

*MAP- Willow Creek Reservoir, NV - 7.5' Quadrangle*

**TECHNICAL REPORT**

**RIMROCK PROJECT**

Ivanhoe Mining District

Elko County, Nevada, USA

for

**CAT STRATEGIC METALS CORPORATION**

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**Effective Date: 15 April, 2021**

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## **1.0 SUMMARY**

At the request of CAT Strategic Metals Corporation (CAT), this evaluation and report has been made on the Rimrock Project (the “Project”), Ivanhoe Mining District, Elko County, Nevada, U.S.A. (Figure 1.1). The report incorporates a summary of previous work and an appraisal of the exploration potential of the Project, and makes recommendations for further work. This report is based on a compilation and analysis of published and unpublished geological reports prepared by cited persons, and field examinations by the writer, a “qualified person” within the meaning of National Instrument 43-101 of the Canadian Securities Administrators.

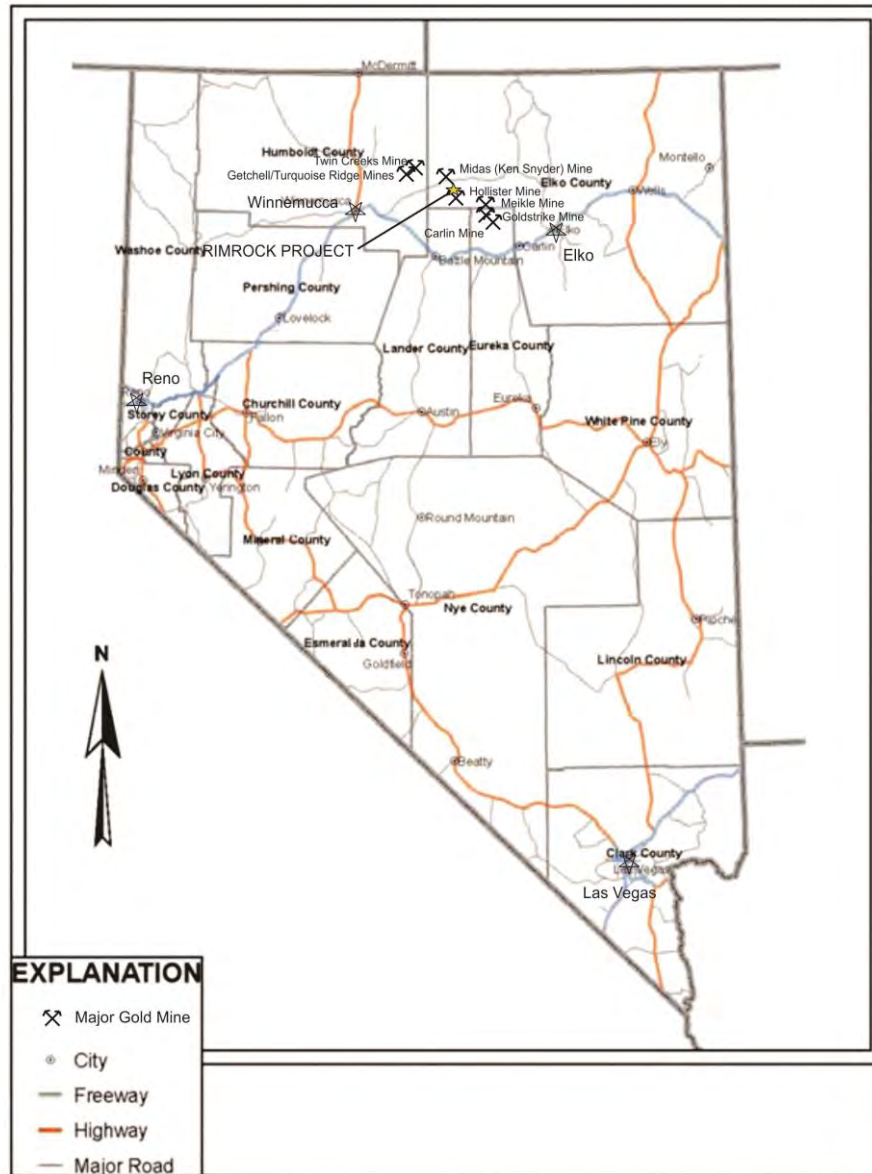
The Rimrock project is located near the Midas Trough within the Ivanhoe Mining District in western Elko County, Nevada on the northern flank of the Sheep Creek Range on the Willow Creek Reservoir USGS 7.5’ topographic quadrangle. It is located 78 air km west-northwest of Elko and 98 air km east-northeast of Winnemucca, Nevada. From Elko, access is via paved Highways 225 and 226 for 46 miles (74 km), west on the graded dirt Midas-Tuscarora County Road for 36 miles (58 km) and three miles (4.8 km) southeast on the graded dirt Ivanhoe Mining District road. From Winnemucca, 15.8 miles (25.4 km) east on I-80 to the Golconda exit and onto Paved highway 789, then north 15.4 miles (24.6 km) to the graded dirt Midas-Tuscarora Road, then east 20.5 miles (33 km) to the Ivanhoe mining district dirt road. The center of the property is approximately 12.6 miles (20.3 km) southeast of the town of Midas, and the location of the Hecla Mining Company’s Midas underground gold mine and approximately 14.9 miles (24 km) north-northwest of Barrick’s multi-million ounce Meikle gold mine. Both Elko and Winnemucca are full service mining towns within a two hour drive of the project site (Figure 1.2). Major metropolitan areas with air hubs to international destinations are found at Salt Lake City, Utah (405 air kilometers east-southeast) and Reno, Nevada (325 air kilometers southwest).

The property comprises a claim block of 133 unpatented lode mining claims (Figure 1.3). All claims are full size (600 ft by 1,500 ft (182.9 m by 457.2 m)) save two fractional claims. The claims total approximately 2,722.56 acres (1,101 hectares) and are located 48 miles (80 km) northwest of Elko, Nevada. All claims have been filed and recorded with Elko County and the U.S. Bureau of Land Management.





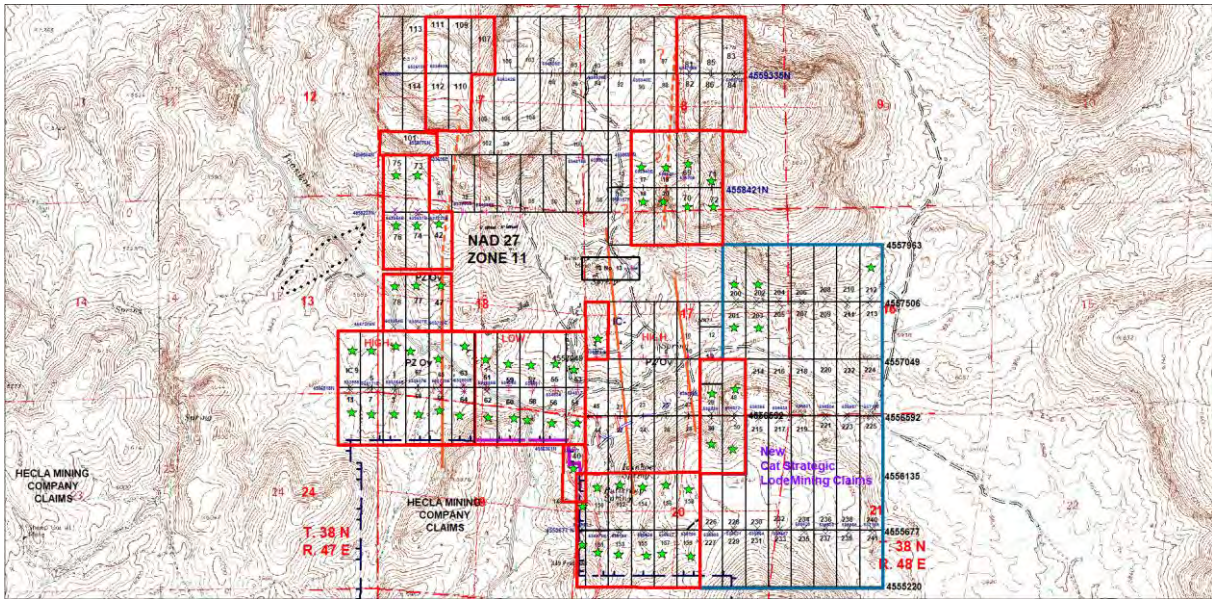
**Figure 1.1** – Location of the Rimrock Project and principal gold mines in the western United States.



**Figure 1.2** – Rimrock project location with nearby large gold mines and major town and cities.

The project is situated 36 miles (58 km) from the nearest paved highway and is accessed via all-weather, bladed gravel roads to the property; unimproved, two-track roads access various parts of the property. Several small springs occur within the project boundaries; the perennial Willow Creek and Willow Creek Reservoir are located within 5 km north of the property boundaries.





**Figure 1.3** – Location of Rimrock lode mining claims and neighboring properties, north of the Hollister Mine, Ivanhoe Mining District, Elko County, Nevada.

The Property is in rolling, sagebrush-covered desert with areas of cliffs, and abrupt drop-offs. The climate is favorable for year-round mining, with all supplies and services needed for a successful exploration program available in the region.

The geology consists of a silicic to intermediate volcanic pile dipping gently to moderately east and capped by relatively flat-lying rhyolite flows. The volcanics vary from shallow (locally absent) to in excess of one kilometer thick overlying Ordovician Vinini Formation siliceous “Upper Plate” sedimentary rocks; thickness of the volcanic pile increases to the north. These rocks are locally overprinted by low sulfidation, hydrothermal alteration, expressed as chalcedonic silicification and opalization, bleaching and local quartz-sericite-pyrite alteration. Mercury mineralization accompanies opal and chalcedony silicification. This mineralization is dated 15.20-14.92 Ma (Wallace, 2003). The stratigraphy is offset by north-northeast and northeast, with subsidiary east-west and northwest oriented high angle structures.

The Rimrock project is situated along the Northern Nevada Rift (“NNR”), a Miocene-age structural zone that hosts several current and past producing mines. The largest of these are Newmont’s Mule Canyon and Hecla Mining Company’s (Hecla) Midas (Ken Snyder) and

Hollister Mines (John and Wallace, 2000; John, 2001; klondexmines.com, 2018).

The Rimrock project is a grassroots prospect. Exploration has been limited to surface prospecting and limited geochemical sampling of altered bedrock. The observed surface indications, gold values to 13 ppb, silver to 0.87 ppm, arsenic to 39.5 ppm and mercury to 327 ppm are similar to subtle features found above high-grade vein systems in the Ivanhoe and Midas (Gold Circle) districts and additional exploration is warranted.

The recommended exploration program consists of additional geologic mapping, geophysical and geochemical ground work to define drill hole locations, followed by a combination of reverse circulation and core drilling to test targets at depth.

This program has been defined in two phases, with the Phase 1 ground work budgeted at approximately \$198,200USD (CAD\$250,000) and the Phase 2 drilling budgeted at a minimum of \$500,000USD (CAD\$630,650).

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

### **2.1 ISSUER**

This Technical Report for the Rimrock Project has been prepared at the request of CAT Strategic Metals Corporation, the Issuer. It is a summation of current knowledge of the project, its geologic, exploration and mining activities. It does not include a new resource estimate.

Beginning 31 August, 2020, CAT Strategic Metals Corporation acquired the Rimrock Project via transfer of the 69 lode claims covering approximately 1,425.5 acres (576.9 Ha) in the vicinity of Ivanhoe Creek from Richard R. Redfern and Soloro Cobalt and Gold Corporation. CAT then staked additional claims around the original core of claims; the total claims in the project are now 133; all claims are full size (600 ft by 1,500 ft (182.9 m by 457.2 m)) save two fractional claims. The claims total approximately 2,722.56 acres (1,101 hectares). CAT Strategic Metals Corporation also controls the Gold Jackpot Property, located in Elko County, Nevada, 183 km to the east-northeast near the Idaho and Utah borders.

### **2.2 TERMS OF REFERENCE AND PURPOSE OF THE REPORT**

The purpose of this report is to detail the current understanding of the technical aspects of the Rimrock Project located at Ivanhoe Creek, northern Sheep Creek Mountains, Elko County, Nevada. No resource or reserve estimates have been completed to date.

This report is written in compliance with disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101, Companion Policy 43-101CP and Form 43-101, revised June 2011. Prior work on the property before the Winter of 2020-2021 included due diligence, data compilation, local geologic mapping, and geochemical sampling.

#### **2.2.1 Terms Commonly Used in this Report**

Units of measure, conversion factors and currency in this report are as follows:

##### **Linear Measure**

1 inch	= 2.54 centimeters	= 254 millimeters
1 foot	= 0.3048 meter	
1 mile	= 1.6093 kilometer	= 1,609.3 meters

**Area Measure**

1 acre = 0.4047 hectare  
 1 square mile = 640 acres = 259 hectares

**Capacity Measure (liquid)**

1 US Gallon = 4 quarts = 3.785411784 liters

**Weight**

1 short ton = 2,000 pounds = 0.90718474 metric tonne (T)  
 1 pound = 0.45359237 kg = 14.5833 troy ounces

**Analytical Values**

	Percent (%)	Grams per Metric Tonne	Troy ounces per Short Ton
1%	1%	10,000.0000	291.6667
1 gram/tonne	0.0001%	1.0000	0.0291667
1 troy ounce/ short ton	0.003429%	34.2857	1.0000
100 ppb	0.00001%	0.1000	0.0029
100 ppm	0.01%	100.0000	2.9170

**Commonly used abbreviations and acronyms**

- AA Atomic Absorption Spectrometry
- Ag Silver
- AMSL Above Mean Sea Level
- ATV All-Terrain Vehicle
- Au Gold
- BLM Bureau of Land Management
- CIM Canadian Institute of Mining, Metallurgy and Petroleum
- Core Diamond drilling method producing a cylinder of rock
- EDX Energy-dispersive X-ray spectroscopy
- FA-AA Fire assay with atomic absorption finish
- Ft Feet (British Imperial System of measurement)
- g Grams
- g/T Grams per Metric Tonne
- ha Hectares
- Hg Mercury
- ICP Inductively Coupled Plasma
- m Meters
- mm Millimeters

km	Kilometers
opt	ounces (troy)/ton (short)
ppb	Parts per billion
ppm	Parts per million
RC	Reverse Circulation drilling method producing cuttings as a sample
SEM	Scanning Electron Microscope
Tpd	Tonnes (metric) per day
US	United States

All monetary figures in this report are in U.S. Dollars (USD).

### **2.3 SOURCES OF INFORMATION AND DATA**

The author reviewed all documents and data available relative to the regional and property geology, land status, history of the district and project, past exploration and development work and the accompanying results, methodology, interpretations, and other data necessary to the understanding of the project, sufficient to produce this report. Mr. Ferdock carried out such independent investigations of the data and of the property in the field, as has been deemed necessary in the professional opinion of the author, so that he might reasonably rely on this information.

The sources of this information are primarily from the public domain, namely the United States Geological Survey and Nevada Bureau of Mines and Geology reports and files. Additional internal documentation has been provided by Mr. Redfern and CAT Strategic Metals Corporation personnel and has been verified by site investigation or conversation with independent third parties. Further information has been obtained from public records available on the World Wide Web and data repositories such as county recorders (Elko) and United States Bureau of Land Management (BLM) offices and online sources.

### **2.4 DETAILS OF PERSONAL INSPECTION OF PROPERTY BY QUALIFIED PERSON (QP)**

The property was last visited by the author on 11 February, 2021 and on previous occasions as part of ongoing mapping and exploration efforts. The current exploration programs are being carried out in a thorough and professional manner and the author has no reason to doubt the validity of results of this program.

The author has worked on numerous gold and other mining and exploration projects in Nevada, Alaska, Peru, Mexico, Dominican Republic, Canada and elsewhere in the United

States and world. He has worked on mining projects in Nevada since 1988 to include the Snowstorm and Sheep Creek Mountains region since 1988 and is familiar with the regional and local geology.

The historic drilling, assay and geologic data required to produce this report were generated in several phases over many years from 1915 to 2021. The historic data has passed into the possession of Mexivada, Kent Exploration and Rimrock Gold Corporation, with additional data being sought. Recently acquired data have been incorporated in this report.

As mandated by NI 43-101 requirements, the observations, conclusions and recommendations of the author in this report are derived from comprehensive reviews of the Rimrock project database and on-site inspections through 18 February, 2021. These site inspections were designed to confirm geologic relationships and existing infrastructure.

The author believes that the data presented to him by CAT Strategic Metals Corporation are a reasonable and accurate representation of the Rimrock project.

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

The authors' principal task was to review and compile the historic data made available by Mexivada Mining Corporation, Kent Exploration and that available in the public domain, as well as data from the ongoing exploration program. This report has relied strongly on the historical work and studies in the following areas:

Land Status	Due diligence was completed by R. Redfern and Carlin Trend Mining Supplies and Services was completed in 2007, completed on behalf of Mexivada Mining Corporation, and by Gerber Law Offices, LLP in 2017, and by R. Redfern through March, 2021.
Geology	In addition to published reports (i.e. Wallace, 1991); mapping and reports were conducted and written by E. Harrington (2004, 2006, 2009), Wright Geophysics (2004, 2013), and by the author dated December, 2012.
Current Program	Richard R. Redfern, Consultant to CAT Strategic Nevada Inc.
Metallurgy	No metallurgical work has been completed to date.
Environmental	No environmental evaluations have been completed t date.
Geophysics	Senator Minerals Inc. and Kent Exploration Inc. completed gravity, ground magnetics, and CSAMT surveys over the Ivanhoe Creek portion of the project, results reported by Wright (2004). Rimrock Gold Corp. commissioned a CSAMT survey over the Rimrock portion of the project and results reported by Wright (2013). All geophysical work and reports were provided to the issuer by J.L. Wright Geophysics at the behest of Redfern in 2017.

### **3.1 NON-QP REPORTS – REPORTS PROVIDED BY ISSUER**

#### **3.1.1 Source of Information**

The issuer has provided the majority of reports produced by previous owners, lessees, and



operators on the project. These include reports from J.L. Wright Geophysics (Senator Minerals and Kent Exploration, 2004, and Rimrock Gold Corp., 2013); Technical Reports by Harrington (Senator Minerals, 2004, 2005 and 2006; and Kent Exploration, 2009); Ferdock (Rimrock Gold Corp., 2013); Wallace (USGS, 2003); Milliard (CREG, 2016).

### **3.1.2 Extent of Reliance**

All reports were reviewed with expert eye as the author has spent several days on the project conducting surface mapping and geochemical sampling as well as preparing sub-surface interpretive work.

Reliance on geophysical interpretations is extensive as the author is familiar with the individuals who completed the work, they are well established experts in their fields and the quality of the work meets or exceeds industry norms.

### **3.1.3 Where Disclaimer Applies**

It is unknown how sampling was completed prior to Mr. Redfern's acquisition of the project via staking of unpatented lode claims with the U.S. Bureau of Land Management. The data from these programs have not been verified and no twinned drilling has been completed.

## **3.2 NON-QP REPORTS ON PRICING OF COMMODITIES**

### **3.2.1 Report References**

No reports concerning pricing of commodities were reviewed for this report. Daily spot gold and silver prices are available and frequently referenced from [kitco.com](http://www.kitco.com).

### **3.2.2 Qualifications of Non-QP Report Author**

[Kitco.com](http://www.kitco.com) is a widely referenced metals spot price site and is accepted as an industry source of up-to-the-minute information.

### **3.2.3 Risks**

After this review, it is the opinion of the author that the data provided by CAT were collected in accordance with standard industry practices, and there is no reason to doubt



their validity. Receipts from the U.S. Bureau of Land Management and Elko County demonstrated the unpatented claims are current and valid and that the taxes have been paid for patented claims.

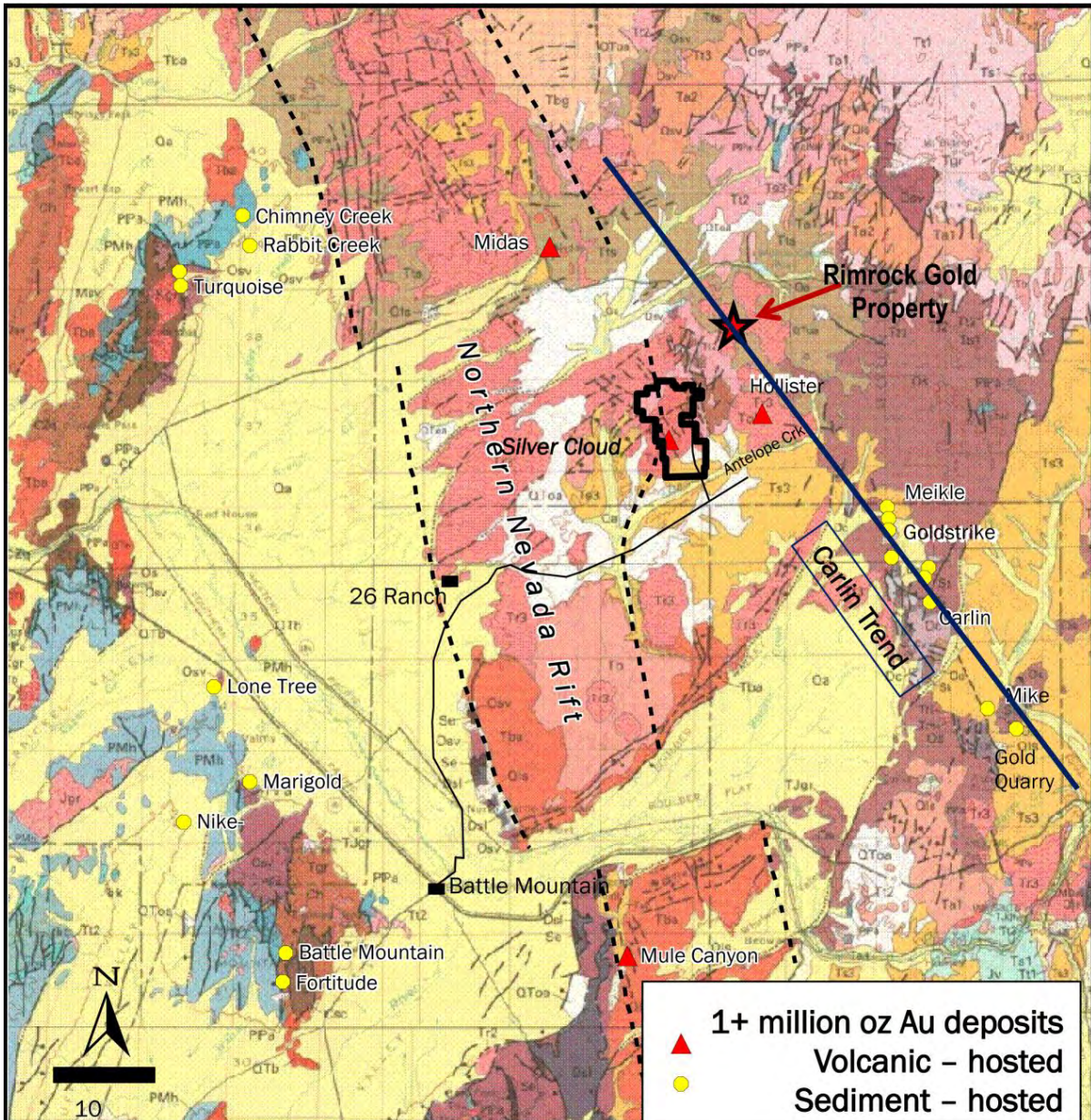
#### **3.2.4 Verification**

No assay data verification has been undertaken by the author. The author is reasonably assured that the assays represent the intervals from which they were taken. The author is familiar with the geology in the project area and sees no reason to doubt the published references regarding same.

Conclusions regarding the Rimrock Project and the recommendations presented in this report are those of the author alone, based on a review of the data and extensive personal experience as a geologist in the mining industry, particularly in Nevada, and do not necessarily reflect those of the issuer, CAT Strategic Nevada Inc.

#### 4.0 PROPERTY DESCRIPTION AND LOCATION

The Rimrock Project is located in western Elko County, in north-central Nevada, USA in an area of significant historic and on-going gold mining activity (Figure 4.1).



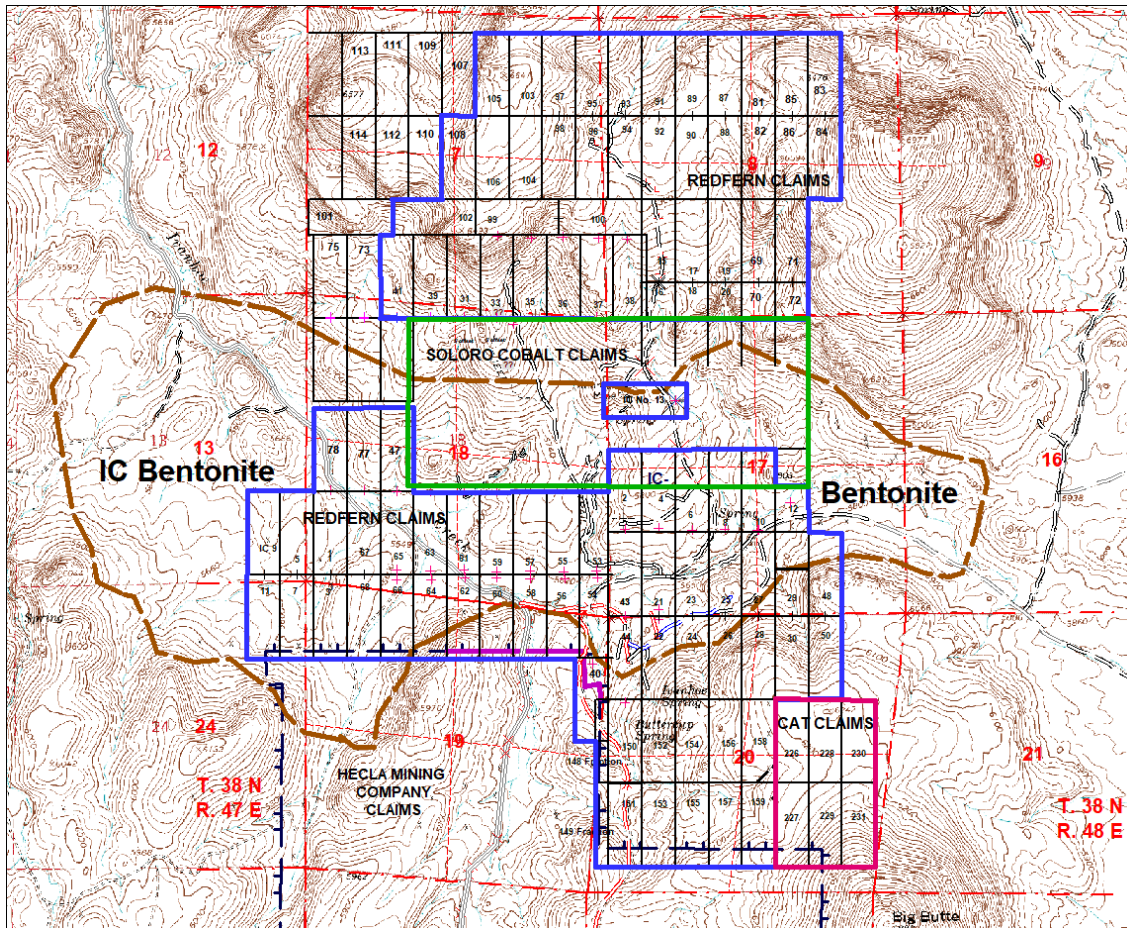
**Figure 4.1** – Project location and geologic map noting Rimrock and Silver Cloud properties along with some nearby operating mines (modified from Dilles and McCoy, 2003).



#### 4.1 AREA (SIZE) OF PROPERTY

The property comprises 133 lode claims; all claims are full size (600 ft by 1,500 ft (182.9 m by 457.2 m)) save two fractional claims. The claims total approximately 2,722.56 acres (1,101 hectares) (Figure 4.2; Table 4.1). These claims are located within the Mount Diablo Baseline and Meridian (MDBM) in all or parts of:

Sections 7, 8, 16, 17, 18, 19, 20, and 21 of Township 38 North, Range 48 East and section 13 and 24 of Township 38 North, Range 47 East.



**Figure 4.2** – CAT Strategic Metals Corporation unpatented lode claims covering the Rimrock Project, Sheep Creek Mountains, Elko County, Nevada.

**Table 4.1 – CAT Strategic Metals Corporation, Rimrock Lode Claims held for the 2020-2021 assessment year.**

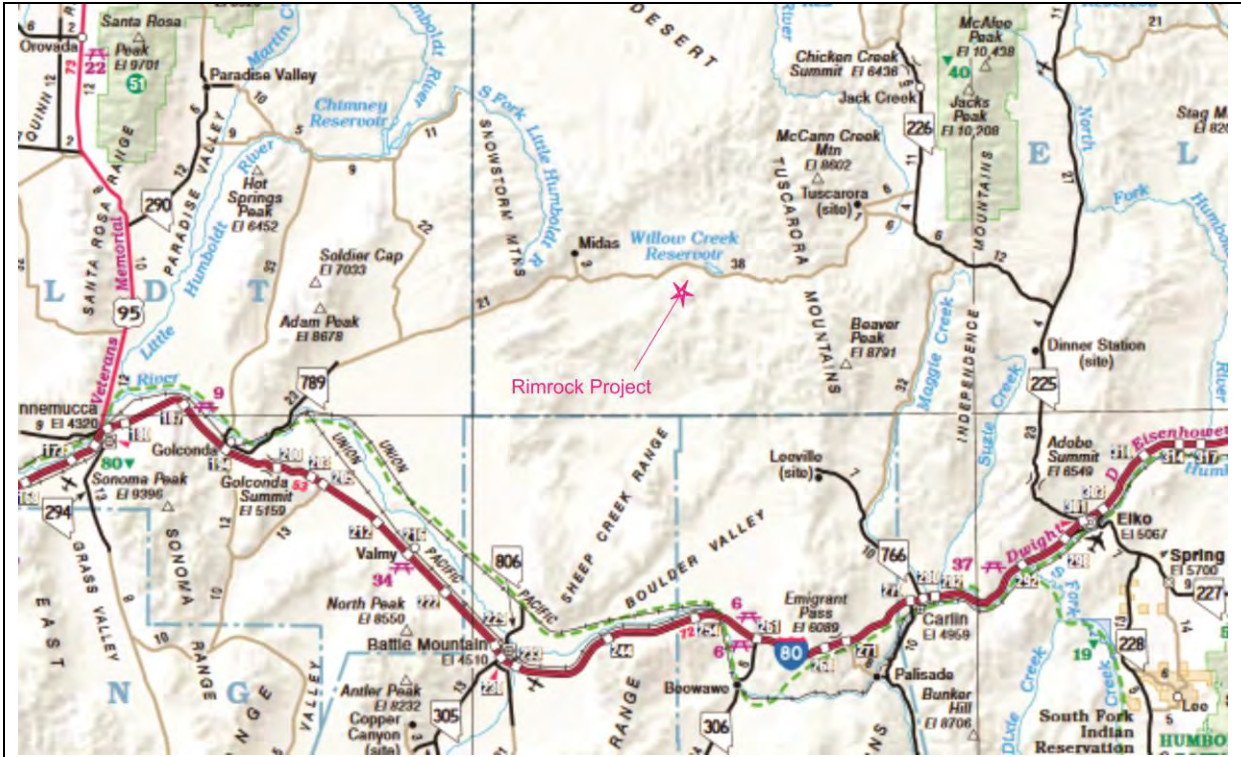
#	Claim Name	Owner ship	BLM File # NV	#	Claim Name	Owner ship	BLM File # NV
1	IC No. 1	100%	105229345	67	IC No. 82	100%	105229385
2	IC No. 2	100%	105229346	68	IC No. 83	100%	105229386
3	IC No. 3	100%	105229347	69	IC No. 84	100%	105229387
4	IC No. 4	100%	101765904	70	IC No. 85	100%	105229388
5	IC No. 5	100%	105229348	71	IC No. 86	100%	105229389
6	IC No. 6	100%	101657371	72	IC No. 87	100%	101543801
7	IC No. 7	100%	105229349	73	IC No. 88	100%	101543802
8	IC No. 8	100%	101657372	74	IC No. 89	100%	101543803
9	IC No. 9	100%	105229350	75	IC No. 90	100%	101543804
10	IC No. 10	100%	101765905	76	IC No. 91	100%	101656973
11	IC No. 11	100%	105229351	77	IC No. 92	100%	101656974
12	IC No. 12	100%	101765906	78	IC No. 93	100%	101657364
13	IC No. 13	100%	101765907	79	IC No. 94	100%	101657365
14	IC No. 15	100%	101765908	80	IC No. 95	100%	101657366
15	IC No. 16	100%	101766061	81	IC No. 96	100%	101657367
16	IC No. 17	100%	105229352	82	IC No. 97	100%	101543805
17	IC No. 18	100%	105229353	83	IC No. 98	100%	101657368
18	IC No. 19	100%	105229354	84	IC No. 99	100%	101657369
19	IC No. 20	100%	105229355	85	IC No. 100	100%	101657370
20	IC No. 21	100%	101766062	86	IC No. 102	100%	101543806
21	IC No. 22	100%	101766063	87	IC No. 103	100%	101545127
22	IC No. 23	100%	101657373	88	IC No. 104	100%	101545128
23	IC No. 24	100%	101657374	89	IC No. 105	100%	101545129
24	IC No. 25	100%	101657375	90	IC No. 106	100%	101545130
25	IC No. 26	100%	101657376	91	IC No. 108	100%	101545131
26	IC No. 27	100%	101657377	92	IC No. 148 Fraction	100%	105229390
27	IC No. 28	100%	101657378	93	IC No. 149 Fraction	100%	105229391
28	IC No. 29	100%	105229356	94	IC No. 150	100%	105229392
29	IC No. 30	100%	105229357	95	IC No. 151	100%	105229393
30	IC No. 31	100%	101543796	96	IC No. 152	100%	105229394
31	IC No. 33	100%	101656970	97	IC No. 153	100%	105229395
32	IC No. 35	100%	101656971	98	IC No. 154	100%	105229396
33	IC No. 36	100%	101656972	99	IC No. 155	100%	105229397
34	IC No. 37	100%	101543797	100	IC No. 156	100%	105229398
35	IC No. 38	100%	101543798	101	IC No. 157	100%	105229399
36	IC No. 39	100%	101543799	102	IC No. 158	100%	105229400
37	IC No. 40	100%	105229358	103	IC No. 159	100%	105229401
38	IC No. 41	100%	101543800	104	RMB #1	100%	101734616
39	IC No. 43	100%	101766064	105	RMB #2	100%	101734617

40	IC No. 44	100%	101766065	106	RMB #3	100%	101734618
41	IC No. 47	100%	105229359	107	RMB #4	100%	101734619
42	IC No. 48	100%	105229360	108	RMB #5	100%	101734620
43	IC No. 50	100%	105229361	109	RMB #6	100%	101734621
44	IC No. 53	100%	105229362	110	RMB #8	100%	101734622
45	IC No. 54	100%	105229363	111	RMB #9	100%	101734623
46	IC No. 55	100%	105229364	112	RMB #10	100%	101734624
47	IC No. 56	100%	105229365	113	RMB #11	100%	101735645
48	IC No. 57	100%	105229366	114	RMB #13	100%	101735646
49	IC No. 58	100%	105229367	115	RIMRMB #1	100%	101735647
50	IC No. 59	100%	105229368	116	RIMRMB #2	100%	101735648
51	IC No. 60	100%	105229369	117	RIMRMB #3	100%	101735649
52	IC No. 61	100%	105229370	118	RIMRMB #4	100%	101735650
53	IC No. 62	100%	105229371	119	RIMRMB #5	100%	101735651
54	IC No. 63	100%	105229372	120	RIMRMB #6	100%	101735652
55	IC No. 64	100%	105229373	121	RIMRMB #7	100%	101735653
56	IC No. 65	100%	105229374	122	RIMRMB #8	100%	101735654
57	IC No. 66	100%	105229375	123	RIMRMB #9	100%	101735655
58	IC No. 67	100%	105229376	124	RIMRMB #10	100%	101735656
59	IC No. 68	100%	105229377	125	RIMRMB #11	100%	101735657
60	IC No. 69	100%	105229378	126	RIMRMB #12	100%	101735658
61	IC No. 70	100%	105229379	127	IC No. 226	100%	105229260
62	IC No. 71	100%	105229380	128	IC No. 227	100%	105229261
63	IC No. 72	100%	105229381	129	IC No. 228	100%	105229262
64	IC No. 77	100%	105229382	130	IC No. 229	100%	105229263
65	IC No. 78	100%	105229383	131	IC No. 230	100%	105229264
66	IC No. 81	100%	105229384	132	IC No. 231	100%	105229265

## 4.2 LOCATION

The Rimrock project is located near the Midas Trough within the Ivanhoe Mining District in western Elko County, Nevada on the northern flank of the Sheep Creek Range on the Willow Creek Reservoir USGS 7.5' topographic quadrangle. It is located 78 air km west-northwest of Elko and 98 air km east-northeast of Winnemucca, Nevada. From Elko, access is via paved Highways 225 and 226 for 46 miles (74 km), west on the graded dirt Midas-Tuscarora County Road for 36 miles (58 km) and three miles (4.8 km) southeast on the graded dirt Ivanhoe Mining District road. From Winnemucca, 15.8 miles (25.4 km) east on I-80 to the Golconda exit and onto Paved highway 789, then north 15.4 miles (24.6 km) to the graded dirt Midas-Tuscarora Road, then east 20.5 miles (33 km) to the Ivanhoe mining district dirt road. The center of the property is approximately 12.6 miles (20.3 km) southeast of the town of Midas, the nearest settlement, located along Nevada State Route 18 (Figure 4.3).





**Figure 4.3** – Road map of north central Nevada with project location indicated. Note the town of Elko is located on I-80 near the eastern edge (right side) of the map, while the town of Winnemucca, also located on I-80, is on the western (left side) of the map.

The approximate geographic center of the property has UTM coordinates of 534,949.61m East and 4,557,834.08m North (NAD 27, Zone 11); Latitude 41.172901° North and Longitude 116.584294° West (WGS 84).

#### 4.3 TYPE OF MINERAL TENURE (CLAIM, LICENSE, LEASE)

CAT owns and controls 133 unpatented lode mining claims from the BLM, shown in Figure 4.2; these are the IC, RMB and RMRIB lode mining claims.

The U.S. Bureau of Land Management (BLM) manages the lands covered by these unpatented claims, under which title remains with the U.S. Federal Government. Each standard unpatented claim is typically 600 feet x 1,500 feet (182.88 m x 457.2 m) in size covering approximately 20.66 acres (8.36 ha) of surface area, though a number of smaller, fractional claims may cover land fractions between patented claims and irregular claims. Claim corners are typically marked in the field with 2 inches (5 cm) by 2 inches (5 cm) by 4

feet (1.2 m) wooden posts.

Claim location notices for each claim are filed with the BLM and at the courthouse in the County in which the claims are located. Copies of the individual claim notices and the detailed map showing their locations are on file with the central BLM office in Reno, Nevada, and with the Elko County Recorder's office in Elko, Nevada. The map and claim notices on file constitute the legal surveys for the property.

To maintain mining claims in good standing, a claim holder must make annual maintenance fee payments to the BLM of \$165 per claim, plus a \$14.50 per claim Elko County fee totaling \$179.50 per claim. Fees are payable in Elko County, in which the claims are located. Published BLM records indicate that all claim filings are current and that the claims are valid until 11:59 AM on 1 September, 2021, when the next annual maintenance fee payments and filings are due.

All claims were physically staked with wooden posts at the corners and at the discovery monuments. Annual maintenance fees payable to the Bureau of Land Management are required to keep the unpatented mining claims in good standing, and were paid on time in August, 2020 and at the time of additional staking. Property taxes are required on patented mining claims and fee lands; CAT Strategic Metals Corporation does not control any patented lands, and is thus not subject to such fees and taxes. BLM and Elko County maintenance fees have been paid through 1 September, 2021.

The author did locate some of the claim posts in the field, but by no mean all of the posts. The author has not verified the validity of the mining claims or their ownership.

Detailed claim information is listed in Appendix 1.

CAT Strategic Metals Corporation has acquired an earn-in and joint venture agreement (the "Agreement") pursuant to entering into a binding and definitive share purchase agreement (the Share Purchase Agreement") dated November 2, 2020 to acquire up to an 80% undivided ownership in the Rimrock Gold mineral property ("Rimrock"). The Company is required to incur CDN\$620,000 in exploration or expenditures related to the Property over a 4-year period, of which CDN\$210,000 must be spent within the first 12 months, after which the Company will have earned a 51% interest in Rimrock. There are no annual minimum expenditures per year during the remainder of the term regarding the remaining

CDN\$410,000 of Expenditures. The Company will earn a 7.25% interest in the property for every CDN\$102,500 spent, until such time as the 80% participating interest in Rimrock is earned. The Company will grant to each of the Vendors, Soloro Cobalt and Gold Corporation, and Richard R. Redfern and Joy A. Perry-Redfern, a 2% Net Smelter Royalty (“NSR”) on the property, subject to an agreement that each 1% of the NSR on the Richard R. Redfern and Joy A. Perry-Redfern claims could be repurchased by the Company for an amount of USD\$1,000,000.

CAT committed to retain Richard R. Redfern's geological consulting services (the “Consulting Services”) with a minimum retainer of twenty thousand U.S. Dollars (\$USD 20,000) per year, with the first payment was made on the Effective Date and thereafter is payable in advance of each anniversary of the Effective Date, each until such time as the eighty per cent (80%) Participating interest in the Property is earned by CAT.

