



**P&E MINING  
CONSULTANTS INC.**

**Geologists and Mining Engineers**

201 County Court Blvd., Suite 401  
Brampton, Ontario  
L6W 4L2

Tel: 905-595-0575  
Fax: 905-595-0578  
[www.peconsulting.ca](http://www.peconsulting.ca)

**TECHNICAL REPORT AND  
UPDATED MINERAL RESOURCE ESTIMATE  
OF THE SILVER QUEEN PROPERTY,  
OMINECA MINING DIVISION,  
BRITISH COLUMBIA, CANADA**

**UTM NAD83 ZONE 9U 648,300 m E, 5,995,100 m N  
LATITUDE 54°04'58" N, LONGITUDE 126°43'58" W**

**FOR  
EQUITY METALS CORPORATION**

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

**William Stone, Ph.D., P.Geo.**

**Fred H. Brown, P.Geo.**

**Antoine Yassa, P.Geo.**

**Garth Kirkham, P.Geo. (Kirkham Geosystems Ltd.)**

**Jarita Barry, P.Geo.**

**James Hutter, P.Geo. (Independent Geological Consultant)**

**Arthur Robert Barnes, P.Eng., FSAIMM (MPC Metallurgical Process Consultants Limited)**

**Eugene Puritch, P.Eng., FEC, CET**

**P&E Mining Consultants Inc.  
Report 435**

**Effective Date: December 1, 2022**

**Signing Date: January 16, 2023**

## TABLE OF CONTENTS

1.0	SUMMARY .....	1
1.1	Location and Property .....	1
1.2	Accessibility, Local Resources, Climate .....	1
1.3	History .....	1
1.4	Geology, Mineralization and Deposit Type .....	2
1.5	Exploration and Drilling .....	3
1.6	Sample Analysis and Data Verification .....	3
1.7	Mineral Processing and Metallurgical Testing .....	3
1.8	Mineral Resource Estimates .....	4
1.9	Conclusions and Recommendations .....	8
2.0	INTRODUCTION AND TERMS OF REFERENCE .....	9
2.1	Terms of Reference .....	9
2.2	Site Visit .....	9
2.2	Sources of Information .....	10
2.3	Units and Currency .....	10
3.0	RELIANCE ON OTHER EXPERTS .....	15
4.0	PROPERTY DESCRIPTION AND LOCATION .....	16
4.1	Location .....	16
4.2	Property Description and Tenure .....	16
4.3	Environmental and Permitting .....	22
5.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY .....	23
5.1	Access .....	23
5.2	Climate .....	24
5.3	Local Resources .....	24
5.4	Infrastructure .....	26
5.5	Physiography .....	26
6.0	HISTORY .....	27
6.1	Exploration History .....	27
6.1.1	Pre-2010 Exploration .....	27
6.1.2	2010 to 2018 Exploration and Drilling .....	30
6.1.2.1	2010 Drilling Program .....	30
6.1.2.2	2011 Exploration Program .....	31
6.1.2.3	2011 to 2017 Drilling Programs .....	33
6.1.2.5	2017 Drilling Program .....	34
6.1.2.4	2018 Drilling Program .....	34
6.2	Historical Metallurgy .....	35
6.2.1	Pre-1972 .....	35
6.2.2	1983 Bacon and Donaldson Gold Recovery .....	35
6.2.3	1987 Cominco CESL Program .....	35
6.2.4	1988 Lakefield Research .....	36
6.2.5	2019 Feasby: Possible Mineral Processing Flowsheet .....	37
6.2.6	2019 Metal Recovery Estimates .....	38
6.2.7	Opportunities for Metallurgical Optimization .....	39
6.3	Previous Mineral Resource Estimate .....	40

6.4	Past Production at Silver Queen Mine .....	42
7.0	GEOLOGICAL SETTING AND MINERALIZATION .....	43
7.1	Regional Geology .....	43
7.2	Property Geology .....	47
7.3	Local Geology.....	48
7.3.1	Tip Top Hill Formation.....	48
7.3.1.1	Host Rocks of the Silver Queen Veins .....	50
7.3.2	Eocene (assigned to the Buck Creek Group, Goosly Lake Formation).....	51
7.3.3	Intrusive Rocks .....	51
7.4	Structure.....	51
7.5	Mineralization .....	52
7.5.1	Precious-Metal Enriched, Polymetallic, Intermediate- Sulphidation Epithermal Veins .....	52
7.5.2	Cu-Mo-Au-Ag Porphyry Mineralization .....	54
7.6	Alteration .....	54
8.0	DEPOSIT TYPES.....	56
8.1	Structurally-Controlled Vein Deposits .....	56
8.1.1	Vein Mineralization at Camp, NG3 and No. 3 .....	60
8.1.1.1	Setting and Textures .....	60
8.1.1.2	Sulphide Mineralization.....	60
8.1.1.3	Alteration .....	61
8.2	Cu-Mo-Au Bulk Tonnage Mineralization .....	61
9.0	EXPLORATION.....	63
9.1	Airborne Magnetic Survey.....	63
9.2	Soil Sampling and Topographic Analysis.....	65
10.0	DRILLING.....	69
11.0	SAMPLE PREPARATION, ANALYSIS AND SECURITY .....	83
11.1	Pre-2010 Diamond Drilling .....	83
11.1.1	Sample Preparation .....	83
11.1.2	Sample Analysis.....	84
11.1.3	Sample Security .....	84
11.2	2010 diamond drilling.....	84
11.2.1	Sample Preparation .....	84
11.2.2	Sample Analysis.....	85
11.2.3	Sample Security .....	85
11.3	2020-2022 Diamond Drilling.....	85
11.3.1	Sample Preparation .....	85
11.3.2	Sample Analysis.....	86
11.3.3	Sample Security .....	86
11.4	Bulk Density .....	86
11.5	Quality Assurance/Quality Control Program.....	87
11.5.1	Pre-2010 Quality Assurance/Quality Control Program .....	87
11.5.2	2010 Quality Assurance/Quality Control.....	87
11.5.3	2010 Check Sampling Program .....	89
11.5.4	2020 to 2022 Quality Assurance/Quality Control .....	91
11.5.4.1	Performance of CRMs .....	91

	11.5.4.2	Performance of Blanks.....	102
	11.5.4.3	Performance of Duplicates.....	105
	11.6	Conclusion .....	110
12.0		DATA VERIFICATION .....	111
	12.1	P&E Data Verification.....	111
	12.1.1	2022 Assay Verification .....	111
	12.1.2	Drill Hole Data Validation.....	111
	12.2	Site Visit and Due Diligence Sampling .....	111
	12.2.1	2019 Site Visit.....	111
	12.2.2	2021 and 2022 Site Visits .....	114
	12.3	Conclusion .....	115
13.0		MINERAL PROCESSING AND METALLURGICAL TESTING .....	116
	13.1	Introduction.....	116
	13.2	2022 Mineralogical Characterization and Metallurgical Testing .....	116
	13.2.1	Introduction and Background to 2022 Testing .....	116
	13.2.2	Choice of Specimens.....	117
	13.2.3	Mineralogical Characterization.....	118
	13.2.4	Metallurgical Testwork.....	119
	13.2.5	Discussion of Test Results .....	126
	13.3	Net Smelter Return (NSR) Calculation.....	130
14.0		MINERAL RESOURCE ESTIMATES .....	132
	14.1	No. 3 and NG3 Veins.....	132
	14.1.1	Introduction.....	132
	14.1.2	Data Supplied.....	132
	14.1.3	Database Validation.....	134
	14.1.4	Economic Assumptions .....	134
	14.1.5	Domain Modelling.....	135
	14.1.6	Exploratory Data Analysis.....	136
	14.1.7	Bulk Density .....	138
	14.1.8	Compositing.....	138
	14.1.9	Composite Data Analysis.....	139
	14.1.10	Treatment of Extreme Values .....	141
	14.1.11	Variography .....	144
	14.1.12	Block Models.....	146
	14.1.13	Grade Estimation and Classification.....	146
	14.1.14	Mineral Resource Estimate.....	147
	14.1.15	Grade Sensitivity.....	148
	14.1.16	Validation.....	150
	14.2	Camp and Sveinson Veins .....	153
	14.2.1	Introduction.....	153
	14.2.2	Data .....	153
	14.2.3	Geology Model .....	155
	14.2.4	Data Analysis .....	155
	14.2.5	Composites.....	163
	14.2.6	Evaluation of Outlier Assay Values.....	171
	14.2.7	Bulk Density Determination .....	182
	14.2.8	Variography .....	183



14.2.9	Block Model Definition .....	183
14.2.10	Mineral Resource Estimation Methodology .....	185
14.2.11	Mineral Resource Classification .....	185
14.2.12	Silver, Gold Equivalencies and C\$NSR Calculations .....	186
14.2.13	Mineral Resource Statement .....	187
14.2.14	Sensitivity of the Block Model to Selection Cut-off Grade.....	188
14.2.15	Mineral Resource Validation .....	191
14.2.16	Discussion with Respect to Potential Material Risks to the Mineral Resources .....	191
14.3	Supplementary Information .....	192
14.3.1	Surface Drill Hole Plan .....	192
14.3.2	3-D Domains .....	194
14.3.3	AgEq Block Model Cross Sections and Plans .....	196
14.3.4	Classification Block Model Cross Sections and Plans .....	203
15.0	MINERAL RESERVE ESTIMATES.....	210
16.0	MINING METHODS .....	211
17.0	RECOVERY METHODS.....	212
18.0	PROJECT INFRASTRUCTURE .....	213
19.0	MARKET STUDIES AND CONTRACTS.....	214
20.0	ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL OR COMMUNITY IMPACTS .....	215
21.0	CAPITAL AND OPERATING COSTS.....	216
22.0	ECONOMIC ANALYSIS .....	217
23.0	ADJACENT PROPERTIES .....	218
24.0	OTHER RELEVANT DATA AND INFORMATION .....	222
25.0	INTERPRETATION AND CONCLUSIONS.....	223
26.0	RECOMMENDATIONS.....	226
27.0	REFERENCES .....	228
28.0	CERTIFICATES.....	231

## LIST OF TABLES

Table 1.1	2022 Updated Mineral Resource Estimates of the Silver Queen Project Utilizing a C\$100/t NSR Cut-off Value <sup>(1-10)</sup>	5
Table 1.2	2022 Updated Mineral Resource Model Sensitivities at Various C\$NSR/t Cut-offs <sup>1</sup>	7
Table 1.3	Recommended Program and Budget for 2023	8
Table 2.1	Qualified Persons Responsible for this Technical Report	10
Table 2.2	Terminology and Abbreviations (NI 43-101)	11
Table 2.3	Conversion Factors	14
Table 4.1	Mineral Tenures of the Silver Queen Property <sup>1</sup>	19
Table 5.1	Climate Data for the Town of Houston, B.C.	25
Table 6.1	Silver Queen Property Pre-1985 Exploration History	27
Table 6.2	Cole Lake Property Pre-1985 Exploration History	28
Table 6.3	Silver Queen Property Post-1985 Exploration History	29
Table 6.4	Select Significant Intersections – Target B	33
Table 6.5	1988 Pilot Plant Results, Silver Queen, No. 3 Vein	36
Table 6.6	Estimated Percent for Metallurgical Recoveries and Metals Payable	38
Table 6.7	Silver Queen Mineral Resource Estimate 2019 <sup>(1-7)</sup>	41
Table 8.1	Silver Queen Mineralization and Gangue Mineralogy	58
Table 10.1	2020 to 2022 Drilling Summary by Phase	71
Table 10.2	Collar Information for 2020-2022 Drill Holes on the Silver Queen Property	73
Table 10.3	Highlight Assays 2020-2022 Silver Queen Drilling	76
Table 11.1	Blank Samples Used in the 2010 Drill Program	87
Table 11.2	CRM Samples Used in the 2010 Drill Program	88
Table 11.3	Duplicate Samples Used in the 2010 Drill Program	89
Table 11.4	Recommended Values, Certified Reference Material: CDN-ME-4	91
Table 11.5	Summary of Certified Reference Materials Used at Silver Queen from 2020–2022	91
Table 13.1	Specimens Sent to Blue Coast Research	117
Table 13.2	Acid Digestion Results Plus C and S Values	118
Table 13.3	Cleaner Test Result Summary	123
Table 13.4	Rougher And Cleaner Summaries; Mass Pull, Recoveries and Grades (F4 + F5)	124
Table 13.5	Final Cleaner Concentrate Assays	125
Table 13.6	Simplified Typical TC and RC Terms	127
Table 13.7	Grades and Recoveries Achieved in 2022 Testwork, Typical Penalty Element Charges and Threshold Values for Base Metal Concentrates	127
Table 13.8	Grades and Recoveries Achieved in 2022 Testwork	128
Table 13.9	Valuation of Test Concentrates	129
Table 13.10	NSR Test Example	131
Table 14.1	Economic Parameters	134
Table 14.2	Grade Estimation Domain Rock Codes	135
Table 14.3	Summary Statistics for Constrained Au Assays g/t	136
Table 14.4	Summary Statistics for Constrained Ag Assays g/t	137
Table 14.5	Summary Statistics for Constrained Cu Assays Percent (%)	137
Table 14.6	Summary Statistics for Constrained Pb Assays Percent (%)	138
Table 14.7	Summary Statistics for Constrained Zn Assays Percent (%)	138
Table 14.8	Summary Statistics for Au Composites g/t	139

Table 14.9	Summary Statistics for Ag Composites g/t.....	139
Table 14.10	Summary Statistics for Cu Composites Percent (%) .....	140
Table 14.11	Summary Statistics for Pb Composites Percent (%).....	140
Table 14.12	Summary Statistics for Zn Composites Percent (%) .....	141
Table 14.13	Composite Capping Thresholds.....	144
Table 14.14	Block Model Setup .....	146
Table 14.15	Mineral Resource Estimate <sup>1-7</sup> .....	148
Table 14.16	Indicated Grade Sensitivity.....	148
Table 14.17	Inferred Grade Sensitivity.....	149
Table 14.18	Grade Block Model Check .....	150
Table 14.19	Statistics Silver and Gold for the Camp and Sveinson Veins.....	157
Table 14.20	Statistics Copper, Lead and Zinc for the Camp and Sveinson Veins .....	158
Table 14.21	Assay Interval Length Statistics .....	164
Table 14.22	Full Vein Composite Length Statistics .....	166
Table 14.23	Composite Statistics for Silver and Gold Weighted by Length.....	167
Table 14.24	Composite Statistics for Copper, Lead and Zinc Weighted by Length .....	169
Table 14.25	Outlier Composite Cutting Grade Thresholds by Zone .....	174
Table 14.26	Outlier Composite Cutting Analysis for Ag and Au.....	176
Table 14.27	Outlier Composite Cutting Analysis for Cu%, Pb% and Zn% .....	178
Table 14.28	Bulk Density Assignments by Zone – Bulk Gravity .....	182
Table 14.29	Search Ellipse Parameters for the Camp and Sveinson Veins.....	185
Table 14.30	Base-Case Camp and Sveinson Veins Mineral Resource at C\$100/t NSR Cut-off (1-10) .....	187
Table 14.31	Camp and Sveinson Veins Sensitivity Analyses at Various NSR Cut-off Grades for Indicated Mineral Resources .....	188
Table 14.32	Camp and Sveinson Veins Sensitivity Analyses at Various NSR Cut-off Grades for Inferred Mineral Resources .....	188
Table 23.1	Total NI 43-101 Mineral Resources on the Ootsa Project, Effective February 18, 2022 .....	220
Table 23.2	Total NI 43-101 Mineral Resource on the Berg Property, Effective Date March 9, 2021 .....	221
Table 26.1	Recommended Program and Budget for 2023.....	226

## LIST OF FIGURES

Figure 4.1	Property Location Map.....	16
Figure 4.2	Silver Queen Property Mineral Claims Map .....	18
Figure 5.1	Silver Queen Property Location Relative to the Yellowhead Highway BC-16 and Houston.....	23
Figure 5.2	Silver Queen Property Access from Houston and Location Relative to the Past-Producing Silver Equity Mine .....	24
Figure 6.1	Plan View Induced Polarization Anomalies .....	32
Figure 6.2	Feasby Speculative Mineral Processing Flowsheet.....	38
Figure 7.1	Regional Geological Setting of the Silver Queen Project .....	44
Figure 7.2	Regional Geology Map.....	45
Figure 7.3	Geology Map of the Silver Queen Exploration.....	47
Figure 7.4	Stratigraphic Column for the Silver Queen Area .....	49
Figure 7.5	Rock Textures in the Tip Top Hill Formation.....	50
Figure 8.1	Location of Major Veins and Underground Workings on the Silver Queen Property .....	57
Figure 8.2	Mineralization Styles at Silver Queen.....	59
Figure 8.3	Porphyry Style Stockwork Veining in Drill Core from the Itsit Porphyry.....	62
Figure 9.1	High-Resolution Magnetic Tilt Derivative in the Silver Queen Mine Area .....	64
Figure 9.2	Plan View of Workings, 3-D Topography Mineralized Solids and Structural Zones .....	65
Figure 9.3	Location of 2020-22 Drill Holes, Soil Sample Lines and Geochemical Anomalies Relative to the Main Exploration Targets .....	67
Figure 9.4	Plan Map of 2020-22 Drilling and Gold in Soils Over the No. 3 Vein and Sveinson Extension .....	68
Figure 10.1	Plan Map of Drilling on the Silver Queen Project and Workings, Target Veins and Modelled Mineralized Solids Projected to Surface .....	70
Figure 10.2	Drill Hole SQ20-010 Interval Containing 56,115 g/t Ag Over 30 cm .....	71
Figure 10.3	Close-up of No. 3 Vein Intercept in Drill Hole SQ21-022.....	81
Figure 11.1	Performance of CDN-CM-27 CRM: Au .....	93
Figure 11.2	Performance of CDN-CM-27 CRM: Cu .....	93
Figure 11.3	Performance of CDN-CM-40 CRM: Au .....	94
Figure 11.4	Performance of CDN-CM-40 CRM: Ag .....	94
Figure 11.5	Performance of CDN-CM-40 CRM: Cu .....	95
Figure 11.6	Performance of CDN-CM-41 CRM: Au .....	95
Figure 11.7	Performance of CDN-CM-41 CRM: Ag .....	96
Figure 11.8	Performance of CDN-CM-41 CRM: Cu .....	96
Figure 11.9	Performance of CDN-GS-12B CRM: Au.....	97
Figure 11.10	Performance of CDN-ME-1805 CRM: Au .....	97
Figure 11.11	Performance of CDN-ME-1805 CRM: Ag .....	98
Figure 11.12	Performance of CDN-ME-1805 CRM: Cu.....	98
Figure 11.13	Performance of CDN-ME-1805 CRM: Pb .....	99
Figure 11.14	Performance of CDN-ME-1805 CRM: Zn.....	99
Figure 11.15	Performance of CDN-ME-1902 CRM: Au .....	100
Figure 11.16	Performance of CDN-ME-1902 CRM: Ag .....	100
Figure 11.17	Performance of CDN-ME-1902 CRM: Cu.....	101
Figure 11.18	Performance of CDN-ME-1902 CRM: Pb .....	101

Figure 11.19	Performance of CDN-ME-1902 CRM: Zn.....	102
Figure 11.20	Performance of Blanks: Au .....	103
Figure 11.21	Performance of Blanks: Ag .....	103
Figure 11.22	Performance of Blanks: Cu .....	104
Figure 11.23	Performance of Blanks: Pb.....	104
Figure 11.24	Performance of Blanks: Zn.....	105
Figure 11.25	Performance of Field Duplicates: Au .....	106
Figure 11.26	Performance of Field Duplicates: Ag .....	107
Figure 11.27	Performance of Field Duplicates: Cu .....	108
Figure 11.28	Performance of Field Duplicates: Pb.....	109
Figure 11.29	Performance of Field Duplicates: Zn .....	110
Figure 12.1	Silver Queen Due Diligence Sample Results for Gold: May 2019 Site Visit ..	112
Figure 12.2	Silver Queen Due Diligence Sample Results for Silver: May 2019 Site Visit	112
Figure 12.3	Silver Queen Due Diligence Sample Results for Copper: May 2019 Site Visit .....	113
Figure 12.4	Silver Queen Due Diligence Sample Results for Lead: May 2019 Site Visit ..	113
Figure 12.5	Silver Queen Due Diligence Sample Results for Zinc: May 2019 Site Visit...	114
Figure 13.1 and Figure 13.2	Modal Mineralogy of Specimens and Sulphides .....	119
Figure 13.3	Copper Rougher: Cu Grade Versus Recovery.....	120
Figure 13.4	Pb Misplacement in Cu Rougher.....	120
Figure 13.5	Zn Misplacement in Cu Rougher .....	121
Figure 13.6	Ag Recovery and Grade in Cu Rougher.....	121
Figure 13.7	Pb Rougher, Pb Grade and Recovery .....	122
Figure 13.8	Zn Misplacement in Pb Rougher.....	122
Figure 13.9	Zn Rougher Results Zn Grade and Recovery.....	123
Figure 14.1	Drill Hole Location Plan Showing Underground Development .....	133
Figure 14.2	Mineralization Domains .....	136
Figure 14.3	Composite Log-Probability Plots .....	142
Figure 14.4	Semi-Variograms.....	145
Figure 14.5	Swath Plots .....	151
Figure 14.6	Plan View of Camp and Sveinson Vein Drill Holes .....	154
Figure 14.7	Plan View of Silver Queen Mineralized Zones and Drill Holes .....	156
Figure 14.8	Box Plot for Silver by Vein.....	161
Figure 14.9	Box Plot for Gold by Vein.....	161
Figure 14.10	Box Plot for Copper by Vein.....	162
Figure 14.11	Box Plot for Lead by Vein.....	162
Figure 14.12	Box Plot for Zinc by Vein .....	163
Figure 14.13	Assay Interval Lengths .....	163
Figure 14.14	Analysis of Grade Versus Assay Interval Lengths.....	165
Figure 14.15	Analysis of Grade Versus Full Vein Composite Interval Lengths .....	166
Figure 14.16	Cumulative Probability Plot for Ag Composites.....	172
Figure 14.17	Cumulative Probability Plot for Au Composites.....	172
Figure 14.18	Cumulative Probability Plot for Cu Composites .....	173
Figure 14.19	Cumulative Probability Plot for Pb Composites .....	173
Figure 14.20	Cumulative Probability Plot for Zn Composites .....	174
Figure 14.21	Dimensions, Origin and Orientation for the Block Model .....	184
Figure 14.22	Longitudinal Projection View of Block Model with AgEq and Drill Holes....	189

Figure 14.23	Cross-Section View of Block Model with AgEq, Topography and Grade Estimation Domains .....	190
Figure 14.24	Surface Drill Hole Location Plan .....	193
Figure 14.25	3-D Mineralized Domains Model.....	195
Figure 14.26	AgEq Block Model Cross Section Line -52NW .....	197
Figure 14.27	AgEq Block Model Cross Section Line -32NW .....	198
Figure 14.28	AgEq Block Model Cross Section Line -12NW .....	199
Figure 14.29	AgEq Block Model Plan 880 Elevation .....	200
Figure 14.30	AgEq Block Model Plan 800 Elevation .....	201
Figure 14.31	AgEq Block Model Plan 720 Elevation .....	202
Figure 14.32	Classification Block Model Cross Section Line -52NW.....	204
Figure 14.33	Classification Block Model Cross Section Line -32NW.....	205
Figure 14.34	Classification Block Model Cross Section Line -12NW.....	206
Figure 14.35	Classification Block Model Plan 880 Elevation.....	207
Figure 14.36	Classification Block Model Plan 800 Elevation.....	208
Figure 14.37	Classification Block Model Plan 720 Elevation.....	209
Figure 23.1	Major Mines and Exploration Projects Surrounding the Silver Queen Project .....	218

## **1.0 SUMMARY**

### **1.1 LOCATION AND PROPERTY**

The following report was prepared to provide a National Instrument 43-101 (NI 43-101) Updated Mineral Resource Estimate and Technical Report on Silver Queen Property for Equity Metals Corporation (“Equity Metals”). This updated Mineral Resource Estimate features extensions of the previously modelled No. 3 and NG-3 Veins, originally included in the 2019 Initial Mineral Resource Estimate, and new, previously unmodelled mineralization from the Camp and Sveinson Targets. The Technical Report has an effective date of December 1, 2022. Equity Metals is a corporation trading on the TSX Venture Exchange with the symbol “EQTY”.

The Silver Queen Property (the “Property”) is a silver-rich, polymetallic precious and base metal Property that comprises 45 contiguous unpatented mineral claims covering an area of 18,852 hectares (“ha”) in the Omineca Mining Division, near Owen Lake, British Columbia. The mineral claims in part overstate 17 contiguous crown granted Mineral Claims (304.47 ha) and two surface title crown grants (40.47 ha). The mineral claims are 100% owned by Equity Metals.

The Property is located 35 km south of the Town of Houston, BC, and 590 km north-northwest of the City of Vancouver. The centre of the Property is located at approximately 648,300 m E, 5,995,100 m N (UTM NAD83 Zone 9) or Latitude 54° 04’ 58” N and Longitude 126° 43’ 58” W. The Property is located 32 km southwest of the past-producing Equity Silver Mine.

### **1.2 ACCESSIBILITY, LOCAL RESOURCES, CLIMATE**

The Silver Queen Property is road accessible by the Morice-Owen Forest Service Road, which extends south from Trans-Canada Highway 16, approximately three km west of the Town of Houston. The road distance from Highway 16 to the Silver Queen site is 43.5 km. Houston, with a population of approximately 3,200, is located mid-way between the City of Prince George, 316 km to the east, and the port City of Prince Rupert, 411 km to the west, on the Yellowhead Highway BC-16.

The Property is characterized by a humid continental climate with summer temperatures averaging approximately 14.5°C and winter temperatures averaging -12.7°C. The area is in the rain shadow of the coastal mountains and is relatively dry. Exploration activities can be conducted year-round. The Silver Queen Property benefits from its proximity to the past-producing Equity Silver Mine and the surrounding region that supports a mining workforce with significant resources for mineral exploration, mine development and mine operations.

### **1.3 HISTORY**

The Silver Queen Property has a long history of exploration dating back to 1912. The Property hosts a past-producing mine with historical production from the Wrinch Vein system that includes the No. 3 Vein that is the focus of the current Technical Report, plus the Cole, and Chisholm Vein systems. Most recently, the Property was operated by the Bradina Joint Venture between 1972 and 1973 during which 190,676 t of mineralized material were mined from the No. 3 Vein.

By 1973, a total of 1,050 m of adits and crosscuts plus 810 m of drifting and raises and 1,500 m of diamond drilling had been completed on the Wrinch Vein system.

New Nadina Explorations Limited, the pre-courser company to Equity Metals Corp., conducted exploration and drilling programs on the Silver Queen Property since 2010. Drilling campaigns in 2010, 2011, 2012/13, 2017 and 2018 completed 51 drill holes for a total of 18,204 m. Drilling initially focused on defining extensions of the vein systems. However, a drilling program in 2011 discovered Cu-Mo porphyry mineralization named the Itsit Porphyry. Subsequent drilling in 2012, 2017 and 2018 focused on porphyry targets associated with Titan IP and ZTEM geophysical anomalies.

#### **1.4 GEOLOGY, MINERALIZATION AND DEPOSIT TYPE**

The Silver Queen Property is located in the Stikine Terrane of the Canadian Cordilleran Province, which includes Late Triassic through Tertiary volcanic-arc related rocks that have been intruded by plutonic rocks of Jurassic through Tertiary age. The plutonic rocks are associated with porphyry copper, stockwork molybdenum and mesothermal and epithermal base and precious metal veins. The Property is located on the western perimeter of the Buck Creek Basin, which is interpreted to be a resurgent caldera. A prominent lineament 30 km long trends east-northeast from the Silver Queen Property towards a central uplift hosting the Equity Silver Mine. The lineament appears to be associated with a radial fracture coinciding with the eruptive axis in the Kasalka Group Volcanics.

The Silver Queen Property is underlain by stratified rocks of the Kasalka Group, which consists of a basal reddish purple polymictic conglomerate (Unit 1), overlain by fragmental rocks ranging from thick crystal tuff (Unit 2) to coarse lapilli tuff and breccia (Unit 3), and is succeeded upwards by a thick feldspar-porphyrific andesite flow unit (Unit 4), intruded by microdiorite sills and other small intrusions (Unit 5). All of the stratified units are intruded by dykes that can be divided into three groups: amygdaloidal dykes (Unit 6), bladed feldspar porphyry dykes (Unit 7), and diabase dykes (Unit 8).

Stratified rocks on the Property form a 20° to 30° northwest-dipping homocline. Northwest trending faults dipping at 60° to 80° northeast and later subvertical northeast-trending faults displace the homoclinal sequence, breaking the stratigraphy into a series of fault panels. Most of the mineralized veins follow the northwest-trending faults, whereas veins are truncated and displaced by the northeast-trending set of faults.

Mineralization on the Silver Queen Property consists of quartz-carbonate-barite-specularite veins that contain disseminated to locally massive pyrite, sphalerite, galena, chalcopyrite, tennantite and argentian tetrahedrite. Approximately 20 mineralized veins have been discovered. The main quartz vein systems are the Wrinch (including the No. 3 Vein), Camp, Portal, Chisholm, George Lake and Cole. The average width of the veins is from 0.9 m to 1.2 m and locally increases to 4.6 m.

Silver Queen mineralization is associated with widespread alteration, including regional propylitic alteration characterized by replacement of primary mafic minerals by epidote and chlorite and the partial replacement of plagioclase by carbonate and sericite. The development of numerous limonite and jarosite gossans is interpreted to be the result of pervasive kaolinization-pyritization.



The widespread nature of the alteration suggests a deep source for the mineralizing solutions. The Wrinch Vein system has been the focus of most of the mining and development work to date. The overall strike of the veins is approximately 130° and traceable over a length of >1,300 m. These veins are generally banded with sphalerite as the dominant sulphide and subordinate amounts of pyrite, chalcopyrite and galena. The gangue minerals consist mainly of cherty quartz, carbonate minerals (rhodochrosite), and barite.

Most of the known mineralization on the Silver Queen Property occurs as structurally-controlled vein deposits, formed in a transitional porphyry-epithermal-type environment similar to the past-producing Equity Silver Deposit. In addition, the mineralization at the Itsit Intrusion, located southeast of the vein system, is porphyry-style Cu-Mo-Au-Ag mineralization.

## **1.5 EXPLORATION AND DRILLING**

There has been a long history of exploration on the Silver Queen Property, with many soil geochemical, geophysical and diamond drilling programs completed prior to 2020, and modest past production from the No. 3 Vein. A total of approximately 319 surface drill holes and 222 underground drill holes totalling 70,380 m were completed, mostly on the No. 3 Vein and the Camp Vein. Other targets that have been extensively explored in the past are the George Lake Vein, Cole Vein and Itsit Porphyry. Since 2020, Equity Metals completed a high-resolution airborne magnetic survey, orientation soil sampling surveys, and 79 additional drill holes for a total of 25,679 m. A single 20 metre hole was lost prior to target. Prior to that drilling, a total of 20 vein targets existed in the immediate area around the Silver Queen Camp. The exploration and drilling carried out from 2020 to 2022 was successful in further delineating the Camp Vein for incorporation into the current Mineral Resource Estimate and expanding the No. 3, Switchback, No. 5 and NG3 Veins.

## **1.6 SAMPLE ANALYSIS AND DATA VERIFICATION**

The Authors of this Technical Report (the “Authors”) consider that the sampling methodology as implemented by Equity Metals meets industry standards for an advanced exploration project and that sample preparation, security and analytical procedures for the Silver Queen Property drill programs were adequate for the purposes of this Mineral Resource Estimate. Site visits were completed by Mr. James Hutter, P.Geo., a Qualified Person under the regulations of NI 43-101, on May 29, 2019, and by Mr. Garth Kirkham, P.Geo., a Qualified Person under the regulations of NI 43-101, from October 2 to 4, 2021, and again on September 27, 2022. Mr. Kirkham had previously visited the Property on October 13, 2010 on behalf of New Nadina Explorations, the previous owner of the Property. It is the Authors’ opinion that the Equity Metals data and results are suitable for use in the current Mineral Resource Estimate.

## **1.7 MINERAL PROCESSING AND METALLURGICAL TESTING**

The Silver Queen mineral processing approach has been composed of crushing-grinding followed by selective froth flotation to produce copper-lead-silver, zinc and later, gold-containing pyrite concentrates for sale to a smelter or a hydrometallurgical facility. Cumulative process metal

recoveries are relatively high and have enabled estimates of metal payables, based on expected metallurgical recoveries and possible payables by a smelter or a pyrite processor.

## 1.8 MINERAL RESOURCE ESTIMATES

P&E Mining Consultants Inc. ("P&E") and Kirkham Geosystems Ltd ("KGL") completed an updated Independent Mineral Resource Estimate ("MRE") for the Silver Queen Project. The MRE features lateral and down-dip extensions of the previously modelled No. 3 and NG-3 Veins, originally included in the 2019 MRE, and new, previously unmodelled mineralization from the Camp and Sveinson Targets. The MRE utilizes a Net Smelter Return ("NSR") cut-off at C\$100/t with updated metal pricing.

Compared to the 2019 Mineral Resource Estimate, the 2022 update, at a C\$100/t NSR cut-off, features: 1) a 2.6 Mt increase in Indicated Mineral Resources to 3.46 Mt averaging 189 g/t Ag, 2.13 g/t Au, 0.24% Cu, 0.6% Pb and 3.5% Zn (or 565 g/t AgEq or 6.9 g/t AuEq), containing 21.0 Moz Ag; 0.237 Moz Au; 18 Mlb Cu; 48 Mlb Pb; and 267 Mlb Zn (or 62.8 Moz AgEq or 0.767 Moz AuEq; and 2) a 1.1 Mt increase in Inferred Mineral Resources to 1.92 Mt averaging 162 g/t Ag, 0.80 g/t Au, 0.23% Cu, 0.5% Pb and 2.0% Zn (or 356 g/t AgEq or 4.3 g/t AuEq), containing 10.3 Moz Ag, 0.05 Moz Au, 10 Mlb Cu, 23 Mlb Pb, and 84 Mlb Zn (or 22.5 Moz AgEq or 0.273 Moz Au) (Table 1.1).

This updated MRE incorporates an additional 25,659 m of core drilling in 78 holes completed in 2020 to 2022 and updated metal recoveries and metal prices. Five separate target areas have been tested in part and thick intervals of high-grade gold, silver and base metal mineralization have been identified in each of the Camp Vein, the Sveinson Target, No.3 Vein and NG-3 Vein systems. The updated NI 43-101 Mineral Resource Estimate increases the tonnage by approximately 240%, due to revised metal pricing, the extension to the NG-3 Deposit, and the addition of mineralization from the Camp and Sveinson Veins. Approximately 64% of the Mineral Resources are classified as Indicated Resources on a per tonnage basis and 74% of the total on a AgEq basis reflecting the overall higher average grade (565 g/t AgEq) of the MRE in the Indicated classification. The Mineral Resource has a strong precious-metal bias with gold and silver accounting for approximately 64% of the total value. The Mineral Resource update features a significant increase in contained silver ounces in both the Indicated (297%) and Inferred (117%) categories, which is supported in large part by the addition of strongly silver enriched mineralization from the Camp Veins.

Silver and gold Equivalents and NSR\$/t values were calculated using approximate average long-term prices of \$20/oz silver, \$1,700/oz gold, \$3.50/lb copper, \$0.95/lb lead and \$1.45/lb zinc. All metal prices are stated in \$US with a conversion to \$C of 0.77. See below the equivalency and C\$NSR calculations:

$$\text{AgEq} = (\text{Ag g/t} \times 1) + (\text{Au g/t} \times 81.41) + (\text{Cu\%} \times 116.35) + (\text{Pb\%} \times 28.77) + (\text{Zn\%} \times 44.80)$$

$$\text{AuEq} = (\text{Ag g/t} \times 0.012) + (\text{Au g/t} \times 1) + (\text{Cu\%} \times 1.43) + (\text{Pb\%} \times 0.35) + (\text{Zn\%} \times 0.55)$$

$$\text{C\$NSR} = (\text{Ag g/t} \times 0.57) + (\text{Au g/t} \times 46.79) + (\text{Cu\%} \times 66.87) + (\text{Pb\%} \times 16.54) + (\text{Zn\%} \times 25.74)$$

**TABLE 1.1**  
**2022 UPDATED MINERAL RESOURCE ESTIMATES OF THE SILVER QUEEN PROJECT**  
**UTILIZING A C\$100/T NSR CUT-OFF VALUE <sup>(1-10)</sup>**

<b>Zone</b>	<b>Tonnes (kt)</b>	<b>Ag (g/t)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AgEq (g/t)</b>	<b>AuEq (g/t)</b>
<b>Indicated Mineral Resources</b>	<b>Average Grade</b>							
No. 3 and NG3 Veins	2,942	150	2.45	0.25	0.7	3.8	569	6.9
Camp Vein	514	412	0.31	0.19	0.4	1.5	541	6.5
<b>Total</b>	<b>3,455</b>	<b>189</b>	<b>2.13</b>	<b>0.24</b>	<b>0.6</b>	<b>3.5</b>	<b>565</b>	<b>6.9</b>
<b>Inferred Mineral Resources</b>	<b>Average Grade</b>							
No. 3 and NG3 Veins	257	110	1.94	0.32	0.2	1.1	361	4.4
Camp Vein	1,664	176	0.64	0.22	0.6	2.1	366	4.4
<b>Total</b>	<b>1,920</b>	<b>167</b>	<b>0.82</b>	<b>0.23</b>	<b>0.5</b>	<b>2.0</b>	<b>365</b>	<b>4.4</b>
<b>Zone</b>	<b>Tonnes (kt)</b>	<b>Ag (koz)</b>	<b>Au (koz)</b>	<b>Cu (Mlb)</b>	<b>Pb (Mlb)</b>	<b>Zn (Mlb)</b>	<b>AgEq (koz)</b>	<b>AuEq (koz)</b>
<b>Indicated Mineral Resources</b>	<b>Contained Metal</b>							
No. 3 and NG3 Veins	2,942	14,168	232	16	43	249	53,842	657
Camp Vein	514	6,808	5	2	5	17	8,940	108
<b>Total</b>	<b>3,455</b>	<b>20,976</b>	<b>237</b>	<b>18</b>	<b>48</b>	<b>267</b>	<b>62,792</b>	<b>765</b>
<b>Inferred Mineral Resources</b>	<b>Contained Metal</b>							
No. 3 and NG3 Veins	257	911	16	2	1	6	2,975	36
Camp Vein	1,664	9,387	34	8	22	78	19,562	237
<b>Total</b>	<b>1,920</b>	<b>10,298</b>	<b>50</b>	<b>10</b>	<b>23</b>	<b>84</b>	<b>22,536</b>	<b>273</b>

**Notes:**

- 1) The current Mineral Resource Estimate was prepared by Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd and Eugene Puritch, P. Eng., FEC, CET and Fred Brown, P, Geo. of P&E Mining Consultants Inc. ("P&E"), Independent Qualified Persons, as defined by National Instrument 43-101.
- 2) All Mineral Resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI 43-101").
- 3) Mineral Resources were constrained using continuous mining units demonstrating reasonable prospects of eventual economic extraction.
- 4) Silver and Gold Equivalents were calculated from the interpolated block values using relative process recoveries and prices between the component metals and silver to determine a final AgEq and AuEq values.
- 5) Silver and Gold Equivalents and NSR\$/t values were calculated using average long-term prices of \$20/oz silver, \$1,700/oz gold, \$3.50/lb copper, \$0.95/lb lead and \$1.45/lb zinc. All metal prices are stated in \$USD. The C\$100/t NSR cut-off grade value for the underground Mineral Resource was derived from mining costs of C\$70/t, with process costs of C\$20/t and G&A of C\$10/t. Process recoveries used were Au 70%, Ag 80%, Cu 80%, Pb 81% and Zn 90%.

- 6) *Grade capping was performed on 1 m composites for the No. 3 and NG-3 Veins and whole vein composites for the Camp and Sveinson Veins. For the No. 3 and NG-3 Veins Inverse distance cubed ( $ID^3$ ) was utilized for grade interpolation for Au and Ag and inverse distance squared ( $ID^2$ ) was utilized for Cu, Pb and Zn. Inverse distance squared ( $ID^2$ ) was used for all metals in the Camp and Sveinson Veins.*
- 7) *A bulk density of 3.56 t/m<sup>3</sup> was used for all tonnage calculations in the No. 3 and NG-3 Veins. A variable bulk density with a 3.15 average was used for the Camp and Sveinson Veins.*
- 8) *Mineral Resources are not Mineral Reserves until they have demonstrated economic viability. Mineral Resource Estimates do not account for a Mineral Resource's mineability, selectivity, mining loss, or dilution.*
- 9) *An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*
- 10) *All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.*

Tabulation of grades and tonnages sensitivities (Table 1.2) demonstrate excellent retention of higher-grade mineralization at increasing C\$NSR cut-offs, with 84% of the Base Case Mineral Resource when expressed on a AgEq basis remaining above a C\$200 NSR cut-off.

In the Authors opinion, the drilling, assaying and exploration work on the Silver Queen Project supports this Mineral Resource Estimate and are sufficient to indicate a reasonable potential for economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The Mineral Resource Estimate was classified as Indicated and Inferred based on the geological interpretation, semi-variogram performance and drill hole spacing.

The Mineral Resource Estimate presented in the current Technical Report has been prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1 and in conformity with generally accepted "CIM Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Inferred Mineral Resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be classified as Mineral Reserves. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

<p style="text-align: center;"><b>TABLE 1.2</b>  <b>2022 UPDATED MINERAL RESOURCE MODEL SENSITIVITIES AT VARIOUS C\$NSR/T CUT-OFFS <sup>1</sup></b></p>															
<b>C\$NSR Cut-offs</b>	<b>Tonnes (kt)</b>	<b>Ag (g/t)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AgEq (g/t)</b>	<b>AuEq (g/t)</b>	<b>Ag (koz)</b>	<b>Au (koz)</b>	<b>Cu (Mlb)</b>	<b>Pb (Mlb)</b>	<b>Zn (Mlb)</b>	<b>AgEq (koz)</b>	<b>AuEq (koz)</b>
<b>CS\$50NSR</b>															
Indicated	4,031	167	1.89	0.22	0.6	3.1	503	6.1	21,642	244	20	51	279	65,233	795
Inferred	2,307	146	0.74	0.21	0.5	1.8	327	4.0	10,825	55	11	26	92	24,219	294
<b>CS\$100NSR</b>															
Indicated	3,455	189	2.13	0.24	0.6	3.5	565	6.9	20,976	237	18	48	267	62,792	765
Inferred	1,920	167	0.82	0.23	0.5	2.0	365	4.4	10,298	50	10	23	84	22,536	273
<b>CS\$150NSR</b>															
Indicated	2,833	215	2.46	0.25	0.7	3.9	642	7.8	19,569	224	16	44	246	58,440	712
Inferred	1,230	233	1.06	0.29	0.6	2.3	449	5.4	9,203	42	8	16	63	17,749	215
<b>CS\$200NSR</b>															
Indicated	2,346	239	2.78	0.27	0.8	4.3	712	8.7	17,989	210	14	39	224	53,709	654
Inferred	851	250	1.15	0.34	0.6	2.5	515	6.2	6,837	31	6	11	47	14,080	171

<sup>1</sup> Sensitivities were calculated at progressive C\$NSR/t cut-offs utilizing the same parameters and metal pricing as noted under Table 1.1.

## 1.9 CONCLUSIONS AND RECOMMENDATIONS

The Silver Queen Property contains a significant Ag-Au-Cu-Pb-Zn Mineral Resource that is associated with a large, well-defined transitional porphyry-epithermal-type environment hosted in the Upper Cretaceous Kasalka Group volcanic rock unit. The Property has potential for delineation of additional Mineral Resources associated with extension of known mineralized vein systems and for discovery of new mineralized vein systems.

The Authors consider that the Silver Queen Property hosts significant high-grade mineralization that may potentially be amenable to underground economic extraction and warrants further exploration. The Authors recommend that the next exploration program focus on core drilling to potentially increase the Mineral Resources on the Property. The proposed program should also include updated metallurgical studies to resolve metal displacement within the flotation circuit. The work is budgeted at US\$1.69M and should be completed in a four- to six-month timeframe in 2023 (Table 1.3).

<b>TABLE 1.3</b>	
<b>RECOMMENDED PROGRAM AND BUDGET FOR 2023</b>	
<b>Program</b>	<b>Budget (US\$)</b>
Claim and Property	25,000
<b>Field Program</b>	
Project Infrastructure	50,000
Analytical	230,000
Drilling (5,000 m)	650,000
Travel	4,000
Field Personnel	300,000
Surface sampling (soil and rocks)	100,000
Reclamation	75,000
<b>Field Program Subtotal</b>	<b>1,409,000</b>
<b>Oversight &amp; Metallurgical Work</b>	
Project Oversight	50,000
Project Management Travel	5,000
Metallurgical Testwork	50,000
Oversight and Reporting Expenses	105,000
<b>Sub-Total</b>	<b>1,539,000</b>
<b>Contingency (10%)</b>	<b>153,900</b>
<b>Total</b>	<b>1,692,900</b>

## **2.0 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 TERMS OF REFERENCE**

Equity Metals Corporation (“Equity Metals”) retained P&E Mining Consultants Inc. (“P&E”) to complete an independent NI 43-101 Updated Mineral Resource Estimate and Technical Report for the Silver Queen Project, located in the Omineca Mining Division of central British Columbia.

This Technical Report was prepared by P&E, at the request of Mr. Robert W.J. Macdonald, Vice President of Exploration of Equity Metals Corporation. On September 10, 2019, New Nadina Explorations Limited, incorporated in 1964 under the Company Act of British Columbia, reported its name change to Equity Metals Corporation. Equity Metals trades on the TSX Venture Exchange (TSXV) with the symbol “EQTY”. Equity metals has its corporate office located at:

1100 - 1199 West Hastings Street  
Vancouver, British Columbia  
V6E 3T5  
Phone: 604-684-9384  
Fax: 604-688-4670

This Technical Report is prepared in accordance with the requirements of National Instrument 43-101 (“NI 43-101”) and in compliance with Form NI 43-101F1 of the Ontario Securities Commission (“OSC”) and the Canadian Securities Administrators (“CSA”). The Mineral Resource Estimates are considered to be compliant with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions. This Technical Report is considered current as of the effective date December 1, 2022.

### **2.2 SITE VISIT**

Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd., a Qualified Person under the terms of NI 43-101, conducted a site visit of the Silver Queen Property from October 2 to 4, 2021, and then again, on September 27, 2022. The site visits included an inspection of the Silver Queen Property, offices, drill sites, drill collars, core storage facilities, the core receiving area, and tours of major centres and surrounding towns most likely to be affected by any potential mining operation. The findings are summarized in Section 12 of this Technical Report.

Previously Mr. Kirkham had visited the Property on October 13, 2010 on behalf of New Nadina Explorations (Ltd.) (“New Nadina”), the previous owner of the Property.

Previously, Mr. James Hutter, P.Geo., of New Nadina Explorations Ltd. conducted a site visit of the Property on May 29, 2019 for the previous Technical Report. A data verification sampling program was conducted as part of the on-site review. The results are summarized in Section 12 of this Technical Report.

## 2.2 SOURCES OF INFORMATION

This Technical Report is based, in part, on internal company technical reports, and maps, published government reports, company letters, memoranda, public disclosure and public information as listed in the References at the conclusion of this Technical Report. This Technical Report is also supplemented by published and available reports provided by the British Columbia Geological Survey. The reader is referred to those data sources, which are listed in the References section (Section 27) of this Technical Report, for further detail.

The Authors and co-Authors of each section of this Technical Report are presented in Table 2.1. In acting as independent Qualified Persons as defined by NI 43-101, they take responsibility for those sections of this Technical Report as outlined in the “Certificate of Author” included in Section 28.

<b>TABLE 2.1</b> <b>QUALIFIED PERSONS RESPONSIBLE FOR THIS TECHNICAL REPORT</b>		
<b>Qualified Person</b>	<b>Contracted By</b>	<b>Sections of Technical Report</b>
Mr. William Stone, Ph.D., P.Geo.	P&E Mining Consultants Inc.	2-10, 15-16, 18-24 and corresponding Sections of 1, 25-26
Mr. Fred Brown, P.Geo.	P&E Mining Consultants Inc.	Co-author 14.1 and 14.3 and corresponding Sections of 1, 25-26
Mr. Antoine Yassa, P.Geo.	P&E Mining Consultants Inc.	Co-author 14.1 and 14.3 and corresponding Sections of 1, 25-26
Mr. Garth Kirkham, P.Geo.	Kirkham Geosystems Ltd.	12.2.2 and 14.2 and corresponding Sections of 1, 25- 26
Ms. Jarita Barry, P.Geo.	P&E Mining Consultants Inc.	11, 12.1, 12.2.1 and corresponding Sections of 1, 25-26
Mr. James Hutter, P.Geo.	Independent Geological Consultant	Section 12.2.1 and corresponding Sections of 1, 25-26
Mr. Arthur Barnes, P.Eng. FSAIMM	MPC Metallurgical Process Consultants Limited	13 and corresponding Sections of 1, 25-26
Mr. Eugene Puritch, P.Eng., FEC, CET	P&E Mining Consultants Inc.	Co-author 14.1 and 14.3 and corresponding Sections of 1, 25-26

## 2.3 UNITS AND CURRENCY

Unless otherwise stated all units used in this Technical Report are metric. Zinc (“Zn”), lead (“Pb”) and copper (“Cu”) concentrations are reported in weight % (“%”). Gold (“Au”) and silver (“Ag”) assay values are reported in grams of metal per tonne (“g/t Au or g/t Ag”) unless ounces per ton (“oz/ton”) are specifically stated. The C\$ is used throughout this report unless the US\$ is specifically stated. At the time of issue of this Technical Report, the rate of exchange between the US\$ and the C\$ is US\$1.00 = C\$1.31. Location coordinates are expressed in the Universal Transverse Mercator (UTM) grid coordinates using 1983 North American Datum (NAD83) Zone 9 unless otherwise noted.



The following list, Table 2.2, shows the meaning of the abbreviations for technical terms used throughout the text of this Technical Report.

<p style="text-align: center;"><b>TABLE 2.2</b> <b>TERMINOLOGY AND ABBREVIATIONS (NI 43-101)</b></p>	
<b>Abbreviation</b>	<b>Meaning</b>
\$	dollar(s)
°	degree(s)
°C	degrees Celsius
<	less than
>	greater than
%	percent
2-D	two dimensional
3-D	three dimensional
AA	atomic absorption
AAS	atomic absorption spectrometry
Ag	silver
AgEq	silver equivalency
Au	gold
AuEq	gold equivalency
Authors, the	Authors of this Technical Report
Bralorne	Bralorne Can Fer Resources Limited and Pacific Petroleum Ltd.
°C	degree Celsius
C	carbon
C\$ or CAD\$	Canadian dollar
CAD	Canadian
CESL	Cominco Engineering Services Limited
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
cm	centimetre(s)
CN	Canadian National (Railway)
CoV	coefficient of variation
CRM	certified reference material
CSA	Canadian Securities Administrators
Cu	copper
DDH	diamond drill hole
deg	degree
\$M	dollars, millions
EM	electromagnetic
ES	emission spectroscopy
Equity Metals	Equity Metals Corporation
FA	fire assay
g	gram
g/t	grams per tonne
ha	hectare(s)

**TABLE 2.2**  
**TERMINOLOGY AND ABBREVIATIONS (NI 43-101)**

<b>Abbreviation</b>	<b>Meaning</b>
ICP	inductively coupled plasma
ICP-AES	inductively coupled plasma-atomic emission spectroscopy
ID	identification
ID <sup>2</sup>	inverse distance squared
ID <sup>3</sup>	inverse distance cubed
IP	induced polarization
ISO	International Organization for Standardization
JV	joint venture
k	thousand(s)
kg	kilograms(s)
KGL	Kirkham Geosystems Ltd.
km	kilometre(s)
koz	thousands of ounces
kt	thousands of tonnes
kW	kilowatt
lb	pound (weight)
level	mine working level referring to the nominal elevation (m RL), e.g., 4285 level (mine workings at 4285 m RL)
M	million(s)
m	metre(s)
m <sup>3</sup>	cubic metre(s)
Ma	millions of years
masl or m asl	metres above sea level
max	maximum
min	minimum
Mlb	million(s) of pounds
mm	millimetre
Mo	molybdenum
Moz	million ounces
MRE	Mineral Resource Estimate
MS	mass spectrometer
Mt	mega tonne or million tonnes
MTAR	British Columbia Mineral Tenure Act Regulation
NAD	North American Datum
NE	northeast
New Nadina	New Nadina Explorations Limited
NI	National Instrument
NN	nearest neighbour
No. 3 Vein	Number 3 Vein
No. 3 vein system	Cole, Chisholm and Wrinch Veins, vein system, also known as Wrinch vein system

**TABLE 2.2**  
**TERMINOLOGY AND ABBREVIATIONS (NI 43-101)**

<b>Abbreviation</b>	<b>Meaning</b>
NSR	net smelter return
NW	northwest
OSC	Ontario Securities Commission
oz	ounce
P&E	P&E Mining Consultants Inc.
Pb	lead
P.Eng.	Professional Engineer
P.Geo.	Professional Geoscientist
PLT	polylithic lapilli tuff
ppb	parts per billion
ppm	parts per million
Property, the	the Silver Queen Property that is the subject of this Technical Report
QA	quality assurance
QA/QC	quality assurance/quality control
QC	quality control
QEMSCAN	quantitative evaluation of minerals by scanning electron microscopy
RP3E	reasonable prospect of eventual economic extraction
S	sulphur
SE	southeast
SEM	scanning microscope
SGS	SGS S.A.
Si	silicon
SW	southwest
t	metric tonne(s)
T	short ton(s)
Technical Report	this NI 43-101 Technical Report
t/m <sup>3</sup>	tonnes per cubic metre
ton(s)	Imperial ton(s)
tpd	tonnes per day
TSF	tailings storage facility
TSX	Toronto Stock Exchange
TSXV	TSX Venture Exchange
US\$	United States dollar(s)
UTM	Universal Transverse Mercator grid system
VLF	very low frequency
VLF-EM	very low frequency electromagnetic
Zn	zinc
ZTEM	z-axis Tipper electromagnetic

Some conversion factors applicable to this report are shown in Table 2.3.

<b>TABLE 2.3</b> <b>CONVERSION FACTORS</b>	
1 ppm	1 g/t = 0.0291667 oz/ton
1 ppb	0.001 g/t
1 oz/ton	34.2857 g/t
1 troy ounce/ton	34.29 g/t
0.029 troy ounce/ton	1 g/t
1 gram	0.0322 troy ounces
1 troy ounce	31.104 grams
1 pound	0.454 kilograms
Linear Measurements	
1 foot	0.3048 metres
1 mile	1.609 kilometres
Area Measurements	
1 acre	0.405 hectares
1 square mile	2.59 square kilometres
1 square kilometre	100 hectares

### **3.0 RELIANCE ON OTHER EXPERTS**

The Authors have assumed that all of the information and technical documents listed in the References section of this Technical Report are accurate and complete in all material aspects. Although the Authors have carefully reviewed all of the available information presented, they cannot guarantee its accuracy and completeness. The Authors reserve the right, but will not be obligated to revise the Technical Report and conclusions, if additional information becomes known to them subsequent to the effective date of this Technical Report.

The Authors have reviewed and interpreted the historical documentation of data and observations of past activities by previous claim holders and exploration personnel who operated in the vicinity of the Silver Queen Property. The majority of this information is located within internal reports and memorandums of historical claim holders for this Property. The information concerning Adjacent Properties in Section 23 of this Technical Report is in the form of published NI 43-101 Technical Reports. The list of information used to complete this Technical Report is located herein under Section 27 References.

Although selected copies of the tenure documents, operating licenses, permits, and work contracts were reviewed, an independent verification of land title and tenure was not performed. The Authors have not reviewed or verified the legality of any underlying agreement(s) that exist concerning the claims, leases and licenses or other agreement(s) between third parties. Information on tenure and permits was obtained from Equity Metals. Selected information was verified by the Authors using the BC government mining lands website <https://www.mtonline.gov.bc.ca/mtov/home.do> (accessed December 1, 2022).

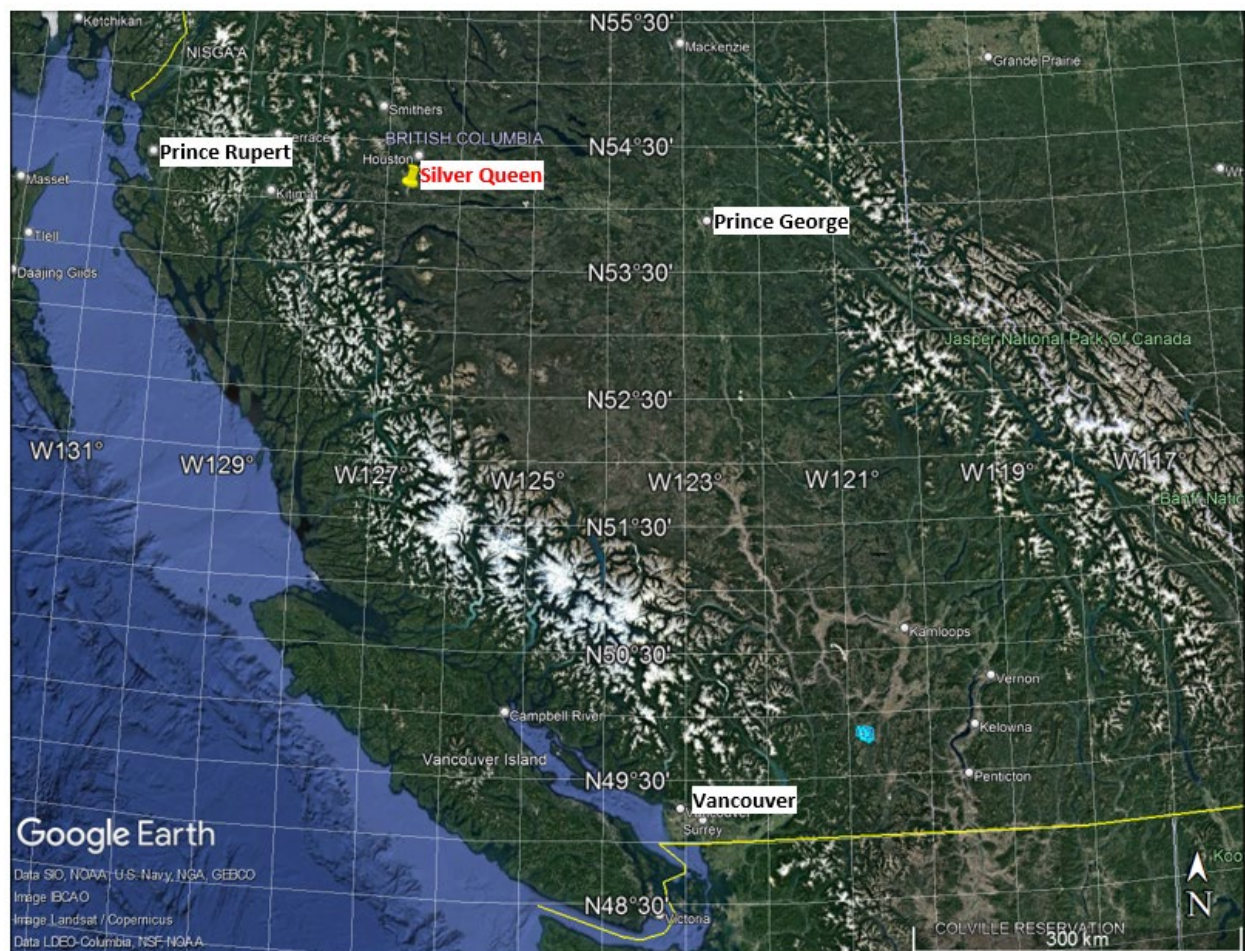
A draft copy of this Technical Report has been reviewed for factual errors by Equity Metals. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statement and opinions expressed in this document are given in good faith and in the belief that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

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 LOCATION

The Silver Queen Property is located in central British Columbia, 35 km south of the Town of Houston, BC, and 590 km north-northwest of the City of Vancouver, BC (Figure 4.1), approximately mid-way between the City of Prince George to the east and the City of Prince Rupert to the west. The centre of the Silver Queen Property is located at approximately 648,300 m E, 5,995,100 m N (UTM NAD83 Zone 9U) or Latitude 54° 05' N and Longitude 126° 44' W.

**FIGURE 4.1** PROPERTY LOCATION MAP



*Source: Google Earth (December 31, 2022)*

### 4.2 PROPERTY DESCRIPTION AND TENURE

Equity Metals 100% owned Silver Queen Property consists of 45 contiguous unpatented mineral claims covering an area of 18,852 ha in the Omineca Mining Division, near Owen Lake, British Columbia (Figure 4.2 and Table 4.1). The mineral claims in part overtake 17 contiguous crown granted Mineral Claims (304.47 ha) and 2 surface title crown grants (40.47 ha). Assessment work

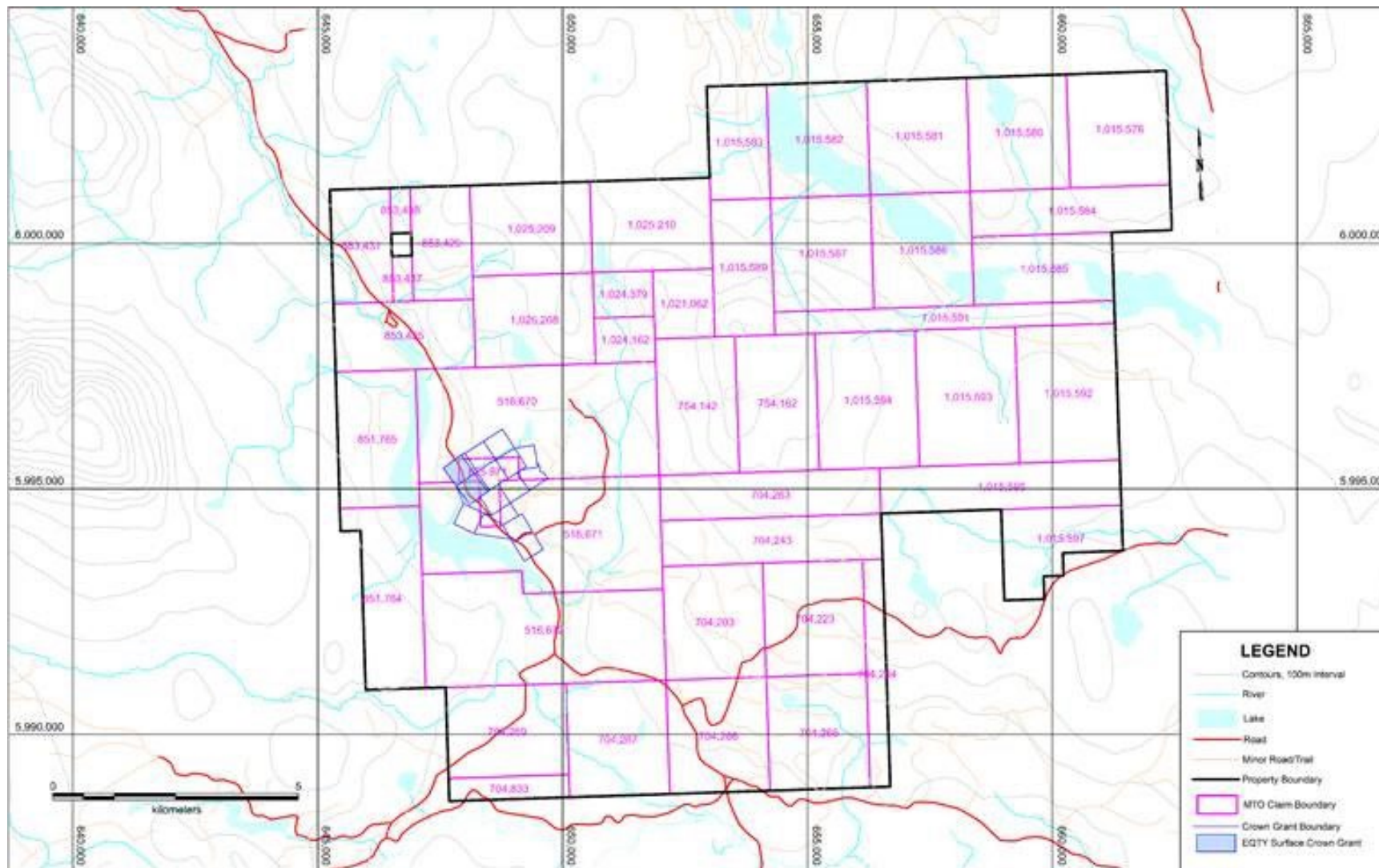
done on the Crown Grants may be applied to the mineral claims. There are no existing royalties associated with the Silver Queen Property.

The mineral claims forming the Silver Queen Property are subject to annual assessment work requirements. As per section 8(4) of the British Columbia Mineral Tenure Act Regulation (“MTAR”), the value of exploration and development required to maintain a mineral claim for one year is \$5.00 per hectare during each of the first and second anniversary years, \$10.00 per hectare for each of the third and fourth anniversary years, \$15.00 per hectare for each of the fifth and sixth anniversary years and \$20.00 per hectare for subsequent anniversary years. Exploration and development work can be registered within one year of the work being completed and the expiry date of claims can be advanced up to a maximum of 10 future anniversary years from the current year. As of the effective date of this Technical Report, all mineral claims are in good standing until November 2032.

Crown Grants are subject to annual tax payments. Currently the annual tax levy for the Silver Queen Crown Grants is \$380.58.



**FIGURE 4.2 SILVER QUEEN PROPERTY MINERAL CLAIMS MAP**



**Source:** Equity Metals (December 2022)

Note that the Crown Grants are overstaked by mineral claims 525871, 516670 and 516671.



**TABLE 4.1**  
**MINERAL TENURES OF THE SILVER QUEEN PROPERTY <sup>1</sup>**

<b>No.</b>	<b>Tenure No./ Crown Grant No.</b>	<b>Claim Name</b>	<b>Title Type</b>	<b>Issue Date</b>	<b>Expiry Date</b>	<b>Status</b>	<b>Area (ha)</b>
1	516670		Mineral	2005/JUL/11	2032/APR/14	GOOD	1081.00
2	516671		Mineral	2005/JUL/11	2032/APR/14	GOOD	1005.58
3	516672		Mineral	2005/JUL/11	2032/APR/14	GOOD	1006.03
4	525871	SQ_CGS	Mineral	2006/JAN/19	2032/APR/14	GOOD	94.85
5	704203	DQ1	Mineral	2010/JAN/22	2032/APR/14	GOOD	474.56
6	704223	DQ2	Mineral	2010/JAN/22	2032/APR/14	GOOD	474.57
7	704243	DQ3	Mineral	2010/JAN/22	2032/APR/14	GOOD	417.47
8	704263	DQ4	Mineral	2010/JAN/22	2032/APR/14	GOOD	417.39
9	704264	DQ5	Mineral	2010/JAN/22	2032/APR/14	GOOD	189.88
10	704265	DQ6	Mineral	2010/JAN/22	2032/APR/14	GOOD	474.81
11	704266	DQ7	Mineral	2010/JAN/22	2032/APR/14	GOOD	474.80
12	704267	DQ8	Mineral	2010/JAN/22	2032/APR/14	GOOD	474.77
13	704269	DQ9	Mineral	2010/JAN/22	2032/APR/14	GOOD	455.75
14	704833	DQ10	Mineral	2010/JAN/26	2032/APR/14	GOOD	113.97
15	754142	DQ11	Mineral	2010/APR/21	2032/APR/14	GOOD	455.14
16	754162	DQ12	Mineral	2010/APR/21	2032/APR/14	GOOD	455.15
17	851764		Mineral	2011/APR/15	2032/APR/14	GOOD	474.45
18	851765		Mineral	2011/APR/15	2032/APR/14	GOOD	455.20
19	853425		Mineral	2011/MAY/03	2032/APR/14	GOOD	398.13
20	853429		Mineral	2011/MAY/03	2032/APR/14	GOOD	284.25
21	853431		Mineral	2011/MAY/03	2032/APR/14	GOOD	284.27
22	853437		Mineral	2011/MAY/03	2032/APR/14	GOOD	37.91
23	853438		Mineral	2011/MAY/03	2032/APR/14	GOOD	37.90
24	1015576		Mineral	2012/DEC/31	2032/APR/14	GOOD	473.58
25	1015580		Mineral	2012/DEC/31	2032/APR/14	GOOD	473.58

**TABLE 4.1**  
**MINERAL TENURES OF THE SILVER QUEEN PROPERTY <sup>1</sup>**

No.	Tenure No./ Crown Grant No.	Claim Name	Title Type	Issue Date	Expiry Date	Status	Area (ha)
26	1015581		Mineral	2012/DEC/31	2032/APR/14	GOOD	473.57
27	1015582		Mineral	2012/DEC/31	2032/APR/14	GOOD	473.57
28	1015583		Mineral	2012/DEC/31	2032/APR/14	GOOD	284.14
29	1015584		Mineral	2012/DEC/31	2032/APR/14	GOOD	379.00
30	1015585		Mineral	2012/DEC/31	2032/APR/14	GOOD	398.05
31	1015586		Mineral	2012/DEC/31	2032/APR/14	GOOD	473.81
32	1015587		Mineral	2012/DEC/31	2032/APR/14	GOOD	473.81
33	1015589		Mineral	2012/DEC/31	2032/APR/14	GOOD	341.16
34	1015591		Mineral	2012/DEC/31	2032/APR/14	GOOD	322.29
35	1015592		Mineral	2012/DEC/31	2032/APR/14	GOOD	568.95
36	1015593		Mineral	2012/DEC/31	2032/APR/14	GOOD	568.95
37	1015594		Mineral	2012/DEC/31	2032/APR/14	GOOD	568.94
38	1015595		Mineral	2012/DEC/31	2032/APR/14	GOOD	455.34
39	1015597		Mineral	2012/DEC/31	2032/APR/14	GOOD	322.62
40	1021062		Mineral	2013/JUL/17	2032/APR/14	GOOD	170.60
41	1024162		Mineral	2013/DEC/02	2032/APR/14	GOOD	113.75
42	1024379		Mineral	2013/DEC/13	2032/APR/14	GOOD	113.72
43	1025208		Mineral	2014/JAN/16	2032/APR/14	GOOD	454.96
44	1025209		Mineral	2014/JAN/16	2032/APR/14	GOOD	454.77
45	1025210		Mineral	2014/JAN/16	2032/APR/14	GOOD	454.77
46	CG7399	EARL No 12	Crown Grant			GOOD	20.90
47	CG7401	EARL No 1 FR	Crown Grant			GOOD	4.76
48	CG6547	SILVER KING	Crown Grant			GOOD	20.90
49	CG6548	TYEE	Crown Grant			GOOD	20.44
50	CG7402	EARL NO. 3	Crown Grant			GOOD	14.26

<p style="text-align: center;"><b>TABLE 4.1</b> <b>MINERAL TENURES OF THE SILVER QUEEN PROPERTY <sup>1</sup></b></p>							
<b>No.</b>	<b>Tenure No./ Crown Grant No.</b>	<b>Claim Name</b>	<b>Title Type</b>	<b>Issue Date</b>	<b>Expiry Date</b>	<b>Status</b>	<b>Area (ha)</b>
51	CG6549	SILVER QUEEN	Crown Grant			GOOD	20.71
52	CG6550	SILVER TIP	Crown Grant			GOOD	20.14
53	CG7543	ASTA FRACTION	Crown Grant			GOOD	13.53
54	CG7400	EARL NO.22	Crown Grant			GOOD	20.90
55	CG6551	I X L	Crown Grant			GOOD	20.63
56	CG7403	I X L NO. 3	Crown Grant			GOOD	17.12
57	CG7541	LILI FRACTION	Crown Grant			GOOD	9.32
58	CG7404	LUCY	Crown Grant			GOOD	20.67
59	CG7545	MAE	Crown Grant			GOOD	20.07
60	CG7544	MAE NO. 1	Crown Grant			GOOD	18.73
61	CG7540	MARY	Crown Grant			GOOD	20.90
62	CG7542	MARG FRACTION	Crown Grant			GOOD	20.34
<b>Total Area</b>							<b>18,851.76</b>

**Notes:**

<sup>1</sup> Land Tenure information effective December 1, 2022.

<sup>2</sup> Crown Grant with both surface and subs-surface rights.

### 4.3 ENVIRONMENTAL AND PERMITTING

The Project operates under permit Mx-2-11, first issued on April 5, 1994 with the most recent amendment approved on May 21, 2020. The current permit is for Multi-Year Area Based (MYAB) work programs for a five-year term and includes permission for use of the existing camp facilities, 50 drill sites, 6 trenches and 12km of exploration trail and modified trail.

A MYAB update is submitted annually describing exploration intentions for the coming year and an Annual Summary of Exploration Activities (ASEA) is filed with the appropriate government agency at year end. Both the annual MYAB and ASEA, and reclamation reports, are distributed to the various stakeholders in the region, including the appropriate First Nations.

The Silver Queen Property is within the Wet'suwet'en land claim and band is included in the Notice of Work and permitting consultation process. Equity Metals actively encourages First Nation involvement and employs First Nations people and contractors in all activities when available.

The Silver Queen site is considered a “brownfield” site, as a result of previous mining and mineral processing during 1972-1973 and extensive exploration over many decades. The British Columbia environmental assessment and permitting processes are well defined and anticipated to proceed smoothly. A Closure Plan will be outlined and implemented that will result in minimal site long-term liabilities.

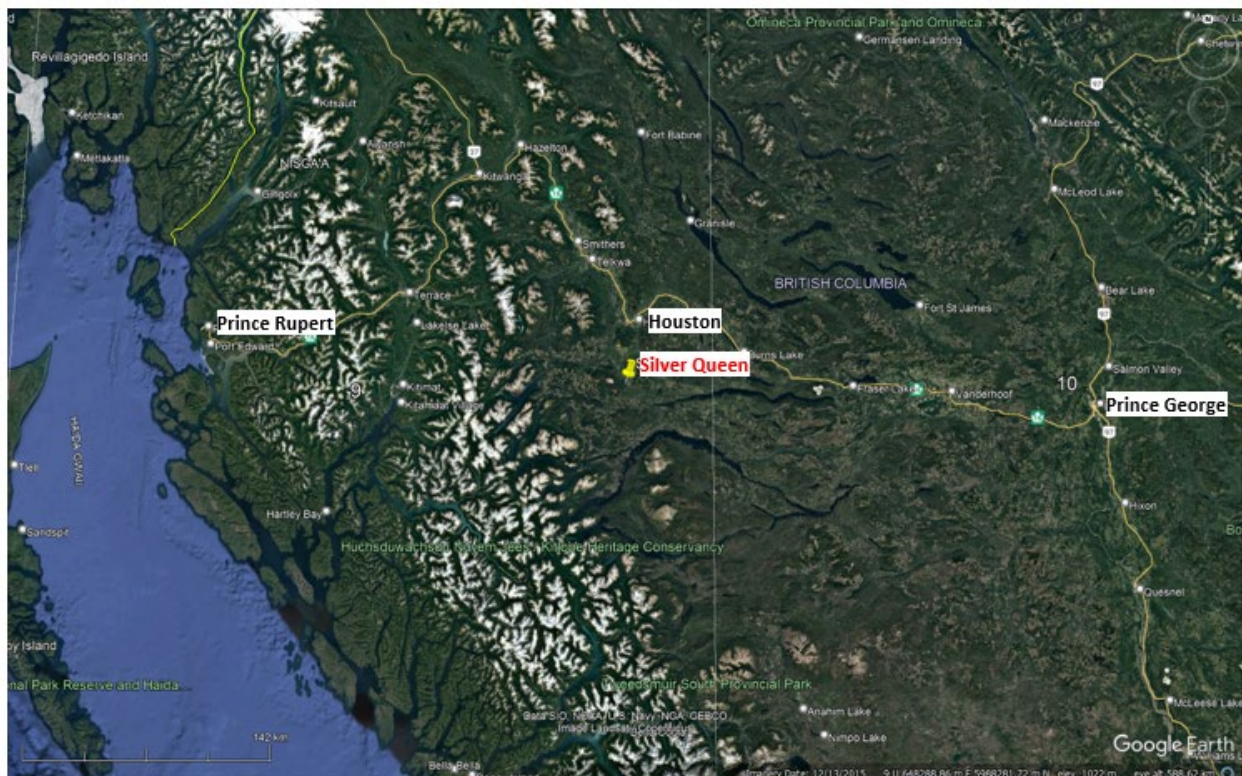
## 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 ACCESS

Houston, British Columbia, the nearest town to the Silver Queen Property, has a population of approximately 3,200. Houston is located on the Yellowhead Highway BC-16, approximately mid-way between the City of Prince George, 316 km to the east and the City of Prince Rupert, 411 km to the west (Figure 5.1).

Access to the Property is south from the Town of Houston via the Morice-Owen Forest Service Road, which leaves Highway 16 approximately three km west of Houston (Figure 5.2). The Morice-Owen Road is a well-maintained all-weather road in regular use by heavy industrial traffic. The road distance from Highway 16 to the Silver Queen site is 43.5 km. Farther along the road is the Huckleberry Mine, a road distance of 78 km beyond the Silver Queen Property. The past-producing Silver Equity Mine is located 32 km to the northeast of the Silver Queen Property.

**FIGURE 5.1 SILVER QUEEN PROPERTY LOCATION RELATIVE TO THE YELLOWHEAD HIGHWAY BC-16 AND HOUSTON**



*Source: Google Earth (December 31, 2022)*



**FIGURE 5.2 SILVER QUEEN PROPERTY ACCESS FROM HOUSTON AND LOCATION RELATIVE TO THE PAST-PRODUCING SILVER EQUITY MINE**



*Source: Google Earth (December 31, 2022)*

## **5.2 CLIMATE**

Houston has a humid continental climate with summer temperatures averaging 14°C and winter temperatures averaging -11°C. Being in the rain shadow of the coastal mountains, Houston has a dry climate with relatively uniform precipitation year-round. The annual rainfall is 35 cm per year and the average snowfall 164 cm per year. Annual snowfall is relatively high due to the five-month period in which mean temperatures are below freezing. The climate data for Houston are shown in Table 5.1.

## **5.3 LOCAL RESOURCES**

Houston with a population of 3,200 is located in the Regional District of Bulkley-Nechako. The main industries in the area are forestry, service and supply, and tourism. The larger community of Smithers, population of 5,351 (2016), is located 65 km northwest of Houston on Yellowhead Highway BC-16 is the regional center.

**TABLE 5.1**  
**CLIMATE DATA FOR THE TOWN OF HOUSTON, B.C.**

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	-9.4 °C (15.1) °F	-7.8 °C (17.9) °F	-3.5 °C (25.8) °F	1.4 °C (34.5) °F	6.7 °C (44) °F	11.4 °C (52.5) °F	14 °C (57.2) °F	13.7 °C (56.7) °F	8.7 °C (47.6) °F	2.3 °C (36.2) °F	-3.7 °C (25.3) °F	-9.8 °C (14.4) °F
Min. Temperature °C (°F)	-11.9 °C (10.6) °F	-11.2 °C (11.9) °F	-7.3 °C (18.9) °F	-2.9 °C (26.9) °F	1.5 °C (34.7) °F	5.9 °C (42.7) °F	8.6 °C (47.4) °F	8.5 °C (47.2) °F	4.5 °C (40.2) °F	-0.6 °C (30.9) °F	-6.1 °C (21) °F	-12.3 °C (9.8) °F
Max. Temperature °C (°F)	-5.6 °C (21.9) °F	-3.1 °C (26.4) °F	1.4 °C (34.5) °F	6.3 °C (43.3) °F	12.2 °C (54) °F	17.1 °C (62.8) °F	19.6 °C (67.2) °F	19.6 °C (67.2) °F	14 °C (57.3) °F	6.6 °C (43.9) °F	-0.4 °C (31.2) °F	-6.2 °C (20.9) °F
Precipitation / Rainfall mm (in)	79 (3)	52 (2)	54 (2)	51 (2)	58 (2)	74 (2)	64 (2)	57 (2)	71 (2)	101 (3)	102 (4)	82 (3)
Humidity(%)	85%	86%	76%	71%	66%	67%	67%	68%	76%	83%	84%	84%
Rainy days (d)	11	8	10	9	9	11	9	7	9	11	11	10
avg. Sun hours (hours)	3.4	5.2	6.6	8.4	10.0	10.5	10.0	9.1	6.3	4.8	3.4	2.9

**Source:** <https://en.climate-data.org/north-america/canada/british-columbia/houston-871492/> (December 31, 2022).

**Notes:** Data: 1991 - 2021 Minimum Temperature °C (°F), Maximum Temperature °C (°F), Precipitation/Rainfall mm (in), Humidity, Rainy days.  
Data: 1999 - 2019: average Sun hours.

## **5.4 INFRASTRUCTURE**

Equity Metals has a 15-person camp and drill core shed facilities on the Silver Queen Property. The Company maintains and monitors an on-site Tailings Storage Facility (“TSF”) constructed in 1970 by the Bradina Joint Venture. The TSF collects water from historical workings, including underground channels and drains through a natural wetland filtering area prior to entry into Owen Lake.

The Town of Houston is well serviced by the Yellowhead Highway BC-16, which provides access to the Pacific ports at Prince Rupert (410 km) and Kitimat (325 km). Houston is also serviced by the CN rail line with regular VIA Rail service.

Smithers, BC, located 65 km northwest of Houston on Yellowhead Highway BC-16, is the closest commercial airport with daily flights to Vancouver. Houston has a public aerodrome located 9 km north that is available for charters. One helicopter company, Westland Helicopters, operates out of Houston.

Equity Metals (at the time, New Nadina) granted Huckleberry Mines an easement over the Crown Grants for the power line to the Huckleberry Mine. Through the Powerline Right of Way Agreement executed in 1999, Huckleberry agreed to allow New Nadina the use of the power line if required, and agreed to use commercially reasonable best efforts to assist New Nadina in obtaining such rights and consents necessary to obtain power, should New Nadina require a connection for mine purposes. The agreement includes assisting New Nadina in its efforts to obtain access agreements over Crown Land, private lands, and reserves affected by the Right of Way.

Equity Metals does not hold any water licenses at present. However, there are abundant water sources on the Property. Options for water sources include local lakes, the construction of underground wells or the construction of a dam to collect precipitation. During the 1972-1973 production period, water for mining and processing operations was obtained from Owen Lake.

## **5.5 PHYSIOGRAPHY**

The Silver Queen Property is situated to the east of Owen Lake in the Morice River valley. Owen Lake is approximately three sq km in area and drains into the Morice River, which flows north and joins the Bulkley River west of Houston. Northwest of Houston, at Hazelton, the Bulkley River joins the Skeena River, which flows southwest to the Pacific Ocean at Prince Rupert.

Much of the Property occupies a moderate southwest facing slope. Close to Owen Lake and in the southeastern portion of the Property, the topography is relatively flat. Vegetation is generally heavy, with poplar, willows and heavy ground cover and with local spruce and fir forest. Elevations range from 762 masl at Owen Lake to more than 1,220 masl at the top of Tip Top Hill. The southwest-facing slopes lack tree cover and support a lush growth of grasses and other plants.



## 6.0 HISTORY

The Silver Queen Property has a long history of exploration dating back to 1912. This section on the history of exploration summarizes work from 1912 to 2018. Information on the pre-2010 historical exploration is primarily derived from the British Columbia Geological Survey MINFILE Detail Report for the Silver Queen Property and its pre-consolidation components.

### 6.1 EXPLORATION HISTORY

#### 6.1.1 Pre-2010 Exploration

The present Silver Queen Property was historically composed of the Silver Queen and the Cole Lake Properties. Except for the period 1928 to 1943, the Silver Queen and Cole Lake Properties were managed separately until 1985, when Bulkley Silver Resources Ltd. acquired both.

A summary of historical exploration on the Silver Queen Property from MINFILE is presented in point form in Tables 6.1 to 6.3 below. To simplify the exploration history, the pre-1985 exploration work on the two properties is discussed separately, Table 6.1 is work performed on the historical Silver Queen Property and Table 6.2 is on the historical Cole Lake Property. Table 6.3 shows work performed on the current Silver Queen Property post-1985.

