407875	AMC407863	SILVER CREEK 13	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	SW,SE
AMC407876	AMC407863	SILVER CREEK 14	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NE,NW,SW,SE
AMC407877	AMC407863	SILVER CREEK 15	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	SW
AMC407878	AMC407863	SILVER CREEK 16	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NW,SW
AMC407879	AMC407863	SILVER CREEK 17	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	SW
AMC407880	AMC407863	SILVER CREEK 18	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NW,SW
AMC407881	AMC407863	SILVER CREEK 19	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	SW
AMC407882	AMC407863	SILVER CREEK 20	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NW,SW
AMC407883	AMC407863	SILVER CREEK 21	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	SW
AMC407884	AMC407863	SILVER CREEK 22	MOHAVE	ACTIVE	LODE	2018	03/01/2011	14 0200N 0200W 033	NW,SW
AMC407893	AMC407863	SILVER CREEK 31	MOHAVE	ACTIVE	LODE	2018	03/28/2011	14 0200N 0200W 027	SE

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC407893	AMC407863	SILVER CREEK 31	MOHAVE	ACTIVE	LODE	2018	03/28/2011	14 0200N 0200W 034	NE,NW
AMC407894	AMC407863	SILVER CREEK 32	MOHAVE	ACTIVE	LODE	2018	03/28/2011	14 0200N 0200W 034	NW
AMC407895	AMC407863	SILVER CREEK 33	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 034	NW
AMC407896	AMC407863	SILVER CREEK 34	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 027	SW
								14 0200N 0200W 034	NW
AMC407897	AMC407863	SILVER CREEK 35	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 034	NW
AMC407898	AMC407863	SILVER CREEK 36	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 027	SW
								14 0200N 0200W 034	NW
AMC407899	AMC407863	SILVER CREEK 37	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NE
								14 0200N 0200W 034	NW
AMC407900	AMC407863	SILVER CREEK 38	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 027	SW
								14 0200N 0200W 028	SE
								14 0200N 0200W 033	NE
								14 0200N 0200W 034	NW
AMC407901	AMC407863	SILVER CREEK 39	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NE
AMC407902	AMC407863	SILVER CREEK 40	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SE
								14 0200N 0200W 033	NE
AMC407903	AMC407863	SILVER CREEK 41	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NE
AMC407904	AMC407863	SILVER CREEK 42	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SE
								14 0200N 0200W 033	NE
AMC407905	AMC407863	SILVER CREEK 43	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NE
AMC407906	AMC407863	SILVER CREEK 44	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SE
								14 0200N 0200W 033	NE
AMC407907	AMC407863	SILVER CREEK 45	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NE,NW
AMC407908	AMC407863	SILVER CREEK 46	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SW,SE
								14 0200N 0200W 033	NE,NW
AMC407909	AMC407863	SILVER CREEK 47	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NW
AMC407910	AMC407863	SILVER CREEK 48	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SW
								14 0200N 0200W 033	NW
AMC407911	AMC407863	SILVER CREEK 49	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NW
AMC407912	AMC407863	SILVER CREEK 50	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SW
								14 0200N 0200W 033	NW
AMC407913	AMC407863	SILVER CREEK 51	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NW
AMC407914	AMC407863	SILVER CREEK 52	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SW
								14 0200N 0200W 033	NW
AMC407915	AMC407863	SILVER CREEK 53	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 033	NW
AMC407916	AMC407863	SILVER CREEK 54	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 028	SW
								14 0200N 0200W 033	NW
AMC407925	AMC407863	SILVER CREEK 63	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 027	SW
								14 0200N 0200W 028	SE
AMC407926	AMC407863	SILVER CREEK 64	MOHAVE	ACTIVE	LODE	2018	03/28/2011	14 0200N 0200W 027	NW,SW
								14 0200N 0200W 028	NE,SE
AMC407927	AMC407863	SILVER CREEK 65	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SE
AMC407928	AMC407863	SILVER CREEK 66	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NE,SE
AMC407929	AMC407863	SILVER CREEK 67	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SE
AMC407930	AMC407863	SILVER CREEK 68	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NE,SE
AMC407931	AMC407863	SILVER CREEK 69	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SE
AMC407932	AMC407863	SILVER CREEK 70	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NE,SE

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC407933	AMC407863	SILVER CREEK 71	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SW,SE