CAT paid ten thousand U.S. Dollars (\$USD 10,000) on the Effective Date, and thereafter is payable per year, to Soloro Cobalt and Gold Corporation, with the first payment having been paid on the Effective Date and thereafter is payable in advance of each anniversary date of the Effective Date (the “Advance Payment”), each until such time as the eighty per cent (80%) Participating Interest in the Property is earned by CAT (the “Advance Payment”). The Advance Payment shall be deducted from the expenses or funding Expenditures on or in relation to the Property in the total amount of six-hundred twenty thousand Canadian dollars (\$620,000) to be paid by CAT.

#### **4.4 NATURE AND EXTENT OF ISSUER’S TITLE**

The 133 mining claims at Rimrock listed in Table 4.1 (above) are 100% controlled by Cat Strategic Metals Corp. There are no encumbrances on the twelve “RIMRB” claims or the thirteen “RMB” claims that are 100% controlled by CAT Strategic Metals Corporation. There is a 2% NSR royalty that applies to each and all of the 41 “IC NO.” claims and the 16 “IC” claims, as discussed in greater detail in section 4.5.

In reporting the recorded title, the author has relied entirely on information provided by the United States Bureau of Land Management and CAT.

The comments in this section do not represent a legal opinion and only preliminary investigations into the actual recorded title have been made by the author. There are no placer claims located on the property.



#### **4.5 ROYALTIES AND ENCUMBRANCES**

There are no encumbrances on the thirteen “RMB” claims or the twelve “RIMRB” claims that are 100% controlled by CAT, and are encumbered by a 2% Production royalty. Each and all of the 23 Soloro claims and Redfern’s 104 “IC” unpatented mining claims are encumbered by a 2% production royalty owned by Soloro and Mr. Richard R. Redfern and Mrs. Joy Redfern, respectively; this royalty is on all production. This is a straight percentage royalty, with no sliding scales. There are no caps on royalties. The Redfern NSR royalties may be purchased at any time from Redfern by CAT.

An Exploration NOI has not been issued as of the time of this writing.

#### **4.6 ENVIRONMENTAL LIABILITIES**

All Federal EPA, MSHA, OSHA and state regulations are adhered to during on-going exploration activities. There are no environmental liabilities to Cat Strategic Metals Corp. presently accompanying the project.

There are no archeological resources present on the property per archaeological examinations contracted by previous operators. There are no known mining hazards on this property, to include drilling fluids, drill waste or debris. Remnants of two old mercury retorts are present; one dating to the early part of the 20<sup>th</sup> century is located at 41.156328° N, 116.585547° W (WGS84); the more recent is located at 41.159440° N, 116.585027° W (WGS84).

#### **4.7 PERMITS**

No Notice of Intent (NOI) has been filed, permitted, and accepted by the BLM, nor bonded with the Nevada Division of Minerals.

About 2 km of roads developed during the previous drilling campaigns were reclaimed by Reliance Geological Services and accepted as complete by the BLM. Permits are required from the Bureau of Land Management prior to conducting earthwork related exploration programs on BLM land, i.e. the unpatented mining claims. No obvious hindrances to the permitting process are extant on the property.

## **4.8 RISKS**

Precious metals futures prices are always in flux; downward pressure on this sector would adversely affect property economics.

There are no mine dumps or previous mining operations on the property. A full EIS has not been conducted; further identification of cultural resources may impact scheduling and financial resources dedicated to the project.

To the extent known, there are no other significant factors and risks, besides noted in this technical report that may affect access, title, or the right or ability to perform work on the property.

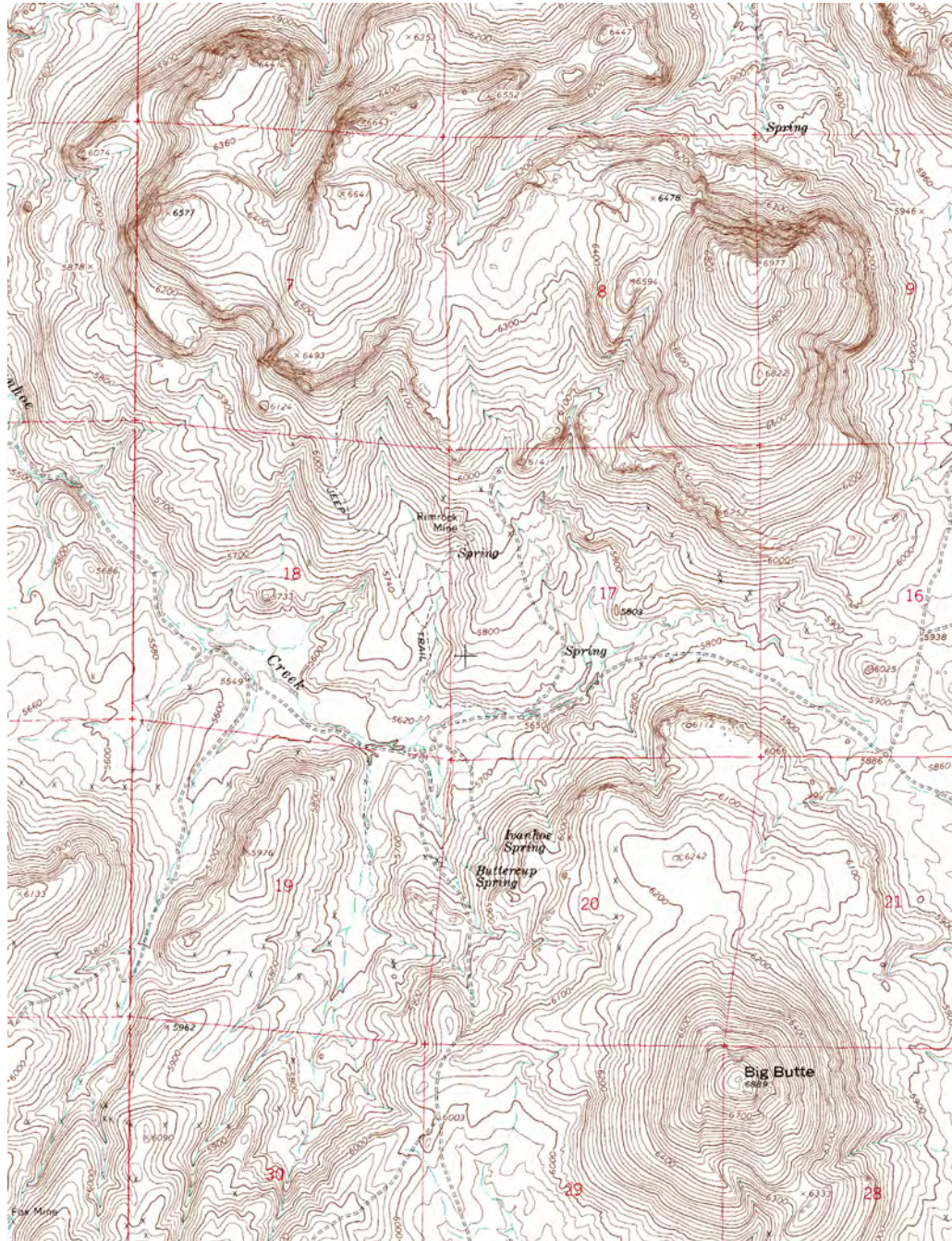
## **5.0 ACCESSIBILITY, CLIMATE, RESOURCES, INFRASTRUCTURE, and PHYSIOGRAPHY**

### **5.1 TOPOGRAPHY, ELEVATION, AND VEGETATION**

The property is situated near the north end of the Sheep Creek Mountains, which lie in the north-central part of the Basin and Range province and forms the southern boundary of the Midas Trough, a large physiographic feature of northern Nevada. These are ranges which rise steeply above relatively flat to gently sloping basins. Big Butte, which lies on the southeastern edge of the Rimrock property, reaches 2,100 meters (6,889 feet) above mean sea level (MSL), while an unnamed butte which borders the northeast corner of the claim group rises 2,127 m (6,977 ft) and is the highest elevation in the area; the lowest elevation is approximately 1,683 m (5,520 feet). The property is hilly with steep sided, locally cliff-forming, gullies, cutting rounded hills, flat topped buttes and ridges. The greatest elevation change is 176 m (577 feet) over 290 m (951 feet) or 31.3°; grades locally approach vertical and grades in excess of 20° are common (Figure 5.1).

The property is generally sparsely covered with grasses and sagebrush (Figure 5.2) which can attain a height of 4 meters in the flats traversed by arroyos and perennial streams; these places can be nearly impenetrable due to dense growth of tall sagebrush. In areas of springs and perennial drainage the ground can be swampy. There are numerous small springs and seeps on the property that provide water to the local deer, antelope and ranch bovine populations.

Smaller populations of mule deer, antelope and coyotes roam the region. Burrowing animals such as badgers and ground squirrels are common. Pack rats commonly have nests in rock outcroppings. Rabbits are very common. Raptors, although few, are present frequently in the summer months; other birds include chukar and a number of small-sized species drawn to the springs in the area. Sage grouse have not been seen on the property by the author or by Mr. Redfern, both of whom have, independently, over the course of the years since 2001, spent many weeks through several seasons roaming the property.



**Figure 5.1** – Topography of the Rimrock project area. Contour intervals are 6.1 m (20 feet).

The Rimrock project straddles two hydrographic sub-basins, numbers 62 (Rock Creek Valley) and 63 (Willow Creek Valley), both part of the Humboldt River Basin, regional basin number



4. Waters which rise within the project area drain into Willow Creek that subsequently merges with Rock Creek which empties into the Humboldt River near Argenta, east of Battle Mountain.



**Figure 5.2** – Typical vegetation encountered on the majority of the Rimrock property. Note near vertical exposures which break otherwise gentle to moderate terrain features.

## 5.2 MEANS OF ACCESS

The Rimrock property is located in the northwestern part of Elko County, Nevada, approximately 20 km southeast of Midas, Nevada, 27 km northwest of the gigantic Goldstrike Gold Mine, Nevada and 65 km north-northeast of Battle Mountain, Nevada.

It is on the northern flank of the Sheep Creek Mountains. Access to the site is via all-weather paved highways (I-80 and Nevada 789) to the county maintained, all-weather gravel Midas Road and then south on the all-weather maintained Hollister Mine Road; drive time from Winnemucca is about 1.5 to 2+ hours depending on weather conditions. The project area is then crossed by a number of dirt two-track roads which during wet periods may be impassible to vehicles, save ATV's; there are places where these are lesser trails. Most of the property is traversable by ATV. Rocky areas are difficult to traverse on foot and impossible to traverse by wheeled vehicles without road building.

The project area is moderately rugged with steep topography between ridge lines and stream bottoms with elevations ranging from 1,670 m to 2,127 m. The property is generally accessible most of the year save after winter storms when snow can pile up in excess of a meter depth.

### **5.3 PROXIMITY TO POPULATION CENTERS AND NATURE OF TRANSPORT**

Winnemucca, 98 air km southwest, or Elko, 78 air km southeast, have regional airports and all the necessary services and skilled work forces to maintain exploration and development programs. There are a number of large operating mines in the region centered on Winnemucca and Elko which maintain a well-trained surface and underground mining oriented workforce. Heavy equipment, repairs, supplies and vendors are all found in both towns; transcontinental railroads pass through both towns and both act as rail passenger hubs. Retail outlets, restaurants and lodging are all available in quantity as well. Additional resources are available in Reno, 328 air kilometers southwest; this city houses many additional mining related vendors, to include assay laboratories and vendors catering to the exploration industry. Reno is also served by an international airport, is a north south road hub and has significant rail services.

The nearest railheads are located at Winnemucca and Battle Mountain, part of the main Union Pacific transcontinental route. The project area is serviced by an all-weather road (the Hollister Mine Road) connecting to the all-weather Midas Road (7 km north) and allows mining truck traffic to and from the site. The closest air service is located at Battle Mountain and the closest scheduled passenger service is available in Elko or Reno, Nevada. Additionally Amtrak maintains passenger service at Winnemucca and Elko, Nevada.

### **5.4 CLIMATE AND LENGTH OF OPERATING SEASON**

The climate at Goldstorm is typical of the high desert regions of Nevada; generally dry and warm in the summer months and cold and occasionally snowy during the winter. Average conditions reported at Midas, 20 km northwest of Rimrock, at an elevation of 1,750 m, are -15.6° C in January and 31.4° C in August; extremes range from -36° C to 36.7° C. Temperatures in the project area are likely a few degrees cooler. Annual precipitation is approximately 23.7 cm about evenly divided between summer thunderstorms and winter snows; precipitation is greater in the uplands. Exploration is generally limited to the months between April and December due to mud and occasional heavy snows that may exceed 1 meter in depth per event; could hamper operations in the winter months. Winds may be nearly constant from the west at 2-10 kph; diurnal thermal variances create moderate breezes in the east facing canyons in evenings, usually dying off an hour after sunset.

## **5.5 INFRASTRUCTURE (POWER, WATER, ETC.) AND AVAILABILITY OF LAND AND RESOURCES**

Everything required for exploration and mining activities can be acquired from nearby towns and cities to include Elko and Reno, Nevada. Electricity is available at Midas (20 km northwest) and at the Hollister Mine, 6 km to the south. Water for exploration activities is available at the various springs on the property, or from Ivanhoe Creek crossing the main Hollister access road, 2.5 km north of the property. This creek is along the drainage from Willow Creek Reservoir, 8 km northeast of the property.

The infrastructure and political climate strongly support mining. There are a number of currently or recently operating gold mines, including the Midas (Ken Snyder) Mine at Midas, the Turquoise Ridge mine at Getchell and the Twin Creeks Mine north east of Getchell, the Hollister Mine (6 km south of Rimrock), and numerous mines to the south east starting at the Rossi Mine (17.5 km southeast) through the Meikle and Goldstrike Mines (24 km southeast) and on south through the Carlin trend. Exploration activity and prospecting in the area is very active. Newmont, Barrick and Hecla are the large mine operators in this area.

Cell phone service is available where there is a direct line of sight to a tower, generally on the tops and sides of the hills facing the Midas Mine and townsite. Service is unavailable on the lower reaches of the valleys.

There are no buildings or other types of infrastructure located on the property. Land currently controlled by CAT is adequate to operate a surface or underground mine and mill

complex on the Rimrock property.



## **6.0 HISTORY**

### **6.1 PRIOR OWNERSHIP AND OWNERSHIP CHANGES**

Prior to European contact, Native Americans of the Paiute, Shoshone, and Washoe tribes inhabited the lands comprising the modern State of Nevada. The first Europeans to explore the region originated from Spain. They gave the region the name of Nevada (snowy) due to the snow which covered the mountains at winter. The area formed part of the Viceroyalty of New Spain, becoming part of Mexico when that country gained independence in 1821. The United States acquired the territory in 1848 following the signing of the Treaty of Guadalupe Hidalgo ending the Mexican-American War. The area was incorporated as part of Utah Territory in 1850. The discovery of silver at the Comstock Lode in 1859 led to a population boom that became an impetus to the creation of Nevada Territory out of western Utah Territory in 1861. Nevada was admitted to the union as a State on 31 October, 1864.

When the United States acquired Nevada, the federal government distributed unclaimed land through the US General Land Office (GLO). The land was first surveyed, then sold through local offices. The first local office was established in Carson City in 1864. Others were in Elko, Eureka, and Reno. The local offices kept tract books (records for each section of land) and township plats (maps of land entries for each township). In 1946, the Grazing Service was merged with the General Land Office to form the Bureau of Land Management within the Department of the Interior. The Bureau of Land Management became less focused on land disposal and more focused on the long term management and preservation of the land. BLM has on record mining claims regulated under the General Mining Law of 1872 which was last modified (in 2001) by the regulation portion of the 1976 Federal Land Policy Management Act is found at 43 CFR 3809: "Surface Management regulations". These regulations were updated and the final rules published in December 2001. These rules effectively replace many provisions of the 1872 Mining Law. The BLM issues permits for oil and gas, coal, strategic minerals, and renewable energy resources such as wind, geothermal and solar to be developed on public lands. The total active mining claims on lands owned by the BLM are over 380,000, of which Nevada has the most at 203,705 (as of December, 2020).

The land on which this project is situated has all remained with the federal government, save for the 40 acre (16.1 ha) patented ground occupying the Rimrock Mine that currently is owned by Newmont Mining Corporation. Numerous claimants have had lode claims in the area since the early twentieth century. These have all been dropped, save for those

currently controlled by CAT and adjoining mining companies, including Hecla and McEwen Mining.

## **6.2 HISTORICAL EXPLORATION AND DEVELOPMENT WORK**

### **6.2.1 Pre-History and Early Historic Mercury Testing and Mining (1915 – 1973)**

Prior to the historic discovery of mercury, the area had been used as the principal source of raw materials for tool making. The white chalcedony and opal had been used well into antiquity dating to the Clovis and pre-Archaic peoples; 13,400 – 10,000 years before present. Two periods of near constant occupation of the area are noted, based on archeological evidence, at 11,500 – 8,000 year before present and again 6,000 – 3,000 years before present. Trading even further afield ensured expansion of the quarries starting about 1,500 years before present. Numerous quarries existed in the region and materials derived from these quarries have been found throughout the central Great Basin roughly in the area most recently occupied by the White Knife Shoshone. This material was traded and used in a region from central northern Nevada north to central Oregon; roughly 300 km from the quarries. Between 1987 and 1992, Intermountain Research (IMR) conducted a program of survey, testing, and data recovery at Tosawahi Quarries, north-central Nevada. The work was done on behalf of various mining development consultants and gold mining companies and generated several reports comprising the most intensive look at a toolstone quarry yet conducted in North America; nearly one million artifacts were recovered during this effort (Elston, 2006).

Mercury was discovered in the Ivanhoe District in 1915. Most of the district's 2,180 flasks of mercury were produced between 1929 and 1943 (LaPointe and others, 1991) making the district the largest producer of mercury in Elko County. Of the nineteen known mines and prospects in the district, all show mercury values, with eight also showing silver and /or gold mineralization. One of the mercury mines, the "Rimrock" or "Homestake" Mine lies on patented ground currently owned by Newmont Mining Company, and is completely surrounded by CAT's unpatented lode claims. CAT does not control the Rimrock Mine.

Remnants of two mercury retorts on CAT's claims were in production in the early to mid-twentieth century; based on extant relics and machinery. The older retort dates to WWI era, the newer dates from the 1930's to 1950's (WWII era). These retorts likely only serviced the nearby Rimrock mine (also known as Rimrock and Homestake Properties and later renamed to Hillside and Opal Group) when it was producing; most recently 1940-41 and

again in 1958 (USBM IC 8252). The Rimrock Mine is composed of several short adits, two shallow shafts and an open pit (Figure 6.1); most of the small mine production came from a bedded deposit in silica sinter developed via the open pit. Other small mercury prospects were dug on mercury-bearing silica sinter in the dilation target area of CAT in the northwest part of the property and another trench was cut perpendicularly to the eastern cinnabar-bearing opal on the east side of the property; but no mine production appears to have occurred in any of these prospects.



**Figure 6.1** – Image of Rimrock Mercury Mine consisting of open cuts and underground workings.

Mercury production continued intermittently at the Silver Cloud Mine (not on CAT controlled ground) through 1973; the Sheep Corral-Governor-Fox Mines group lies 3.5 to 4.5 km west, the Old Timers-Velvet-Clementine Mine Group is 5-6 km south and the Silver Cloud Mine is 12.5 km south-southwest of the property. A total of 2,180 flasks of mercury were produced from the district, the Silver Cloud Mine accounting for 1,150 flasks. The Hollister mine open pit area and four adjacent small mines yielded some of the mercury production;

1929-1943 (Great Basin Gold, 2007).

### **6.2.2 Molybdenum, Uranium and Industrial Minerals Exploration (1960's through 1993)**

Modern exploration in the Ivanhoe Mining District began in the early 1960's and lasted through the 1980's searching for molybdenum and uranium deposits. During that period several companies explored the area, but without success.

In 1978, a bentonite deposit was discovered in the Ivanhoe Creek area by Chemical and Petroleum Corporation of America. Results from a combination of drilling, pitting, and trenching were used to estimate the size of the bentonite deposit at 2 million tons. 500 tons of bentonite were shipped in 1980 but no further development occurred and work permits lapsed in 1993. This deposit exists on the present Rimrock Property.

### **6.2.3 Precious Metals Exploration (1970's through 2010)**

In the late 1970's and 1980's numerous companies conducted exploration for gold around the numerous mercury occurrences, primarily focused on shallow, open-pit mineable volcanic-hosted, gold-silver potential. This led to the discovery of the Ivanhoe-Hollister gold-silver mine, located 6 km south of the Rimrock property boundary. The Hollister Mine began open pit production in October 1990 and was actively mined from an open cut through 1992 with heap leaching continuing through 1996. A total of 115,696 ounces of gold were produced from 2.968 million tonnes of ore.

Homestake Mining Company explored in the Hollister area in the 1970's, looking for a McLaughlin-style hot springs gold deposit. United States Steel explored the Ivanhoe District, outlining a body of gold mineralization approximately 9.98 million tons with an approximate grade of 1.6 g/T gold.

Touchstone Resources was active on the Rimrock property in the late 1980's, and drilled at least one vertical hole on the CAT claims in 1987, IV87-129. The results of this drilling are unknown. Great Basin Gold was formed in 1997 and they acquired Touchstone's interest in 1999, to hold 100% of the Hollister Mine. From 1997 to 2001, Great Basin Gold conducted sampling, geophysical surveys, and drilled 216 holes at Hollister, totaling 66,300 m. Hecla Mining Company partnered with Great Basin Gold in 2002 and eventually purchased the property from Great Basin Gold (Cain, 2007); Hecla still maintains control of the property at the time of this writing. Mine development at Hollister began in 2004.

On the Rimrock property, Newmont Exploration dug trenches and drilled between five and six reverse-circulation holes in 1994 with the objective of identifying shallow open-pit mineable gold targets. Holes are estimated to have only been drilled to depths of about 100 to 400 feet (30-122 m), testing areas of silicification and sinter for open pit targets. The results were said to be insignificant (Steven McMillan pers. comm. to R. Redfern, 2018), but CAT does not have any of these drill results.

Since the late 1990's, exploration focus in this District changed to deep, vein-hosted, gold-silver mineralization similar to the Midas Mine (presently controlled owned by Hecla), located approximately 18 km northwest of the property (Figure 6.2). The Silver Cloud property, now controlled by Blackrock Silver Corp., a past producing mercury mine, is located approximately 13 km south-southwest of Rimrock. Teck, Placer Dome and Blackrock Gold conducted exploration since 1999 for vein hosted and disseminated Midas-style gold-silver mineralization at Silver Cloud. Teck drilled a very high-grade drillhole at Silver Cloud in 2000, which returned a drill intercept of 4.603 oz/ton gold across a 1.5 m interval at a depth of 311 m (Kuzma, 2002). Placer Dome followed up in 2002 with a 9-hole program in the area, which yield gold intercepts of up to 3 m of 5.607 ppm gold (Wolverson, 2021).

At the Hollister Mine, Great Basin Gold conducted exploration and mining operations below the elevation of the Hollister open pit; they drilled into the high-grade Gwenivere-Clementine gold-silver bearing quartz vein systems, from which the main ores were mined at Hollister by Great Basin Gold. The approximate centroid of the main mining stopes area was at the 5100 foot (1555 m) elevation level. Great Basin Gold also had the Hatter target area in the eastern part of the Hollister property, which work has been directed towards discovery of Midas-style and deeper Carlin-style sediment hosted gold mineralization. Hecla Mining acquired the mine from Great Basin Gold and continues exploration of this target area.

In 2002, Great Basin Gold drilled at least one vertical hole between Rimrock and the Hollister Mine. The results of this drilling are unknown.





**Figure 6.2** – Hecla’s Midas Mine and facilities; image taken from vicinity of the “Rhombochasm Zone” on CAT’s Rimrock Property.

In 2002 and 2003, R. Redfern took twelve samples for geochemical analyses; samples were taken in areas of silicification and sinter. The most significant of these data are: Gold – 9 ppb; Silver – 0.35 ppm; Mercury - >100 ppm; Selenium – 97 ppm. Additional sampling completed by Redfern at the Silver Cloud Mine returned values of Mercury: 59 and >100 ppm and Gold: 19 and 37 ppb respectively.

In 2003, Wallace produced a regional geologic map of the Willow Creek Reservoir 7.5’ Quadrangle; this map included all of the Rimrock property.

In 2003, Senator Minerals, Inc. leased the Rimrock property and held a 50% interest in the bentonite deposits and a 100% lease on the Rimrock property. They produced a Technical Report on the property dated 6 November, 2006 (Harrington, 2006), and an update report dated 20 November, 2009.

Geophysical surveys consisting of ground magnetics, gravity and CSAMT were conducted in August, 2004. Data from these surveys were discussed in a report compiled by James L. Wright a consulting geophysicist of Elko, Nevada.

Kent Exploration drilled a total of 791.3 meters in five core holes, and discovered good-grade silver mineralization (to 262 ppm) with attendant tungsten values (to 0.15%). Intercepts from drill holes IC-07-10, -12 and -13 are discussed below. Drill sites and roads were reclaimed to the satisfaction of the BLM, and their bond was released.

#### **6.2.4 2011 – 2021**

Mapping and sampling was completed over portions of the Rimrock property in 2012 for Zahav Resources.

In 2013, the property was leased from R. Redfern by Rimrock Gold Corp. (formerly Tucana Lithium Corp.), but no work was conducted. Redfern leased the property to Soloro Cobalt and Gold Corporation in 2018, which parties then optioned the property to CAT Strategic Metals (Nevada) Inc. in October, 2020, which has resumed work on the Rimrock property.

### **6.3 HISTORICAL MINERAL RESOURCES/ RESERVES**

Mercury is the only metal/mineral to have been explored for on the Rimrock property, and it was mined by hard rock methods from the adjoining Rimrock Mine. There are no known records of this historic production.

500 tons of bentonite was removed from the property in 1980. There is an historic estimate of 2 million tons of bentonite extant on the eastern and central areas, which are covered by current lode mining claims controlled by CAT. There are no known characterization studies of this deposit.

There are no historical gold mineral resources or reserves.

### **6.4 HISTORICAL PRODUCTION**

Mercury was mined from the adjoining Rimrock Mine between the First World War and 1958. This mine is composed of a number of short adits, two shallow shafts and a small

open pit; it is located on patented ground not controlled by CAT. No records of that production have been found. There are remnants of two mercury retorts located near fresh water springs in the southeastern portion of the CAT lode mining claims. Tailings extant at these sites indicate production was limited to a few tens of tons.

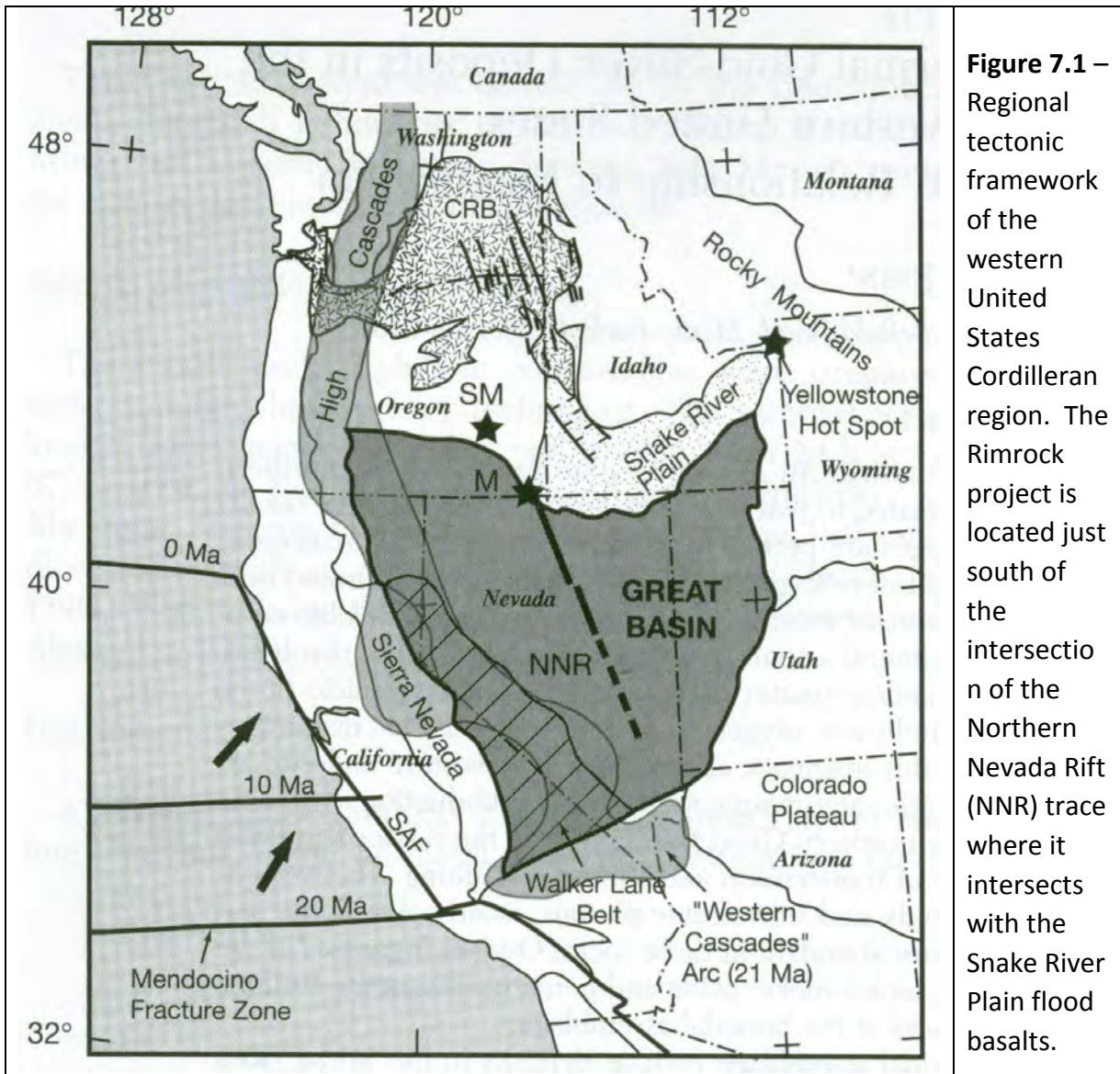
In 1980, 500 tons of bentonite was removed from surface exposed bentonite deposit located on the western part of the property. No further production was made through the end of the permit which expired in 1993.

No other production has been recorded from the Rimrock property and of the numerous existing prospects, none show any evidence of ore production.



## 7.0 GEOLOGICAL SETTING AND MINERALIZATION

The Rimrock property is located in the central part of the Great Basin province, on the eastern margin of the Northern Nevada Rift ("NNR") and along the southern margin of the Midas trough, on the northwestern projection of the Carlin gold trend (Figure 7.1).



**Figure 7.1 –** Regional tectonic framework of the western United States Cordilleran region. The Rimrock project is located just south of the intersection of the Northern Nevada Rift (NNR) trace where it intersects with the Snake River Plain flood basalts.

Within the Great Basin province, exposed rock units range from late Pre-Cambrian meta-sediments to Pleistocene cinder cones. Tectonic events include alternating periods of

continental scale compression, extension, and shearing. The Great Basin is most noted as an extensional terrain, with the eastern and western edges of the region, roughly the current sites of Reno, Nevada and Salt Lake City, Utah, having moved apart by some 100 kilometers in the past 40 million years. Prior to this period of extensional movement, the region had seen at least three major periods of compression. Each of these events is evidenced by thrust faults which have stacked sheets of rock over one another that are age contemporaneous, but deposited in different sedimentary environments.

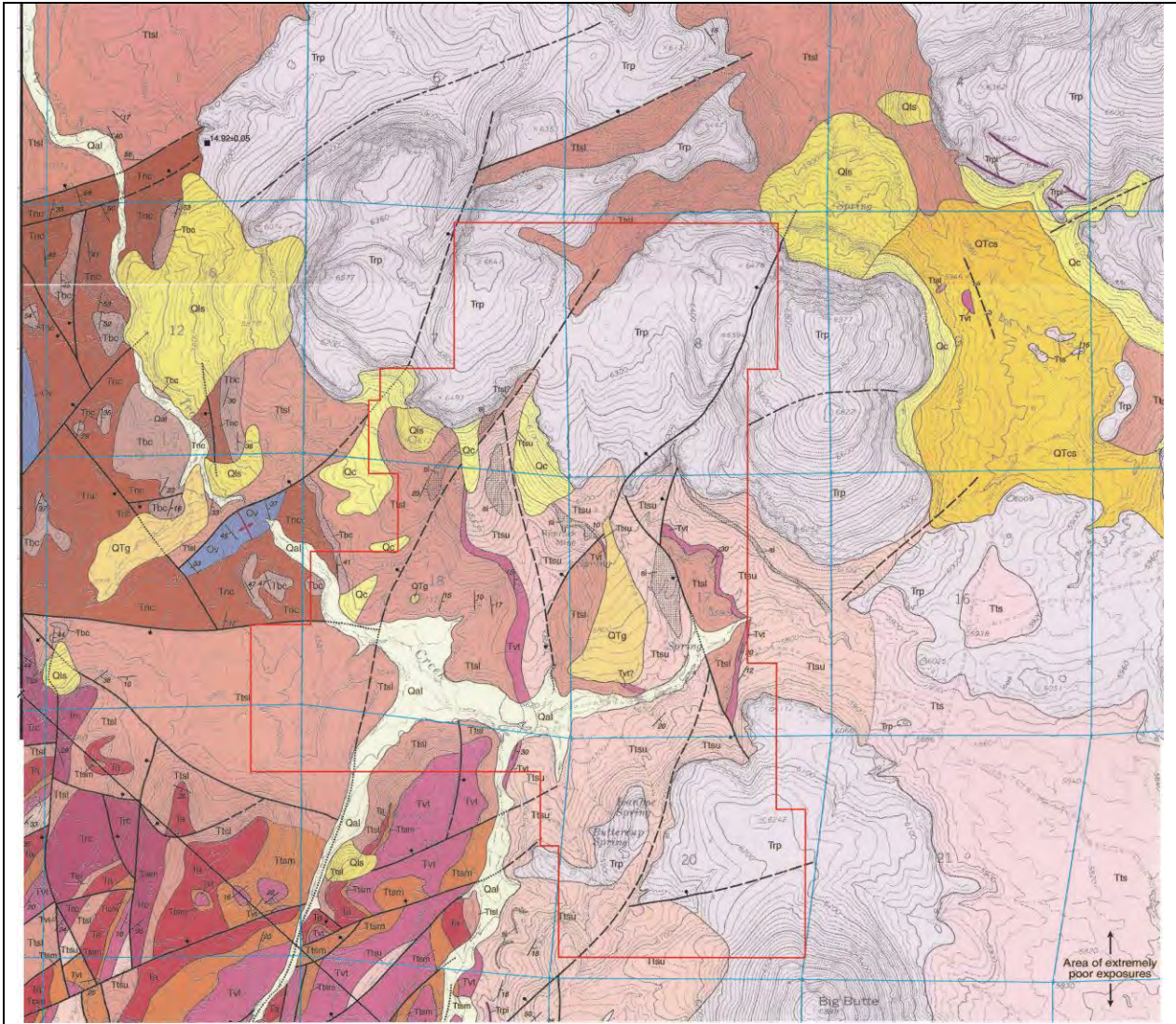
## **7.1 REGIONAL AND LOCAL GEOLOGY**

### **7.1.1 Regional and Local Geology**

The majority of the rocks in the Property area consists of Tertiary volcanic flows, domes, pyroclastic materials, and related reworked sediments that unconformably overlie a basement composed of allochthonous Ordovician Vinini Formation (Figure 7.2). Note; this unit has been interpreted as the Ordovician Valmy Formation on the Silver Cloud property (Wolverson, 2021) to the south. At the Hollister Mine, Newmont USA Ltd. and Great Basin reported the unit as being variously described as Vinini or Valmy Formation depending on USGS Report 98-338, Brown and Caldwell, 2010 and other reports, and deemed it the Vinini Formation for their purposes of reporting. Since the controversy in nomenclature regarding this unit has been ongoing for nearly half a century, its complex tectono-stratigraphy, their temporal and facies equivalency and lack of significant mappable units exposed in the vicinity, for the purposes of this report, all Paleozoic submarine pelagic sedimentary rock units considered to be Ordovician in age are herein designated as the Vinini Formation. In all likelihood, this area represents materials deposited on the boundary between the deep abyssal pelagic environment of deposition to the west, represented by the Valmy Formation, and the shallowing to the east continental slope sedimentary rock facies designated as the Vinini (Dennis, 2006).

Subduction-related intermediate composition volcanic activity started approximately 41 million years (Ma) ago during the Eocene in the northeast corner of Nevada and progressed southwesterly until the Middle Miocene, about 16 Ma. Later events are related to regional extension and crustal thinning starting about 17 Ma and the Northern Nevada Rift/Yellowstone Hot Spot events starting about 16.8 Ma Jarbidge Rhyolite (John and Wallace, 2000) and McDermitt (16.39 Ma) (Henry and others, 2017).





**Figure 7.2** – Geologic base map from Wallace (2003) with superimposed CAT claims outline in red (approximate). North to top; sections (blue) are nominally one mile on a side.

Miocene volcanic rocks and related sediments fill extensional basins that started opening about 17 Ma and are still active, particularly in the western part of the state (Stewart, 1980). This episode of volcanism continued to about 6 Ma; mostly well to the north and west of the Property. A change in the extension direction, from east-northeast to northwest occurred at approximately 8 Ma and resulted in a series of northeast trending grabens, which include the Midas trough (Goldstrand and Schmidt, 2000).

Regional high-angle northeast- and northwest-striking faults cut all rock units in the district.

These high-angle faults served as conduits allowing mineralized hydrothermal solutions to form mercury deposits in sinter and silicified tuffs, disseminated gold deposits in various Miocene rocks, and high-grade gold-silver veins in Paleozoic and deeply buried rhyolitic rocks (Wallace, 2003). Northwest-striking Miocene faults are consistent with the middle Miocene west-southwest extension direction (Zoback and Thompson, 1978; Zoback et al, 1994), and northeast-striking faults are related to younger (<8 Ma) northwest-directed extension (Zoback and Thompson, 1978; Wallace, 1991).

The Rimrock Property is situated along the trend of the Miocene Northern Nevada Rift ("NNR") province between Hecla Mining Company's Midas gold-silver mine to the northwest, and the Newmont's Mule Canyon gold mine to the south.

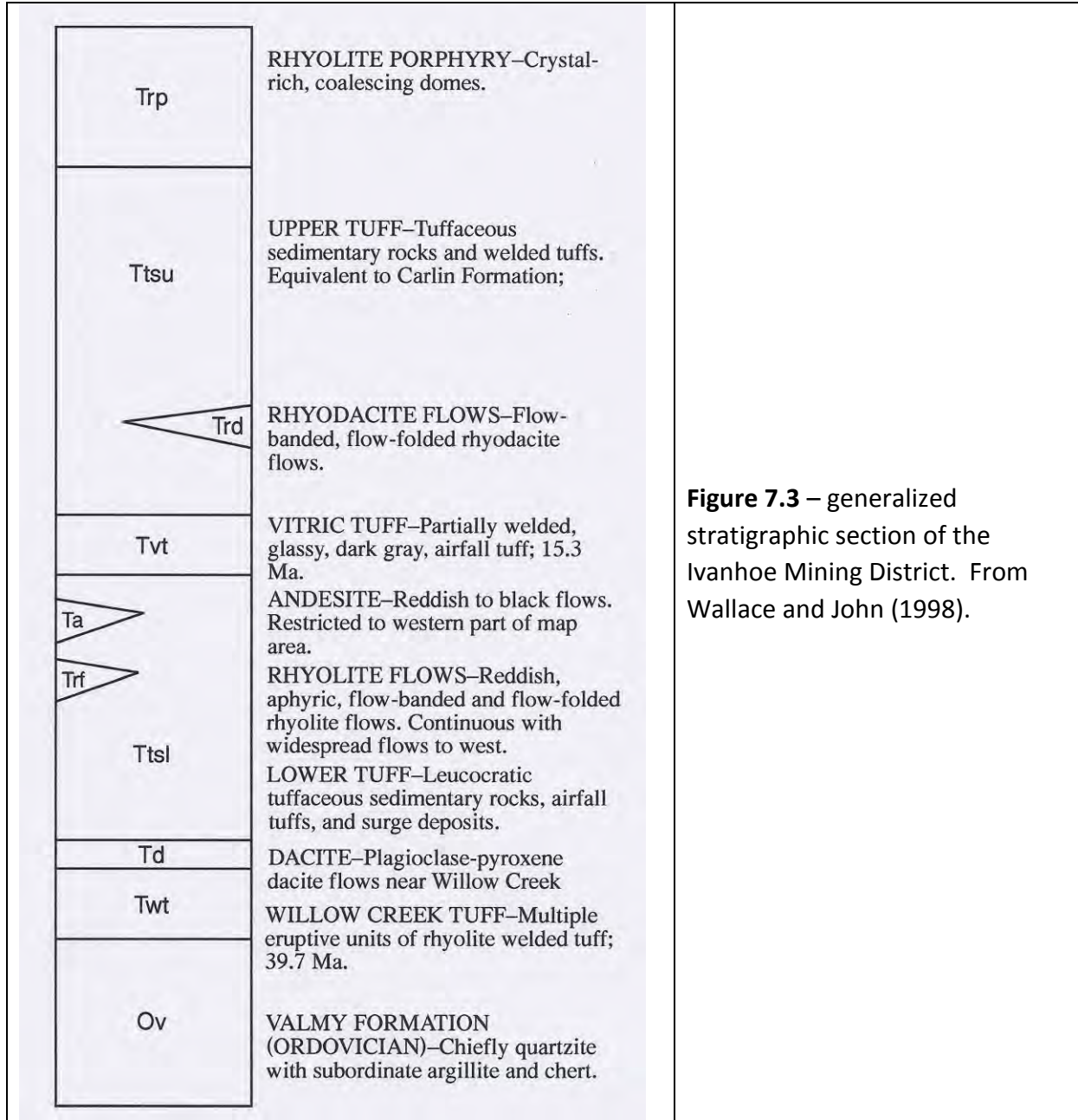
### **7.1.2 Regional and Local Stratigraphy**

The general stratigraphic framework of the area consists of Paleozoic sedimentary basement rocks overlain by Eocene and Miocene volcanic rocks, with the majority of the exposed units consisting of multiple episodes of intermediate to felsic Miocene volcanic rocks and related fluvial and lacustrine sedimentary rock strata. Figure 7.3 delineates a general stratigraphic section of the region; detailed discussions of the units depicted are presented below.