<b>TABLE 6.1</b>	
<b>SILVER QUEEN PROPERTY PRE-1985 EXPLORATION HISTORY</b>	
<b>Year</b>	<b>Work Type Performed</b>
1912	Mineralization discovered, three adits driven on the Wrinch Vein system.
1915	38 tons of mineralization (31% Pb and 6 oz Ag) shipped from two shallow shafts.
1923	Property optioned to Federal Mining and Smelting Co. more than 150 m of drifting completed from the three adits.
1928	Silver Queen and Cole Lake properties acquired by Owen Lake Mining and Development Company, Cole Shaft sunk, a 900 m crosscut driven.
1941	Canadian Exploration (subsequently Placer Development) purchased Silver Queen claims, and optioned Cole Lake property; surface and underground mapping and sampling completed.
1943	The option on the Cole Lake ground dropped, work continued on Silver Queen veins until 1947.
1963	Nadina Explorations Ltd. optioned Silver Queen claims; program of diamond drilling, trenching, and underground development on the No. 3 Vein and traced Wrinch Vein system south to the "Ruby Extension Zone".
1966	Nadina continued underground and surface work on the property.
1967	Property optioned to Kennco Explorations; geological mapping, soil sampling and IP survey done; several deep holes drilled to test for porphyry copper mineralization.
1968	Nadina continued work on Silver Queen veins; soil sampling, trenching, diamond drilling and underground mapping.

**TABLE 6.1**  
**SILVER QUEEN PROPERTY PRE-1985 EXPLORATION HISTORY**

<b>Year</b>	<b>Work Type Performed</b>
1969	BC Ministry of Energy, Mines and Petroleum Resources mapped entire property in detail, as well as the area surrounding Owen Lake. Nadina completed 1,200 m of drifting, 51 drill holes (underground and surface) plus airborne geophysical surveys.
1970	Northgate Explorations optioned the property from Nadina; did extensive underground check sampling, 4,000 m of surface drilling, 450 m of underground drilling and 1,300 m of drifting and raising.
1971	Bralorne Can Fer Resources Limited and Pacific Petroleum Ltd. optioned the property, and formed the Bradina Joint Venture; feasibility study prepared by Dolmage Campbell and Associates, surface EM and IP surveys, 1,800 m of surface drilling and 50 m of drifting and raising.
1972	Property put into production in March 1972, using equipment from Bralorne's gold mine in southern B.C.
1973	Operations ceased September 1973 after milling 200,000 tons of mineralization. During 1972-73, 47 surface holes and 68 underground holes, totalling over 6,000 m drilled.
1974	1,800 m of drilling completed; JV agreement terminated.
1977	Nadina purchased Silver Queen property from Placer with Placer retaining back in rights. Property optioned by New Frontier Petroleum Ltd, the successor company to Frontier Explorations Ltd. which held the Cole Lake property. Limited deep drilling from surface completed, and the option dropped in 1978.
1980	Nadina reorganized as New Nadina Explorations Limited; a major program of backhoe trenching done, as well as surface drilling and rehabilitation of underground workings.
1981	Rehabilitation completed, additional drifting, with 28 underground and 4 surface drill holes drilled (a total of over 2,400 m).
1982	Campbell Resources completes re-evaluation of the Silver Queen property, completed limited metallurgical testing.
1983-84	New Nadina completed 2,300 m of surface diamond drilling in 15 holes.

**TABLE 6.2**  
**COLE LAKE PROPERTY PRE-1985 EXPLORATION HISTORY**

<b>Year</b>	<b>Work Type Performed</b>
1915	Cole Vein system staked as the Diamond Belle group.
1928	The property was acquired, along with the Silver Queen property, by the Owen Lake Mining and Development Company; Cole shaft sunk.
1941	Canadian Exploration optioned the property, completed mapping and sampling. Option dropped in 1943.
1967	Considerable trenching and some drilling on the Cole Lake veins by Frontier Explorations Ltd, who had acquired the ground in this area in 1960.

<p align="center"><b>TABLE 6.2</b> <b>COLE LAKE PROPERTY PRE-1985 EXPLORATION HISTORY</b></p>	
<b>Year</b>	<b>Work Type Performed</b>
1972	Frontier Explorations completes EM survey, as well as percussion drilling and 450 m of diamond drilling on George Lake Lineament Vein.
1980	Backhoe trenching by Frontier.
1981	New Frontier sold all its mining interests to Bulkley Silver Resources Ltd, who attempted to raise money to complete the Earl Adit which would intersect the Cole Vein system at depth. Insufficient funds were raised and only 30 m of this drive was completed.

<p align="center"><b>TABLE 6.3</b> <b>SILVER QUEEN PROPERTY POST-1985 EXPLORATION HISTORY</b></p>	
<b>Year</b>	<b>Work Type Performed</b>
1985	Bulkley Silver optioned the New Nadina ground to put the entire camp under the management of one company; a max-min EM survey and 6 diamond drill holes were completed.
1987	JV formed between New Nadina and Houston Metals Corp, (the successor to Bulkley Silver and subsequently reorganized as Pacific Houston Resources Inc). In excess of \$7,500,000 was spent on property exploration during 1987 and 1988, including 10,700 m of diamond drilling and 2,450 m of tunnelling, cross-cutting, and declining; and metallurgical work.
1989	University of British Columbia studies including geological mapping, structural studies, 2 M.Sc. theses (mineralogy, resources), 1 Ph.D. thesis (alteration).
1990	Pacific Houston becomes bankrupt, New Nadina assumed the debts and purchased the claims outright from Pacific Houston. Also, in 1990, an agreement was reached with Placer, whereby Placer signed over all remaining rights to the property.
1991	New Nadina addressed site remediation through a study by consultant Tom Higgs, to develop a system of treating zinc rich mine drainage prior to release into the environment.
1992	A tailings pond/wetland passive treatment system was implemented to treat mine Drainage.
1993 to present	Ongoing water sampling by New Nadina to test mine drainage, as required by the Ministry of Environment.
1995-1996	New Nadina abandoned the Silver 4 claim and restaked the property as the current Owen 1 - 5 claims. An Explore BC Grant was obtained to assist in a compilation and interpretation of previous data on the property. Sampling of water treated by wetlands indicated that this treatment was working. However, contamination was occurring from the mill site/waste dump areas. A reclamation program was undertaken to rectify this problem and filed for assessment. A combined program of satellite imagery analysis, digital elevation modelling and regional aeromagnetism was completed to identify regional controls for bulk tonnage mineralization.

**TABLE 6.3**  
**SILVER QUEEN PROPERTY POST-1985 EXPLORATION HISTORY**

<b>Year</b>	<b>Work Type Performed</b>
1996	Spring Drill program with five NQ diamond drill holes for a total of 3,041 feet (L. Caron Report No. 832, May 1996) and Fall Drill program with five NQ diamond drill holes for a total of 923 m (L. Caron Report No. 865, November 1996).
1997	Drill core storage lists by Jim Hutter (Report No. 910).
1998	PIMA short wave spectroscopy (Report No. 926), ERA Maptec Structural Report (No. 929) were compiled by G. Stewart into Report No. 1064.
1999	Reclamation, Trenching and Water Sample Report No. 1211. In November 1999, a 690 John Deere excavator was used to deepen the existing 75 m trench. The rocky knoll was drilled and blasted for a length of 10 m, width of 3 to 4 m, and approximately 1.5 m deep. The rock was removed.
2000	Lab Physical Property Tests on Samples from Silver Queen, Quantec Geoscience, Apr 17, 2000 (report No. 1011).
2005	GPS survey of claims by J. Hutter (Report No. 1117), a 3-D, IP survey on two selected areas by SJ Geophysics (Report No. 1126) and one hole drilled by Beaupre Drilling (Report No. 1120). Sampling by J. Hutter.
2008	Trench reclamation conducted by local rancher.
2009	Reclamation of trenches east of mine hill, raise covers installed, Cole Shaft covered, fences repaired around raises, cleaned site.
2010	Resampled core for verification purposes, 10-person container camp installed complete with septic and water system, geophysics (EM16) survey, soil sampling and diamond drilling.

### **6.1.2 2010 to 2018 Exploration and Drilling**

New Nadina completed exploration and drilling programs on the Silver Queen Property between 2010 and 2018. Drilling in 2010 targeted select vein targets, including the NG-3 Vein, whereas drilling from 2011 to 2018 largely tested geophysical anomalies associated with Cu-Mo porphyry targets. The programs and results are summarized chronologically below.

#### **6.1.2.1 2010 Drilling Program**

In 2010, New Nadina resampled drill core for verification purposes and completed soil sampling, an electromagnetic geophysical survey (EM16) and a drilling program.

During September and October 2010, 26 NQ2-size core drill holes were completed in six areas for a total of 4,109.5 m. Drilling was conducted in six locations: 1) IP anomaly (south); 2) Drainage ditch (old process plant site); 3) Camp North; 4) Swamp; 5) Cole North; and 6) NG-3. Drill hole locations (Figure 6.1).

The NG-3 Vein was initially discovered during drilling in 1970 by Northgate Explorations. Some sporadic drilling was completed on the vein in 1971 and the early 1980s. However, its precise location and orientation were unclear, as was its relationship to the

No. 3 Vein. Drilling from workings on the 2600 Level established that the NG-3 Vein is the eastern extension of the No. 3 Vein to the east of the Cole Creek Fault. Further drilling was completed on the NG-3 as part of the 2010 drilling program.

#### **6.1.2.2        2011 Exploration Program**

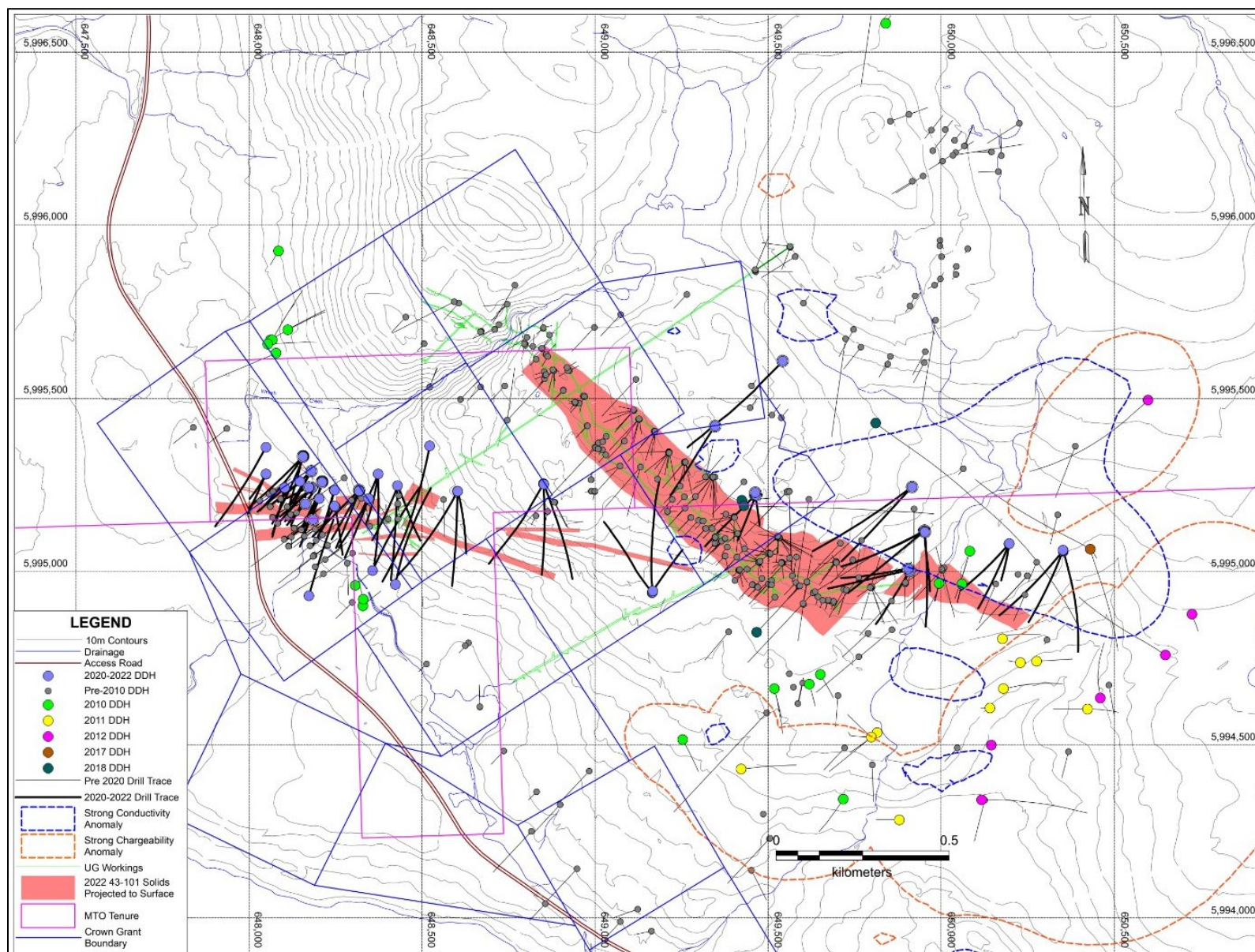
Due to the depth of overburden in the area, geophysics was selected to define suitable drill targets. The geophysical program consisted of two major components: 1) a ZTEM and magnetometer survey followed by advanced analysis of the magnetometer data; and 2) a Titan 24 deep-imaging DCIP and MT survey.

In early May 2011, Geotech Ltd. was engaged to undertake a helicopter-borne geophysical survey totalling 708.4 line-km. Sensors included a Z-axis Tipper electromagnetic (“ZTEM”) system and a caesium magnetometer, supported by a GPS navigation system and a radar altimeter. Mira Geoscience completed unconstrained modelling of the Geotech airborne magnetic data to generate a 3-D magnetic susceptibility model, in order to guide further exploration.

In July 2011, Quantec Geoscience Ltd undertook a ground-based Titan 24 DCIP and MT survey covering eight lines spaced approximately 300 m apart and totalling 24.6 line-km. Objectives of the survey were to locate favourable areas both for vein- and porphyry-style mineralization.

Two targets were identified; Targets A and B. Target A (a strong conductive zone known as the blue zone) was considered to be related to vein-type mineralization and Target B (a strong chargeability anomaly) was consistent with porphyry-style mineralization. Drill holes directed to Target A failed to intersect significant mineralization. Cu-Mo porphyry style mineralization was intersected in Target B which was named the Itsit Deposit. The chargeable and conductive areas are shown in a plan view in Figure 6.1.

**FIGURE 6.1 PLAN VIEW INDUCED POLARIZATION ANOMALIES**



*Source: Equity Metals (December 2022)*

### 6.1.2.3 2011 to 2017 Drilling Programs

During September and October 2011, thirteen drill holes totalling 4,490.2 m were completed: six drill holes totalling 1,723.5 m into Titan Target A and seven drill holes totalling 2,766.7 m were directed at Titan Target B. Target A was interpreted to be a vein system of the Silver Queen type. However, diamond drilling failed to intersect a likely source for this anomaly. Target B was consistent with porphyry style mineralization. Target B revealed Cu-Mo-Au porphyry mineralization and was named the Itsit Deposit. The locations of the drill holes are shown in Figure 6.1.

Holes drilled into Target A encountered occasional narrow intervals carrying weakly anomalous gold values but did not explain the underlying cause of the “A” anomaly. The holes which tested Target B did not encounter the feldspar porphyry or only encountered narrow intersections of it and only intersected narrow mineralized intervals. Four drill holes (11S-01, 11S-03, 11S-06 and 11S-13) encountered continuous mineralization (except for occasional post-mineral dykes) from the Upper Bounding Fault to the bottom of the hole and ended in mineralization. Select significant intersections are presented on Table 6.4.

<b>TABLE 6.4</b> <b>SELECT SIGNIFICANT INTERSECTIONS – TARGET B</b>							
<b>Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Mo (%)</b>	<b>CuEq (%)</b>
11S-03	Rods stuck - lost drill hole at 288 m – drill hole bottomed in mineralization						
	208.4	288	79.6	0.123	0.230	0.0010	0.321
11S-06	Hole stopped at 361.7 m due to squeezing clay – encountered strong mineralization						
	112.79	361.7	248.91	0.12	0.197	0.041	0.435
11S-13	Cored 693 m of near continuous mineralization – open to depth						
	84.35	330.55	246.2	0.054	0.099	0.016	0.208
	340.9	508.8	167.9	0.038	0.0978	0.005	0.143
	519	777	258	0.035	0.196	0.043	0.384

*Source: Barga et al. (2019)*

Drill hole DDH 12S-05 which tested the porphyry target, intersected a substantial vein that is interpreted as the eastern extension of the NG-3 Vein, extending it for over 300 m east of what was previously considered its easternmost extension and forming a cumulative 700m strike-length for the NG-3 Vein target. The vein strikes at 110° and dips 69° to the north which is somewhat different than the No. 3 Vein, which generally strikes 135° and dips 50-65° to the north, and likely indicates some rotation about the Cole Fault

The NG-3 Vein was intersected within the porphyry deposit in diamond drill hole 12S-05 from 332.5 to 338.0 m. Over a true width of 2.2 m the vein returned 3.15 g/t Au, 1580.8 g/t Ag, 1.25% Cu, 0.90% Pb, and 0.48% Zn. A sub-parallel footwall vein was also intersected in the same drill hole from 410.5 to 419.75 m, with a true width of 3.70 m. This vein returned assays of 2.3 g/t (0.067 oz/ton) Au, 166.6 g/t (4.86 oz/ton) Ag, 0.26% Cu, 0.22% Pb, and 0.90% Zn.



The NG-3 Vein in a number of drill holes is observed to have a footwall vein associated with it, which is the case also in drill hole DDH 12S-05. The footwall vein in most cases is weaker than the main vein above it. The No. 3 Vein is also known to have an associated footwall vein, particularly towards its eastern end, and this further supports the idea that the No. 3 Vein and NG- 3 Vein are the same vein.

In 2015, these samples were re-assayed using “ore-grade” procedures to produce more precise results. The resulting silver assays were considerably higher than anticipated and were the highest ever recorded from the NG-3 Vein. The vein, where intersected in drill hole DDH 12S-05, exhibits not only the best grades encountered to date, but also significant width.

The top of the porphyry deposit is truncated by the Upper Bounding Fault, and it is considered likely that this same fault also truncates the NG-3 Vein. The NG-3 Vein is still open to the east of the drill hole 12S-05 intersection below the Upper Bounding Fault and is also open to depth.

#### **6.1.2.5 2017 Drilling Program**

The 2017 drill program was conducted during October and November with all three holes from the same drill pad totalling 2,158.5 m. The drilling was planned to test a high-conductive body identified in earlier geophysics and test the high-silver intercepts reported in drill hole 12S-05.

Drill hole 17S-01 targeted a deep seated conductive geophysical anomaly with drill hole 17S-03 targeting an apophysis of this anomaly extending to the southeast of the main body, both identified in a 2012 Quantec Geoscience deep IP survey (Figure 6.1). The target for drill hole 17S-02 was a cylindrical chargeability feature and coincident resistivity low, in the north Itsit Porphyry, which was intersected by drill hole 12S-05 in 2012.

Drill Hole 17S-01, completed to a length of 816 m, intersected the conductive geophysical anomaly intersecting an intense stockwork veining with sub-vertical sulphide-low-silica veins ranging from <1 mm to 1.5 cm. The main body of the stockwork mineralization consists of pyrite, arsenopyrite, sphalerite, and possibly fine-grained tennantite-tetrahedrite, manganese oxides, ±galena and cobaltite. Also, within the target there are value carrying sections with up to 1.5 cm veins containing sulphides, visually identified and supported by assay results.

Drill Hole 17S-02, completed to a length of 667.51 m, tested the northwest portion of the Itsit Copper-Molybdenum-Gold porphyry. Results show that this target is a cylindrical sericite core of the Cu-Mo-Au Porphyry with an average grade of 0.27% Cu and 0.055% Mo over 142.06 m, which is rimmed by multiple layers of Zn-Ag sulphides on both sides, each of up to 3 m in depth (Burga *et al.*, 2019).

#### **6.1.2.4 2018 Drilling Program**

Drilling commenced May 17, 2018 and 3,052.5 m were completed by the first week in July. Three drill holes in total were completed (with one abandoned due to excessive drill hole deviation). All three drill holes were targeting the Blue Zone. The timing and scope of the program did not result in a definitive explanation for the existence of the Blue Zone. Further exploration is required to systematically cover the area.



## **6.2 HISTORICAL METALLURGY**

### **6.2.1 Pre-1972**

The No. 3 Vein was first intersected in 1929 by an adit crosscut at the 2600 level. Various exploration campaigns were undertaken and metallurgical testing was performed. In 1972, a 600-700 ton/day process plant was constructed and processing initiated. Mining and processing ceased due to mining and metallurgical performances that were below expectations in September 1973 after having processed 180,000 t.

Several additional exploration campaigns took place in the decades following with accompanying sampling and analyses, mineral resource estimation and in some cases, metallurgical testing. The mineral processing approach consistently composed of crushing and grinding followed by selective froth flotation to produce copper-lead-silver, zinc, and later, gold-containing pyrite concentrates for sale to a smelter or a hydrometallurgical facility.

Pyrite-sphalerite-chalcopyrite and sphalerite-galena had been identified as the main types of sulphide mineralization (JDS Energy Mining Inc. 2010).

Pre-1972 metallurgical testwork indicated high rougher flotation recoveries of: Au-94%, Ag-97%, Cu-99%, Pb-98% and Zn-99% (Britton Research Ltd. 1970). However, cleaning to produce marketable concentrates resulted in a high percentage of gold and silver reporting to tailings (Bacon, Donaldson & Associates, 1987).

The 1972 process plant had been expected to produce recoveries of Au-50%, Ag-60%, Cu-70% and Zn-95%. Partially due to alleged low-grade mineralized material feed and oxidation, the process plant performance fell short of expectations. Some research was targeted at improving gold recovery. However, the reported deportment of Au into sulphides, including pyrite, and the relatively low price of gold ended consideration of a separate gold recovery circuit.

### **6.2.2 1983 Bacon and Donaldson Gold Recovery**

In 1983 Bacon and Donaldson conducted metallurgical tests under the direction of Morris Vreugde. The primary objective of this testwork was gold recovery from a composite sample with the following contents: 6.2 g/t Au; 230 g/t Ag; 0.32% Cu; 0.8% Pb; 8.46% Zn. Rougher Cu-Pb and Zn concentrates were produced, which combined contained 85% of the gold and 94% of the silver. The rougher tails, containing only 15% of the gold, were subjected to a cyanide leach. The achieved gold extraction was only 33% in this leach. From these simple tests it was concluded that gold and silver are associated with all of the metal sulphides; and a significant proportion of the gold could be listed as “refractory”, requiring sulphide breakdown for high percent gold recovery.

### **6.2.3 1987 Cominco CESL Program**

In 1987, Cominco Engineering Services Limited (“CESL”) conducted an extensive metallurgical program at various laboratories in support of a Feasibility Study to determine the maximum payable metals (JDS Energy Mining Inc. 2010). The tests included flotation to produce

concentrates, bio-oxidation of sulphides, cyanidation and roasting. This resulted a process that produced Cu/Pb, Zn and pyrite concentrates. The Cu/Pb concentrate was roasted to reduce arsenic to a smelter-acceptable level, and the pyrite concentrate was bio-oxidized to liberate the gold content for cyanide extraction. The zinc concentrate was to be sold as is.

Bioleaching testwork was carried out on 3 concentrates: Copper, Pyrite and Ag-Au concentrate by Giant Bay Biotech (1988). Although bioleaching of the pyrite and Au-Ag concentrates was able to successfully oxidize the pyrite and improve gold recoveries from 42 to 90.5% for the pyrite and from 62.9 to 92.1% for the Au-Ag concentrate, silver recoveries only increased from 54.3 to 72.7% and from 52.0 to 72.4%, respectively. This was attributed to be due to jarosite formation. Bio-oxidation of the copper concentrate to eliminate arsenic was unsuccessful, as the arsenic was in the form of tennantite and not arsenopyrite.

A mineralogical examination of 13 specimens of mineralized material was performed (Bernstein, 1987). A number of complex sulphosalts were identified. Gold deportment was not possible. The report concluded that all the mineralized areas were qualitatively similar in origin, but varied widely in the proportion of volatile (e.g., As), and precious (Ag) metals depending on the location. Tetrahedrite-Ag was a major silver mineral.

#### 6.2.4 1988 Lakefield Research

The most significant metallurgical tests appear to have been locked cycle and pilot scale flotation tests that were performed at Lakefield Research in 1988 (now SGS Lakefield). Locked cycle and pilot scale tests gave similar results. The following Table 6.5 shows a result from the 600 kg/h pilot plant tests on representative bulk samples.

The overall recovery, resulting from the pilot scale test, in the three concentrates of Au, Ag, Cu, Pb and Zn was quite high at 83%, 95%, 93%, 91%, and 98% respectively. The Cu-Pb concentrate grade is reasonable containing about 75% chalcopyrite and galena and significant concentrations of gold and silver. The arsenic content (4.4%) of the Cu-Pb concentrate would be considered problematic for feed to a smelter; <1% is a general objective. The zinc concentrate contains a smelter-acceptable concentration of zinc; the gold content of the pyrite concentrate was low at 7.5 g/t, especially considering the indication in earlier testwork that the gold associated with pyrite could be considered “refractory”.

A Lakefield bench scale “locked cycle” test on a sample, assaying approximately twice the content of the five metals of interest, produced a pyrite concentrate with slightly higher gold content at 9.7 g/t Au. Cumulative recoveries of all payable metals in this test exceeded 94%.

**TABLE 6.5**  
**1988 PILOT PLANT RESULTS, SILVER QUEEN, NO. 3 VEIN**

Fraction	Wt %	(g/t)		(%)					% Distribution						
		Au	Ag	Cu	Pb	Zn	As	S	Au	Ag	Cu	Pb	Zn	As	S
Cu-Pb Conc	2.4	22.2	5,220	10.1	39.0	9.5	4.44	23	15.8	51.5	65.8	78.4	4.4	60.5	4.8
Zn Conc	8.4	7.71	855	0.87	1.27	56.6	0.26	31.6	19.1	29.5	19.8	9.0	92.4	12.4	23.3

Pyrite Conc	21.5	7.5	158	0.13	0.23	0.27	0.18	30.2	47.9	14.0	7.6	4.1	1.1	21.5	57.3
Tails	67.8	0.87	158	0.037	0.15	0.16	0.015	2.4	17.2	5.0	6.8	8.5	2.1	5.6	14.7
Calculated Heads	100	3.37	243	0.37	1.19	5.14	0.18	11.3	100	100	100	100	100	100	100

### 6.2.5 2019 Feasby: Possible Mineral Processing Flowsheet

The paragraphs following show the philosophy followed by Feasby based on available testwork results in 2019. The complete 2019 report is included here as its recommendations guided the 2022 mineralogical study and limited metallurgical testwork. Challenges with respect to maximizing payable metal content in concentrates were clearly identified, as were opportunities for enhanced process recoveries.

“Mineral processing research and development has focused on a strategy that would accommodate the variations in vein mineralogy. Tests have been focused on the application of conventional mineral concentration by grinding and froth flotation. Optional, supplementary approaches such as the use of ore-sorting or gravity separation do not appear to have been considered.

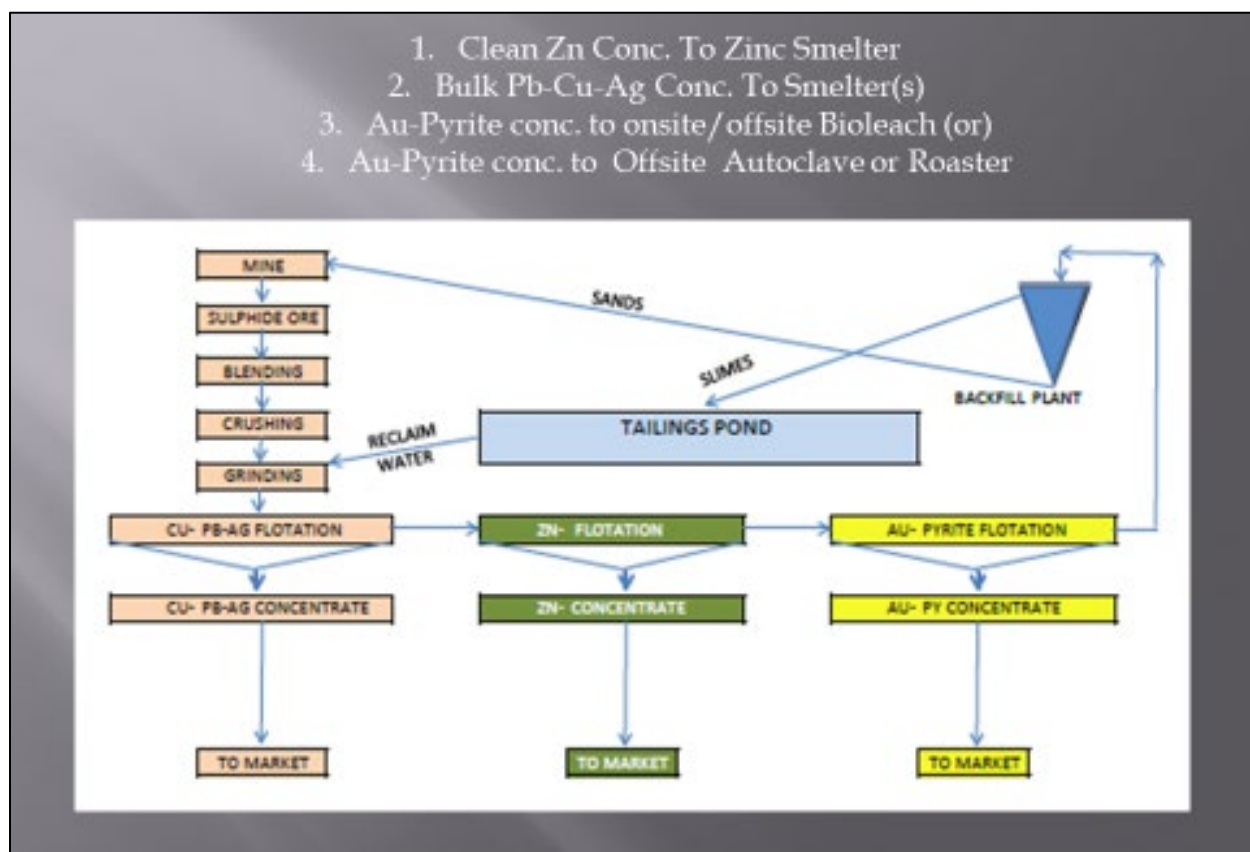
Three flotation concentrates would be produced as outlined in a process shown in Figure 6.2. A copper-lead concentrate, containing significant concentrations of silver and gold would be the first concentrate produced. As noted above, this concentrate contains a general lead smelter prohibitive level of arsenic. The two primary strategies for considering the management and ultimately sale of this arsenic-contaminated concentrate are: Reduce the arsenic content at the mine site by either roasting ( $\text{As}_2\text{O}_3$  is volatilized and collected) or arsenic is removed by a wet metallurgical process as previously attempted at the Equity Silver Mine in the region. Either option is quite costly and it is likely that an official permit to operate an arsenic removal process would be very difficult to obtain. The disposal of an arsenic-rich waste could be challenging.

Market the copper-lead-silver-gold concentrate to speciality international smelters that will accept and blend in the Silver Queen concentrate. Arsenic-related penalties could be anticipated.

Zinc is the second concentrate that would be produced. This concentrate could be processed at a British Columbia location (Trail) or sold to an international zinc smelter/refinery.

A third process plant product could be a gold-containing pyrite concentrate. Historical cyanide leaching test data indicated a poor extraction of gold from such a concentrate (33%). This indicates either much of the gold is tied up in the pyrite and/or a “preg-robbing” substance, such as organic carbon, is present. Roasting this concentrate on site, prior to on-site cyanide leaching is possible, but likely uneconomic and environmentally challenging. Freeing up the gold from the pyrite using a bioleach followed by cyanide leach is possible, but this also may be uneconomic. Sale of the concentrate as feed to an autoclave-equipped gold ore processing plant somewhere in the Americas is a reasonable option and if high gold recovery is achieved and is payable, this option may represent the best financial return.

**FIGURE 6.2      FEASBY SPECULATIVE MINERAL PROCESSING FLOWSHEET**



Source: Lakefield Research (1988)

### 6.2.6      2019 Metal Recovery Estimates

As noted above the cumulative process metal recoveries are reasonably high. However, the actual payable metals are subject to reductions as determined by smelter and processing contracts and pricing terms. Contract specifics are unknown at this time, but some assumptions based on historical arrangements can be assumed. From these, estimates of metal payables, based on expected metallurgical recoveries and possible percent payable by a smelter or a pyrite processor are shown in Table 6.6 below. Smelter contracts often include a certain g/t deduction for each precious metal. Penalties for exceeding impurity thresholds, e.g., arsenic are also commonly included in contract terms. Neither such deductions nor penalties are included in Table 6.6.

TABLE 6.6 ESTIMATED PERCENT FOR METALLURGICAL RECOVERIES AND METALS PAYABLE					
Concentrate	Metal	Estimated Metallurgical Recovery (%)	Estimated Smelter or Process Payable (%)	Metal Payable in Concentrates (%)	Notes
Cu-Pb	Au	16	95	15	

Zn	Au	19	95	18	
Fe	Au	48	90	43	
	<b>Total Au</b>	<b>83</b>		<b>76</b>	
Cu-Pb	Ag	52	95	49	
Zn	Ag	30	70	21	
Fe	Ag	14	50	7	
	<b>Total Ag</b>	<b>97</b>		<b>77</b>	
Cu-Pb	Cu	66	40	26	
Zn	Cu	20	0		Cu assumed below threshold @ <1%
	<b>Total Cu</b>	<b>86</b>		<b>26</b>	
Cu-Pb	Pb	78	95	74	
Zn	Pb	9	50	5	Assume above payable threshold
	<b>Total Pb</b>	<b>82</b>		<b>79</b>	
Cu-Pb	Zn	4	50	2	
Zn	Zn	92	85	78	
	<b>Total Zn</b>	<b>96</b>		<b>80</b>	
Fe	Cu, Pb, Zn	13 total	0	0	No base metal credit

### 6.2.7 Opportunities for Metallurgical Optimization

Although the No. 3 Vein mineralogy has been described as either galena-sphalerite or pyrite- sphalerite-chalcopyrite, details of gold and silver mineralogy are not available. Also, whereas the presence of tennantite ( $\text{Cu}_{12}\text{As}_4\text{S}_{13}$ ) has been identified, the lack of correlation with copper content, suggests that arsenic mineralization is uncertain. Arsenopyrite may also be present.

A detailed mineralogy study of each type of mineralized material in the No. 3 Vein could assist in targeting approaches to improved metallurgical results and concentrate purity. Bench-scale metallurgical tests on recent, unoxidized drill core could be considered. Targets could include:

- Potential for high intensity gravity separation to isolate free gold;
- Optimization of primary grind size and determination of benefits of rougher concentrate re-grinding;
- Potential for reduction of arsenic content of the Cu-Pb-Ag-Au concentrate using mineral processing methods; and
- Upgrading of gold concentration in a pyrite concentrate.

The production of three separate concentrates at a low tonnage (500 to 750 tpd) process plant presents operational challenges. Three separate thickening-filtration-bagging-sampling facilities will be needed. Metallurgical tests should include determination of filtration rates and methods to minimize moisture content to reduce shipping costs.”

### **6.3 PREVIOUS MINERAL RESOURCE ESTIMATE**

The previous, initial Mineral Resource Estimate was released by New Nadina in July 2019 (New Nadina, 2019; see also Burga *et al.*, 2019). That Mineral Resource Estimate is summarized in Table 6.7 below.

The previous Mineral Resource Estimate is now superseded by the current Mineral Resource Estimate described in Section 14 of this Technical Report.

<p style="text-align: center;"><b>TABLE 6.7</b>  <b>SILVER QUEEN MINERAL RESOURCE ESTIMATE 2019 <sup>(1-7)</sup></b></p>															
<b>Class</b>	<b>Tonnes (kt)</b>	<b>Zn (%)</b>	<b>Zn (Mlb)</b>	<b>Au (g/t)</b>	<b>Au (koz)</b>	<b>Ag (g/t)</b>	<b>Ag (koz)</b>	<b>Cu (%)</b>	<b>Cu (Mlb)</b>	<b>Pb (%)</b>	<b>Pb (Mlb)</b>	<b>AuEq (g/t)</b>	<b>AuEq (koz)</b>	<b>AgEq (g/t)</b>	<b>AgEq (koz)</b>
Indicated	815	6.35	114	3.24	85	201.4	5,280	0.26	5	0.96	17	9.31	244	835.4	21,900
Inferred	801	5.21	92	2.49	64	184.3	4,748	0.31	5	0.88	16	7.51	193	674.1	17,360

**Notes:** Class = classification.

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
4. The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
5. The Mineral Resource Estimate was based on metal prices of US\$1,300/oz gold, US\$17/oz silver, US\$1.35/lb zinc, US\$3.00/lb copper and US\$1.05/lb lead.
6. The historical mined areas were depleted from the Mineral Resource.
7. AuEq and AgEq are based on the formula:  $NSR\ (C\$) = (Cu\% * \$57.58) + (Pb\% * \$19.16) + (Zn\% * \$30.88) + (Au\ g/t * \$39.40) + (Ag\ g/t * \$0.44) - \$78.76$ . See details in Sections 14.10 and 14.12.

## 6.4 PAST PRODUCTION AT SILVER QUEEN MINE

In this section, “historical estimate” means an estimate of the quantity, grade, or metal or mineral content of a deposit that an issuer has not verified as a current Mineral Resource or Mineral Reserve, and which was prepared before the issuer acquiring, or entering into an agreement to acquire, an interest in the Property that contains the Deposit. The terms “Reserves/reserves” and “ore” are used in a historical context and are not compliant with current NI 43-101 definitions.

Historical production was from the Cole, Chisholm and Wrinch (“No. 3”) vein systems. In March 1972, the Property was put into production by the Bralorne Can Fer Resources Limited and Pacific Petroleum Ltd. (“Bradina”) Joint Venture (“JV”) using equipment from the Bralorne's gold mine in southern B.C. Operations ceased in September 1973 after mining 190,676 t of mineralized material from the north end of the No. 3 Vein.

Historical mineral reserves on the No. 3 (also known as Wrinch) Vein system reported by Dawson (1985) are 577,600 t averaging 0.108 oz/ton Au, 7.51 oz/ton Ag, 6.53% Zn, 1.49% Pb and 0.49% Cu (Cummings 1987; BC Geological Survey MINFILE 093L 002 accessed August 6, 2019). Cummings (1987) reports that this grade is above the average Bradina JV production grade due to the low-grade development stockpile that was treated at the time, and the higher-grade mineralization that has been drilled since the Bradina operations.

**The reader is cautioned that the historical mineral “reserve” estimate is being treated as historical in nature and should not be relied upon. A Qualified Person has not completed sufficient work to classify the historical estimate as a current Mineral Resource or Mineral Reserve and the issuer is not treating the historical estimate as a current Mineral Resource or Mineral Reserve.**

Since the mining activity by the Bradina JV, significant surface and underground exploration has extended the length and depth to the Wrinch (No. 3) Vein system. During the 1980s, a decline was developed and intersected the No.3 Vein at the 2,425 m level. The No. 3 and NG3, an assumed extension of No.3, vein systems remain open along strike and at depth.



## 7.0 GEOLOGICAL SETTING AND MINERALIZATION

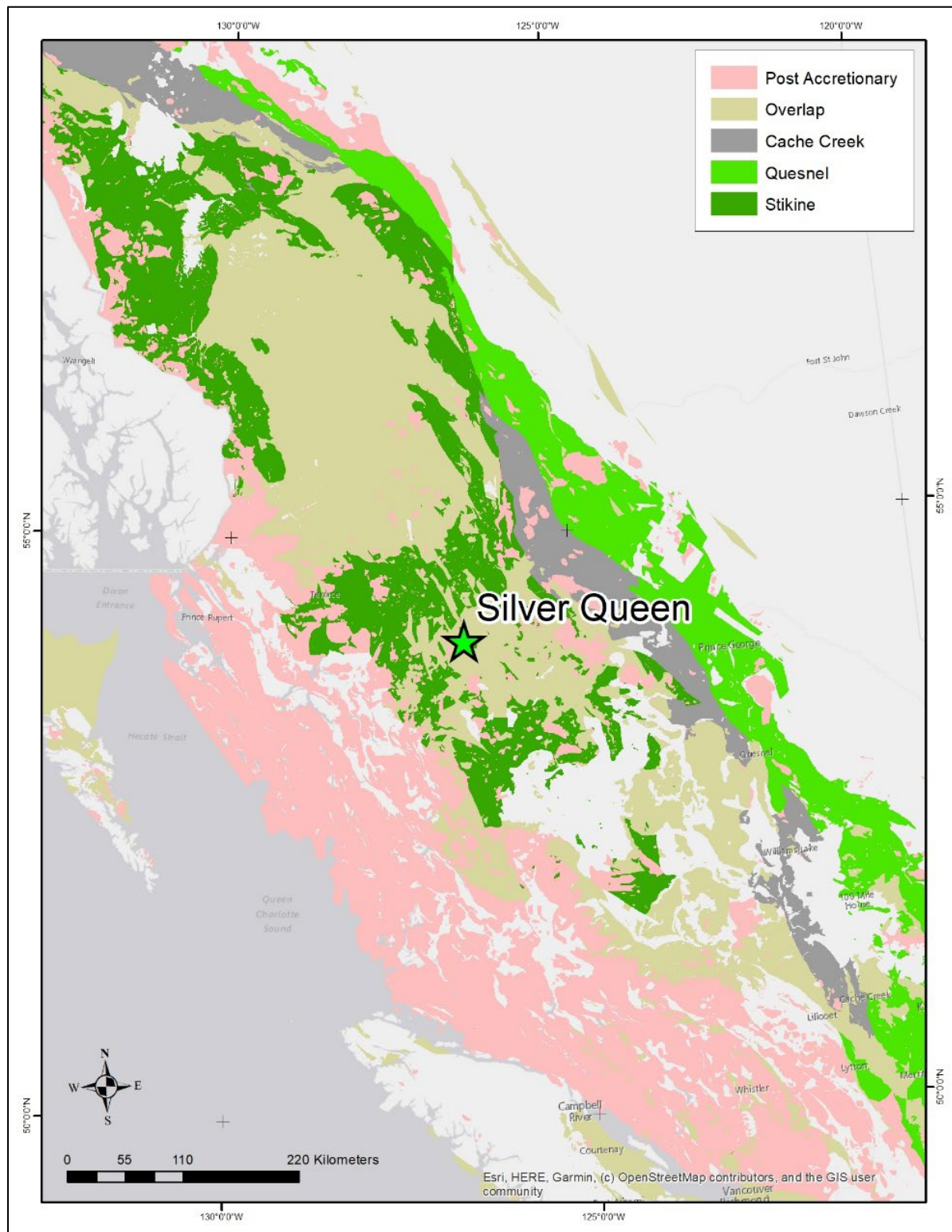
### 7.1 REGIONAL GEOLOGY

The Silver Queen Property is situated within the Stikine Terrane, which is a Triassic-Jurassic marine volcanic arc that was accreted to ancestral North America (e.g., Nelson *et al.* 2013; Figure 7.1). The host rocks for the Silver Queen area mineralization overlie the marine arc rocks and are assigned to the Kasalka Group continental arc magmatic suite (MacIntyre *et al.*, 1994).

The Stikine Terrane includes submarine immature volcanic island-arc rocks of the Late Triassic Takla Group, subaerial to submarine volcanic, volcanoclastic and sedimentary rocks of the Early to Middle Jurassic Hazelton Group, Late Jurassic and Cretaceous successor basin sedimentary rocks of the Bowser Lake, Skeena and Sustut groups, and finally Cretaceous to Tertiary continental volcanic arc rocks of the Kasalka, Ootsa Lake and Endako Groups (MacIntyre and Desjardins, 1988).

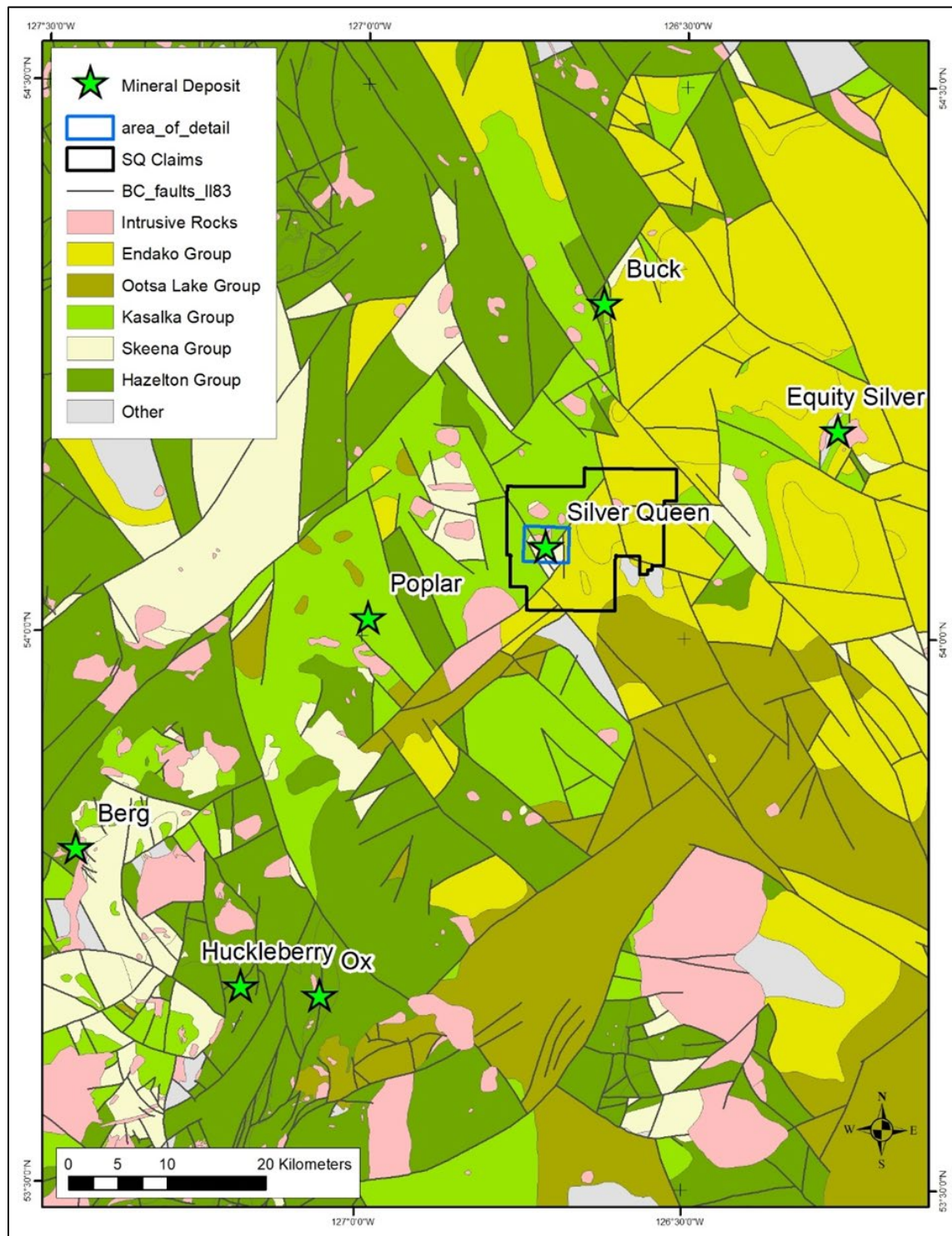
Jurassic, Cretaceous and Tertiary age plutonic rocks intrude the supracrustal host rock sequences, and form distinct intrusive belts with associated porphyry copper, molybdenum and mesothermal and epithermal polymetallic and silver/gold-rich metal veins occurrences (e.g., Carter, 1981). Late Cretaceous Bulkley intrusions are of particular metallogenic importance in the Houston area belt segment. A compilation map for the regional geology and select mineral deposits is shown in Figure 7.2.

**FIGURE 7.1 REGIONAL GEOLOGICAL SETTING OF THE SILVER QUEEN PROJECT**



**Source:** Macdonald et al (2022)

**FIGURE 7.2 REGIONAL GEOLOGY MAP**



**Source:** Cui et al. (2017)

**Note:** Inlier (blue) map rectangle refers to Figure 7.3.

The regional geology map shows part of the Central BC Porphyry-Epithermal Belt that includes Silver Queen Property.

The Upper Cretaceous Kasalka Group in the northern half of the Nechako Plateau area occurs as sporadic to localized exposures and it overlies the Skeena Group with an angular unconformity (MacIntyre, 1985; Angen *et al.*, 2018). The Kasalka Group rocks are considered to be early-Late Cretaceous (MacIntyre, 1985) continental volcanic succession that is dominated by porphyritic andesite and associated intermediate volcanoclastic rocks. Lithogeochemistry data indicate that the Kasalka Group is dominated by intermediate to felsic rocks with calc-alkaline affinity and metaluminous characteristics indicating an “arc-like” association for the source melts (Kim, 2020).

The Kasalka Group sequence is well exposed in the Kasalka Range type section near Tahtsa Lake, 65 km southwest of the Silver Queen area. Based on the type of area, MacIntyre (1985) describes the components of the rock package as follows:

1. Basal polymictic conglomerate that is strikingly red in colour and lies in angular unconformity on older rocks. The unit is generally between 5 and 10 m thick (locally 50 m in channel-fill deposits) and contains interfingering lenses of sandstone;
2. The conglomerate is overlain by a felsic fragmental unit over 100 m thick, consisting of grey to cream-coloured, variably welded siliceous pyroclastic rocks (lithic lapilli tuff, crystal and ash-flow tuff, minor breccia) with interbedded porphyritic flows;
3. This fragmental unit is in turn overlain by columnar jointed, massive, greenish grey flows or sills of hornblende-feldspar-porphyritic andesite to dacite, at least 100 m thick;
4. The andesite flows are conformably overlain by a chaotic assemblage of volcanic debris flows (lahars), at least 200 m thick, in which most clasts are identical to the underlying flows and sills; and
5. Rhyolite, tuff and columnar jointed basalt, together more than 100 m thick, cap the succession.

Similar units have been mapped at surface and observed in 2020 to 2022 drill core at the Silver Queen Property, which is described in Section 7.3 of this Technical Report.

Early geochronology work in the Kasalka Group yielded K-Ar ages of 108 Ma to 107 Ma at the Tahtsa Lake type section (MacIntyre, 1985). Large areas of Upper Cretaceous rocks are exposed westwards from the Equity Mine and have been age dated at  $77.1 \pm 2.7$  Ma to  $75.3 \pm 2.0$  Ma by K-Ar on whole-rock material (Church, 1984).

These data have been superseded by more recent U-Pb (zircon) regional work by Looby (2015) and Kim (2020), which indicates that the unit is Late Cretaceous (~82 Ma to ~67 Ma). Moreover, geochronology work on Bulkley suite intrusive rocks at the Huckleberry porphyry copper deposit yielded two U-Pb ages of approximately 83 Ma (Friedman and Jordan, 1997).

U-Pb (zircon) dating has not been completed at Silver Queen. However, assuming that the Group assignment is correct, the host rocks are likely Upper Cretaceous.



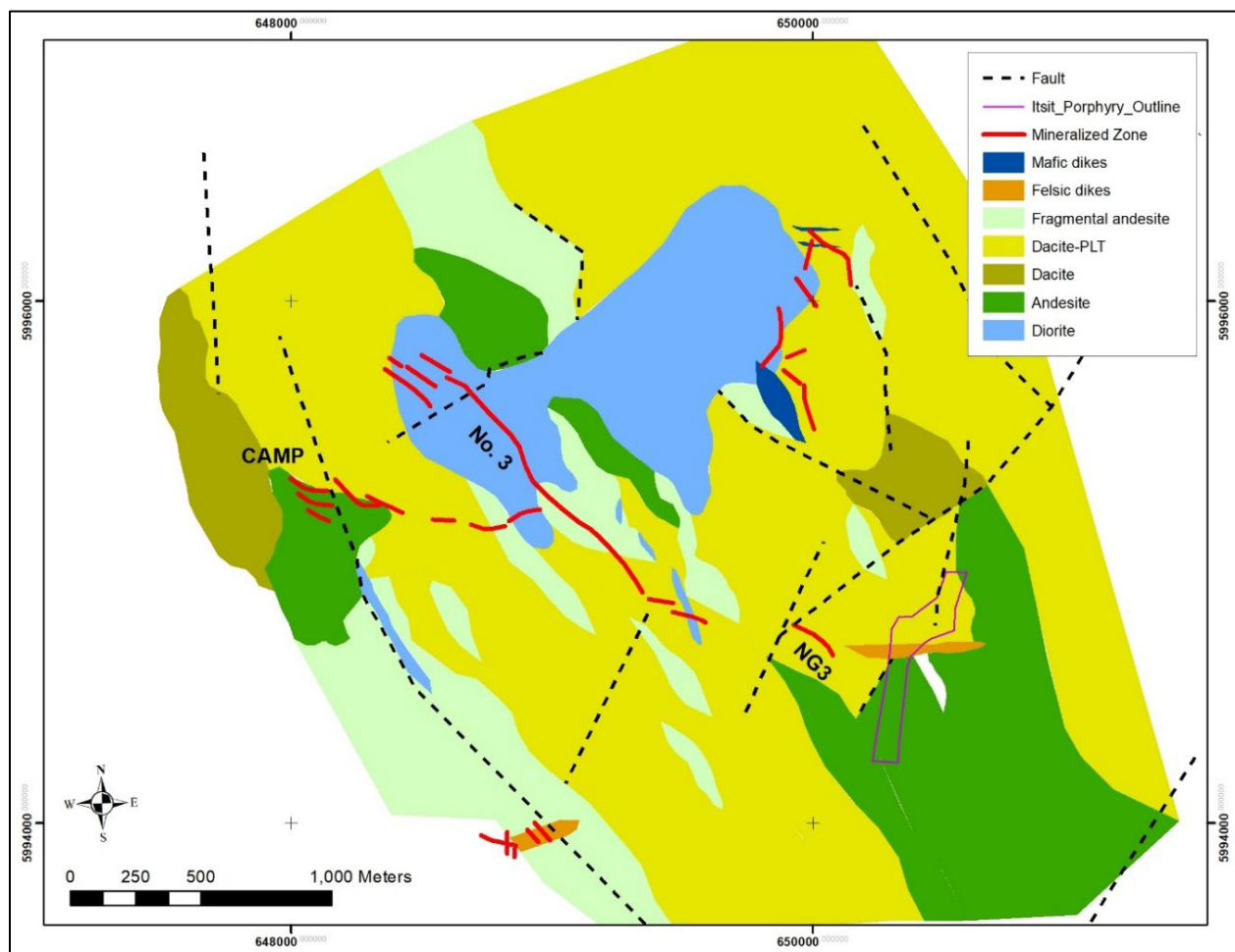
## 7.2 PROPERTY GEOLOGY

The geology of the area immediately surrounding the Silver Queen Mine, which occupies the western part of the claim block, is shown in Figure 7.3. The Property geology is based largely on use of tops of drill holes, where lithology is grouped into several rock types:

- Coherent and fragmental andesite.
- Coherent and fragmental dacite.
- Diorite intrusive rocks.
- Mafic and felsic dykes.

As the map was assembled from a data review of historical drilling, the level of detail for the plan view geological map is less than that shown below in the description of the sequence stratigraphy. The faults shown on the map are also compiled from historical work.

**FIGURE 7.3 GEOLOGY MAP OF THE SILVER QUEEN EXPLORATION**



**Source:** Equity Metals (December 2022)

**Notes:** Map coordinates are UTM NAD83 Zone 9N. Refer to the inlier area in Figure 7.2 for the map location.

The geology map of the Silver Queen exploration area is based largely on assignments of tops of drill holes to lithological units.

### 7.3 LOCAL GEOLOGY

The geology of the Silver Queen area consists of a complex sequence of volcanic, sub-volcanic, volcanoclastic and sedimentary rocks assigned to the Tip Top Hill Formation within the Kasalka Group (Upper Cretaceous). These supracrustal rocks are intruded by Late Cretaceous Bulkley Suite intrusions, in addition to post-mineralization mafic to felsic dyke phases that are spatially associated with the mineralized structures. The mineralized Kasalka Group rocks at Silver Queen are overlain by volcanic and volcanoclastic rocks assigned to the Goosly Lake Formation within the Endako Group (Eocene). Within the greater Property area, additional older rock sequences mapped include the Skeena and Hazelton Groups (Jurassic to Lower Cretaceous). The Upper Cretaceous volcanic arc at Silver Queen preserves both: 1) high-grade epithermal silver-bearing polymetallic veins and damage zones; and 2) telescoped porphyry Cu-Mo mineralization at Itsit, within approximately 1 km of the epithermal veins.

#### 7.3.1 Tip Top Hill Formation

The Tip Top Hill Formation consists of five stratigraphic units and sub-units (Figure 7.4):

(1) **Basal Polymictic Conglomerate.** This is the oldest unit that was intersected within the rocks at Silver Queen. This unit is generally a grey-purple-red colour and is siliceous, mostly clast-supported (locally matrix-supported) with a wide variety of clasts ranging from porphyritic, to dacitic clasts as well as some aphanitic dark grey/black, light grey, creamy and red coloured clasts. Wide variability suggests a large provenance area with source rocks from the older, Jurassic and Early Cretaceous sequences in the area. This unit was predominantly intersected in the No. 3 Vein and NG3 Vein areas.

(2) **Felsic Fragmental Unit.** This unit appears to be predominantly absent in the areas drilled within the Camp Vein/Sveinson Extension areas. However, it was intersected in the area of the NG3 Vein. Drill hole SQ21-024 intersected a thick package of light coloured, siliceous rhyolite tuff. This unit is aphanitic, containing 5-10% fine quartz fragments (commonly broken or embayed), 10-15% broken feldspar crystals in the matrix with rare lapilli size fragments. This unit varies from 3.7 to 153.9 m thick in drill holes.

(3) **Massive Porphyritic Andesite/Dacite Flows/Sill.** This unit is also intersected in drill hole SQ21-024 between 219.5 m and 290.0 m, although the texture is similar to a crystal-rich tuff with predominantly feldspar crystals, <1% biotite and rare lapilli size fragments.

(4) **Volcanic Debris Flows.** This unit contains the fragmental andesite, the poly lithic lapilli tuff ("PLT") and the upper andesite coherent and fragmental rocks from the stratigraphic section below (Figure 7.4). Units are described below and representative photos are shown in Figure 7.5.

**Deep Andesite:** The Deep Andesite unit is a brown to maroon andesite with feldspar porphyritic textures (Figure 7.5A) and typical subrounded lapilli- to block-size fragments. The unit is largely monomictic. Equity Metals interpret that the upper contact (with Dacite-PLT) is an unconformity, based on the presence of Deep Andesite fragments above a sharp contact and local recognition of a basal conglomerate in the Poly lithic Tuff.

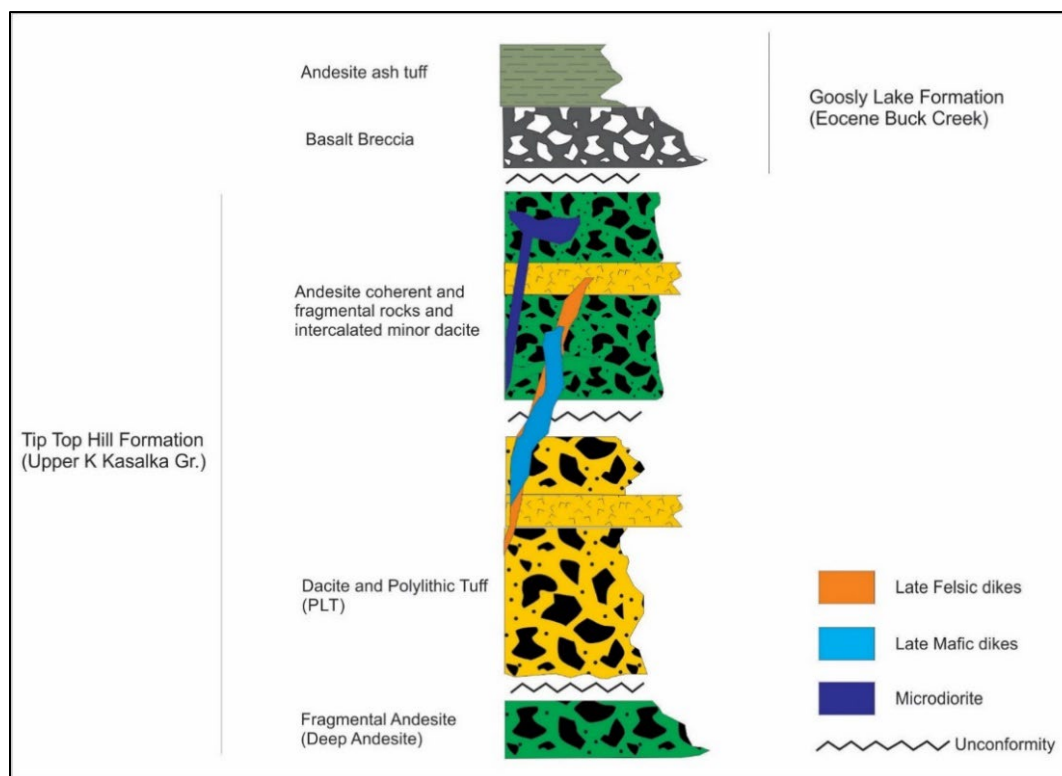
The contact between Deep Andesite and overlying Dacite PLT has an apparent dip is to the west, based on cross-section evaluation in the Silver Queen Mine area. This is discordant from the bedding orientation.

**Dacite - Poly lithic Lapilli Tuff (Dacite – PLT):** A fragmental rock unit with significant textural and compositional variability. The dominant facies are poly lithic fragmental rocks with dacite fragments, and subordinate volcanic dominant, and sedimentary rock-dominant intervals. Some of the key recognition criteria include dacite fragments and local armoured lapilli. Bedded sandstones are commonly interstratified with the volcanic-dominant rocks, and these locally contain mudstone lithic fragments. The Poly lithic Lapilli Tuff unit appears to be a basin fill unit when modelled in 3-D and may be associated with the bonanza silver-bearing veins in the Camp Vein area. The exact reason for this relationship remains unclear.

**Shallow Andesite:** The shallowest supracrustal rock unit in the Silver Queen is an intermediate composition volcanic/volcaniclastic rock containing interstratified andesite porphyry, andesite crystal, ash and lapilli tuffs and andesite fragmental with minor, thin horizons of dacite and dacite fragmental units. Detailed descriptions of these lithologies can be found in Macdonald *et al.* (2022).

(5) **Rhyolite Tuff and Columnar Jointed Basalt.** This unit appears to be eroded away in all the areas drilled at Silver Queen. However, exposures may remain at the highest topographic points in the wider Property area.

**FIGURE 7.4 STRATIGRAPHIC COLUMN FOR THE SILVER QUEEN AREA**

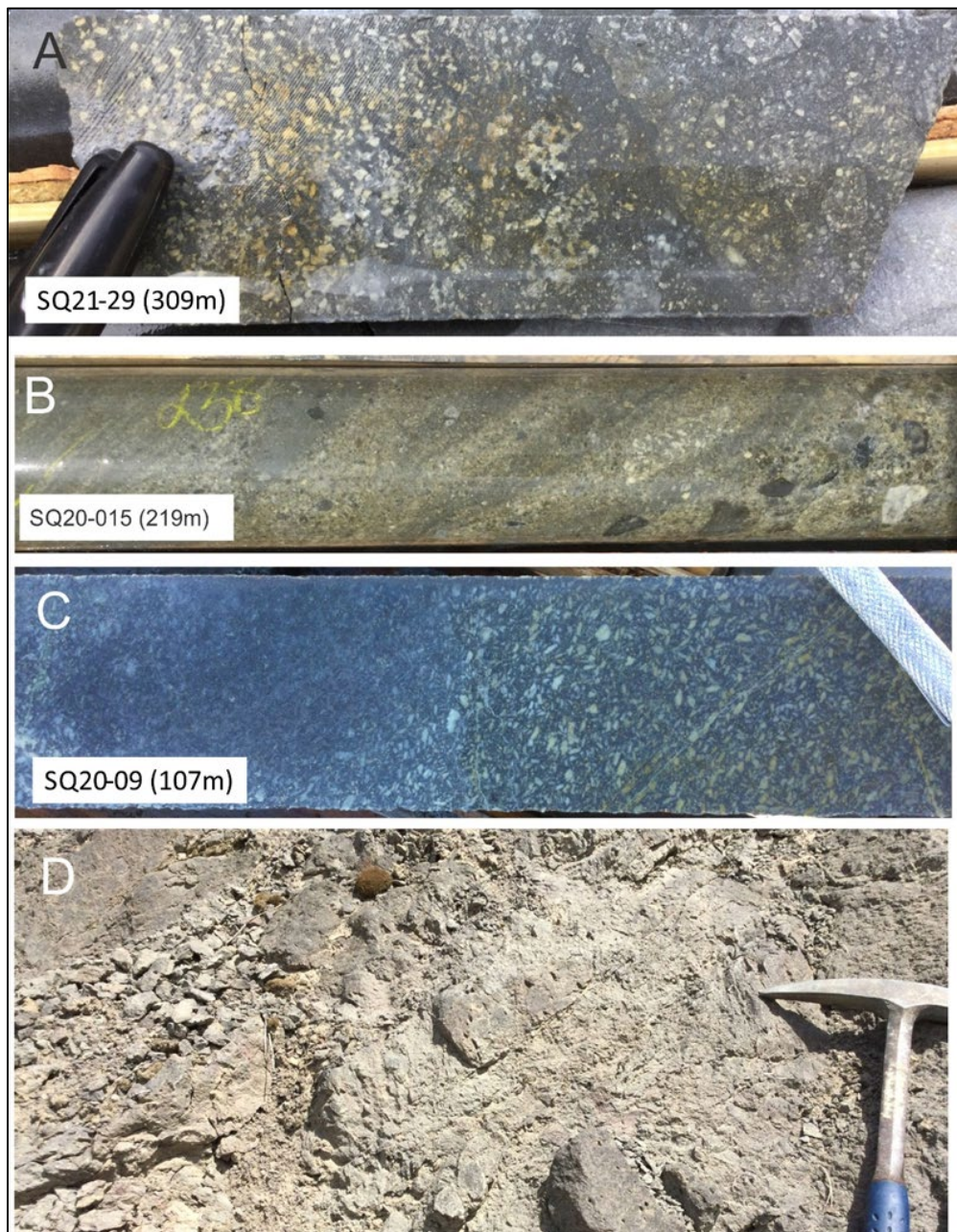


**Source:** Equity Metals (December 2022)

**Notes:** Developed through detailed core logging of 2020-2021 drill holes Camp Vein and No. 3 Vein areas.



## FIGURE 7.5      ROCK TEXTURES IN THE TIP TOP HILL FORMATION



*Source: Equity Metals (December 2023)*

**Figure Description:** A) Clast-supported Deep Andesite breccia with feldspar porphyritic breccia fragments; B) Polyolithic lapilli tuff unit (PLT) with pale coloured dacite fragments; C) Feldspar upper andesite porphyry; D) Monomictic basalt breccia assigned to the Eocene Endako Group.

### 7.3.1.1      Host Rocks of the Silver Queen Veins

The supracrustal rocks of the Silver Queen area have been subdivided into three main volcano-stratigraphic units and includes three unconformities (Figure 7.4). The units correlate largely to Units 3 and 4 of the Tip Top Hill Formation. The dominant Upper Cretaceous rock unit is assigned to the Tip Top Hill Formation described above (Kasalka Group, e.g., Leitch *et al.*, 1991),



and these include Deep Andesite, Dacite-Poly lithic Tuff (Dacite-PLT) and Shallow Andesite. These rocks are unconformably overlain by the Eocene Goosly Lake Formation (Endako Group; Church, 1973). The rock units in the Silver Queen area are presented below from oldest to youngest.

Figure 7.4 contains a stratigraphic column based mostly on the earlier drilling of the No. 3 Vein and the Camp Vein areas. Subsequent drilling within the Sveinson Extension and NG3 areas confirmed this stratigraphic section and intersected older units within the Tip Top Hill Formation. The units within the stratigraphic section are assigned to units (3) and (4) within the Kasalka Group, as described in Section 7.1. For more details on individual lithological units, refer to Macdonald *et al.* (2022). This Technical Report summarizes each of units 1 to 5 with respect to the surface mapped geology and drill core from Silver Queen.

### **7.3.2 Eocene (assigned to the Buck Creek Group, Goosly Lake Formation)**

Basalt breccia crops out 4 km south of the Camp area. Andesite tuff crops out 4 km east of the Camp area. Equity Metals adopted the rock unit assignments of Church (1973) and note that the basalt breccia is monomictic and the tuff is biotite-feldspar bearing. No relationships between these two facies are known in the field at this time, and there is uncertainty as to the stratigraphic relationship between the basalt breccia and andesite tuff.

### **7.3.3 Intrusive Rocks**

Several phases of equigranular to fine grained intrusions are documented in the Silver Queen area. Some phases are clearly post-mineralization, whereas the equigranular phases have less clear cross-cutting relationships with veins and alteration/mineralization.

## **7.4 STRUCTURE**

The structural geology of the Silver Queen Mine area is dominated by shallowly-to moderately-dipping host rocks, cut by steeply to moderately dipping, northwest-trending mineralized structures. Bedding measurements in andesite and PLT outcrops from within 1.8 km southeast of Camp to the Camp Vein area dip moderately to the north and northeast. This host rock architecture is also supported by solutions to rock unit contact orientations using unoriented drill core angles to drill core axis angles.

Two prominent sets of faults displace this homoclinal sequence, cutting it into a series of fault panels: a northwest-trending set and a northeast-trending set. The former predates or is contemporaneous with mineralization, whereas the latter is mainly post-mineral. Most of the mineralized veins and the dykes follow the northwest-trending faults, whereas veins are cut off and displaced by the northeast-trending set (Hutter and MacIntyre, 2013). Previous geologists have suggested that the Silver Queen Property is situated within a ring-shaped structure, which is interpreted as a caldera approximately 3 km in diameter (e.g., Westphal, 2018).

## 7.5 MINERALIZATION

Two major styles of mineralization are recognized on the Silver Queen Property (Burga *et al.*, 2019):

1. Precious metal enriched polymetallic intermediate sulphidation epithermal vein; and
2. Cu-Mo-Au-Ag porphyry mineralization.

Each of these mineralization styles are described below.

### 7.5.1 Precious-Metal Enriched, Polymetallic, Intermediate-Sulphidation Epithermal Veins

The majority of the known Silver Queen veins are hosted in relatively brittle feldspar porphyry or microdiorite of the Upper Cretaceous Kasalka Group. Structural and lithological permeabilities are the main ore controls for transitional porphyry-epithermal mineralization.

The northwest-striking No. 3 Vein, the largest single vein currently recognized on the Property, shows all the characteristics of sinistral (left-lateral) movement at the time of mineralization and can be modelled within an overall regional north-northwest sinistral system.

Leitch *et al.* (1990) describe the mineralization on the Property as consisting of quartz-carbonate-barite-specularite veins from 1 to 2 m thick, which contain disseminated to locally massive pyrite, sphalerite, galena, chalcopryite, tennantite and argentian tetrahedrite.

Pyrite-sphalerite-chalcopryite and sphalerite-galena are the two general types of sulphide mineralization occurring in the veins. However, there are gradations between the two types. Higher gold and silver values are generally associated with the pyrite-sphalerite-chalcopryite veins. The gangue is mainly cherty quartz and carbonate minerals, such as rhodochrosite and siderite, some barite and rarely pyrobitumen. Local intense alteration of wall rock along veins and fissures has resulted in a mixture of clay and carbonate minerals, some chlorite, minor epidote and disseminated pyrite. Concentrations of gallium, germanium and indium are also present, predominantly within the No. 3 Vein.

Locally, in chalcopryite-rich samples, there is a diverse suite of Cu-Pb-Bi-Ag sulphosalts, such as aikinite, matildite (in myrmekitic intergrowth with galena), pearcite-arsenopolybasite, and possibly schirmerite. Native gold (electrum) is present in minor amounts. A recent, detailed mineralogical analysis was conducted, results of which are summarized in Section 8.1 of this Technical Report. The veins are cut by post-mineral amygdaloidal, fine-grained plagioclase-rich dykes, and later dykes with bladed plagioclase crystals. Both these dyke types are possibly correlative with the Ootsa Lake Group Goosly Lake volcanics of Eocene (approximately 50 Ma) age.

Approximately 20 mineralized veins have been discovered. The following descriptions are summarized from the MINFILE report 093L 002 (accessed August 6, 2019). The main quartz vein systems are the Wrinch (including the No. 3 Vein), Camp, Portal, Chisholm, George Lake and Cole systems.

The main vein within the Wrinch system is the No. 3, which splits into the No. 1, No. 2, No. 3 Veins in the northwestern portion of the system. The Footwall Vein, sub-parallel to the No. 3, is also present at some locations. The No. 3 structure has complexities, such as abrupt changes in strike or dip that have associated splays, and possible en-echelon structures. Historically, areas of the No. 3 Vein have had a number of names, including Ruby Zone, Ruby Extension and No. 3 Extension, but they are parts of the same structure and possibly the same vein. The structure is cut-off at its southwest end by the Cole Fault and it is presumed that the NG-3 Vein is the faulted-off extension of this vein, indicating a displacement of approximately 150 m to the northeast. However, complexity occurs within this transition zone, more detailed drilling may outline further en-echelon structures within this area.

The Wrinch Vein system has been the focus of most of the mining and development work. The overall strike of the veins is approximately 130° and is traceable over a strike length of more than 1,300 m. These veins are generally banded with sphalerite as the predominant sulphide with pyrite, chalcopyrite and galena. The gangue minerals consist mainly of cherty quartz, carbonate minerals (rhodochrosite) and barite. By 1973, a total of 1,050 m of adits and crosscuts plus 810 m of drifting and raises and 1,500 m of diamond drilling had been completed on the Wrinch Vein system.

The Camp Vein system occurs under deep overburden within a topographic low and has no surface exposure. This area contains some of the highest silver grades found on the Property, in association with pyrrargyrite (“ruby silver”) in low-sulphide veins and also contains veins with sections of massive galena-sphalerite. Drilling in 2020-2022 confirmed the existence of multiple veins of both styles of mineralization, which are open along strike and at depth within a broad west-northwest to east-southeast structural zone, details of which are discussed in Section 9 of this Technical Report.

Within the broad west-northwest to east-southeast structural zone, the Portal Veins strike is roughly westerly and are generally narrow, and high-grade. A small amount of mineralization was mined from Portal Vein stopes on the 2600 Level during the 1972-1973 production period; the structure in this area is difficult to follow, due to fault offsets. Along with the Camp Vein, the Portal Vein system (modelled within the Camp-Sveinson Vein system) contains some of the highest metal grades found on the Property. The veins are generally <30 vertical metres from surface. A quartz-chalcopyrite sample from Vein No. 5 assayed 9.6 g/t Au, 829.7 g/t Ag, 7.2% Cu, 0.17% Pb, 0.17% Zn, 0.11% Bi, and 0.01% Ba. Similar grades were drilled within drill holes SQ21-047 and SQ21-048, which extended this mineralization down-dip. Additional details are discussed in Sections 9 and 10 of this Technical Report.

The George Lake Vein occupies a topographic low known as the George Lake lineament and is obscured by overburden. The lineament is approximately 1,100 m long and subparallel to the No. 3 Vein, 700 m to the northeast. The vein has been intersected underground by the Bulkley crosscut and subject to limited underground and surface drilling in that area. The remainder of the lineament has not been systematically explored.

The Cole System includes the Cole Vein, Cole Shear, Bear Vein, Copper Vein, Barite Vein and NGF-6 Vein. All these veins strike northerly to north-westerly. No underground work has been done in this area, except for the sinking of the Cole Shaft in 1928. The Cole System lies to the west

of Cole Lake. These veins uniformly carry low-temperature assemblages of sphalerite-pyrite-galena (Minfile).

The Chisholm Vein system (093L 216) consists of three subparallel veins located 1,200 m south of Mine Hill. The veins strike 125° and dip northeast. The minerals are mainly argentiferous sphalerite, galena, pyrite and minor chalcopyrite. The host rocks consist of highly altered dacitic tuffs and tuff breccias. The veins are mainly the result of fissure-filling, as indicated by their vuggy structure and colloform banding of the mineralization and gangue. The gangue constituents are mainly cherty quartz, rhodochrosite, siderite, and some barite. Sporadic exploration has been conducted on the Chisholm Vein since 1915.

### **7.5.2 Cu-Mo-Au-Ag Porphyry Mineralization**

Prior to 2011, several phases of wide spaced drilling had been conducted by previous operators, due to the inferred presence of a large, mineralized intrusive body at depth. The 2011-2012 drilling intersected wide intervals of Cu-Mo±Au-Ag mineralization on the Silver Queen Property, which occurs as disseminated chalcopyrite and molybdenite in a moderate to intense quartz stockwork zone within a feldspar porphyry intrusion named the Itsit porphyry. Only one drill hole, SQ22-071, intersected this mineralization in 2020-2022 and returned 89.3 m of 0.11 g/t Au, 2.1 g/t Ag, 0.04% Mo, 0.19% Cu, and 0.4 g/t Re, and ended in mineralization at 479 m. Mineralization has been drilled to approximately 1 km depth and remains open to expansion by drilling.

## **7.6 ALTERATION**

The majority of this section is summarized from Burga *et al.* (2019).

Mineralization on the Silver Queen Property is associated with widespread alteration. The alteration is manifested in the development of numerous limonite and jarosite gossans and appears to be the result of pervasive kaolinization-pyritization. The extent of alteration suggests a deep source of mineralizing solutions and the potential for replacement-type sulphide mineralization at depth (MINFILE 093L 002).

At the Silver Queen Property, regional propylitic alteration is characterized by replacement of primary mafic minerals, initially by epidote, chlorite and minor amounts of carbonate, and the partial replacement of plagioclase by carbonate and sericite. This type of alteration is interpreted to be the product of hydrothermal activity followed by the initial stage of volcanism, which predates the mineralization, and may be masked by later stages of alteration in the immediate area of the Silver Queen Mine.

Carbonatization superimposed on the early propylitic alteration may be the product of hydrothermal activity associated with mineralization and is spatially controlled by a complicated fracture system. At Silver Queen, with increasing intensity of superimposed carbonatization on propylitic alteration, more complete replacement of epidote and chlorite by abundant carbonates occur.

In the area of the No. 3 Vein, hydrothermal activity associated with mineralization forms the outer alteration envelopes marked by complete replacement of plagioclase by sericite and kaolinite, chlorite by siderite and magnetite by pyrite or hematite. Inner alteration envelopes are interpreted as a maximum stage hydrothermal alteration superimposed on the sericitic and argillic outer alteration envelope. This alteration is associated with the replacement of sericite by quartz and direct precipitation of quartz, sulphide and carbonate. The close association between mineralization and the inner silicification envelope indicates that the ore-forming metals are transported as Si, S and C complexes, and that the precipitation of quartz, sulphide and carbonate through reaction with the wall rock and hydrothermal solution might have triggered mineralization (Cheng 1995).

In Itsit Porphyry area, similar alteration assemblages occur that are more widespread and completely overprint the regional propylitic alteration. More detail of this alteration is discussed in Section 8.2 of this Technical Report.

Church and Barakso (1990) completed a regional lithogeochemical sampling program. Areas of known mineralization were defined by anomalous As-Ag geochemistry. An examination of this geochemistry shows that the Silver Queen area has anomalies of similar magnitude to the Equity Silver Mine for Ag, As, Cu, Pb and Mo, and has stronger Au and Zn anomalies (Caron, 1996).

## **8.0 DEPOSIT TYPES**

Most work on the Silver Queen Property has been focused on the structurally-controlled vein deposits. More recently, however, porphyry-style Cu-Mo-Au was discovered southeast of the vein system. Detailed reviews on these styles of mineralization are provided by Leitch *et al.* (1990) and Hutter and MacIntyre (2013), respectively.

### **8.1 STRUCTURALLY-CONTROLLED VEIN DEPOSITS**

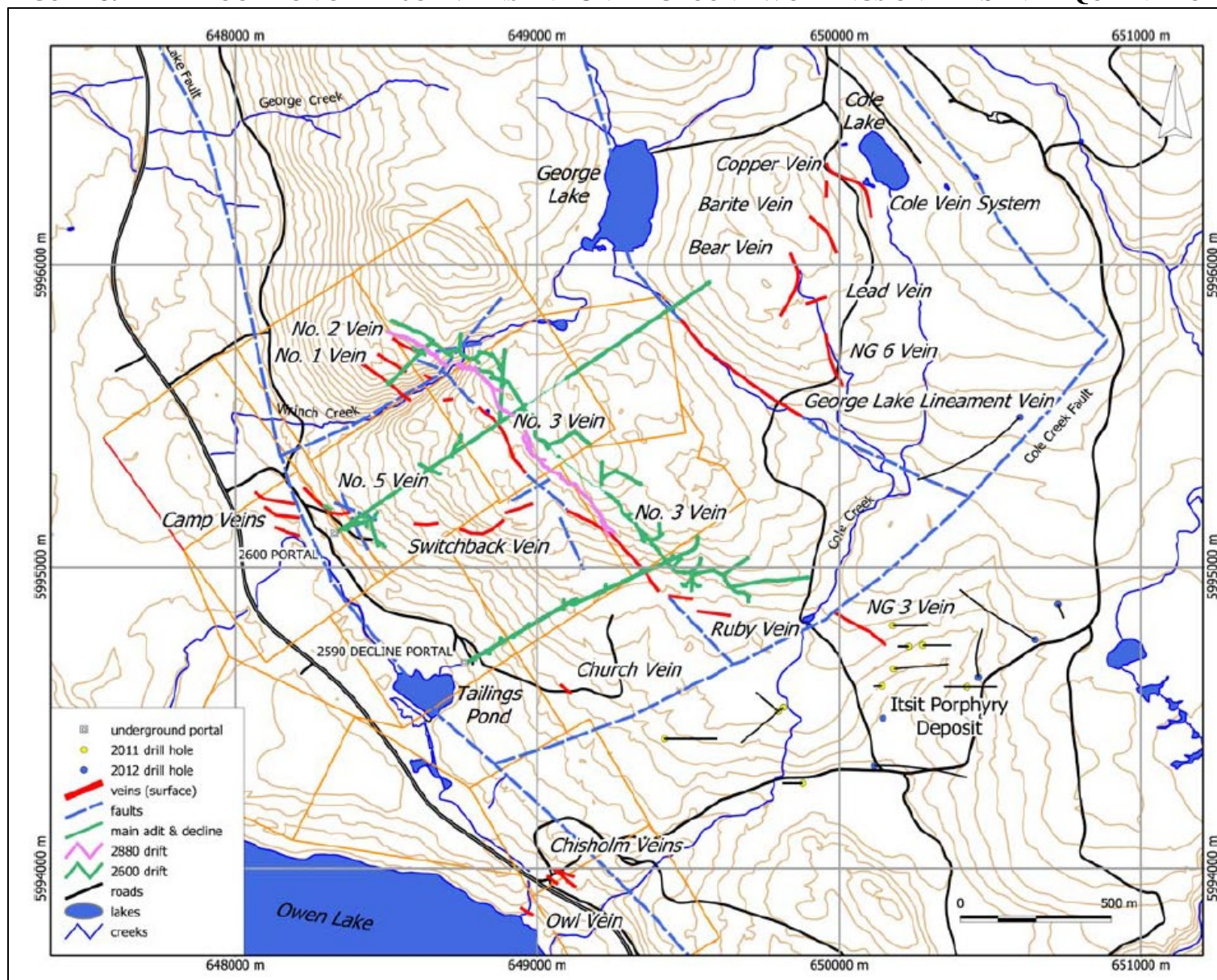
Most of the drilling and exploration work by Equity Metals in 2020-2022 focused on the Camp Vein, Sveinson Extension, No. 3 Vein, No. 5 Vein, and NG3 Vein. Details on the drilling are provided in Section 10 of this Technical Report.

Hutter and MacIntyre (2013) suggest that the principal regional fault system strikes north-northwest with a series of secondary and tertiary northwest and west-northwest structures associated with mineralization. The northwest striking No. 3 Vein, the largest vein on the Property, shows the characteristics of sinistral (left-lateral) movement at the time of mineralization and can be modelled within an overall regional north-northwest sinistral system.

Approximately 20 mineralized veins have been discovered in the Silver Queen area. The main quartz vein systems are the Wrinch (No. 3), Camp, Portal, Chisholm, George Lake and Cole systems (Figure 8.1). Hutter and MacIntyre (2013) suggest that the average width of the veins is 0.9 to 1.2 m, with local increases up to 4.6 m. In general, the veins occupy northwest-striking fractures.

Hutter and MacIntyre (2013) indicate that two general types of sulphide mineralization occur in veins: 1) pyrite-sphalerite-chalcopryrite; and 2) sphalerite-galena. However, there are gradations between the two types of mineralization. Elevated gold and silver values are generally associated with the pyrite-sphalerite-chalcopryrite veins. Historical and recent work identified numerous minerals using (among other techniques) SEM (Scanning Microscope with EDS detector) and QEMSCAN analysis. Mineralization and vein zone gangue minerals documented to-date at Silver Queen are summarized in Table 8.1. Hood *et al.* (1991) suggest that the paragenetic vein and sulphide sequence is quite similar across the Silver Queen camp, consistent with a single fluid source.