AMC407934	AMC407863	SILVER CREEK 72	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NE,NW,SW,SE
AMC407935	AMC407863	SILVER CREEK 73	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SW
AMC407936	AMC407863	SILVER CREEK 74	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW,SW
AMC407937	AMC407863	SILVER CREEK 75	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SW
AMC407938	AMC407863	SILVER CREEK 76	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW,SW
AMC407939	AMC407863	SILVER CREEK 77	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SW
AMC407940	AMC407863	SILVER CREEK 78	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW,SW
AMC407941	AMC407863	SILVER CREEK 79	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SW
AMC407942	AMC407863	SILVER CREEK 80	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW,SW
AMC407943	AMC407863	SILVER CREEK 81	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	SW
								14 0200N 0200W 029	SE
AMC407944	AMC407863	SILVER CREEK 82	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW,SW
								14 0200N 0200W 029	NE,SE
AMC407945	AMC407863	SILVER CREEK 83	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 029	SE
AMC407946	AMC407863	SILVER CREEK 84	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 029	NE,SE
AMC407947	AMC407863	SILVER CREEK 85	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 029	SE
AMC407948	AMC407863	SILVER CREEK 86	MOHAVE	ACTIVE	LODE	2018	02/28/2011	14 0200N 0200W 029	SE
AMC407949	AMC407863	SILVER CREEK 87	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 027	NW
								14 0200N 0200W 028	NE
AMC407950	AMC407863	SILVER CREEK 88	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 027	NW
								14 0200N 0200W 028	NE
AMC407951	AMC407863	SILVER CREEK 89	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 021	SW,SE
								14 0200N 0200W 028	NE,NW
AMC407952	AMC407863	SILVER CREEK 90	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 021	SW
								14 0200N 0200W 028	NW
AMC407953	AMC407863	SILVER CREEK 91	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 021	SW
								14 0200N 0200W 028	NW
AMC407954	AMC407863	SILVER CREEK 92	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW
AMC407955	AMC407863	SILVER CREEK 93	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW
AMC407956	AMC407863	SILVER CREEK 94	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 028	NW
								14 0200N 0200W 029	NE
AMC407957	AMC407863	SILVER CREEK 95	MOHAVE	ACTIVE	LODE	2018	02/27/2011	14 0200N 0200W 029	NE
AMC407958	AMC407863	SILVER CREEK 96	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 029	NE,SE
AMC407959	AMC407863	SILVER CREEK 97	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 029	NE
AMC407970	AMC407863	SILVER CREEK 108	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 031	NE
AMC407971	AMC407863	SILVER CREEK 109	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 030	SE
								14 0200N 0200W 031	NE
AMC407972	AMC407863	SILVER CREEK 110	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 029	SW,SE
AMC407973	AMC407863	SILVER CREEK 111	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 029	SW
AMC407974	AMC407863	SILVER CREEK 112	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 029	SW
AMC407975	AMC407863	SILVER CREEK 113	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 029	SW
AMC407976	AMC407863	SILVER CREEK 114	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 029	SW
								14 0200N 0200W 030	SE
AMC407977	AMC407863	SILVER CREEK 115	MOHAVE	ACTIVE	LODE	2018	03/24/2011	14 0200N 0200W 030	SE
AMC410214	AMC410214	SILVER CREEK 116	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 020	NE,SE
								14 0200N 0200W 021	NW,SW
AMC410215	AMC410214	SILVER CREEK 117	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 020	NE

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC410215	AMC410214	SILVER CREEK 117	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NW
AMC410216	AMC410214	SILVER CREEK 118	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 022	SW
AMC410217	AMC410214	SILVER CREEK 119	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 022	NW,SW
AMC410218	AMC410214	SILVER CREEK 120	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 022	SW
AMC410219	AMC410214	SILVER CREEK 121	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 022	NW,SW
AMC410220	AMC410214	SILVER CREEK 122	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	SE
								14 0200N 0200W 022	SW
AMC410221	AMC410214	SILVER CREEK 123	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE,SE
								14 0200N 0200W 022	NW,SW
AMC410222	AMC410214	SILVER CREEK 124	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	SE
AMC410223	AMC410214	SILVER CREEK 125	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE,SE