#### **Paleozoic basement – Vinini Formation –**

The Tertiary volcanic pile was deposited on a basement of Ordovician quartzite, chert, and argillite of the allochthonous Vinini Formation. These rocks are exposed on surface both west and southeast of the Property. The Vinini Formation is the host for most of the high-grade veins at Hecla Mining's the Great Basin Gold Ivanhoe-Hollister Mines (Wallace, 2003). The Teck – Placer Dome drilling at the Silver Cloud mine reportedly encountered Vinini quartzite at approximately 1,000 feet below the surface (Abbott and Redfern, 2002).





**Figure 7.3** – generalized stratigraphic section of the Ivanhoe Mining District. From Wallace and John (1998).

**Eocene volcanic rocks –**

Wallace (2003a) reports the presence of two Eocene-age volcanic units overlying the Vinini Formation on the Rimrock property. The same stratigraphic relationship was recognized in the Ivanhoe-Hollister Mine area, approximately 5 kilometers to the

south. The lower part of the section consists of welded tuffs, likely erupted from the Tuscarora volcanic field located northeast of the Property. Two units are discernable; the  $39.22 \pm 0.1$  Ma tuff of Big Cottonwood Canyon (Tbc); and the  $39.42 \pm 0.11$  Ma Nelson Creek Tuff (Tnc). These units are overlain by trachyandesite flows and tuffs dated at  $37.20 \pm 0.1$  Ma. In the northern part of the Ivanhoe District, these units are approximately 300 meters thick, but pinch out entirely to the south.

### **Miocene volcanic rocks –**

These tuffs and tuffaceous sedimentary rocks include subaqueously and subaerially deposited tuffs and lesser fluvial clastic sediments that form a conformable stratigraphic section representing continuous sedimentation. The lower tuff (Ttsl) is below the andesite (Ta); the middle tuff (Ttsm) is between the andesite and vitric tuff (Tvt); and the upper tuff (Ttsu) is above the vitric tuff. The upper, middle, and lower tuff units are practically indistinguishable, especially with typically poor exposures; undifferentiated unit (Tts) includes tuffaceous rocks (Ttsl, Ttsm, Ttsu) where neither the andesite nor vitric tuff is present to provide stratigraphic divisions, or where isolated exposures of tuff preclude inclusion in a specific unit. The sequence was deposited between about 16.5 Ma and 14.4 Ma.

- Trp** Rhyolite porphyry exposed in crystal-rich domes and flows. Rocks are reddish brown on weathered surfaces and gray-brown on fresh surfaces. The domes are composed of outward-dipping flows derived from central vents. The dome east of the mouth of Ivanhoe Creek was dated at  $14.92 \pm 0.05$  Ma.
- Ttsu** Upper tuffs and tuffaceous sedimentary rocks include tan to gray, massive- to finely-bedded, very poorly exposed water-lain tuffs and tuffaceous sedimentary rocks. The basal units are composed of very thinly-bedded water-laid deposits. The age of the tuff bed near the base of the unit was estimated at  $15.05 \pm 0.25$  Ma. Unit Ttsu is correlative in part with the lower member of Carlin Formation exposed to the south and southeast, where it is 14.4-15.1 Ma. Total thickness of the unit in this area is unknown.
- Tvt** Vitric tuff, dark-brown, silver-gray, to black, rhyolitic, fine-grained, moderately welded vitric tuff. The groundmass is composed of flattened, black, porous vitric ash. On weathered surface, felsic mineral phenocrysts form a distinctive, white-on-black speckled pattern. Welding indicates primarily subaerial deposition. Age, based on  $^{40}\text{Ar}/^{39}\text{Ar}$  date on sanidine, is  $15.10 \pm 0.06$  Ma.

- Ttsm** Middle tuffs and tuffaceous sedimentary rocks are fine-grained and usually completely replaced by white chalcedonic silica masking most sedimentary features but making it a distinctive marker unit. As exposed in the Ivanhoe-Hollister Mine area, the unit is composed of thinly-bedded, water-laid tuffaceous sediments. Thickness varies from a few to more than 10 meters.
- Ta** Reddish to locally black subaerial andesite flow units range from low-silica andesite to low-alkali basaltic trachyandesite. The unit thins to the east, grading from massive red flows to thin vesicular black flows, and it is not present east of Ivanhoe Creek. The thickness varies from 3 to 30 meters, suggesting eruption onto an irregular paleosurface.
- Ttsl** Lower tuffs and tuffaceous sedimentary rocks include interbedded subaqueous to subaerial air-fall tuffs, reworked tuffaceous material, and minor sandstone and conglomerate. The unit unconformably overlies Eocene trachyandesite flow units (Tta) and Eocene welded tuffs (Tbc) along Ivanhoe Creek. The total thickness of the unit is obscured by faulting, but can exceed 200 meters. Plagioclase from a tuff bed near the middle of the section along the north shore of Willow Creek Reservoir produced a  $40\text{Ar}/39\text{Ar}$  date of  $15.84 \pm 0.10$  Ma.

### 7.1.3 Cover Materials

Cover varies generally dependent upon the underlying formations and proximity to drainages and springs; depths vary from zero to several meters, particularly in the valleys. On the whole, exposure of the underlying geology is about 25-35% of the surface area.

#### Quaternary Overburden –

- Qal** Unconsolidated alluvium comprising unconsolidated unsorted silt, sand and gravel.
- Qc** Colluvium consisting of unconsolidated talus and down-slope wash.
- Qls** Landslide deposits including chaotic to coherent slump blocks and megabreccia.

### 7.1.4 Structure

The published Willow Creek Reservoir 7.5-minute quadrangle map (Wallace, 2003a) shows at least two series of faults, north-northwest and northeast striking, west-dipping normal



faults cutting the volcanic section. In the area of the Rimrock property, faults are interpreted as being vertical to steeply west-dipping. According to Wallace's map, a fault cuts the silicified zone in the southwestern portion of the Property, extending 3,000 meters northeast where it passes through an area of silicification and mercury sinter.

The regional Northern Nevada Rift (NNR) structural zone also strikes north-northwest and is likely the root cause of the north-northwest fault alignment. As regional structure appears to influence mineralization, any structurally controlled mineralization or alteration on the Rimrock property is likely to follow this same regional trend.

## **7.2 PROPERTY GEOLOGY AND MINERALIZATION**

The Rimrock property has not been the subject of published detailed geologic mapping. The rock descriptions and general stratigraphic relationships described below are taken from the published regional geologic map of the Willow Creek Reservoir 7.5 minute quadrangle (Wallace, 2003a) (Figure 7.2).

Rhyolitic ash and tuff host the Rimrock mercury mine (also known as Rimrock and Homestake Mines; Wilburg Mine; and Ivanhoe Cinnabar Mine); the upper workings at the Rimrock mine are in a bed of opalized ash and tuff containing irregularly disseminated cinnabar and mercury chloride (Calomel -  $[\text{Hg}_2]^{2+}\text{Cl}_2$ ). The opalized unit is brecciated and contains fragments of silicified tuff and quartz crystals. Underlying the opalite are cream-colored, unsorted, tuff beds that contain matrix-supported lithic fragments. Mercury occurs in cavities and fractures in the massive opalite bed (LaPointe et al, 1991). North-northwest trending reddish-brown chalcedony veinlets, up to 3 cm wide (Redfern sample 153360), were observed to crosscut silicified tuff at the mine entrance.

### **7.2.1 Stratigraphy**

The Rimrock project area, in general, consists of allochthonous Ordovician shales, sandstones and cherts basement rocks overlain by Eocene and younger volcanic and derivative rocks and materials. The Tertiary sequence is majority intermediate to felsic tuffs, flows and related fluvial and lacustrine sediments.

### **Quaternary Units**

Quaternary units are those mappable geological materials that are typically unconsolidated

and form cover over the underlying older rock. These units include landslide deposits (Qls) derived mainly from the rhyolite flow domes where over-steepening and seismic activity lead to collapse of otherwise competent crystalline rock. Colluvium (Qc) comprised of unconsolidated weathered material derived from underlying bedrock and forming talus cover and down slope debris. Unconsolidated alluvium (Qal) is composed of silt, sand and gravel and generally deposited in washes and gullies and form mostly by washing during periods of flash flooding and heavy water flow.

An unmapped unit is composed of aeolian deposits and found mainly in the deepest valleys and occasionally on slopes; it is composed of wind blow and deposited silt and clay sized material, is often rich in organics and forms thin to thick easily excavated material often making excellent habitat for rodents which excavate it with abandon, developing warrens that are effortlessly collapsed when weight is applied.

### **Miocene Volcanics**

These lithologic units are comprised principally of tuffs and tuffaceous sedimentary rocks and include subaqueously and subaerially deposited tuffs and lesser fluvial clastic sediments that form a conformable stratigraphic section representing continuous sedimentation. The lower tuff (Ttsl) is below the andesite (Ta); the middle tuff (Ttsm) is between the andesite and vitric tuff (Tvt); and the upper tuff (Ttsu) is above the vitric tuff. The upper, middle and lower tuff units are practically indistinguishable, due to poor exposures. On the map of Wallace (2003) in areas of poor exposure, an undifferentiated unit (Tts) includes tuffaceous rocks (Ttsl, Ttsm, Ttsu) where neither the andesite nor vitric tuff is present to provide stratigraphic divisions, or where isolated exposures of tuff preclude inclusion within a specific unit. This sequence of rock was deposited between approximately 16.5 Ma and 14.4 Ma.

### **Eocene Volcanics**

Wallace (2003) mapped two Eocene-age volcanic units overlying the Vinini Formation northwest of the project area; the same stratigraphic relationship has been observed in the Hollister mine area 5 km south. There are two discernable units: the tuff of Big Cottonwood Canyon (Tbc) dated to  $39.22 \pm 0.1$  Ma; and the Nelson Creek Tuff (Tnc) which is  $39.42 \pm 0.11$  Ma. These tuff units are overlain by  $37.20 \pm 0.1$  Ma trachyandesite flows and tuffs. These units are 300 meters thick in the northern part of the Ivanhoe District and pinch out completely to the south.

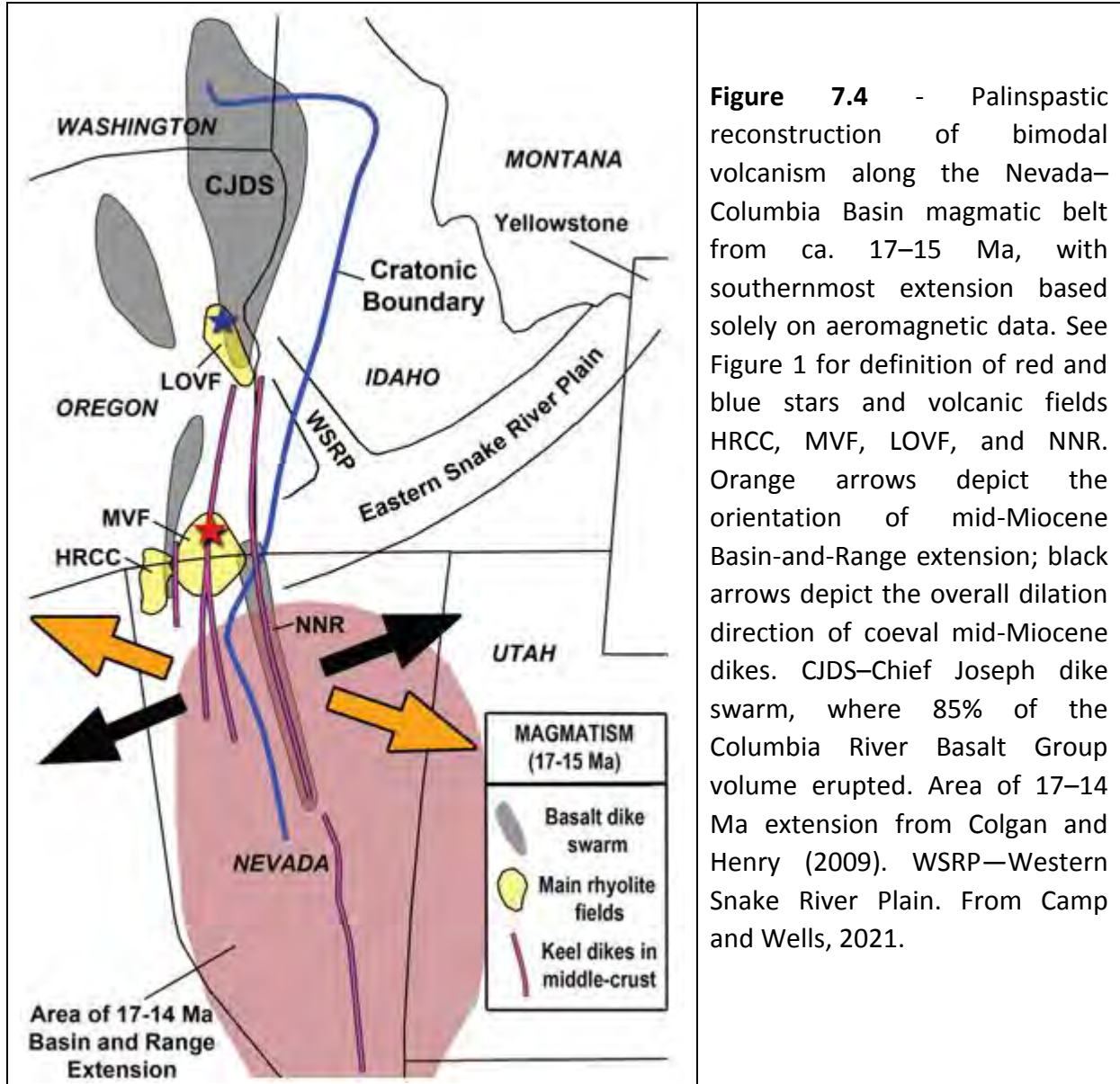
## **Paleozoic rocks – Vinini Formation (Ov)**

The Tertiary volcanic pile was deposited on Ordovician quartzite, chert and argillite comprising the Vinini Formation. The Vinini (Ova) is part of the Roberts Mountain Allochthon, emplaced along low-angle thrust faults during the late Devonian through early Mississippian Antler Orogeny. The Vinini is the host for most of the high-grade veins at the Hollister Mine (Wallace, 2003). Drilling at the Silver Cloud mine reportedly encountered Vinini quartzite at approximately 305 meters below the surface. This unit is not exposed on the surface within the confines of the property boundary, but is exposed southeast and 300 m west of the property, and has been encountered in the drilling conducted by Kent Exploration in 2007 at depths of approximately 65-125 m below the surface.

### **7.2.2 Structure**

The published geologic map of the 7.5-minute Willow Creek Reservoir Quadrangle (Wallace, 2003) along with surface observations and detailed mapping, demonstrate the principal structures within the project area are north-northwest and northeast striking, steeply west dipping. Subsidiary structures are oriented east-northeast and west-northwest. The two main gold-quartz vein systems in the Hollister Mine were emplaced into west-northwest trending fault structures.

North-northeast sinistral strike-slip (NNESSS) features are noted throughout northern Nevada. There has been little discussion pertaining to these features which are obvious in regional geologic mapping and topographic features; such as the Argentum Rim, Midas Trough, Antelope Creek and other areas. Some of the through-going features have been noted such as the Battle Mountain-Carlin-Elko-Wells feature which can be traced along a series of hot springs, topographic and geologic features. Stress fields set up by the North American Plate in conjunction with those imparted by Yellowstone Hotspot are most likely the driving forces behind these relatively recent kinematic features; this same stress regime will also explain the short lived Northern Nevada Rift (Figure 7.4). The NNESSS features are not singular structures but a series of en échelon shorter segments along a general trend. These features tend to offset older features, such as the Carlin Trend left laterally to the north, and in so doing place the Carlin Trend under the Hollister, Midas (Gold Circle) and eastern Snowstorm Mining Districts; explaining why it is difficult to find significant mineralization along the presumed Carlin trend north of the Rossi Mine.



The regional Northern Nevada Rift (NNR) structural zone strikes north-northwest and was controlled by the oldest structure set in the region and stress fields set up by the North American Plate moving over the Yellowstone Hot Spot. The NNR was developed along previously existing north-northwest high-angle structures that can be traced to at least the Cambrian time, and represent stress relief experienced at the edge of the continent at that time. Reactivation of these features continues through the present and has localized mineralization throughout northern Nevada (i.e. Carlin Trend deposits).

Two NNW-trending strongly uplifted horst fault blocks are present at Rimrock, which brought Vinini rocks up close to the surface, as documented by CSAMT surveys conducted in 2004 by Kent Exploration. These horst-bounding faults acted as feeder fluid conduits that brought silver, gold, and tungsten mineralization up to near the surface at Rimrock. Vinini outcrops immediately west of the Rimrock property, as mapped by Wallace (2003), are folded with NNW-trending axial traces, and suggest upward doming of these Paleozoic rocks to the ground surface. Relative to the Hollister Mine area, these uplifted blocks indicate that Carlin-style mineralization could be closer to the surface than in the Hollister Mine area.

There is also evidence of strike slip motion along some of the identified structures. Currently detailed knowledge regarding kinematic interactions and ore controls on the project area is limited. Additional detailed mapping will be required to decipher the exact kinematics of the area.

### 7.3 SIGNIFICANT MINERALIZATION AND GEOLOGICAL CONTROLS

The Ivanhoe Mining District is noted for its prolific occurrences of hot springs emplaced opaline and chalcedonic silica sinter deposits, which locally are auriferous, as in the Hollister Mine open pit. These are often accompanied by mercury mineralization. Volcanic rocks host hot spring sinter and silica replacement, mercury-bearing deposits; these areas are predominately localized along northwest and north east trending high angle fault structures.

At the Silver Cloud deposit (12.5 km southwest of Rimrock) the structurally controlled silica is associated with near surface silica-kaolinite-alunite [ $\text{SiO}_2 \cdot n\text{H}_2\text{O}$  or  $\text{SiO}_2 - \text{Al}_2(\text{Si}_2\text{O}_5)(\text{OH})_4 - \text{KAl}_3(\text{SO}_4)_2(\text{OH})_6$ ] alteration overlying buddingtonite-kaolinite [ $(\text{NH}_4)(\text{AlSi}_3\text{O}_8) - \text{Al}_2(\text{Si}_2\text{O}_5)(\text{OH})_4$ ]. Beneath or adjacent to the buddingtonite zone is a zone of illite-kaolinite±adularia [ $\text{K}_{0.65}\text{Al}_2[\text{Al}_{0.65}\text{Si}_{3.35}\text{O}_{10}](\text{OH})_2 - \text{Al}_2(\text{Si}_2\text{O}_5)(\text{OH})_4 \pm \text{KAlSi}_3\text{O}_8$ ]. Argillic alteration has been encountered in the drilling at Rimrock, haloed by propylitic alteration similar to that observed at Silver Cloud; the detailed alteration mineralogy at Rimrock has yet to be worked out, but is likely to follow that of known surrounding systems.

At Rimrock, aside from cinnabar, sulfides have only been encountered within the historic drilling, namely pyrite and generally below 60 meters from the surface, the preponderance on fractures, and locally to 10% volume as disseminations.

The writer observed weak argillic alteration along the central portion of the Property in the

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vicinity of the Rimrock mercury mine and in areas south of the “Rhombochasm” target area. A large amount of argillically altered material exists on the western side of the property.

An area of silica veining and massive silica replacement of tuffs is located in the southwest corner of the Property. There is no outcrop in this area, but surface float shows buff-colored highly silicified and brecciated rhyolitic tuff healed with light gray to creamy white chalcedonic quartz. Rhyolite fragments are angular with very sharp corners and do not exhibit alteration on fracture surfaces. Observed breccia fragments range in size from 1 to 100 mm. Fragments of sinter and opaline quartz were also evident.

Gold mineralization from surface sampling has generally resulted in background or near background results; the highest gold value recovered from surface sources is 16 ppb (sample 335772 – silicified, brecciated rhyolite with multiple episodes of quartz healing and cinnabar). However, gold exceeding 10 ppb has been encountered at Rimrock over intervals to 6 meters in the historic drilling; the highest gold value identified in the drilling data available is 187 ppb; and silver to as high as 262 ppm (7.64 opt).

Historic drilling has identified significant intercepts of silver mineralization hosted exclusively within the Ordovician Vinini unit underlying the volcanics. The best of these intercepts were encountered in drill hole IC-07-10:

346’-416’ (105.5m-126.8m) – 70’ (21.3m) @ 28.8g Ag  
Including: 376’-396’ (114.6m-120.7m) – 20’ (6.09m) @ 60.2g Ag

and 426’-436’ (129.9m-132.9m) – 10’ (3.04m) @ 262.0g Ag.

These numbers represent intervals of very limited core recovery by drilling; on average was only 15% (Figure 7.5).

Geologic controls on mineralization are high angle structures with possible low angle shears acting as subordinate localization and concentration of precious metals and mercury mineralization. Chalcedony and opal, plus or minus mercury mineralization is generally found along high angle structures in surface exposures; often in areas of extension between high angle structures displaying either sinistral or dextral horizontal shearing.

Stratigraphy also affects mineralization. Drilling has demonstrated that, at least locally, gold, silver and mercury are concentrated at the contact between the Ordovician Vinini



formation and the overlying volcanic sequence. Stratigraphy is also responsible for some lateral distribution of opal and chalcedonic mineralization within the volcanic pile. The overlying resistant rhyolite porphyry flow-dome unit has acted as a barrier to fluid flow and subsequently forced hydrothermal fluids to concentrate in and alter the underlying volcanics. Very little of this rhyolite displays cross-cutting hydrothermal alteration, aside for some basal alteration near high angle structures that which host chalcedony-opal deposits.



**Figure 7.5** – Typical core recovery from interval of high silver values; on average 15%. Core drill hole IC-07-10: 426'-436' (129.9m - 132.9m) returned an assay of 262.0 ppm silver.

Wallace (2003) proposed that the silica-mercury deposits were contemporaneous with the deposition of the host volcanic sedimentary rocks. Multiple episodes of hydrothermal alteration and epithermal gold-silver mineralization may have occurred at Rimrock. Alteration and opal-chalcedony deposition within the overlying  $14.92 \pm 0.10$  Ma rhyolite porphyry flow domes (locally Columbus Rhyolite) and deposition within younger tuffaceous units, the Ttsu unit dated as  $15.05 \pm 0.25$  Ma and as young as 14.4 Ma, where similar styles of silica alteration and deposition are observed would preclude a contemporaneous interpretation. Based on filed observations and the dates compiled by Wallace (2003), our interpretation aligns more closely with similar hot springs activity observed in the active

geothermal fields, where rhyolitic flow domes are erupted after explosive caldera collapse and subsequent ejection of tuffaceous materials. Hydrothermal features form post flow dome activity which can then exist for hundreds of thousands of years afterward; likely hydrothermal activity in the Rimrock area lasted for a shorter period but post latest volcanic activity. If so, then the period of hydrothermal activity was most likely strongest sometime between 14.9 – 14.7 Ma, but older alteration-mineralization events may be hidden at depth. The Hollister gold deposit (5 km south) has been dated at  $15.10 \pm 0.4$  Ma (adularia); the Ken Snyder (Midas) gold vein system (17 km northwest) has a date of  $15.14 \pm 0.08$  Ma (adularia); and the Ivanhoe gold Vein (5 km south) was formed  $15.19 \pm 0.05$  Ma (adularia) (Wallace, 2003). Other areas of the Midas mineralized system have been dated as 15.4 to 15.2 Ma (Leavitt and others, 2004).

## **8.0 DEPOSIT TYPES**

### **8.1 EPITHERMAL, LOW SULPHIDATION VEIN-STYLE DEPOSITS**

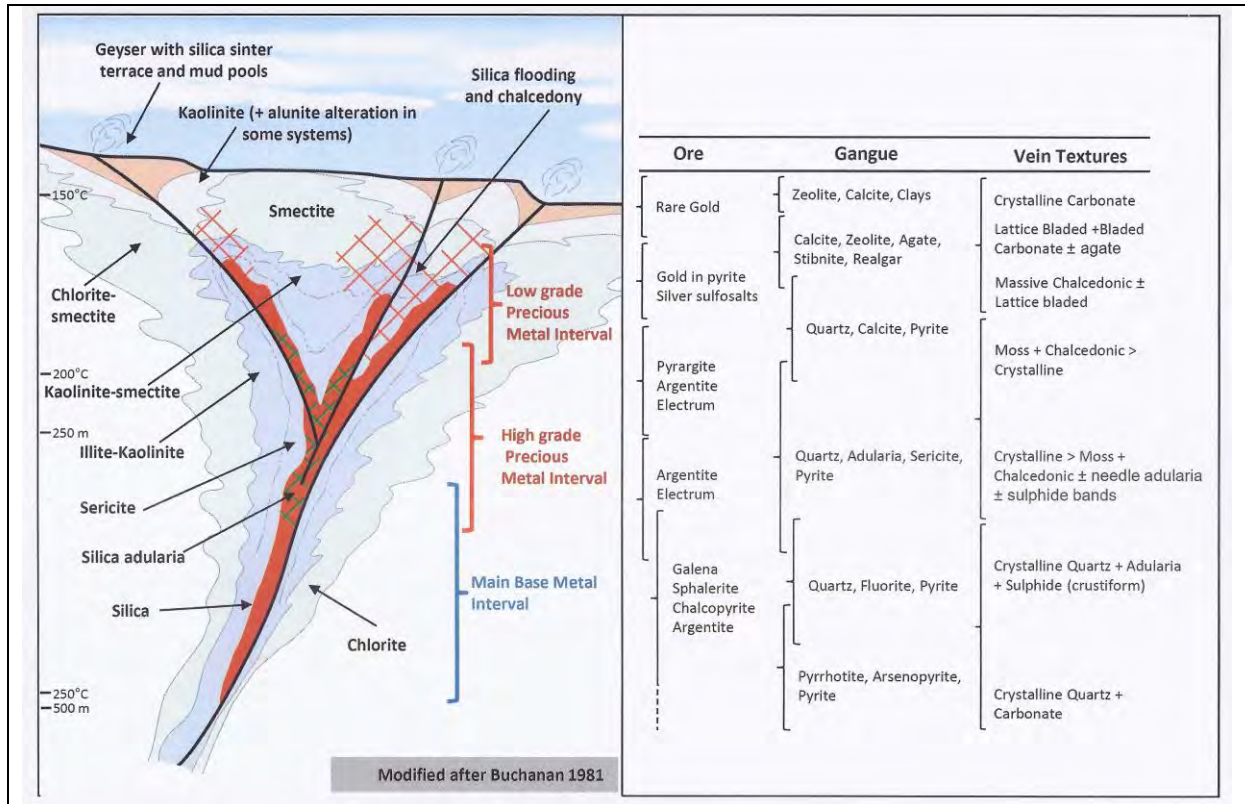
The principal targets on the Rimrock property are low-sulfidation epithermal gold-silver deposits, characteristically found as quartz-adularia-calcite veins in volcanic rock (Figure 8.1). Veins are the distinctive “bonanza” type, carrying significant gold and silver. Gold grades in the percent range have been recorded for select samples from this class of deposit, including Nevada’s Midas and Sleeper deposits. By the end of 2018, the Midas Mine had produced over 2,200,000 ounces of gold and over 9,000,000 ounces of silver (W. Thompson, oral presentation) was reported by Newmont (Goldstrand and Schmidt, 2000) to have an initial proven and probable mineral reserve 2,726,800 tons of mineable ore, grading 1.15 oz/t gold and 12.82 oz/t silver, for a total of 3,738,500 gold equivalent ounces. Between 1986 and 1996, the Midas-similar, Sleeper Mine, produced more than 1,658,000 ounces of gold and approximately 2.3 million ounces of silver (Wilson and others, 2015).

Usually, the gold-silver veins fill open spaces and show rhythmic bands of quartz and adularia, with occasional bands of dark sulfides or silver selenides with local electrum. Calcite may be present as individual bands or may be replaced by quartz. Bladed calcite, often replaced by quartz, is another common feature in these deposits and is thought to indicate boiling of the hydrothermal solution. Multiple episodes of brecciation and cementation with younger vein material are common. Breccias may show rotated blocks of banded vein material coated by new mineralization (Rhys and others, 2020).

Deposits form at low temperatures, generally less than 200°C, although some deeper systems may show temperatures approaching 300°C. Mineralization often shows abrupt tops and bottoms, while identical barren quartz-adularia-calcite veins continue. The top of the hydrothermal system may be marked by siliceous sinter, typically barren in gold and silver but possibly anomalous in mercury, selenium, thallium, arsenic or antimony (Morris, 2003).

These veins rarely contain significant quantities of base metals, usually less than 200 ppm in total. Silver-to-gold ratios for the Midas-type veins are somewhat higher than for the sediment hosted gold deposits, running in the 2:1 to 12:1 range. Associated trace elements for the Midas type include arsenic, antimony, selenium and mercury +/- molybdenum, thallium and tungsten; they vary from typical volcanic arc-hosted, low sulfidation systems which are usually not significantly enriched in selenium, tungsten or molybdenum, but may

contain elevated bismuth (Figure 8.2). While arsenic is usually present in the veins, it is found at much lower values than is seen in the sediment hosted deposits - a few ppm to a few hundred ppm at most. Selenium is a strong indicator for Midas-type systems, as silver selenides such as naumannite ( $Ag_2Se$ ) are common in this type of vein but are rare on other types of deposits.



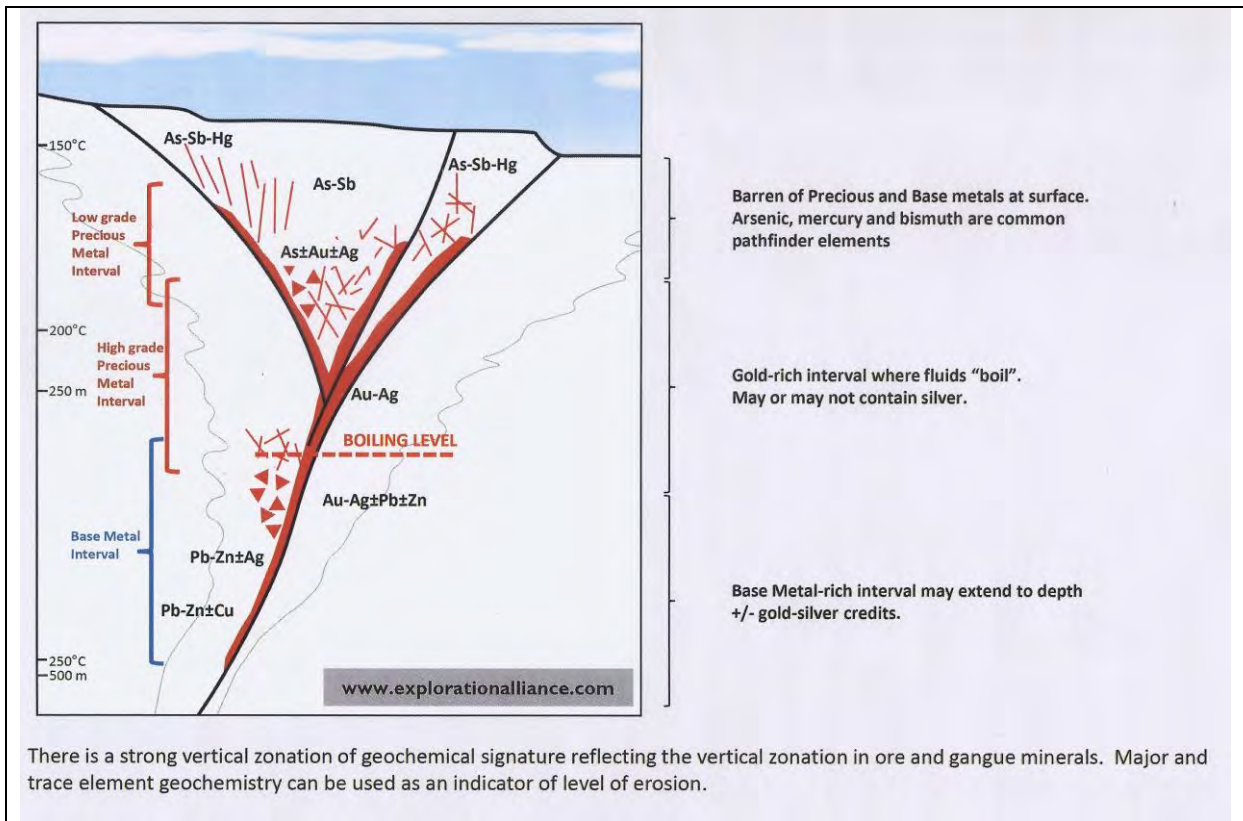
**Figure 8.1** – Diagram of typical low-sulfidation near surface vein system including accompanying alteration sequence. The large blanket of smectitic alteration extant at Rimrock indicates the property exposures are still above the precious-metals interval. From Association of Mining Analysts: London, July 2013 presentation by Exploration Alliance S.A.

At Midas and Hollister, veins occupy the same structures that host mafic dikes, with the veins commonly found in the footwall of the dikes. This arrangement is probably due to the mafic dikes acting as buttresses, maintaining open space as the faults continued to move. This spatial relationship between veins and dikes provides a targeting opportunity if the dikes are seen in outcrop or in ground magnetic surveys (Morris, 2003).

The relationship between gold and mercury mineralization, sinter deposits and



hydrothermal activity is illustrated by recent work in the Beowawe, Nevada area. Atna Resources Ltd operated the White Canyon-Beowawe project situated approximately 40 miles south of the Ivanhoe Creek property, four miles east of Mule Canyon Mine, and three miles southwest of the previously mined Red Devil mercury deposit (cinnabar in silicified Valmy Formation meta-sediments). The project area comprises one of the largest and hottest hot-spring systems in the Great Basin. Atna tested for bonanza-style gold mineralization at depth.



**Figure 8.2** – Geochemistry through vertical section of low sulfidation system. From Association of Mining Analysts: London, July 2013 presentation by Exploration Alliance S.A.

Sinter deposits, occurring along four miles of the northeast-trending Malpais fault, show areas of intense silicification indicative of multiple hydrothermal events, and contain anomalous gold, mercury, arsenic, antimony and bismuth. Atna reported that in 1984 an exploratory geothermal hole reportedly intersected 30 meters grading 10 g/t gold and 60 meters grading 6 g/t gold. Other shallow drill holes testing for a bulk-mineable target intersected sections of anomalous gold, including 502 ppb gold over 16.8 meters and 130



ppb gold over 106 meters.

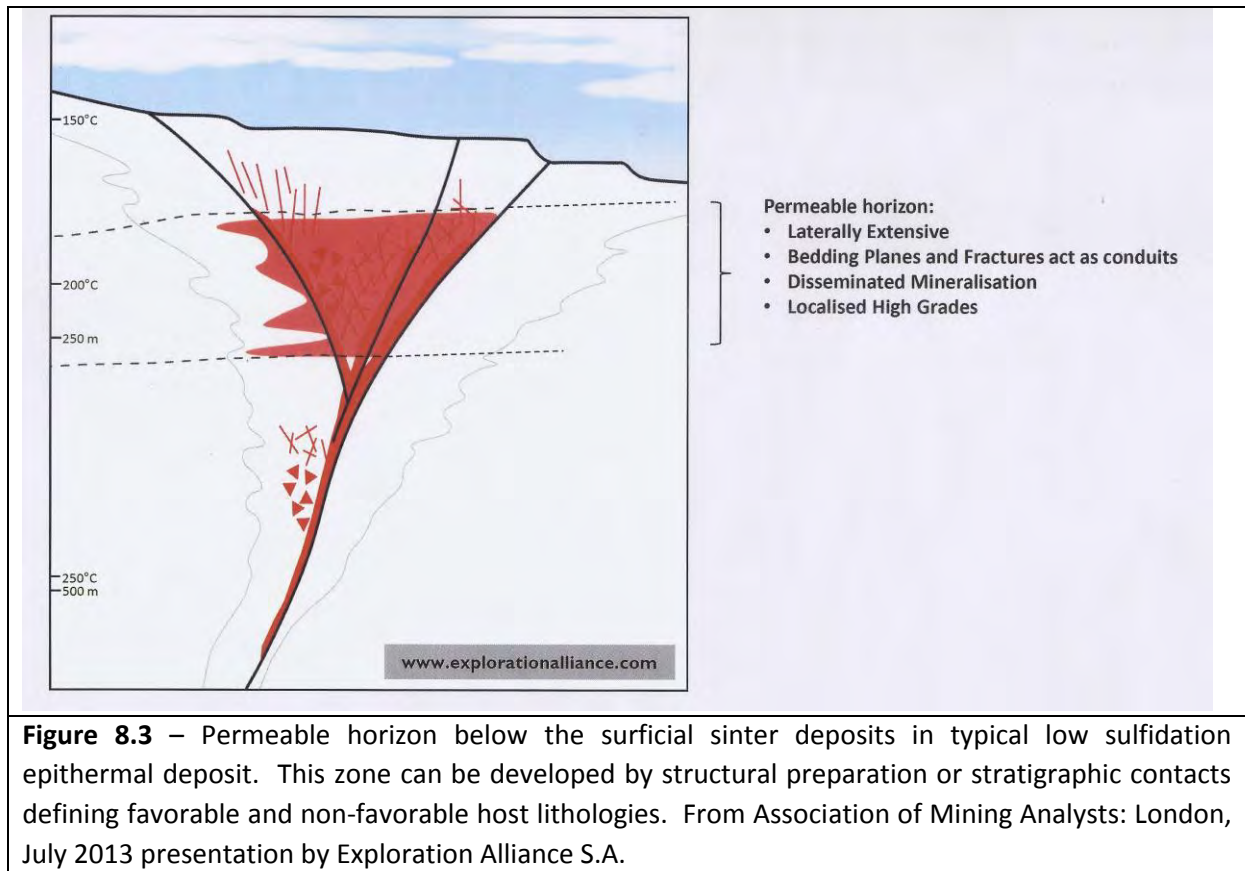
Hecla Mining Company recently reported (Hecla, 2021) on the discovery of new sinter-related or associated gold-silver mineralization, the Green Racer Sinter, in their Midas property holdings. Hecla reported a 1 meter drill intercept at a depth of 1273 feet (388 m) from the ground surface, associated with the “Green Racer Sinter”, with intercepted gold grades of up to 10.68 ounces per ton (366.1 ppm) and 37.3 ounce per ton (1,278.8 ppm) silver (Hecla, 2021, Press Release dated 21 February 2021).

## **8.2 BULK TONNAGE AND SEDIMENTARY ROCK HOSTED DISSEMINATED GOLD AND SILVER DEPOSITS**

The following is from John and others (2010): “Sedimentary rocks host epithermal gold-silver deposits in some low sulfidation epithermal districts; their variable physical and chemical properties, including permeability and chemical reactivity, are primary factors in the genesis of some of these deposits. Permeability contrasts and boundaries, including contacts between highly permeable sedimentary and volcanoclastic rocks and low-permeability shales and mudstones (aquifers), strongly influence lateral and vertical fluid flow and ore body morphology (Sillitoe, 1993; Hedenquist and others, 2000). These contrasts can result in hydrothermal fluid flow through, and formation of replacement or disseminated deposits in permeable units at permeability boundaries. For example, in the Kelian deposit, Indonesia, impermeable carbonaceous matrix-rich diatreme breccias focused hydrothermal fluid flow into adjacent wall rocks where hydrothermal brecciation and epithermal mineralization were localized (Davies and others, 2008a). At the Kurankh, Russia, low-sulfidation deposit, much of the ore is hosted by highly permeable karst breccias that formed at an unconformity between Cambrian carbonate rocks and overlying Jurassic sandstones (Rodionov and others, 2014).”

Historic drilling on the Rimrock property has demonstrated disseminated silver mineralization is present in the Ordovician Vinini Formation underlying the Miocene volcanic sequence. Other metals are ponded at the sedimentary-volcanic rocks boundary including gold, silver, tungsten, mercury, selenium and mercury but not necessarily in economic concentrations. Conversely, barium is enriched above the contact. This style of mineralization, commonly in the form of auriferous sulfidic blankets, is present in the Hollister Mine and has been modelled elsewhere (Figure 8.3), as at Jake Creek, Nevada (Evolving Gold, 2010).

Carlin-type sedimentary rock hosted gold deposits consist of disseminated gold in decalcified and silicified silty limestone and limy siltstone. Sediment-hosted gold deposits characteristically contain microscopic gold disseminated throughout sedimentary host rocks, usually atomically admixed with arsenian pyrite. Commonly associated minerals are realgar, orpiment and stibnite forming after deposition of gold mineralization. These types of deposits are strongly temperature dependent, 230° - 240° C; depth of formation for Carlin deposits is in the range of 0.8 km to 3.2 km deep.