**FIGURE 8.1 LOCATION OF MAJOR VEINS AND UNDERGROUND WORKINGS ON THE SILVER QUEEN PROPERTY**



*Source: Hutter and McIntyre (2013)*



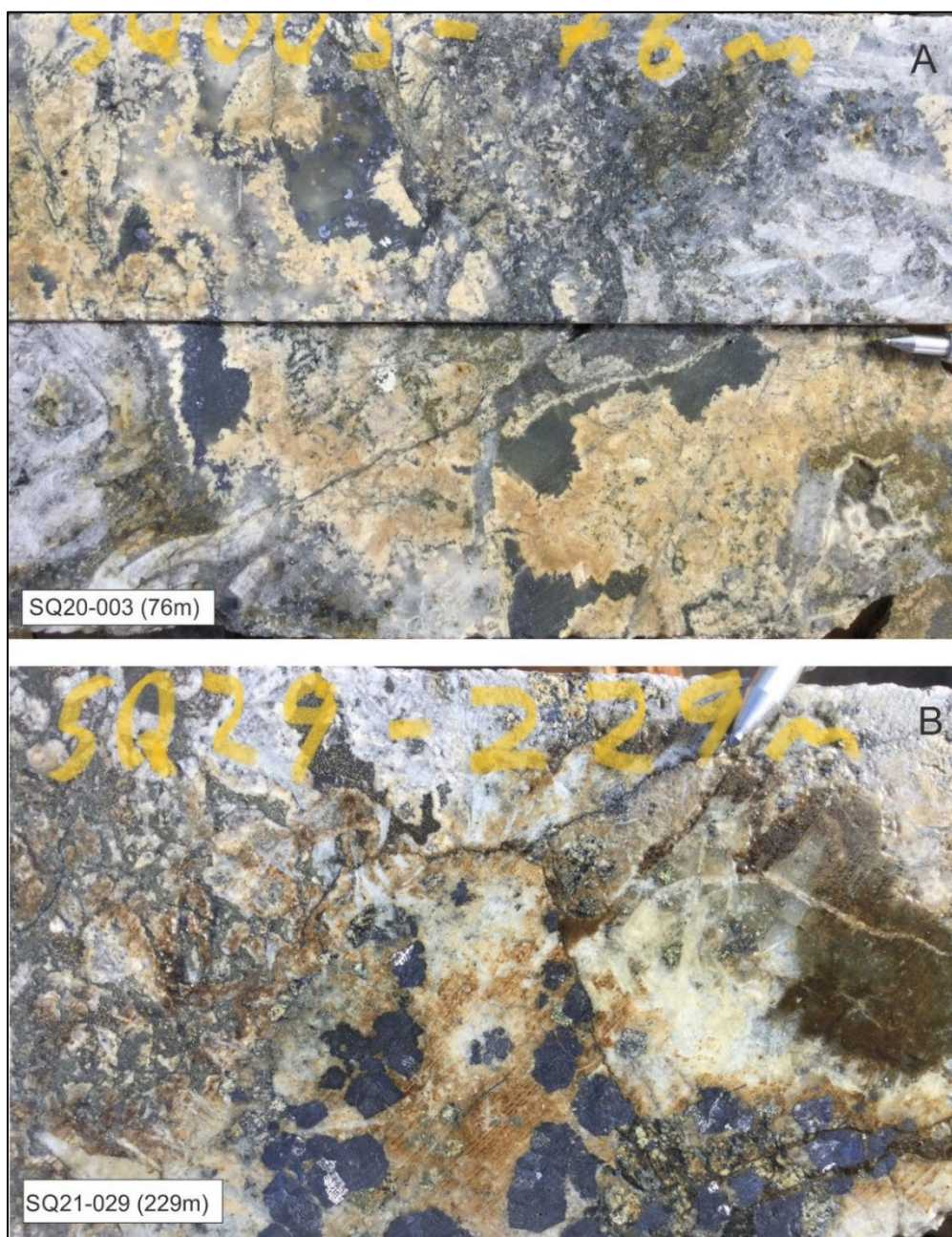
<p><b>TABLE 8.1</b> <b>SILVER QUEEN MINERALIZATION AND GANGUE MINERALOGY</b></p>	
<b>Mineralization</b>	<b>Gangue</b>
Pyrite, Specularite, pyrrhotite, arsenopyrite	Quartz
Sphalerite-Galena-Chalcopyrite	Calcite
Enargite, Covellite, Tetrahedrite and Tennantite	Barite
Proustite-pyrargyrite	Gypsum
Other Cu-Pb-Bi-Ag sulphosalts	Anhydrite
Native gold, Native silver, Electrum	Rhodocrosite
Acanthite	Siderite
Bismuthinite	Mn-rich siderite
Tetradymite	
Molybdenite	
Tungstite	

*Sources: Hood et al. (1991), Hutter and MacIntyre (2013), and Westphal (2018)*

The mineralization types found at Silver Queen are shown in Figure 8.2.



**FIGURE 8.2 MINERALIZATION STYLES AT SILVER QUEEN**



**Source:** Equity Metals (December 2022)

**Description:** A) Drusy vein-breccia with carbonate alteration, galena and bladed barite (SQ20-003, 76 m);  
B) Replacement-style breccia with coarse galena and pyrite cemented fragments (SQ21-029, 229 m).

Further mineralogical characterization was completed by Equity Metals in 2022 and is described in detail in Section 13 of this Technical Report. Key observations arising from that study are:

- Silver is primarily associated with complex silver sulphosalts with very little of the silver associated with galena. The significant silver-bearing minerals identified were: tetrahedrite-Ag ( $(\text{Cu}, \text{Ag})_6\text{Sb}_4\text{S}_{13}$ ), matildite ( $\text{AgBiS}_2$ ), cupromatildite( $(\text{Ag}, \text{Cu})\text{BiS}_2$ ), cuprosalite ( $(\text{Pb}, \text{Cu})_2\text{Bi}_2\text{S}_5$ ), and pearceite ( $[\text{Ag}_6\text{As}_2\text{S}_7][\text{Ag}_9\text{CuS}_4]$ );

- The host rock is dominated by quartz and feldspar (40-60%) throughout the samples, along with carbonates (8-30%), micas and clays (4-15%), barite (0.5-7%), apatite and various oxide phases;
- Pyrite (6-8%) is present in all samples. The pyrite is generally free from the other sulphides;
- Lead and Zinc are primarily in galena and sphalerite; and
- 85% of the copper is present as chalcopyrite, whereas the remainder is in the complex sulphosalts, mainly as tetrahedrite.

### **8.1.1 Vein Mineralization at Camp, NG3 and No. 3**

#### **8.1.1.1 Setting and Textures**

Host rocks for the Silver Queen veins are the Shallow and Deep Andesite facies, and the Dacite-PLT unit. Microdiorite is also documented as a host rock phase, and there is a spatial association between the post-mineralization dykes and the mineralized zones, suggesting that the fluid pathways are long-lived. Rock contacts such as Dacite-PLT-Andesite are common locations for mineralized zones, as is the interpreted margin of the Dacite-PLT unit, particularly at the Camp Vein.

Epithermal textures such as druses and open-space filling are common. Bladed barite and breccia clasts or replacements of galena are common in the silver-bearing intervals. Open-space with druses in addition to wall-perpendicular crystal growth are locally abundant, with associated barite and calcite infill. Mineralization zones can also be characterized by barite flooded zones and barite blades with random orientations, in addition to silicification and beige carbonate/siderite replacement.

Cross-cutting relationships and re-brecciation of fragmental zones are consistent with multiply overprinting vein/brecciation events and associated with the introduction of sulphides and base/precious metals.

#### **8.1.1.2 Sulphide Mineralization**

Disseminated sulphide, blebs and interconnected semi-massive sulphide zones are commonly observed in the high-grade mineralized intervals at the Camp Vein and No. 3 Vein. Locally, galena is abundant, associated with minor sphalerite and pyrite. Coarse galena breccia clasts or replacement domains tend to be associated with the high-grade silver, and locally “ruby silver” (pyrargirite) is observed in those zones.

Silicified clast breccia is commonly observed in high-grade domains, as is semi-massive sulphide. These features tend to be associated with highest-grades, compared to vein, bladed, or crustiform/colloform banded textures that tend to have a lower-grade silver association.

### **8.1.1.3 Alteration**

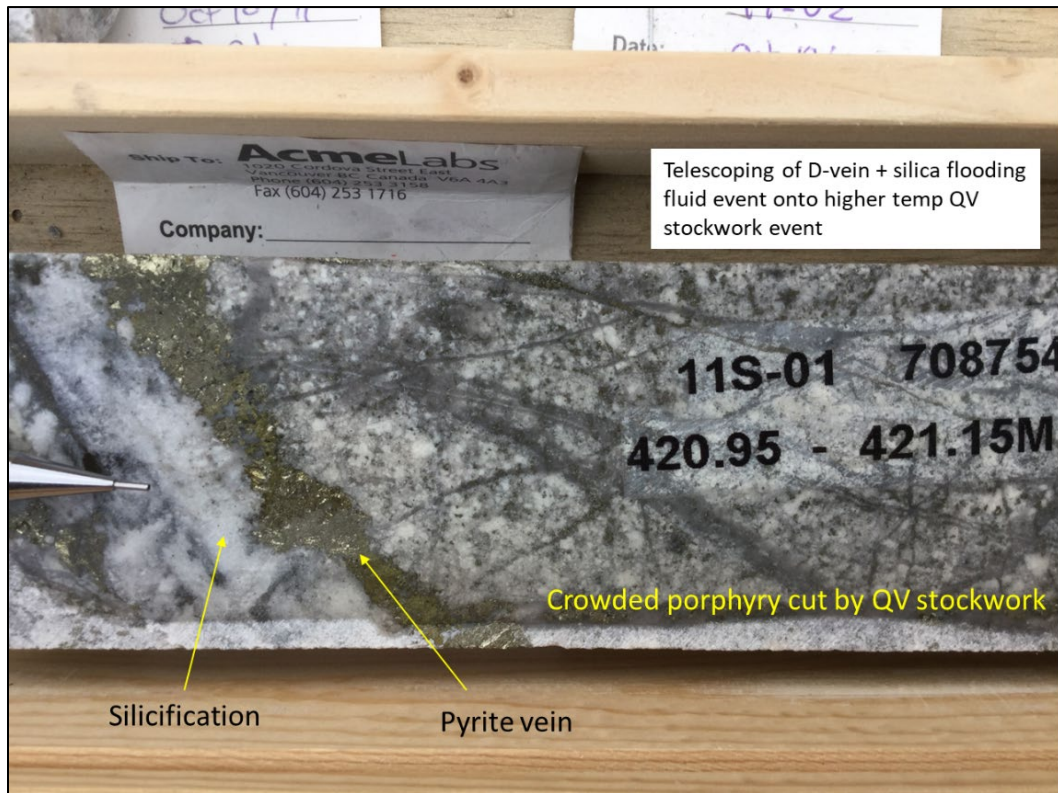
In general, there is more pronounced footwall clay-silica-carbonate alteration and veins, compared to hanging-wall zones. Interceding material between the vein and breccia areas can be relatively fresh with original rock textures preserved. The alteration intensity and breccia/vein density tend to be stronger and more pervasive in the wider, higher-grade intervals. Oxidation products and carbonate vein stockworks characterize the footwall zones, which may indicate subsequent reactivation of the structures.

## **8.2 CU-MO-AU BULK TONNAGE MINERALIZATION**

The Cu-Mo-Au mineralization on the Silver Queen Property occurs as a moderate to intense quartz stockwork zone within a feldspar porphyry intrusion, named the Itsit porphyry. Relative concentrations of metals vary widely between the drill holes. This is likely indicative of zoning within the Deposit. However, insufficient drilling has been done to define zonation patterns. Areas of strong mineralization always carry copper, which may be accompanied by either or both of gold and molybdenum (Hutter and MacIntyre, 2013).

Two dominant types of gradational alteration are identified: 1) widespread weak to intense clay outside the Deposit; and 2) moderate to intense silicification within the strongest areas of mineralization. Strong mineralization is almost exclusively confined to the feldspar porphyry body and in association, in some areas, with development of potassic alteration manifested as K-feldspar flooding or pervasive fine brown biotite. Disseminated pyrite is nearly ubiquitous, and is strongest in areas of intense argillic alteration in volcanic rocks outside the Deposit (Hutter and MacIntyre, 2013). Telescoping is suggested by the overprint of silica-pyrite that crosscuts earlier quartz vein stockworks (Figure 8.3).

**FIGURE 8.3 PORPHYRY STYLE STOCKWORK VEINING IN DRILL CORE FROM THE ITSIT PORPHYRY**



**Source:** Equity Metals (December 2022)

**Description:** Drill hole 11S-01, 420.95 m. Evidence for telescoping in the silica-pyrite overprint of quartz vein stockwork.



## **9.0 EXPLORATION**

There has been a long history of exploration on the Silver Queen Property, with several soil geochemical, geophysical and diamond drilling programs conducted prior to 2020, and modest past production from the No. 3 Vein. A significant amount of research has also been conducted on the Property (Cheng, 1995; Hood *et al.*, 1991; Leitch *et al.*, 1992). A total of approximately 319 surface drill holes and 222 underground drill holes totalling 70,380 m were completed, mainly on the No. 3 Vein and the Camp Vein. Other targets that have been extensively explored in the past are the George Lake Vein, Cole Vein and Itsit Porphyry (see Figure 8.1 above). For a more detailed review of the historical (pre-2020) exploration, refer to Section 6 of this Technical Report.

Since 2020, Equity Metals has conducted a high-resolution airborne magnetic survey, orientation soil sampling surveys, and completed 78 drill holes for a total of 25,659 m. The drill programs are summarized in Section 10 of this Technical Report.

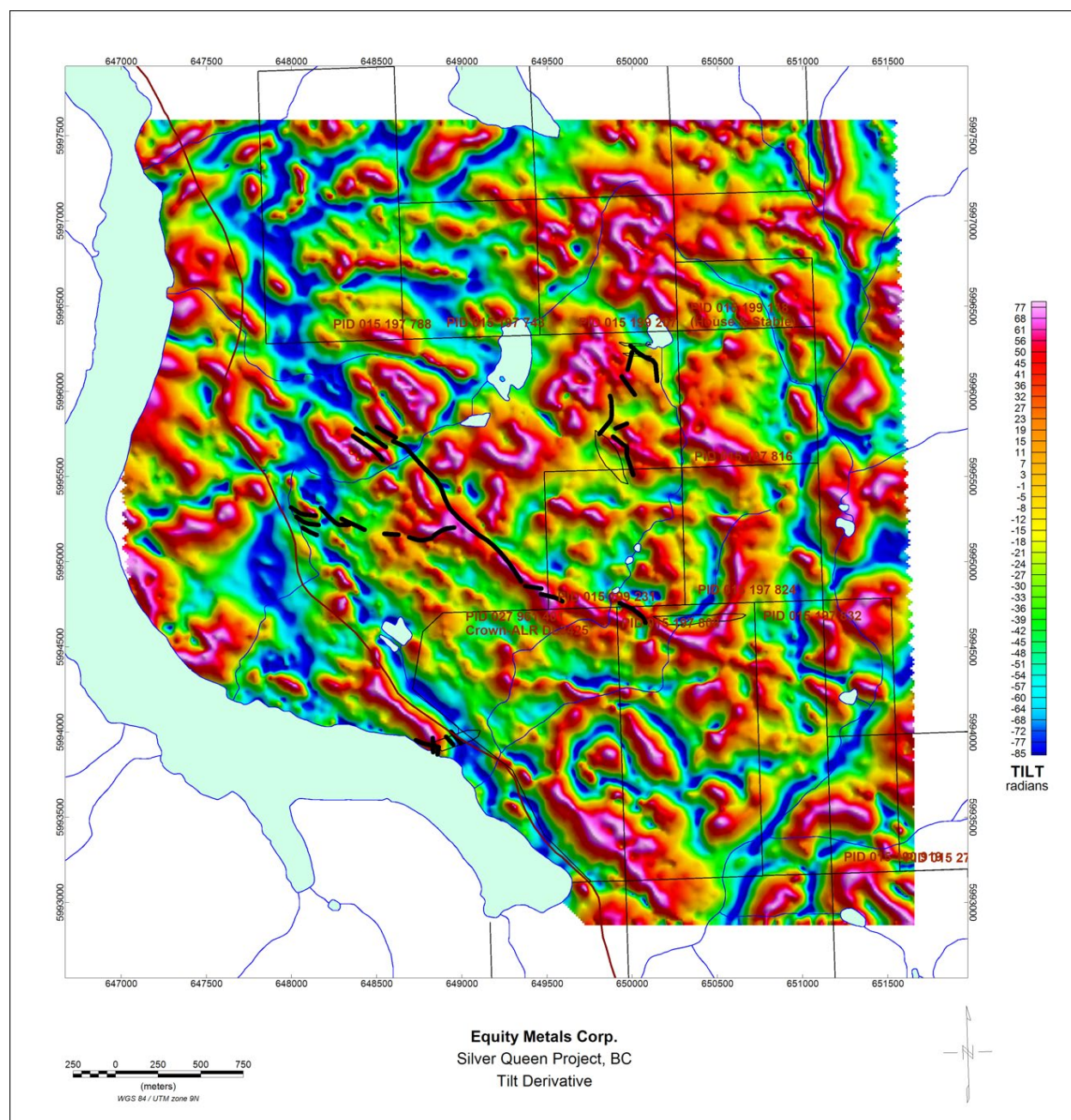
Prior to drilling, a total of 20 vein targets existed in the immediate area around the Silver Queen Camp. Exploration was carried out from 2020 to 2022 to delineate the Camp Vein to allow for incorporation into a Mineral Resource Estimate and to expand the No. 3, Switchback, No. 5 and NG3 Veins.

### **9.1 AIRBORNE MAGNETIC SURVEY**

Precision GeoSurveys Inc. was contracted to carry out a program of detailed airborne magnetics in December 2020. A total of 409.4 line-km was acquired in two days of flying on December 15-16. The survey was flown with 50 m traverse line spacings at headings of 045°/225°, across the dominant geological structures. Tie-lines were flown with 500 m spacing at a heading of 135°/315°.

The goal of this survey was to obtain higher resolution magnetic maps to resolve any potential magnetic signatures of the mineralized veins. A plan map showing the surveyed magnetic tilt derivative with surface vein occurrences marked by black lines is shown in Figure 9.1.

**FIGURE 9.1 HIGH-RESOLUTION MAGNETIC TILT DERIVATIVE IN THE SILVER QUEEN MINE AREA**



*Source: Equity Metals (December 2022)*

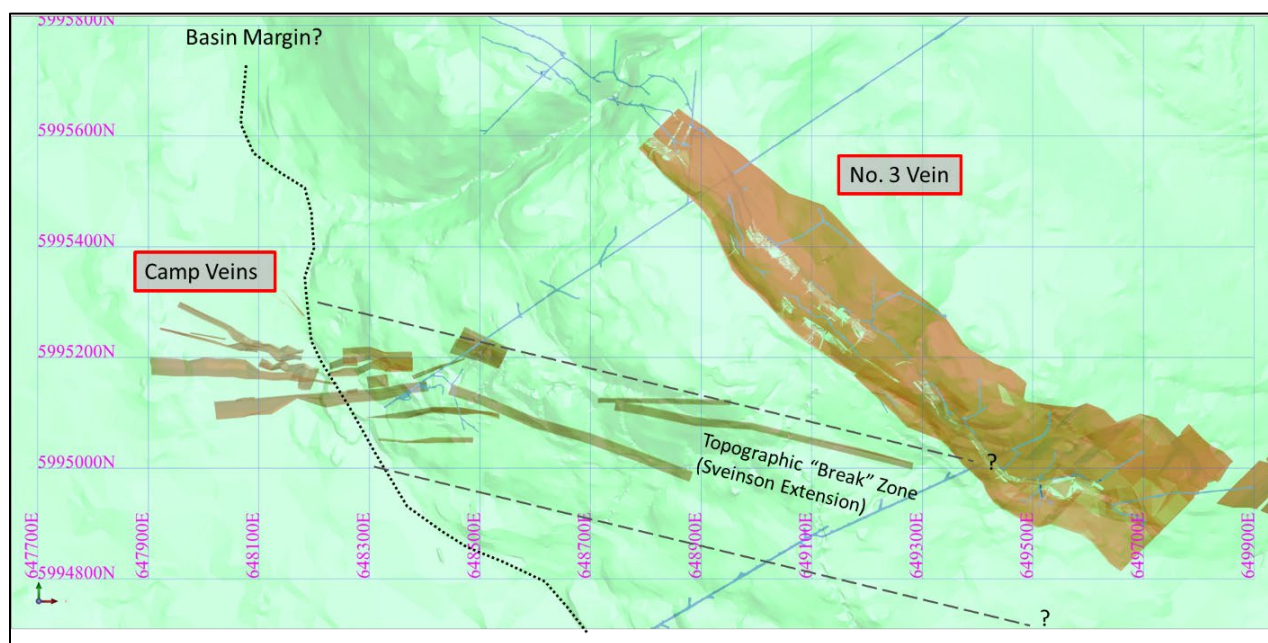
Several of the veins show a linear correlation between the magnetic tilt derivative highs and the projection of veins as mapped on surface, suggesting a potential exploration criterion for choosing follow-up targets. Two circular features or “annuli” are observed in the tilt derivative data. The Northern annulus evident to the east of the NG3 Vein as the low in the magnetic tilt derivative and coincides with the Cu-Mo mineralization in drill core at the Itsit Porphyry Target. The southern annulus remains unexplored.

## 9.2 SOIL SAMPLING AND TOPOGRAPHIC ANALYSIS

Topographic analysis conducted in 2021 identified a prominent north-northwest trending structural break that can be traced laterally as a topographic break in slope for over 1.2 km and forms the eastern boundary of the Camp Zone. This break correlates with the appearance of a polyolithic andesite-dacite tuff unit within the volcanic stratigraphy of the Camp Zone and is tentatively interpreted as the eastern edge of a small tensional basin that hosts the Camp Zone veins.

Topographic analysis also identified a +150-m wide west-northwest trending structural zone. Several historical veins, such as the No. 5 and the Switchback Veins, occur within the structural zone, which is now called the Sveinson Extension. The veins were identified on surface, in historical trenches and drill holes, and in the historical underground workings located to the east of the Camp Zone. The west-northwest trending zone, which can be traced for over 2.5 km, extends from the Camp Zone, through the flexure in the No. 3 Vein, and into the NG-3 Vein system. The veins within the structural zone remain open laterally and at depth and are primary exploration targets for future drill testing (Figure 9.2).

**FIGURE 9.2 PLAN VIEW OF WORKINGS, 3-D TOPOGRAPHY MINERALIZED SOLIDS AND STRUCTURAL ZONES**



**Source:** Equity Metals (December 2022)

**Note:** blue = workings, green = topography, red = mineralized solids.

In June of 2021, 141 soil samples were taken along three orientation lines to test if the known occurrences had associated geochemical signatures. The location of the three soil lines and precious and base metal geochemical results are shown in Figure 9.3. The 90<sup>th</sup> percentiles were very high for all the elements (100 ppb Au, 4.78 ppm Ag, 105 ppm Cu, 295 ppm Pb and 1,925 ppm Zn), especially zinc. Sampling successfully identified several strong geochemical anomalies correlating positively with known subsurface mineralization.

The northwestern line was sampled to test for the northwest projection of the No. 3 Vein. A weak geochemical signature was detected over the projection of the vein. The highest assay was 4.76 ppm Ag, 478 ppm Pb and 4,420 ppm Zn. Pathfinder elements, such as Sb, had subtle spikes, which suggests that soil sampling is an effective exploration tool in this area.

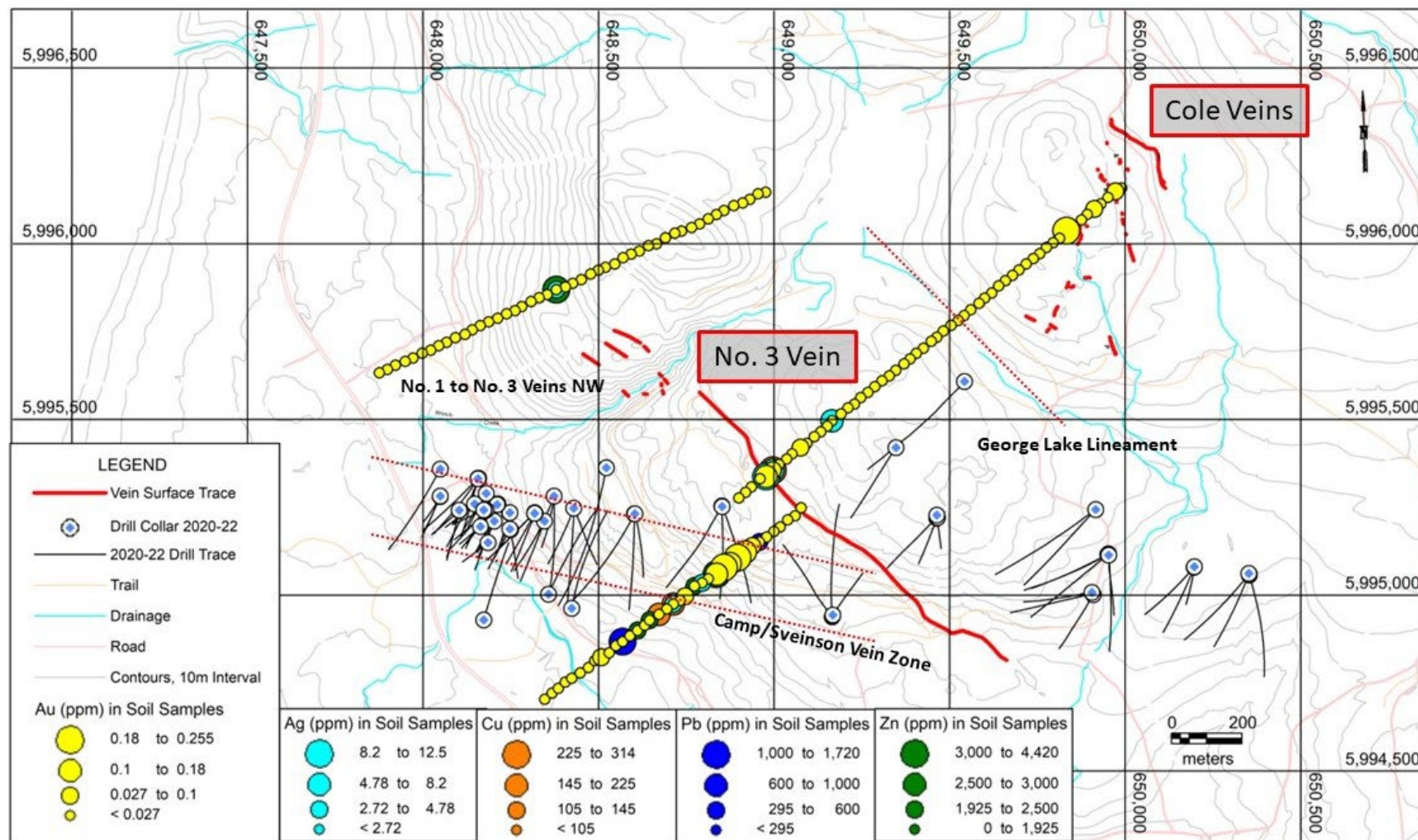
Two northeast trending, slightly overlapping soil lines were sampled across the entire mine area to test both the No. 3 Vein and the newly identified Sveinson Extension. A narrow, but strong multi-element (up to 140 ppb Au, 8.43 ppm Ag, 287.7 ppm Cu, 962.8 ppm Pb and 2,904 ppm Zn) soil anomaly was detected over the No. 3 Vein, which reflects the approximate geochemistry of the vein.

Other veins, known from trenching or surface exposure, had good soil geochemical signatures, particularly in the area of the Cole Veins, where a moderate to strong gold in soil anomaly was detected immediately above known veins, peaking at 193 ppb Au, 12 ppm Ag, 1,710 ppm Pb and 3,285 ppm Zn. The area has been heavily trenched in the past, therefore additional geochemical studies should focus on less disturbed areas.

Sampling over the Sveinson Extension identified a strong and widespread geochemical anomaly. The main anomaly spans approximately 200 m and peaks at 255 ppb Au, 11.07 ppm Ag, 313.3 ppm Cu, 1,429.1 ppm Pb and 4,142 ppm Zn within a wider, spottier geochemical anomaly over ~500 m, some of which may be attributed to downslope dispersion. Subsequent drill programs in late 2021 and 2022 confirmed the existence of mineralized veins within this corridor (Figure 9.4).



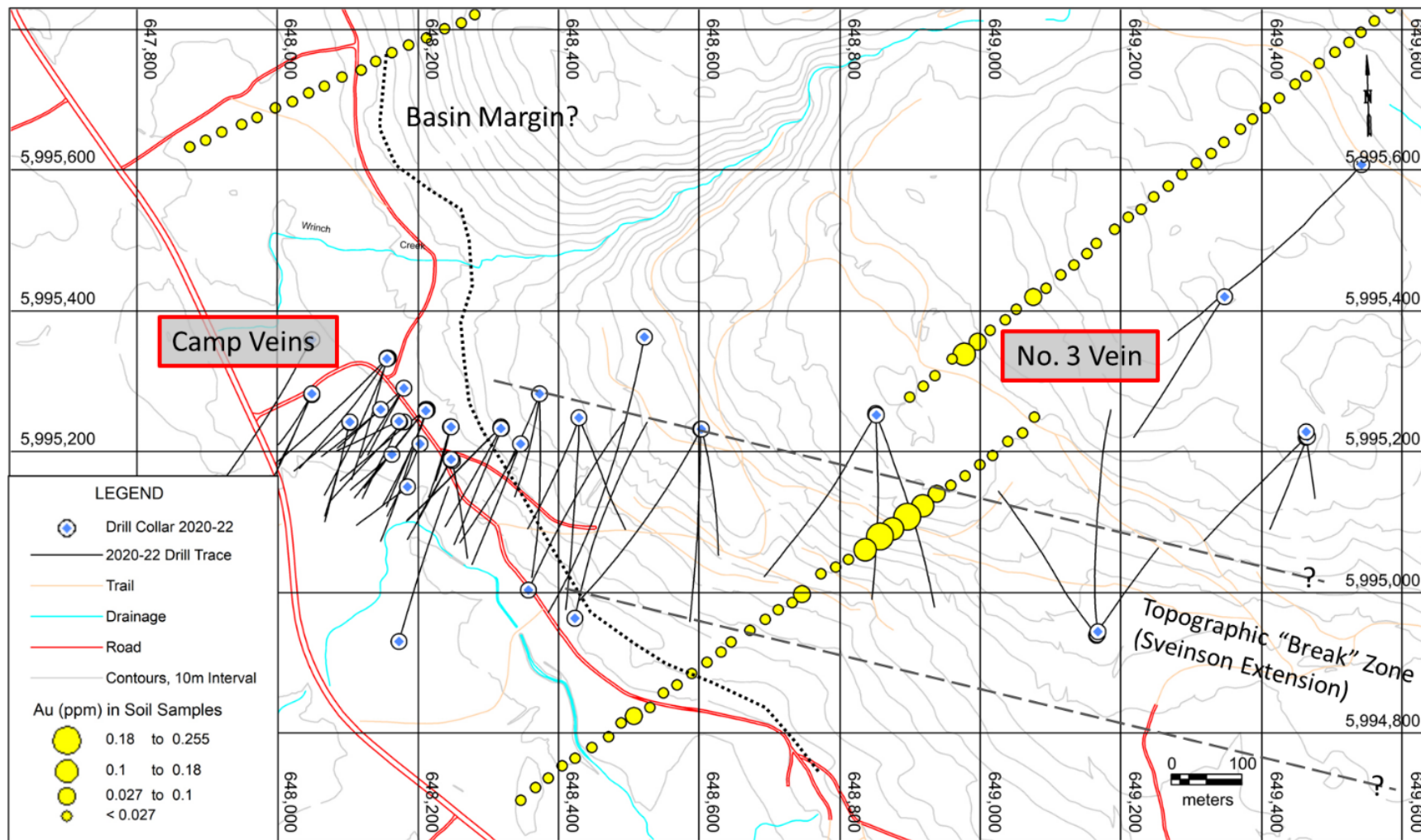
**FIGURE 9.3 LOCATION OF 2020-22 DRILL HOLES, SOIL SAMPLE LINES AND GEOCHEMICAL ANOMALIES RELATIVE TO THE MAIN EXPLORATION TARGETS**



**Source:** Equity Metals (December 2022)

**Note:** Buried Targets represented as dotted red lines.

**FIGURE 9.4 PLAN MAP OF 2020-22 DRILLING AND GOLD IN SOILS OVER THE NO. 3 VEIN AND SVEINSON EXTENSION**



*Source: Equity Metals (December 2022)*

## 10.0 DRILLING

Drilling campaigns prior to 2020 are summarized in Section 6 of this Technical Report.

Between August 10, 2020 and June 2, 2022, 78 drill holes (one abandoned prior to hitting target and repositioned) were completed totalling 25,659 m in seven stages of drilling. That drilling focused on three segments of a 2.5 km vein corridor, which extends eastward from the Camp Target through the Sveinson Target, the No. 3 Vein, and into the NG-3 Target (Figure 10.1).

Drilling was contracted to Dorado Drilling Ltd. of Vernon, BC and completed using NQ2 core capable of drilling 50.8 mm core with HQ casing capable of drilling 63.5 mm core. Table 10.1 shows the number of drill holes and meterage for each phase of drilling.

Surface-related drill collar data were collected initially by hand-held GPS devices, followed by differential GPS following completion of drilling and drill orientation and dip angle was set by Brunton compass. Downhole survey data (azimuth, dip, and magnetic field) was measured within each drill hole at approximately 3-m increments using an electronic “Devi-Shot” multi-shot surveying instrument. Drill core was transported to the on-site drill core shack for description, sampling and storage.

Samples (split-sawn drill core) were analyzed at MS Analytical Ltd. located in Langley, BC, for Au +48 elements by Fire Assay (FA)/Inductively Coupled Plasma (ICP)/Emission Spectroscopy (ES) and Four-Acid Digestion/ Inductively Coupled Plasma (ICP)/ Emission Spectroscopy (ES)/ Mass Spectroscopy (MS) using appropriate calibration standards.

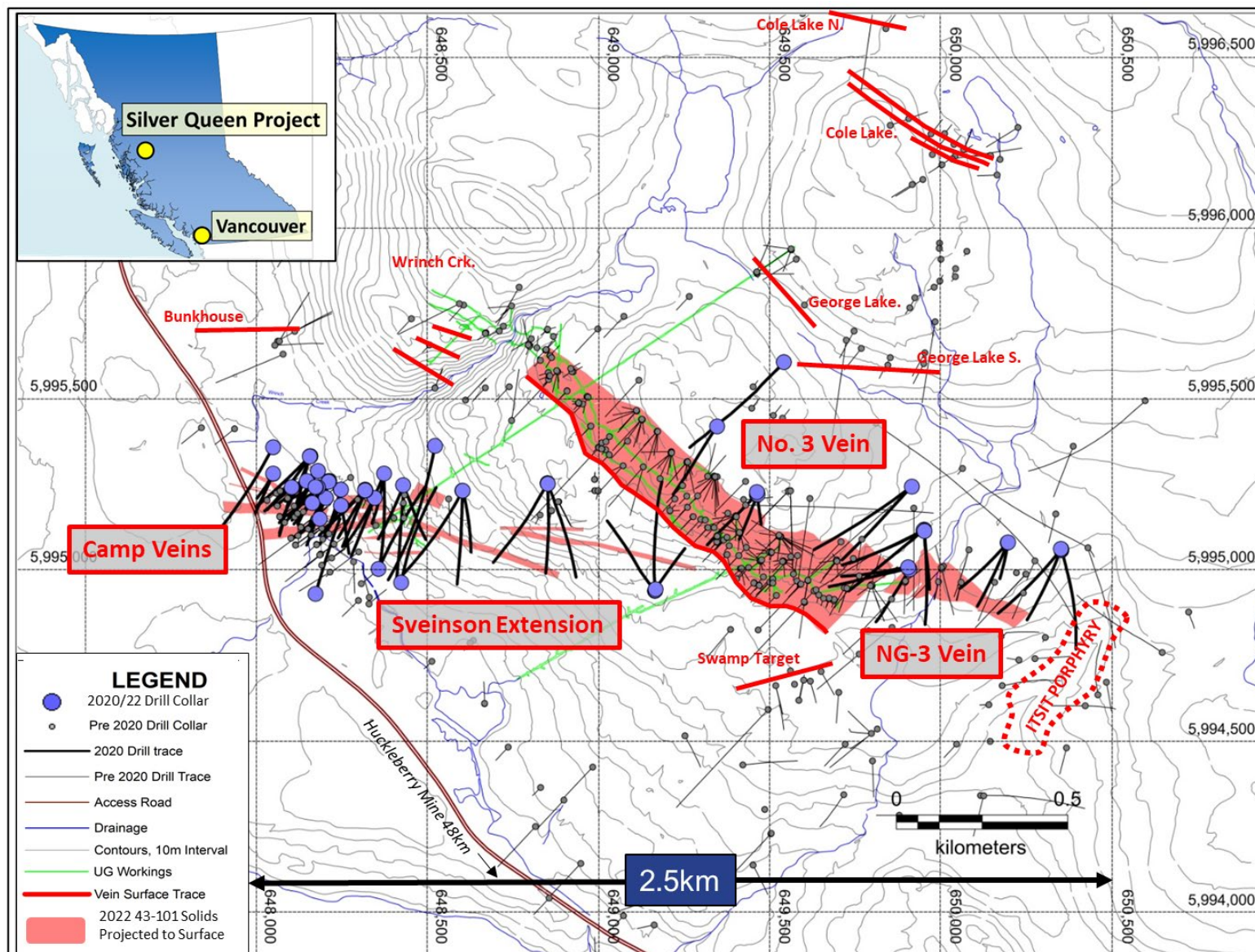
Established QA/QC quality protocols were implemented by Equity, including “blind” insertions of various standard pulps, blanks, and field duplicates. Certified reference materials and prepared blanks from CDN Resource Laboratories Ltd. were used, and local quarry rock and overall ~10% of the total assays were QA/QC-related; the results of which were carefully monitored and verified.

All descriptive information was captured digitally on-site initially using Microsoft Excel and subsequently imported into a Microsoft Access database by Equity personnel. A plan view of Equity Metals drilling is shown in Figure 10.1 along with a detailed listing of drill holes and locations in Table 10.2.

Drilling on the Camp Target identified a conjugate vein set comprising steep southwest-dipping, strongly silver-enriched veins and steep north-dipping, gold-enriched polymetallic veins. Individual veins demonstrate good lateral continuity over >150 m strike-lengths within an overall cumulative strike-length of the target of approximately 300 m. Drilling confirmed continuity of the vein sets to depths of down to 195 m from surface, with several veins extending laterally to the east and projecting into the Sveinson Target.



**FIGURE 10.1 PLAN MAP OF DRILLING ON THE SILVER QUEEN PROJECT AND WORKINGS, TARGET VEINS AND MODELLED MINERALIZED SOLIDS PROJECTED TO SURFACE**



*Source: Equity Metals (December 2022)*

<b>TABLE 10.1</b> <b>2020 TO 2022 DRILLING SUMMARY BY PHASE</b>				
<b>Drill Phase</b>	<b>Date Started</b>	<b>Date Completed</b>	<b>No. of Drill Holes</b>	<b>Drilling (m)</b>
I	August 10, 2020	October 12, 2020	10	3,046
II	November 19, 2020	December 20, 2020	8	1,948
III	February 8, 2021	April 20, 2021	13	4,991
IV	September 3, 2021	October 7, 2021	18	4,636
V	October 25, 2021	December 19, 2021	13	5,167
VI	January 12, 2022	February 27, 2022	13	4,385
VII	May 10, 2022	June 2, 2022	3	1,506
<b>Total</b>			<b>78</b>	<b>25,659</b>

Initial drilling on the Camp Vein target tested the area around historical drill holes that had reported thick intervals of silver and base metal mineralization, some of which contained bonanza grade silver ( $>1,000$  g/t Ag), as an orientation to confirm the location and tenor of mineralization for subsequent drill programs. This drilling largely confirmed mineralization where expected, with drill hole SQ20-010 returning 56,115 g/t Ag over 30 cm within a wider zone of 4.4 m of 4,632 g/t Ag. The high-grade intercept contains large blebs of a bright-red sulphosalt mineral, likely a mineral in the pyrrargyrite-pearceite series and colloquially known as Ruby-Silver, within a massive barite vein (see Figure 10.2). See Table 10.3 for a full list of highlight assay intervals.

**FIGURE 10.2 DRILL HOLE SQ20-010 INTERVAL CONTAINING 56,115 G/T AG OVER 30 CM**



*Source: Equity Metals (December 2022)*

Note the large concentrations of dark red sulphosalts within massive barite from the freshly drilled core.

The Sveinson Target, which includes the previously identified No. 5 and Switchback Veins, forms a broad, 150 m wide, veined structural corridor that projects laterally eastward for >1,000 m to where it transitions into the No. 3 Vein system (see Figure 10.1). Drilling successfully intersected multiple shallow veins at <100 m below surface and several deeper vein intercepts at up to 350 m below surface. Numerous veins have been encountered across the full 150 m width of the Sveinson Structural Zone, with several individual vein segments demonstrating along strike continuity of 200 m to 400 m.

Drilling confirmed the lateral projection of several shallow veins in the transition from the Camp to the Sveinson Targets and also identified three separate veins along the western margin of the Camp Target, which remain open ended to the west for future testing toward further Mineral Resource expansion. Strong gold-enrichment was identified in one of the veins in the Camp Target that traditionally returned higher silver values relative to gold. Such gold enrichment is significant, as it further enhances the overall exploration potential of these vein extensions.

Highlights from the Sveinson Target include results from drill hole SQ22-072, which intersected several veins at depth on the western edge of the target, including an intercept of 1.0 m estimated true thickness of 802 g/t Ag, 2.14 g/t Au, 0.8% Cu, 2.0% Pb and 15.8% Zn at a vertical depth of approximately 350 m below surface (Table 10.3).

<p style="text-align: center;"><b>TABLE 10.2</b>  <b>COLLAR INFORMATION FOR 2020-2022 DRILL HOLES ON THE SILVER QUEEN PROPERTY</b></p>							
<b>Drill Hole ID</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation (masl)</b>	<b>Azimuth (deg)</b>	<b>Dip (deg)</b>	<b>Length (m)</b>	<b>Target Zone</b>
SQ20-001	648,163	5,995,196	781	229	-47	115.8	Camp Vein
SQ20-002	648,185	5,995,150	780	229	-52	152.4	Camp Vein
SQ20-003	648,180	5,995,242	785	226	-52	227.1	Camp Vein
SQ20-004	649,542	5,995,608	947	225	-55	690.0	No. 3 Vein
SQ20-005	649,347	5,995,420	961	218	-55	428.6	No. 3 Vein
SQ20-006	649,463	5,995,220	954	225	-45	293.8	No. 3 Vein
SQ20-007	649,465	5,995,221	954	205	-70	382.0	No. 3 Vein
SQ20-008	649,463	5,995,228	954	173	-75	386.5	No. 3 Vein
SQ20-009	648,174	5,995,242	786	206	-46	169.2	Camp Vein
SQ20-010	648,173	5,995,243	786	246	-60	200.3	Camp Vein
SQ20-011	648,180	5,995,290	792	229	-54	224.0	Camp Vein
SQ20-012	648,180	5,995,290	792	216	-56	212.0	Camp Vein
SQ20-013	648,180	5,995,290	792	213	-63	251.0	Camp Vein
SQ20-014	648,211	5,995,260	794	232	-49	242.0	Camp Vein
SQ20-015	648,211	5,995,260	794	221.5	-51	251.0	Camp Vein
SQ20-016	648,211	5,995,260	794	221	-57	263.0	Camp Vein
SQ20-017	648,318	5,995,235	820	226	-51	311.0	Camp Vein
SQ20-018	648,318	5,995,235	820	226	-57	350.0	Camp Vein
SQ21-019	649,907	5,995,005	893	252	-45	353.0	No. 3 Vein
SQ21-020	649,909	5,995,002	893	212	-63	425.0	No. 3 Vein
SQ21-021	649,905	5,995,008	893	259	-52	323.0	No. 3 Vein
SQ21-022	649,952	5,995,118	901	240	-47	386.0	No. 3 Vein
SQ21-023	649,952	5,995,118	901	240	-55	425.0	No. 3 Vein
SQ21-024	649,953	5,995,114	900	175	-52	467.0	NG3 Vein
SQ21-025	649,953	5,995,114	900	178	-62	362.0	NG3 Vein

**TABLE 10.2**  
**COLLAR INFORMATION FOR 2020-2022 DRILL HOLES ON THE SILVER QUEEN PROPERTY**

<b>Drill Hole ID</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation (masl)</b>	<b>Azimuth (deg)</b>	<b>Dip (deg)</b>	<b>Length (m)</b>	<b>Target Zone</b>
SQ21-026	649,950	5,995,116	900	230	-49	443.3	No. 3 Vein
SQ21-027	649,916	5,995,244	915	225	-45	437.0	No. 3 Vein
SQ21-028	649,916	5,995,244	915	235	-45	485.0	No. 3 Vein
SQ21-029	648,211	5,995,258	795	196	-53	332.0	Camp Vein
SQ21-030	648,156	5,995,332	794	212	-45	278.0	Camp Vein
SQ21-031	648,156	5,995,333	794	195	-50	275.0	Camp Vein
SQ21-032	648,103	5,995,241	784	227.7	-59	200.0	Camp Vein
SQ21-033	648,103	5,995,241	784	194	-48	215.0	Camp Vein
SQ21-034	648,103	5,995,242	784	195	-66	326.0	Camp Vein
SQ21-035	648,157	5,995,333	794	223	-51	338.0	Camp Vein
SQ21-036	648,158	5,995,333	794	202	-55	359.0	Camp Vein
SQ21-037	648,246	5,995,235	798	195	-47	152.0	Camp Vein
SQ21-038	648,247	5,995,235	798	195	-64	185.0	Camp Vein
SQ21-039	648,213	5,995,259	795	200	-48	222.9	Camp Vein
SQ21-040	648,213	5,995,260	795	201	-60	317.0	Camp Vein
SQ21-041	648,203	5,995,211	784	204	-48	173.0	Camp Vein
SQ21-042	648,247	5,995,188	791	210	-45	188.0	Camp Vein
SQ21-043	648,247	5,995,189	791	211	-61	209.0	Camp Vein
SQ21-044	648,249	5,995,187	791	169	-45	200.0	Camp Vein
SQ21-045	648,319	5,995,233	819	203	-49	278.0	Camp Vein
SQ21-046	648,318	5,995,233	819	208.5	-58	314.0	Camp Vein
SQ21-047	648,346	5,995,211	822	198	-46	278.0	Camp Vein
SQ21-048	648,346	5,995,211	822	206	-57	323.0	Camp Vein
SQ21-049	648,147	5,995,260	787	229	-56	202.0	Camp Vein
SQ21-050	648,851	5,995,254	927	180	-45	401.0	Sveinson Extension
SQ21-051	648,851	5,995,253	927	207	-51	457.0	Sveinson Extension



**TABLE 10.2**  
**COLLAR INFORMATION FOR 2020-2022 DRILL HOLES ON THE SILVER QUEEN PROPERTY**

<b>Drill Hole ID</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation (masl)</b>	<b>Azimuth (deg)</b>	<b>Dip (deg)</b>	<b>Length (m)</b>	<b>Target Zone</b>
SQ21-052	648,852	5,995,253	927	159	-51	473.0	Sveinson Extension
SQ21-053	649,166	5,994,940	884	0	-45	464.0	Sveinson Extension
SQ21-054	649,165	5,994,939	884	328	-51	422.6	Sveinson Extension
SQ21-055	649,167	5,994,944	884	30	-55	257.0	Sveinson Extension
SQ21-056	648,602	5,995,232	870	180	-45	386.0	Sveinson Extension
SQ21-057	648,602	5,995,232	870	203	-55	515.0	Sveinson Extension
SQ21-058	648,603	5,995,232	870	163	-56	329.0	Sveinson Extension
SQ21-059	648,429	5,995,248	838	180	-45	413.0	Sveinson Extension
SQ21-060	648,429	5,995,248	838	199	-56	320.0	Sveinson Extension
SQ21-060-B	648,429	5,995,248	838	199	-56	20.0	Sveinson Extension
SQ21-061	648,429	5,995,248	838	159	-55	308.0	Sveinson Extension
SQ21-062	648,173	5,994,930	774	16	-53	401.0	Camp Vein
SQ22-063	648,373	5,995,282	832	180	-45	362.0	Camp Vein/Sveinson Extension
SQ22-064	648,373	5,995,282	832	201.7	-51	239.0	Camp Vein/Sveinson Extension
SQ22-065	648,373	5,995,282	832	190	-60	296.0	Camp Vein/Sveinson Extension
SQ22-066	650,197	5,995,081	909	193.7	-75	446.0	NG3 Vein
SQ22-067	650,197	5,995,081	909	220	-58	374.0	NG3 Vein
SQ22-068	650,196	5,995,080	909	201	-49	323.0	NG3 Vein
SQ22-069	650,353	5,995,061	902	218	-45	377.0	NG3 Vein
SQ22-070	650,352	5,995,062	902	198	-60	455.4	NG3 Vein
SQ22-071	650,353	5,995,058	901	162	-56	479.0	NG3 Vein
SQ22-072	648,423	5,994,963	789	12	-45	419.0	Sveinson Extension
SQ22-073	648,049	5,995,282	785	209	-67	225.0	Camp Vein
SQ22-074	648,049	5,995,281	785	207	-59	216.0	Camp Vein
SQ22-075	648,049	5,995,281	785	205	-45	174.0	Camp Vein
SQ22-076	648,523	5,995,362	865	193	-49	602.0	Sveinson Extension

<p><b>TABLE 10.2</b></p> <p><b>COLLAR INFORMATION FOR 2020-2022 DRILL HOLES ON THE SILVER QUEEN PROPERTY</b></p>							
<b>Drill Hole ID</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation (masl)</b>	<b>Azimuth (deg)</b>	<b>Dip (deg)</b>	<b>Length (m)</b>	<b>Target Zone</b>
SQ22-077	648,355	5,994,992	784	26	-55	500.0	Sveinson Extension
SQ22-078	648,048	5,995,356	788	210	-48	404.0	Camp Vein

*Source: Equity Metals (December 2022)*

<p><b>TABLE 10.3</b></p> <p><b>HIGHLIGHT ASSAYS 2020-2022 SILVER QUEEN DRILLING</b></p>											
<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Est. TT. (m)*</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AuEq (g/t)</b>	<b>AgEq (g/t)</b>
<b>Camp Vein/Sveinson Extension</b>											
SQ20-003	46.0	50.0	4.0	1.8	0.3	521	0.07	0.4	2	7.9	667
incl.	48.0	48.6	0.6	0.3	0.1	2,489	0.12	0.2	4.9	32.4	2,757
SQ20-003	75.7	86.8	11.1	5	0.4	356	0.11	1.0	2.3	6.5	555
incl.	81.0	82.0	1.0	0.5	0.9	1,220	0.31	0.9	2.5	17.5	1,487
SQ20-009	78.2	83.1	4.9	3.1	0.4	625	0.12	0.5	1.9	9.2	782
incl.	78.2	79.1	0.8	0.5	0.2	2,522	0.32	0.5	2.1	31.8	2,702
SQ20-010	112.4	116.9	4.4	2.6	0.2	4,632	0.12	0.4	1.2	55.7	4,736
incl.	112.8	113.1	0.3	0.2	0.1	56,115	1.08	0.6	1.2	662.7	56,333
SQ20-015	103.6	105.0	1.4	0.9	0.5	2,562	0.72	0.0	1.1	32.3	2,749
incl.	104.5	105.0	0.5	0.3	0.1	5,002	1.67	0.1	1.5	62.2	5,287
SQ20-015	162.1	163.8	1.8	1.1	0.3	731	0.04	2.3	2.1	11.1	941
incl.	163.0	163.8	0.8	0.5	0.2	1,544	0.06	0.2	1.2	19.3	1,637
SQ20-017	110.0	111.3	1.3	0.7	0.7	687	0.30	0.6	9.3	14.8	1,262
incl.	110.5	110.9	0.3	0.2	2.1	1,887	0.68	1.3	26.2	41	3,488

**TABLE 10.3**  
**HIGHLIGHT ASSAYS 2020-2022 SILVER QUEEN DRILLING**

<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Est. TT. (m)*</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AuEq (g/t)</b>	<b>AgEq (g/t)</b>
SQ20-017	121.6	130.2	8.6	4.5	0.3	361	0.78	0.6	1.2	6.6	559
incl.	123.0	123.5	0.5	0.3	1	2,154	1.72	0.9	1.3	29.9	2,538
SQ21-029	177.9	181.6	3.7	2.3	0.2	765	0.03	0.1	0.6	9.7	824
incl.	178.9	179.8	0.9	0.6	0.3	2,928	0.12	0.1	1.1	35.6	3,025
SQ21-029	225.3	231.0	5.7	3.5	0.1	1,274	0.06	0.5	1.3	16.1	1,366
incl.	229.4	230.0	0.6	0.4	0.2	7,392	0.23	1.9	3.1	90	7,653
SQ21-030	207.0	209.0	2.0	1.4	0.5	2,218	0.06	1.2	1.5	28	2,380
incl.	208.3	208.6	0.3	0.2	0	11,506	0.29	0.5	1.3	136.8	11,627
SQ21-031	229.3	236.0	6.7	4.4	0.1	1,050	0.06	1.4	2.1	14.3	1,219
incl.	233.3	233.6	0.3	0.2	0.1	14,035	0.53	1.3	3.3	168.3	14,307
SQ21-032	48.6	52.1	3.5	1.5	0	739	0.02	0.1	0.2	8.9	754
incl.	48.6	49.1	0.5	0.2	0.1	2,247	0.12	0.2	0.6	27.1	2,306
SQ21-033	114.5	116.6	2.1	1.6	0.6	138	0.02	2.3	7.3	7.4	627
incl.	115.8	116.6	0.8	0.6	1.1	342	0.05	5.4	18.2	17.9	1,523
SQ21-034	47.0	50.7	3.7	1.7	0	1,142	0.02	0.0	0.1	13.5	1,149
incl.	48.6	48.9	0.3	0.1	0	10,073	0.17	0.1	0.3	119	10,114
SQ21-035	248.8	251.1	2.3	1.4	0.1	544	0.03	0.7	0.6	7.2	612
incl.	249.6	250.1	0.5	0.3	0.2	1,659	0.10	1.6	0.6	20.8	1,770
SQ21-040	201.8	206.3	4.5	1.8	0.1	581	0.05	0.5	1.5	8	682
and incl.	204.7	205.5	0.9	0.3	0.1	1,391	0.15	0.1	0.6	17.1	1,452
SQ21-046	208.9	210.2	1.3	0.8	0.6	416	1.92	0.6	14.1	16.7	1,420
incl.	208.9	209.5	0.6	0.3	0.8	596	3.57	1.1	13	20.9	1,775
SQ21-046	224.2	226.8	2.7	1.5	0.1	231	0.17	0.1	2.2	4.4	371
incl.	226.4	226.8	0.5	0.3	0.3	1,192	0.92	0.2	3.7	17.9	1,522

**TABLE 10.3**  
**HIGHLIGHT ASSAYS 2020-2022 SILVER QUEEN DRILLING**

<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Est. TT. (m)*</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AuEq (g/t)</b>	<b>AgEq (g/t)</b>
SQ21-047	43.7	46.8	3.2	3	1.8	679	2.42	0.2	2.2	14.5	1,236
incl.	44.7	45.2	0.4	0.4	9	3,574	12.69	1.2	5.5	72.6	6,171
SQ21-048	48.8	51.8	3.0	2.6	1.8	2,091	5.92	0.4	3.9	37.1	3,157
incl.	50.3	51.8	1.6	1.3	2.9	4,032	11.37	0.5	6.8	70.6	5,999
SQ21-048	127.2	130.0	2.8	2.4	1	192	0.96	0.4	1.1	5.5	464
incl.	128.0	128.8	0.8	0.7	3.3	632	3.25	0.4	2.6	17	1,446
SQ21-049	130.0	131.3	1.3	0.6	0.1	853	0.01	0.2	0.8	10.7	910
incl.	131.0	131.3	0.3	0.1	0	3,235	0.05	0.6	2.3	39.7	3,377
SQ21-049	143.7	144.0	0.3	0.1	1.1	3,134	0.07	0.2	1.7	39.1	3,325
SQ21-050	189.2	190.5	1.3	1	1.5	111	0.43	1.3	6	7.4	631
incl.	189.8	190.2	0.4	0.3	2.2	115	0.25	3.5	11	11.6	988
SQ21-052	224.7	230.0	5.3	3.2	1.9	23	0.04	1.0	3.2	4.5	381
incl.	224.7	225.3	0.5	0.3	3.2	44	0.08	3.1	13	12.7	1,077
SQ21-053	137.8	139.4	1.6	1.2	5.1	120	0.30	0.8	4	9.6	817
incl.	138.2	138.6	0.5	0.4	13.8	321	0.82	1.6	12.4	26.6	2,261
SQ21-057	266.0	267.2	1.2	0.8	2.2	145	0.03	6.0	7.6	10.7	906
incl.	266.5	267.2	0.7	0.4	3.5	248	0.05	10.2	9.8	16.1	1,370
SQ21-059	94.1	96.7	2.6	2	3.8	509	0.80	1.1	4.3	13.8	1,172
incl.	95.6	96.0	0.4	0.3	22.5	3,473	5.55	2.5	1.8	73.2	6,223
SQ21-059	204.4	205.5	1.0	0.8	17.5	25	0.01	0.1	0.8	18.3	1,551
incl.	204.4	204.7	0.3	0.2	59.3	78	0.02	0.3	2	61.5	5,229
SQ22-063	250.8	251.4	0.7	0.4	13.6	690	5.85	0.1	0.2	30.1	2,562
SQ22-064	202.8	203.2	0.4	0.3	3.3	1,226	2.10	1.2	3.9	23.4	1,988
SQ22-072	396.0	397.2	1.2	1	1	802	2.14	0.8	2	15	1,271
incl.	396.3	396.8	0.6	0.5	2.1	1,705	4.26	1.6	4.1	31.1	2,647

**TABLE 10.3**  
**HIGHLIGHT ASSAYS 2020-2022 SILVER QUEEN DRILLING**

<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Est. TT. (m)*</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AuEq (g/t)</b>	<b>AgEq (g/t)</b>
SQ22-073	161.7	169.4	7.7	3.4	0	274	0.01	0.1	0.3	3.5	298
incl.	169.1	169.4	0.3	0.1	0.1	2,043	0.04	1.0	0.6	24.9	2,118
SQ22-074	44.3	44.8	0.5	0.3	1.2	1,470	0.08	0.2	0.8	19.1	1,622
SQ22-075	81.4	85.2	3.8	2.6	0	219	0.01	0.0	0.1	2.7	227
incl.	84.4	84.6	0.3	0.2	0	1,496	0.12	0.1	0.6	18.2	1,543
SQ22-076	479.0	480.6	1.6	1.1	0.8	232	3.25	0.1	1.2	8.9	755
incl.	479.0	479.4	0.4	0.3	1.3	653	7.33	0.1	0.4	19.6	1,668
SQ22-078	132.5	140.0	7.5	4.9	1.8	539	0.05	0.5	1.8	9.4	803
incl.	135.8	137.0	1.3	0.8	9.3	1,998	0.17	2.2	6.8	37.8	3,217
SQ22-078	197.6	204.5	6.8	4.5	0	156	0.01	0.1	0.1	2	168
incl.	204.1	204.5	0.4	0.2	0.2	2,313	0.07	1.2	1	28.5	2,424
<b>No. 3 Vein/NG3 Vein</b>											
SQ20-005	291.8	307.8	16	14.8	1.6	19	0.02	0.1	1	2.5	213
incl.	292.7	293.4	0.7	0.6	23.8	8	0.01	0.0	0.5	24.2	2,058
SQ20-006	214.7	217.5	2.8	2.6	3.3	177	0.04	0.9	2.7	7.3	620
incl.	216.4	217.0	0.6	0.6	13.3	800	0.15	4.0	11.4	31.1	2,645
SQ20-006	233.0	239.1	6.1	5.7	2	78	0.31	0.2	2.3	4.7	403
incl.	235.0	236.9	1.9	1.7	5	230	0.95	0.7	6.5	13.1	1,117
SQ20-007	295.0	301.3	6.3	5.3	2.2	58	0.07	0.2	1.8	4.1	350
incl.	297.3	298.3	1.0	0.9	11.4	219	0.19	0.7	6.3	18.2	1,546
SQ20-008	355.9	357.1	1.2	0.8	2.8	322	0.19	0.8	5	10.1	858
SQ21-019	217.0	218.9	1.9	1.6	1.5	194	0.82	0.1	2.9	6.6	565
incl.	217.8	218.2	0.4	0.4	3.6	649	2.21	0.2	10.2	20.4	1,731
SQ21-021	145.5	148.1	2.6	1.6	0.9	98	0.78	0.4	1.5	4.2	353
incl.	147.5	148.1	0.6	0.4	3	411	2.22	1.6	5.7	14.9	1,264

**TABLE 10.3**  
**HIGHLIGHT ASSAYS 2020-2022 SILVER QUEEN DRILLING**

<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Est. TT. (m)*</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AuEq (g/t)</b>	<b>AgEq (g/t)</b>
SQ21-022	319.9	325.8	5.9	4.7	8.7	339	0.66	1.8	7.4	18.7	1,586
incl.	322.0	324.5	2.5	2	15.6	419	0.41	3.0	15.7	31.4	2,670
SQ21-023	345.5	347.8	2.3	1.6	6.1	442	0.34	1.0	4.1	14.6	1,242
incl.	346.6	347.5	0.9	0.6	14.8	1,007	0.55	2.2	9.5	33.8	2,870
SQ21-024	209.5	213.5	4.0	3.1	6.2	138	0.10	0.2	0.7	8.5	723
incl.	210.5	211.2	0.8	0.6	18.7	351	0.20	0.8	0.1	23.5	1,993
SQ21-024	286.5	287.9	1.4	1.1	4.3	499	0.37	0.4	1.5	11.7	996
incl.	287.2	287.9	0.7	0.5	7.1	864	0.57	0.7	2	19.5	1,658
SQ21-025	220.2	225.0	4.8	3.7	1.8	23	0.06	0.0	0.1	2.2	190
incl.	223.0	223.6	0.6	0.5	11.2	110	0.38	0.1	0.3	13.2	1,124
SQ21-027	415.0	416.5	1.5	1.2	2.4	70	0.23	0.2	1.7	4.6	393
incl.	415.8	416.1	0.3	0.2	11	309	0.97	0.8	7.3	20.6	1,752
SQ21-028	390.8	393.0	2.3	1.6	2.4	151	0.20	0.8	2.7	6.3	534
incl.	391.2	391.8	0.6	0.4	8.9	580	0.69	3.0	8	22.6	1,919
SQ21-028	452.0	453.1	1.1	0.8	2.3	234	0.73	0.7	3.9	8.6	734
incl.	452.5	452.8	0.3	0.2	6.6	760	2.55	1.5	9.1	25.0	2,124
SQ22-067	307.2	310.9	3.7	3	4.9	75	0.16	0.1	0.3	6.2	528
incl.	309.4	309.9	0.5	0.4	15.9	198	0.40	0.1	0.1	18.9	1,608

**Source:** Equity Metals (December 2022)

**Note:** \* Est TT = estimated true thickness

The No. 3 Vein system strikes northwest to southeast and dips to the northeast at approximately 60°. The average width of the veins is 0.9 to 1.2 m with local increases up to 4.6 m. The No. 3 Vein can be traced on surface and in drilling for >1.2 km strike length, where it transitions across an oblique structure and into the NG-3 Vein system (Burga *et al.*, 2019).

Twelve drill holes were completed on the No. 3 Vein as part of the 2020-2021 drilling programs. Where tested, drilling successfully confirmed the tenor of mineralization from the 2019 Mineral Resource Estimate, extended the No. 3 Vein to the southeast approximately 100 m down-dip over a 200 m strike length.

Mineralization within the No. 3 Vein consists of massive to semi-massive pyrite-sphalerite with smaller amounts of galena and sparse sulphosalts. Sphalerite is predominantly honey sphalerite with minor yellow sphalerite and gangue mineral is predominantly barite and quartz. Texture is predominantly silicified clast breccia, with vuggy textures and minor banding in places, which can be difficult to observe throughout much of the highest-grade veins, due to abundance of massive sulphides.

Drilling in the No. 3 Vein was highlighted by results from drill hole SQ21-022, which intersected an estimated true thickness of 4.7 m containing 8.7 g/t Au, 339 g/t Ag, 0.66% Cu, 1.8% Pb and 7.4% Zn 30 m from the nearest drill hole at the southeast extremity of the 2019 Mineral Resource block model. Figure 10.3 shows a picture from this vein intercept. See Table 10.3 for a full list of highlight assay intervals.

**FIGURE 10.3** CLOSE-UP OF NO. 3 VEIN INTERCEPT IN DRILL HOLE SQ21-022



*Source: Equity Metals (December 2022)*

The NG-3 Target forms the southeast extension of the No. 3 Vein and was tested with eight drill holes, which returned several intersections of high-grade gold and silver. Equity Metals' drilling has now confirmed the extension of the NG-3 Vein to >300 m of strike length and to depths of up to 240 m below surface. The drill holes have established internal continuity between widely-spaced historical intercepts drilled by previous management and earlier drilling by Equity Metals. The mineralization remains open to expansion by drilling along strike and down-dip.



## **11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY**

The following Section 11.0 has been summarized largely JDS Energy & Mining Inc. (2011).

### **11.1 PRE-2010 DIAMOND DRILLING**

#### **11.1.1 Sample Preparation**

It is not known what methods were used to survey the locations of diamond drill holes before the Bradina era. The earlier surveying of the claims for Crown-granting would have supplied a number of known reference points that would be useful for tying-in drill holes. Surveyors would likely have been on-site for any of the programs that involved significant underground work.

During the Bradina production period, the mine employed full-time surveyors who were responsible for surveying the mine workings and both surface and underground drill holes. A full-time surveyor was also employed during the period of exploration by Houston Metals Corp. for the same purpose. The underground workings on the 2,600 level were re-surveyed by Houston Metals. As the Bradina survey does not exist in digital form the writer does not know the degree of error between the two surveys, except to say that the Houston Metals surveyor considered it to be reasonable. The Bradina survey results still exist in paper form and the Houston Metals results are recorded in digital form, therefore a comparison would be possible. The workings are no longer accessible, therefore a re-survey at this time would not be practical.

Downhole surveys were rarely performed in any of the drill programs, except for drill holes S74-1 to S74-3, in which a Sperry-Sun instrument was used. The Sperry-Sun instrument used a down-hole camera with a timer to take a photograph of a dial showing inclination and azimuth. Any movement or vibration during the exposure would cause a blurring of the image. The azimuth was taken from a compass reading, and thus was susceptible to magnetic disturbances in the surrounding rock. The azimuth reading was not corrected for declination, the adjustment being done by calculation after the reading was obtained. Readings from these three holes were very erratic, possibly due to magnetite in the rocks, and were not usable.

Acid tests were performed during the Houston Metals work. However, these gave no indications of changes in azimuth and only supply inclination with very poor accuracy and were of little use.

Typically, mineralized intersections included within drill core were split with a mechanical core splitter and half of the sample sent to a lab for analysis, with the remainder retained on the Property. Although procedure is undocumented for most of the drilling campaigns on the Property, it has been an industry-standard procedure for many years. A considerable amount of drill core remains on the Property, even including much of the core from early years of exploration. Although this early core has degraded to the extent that it cannot be used for most purposes, examination of the core by Mr. Jim Hutter, P.Geo., an independent Qualified Person in terms of NI 43-101, indicates that the above procedure was generally followed.

Mr. Hutter was directly involved in much of the 1987 to 1989 program, where the only difference from the above procedure was that some of the drill core was cut with a diamond saw rather than a mechanical splitter.

### **11.1.2 Sample Analysis**

Although it is believed that the samples were generally sent to reputable labs, most of the details of the labs used and the methods of analysis employed have been lost, especially for the earlier programs.

It is known that during the 1972-73 production period, Bradina Joint Venture maintained an assay lab on site. However, details of the procedures used are not known to the Author.

During the 1987 to 1989 Houston Metals program, samples were sent to Min-En labs in Vancouver for analysis. Details of analytical procedures are scarce. In general, samples were ground to -100 mesh (percentage passing was not given), gold was fire assayed, a part of the sample was digested in acid, and silver, copper, lead and zinc were determined by chemical assay. However, the exact procedure of the digestion and chemical assay was not stated.

### **11.1.3 Sample Security**

Sample security was likely not an issue in earlier programs. The samples are thought to have been placed in bags that would then be placed in larger sacks and wired shut and sent to the lab by bus or some other convenient method of transportation. This procedure was also used during the Houston Metals program. In that program, the wire-tied sacks were taken on a regular basis to the bus depot in Houston by company employees or by employees of the mining contractor.

## **11.2 2010 DIAMOND DRILLING**

### **11.2.1 Sample Preparation**

Drill collars were surveyed by means of hand-held GPS. Since tree cover was generally light to nil in the areas being investigated, GPS reception was good to excellent. The first ten drill holes were surveyed by means of a Garmin Etrex Legend and produced results with a claimed accuracy of two metres. The remaining drill holes were surveyed with a Garmin Etrex Vista HCx. The use of the averaging function available with this instrument improved the accuracy to between 0.9 and 1.3 m, depending on how many readings were taken.

Downhole surveys were performed by the drill crew using a compass-based Reflex instrument. This is a single-shot instrument that provides digital readouts on a small screen. The readouts of magnetic azimuth, inclination and magnetic field strength are recorded manually by the operator. A correction of 18° was later added to the magnetic azimuth reading to convert to UTM Azimuth. All azimuths in this report use UTM North as 0°. To convert UTM azimuths to azimuths based on True North, subtract 1.85° from the UTM azimuth.

Readings of magnetic field strength that are significantly outside the norm indicate a magnetic disturbance, generally caused by the presence of magnetite, that could cause the azimuth reading to be unreliable. This was only noted in one reading (drill hole DDH 10S-20), which was therefore not used for plotting.

Samples from all drill holes, except 10S-13, 14, 18, 19 and 20, were split on-site with a diamond saw by persons contracted by the Company and supervised by Mr. Hutter. Samples from drill holes 10S-13, 10S-14, 10S-18, 10S-19 and 10S-20 were split off-site by Mr. Hutter using a mechanical drill core splitter. Half of the split drill core was sent to the lab for analysis and the other half was retained as a permanent record.

### **11.2.2 Sample Analysis**

During the early part of the program, Assayers Canada was acquired by SGS Mineral Services, who continued to operate the sample preparation lab. As Assayers Canada transitioned to the procedures of SGS Mineral Services, the assay code numbers changed and in some cases detection limits changed.

Gold and silver were fire assayed using a 30 g sample with an AA finish for gold and gravimetric finish for silver. This procedure was coded as F262A by Assayers Canada and as FAG323 by SGS.

Multi-element assays were done using a four-acid (HCl, HNO<sub>3</sub>, HF, HClO<sub>4</sub>) digestion followed by analysis by ICP-MS. This was Assayers Canada procedure MS102 or SGS procedure ICM40B.

Copper, lead and zinc over-limits from the multi-element assay were re-assayed by Assayers Canada using a four-acid digestion with an AA finish. This was procedure MA113, MA114 and MA117 for copper, lead and zinc, respectively. SGS re-assayed over-limits using a sodium peroxide fusion and ICP-AES analysis.

### **11.2.3 Sample Security**

Samples of split core were placed in plastic sample bags identified with unique sample numbers and tied with plastic ladder ties. The bags were then placed into sacks and delivered by Mr. Hutter to the Assayers Canada Ltd., sample preparation facility in Telkwa.

## **11.3 2020-2022 DIAMOND DRILLING**

### **11.3.1 Sample Preparation**

Surface-related drill collar data was collected by hand-held GPS devices followed by differential GPS, following completion of drilling. Drill orientation and dip angle was set by Brunton compass. Downhole survey data (azimuth, dip, and magnetic field) was measured by the drill crew at approximately 3-m increments using an electronic “Devi-Shot” multi-shot surveying instrument as the rods were pulled out of the drill hole. As a check, as the hole was being drilled, at approximate 50m increments, a single-shot survey was measured.

Multi-shot surveys were imported into a drill database and analyzed for any anomalous readings that may have been caused by magnetic rocks. Any reading that showed greater than 1-degree deviation in azimuth and dip over three metres was flagged, analyzed and, if necessary, removed from the database.

Drill core was transported from the drill to the on-site drill core shack for description, drill core photography, sampling, and storage. Samples were marked by the geologist and split with a diamond saw. Half of the drill core was sent to the lab for analysis and the other half was retained as a permanent record.

### **11.3.2 Sample Analysis**

The 2020-2022 drilling provided 13,992 samples (split-sawn core) as well as 1,547 QAQC samples.

Samples were shipped to MS Analytical in Terrace, BC where they were crushed to 2mm, then a 250g split pulverized until 85% is <75 micrometres. Pulps were then shipped securely to MS Analytical in Langley BC, for gold and multi-element analysis.

Gold was analyzed by fire assay (50 g fusion) with Inductively Coupled Plasma (ICP)/Emission Spectroscopy (ES) or Atomic Absorption Spectroscopy (AAS) finish. (Code FAS-121) Gold overlimits >10g/t were analyzed by fire assay (50g fusion) with a gravimetric finish (Code FAS-425)

Multi-Element analysis (+48 elements including silver, copper, lead and zinc) was carried out on samples by Four-Acid Digestion with Inductively Coupled Plasma (ICP)/Emission Spectroscopy (ES)/ Mass Spectroscopy (MS) finish (Code IMS-230)

Copper, lead and zinc overlimits (>1%) were analyzed by ore grade ICP-AES (Atomic Emission Spectroscopy) using a 0.2g sample (Code ICF-6XX)

Silver overlimits between 1000-10,000g/t were analyzed by fire assay (50g fusion) with a gravimetric finish (Code FAS-428.) As a further check, silver >10,000g/t was assayed again by concentrate analysis, where gravimetric analysis is conducted in triplicate and the weighted average reported.

### **11.3.3 Sample Security**

Samples of split core were placed in plastic sample bags identified with unique sample numbers and tied with plastic ladder ties. The bags were then visually inspected, placed into sacks and delivered by the exploration manager to the Banstra depot in Houston, BC where they were securely shipped to the MS Analytical sample preparation facility in Terrace.

## **11.4 BULK DENSITY**

Digital drilling and sampling data supplied by Equity Metals included bulk density measurements determined throughout the various phases of drilling at the Project. From this data, a uniform bulk density value was established to use in the Mineral Resource Estimate. Bulk density values from 24 samples within the defined mineralization domains, with reported values ranging from 2.77 to 4.20 t/m<sup>3</sup>, a median value was 3.56 t/m<sup>3</sup>, and an average value of 3.57 t/m<sup>3</sup> was used. The supplied data compares well with the 21 independent site visit samples collected by the 2019

site visit Qualified Person and determined at Actlabs. Reported bulk density measurements performed at Actlabs range from 2.95 to 4.16 t/m<sup>3</sup>, give a median value of 3.53 t/m<sup>3</sup> and an average value of 3.57 t/m<sup>3</sup>.

## 11.5 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

### 11.5.1 Pre-2010 Quality Assurance/Quality Control Program

Quality Assurance/Quality Control (“QA/QC”) field procedures for verification of assays and methods were not performed in any of the pre-2010 drill programs (i.e., no blanks or certified reference materials (“CRM”) and very rarely duplicate samples). No pulps or rejects from any of the historical drill programs are known to exist, except for some more recently-found pulps from the 1981 underground program. Most of those pulps are in usable condition and could serve to verify the assaying from that program. Check sampling programs, as detailed in Section 11.4.3, were undertaken in late-2009 and early-2010, in an attempt to provide assay verification for the 1987 to 1989 Houston Metals work.

### 11.5.2 2010 Quality Assurance/Quality Control

Blanks and CRMs were inserted into the sample stream, such that either a blank or a CRM would be inserted at approximately every tenth sample, for a total of six CRMs and seven duplicates. White landscaping marble was used for blanks. CRMs were provided by Canadian Resource Laboratories Ltd. Four duplicate sample sets were produced as quartered drill cores by splitting half-drill cores into two.

In the tables below, copper, lead and zinc assays have been converted from parts per million to percent where applicable, in order to maintain consistent presentation of units. None of the blanks (Table 11.1) indicate significant carry-over or contamination during the sample preparation process.

**TABLE 11.1**  
**BLANK SAMPLES USED IN THE 2010 DRILL PROGRAM**

<b>Blanks:</b>					
<b>Sample No.</b>	<b>Au</b>	<b>Ag</b>	<b>Cu</b>	<b>Pb</b>	<b>Zn</b>
	(g/t)	(g/t)	(%)	(%)	(%)
454105	<0.01	1.3	0.0002	0.0019	0.0065
454125	0.01	2.2	0.0005	0.0076	0.0128
454145	<0.01	1.3	0.0008	0.0011	0.0087
454162	<0.01	0.5	0.0004	0.0004	0.0053
454175	<0.01	1.1	0.0003	0.0006	0.0052
454195	0.01	0.8	0.0005	0.0005	0.0014
454215	<0.03	<5	0.0087	0.0011	0.0017

*Source: JDS Energy & Mining Inc., (2011)*

CRMs used during the QA/QC program are outlined in Table 11.2, and only the results for silver were consistently within the expected range. Although the average of gold values was acceptable, three individual assays were higher than expected and one was lower. Copper assays were tightly grouped, however, the results plotted just below the expected values. Lead assays tended to be low, with the average plotting just within acceptable limits. Four of the six zinc assays were well below expected values. The significance of this is unknown, as the standard zinc value is below the value that would be considered mineable for this Property, i.e., it is not known whether this discrepancy would continue on to higher zinc values. Although it is probably not of great importance if the assays for already low-grade samples are lower than they should be, samples from this program having higher zinc values, say >3%, should be re-assayed to ensure that high-grade values are not being diminished. For future programs, standards with a higher zinc value should be obtained in order to more closely approximate zinc grades that would be found at the Property.

**TABLE 11.2**  
**CRM SAMPLES USED IN THE 2010 DRILL PROGRAM**

<b>Standards: CDN-ME-4</b>					
<b>Accepted Values:</b>	<b>Au</b>	<b>Ag</b>	<b>Cu</b>	<b>Pb</b>	<b>Zn</b>
	(g/t)	(g/t)	(%)	(%)	(%)
Recommended	2.61	402	1.83	4.25	1.1
Minimum	2.31	377	1.75	4.01	1.04
Maximum	2.91	427	1.91	4.49	1.16
<b>Sample No.</b>					
454115					

*Source: JDS Energy & Mining Inc., (2011)*

Three of the four duplicate sample sets (Table 11.3) produced excellent agreement between the two samples of each set. The remaining set, 454136 - 454137, showed great differences between the two samples for all elements except copper. Given that the core appeared relatively uniform, it would seem likely that a piece of core from the higher-grade section immediately below may have found its way into one of the samples, indicating the need for greater vigilance by samplers.

**TABLE 11.3**  
**DUPLICATE SAMPLES USED IN THE 2010 DRILL PROGRAM**

454185	0.24	17.3	0.0032	0.0198	0.0160
454197	0.25	3.5	0.2838	0.0029	0.0206
454198	0.22	4.2	0.3802	0.0041	0.0225

*Source: JDS Energy & Mining Inc. (2011)*

### **11.5.3 2010 Check Sampling Program**

The condition of drill core remaining from any of the drill programs before 1987 is generally too poor to allow the drill core to be useful for re-sampling purposes, except for perhaps an occasional interval. Parts of the 1987 to 1989 drill core were usable for re-sampling purposes, which was carried out in the fall of 2009 and the spring of 2010 by Mr. Hutter. Some of the drill core had been damaged by rats or by undocumented sampling, but obvious re-sampling or by “souvenir sampling” where someone had removed one or more pieces of drill core from certain intervals, thus making the entire interval useless for verification of previous samples. “Souvenir sampling” is particularly damaging for subsequent check sampling programs, as it may go unrecognized. The removal of “souvenirs” will generally tend to lower the grade of the remaining sample, because the souvenirs removed are almost always the best pieces.

A larger sampling program was undertaken in the spring of 2010 to supplement the 2009 re-sampling and ensure more statistically meaningful results. From assay records, approximately 250 intervals were identified running at least 3 g/t Ag that were potentially useful for check samples. In the field, only 111 were deemed usable for the check-sampling program. Of the samples that were not considered usable, some had been damaged by rats and some had been the subject of previous undocumented re-sampling, a few were inaccessible as one of the drill core storage units had fallen over. However, the majority were rendered useless by “souvenir sampling” that removed part of the sample.

Analyses of copper, lead and zinc were converted from parts per million to percentages in order to have the same units as the over-limit assays (>10,000 ppm), which were reported as percentages. Correlation of both gold and zinc assays between the check and the original samples was excellent, with gold checks on average being barely lower than the originals and the zinc checks being just slightly higher. Lead results were fairly close, with the lead checks averaging 89% of the original

assays. Silver and copper did not correlate as well as the other metals, with silver checks averaging 82% and copper 79% of the original results. There is commonly considerable variation between the assay results for single sample pairs (check/original). However, this variation appears random rather than systematic.

Seven samples were done in duplicate; i.e., the half-drill core remaining in the box was quartered and both quarters were assayed separately. Results between duplicates show less variation than the results between check versus original samples, although this could simply be coincidence given the small number of duplicate samples. Even the duplicate samples show occasional wide variations for individual elements. Although the correlation for gold, silver, lead and zinc is quite good, the variation for copper was greater, with the first assays averaging only 86% of the second ones; however, such variation is not considered excessive for core duplicates, which are expected to show more variation than pulp or reject duplicates.

Some possible explanations for the apparent differences between some of the results of the 2010 check sampling and the 1980s sampling are:

- An insufficient number of samples to adequately reduce the statistical variations between drill core duplicates, producing a bias that is more apparent than real;
- A real bias in some of the assays, presumably mainly in those of the 1980s; and
- A low bias in some of the 2010 check samples caused by unrecognized “souvenir sampling”.

While taking the check samples, Mr. Hutter was aware of the possibility of unrecognized “souvenir sampling” having a negative influence on the results, especially considering the considerable amount of such sampling that was recognized. The Author considers that at least some part of the variation between the check samples and the original samples is likely due to this cause and that this variation can therefore be considered to be within an acceptable range for present exploration purposes. Should the data from these drill holes be required for purposes of Mineral Resource estimation, further verification by other means may be required.

Blanks and CRMs were inserted into the sample stream in an alternating fashion, such that every tenth sample was either a blank or a CRM. No attempt was made to insert them randomly, as it would have been obvious to the lab in any case that they were blanks and CRMs. A total of seven blanks and six CRMs were analyzed.

The material used for blanks was white marble landscaping rock. Analyses of blanks showed some carry-over from the crushing and grinding processes, but not a significant amount considering the grade of the samples. Carry-over was from 0.01 to 0.03 g/t for Au, 0.7 to 2.6 g/t for Ag, 0.1 to 42.5 ppm for Cu, 12.6 to 74.7 ppm for Pb, and 5 to 366 ppm for Zn, assuming that the natural metal content of the blank material is indeed nil.

CRMs used were reference material CDN-ME-4, supplied in 100 g packages by Canadian Resource Laboratories, Ltd. (No. 2, 20148-102nd Ave., Langley, BC, V1M 4B4). Recommended values  $\pm$  two standard deviations are shown in Table 11.4.



**TABLE 11.4**  
**RECOMMENDED VALUES, CERTIFIED REFERENCE MATERIAL: CDN-ME-4**

<b>Gold</b>	2.61 g/t Au	±	0.3 g/t Au
<b>Silver</b>	402 g/t Ag	±	25 g/t Ag (FA/Grav)
<b>Silver</b>	414 g/t Ag	±	17 g/t Ag (Digestion, ICP)
<b>Copper</b>	1.83 % Cu	±	0.08 % Cu
<b>Lead</b>	4.25 % Pb	±	0.24 % Pb
<b>Zinc</b>	1.10 % Zn	±	0.06 % Zn

*Source: JDS Energy & Mining Inc., (2011)*

Four of the six gold assays fell outside the recommended range of values and the average gold assay was also slightly above the recommended maximum value. This may indicate a slight positive bias for gold in the check samples, or it may not be significant given the small number of CRM samples assayed. Silver and copper each had one sample outside the recommended range, zinc had two and lead had none. Averages for these four metals were well within their recommended ranges.