AMC410224	AMC410214	SILVER CREEK 126	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	SE
AMC410225	AMC410214	SILVER CREEK 127	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE,SE
AMC410226	AMC410214	SILVER CREEK 128	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	SE
AMC410227	AMC410214	SILVER CREEK 129	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE,SE
AMC410228	AMC410214	SILVER CREEK 130	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	SW,SE
AMC410229	AMC410214	SILVER CREEK 131	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE,NW,SW,SE
AMC410230	AMC410214	SILVER CREEK 132	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	SW
AMC410231	AMC410214	SILVER CREEK 133	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NW,SW
AMC410232	AMC410214	SILVER CREEK 134	MOHAVE	ACTIVE	LODE	2018	07/25/2011	14 0200N 0200W 022	NW
AMC410233	AMC410214	SILVER CREEK 135	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE
								14 0200N 0200W 022	NW
AMC410234	AMC410214	SILVER CREEK 136	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE
AMC410235	AMC410214	SILVER CREEK 137	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SE
								14 0200N 0200W 021	NE
AMC410236	AMC410214	SILVER CREEK 138	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE
AMC410237	AMC410214	SILVER CREEK 139	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SE
								14 0200N 0200W 021	NE
AMC410238	AMC410214	SILVER CREEK 140	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE
AMC410239	AMC410214	SILVER CREEK 141	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SE
								14 0200N 0200W 021	NE
AMC410240	AMC410214	SILVER CREEK 142	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NE,NW
AMC410241	AMC410214	SILVER CREEK 143	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SW,SE
								14 0200N 0200W 021	NE,NW
AMC410242	AMC410214	SILVER CREEK 144	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NW
AMC410243	AMC410214	SILVER CREEK 145	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SW
								14 0200N 0200W 021	NW
AMC410244	AMC410214	SILVER CREEK 146	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NW
AMC410245	AMC410214	SILVER CREEK 147	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SW
								14 0200N 0200W 021	NW
AMC410246	AMC410214	SILVER CREEK 148	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NW
AMC410247	AMC410214	SILVER CREEK 149	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SW
								14 0200N 0200W 021	NW
AMC410248	AMC410214	SILVER CREEK 150	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	NW
AMC410249	AMC410214	SILVER CREEK 151	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SW
								14 0200N 0200W 021	NW
AMC410250	AMC410214	SILVER CREEK 152	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 020	NE
								14 0200N 0200W 021	NW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC410251	AMC410214	SILVER CREEK 153	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	SW
								14 0200N 0200W 017	SE
								14 0200N 0200W 020	NE
								14 0200N 0200W 021	NW
AMC410252	AMC410214	SILVER CREEK 154	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 020	NE
AMC410253	AMC410214	SILVER CREEK 155	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 017	SE
								14 0200N 0200W 020	NE
AMC410254	AMC410214	SILVER CREEK 156	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 017	SE
								14 0200N 0200W 020	NE
AMC410255	AMC410214	SILVER CREEK 157	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	NE,SE
AMC410256	AMC410214	SILVER CREEK 158	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 016	NE,NW,SW,SE
AMC410257	AMC410214	SILVER CREEK 159	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW,SW
AMC410258	AMC410214	SILVER CREEK 160	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW
AMC410259	AMC410214	SILVER CREEK 161	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW,SW
AMC410260	AMC410214	SILVER CREEK 162	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW
AMC410261	AMC410214	SILVER CREEK 163	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW,SW
AMC410262	AMC410214	SILVER CREEK 164	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW
AMC410263	AMC410214	SILVER CREEK 165	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW,SW
AMC410264	AMC410214	SILVER CREEK 166	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW
AMC410265	AMC410214	SILVER CREEK 167	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW,SW
								14 0200N 0200W 017	NE,SE
AMC410266	AMC410214	SILVER CREEK 168	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 016	NW
								14 0200N 0200W 017	NE
AMC410267	AMC410214	SILVER CREEK 169	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE,SE