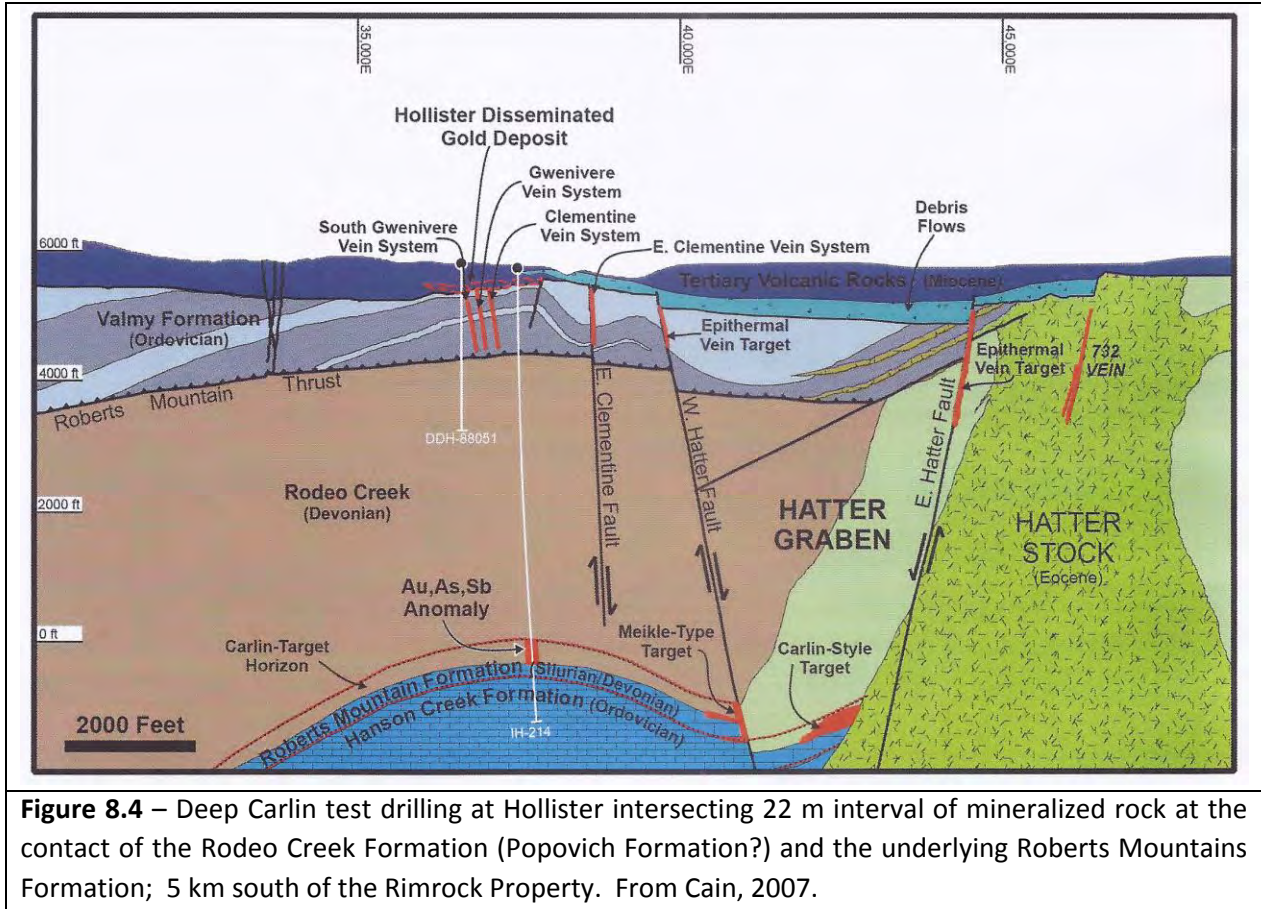


Carlin-type deposits are distributed along well-defined mineral trends that are now understood to represent large, deep crustal breaks extending into the upper mantle. They are found where mineralizing fluids reacted with favorable carbonate rocks or in situations where mineral fluids were trapped below impervious rocks above them. In Nevada, the carbonate rocks that host the deposits are often positioned below Paleozoic, deep-water sedimentary rocks that have been repeatedly thrust over them from the west during late mountain building events. This activity resulted in the development of many low-angle

structures and open folds. Many of the Nevada deposits in the Carlin, Nevada region are situated on or close to the Roberts Mountains thrust fault, where it is intersected and usually offset by deep, high-angle normal feeder faults, allowing the movement of mineralized fluids upward into reactive host rocks, where the fluids often spread out laterally, and depositing local gold mineralization. Although the high angle structures are often found to host igneous dikes, to include lamprophyres, no igneous rocks around these deposits are recognized as obvious heat sources for their formation. Faults of multiple ages, including pre- or syn-Jurassic age, high-angle faults, were reactivated after having been intruded by Jurassic lamprophyre dikes such as at Cortez (C. Weakly, pers. comm. to R. Redfern, 2017). Some faults locally were again reactivated in Eocene time to host gold-silver mineralization at several localities in the Carlin and Battle Mountain-Eureka Trends.

Deep drilling at Ivanhoe-Hollister intersected at a depth of 2,100 m below the surface a 22 m interval of gold mineralization at the base of the Devonian Rodeo Creek Formation (Popovich formation?) immediately above the Siluro-Devonian Roberts Mountains Formation (Figure 8.4). Hecla Mining recently has been focusing its Hollister Mine gold-silver exploration efforts on the Hatter structural system, which was intruded by the Eocene Carlin-age Hatter Stock granitic body. Hecla recently has been driving an eastward trending exploration drift toward the Hatter stock, looking for and drilling Midas-age veins as well as a drilling platform for the search for Carlin-style gold deposits at depth.

Rimrock is situated directly atop the main Carlin Trend deep-tapping fault systems (Wright, 2005), and could have received Carlin-style alteration and mineralization at depth. The Rimrock horst fault structures could have been deep tap structural feeders for Carlin-age gold mineralization. The thickness of the Upper Plate Vinini rocks at Rimrock is not yet known, but may be shallower than at Hollister.



**Figure 8.4** – Deep Carlin test drilling at Hollister intersecting 22 m interval of mineralized rock at the contact of the Rodeo Creek Formation (Popovich Formation?) and the underlying Roberts Mountains Formation; 5 km south of the Rimrock Property. From Cain, 2007.

### 8.3 DISTAL DISSEMINATED PORPHYRY AFFINITY

Historic drilling on the Rimrock Property has intersected disseminated silver mineralization at very shallow depths hosted within the sandstones of the Ordovician Vinini Formation, immediately beneath the volcanic pile. Analyses of the multi-element data derived from this program demonstrate that two separate silver systems are present:

A) samples with silver grades in excess of 10 ppm (to 262 ppm; average 65.1 ppm) are also elevated in Cu (average 193 ppm; high 684 ppm), Mo (average 42 ppm; high 176 ppm), Re (to 17 ppb – virtually all other Re assays using ALS-Chemex ME-MS61 method are below detection in this area), W (average 438 ppm; high 1,500 ppm), and Ni (average 28; high 50.9 ppm). As (varies from 3.7 ppm to 42 ppm) and Hg (generally less than 6 ppm but with a high in excess of 100 ppm) are relatively enriched compared to background but do not demonstrate a direct correlation as the other

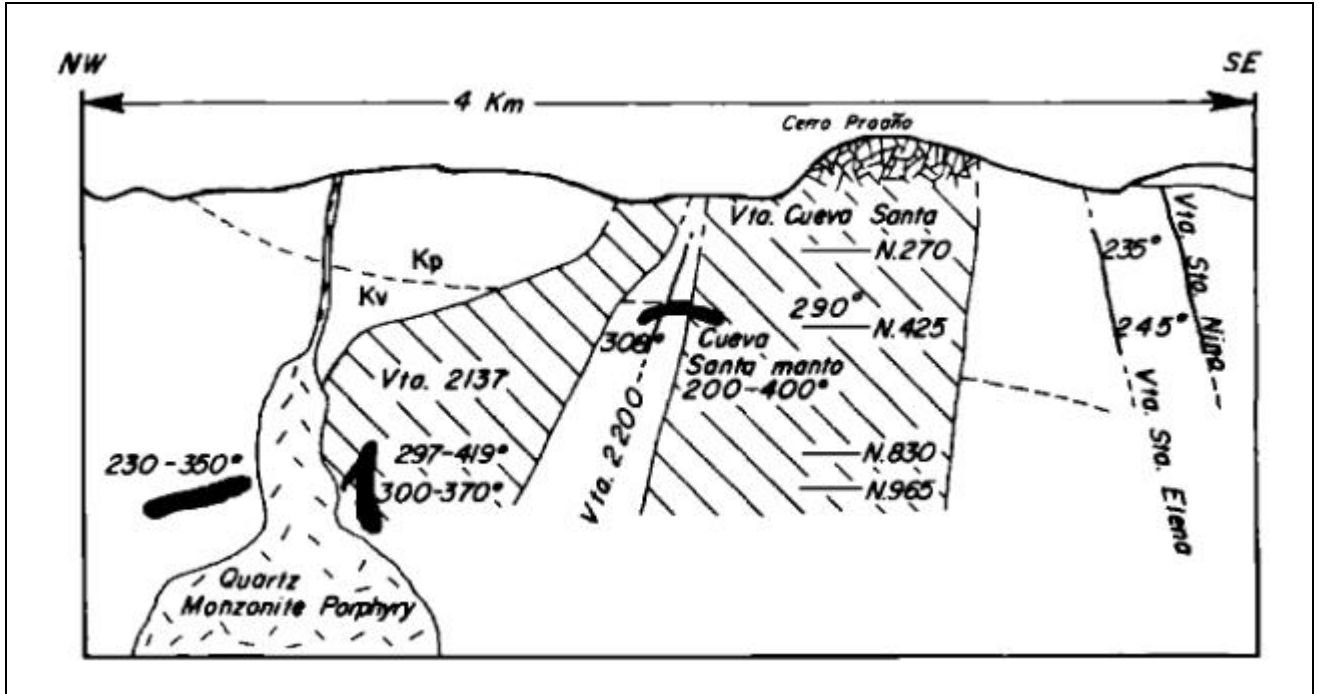
metals do. Pb shows no enrichment relative to silver. Gold is uniformly low averaging 12 ppb.

B) low grade silver (less than 10 ppm) is associated with Te (average 0.17 ppm; high 0.27 ppm), Se (average 8.0 ppm; high 21.0 ppm), Sb (average 9.0 ppm; high 14ppm), V (average 382; high 675 ppm),  $\pm$ As (varies from 4.3 to 49.8 ppm,  $\pm$ Mo (average 7.4 ppm),  $\pm$ Cr (varies from 29 to 123 ppm) and  $\pm$ Cu (average 65 ppm). Mercury is uniformly low. Silver averages 3.2 ppm, while gold averages 26 ppb but varies significantly from 9 to 55 ppb.

The affinity of silver with Cu, Mo, W, Ni and Re suggests a porphyry source for the higher grade silver mineralization that likely represents distal dissemination from such a porphyry. Although there are no known porphyry systems in the Rimrock project area, the 39 Ma Hatter granodiorite stock adjacent to the Hollister Deposit, located 6 km southeast of the center of the Rimrock Project, may have some connection with this mineralization similar to that observed at the Fresnillo Mine in Zacatecas, Mexico (Figure 8.5). The Hatter Stock is the same age as the Biotite Feldspar Porphyry associated with gold mineralization at the 50 million ounces plus Goldstrike Mine Complex located 21 km southeast of the Hollister Mine. Similar age rocks (Tuff of Nelson Creek (39.42 $\pm$ 0.11 Ma), Tuff of Big Cottonwood Canyon (39.22 $\pm$ 0.1 Ma) and Trachyandesite flows and tuffs (37.23 $\pm$ 0.1 Ma)) have been identified just off the western boundary of the Rimrock Property and to the north in Willow Creek Canyon where these volcanic rocks immediately overlie the sedimentary rocks of the Vinini Formation, and where both are exposed at the surface. In addition to the geochemical signature, tourmaline was noted in drill hole IC-07-02 at 56 meters and, in places, the sedimentary rocks of the Vinini Formation have been reported as recrystallized; perhaps by a porphyry body.

High grade (>10 ppm) silver mineralization has not been identified in the overlying Miocene age rocks at Rimrock. The association of enriched tungsten, molybdenum, nickel, rhenium, and copper relative to surrounding and similar lithologies is indicative of a porphyry signature and represents a distal disseminated system.





**Figure 8.5** – Longitudinal northwest-southeast section through the Fresnillo Mine showing manto (dark areas), and other styles of silver mineralization. Elevations are in meters below surface; temperatures of quartz and calcite fluid inclusions are in °C. There is increasing silver content and decreasing base metal values with distance from the stock. Plateros Formation (Kp), Valdecañas Formation (Kv). The Quartz Monzonite Porphyry has been dated to 32.4-31.6 Ma. From Ruvalcaba-Ruiz and Thompson (1988).

Lower-grade silver mineralization (sub-10 ppm) hosted within the Ordovician sedimentary section has a distinct Se-Te-Sb-V ± Cu-Mo-Cr-As signature, similar to other epithermal systems of the Pacific rim (Rytuba and Miller, 1990).

Thus, two distinct types and ages of gold-silver mineralization appear to be present in the Rimrock property.

#### 8.4 BENTONITE DEPOSITS

Bentonite occurs on the property and has been previously prospected to include a bulk sample (previously discussed). The deposit at Rimrock is part of the alteration sequence developed in a low sulfidation epithermal environment and typically represents the upper level of the system (Figure 8.1). These types of deposits are rather common in Nevada where they are frequently developed in volcanic ash and tuff layers associated with silicic

volcanism. Of the four most common genetic types of bentonite deposits, the one at Rimrock is resultant from alteration by hydrothermal solutions related to magmatic activity (Hosterman and Patterson, 1992). There are no known characterization studies of the clay deposits at Rimrock.

The size, thickness and grade of the deposits at Rimrock need to be studied and analyzed to determine significance and value.

## **9.0 EXPLORATION**

The Rimrock property is at an early stage in the exploration process. Claims were staked based on the exposed alteration, silica veinlets, the mineralized chalcedonic sinters exposed at the surface, and the potential for favorable structural controls that might host gold and silver mineralization.

### **9.1 HISTORIC EXPLORATION**

Exploration programs prior to 20210 have been presented in Section 6.0 History. In 1987, one hole was drilled into the property by Touchstone Resources. In 1994, Newmont Exploration Limited drilled 7 or 8 exploration drillholes on the property. In 2007, a core drilling program by Kent Exploration, detailed in Section 10.0 Drilling, was conducted on the Property. Some detailed geologic mapping and surface rock chip sampling took place in 2012.

#### **9.1.1 Surface Mapping**

Surface geologic mapping at a scale of 1:24,000 was conducted during 1996-1998 by Alan R. Wallace of the U.S. Geological Survey and published as Geological Map of the *Willow Creek Reservoir Quadrangle, Elko County, Nevada*: Map 135 Nevada Bureau of Mines and Geology (Wallace, 2003).

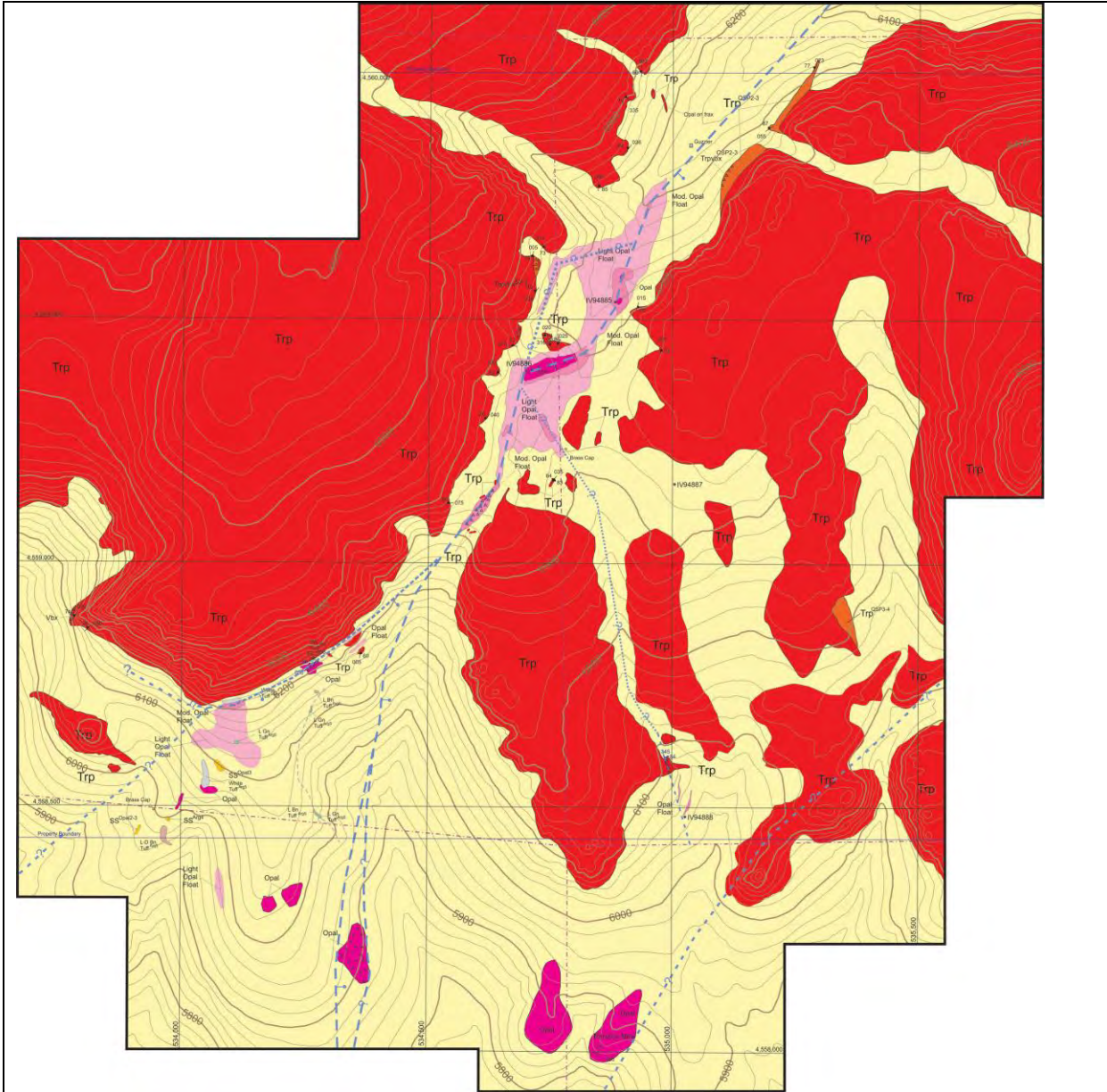
Localized detailed mapping at a scale of 1:5,000 focused on the “Rhombochasm” target area north of the Rimrock Mine, in parts of sections 7, 8, 17, and 18 T.38N., R.48E. (Figure 9.1), was completed in late 2012 by the author. Mapping included lithology, structure, and alteration. A property brief was generated for Zahav Resources (Ferdock, 2012).

### **9.2 GEOCHEMICAL EXPLORATION**

Geochemical exploration data is available from about 2002 forward and are discussed below; no doubt surface rock samples were analyzed prior to that time by various interested parties, but those data are unavailable.

#### **9.2.1 Rock Chip / Bedrock Sampling**

50 surface samples with varying amounts of associated data are in the current Rimrock geochemical database. These samples were acquired between 2004 and 2012; Certificates of Analysis for all sample sets, save sample 190006, are presented in Appendix 2. Sampling was performed by the representatives of Reliance Geological Services, RMIC Gold, Senator Minerals Inc., and Zahav Resources. Sampling concentrated on silicified and other alteration zones (Figure 9.2).

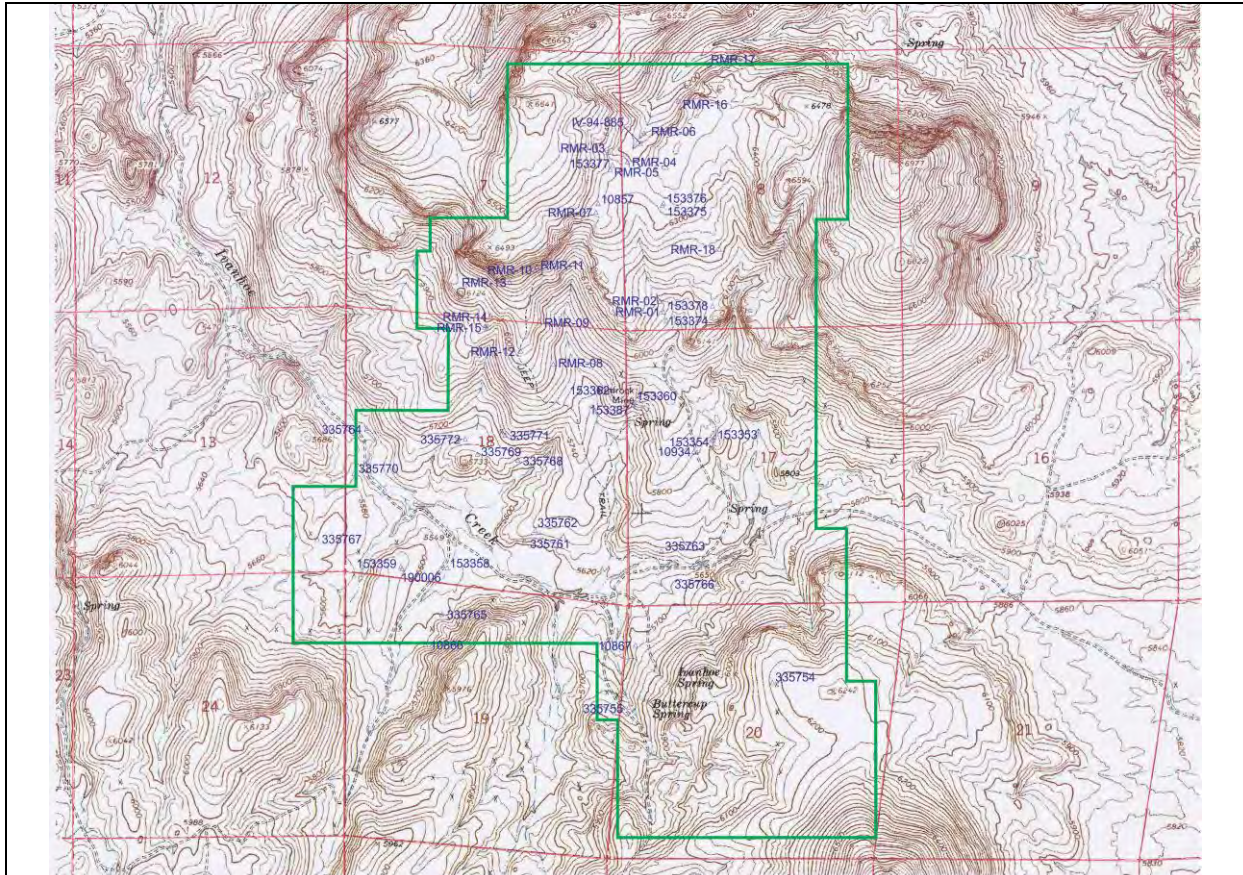


**Figure 9.1** – Detailed geologic map of the Rhombochasm Area of the Rimrock Property. Area is defined by opal mineralization and argillic alteration.

### 9.2.2 Soil Geochemical Sampling

There have been no soil samples taken from the property.





**Figure 9.2** – Location of surface geochemical samples; property outline in green is approximate and does not illustrate the internal patented ground.

### 9.2.3 Sampling Area

Sampling area is widely dispersed through project area, concentrating upon silicified and hydrothermally altered materials.

### 9.2.4 Sampling Methods and Sample Quality

Sampling methodology has not been described in detail. But all reported sampling has been completed by professional explorationists.

#### 9.2.4.1 Rock Sampling

Surface and core drilling sampling has been carried out by exploration professionals. Methodology can be assumed to conform to all industry standards.



In the case of those samples taken by the author in 2012, samples were selected from surface exposures, each being placed in a labeled and uniquely identified cloth sample bag. Data describing the sample color, alteration, mineralogy, lithology and associated structural features were recorded. Samples were then kept in the author's possession until relinquished to the laboratory where they were inventoried and a chain of custody form received.

#### **9.2.4.2 Soil Sampling**

No soil sampling has been completed.

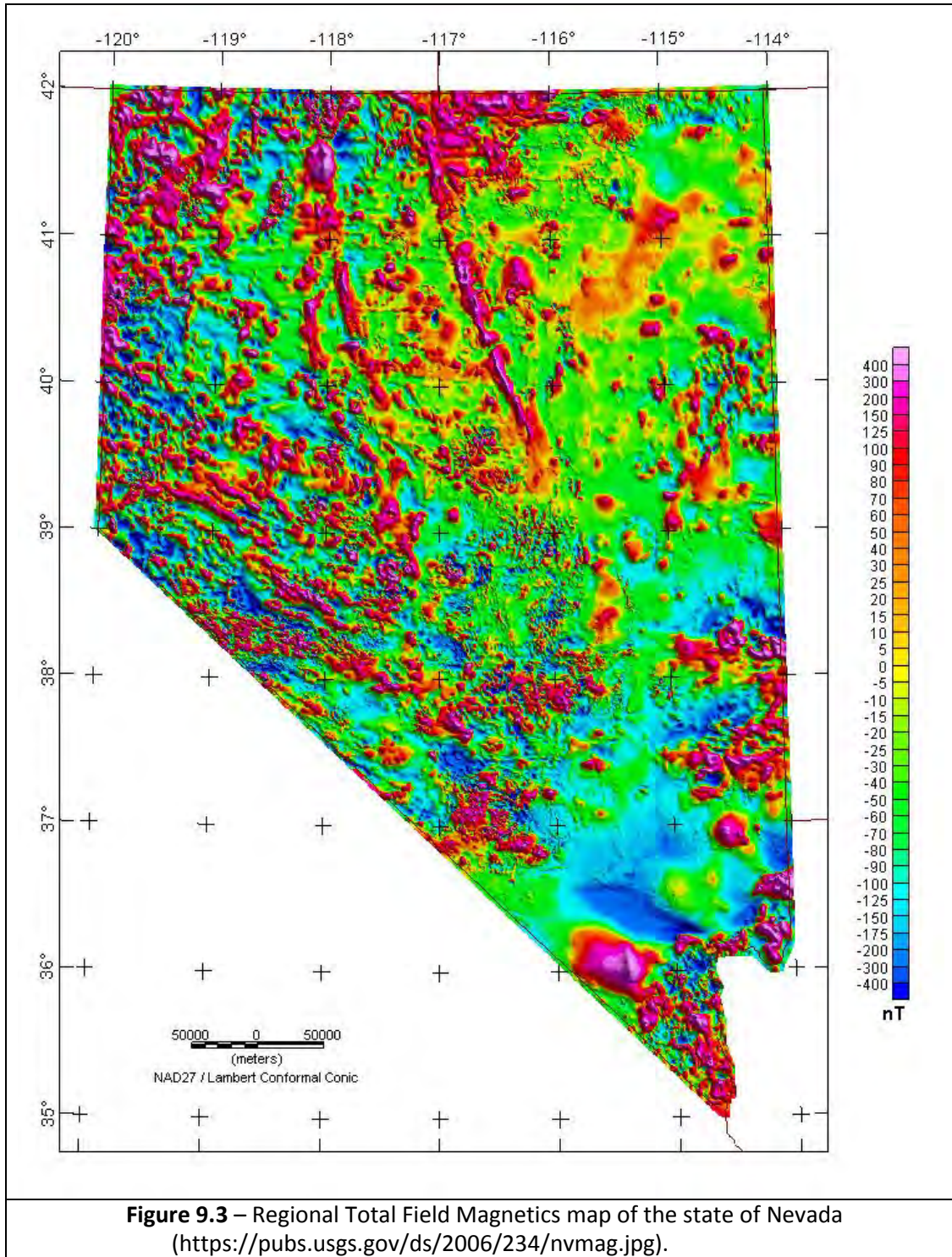
### **9.3 GEOPHYSICAL SURVEYS**

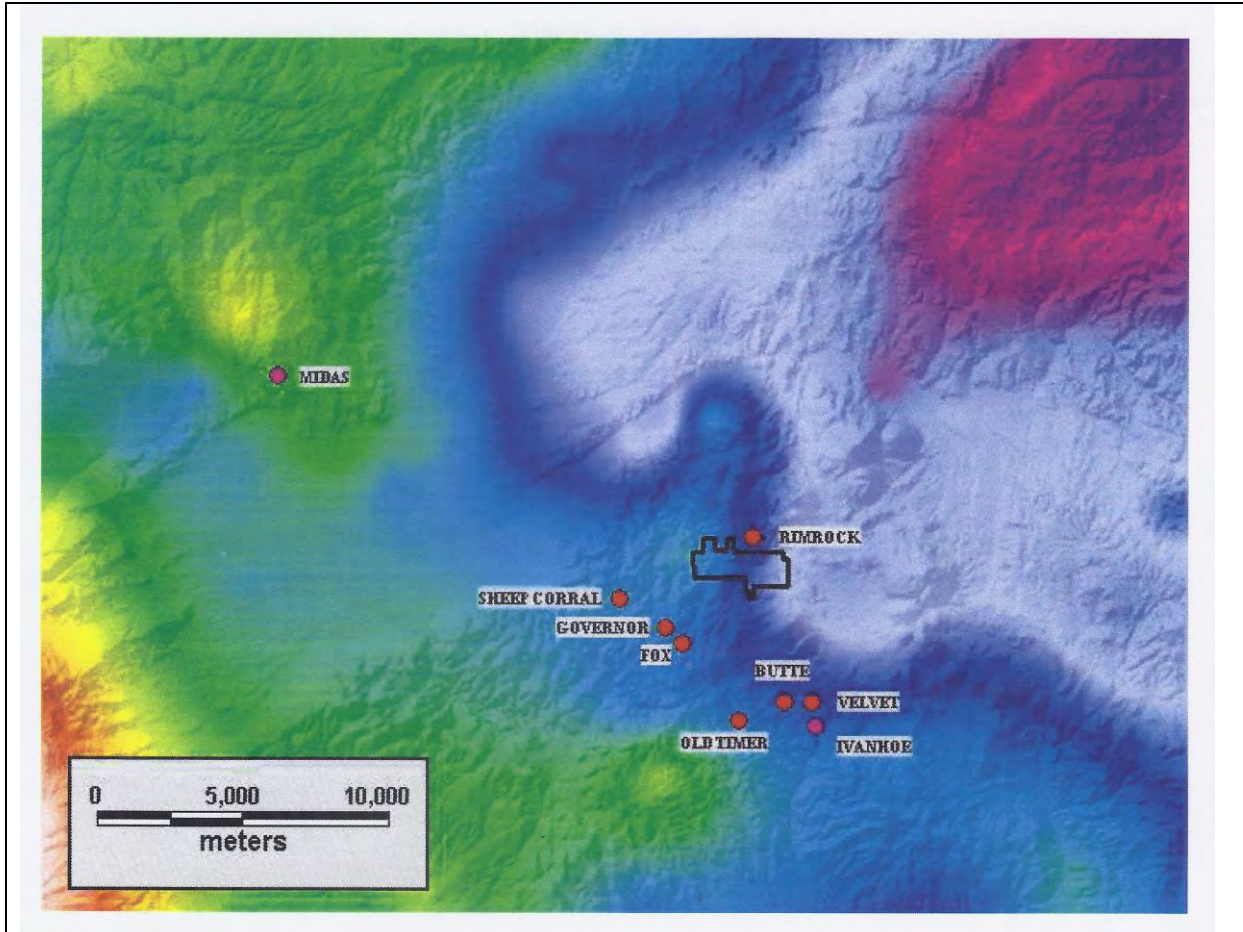
A number of geophysical surveys have been completed over portions of the Rimrock property. These include Gravity, Ground Magnetics and CSAMT surveys in 2004 and a second CSAMT survey in 2013. All of the data derived from these surveys were interpreted by J.L. Wright Geophysics of Spring Creek, Nevada, USA. The 2004 CSAMT survey was completed by Zonge Geosciences of Sparks, Nevada, USA.

#### **9.3.1 Regional Geophysics**

Regional geophysical maps of composited Magnetics and Isostatic Gravity are available on the USGS website ([https://pubs.usgs.gov/ds/2006/234/nv\\_refs.htm](https://pubs.usgs.gov/ds/2006/234/nv_refs.htm)); these data are coarse and display broad anomalies (Figure 9.3).

The following is taken largely from Wright (2004). Figure 9.4 presents USGS regional gravity data in the vicinity of the Rimrock property along with mercury prospects and gold mines in the vicinity of the property. Gold and mercury deposits fall along the flanks of gravity highs. Rimrock straddles a prominent north-south gravity gradient, with a localized high immediately west of the property. This north-south gravity gradient is also reflected in topography. These gravity gradients reflect the juxtaposition of volcanic units against Paleozoic basement. This juxtaposition often occurs along deep structures, providing conduits for hydrothermal flow and deposition of mineralization, thus the tendency for both mercury and gold deposits to cluster along gravity gradients. At Rimrock and in northern Nevada in general, north-south structures will tend to be of deep seated origin.

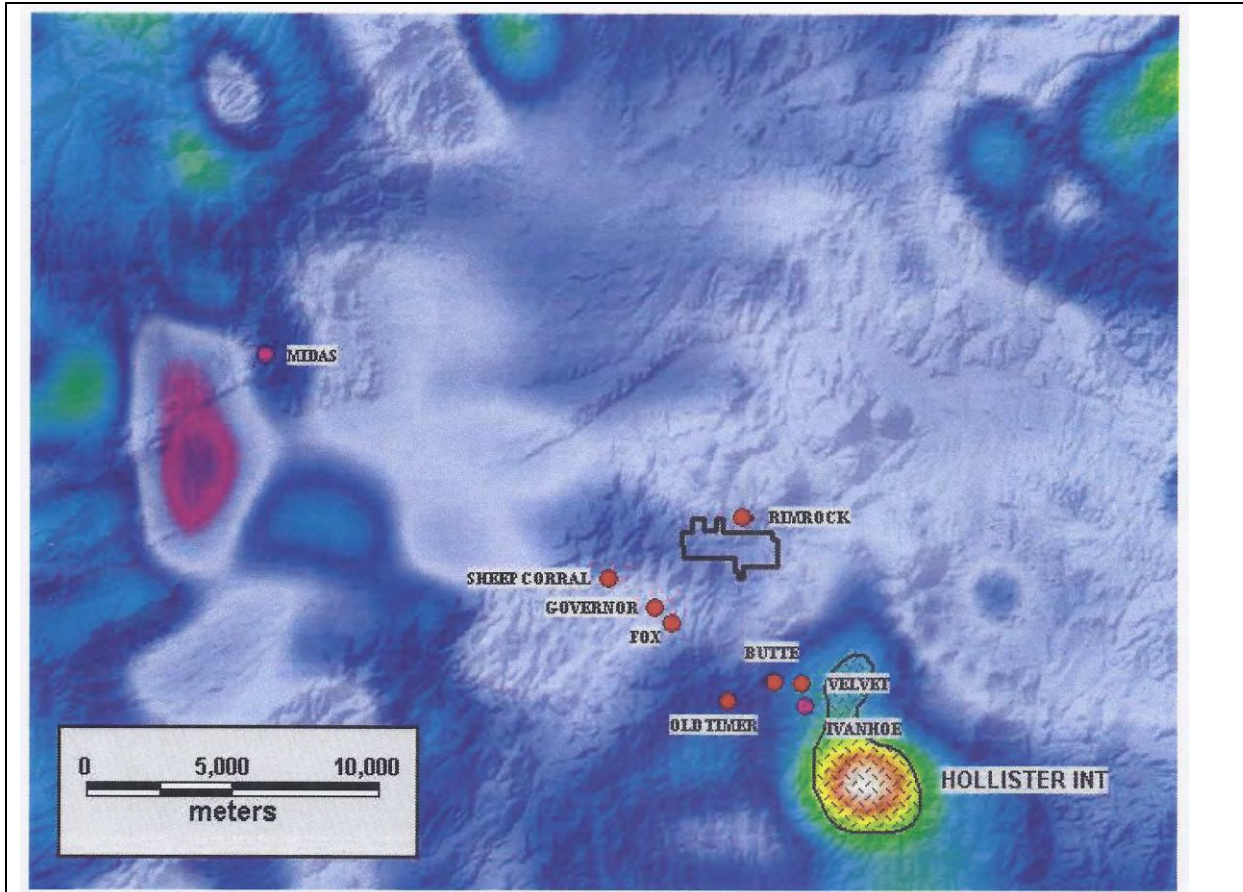




**Figure 9.4** – USGS regional Bouguer gravity, mineral deposits, and shaded topography. Mercury deposits are in red, gold deposits (Midas and Hollister-Ivanhoe) in magenta. Outline (black) represents only southern half of Rimrock property.

Figure 9.5 presents USGS regional airborne total field magnetic data in the vicinity of the property. Most prominent in the airborne magnetics is the Eocene (39 Ma) Hollister (Hatter) intrusion. A weak magnetic high is situated two kilometers west of the property, roughly coincident with gravity high noted previously. This coincidence is the result of Eocene volcanic units immediately above the Paleozoic basement being exposed in the area. The weak airborne magnetic high correlates with the rhyolitic to trachydacitic Nelson Creek Tuff (Tnc) as mapped by Wallace (2003). This weak magnetic high fades to the east beneath the property which is consistent with a deepening of the basement and overlying Tnc.





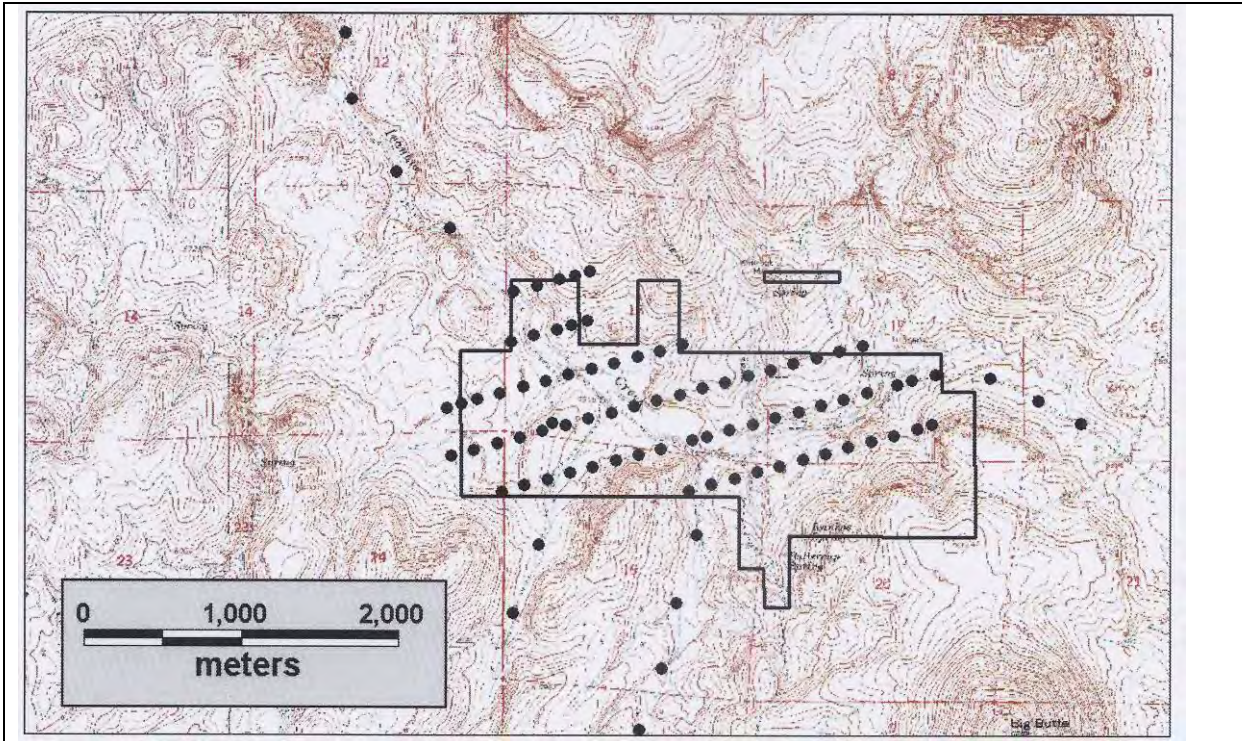
**Figure 9.5** – USGS regional total field airborne magnetics, mineral deposits and shaded topography. Midas and Ivanhoe are gold mines, the remaining are historic mercury mines. The 39 Ma Hollister (Hatter) stock is also noted. Property outline (black) of southern half of Rimrock Project area.

Regional analysis indicates a prominent north-south, deep seated, structural zone cuts the property with elevated basement to the west. Both the gravity and airborne magnetic data support this interpretation. Northeast oriented structures are well reflected in the topography, but these do not appear to be deep seated features. Gold and mercury deposits, as would be expected, cluster along the gravity gradients.