#### 11.5.4 2020 to 2022 Quality Assurance/Quality Control

The QA/QC procedures employed by Equity Metals during the 2020 to 2022 drill hole program at Silver Queen included the insertion of CRM, blanks and field duplicates into the drill hole sample stream.

##### 11.5.4.1 Performance of CRMs

A total of six different CRMs, over a range of grades, were inserted into the sampling sequence at a rate of approximately one in 20 samples throughout the 2020 to 2022 program. The CRMs utilized throughout the program were prepared by CDN Resource Laboratories Ltd., of Delta, B.C., and included: CDN-CM-27, CDN-CM-40, CDN-CM-41, CDN-GS-12B, CDN-ME-1805 and CDN-ME-1902. Criteria for assessing CRM performance are based as follows. Data falling within  $\pm 2$  standard deviations from the accepted mean value pass. Data falling outside  $\pm 3$  standard deviations from the accepted mean value fail. Table 11.5 summarizes CRM performance.

TABLE 11.5 SUMMARY OF CERTIFIED REFERENCE MATERIALS USED AT SILVER QUEEN FROM 2020–2022							
Certified Reference Material	Unit	Certified Mean Value	+3 SD Upper Limit	-3 SD Upper Limit	MSALABS’ Results		
					No. Results	No. Exceeding ±3 SD	% ±3 SD Failures
Monitoring Gold							
CDN-CM-27	g/t	0.636	0.738	0.534	173	0	0.0
CDN-CM-40	g/t	1.49	1.13	1.31	327	0	0.0
CDN-CM-41	g/t	1.60	1.83	1.38	35	0	0.0

**TABLE 11.5**  
**SUMMARY OF CERTIFIED REFERENCE MATERIALS USED AT SILVER QUEEN**  
**FROM 2020–2022**

Certified Reference Material	Unit	Certified Mean Value	+3 SD Upper Limit	-3 SD Upper Limit	MSALABS' Results		
					No. Results	No. Exceeding $\pm 3$ SD	% $\pm 3$ SD Failures
CDN-GS-12B	g/t	11.88	12.74	11.03	10	1	10.0
CDN-ME-1805	g/t	2.67	2.93	2.42	28	1	3.6
CDN-ME-1902	g/t	5.38	6.01	4.75	201	0	0.0
<b>Monitoring Silver</b>							
CDN-CM-40	g/t	18	21	15	326	0	0.0
CDN-CM-41	g/t	10	7	8	35	0	0.0
CDN-ME-1805	ppm	2236	2347	2125	28	3	10.7
CDN-ME-1902	ppm	349	375	324	201	0	0.0
<b>Monitoring Copper</b>							
CDN-CM-27	%	0.592	0.637	0.547	173	0	0.0
CDN-CM-40	%	0.561	0.609	0.513	325	0	0.0
CDN-CM-41	%	1.71	1.79	1.64	35	0	0.0
CDN-ME-1805	%	0.873	0.915	0.831	28	0	0.0
CDN-ME-1902	%	0.781	0.822	0.741	201	2	1.0
<b>Monitoring Lead</b>							
CDN-ME-1805	%	5.50	5.97	5.04	28	0	0.0
CDN-ME-1902	%	2.20	2.35	2.05	201	0	0.0
<b>Monitoring Zinc</b>							
CDN-ME-1805	%	10.54	10.96	10.12	28	0	0.0
CDN-ME-1902	%	3.66	4.01	3.32	201	0	0.0

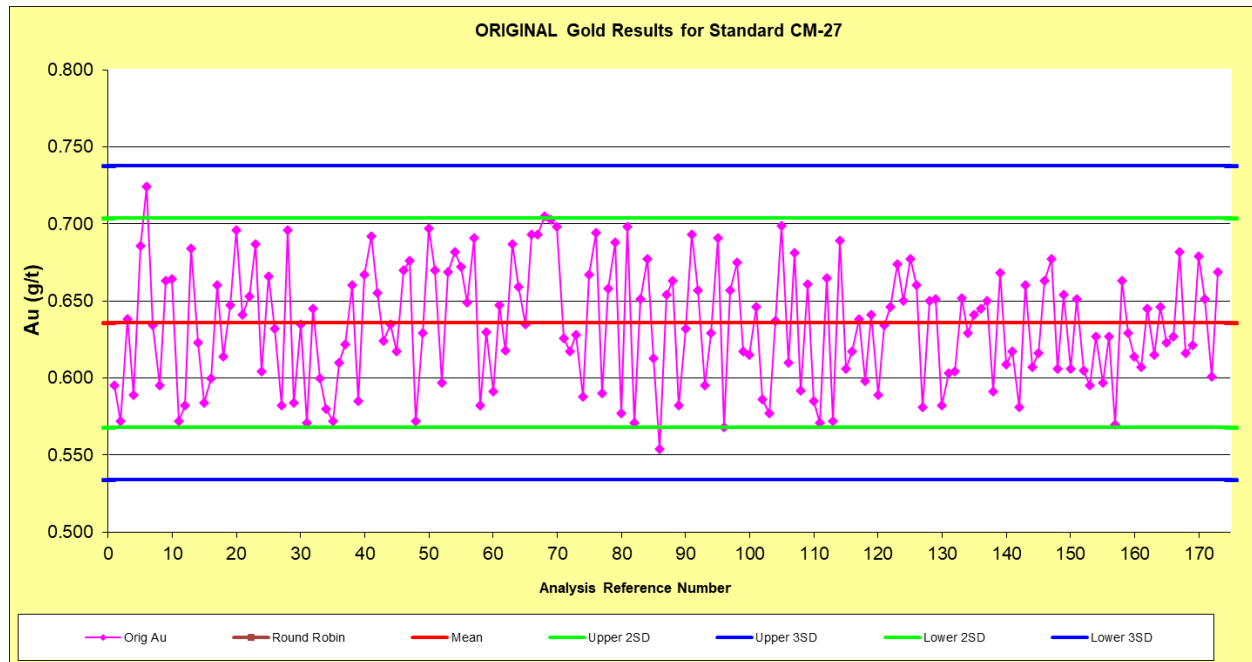
*Source: P&E (2022)*

*Note: SD = standard deviation.*

The vast majority of CRM results returned values within  $\pm 2$  standard deviations from the mean (Figures 11.1 to 11.19). There were no failures noted for the CDN-CM-27, CDN-CM-40 and CDN-CM-41 CRMs. Single gold failures were reported for CDN-GS-12B and CDN-ME-1805, and the CDN-ME-1805 CRM also reported three failures for silver. The CDN-ME-1902 CRM reported two failures for copper. The failures represent  $<1\%$  of all CRMs inserted throughout the 2020 to 2022 program and Table 11.5 further separates the percentage of failures by CRM. As part of QC protocol, Company personnel monitored returned results and assessed CRM performance in all batches sent for analysis. If a failed CRM did not fall within a zone of mineralized drill core results, and (or) the majority of CRMs passed for the respective element in a batch, the batch was passed. Any batches with samples potentially impacted by CRM failures are followed up by Equity Metals and the relevant samples re-run.

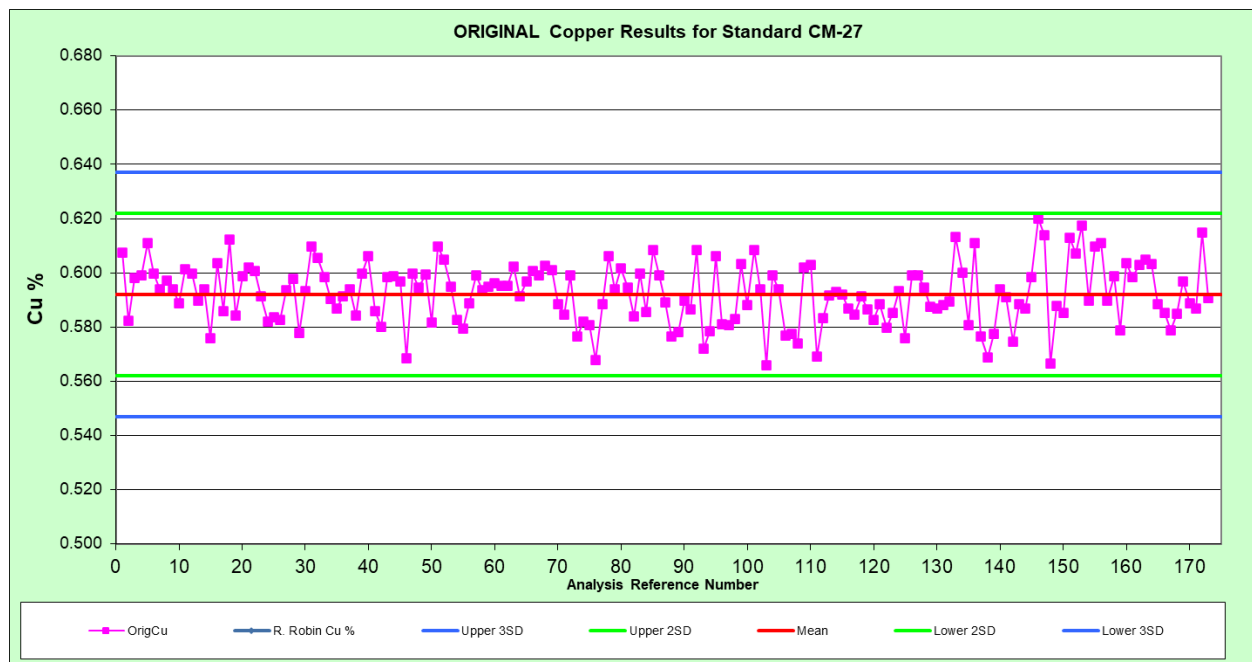
The Author of this Technical Report section considers that the CRM data demonstrates acceptable accuracy in the 2020 to 2022 Silver Queen data.

**FIGURE 11.1 PERFORMANCE OF CDN-CM-27 CRM: Au**



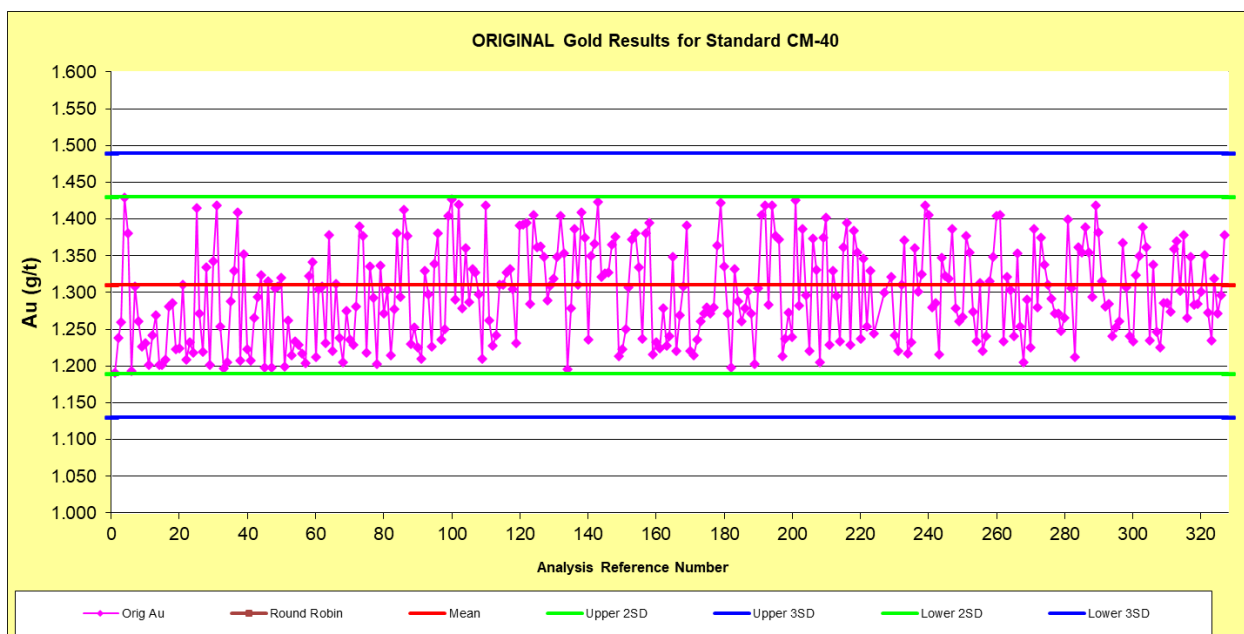
*Source: Equity Metals (2022)*

**FIGURE 11.2 PERFORMANCE OF CDN-CM-27 CRM: Cu**



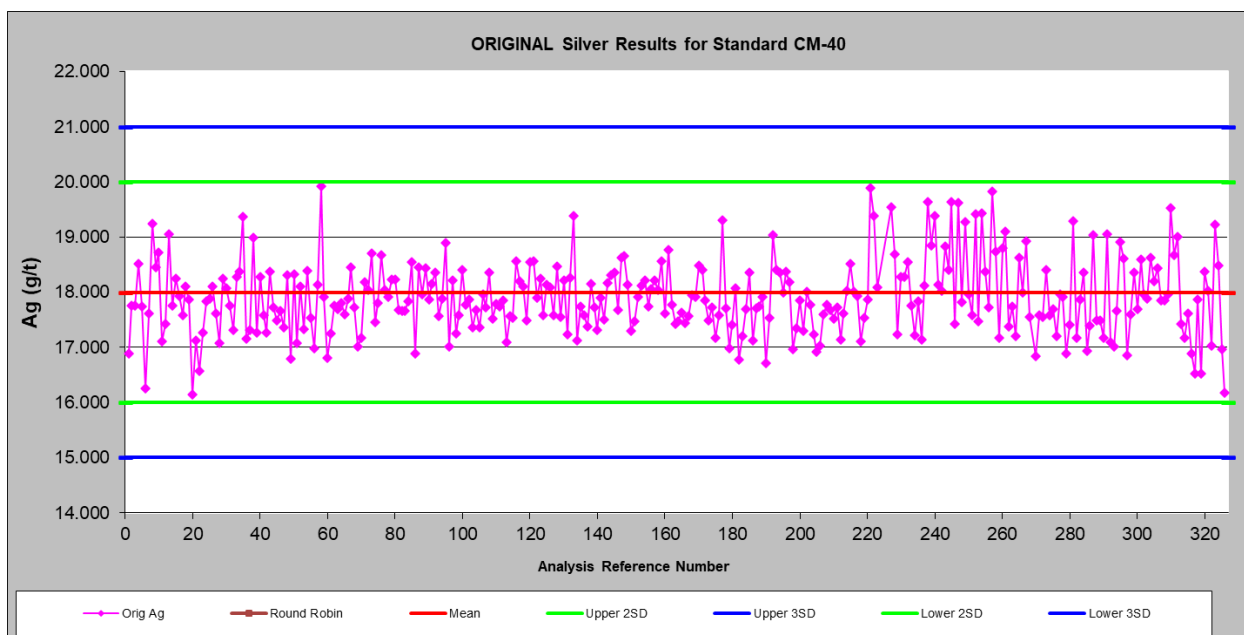
*Source: Equity Metals (2022)*

**FIGURE 11.3 PERFORMANCE OF CDN-CM-40 CRM: AU**



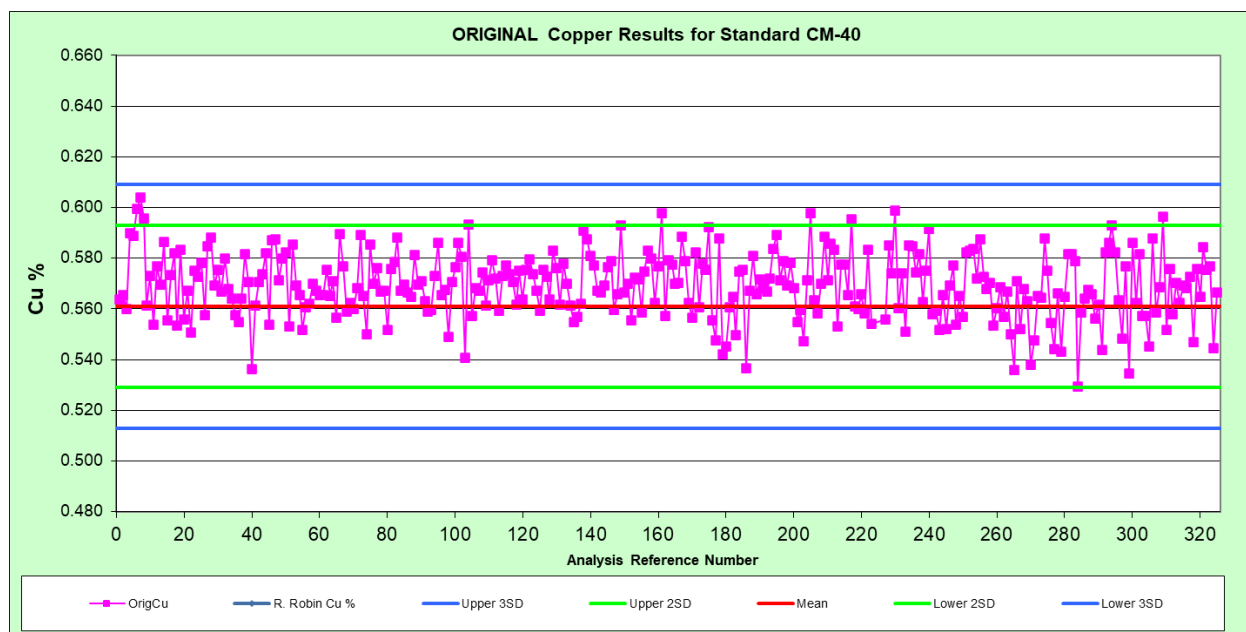
*Source: Equity Metals (2022)*

**FIGURE 11.4 PERFORMANCE OF CDN-CM-40 CRM: AG**



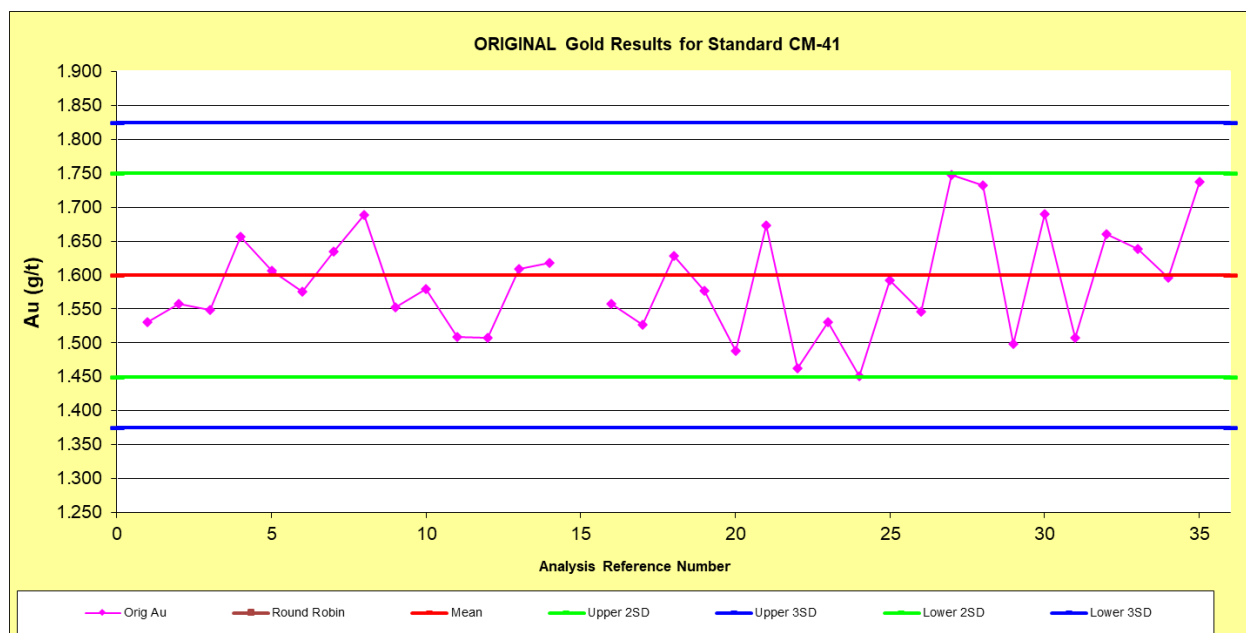
*Source: Equity Metals (2022)*

**FIGURE 11.5 PERFORMANCE OF CDN-CM-40 CRM: CU**



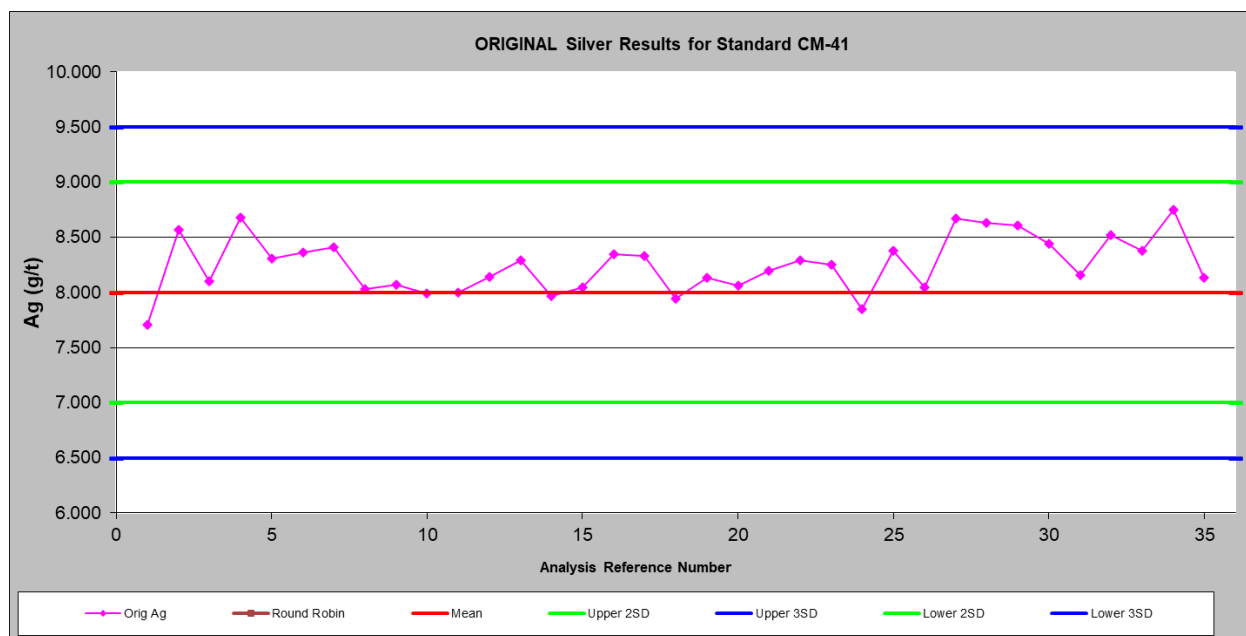
*Source: Equity Metals (2022)*

**FIGURE 11.6 PERFORMANCE OF CDN-CM-41 CRM: AU**



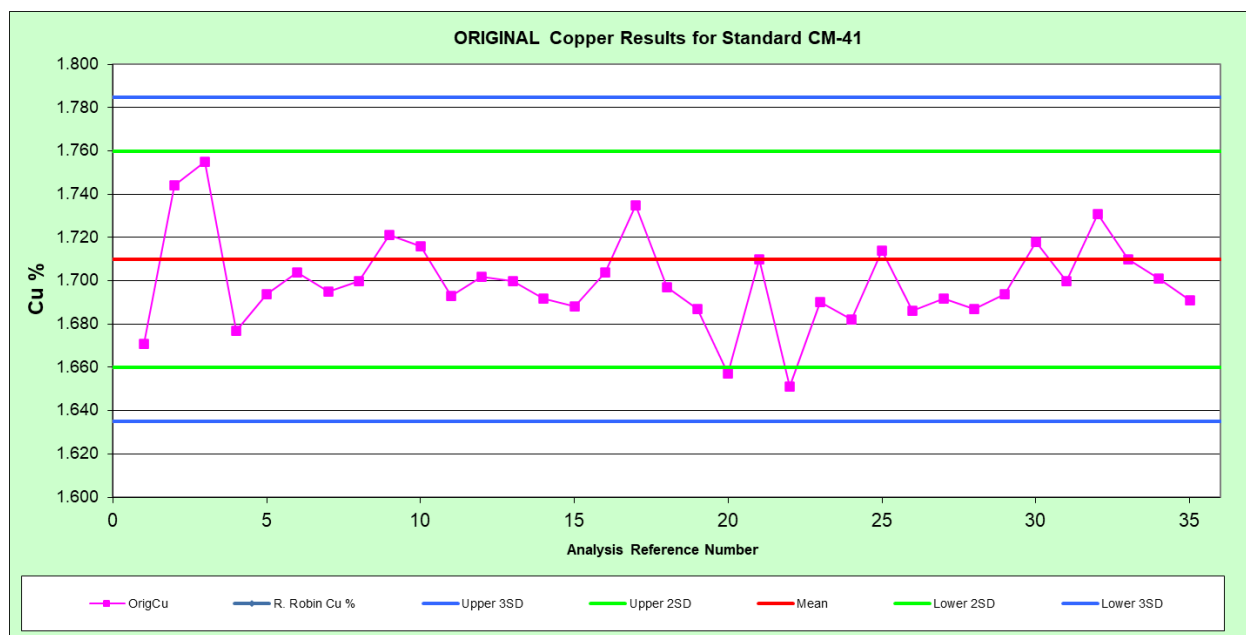
*Source: Equity Metals (2022)*

**FIGURE 11.7 PERFORMANCE OF CDN-CM-41 CRM: AG**



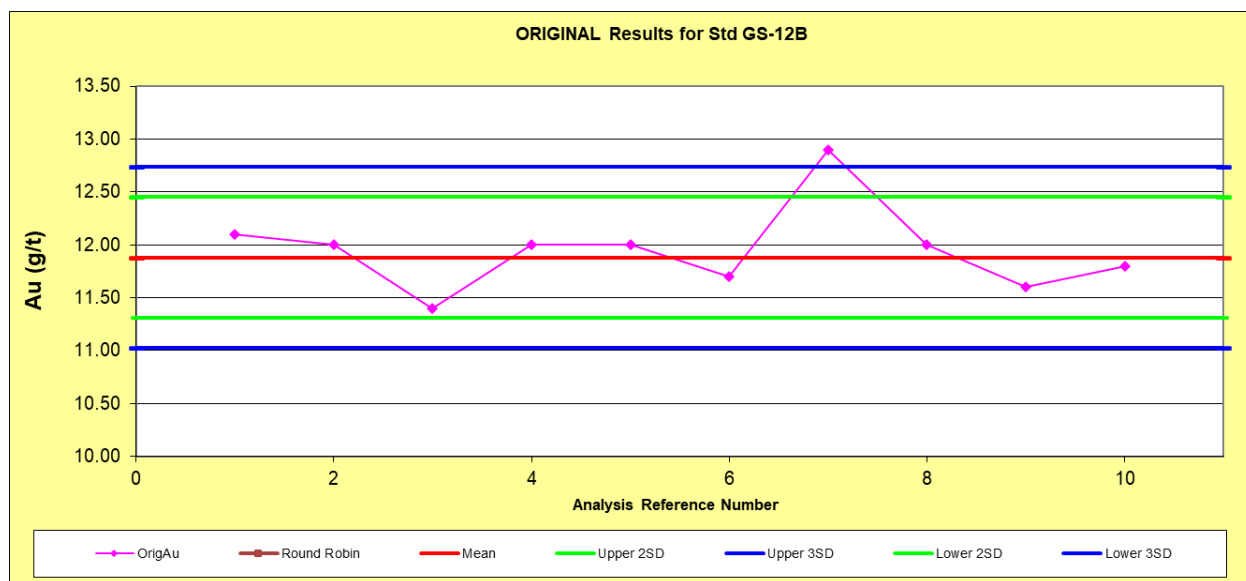
Source: Equity Metals (2022)

**FIGURE 11.8 PERFORMANCE OF CDN-CM-41 CRM: CU**



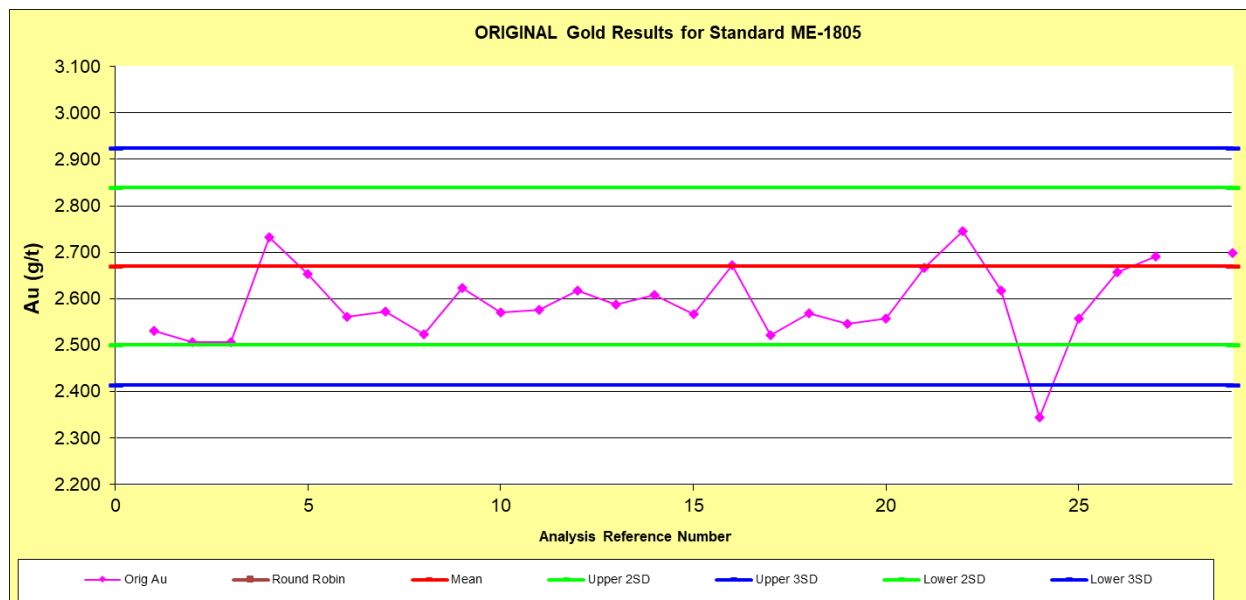
Source: Equity Metals (2022)

**FIGURE 11.9 PERFORMANCE OF CDN-GS-12B CRM: AU**



*Source: Equity Metals (2022)*

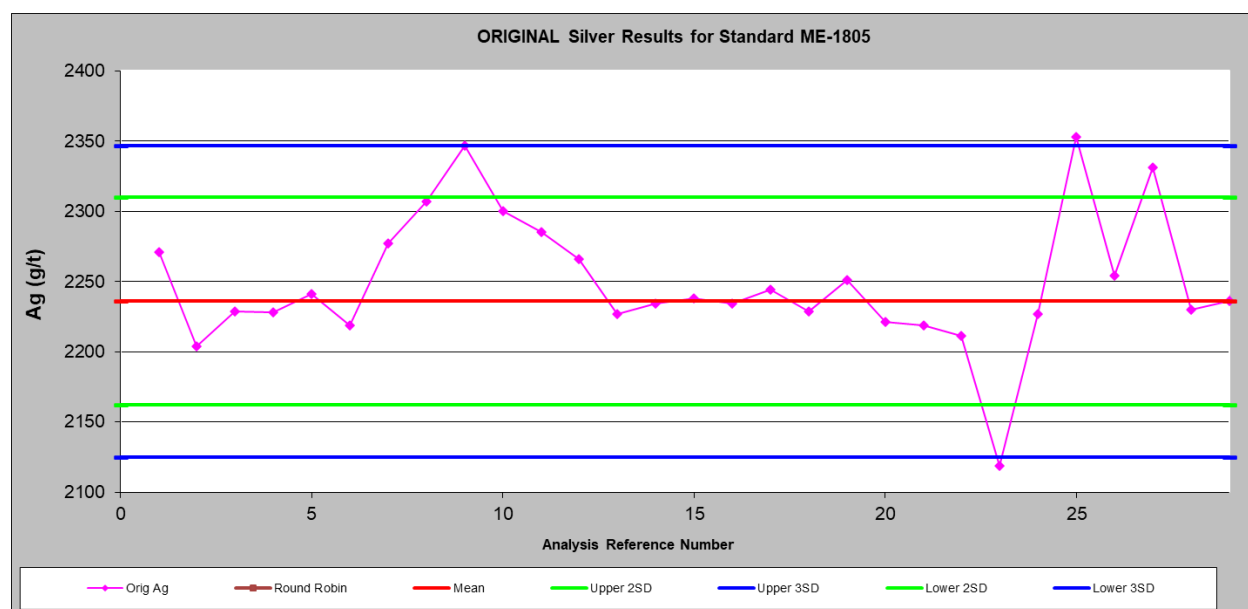
**FIGURE 11.10 PERFORMANCE OF CDN-ME-1805 CRM: AU**



*Source: Equity Metals (2022)*

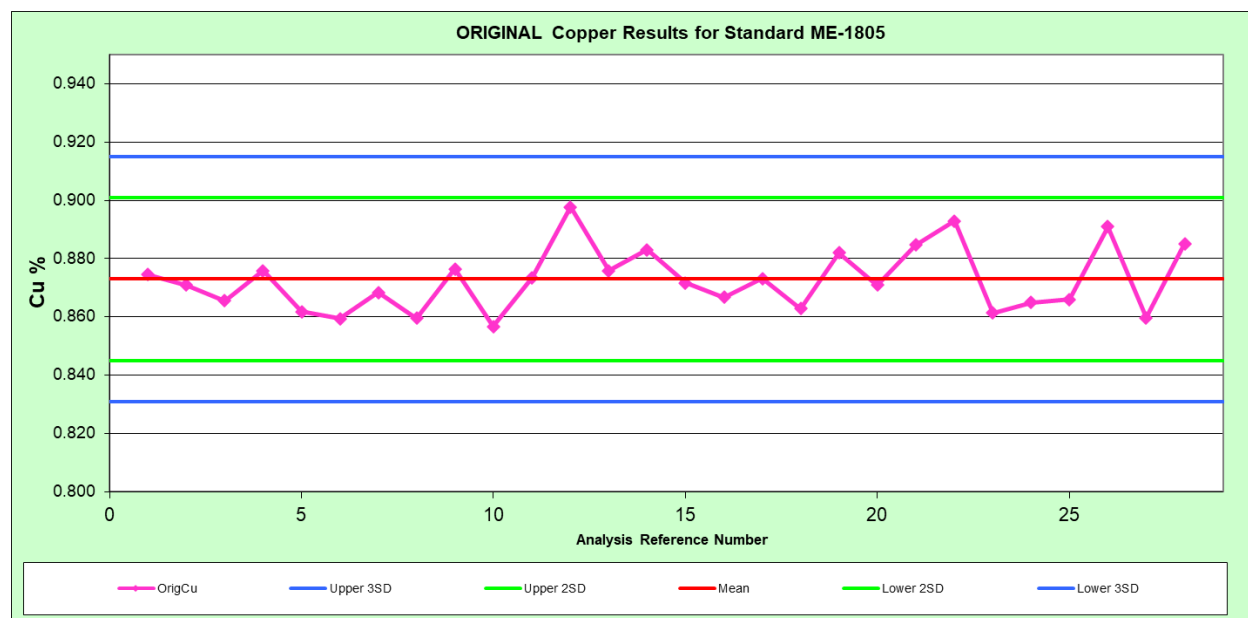


**FIGURE 11.11 PERFORMANCE OF CDN-ME-1805 CRM: AG**



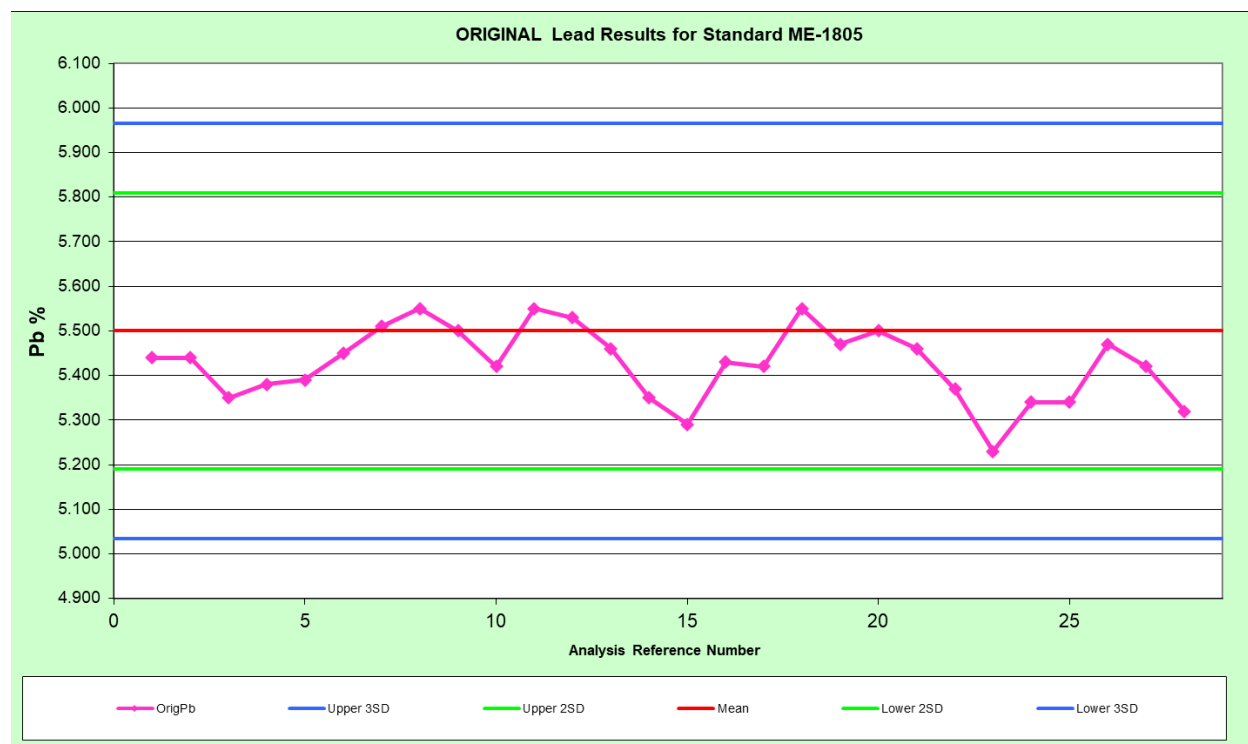
Source: Equity Metals (2022)

**FIGURE 11.12 PERFORMANCE OF CDN-ME-1805 CRM: CU**



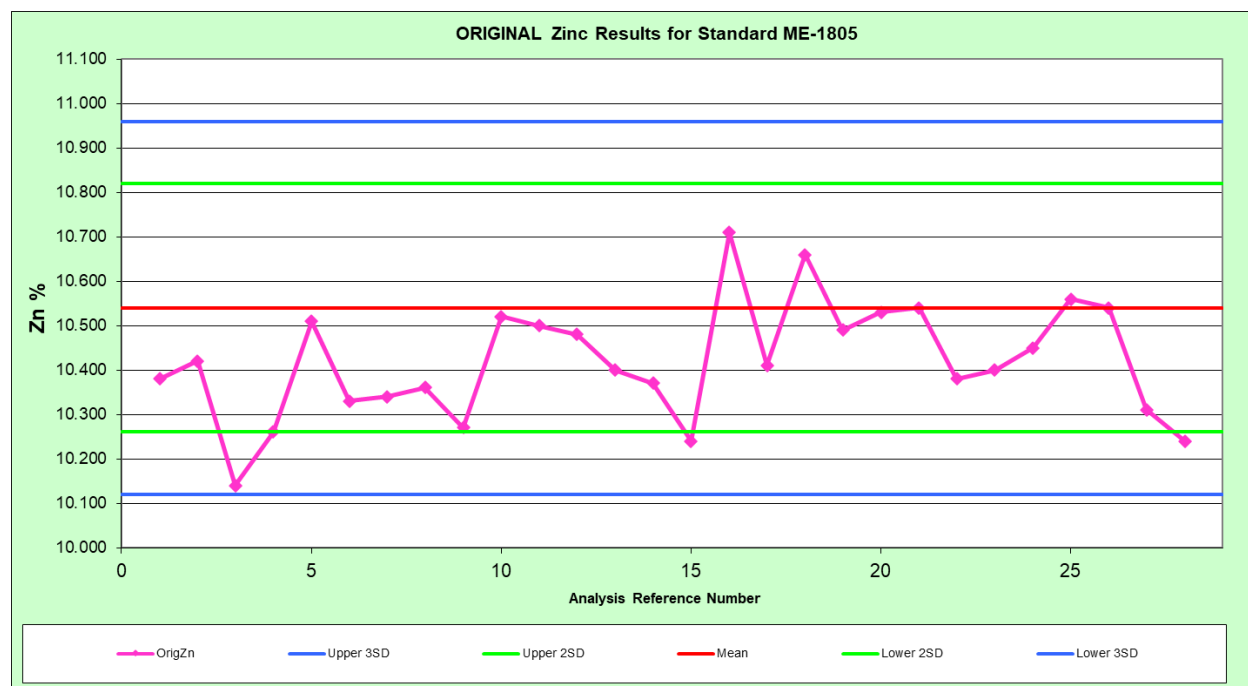
Source: Equity Metals (2022)

**FIGURE 11.13 PERFORMANCE OF CDN-ME-1805 CRM: Pb**



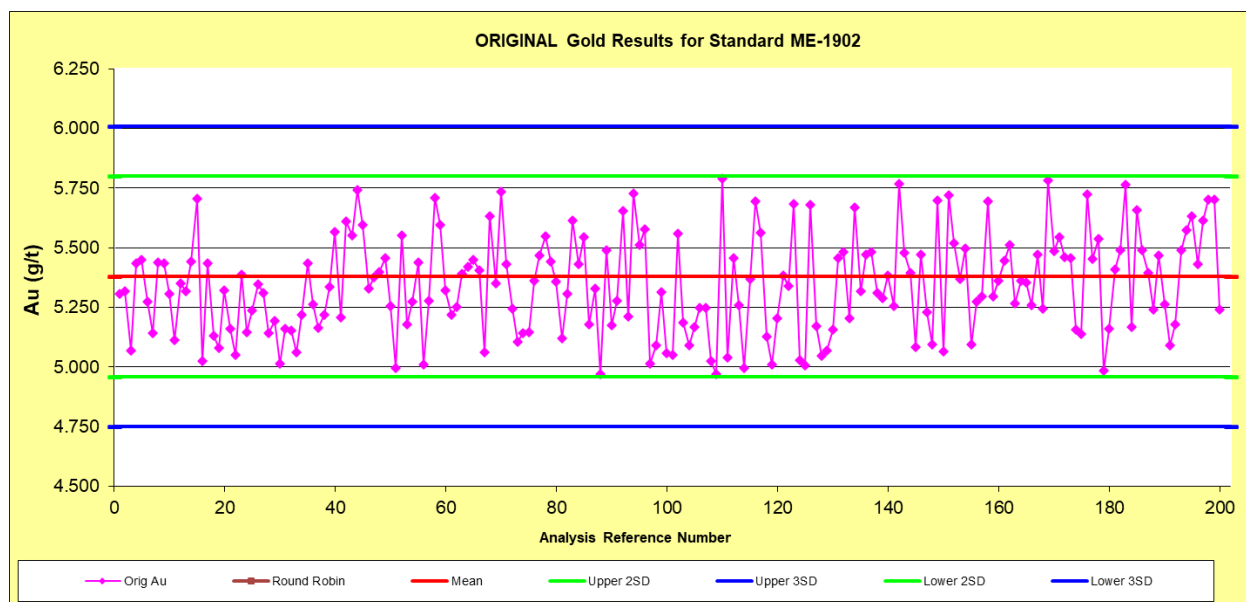
*Source: Equity Metals (2022)*

**FIGURE 11.14 PERFORMANCE OF CDN-ME-1805 CRM: Zn**



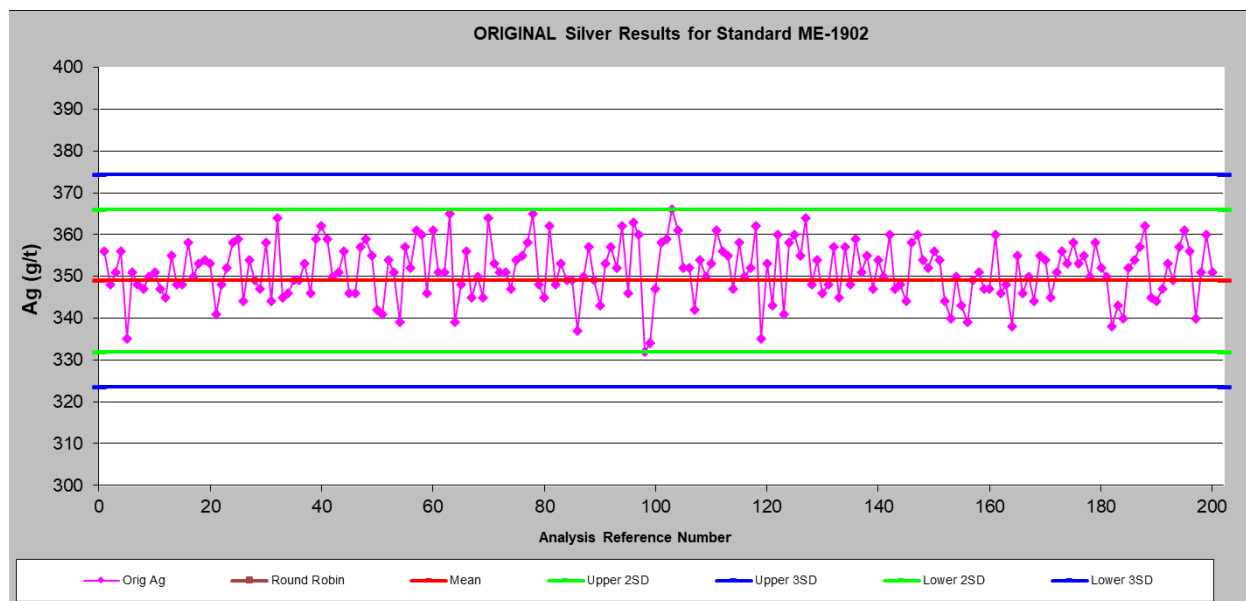
*Source: Equity Metals (2022)*

**FIGURE 11.15 PERFORMANCE OF CDN-ME-1902 CRM: AU**



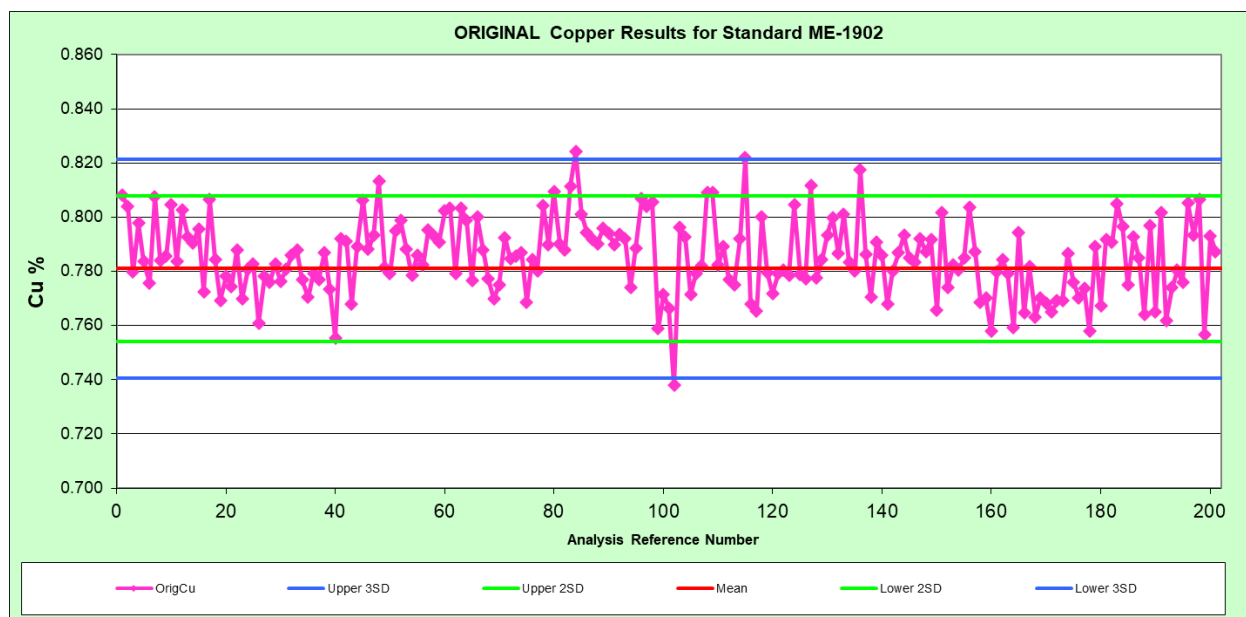
*Source: Equity Metals (2022)*

**FIGURE 11.16 PERFORMANCE OF CDN-ME-1902 CRM: AG**



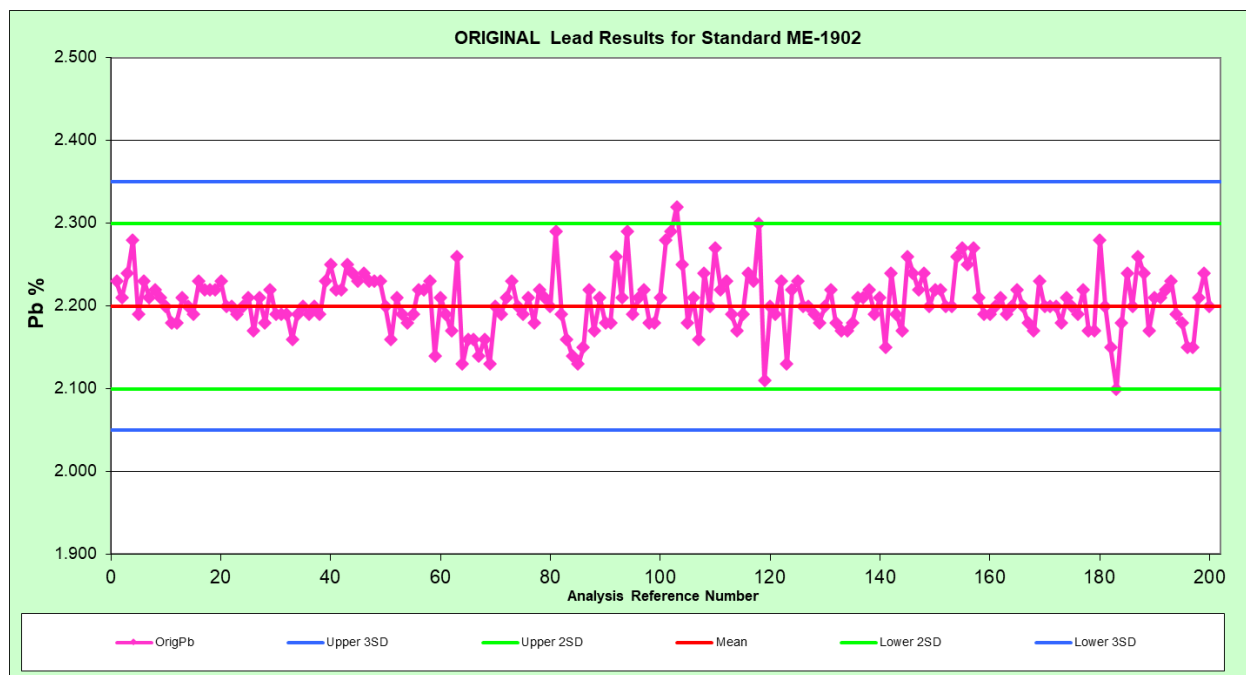
*Source: Equity Metals (2022)*

**FIGURE 11.17 PERFORMANCE OF CDN-ME-1902 CRM: CU**



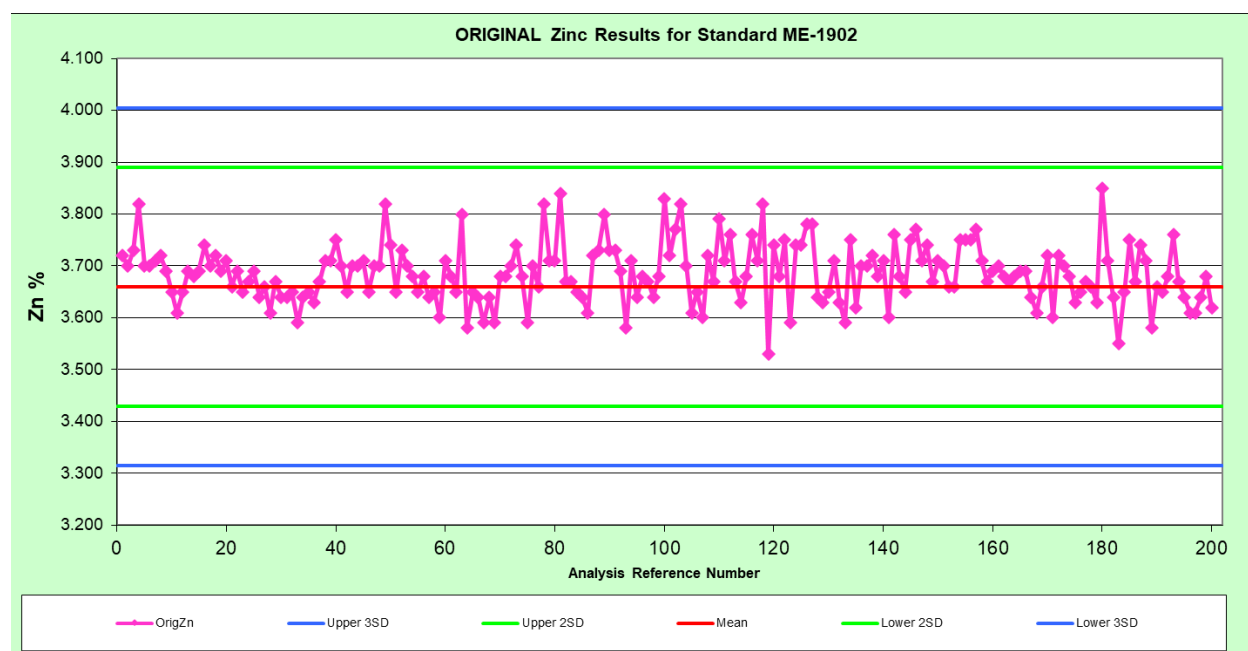
*Source: Equity Metals (2022)*

**FIGURE 11.18 PERFORMANCE OF CDN-ME-1902 CRM: Pb**



*Source: Equity Metals (2022)*

**FIGURE 11.19 PERFORMANCE OF CDN-ME-1902 CRM: ZN**



*Source: Equity Metals (2022)*

#### **11.5.4.2 Performance of Blanks**

Equity Metals used a mix of coarse rock and pulp blank material, including the CDN-BL-10 and CDN-BL-3 certified pulp blanks for Au only, throughout the 2020 to 2022 drill program. Blanks were inserted into the sample stream approximately every 40 samples.

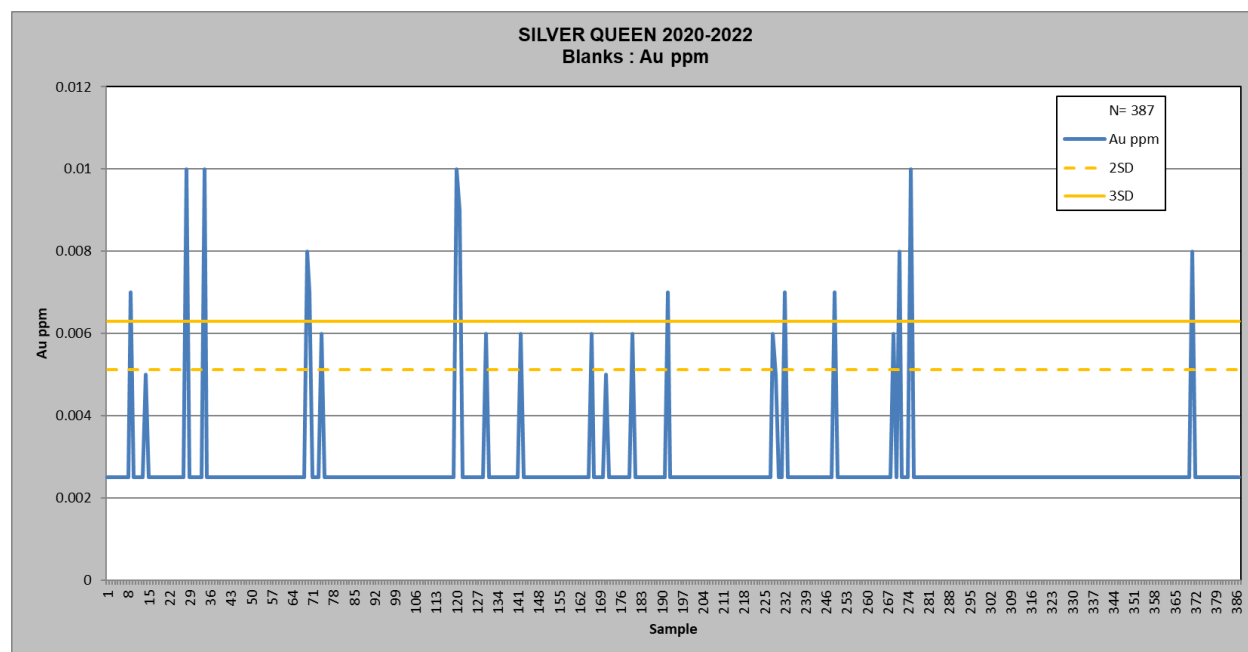
All blank data for gold, silver, copper, lead and zinc were graphed (Figures 11.20 to 11.24). If the assayed value in the certificate was indicated as being less than detection limit, the value was halved for data treatment purposes. The standard deviations were calculated for each dataset and performance assessed against tolerance limits of two and three times the standard deviation from the mean. There were 387 data points to examine.

The vast majority of data plots at or below set tolerance limits for all elements and there is no indication of material contamination within the data. Mid-program, between samples 155-200 in Figures 11.21 to 11.24, there is a sharp rise in returned grades for silver, copper, lead and zinc, which coincides with a change to the CDN-BL-3 blank material. It is apparent that the CDN-BL-3 blank material has elevated levels of silver, copper, lead and zinc and therefore not as suited as the other blank materials used at the Property to monitor contamination for these elements.

The Company monitored returned blank results in similar fashion to the CRM data. If elevated blank results were not considered material to the data, no further follow up action was taken. Blank results that were failed however, were followed up with the lab and a re-run of potentially effected samples was undertaken.

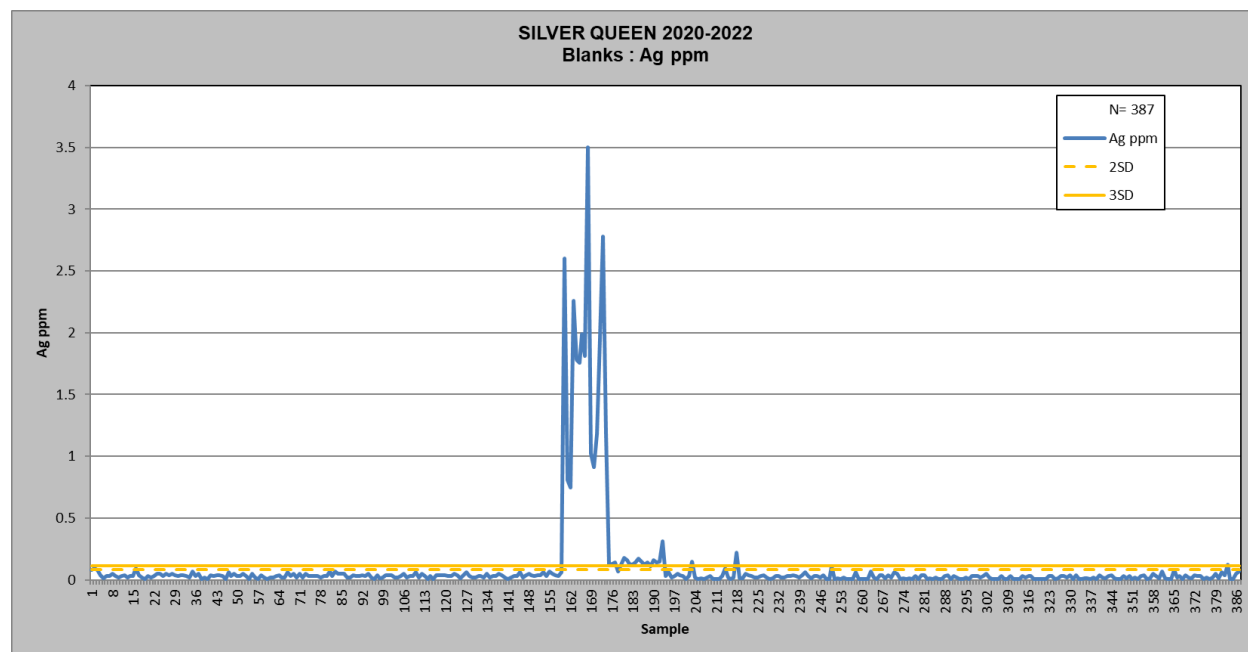
The Author does not consider contamination to be significant to the integrity of the 2020-2022 drilling data.

**FIGURE 11.20 PERFORMANCE OF BLANKS: AU**



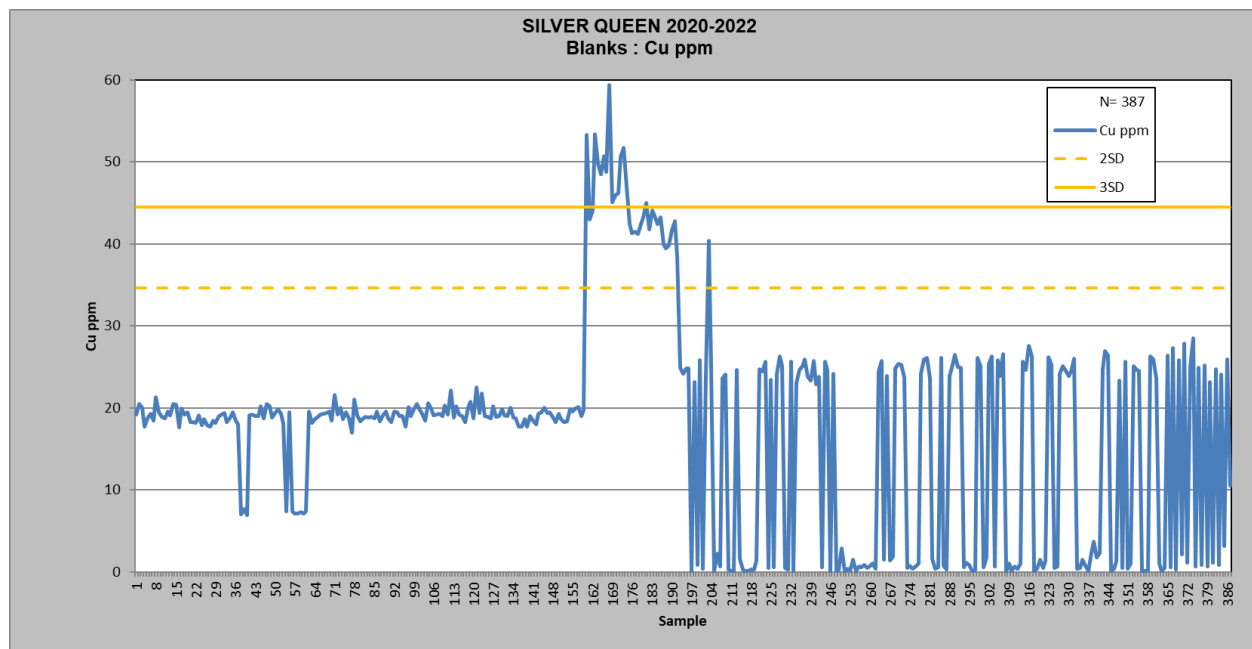
*Source: Equity Metals (2022)*

**FIGURE 11.21 PERFORMANCE OF BLANKS: AG**



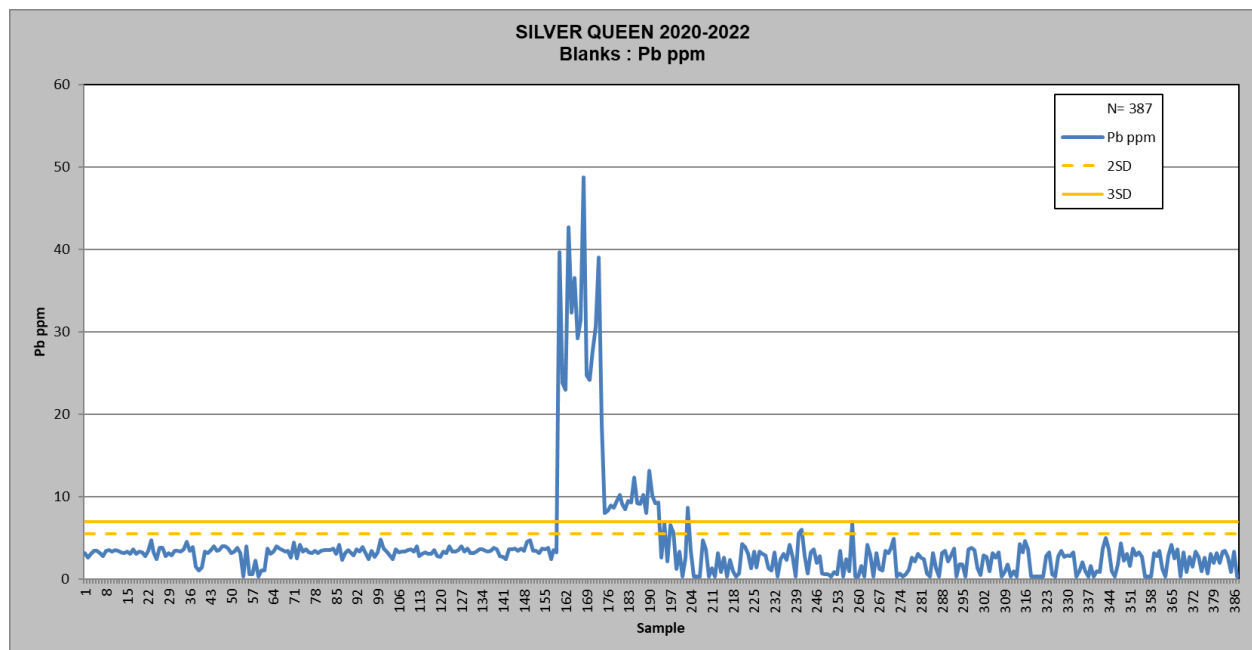
*Source: Equity Metals (2022)*

**FIGURE 11.22 PERFORMANCE OF BLANKS: CU**



*Source: Equity Metals (2022)*

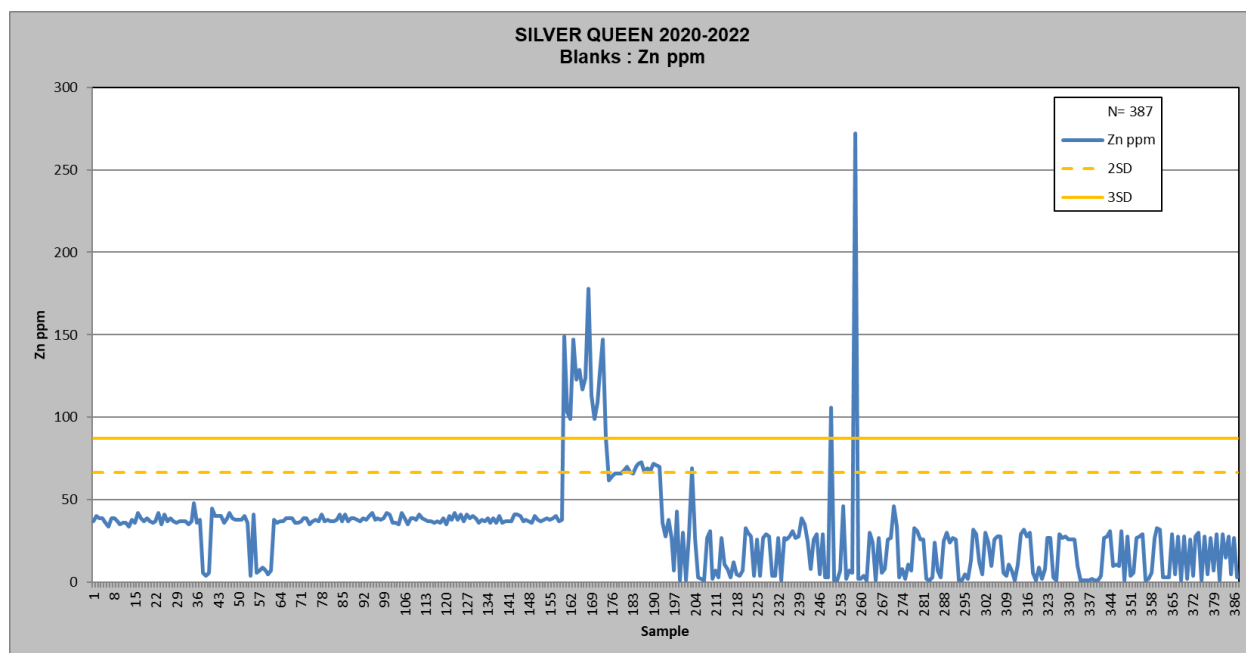
**FIGURE 11.23 PERFORMANCE OF BLANKS: PB**



*Source: Equity Metals (2022)*



**FIGURE 11.24 PERFORMANCE OF BLANKS: ZN**



*Source: Equity Metals (2022)*

#### 11.5.4.3 Performance of Duplicates

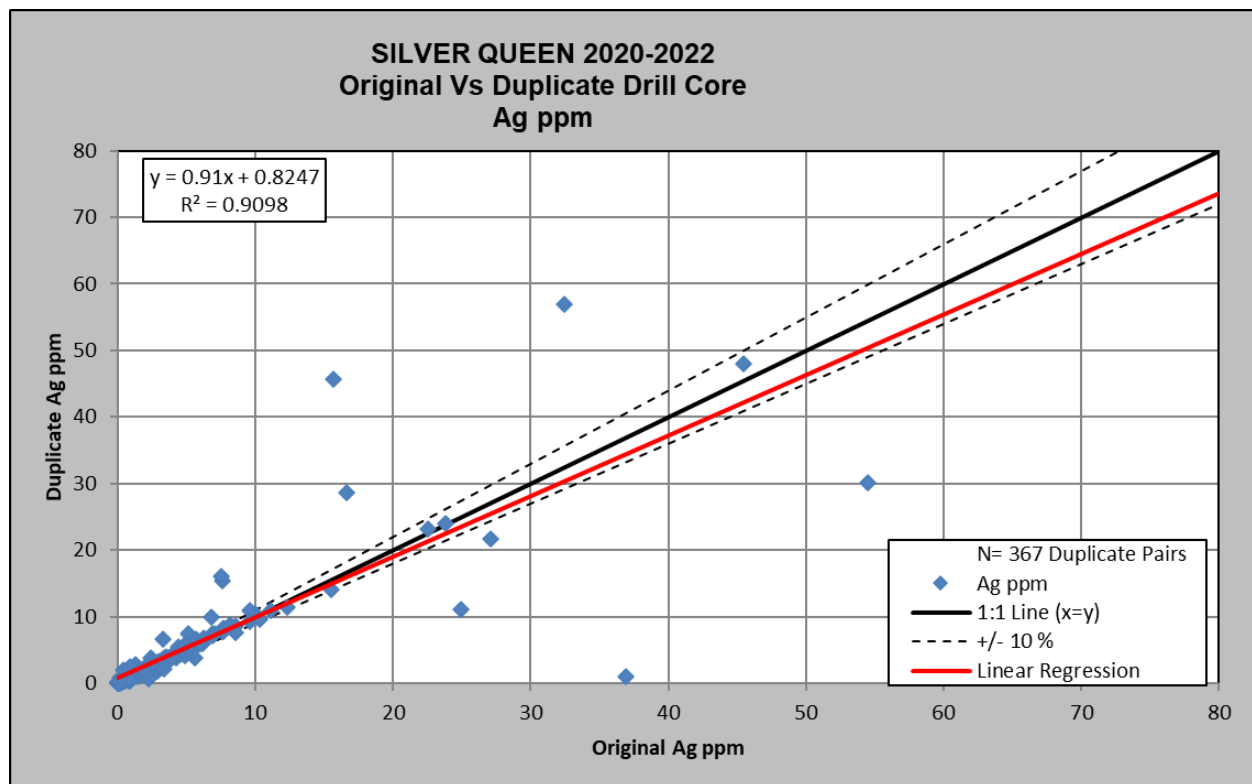
Field duplicate data for gold, silver, copper, lead and zinc were examined for the 2020 to 2022 drill program at the Silver Queen Property. A total of 367 duplicates were available to assess in the dataset. Data were plotted on scatter charts (Figures 11.25 to 11.29) and the  $R^2$  values estimated. Acceptable precision at the field level is indicated by the scatter charts for all elements, with  $R^2$  values of 0.9685 for gold, 0.9098 for silver, 0.9659 for copper, 0.9766 for lead and 0.9197 for zinc.

**FIGURE 11.25 PERFORMANCE OF FIELD DUPLICATES: AU**



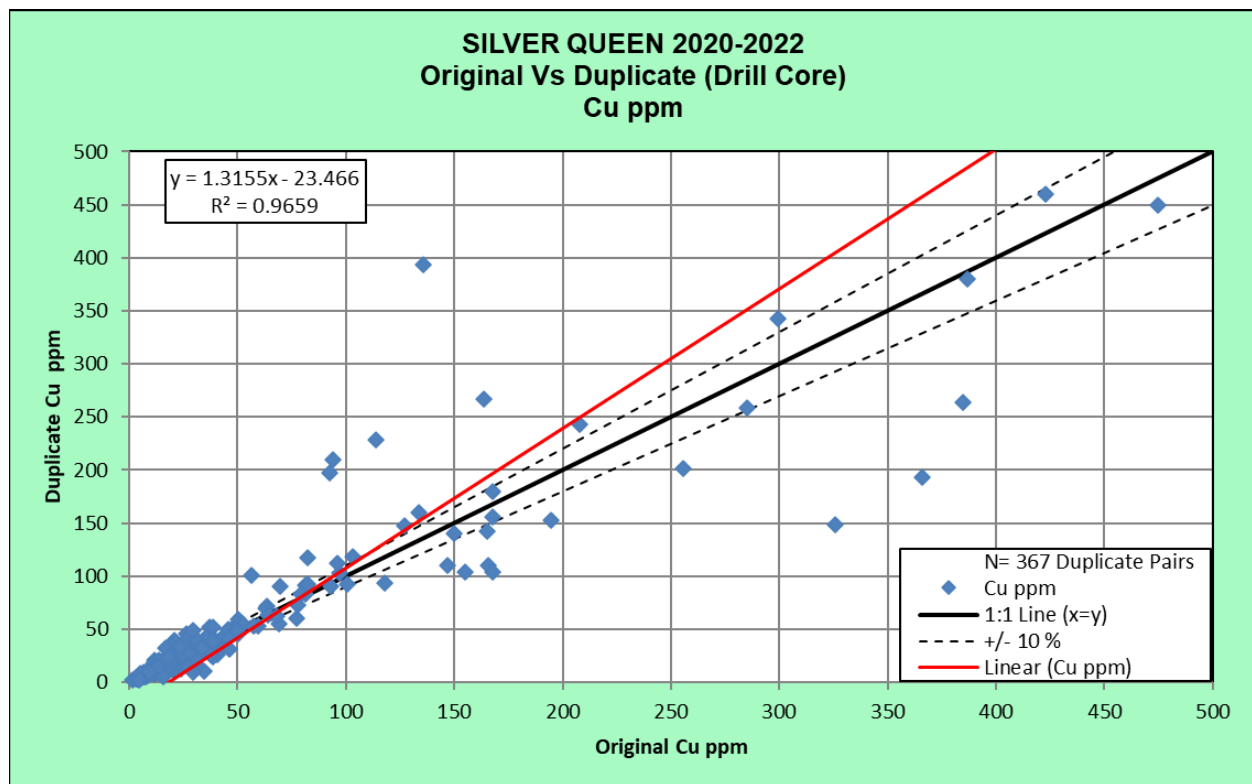
*Source: Equity Metals (2022)*

**FIGURE 11.26 PERFORMANCE OF FIELD DUPLICATES: AG**



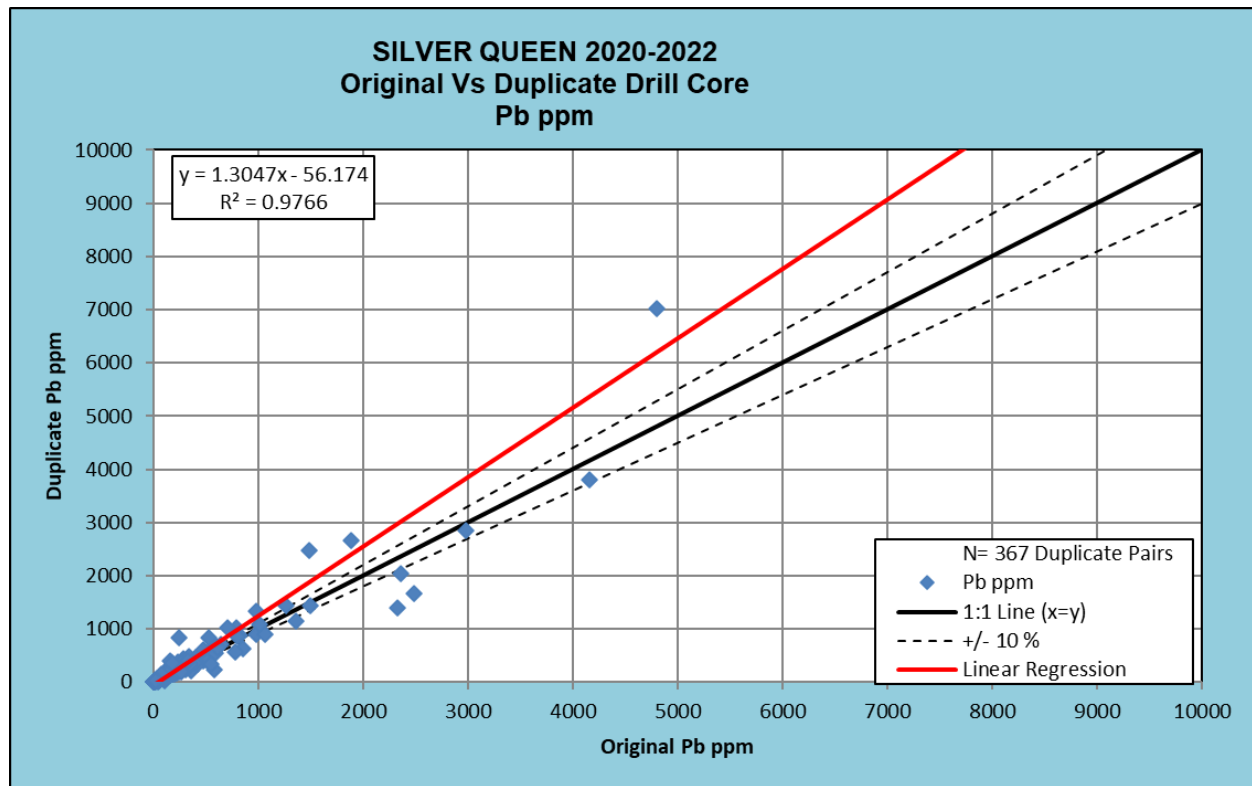
*Source: Equity Metals (2022)*

**FIGURE 11.27      PERFORMANCE OF FIELD DUPLICATES: CU**



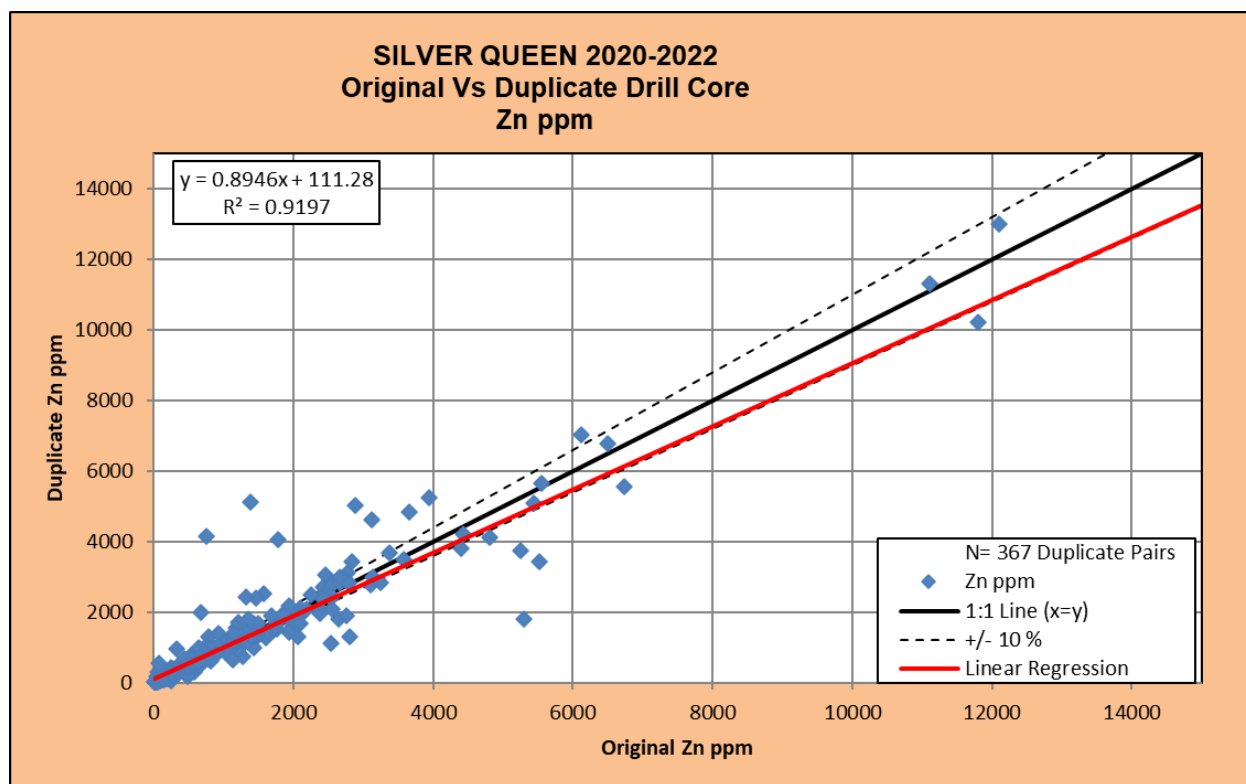
*Source: Equity Metals (2022)*

**FIGURE 11.28 PERFORMANCE OF FIELD DUPLICATES: PB**



*Source: Equity Metals (2022)*

**FIGURE 11.29 PERFORMANCE OF FIELD DUPLICATES: ZN**



*Source: Equity Metals (2022)*

## 11.6 CONCLUSION

It is the opinion of the Author of this Technical Report section that sample preparation, security and analytical procedures for the 2010 to 2022 drilling and re-assaying programs at the Silver Queen Project were adequate and examination of QA/QC results for all recent sampling indicates no significant issues with accuracy, contamination or precision in the data.

The Author considers the data to be of good quality and satisfactory for use in the current Mineral Resource Estimate.

## **12.0 DATA VERIFICATION**

### **12.1 P&E DATA VERIFICATION**

#### **12.1.1 2022 Assay Verification**

The Authors of this Technical Report (“the Authors”) conducted verification of the Silver Queen Property drill hole assay database for gold, silver, copper, lead and zinc by comparison of the database entries with assay certificates. Assay certificates were downloaded directly by the Authors from MSALABS’ online portal at [www.msalabs.com](http://www.msalabs.com), in .pdf (Portable Document Format) and .csv (Comma Separated File) format. All assay data from 2020 to 2022 were verified and no material discrepancies were encountered during the verification process.

#### **12.1.2 Drill Hole Data Validation**

As described in Section 14 of this Technical Report, the Authors completed industry standard validation checks on the client-supplied database. The database was validated by checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields. No significant errors were noted.

The Authors are satisfied that the drill hole database is suitable for use in the preparation of a Mineral Resource Estimate.

## **12.2 SITE VISIT AND DUE DILIGENCE SAMPLING**

Site visits were completed by Mr. Jim Hutter, P.Geo. in 2019 and by Mr. Garth Kirkham, P.Geo. initially in 2010 on behalf New Nadina Explorations, the previous owner of the Property, and in 2021 and more recently in 2022. The results and findings of these site visits are summarized below.