AMC410268	AMC410214	SILVER CREEK 170	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE
AMC410269	AMC410214	SILVER CREEK 171	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE,SE
AMC410270	AMC410214	SILVER CREEK 172	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE
AMC410271	AMC410214	SILVER CREEK 173	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE,SE
AMC410272	AMC410214	SILVER CREEK 174	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE
AMC410273	AMC410214	SILVER CREEK 175	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE,NW,SW,SE
AMC410274	AMC410214	SILVER CREEK 176	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 017	NE,NW
AMC410275	AMC410214	SILVER CREEK 177	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 009	SW
								14 0200N 0200W 016	NW
AMC410276	AMC410214	SILVER CREEK 178	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 009	SW
								14 0200N 0200W 016	NW
AMC410277	AMC410214	SILVER CREEK 179	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 008	SE
								14 0200N 0200W 009	SW
								14 0200N 0200W 016	NW
								14 0200N 0200W 017	NE
AMC410278	AMC410214	SILVER CREEK 180	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 008	SE
								14 0200N 0200W 017	NE
AMC410279	AMC410214	SILVER CREEK 181	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 008	SE
								14 0200N 0200W 017	NE
AMC410280	AMC410214	SILVER CREEK 182	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 008	SE
								14 0200N 0200W 017	NE
AMC410281	AMC410214	SILVER CREEK 183	MOHAVE	ACTIVE	LODE	2018	07/24/2011	14 0200N 0200W 008	SW,SE
								14 0200N 0200W 017	NE,NW
AMC410282	AMC410214	SILVER CREEK 184	MOHAVE	ACTIVE	LODE	2018	07/23/2011	14 0200N 0200W 021	SW

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Mining Claims

Serial Number	Lead Serial Number	Claim Name	County	Disposition	Case Type	Last Assmt Year	Location Date	Meridian Township Range Section	Subdiv
AMC413137	AMC413137	SILVER CREEK 185	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 028	SW
								14 0200N 0200W 029	SE
								14 0200N 0200W 032	NE
								14 0200N 0200W 033	NW
AMC413138	AMC413137	SILVER CREEK 186	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SE
								14 0200N 0200W 032	NE
AMC413139	AMC413137	SILVER CREEK 187	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SE
								14 0200N 0200W 032	NE
AMC413140	AMC413137	SILVER CREEK 188	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SE
								14 0200N 0200W 032	NE
AMC413141	AMC413137	SILVER CREEK 189	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SW,SE
								14 0200N 0200W 032	NE,NW
AMC413142	AMC413137	SILVER CREEK 190	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SW
								14 0200N 0200W 032	NW
AMC413143	AMC413137	SILVER CREEK 191	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SW
								14 0200N 0200W 032	NW
AMC413144	AMC413137	SILVER CREEK 192	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SW
								14 0200N 0200W 032	NW
AMC413145	AMC413137	SILVER CREEK 193	MOHAVE	ACTIVE	LODE	2018	10/10/2011	14 0200N 0200W 029	SW
								14 0200N 0200W 030	SE
								14 0200N 0200W 031	NE
								14 0200N 0200W 032	NW
AMC427718	AMC427718	SILVER CREEK 194	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 028	NW
AMC427719	AMC427718	SILVER CREEK 195	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 028	NE,NW
AMC427720	AMC427718	SILVER CREEK 196	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 028	NW
AMC427721	AMC427718	SILVER CREEK 197	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 028	NE,NW
AMC427722	AMC427718	SILVER CREEK 198	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 021	NW
AMC427723	AMC427718	SILVER CREEK 199	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 021	NW
AMC427724	AMC427718	SILVER CREEK 200	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 021	SW
AMC427725	AMC427718	SILVER CREEK 201	MOHAVE	ACTIVE	LODE	2018	02/13/2014	14 0200N 0200W 021	SW
AMC428270	AMC428270	SILVER CREEK 202	MOHAVE	ACTIVE	LODE	2018	04/01/2014	14 0190N 0200W 004	NE,NW
AMC428271	AMC428270	SILVER CREEK 203	MOHAVE	ACTIVE	LODE	2018	04/01/2014	14 0190N 0200W 004	NE,NW
AMC428272	AMC428270	SILVER CREEK 204	MOHAVE	ACTIVE	LODE	2018	04/01/2014	14 0190N 0200W 004	NE
AMC428273	AMC428270	SILVER CREEK 205	MOHAVE	ACTIVE	LODE	2018	04/01/2014	14 0190N 0200W 003	NW
								14 0190N 0200W 004	NE
AMC428274	AMC428270	SILVER CREEK 206	MOHAVE	ACTIVE	LODE	2018	03/31/2014	14 0190N 0200W 004	NE
AMC428275	AMC428270	SILVER CREEK 207	MOHAVE	ACTIVE	LODE	2018	03/31/2014	14 0190N 0200W 003	NW
								14 0190N 0200W 004	NE
AMC428276	AMC428270	SILVER CREEK 208	MOHAVE	ACTIVE	LODE	2018	03/31/2014	14 0190N 0200W 004	NE
AMC428277	AMC428270	SILVER CREEK 209	MOHAVE	ACTIVE	LODE	2018	03/31/2014	14 0190N 0200W 003	NW
								14 0190N 0200W 004	NE