### 9.3.2 Gravity Survey

Magee Geophysics with offices in Reno, Nevada gathered 93 stations along six 075° bearing profiles across the property. In addition, a number of stations were acquired along three roads surrounding the property. Figure 9.6 presents the gravity station locations over topography. Station spacing along the profiles is 150 m and 500 m; on the roads profile spacing is 300 m. The primary objective of the survey is to map basement geometries beneath the volcanic cover. Rapid basement variations along linear trends map structures

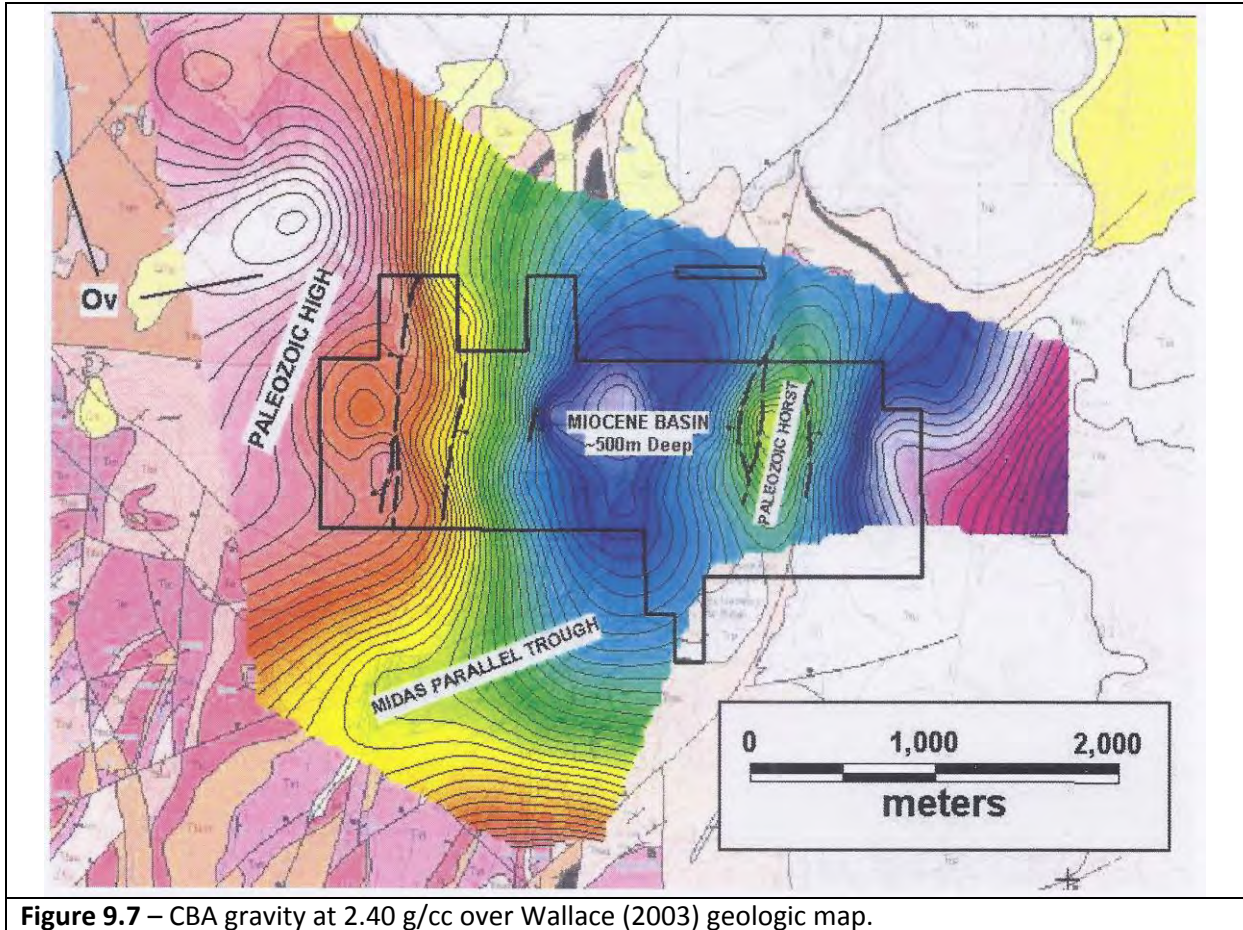
offsetting the basement. Detailed discussion of the survey can be found in Wright (2004).



**Figure 9.6** – Gravity station locations on topography from the 2004 survey.

Figure 9.7 presents the complete Bouguer gravity anomaly at a density of 2.40 g/cc overlying a windowed portion of the quadrangle geology by Wallace (2003). Outcropping Paleozoic Vinini Formation (Ov) is noted on the Figure 9.7, which coincides with elevated gravity values; a localized high is found over an exposed wedge of Ov on the survey's northwest extreme. Using gravity to map siliciclastic basement rocks beneath volcanic lithologies is a well-established practice in northern Nevada. Several primary structural elements are noted on Figure 9.6; most prominent is a basement high occupying the western quarter of the property and extending to the west. Immediately east of this feature is a Miocene volcanic filled basin on the order of 500 m or more in depth. A prominent north-south oriented, 300 m wide, horst block terminates the basin to the east. East of the horst block, volcanic cover again thickens. An east-northeast trending graben, parallel to the Midas Trough located between the property and Midas, is noted south of the property.



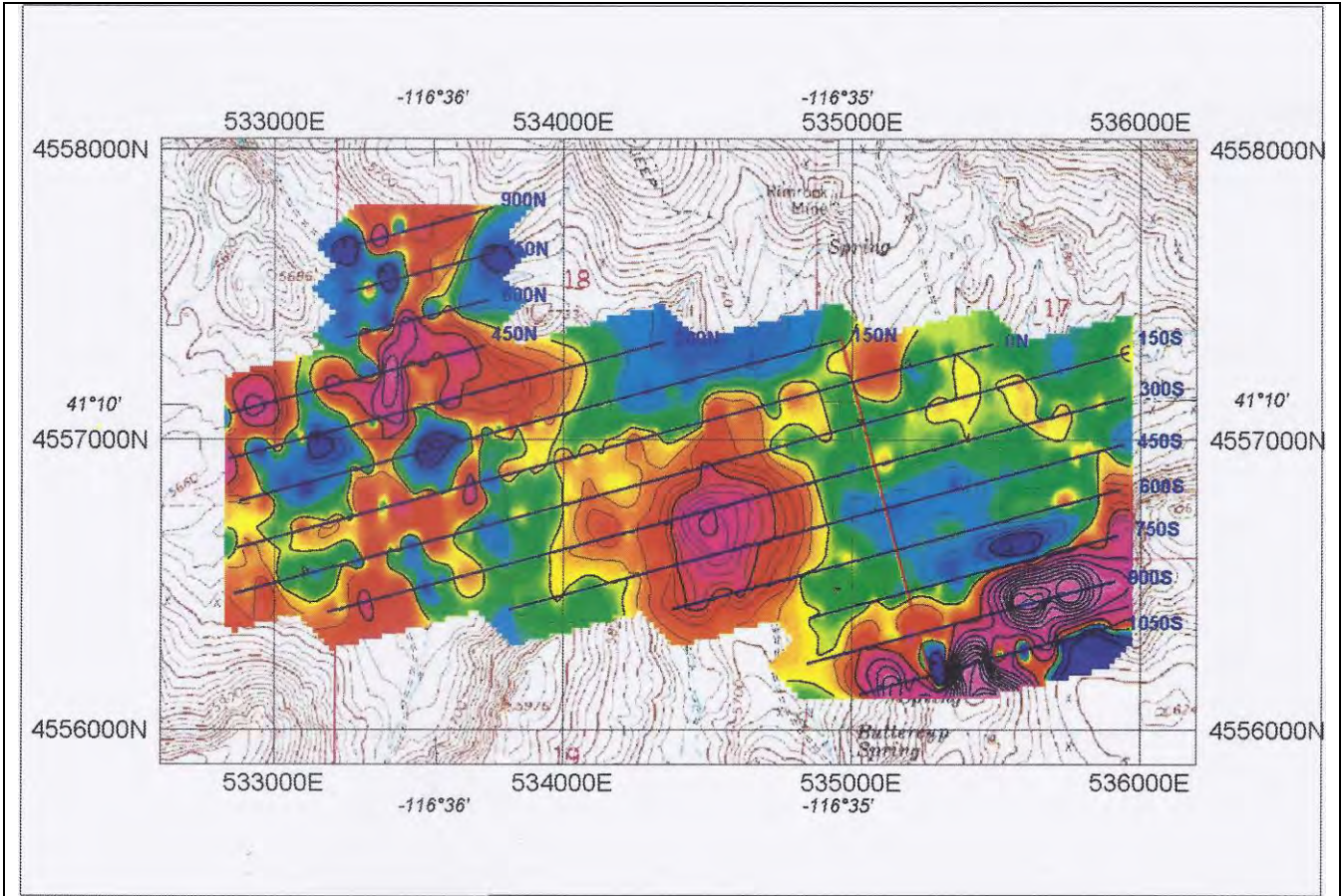


**Figure 9.7** – CBA gravity at 2.40 g/cc over Wallace (2003) geologic map.

The north-south structural texture is developed along deep seated basement structures which likely acted as conduits for hydrothermal fluids.

### 9.3.3 Ground Magnetics Survey

Magee Geophysics with offices in Reno, Nevada gathered approximately 21.9 line-km of ground magnetic data on 150 m spaced lines oriented 075° for Kent Exploration. Station spacing was variable, but on the order of 3 meters. Figure 9.8 illustrates the ground magnetic survey lines and total magnetic intensity over topographic contours in the Ivanhoe Creek valley. Logistical data and additional details of this survey are presented by Wright (2004).



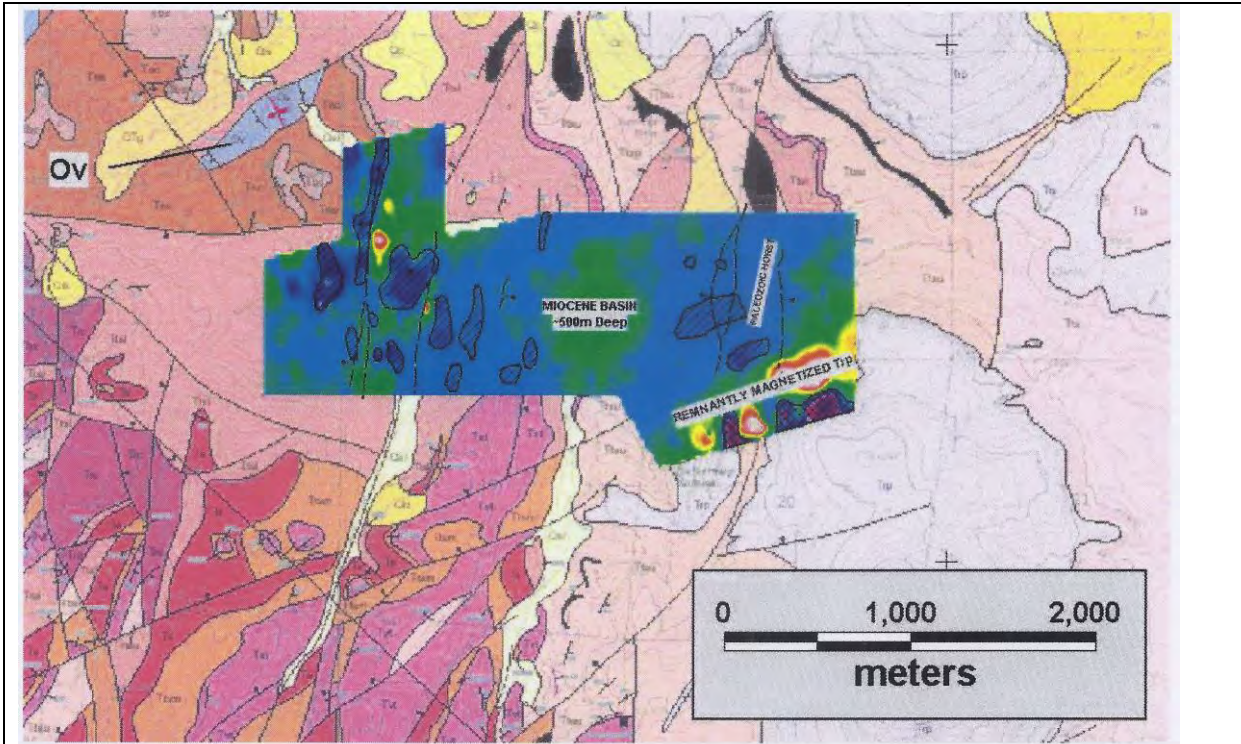
**Figure 9.8** – Magnetic survey lines and total magnetic intensity in the Ivanhoe Creek Valley on the Rimrock property (from Wright, 2004).

Figure 9.9 presents pole reduced total field data for the survey overlying the geology of Wallace (2003). Shown on the figure are structures and structural elements reviewed in conjunction with the gravity survey; these conform to known structural fabric of the area. Areas of reduced magnetic responses are interpreted as alteration.

### 9.3.4 Induced Polarization Survey

No induced polarization surveys have been completed to date over Rimrock.



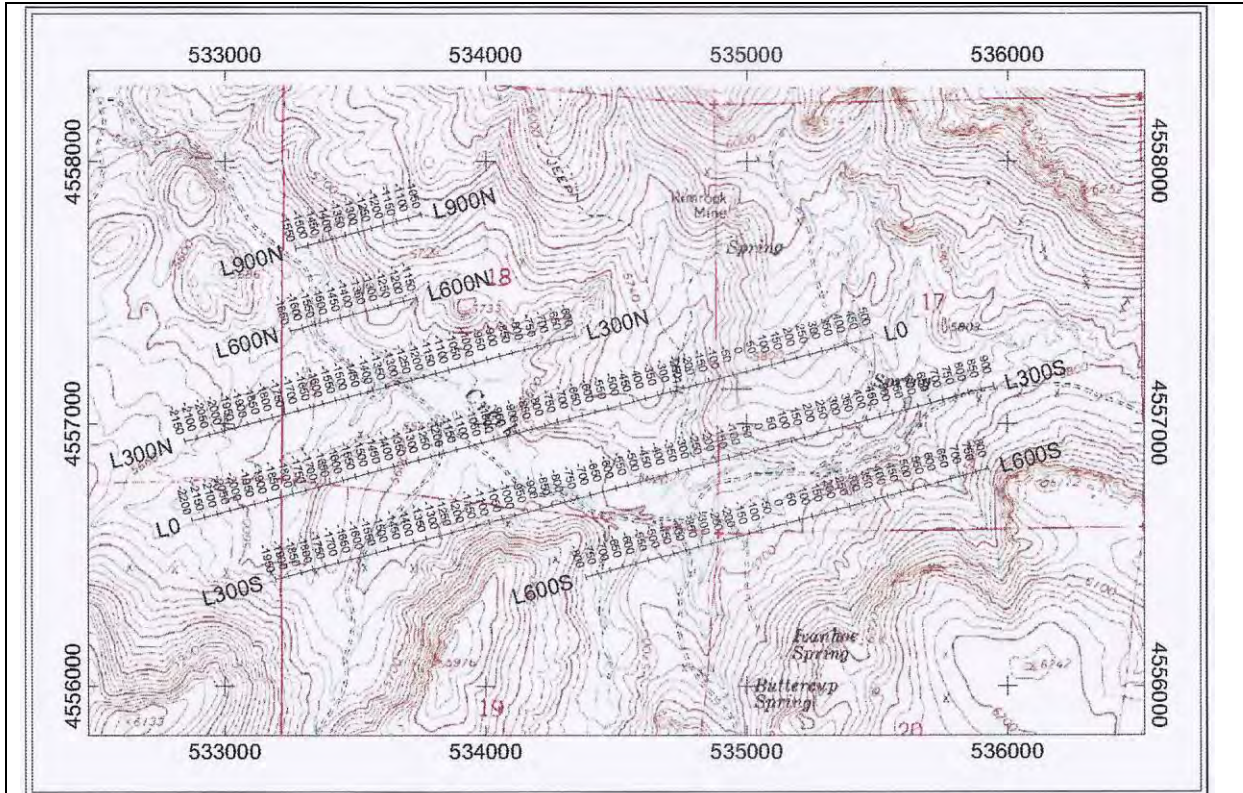


**Figure 9.9** – Ground magnetic survey superimposed over geology as mapped by Wallace (2003). Alteration is indicated by hatched areas. Miocene basin in the center of the survey is interpreted to be ~500 m deep. Figure from Wright (2004).

### 9.3.5 CSAMT Surveys

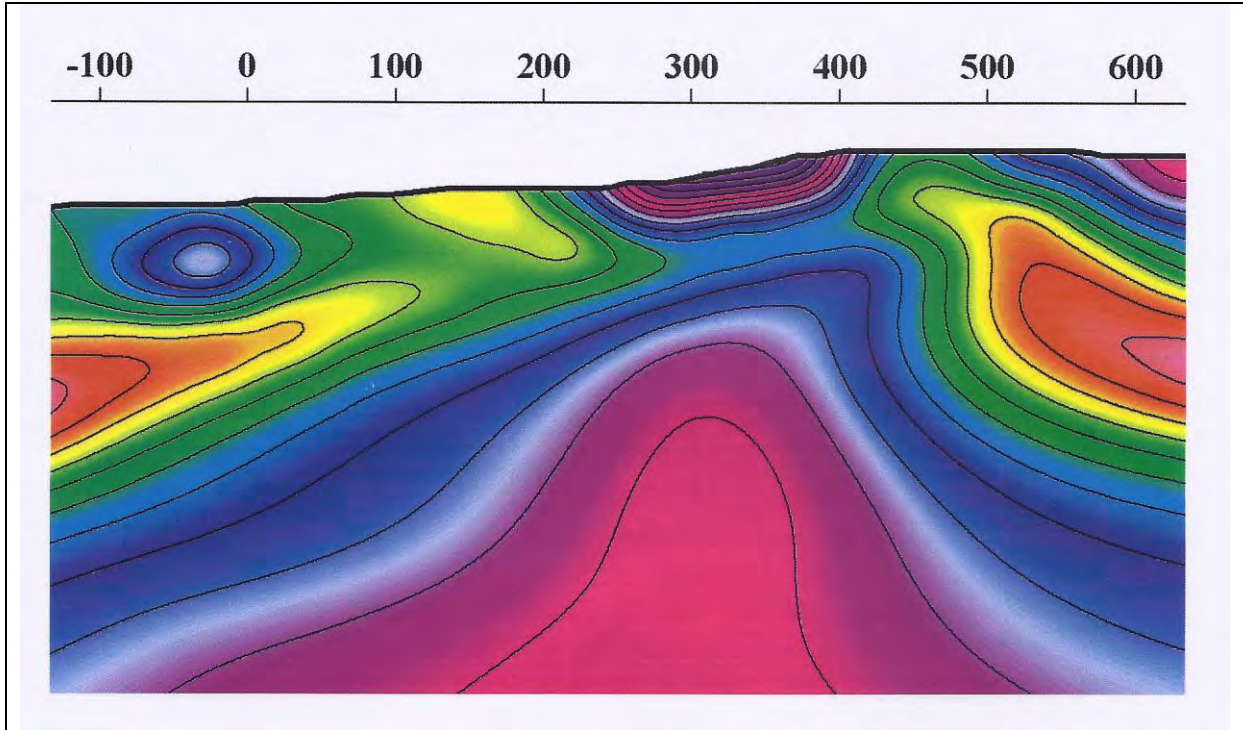
#### 9.3.5.1 2004 CSAMT Survey

The first CSAMT survey was completed in September 2004 for Kent Exploration and Reliance Geological Services by Zonge Geosciences Inc. and interpreted by Wright Geophysics. A total of six lines were measured along lines oriented  $075^{\circ}$ - $255^{\circ}$  (Figure 9.10). These are the same lines used to conduct the ground magnetics and induced polarization surveys. A detailed report dated 14 September, 2004 outlines the details of the survey and its results (Zonge, 2004). The survey was conducted using an electric dipole spacing of 50 m on 150 m spaced lines; vertical scale on the stacked CSAMT sections is 400 m. CSAMT data on line 600S shows a tabular, near surface response characteristic of siliceous sinter (Figure 9.11). Overall, CSAMT data tend to show excellent correlation between gravity and ground magnetics data (Figure 9.12).

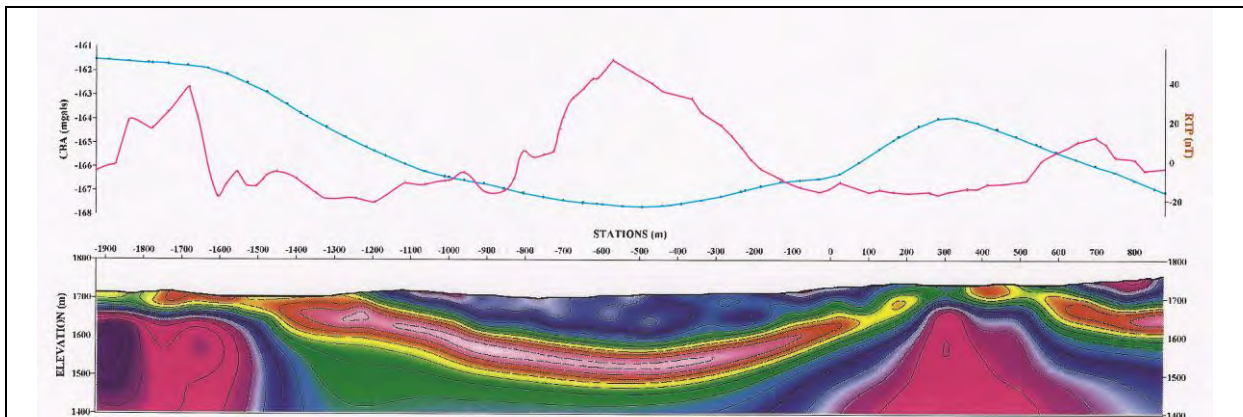


**Figure 9.10** – 2004 Zonge CSAMT survey lines over the Ivanhoe Creek area of the Rimrock Property.





**Figure 9.11** – CSAMT Section Line 600S from the 2004 survey illustrating classic near surface siliceous sinter anomaly directly over the apex of the Paleozoic horst; estimated depth to the Ov is approximately 100 m from the surface.

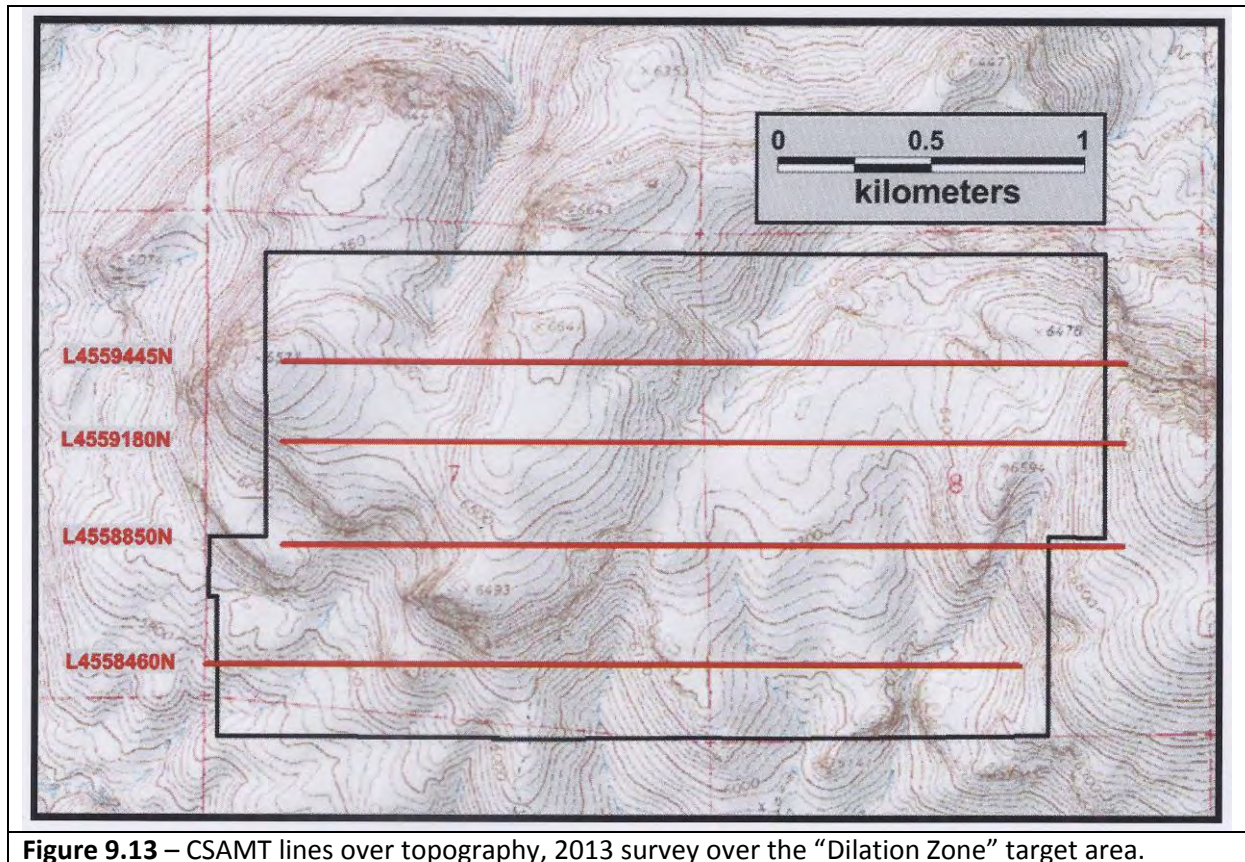


**Figure 9.12** – Geophysical survey Line 300S with Gravity (blue), Magnetics (red) and CSAMT (bottom) profiles. Note the good correlation between the data; the magnetic high over the central graben is due to accumulation of magnetite in the basin fill. The resistivity highs are areas of elevated Vinini basement rocks (Ov).

### 9.3.5.2 2013 CSAMT Survey



A second CSAMT survey was completed in 2013 for Mexivada Mining Corporation, north of the 2004 survey over an area called the “Dilation Zone” by Zonge Geosciences, Inc. (Figure 9.13). This survey, summarized here, was discussed by Wright (2013); much of the summary is directly attributable to that reference.



**Figure 9.13** – CSAMT lines over topography, 2013 survey over the “Dilation Zone” target area.

Data from this survey are characterized by a three layer resistivity sequence offset by numerous high angle structures. A high sensitivity surface layer is produced by a rhyolite porphyry (Trp of Wallace, 2003) forming flow domes. Structures cutting the Trp tend to reduce the resistivity along the structure due to breakage of the rock mass. Domes or hills of the Trp tend to exhibit relatively flat bottoms with no feeders to the domes evident in the CSAMT results. Beneath the Trp is a conductive layer of variable thickness interpreted to be produced by tuffs (Tts). Wallace (2003) draws a distinction between upper and lower tuffs; however CSAMT interpretation lumps the two together. Finally, beneath these two layers is a half space of moderate resistivity interpreted as being produced by siliciclastic rocks of the Vinini Formation (Ov).

The interpreted structures all appear to be high angle with variable dips. Offsets are also variable with a number of horsts and grabens evident (Figure 9.14). Figure 9.15 shows the

structures connected from section to section in plan view. Good agreement with the mapped geology is obvious. The structures form a series of north-northeast trending structures; most obvious is a large swarm of structures cutting the center of the survey, exhibiting direct correlation with mapped opal / chalcedonic, quartz-sericite-pyrite (QSP or phyllic) and argillic alteration. This structure appears to horsetail or fans out along the south edge of the survey and merge to the north. The zone is approximately 150 m wide on the northern lines, with extensive areas of alteration noted in the geology. A horst block bounded by the zone is suggested on the interpreted sections; however, elevated resistivities associated with the Trp makes definitive identification of silica alteration difficult (Wright, 2013).

The CSAMT survey reveals a three layer resistivity geometry offset by numerous high angle structures, which can be grouped into several north-northeast trending structural zones. The three resistivity layers correlate with units defined by Wallace (2003) as the Trp, Tts, and Ov from surface to depth. Interpreted structures correlate directly with mapped alteration of several varieties. However, definitive mapping of alteration types is made difficult due to rock type responses. That is, Trp produces high resistivity anomalies similar to that expected from silicification, and the Tts produces anomalies similar to argillic alteration. Regardless, the structural zones clearly controlled hydrothermal fluid movement responsible for the mapped alteration. Analysis of the regional gravity suggests the north-northeast structures are part of a significant structural zone which offsets the Paleozoic basement.

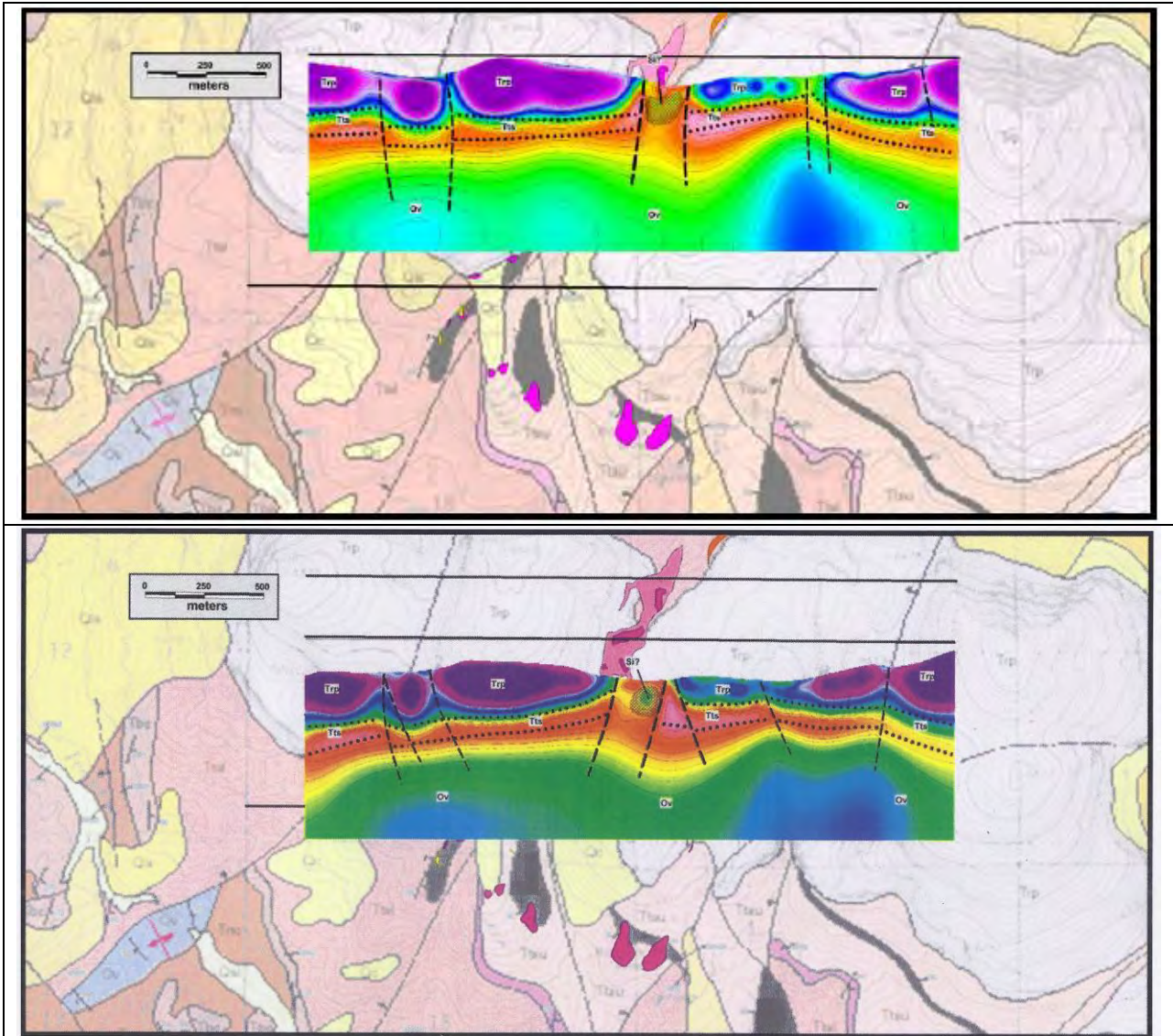
#### **9.4 SIGNIFICANT RESULTS AND INTERPRETATION**

The results of the various geophysical surveys have been summarized by Wright (2004) and are presented here largely verbatim.

Regional and property scale surveys yield a consistent picture of north-south oriented structures modulating the basement beneath Eocene-Miocene volcanic cover. Several structures and areas of possible alteration are defined. Figure 9.16 presents stacked profiles of inverted CSAMT sections overlying gravity and geology.

Clearly evident on Figure 9.16 is direct correlation of resistivity and gravity highs, which are interpreted as basement. The Miocene basin is typified by a two layer resistivity section of high over low resistivities. Below this is a return to low resistivities which, in turn, overlies higher resistivities. The layering appears very uniform. CSAMT shows a draped sequence of volcanics in-filling a basin with very little faulting internal to the basin. Gravity indicates a total depth of volcanic units within the basin exceeding 500 m which agrees with CSAMT data.

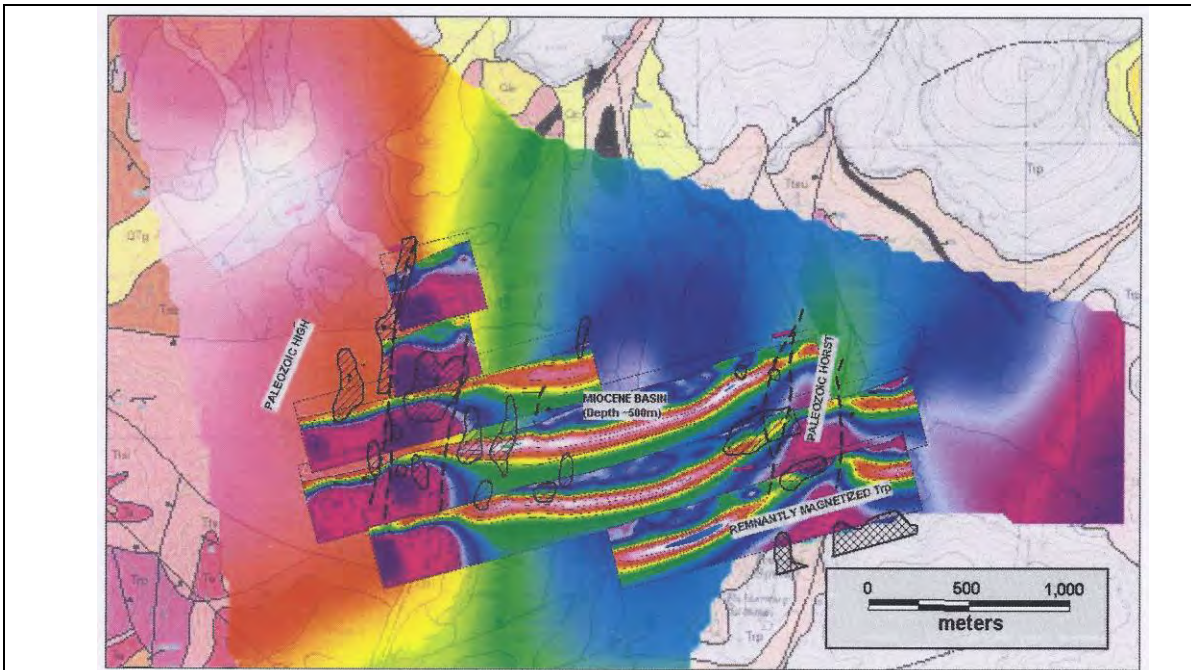




**Figure 9.14** – CSAMT Lines 4559445N (top) and 4559180N (bottom) inverted sections over surface geology of the Rhombochasm Zone.



**Figure 9.15** – Geophysical interpreted structures over geology of Rhombochasm Zone.



**Figure 9.16** – Stacked CSAMT section with gravity and geology and interpretive overlay (Wright, 2004). The western structural – alteration zone trends directly north-northeast into the Dilation Zone that was the focus of the 2013 CSAMT survey. The eastern “Paleozoic horst” zone trends directly north-northeast into the recently discovered hydrothermally phyllically altered Trp breccia zone.



## **10.0 DRILLING**

Drilling has been carried out on the property by a number of companies, the total number of companies involved and holes drilled is presently unknown; known data are presented on Table 10.1. There are three companies known to have drilled holes on Rimrock: Touchstone (1 hole in 1987), Newmont (7 holes in 1994) and for Kent Exploration by Senator Minerals (5 holes in 2007). The data available from the Touchstone and Newmont programs are incomplete; the data for the Kent Exploration-Senator Minerals program are complete and presented here in detail.

**Table 10.1** – Known drilling completed within the current boundaries of the Rimrock project. Touchstone and Newmont drilled reverse circulation holes; Kent-Senator drilled core.

<b>Company</b>	<b>Hole ID</b>	<b>Year</b>	<b>East UTM NAD 27</b>	<b>North UTM NAD 27</b>	<b>Depth (m)</b>	<b>Angle</b>	<b>Bearing</b>
Touchstone	IV-87-129	1987	535,545	4,556,741	unk	-90	--
Newmont	IV-94-884	1994	535,414	4,557,650	40 ?	-90	--
Newmont	IV-94-885	1994	534,961	4,559,335	unk	-90	--
Newmont	IV-94-886	1994	534,794	4,559,201	30 ?	-90	--
Newmont	IV-94-887	1994	535,085	4,558,965	122 ?	-90	--
Newmont	IV-94-888	1994	535,109	4,558,284	unk	-90	--
Newmont	IV-94-889	1994	unk	unk	unk	-90	--
Newmont	IV-94-890	1994	unk	unk	unk	-90	--
Senator Minerals	IC-07-2	2007	533,282	4,557,051	70.10	-60	075
Senator Minerals	IC-07-7	2007	533,724	4,556,547	224.33	-45	255
Senator Minerals	IC-07-10	2007	535,440	4,556,700	135.94	-65	010
Senator Minerals	IC-07-12	2007	535,640	4,556,755	203.00	-60	255
Senator Minerals	IC-07-13	2007	533,724	4,556,840	157.89	-60	255

### **10.1 TYPE, EXTENT AND RESULTS OF DRILLING**

Drilling by both Touchstone and Newmont were completed using reverse circulation methods; Senator Minerals (Senator) drilled all five of its exploration holes with core. All collars have been identified in the field by Richard Redfern and / or the author, save two of Newmont’s sites: IV-94-889 and IV-94-890. Assay results are only available from the core drilling program of Senator. Collar locations for all drilling are represented on Figure 10.1.

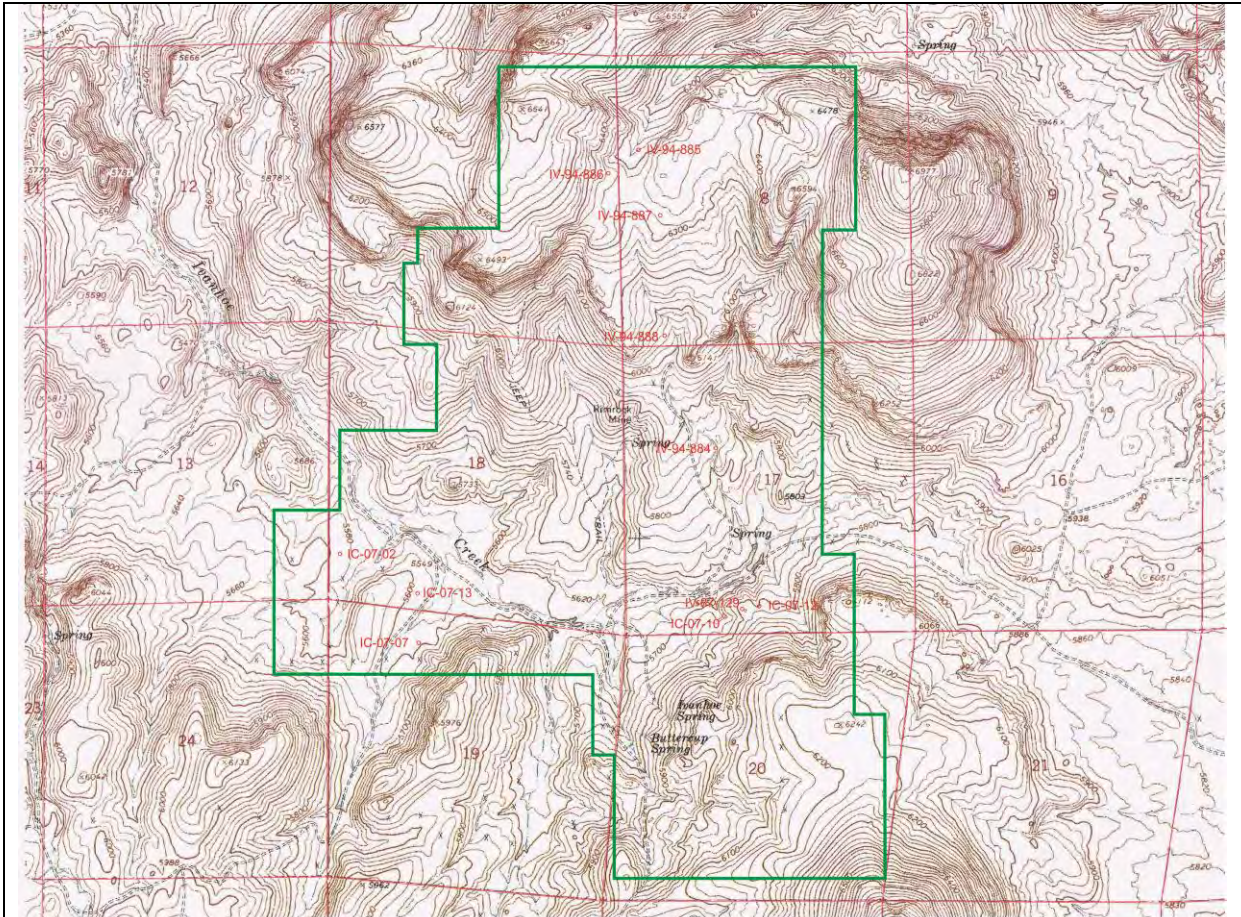
#### **10.1.2 Historic Drilling (1980’s and 1990’s)**

##### **10.1.2.1 Touchstone Resources 1987**

Touchstone Resources drilled a single reverse circulation hole on the current Rimrock



Property in 1987. Aside for the collar location and a presumed vertical angle which is how most holes were drilled during that period of exploration for near surface disseminated gold deposits, little else is known about Touchstone’s drilling activities at Rimrock.