#### **12.2.1 2019 Site Visit**

The Silver Queen Project was visited by Mr. Jim Hutter, P.Geo., an independent Qualified Person in terms of NI 43-101, on May 29, 2019 for the purposes of completing a site visit and due diligence sampling. Mr. Hutter collected 21 drill core samples from 13 diamond drill holes during the May 29, 2019 site visit. All samples were selected from drill holes completed from 1988 to 1989. A range of high, medium and low-grade samples were selected from the stored drill core. Samples were collected by taking either quarter or half drill core remaining in the drill core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag and delivered by Mr. Hutter to Actlabs in Kamloops, BC, Canada for analysis.

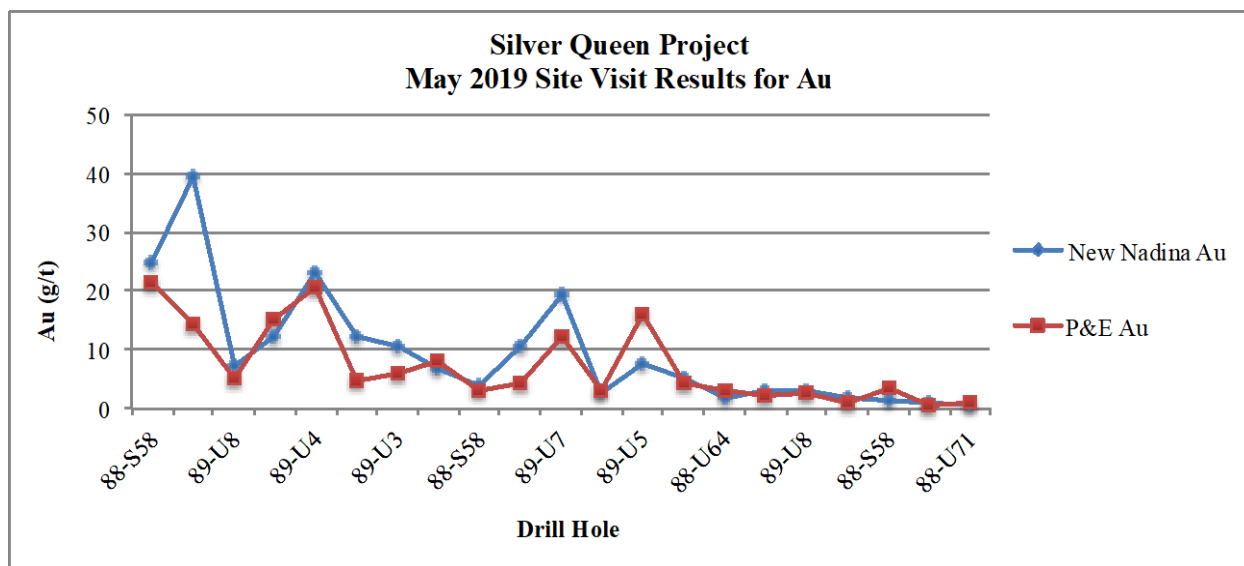
All samples were analysed for gold, silver, copper, lead and zinc. Gold and silver were determined using INAA/Total Digestion ICP and copper, lead, zinc by Sodium Peroxide Fusion/Total



Digestion ICP. Bulk density was also determined for all samples. Actlabs is an independent commercial laboratory that is ISO 9001 certified and ISO 17025 accredited. The accreditation program includes ongoing audits to verify the QA system and all applicable registered test methods.

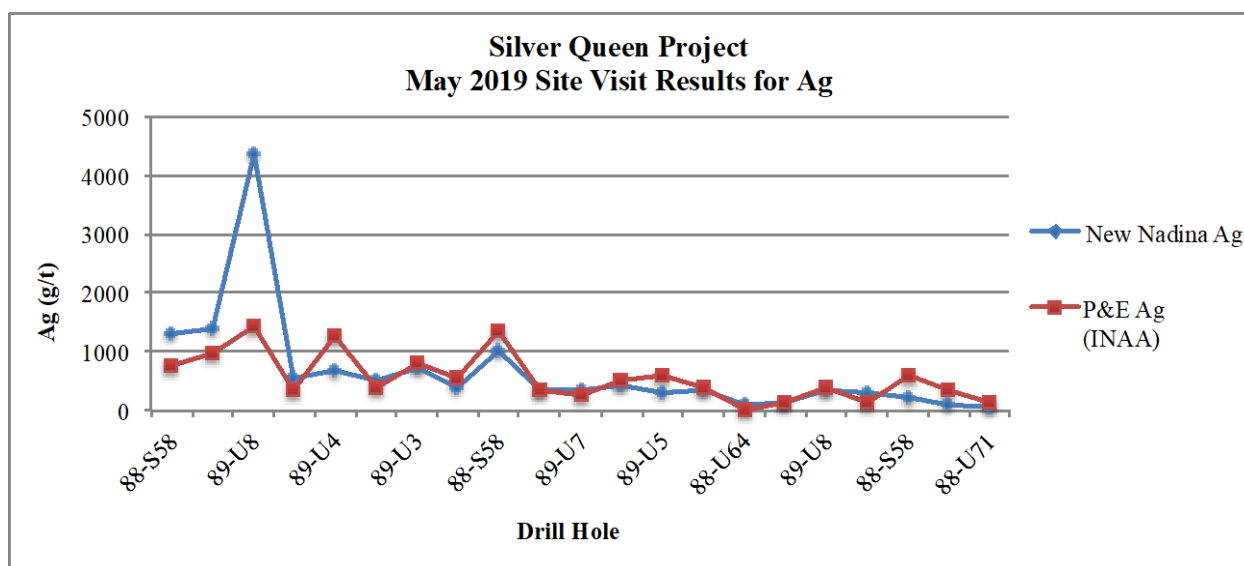
Results of the Silver Queen site visit samples are presented in Figures 12.1 through 12.5.

**FIGURE 12.1 SILVER QUEEN DUE DILIGENCE SAMPLE RESULTS FOR GOLD: MAY 2019 SITE VISIT**



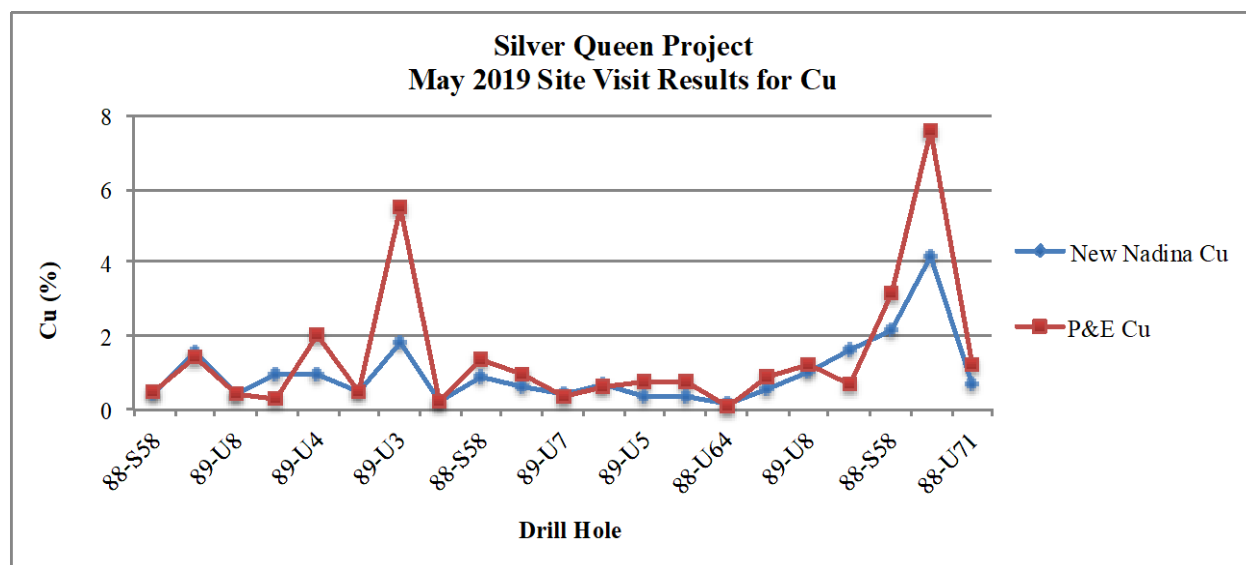
Source: Burga et al. (2019)

**FIGURE 12.2 SILVER QUEEN DUE DILIGENCE SAMPLE RESULTS FOR SILVER: MAY 2019 SITE VISIT**



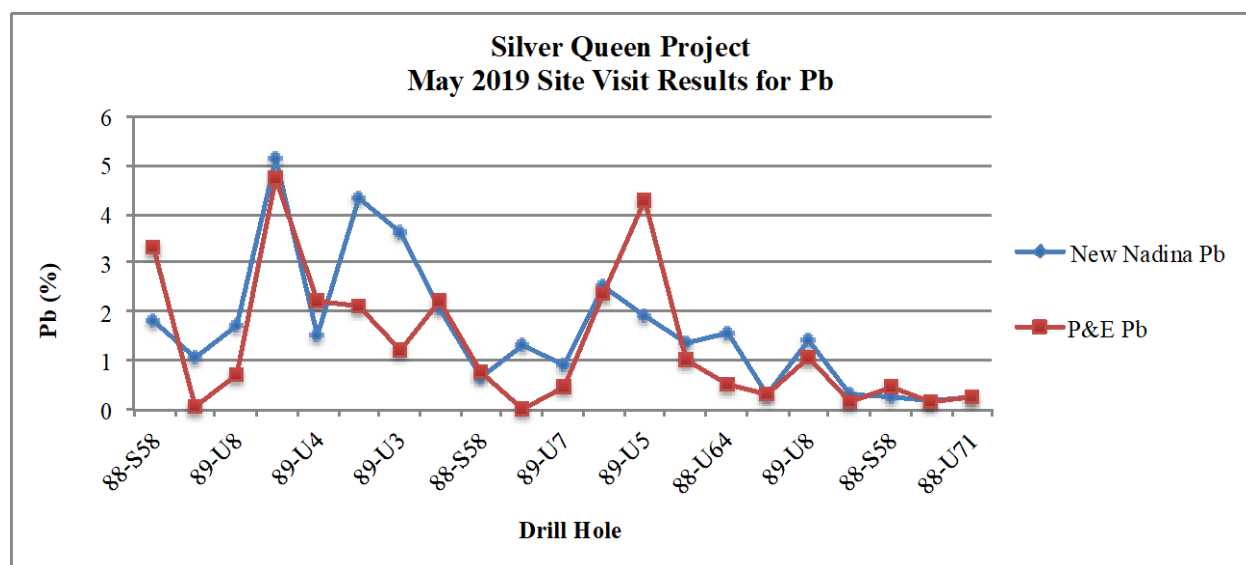
Source: Burga et al. (2019)

**FIGURE 12.3 SILVER QUEEN DUE DILIGENCE SAMPLE RESULTS FOR COPPER:  
MAY 2019 SITE VISIT**



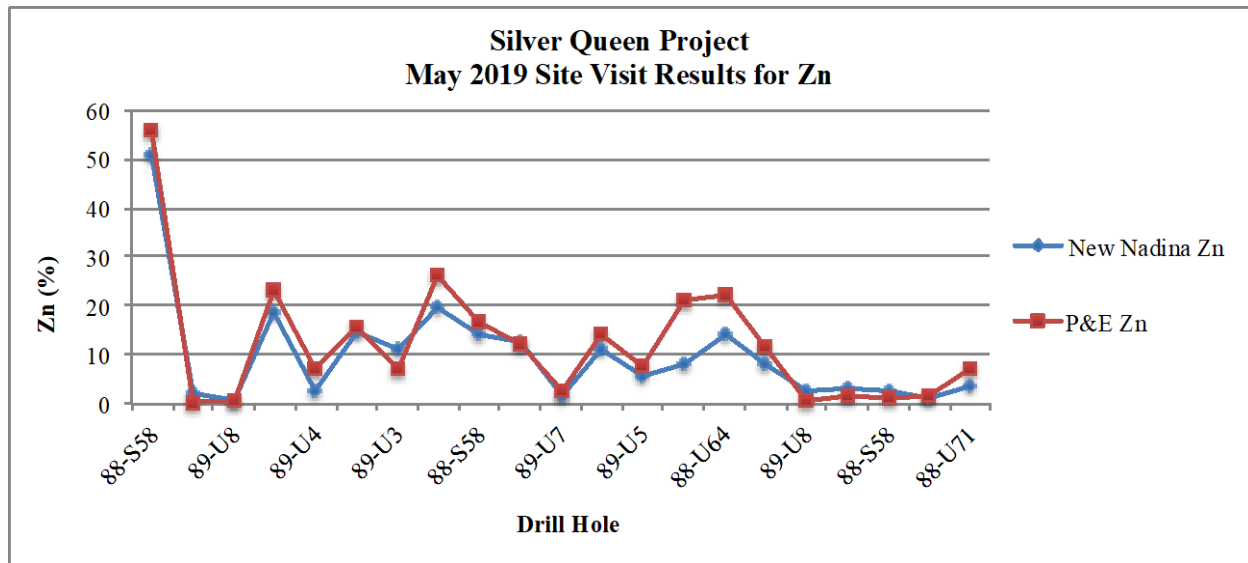
Source: Burga et al. (2019)

**FIGURE 12.4 SILVER QUEEN DUE DILIGENCE SAMPLE RESULTS FOR LEAD:  
MAY 2019 SITE VISIT**



Source: Burga et al. (2019)

**FIGURE 12.5 SILVER QUEEN DUE DILIGENCE SAMPLE RESULTS FOR ZINC:  
MAY 2019 SITE VISIT**



*Source: Burga et al. (2019)*

The Authors consider there to be good correlation between the majority of the independent verification samples analyzed by Actlabs and the original analyses in the Silver Queen database. Grade variation is evident in some samples. However, the authors consider the due diligence results to be acceptable.

Based upon the evaluation of the 2019 check-sampling program undertaken by Equity Metals and P&E's due diligence sampling, it is the Authors' opinion that the results are suitable for use in the current Mineral Resource Estimate.

### 12.2.2 2021 and 2022 Site Visits

Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd., a Qualified Person under the terms of NI 43-101, conducted a site visit of the Silver Queen Property from October 2 to 4, 2021, and then again, on September 27, 2022. The site visits included an inspection of the Silver Queen Property, offices, drill sites, drill collars, drill core storage facilities, the drill core receiving area, and tours of major centres and surrounding towns most likely to be affected by any potential mining operation.

The tour of the office and storage facilities showed a clean, well-organized, professional environment. On-site staff led the Author through the chain of custody and methods used at each stage of the logging and sampling process. All methods and processes are to industry standards and reflect best practices, and no issues were identified.

A visit to the collar locations showed that the collars were well marked and labelled; therefore, they were easily identified, and drill holes were cased.

In 2021, the Author selected four complete drill holes at random from the database and they were laid out at the drill core storage area. Site staff supplied the drill logs and assay sheets for verification against the drill core and the logged intervals. The data correlated with the physical core and no issues were identified. In addition, the Author toured the complete drill core receiving, logging and storage facilities, selecting and reviewing drill core throughout. The drill core is accessible, and the drill core is stacked and available on the Property. The drill core facilities are clean and well organized for easy access and analysis. The drill program was in progress during the visit, therefore most drill core was fresh and recently drilled. No issues were identified, and recoveries appeared to be very good. Procedures for bulk density measurements were reviewed and approved.

No duplicate samples were taken to verify assay results since all of the drill data being utilized for the Camp and Sveinson Vein Mineral Resource Estimates is from current information acquired in 2021 through 2022 and there is no reliance on historical data.

The Author is confident that the data and results are valid based on the site visit and inspection of all aspects of the project, including methods and procedures used. It is the opinion of the independent Author that all work, procedures, and results have adhered to best practices and industry standards. In addition, there were no limitations with respect to validating the physical data or computer-based data.

The data verification process did not identify any issues with the drill core, sampling and assay data. The Author is satisfied that the assay data is of suitable quality to be used as the basis for this Mineral Resource Estimate.

### **12.3 CONCLUSION**

In the Authors opinion, the assay data and results are suitable for use in the current Mineral Resource Estimate.

## **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

### **13.1 INTRODUCTION**

The Silver Queen Deposit was first discovered over 100 years ago and no comprehensive mineralogical characterization had been carried out prior to 2022. All prior metallurgical testwork was performed on a trial-and-error basis assuming unsubstantiated sulphide mineralization. For this reason, all metallurgical testwork preceding 2022 is regarded as “historical”.

### **13.2 2022 MINERALOGICAL CHARACTERIZATION AND METALLURGICAL TESTING**

#### **13.2.1 Introduction and Background to 2022 Testing**

Feasby had highlighted in the 2019 metallurgical testwork report many of the key factors that would influence net payable metal values. These include:

- Recognition of the lack of mineralogical information on the sulphides;
- Difficulties in achieving copper-lead separation using 1988 flotation science;
- Likely underestimation of the arsenic content of Cu-and Pb-sulphide concentrates and corresponding penalty charges levied by toll smelters;
- A lack of understanding of gold deportment, leading to a possible loss of potential gold revenue due to inadequate tracking of gold through the flotation circuit; and
- Noting that pre-concentration options had not been explored.

Upon assuming the role of process consultant for Silver Queen, the Author developed a strategy to resolve as many of these issues as possible without expending unnecessary funds. Although quotations for comprehensive mineral processing, roasting and leaching test programs were obtained from five metallurgical laboratories in early 2020, it was decided, in consultation with the client, to defer testwork until the Equity Metals drilling program had significantly revealed additional potential Mineral Resources. By the Spring of 2022, Equity Metals had intersected sufficient additional mineralization to warrant a mineralogical characterization of the recent discoveries. Although a wide variety of combinations of both pay and tramp metals were intersected, preliminary modelling revealed distinct patterns with respect to metal associations which are:

1. A zone of extremely high Au, high Cu, high Ag content was regularly intersected, typified by holes numbered 45, 47, 48, 59;
2. A zone of “Bonanza” grade Ag intersections (Ag >10,000 ppm) accompanied by relatively high As values, with visible silver sulphosalts (“Ruby silver”), variable Cu, Pb and Zn content with relatively little Au, typified by drill hole number 31;

3. Numerous zones containing high zinc values, associated with moderate (relative to 1 and 2) Ag content, and little or no Cu (drill holes 14, 15, 18, 46, 50, 57, 58, 59);
4. The majority of mineral intersections that contained Au, Ag, Cu, Pb and Zn at grades >300 ppm AgEq (drill hole 17); and
5. The remainder of mineral intersections that showed multi-pay metal contents, at grades <300 ppm AgEq.

At the time of selecting specimens for mineralogical characterization, it was evident that the 2020 and 2021 drilling had returned grades considerably higher than the average Mineral Resource grade published in the 2019 New Nadina Mineral Resource update. A revised Mineral Resource Estimate would require a more recent metallurgical test program focused on the recent intersections.

### 13.2.2 Choice of Specimens

Since the intersections selected for the mineralogical study were selected on the basis of distinctive assay characteristics, rather than by statistically based selection of drill core to create a composite matching the average Mineral Resource grade, the materials selected for examination are technically referred to as “specimens” rather than “samples”. Specimens selected from the five categories listed above are shown in Table 13.1.

TABLE 13.1 SPECIMENS SENT TO BLUE COAST RESEARCH						
Sample ID	Mass (kg)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
High Zn	4.26	0.34	46	0.06	0.28	9.09
Cu-Au-Ag	4.15	5.92	3,060	8.70	0.80	4.72
Med Grade	9.87	0.28	369	0.82	0.71	1.38
Bonanza Grade	9.08	0.14	1,171	0.06	1.40	2.10
Average Grade	5.93	0.35	271	0.16	1.33	5.54
<b>Total</b>	<b>33.29</b>	<b>0.96</b>	<b>864</b>	<b>1.38</b>	<b>0.97</b>	<b>3.72</b>

After the bagged drill core specimens were shipped to Blue Coast Research they were weighed, crushed to minus ¼”, blended and a representative sub-sample was extracted for assaying. The calculated specimen receipt assays are shown in Table 13.1.

BCR reported results for ICP after both four-acid and aqua-regia digest as standard practice at the start of all programs to ascertain what works best. In this instance four-acid digest was selected going forward since the aqua-regia underreported the Zn (Bernstein, 1987). Table 13.2 includes sulphur and carbon analyses.

**TABLE 13.2**  
**ACID DIGESTION RESULTS PLUS C AND S VALUES**

Sample	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)	Cu (%)	Stot (%)	S2- (%)	Ctot (%)	Corg (%)
High Zn	0.33	35.4	0.1	6.4	0.07	7.38	5.60	1.20	0.02
Cu-Au-Ag	5.91	2441.7	0.8	3.9	7.32	12.01	11.25	1.46	0.02
Med Grade	0.40	336.6	0.6	1.6	0.95	4.73	4.56	0.98	0.02
Bonanza Grade	0.21	991.6	1.5	2.4	0.09	5.35	4.96	3.15	0.04
Low Grade	0.48	330.6	1.4	5.9	0.20	7.53	6.22	1.39	0.09

*Note: C = carbon, S = sulphur, tot = total, org = organic.*

Grind calibrations were performed prior to preparing the specimens for mineralogy.

### 13.2.3 Mineralogical Characterization

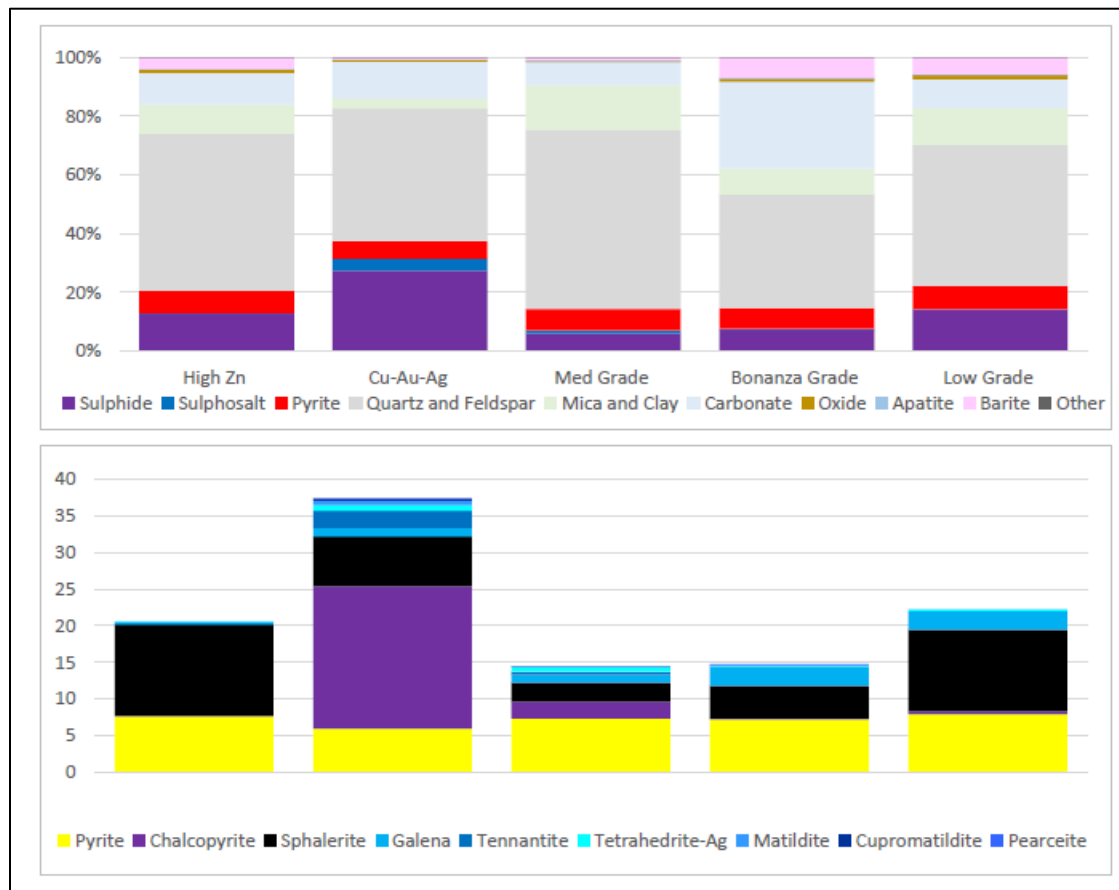
Full details of the mineralogical characterization of the selected specimens are provided in the BCR Report (Blue Coast Metallurgy and Research, 2022) (see Figures 13.1 and 13.2).

Key observations arising from the study included the following:

- Silver is primarily associated with complex silver sulphosalts. Very little of the silver is associated with Galena. The significant silver-bearing minerals identified are: tetrahedrite-Ag ( $(\text{Cu},\text{Ag})_6\text{Sb}_4\text{S}_{13}$ ), matildite ( $\text{AgBiS}_2$ ), cupromatildite( $(\text{Ag},\text{Cu})\text{BiS}_2$ ), cuprosalite ( $(\text{Pb},\text{Cu})_2\text{Bi}_2\text{S}_5$ ), and pearceite ( $[\text{Ag}_6\text{As}_2\text{S}_7][\text{Ag}_9\text{CuS}_4]$ );
- The host rock is dominated by quartz and feldspar (40-60%) throughout the samples, along with carbonates (8% to 30%); micas and clays (4% to 15%) barite (0.5% to 7%); apatite and various other oxides;
- Pyrite (6 to 8%) is present in all samples. The pyrite is generally free from the other sulphides;
- Lead and Zinc are primarily in galena and sphalerite;
- Although 85% of the copper is present as chalcopyrite, the remainder is in complex sulphosalts, mainly as tetrahedrite;
- Sample Cu-Au-Ag contained almost 25% Chalcopyrite, and the highest quantity of sulphosalt. Unfortunately, the bulk of the specimen was consumed by the mineralogy and assaying, and this sample, containing the bulk of the gold, did not form part of the metallurgical composite. This sample had 7.3% Cu, 2,441 ppm Ag, 5,061 ppm As and 5.9 ppm Au, considerably higher grades than the remaining 4 samples that made-up the composite. The sample selected as “high Zn” was confirmed to contain only sphalerite and pyrite with a very small amount of sulphosalt;
- Liberation of the “desired” minerals at the primary grind size of 80% passing 100  $\mu\text{m}$  was generally good (>50% of the particles were >80% liberated. As expected, some variability in mineral grain size was observed;

- Sulphosalt grains were in the 17 µm to 21 µm range; chalcopyrite in the 23 µm to 29 µm range; sphalerite in 26 µm to 32 µm. Galena showed a binary distribution of either 20 µm or 15 µm, depending on the sample origin;
- Pyrite was well liberated in the High Zn and Cu-Au-Ag samples (>60% of grains were >80% liberated), and less well liberated in the other samples (only 30% of grains were >80% liberated); and
- Gold deportment was not reported.

**FIGURE 13.1 AND FIGURE 13.2 MODAL MINERALOGY OF SPECIMENS AND SULPHIDES**



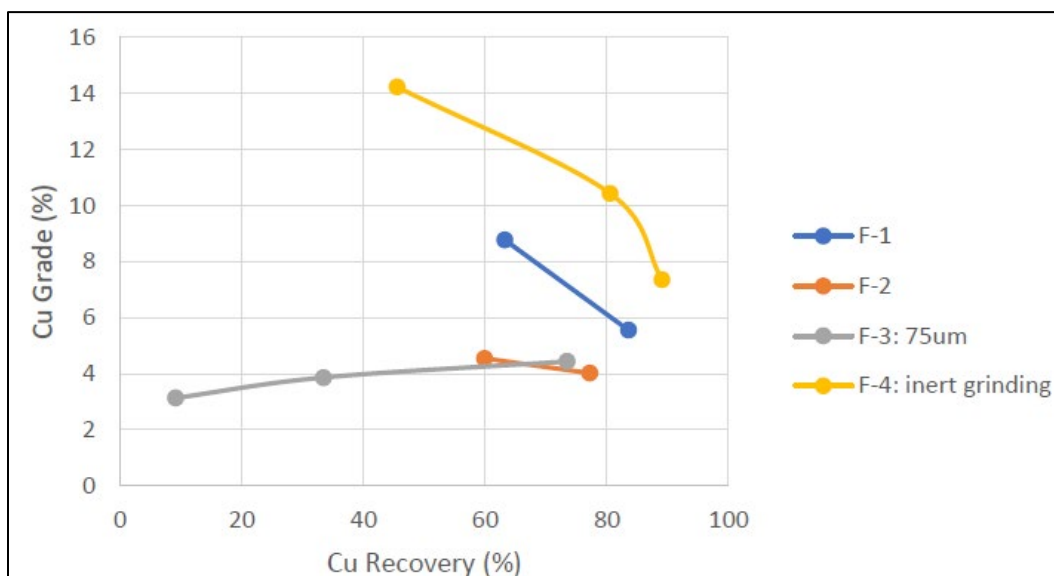
### 13.2.4 Metallurgical Testwork

Material remaining from the mineralogical examination was composited to produce specimens for metallurgical testing using a Cu-Pb-Zn float sequence to determine the viability of producing separate copper lead and zinc concentrates instead of the mixed copper-lead concentrate produced in earlier work. The first three float rougher tests were performed using normal (mild steel) grinding media and early results showed misplacement of both lead and zinc into the copper concentrate due to the slower floating of the copper in the conditions created by the mild steel grinding. Attempts to improve results by changing reagent dosages and grind size were of limited success. A single rougher test was completed using inert stainless media to assist in the early

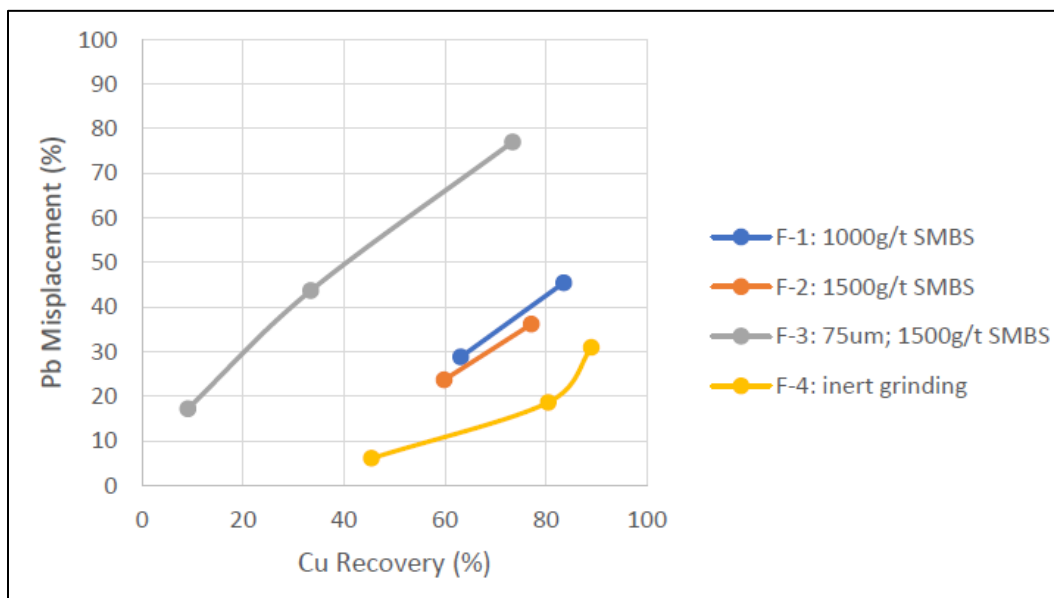


activation of the chalcopyrite and F1 conditions (1,000 g SMBS). Figures 13.3 to 13.6 show the improvement in results in all aspects of the copper rougher flotation using stainless media.

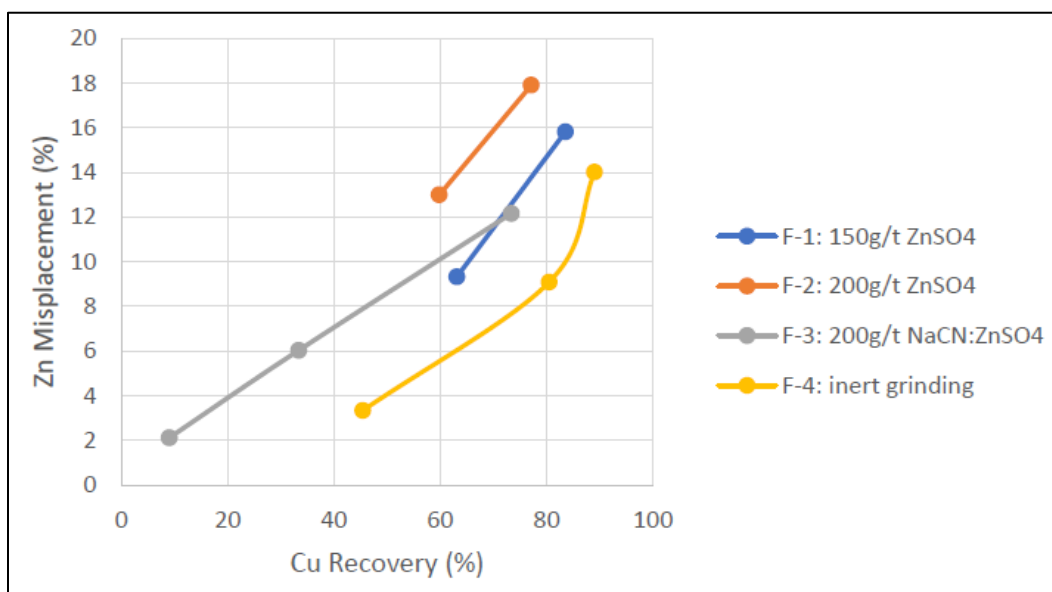
**FIGURE 13.3 COPPER ROUGHER: CU GRADE VERSUS RECOVERY**



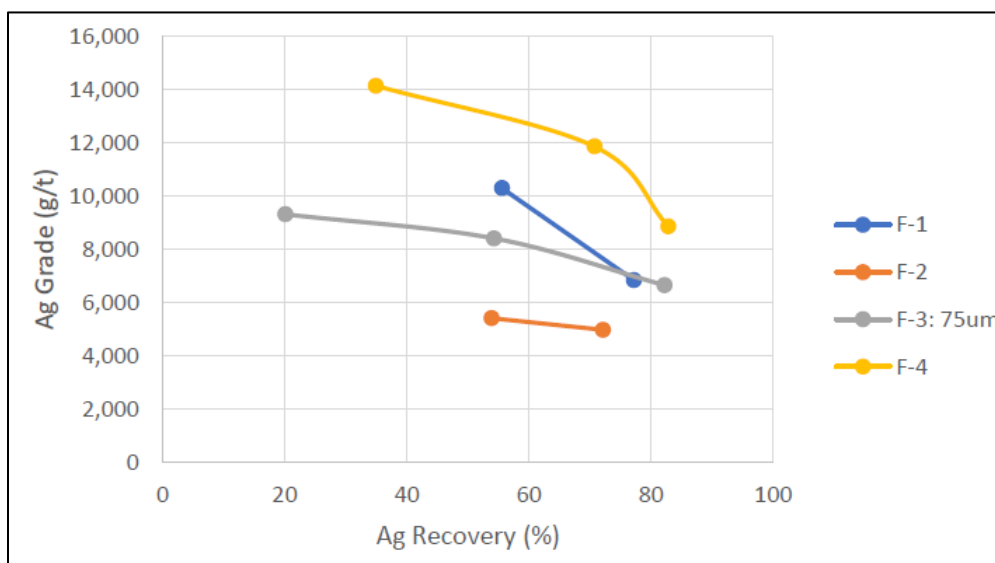
**FIGURE 13.4 PB MISPLACEMENT IN CU ROUGHER**



**FIGURE 13.5      ZN MISPLACEMENT IN CU ROUGHER**

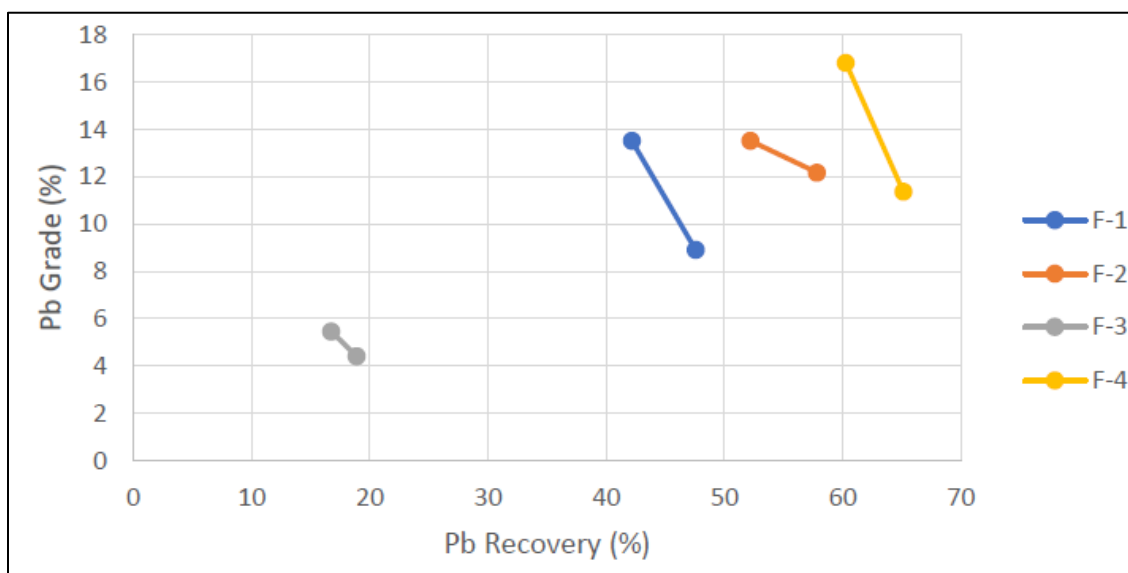


**FIGURE 13.6      AG RECOVERY AND GRADE IN CU ROUGHER**

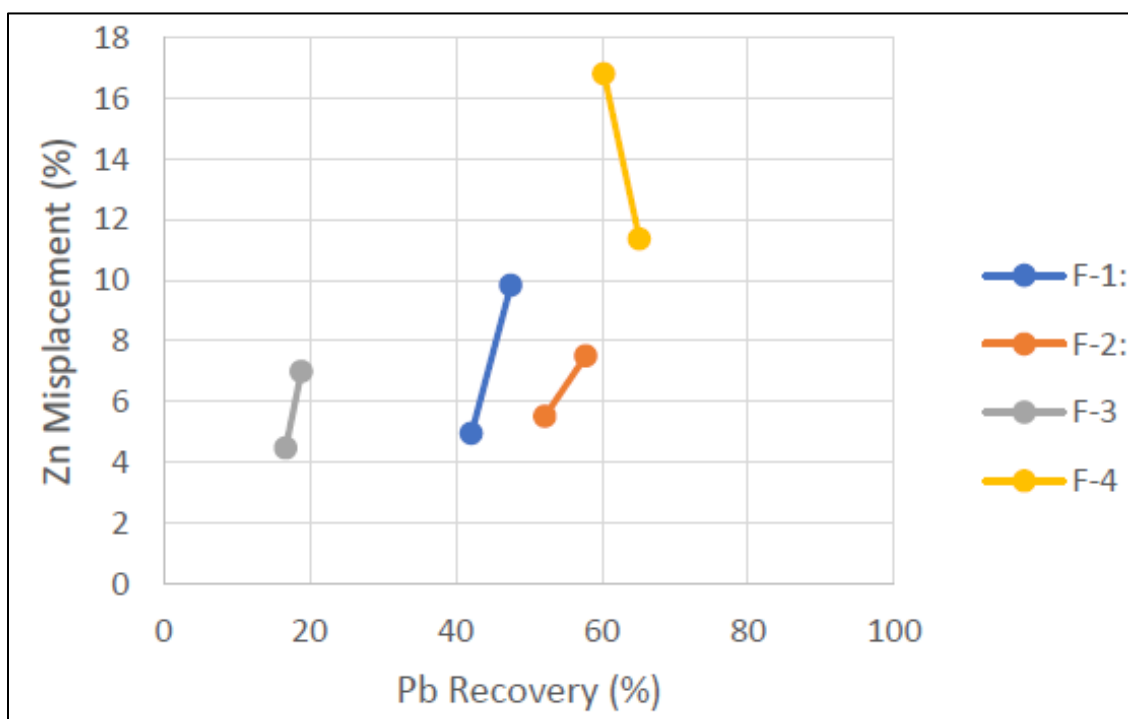


The improved Cu rougher grade in F4 resulted in an improvement in the quality of the Pb rougher, with the Pb grade increasing from 13.5 to 17.0% Pb and the recovery from 45 to 61%, as shown in Figure 13.7. Zinc did however begin floating in the Pb rougher as observed in Figure 13.8. Bralorne do not see this as a problem, as the cleaning circuit is expected to mitigate this. With more sample it is likely that adjustment to the duration of the sequential floats would be optimized.

**FIGURE 13.7 PB ROUGHER, PB GRADE AND RECOVERY**

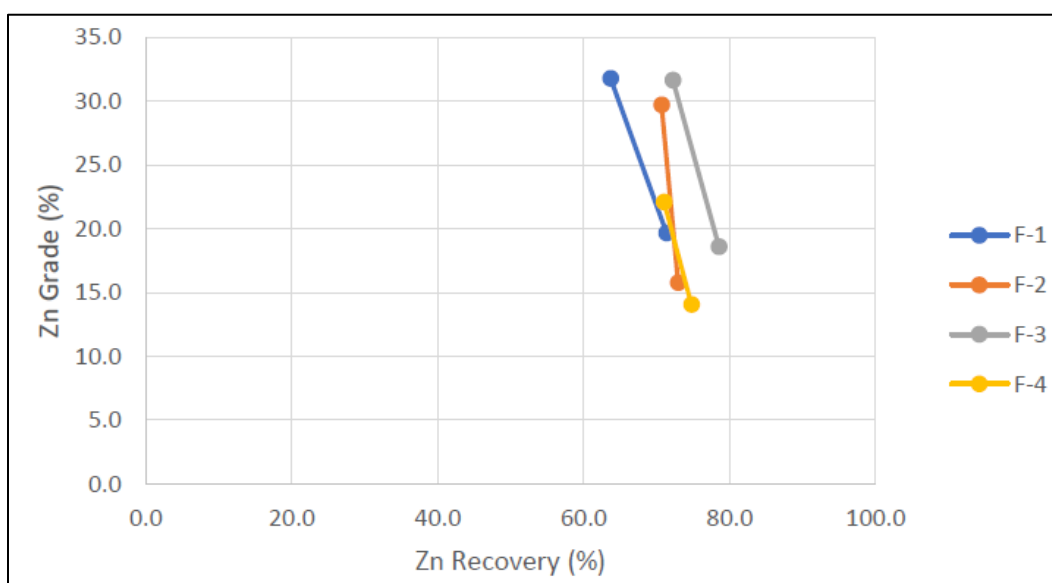


**FIGURE 13.8 ZN MISPLACEMENT IN PB ROUGHER**



The zinc roughing tests, Figure 13.9, were consistent across the four tests, with differences due mainly to prior misplacement of Zn into the Cu or Pb roughers.

**FIGURE 13.9      ZN ROUGHER RESULTS ZN GRADE AND RECOVERY**



For the cleaning tests, stainless media grinding was employed, and the 100 µm grind size was retained. The key difference test 5 and 6 was the introduction of a Cu cleaner/scavenger stage in F6 in an effort to improve the grade of Cu in the Cu concentrate. Given both the very high Ag grade in the Cu concentrate and the knowledge that a proportion of the copper is present as slower-floating tennantite, this extra step is likely unnecessary, and did not significantly improve the grade. With approximately 1.9% Ag in the copper concentrate, the only deficiency in the copper concentrate is the loss of 12% of the lead, misplaced into the copper concentrate. Although some improvement is likely, the complex sulphosalt chemistry will likely continue to result in inevitable metal misplacement to some extent. Table 13.3 provides a summary of the overall grades and recoveries. The mass balances are provided in Table 13.4.

ICP scans of each of the final concentrates from the two cleaner tests were performed. Table 13.5 contains the results of the elements detected. Values below detection limits are omitted.

**TABLE 13.3  
CLEANER TEST RESULT SUMMARY**

Test ID	Product	Assays						% Distribution					
		Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	S (%)	Au	Ag	Cu	Pb	Zn	S
F-5	Cu Conc	7.12	19823	<b>22.74</b>	10.87	7.37	30.6	30.9	<b>42.4</b>	<b>63.0</b>	12.9	3.1	7.1
F-5	Pb Conc	3.70	14948	3.83	<b>55.53</b>	10.44	19.0	16.5	32.8	10.9	<b>67.9</b>	4.5	4.5
F-5	Zn Conc	0.74	813	0.59	1.17	<b>54.75</b>	35.0	10.9	5.9	5.5	4.7	<b>78.9</b>	27.6
F-6	Cu Conc	5.14	18992	<b>22.30</b>	9.76	8.65	31.3	24.5	<b>39.5</b>	<b>60.5</b>	11.4	3.6	6.8
F-6	Pb Conc	3.25	15145	3.53	<b>55.34</b>	10.37	19.4	17.0	34.5	10.5	<b>70.8</b>	4.7	4.6
F-6	Zn Conc	0.77	602	0.40	0.75	<b>49.39</b>	38.7	13.8	4.7	4.0	3.3	<b>76.5</b>	31.4

**TABLE 13.4**  
**ROUGHER AND CLEANER SUMMARIES; MASS PULL, RECOVERIES AND GRADES (F4 + F5)**

Rougher F5														
Product	Weight		Assays						% Distribution					
	g	%	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	S (%)	Au	Ag	Cu	Pb	Zn	S
Cu Rougher 1 Conc	15.6	1.6	3.5	14127.4	14.2	4.3	6.3	22.4	19.5	34.9	45.5	6.1	3.3	6.2
Cu Rougher 1-2 Conc	37.6	3.8	3.3	11849.0	10.4	5.5	7.1	22.1	44.8	70.7	80.5	18.6	9.1	14.7
Cu Rougher 1-3 Conc	58.9	5.9	2.7	8852.7	7.4	5.9	7.0	21.9	57.4	82.8	89.1	31.0	14.0	22.8
Pb Rougher 1 Conc	40.0	4.0	0.5	1527.9	0.4	16.8	3.9	7.4	6.6	9.7	3.2	60.3	5.4	5.2
Pb Rougher 1-2 Conc	64.0	6.4	0.4	1142.0	0.4	11.4	4.1	6.6	8.8	11.6	4.6	65.1	9.0	7.4
Zn Rougher 1 Conc	93.9	9.4	0.4	178.3	0.1	0.1	22.1	18.8	13.0	2.7	2.4	1.2	71.0	31.2
Zn Rougher 1-2 Conc	155.4	15.6	0.4	148.2	0.1	0.1	14.1	16.7	21.8	3.7	3.5	2.0	74.8	45.8
Cleaner F5														
Product	Weight		Assays						% Distribution					
	g	%	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	S (%)	Au	Ag	Cu	Pb	Zn	S
Cu Cleaner 3 Conc	25.9	1.3	7.1	19823	22.7	10.9	7.4	30.6	30.9	42.4	63.0	12.9	3.1	7.1
Cu Cleaner 2 Conc	30.8	1.6	6.8	18333	21.2	10.0	7.9	30.0	34.9	46.7	69.9	14.1	4.0	8.3
Cu Cleaner 1 Conc	41.7	2.1	5.4	14282	16.5	7.8	7.4	25.5	37.5	49.2	73.8	15.0	5.1	9.5
Pb Cleaner 3 Conc	26.6	1.3	3.7	14948	3.8	55.5	10.4	19.0	16.5	32.8	10.9	67.9	4.5	4.5
Pb Cleaner 2 Conc	32.0	1.6	3.3	13059	3.4	48.2	11.2	18.5	18.0	34.5	11.8	71.0	5.9	5.3
Pb Cleaner 1 Conc	58.4	2.9	2.0	7686	2.1	28.2	8.3	13.2	19.9	37.1	13.2	75.8	8.0	6.9
Zn Cleaner 3 Conc	87.9	4.4	0.7	813	0.6	1.2	54.8	35.0	10.9	5.9	5.5	4.7	78.9	27.6
Zn Cleaner 2 Conc	95.5	4.8	0.8	802	0.6	1.1	52.3	35.1	12.5	6.3	5.9	5.0	81.8	30.0
Zn Cleaner 1 Conc	105.2	5.3	0.8	747	0.5	1.1	47.7	33.4	13.7	6.5	6.1	5.2	82.2	31.5
Zn Rougher Conc	310.1	15.6	0.4	285	0.2	0.4	16.4	15.4	20.9	7.3	7.4	5.9	83.3	42.7
Direct Head	204.9	10.3	0.21	48	0.06	0.08	0.32	6.1	7.1	0.8	1.3	0.7	1.1	11.2
Zn Rougher Tail	1572.2	79.3	0.08	49	0.03	0.05	0.14	2.89	21.7	6.4	5.7	3.3	3.7	40.8
Calculated Head	1982.4	100.0	0.30	611	0.47	1.10	3.08	5.62	100.0	100.0	100.0	100.0	100.0	100.0

**TABLE 13.5**  
**FINAL CLEANER CONCENTRATE ASSAYS**

Detection Limits-->	0.2	0.01	2	2	2	0.01	0.2	2	1	1 ppm	0.01	3	20	2
Units	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	ppm	ppm	ppm
Element	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	In	Mn
Method	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	AR-ICP	4AD-ICP	4AD-ICP
Solution Label														
SQ F-6 Cu Cl 3 Con	19519.7	0.07	16945	689	2668	0.14	695.8		5	22.26	20.10		81	2641
SQ F-6 Pb Cl 3 Con	15205.9	0.09	9336	755	6049	0.17	756.4	4	15	36.40	3.42			4354
SQ F-6 Zn Cl 3 Con	653.1	0.09	1654	208	123	0.06	3198.8	17	5	0.43	11.92		100	1799
SQ F-5 Cu Cl 3 Con	19823.0	0.05	15133	97	2450	0.11	465.7		12	18.78	14.39	34	63	2225
SQ F-5 Pb Cl 3 Con	14948.0	0.06	8557	106	5043	0.11	583.0		20	3.24	2.59	21	34	3386
SQ F-5 Zn Cl 3 Con	797.0	0.06	1492	100	191	0.04	3105.1	7	33	0.50	6.38	25	109	2010
Detection Limits-->	1	1	0.002	2 ppm	20	20	0.01	2	10	1	10	2	10	2 ppm
Units	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
Element	Mo	Ni	P	Pb	Rb	Re	S	Sb	Se	Sr	Te	Tl	W	Zn
Method	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP	4AD-ICP
Solution Label														
SQ F-6 Cu Cl 3 Con	25	12	0.193	10.24	33	74	22.23	24331		71		57	1060	9.14
SQ F-6 Pb Cl 3 Con	11		0.035	54.26	30	26	16.70	7648	16	75	654	22	1309	11.11
SQ F-6 Zn Cl 3 Con	3	11	0.020	0.96	35	45	28.67	652		49	1339	53	5940	51.25
S Q F-5 Cu Cl 3 Con	15	5		10.87			24.45	18853		40				7.37
SQ F-5 Pb Cl 3 Con	7	3		55.53			16.11	7890		45				10.44
S Q F-5 Zn Cl 3 Con	3	3		1.18			25.94	703		38				54.75

### 13.2.5 Discussion of Test Results

The cumulative results indicate that silver, gold and copper floated rapidly (Cu rougher 1) using the stainless media. However, with extended time the concentrate became diluted with lead and zinc sulphides. This provides encouragement that the grade of the copper concentrate could be substantially improved with further testwork, focusing on kinetics. Additionally, the low Cu grade in these tests (0.47% Cu) compared to the 7.5% Cu in the Cu-Ag-Au sample suggests that copper recovery could also be improved. The key focus of these limited tests was to confirm that inert grinding would improve the floatability of copper and permit cleaner concentrates than those seen in prior testwork. In that respect these limited tests were extremely successful.

As expected, the mineralogical study provided an insight to the complex mineralization that characterises the Silver Queen Mineral Resource. A key finding was that silver is NOT associated with galena to any significant extent, and while silver sulphosalts appear intergrown with galena, Ag does not appear to be dissolved in galena.

Although ~85% of the copper appears to be present as chalcopyrite, there is a significant amount of tennantite present, which requires different float conditions to chalcopyrite. Consequently, some loss of copper recovery to the Cu rougher is to be expected.

The Tennantite also contains considerable silver. The float tests show that whereas slightly more of the recovered silver (40 to 42%) reports to the copper concentrate (at 2% Ag grade), the small mass of lead concentrate generated contains around 33% of the total silver at high grade (1.5%). Attempts to further clean this concentrate of copper could result in loss of silver as it is likely associated with a Cu-Ag sulphosalt (tennantite), based largely on prior testwork results.

This study indicates that the sequential Cu-Pb-Zn philosophy does achieve the goal of providing 3 saleable concentrates with minimised loss of base pay metal values. Gold recovery between Cu and Pb concentrates is around 50% at grades exceeding the 1 g/t threshold by a comfortable margin.

The following tables provide an indication of the concentrate values. Table 13.6 provides typical payment terms for copper, lead and zinc concentrates containing gold and silver:

**TABLE 13.6**  
**SIMPLIFIED TYPICAL TC AND RC TERMS**

	Unit	Copper concentrates	Lead Concentrates	Zinc Concentrates
Threshold grade	%	27	55	50
Typical grade	%	28.5	66	55
Transport	\$/wmt	110	95	125
Moisture	%	8	8	8
Base payable	%	96	95	85
Ag payable	%	90	95	70
Au payable	%	95	95	70
Treatment charge	\$/dry ton	120	135	250
Refining charge	\$/kg	0.235	0	0
Ag refining charge	\$/g	0.013	0.019	0.048
Au refining charge	\$/g	0.193	0.643	0.643
Sundry charges	\$/t			110

Table 13.7 provides typical penalty charges for tramp elements or unsatisfactory concentrates. Base metals content other than the host element receive NO payment, and in rare circumstances render the concentrate unacceptable (for example, zinc smelters using fluo-solids roasting will not accept concentrates with a combined Cu+Pb+silica content >5%).

**TABLE 13.7**  
**GRADES AND RECOVERIES ACHIEVED IN 2022 TESTWORK, TYPICAL PENALTY ELEMENT CHARGES AND THRESHOLD VALUES FOR BASE METAL CONCENTRATES**

Item	Unit	Copper concentrates		Lead concentrates		Zinc concentrates	
		Threshold	penalty	Threshold	penalty	Threshold	penalty
Moisture	%	8	\$10/t /%	8	\$10/t/%	8	\$10/t/%
As	%	0.3	\$2/0.1			0.30	\$2/ 0.1
Sb	%			0.7	\$2/0.1		
SiO2	%					3.5	\$2/%
Pb	%					Cu+Pb+SiO2<5%	
Bi	%			0.25	\$2.0/0.1%		
Cd	%					0.3	\$2/0.1
Fe	%	40				8	\$2/%
Hg	ppm	similar to Zn		similar to Zn		300	\$2/100
Mn	%	similar to Zn		similar to Zn		0.6	\$2/0.1
Se	ppm	similar to Zn		1000	\$2/100	400	\$1.50/100
Cl+F	ppm	similar to Zn		similar to Zn		400	\$1.50/100

Although copper concentrates generally require a minimum Cu content of 25% for acceptance, high silver-content concentrates are an exception. As mentioned in the previous section, there is considerable opportunity to improve both the copper grade and recovery. At this stage there is no



concern regarding the grades achieved. Table 13.8 provides a summary of the concentrate grades and recoveries achieved in the limited 2022 testwork.

<b>TABLE 13.8</b> <b>GRADES AND RECOVERIES ACHIEVED IN 2022 TESTWORK</b>						
<b>Concentrate</b>	<b>Cu Grade</b>	<b>Base Metal Recovery</b>	<b>Ag Grade</b>	<b>Ag Recovery</b>	<b>Au Grade</b>	<b>Au Recovery</b>
Copper	22.5% Cu	Cu: 63%	2.0%	42%	7 g/t	31%
Lead	55.5% Pb	Pb: 70%	1.5%	34%	3.5 g/t	17%
Zinc	54.75% Zn	Zn: 78.9%	800 g/t	5%	0.7 g/t	12%

The recoveries achieved in this short metallurgical testwork program are very similar to the overall recoveries achieved in previous testwork, with improved base metal pay distributions. Significant differences arise where, for instance, Au recovery by cyanidation is included. The 2022 testwork focused on generating separate Cu-Pb concentrates at payable base metal grades. Prior gold leach testwork is deemed adequate for estimating total Au recovery for the purposes of Mineral Resource estimation.

Table 13.9 shows the net revenues generated by the concentrates produced in the testwork.

The yield of final price after deduction of transport, treatment charges, refining charges and penalties is excellent when compared with the gross value of the contained metal. Copper and lead concentrates net 90% of their intrinsic maximum value, whereas zinc concentrate returns 67% of its intrinsic value, mainly as a result of higher sea freight, treatment charges and additional “levies” from zinc refineries struggling to remain profitable.

**TABLE 13.9**  
**VALUATION OF TEST CONCENTRATES**

Revenue	unit	Concentrate			Total
		Copper	Lead	Zinc	
mass/ t ore	kg	13.07	13.40	44.34	
base metal grade	%	22.74	55.53	54.75	
base metal mass	kg	2.97	7.44	24.28	
price	USD/kg	7.70	2.09	3.30	
base metal revenue		<b>22.87</b>	<b>15.55</b>	<b>80.11</b>	<b>118.54</b>
Ag grade	g/t	19823	14948	813	
Ag mass	g	258.99	200.35	36.04	
Ag price	USD/g	0.64	0.64	0.64	
Gross Ag value		<b>166.55</b>	<b>128.85</b>	<b>23.18</b>	<b>318.57</b>
Au grade	g/t	7.12	3.70	0.74	
Au mas	g	0.09	0.05	0.03	
Au price	USD/g	56.27	56.27	56.27	
Gross Au value		<b>5.23</b>	<b>2.79</b>	<b>1.84</b>	<b>9.86</b>
Base payable	%	95	95	95	
Ag payable	%	95	95	90	
Au payable	%	95	95	90	
Net Base	\$/t ore	21.73	14.78	76.10	
Net Ag	\$/t ore	158.22	122.40	20.86	
Net Au	\$/t ore	4.27	2.03	0.00	
<b>Gross value/t ore</b>		<b>184.23</b>	<b>139.21</b>	<b>96.96</b>	<b>420.40</b>
<b>Deductions</b>					
Transport	/t conc	120	105	200	
		1.57	1.41	8.87	11.84
Treatment charges		120.00	130.00	250.00	
		1.57	1.74	11.08	14.39
Cu refining	\$/kg	0.24			
		0.66			0.66
Ag refining charge	\$/g	0.01	0.02	0.05	
		3.20	3.62	1.64	8.46
Au refining charge	\$/g	0.19	0.64	0.64	
		1.12	0.00	0.00	1.12
Sundry charges	\$/t conc	0	0.00	110	
		0.00	0.00	4.88	4.88
		<b>7.46</b>	<b>6.77</b>	<b>26.47</b>	<b>36.48</b>
<b>Penalties</b>					
As	% in conc.	1.7	0.9	0.16	
		0.3	0.3	0.3	
rate per unit	USD/0.1 over	2	2	2	
		14	6	0	
	\$/t conc	28	12	0	
Net penalties		0.37	0.16	0.00	0.53
Net Realised		176.41	132.29	70.49	383.40
In situ "value"	mass metal*S	194.66	147.19	105.13	446.97
% of in situ value		90.6%	89.9%	67.1%	85.8%
<b>NSR Value</b>	<b>USD/ ton ore</b>				<b>383.40</b>

### 13.3 NET SMELTER RETURN (NSR) CALCULATION

For the current Mineral Resource update, the following metal prices were assumed by consensus between all Authors involved:

- Au: US\$1,700/oz
- Ag US\$20.00 per oz
- Cu: US\$3.50/lb
- Pb: US\$0.95/lb
- Zn: US\$1.45/lb.

Concentration ratios (the inverse of mass pull) were assumed as follows:

- Cu concentrate: 37.5
- Pb concentrate: 81.5
- Zn concentrate: 61.1.

Other costs, recoveries and penalty items are detailed above in Tables 13.6 and 13.7.

In order to estimate the NSR value of a resource block, the updated NSR formula is:

$$\text{NSR (US$)/t} = (\text{Cu}\% * 51.49) + (\text{Pb}\% * 12.73) + (\text{Zn}\% * 19.82) + (\text{Ag g/t} * 0.4499) + (\text{Au g/t} * 36.03)$$

The algorithm incorporates a concentration ratio term, a price term, and a net payable term for each concentrate.

Using an exchange rate of US\$0.77/CAD the NSR formula in Canadian currency becomes:

$$\text{NSR (CAD)/t} = (\text{Cu}\% * 66.87) + (\text{Pb}\% * 16.54) + (\text{Zn}\% * 25.74) + (\text{Ag g/t} * 0.57) + (\text{Au g/t} * 46.79)$$

On-site processing costs (in CAD) are currently estimated at \$70/t for mining; \$20/t for processing and \$10/t for G&A, therefore an NSR cut-off of \$100 (Canadian) is regarded as reasonable.

As a test, Table 13.10 shows the NSR valuation for a low-grade “ore” block, with no Au and only 60 g/t Ag, with modest Cu, Pb and Zn grades:

<b>TABLE 13.10</b> <b>NSR TEST EXAMPLE</b>				
<b>Metal</b>	<b>Grade</b>	<b>Factor</b>	<b>Contribution C\$</b>	<b>Units</b>
Cu	0.4	66.87	26.75	%
Pb	0.6	16.54	9.92	%
Zn	1.0	25.74	25.74	%
Ag	67	0.57	38.19	g/t
Au	0	46.79	0	g/t
<b>Total</b>			<b>100.60</b>	<b>C\$</b>

## **14.0 MINERAL RESOURCE ESTIMATES**

The Mineral Resource Estimates for the No. 3 and NG3 Veins were prepared by P&E and those for the Camp and Sveinson Veins were prepared by Kirkham Geosystems.

### **14.1 NO. 3 AND NG3 VEINS**

#### **14.1.1 Introduction**

The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 (2014) and is consistent with generally accepted CIM "Estimation of Mineral Resources and Mineral Reserves Best Practices" guidelines (2019). Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral Resources may be affected by additional sampling, infill and exploration drilling that may result in increases or decreases in subsequent Mineral Resource Estimates.

All Mineral Resource estimation work reported herein was carried out by Messieurs Fred Brown, P.Geo., Antoine Yassa, P. Geo., and Eugene Puritch, P.Eng., FEC, CET all of P&E and independent Qualified Persons in terms of NI 43-101 by reason of education, affiliation with a professional association, and past relevant work experience. A draft copy of this Technical Report has been reviewed by Equity Metals for factual errors.

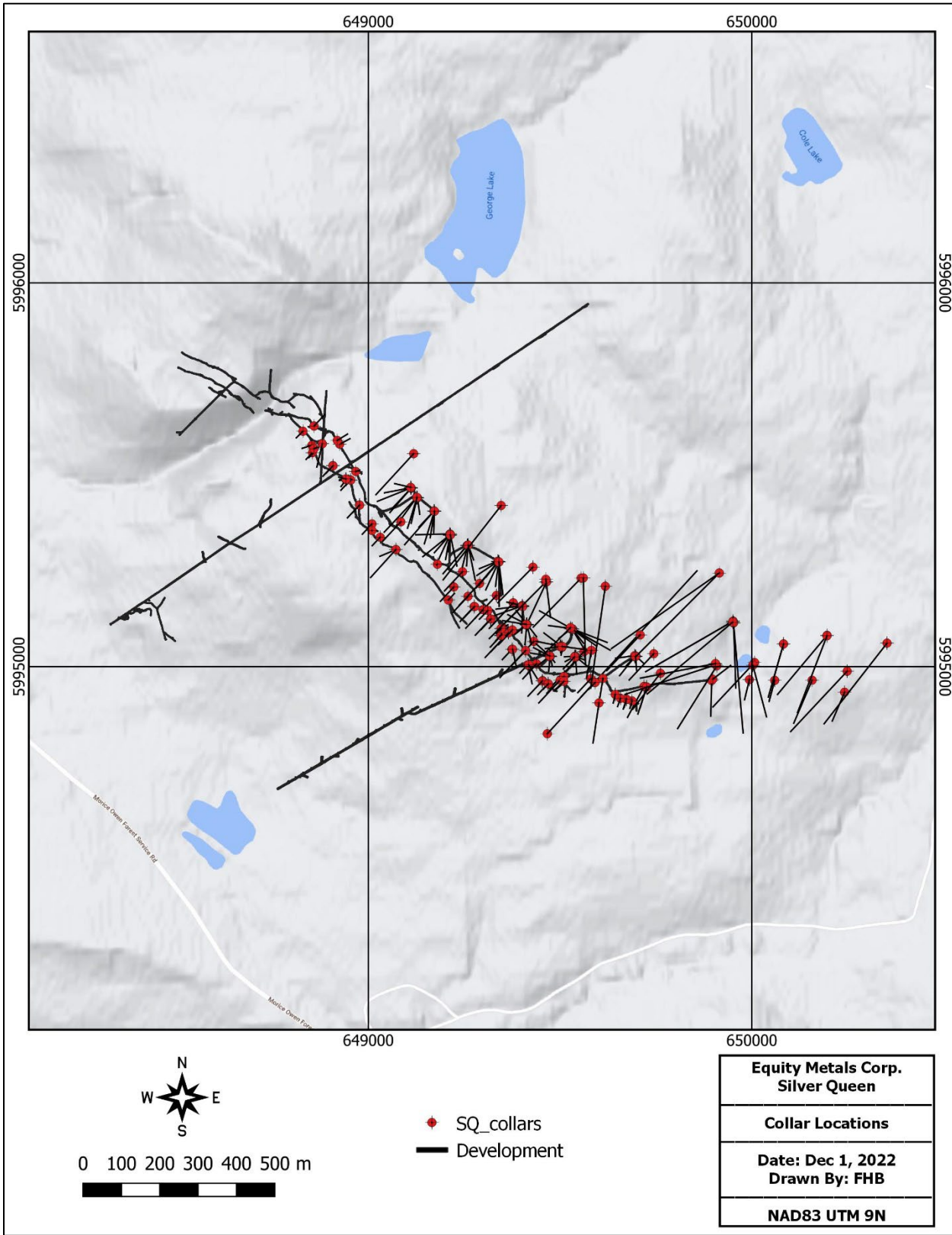
Mineral Resource modelling and estimation was carried out using GEOVIA GEMST<sup>™</sup> and Snowden Supervisor<sup>™</sup> software.

The Authors of this Technical Report section ("the Authors") are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource Estimate.

#### **14.1.2 Data Supplied**

Drilling and sampling data were supplied by Equity Metals in digital format (Figure 14.1) (see also Section 14.3.1. The database includes drill hole collar, survey, assay, lithology, and bulk density tables. The database as supplied contains 562 unique collar records, of which 67 drill holes have no assays, and 270 are outside the project area. The database used for this Mineral Resource Estimate therefore utilized 224 drill holes with a total length of 28,228.73 m. Wireframes were also supplied representing underground development and stoping, and unmineralized dykes. A topographic surface was also supplied. The coordinate reference system is NAD83 UTM 9N (EPSG 26909).

**FIGURE 14.1      DRILL HOLE LOCATION PLAN SHOWING UNDERGROUND DEVELOPMENT**



### 14.1.3 Database Validation

Industry standard validation checks were completed on the client-supplied database. The database was validated by checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields. No significant errors were noted.

The Authors are satisfied that the drill hole database is suitable for use in the preparation of a Mineral Resource Estimate.

### 14.1.4 Economic Assumptions

In order to determine the quantities of material offering “reasonable prospects for economic extraction”, the Authors have defined suitable mining cut-off grades based on assumed costs, pricing and metallurgical recoveries. The cost and recoveries used as the basis for the Mineral Resource have been based on knowledge of similar projects and the trailing two-year trend in commodity pricing. All prices are in C\$ unless otherwise stated. This Mineral Resource Estimate incorporates the economic assumptions listed in Table 14.1.

<b>TABLE 14.1</b>		
<b>ECONOMIC PARAMETERS</b>		
<b>Item</b>	<b>Unit</b>	<b>Value</b>
Conversion Rate	C\$/US\$	0.77
Silver Price	US\$/oz	20
Gold Price	US\$/oz	1,700
Copper Price	US\$/lb	3.50
Lead Price	US\$/lb	0.95
Zinc Price	US\$/lb	1.45
Silver Recovery	%	80
Gold Recovery	%	70
Copper Recovery	%	80
Lead Recovery	%	81
Zinc Recovery	%	90
UG Mining Cost	C\$/t mined	70
Processing	C\$/t processed	20
G&A	C\$/t processed	10
Underground Cut-off	C\$	100

Silver and gold equivalent and NSR values were calculated as follows:

$$\text{AgEq} = (\text{Ag g/t} \times 1.00) + (\text{Au g/t} \times 81.41) + (\text{Cu\%} \times 116.35) + (\text{Pb\%} \times 28.77) + (\text{Zn\%} \times 44.80)$$

$$\text{AuEq} = (\text{Ag g/t} \times 0.012) + (\text{Au g/t} \times 1) + (\text{Cu\%} \times 1.43) + (\text{Pb\%} \times 0.35) + (\text{Zn\%} \times 0.55)$$

$$\text{NSR} = (\text{Ag g/t} \times 0.57) + (\text{Au g/t} \times 46.79) + (\text{Cu\%} \times 66.87) + (\text{Pb\%} \times 16.54) + (\text{Zn\%} \times 25.74)$$

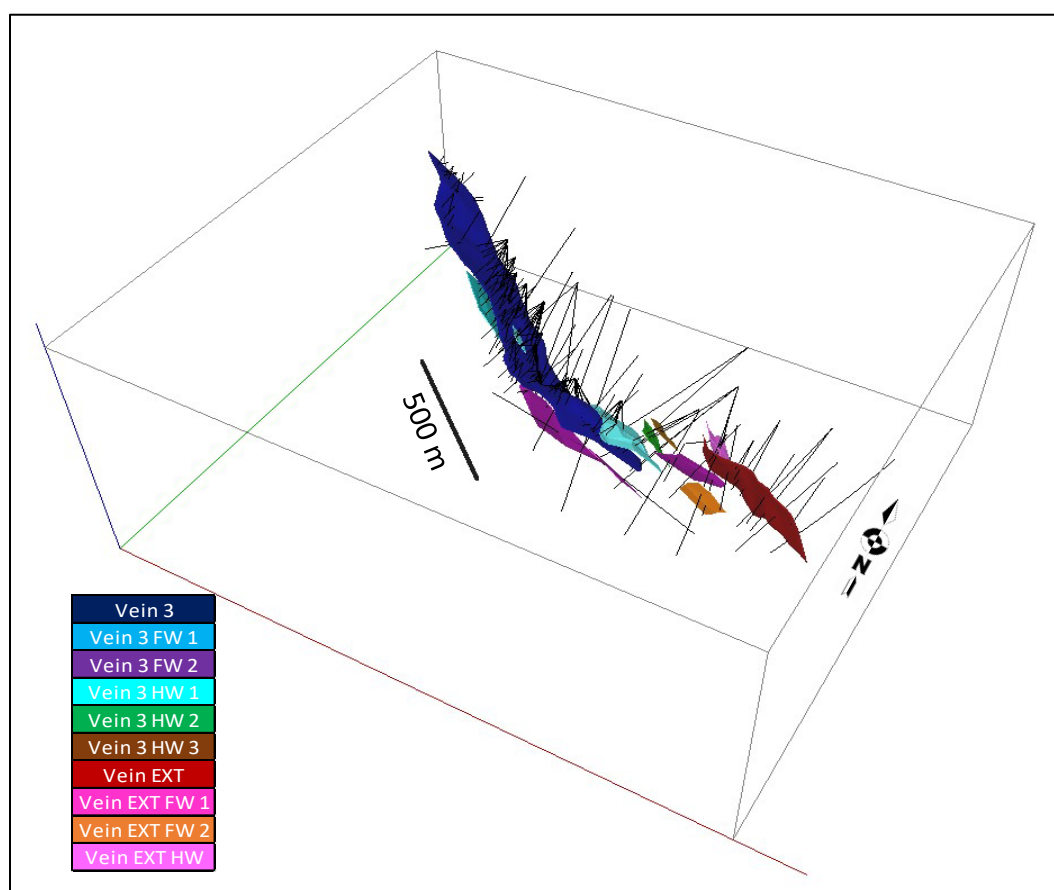
### 14.1.5 Domain Modelling

Mineralization domains were modeled for individual zones based on reasonably continuous drill hole assay grade intervals greater than 150 AgEq g/t and with a minimum width of two assay intervals. Where necessary to maintain zonal continuity, lower grade intervals were also included. As a result, a total of 10 grade estimation domains were developed (Figure 14.2 and Section 14.3.2). The resulting mineralized domains were used for block coding, statistical analysis, compositing limits and estimation (Table 14.2).

TABLE 14.2 GRADE ESTIMATION DOMAIN ROCK CODES			
Domain	Description	Strike Length (m)	Rock Code
Vein EXT	Main NG-3 Vein	330	100
Vein EXT FW 1	NG-3 FW Vein	80	110
Vein EXT FW 2	NG-3 FW Vein	30	120
Vein EXT HW	NG-3 HW Vein	120	130
Vein 3	Main Vein 3	1,200	200
Vein 3 FW 1	Satellite FW Vein	210	210
Vein 3 FW 2	Satellite FW Vein	300	220
Vein 3 HW 1	Satellite HW Vein	240	230
Vein 3 HW 2	Satellite HW Vein	110	240
Vein 3 HW 3	Satellite HW Vein	120	250



**FIGURE 14.2 MINERALIZATION DOMAINS**



*Note: See Table 14.2 for the mineralized domains' descriptions.*

### 14.1.6 Exploratory Data Analysis

The overall mean nearest neighbour drill hole collar distance for the drilling is 8.7 m. The average length of all drill holes is 140.78 m.

A total of 746 assay intervals are constrained within the defined mineralization domains. Summary statistics for the constrained assay data are listed in Tables 14.3 through 14.7.

TABLE 14.3 SUMMARY STATISTICS FOR CONSTRAINED AU ASSAYS G/T						
Domain	Count	Average	St Dev	CoV	Minimum	Maximum
Vein EXT	56	3.65	4.55	1.25	0.017	18.70
Vein EXT FW 1	10	1.10	2.23	2.03	0.039	6.92
Vein EXT FW 2	8	1.84	2.66	1.44	0.030	7.14
Vein EXT HW	11	1.66	3.11	1.87	0.020	8.23
Vein 3	451	2.81	4.52	1.61	0.003	39.57
Vein 3 FW 1	15	1.39	1.92	1.38	0.034	7.41

<b>TABLE 14.3</b> <b>SUMMARY STATISTICS FOR CONSTRAINED AU ASSAYS G/T</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein 3 FW 2	18	1.30	1.63	1.26	0.058	5.25
Vein 3 HW 1	65	4.97	6.73	1.35	0.003	24.30
Vein 3 HW 2	18	0.80	1.44	1.80	0.054	5.82
Vein 3 HW 3	14	0.59	1.11	1.89	0.030	4.07

**Note:** St Dev = standard deviation, CoV = coefficient of variation.

<b>TABLE 14.4</b> <b>SUMMARY STATISTICS FOR CONSTRAINED AG ASSAYS G/T</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein EXT	62	108.5	163.5	1.51	0.3	826.3
Vein EXT FW 1	10	159.7	268.8	1.68	1.3	676.0
Vein EXT FW 2	8	176.0	301.0	1.71	1.0	864.0
Vein EXT HW	12	202.0	358.0	1.77	0.1	957.0
Vein 3	519	168.0	261.8	1.56	0.1	1,933.7
Vein 3 FW 1	20	120.6	151.7	1.26	2.7	503.0
Vein 3 FW 2	18	153.6	293.1	1.91	1.1	1,011.4
Vein 3 HW 1	65	341.9	611.9	1.79	0.2	4,339.9
Vein 3 HW 2	18	78.1	165.3	2.11	1.4	670.0
Vein 3 HW 3	14	95.4	183.0	1.92	0.8	671.0

**Note:** St Dev = standard deviation, CoV = coefficient of variation.

<b>TABLE 14.5</b> <b>SUMMARY STATISTICS FOR CONSTRAINED CU ASSAYS PERCENT (%)</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein EXT	62	0.21	0.37	1.76	0.001	2.34
Vein EXT FW 1	10	0.53	1.06	2.02	0.010	3.24
Vein EXT FW 2	8	0.17	0.23	1.42	0.001	0.57
Vein EXT HW	12	0.11	0.13	1.12	0.001	0.40
Vein 3	519	0.31	0.70	2.25	0.001	6.98
Vein 3 FW 1	20	0.31	0.50	1.59	0.001	1.71
Vein 3 FW 2	18	0.63	1.13	1.81	0.001	3.98
Vein 3 HW 1	65	0.39	0.58	1.50	0.001	3.09
Vein 3 HW 2	18	0.08	0.10	1.29	0.001	0.32
Vein 3 HW 3	14	0.52	0.85	1.61	0.010	2.81

**Note:** St Dev = standard deviation, CoV = coefficient of variation.

<b>TABLE 14.6</b> <b>SUMMARY STATISTICS FOR CONSTRAINED Pb ASSAYS PERCENT (%)</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein EXT	62	0.14	0.26	1.90	0.003	1.66
Vein EXT FW 1	10	0.15	0.24	1.57	0.006	0.70
Vein EXT FW 2	8	0.24	0.30	1.28	0.002	0.68
Vein EXT HW	12	0.11	0.21	1.93	0.001	0.70
Vein 3	514	0.75	1.16	1.54	0.001	9.60
Vein 3 FW 1	20	0.69	1.03	1.48	0.010	4.10
Vein 3 FW 2	18	0.24	0.52	2.18	0.001	2.28
Vein 3 HW 1	65	0.92	1.29	1.40	0.003	5.01
Vein 3 HW 2	18	0.24	0.83	3.45	0.005	3.55
Vein 3 HW 3	14	0.96	1.95	2.04	0.006	6.48

*Note: St Dev = standard deviation, CoV = coefficient of variation.*

<b>TABLE 14.7</b> <b>SUMMARY STATISTICS FOR CONSTRAINED Zn ASSAYS PERCENT (%)</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein EXT	62	1.30	3.03	233.55	0.004	13.50
Vein EXT FW 1	10	1.08	1.88	173.46	0.012	6.02
Vein EXT FW 2	8	0.70	0.81	116.12	0.005	1.95
Vein EXT HW	12	0.77	1.86	239.94	0.008	6.50
Vein 3	521	4.52	6.21	137.29	0.008	50.80
Vein 3 FW 1	20	4.23	5.06	119.63	0.010	16.70
Vein 3 FW 2	18	1.35	2.33	172.33	0.010	9.00
Vein 3 HW 1	65	3.79	5.85	154.36	0.009	27.38
Vein 3 HW 2	18	0.86	2.44	284.35	0.024	10.56
Vein 3 HW 3	14	2.42	4.56	188.24	0.020	14.16

*Note: St Dev = standard deviation, CoV = coefficient of variation.*

### 14.1.7 Bulk Density

The bulk density values used in the Mineral Resource Estimate were derived from 24 samples located within the defined mineralization domains. The reported values range from 2.77 t/m<sup>3</sup> to 4.20 t/m<sup>3</sup>, with a median value of 3.56 t/m<sup>3</sup>, and an average value of 3.57 t/m<sup>3</sup>. A uniform value of 3.56 t/m<sup>3</sup> was implemented throughout the Mineral Resource Estimate.

### 14.1.8 Compositing

Constrained assay sample lengths for the assays range from 0.12 m to 6.1 m, with an average sample length of 1.00 m and a median sample length of 0.76 m. In order to ensure equal sample

support, a compositing length of 1.00 m was therefore selected for use for Mineral Resource estimation.

Length-weighted composites were calculated within the defined domains. The compositing process started at the first point of intersection between the drill hole and the domain intersected and was halted upon exit from the domain wireframe. The wireframes that represent the interpreted domains were also used to back-tag a rock code into the drill hole workspace, and assays and composites were assigned a domain rock code value based on the domain intersected. A nominal grade of 0.001 was used to populate un-sampled intervals. Residual composites that were less than 0.50 m were discarded so as to limit the introduction of a short sample bias into the grade estimation process. The composite data were then exported to extraction files for analysis and grade estimation.

#### 14.1.9 Composite Data Analysis

Summary statistics for the composited samples were calculated for each of the defined mineralization domains (Tables 14.8 through 14.12).

TABLE 14.8 SUMMARY STATISTICS FOR AU COMPOSITES G/T						
Domain	Count	Average	St Dev	CoV	Minimum	Maximum
Vein EXT	42	2.87	3.57	1.24	0.001	14.16
Vein EXT FW 1	6	0.76	1.00	1.31	0.056	2.47
Vein EXT FW 2	4	2.06	1.48	0.72	0.036	3.31
Vein EXT HW	10	0.92	1.96	2.13	0.001	6.26
Vein 3	539	2.33	3.68	1.58	0.001	24.56
Vein 3 FW 1	22	0.83	1.25	1.50	0.001	4.14
Vein 3 FW 2	14	1.52	1.62	1.07	0.146	4.77
Vein 3 HW 1	48	4.00	5.86	1.46	0.001	21.14
Vein 3 HW 2	11	0.45	0.43	0.95	0.108	1.17
Vein 3 HW 3	7	0.60	1.04	1.73	0.072	2.95

*Note:* St Dev = standard deviation, CoV = coefficient of variation.