**Figure 10.1** – Drill collars identified within the boundaries of the Rimrock Project (green boundary (approximate)). Note: patented land within the project boundary is not represented.

### 10.1.2.2 Newmont Exploration 1994

Newmont Exploration Ltd. (Newmont) drilled seven reverse circulation holes on Rimrock in 1994, managed by Steve McMillin. The collars for five of these holes have been identified and surveyed by Richard Redfern. Depth and angles of drilling are unknown but based on surface evidence it is presumed all of these holes were vertical and shallow; assumptions are presented in Table 10.1. Samples of drill cuttings recovered from the collars of four of these holes were acquired and assayed by Richard Redfern. Abbreviated results of these samples are presented in Table 10.2.

**Table 10.2** – Results from sampling of reverse circulation cuttings recovered at the collars of know drill holes at Rimrock; see Table 10.1 for collar coordinates.

Collar	Sample	Au (ppb)	Ag (ppm)	Hg (ppm)	As (ppm)	W (ppm)	Mo (ppm)	Re (ppb)	Sb (ppm)	V (ppm)
IV-94-885	IV-94-885	<1	0.06	>100	1.0	1.4	4.15	<2	0.60	8
IV-94-886	153377	3	0.17	36.80	8.7	4.2	5.48	3	1.58	61
IV-94-887	153375	4	0.06	26.40	9.5	3.7	3.22	4	1.47	35
IV-94-888	153374	4	0.30	9.37	9.8	10.0	2.52	3	6.32	67

### 10.1.2 Historic Drilling 2000 to Present

Only one drilling project has been completed within the project boundaries since 2000; this being the five-hole program of Senator Minerals, which leased the property to Kent Exploration Inc. in 2007. These holes were all drilled with core and totaled 791.26 meters (2,569 feet) of drilling; recovery was significantly less. These holes were all logged and sampled by Ed Harrington of Reliance Geological services, who wrote the four previous 43-101 style technical reports for the property (2004, 2005, 2006, 2009).

### 10.1.3 Drilling Procedures

Drilling procedures for all programs save the 2007 Senator Minerals / Kent Exploration program are unknown. However, all of the older programs were completed by professional explorationists with well-financed exploration programs. The author worked for Newmont Exploration at about the time of the drilling by them at Rimrock and is confident they completed these holes in an expert manner in accordance to industry norms established at the time. The author is also confident the Touchstone hole was drilled in a like manner.

#### 10.1.3.1 Historic Reverse Circulation Drilling

Little is known of the historic reverse circulation drilling save the collars identified in the field and reported in Table 10.1 and the geochemical results from samples taken of the remnant cuttings at a few of those holes.

#### 10.1.3.2 Historic Core Drilling

Core drilling in 2007 was completed by Frontier Drilling of Tucson, Arizona from 16 May to 17 August, 2007 using BTW-size equipment producing 3.35 cm (1.32 inch) diameter core. Only two of the five holes collared reached intended target depths of 198.2 meters (650 feet). The drilling operation was suspended on 18 August, 2007 due to repeated breakdowns in the drilling equipment and poor sample recovery.



Drill logs and assay results can be found in the Harrington (2009) technical report. The 2007 drilling information is reproduced here in Table 10.3.

**Table 10.3 – 2007 Drilling Information (from Harrington, 2009).**

Hole	Location UTM		Core Recovery %	RQD %	Azimuth	Dip	Depth		When Drilled	
	East	North					feet	meters	Start	Finish
IC07-02	533282	4557051	88.7	66.3	075o	-60o	230	70.1	16-May-07	18-May-07
IC07-07	533724	4556547	81.3	45.5	255o	-45o	736	224.33	4-Jun-07	19-Jun-07
IC07-10	535444	4556641	61.9	36.4	010o	-65o	446	135.94	31-Jul-07	17-Aug-07
IC07-12	535647	4556754	78.1	46.5	255o	-60o	666	203	19-Jul-07	29-Jul-07
IC07-13	533647	4556837	72.2	47.8	255o	-60o	518	157.89	20-May-07	4-Jun-07
							<b>2,596</b>	<b>791.3</b>		

Discussions of significant results for each hole are here also reproduced from Harrington (2009).

**IC-07-02** (Figure 10.2) was the first hole drilled and is the most westerly drill location on the Rimrock Property. The hole was abandoned at 70.1 meters (230 feet) because of excessive clay build-up on the drilling rods and unstable casing. The lithology consists of ash-fall crystal tuffs. Significant results are presented in Table 10.4.

**Table 10.4 – IC-07-02 Significant Results (from Harrington, 2009).**

Sample	Intersection (feet)			Intersection (meters)			Assay ppm			
	From	To	Interval	From	To	Interval	Gold	Silver	Arsenic	Selenium
79035	197.0	200.0	3.0	60.05	60.96	0.91	0.018	0.9	36.2	3
78907	200.0	202.0	2.0	60.96	61.57	0.61	0.054	0.5	36.5	4
79036	202.0	205.5	3.5	61.57	62.64	1.07	0.025	0.2	31.1	4
79037	205.5	209.0	3.5	62.64	63.70	1.07	0.042	0.5	44.8	4
78908	209.0	211.0	2.0	63.70	64.31	0.61	0.024	0.3	32.9	3
79038	211.0	214.0	3.0	64.31	65.23	0.91	0.074	0.8	34.1	6
79039	214.0	217.0	3.0	65.23	66.14	0.91	0.187	1.3	165.5	10
78909	217.0	219.0	2.0	66.14	66.75	0.61	0.083	0.8	72.2	5
79041	219.0	222.0	3.0	66.75	67.67	0.91	0.022	1.6	34.5	3
79042	222.0	225.0	3.0	67.67	68.58	0.91	0.008	0.1	8.0	2
78910	225.0	230.0	5.0	68.58	70.10	1.52	0.035	0.3	40.9	3

Note: 1 part per million (ppm) = 1 gram per tonne (g/t)

Sample 79039 (IC-07-02 214.0 – 217.0 feet (65.23 – 66.14 m)) (Figures 10.3 and 10.4) returned the highest gold value of the drilling program (and the highest gold value from any

sample taken from the property to date (GCF)). It shows anomalous silver and selenium values along with the highest arsenic and antimony values (165.5 ppm and 23.50 ppm respectively) of any sample taken from the property to date. This sample was taken from an interval logged as “Welded(?) Tuff”; the description of this interval includes “feldspars displaying boxwork leaching” and “euhedral pyrite content increases with depth from trace to 2%” (from 47.15 m to 70.1 m (154.4 – 230 feet)). Although photographs of the core are available, without seeing the actual core, it is difficult to determine if the lithology encountered is indeed welded or is it silicified; the presence of leached feldspars indicate the latter may be true.

The interval from 60.05 m through 67.67 m is elevated with respect to gold, tungsten, arsenic and antimony. This interval is, in part, also elevated with respect to other samples taken from volcanic rocks on the property, in molybdenum, rhenium, barium, sulfur and selenium. There have been no petrographic or X-ray diffraction (XRD) investigations regarding the minerals hosting these metals, but it is most likely the precious metals are hosted within a selenide, such as Fischesserite  $\{Ag_3AuSe_2\}$  or Naumannite  $\{Ag_2Se\}$ , while antimony, arsenic and sulfur are likely present as a separate species, such as Getchellite  $\{AsSbS_3\}$ , Wakabayashilite  $\{[(As,Sb)_6S_9][As_4S_5]\}$ , Gerstleyite  $\{Na_2(Sb,As)_8S_{13}\cdot 2H_2O\}$  or Ambrinoite  $\{[K,(NH_4)]_2(As,Sb)_6(Sb,As)_2S_{13}\cdot H_2O\}$ . A significant portion of this interval is interpreted to be clay altered and gouged from 59.4 m to 63.1 m (195-207 feet).

The REDOX boundary was reached at about 50.3 m (165 feet) down hole; or 25.15 m (82.5 feet) below the surface. Pyrite was first noted at the 54 m (177 ft) interval.

**IC-07-07** (Figure 10.5) is located approximately 650 meters (2,132 feet) southeast of the collar of IC-07-02; it was drilled to a depth of 224.33 meters (736 feet). The lithology consists of lithic and ash tuffs overlying Paleozoic quartzites and mudstones. Table 10.5 reports the significant results which are primarily elevated silver with gold anomalies and relatively elevated selenium.



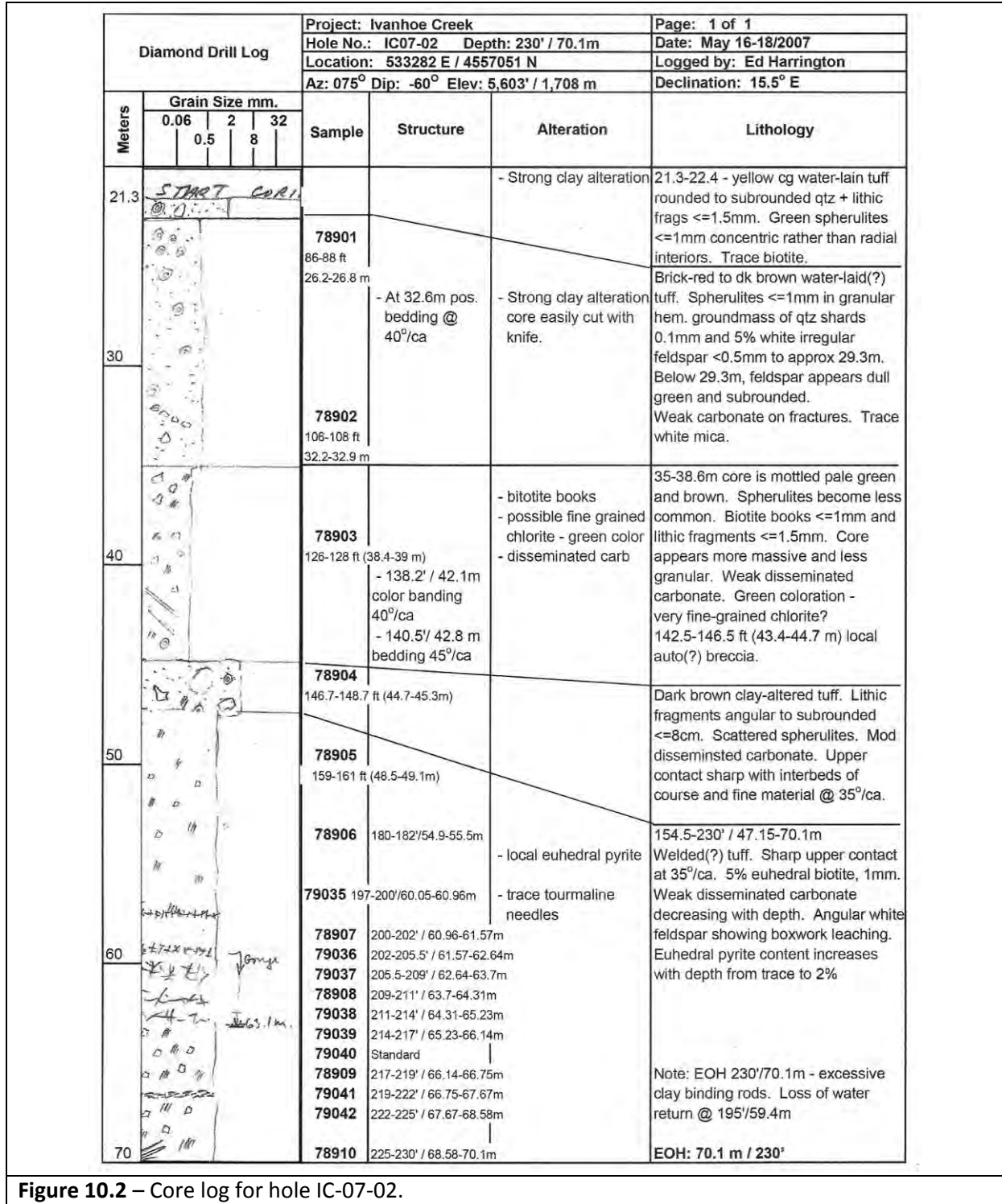


Figure 10.2 – Core log for hole IC-07-02.



**Figure 10.3** – Image of IC-07-02 core from interval 65.4-68.4 m (214.6-224.6 feet); sample 79039 was extracted from 65.23-66.14 m (214.0-217.0 feet). This interval contains 0.187 ppm gold, 1.28 ppm silver, 165.5 ppm arsenic, 23.5 ppm antimony, 10 ppm selenium, 2.44% sulfur, 4.7 ppm tungsten, 5.45 ppm molybdenum and 4 ppb rhenium. The image for Box 15 containing the upper part of the sample interval is unavailable.

Sample 78959 returned the highest selenium value of the drilling program, 21 ppm Se. Significant assay results occur in quartzite that has been well broken and gouged. This target zone had extremely poor recovery. Broken and gouged core extends from 126.49-138.68 meters (415-455 feet) and from 141.73-144.78 meters (465-475 feet), suggesting a fault zone at least 18 meters (60 feet) wide. Additionally, an area of weak quartz healed breccia occurs from 138.59-141.73 meters (454.7-465.0 feet).

Elevated precious metals are concentrated at the contact between the Paleozoic sedimentary rocks and the overlying volcanic sequence. Silver varies from 2.00 to 5.27 ppm steadily increasing from lowest to highest towards the lithologic contact; gold varies from 8

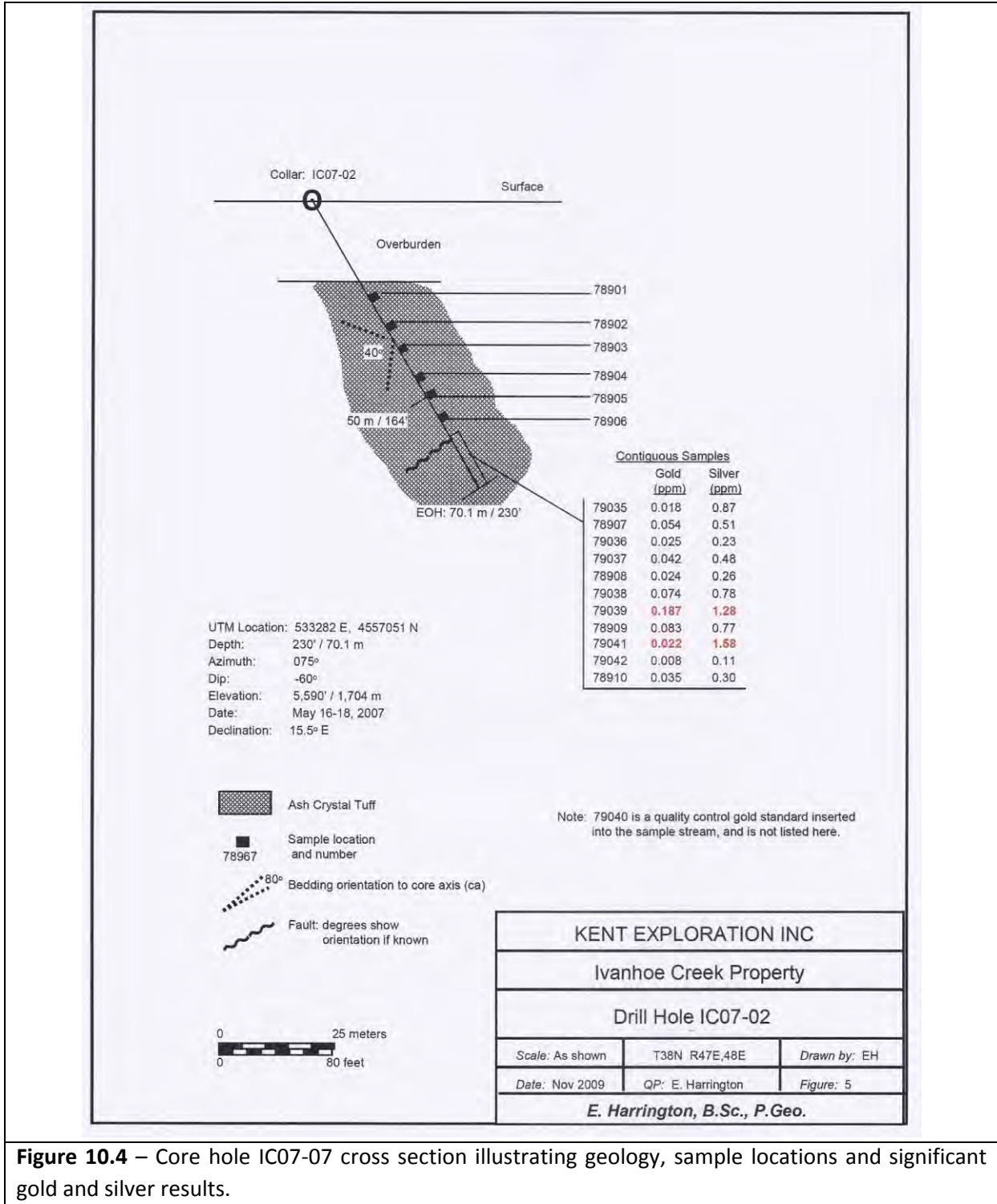


to 55 ppb in the same interval with no apparent pattern to mineralization. These metals are associated with enriched vanadium, selenium and tellurium as well as weakly elevated antimony, chromium, copper, molybdenum and arsenic values. This metals association is indicative of a classic low sulfidation epithermal precious metals system (Figure 10.6).

**Table 10.5** – Significant results of geochemical sampling from core hole IC-07-07.

Sample	Intersection (feet)			Intersection (meters)			Assay ppm			
	From	To	Interval	From	To	Interval	Gold	Silver	Mercury	Selenium
78958	408.0	411.0	3.0	124.36	125.27	0.91	0.008	2.0	1.6	7
79051	411.0	415.0	4.0	125.27	126.49	1.22	0.011	3.4	0.5	11
Note: <5% core recovery from 415-425' (126.49-129.54m)										
79052	425.0	433.5	8.5	129.54	132.13	2.59	0.016	4.9	0.2	11
78959	433.5	436.5	3.0	132.13	133.05	0.91	0.025	5.3	0.4	21
Note: approximately 20% core recover from 435-445' (132.59-135.64m)										
79053	436.5	455.0	18.5	133.05	138.68	5.64	0.009	2.9	0.4	4
78961	455.0	458.0	3.0	138.68	139.60	0.91	0.026	2.8	1.0	5
78962	458.0	461.0	3.0	139.60	140.51	0.91	0.051	4.5	1.0	7
78963	461.0	464.0	3.0	140.51	141.43	0.91	0.041	3.1	0.5	5
78964	464.0	467.0	3.0	141.43	142.34	0.91	0.031	2.1	0.6	3
78965	467.0	470.0	3.0	142.34	143.26	0.91	0.055	2.7	2.7	5
78966	470.0	473.0	3.0	143.26	144.17	0.91	0.025	2.6	1.9	8
79054	473.0	476.0	3.0	144.17	145.08	0.91	0.019	2.3	0.6	10

Note: 1 part per million (ppm) = 1 gram per tonne (g/t)



**Figure 10.4** – Core hole IC07-07 cross section illustrating geology, sample locations and significant gold and silver results.



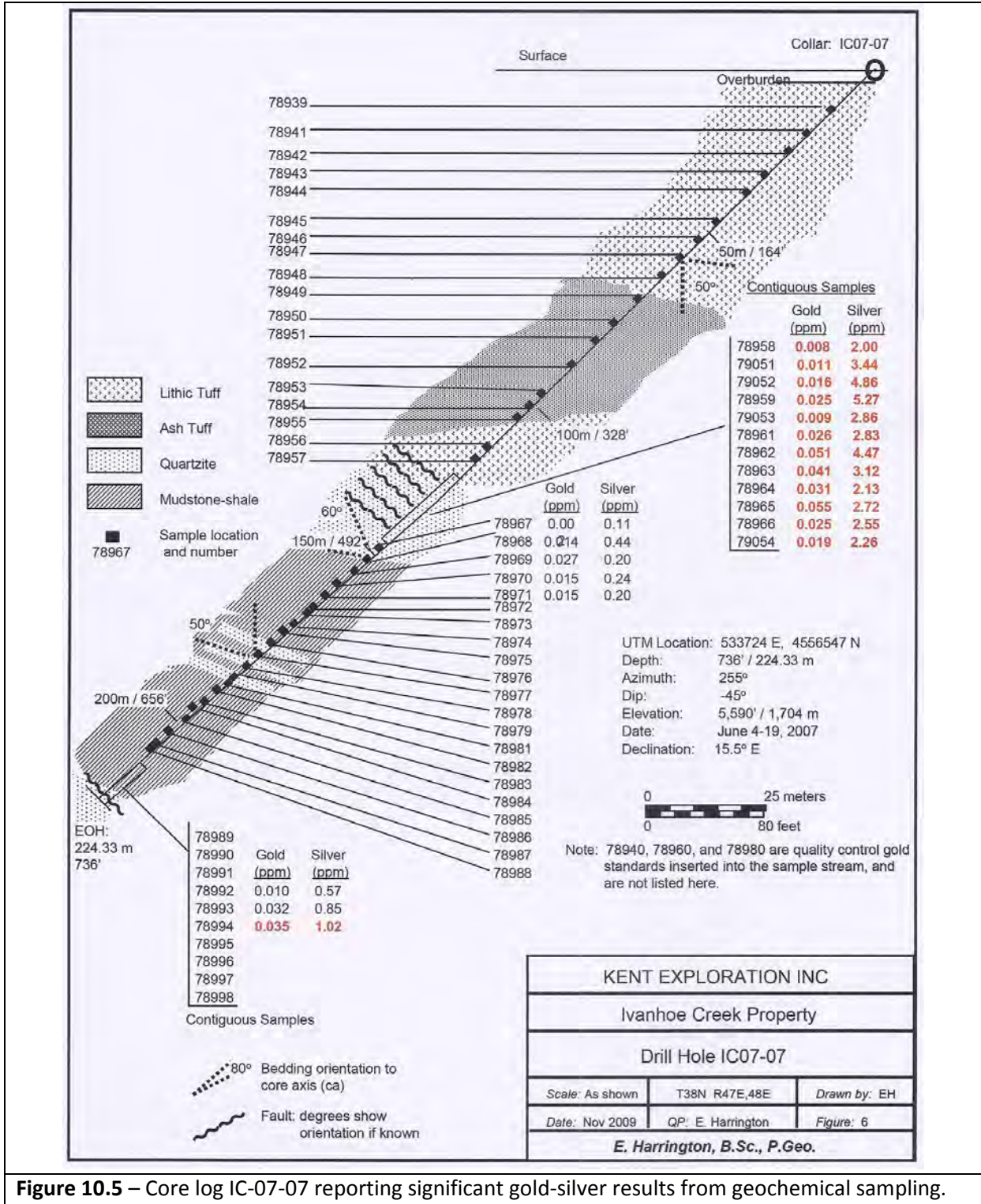
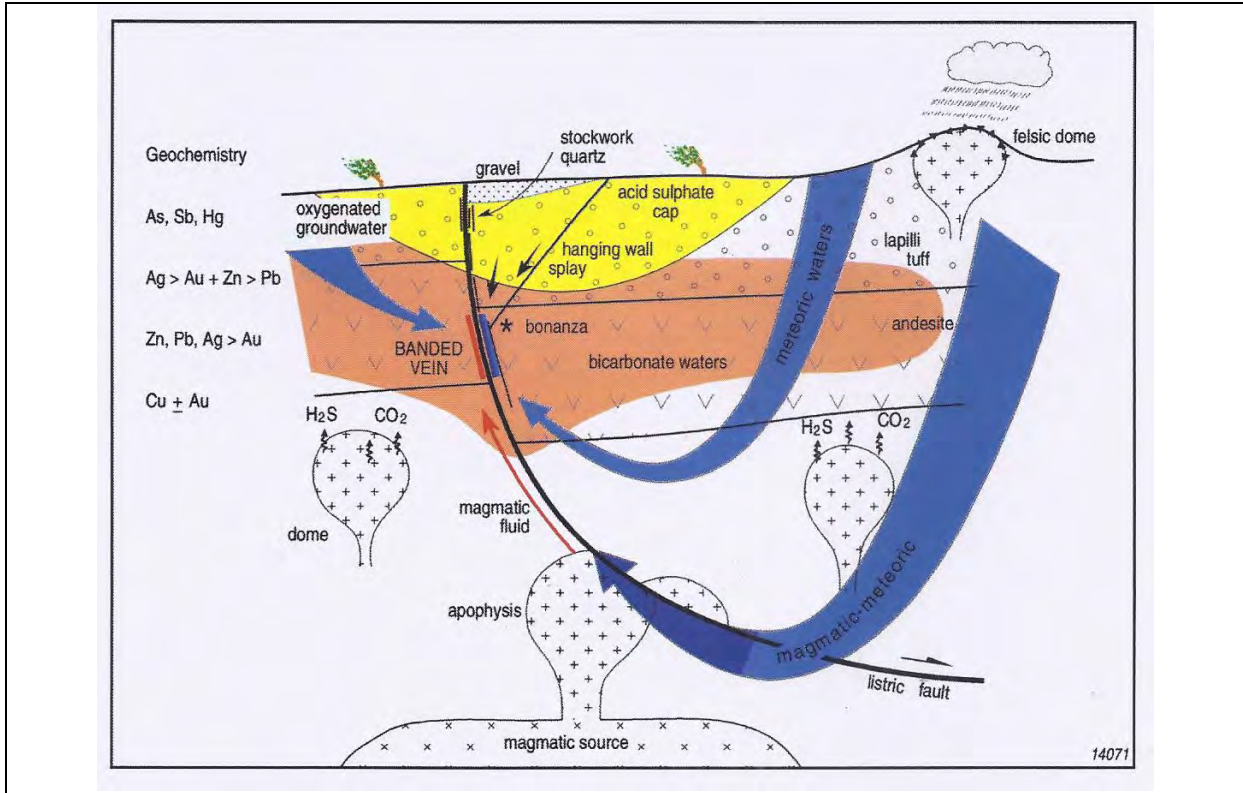


Figure 10.5 – Core log IC-07-07 reporting significant gold-silver results from geochemical sampling.



**Figure 10.6** – Geochemistry encountered within IC-07-07 is indicative of a low sulfidation epithermal precious metals system; from Corbett (2007).

**IC-07-10** (Figure 10.7) is located approximately 150 meters (492 feet) west of IC-07-12, and was targeted to undercut outcropping highly silicified tuffs. IC-07-10 had a target depth of 182.9 meters (600 feet), but was terminated at 135.94 meters (446 feet) due to poor core recovery and equipment failure. Lithology consists of lithic and crystal tuffs overlying Paleozoic quartzite. Significant results are reported in Table 10.6. Samples 79079, 79083, 79084, 79085 and 79087 returned anomalous silver and tungsten values; sample 79087 returned the highest silver value thus far found on the Rimrock Property of 262 ppm (8.42 troy ounces per metric tonne) and the second highest tungsten value of 1,130 ppm (0.113%) (Figure 10.8). Intervals of silver values in excess of 10 ppm are also enriched with respect to tungsten, ranging from 116 to 1,130 ppm, generally reflecting a direct correlation with silver. Additionally molybdenum is enriched (to 38.3 ppm). Phosphorous is enriched (average 2,603 ppm) in the quartzite intervals but not within the mudstone sample. Arsenic (42 ppm), nickel (to 50.9 ppm) and rhenium (to 8 ppb) are moderately elevated. Antimony demonstrates only weak anomalies in one-third of the samples. Mercury is, overall, elevated averaging 4.22 ppm excluding sample 79087 which returned a value >100 ppm.

Copper ranges from 65 to 354 ppm, averaging 143.6 ppm. Selenium is only weakly anomalous, averaging 4.4 ppm and ranging from 2 to 6 ppm. Tellurium varies from 0.05 to 0.12 ppm, the highest value falling out in the 262 ppm silver interval. The geochemistry in this interval is similar to that found in quartzites intercepted in IC-07-12 and IC-07-13 and is indicative of distal disseminated mineralization emanating from an igneous, possibly porphyry source, discussed in Section 8.3 of this report.

Samples were taken from broken quartzite showing local brecciation. From 87.17-135.94 meters (286-446 feet), the core is extremely broken; recovery in this interval was approximately 15%. Within the 22.56 meter (74 feet) interval between 108.54-131.06 meters (356-430 feet), approximately 9.1 meters (30 feet) consists of mud, sand and clay containing fragments of quartzite.



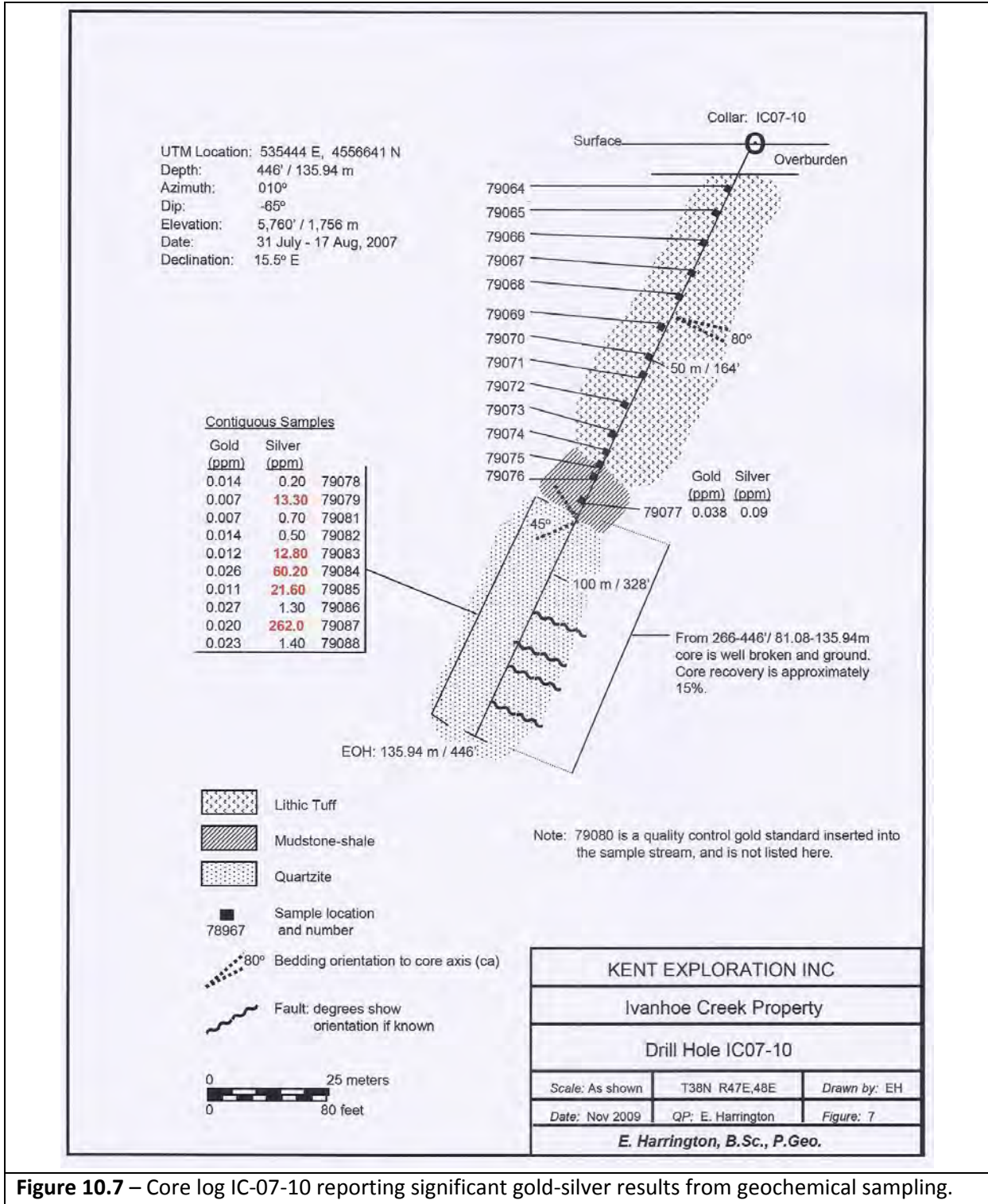


Figure 10.7 – Core log IC-07-10 reporting significant gold-silver results from geochemical sampling.



**Table 10.6 – Significant results of geochemical sampling from core hole IC-07-10.**

Sample	Intersection (feet)			Intersection (meters)			Assay ppm				
	From	To	Int.	From	To	Int.	Gold	Silver	Tungsten	Selenium	Mercury
Note: approximately 15% core recovery from 266-446' (81.08-135.94m)											
79077	266.0	269.0	3.0	81.08	81.99	0.91	0.038	0.1	1.9	3	1.3
79078	276.0	286.0	10.0	84.12	87.17	3.05	0.014	0.2	1.2	2	1.0
79079	286.0	316.0	30.0	87.17	96.32	9.14	0.007	13.3	116.5	2	3.3
79081	316.0	336.0	20.0	96.32	102.41	6.10	0.007	0.7	1.2	4	0.7
79082	336.0	346.0	10.0	102.41	105.46	3.05	0.014	0.5	1.9	7	3.8
79083	346.0	376.0	30.0	105.46	114.60	9.14	0.012	12.8	138.0	6	5.6
79084	376.0	396.0	20.0	114.60	120.70	6.10	0.026	60.2	354.0	6	4.4
79085	396.0	416.0	20.0	120.70	126.80	6.10	0.011	21.6	123.5	4	3.6
79086	416.0	426.0	10.0	126.80	129.84	3.05	0.027	1.3	2.0	6	1.1
79087	426.0	436.0	10.0	129.84	132.89	3.05	0.020	262.0	1130.0	4	>100
79088	436.0	446.0	10.0	132.89	135.94	3.05	0.023	1.4	1.5	15	4.0

Note: 1 part per million (ppm) = 1 gram per tonne (g/t)

**IC-07-12** (Figure 10.9) is located approximately 2,250 meters (7,380 feet east of IC-07-02 and is the most easterly drill site. IC-07-12 was drilled to a depth of 203 meters (666 feet). Lithology consists of lithic tuffs overlying interbedded Paleozoic quartzite and mudstone. Significant results are reported in Table 10.7. Samples were taken across a spectrum of Paleozoic lithologies varying from earthy brown clay containing fragments of quartzite and mudstone (samples 79058 and 79062) and dark grey quartzite. The clay mineralization here may indicate areas of faulting. There was very little core recovery (approximately 6.7%) below 190.8 meters (636 feet).

Sample 79058 (Figure 10.10) returned a high of silver grading 107 ppm (3.44 troy ounces per metric tonne), 1,500 ppm (0.15%) tungsten, 176.5 ppm molybdenum and 684 ppm copper (the highest values for those metals thus far obtained from the property), 17 ppb rhenium, 77.1 ppm nickel; rubidium and vanadium are somewhat anomalous. This sample is similar in chemistry to the high silver samples found in drill hole IC-07-10.

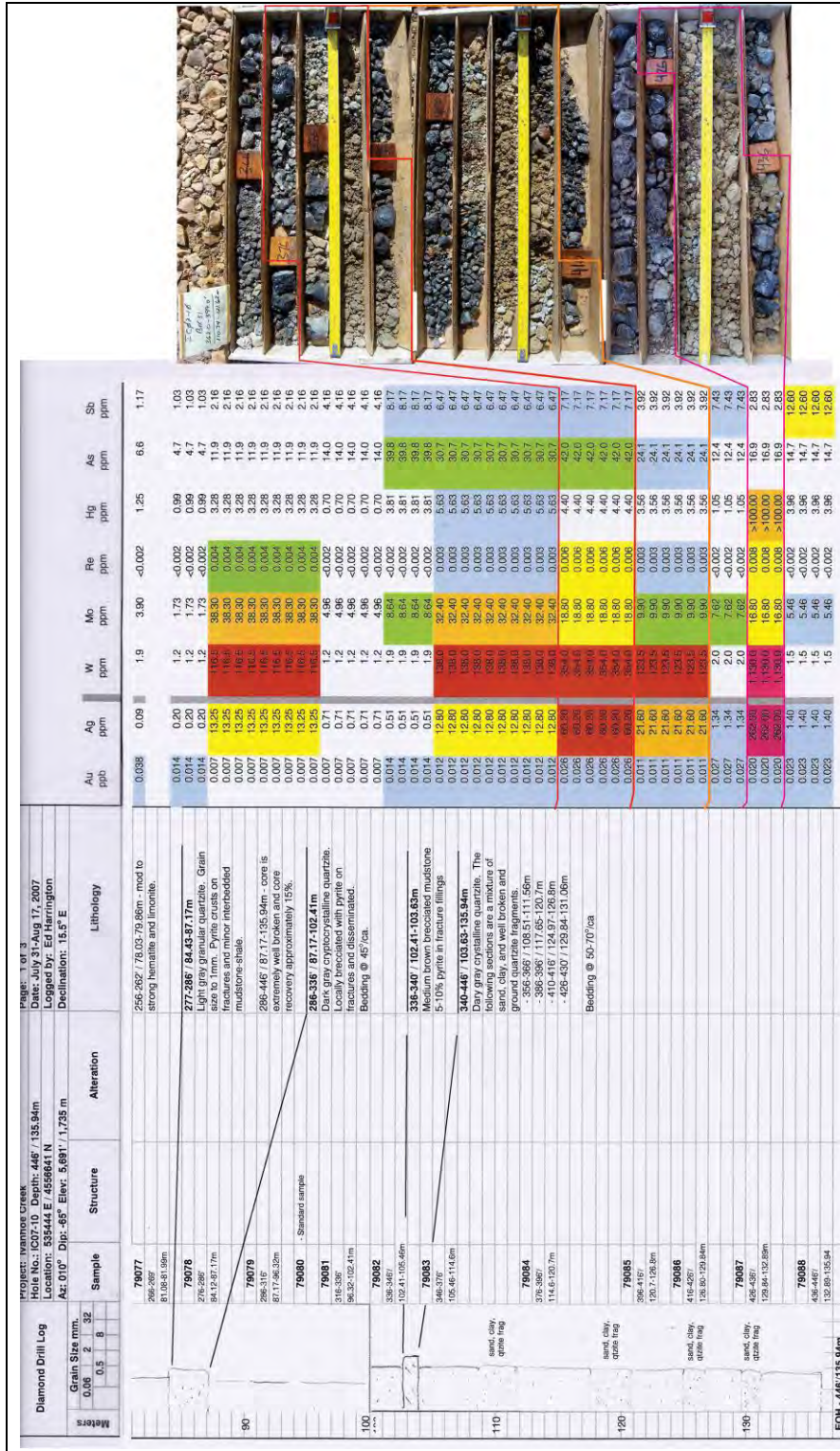


Figure 10.8 – Drill Hole IC-07-10. Core log, significant assays and photographs of core sampled. Core recoveries in the lower portion of this hole were very poor.



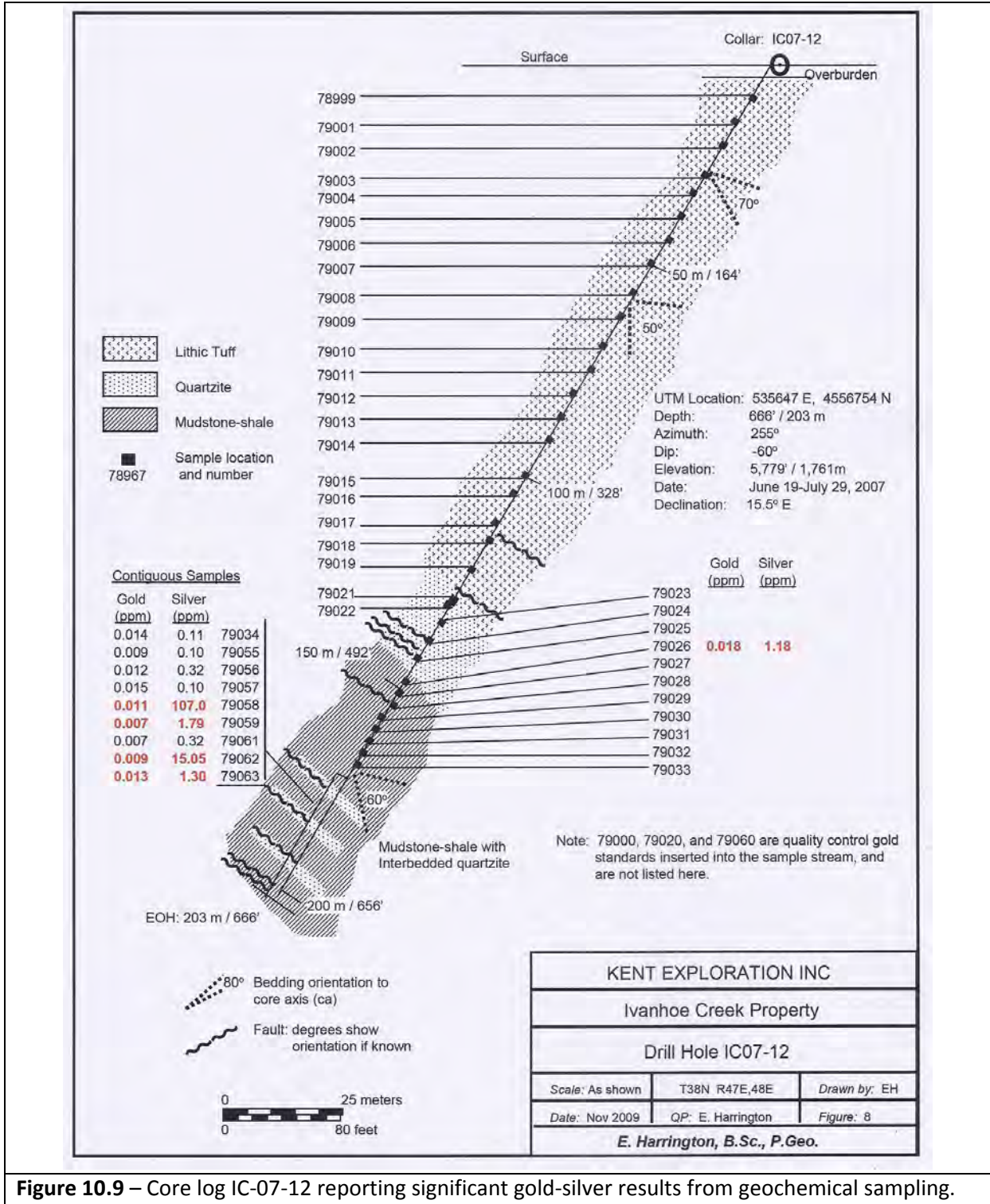


Figure 10.9 – Core log IC-07-12 reporting significant gold-silver results from geochemical sampling.