TABLE 14.9 SUMMARY STATISTICS FOR AG COMPOSITES G/T						
Domain	Count	Average	St Dev	CoV	Minimum	Maximum
Vein EXT	42	104.5	132.9	1.27	0.1	709.5
Vein EXT FW 1	6	108.6	132.0	1.21	1.7	306.5
Vein EXT FW 2	4	212.2	182.4	0.86	0.6	390.2
Vein EXT HW	10	116.8	244.6	2.09	0.1	776.2
Vein 3	539	146.9	194.1	1.32	0.1	1,210.3
Vein 3 FW 1	22	131.0	134.0	1.02	0.1	503.0

<b>TABLE 14.9</b> <b>SUMMARY STATISTICS FOR AG COMPOSITES G/T</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein 3 FW 2	14	184.1	302.3	1.64	4.8	914.6
Vein 3 HW 1	48	247.5	376.2	1.52	0.1	2,189.6
Vein 3 HW 2	11	61.6	101.6	1.65	5.3	342.7
Vein 3 HW 3	7	76.8	148.0	1.93	3.9	409.4

*Note: St Dev = standard deviation, CoV = coefficient of variation.*

<b>TABLE 14.10</b> <b>SUMMARY STATISTICS FOR CU COMPOSITES PERCENT (%)</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein EXT	42	0.18	0.26	1.47	0.001	1.08
Vein EXT FW 1	6	0.39	0.64	1.64	0.010	1.64
Vein EXT FW 2	4	0.18	0.13	0.72	0.001	0.29
Vein EXT HW	10	0.07	0.07	1.07	0.001	0.21
Vein 3	539	0.24	0.45	1.88	0.001	4.13
Vein 3 FW 1	22	0.38	0.44	1.15	0.001	1.28
Vein 3 FW 2	14	0.81	1.18	1.45	0.019	3.59
Vein 3 HW 1	48	0.26	0.34	1.30	0.001	1.16
Vein 3 HW 2	11	0.08	0.06	0.74	0.020	0.18
Vein 3 HW 3	7	0.48	0.78	1.62	0.010	2.21

*Note: St Dev = standard deviation, CoV = coefficient of variation.*

<b>TABLE 14.11</b> <b>SUMMARY STATISTICS FOR PB COMPOSITES PERCENT (%)</b>						
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein EXT	42	0.18	0.36	2.03	0.001	1.66
Vein EXT FW 1	6	0.12	0.13	1.07	0.011	0.36
Vein EXT FW 2	4	0.26	0.20	0.76	0.006	0.49
Vein EXT HW	10	0.05	0.07	1.41	0.001	0.20
Vein 3	539	0.68	0.90	1.33	0.001	5.21
Vein 3 FW 1	22	0.72	0.88	1.22	0.001	3.33
Vein 3 FW 2	14	0.19	0.19	1.03	0.003	0.71
Vein 3 HW 1	48	0.59	0.85	1.44	0.001	3.48
Vein 3 HW 2	11	0.21	0.44	2.09	0.015	1.50
Vein 3 HW 3	7	0.60	0.95	1.58	0.034	2.32

*Note: St Dev = standard deviation, CoV = coefficient of variation.*

**TABLE 14.12**  
**SUMMARY STATISTICS FOR ZN COMPOSITES PERCENT (%)**

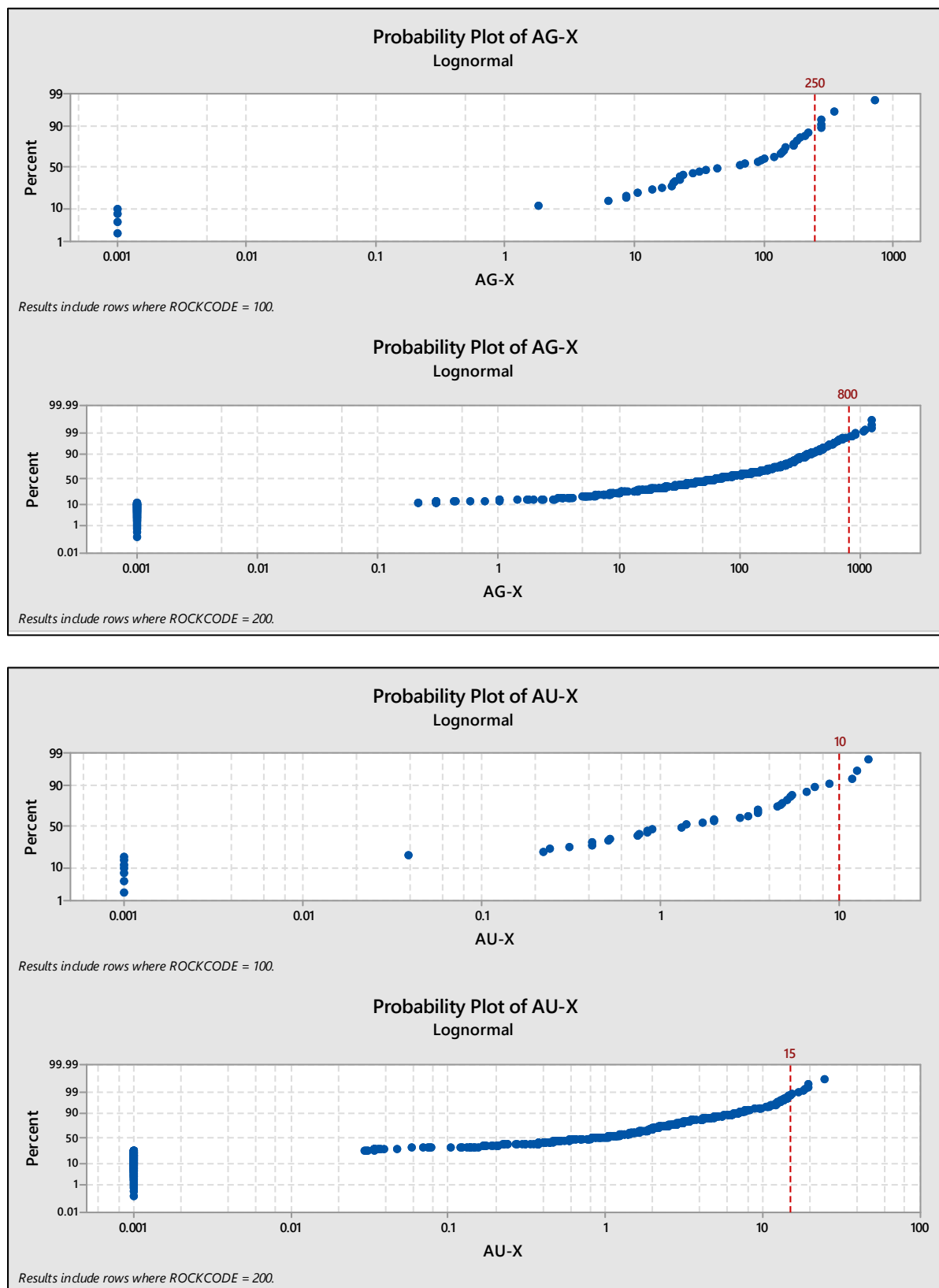
<b>Domain</b>	<b>Count</b>	<b>Average</b>	<b>St Dev</b>	<b>CoV</b>	<b>Minimum</b>	<b>Maximum</b>
Vein EXT	42	1.54	3.21	2.09	0.001	12.60
Vein EXT FW 1	6	0.89	1.12	1.26	0.013	3.10
Vein EXT FW 2	4	0.85	0.59	0.69	0.013	1.34
Vein EXT HW	10	0.45	1.04	2.29	0.001	3.38
Vein 3	539	4.21	5.20	1.23	0.001	39.73
Vein 3 FW 1	22	4.69	4.89	1.04	0.001	16.70
Vein 3 FW 2	14	1.13	0.94	0.83	0.043	3.23
Vein 3 HW 1	48	2.54	4.03	1.58	0.001	19.94
Vein 3 HW 2	11	0.80	1.24	1.56	0.045	4.45
Vein 3 HW 3	7	1.35	2.02	1.50	0.171	5.67

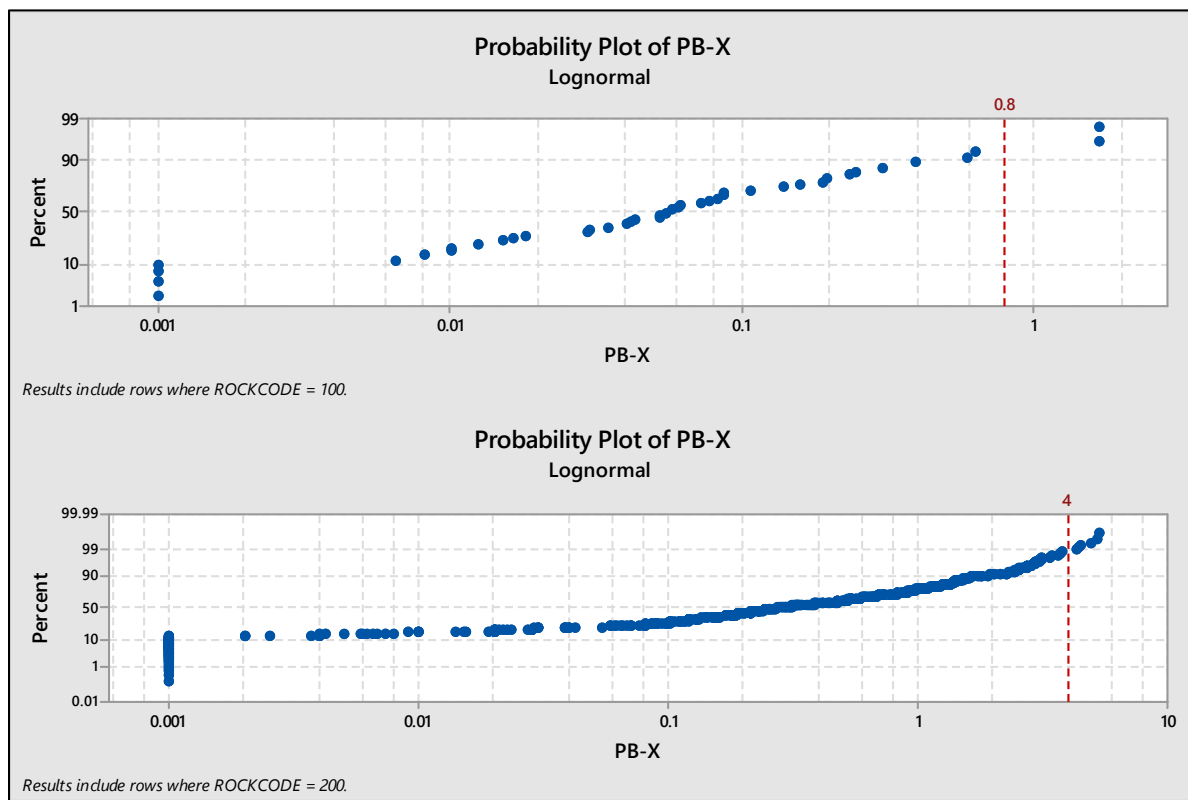
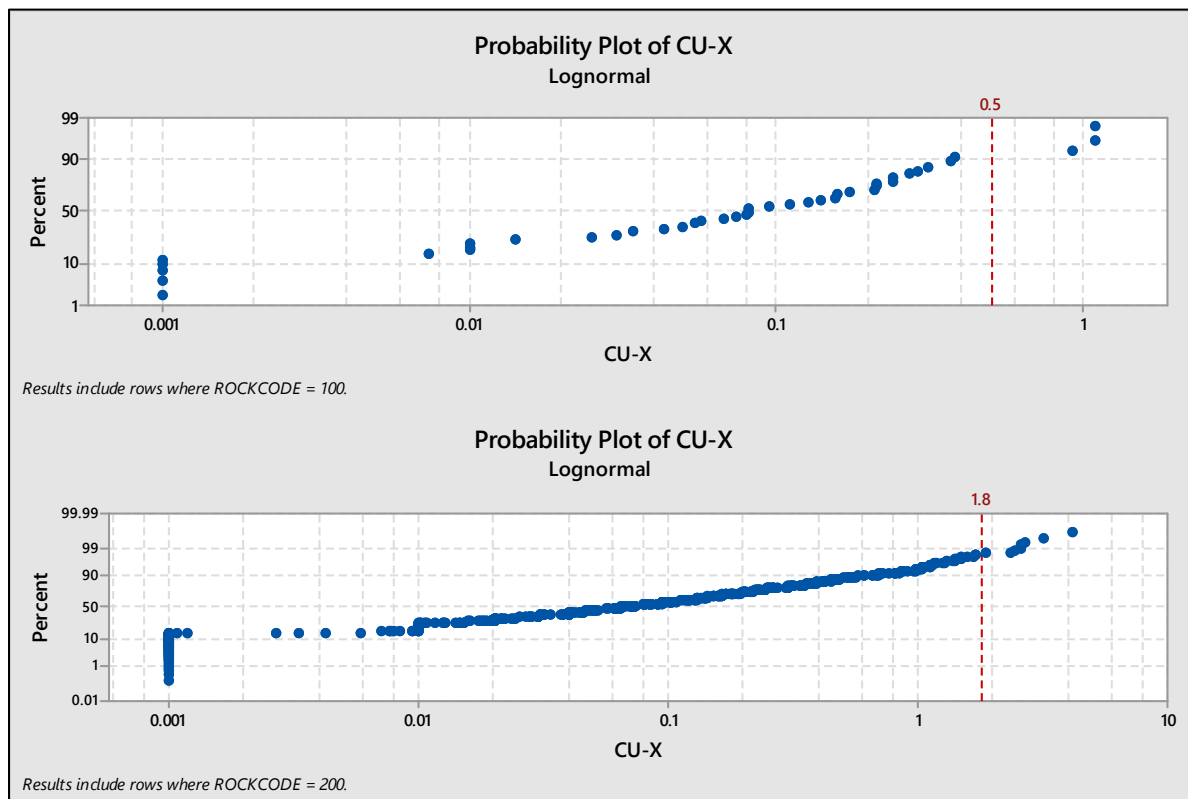
*Note: St Dev = standard deviation, CoV = coefficient of variation.*

#### **14.1.10 Treatment of Extreme Values**

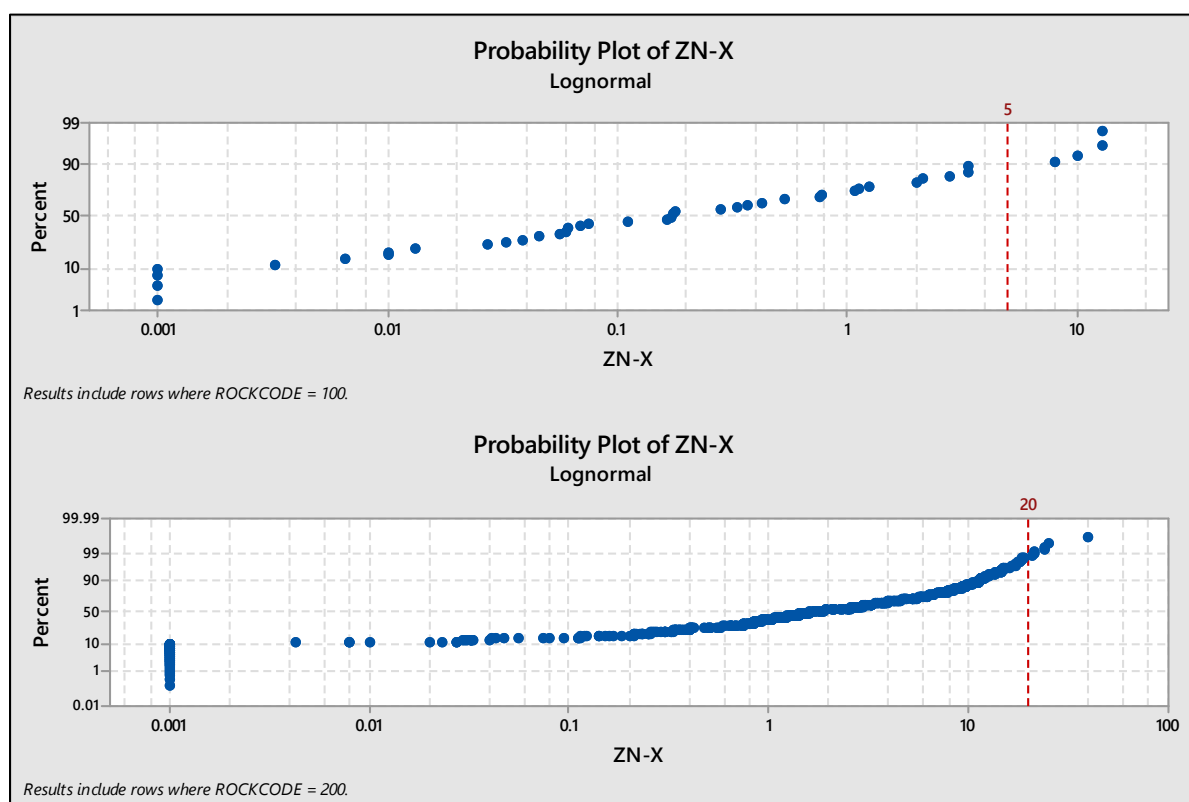
Capping thresholds were applied to limit the influence of high-grade outliers. Capping thresholds were determined by the decomposition of the composite log-probability distributions for the Vein-3 and EXT Veins for each system (Figure 14.3). The smaller satellite veins had an insufficient number of samples to determine outlier thresholds. Composites were capped to the defined threshold prior to grade estimation (Table 14.13).

**FIGURE 14.3 COMPOSITE LOG-PROBABILITY PLOTS**









**TABLE 14.13**  
**COMPOSITE CAPPING THRESHOLDS**

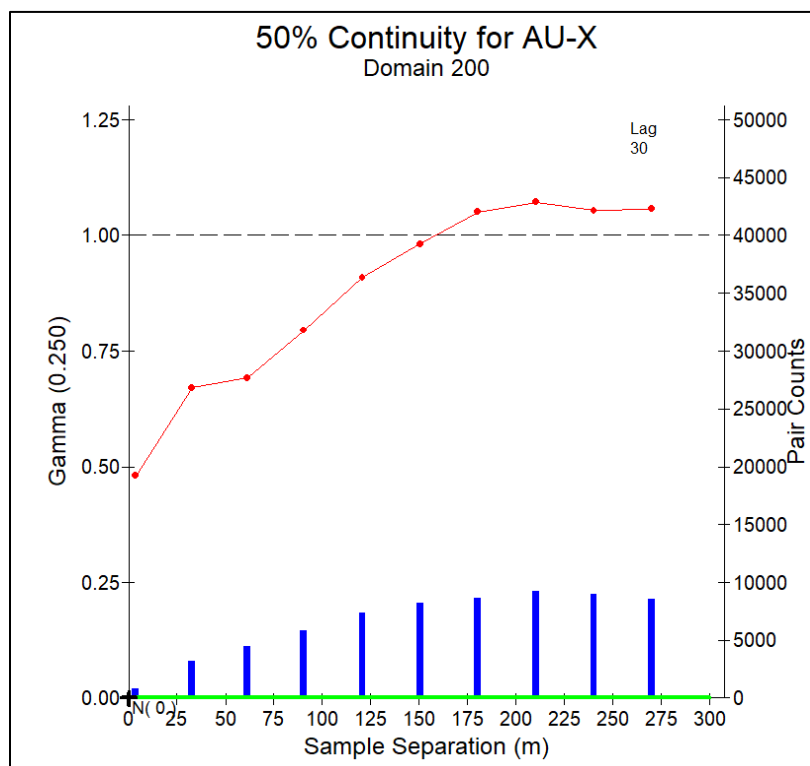
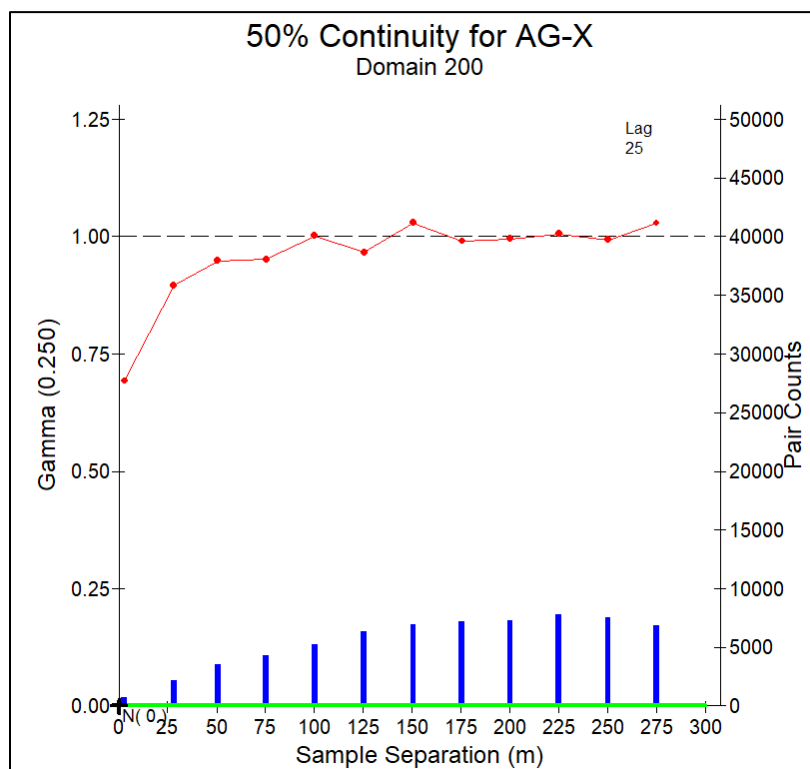
Domain	Threshold	Average	Number Capped	Capped Average	% Change
Au: Vein-3	15	2.33	7	2.28	-2
Au: EXT	10	2.87	3	2.68	-7
Ag: Vein-3	800	146.9	9	143.2	-3
Ag: EXT	250	104.5	5	89.9	-14
Cu: Vein-3	1.8	0.24	9	0.23	-6
Cu: EXT	0.5	0.18	3	0.14	-21
Pb: Vein-3	4.0	0.68	6	0.67	-1
Pb: EXT	0.8	0.18	2	0.14	-23
Zn: Vein-3	20	4.21	7	4.15	-2
Zn: EXT	5	1.54	4	0.99	-36

### 14.1.11 Variography

Three-dimensional continuity analysis (variography) was conducted on the uncapped Ag and Au composite data using isotropic median indicator semi-variograms for the Vein-3 domain. The smaller, satellite veins had an insufficient number of samples to develop a reliable semi-variogram. Modeled ranges for the semi-variograms were on the order of 90 m for Ag and

150 m for Au (Figure 14.4). A range of 90 m was therefore selected as the basis for the Indicated Mineral Resource classification.

**FIGURE 14.4 SEMI-VARIOGRAMS**



### 14.1.12 Block Models

Block models were established for areas with the block model limits selected so as to cover the extent of the mineralized domains, with the block size reflecting the deposit structure (Table 14.14). The block model consists of separate attributes for estimated grades, rock code, volume percent, bulk density and classification attributes. The volume percent attribute was used to calculate the volume and tonnage that was contained within the constraining mineralization domains. Cross-sections and plans showing the block models are located in Section 14.3.3.

<b>TABLE 14.14 BLOCK MODEL SETUP</b>			
<b>Dimension</b>	<b>Minimum</b>	<b>Number</b>	<b>Size (m)</b>
X	649,860	700	1
Y	5,994,380	570	3
Z	502	160	3
Rotation	50 degrees anti-clockwise		

### 14.1.13 Grade Estimation and Classification

Block grades for Au and Ag were estimated using inverse distance cubed ( $ID^3$ ) linear weighting of capped composites. Block grades for Cu, Pb and Zn were estimated using inverse distance squared ( $ID^2$ ) linear weighting of capped composites. Between four and twelve composites from two or more drill were required for block grade estimation. Composite samples were selected from within a 200 m x 200 m x 50 m search ellipse rotated parallel with the modeled domain. Nearest Neighbor models were also estimated for validation purposes using the same estimation strategy.

AgEq, AuEq and NSR block values were calculated from estimated block grades (Section 14.3.3).

Classification of the Mineral Resource reflects the relative confidence of the grade estimates (Section 14.3.4). The classification is based on several factors including sample spacing relative to the observed continuity of mineralization, variography, data verification, the availability of bulk density measurements, accuracy of drill collar locations, accuracy of the topographic surface and the quality of the assay data. Based on the observed continuity of mineralization and variography, blocks within 90 m of three or more drill holes were classified as Indicated. All other estimated grade blocks were classified as Inferred. Subsequent to the initial classification, some blocks were re-classified using a maximum a-posteriori selection pass that corrected isolated classification artifacts and consolidated areas of similar classification into continuous zones.

The average number of samples used for block estimation are as follows:

- **Indicated:** 11.8 samples and at least 3 drill holes within 90 m;
- **Inferred:** 5.6 samples and at least 2 drill holes within 200 m.

The Authors are satisfied that the current level of information available is sufficient to classify the Mineral Resource into Indicated and Inferred Mineral Resources. Mineral Resources were classified in accordance with definitions established by the Canadian Institute of Mining, Metallurgy and Petroleum (2014):

*An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.*

*An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*

#### **14.1.14 Mineral Resource Estimate**

National Instrument 43-101 incorporates by reference the definition of, among other terms, “Mineral Resource” from the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources and Mineral Reserves (the “CIM Definition Standards (2014)”) and Best Practices Guidelines (2019).

Under the CIM Definition Standards, a Mineral Resource must demonstrate “reasonable prospects for eventual economic extraction”. Mineral Resources were based on continuous mining units demonstrating reasonable prospects of eventual economic extraction and an NSR cut-off grade of C\$100/tonne. Historically developed and mined blocks were depleted from the Mineral Resource by assigning a volume percent value of zero to the applicable blocks.

In the opinion of the Authors, the Mineral Resource Estimate reported herein is a reasonable representation of the global metal grades.

The effective date of the Mineral Resource Estimate is December 1, 2022 (Table 14.15). Highlights of the updated Mineral Resource Estimate include the following:

- The Indicated Mineral Resource consists of 53.85 M0 AgEq ounces at an average grade of 560 AgEq g/t, and the Inferred Mineral Resource consists of 2,98 M AgEq ounces at an average grade of 361 AgEq g/t; and

- Approximately 92% of the Mineral Resources are classified as Indicated Resources on a per tonnage basis and 95% of the total on a AgEq basis reflecting the overall higher average grade (569 g/t AgEq) of the MRE in the Indicated classification.

**TABLE 14.15**  
**MINERAL RESOURCE ESTIMATE <sup>1-7</sup>**

<b>Class</b>	<b>Tonnes (kt)</b>	<b>Ag (g/t)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AgEq (g/t)</b>	<b>AuEq (g/t)</b>	<b>AgEq (Moz)</b>	<b>AuEq (koz)</b>
<b>Indicated</b>	2,942	150	2.45	0.25	0.7	3.8	569	6.9	53.85	657
<b>Inferred</b>	257	110	1.94	0.32	0.2	1.1	361	4.4	2.98	36

- 1) All Mineral Resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI 43-101").*
- 2) All Mineral Resources have been reported using an NSR cut-off of C\$100/t.*
- 3) Mineral Resources were based on continuous mining units demonstrating reasonable prospects of eventual economic extraction.*
- 4) Silver and Gold Equivalents were calculated from the interpolated block values using relative process recoveries and prices between the component metals to determine a final AgEq and AuEq values.*
- 5) Mineral Resources are not Mineral Reserves until they have demonstrated economic viability. Mineral Resource Estimates do not account for a Mineral Resource's mineability, selectivity, mining loss, or dilution.*
- 6) An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*
- 7) All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.*

### 14.1.15 Grade Sensitivity

The sensitivity of the Mineral Resource Estimate to changes to NSR cut-off grade was examined by summarizing tonnes, grade and metal content at varying cut-off (Tables 14.16 and 14.17).

Grade sensitivities were calculated at progressive NSR C\$/t cut-offs utilizing the same parameters and metal pricing as the Mineral Resource.

**TABLE 14.16**  
**INDICATED GRADE SENSITIVITY**

<b>Cut-off NSR (C\$)</b>	<b>Tonnes (kt)</b>	<b>Ag (g/t)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AgEq (g/t)</b>	<b>AuEq (g/t)</b>	<b>AgEq (Moz)</b>	<b>AuEq (koz)</b>
200	2,032	184	3.17	0.28	0.8	4.8	710	8.67	46.37	566
190	2,107	181	3.10	0.27	0.8	4.7	697	8.50	47.20	576
180	2,181	178	3.03	0.27	0.8	4.6	684	8.35	47.97	586
170	2,256	175	2.96	0.27	0.8	4.5	671	8.20	48.70	594
160	2,338	172	2.89	0.27	0.8	4.4	658	8.03	49.46	604
150	2,438	168	2.81	0.26	0.7	4.3	642	7.84	50.33	614
140	2,546	164	2.73	0.26	0.7	4.2	626	7.64	51.21	625

TABLE 14.16 INDICATED GRADE SENSITIVITY										
Cut-off NSR (C\$)	Tonnes (kt)	Ag (g/t)	Au (g/t)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AuEq (g/t)	AgEq (Moz)	AuEq (koz)
130	2,643	160	2.66	0.25	0.7	4.1	611	7.46	51.94	634
120	2,724	157	2.60	0.25	0.7	4.1	600	7.32	52.52	641
110	2,832	153	2.53	0.25	0.7	3.9	584	7.13	53.21	649
<b>100</b>	<b>2,942</b>	<b>150</b>	<b>2.45</b>	<b>0.25</b>	<b>0.7</b>	<b>3.8</b>	<b>569</b>	<b>6.95</b>	<b>53.85</b>	<b>657</b>
90	3,044	146	2.39	0.24	0.6	3.8	556	6.78	54.40	664
80	3,133	143	2.34	0.24	0.6	3.7	544	6.64	54.82	669
70	3,229	140	2.28	0.24	0.6	3.6	532	6.49	55.23	674
60	3,316	137	2.23	0.23	0.6	3.5	521	6.36	55.54	678
50	3,405	134	2.18	0.23	0.6	3.5	510	6.22	55.82	681

TABLE 14.17 INFERRED GRADE SENSITIVITY										
Cut-off NSR (C\$)	Tonnes (t)	Ag (g/t)	Au (g/t)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AuEq (g/t)	AgEq (Moz)	AuEq (koz)
200	97	167	3.32	0.49	0.3	1.8	586	7.15	1.83	22
190	99	167	3.28	0.49	0.3	1.8	580	7.08	1.85	23
180	103	165	3.19	0.49	0.3	1.8	570	6.95	1.90	23
170	115	161	2.97	0.47	0.3	1.8	544	6.64	2.00	24
160	122	158	2.84	0.45	0.3	1.7	528	6.44	2.08	25
150	129	156	2.75	0.45	0.3	1.7	515	6.28	2.13	26
140	136	152	2.64	0.44	0.3	1.7	500	6.10	2.19	27
130	147	147	2.52	0.42	0.2	1.6	481	5.86	2.28	28
120	170	138	2.32	0.39	0.2	1.5	445	5.43	2.44	30
110	220	120	2.08	0.34	0.2	1.2	390	4.76	2.76	34
<b>100</b>	<b>257</b>	<b>110</b>	<b>1.94</b>	<b>0.32</b>	<b>0.2</b>	<b>1.1</b>	<b>361</b>	<b>4.40</b>	<b>2.98</b>	<b>36</b>
90	272	107	1.89	0.31	0.2	1.1	350	4.27	3.05	37
80	288	103	1.82	0.30	0.2	1.1	339	4.13	3.13	38
70	299	100	1.76	0.29	0.2	1.1	331	4.03	3.18	39
60	305	99	1.74	0.29	0.2	1.1	327	3.98	3.20	39
50	311	97	1.71	0.28	0.2	1.1	322	3.93	3.22	39

### 14.1.16 Validation

The block model was validated visually by the inspection of successive cross-sections in order to confirm that the model correctly reflects the distribution of high-grade and low-grade samples. Cross-sections are presented in the Section 14.3.3.

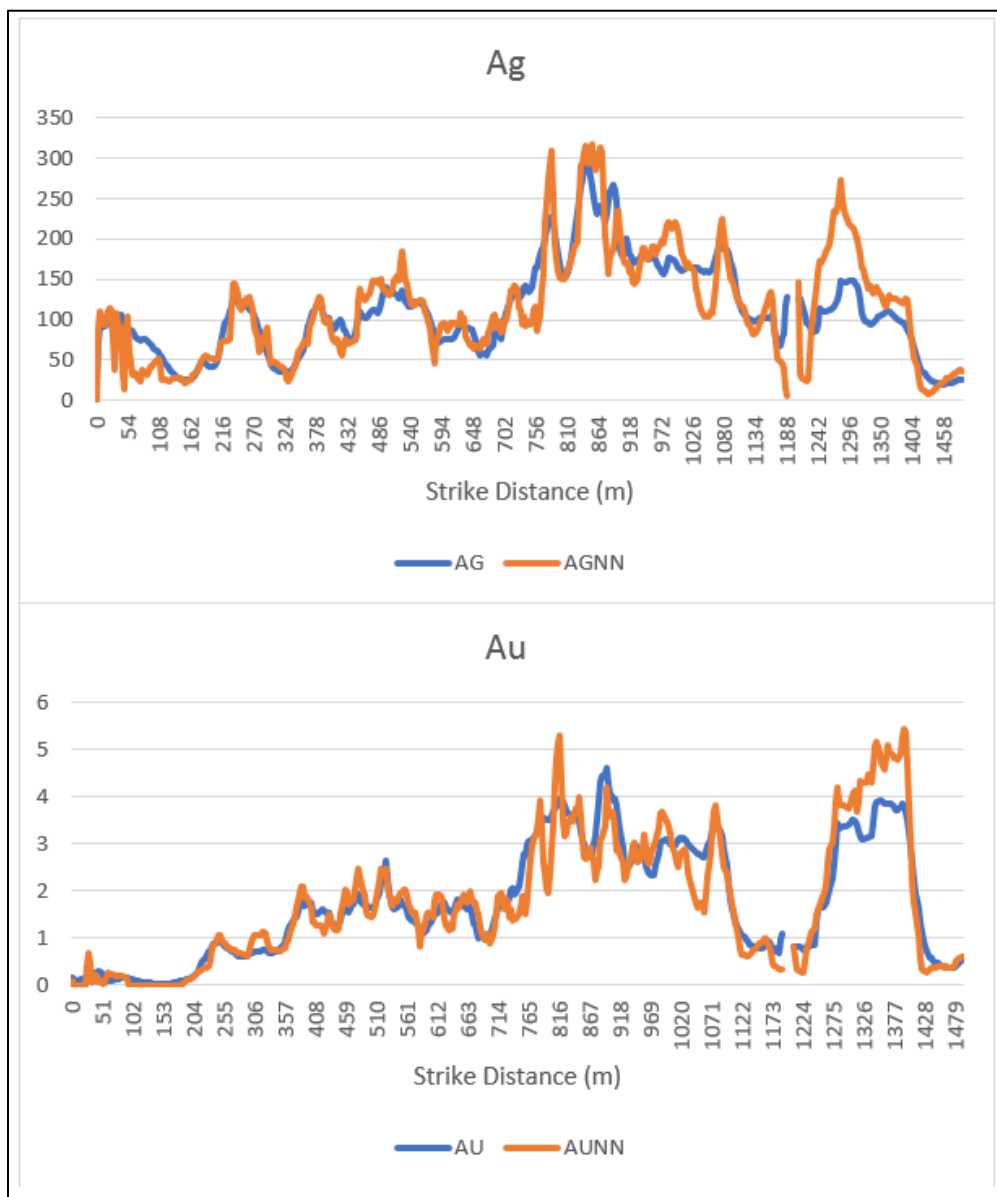
As a further check on the model the average inverse distance model block grade was compared to the Nearest Neighbour block model grade and to the capped composite average grade. The Authors consider the results to be acceptable for linear estimation (Table 14.18).

<b>TABLE 14.18</b>			
<b>GRADE BLOCK MODEL CHECK</b>			
<b>Grade</b>	<b>Composite Average</b>	<b>ID Average</b>	<b>NN Average</b>
Ag g/t	139	119	125
Au g/t	2.31	1.95	1.96
Cu%	0.22	0.22	0.23
Pb%	0.63	0.52	0.52
Zn%	3.92	2.98	2.92

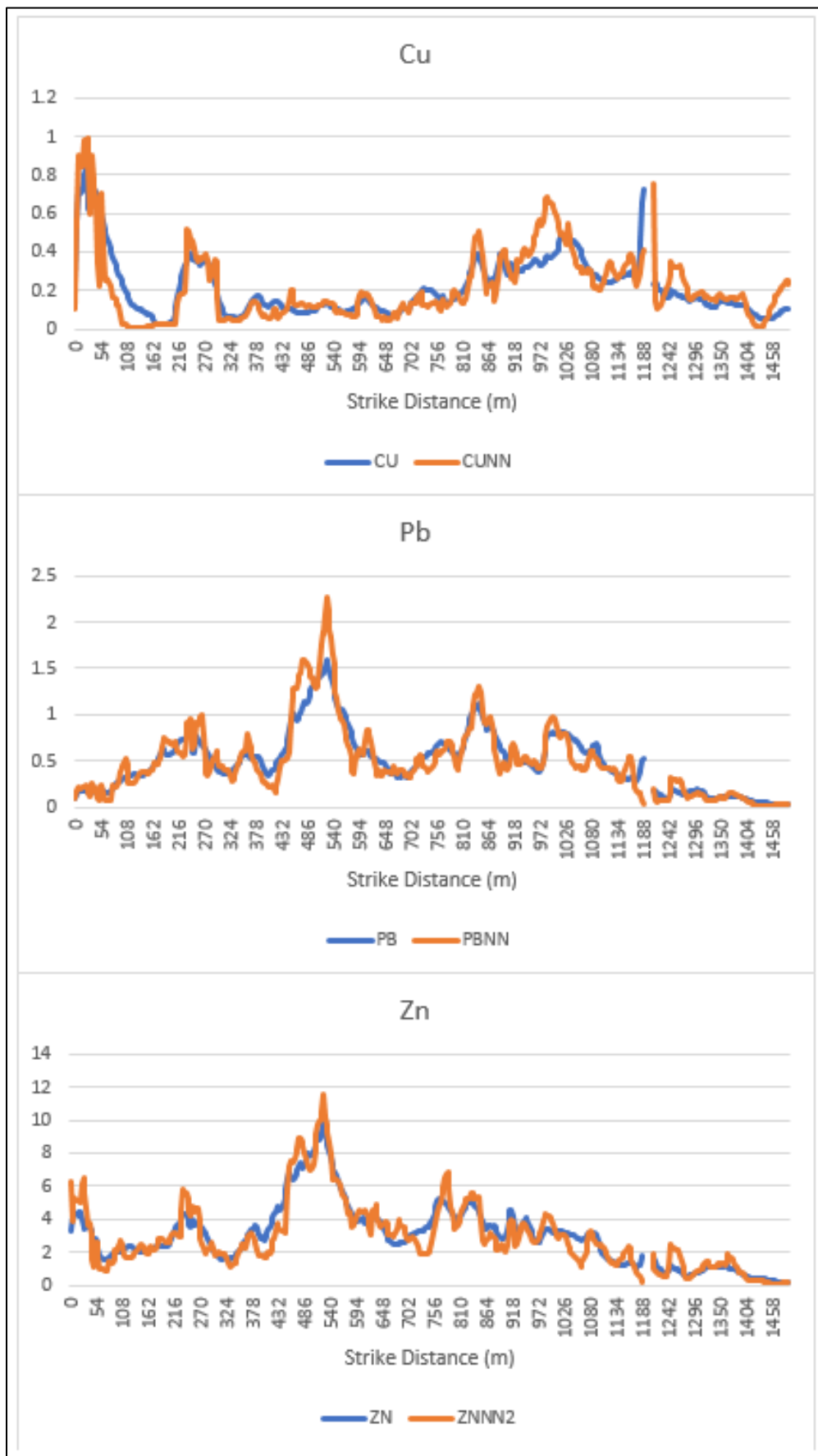
*Note: ID = Inverse Distance, NN = Nearest Neighbour.*

A check for local bias was also carried out using swath plots to examine spatial smoothing across the deposit by comparing estimated block grades at 0.001 cut-off with Nearest Neighbor block grades. The Authors consider the results to be acceptable for linear estimation (Figure 14.5).

**FIGURE 14.5 SWATH PLOTS**







## **14.2 CAMP AND SVEINSON VEINS**

### **14.2.1 Introduction**

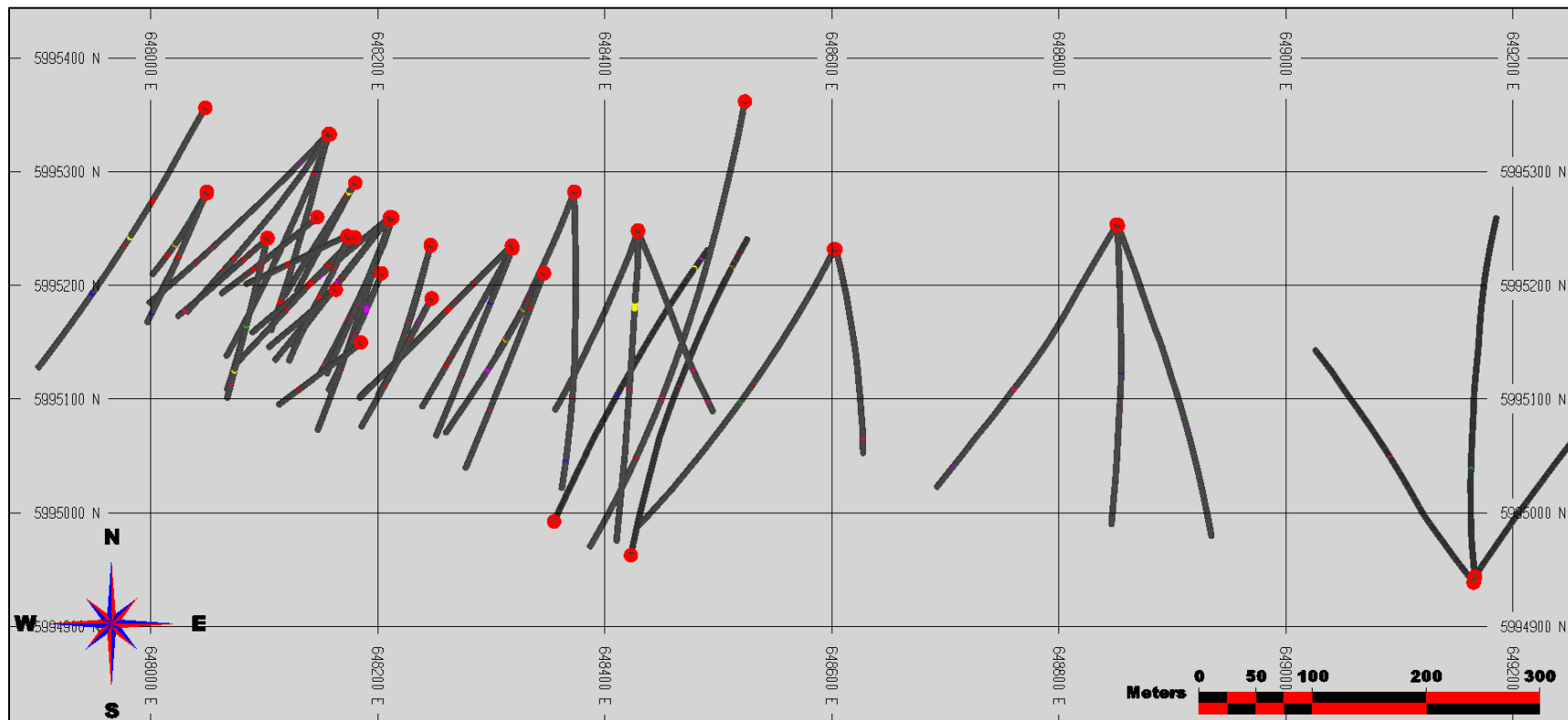
The purpose of this sub-section of the Technical Report is to document the Mineral Resource estimations for the Camp and Sveinson Veins. This sub-section describes the work undertaken by Kirkham Geosystems, including key assumptions and parameters used to prepare the Mineral Resource model for the Camp and Sveinson Veins, which were reported herein using Net Smelter Return (“NSR”) cut-offs based on reasonable commodity pricing and operating costs.

This sub-section serves as a first-time disclosure for Mineral Resources for the Camp and Sveinson Veins, together with appropriate commentary regarding the merits and possible limitations of such assumptions.

### **14.2.2 Data**

The 79 drill holes in the database were supplied in digital format by Equity Metals. This information included collars, downhole surveys, lithology data and assay data (i.e., Ag g/t, Au g/t, Cu %, Pb %, Zn %, bulk density). Validation and verification checks were performed during importation of data to ensure there were no overlapping intervals, typographic errors, or anomalous entries. Anomalies and errors were validated and corrected. Figure 14.6 shows a plan view of the supplied drill holes.

**FIGURE 14.6 PLAN VIEW OF CAMP AND SVEINSON VEIN DRILL HOLES**



Source: Kirkham (2022)

### 14.2.3 Geology Model

3-D solid models (Figure 14.7) were created from cross-sections and based on a combination of lithology, silver equivalent grades and site knowledge. Importantly, a minimum mining thickness of approximately 1.0 to 1.5 m was considered when creating the vein domains. The vein domains are also snapped to the drill hole intersections and are undiluted.

All zones were modelled by Equity geological staff in Surpac™, based on current drilling and assay data, and then imported for refinement using LeapFrog™. The solids were subsequently exported into MineSight™ for interpretation and adjustment to be used as the final grade interpolation domains.

Every intersection was inspected, and each solid was then manually adjusted to match the drill intercepts. When each solid model was finalized, they were used to code the drill hole assays and composites for subsequent statistical and geostatistical analysis. The 3-D solid domains were used to constrain the block model by matching assays to those within the zones. The orientation and ranges (distances) used for search ellipsoids in the grade estimation process were derived from strike and dip of the mineralized zone, site knowledge, and on-site observations by Equity Metals geological staff and judgment of the independent Qualified Person.

### 14.2.4 Data Analysis

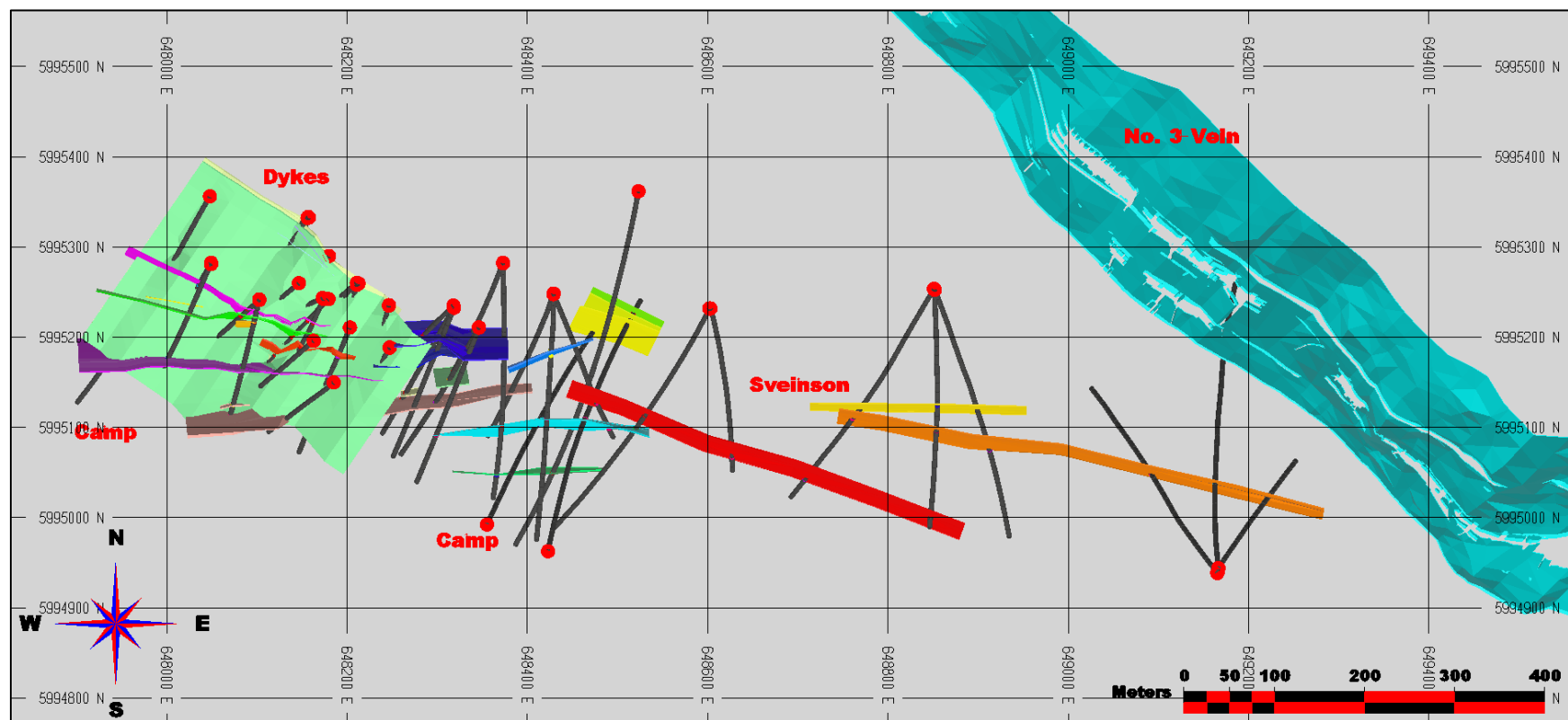
The database was numerically coded by solids for the Camp and Sveinson Veins. The database was then manually adjusted, drill hole by drill hole, to ensure accuracy of zonal intercepts. Statistics for silver and gold assays are shown in Table 14.19, whereas Table 14.20 shows those for copper, lead and zinc assays.

Note that the Camp Veins, particularly the silver-rich veins, have a relatively high degree of variability for silver, which is evidenced by the high Coefficient of Variation (CoV). Note that CoV is a unit independent quantitative measure of variability. With CoVs ranging for a moderately high value of >2 to very high values of approximately 6.3, the goal of compositing and grade cutting was to reduce these to reasonable range of 1 to 2.

The CoVs for copper within the base metal rich Camp Veins also show moderately high variabilities of 2 to 3. The variability for gold, lead and zinc for all of the vein sets is relatively low. The Sveinson Veins exhibit quite low CoVs for all metals. The statistical analysis illustrates that the predominantly silver rich Camp Veins require the application of techniques to limit the effect of extreme outlier silver and gold grades, whereas the base metal grades are relatively well represented. On the other hand, the copper grades within the base metal rich Camp Veins also require grade limiting strategies in addition to silver. The Sveinson Veins exhibit relatively low silver enrichment, despite having the highest-gold grades and complementary variability, in addition to significant base metal values.

It is clear that grade limiting strategies such as compositing and outlier cutting need to be employed to reduce the variability and the potential for over-estimation of grades or grade smearing.

**FIGURE 14.7 PLAN VIEW OF SILVER QUEEN MINERALIZED ZONES AND DRILL HOLES**



Source: Kirkham (2022)

<p align="center"><b>TABLE 14.19</b> <b>STATISTICS SILVER AND GOLD FOR THE CAMP AND SVEINSON VEINS</b></p>								
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Interval (m)</b>	<b>Min (g/t)</b>	<b>Max (g/t)</b>	<b>Mean (g/t)</b>	<b>CoV</b>
<b>Ag</b>	<b>1</b>	Ag1	69	47.8	4.7	<b>56,115</b>	716.6	<b>6.3</b>
	<b>2</b>	Ag2	67	43.68	2.6	<b>11,506</b>	458.3	<b>3.0</b>
	<b>3</b>	Ag3	7	5.8	49.1	301	131.0	0.7
	<b>4</b>	Ag4	7	4.6	18.1	<b>3,134</b>	297.1	<b>2.5</b>
	<b>5</b>	Ag5	54	32	3.8	<b>14,035</b>	486.5	<b>3.1</b>
	<b>8</b>	Ag HW	17	10.4	3.4	709	117.4	1.6
	<b>9</b>	Ag HW	4	2.8	2.6	1,309	202.5	<b>2.2</b>
	<b>10</b>	BM Vein	44	29	4.2	342	48.1	1.9
	<b>11</b>	BM Vein	10	4.2	7.1	1,887	323.6	1.6
	<b>12</b>	BM Vein	26	16.5	0.6	<b>4,032</b>	556.5	<b>2.3</b>
	<b>13</b>	BM Vein	29	15.8	4.8	<b>2,154</b>	256.4	1.8
	<b>15</b>	BM2	49	29.9	2.4	<b>7,392</b>	303.6	<b>3.6</b>
	<b>16</b>	BM HWFW	6	2.3	4.5	1,226	440.9	1.0
	<b>17</b>	BM HWFW	3	1.3	264	596	417.2	0.4
	<b>18</b>	BM HWFW	3	1.8	12.3	334	156.0	1.0
	<b>20</b>	SE1	13	7.3	2	<b>3,473</b>	208.7	<b>3.8</b>
	<b>21</b>	SE2	30	18	0.3	690	66.4	<b>2.1</b>
	<b>22</b>	SE3	7	2.9	19.3	653	177.4	1.3
	<b>30</b>	SE4	3	1.1	192	1,705	879.7	0.9
	<b>31</b>	SE5	7	3.9	16.2	427	67.6	1.8
	<b>32</b>	SE6	6	2.4	14.2	201	129.2	0.5
	<b>40</b>	SE7	17	9.8	2.7	157	29.2	1.4
	<b>50</b>	SE8	22	11.8	1.3	321	40.3	1.4
	<b>55</b>	Dykes	17	9.2	1.9	978	82.2	2.7
	<b>Total</b>	<b>Total</b>	517	314.28	0.3	56,115	340.3	5.8
	<b>All</b>	<b>All</b>	16,130	14,921.10	0	56,115	11.4	25.6
<b>Au</b>	<b>1</b>	Ag1	69	47.8	0.003	9.31	0.42	<b>3.5</b>
	<b>2</b>	Ag2	67	43.68	0.003	1.32	0.17	1.7
	<b>3</b>	Ag3	7	5.8	0.003	0.59	0.03	<b>3.8</b>
	<b>4</b>	Ag4	7	4.6	0.003	1.09	0.14	<b>2.0</b>
	<b>5</b>	Ag5	54	32	0.006	1.06	0.21	1.0
	<b>8</b>	Ag HW	17	10.4	0.003	0.71	0.12	1.5
	<b>9</b>	Ag HW	4	2.8	0.014	0.41	0.09	1.4
	<b>10</b>	BM Vein	44	29	0.003	1.12	0.15	1.5
	<b>11</b>	BM Vein	10	4.2	0.018	2.07	0.30	1.9
	<b>12</b>	BM Vein	26	16.5	0.003	8.97	0.84	2.0
	<b>13</b>	BM Vein	29	15.8	0.015	1.15	0.23	1.3

<p align="center"><b>TABLE 14.19</b> <b>STATISTICS SILVER AND GOLD FOR THE CAMP AND SVEINSON VEINS</b></p>								
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Interval (m)</b>	<b>Min (g/t)</b>	<b>Max (g/t)</b>	<b>Mean (g/t)</b>	<b>CoV</b>
	<b>15</b>	BM2	49	29.9	0.003	1.46	0.16	1.6
	<b>16</b>	BM HWFW	6	2.3	0.064	3.28	1.82	0.8
	<b>17</b>	BM HWFW	3	1.3	0.446	0.77	0.60	0.3
	<b>18</b>	BM HWFW	3	1.8	0.1	0.38	0.23	0.6
	<b>20</b>	SE1	13	7.3	0.005	<b>22.50</b>	1.57	<b>3.2</b>
	<b>21</b>	SE2	30	18	0.003	<b>59.30</b>	1.79	<b>4.4</b>
	<b>22</b>	SE3	7	2.9	0.204	2.96	1.07	0.8
	<b>30</b>	SE4	3	1.1	0.925	2.10	1.46	0.4
	<b>31</b>	SE5	7	3.9	0.086	1.31	0.30	1.2
	<b>32</b>	SE6	6	2.4	0.094	0.47	0.24	0.5
	<b>40</b>	SE7	17	9.8	0.019	4.47	1.25	1.0
	<b>50</b>	SE8	22	11.8	0.018	<b>13.80</b>	1.26	<b>2.0</b>
	<b>55</b>	Dykes	17	9.2	0.005	2.02	0.36	1.2
	<b>Total</b>	<b>Total</b>	<b>517</b>	<b>314.28</b>	<b>0.003</b>	<b>59.30</b>	<b>0.48</b>	<b>4.8</b>
	<b>All</b>	<b>All</b>	<b>16,130</b>	<b>14,921.10</b>	<b>0.003</b>	<b>59.30</b>	<b>0.07</b>	<b>8.9</b>

*Source: Kirkham (2022)*

*Note: CoV = coefficient of variation.*

<p align="center"><b>TABLE 14.20</b> <b>STATISTICS COPPER, LEAD AND ZINC FOR THE CAMP AND SVEINSON VEINS</b></p>								
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Interval (m)</b>	<b>Min (%)</b>	<b>Max (%)</b>	<b>Mean (%)</b>	<b>CoV</b>
Cu	1	Ag1	69	47.8	0.001	<b>1.67</b>	0.06	<b>3.2</b>
	2	Ag2	67	43.68	0.001	0.31	0.03	1.9
	3	Ag3	7	5.8	0.001	0.01	0.00	0.6
	4	Ag4	7	4.6	0.002	0.07	0.01	1.4
	5	Ag5	54	32	0.001	0.53	0.05	1.8
	8	Ag HW	17	10.4	0.002	0.07	0.01	1.3
	9	Ag HW	4	2.8	0.002	0.19	0.07	1.2
	10	BM Vein	44	29	0.001	0.15	0.02	<b>2.2</b>
	11	BM Vein	10	4.2	0.014	0.68	0.22	0.9
	12	BM Vein	26	16.5	0.001	<b>12.69</b>	1.69	<b>2.2</b>
	13	BM Vein	29	15.8	0.006	<b>5.95</b>	0.52	<b>2.2</b>
	15	BM2	49	29.9	0.002	<b>2.59</b>	0.08	<b>3.5</b>
	16	BM HWFW	6	2.3	0.004	<b>3.25</b>	1.52	1.0
	17	BM HWFW	3	1.3	0.523	<b>3.57</b>	1.93	0.8

**TABLE 14.20**  
**STATISTICS COPPER, LEAD AND ZINC FOR THE CAMP AND SVEINSON VEINS**

Element	Lith Code	Lithology	No.	Interval (m)	Min (%)	Max (%)	Mean (%)	CoV
	18	BM HWFW	3	1.8	0.002	0.01	0.01	0.7
	20	SE1	13	7.3	0.001	5.55	0.33	3.8
	21	SE2	30	18	0.001	5.85	0.31	3.4
	22	SE3	7	2.9	0.017	7.33	2.19	1.2
	30	SE4	3	1.1	0.827	4.26	2.39	0.7
	31	SE5	7	3.9	0.014	1.04	0.15	2.1
	32	SE6	6	2.4	0.005	0.74	0.33	0.9
	40	SE7	17	9.8	0.002	0.75	0.08	2.2
	50	SE8	22	11.8	0.001	0.82	0.14	1.3
	55	Dykes	17	9.2	0.002	0.13	0.02	1.5
	Total	Total	517	314.28	0.001	12.69	0.23	4.8
	All	All	16,130	14,921.10	0	12.69	0.02	11.6
Pb	1	Ag1	69	47.8	0.01	2.18	0.25	1.6
	2	Ag2	67	43.68	0	4.05	0.40	2.0
	3	Ag3	7	5.8	0	0.15	0.05	1.1
	4	Ag4	7	4.6	0.01	0.25	0.04	1.4
	5	Ag5	54	32	0.05	7.51	0.57	2.1
	8	Ag HW	17	10.4	0.02	0.20	0.08	0.7
	9	Ag HW	4	2.8	0.01	0.29	0.08	1.0
	10	BM Vein	44	29	0.01	5.40	0.45	2.1
	11	BM Vein	10	4.2	0.03	1.32	0.29	1.3
	12	BM Vein	26	16.5	0	1.27	0.19	1.6
	13	BM Vein	29	15.8	0.01	7.49	0.44	2.6
	15	BM2	49	29.9	0.02	4.53	0.28	1.8
	16	BM HWFW	6	2.3	0.07	1.80	0.71	0.9
	17	BM HWFW	3	1.3	0.17	1.12	0.61	0.8
	18	BM HWFW	3	1.8	0.13	0.78	0.46	0.6
	20	SE1	13	7.3	0	3.33	0.46	1.9
	21	SE2	30	18	0	10.21	0.77	2.9
	22	SE3	7	2.9	0.04	0.40	0.18	0.7
	30	SE4	3	1.1	0.21	1.56	0.82	0.8
	31	SE5	7	3.9	0.3	7.11	1.19	1.7
	32	SE6	6	2.4	0.02	2.49	0.62	1.5
	40	SE7	17	9.8	0.01	6.47	0.88	1.5
	50	SE8	22	11.8	0.01	3.84	0.89	1.0
	55	Dykes	17	9.2	0.03	4.53	0.76	1.6
	Total	Total	517	314.28	0	10.21	0.43	2.3



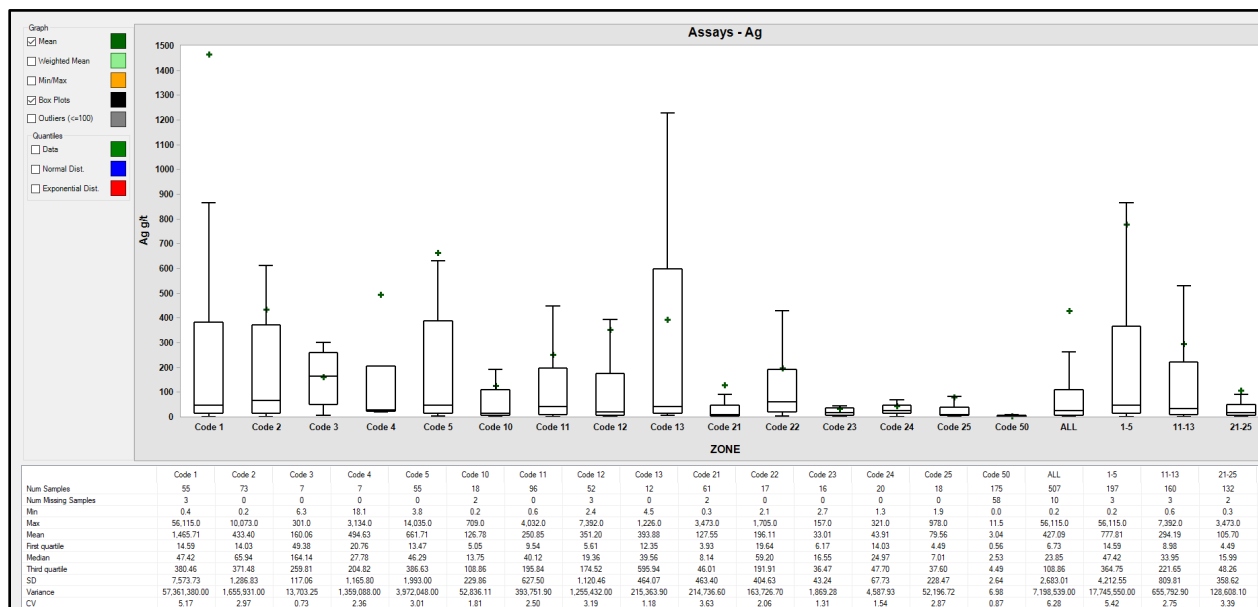
TABLE 14.20 STATISTICS COPPER, LEAD AND ZINC FOR THE CAMP AND SVEINSON VEINS								
Element	Lith Code	Lithology	No.	Interval (m)	Min (%)	Max (%)	Mean (%)	CoV
	All	All	16,130	14,921.10	0	17.82	0.03	6.2
Zn	1	Ag1	69	47.8	0.06	6.77	1.06	1.3
	2	Ag2	67	43.68	0.04	13.43	1.06	1.8
	3	Ag3	7	5.8	0.03	0.61	0.16	1.0
	4	Ag4	7	4.6	0.13	2.47	0.87	0.9
	5	Ag5	54	32	0.16	10.67	1.47	1.2
	8	Ag HW	17	10.4	0.05	1.10	0.31	0.9
	9	Ag HW	4	2.8	0.08	1.71	0.57	1.0
	10	BM Vein	44	29	0.07	18.19	1.29	2.3
	11	BM Vein	10	4.2	0.33	26.15	5.72	1.3
	12	BM Vein	26	16.5	0.01	10.10	1.66	1.5
	13	BM Vein	29	15.8	0.04	16.31	1.46	1.9
	15	BM2	49	29.9	0.07	4.82	1.03	1.2
	16	BM HWFW	6	2.3	0.23	3.87	2.09	0.6
	17	BM HWFW	3	1.3	13.04	15.05	14.12	0.1
	18	BM HWFW	3	1.8	0.68	0.98	0.86	0.2
	20	SE1	13	7.3	0.02	21.79	1.74	2.6
	21	SE2	30	18	0.02	9.84	1.17	2.2
	22	SE3	7	2.9	0.36	2.75	1.10	0.9
	30	SE4	3	1.1	0.34	4.06	2.03	0.9
	31	SE5	7	3.9	1.24	3.24	1.99	0.4
	32	SE6	6	2.4	0.08	11.57	3.09	1.4
	40	SE7	17	9.8	0.07	13.03	2.78	1.3
	50	SE8	22	11.8	0.04	19.80	3.35	1.4
	55	Dykes	17	9.2	0.21	6.62	1.76	1.1
	Total	Total	517	314.28	0.01	26.15	1.46	1.8
	All	All	16,130	14,921.10	0	27.38	0.15	4.2

Source: Kirkham (2022)

Note: CoV = coefficient of variation.

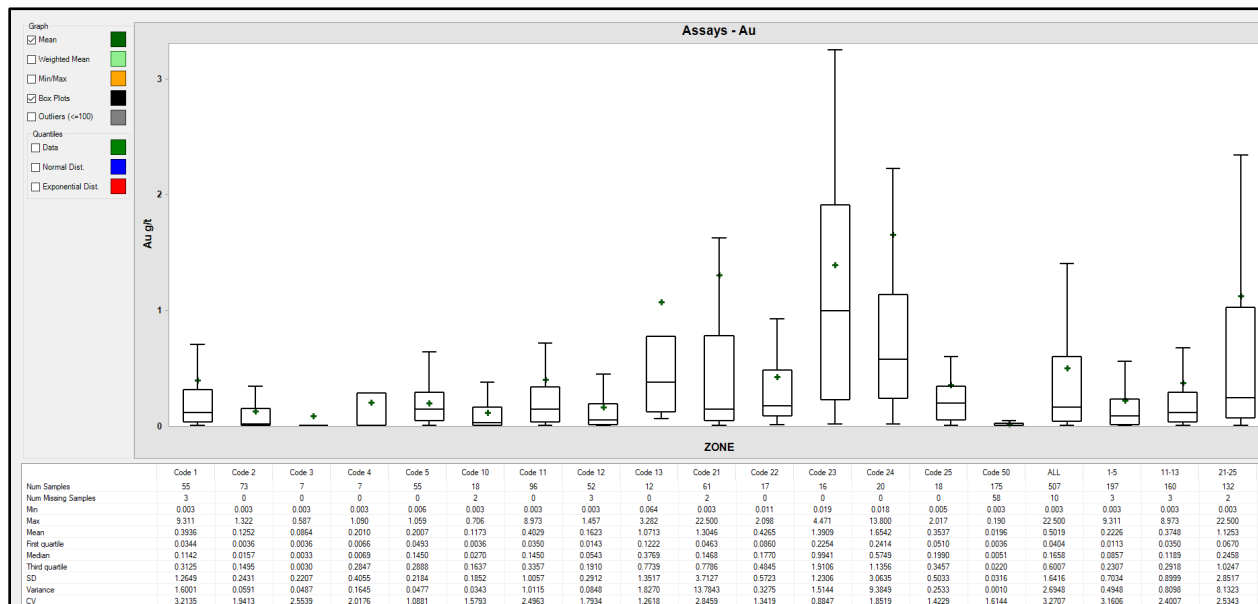
The box plots for each of the metals, assigned by vein and vein set grouping, are shown in Figures 14.8 to 14.12. The purpose of this analysis is to determine whether the vein sets should be estimated as a grouping or individually. As discussed above, the Ag veins exhibit elevated silver grades, whereas the Base Metal and Sveinson Veins are more copper, lead and zinc rich, in addition to gold. However, the figures show that the grade distributions within the vein sets are markedly dissimilar, supporting the strategy of estimating each of the veins separately, whereby the assays from one vein cannot influence or be included during the estimation of neighbouring veins and hard boundaries are being employed.

**FIGURE 14.8 BOX PLOT FOR SILVER BY VEIN**



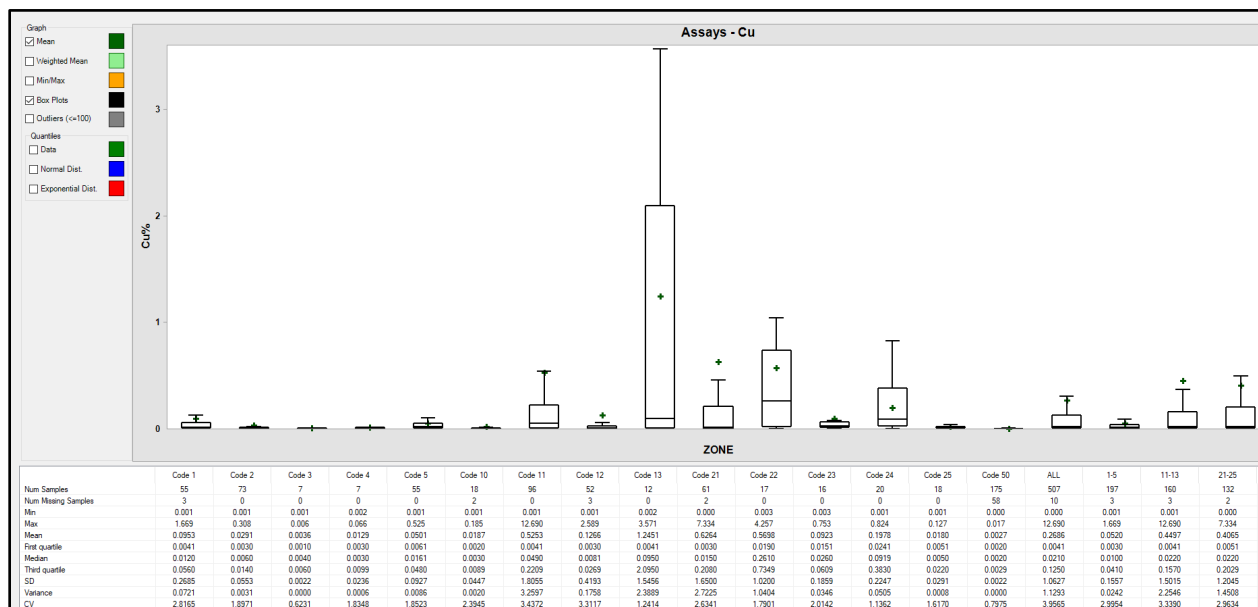
Source: Kirkham (2022)

**FIGURE 14.9 BOX PLOT FOR GOLD BY VEIN**



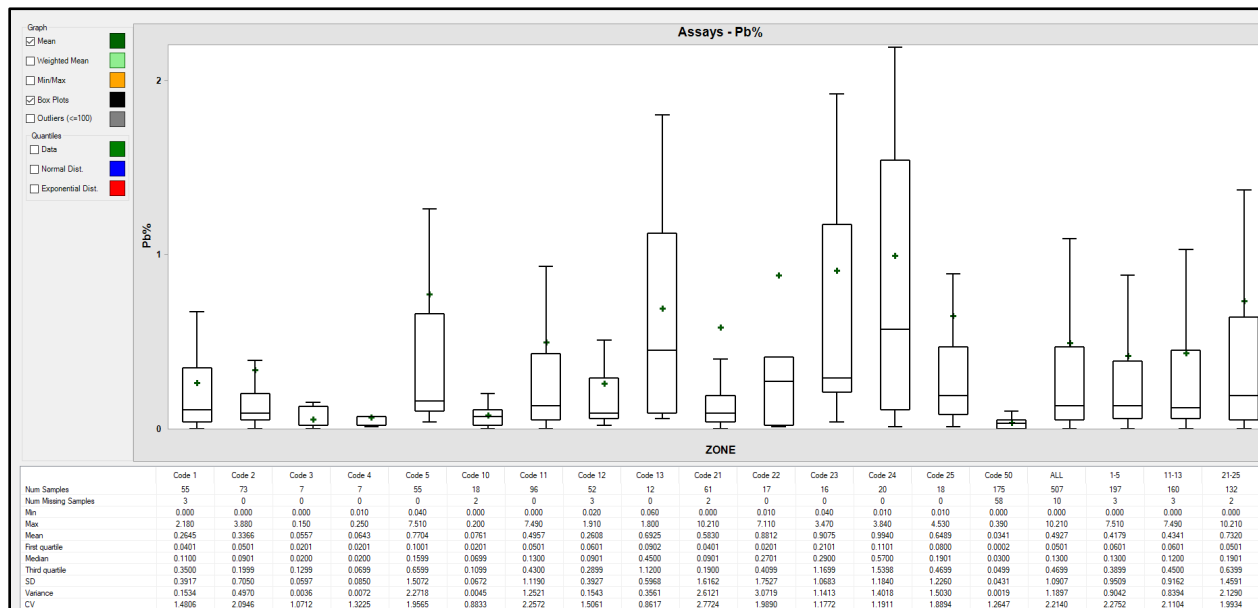
Source: Kirkham (2022)

**FIGURE 14.10 BOX PLOT FOR COPPER BY VEIN**



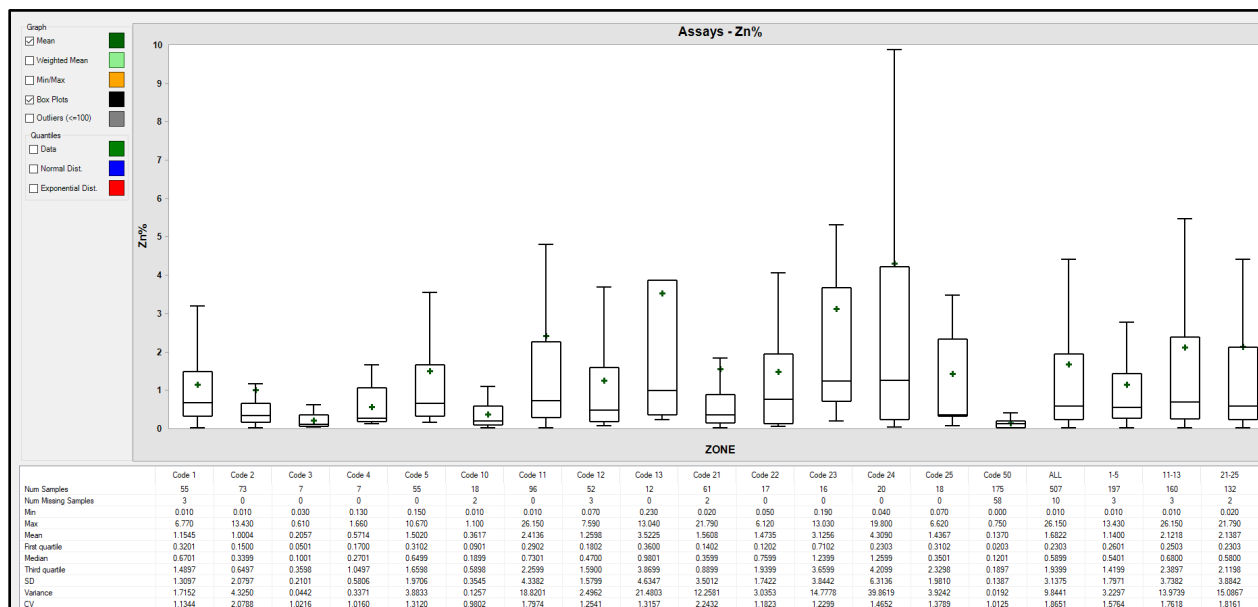
Source: Kirkham (2022)

**FIGURE 14.11 BOX PLOT FOR LEAD BY VEIN**



Source: Kirkham (2022)

**FIGURE 14.12 BOX PLOT FOR ZINC BY VEIN**

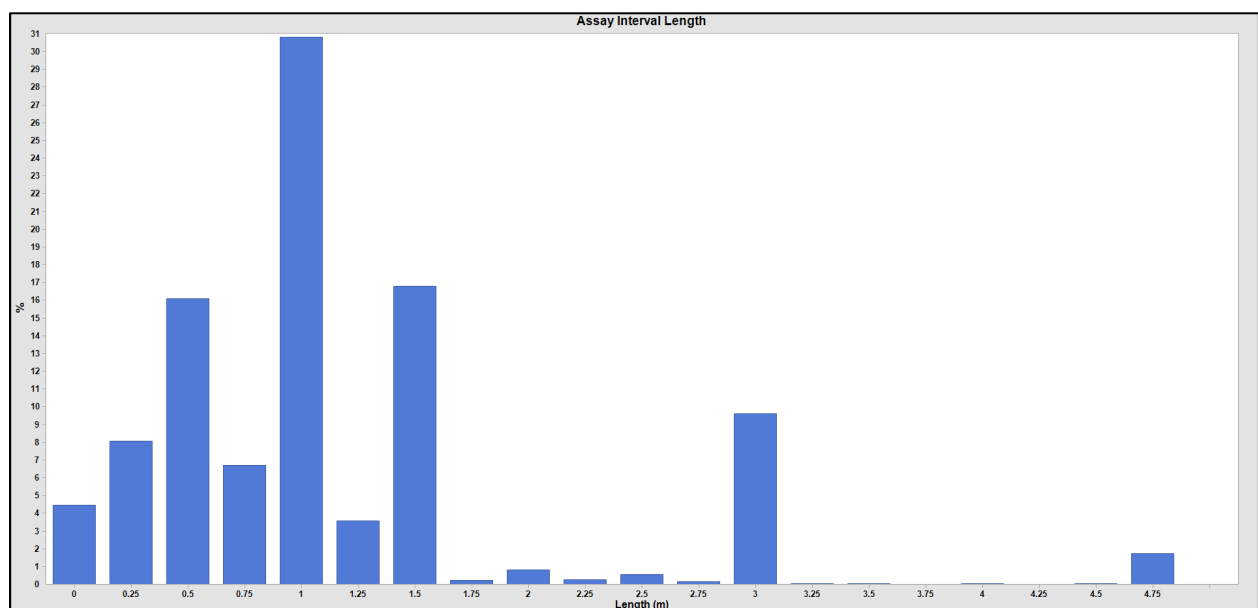


Source: Kirkham (2022)

## 14.2.5 Composites

An analysis of sample lengths illustrates a relatively wide spread of varying lengths with no consistent sample length, which is common for thin veined deposits like this. Figure 14.13 shows that 84% of the samples are less than or equal to 1.5 m in length and 64% are up to 1.0 m in length.

**FIGURE 14.13 ASSAY INTERVAL LENGTHS**



Source: Kirkham (2022)

It appears that a 1.5 m composite length may offer an adequate balance between supplying common support for samples and minimizing the smoothing of the grades with ~84% of the samples within the mineralized zones being <1.51 m in length. However, the 1.5 m sample length may be greater than the approximate minimum mining width and is also the maximum sample length within many of the individual veins as shown in Table 14.21. In addition, the mean lengths are less than 1 m in most cases.

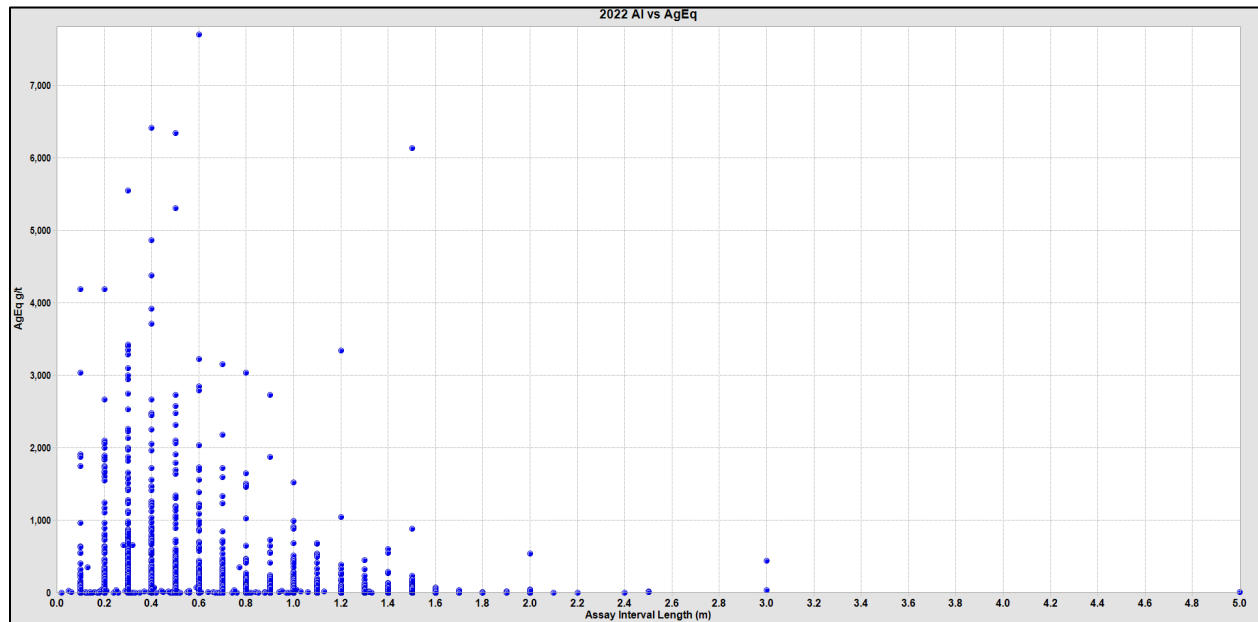
<b>TABLE 14.21</b> <b>ASSAY INTERVAL LENGTH STATISTICS</b>							
<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Interval Length (m)</b>	<b>Min (m)</b>	<b>Max (m)</b>	<b>Mean (m)</b>	<b>CoV</b>
1	Ag1	54	34	0.2	1.5	0.77	0.4
2	Ag2	75	54.7	0.1	1.5	0.92	0.4
3	Ag3	9	8.1	0.1	1.5	1.22	0.3
4	Ag4	8	5.6	0.1	1.2	0.88	0.3
5	Ag5	55	34.3	0.1	1.5	0.83	0.4
8	Ag HW	16	12.8	0.3	3	1.28	0.8
9	Ag HW	9	13.7	0.4	6	3.26	0.7
10	BM Vein	35	22.6	0.1	1.4	0.84	0.4
11	BM Vein	11	5.2	0.1	1	0.65	0.5
12	BM Vein	28	18.1	0.2	1.5	0.87	0.5
13	BM Vein	34	24.1	0.2	3	1.15	0.8
15	BM2	63	43.6	0.1	3	1.01	0.7
16	BM HWFW	10	7.5	0.2	1.5	1.08	0.4
17	BM HWFW	4	2.3	0.1	1	0.76	0.3
18	BM HWFW	4	2.7	0.3	0.9	0.75	0.2
20	SE1	23	19.9	0.3	3	1.27	0.6
21	SE2	29	20	0.1	1.5	0.94	0.4
22	SE3	8	3.4	0.2	0.6	0.47	0.3
30	SE4	6	3.2	0.1	0.9	0.66	0.3
31	SE5	5	2.1	0.3	0.6	0.45	0.3
32	SE6	7	4.3	0.4	1.1	0.70	0.4
40	SE7	19	11.5	0.2	1	0.73	0.4
50	SE8	24	14.1	0.1	1.3	0.77	0.4
55	SE9	20	11.6	0.1	1.1	0.75	0.4
60	Dykes	277	500.9	0.1	26	5.45	1.2
<b>Total</b>	<b>Total</b>	<b>833</b>	<b>880.3</b>	<b>0.1</b>	<b>26</b>	<b>3.53</b>	<b>1.5</b>
<b>All</b>	<b>All</b>	<b>19,143</b>	<b>25,679.5</b>	<b>0.02</b>	<b>78.2</b>	<b>4.37</b>	<b>2.0</b>

*Source:* Kirkham (2022)

*Note:* CoV = coefficient of variation.

It appears as though a small population of very high grades that occur within relatively small intervals may be causing a high-grade bias which is a risk for grade smearing. Figure 14.14 shows a scatterplot with grade versus interval length indicating that the risk exists, and additional smoothing is required. Therefore, an effort must be made to reduce the influence of the extreme grades within relatively small intervals.

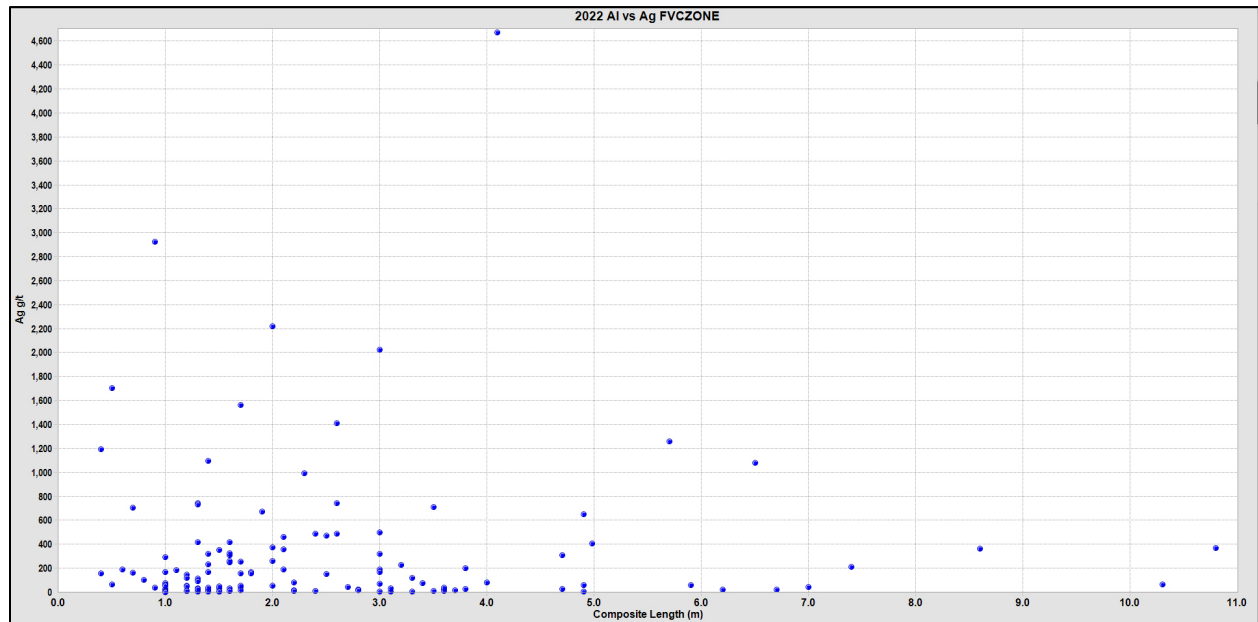
**FIGURE 14.14 ANALYSIS OF GRADE VERSUS ASSAY INTERVAL LENGTHS**



*Source: Kirkham (2022)*

This may be dealt with by increasing the composite length or to composite to the full length of the vein intersection. Figure 14.15 shows the resulting analysis of performing compositing over the full width of the vein versus grade, which shows the grades now being more evenly distributed irrespective of interval length.

**FIGURE 14.15 ANALYSIS OF GRADE VERSUS FULL VEIN COMPOSITE INTERVAL LENGTHS**



*Source: Kirkham (2022)*

Table 14.22 shows the resultant basic statistics for the interval lengths of the full vein composites with the minimum composite length being 0.85 m to a maximum length of 11.3 m. However, only 10 of the 131 full vein composites are greater than 5 m in length. Therefore, the analysis shows that the selection of full vein composites is the preferred methodology for drill hole regularization.