**Table 10.7** – Significant results of geochemical sampling from core hole IC-07-12.

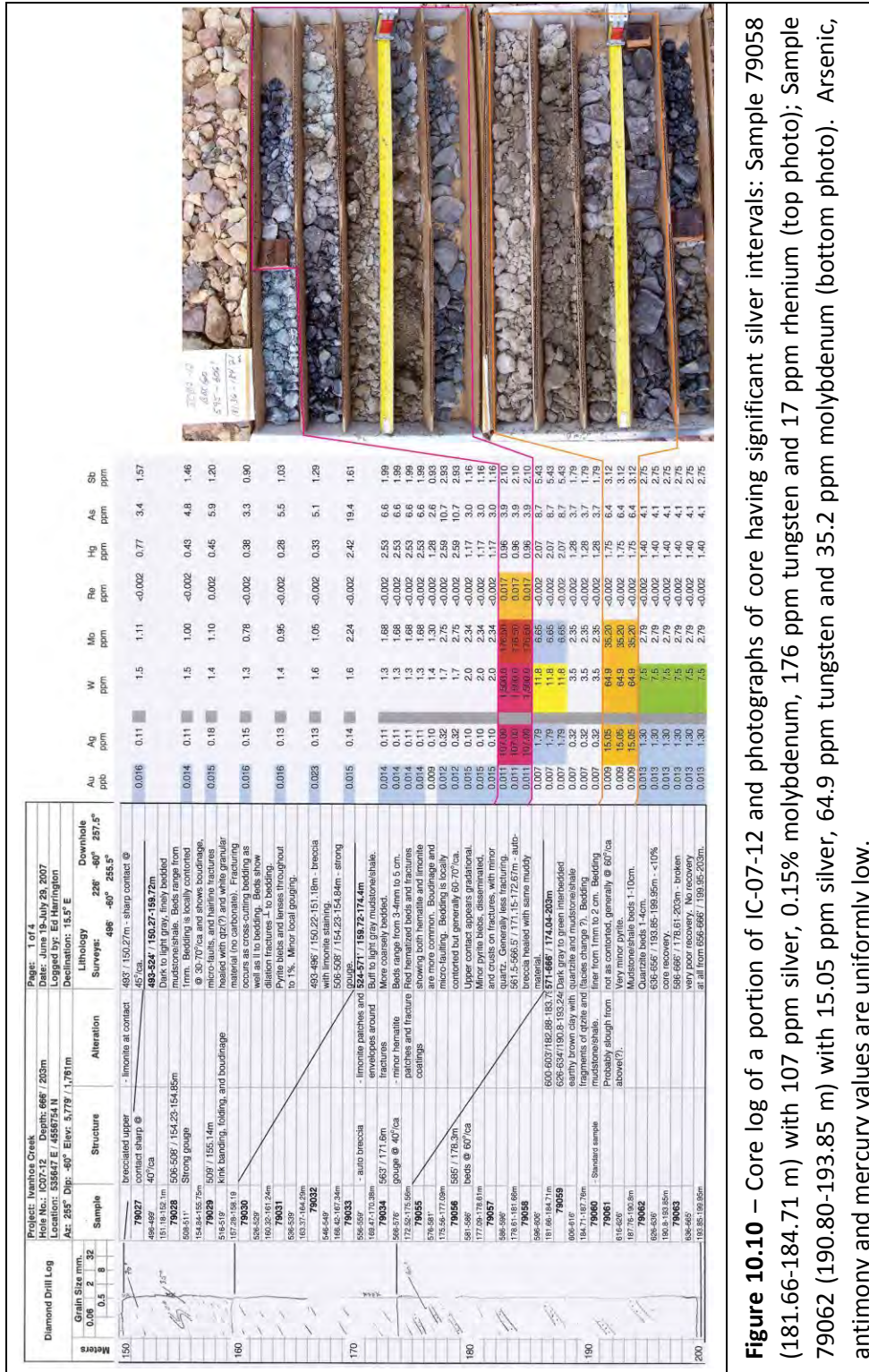
Sample	Intersection (feet)			Intersection (meters)			Assay ppm			
	From	To	Interval	From	To	Interval	Gold	Silver	Sulfur	Selenium
79055	576.0	581.0	5.0	175.56	177.09	1.52	0.009	0.1	0.5	2
79056	581.0	586.0	5.0	177.09	178.61	1.52	0.012	0.3	1.0	5
79057	586.0	596.0	10.0	178.61	181.66	3.05	0.015	0.1	0.8	2
79058	596.0	606.0	10.0	181.66	184.71	3.05	0.011	107.0	0.4	4
79059	606.0	616.0	10.0	184.71	187.76	3.05	0.007	1.8	2.1	4
79061	616.0	626.0	10.0	187.76	190.80	3.05	0.007	0.3	0.4	3
79062	626.0	636.0	10.0	190.80	193.85	3.05	0.009	15.1	0.5	6
79063	636.0	656.0	20.0	193.85	199.95	6.10	0.013	1.3	0.5	5

Note: <10% core recovery 636-656' (190.8-193.85 meters)

Note: no core recovery 656-666' (199.95-203 meters)

Note: 1 part per million (ppm) = 1 gram per tonne (g/t)





**Figure 10.10** – Core log of a portion of IC-07-12 and photographs of core having significant silver intervals: Sample 79058 (181.66-184.71 m) with 107 ppm silver, 0.15% molybdenum, 176 ppm tungsten and 17 ppm rhenium (top photo); Sample 79062 (190.80-193.85 m) with 15.05 ppm silver, 64.9 ppm tungsten and 35.2 ppm molybdenum (bottom photo). Arsenic, antimony and mercury values are uniformly low.

**IC-07-13** (Figure 10.11) is located approximately 400 meters (1312 feet) east-southeast of IC-07-02; it was drilled to a depth of 157.28 meters (516 feet) and was terminated due to poor recovery. Lithology consists of lithic tuff overlying Paleozoic quartzite. Significant results are displayed in Table 10.8.

Sample 79049 composed of mud and clay containing fragments of quartzite, returned 29.5 ppm silver; tungsten is 82 ppm and molybdenum 8 ppm. Antimony and selenium values are elevated where there are elevated gold values but low silver. Sample 79047 is composed of gouge, recovered from 126.8-128.93 meters (416-423 feet). From 128.93-129.84 meters (423-437 feet) samples 78928 through 78932 are composed of quartz healed breccia with up to 5% pyrite, this breccia immediately underlies the gouge zone.

In general, the volcanic tuffs show moderate to strong clay alteration with weak to moderate chloritoid interpreted as present by the preponderance of green coloration.

Within the Paleozoic section significant assay results are found in areas showing faulting and or structural preparation indicated by the presence of breccia. However, these areas produced very limited recovery in the core drilling, with as little as 15% in any one interval. The quartz-healed breccia below the gouge interval at 128.93-129.84 meters indicates silica-rich solutions were present, most likely during active tectonism.

Associations of gold, silver, arsenic, sulfur, selenium and antimony indicate a low sulfidation, epithermal system is present, perhaps peripheral to significant Midas-style mineralization.

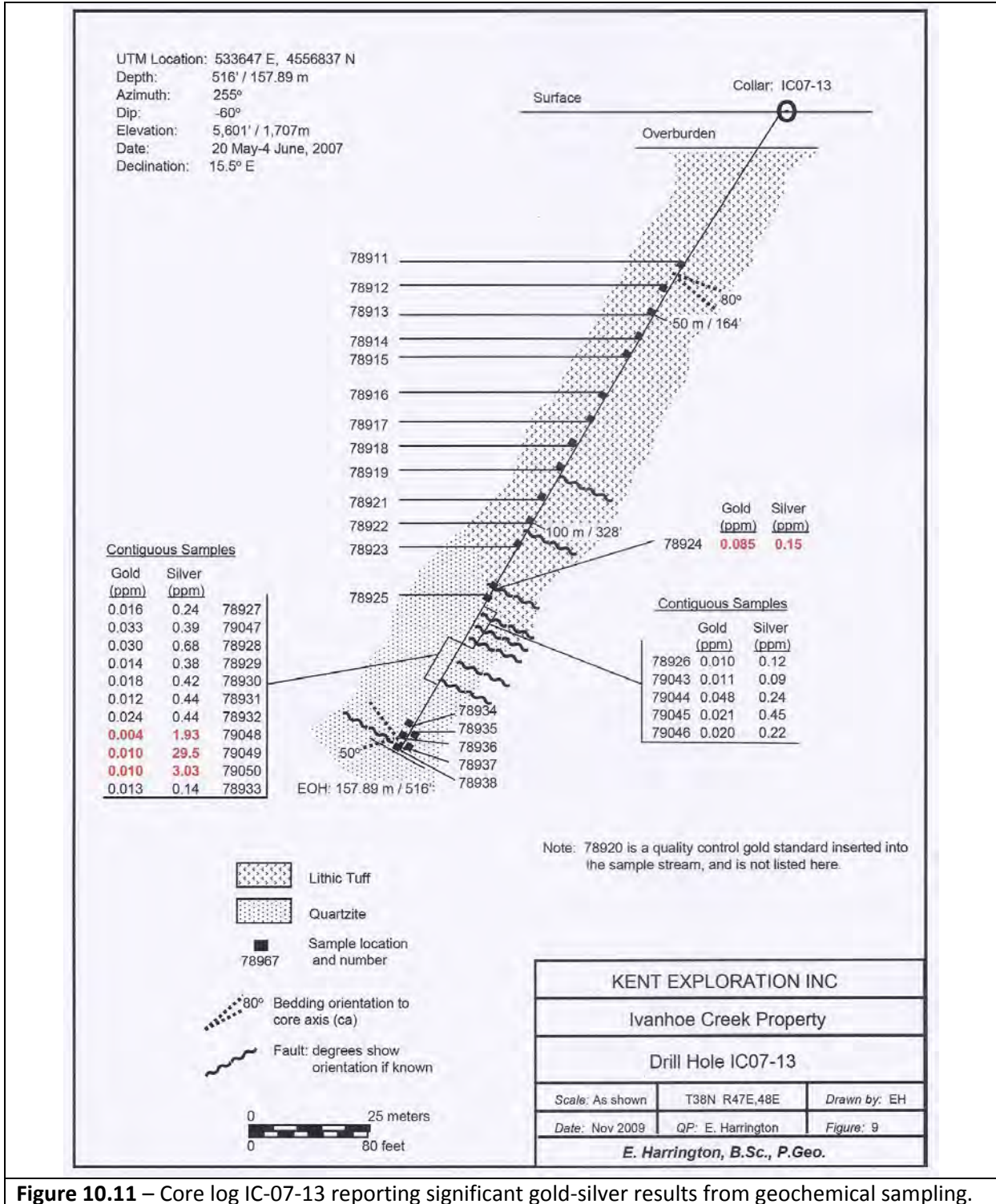


Figure 10.11 – Core log IC-07-13 reporting significant gold-silver results from geochemical sampling.



**Table 10.8** – Significant results of geochemical sampling from core hole IC-07-13.

Sample	Intersection (feet)			Intersection (meters)			Assay ppm			
	From	To	Interval	From	To	Interval	Gold	Silver	Antimony	Selenium
78926	398.0	401.0	3.0	121.31	122.22	0.91	0.010	0.1	3.0	3
79043	401.0	404.0	3.0	122.22	123.14	0.91	0.011	0.1	2.3	3
79044	404.0	407.0	3.0	123.14	124.05	0.91	0.048	0.2	6.8	4
79045	407.0	410.0	3.0	124.05	124.97	0.91	0.021	0.5	7.0	5
79046	410.0	413.0	3.0	124.97	125.88	0.91	0.020	0.2	7.0	5
78927	413.0	416.0	3.0	125.88	126.80	0.91	0.016	0.2	6.1	4
79047	416.0	423.0	7.0	126.80	128.93	2.13	0.033	0.4	10.1	6
78928	423.0	426.0	3.0	128.93	129.84	0.91	0.030	0.7	7.5	7
78929	426.0	429.0	3.0	129.84	130.76	0.91	0.014	0.4	5.3	4
78930	429.0	432.0	3.0	130.76	131.67	0.91	0.018	0.4	5.7	4
78931	432.0	435.0	3.0	131.67	132.59	0.91	0.012	0.4	6.7	5
78932	435.0	438.0	3.0	132.59	133.50	0.91	0.024	0.4	9.1	5
79048	438.0	441.0	3.0	133.50	134.42	0.91	0.004	1.9	2.5	2
79049	441.0	444.0	3.0	134.42	135.33	0.91	0.010	29.5	1.8	2
79050	444.0	448.0	4.0	135.33	136.55	1.22	0.010	3.0	4.7	3
78933	448.0	450.0	2.0	136.55	137.16	0.61	0.013	0.1	1.4	3

Note: 1 part per million (ppm) = 1 gram per tonne (g/t)

## 10.2 ACCURACY AND RELIABILITY

Accuracy and reliability of any drilling which took place prior to 2007 has not been verified save existing remnant materials in the form of cuttings at collar locations. The 2007 core program has been documented and recorded with corroborating evidence.

### 10.2.1 Verification of Previous Drilling

Little can be said of the drilling which took place prior to the 2007 program, save that drill collar locations identified in the field have been recorded and samples of some of the extant cuttings have been analyzed for multi-element geochemistry.

In regard to the Senator-Kent core drilling program of 2007, the data presented in Harrington (2009) are corroborated by accompanying photographs of recovered core and laboratory certificates from ALS Chemex.

### 10.2.2 Step-out Drilling

To date, no step out drilling has occurred on the Property.

### 10.2.3 Delineation of the Gold-Silver Mineralization



Aside from the data presented and discussed in section 10.1 of this report, no additional delineation of precious metals mineralization has been attempted.

### **10.3 DRILLING DETAILS**

Most of the relevant details of the 2007 core drilling program have been discussed in section 10.1 of this document. Additional details are provided below.

#### **10.3.1 Drill Hole Location, Setup and Relevant Sample Intervals**

Drill sites were selected based on surface alteration, occurrence of silica mineralization, surface geochemical results, and CSAMT survey results that showed uplifted structural horst blocks on the Property. There are no recorded details on site preparation and rig setup. However, as all of the drilling was completed by competent professionals it is reasonable to assume the sites were prepared according to the regulations and industry norms for drilling at the time.

Sample intervals and results are unknown for all drilling save the 2007 core program. Sample intervals and results are fully documented for the core program; samples selected were representative of particular lithologic and alteration within both the volcanic and Paleozoic sedimentary rock sequences. Samples were sequential where structure and alteration were determined relevant to the project geologist.

#### **10.3.2 Sample Length and True Thickness (if Known)**

Sample length varied based on interpretation of the geology by the logging geologist; nominally 0.91 m to 1.52 m (3 to 5 feet). True thickness of each sample has not been determined.

#### **10.3.3 Significant High Grade in Lower Grade Intervals**

The principal components exploration efforts have focused upon are gold and silver resources. There are no reported drilling results for the RC drilling completed on the property, only data from the 2007 core program are available. As such only data from the core program regarding gold and silver will be discussed in this section.

Table 10.9 reports the significant intervals of gold and silver mineralization encountered in each of the five core holes drilled by Senator Minerals. High grade intervals are reported separately from lower grades.

### **10.4 INTERPRETATION OF DRILL RESULTS**

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Analyses of multi-element results from drilling has demonstrated there are two systems present on the Rimrock Property: a low grade precious metals system where silver is typically less than 10 ppm and gold reaches levels of 55 ppb, associated with elevated vanadium and tellurium along with weakly to moderately elevated selenium, antimony, and molybdenum, and weakly elevated arsenic, chromium and copper; a second high grade silver system, values to 262 ppm with low grade gold to 26 ppb, is associated with highly anomalous tungsten, moderate to strongly anomalous molybdenum and copper, weak to moderately anomalous nickel, rhenium, arsenic and phosphorous. The latter mineralization is significantly enriched in mercury as opposed to the lower grade silver system. Table 10.10 represents relative values of metals associated with each system.

**Table 10.9** – Relevant gold and silver intercepts in 2007 Senator Minerals core program. Tv = Tertiary volcanics; Ovss = Ordovician Vinini Sandstone; Ovms = Ordovician Vinini Mudstone; fz = fault zone.

Hole ID	Meters			Host Lith	Au <sup>a</sup>	Ag <sup>a</sup>
	From	To	Interval		ppb	ppm
IC-07-02	60.05	67.67	7.62	Tv	56	0.71
IC-07-07	124.36	145.08	20.72 <sup>b</sup>	Ovss	26	3.21
IC-07-07	151.18	158.95	7.77 <sup>b</sup>	Ovms	18	0.27
IC-07-07	216.41	220.68	4.27	Ovms	23	0.75
IC-07-10	81.08	81.99	0.91	Ovms	38	0.09
IC-07-10	87.17	96.32	9.15 <sup>c</sup>	Ovms	7	13.25
IC-07-10	105.46	126.80	21.34	Ovss/fz	16	31.53
IC-07-10	129.84	132.89	3.05	Ovss/fz	20	262.00
IC-07-12	135.94	181.66	45.72 <sup>b</sup>	Ovms/ss	16	0.21
IC-07-12	181.66	184.71	3.05	Ovss/fz	11	107.00
IC-07-12	190.80	193.85	3.05	Ovss	9	15.05
IC-07-13	112.90	113.81	0.91	Tv	85	0.15
IC-07-13	121.31	133.50	12.19	Ovss	21	0.34
IC-07-13	134.42	135.33	0.91	Ovss/fz	10	29.50

a - Unweighted average of all samples in interval. b - Incomplete sampling in interval. c - Core recovery in interval = 15%.

The >10 ppm silver system contains associated metals indicative of an igneous source likely representing a structurally hosted, distal disseminated system (as discussed in section 8.3 of this report). Silver to gold ratio in this system is 5,013:1.

The <10 ppm silver system contains elements typically associated with low sulfidation epithermal precious metals deposits, including those of the nearby Midas and Hollister/Ivanhoe deposits. Silver to gold ratio in this system is 123:1.

A third system, relatively enriched in gold, was identified in drill hole IC-07-02, hosted entirely within the Tertiary volcanics section. The highest gold values encountered in the drilling and the property as a whole were found here with a high of 187 ppb and an average of 56.4 ppb in the interval 60.05-67.67 m. Silver in this interval averages 0.71 ppm. Silver to gold ratio in this interval is 12.6:1. Associated elements are arsenic and antimony which are significantly higher than either of the above discussed precious metals systems, particularly with respect to antimony. Also associated but to a lesser degree are: mercury, tungsten, molybdenum, rhenium, sulfur and selenium. The unweighted average values of the elements in this system are reported in Table 10.10 as “Tv Au”.

**Table 10.10** – Relative values of metals associated with “high” and “low” silver systems identified via multi-element analyses of core samples recovered in the 2007 core program. Averages reported are unweighted. All values are ppm except sulfur which is percent.

System	n	Ag	Au	W	Hg	Ni	Mo	Re	P
Ag >10	8	65.18	0.013	438.6	15.10	27.98	42.0	0.005	1,578
Ag <10	12	3.21	0.026	1.2	0.94	4.97	7.8	<0.001	528
Tv Au	10	0.71	0.056	6.0	0.61	1.80	4.5	0.002	500
		Cu	As	Cr	Se	Te	Sb	V	S
Ag >10	8	193	17.5	51.5	4.2	0.08	3.7	126	1.03
Ag <10	12	65	15.2	69.2	8.1	0.17	9.1	382	1.07
Tv Au	10	5	52.9	4.0	4.5	<0.05	12.9	38	1.56

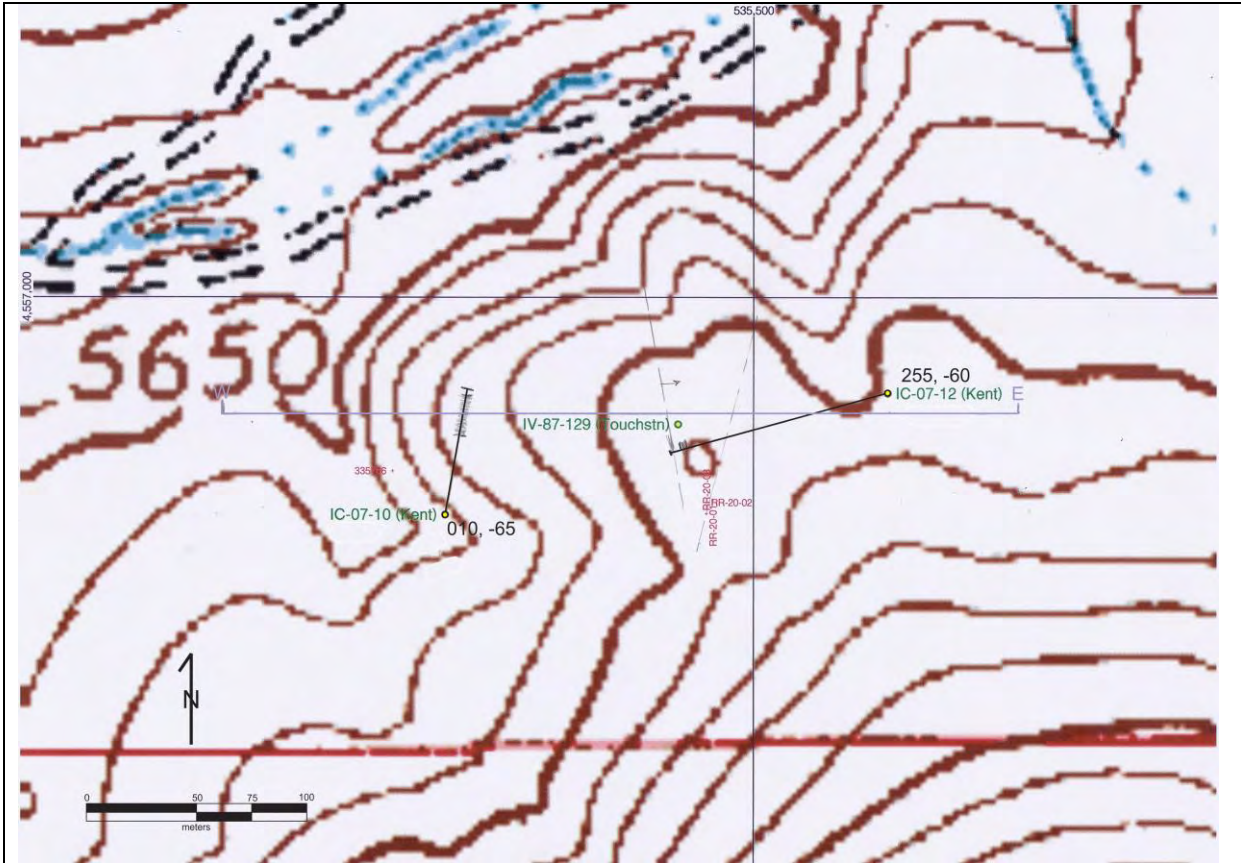
Interpreting these systems in terms of known low sulfidation systems located nearby, the high silver:gold system likely represents an Eocene distal disseminated deposit probably related to the 39 Ma Hatter stock situated next to the Hollister-Ivanhoe Deposit south of Rimrock; it predates most of the volcanics in the area and is hosted entirely within Ordovician sedimentary rocks. The second system, also hosted with Ordovician sedimentary rocks, has geochemistry similar to that identified at Midas and Ivanhoe; it is probably related to those systems and is thus Middle Miocene, likely straddling the boundary of the latest Langhian to earliest Serravallian ages. The third system, hosted entirely within the volcanic sequence is either of the same age as the second, possibly within a few tens of thousands of years.

Controversy in regard to ages of mineralization observed at Rimrock and that at the various

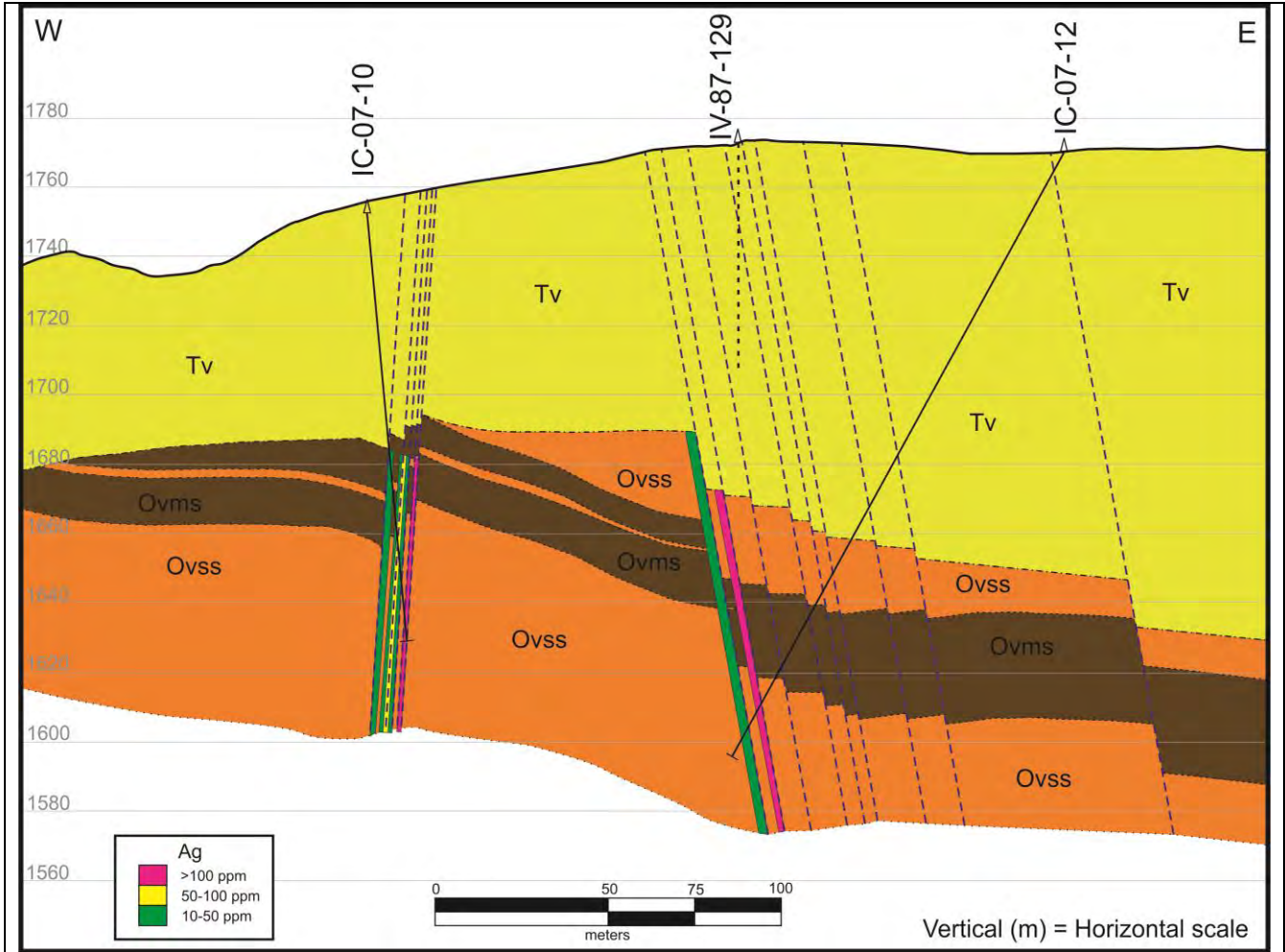
known and active gold-silver mines in the area which are often discussed as separate events as opposed to different pulses of the same system. Arguments supporting this supposition have not taken into account observations from active hydrothermal systems where hydrothermal activity can be quite long lived on the order of hundreds of thousands to millions of years. During their active lives, hydrothermal systems are not steady state and tend to move based on the configuration of the plumbing which is often affected by earthquakes, phreatic explosions and simple plugging due to mineral build-up. Of note hydrothermal waters are still being emitted on the surface 7 km to the east-northeast of the project at Hot Creek and 12.5 km to the west at Hot Lake.

The most significant intercepts were encountered within core holes IC-07-10 and IC-07-12. Figures 10.12 and 10.13 represent the location of the drill collars and interpretive cross-section developed on the data presented by Harrington (2009). Mineralization here is interpreted as structurally controlled, a more conservative model than one where mineralization is lithologically hosted. Further, structural host is common in the Ivanhoe and Midas (Gold Circle) Mining Districts particularly in tight lithologies such as those encountered within the Ordovician sedimentary rock sequence. The area has been interpreted via geophysical surveys to be a horst block bounded by high-angle structures striking north-northwest to north-northeast and dipping west on the west side and east on the east side of the block. The grades encountered by these drill holes are of significant enough to be considered intercepts of feeder systems.





**Figure 10.12** – Surface trace of angled drill holes IC-07-10 and IC-07-12. Cross section in Figure 10.12 in violet. Grid line UTM NAD 83. Contour interval 20' (6.1 m). Red are surface sample locations.



**Figure 10.13** – Cross section through drill holes IC-07-10 and IC-07-12. Silver grades intercepted interpreted as structurally controlled. Tv is undivided volcanics over Ordovician Vinini sandstones (SS) and mudstone (MS).

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

Recorded sampling of the Rimrock Property is limited to about fifty reconnaissance scale rock chip geochemical samples. All of these were simply select samples of altered rock material. Most of these samples are accompanied by Certificates of Analyses which are in the possession of CAT Strategic Metals personnel and the author. No program has been initiated to systematically sample the property.

179 samples have been collected and analyzed from the 2007 core drilling program. COA's from these samples are all in possession of CAT personnel and the author.

No samples or sampling data from the RC drilling programs are in possession of the author or CAT personnel.

### **11.1 SAMPLE PREPARATION, HANDLING AND SECURITY**

Rock and core samples collected were maintained in locked storage until submitted to ALS Chemex laboratories located in Elko, or Winnemucca, Nevada, or the Inspectorate-Bureau Veritas laboratory located in Sparks, Nevada.

#### **11.1.1 Reverse Circulation Drill Sampling**

It is unknown to the author what style of sampling was used for the reverse circulation drill sampling program. However, having worked for Newmont Exploration Ltd. during the period of this drilling, the author can say with first-hand experience that Newmont's sampling was standardized; they employed a rotary splitter mounted under the cyclone. Samples delivered to the sample discharge tube were collected in 1.5 m (5 feet) intervals in individually labeled cloth sample bags, changed by the rig geologist or one of the helpers. All samples were logged according to depth and individual sample numbers; upon completion of drilling, certified blanks and standards were inserted into the sample stream, usually one each every 30 meters (100 feet). All samples were collected at the completion of drilling, inventoried and taken to a Chemex (Later ALS Chemex) laboratory, in this case, most likely Elko as the Winnemucca lab was not yet open.

#### **11.1.2 Core Sampling**

During the 2007 drilling program, core was placed in uniquely marked waxed cardboard boxes capable of holding 3 meters (10 feet) of BTW-size (42.0 mm (1.656 inches) diameter) core. Selected core intervals were marked off and sampled. Core sampling consisted of hand splitting with a metal hand crank type core splitter (Harrington, 2009). Half the core was placed in a uniquely marked cloth sample bag and kept in a locked storage unit until delivered to ALS Chemex or Inspectorate Bureau Veritas Labs. The remaining portion of the

core was replaced sequentially in the core box, which was placed in locked storage. In zones of well broken core, samples consisted of selected fragments chosen to provide the best possible representation of the lithological intersection (Harrington, 2009).

### **11.1.3 Rock Chip Sampling**

Rocks chip sampling consists of either gathering loose materials consisting of rocks of interest or breaking off materials from exposures or larger fragments placed in a uniquely identified cloth sample bag, noting the sample identification, location, area sampled and particulars of the material sampled. All samples were kept in the possession of the sampler until relinquished to laboratory personnel.

### **11.1.4 Soil Sampling**

No soil sampling has been completed on the project to date.

### **11.1.5 Mine Dump and Tailings Sampling**

Dump and tailings sampling consisted of selecting the most interesting looking material from the dump and placing it in a uniquely identified cloth sample bag, noting the sample identification, location, area sampled and particulars of the material sampled. All samples were kept in the possession of the sampler until relinquished to laboratory personnel.

## **11.2 LABORATORY INFORMATION**

All samples collected between 2002 and 2010 and analyzed for geochemical data were submitted to ALS Chemex Laboratories located in Elko, or Winnemucca, Nevada where they were processed and prepared for analyses in either their Reno or Vancouver facilities. The ALS Chemex quality management system (QMS) complies with the requirements of the international standards ISO 9001:2000, ISO 17025:2005 or ISO 9001:2015 (dependent upon date of submission) for survey/inspection activity and ISO/IEC 17025:2017 UKAS ref 4028 for laboratory analysis and is implemented at all ALS Chemex sites.

Chemex's sample processing consists of:

- Bar code sample login;
- Weighing the received sample;
- Fine crushing to 70% <2 mm;
- Crushing QC test;
- Split sample using a riffle splitter;
- Pulverizing to 85% <75 microns ( $\mu\text{m}$ );
- Pulverizing QC test;



- ME-MS61 – a four-acid (HNO<sub>3</sub>, HClO<sub>4</sub>, HF, and HCl) digestion process resulting in 48 element values using inductively coupled plasma (ICP), atomic emission spectroscopy (AES) and mass spectroscopy (MS) technologies;
- Hg-CV41 – trace mercury – aqua regia digestion with cold vapor/atomic absorption spectroscopy (AAS) and;
- Au-ICP22 – a fire assay (FA-ICP) process using 50 grams of sample material, and having a 0.001 parts per million (ppm) lower detection limit for gold.

More recent surface samples collected in 2012 were submitted to Bureau Veritas Inspectorate (now Bureau Veritas Minerals (BVM)) laboratory in Sparks, Nevada. All Bureau Veritas labs meet the requirements of ISO/IEC 17025 and ISO 9001 Quality Management Systems and use validated methods and processes which comply with global OH&S standards. The method 50-4A-UT is no longer a code used by BVM. It was essentially the same as ALS Chemex ME-MS61 four acid digestion and reporting 48 elements. It has been replaced with a 58 element Ultra-trace ICP-ES/MS analysis, BVM laboratory code MA250. This latter process notes: Ultra-trace ICP-ES/MS (MA250) analysis to give near total values for most elements; a 0.25 g split is heated in HNO<sub>3</sub>, HClO<sub>4</sub> and HF to fuming and taken to dryness; the residue is dissolved in HCl; digestion is partial for some Cr and Ba minerals and oxides of Al, Fe, Hf, Mn, Sn, Ta, Zr and REEs; volatilization during fuming may result in loss of As, S, Se and Sb.

Sample prep code used at the time of submittal was: SP-RX-2K/Rock/... <2Kg and is now PRP70-250 comprised of crushing 1 kg to ≥70% passing 2 mm - Pulverize 250 g ≥85% 75 µm.

Gold fire assay analyses used were Au-1AT-AA, now FA-430: 30 g / Fire Assay / AAS; this is a lead collection fire assay fusion which is a classic method for total sample decomposition; total Au content is determined by digesting a Ag dore bead and then analyzing by AAS.

Mercury analyses method then used was Hg-AR-TR-CVAA which is an aqua regia – ICP-ES/MS Hg analysis and currently carries the BVM laboratory code: AQ200-Hg.

Both ALS Chemex and Bureau Veritas Minerals are considered to be the most reliable laboratories in the exploration and mining industry.

Sample 190006 was taken by Ed Harrington in 2003 and was sent to International Plasma Laboratory Ltd. (IPL) in Vancouver, British Columbia. The author is not familiar with this laboratory and the following discussion is from Harrington's 2009 report concerning this laboratory. *"This laboratory is registered with and certified by the British Columbia Ministry of Environment, Lands and Parks (BCMOE) and the Canadian Association for Environmental Analytical Laboratories (CAEAL). IPL's analytical procedures comply with the applicable requirements of the BCMOE, Environment Canada, American Society for Testing and Materials (ASTM), American Water Works Association (AWWA) and United States*

*Environmental Protection Agency (USEPA). International Plasma Laboratory maintains an internal quality control program including use of blank, duplicate and standard samples inserted into the sample stream. IPL sample preparation and analytical methods are deemed by the author to conform to reasonable data verification controls.”*

### **11.3 QUALITY CONTROL / QUALITY ASSURANCE**

All samples collected from the property were maintained in their possession or in secure locations by the respective exploration professionals who acquired them until relinquished to laboratory personnel. Standards and blanks were added to the core drilling samples; the same can be presupposed for the older reverse circulation drilling as well based on the author’s personal experiences with the major mining and exploration companies extant at the time of drilling and personal knowledge of their standard procedures.

All laboratories reporting assays for samples collected from the Property have vigorous QA/QC programs using their own internal standards and blanks to assure accurate evaluation of submitted samples.

Laboratory Certificates of Analyses for all the drill submitted samples are in possession of CAT Minerals personnel and the author. Certificates of Analyses for most surface samples (save sample 190006 and those submitted under EL04053141 (15 samples total)) are in possession of CAT Minerals personnel and the author.

#### **11.3.1 Historical Work**

Recorded sampling of the Rimrock Property is limited to about fifty reconnaissance scale rock chip geochemical samples. All of these were simply select samples of altered rock material. Most of these samples are accompanied by Certificates of Analyses which are in the possession of CAT Strategic Metals personnel and the author. No program has been initiated to systematically sample the property.

179 samples have been collected and analyzed from the 2007 core drilling program. COA’s from these samples are all in possession of CAT personnel and the author.

No samples or sampling data from the RC drilling programs are in possession of the author or CAT personnel.

#### **11.3.2 CAT Strategic Metals Sampling**

CAT has not undertaken any sampling on the Property as of the time of this writing.

### **11.4 AUTHOR’S OPINION REGARDING SAMPLE PROCEDURES**

All samples were retrieved according to procedures considered industry norms and by professional explorationists. Each was held securely by the individual sampler until relinquished to laboratory personnel for analyses.

ALS Chemex and Inspectorate-Bureau Veritas Laboratory procedures are well documented. These laboratories are ISO certified and are well established entities within the mining community. Their QA-QC procedures are considered the industry standards.

All sample data are available from samples acquired from the Property, save those which do not have accompanying Certificates of Analyses, are considered 43-101 reportable. Those without such documentation, 15 of the 50 surface samples collected in 2003 and 2004, are not considered 43-101 reportable.

## **12.0 DATA VERIFICATION**

Other than a review of the assay certificates, land status checks and the Property examination, the writer did not attempt to verify the information available for this specific property. The limited number of mildly anomalous geochemical results did not warrant independent check sampling.

During the 2007 drilling program, samples consisting of a prepared gold standard reference material OxA59 were inserted into the sample stream at 20-sample intervals and delivered to ALS Chemex with regular split core samples. OxA59 has a gold concentration of 0.0817 ppm, with a 95% confidence interval of  $\pm 0.0021$  ppm and a standard deviation of 0.0052 ppm (Harrington, 2009).

Assay results from the nine gold standard samples submitted in 2007 varied from 0.070 to 0.088 ppm giving a standard deviation of 0.0060 ppm or 15% above the expected standard deviation (Harrington, 2009).

### **12.1 DATA VERIFICATION PROCEDURES APPLIED BY QP**

Other than a review of the assay certificates, land status checks and the Property examination (site visit), the writer did not attempt to verify the information available for this specific property. The limited number of mildly anomalous geochemical results did not warrant independent check sampling of surface samples.

### **12.2 VERIFICATION LIMITATIONS (INCLUDING SITE VISIT)**

There were no limitation with respect review of assay certificates, save those from the 2003-2004 sampling program where there were no available certificates, nor were there any data available to review for any work completed prior to 2002.

Land status was checked on the BLM LR2000 along with copies of Certificates of Location.

Property was examined by the author in October, 2020 and again in February, 2021. It was mapped, in part, in 2012 when geochemical samples were taken and submitted for assay (samples RMR-01 through RMR-18).

### **12.3 QUALIFIED PERSON'S OPINION ON ADEQUACY OF DATA**

The author is satisfied that all geochemical data presented with an accompanying Certificate of Analyses are valid and reportable. Those data without the certificates are not reportable unless resampled at the coordinates given.



Geophysical data is believed valid as it agrees with surface observations and was collected and interpreted by qualified professionals.

Drilling data was collected by a professional Qualified Person, Edward Harrington and presented by him in his 2009 Technical Report.

The only detailed geologic mapping completed on the Property to date was accomplished by the author.

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

### **13.1 NATURE AND EXTENT OF TESTING, ANALYTICAL PROCEDURES AND SUMMARY OF RELEVANT RESULTS**

No metallurgical testing for any metals save mercury has been carried out on any samples from the property to date.

#### **13.1.1 Nature and Extent of Metallurgical Testing**

Historic testing was likely performed on the early mercury ores, but those results are unavailable.

#### **13.1.2 Analytical Procedures**

Unknown.

#### **13.1.3 Relevant Results**

Mercury was produced from the Rimrock Mine.

### **13.2 BASIS FOR ASSUMPTIONS OR PREDICTIONS REGARDING RECOVERY ESTIMATES**

Mercury was produced from the Rimrock Mine.