<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Interval (m)</b>	<b>Min (m)</b>	<b>Max (m)</b>	<b>Mean (m)</b>	<b>CoV</b>
1	Ag1	14	50.5	1.4	11.3	5.67	0.6
2	Ag2	13	57.4	0.85	11.1	6.53	0.5
3	Ag3	3	5.8	1.5	2.5	2.01	0.2
4	Ag4	2	3.1	1.3	1.8	1.59	0.2
5	Ag5	9	36.1	1.27	10.3	6.01	0.5
8	Ag HW	6	9.1	1.05	2	1.57	0.2
9	Ag HW	3	6.8	1.8	3.1	2.41	0.2
10	BM Vein	11	21.7	0.9	3.7	2.38	0.4
11	BM Vein	3	5.2	1.2	2.7	2.00	0.4
12	BM Vein	7	14.8	1.07	3.3	2.40	0.3
13	BM Vein	8	19.5	1	8.6	4.71	0.7
15	BM2	12	36.3	1.02	7.0	4.25	0.5
16	BM HWFW	2	4.5	1.74	2.8	2.39	0.2

TABLE 14.22 FULL VEIN COMPOSITE LENGTH STATISTICS							
Lith Code	Lithology	No.	Interval (m)	Min (m)	Max (m)	Mean (m)	CoV
17	BM HWFW	1	1.4	1.35	1.4	1.35	0
18	BM HWFW	1	2.01	2.01	2.0	2.01	0
20	SE1	3	14.3	1.5	10.4	8.08	0.5
21	SE2	8	17.8	0.95	4.7	3.05	0.5
22	SE3	5	9.8	1.55	2.4	2.01	0.1
30	SE4	2	2.7	1.2	1.5	1.34	0.1
31	SE5	2	2.4	1	1.4	1.25	0.2
32	SE6	2	3.9	1.09	2.8	2.32	0.3
40	SE7	3	9.7	1.8	5.3	3.92	0.4
50	SE8	6	12.2	1.03	3.8	2.49	0.4
55	SE9	5	10.6	0.98	3.6	2.57	0.4
<b>Total</b>	<b>Total</b>	<b>131</b>	<b>357.6</b>	<b>0.85</b>	<b>11.3</b>	<b>4.44</b>	<b>0.7</b>
<b>All</b>	<b>All</b>	<b>1,224</b>	<b>361.8</b>	<b>0</b>	<b>11.3</b>	<b>4.41</b>	<b>0.7</b>

Source: Kirkham (2022)

Note: CoV = coefficient of variation.

Table 14.23 and Table 14.24 shows the basic statistics for the full vein composite grades within the mineralized domains shows that the grades are adequately smoothed and that the compositing was successful in partially reducing the effect of extreme outliers. In addition, the full vein compositing has much reduced the CoVs or variability that was being exhibited within the assay data. However, it is clear that additional grade limiting is required by way of cutting outlier composites.

TABLE 14.23 COMPOSITE STATISTICS FOR SILVER AND GOLD WEIGHTED BY LENGTH								
Element	Lith Code	Lithology	No.	Length (m)	Min (g/t)	Max (g/t)	Mean (g/t)	CoV
Ag	1	Ag1	14	50.54	7.6	4,624.7	790.67	1.6
	2	Ag2	13	57.4	0.4	2,217.8	389.42	1.2
	3	Ag3	3	5.75	49.1	173.2	131.61	0.4
	4	Ag4	2	3.1	200.3	745.6	428.97	0.6
	5	Ag5	9	36.13	19.4	1,050.2	505.79	0.7
	8	Ag HW	6	9.07	0.1	339.4	134.68	0.9
	9	Ag HW	3	6.8	0.2	174.8	112.35	0.7
	10	BM Vein	11	21.69	6	320	68.29	1.1
	11	BM Vein	3	5.15	110.9	687.1	252.18	1.0
	12	BM Vein	7	14.83	3.4	2,091.1	625.12	1.3
	13	BM Vein	8	19.5	4.7	360.9	209.43	0.7



**TABLE 14.23**  
**COMPOSITE STATISTICS FOR SILVER AND GOLD WEIGHTED BY LENGTH**

Element	Lith Code	Lithology	No.	Length (m)	Min (g/t)	Max (g/t)	Mean (g/t)	CoV
	15	BM2	12	36.32	8.3	1,273.5	278.34	1.6
	16	BM HWFW	2	4.54	191.7	233.7	207.80	0.1
	17	BM HWFW	1	1.35	416.5	416.5	416.50	
	18	BM HWFW	1	2.01	155.3	155.3	155.30	0.0
	20	SE1	3	14.27	3.4	150.6	112.73	0.5
	21	SE2	8	17.81	25.1	273.1	70.05	1.0
	22	SE3	5	9.81	12.8	232.4	62.49	1.3
	30	SE4	2	2.65	71.5	801.8	402.20	0.9
	31	SE5	2	2.43	71.8	166.2	127.35	0.4
	32	SE6	2	3.89	22.8	198.7	72.09	1.1
	40	SE7	3	9.71	9.7	78.7	29.67	0.8
	50	SE8	6	12.2	16.3	120.2	41.96	0.8
	55	Dykes	5	10.62	6	282.5	69.12	1.3
	<b>Total</b>	<b>Total</b>	<b>131</b>	<b>357.57</b>	<b>0.1</b>	<b>4,624.7</b>	<b>333.86</b>	<b>1.9</b>
	<b>All</b>	<b>All</b>	<b>134</b>	<b>361.81</b>	<b>0.1</b>	<b>4,624.7</b>	<b>330.34</b>	<b>1.9</b>
Au	1	Ag1	14	50.54	0.01	1.75	0.41	1.4
	2	Ag2	13	57.4	0	0.5	0.14	1.2
	3	Ag3	3	5.75	0	0.11	0.03	1.5
	4	Ag4	2	3.1	0	0.47	0.20	1.2
	5	Ag5	9	36.13	0.06	0.37	0.20	0.5
	8	Ag HW	6	9.07	0	0.45	0.14	1.1
	9	Ag HW	3	6.8	0	0.1	0.05	0.7
	10	BM Vein	11	21.69	0.03	0.56	0.22	0.7
	11	BM Vein	3	5.15	0.05	0.67	0.23	1.1
	12	BM Vein	7	14.83	0.07	2.4	0.94	0.9
	13	BM Vein	8	19.5	0.01	0.27	0.20	0.5
	15	BM2	12	36.32	0.02	0.43	0.15	0.7
	16	BM HWFW	2	4.54	0.65	1.03	0.88	0.2
	17	BM HWFW	1	1.35	0.6	0.6	0.60	0.0
	18	BM HWFW	1	2.01	0.44	0.44	0.44	0.0
	20	SE1	3	14.27	0.07	1.27	0.97	0.5
	21	SE2	8	17.81	0.04	17.46	1.92	2.2
	22	SE3	5	9.81	0.08	1.82	0.91	0.8
	30	SE4	2	2.65	0.35	1.03	0.66	0.5
	31	SE5	2	2.43	0.16	0.34	0.23	0.4
	32	SE6	2	3.89	0.13	0.77	0.31	0.9
	40	SE7	3	9.71	0.49	1.91	1.41	0.4

<p align="center"><b>TABLE 14.23</b> <b>COMPOSITE STATISTICS FOR SILVER AND GOLD WEIGHTED BY LENGTH</b></p>								
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Length (m)</b>	<b>Min (g/t)</b>	<b>Max (g/t)</b>	<b>Mean (g/t)</b>	<b>CoV</b>
	50	SE8	6	12.2	0.52	5.12	1.33	1.1
	55	Dykes	5	10.62	0.02	0.78	0.35	0.5
	<b>Total</b>	<b>Total</b>	<b>131</b>	<b>357.57</b>	<b>0</b>	<b>17.46</b>	<b>0.47</b>	<b>2.4</b>
	<b>All</b>	<b>All</b>	<b>134</b>	<b>361.81</b>	<b>0</b>	<b>17.46</b>	<b>0.46</b>	<b>2.5</b>

*Source: Kirkham (2022)*

*Note: CoV = coefficient of variation.*

<p align="center"><b>TABLE 14.24</b> <b>COMPOSITE STATISTICS FOR COPPER, LEAD AND ZINC</b> <b>WEIGHTED BY LENGTH</b></p>								
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Length (m)</b>	<b>Min (%)</b>	<b>Max (%)</b>	<b>Mean (%)</b>	<b>CoV</b>
Cu	1	Ag1	14	50.54	0.002	0.72	0.06	1.9
	2	Ag2	13	57.4	0.003	0.106	0.03	1.2
	3	Ag3	3	5.75	0.002	0.004	0.00	0.2
	4	Ag4	2	3.1	0.015	0.017	0.02	0.1
	5	Ag5	9	36.13	0.007	0.117	0.05	0.7
	8	Ag HW	6	9.07	0.001	0.036	0.01	0.9
	9	Ag HW	3	6.8	0.003	0.098	0.03	1.3
	10	BM Vein	11	21.69	0.002	0.154	0.02	1.7
	11	BM Vein	3	5.15	0.097	0.3	0.18	0.4
	12	BM Vein	7	14.83	0.006	5.917	1.90	1.2
	13	BM Vein	8	19.5	0.032	0.776	0.41	0.8
	15	BM2	12	36.32	0.006	0.641	0.09	1.1
	16	BM HWFW	2	4.54	0.41	0.955	0.75	0.4
	17	BM HWFW	1	1.35	1.923	1.923	1.92	
	18	BM HWFW	1	2.01	0.011	0.011	0.01	0.0
	20	SE1	3	14.27	0.011	0.232	0.17	0.6
	21	SE2	8	17.81	0.006	2.309	0.33	2.0
	22	SE3	5	9.81	0.042	3.254	0.70	1.6
	30	SE4	2	2.65	0.307	2.141	1.14	0.8
	31	SE5	2	2.43	0.019	0.545	0.33	0.8
	32	SE6	2	3.89	0.02	0.521	0.16	1.4
	40	SE7	3	9.71	0.028	0.302	0.08	1.3
	50	SE8	6	12.2	0.033	0.461	0.17	0.8
	55	Dykes	5	10.62	0.003	0.048	0.01	0.8

**TABLE 14.24**  
**COMPOSITE STATISTICS FOR COPPER, LEAD AND ZINC**  
**WEIGHTED BY LENGTH**

Element	Lith Code	Lithology	No.	Length (m)	Min (%)	Max (%)	Mean (%)	CoV
	<b>Total</b>	<b>Total</b>	<b>131</b>	<b>357.57</b>	<b>0.001</b>	<b>5.917</b>	<b>0.21</b>	<b>3.2</b>
	<b>All</b>	<b>All</b>	<b>134</b>	<b>361.81</b>	<b>0.001</b>	<b>5.917</b>	<b>0.21</b>	<b>3.2</b>
Pb	1	Ag1	14	50.54	0.04	0.69	0.26	0.8
	2	Ag2	13	57.4	0	1.22	0.37	1.1
	3	Ag3	3	5.75	0.01	0.13	0.05	1.1
	4	Ag4	2	3.1	0.02	0.11	0.06	0.8
	5	Ag5	9	36.13	0.1	2.31	0.65	0.9
	8	Ag HW	6	9.07	0	0.19	0.08	0.7
	9	Ag HW	3	6.8	0	0.08	0.05	0.7
	10	BM Vein	11	21.69	0.11	2.32	0.64	1.0
	11	BM Vein	3	5.15	0.09	0.65	0.24	1.0
	12	BM Vein	7	14.83	0.03	0.41	0.21	0.6
	13	BM Vein	8	19.5	0.02	0.72	0.36	0.8
	15	BM2	12	36.32	0.07	0.89	0.25	0.8
	16	BM HWFW	2	4.54	0.25	0.39	0.34	0.2
	17	BM HWFW	1	1.35	0.61	0.61	0.61	
	18	BM HWFW	1	2.01	0.94	0.94	0.94	0.0
	20	SE1	3	14.27	0.01	0.33	0.28	0.3
	21	SE2	8	17.81	0.04	5.96	0.84	1.8
	22	SE3	5	9.81	0.05	0.32	0.14	0.7
	30	SE4	2	2.65	0.09	0.78	0.40	0.9
	31	SE5	2	2.43	0.02	1.42	0.60	1.2
	32	SE6	2	3.89	0.36	3.57	1.26	1.1
	40	SE7	3	9.71	0.93	0.96	0.95	0.0
	50	SE8	6	12.2	0.18	1.37	0.86	0.5
	55	Dykes	5	10.62	0.16	1.73	0.69	0.8
	<b>Total</b>	<b>Total</b>	<b>131</b>	<b>357.57</b>	<b>0</b>	<b>5.96</b>	<b>0.43</b>	<b>1.3</b>
	<b>All</b>	<b>All</b>	<b>134</b>	<b>361.81</b>	<b>0</b>	<b>5.96</b>	<b>0.42</b>	<b>1.3</b>
Zn	1	Ag1	14	50.54	0.25	2.21	1.27	0.4
	2	Ag2	13	57.4	0.01	3.63	1.00	0.9
	3	Ag3	3	5.75	0.05	0.4	0.16	1.0
	4	Ag4	2	3.1	0.81	1.56	1.25	0.3
	5	Ag5	9	36.13	0.64	2.21	1.63	0.3
	8	Ag HW	6	9.07	0.02	0.8	0.34	0.7
	9	Ag HW	3	6.8	0.01	0.54	0.31	0.7
	10	BM Vein	11	21.69	0.41	7.33	1.86	1.0

<p align="center"><b>TABLE 14.24</b>  <b>COMPOSITE STATISTICS FOR COPPER, LEAD AND ZINC</b>  <b>WEIGHTED BY LENGTH</b></p>								
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Length (m)</b>	<b>Min (%)</b>	<b>Max (%)</b>	<b>Mean (%)</b>	<b>CoV</b>
	11	BM Vein	3	5.15	1.11	9.27	4.53	0.8
	12	BM Vein	7	14.83	0.15	3.88	1.90	0.7
	13	BM Vein	8	19.5	0.15	2.89	1.24	0.6
	15	BM2	12	36.32	0.19	2.48	1.06	0.6
	16	BM HWFW	2	4.54	0.83	1.14	1.02	0.1
	17	BM HWFW	1	1.35	14.13	14.13	14.13	0.0
	18	BM HWFW	1	2.01	1.82	1.82	1.82	0.0
	20	SE1	3	14.27	0.07	1.27	1.07	0.4
	21	SE2	8	17.81	0.12	7.62	1.47	1.4
	22	SE3	5	9.81	0.25	1.22	0.74	0.5
	30	SE4	2	2.65	0.2	2.01	1.02	0.9
	31	SE5	2	2.43	0.12	6.73	2.84	1.1
	32	SE6	2	3.89	1.57	3.1	2.00	0.3
	40	SE7	3	9.71	1.27	4.25	2.88	0.4
	50	SE8	6	12.2	1.34	5.65	3.35	0.4
	55	Dykes	5	10.62	0.24	2.72	1.62	0.5
	<b>Total</b>	<b>Total</b>	<b>131</b>	<b>357.57</b>	<b>0.01</b>	<b>14.13</b>	<b>1.47</b>	<b>1.0</b>
	<b>All</b>	<b>All</b>	<b>134</b>	<b>361.81</b>	<b>0.01</b>	<b>14.13</b>	<b>1.45</b>	<b>1.0</b>

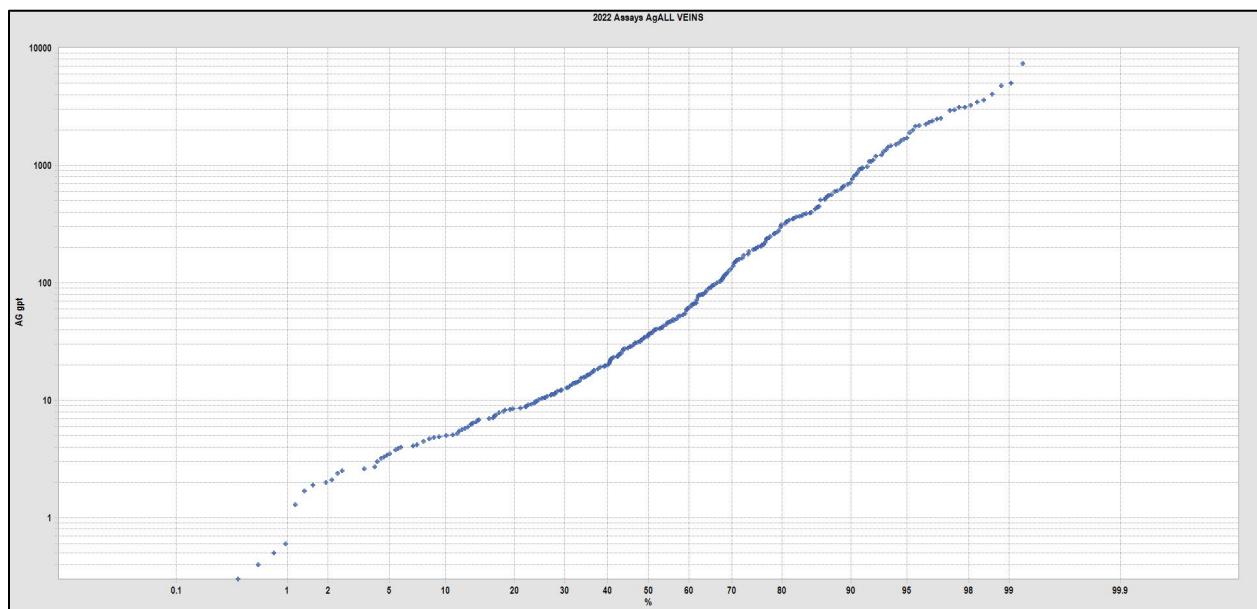
*Source:* Kirkham (2022)

*Note:* CoV = coefficient of variation.

#### 14.2.6 Evaluation of Outlier Assay Values

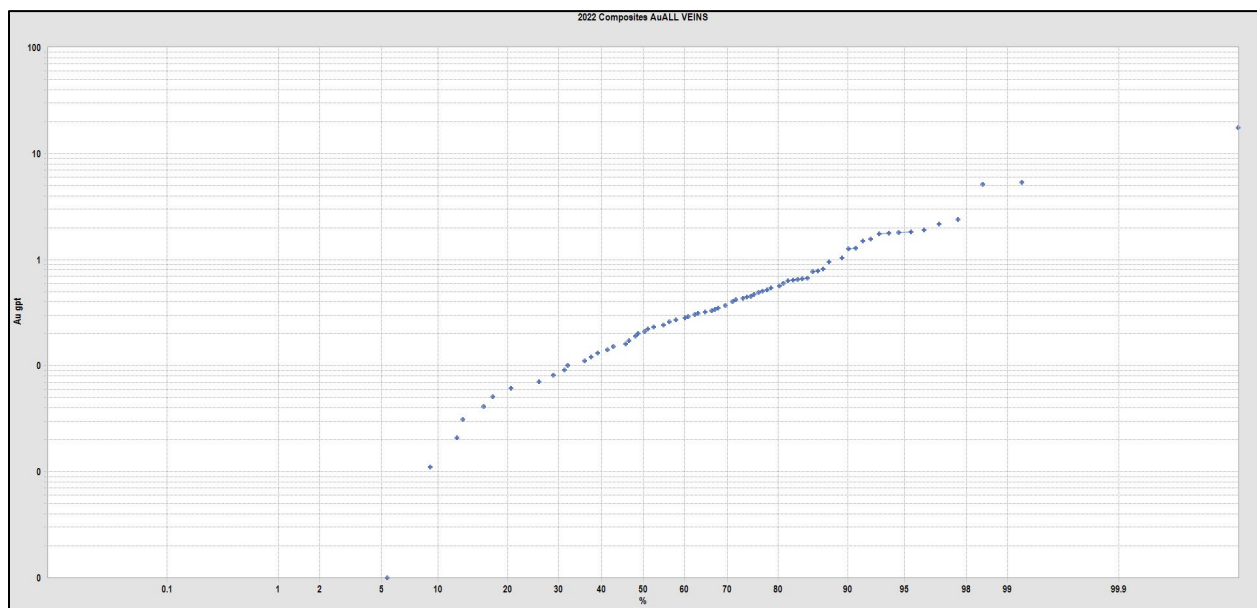
An evaluation of the probability plots, as shown in Figures 14.16 through 14.20, for each of the metals, suggests that there may be outlier assay values that could result in an overestimation of Mineral Resources. The industry accepted methodology entails evaluating the cumulative probability plots for the existence of high-grade sub-populations. This is done by identifying “breaks” or changes in slope in the upper decile on the cumulative probability plot. These sub-populations may be assumed to be due to outliers that require limiting strategies such as cutting.

**FIGURE 14.16 CUMULATIVE PROBABILITY PLOT FOR AG COMPOSITES**



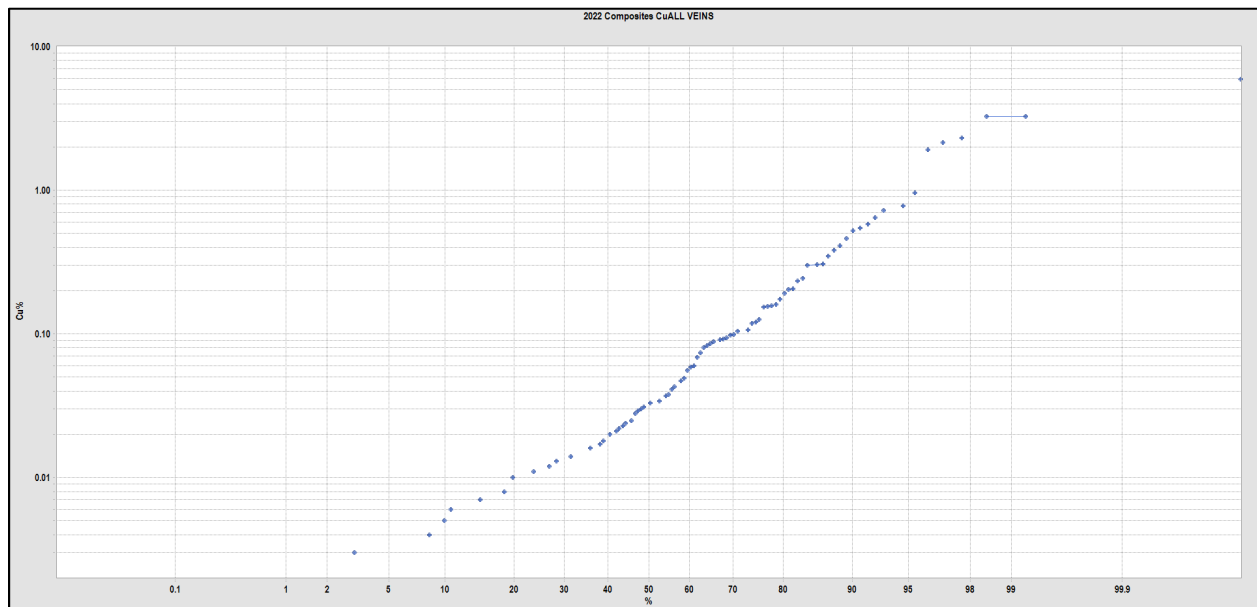
*Source: Kirkham (2022)*

**FIGURE 14.17 CUMULATIVE PROBABILITY PLOT FOR AU COMPOSITES**



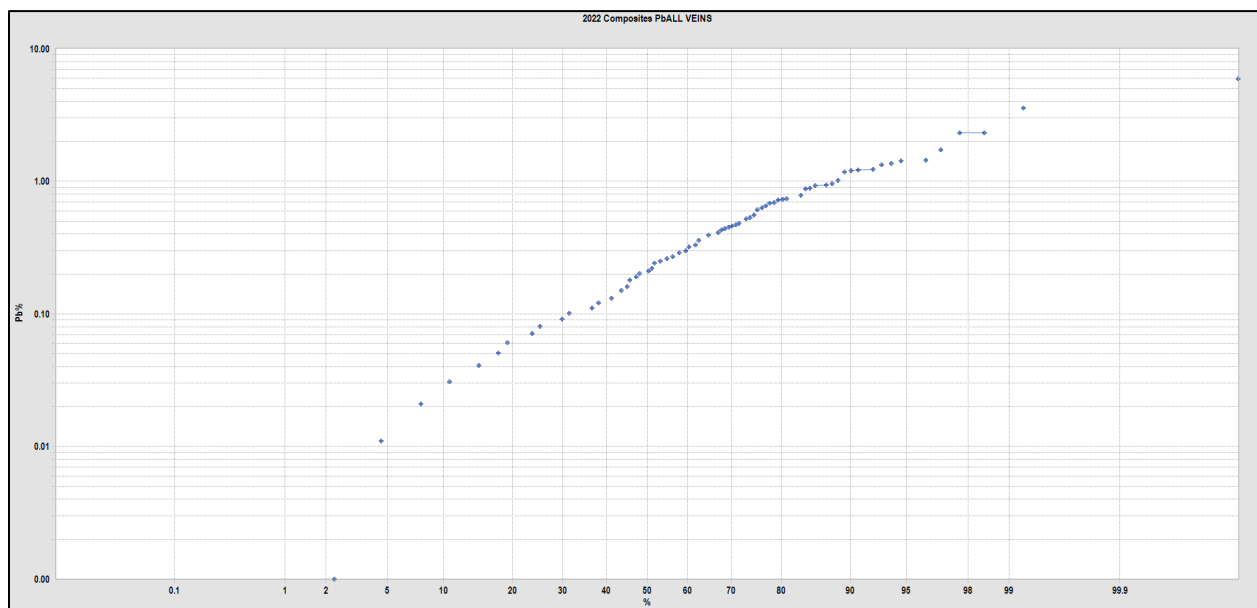
*Source: Kirkham (2022)*

**FIGURE 14.18 CUMULATIVE PROBABILITY PLOT FOR CU COMPOSITES**



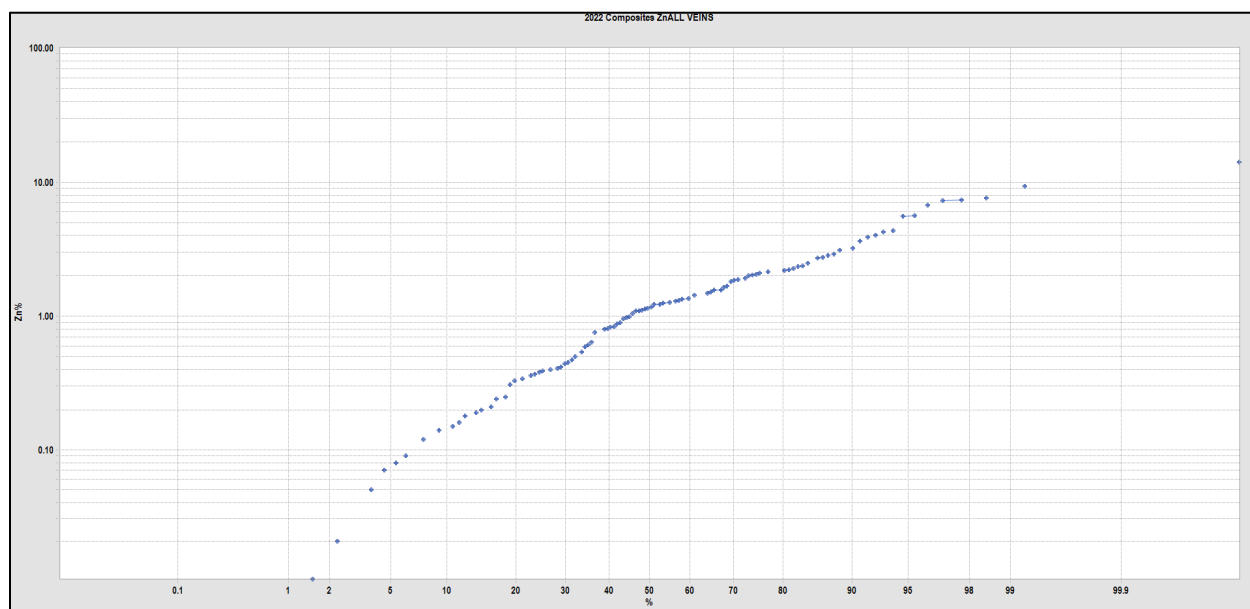
*Source: Kirkham (2022)*

**FIGURE 14.19 CUMULATIVE PROBABILITY PLOT FOR Pb COMPOSITES**



*Source: Kirkham (2022)*

**FIGURE 14.20 CUMULATIVE PROBABILITY PLOT FOR ZN COMPOSITES**



*Source: Kirkham (2022)*

As previously discussed, the CoVs, which are a unit independent measure of variability, were relatively high for the assay data. This may be mitigated or resolved by: 1) compositing, as performed and discussed above; and 2) cutting or grade limiting. A review of the cumulative probability plots for each of the metals with each of the vein groupings (i.e., Ag Veins, BM Veins and Sveinson Veins) demonstrated “breaks”, which are tabulated in Table 14.25.

<b>TABLE 14.25</b> <b>OUTLIER COMPOSITE CUTTING GRADE THRESHOLDS</b> <b>BY ZONE</b>			
<b>Domain</b>	<b>Metal</b>	<b>CAP</b>	<b>Measurement</b>
Silver Veins	Ag	2,000	g/t
BM Veins		1,500	g/t
Sveinson Veins		250	g/t
Silver Veins	Au	0.6	g/t
BM Veins		1.5	g/t
Sveinson Veins		6	g/t
Silver Veins	Cu	1	%
BM Veins		2.5	%
Sveinson Veins		1.5	%
Silver Veins	Pb	1.5	%
BM Veins		1.5	%
Sveinson Veins		2	%
Silver Veins	Zn	no cut	%

<b>TABLE 14.25</b> <b>OUTLIER COMPOSITE CUTTING GRADE THRESHOLDS</b> <b>BY ZONE</b>			
<b>Domain</b>	<b>Metal</b>	<b>CAP</b>	<b>Measurement</b>
BM Veins		10	%
Sveinson Veins		6	%

*Source: Kirkham (2022)*

*Note: CAP = capping value.*

Table 14.26 and Table 14.27 illustrates the effect of compositing and then cut composites along with the reduction in average grade and corresponding CoV. The results show that the treatment of the outlier grades by way of performing full vein compositing and then cutting the outlier grade populations has been successful as evidenced by the reduction in variability shown in the change to the CoVs.



<p align="center"><b>TABLE 14.26</b> <b>OUTLIER COMPOSITE CUTTING ANALYSIS FOR AG AND AU</b></p>										
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>Max (g/t)</b>	<b>Mean (g/t)</b>	<b>CoV</b>	<b>Max (g/t)</b>	<b>Mean (g/t)</b>	<b>CoV</b>	<b>Diff Mean (%)</b>	<b>Diff CoV (%)</b>
Ag	1	Ag1	4,624.70	790.67	1.6	2,000	543.78	1.0	-31%	-35%
	2	Ag2	2,217.80	389.42	1.2	2,000	381.83	1.1	-2%	-5%
	3	Ag3	173.2	131.61	0.4	173.2	131.61	0.4	0%	0%
	4	Ag4	745.6	428.97	0.6	745.6	428.97	0.6	0%	0%
	5	Ag5	1,050.20	505.79	0.7	1,050.20	505.787	0.7	0%	0%
	8	Ag HW	339.4	134.68	0.9	339.4	134.679	0.9	0%	0%
	9	Ag HW	174.8	112.35	0.7	174.8	112.35	0.7	0%	0%
	10	BM Vein	320	68.29	1.1	320	68.29	1.1	0%	0%
	11	BM Vein	687.1	252.18	1.0	687.1	252.176	1.0	0%	0%
	12	BM Vein	2,091.10	625.12	1.3	1,500	505.54	1.2	-19%	-9%
	13	BM Vein	360.9	209.43	0.7	360.9	209.43	0.7	0%	0%
	15	BM2	1,273.50	278.34	1.6	1,273.50	278.34	1.6	0%	0%
	16	BM HWFW	233.7	207.80	0.1	233.7	207.797	0.1	0%	0%
	17	BM HWFW	416.5	416.50		416.5	416.5	0.0	0%	
	18	BM HWFW	155.3	155.30	0.0	155.3	155.3	0.0	0%	
	20	SE1	150.6	112.73	0.5	150.6	112.725	0.5	0%	0%
	21	SE2	273.1	70.05	1.0	273.1	70.049	1.0	0%	0%
	22	SE3	232.4	62.49	1.3	232.4	62.49	1.3	0%	0%
	30	SE4	801.8	402.20	0.9	250	152.33	0.6	-62%	-36%
	31	SE5	166.2	127.35	0.4	166.2	127.35	0.4	0%	0%
	32	SE6	198.7	72.09	1.1	198.7	72.088	1.1	0%	0%
	40	SE7	78.7	29.67	0.8	78.7	29.669	0.8	0%	0%
	50	SE8	120.2	41.96	0.8	120.2	41.958	0.8	0%	0%
	55	Dykes	282.5	69.12	1.3	250	64.22	1.2	-7%	-6%

<p style="text-align: center;"><b>TABLE 14.26</b> <b>OUTLIER COMPOSITE CUTTING ANALYSIS FOR AG AND AU</b></p>										
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>Max (g/t)</b>	<b>Mean (g/t)</b>	<b>CoV</b>	<b>Max (g/t)</b>	<b>Mean (g/t)</b>	<b>CoV</b>	<b>Diff Mean (%)</b>	<b>Diff CoV (%)</b>
	<b>Total</b>	<b>Total</b>	4,624.70	333.86	1.9	2,000	290.79	1.4	<b>-13%</b>	<b>-26%</b>
	<b>All</b>	<b>All</b>	4,624.70	330.34	1.9	2,000	287.77	1.4	<b>-13%</b>	<b>-26%</b>
<b>Au</b>	<b>1</b>	Ag1	1.75	0.41	1.4	0.6	0.237	0.9	<b>-42%</b>	<b>-39%</b>
	<b>2</b>	Ag2	0.5	0.14	1.2	0.5	0.14	1.2	0%	0%
	<b>3</b>	Ag3	0.11	0.03	1.5	0.11	0.0335	1.5	0%	0%
	<b>4</b>	Ag4	0.47	0.20	1.2	0.47	0.197	1.2	0%	0%
	<b>5</b>	Ag5	0.37	0.20	0.5	0.37	0.2007	0.5	0%	0%
	<b>8</b>	Ag HW	0.45	0.14	1.1	0.45	0.1387	1.1	0%	0%
	<b>9</b>	Ag HW	0.1	0.05	0.7	0.1	0.0536	0.7	0%	0%
	<b>10</b>	BM Vein	0.56	0.22	0.7	0.56	0.220	0.7	0%	0%
	<b>11</b>	BM Vein	0.67	0.23	1.1	0.67	0.2319	1.1	0%	0%
	<b>12</b>	BM Vein	2.4	0.94	0.9	1.5	0.747	0.8	<b>-21%</b>	<b>-13%</b>
	<b>13</b>	BM Vein	0.27	0.20	0.5	0.27	0.195	0.5	0%	0%
	<b>15</b>	BM2	0.43	0.15	0.7	0.43	0.1526	0.7	0%	0%
	<b>16</b>	BM HWWF	1.03	0.88	0.2	1.03	0.884	0.2	0%	0%
	<b>17</b>	BM HWWF	0.6	0.60	0.0	0.6	0.6	0.0	0%	
	<b>18</b>	BM HWWF	0.44	0.44	0.0	0.44	0.44	0.0	0%	
	<b>20</b>	SE1	1.27	0.97	0.5	1.27	0.969	0.5	0%	0%
	<b>21</b>	SE2	17.46	1.92	2.2	1.5	0.5739	1.0	<b>-70%</b>	<b>-53%</b>
	<b>22</b>	SE3	1.82	0.91	0.8	1.5	0.7907	0.8	<b>-13%</b>	<b>-7%</b>
	<b>30</b>	SE4	1.03	0.66	0.5	1.03	0.6579	0.5	0%	0%
	<b>31</b>	SE5	0.34	0.23	0.4	0.34	0.234	0.4	0%	0%
	<b>32</b>	SE6	0.77	0.31	0.9	0.77	0.309	0.9	0%	0%
	<b>40</b>	SE7	1.91	1.41	0.4	1.91	1.4086	0.4	0%	0%
	<b>50</b>	SE8	5.12	1.33	1.1	5.12	1.3318	1.1	0%	0%

<p align="center"><b>TABLE 14.26</b> <b>OUTLIER COMPOSITE CUTTING ANALYSIS FOR AG AND AU</b></p>										
Element	Lith Code	Lithology	Max (g/t)	Mean (g/t)	CoV	Max (g/t)	Mean (g/t)	CoV	Diff Mean (%)	Diff CoV (%)
	<b>55</b>	Dykes	0.78	0.35	0.5	0.78	0.345	0.5	0%	0%
	<b>Total</b>	<b>Total</b>	17.46	0.47	2.4	5.12	0.3663	1.4	<b>-22%</b>	<b>-41%</b>
	<b>All</b>	<b>All</b>	17.46	0.46	2.5	5.12	0.3634	1.4	<b>-22%</b>	<b>-41%</b>

*Source: Kirkham (2022)*

*Note: CoV = coefficient of variation.*

<p align="center"><b>TABLE 14.27</b> <b>OUTLIER COMPOSITE CUTTING ANALYSIS FOR CU%, PB% AND ZN%</b></p>										
Element	Lith Code	Lithology	Max (%)	Mean (%)	CoV	Max (%)	Mean (%)	CoV	Diff Mean (%)	Diff CoV (%)
Cu	<b>1</b>	Ag1	0.72	0.06	1.9	0.72	0.062	1.9	0%	0%
	<b>2</b>	Ag2	0.106	0.03	1.2	0.106	0.032	1.2	0%	0%
	<b>3</b>	Ag3	0.004	0.00	0.2	0.004	0.003	0.2	0%	0%
	<b>4</b>	Ag4	0.017	0.02	0.1	0.017	0.0158	0.1	0%	0%
	<b>5</b>	Ag5	0.117	0.05	0.7	0.117	0.047	0.7	0%	0%
	<b>8</b>	Ag HW	0.036	0.01	0.9	0.036	0.013	0.9	0%	0%
	<b>9</b>	Ag HW	0.098	0.03	1.3	0.098	0.031	1.3	0%	0%
	<b>10</b>	BM Vein	0.154	0.02	1.7	0.154	0.0227	1.7	0%	0%
	<b>11</b>	BM Vein	0.3	0.18	0.4	0.3	0.177	0.4	0%	0%
	<b>12</b>	BM Vein	5.917	1.90	1.2	2.5	1.0837	1.0	<b>-43%</b>	<b>-16%</b>
	<b>13</b>	BM Vein	0.776	0.41	0.8	0.776	0.4107	0.8	0%	0%
	<b>15</b>	BM2	0.641	0.09	1.1	0.641	0.093	1.1	0%	0%
	<b>16</b>	BM HWFW	0.955	0.75	0.4	0.955	0.746	0.4	0%	0%

**TABLE 14.27**  
**OUTLIER COMPOSITE CUTTING ANALYSIS FOR CU%, PB% AND ZN%**

Element	Lith Code	Lithology	Max (%)	Mean (%)	CoV	Max (%)	Mean (%)	CoV	Diff Mean (%)	Diff CoV (%)
	17	BM HWFW	1.923	1.92		1.923	1.923	0.0	0%	
	18	BM HWFW	0.011	0.01	0.0	0.011	0.011	0.0	0%	
	20	SE1	0.232	0.17	0.6	0.232	0.172	0.6	0%	0%
	21	SE2	2.309	0.33	2.0	2.309	0.3302	2.0	0%	0%
	22	SE3	3.254	0.70	1.6	2.5	0.5766	1.5	-17%	-8%
	30	SE4	2.141	1.14	0.8	1.5	0.8472	0.7	-26%	-13%
	31	SE5	0.545	0.33	0.8	0.545	0.3285	0.8	0%	0%
	32	SE6	0.521	0.16	1.4	0.521	0.1604	1.4	0%	0%
	40	SE7	0.302	0.08	1.3	0.302	0.083	1.3	0%	0%
	50	SE8	0.461	0.17	0.8	0.461	0.1749	0.8	0%	0%
	55	Dykes	0.048	0.01	0.8	0.048	0.014	0.8	0%	0%
	Total	Total	5.917	0.21	3.2	2.5	0.175	2.4	-18%	-24%
	All	All	5.917	0.21	3.2	2.5	0.174	2.4	-18%	-24%
Pb	1	Ag1	0.69	0.26	0.8	0.69	0.2578	0.8	0%	0%
	2	Ag2	1.22	0.37	1.1	1.22	0.37	1.1	0%	0%
	3	Ag3	0.13	0.05	1.1	0.13	0.049	1.1	0%	0%
	4	Ag4	0.11	0.06	0.8	0.11	0.0577	0.8	0%	0%
	5	Ag5	2.31	0.65	0.9	1.5	0.61	0.8	-6%	-11%
	8	Ag HW	0.19	0.08	0.7	0.19	0.084	0.7	0%	0%
	9	Ag HW	0.08	0.05	0.7	0.08	0.048	0.7	0%	0%
	10	BM Vein	2.32	0.64	1.0	1.5	0.5605	0.8	-12%	-19%
	11	BM Vein	0.65	0.24	1.0	0.65	0.2352	1.0	0%	0%
	12	BM Vein	0.41	0.21	0.6	0.41	0.2136	0.6	0%	0%
	13	BM Vein	0.72	0.36	0.8	0.72	0.3637	0.8	0%	0%
	15	BM2	0.89	0.25	0.8	0.89	0.2542	0.8	0%	0%

**TABLE 14.27**  
**OUTLIER COMPOSITE CUTTING ANALYSIS FOR CU%, PB% AND ZN%**

Element	Lith Code	Lithology	Max (%)	Mean (%)	CoV	Max (%)	Mean (%)	CoV	Diff Mean (%)	Diff CoV (%)
	16	BM HWFW	0.39	0.34	0.2	0.39	0.3363	0.2	0%	0%
	17	BM HWFW	0.61	0.61		0.61	0.61	0.0	0%	
	18	BM HWFW	0.94	0.94	0.0	0.94	0.94	0.0	0%	
	20	SE1	0.33	0.28	0.3	0.33	0.2828	0.3	0%	0%
	21	SE2	5.96	0.84	1.8	1.5	0.5429	1.2	-35%	-33%
	22	SE3	0.32	0.14	0.7	0.32	0.1361	0.7	0%	0%
	30	SE4	0.78	0.40	0.9	0.78	0.4025	0.9	0%	0%
	31	SE5	1.42	0.60	1.2	1.42	0.5961	1.2	0%	0%
	32	SE6	3.57	1.26	1.1	2	0.8195	0.9	-35%	-21%
	40	SE7	0.96	0.95	0.0	0.96	0.949	0.0	0%	0%
	50	SE8	1.37	0.86	0.5	1.37	0.8592	0.5	0%	0%
	55	Dykes	1.73	0.69	0.8	1.73	0.6934	0.8	0%	0%
	Total	Total	5.96	0.43	1.3	2	0.3991	1.0	-7%	-21%
	All	All	5.96	0.42	1.3	2	0.3953	1.0	-7%	-21%
Zn	1	Ag1	2.21	1.27	0.4	2.21	1.269	0.4	0%	0%
	2	Ag2	3.63	1.00	0.9	3.63	1.0022	0.9	0%	0%
	3	Ag3	0.4	0.16	1.0	0.4	0.1565	1.0	0%	0%
	4	Ag4	1.56	1.25	0.3	1.56	1.2455	0.3	0%	0%
	5	Ag5	2.21	1.63	0.3	2.21	1.6329	0.3	0%	0%
	8	Ag HW	0.8	0.34	0.7	0.8	0.341	0.7	0%	0%
	9	Ag HW	0.54	0.31	0.7	0.54	0.3083	0.7	0%	0%
	10	BM Vein	7.33	1.86	1.0	7.33	1.863	1.0	0%	0%
	11	BM Vein	9.27	4.53	0.8	9.27	4.5329	0.8	0%	0%
	12	BM Vein	3.88	1.90	0.7	3.88	1.9024	0.7	0%	0%
	13	BM Vein	2.89	1.24	0.6	2.89	1.244	0.6	0%	0%

<p align="center"><b>TABLE 14.27</b> <b>OUTLIER COMPOSITE CUTTING ANALYSIS FOR CU%, PB% AND ZN%</b></p>										
<b>Element</b>	<b>Lith Code</b>	<b>Lithology</b>	<b>Max (%)</b>	<b>Mean (%)</b>	<b>CoV</b>	<b>Max (%)</b>	<b>Mean (%)</b>	<b>CoV</b>	<b>Diff Mean (%)</b>	<b>Diff CoV (%)</b>
	<b>15</b>	BM2	2.48	1.06	0.6	2.48	1.056	0.6	0%	0%
	<b>16</b>	BM HWFW	1.14	1.02	0.1	1.14	1.0212	0.1	0%	0%
	<b>17</b>	BM HWFW	14.13	14.13	0.0	10	10	0.0	<b>-29%</b>	
	<b>18</b>	BM HWFW	1.82	1.82	0.0	1.82	1.82	0.0	0%	
	<b>20</b>	SE1	1.27	1.07	0.4	1.27	1.0709	0.4	0%	0%
	<b>21</b>	SE2	7.62	1.47	1.4	7.62	1.4735	1.4	0%	0%
	<b>22</b>	SE3	1.22	0.74	0.5	1.22	0.7352	0.5	0%	0%
	<b>30</b>	SE4	2.01	1.02	0.9	2.01	1.0196	0.9	0%	0%
	<b>31</b>	SE5	6.73	2.84	1.1	6	2.5398	1.1	<b>-11%</b>	<b>-1%</b>
	<b>32</b>	SE6	3.1	2.00	0.3	3.1	1.9987	0.3	0%	0%
	<b>40</b>	SE7	4.25	2.88	0.4	4.25	2.8773	0.4	0%	0%
	<b>50</b>	SE8	5.65	3.35	0.4	5.65	3.3504	0.4	0%	0%
	<b>55</b>	Dykes	2.72	1.62	0.5	2.72	1.6243	0.5	0%	0%
	<b>Total</b>	<b>Total</b>	14.13	1.47	1.0	10	1.4499	1.0	<b>-1%</b>	<b>-7%</b>
	<b>All</b>	<b>All</b>	14.13	1.45	1.0	10	1.4362	1.0	<b>-1%</b>	<b>-7%</b>

*Source:* Kirkham (2022)

*Note:* CoV = coefficient of variation.

### 14.2.7 Bulk Density Determination

Bulk densities were based on a total of 1,324 individual measurements taken by Equity Metals field personnel from key mineralized zones. These bulk density values ranged from 2. to 4.2 t/m<sup>3</sup> and average 3.15 t/m<sup>3</sup>. Bulk densities were calculated on a block-by-block basis by assigning the SG to the individual mineralized zone solids as shown in Table 14.28. A default bulk density of 3 t/m<sup>3</sup> was assigned to any blocks that were not assigned a calculated value.

<b>TABLE 14.28</b>						
<b>BULK DENSITY ASSIGNMENTS BY ZONE – BULK GRAVITY</b>						
<b>Lith Code</b>	<b>Lithology</b>	<b>No.</b>	<b>Min (t/m<sup>3</sup>)</b>	<b>Max (t/m<sup>3</sup>)</b>	<b>Mean (t/m<sup>3</sup>)</b>	<b>CoV</b>
1	Ag1	12	2.5	3.65	3.00	0.1
2	Ag2	4	2.82	3.58	3.22	0.1
3	Ag3	2	2.81	3.26	3.01	0.1
4	Ag4	1	3.56	3.56	3.56	0
5	Ag5	7	2.79	3.84	3.23	0.1
8	Ag HW	1	2.99	2.99	2.99	0
9	Ag HW	1	2.73	2.73	2.73	0
10	BM Vein	3	3.32	3.58	3.43	0.03
11	BM Vein	1	3.25	3.25	3.25	0
12	BM Vein	10	2.64	4.2	3.40	0.15
13	BM Vein	2	3.24	3.65	3.36	0.06
15	BM2	4	2.87	4.19	3.09	0.12
16	BM HWWF	2	2.83	3.54	3.10	0.11
17	BM HWWF	2	2.8	3.65	3.01	0.12
18	BM HWWF	0				
20	SE1	4	2.76	3.9	3.21	0.15
21	SE2	6	2.76	3.86	3.51	0.12
22	SE3	3	2.8	3.6	3.17	0.1
30	SE4	2	2.83	3.54	3.19	0.1
31	SE5	1	3.46	3.46	3.46	0
32	SE6	2	2.97	3.92	3.13	0.1
40	SE7	3	3.08	3.88	3.6	0.1
50	SE8	5	2.88	3.41	3.28	0.1
55	Dykes	2	2.88	3.3	3.13	0.1
<b>Total</b>		<b>80</b>	<b>2.5</b>	<b>4.2</b>	<b>3.23</b>	<b>0.1</b>
<b>All</b>		<b>1,324</b>	<b>1.37</b>	<b>4.23</b>	<b>2.84</b>	<b>0.1</b>

*Source: Kirkham (2022)*

### **14.2.8 Variography**

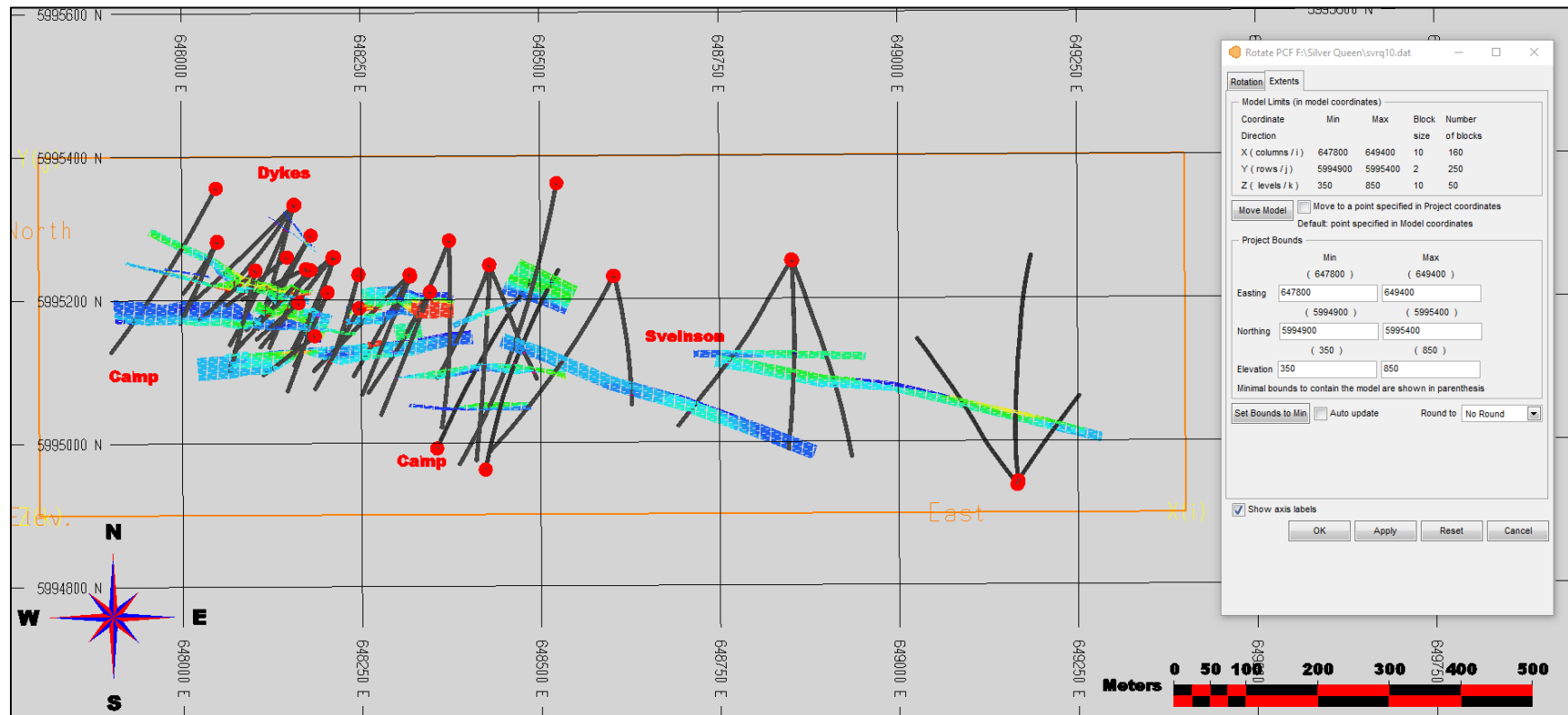
Experimental variograms and variogram models in the form of correlograms were generated for silver, gold, copper, lead and zinc grades. However, the individual zones do not have sufficient data to generate meaningful variogram results. For this reason, it was decided at this time to use inverse distance to the second power as the grade interpolator.

### **14.2.9 Block Model Definition**

The block model used to estimate the Mineral Resources was defined according to the limits specified in Figure 14.21. The block model is orthogonal and non-rotated, reflecting the orientation of the deposit. The chosen block size was 10 m by 2 m by 10 m, roughly reflecting the drill hole spacing (i.e., 4 to 6 blocks between drill holes), which is spaced at approximately 50 m centres. Note: MineSight™ uses the centroid of the blocks as the origin. In addition, the block model has been sub-blocked to 1.25 m by 0.25 m by 1.25 m, in order to accommodate mine planning activities.



**FIGURE 14.21     DIMENSIONS, ORIGIN AND ORIENTATION FOR THE BLOCK MODEL**



Source: Kirkham (2022)

#### 14.2.10 Mineral Resource Estimation Methodology

The Mineral Resource estimation plan includes the following items:

- Mineralized zone code and volume percentage of modelled mineralization in each block;
- Estimated block silver, gold, copper, lead, and zinc grades by inverse distance to the second power, using a three-pass estimation strategy for the mineralized zone. The three passes enable better estimation of local metal grades and infill of interpreted solids; and
- Assignment of bulk density by zone and vein.

Table 14.29 summarises the search ellipse dimensions for the three estimation passes for each vein.

<b>TABLE 14.29</b> <b>SEARCH ELLIPSE PARAMETERS FOR THE CAMP AND SVEINSON VEINS</b>								
<b>Major Axis</b>	<b>Semi-Major Axis</b>	<b>Minor Axis</b>	<b>1<sup>st</sup> Rotation Angle Azimuth</b>	<b>2<sup>nd</sup> Rotation Angle Dip</b>	<b>3<sup>rd</sup> Rotation Angle</b>	<b>Min. No. of Comps</b>	<b>Max. No. of Comps</b>	<b>Max. Samples per Drill Hole</b>
50	50	50	0	90	0	4	16	6
100	100	100	0	90	0	4	16	6
150	150	150	0	90	0	1	16	4

*Source:* Kirkham (2022)

*Note:* Comps = composites.

#### 14.2.11 Mineral Resource Classification

Mineral Resources were estimated in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* (2019). Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

The Mineral Resources may be impacted by further infill and exploration drilling that may result in an increase or decrease in future resource evaluations. The Mineral Resources may also be affected by subsequent assessment of mining, environmental, processing, permitting, taxation, socio-economic and other factors. There is insufficient information in this early stage of study to assess the extent to which the Mineral Resources will be affected by factors such as these that are more suitably assessed in a scoping or conceptual study.

Mineral Resources for the Camp and Sveinson Veins were classified according to the *CIM Definition Standards for Mineral Resources and Mineral Reserves* (2014) by Garth Kirkham, P.Geo., an “independent Qualified Person” as defined by National Instrument 43-101.

Drill hole spacing in the Camp and Sveinson Veins is sufficient for preliminary geostatistical analysis and evaluating spatial grade variability. Kirkham Geosystems is, therefore, of the opinion that the amount of sample data is adequate to demonstrate very good confidence in the grade estimates for the Camp and Sveinson Veins.

The estimated blocks were classified according to the following:

- Confidence in interpretation of the mineralized zones;
- Number of data used to estimate a block;
- Number of composites allowed per drill hole; and
- Distance to nearest composite used to estimate a block.

The classification of Mineral Resources was based primarily on distance to the nearest composite. However, all of the quantitative measures, as listed here, were inspected and taken into consideration. In addition, the classification of Mineral Resources for each zone was considered individually by virtue of their relative depth from surface.

Blocks were classified as Indicated if they were within approximately 50 m of a composite and were interpolated with a minimum of two drill holes. Note: There were no blocks classified as Measured Mineral Resources. Blocks were classified as Inferred if the nearest composite was less than 100 m from the block being estimated. Furthermore, an interpreted boundary was created for the Indicated and Inferred threshold, in order to exclude orphans and reduce “spotted dog” effect. The remaining blocks were unclassified and may be considered as geologic potential for further exploration.

Furthermore, in consideration for the requirement for resources to possess a “reasonable prospect of eventual economic extraction” (“RP3E”), underground mineable shapes were considered that displayed continuity based on cut-off grades and classification. Additionally, these RP3E shapes also took into account must-take material that may fall below cut-off grade, which may be extracted by mining in the event that adjacent economic material is extracted, making below cut-off material by virtue of the mining costs, extractable.

#### **14.2.12 Silver, Gold Equivalencies and C\$NSR Calculations**

The reporting of the Mineral Resource is based on the NSR \$C/t cut-off of C\$100. Silver and Gold Equivalents and NSR C\$/t values were calculated using approximate average long-term prices of \$20/oz silver, \$1,700/oz gold, \$3.50/lb copper, \$0.95/lb lead and \$1.45/lb zinc. All metal prices are stated in \$US with a conversion to \$C of 0.77. See below the equivalency and C\$NSR calculations:

$$\text{AgEq} = (\text{Ag g/t} \times 1) + (\text{Au g/t} \times 81.41) + (\text{Cu\%} \times 116.35) + (\text{Pb\%} \times 28.77) + (\text{Zn\%} \times 44.80)$$

$$\text{AuEq} = (\text{Ag g/t} \times 0.012) + (\text{Au g/t} \times 1) + (\text{Cu\%} \times 1.43) + (\text{Pb\%} \times 0.35) + (\text{Zn\%} \times 0.55)$$

$$\text{C\$NSR} = (\text{Ag g/t} \times 0.57) + (\text{Au g/t} \times 46.79) + (\text{Cu\%} \times 66.87) + (\text{Pb\%} \times 16.54) + (\text{Zn\%} \times 25.74)$$

### 14.2.13 Mineral Resource Statement

Table 14.30 shows the Mineral Resource Statement for the Camp and Sveinson Veins.

The Author evaluated the Mineral Resource, in order to ensure that it meets the condition of “reasonable prospects of eventual economic extraction”, as suggested under NI 43-101. The criteria considered were confidence, continuity and economic cut-off.

The Mineral Resource Estimate which updates the previously reported Mineral Resource Estimate, incorporates data from new drilling completed in 2020 and 2021 that successfully delineated a major new deposit on the Project and significantly increased the Mineral Resource base in both the Indicated and Inferred Mineral Resource classifications.

<b>TABLE 14.30</b> <b>BASE-CASE CAMP AND SVEINSON VEINS MINERAL RESOURCE AT</b> <b>C\$100/T NSR CUT-OFF <sup>(1-10)</sup></b>								
<b>Classification</b>	<b>Tonnes (kt)</b>	<b>Ag (g/t)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AgEq (g/t)</b>	<b>AuEq (g/t)</b>
<b>Indicated</b>	514	411.98	0.31	0.19	0.44	1.54	540.98	6.52
<b>Inferred</b>	1,664	175.52	0.64	0.22	0.59	2.12	365.76	4.43

**Source:** Kirkham (2022)

**Notes:**

1. The current Mineral Resource Estimate was prepared by Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd, Independent Qualified Persons, as defined by National instrument 43-101.
2. All Mineral Resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum (“CIM”) definitions, as required under National Instrument 43-101 (“NI 43-101”).
3. Mineral Resources were constrained using continuous mining units demonstrating reasonable prospects of eventual economic extraction.
4. Silver and Gold Equivalents were calculated from the interpolated block values using relative process recoveries and prices between the component metals and silver to determine a final AgEq and AuEq values.
5. Silver and Gold Equivalents and NSR\$/t values were calculated using average long-term prices of \$20/oz silver, \$1,700/oz gold, \$3.50/lb copper, \$0.95/lb lead and \$1.45/lb zinc. All metal prices are stated in \$US. The C\$100/t NSR cut-off grade value for the underground Mineral Resource was derived from mining costs of C\$70/t, with process costs of C\$20/t and G&A of C\$10/t. Process recoveries used were Au 70%, Ag 80%, Cu 80%, Pb 81% and Zn 90%.
6. Grade capping was performed on whole vein composites for the Camp and Sveinson Veins. Inverse distance squared (ID2) was used for all metals in the Camp and Sveinson Veins.
7. A variable density with a 3.15 average was used for the Camp and Sveinson Veins.
8. Mineral Resources are not Mineral Reserves until they have demonstrated economic viability. Mineral Resource Estimates do not account for a Mineral Resource’s mineability, selectivity, mining loss, or dilution.
9. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
10. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

#### 14.2.14 Sensitivity of the Block Model to Selection Cut-off Grade

The Mineral Resources are sensitive to the selection of cut-off grade. Table 14.31 and Table 14.32 show the total Mineral Resources for all metals at varying NSR cut-off values for the Indicated and Inferred classifications, respectively. The reader is cautioned that these values should not be misconstrued as a Mineral Reserve. The reported quantities and grades are only presented as a sensitivity of the Mineral Resource model to the selection of NSR cut-off values.

Note: The base case cut-off values presented in Tables 14.31 and 14.32 are based on potentially underground, mineable Mineral Resources at the base case of C\$100/t NSR.

<b>TABLE 14.31</b> <b>CAMP AND SVEINSON VEINS SENSITIVITY ANALYSES AT VARIOUS NSR</b> <b>CUT-OFF GRADES FOR INDICATED MINERAL RESOURCES</b>								
<b>NSR\$ Cut-off</b>	<b>Tonnes (kt)</b>	<b>Ag (g/t)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AgEq (g/t)</b>	<b>AuEq (g/t)</b>
≥200	314	593.44	0.31	0.22	0.46	1.52	725.89	8.74
≥150	395	504.93	0.32	0.21	0.45	1.56	638.10	7.69
≥100	514	411.98	0.31	0.19	0.44	1.54	540.98	6.52
≥50	626	347.65	0.29	0.17	0.41	1.44	467.64	5.64

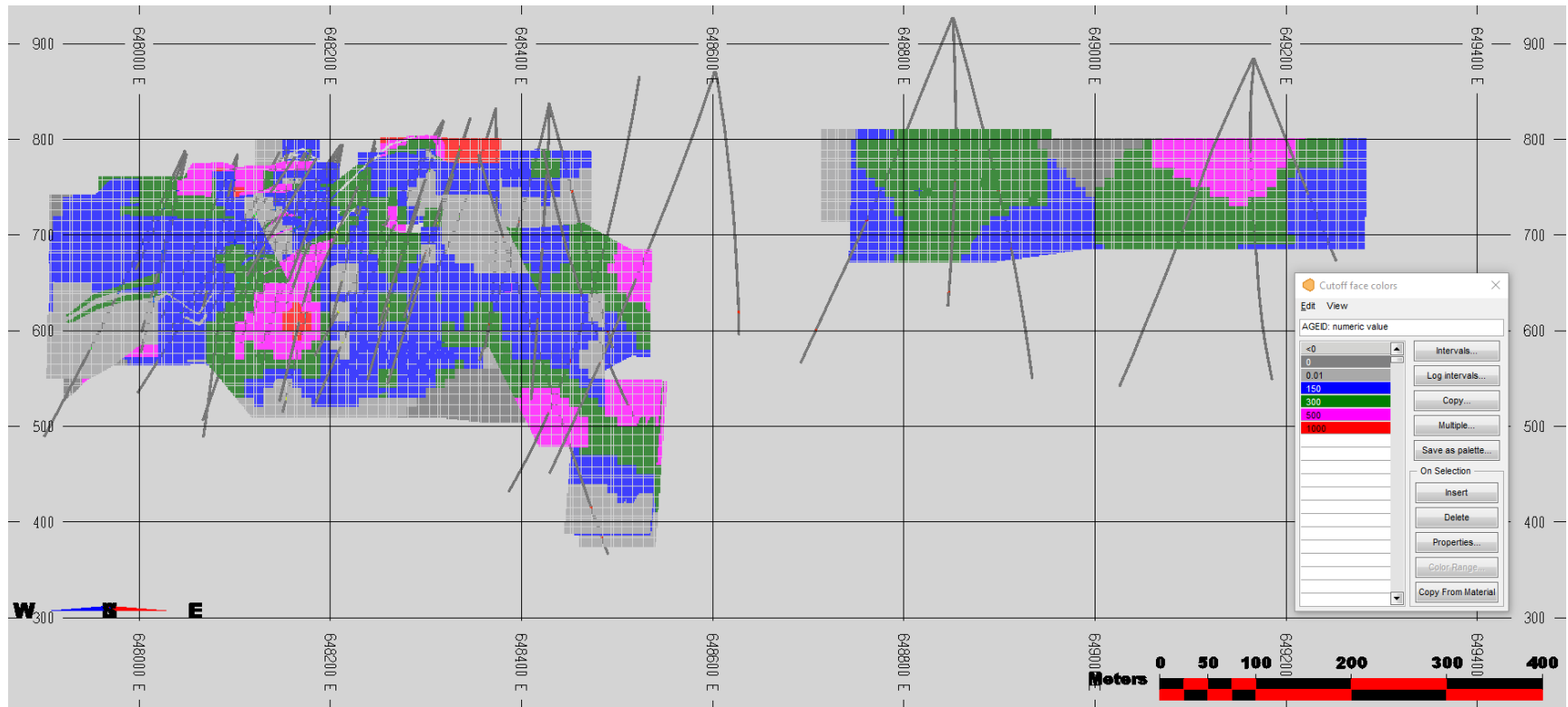
*Source: Kirkham (2022)*

<b>TABLE 14.32</b> <b>CAMP AND SVEINSON VEINS SENSITIVITY ANALYSES AT VARIOUS NSR</b> <b>CUT-OFF GRADES FOR INFERRED MINERAL RESOURCES</b>								
<b>NSR\$ Cut-off</b>	<b>Tonnes (kt)</b>	<b>Ag (g/t)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>AgEq (g/t)</b>	<b>AuEq (g/t)</b>
≥200	754	260.43	0.87	0.32	0.64	2.62	505.33	6.12
≥150	1,101	218.27	0.78	0.28	0.64	2.41	441.09	5.35
≥100	1,664	175.52	0.64	0.22	0.59	2.12	365.76	4.43
≥50	1,996	153.52	0.59	0.19	0.56	1.92	327.19	3.97

*Source: Kirkham (2022)*

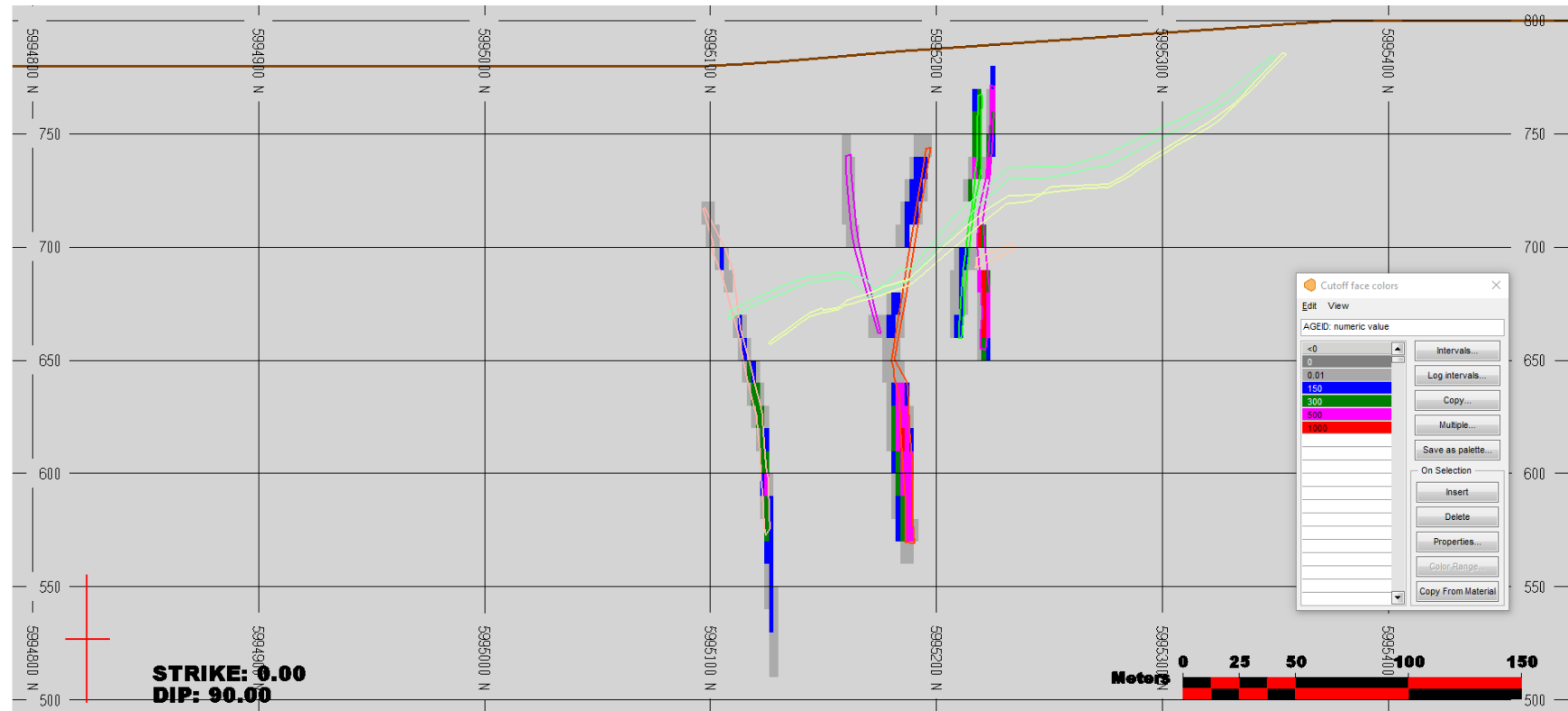
Figure 14.22 illustrates a longitudinal projection view of the Mineral Resource block model showing AgEq blocks along with drill holes. Figure 14.23 illustrates a cross-section view showing AgEq blocks along with estimation domains and topography.

**FIGURE 14.22 LONGITUDINAL PROJECTION VIEW OF BLOCK MODEL WITH AGEQ AND DRILL HOLES**



*Source: Kirkham (2022)*

**FIGURE 14.23 CROSS-SECTION VIEW OF BLOCK MODEL WITH AGEQ, TOPOGRAPHY AND GRADE ESTIMATION DOMAINS**



Source: Kirkham (2022)

#### **14.2.15 Mineral Resource Validation**

A graphical validation was completed on the block model. This type of validation serves the following purposes:

- Checks the reasonableness of the estimated grades based on the grade estimation plan and the nearby composites;
- Checks that the general drift and the local grade trends compare to the drift and local grade trends of the composites;
- Ensures that all grade blocks in the core of the deposit have been estimated;
- Checks that topography has been properly accounted for;
- Checks against manual approximate estimates of tonnages to determine reasonableness; and
- Inspects for and explains potentially high-grade block estimates in the neighbourhood of the extremely high assays.

A full set of cross-sections, longitudinal projections and plans were used to digitally check the block model; these showed the block grades and composites. There was no indication that any blocks were incorrectly estimated, and it appears that every block grade could be explained as a function of the surrounding composites and the applied grade estimation plan.

The validation techniques included the following:

- Visual inspections on a cross-section-by-cross-section and plan-by-plan basis;
- Use of grade-tonnage curves;
- Swath plots comparing kriged estimated block grades with inverse distance and nearest neighbour grade estimates; and
- Inspection of histograms showing distance from first composite to nearest block, and average distance to blocks for all composites (this gives a quantitative measure of confidence that blocks are adequately informed in addition to assisting in the classification of Mineral Resources).

#### **14.2.16 Discussion with Respect to Potential Material Risks to the Mineral Resources**

Geological interpretations are based on current deposit understanding and data. With the continued exploration and development, and the addition of subsequent data and drilling, interpretations may change or be adjusted.



The current political, indigenous and social acceptance climate in Canada poses risks and uncertainties that could delay or even stop development. It is difficult to gauge or quantify the level or extents of the risks, however, all companies working in Canada must continue to be aware of the potential risks and develop mitigation strategies.

Apart the aforementioned risks there are no other known environmental, permitting, legal, taxation, title or other relevant factors that materially affect the Mineral Resources.

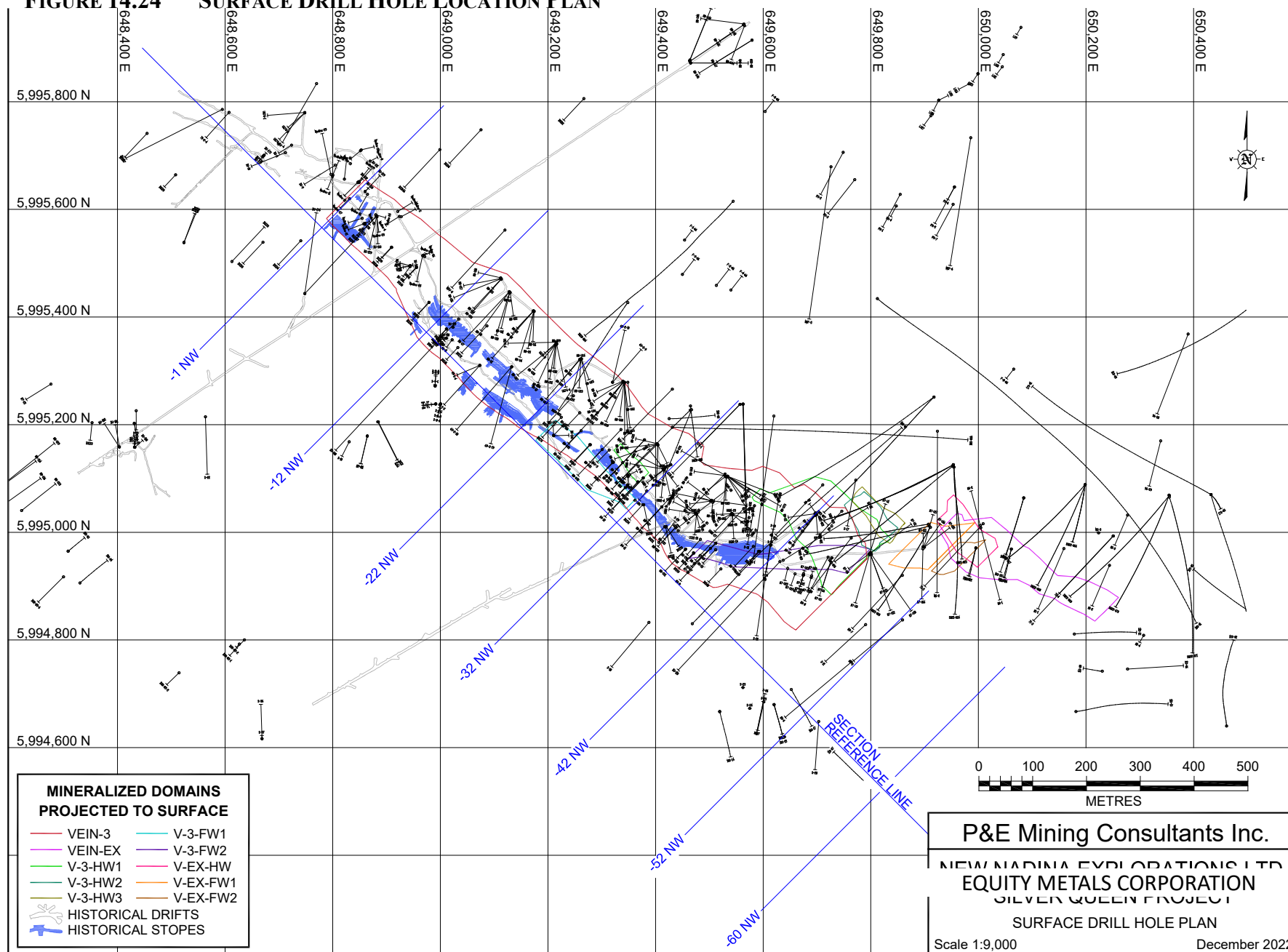
### **14.3 SUPPLEMENTARY INFORMATION**

This section provides supplementary information for the Mineral Resource Estimate in the form of figures, plans, cross sections, and block models.

#### **14.3.1 Surface Drill Hole Plan**

A surface drill hole location plan for the current and historical data including drill holes, veins, stopes, and drifts is provided in Figure 14.24.

**FIGURE 14.24 SURFACE DRILL HOLE LOCATION PLAN**

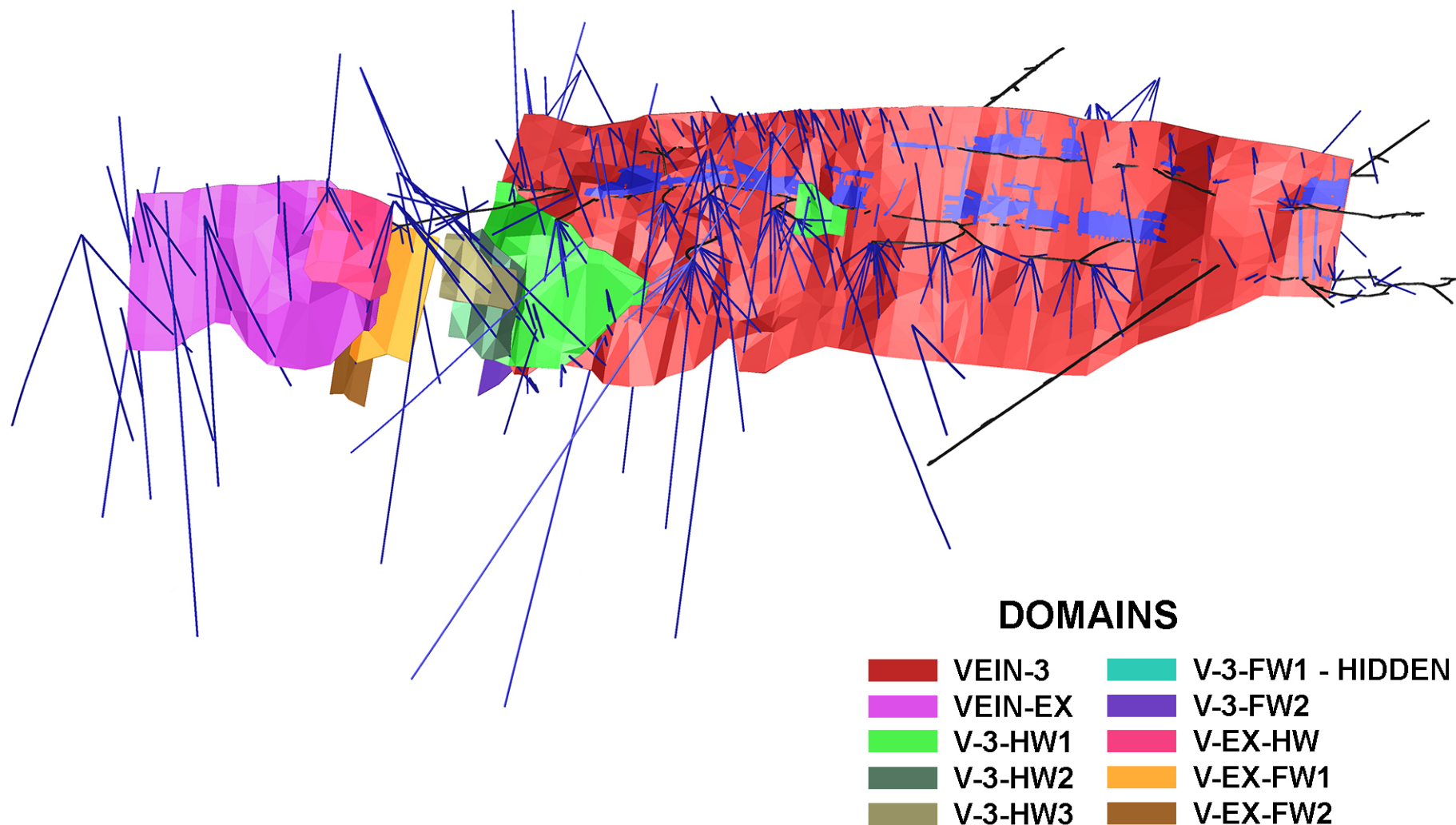


### **14.3.2 3-D Domains**

A 2-D image representing the 3-D mineralized domains within the Deposit is provided in Figure 14.25.

FIGURE 14.25 3-D MINERALIZED DOMAINS MODEL

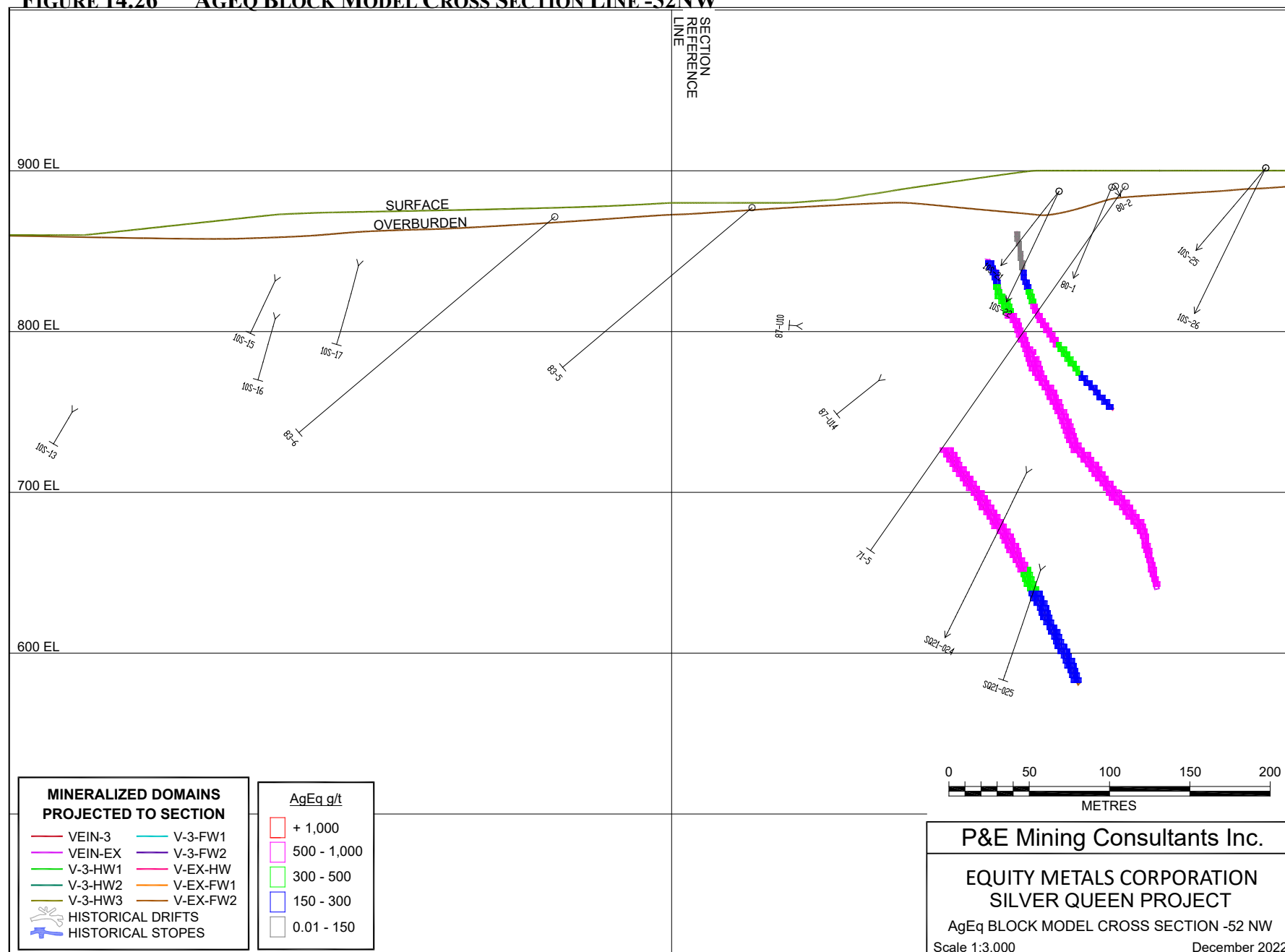
## SILVER QUEEN PROJECT - 3D DOMAINS



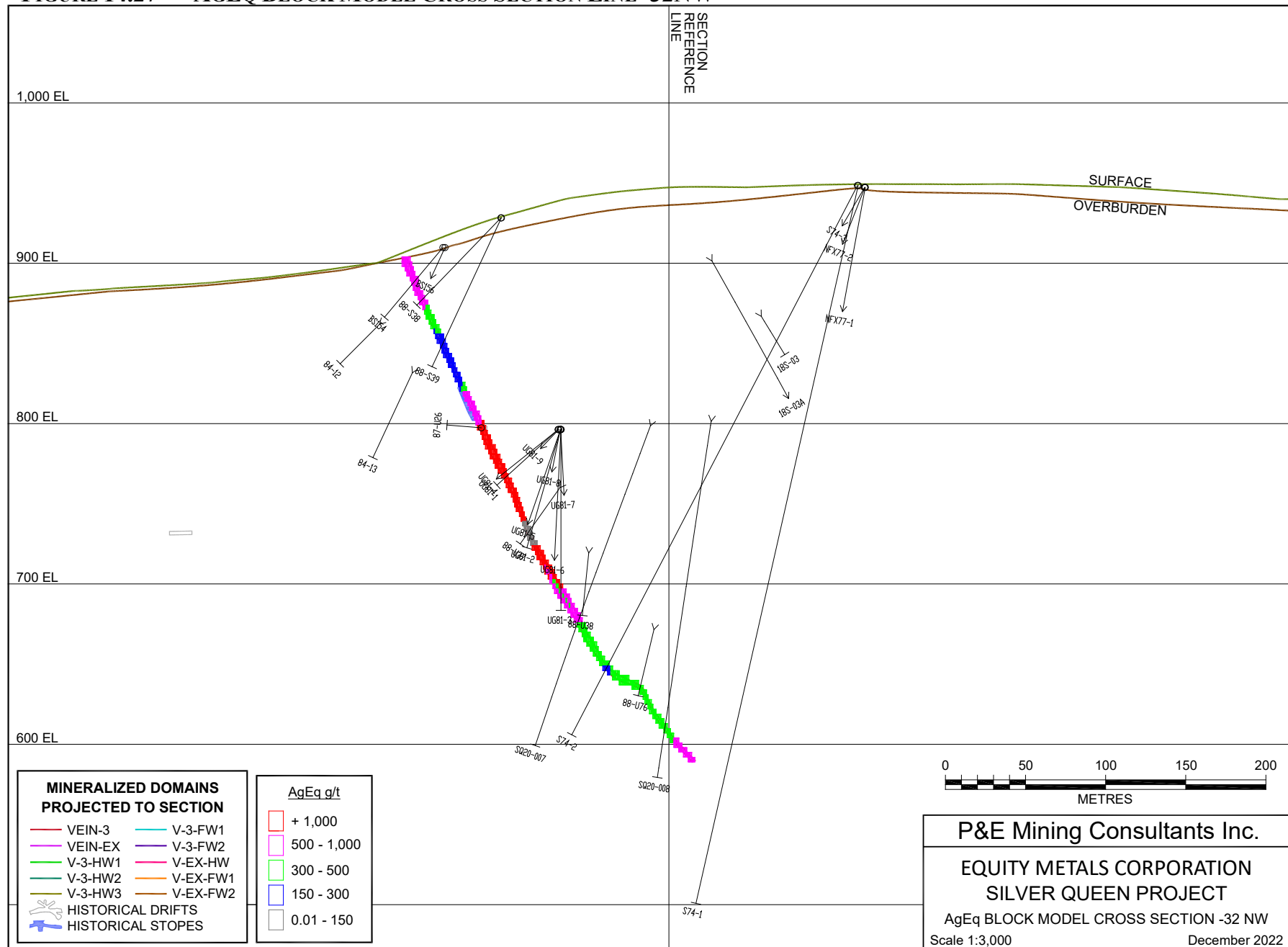
### **14.3.3 AgEq Block Model Cross Sections and Plans**

A selection of silver equivalent (AgEq) block model vertical cross sections and plans are provided in the following six figures, Figure 14.26 to Figure 14.31.

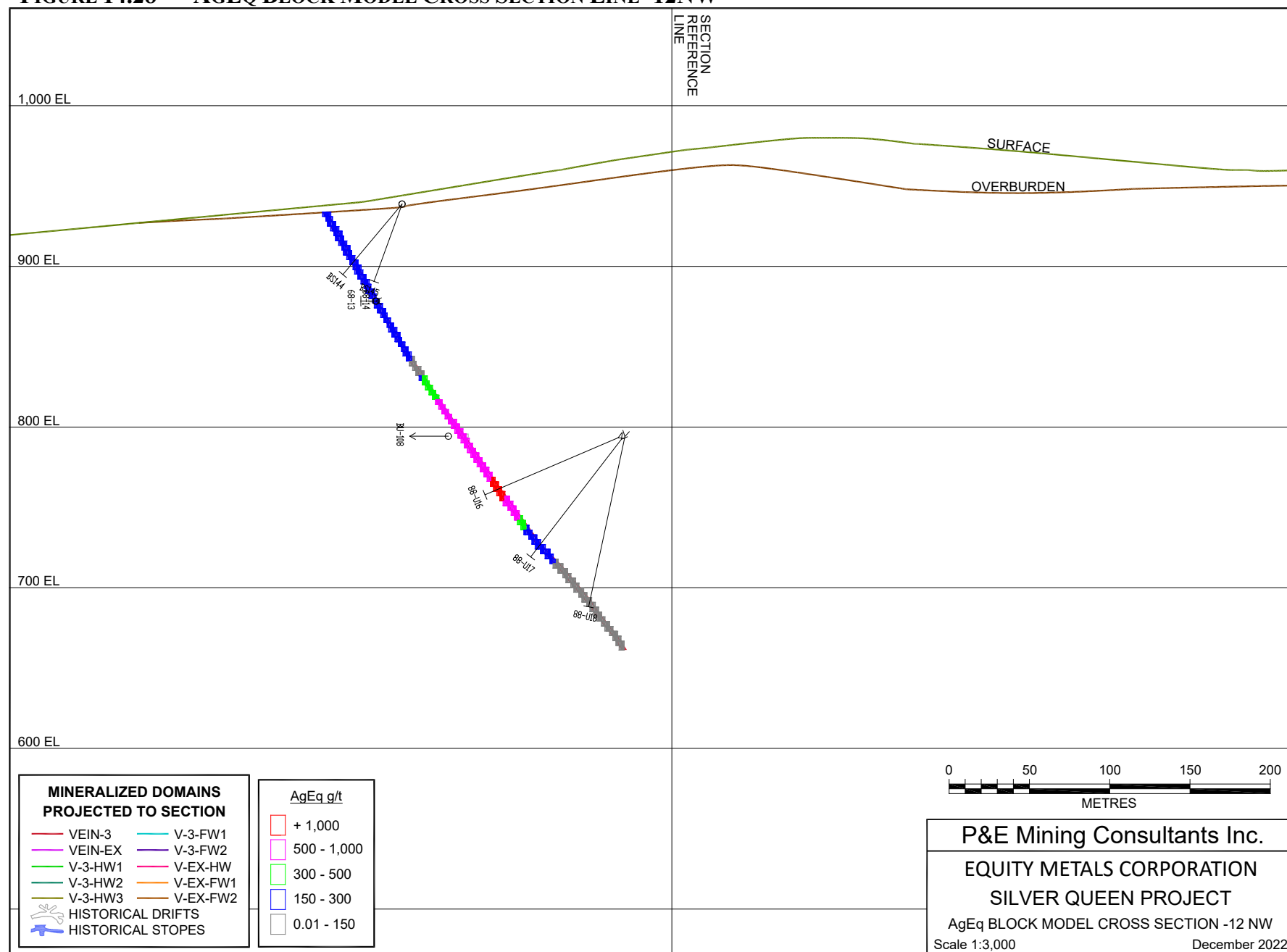
**FIGURE 14.26 AGEQ BLOCK MODEL CROSS SECTION LINE -52NW**



**FIGURE 14.27** AGEQ BLOCK MODEL CROSS SECTION LINE -32NW

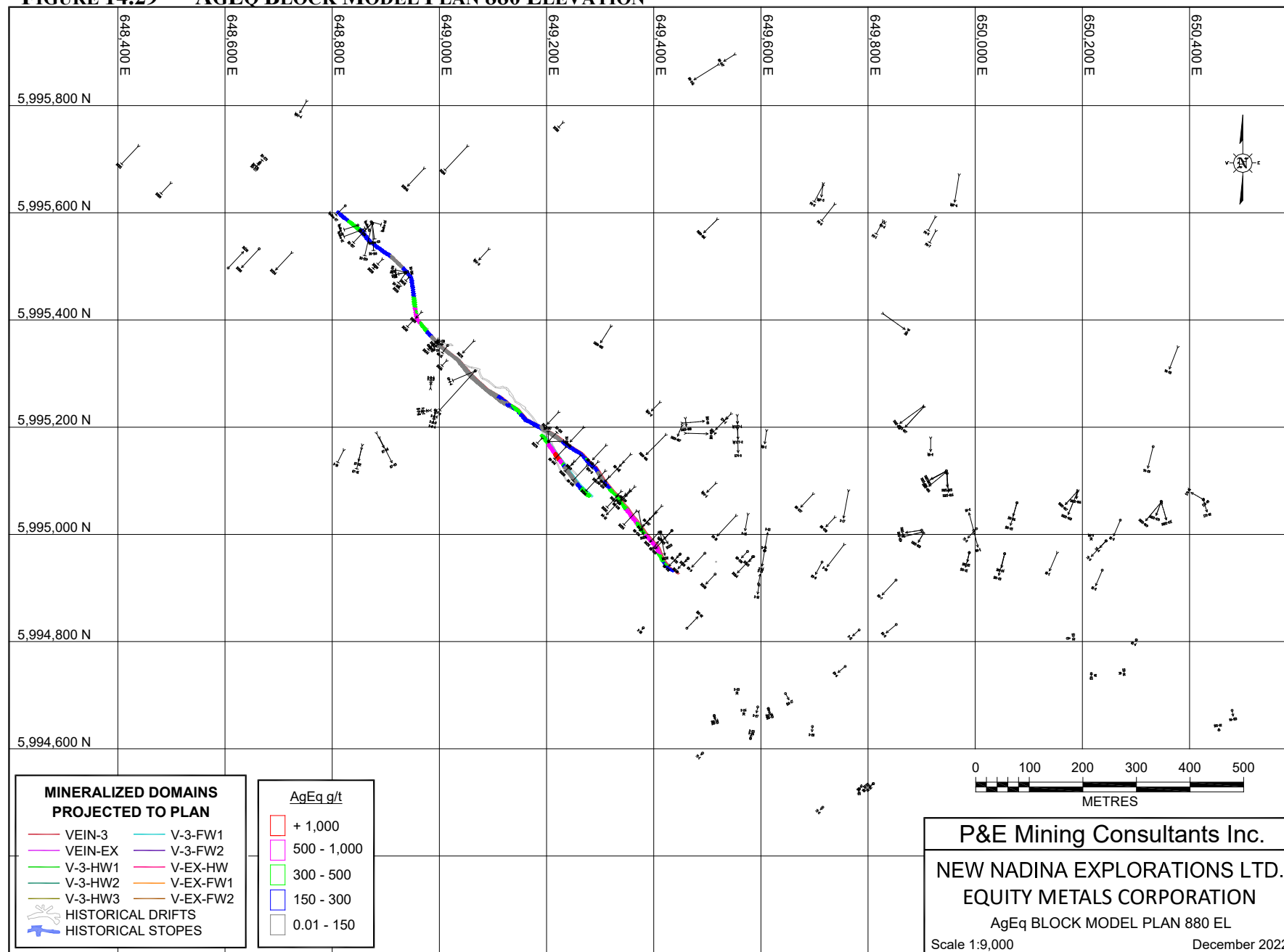


**FIGURE 14.28 AGEQ BLOCK MODEL CROSS SECTION LINE -12NW**

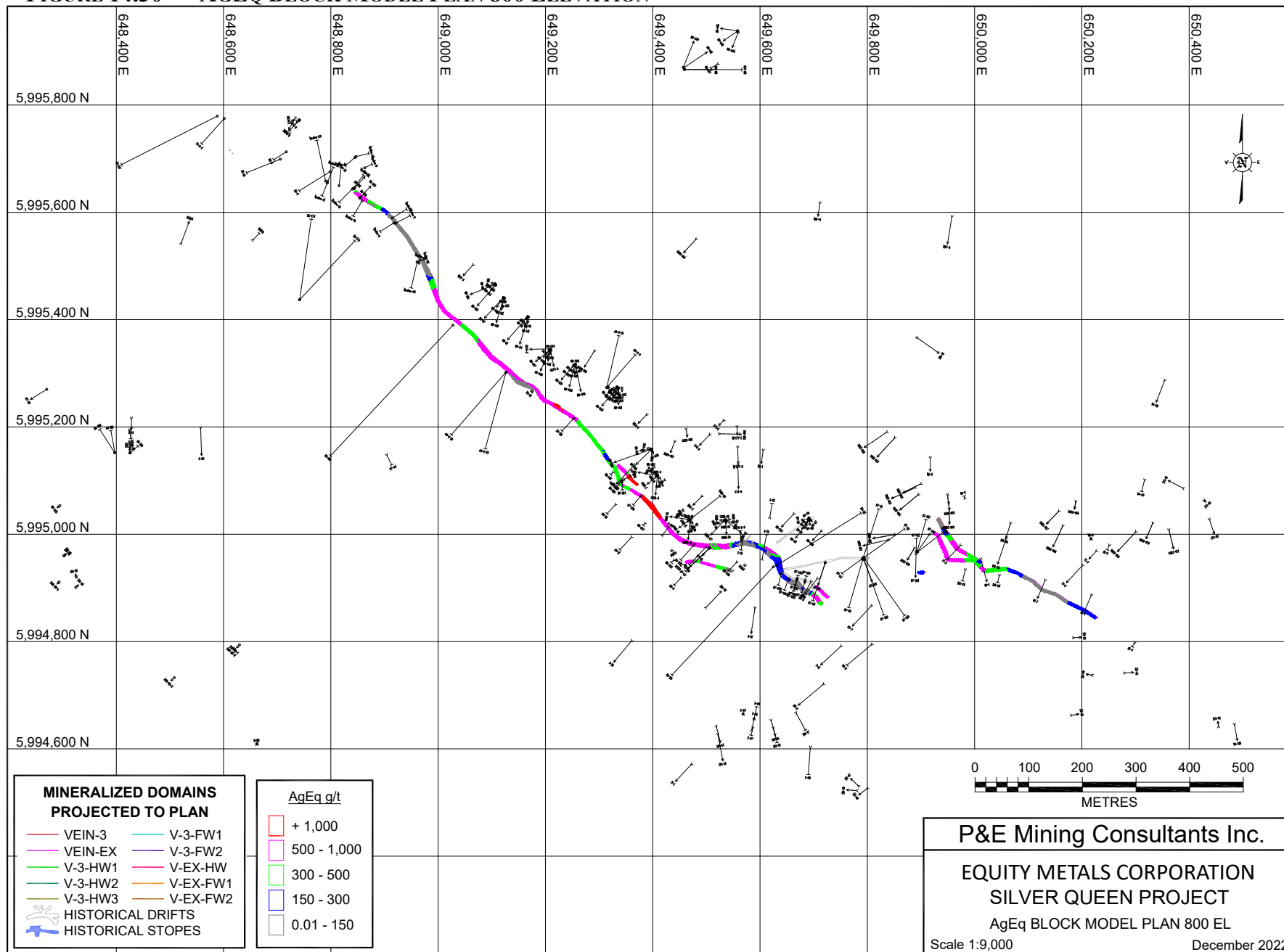




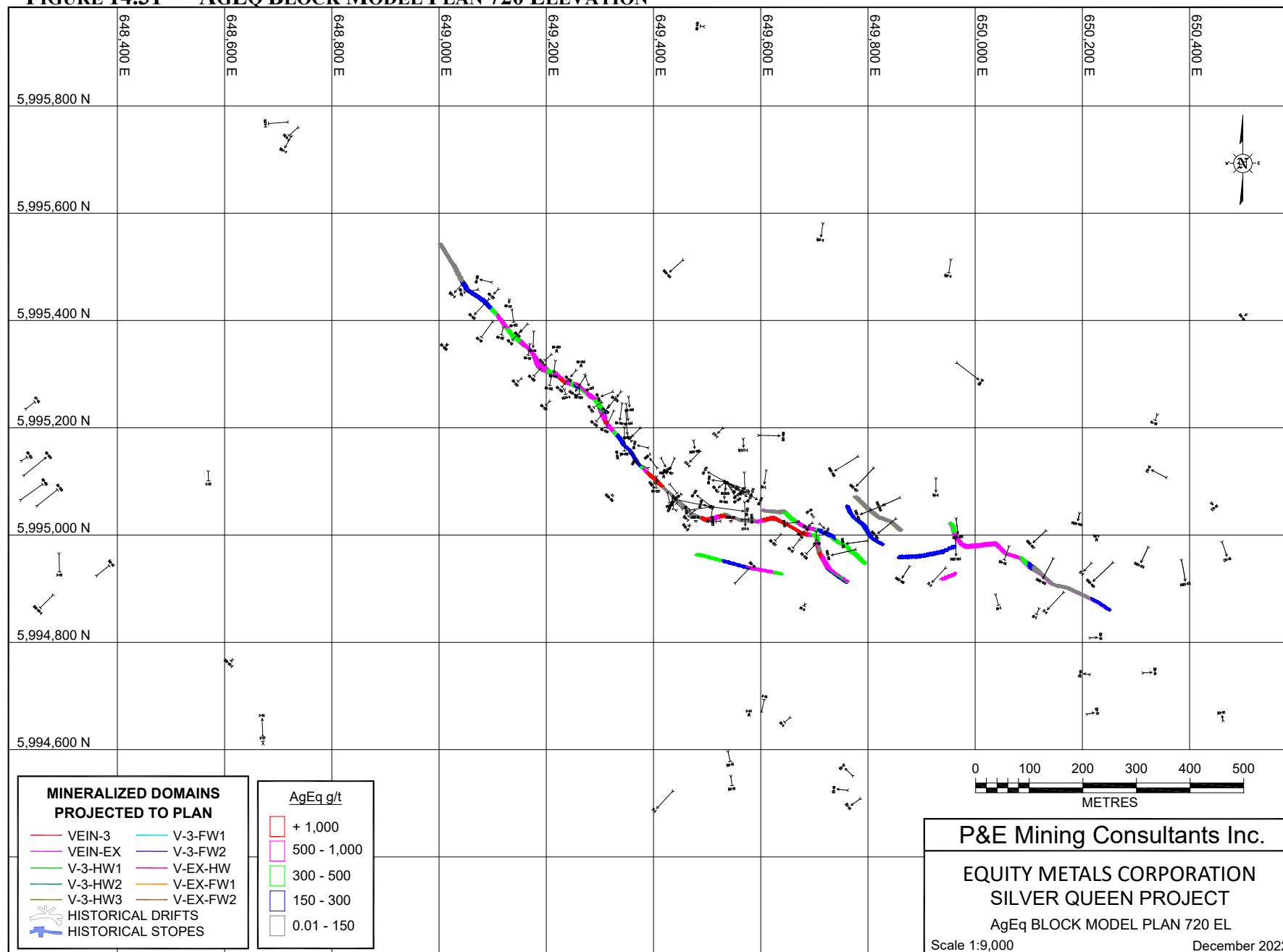
**FIGURE 14.29 AGEQ BLOCK MODEL PLAN 880 ELEVATION**



**FIGURE 14.30 AGEQ BLOCK MODEL PLAN 800 ELEVATION**



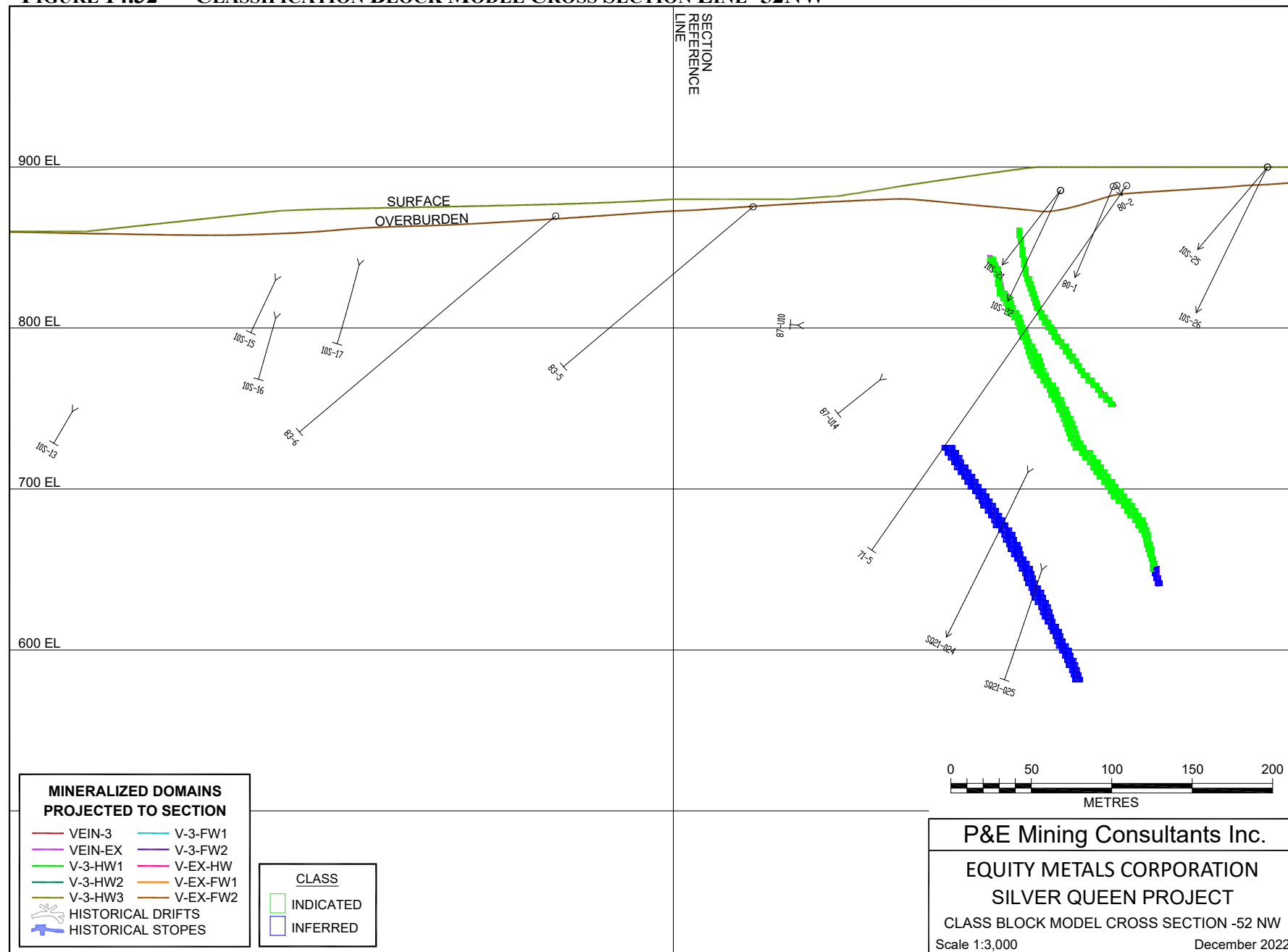
**FIGURE 14.31 AGEQ BLOCK MODEL PLAN 720 ELEVATION**



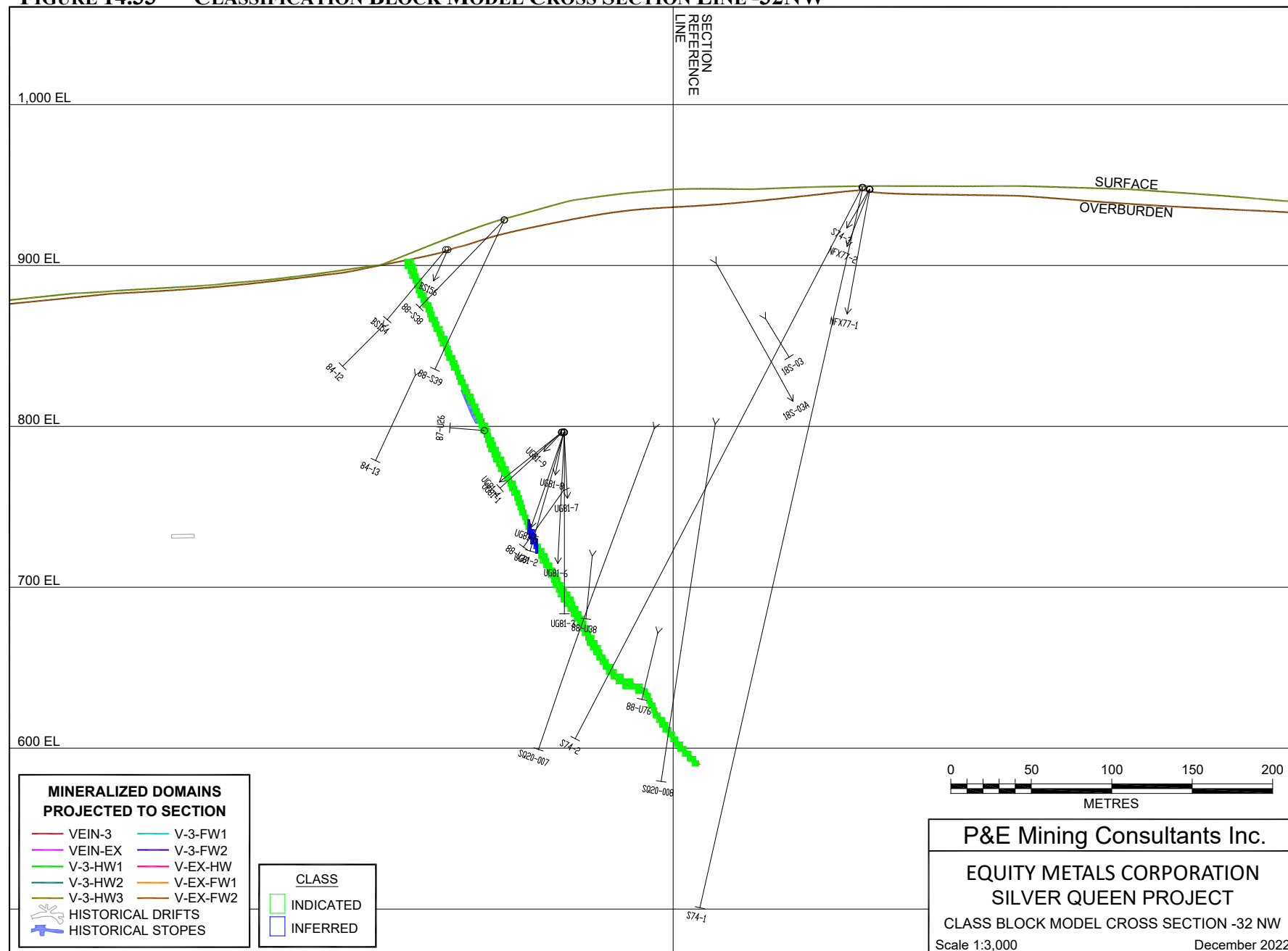
#### **14.3.4 Classification Block Model Cross Sections and Plans**

A selection of classification block model vertical cross sections and plans are provided in Figures 14.32 to 14.37.

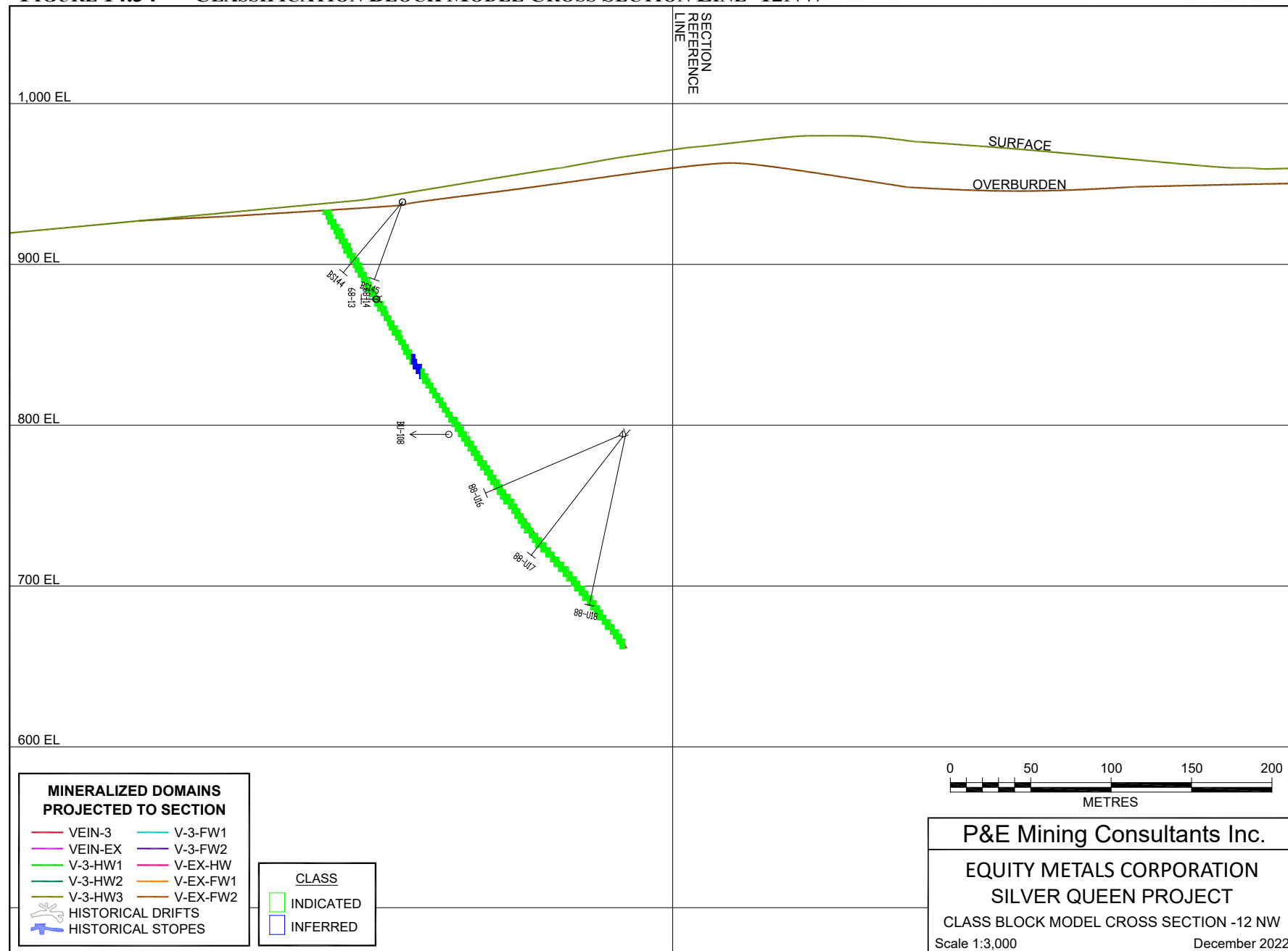
**FIGURE 14.32 CLASSIFICATION BLOCK MODEL CROSS SECTION LINE -52NW**



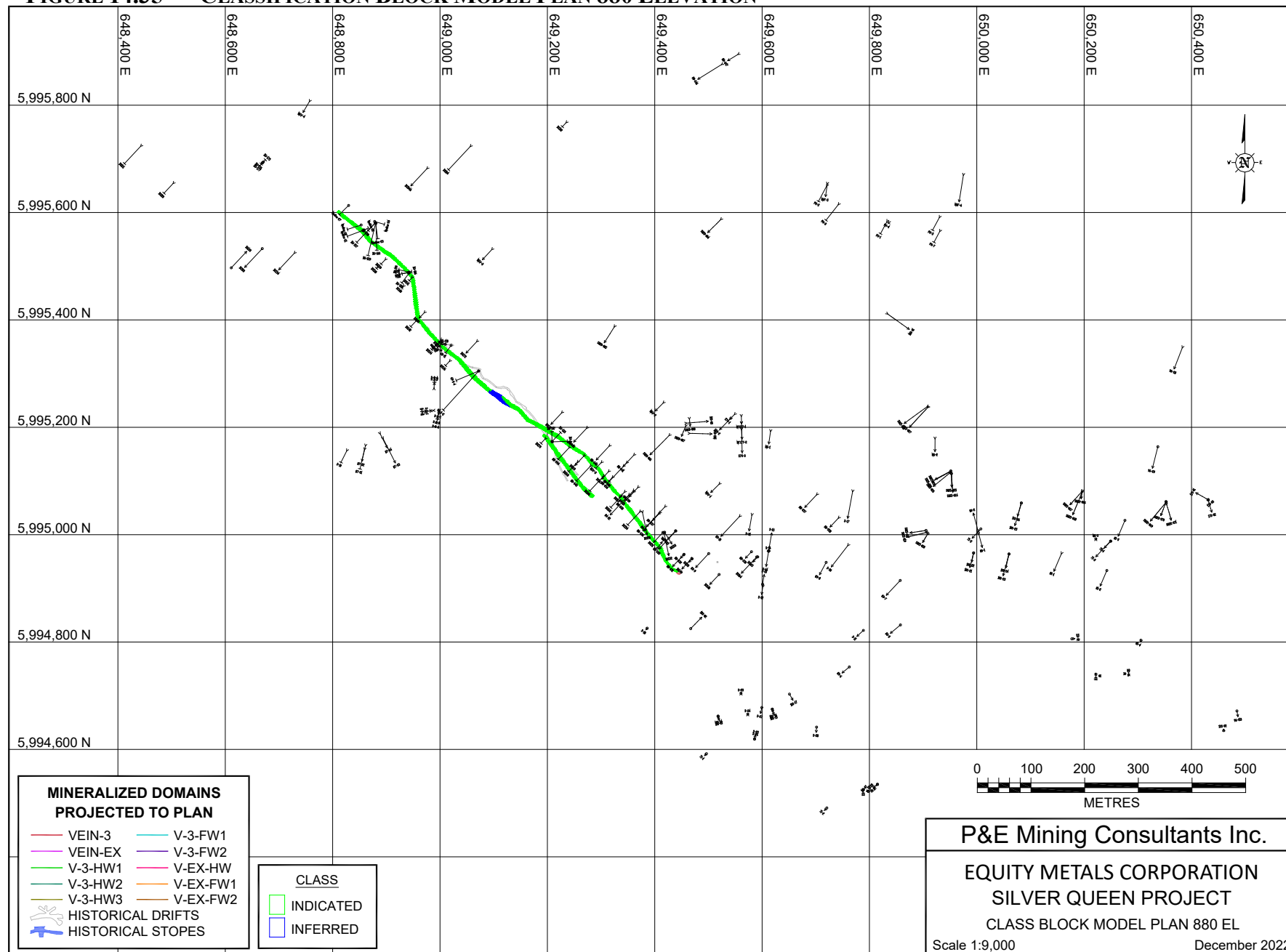
**FIGURE 14.33 CLASSIFICATION BLOCK MODEL CROSS SECTION LINE -32NW**



**FIGURE 14.34 CLASSIFICATION BLOCK MODEL CROSS SECTION LINE -12NW**

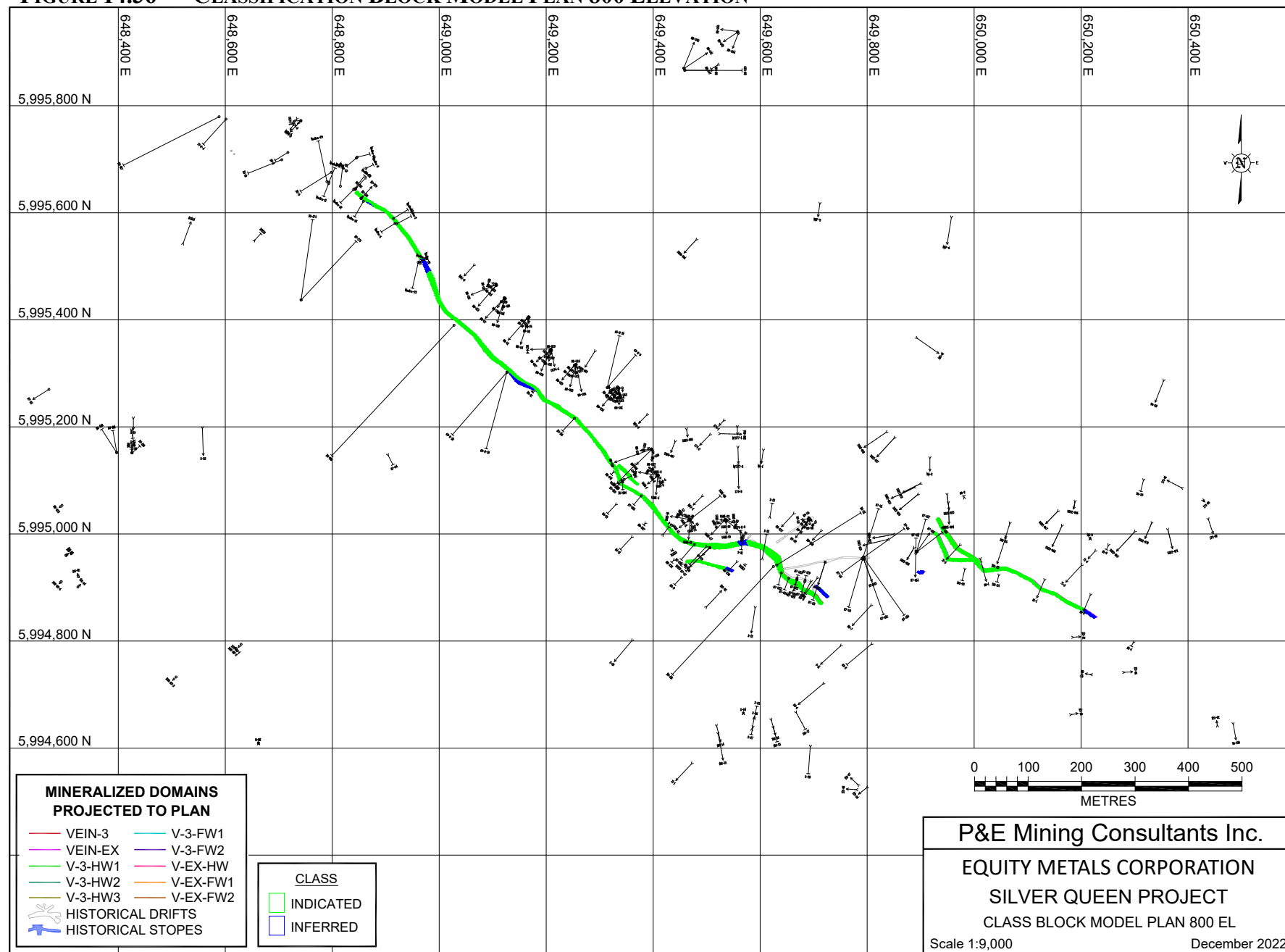


**FIGURE 14.35 CLASSIFICATION BLOCK MODEL PLAN 880 ELEVATION**

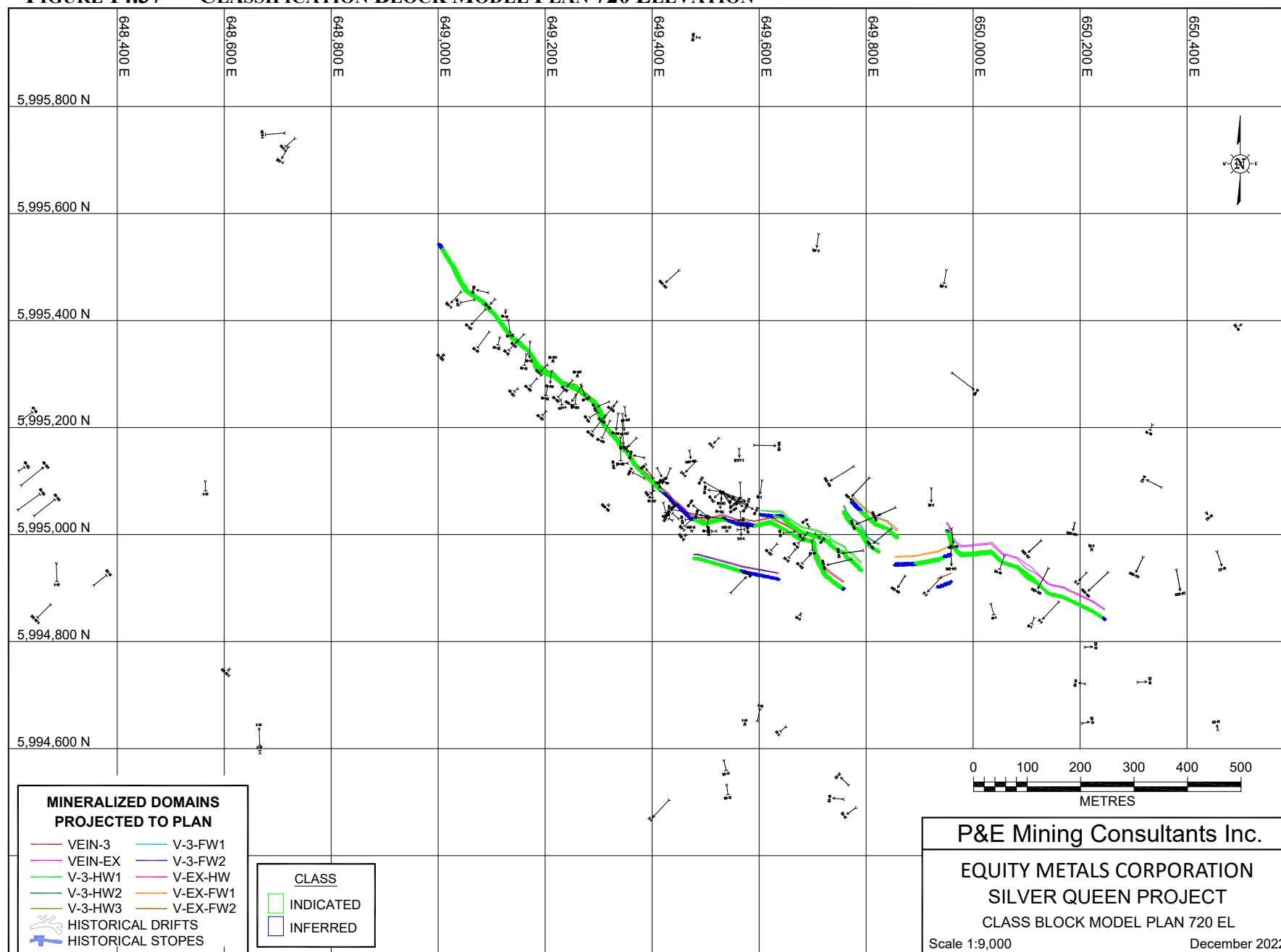




**FIGURE 14.36 CLASSIFICATION BLOCK MODEL PLAN 800 ELEVATION**



**FIGURE 14.37 CLASSIFICATION BLOCK MODEL PLAN 720 ELEVATION**



## **15.0 MINERAL RESERVE ESTIMATES**

This section is not applicable to this Technical Report.

## **16.0 MINING METHODS**

This section is not applicable to this Technical Report.

## **17.0 RECOVERY METHODS**

This section is not applicable to this Technical Report.

## **18.0 PROJECT INFRASTRUCTURE**

This section is not applicable to this Technical Report.

## **19.0 MARKET STUDIES AND CONTRACTS**

This section is not applicable to this Technical Report.

## **20.0 ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL OR COMMUNITY IMPACTS**

This section is not applicable to this Technical Report.



## **21.0 CAPITAL AND OPERATING COSTS**

This section is not applicable to this Technical Report.

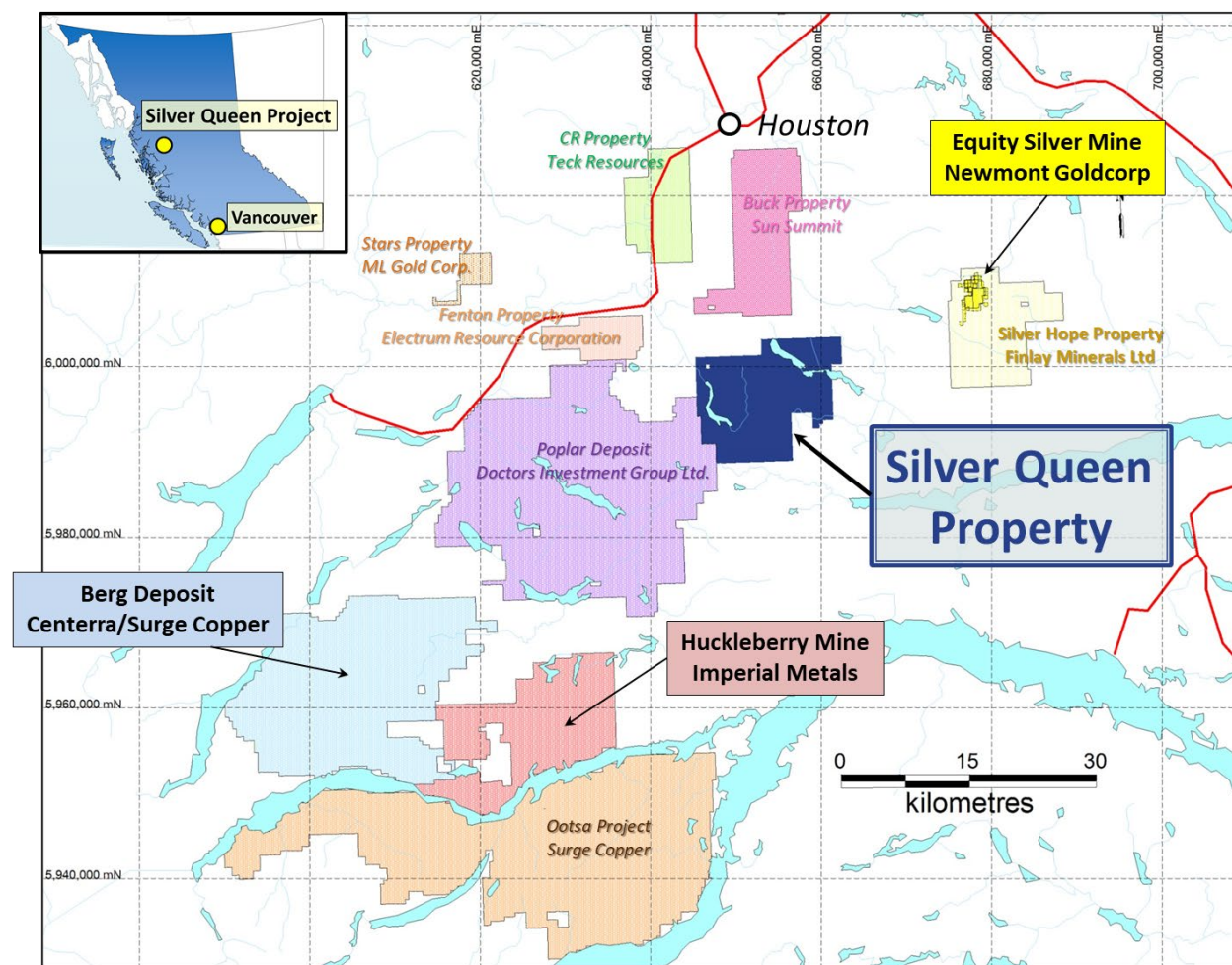
## **22.0 ECONOMIC ANALYSIS**

This section is not applicable to this Technical Report.

## 23.0 ADJACENT PROPERTIES

The Silver Queen Property is located 35 km south of the Town of Houston, BC, in the heart of the Skeena Arch. Several active exploration projects and mines surround the Property (Figure 23.1.).

**FIGURE 23.1 MAJOR MINES AND EXPLORATION PROJECTS SURROUNDING THE SILVER QUEEN PROJECT**



The Poplar Cu-Mo Project is a large 65,800 ha property located southwest of and contiguous with the Silver Queen Property. The property is actively being explored and hosts the Poplar Co-Mo Deposit located on the north side of Tagetochlain Lake, approximately 20 km southwest of Owen Lake. The Poplar Project hosts an Indicated Mineral Resource of 131 Mt grading 0.31% Cu, 0.009% Mo, 0.09 g/t Au, and 2.39 g/t Ag, and an Inferred Mineral Resource of 132 Mt grading 0.27% Cu, 0.005% Mo, 0.07 g/t Au and 3.75 g/t Ag that has been identified through the drilling of 147 diamond drill holes (Giroux, 2012, NI 43-101 Technical Report for Lion's Gate Metals Inc.).

The Poplar Deposit is a Cu-Mo porphyry-type deposit associated with a diorite-to-monzonite stock of Late Cretaceous age that intrudes stratified volcanic and sedimentary rocks of the Kasalka and Skeena Groups. Chalcopyrite occurs as disseminations and less commonly as 1-5 mm veinlets

associated with quartz. Molybdenite mineralization is largely restricted to quartz veins. The sulphide mineralization is contained within broad envelopes of propylitic, argillic, phyllic and potassic alteration (Burga *et al.*, 2019). The Equity Silver Mine, now held by Newmont, is located approximately 30 km to the northeast of the Silver Queen Property and historically produced 78 Moz Ag, 557 koz Au and 185.3 Mlb Cu at grades of 64.9 g/t Ag, 0.46 g/t Au and 0.4% Cu. The Equity Silver Mine Deposit is located at the northeastern end of the Cretaceous Buck Creek Basin within a similar geological environment to the Silver Queen Property. The chief sulphides at the Equity Silver Mine are pyrite, chalcopyrite, pyrrhotite and tetrahedrite with minor amounts of galena, sphalerite, argentite, minor pyrargyrite and other silver sulphosalts. These mineral phases are accompanied by advanced argillic alteration clay minerals, chlorite, specularite and locally sericite, pyrophyllite, andalusite, tourmaline and minor amounts of scorzalite, corundum and dumortierite. Further information can be found at: (<https://minfile.gov.bc.ca/>)

The Buck Project, immediately to the North of the Silver Queen Project, is a large, veined and disseminated Au-Ag-Zn mineralized system, hosted within a Cretaceous-age dacite-andesite volcanic package and spatially associated with a suite of quartz-feldspar dykes. Drilling in 2020-2022 intersected wide zones of disseminated gold-bearing pyrite/sphalerite mineralization, which has now been tested by VTEM and IP geophysics. The project is moving towards advanced exploration, but has yet to publish an NI 43-101 Mineral Resource Estimate. Further information can be found at: (<https://sunsummitminerals.com>).

The Huckleberry Mine, located approximately 50 km to the SW of the Silver Queen Property, is a past-producing Cu-Mo mine owned by Imperial Metals and currently on Care and Maintenance with a restart pending. Up to 2011, the Huckleberry Mine produced 870 Mlb Cu, 8 Mlb Mo, 105,000 oz Au, and 3.4 Moz Ag (<https://www.imperialmetals.com> Technical Report amended May 11, 2016). The mineralization is hosted within late Cretaceous biotite hornblende quartz diorite of the Bulkley Plutonic Suite and associated hornfels of the Lower to Middle Jurassic lapilli tuffs of the Telkwa Formation.

The Ootsa and Berg Properties contain large porphyry Cu/Mo deposits within a similar geological environment to the Huckleberry Mine. They are located 40 km and 45 km, respectively, to the southwest of the Silver Queen Property (Tables 23.1 and 23.2). The Ootsa Deposit is 100% owned by Surge Copper Corp. which also has an option to earn a 70% interest in the Berg Property under the terms of a Joint Venture Agreement with Centerra Gold Inc.

**TABLE 23.1**  
**TOTAL NI 43-101 MINERAL RESOURCES ON THE OOTSA PROJECT,**  
**EFFECTIVE FEBRUARY 18, 2022**

C\$8.27/t NSR Cut-off	Tonnage	Grade					Gross Contained Metal				
		Cu	Mo	Au	Ag	CuEq	Cu	Mo	Au	Ag	CuEq
	(Mt)	(%)	(%)	(g/t)	(g/t)	(%)	(Mlbs)	(Mlbs)	(Moz)	(Moz)	(Mlbs)
<i>Seel</i>											
Measured	103.7	0.19	0.014	0.15	2.6	0.36	440	32	0.5	8.7	823
Indicated	276.1	0.16	0.017	0.12	2.0	0.31	974	105	1.1	18.2	1,898
<b>Total M+I</b>	<b>379.8</b>	<b>0.17</b>	<b>0.016</b>	<b>0.13</b>	<b>2.2</b>	<b>0.32</b>	<b>1,414</b>	<b>137</b>	<b>1.6</b>	<b>26.9</b>	<b>2,721</b>
Inferred	135.4	0.15	0.015	0.10	2.0	0.28	455	45	0.4	8.8	847
<i>Ox</i>											
Measured	30.1	0.24	0.026	0.04	1.4	0.36	157	17	0.0	1.4	237
Indicated	28.7	0.19	0.020	0.03	1.3	0.29	122	12	0.0	1.2	181
<b>Total M+I</b>	<b>58.8</b>	<b>0.22</b>	<b>0.023</b>	<b>0.03</b>	<b>1.4</b>	<b>0.32</b>	<b>280</b>	<b>29</b>	<b>0.1</b>	<b>2.6</b>	<b>419</b>
Inferred	2.4	0.13	0.011	0.03	1.1	0.20	7	1	0.0	0.1	10
<i>Total</i>											
Measured	133.8	0.20	0.017	0.13	2.4	0.36	597	49	0.5	10.1	1,060
Indicated	304.8	0.16	0.018	0.11	2.0	0.31	1,097	118	1.1	19.4	2,079
<b>Total M+I</b>	<b>438.6</b>	<b>0.18</b>	<b>0.017</b>	<b>0.12</b>	<b>2.1</b>	<b>0.32</b>	<b>1,694</b>	<b>167</b>	<b>1.6</b>	<b>29.5</b>	<b>3,139</b>
Inferred	137.7	0.15	0.015	0.10	2.0	0.28	462	46	0.4	8.9	857

*Source: www.surgecopper.com (December 22, 2022)*

**TABLE 23.2**  
**TOTAL NI 43-101 MINERAL RESOURCE ON THE BERG PROPERTY,**  
**EFFECTIVE DATE MARCH 9, 2021**

Material Type	Resource Category	Cut-Off (CuEq %)	Tonnes (Mt)	Grade				Contained Metal			
				Cu (%)	Mo (%)	Ag (g/t)	CuEq (%)	Cu (Mlbs)	Mo (Mlbs)	Ag (Moz)	CuEq (Mlbs)
Supergene	Measured	0.2	86.9	0.41	0.03	2.46	0.50	789	52	6.9	960
	Indicated	0.2	88.5	0.29	0.02	2.67	0.37	572	43	7.6	724
	Measured & Indicated	0.2	175.4	0.35	0.02	2.57	0.44	1,362	95	14.5	1,685
	Inferred	0.2	7.2	0.23	0.01	4.26	0.29	37	2	1.0	47
Hypogene	Measured	0.2	120.3	0.28	0.04	3.42	0.41	752	97	13.2	1,098
	Indicated	0.2	314.1	0.22	0.03	3.10	0.34	1,537	226	31.3	2,343
	Measured & Indicated	0.2	434.3	0.24	0.03	3.19	0.36	2,289	323	44.6	3,441
	Inferred	0.2	20.8	0.22	0.02	3.57	0.30	101	8	2.4	138
Leachate	Measured	0.2	0.0	0.04	0.09	5.62	0.21	0	0	0.0	0
	Indicated	0.2	0.2	0.14	0.12	2.37	0.25	1	1	0.0	1
	Measured & Indicated	0.2	0.2	0.13	0.12	2.41	0.25	1	1	0.0	1
	Inferred	0.2	0.1	0.11	0.09	6.13	0.21	0	0	0.0	0
Total	Measured	0.2	207.2	0.34	0.03	3.0	0.45	1,541	149	20.1	2,058
	Indicated	0.2	402.8	0.24	0.03	3.0	0.35	2,110	270	39.0	3,069
	Measured & Indicated	0.2	610.0	0.27	0.03	3.0	0.38	3,651	419	59.1	5,126
	Inferred	0.2	28.1	0.22	0.02	3.8	0.30	138	11	3.4	185

Source: www.surgecopper.com (December 22, 2022)

*The reader is cautioned that the authors of this Technical Report have not verified any of the information for the Poplar, Equity Silver, Buck, Huckleberry, and Ootsa and Berg mineral deposits. The tonnages and grades at Poplar, Equity Silver, Buck, Huckleberry, and Ootsa and Berg are not necessarily indicative of mineralization on the Silver Queen Property.*

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

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

## 25.0 INTERPRETATION AND CONCLUSIONS

Equity Metals' 100% owned Silver Queen Property is a silver-rich, polymetallic precious and base metal Property that consists of 45 contiguous unpatented mineral claims covering an area of 18,852 ha in the Omineca Mining Division, near Owen Lake, British Columbia. The Property is located 35 km south of the Town of Houston, BC, and 590 km north-northwest of the City of Vancouver. The Property is located 32 km southwest of the past-producing Equity Silver Mine.

The Property is accessible by the Morice-Owen Forest Service Road, 43.5 road-km south from Yellowhead Highway BC-16. Exploration activities can be conducted year-round. The area is in the rain shadow of the coastal mountains and relatively dry. The Silver Queen Property benefits from its proximity to the past-producing Equity Silver Mine and the region supports a mining workforce with significant resources for mineral exploration, mine development and mine operations.

The Silver Queen Property has a long history of exploration dating back to 1912. The Property hosts a past-producing mine with historical production from the Wrinch Vein systems that includes the No. 3 Vein, plus the Cole, and Chisholm Vein systems. The Property was operated by the Bradina Joint Venture between 1972 to 1973, during which 190,676 t of mineralized material were mined from the No. 3 Vein. By 1973, a total of 1,050 m of adits and crosscuts plus 810 m of drifting and raises and 1,500 m of diamond drilling had been completed on the Wrinch Vein system. The Wrinch Vein system has an overall strike of 130° and is traceable over a strike length of >1,300 m. Prior to 2020, a total of approximately 319 surface drill holes and 222 underground drill holes totalling 70,380 m were completed, mostly on the No. 3 Vein and the Camp Vein. Other targets that have been extensively explored in the past are the George Lake Vein, Cole Vein and Itsit Porphyry.

Geologically, the Silver Queen Property is located in the Stikine Terrane of the Canadian Cordilleran Province that includes Late Triassic through Tertiary volcanic-arc related rocks that have been intruded by plutonic rocks of Jurassic through Tertiary age. The plutonic rocks are associated with porphyry copper, stockwork molybdenum and mesothermal and epithermal base and precious metal veins. High-grade vein hosted mineralization at the Silver Queen Deposit is best characterized as having been deposited in a transitional porphyry-epithermal-type environment similar to the past-producing Equity Silver Deposit.

Silver, Au, Zn, Pb and Cu mineralization on the Silver Queen Property consists of quartz-carbonate-barite-specularite veins that contain disseminated to locally massive pyrite, sphalerite, galena, chalcopyrite, tennantite and argentian tetrahedrite. Approximately 20 mineralized veins have been discovered. The main quartz vein systems are the Wrinch (including the No. 3 Vein), Camp, Portal, Chisholm, George Lake and Cole systems. The average width of the veins is 0.9 to 1.2 m and locally increases up to 4.6 m. Silver Queen mineralization is associated with widespread alteration, particularly regional propylitic alteration and pervasive kaolinization-pyritization. The widespread extent of the alteration suggests a deep source of mineralizing solutions. Most of the known mineralization on the Silver Queen Property occurs as the structurally-controlled vein deposits, formed in a transitional porphyry-epithermal-type environment similar to the past-producing Equity Silver Deposit. However, the mineralization at the Itsit Intrusion, located southeast of the vein system, is porphyry-style Cu-Mo-Au-Ag mineralization.



Since 2020, Equity Metals completed a high-resolution airborne magnetic survey, orientation soil sampling surveys, and 79 additional drill holes totalling 25,679 m. Prior to that drilling, a total of 20 vein targets existed in the immediate area around the Silver Queen Camp. The exploration and drilling carried out from 2020 to 2022 was successful in further delineating the Camp Vein for incorporation into the current Mineral Resource Estimate and expanding the No. 3, Switchback, No. 5 and NG3 Veins.

The Authors consider that the sampling methodology as implemented by Equity Metals meets industry standards for an advanced exploration project and that sample preparation, security and analytical procedures for the Silver Queen Property drill programs were adequate for the purposes of this Mineral Resource Estimate. Site visits were completed by Mr. James Hutter, P.Geo., a Qualified Person under the regulations of NI 43-101, on May 29, 2019 for the previous Technical Report, and by Mr. Garth Kirkham, P.Geo., a Qualified Person under the regulations of NI 43-101, from October 2 to 4, 2021 and on September 27, 2022. It is the Authors' opinion that the Equity Metals data and results are suitable for use in the current Mineral Resource Estimate.

The mineral processing approach for Silver Queen has consisted of crushing-grinding followed by selective froth flotation to produce copper-lead-silver, zinc and later, gold-containing pyrite concentrates for sale to a smelter or hydrometallurgical facility. Cumulative process metal recoveries are relatively high and have enabled estimates of metal payables, based on expected metallurgical recoveries and possible payables by a smelter or a pyrite processor.

At a C\$100/t NSR cut-off, the 2022 updated MRE of Silver Queen consists of: 1) 3.46 Mt averaging 189 g/t Ag, 2.13 g/t Au, 0.24% Cu, 0.6% Pb and 3.5% Zn (or 565 g/t AgEq or 6.9 g/t AuEq), containing 21.0 Moz Ag, 0.237 Moz Au, 18 Mlb Cu, 48 Mlb Pb, and 267 Mlb Zn (or 62.8 Moz AgEq or 0.767 Moz AuEq) in Indicated Mineral Resources; and 2) 1.92 Mt averaging 162 g/t Ag, 0.80 g/t Au, 0.23% Cu, 0.5% Pb, and 2.0% Zn (or 356 g/t AgEq or 4.3 g/t AuEq), containing 10.3 Moz Ag, 0.05 Moz Au, 10 Mlb Cu, 23 Mlb Pb, and 84 Mlb Zn (or 22.5 Moz AgEq or 0.273 Moz Au) in Inferred Mineral Resources.

This updated MRE incorporates an additional 25,659 m of core drilling in 78 holes completed in 2020 to 2022 and updated metal recoveries and metal prices. Five separate target areas have been tested in part and thick intervals of high-grade gold, silver and base metal mineralization have been identified in each of the Camp Vein, the Sveinson Target, No.3 Vein and NG-3 Vein systems. The updated NI 43-101 Mineral Resource Estimate increases the tonnage by approximately 240%, due to revised metal pricing, the extension to the NG-3 Deposit, and the addition of mineralization from the Camp and Sveinson Veins.

Silver and gold Equivalents and NSR\$/t values were calculated using approximate average long-term prices of \$20/oz silver, \$1,700/oz gold, \$3.50/lb copper, \$0.95/lb lead and \$1.45/lb zinc. All metal prices are stated in \$US with a conversion to \$C of 0.77.

In the Authors' opinion, the drilling, assaying and exploration work on the Silver Queen Project supports this Mineral Resource Estimate and are sufficient to indicate a reasonable potential for economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The Mineral Resource Estimate was classified as Indicated and Inferred based on the geological interpretation, semi-variogram performance and drill hole spacing.

The Mineral Resource Estimate presented in the current Technical Report has been prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1 and in conformity with generally accepted "CIM Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines (2019). Mineral Resources have been classified in accordance with the "CIM Standards on Mineral Resources and Reserves: Definition and Guidelines" as adopted by CIM Council on May 10, 2014. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure.

## 26.0 RECOMMENDATIONS

The Authors consider that the Silver Queen Property hosts significant high-grade mineralization that may potentially be amenable to underground economic extraction and warrants further exploration. The Authors recommend that the next exploration phase focus on core drilling to potentially increase the Mineral Resources on the Property.

The Authors recommend continued focus on the identification and delineation of the vein system on the Silver Queen Property, in order to build additional Mineral Resources, and to continue metallurgical testwork to resolve metal displacement within the floatation circuit. To further advance Silver Queen, Equity Metals Should complete:

- Step-out drilling to the west and down-dip of the Camp Vein Target;
- Further delineation of veins within the Sveinson Target;
- Continued confirmation and delineation of historical veins identified on the Property by previous workers, including the George Lake, George Lake South and the Cole Lake veins where historical drilling has identified significant exploration potential. Surface work may include soil and rock chip sampling to assist in establishing vein orientations to be followed by confirmation drilling;
- Metallurgical testwork to resolve base metal displacement in the copper and lead concentrates; and
- Further testwork to optimize gold deportment within the floatation circuit.

The recommended 2023 exploration and development program and estimated costs for the Silver Queen Property are listed in Table 26.1 Approximate expense items are listed with a description where appropriate and a total cost. The program can be conducted in phases and completed in a four- to six-month timeframe from inception to completion of a status report.

<b>TABLE 26.1</b>	
<b>RECOMMENDED PROGRAM AND BUDGET FOR 2023</b>	
<b>Program</b>	<b>Budget (US\$)</b>
Claim and Property	25,000
<b>Field Program</b>	
Project Infrastructure	50,000
Analytical	230,000
Drilling (5,000 m)	650,000
Travel	4,000
Field Personnel	300,000

<b>TABLE 26.1</b> <b>RECOMMENDED PROGRAM AND BUDGET FOR 2023</b>	
<b>Program</b>	<b>Budget (US\$)</b>
Surface sampling (soil and rocks)	100,000
Reclamation	75,000
<b>Field Program Subtotal</b>	<b>1,409,000</b>
<b>Oversight &amp; Metallurgical Work</b>	
Project Oversight	50,000
Project Management Travel	5,000
Metallurgical Testwork	50,000
Oversight and Reporting Expenses	105,000
<b>Sub-Total</b>	<b>1,539,000</b>
Contingency (10%)	153,900
<b>Total</b>	<b>1,692,900</b>

## 27.0 REFERENCES

- Armstrong, R.L. 1988. Mesozoic and Early Cenozoic Magmatic Evolution of the Canadian Cordillera. Geological Society of America. Special Paper 218, 55-91.
- Angen, J. J., Hart, C. J. R., Kim, R. S. and Rahimi, M. 2018. Geology and Mineral Potential of the TREK Area, Northern Interior Plateau, Central British Columbia, Parts of 1:250,000 NTS Sheets 093B, C, F and G: MDRU, 2018-12.
- Bernstein. 1987. Mineralogy and Petrography of Some Ore Samples from the Silver Queen Mine. 1 Aug 1987.
- Blue Coast Metallurgy and Research. 2022. Silver Queen Mineralogical Characterization and Flotation Testwork. 16 November 2022.
- Britton Research Ltd. 1970. Preliminary Investigation of a sample of Au-Ag-Cu-Pb-Zn Ore. for Nadina Explorations Ltd. 28 October 1970.
- Burga *et al.* 2019. Initial Mineral Resource Estimate and Technical Report on the Number 3 Vein, Silver Queen Property, Omineca Mining Division, British Columbia, Canada. Prepared for New Nadina Explorations Limited by David Burga, Jarita Barry, D. Grant Feasby, James Hutter, Eugene Puritch, Richard H. Sutcliffe and Yungang Wu of P&E Mining Consultants Inc. Dated August 29, 2019 with an effective date of July 15, 2019. 174 pages.
- Caron, L. 1996. Final Technical Report; 1995-1996 Compilation and Interpretation of Data and Metallurgical Program.
- Carter, N.C. 1981. Porphyry Copper and Molybdenum Deposits West-central British Columbia; B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 64, 150 pages.
- Cheng, X. 1995. Mass Changes During Hydrothermal Alteration, Silver Queen Deposit, Ph.D. Thesis.
- Church, B.N. 1970. Nadina (Silver Queen); B.C. Ministry of Energy, Mines and Petroleum Resources, Geology, Exploration and Mining, 1969, 126-139.
- Church, B.N. 1971. Geology of the Owen Lake, Parrot Lakes, and Goosly Lake Area; B.C. Ministry of Energy, Mines and Petroleum Resources, Geology, Exploration and Mining, 1970, 119-127.
- Church, B.N. 1973. Geology of the Buck Creek Area; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Geology, Exploration and Mining, 1972, 353-363.
- Church, B.N. 1984. Geology of the Buck Creek Tertiary Outlier; *B.C. Ministry of Energy, Mines and Petroleum Resources*, unpublished 1:100 000 scale map.

- Church, B.N. 1985. Update on the Geology and Mineralization in the Buck Creek Area - the Equity Silver Mine Revisited (93L1W); *B.C. Ministry of Energy, Mines and Petroleum Resources*, Geological Fieldwork 1984, Paper, 1985-1, 175-187.
- Church, B.N. and Barakso, J.J. 1990. Geology, Lithogeochemistry and Mineralization in the Buck Creek Area, British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources Paper 1990-2, 95 pages.
- Cui, Y., Miller, D., Schiarizza, P. and Diakow, L.J. 2017. British Columbia Digital Geology. British Columbia Ministry of Energy, Mines and Petroleum Resources, British Columbia Geological Survey Open File 2017-8, 9p. Data version 2019-12-19.
- Cyr, J.B., Pease, R.B. and Schroeter, T.G. 1984. Geology and Mineralization at the Equity Silver Mine. *Economic Geology* 79, 947-968.
- Diakow, L.J. and Koyanagi, V. 1988. Stratigraphy and Mineral Occurrences of Chikamin Mountain and Whitesail Reach Map Areas (93E/06, 10); B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1987, Paper, 1988-1, 155-168.
- Duffell, S. 1959. Whitesail Lake Map-area. British Columbia: Geological Survey of Canada. Memoir 299.
- Friedman, R. M. and Jordan, S. 1997. U-Pb Ages for Intrusive Rocks at the Huckleberry Porphyry Copper Deposit, Tahtsa Lake District, Whitesail Lake map area, west-central British Columbia (93E/11): Geological Fieldwork 1996, 219-225.
- Giant Bay Biotech. 1988. Preliminary Evaluation of Bioleaching Flotation Concentrate from the Silver Queen Property. 6 February 1988.
- Giroux, G.H. 2012. 2012 Mineral Resource Update on the Poplar Deposit, Omineca Mining Division, British Columbia, NI 43-101 Technical Report for Lions Gate Metals Inc., March 30, 2012, 129 pages.
- Hood C.T., Leitch, C.H.B. and Sinclair, A.J. 1991. Mineralogic Variation Observed at the Silver Queen Mine, Owen Lake, Central British Columbia (93L/2), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1990, Paper 1991-1, 185-190.
- Hutter, J.M. and MacIntyre, D.G. 2013. Diamond Drilling Report on the Silver Queen Property, 438 pages. Assessment Report #34, 439.
- JDS Energy Mining Inc. 2010. Technical Report for the Silver Queen Property. 19 Nov 2010.
- JDS Energy and Mining Inc. 2011. Technical Report for the Silver Queen Property. Prepared for New Nadina Explorations Limited. Dated April 18, 2011. 97 pages.
- Kim, R.S.Y. 2020. Evolution of Late Cretaceous Kasalka Group Volcanics, Nechako Plateau, Central British Columbia, MSc thesis, The University of British Columbia, 227 pages.

- Leitch, C.H.B., Hood, C.T., Cheng, X. and Sinclair, A.J. 1990. Geology of the Silver Queen Mine Area.
- Leitch, C.H.B., Hood, C. T., Xiao-Lin Cheng, and Sinclair, A.J. 1992. Tip Top Hill Volcanics: Late Cretaceous Kasalka Group Rocks Hosting Eocene Epithermal Base- and Precious-Metal Veins at Owen Lake, West-central British Columbia. *Canadian Journal of Earth Sciences* 29, 854-864.
- Looby, E.L. 2015. The Timing and Genesis of the Blackwater Gold-Silver Deposit, Central British Columbia: Constraints from Geology, Geochronology and Stable Isotopes, MSc thesis, The University of British Columbia, 184 pages.
- Macdonald, R., Hamilton, C., McGrath, B. and Wainwright, A.J. 2022. 2020 & 2021 Diamond Drilling & Airborne Mag Assessment Report on the Silver Queen Property, BC, 55 pages. Assessment Report Not Yet Off Confidential.
- MacIntyre, D.G. 1985. Geology and Mineral Deposits of the Tahtsa Lake District, West-central British Columbia; B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 75, 82 pages.
- MacIntyre, D.G., Ash, C. and Britton, J. 1994. Nass-Skeena (93/E, L, M; 94/D; 103/G, H, I, J, P; 104/A, B). British Columbia Ministry of Energy, Mines and Petroleum Resources, British Columbia Geological Survey Open File 1994-14.
- Nelson, J.L., Colpron, M. and Israel, S. 2013. The Cordillera of British Columbia, Yukon and Alaska: Tectonics and Metallogeny. In: Colpron, M., Bissig, T., Rusk, B. G., and Thompson, J., (Eds.), *Tectonics, Metallogeny and Discovery: The North American Cordillera and Similar Accretionary Settings*, Society of Economic Geologists Special Publication 17, 53-110.
- New Nadina. 2019. New Nadia Reports Initial NI 43-101 Mineral Resource Estimate. New Nadia Explorations Limited Press Release dated July 15, 2019, 2 pages.
- Panteleyev, A. 1986. Ore Deposits #10, A Canadian Cordilleran Model for Epithermal Gold-Silver Deposits. *Geoscience Canada* 13, 101-111.
- Westphal, M. 2018. Report on the Diamond Drilling Program on the Silver Queen Property, for New Nadina Exploration Ltd, Assessment report #37585, 39 pages.
- Wetherell, D.G., Sinclair, A.J. and Schroeter, T.G. 1979. Preliminary Report on the Sam Goosly Copper-silver Deposit; B.C. Ministry of Energy, Mines, and Petroleum Resources, *Geological Fieldwork* 1978, Paper, 1979-1, 132-137.
- Wojdak, P.J. and Sinclair, A.J. 1984. Equity Ag-Cu-Au Deposit: Alteration and Fluid Inclusion Study. *Economic Geology* 79, 969-990.

## 28.0 CERTIFICATES

### CERTIFICATE OF QUALIFIED PERSON

#### WILLIAM STONE, PH.D., P.GEO.

I, William Stone, Ph.D., P.Geo, residing at 4361 Latimer Crescent, Burlington, Ontario, do hereby certify that:

1. I am an independent geological consultant working for P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, (The “Technical Report”) with an effective date of December 1, 2022.
3. I am a graduate of Dalhousie University with a Bachelor of Science (Honours) degree in Geology (1983). In addition, I have a Master of Science in Geology (1985) and a Ph.D. in Geology (1988) from the University of Western Ontario. I have worked as a geologist for a total of 35 years since obtaining my M.Sc. degree. I am a geological consultant currently licensed by the Professional Geoscientists of Ontario (License No 1569).

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

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

- |  |              |
|--|--------------|
| • Contract Senior Geologist, LAC Minerals Exploration Ltd.   | 1985-1988    |
| • Post-Doctoral Fellow, McMaster University                  | 1988-1992    |
| • Contract Senior Geologist, Outokumpu Mines and Metals Ltd. | 1993-1996    |
| • Senior Research Geologist, WMC Resources Ltd.              | 1996-2001    |
| • Senior Lecturer, University of Western Australia           | 2001-2003    |
| • Principal Geologist, Geoinformatics Exploration Ltd.       | 2003-2004    |
| • Vice President Exploration, Nevada Star Resources Inc.     | 2005-2006    |
| • Vice President Exploration, Goldbrook Ventures Inc.        | 2006-2008    |
| • Vice President Exploration, North American Palladium Ltd.  | 2008-2009    |
| • Vice President Exploration, Magma Metals Ltd.              | 2010-2011    |
| • President & COO, Pacific North West Capital Corp.          | 2011-2014    |
| • Consulting Geologist                                       | 2013-2017    |
| • Senior Project Geologist, Anglo American                   | 2017-2019    |
| • Consulting Geoscientist                                    | 2020-Present |

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 2 to 10, 15 to 16, and 18 to 24, and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: December 1, 2022

Signed Date: January 16, 2023

**{SIGNED AND SEALED}**

**[William Stone]**

---

William E. Stone, Ph.D., P.Geo.



## CERTIFICATE OF QUALIFIED PERSON

**FRED H. BROWN, P.GEO.**

I, Fred H. Brown, of PO Box 332, Lynden, WA, USA, do hereby certify that:

1. I am an independent geological consultant and have worked as a geologist continuously since my graduation from university in 1987.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, (The “Technical Report”) with an effective date of December 1, 2022.
3. I graduated with a Bachelor of Science degree in Geology from New Mexico State University in 1987. I obtained a Graduate Diploma in Engineering (Mining) in 1997 from the University of the Witwatersrand and a Master of Science in Engineering (Civil) from the University of the Witwatersrand in 2005. I am registered with the Association of Professional Engineers and Geoscientists of British Columbia as a Professional Geoscientist (171602) and the Society for Mining, Metallurgy and Exploration as a Registered Member (#4152172).

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

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

- |   |              |
|---|--------------|
| • Underground Mine Geologist, Freegold Mine, AAC        | 1987-1995    |
| • Mineral Resource Manager, Vaal Reefs Mine, AngloGold  | 1995-1997    |
| • Resident Geologist, Venetia Mine, De Beers            | 1997-2000    |
| • Chief Geologist, De Beers Consolidated Mines          | 2000-2004    |
| • Consulting Geologist                                  | 2004-2008    |
| • P&E Mining Consultants Inc. – Sr. Associate Geologist | 2008-Present |

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 14.1 and 14.3 and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: December 1, 2022

Signed Date: January 16, 2023

***{SIGNED AND SEALED}***

***[Fred H. Brown]***

---

Fred H. Brown, P.Geo.

## CERTIFICATE OF QUALIFIED PERSON

**ANTOINE R. YASSA, P.GEO.**

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

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, (The “Technical Report”) with an effective date of December 1, 2022.
3. I am a graduate of Ottawa University at Ottawa, Ontario with a B. Sc (HONS) in Geological Sciences (1977) with continuous experience as a geologist since 1979. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and by the Association of Professional Geoscientist of Ontario (License No 1890);

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

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

- |   |              |
|---|--------------|
| • Minex Geologist (Val d’Or), 3-D Modeling (Timmins), Placer Dome             | 1993-1995    |
| • Database Manager, Senior Geologist, West Africa, PDX,                       | 1996-1998    |
| • Senior Geologist, Database Manager, McWatters Mine                          | 1998-2000    |
| • Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine)     | 2001-2003    |
| • Database Manager and Resources Evaluation at Julietta Mine, Bema Gold Corp. | 2003-2006    |
| • Consulting Geologist  | 2006-present |

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 14.1 and 14.3 and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: December 1, 2022

Signed Date: January 16, 2023

***{SIGNED AND SEALED}***

***[Antoine R. Yassa]***

---

Antoine R. Yassa, P.Geo.

## **CERTIFICATE OF QUALIFIED PERSON**

**GARTH KIRKHAM, P.GEO., FGC**

I, Garth David Kirkham, P.Geo., do hereby certify that:

1. I am a consulting geoscientist with an office at 6331 Palace Place, Burnaby, British Columbia.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, (The “Technical Report”) with an effective date of December 1, 2022.
3. I am a graduate of the University of Alberta in 1983 with a BSc. I have continuously practiced my profession since 1988. I have worked on and been involved with a large number of NI 43-101 studies, particularly on the Cerro Blanco gold-silver project and the Kutcho Creek and Debarwa poly-metallic deposits, along with multiple Technical Reports and Mineral Resource Estimates on the Cerro Las Minitas project.
4. I am a member in good standing of Engineers and Geoscientists BC (EGBC).
5. I have visited the Property that is the subject of this Technical Report on September 27, 2022, and October 2 through 4, 2021. I also visited the property on October 13<sup>th</sup>, 2010 on behalf of New Nadia Explorations, the previous owner of the Property.
6. I am responsible for authoring Sections 12.2, and 14.2, and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
7. I had prior involvement with the property and was the author of the independent technical report dated of 18<sup>th</sup> of October 2011 on behalf of New Nadia Exploration, the previous owner.
8. I am independent of Equity Metals Corporation as defined in Section 1.5 of National Instrument 43-101.
9. I have read the definition of “Qualified Person” set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
10. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report and that, at the effective date of the Technical Report, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
11. I have read National Instrument 43-101, Standards for Disclosure of Mineral Projects and Form 43-101F1. This Technical Report has been prepared in compliance with that instrument and form.

Effective Date: December 1, 2022

Signed Date: January 16, 2023, in Burnaby, British Columbia

***{SIGNED AND SEALED}***

***/Garth Kirkham/***

---

Garth Kirkham, P.Geo.

Kirkham Geosystems Ltd.

## CERTIFICATE OF QUALIFIED PERSON

### JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 9052 Mortlake-Ararat Road, Ararat, Victoria, Australia, 3377, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, (The “Technical Report”) with an effective date of December 1, 2022.
3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for over 17 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (License No. 40875) and Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

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

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

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Section 11, 12.1 and 12.2.1 and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “Initial Mineral Resource and Technical Report on the Number 3 Vein, Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of July 15, 2019.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: December 1, 2022

Signed Date: January 16, 2023

**{SIGNED AND SEALED}**

**[Jarita Barry]**

---

Jarita Barry, P.Geo.

## CERTIFICATE OF QUALIFIED PERSON

### JAMES HUTTER, P.GEO.

I, James Hutter, P.Geo., residing at 4407 Alfred Avenue, Smithers, BC, do hereby certify that:

1. I am an independent geological consultant.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, (The “Technical Report”) with an effective date of December 1, 2022.
3. I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geological Sciences (1976). I have worked as a geologist for over 40 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by Engineers and Geoscientists BC (License No. 19247, Permit to Practice No. 1002278).

I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

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

- Geologist, Houston Metals Corporation, 1987-1989
  - Exploration Manager, Blue Pearl Mining Ltd. and Thompson Creek Metals Ltd., 2005-2011
  - Mine Planner, Gavin Mines Ltd, 2012
  - Consultant on various projects in North-western BC, including Silver Queen, 1990-present
4. I have visited the Property that is the subject of this Technical Report on May 29, 2019 and on many previous occasions, often for extended periods.
  5. I am responsible for authoring Section 12.2.1 and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
  6. I conducted a check sampling program on the Silver Queen Property on May 29, 2019.
  7. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
  8. I have had prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “Technical Report for the Silver Queen Property”, with an effective date of April 18, 2011, and also for a Technical Report titled “Initial Mineral Resource Estimate and Technical Report on the Number 3 Vein, Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of July 15, 2019. I worked for Houston Metals Corporation from 1987 to 1989 and intermittently on various projects on the Silver Queen Project for New Nadina Explorations Ltd. since that time.
  9. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
  10. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: December 1, 2022

Signed Date: January 16, 2023

**{SIGNED AND SEALED}**

**[James Hutter]**

---

James Hutter, P.Geo.

## CERTIFICATE OF QUALIFIED PERSON

### ARTHUR ROBERT BARNES

I, Arthur Robert Barnes, P.Eng; FSAIMM; M.Sc.(Eng.) do hereby certify that:

1. I am President and Principal Consultant of: MPC Metallurgical Process Consultants Limited situated at Unit 90-2400 Oakdale Way, Kamloops, British Columbia, Canada.
2. This certificate applies to the technical report entitled, “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of December 1, 2022.
3. I graduated with a B.Sc (Metallurgy)(Honours) from the University of Pretoria in 1974 and an M.Sc. (Metallurgical Engineering) degree from the University of the Witwatersrand in 1981.
4. I am a Professional Engineer in good standing in Ontario (license #100501305) and British Columbia (license # 209871) in the area of Process Metallurgy. I am a Fellow of the Southern African Institute of Mining and Metallurgy (license # 18967). I am an active member of the Canadian Institute of Mining Metallurgy and Petroleum (CIM) (Member #146931).
5. I have worked as a professional process metallurgist in the extractive industry for a total of 39 years.
6. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
7. I am responsible for authoring Section 13 and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
8. I have not visited the Property site.
9. I have had no prior involvement with the Property that is the subject of this Technical Report
10. 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.
11. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.
12. I have read NI 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.

Effective Date: December 1, 2022

Signed Date: January 16, 2023

***{SIGNED AND SEALED}***

***[Arthur Barnes]***

---

Arthur Robert Barnes, P.Eng., FSAIMM

## CERTIFICATE OF QUALIFIED PERSON

### EUGENE PURITCH, P. ENG., FEC, CET

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

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, (The “Technical Report”) with an effective date of December 1, 2022.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen’s University. In addition, I have also met the Professional Engineers of Ontario Academic Requirement Committee’s Examination requirement for a Bachelor’s degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

I have practiced my profession continuously since 1978. My summarized career experience is as follows:

- Mining Technologist - H.B.M. & S. and Inco Ltd., 1978-1980
- Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
- Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
- Self-Employed Mining Consultant – Timmins Area, 1987-1988
- Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
- Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
- President – P&E Mining Consultants Inc, 2004-Present

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 14.1 and 14.3 and corresponding Sections of 1, 25 and 26 as a co-author of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “Initial Mineral Resource and Technical Report on the Number 3 Vein, Silver Queen Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of July 15, 2019.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: December 1, 2022

Signed Date: January 16, 2023

**{SIGNED AND SEALED}**

**[Eugene Puritch]**

---

Eugene Puritch, P.Eng., FEC, CET