### **13.3 REPRESENTATIVE NATURE OF METALLURGICAL TEST SAMPLES TO MINERAL DEPOSIT**

Mercury was produced from the Rimrock Mine.

### **13.4 DELETERIOUS PROCESSING OR ELEMENTS EFFECTING ECONOMIC EXTRACTION**

Unknown.

## **14.0 MINERAL RESOURCE ESTIMATES**

No mineral estimates have been completed for the Rimrock Property.

### **14.1 DISCUSSION OF KEY ASSUMPTIONS, PARAMETERS, AND METHODS USED FOR ESTIMATION**

No mineral estimates have been completed for the Rimrock Property.

### **14.2 DISCLOSURE REQUIREMENTS**

No mineral estimates have been completed for the Rimrock Property.

### **14.3 CONVERSION FACTORS FOR MULTI COMMODITY METAL EQUIVALENCY**

No mineral estimates have been completed for the Rimrock Property.

### **14.4 IMPACTS ON MINERAL RESOURCE ESTIMATES**

No mineral estimates have been completed for the Rimrock Property.

## **15.0 MINERAL RESERVE ESTIMATES**

The Rimrock Property is an exploration level program and has no Mineral Resources or reserves yet developed for any metal.

A preliminary resource estimate of the bentonite deposit was made by Chemical and Petroleum Corporation of America in the late 1970's; they estimated the size of the deposit at 2 million tons. No data defining as to how that estimate was determined are in hand. Given the uncertainties of this estimate, it may be considered only historical in nature and not a qualified 43-101 resource at this time, and here presented for reference only.

### **15.1 DISCUSSION REGARDING CONVERTING RESOURCES TO RESERVES**

There are no Resources yet developed on the Property.

### **15.2 DISCLOSURE REQUIREMENTS FOR MINERAL RESERVES**

There are no Mineral Reserves developed for this Property.

### **15.3 CONVERSION FACTORS FOR MULTI COMMODITY MINERAL RESERVES**

There are no Mineral Reserves developed for this Property.

### **15.4 IMPACTS ON MINERAL RESERVE ESTIMATES**

There are no Mineral Reserves developed for this Property.



## **16.0 MINING METHODS**

There are currently no resources developed for this property. Subsequently there are currently no plans for mining.

### **16.1 GEOTECHNICAL, HYDROLOGICAL AND OTHER PARAMETERS RELEVANT TO MINE DESIGN**

There are currently no plans for mining on this Property.

### **16.2 PRODUCTION RATES, MINE LIFE, MINING DIMENSIONS, DILUTION FACTORS**

There are currently no plans for mining on this Property.

### **16.3 MINING REQUIREMENTS: STRIPPING, DEVELOPMENT, BACKFILLING**

There are currently no plans for mining on this Property.

### **16.4 REQUIRED MINE EQUIPMENT**

There are currently no plans for mining on this Property.

## **17.0 RECOVERY METHODS**

There are currently no plans for mining on this Property.

### **17.1 DESCRIPTION, FLOW SHEET OF PROCESSING PLANT**

There are currently no plans for mining on this Property.

### **17.2 PLANT DESIGN, CHARACTERISTICS AND SPECIFICATIONS**

There are currently no plans for mining on this Property.

### **17.3 REQUIREMENTS FOR ENERGY, WATER AND PROCESS MATERIALS**

There are currently no plans for mining on this Property.

## **18.0 PROJECT INFRASTRUCTURE REQUIREMENTS**

At present the Property is a grass roots exploration level play. Infrastructure is not required at this time.

## **19.0 MARKET STUDIES AND CONTRACTS**

There are currently no plans for mining on this Property.

### **19.1 SUMMARY CONCERNING MARKETS**

The principal commodities on this Property are precious metals, namely silver and gold. The precious metals markets are monitored by the second worldwide via the internet. It is subject to volatility as with any readily traded commodity or security. Trends tend to be relatively long lived with spikes, either up or down, are generally short lived returning to the normal longer lived trends, settling higher or lower than the previous trend, depending upon the last spike direction.

### **19.2 CONTRACTS REQUIRED FOR PROPERTY DEVELOPMENT**

Currently there are no plans to develop this Property.



## **20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL COMMUNITY IMPACT**

Environmental studies, permitting, and social community impact studies have not been initiated for this Property. The present level of exploration does not require the initiation of these permitting processes.

### **20.1 RESULTS OF ENVIRONMENTAL STUDIES, DISCUSSION OF ISSUES**

Environmental studies are unnecessary at this level of exploration.

### **20.2 WASTE AND TAILINGS DISPOSAL, SITE MONITORING, WATER MANAGEMENT**

None of this applies at the current level of activity on the Property.

### **20.3 PERMITTING REQUIREMENTS**

Permitting for surface disturbance will be required when additional drilling is planned.

### **20.4 SOCIAL AND COMMUNITY REQUIREMENTS**

None required at this time and likely minimal in the future.

### **20.5 MINE CLOSURE REQUIREMENTS**

There are no open mines on this property and none have been planned.

## **21.0 CAPITAL AND OPERATING COSTS**

Currently there are no plans to develop this Property.

## **22.0 ECONOMIC ANALYSES**

There are currently no economic analyses completed for this Property.

### **22.1 JUSTIFICATION FOR PRINCIPAL ASSUMPTIONS**

The only assumptions being made for this Property are it is a valid exploration target based on the identification of silver and gold values in the 2007 core drilling program and the active precious metals mines in the vicinity of the Property.

### **22.2 CASH FLOW FORECASTS**

There are currently no Cash Flow Analyses for this Property.

### **22.3 NET PRESENT VALUE (NPV)**

No NPV studies have been completed for the Property at the time of this writing.

### **22.4 TAXES, ROYALTIES AND LEVIES**

Currently there are no plans to develop this Property.

### **22.5 SENSITIVITY ANALYSES**

No Sensitivity Analyses have been conducted on this Property as of the time of this writing.

## **23.0 ADJACENT PROPERTIES**

Three nearby properties, the Midas, Ivanhoe-Hollister, and Silver Cloud mines, offer good examples of district mineralization. The Midas mine is located approximately 18 km northwest of the Rimrock property, the Ivanhoe-Hollister main deposit lies 6 km south and the Silver Cloud mine is located approximately 12.4 km south-southwest (Figure 23.1). These three properties have been mined or explored for low-sulfidation, Midas-style gold silver deposits. Both of the properties owned by Hecla Mining Company, and are presently under care-and-maintenance condition at this date.

Other mines in the area include the Sheep Corral, Governor and Fox Mines. These latter were all small historic mercury mines and located approximately 3.25 to 4.5 km to the west and southwest of the Property, and also are owned by Hecla Mining Company.

### **23.1 OWNER(S) OF ADJACENT PROPERTIES**

Much of the following has been taken directly from Harrington (2009) and updated with more recent information.

#### **23.1.1 Hecla Mining Co. – Midas Mine**

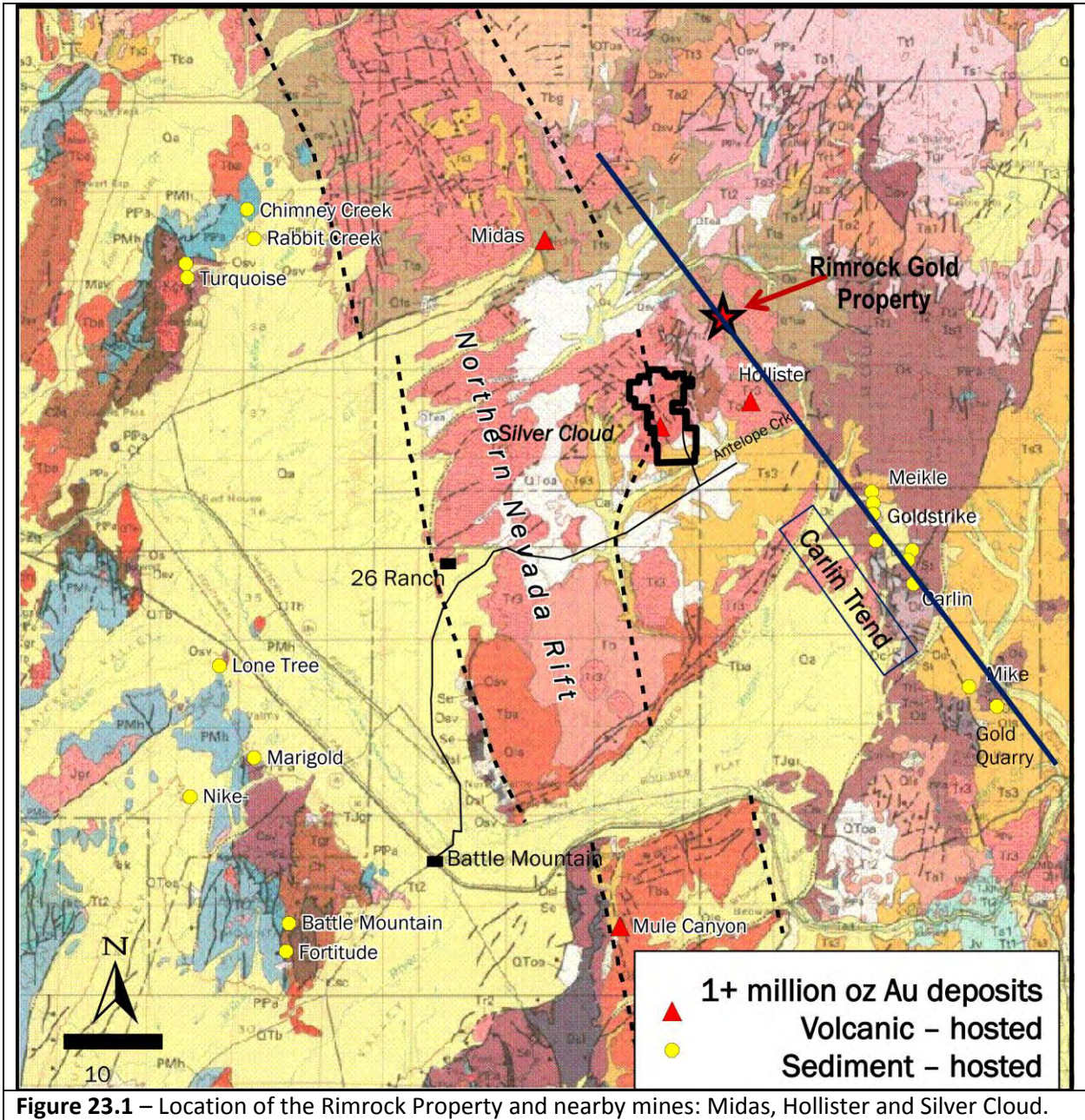
The Midas or Ken Snyder Mine, discovered in 1994, is a volcanic-hosted, low-sulfidation, selenium-rich, gold-silver bearing quartz-adularia vein deposit located in the Midas district of north-central Nevada, on the eastern flank of the Northern Nevada Rift and on the north-northwest strike continuation of the Carlin trend.

The Midas mine produced an approximate total of 2.2 million ounces of gold and 26.9 ounces of silver; measured, indicated and inferred resources at the end of 2020 were reported to be 457 thousand ounces of gold and 5.72 million ounces of silver using a gold equivalent underground cutoff grade of 7.37 grams (Hecla Mining Company website, accessed 15 April, 2021). The mine was acquired by Hecla Mining in July, 2018 and previously was operated by Klondex Midas Operations, Inc., and by Great Basin Gold. Production at the Midas Mine was suspended in the fourth quarter of 2019. The Midas Mine is the largest known Au-Ag epithermal deposit along the Northern Nevada Rift (Mining Data Solutions online, accessed 15 April, 2021).

Host rocks are mid-Miocene felsic tuffs, sediments and gabbro sills and dikes. Wall rock alteration is predominantly propylitic, and hydrothermal alteration is widespread. Vein mineralogy consists of gold and silver selenides (naumannite [Ag<sub>2</sub>Se] and aguilarite [Ag<sub>4</sub>SeS]), electrum; rare lead-, copper- and iron-selenides; and a gangue of banded quartz (at least eleven precipitation events), calcite and adularia containing pyrite, marcasite, chalcopyrite and sphalerite. Geochemical soil profiles in the Midas district indicate



anomalous gold, silver, selenium, mercury, arsenic and lead values. Deposit age is estimated to be  $15.14 \pm 0.08$  Ma (Wallace, 2003).



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Fluid inclusion data indicate a mean temperature during ore formation of 240°C and very low salinities, possibly reflecting a strong groundwater influence on the epithermal system. The dominance of quartz, calcite and adularia in the open-space filling veins is indicative of a low-sulfidation system (Goldstrand et al, 2000).

Known reserves on the main Colorado Grande vein occurred over a strike distance of 6,500 feet (1,981 meters) and a vertical range of 1,700 feet (518 meters), exhibiting remarkable continuity (Goldstrand et al, 2000). Veining occupies faults oriented north-south to north-northwest and west-northwest, dipping steeply northeast. Mineable reserves were defined on seven veins by 2009. Hecla has been exploring east of the Midas Mine, and recently discovered the Green Racer Sinter vein systems (Hecla Mining, quarterly report, March, 2021), reportedly 5 km east of the Midas Mine, where local high grade gold and silver values have recently been found in their drilling program.

In the Midas district, siliceous sinters, always occurring in the 15.43±0.09 Ma Esmeralda mudstones and siltstones, are reported to overlie main mineralized structures. Examples of overlying Esmeralda “sinters” were examined and continuous laminations were noted. Although not conclusive, the laminations are thought to suggest that the “sinters” were the product of intense silica flooding of the Esmeralda mudstones and siltstones rather than being true hot spring sinters (Goldstrand et al, 2000).

### **23.1.2 Hecla Mining Company - Ivanhoe-Hollister Project**

The Ivanhoe-Hollister gold deposit developed by Touchstone Resources and mined by Newmont and currently owned by Hecla Mining Company is approximately three miles south of the Property. The deposit was originally estimated to contain 18.4 million tons at .038 opt (699,000 ounces, 21.7 tonnes gold), and more than 115,000 ounces (3.5 tonnes) were produced from two open pits in the early 1990’s (Tewalt, 1999). The gold deposit contains several orebodies that underlie mercury-bearing sinters and silicified zones. The mineralization in this deposit was interpreted to be predominately of the sediment-hosted disseminated type (Bartlett et al, 1991).

Deeper drilling in the district encountered narrow high-grade veins hosted within the Vinini (Valmy) Formation. Prior to 2007, Great Basin Gold issued a historical estimate of an inferred resource on their Ivanhoe property of 719,000 tons with a grade of 1.29 opt gold and 7.0 opt silver for a total of 927,510 oz gold and 5,033,000 oz silver (Great Basin Gold



website, 2003). Since 2007, production from these blind deposits amounts to more than 450,000 ounces of gold and more than 2.5 million ounces of silver (Hecla Mining Company website accessed 15 April, 2021).

The mine is located along the Northern Nevada Rift (NNR) which is a major, north-northwest to south-southeast trending structural feature that extends for at least 300 miles (482 km), from south-central Nevada to the Oregon-Nevada border. Ivanhoe-Hollister is on trend with the north-western end of the Carlin Trend. Mineralization is related to the Miocene period of magmatic activity associated with the NNR while gold mineralization on the Carlin Trend has been dated to late Eocene/early Oligocene magmatism (Hecla Mining Company website accessed 15 April, 2021). The age of mineralization has been dated as Miocene  $15.19 \pm 0.05$  Ma (Wallace, 2003).

Epithermal disseminated gold mineralization is hosted in volcanic tuffaceous units, andesites, and the Ordovician Vinini (Valmy) Formation. High-grade gold and silver mineralization is hosted as banded quartz veins in a group of near-vertical faults and fissures that trend west-northwest to east-west. The amount of displacement across these faults is small and their strike continuity varies between one hundred to several thousand feet. Primary lithologies in the area have been strongly altered by hydrothermal fluids with large areas of chalcedonic replacement bodies at the paleo water table in addition to sinter deposits (Hecla Mining Company website accessed 15 April, 2021).

Surface alteration on the Ivanhoe property consists primarily of strongly silicified (primary opal and chalcedony, not quartz) lakebeds and air-fall tuff with areas of disseminated mercury sulfide (cinnabar) mineralization (Wallace, 2003b). Wallace attributes the silicification and mineralization to hot spring activity that occurred while sediments were being deposited. Wallace reports these “sinters” also contain trace levels of gold over the high-grade veins. The veins are not exposed at the surface, as they lie beneath the silicified sediments.

Three Miocene vein systems have been put into production, the Clementine, Gwenivere, and Gloria, and have only been investigated to a depth of 1,000 feet (305 m) below the adit portal elevation. Other vein systems have been identified on the property, with several holes intersecting gold-silver-mineralized veins in the older, Eocene-age Hatter system, east of the Hollister block. Mineralization of Eocene age likely is present in the area of the Hatter Stock at Hollister, and local high values of tungsten are also present (John Muntean pers comm. to R. Redfern, 2017), as on the Rimrock property to the north. The eastern, north-northwest-trending Eocene horst appears to extend from Rimrock southward through the Hollister Mine property.

Most of the veins identified to date are oriented east-west, and are believed to be splays from north-northwest-trending veins, which represent the major vein orientation at Hecla’s

Midas Mine and other major mines in the area.

Productive Miocene veins at Hollister consist of banded, vuggy quartz, adularia, and calcite with pyrite, marcasite, electrum, and silver selenides. Higher-grade portions of veins also show quartz replacement of bladed calcite, often considered a sign of boiling. Alteration minerals are limited to sericite and kaolinite. Post ore-stage minerals fill open spaces around the mineralized veins. These minerals include Fe-Mg carbonate, barite, and quartz. It is probable that the same mineralizing fluids that formed the veins are also responsible for overlying mercury-silica mineralization.

Resources reported as of 31 December, 2020 by Hecla as measured, indicated and inferred are 324,000 ounces of gold and 2.13 million ounces of silver (Hecla Mining Company website accessed 15 April, 2021).

### **23.1.3 Silver Cloud Property**

An epithermal vein-style gold target on the Silver Cloud property was identified by Teck-Placer Dome and now controlled by Blackrock Silver Corp. The Silver Cloud Mine was the largest mercury producer in the district accounting for 1,150 flasks out of a district total 2,180 flasks. Placer Dome entered into a joint venture with Teck-Cominco to explore Silver Cloud in 2002 and drilled some holes. In late 2003, Geologix acquired the Silver Cloud property and conducted the following exploration activities: geologic mapping, soil sampling, biogeochemistry, gravity survey, E-Scan survey and drilled 2 core holes. Rimrock Gold Corp. acquired Silver Cloud in 2013 (Rimrock, 2013), although they did not complete any exploration or drilling activities.

One report (Abbott and Redfern, 2002), based on an interview with the underlying claim owner, indicates that Teck encountered significant mineralization in at least one hole and that this mineralization extended from approximately 1000 to 1600 feet (305 to 488 m) below the surface. Drilling conducted by Placer Dome in December 2002 was apparently directed at following up on this intercept and tested a parallel structure to the west, between the Silver Cloud Mine and the West Silver Cloud property held by Senator Minerals Inc. In May 2003, Placer Dome drilled at least six more holes along this western structure, suggesting encouraging results from the December 2002 drilling (Morris, 2003).

Abbott and Redfern (2002) collected a sample of cinnabar-bearing sinter from an adit at the Silver Cloud Mine that assayed 19 ppb gold, 0.5 ppm silver, >100 ppm mercury, along with low arsenic and antimony. They also reported that a sample of rotary drill cuttings from the Silver Cloud property, adjacent to the main road, assayed 37 ppb gold, 5.93% mercury, and low arsenic and antimony.

Silver Cloud is underlain by Quaternary alluvium, landslides and debris and Tertiary gravel,



rhyolite tuffs, flows and intrusions and andesite. The volcanic section, from top to bottom, includes Upper Tuff, Craig Rhyolite, Middle Tuff, Lower Tuff, Silver Cloud Rhyolite and Rock Creek Rhyolite. Argillite, chert and quartzite of the Ordovician Valmy Formation (Ov) have been encountered in drill holes. These rocks were logged as both Valmy and Vinini by different previous operators; Blackrock is interpreting these siliceous metasedimentary rocks as Valmy. The Miocene volcanic rocks in the Ivanhoe mining district are part of the bimodal volcanic assemblage that is common with this portion of the 700 km-long, north-northwest trending Northern Nevada Rift, which includes the Ivanhoe mining district and Silver Cloud. The east-northeast and west-southwest directed extension of the rift resulted in the formation of north-northwest-striking faults that are such a prominent feature in the district and across the Silver Cloud property. Hydrothermal alteration at Silver Cloud includes silicification, argillization and propylitization. Silicification occurs as structurally controlled quartz veins and bedded opaline silica. Silicification and structures are common where gold has been encountered in drilling (Wolverson, 2020).

Blackrock drilled a total of 9,465 feet (2,885 m) in six core holes at Silver Cloud in 2019 and early 2020; the drill program was designed to test historical drill results (Wolverson, 2020). Local higher-grade gold mineralization was found in one Blackrock drillhole.

### **23.2 SOURCE OF INFORMATION**

The above information concerning adjacent properties were derived mainly from Harrington (2009) who obtained his data from published and on-line resources. Additional data were obtained from more recently published 43-101 documents and on-line sources (2021).

### **23.3 VERIFICATION OF INFORMATION**

The author has not attempted to verify the information concerning adjacent properties.

### **23.4 DISTINCTION OF INFORMATION**

While mineralization suggested by information on the Midas, Ivanhoe-Hollister and Silver Cloud deposits is not necessarily indicative of mineralization on the subject Rimrock Property, similarities indicate exploration potential.

### **23.5 HISTORICAL ESTIMATES OF MINERAL RESOURCES**

Resource estimates for the Hecla owned properties are up to date as of 31 December, 2020 and are reported on their website at:

[www.hecla-mining.com/wp-content/uploads/2021/03/Hecla-2020-Reserves-Resources.pdf](http://www.hecla-mining.com/wp-content/uploads/2021/03/Hecla-2020-Reserves-Resources.pdf)

There are currently no resources developed on the Silver Cloud Property.

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

No other relevant data and information are currently available to the author.

## **25.0 INTERPRETATION AND CONCLUSIONS**

### **25.1 INTERPRETATION**

The following is largely derived in part from Harrington (2009), with a local area framework provided in technical reports on the geology and mineralization in the Hollister Mine, e.g. Stone (2006), in various Hecla press releases and reports, and at Silver Cloud by Harbaugh (2001), Kuzma (2002), Hudson(2004), Loptien (2006), and (Wolverson (2020).

Necessary conditions for a Midas-type high-grade bonanza-style gold-silver deposit include a well-developed fracture system and a physical and chemical environment that will permit efficient gold-silver precipitation sufficiently long to form an economic deposit.

Favorable host rock types will be competent (brittle), which, under faulting stresses, are more likely to form through-going upward-branching open fractures. Less competent rocks under similar stresses tend to form stockworks. Strike slip and /or oblique normal faulting formed a major structural “fault jog” in the Dilation Target Area at Rimrock, which may extend to plus 1000 meter depths. This structure is up to 100 meters in width, as demonstrated by the CSAMT survey, and could have acted as a structural pipe, allowing metal-rich hydrothermal fluids from great depths and in multiple time periods, via reactivation.

Young mercury mineralization was deposited at the surface along this structure at Dilation, and this structure could have been present and open during the 3 main periods of gold-silver mineralization at Hollister and Midas (Eocene Hatter Stock (39 Ma); 15.14±0.08 Ma Midas (Leavitt and others, 2000) where mineralization continued for 100,000 years or more longer that at the nearby Eastern Star Mine (Wallace, 2000, 2003); the Hollister Deposit formed at 15.10±0.4 Ma, while the high grade veins of Ivanhoe, beneath the Hollister area, formed at 15.19±0.05 Ma (Wallace, 2003)). Wallace (2003) notes district-wide mineralization may have spanned 300,000 years and not necessarily at any one place. The 14.92 Ma “Columbus” Rhyolite is, in part, silicified and hydrothermally altered on the Rimrock property. Wallace (2003) interprets this to have occurred shortly after its emplacement.

The centroid of gold mineralization in the Hollister Mine is interpreted to be at approximately the 5100 foot level MSL (1550 m level). No drillholes have tested this hypothesis at Rimrock. This target zone lies directly on the Carlin Trend, and these NNW and NNE-trending structures likely were open during Carlin-age mineralization, as demonstrated

at Hatter.

Disseminated silver-(gold) deposits may have been formed at Rimrock in more permeable, non-quartzitic bedded sedimentary rocks in the Vinini Formation, such as found in Senator/Kent drillhole 2007-12. This latter model needs to be explored further at Rimrock.

The introduction of silica, as host rock replacement and as quartz gangue in vein and breccia fillings, is an important ground preparation event enhancing the host rock's ability to fracture and maintain open fissures.

Stone (2006) observes that the Hollister deposit shows some of the primary geological elements of sedimentary rock-hosted Carlin Trend gold deposits, including Tertiary (Eocene) intrusive rocks and the presence of lower plate carbonate rocks.

Tertiary (Miocene and younger) volcanic rocks at Hollister have been affected by only low grade (zeolite and lower) burial metamorphism. The Paleozoic stratigraphic section underlying the Tertiary rocks is dominated by the Ordovician Vinini (Valmy) Formation, which is part of the western assemblage "upper plate" of the Robert's Mountains Thrust. Vinini (Valmy) Formation rocks are characterized by coarsening upward sequences of orthoquartzites, muddy quartzites and sandy argillites and bedded to laminated argillites. Minor calcareous siltstone and sandstone are present in some fine-grained facies of the Valmy Formation. Drilling at Hollister encountered "lower plate" carbonate rocks of the Devonian Rodeo Creek Formation at depths of about 2,630 feet (802 m) below the surface.

The near-surface Hollister deposit was a large low-grade disseminated gold system in Miocene volcanic rocks. This previously exploited mineralization is thought to have been formed by leakage from a deeper, Vinini (Valmy) Formation hosted, high-grade gold feeder system. Within Tertiary rocks, silver and gold ratios tend to be in the range of 1:1, while the Ordovician rocks the Ag: Au ratio is approximately 8:1.

At Hollister, Glanville (Glanville and Banner, 2002) noted that depth may influence vein formation, as the relatively near-surface contacts of Tertiary and Ordovician commonly show diffuse hairline fractures, while at lower depths, banded and bladed adularia-sericite veins are common.

Some of the strongest vein breccias occur in the adjacent Hollister Mine at relatively deeper levels, centered at approximately the 5,100 feet (1,555 m) MSL elevation level, with vein breccias being extremely angular, forming "jig-saw" fit patterns, possibly the result of explosive de-gassing and/or de-watering. Veining is episodic, with the spatial relationship of breccias to vein forms suggesting that banded veins formed soon after the development of over-pressured breccias. Pyrite and marcasite are common gangue mineral constituents; neither sulfide exceeds 5% of the host rock.



The physical and chemical mechanisms under which gold-silver in solution will be deposited include oxidation, temperature decrease, and decrease in H<sub>2</sub>S content. These changes can be brought about by the hydrothermal transporting solution reaching a boiling point or the mixing of the hydrothermal solution with cooler more oxygenated water. Under hydrostatic conditions, the gold-silver solution (250°C at 3% wt. NaCl) would boil at a depth below surface of approximately 450 meters (Romberger, 1993). Given temperature, pressure and fluid composition variability, the possible hydrothermal solution boiling point, and subsequent gold-silver deposition, could range from as little as 200 meters to more than 1,000 meters below paleosurface.

The following statements are consistent with the above observations:

The Rimrock property is situated along the eastern edge of the north-northwest trending NNR megastructure, which hosts the world-class Midas low-sulfidation epithermal gold-silver deposit. Mineralization at Midas is in vein systems 250-400 meters below surface silica-mercury sinters. A suite of metallic gangue minerals and silica flooding of wall rock accompanies gold-silver mineralization;

The Rimrock mercury mine, located on the Newmont patented ground within the confines of the Rimrock Property, contains a brecciated mercury-rich, high-selenium sinter with crosscutting chalcedony veins. A related fault system cuts the mine area and merges into one of the main Ivanhoe Creek structures;

Work carried out on the Silver Cloud property to the south-southwest of Rimrock, suggests gold-silver mineralization is overlain by a barren silica-mercury sinter;

The Rimrock property has silicified breccia containing fragments of sinter and opaline quartz, and is situated within 1,500 meters of two mercury sinters. Rocks exhibit silica replacement and brecciation healed by further silicification indicating competency suitable for hosting vein-style deposition;

Fault systems are interpreted to exist on the Property, providing likely-plumbing systems for the transport of mineralized hydrothermal fluids;

2007 drill program assay results returned strongly anomalous silver, tungsten and selenium values, as well as mildly anomalous gold values;

Anomalous geochemical values are hosted by Paleozoic quartzites, which show varying degrees of faulting, fracturing and brecciation; and

Quartzites are interbedded with mudstone-shale showing small scale faulting,

folding and displacement up to 5 centimeters.

Many volcanic-hosted gold deposits, including nearby Hollister deposit, as well as the Midway and Sleeper deposits, demonstrate spatial and/or genetic relationships to structural variations in the underlying basement. It is theorized that these basement structures act as feeders for the overlying gold deposits. Recent deep gold-silver discoveries at Hollister support this theory, demonstrating that reactivated basement structures, as well as overlying volcanic rocks, can host significant gold deposits.

Low-sulfidation epithermal veins are typically high-risk, high-reward exploration situations. The veins are often physically small, but occasionally are large and high-grade such as Sleeper and Midas. Veins often do not show large alteration aureoles, and may be completely hidden due to post-mineral cover. The potential profitability of these types of bonanza-type deposits makes them attractive exploration targets.

The Rimrock property is an early-stage prospect with very little detailed geologic work. Work to date indicates scattered alteration associated with north-south to north-northwest trending basement structures. Elevated barite and silver values, anomalous mercury, selenium and tungsten values along with mildly anomalous but significant gold values are possibly indicating the presence of a mineralizing system similar to those encountered at the nearby Midas, Silver Cloud and Ivanhoe-Hollister properties. These surface indications demonstrate the need to explore the Property at depth.

It should be recognized that observed rock alteration may or may not be indicative of economic mineralization. The alteration and geochemical anomalies found on the surface of the property are weak when compared to Midas, Silver Cloud or Ivanhoe-Hollister, but these differences could be the effect of multi-phase mineral systems, and height above the mineralized zone rather than mineralizing system intensity. Mineralized bodies of multiple different ages could be present in the main structures at Rimrock. Evaluation of the Rimrock Property was hindered by past poor core recovery from areas of very broken Paleozoic rocks that show anomalous gold, silver and tungsten mineralization.

Silver mineralization encountered in the 2007 drilling implies a potentially economic system exists on the property. These drill intercepts should be followed up with a twin hole to verify the intercept and then subsequent follow-on offset drilling to define the mineral system.

## **25.2 CONCLUSIONS**

The objectives of this technical report are to review past work, report on results from the 2007 core drilling program and to assess the potential for the Rimrock Property to host low-sulfidation epithermal vein-style gold-silver mineralization similar to the nearby Midas and

Ivanhoe-Hollister deposits.

The Property is considered to have good potential to host an economic vein-style gold-silver deposit because:

The Property exhibits argillic alteration, opaline and chalcedonic silica, sinter, and hydrothermal brecciation;

Mines and prospects in the Ivanhoe district have demonstrated gold-silver mineralization underlying siliceous mercury sinters at depth;

Geophysical surveys have identified four major north-south oriented basement structures controlling basement uplift as well as clay and silica alteration in overlying volcanic rocks;

Several sets of north-northeast and north-northwest trending faults could be the source(s) of mineralizing fluids and are interpreted northward extensions of fault structures present in the Hollister property of Hecla Mining;

Drilling in 2007 demonstrated the existence of Paleozoic basement sedimentary rocks that underlie younger Tertiary tuffaceous rocks likely belonging to Wallace's lower volcanic tuff unit, and are immediately underlain by mudstone and quartzites of the Vinini Formation;

The Property is situated along the north-northwest trending North Nevada Rift, which hosts the Hollister, Midas and Mule Canyon low-sulfidation epithermal gold-silver deposits;

The projection of the Carlin Trend, due to sinistral displacement along east-northeast structures, projects immediately below the Hollister and Rimrock Properties. The 39 Ma Hatter Stock sits astride the eastern edge of this ancient and deep seated structural zone;

Plus 100 ppm silver intercepts in the 2007 core drilling indicate potentially economic silver-(gold) mineralization does exist on the Property. This mineralization is hosted within the Paleozoic Vinini section where it is cross-cut by high angle fault structures. This mineralization has yet to be followed up by additional drilling;

Local high-grade tungsten intercepts were found in drillholes 2007-10 and -12. The main Hollister Mine also has local high grade tungsten drill intercepts. The origin of this tungsten mineralization is not yet known, but could be associated with Carlin-age Eocene intrusions of the Hatter Stock complex, or with older Mesozoic granitic

rocks that possibly could be present locally at depth. This tungsten mineralization should be investigated further in future exploration programs.



## **26.0 RECOMMENDATIONS**

In the writer’s opinion, the Rimrock property is of sufficient merit to justify the following two-phase exploration program.

### **26.1 GENERAL RECOMMENDATIONS**

It is imperative that a detailed geologic map of lithology, alteration and structures must be developed in order to properly interpret and define drill targets in conjunction with known geophysical surveys. Then drilling may commence to test the delineated gold-silver-tungsten targets.

### **26.2 PROPOSED EXPLORATION PROGRAM**

Phase 1 – work should comprise detailed geological mapping, additional surface geochemical sampling and additional geophysical surveys. This program is estimated to cost approximately US \$180,000.

Phase 2 – comprises a combination of diamond drilling, perhaps with reverse circulation pre-collar drillholes, of targets defined by Phase 1 work. The drill holes may be expected to reach vertical depths of 500 feet (150 m) up to 1,750 feet (530 m). It is estimated that a minimum of six holes, with a combined length of up to 7,000 feet (2,134 m), may be necessary. This program is estimated to cost approximately US \$590,000.

### **26.3 PROPOSED BUDGET**

Proposed Budgets for Phase 1 and Phase 2 (all currency is USD).

#### **PROPOSED BUDGET – Phase 1 – Exploration Program – Rimrock Project, Elko County, Nevada**

Project Preparation	\$	2,800
Mobe/Demobe (including freight, transportation and wages)	\$	8,000

<u>Field Crew</u>	<u>Rate</u>	<u>Days/Units</u>	<u>Gross</u>		
Project Geologist	\$ 650	30	\$19,500		
Geotechnician	\$ 300	30	<u>\$ 9,000</u>	\$	28,500

#### Field Costs

Lodging and Food	\$150	60	\$ 9,000
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Communications	\$ 15	60	\$ 900	
Supplies	\$ 25	60	\$ 1,500	
Shipping			\$ 200	
Vehicle Rental	\$135	30	\$ 4,050	
Other Rentals	\$ 25	30	<u>\$ 750</u>	\$ 16,400

Rock & Soil Sampling

Trace Elements	\$ 47	200		\$ 9,400
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Contracts

Consulting	\$650	10	\$ 6,500	
Drone Mag Survey			\$ 25,000	
Magnetics (report, Bolin)			\$ 3,500	
Gravity (Magee)			\$ 38,000	
Gravity (report, Bolin)			\$ 3,500	
IP (data)	\$2,750	2 miles	\$ 15,000	
IP (report, Bolin)			<u>\$ 3,500</u>	\$ 95,000

Final Report

Report Preparation and Editing			\$ 2,500	
Data Processing, Copying, Binding			<u>\$ 600</u>	\$ 3,100

Subtotal \$ 163,200

Contingency (10%) \$ 16,320

NET (rounded) \$ 180,000

**PROPOSED BUDGET, Phase 2, Exploration Program, Rimrock Project, Elko County, Nevada**

Project Preparation			\$ 3,600
Mobe/Demobe (including freight, transportation and wages)			\$ 8,000

<u>Field Crew</u>	<u>Rate</u>	<u>Days/Units</u>	<u>Gross</u>	
Project Geologist	\$ 650	36	\$ 23,400	
Geotechnician	\$ 300	36	<u>\$ 10,800</u>	\$ 34,200

Field Costs

Lodging and Food	\$150	72	\$ 10,800	
Communications	\$ 15	36	\$ 540	
Supplies	\$ 25	36	\$ 900	
Shipping			\$ 1,000	
Vehicle Rental	\$135	36	\$ 4,860	
Other Rentals	\$ 25	36	<u>\$ 900</u>	\$ 19,000

Assays & Analyses

Core Samples	\$ 47	1500		\$ 70,500
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Contracts

Site Preparation			\$ 10,000	
Drilling - Reverse Circulation	\$ 36/ft	1,500 ft	\$ 54,000	
Drilling – Diamond	\$ 55/ft	5,500 ft	\$302,500	
Dill Mobe/Demobe, Field costs			\$ 9,600	
Reclamation, including refundable Bond			<u>\$ 18,000</u>	\$ 394,100

Report

Report Preparation and Editing			\$ 3,750	
Data Processing, Copying, Binding			<u>\$ 600</u>	\$ 4,350

<u>Subtotal</u>				<u>\$ 533,750</u>
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Contingency (10%)				\$ 53,375
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NET (rounded)				\$ 590,000
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## **28.0 CERTIFICATES OF AUTHOR**

A. I, Gregory C. Ferdock, do hereby certify that:

1. I am a Consulting Economic Geologist whose principal contact is P.O. Box 769, Virginia City, Nevada 89440.
2. I graduated with a Bachelor of Science degree in Geology from Bloomsburg University of Pennsylvania in 1984. In addition, I obtained a Master's Degree in Geology from the Idaho State University in 1987. I attended MacKay School of Mines, on the campus of the University of Nevada Reno to work on a Ph.D. in Economic Geology after completing all classwork, several iterations of the dissertation and all requisite testing, re-entered industry prior to attaining the degree.
3. I am a member of the American Institute of Professional Geologists (CPG #11060).
4. I have worked as a professional geologist for a total of 37 years since my attendance at university. My career has focused on the exploration and exploitation of economic mineral deposits varying from precious to base metals and industrial minerals. I have worked extensively in Nevada including assignments as both an exploration and mine geologist throughout Nevada. I have completed NI 43-101 Technical Reports for projects in Nevada.
5. I have read the definition of "qualified person" in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I authored this Technical Report, and as a "Qualified Person" reviewed the ongoing exploration program of CAT Strategic Nevada Inc., now managed by Robert Rossner. I am responsible for the preparation of the technical report titled "Technical Report, Rimrock Property, Ivanhoe Mining District, Reno County, Nevada, USA" – dated April 15, 2021 - for CAT Strategic Nevada Inc., based upon my critical review of current and historical technical information and association to the project as a consulting geologist.
7. I visited the property most recently 11 February, 2021.
8. I am responsible for this report and the opinions expressed therein.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required

to be disclosed to make the technical report not misleading.

10. I am independent in all respects of the Rimrock property and of CAT Strategic Nevada Inc., the property owner and issuer, applying all of the tests in Section 1.5 of NI 43-101. I am and have only been a geological consultant to them and own no interest in the company or in the Rimrock property, nor have I ever owned such interests.

11. I have read National Instrument 43-101 and Form 43-101F1, updated June 30, 2011, and the Technical Report has been prepared in compliance with that instrument and form.

12. I consent to the use and public filing of this Technical Report prepared for Soloro Boss Metals Inc. and to the filing of extracts from or a summary of the Technical Report in the written disclosure of CAT Strategic Metals Corporation as required, and confirm that it fairly represents the data of the Rimrock project.

To: British Columbia Securities Commission:

I, Gregory C. Ferdock, do hereby consent to the public filing of technical report entitled Technical Report On The Rimrock Project, Elko County, Nevada, U.S.A. and dated April 15, 2021 (the "Technical Report") by CAT Strategic Metals Corporation (the "Issuer"), with the TSX Venture Exchange under its applicable policies and I acknowledge that the Technical Report will become part of the Issuer's public record.



"Gregory C. Ferdock", 15 April, 2021  
Signed and Dated this 15th day of April, 2021

## **29.0 GLOSSARY AND ABBREVIATIONS**

### **GLOSSARY**

Alluvium - Stream deposits of comparatively recent time.

Argillic - Pertaining to clay or clay minerals. Disseminated precious metal deposits may exhibit “argillic” alteration characterized by the formation of the clay minerals kaolinite and montmorillonite. Epithermal precious metal deposits may exhibit “advanced argillic” alteration characterized by the clays dickite, kaolinite and pyrophyllite.

Chalcedony - Quartz consisting of crystals that are extremely fine-grained. Grain texture is only visible using a microscope.

Colloform - A textural term applied to finely crystalline, concentric mineral layering. Individual layers commonly feature radial crystal growth (example: chalcedony).

Colluvium - Loose or incoherent deposits, usually at the foot of a slope or cliff and brought there chiefly by gravity.

Hydrothermal - An adjective applied to heated or hot aqueous-rich solutions, to the processes in which they are concerned, and to the rocks, ore deposits and alteration products produced by them.

Ignimbrite - A fine-grained rhyolitic tuff composed of viscous volcanic glass shards that when cooling wrapped around crystals of quartz, feldspar and occasionally amphiboles (hypersthene and/or hornblende) creating a “welded” texture.

Paleosurface - A ground surface that existed in the past.

Phenocrysts - The relatively large crystals in a porphyritic rock. Size usually indicates a longer growing time, so phenocrysts are generally the first minerals formed in magma.

Pluvial - Pertaining to deposits by rain water or ephemeral streams. Deposition due to the action of rain water.

Porphyritic - A textural term igneous rocks in which large crystals (phenocrysts) are set in a finer groundmass which may be crystalline, glassy or both.

Propylitic - Alteration characterized by the mineral assemblage chlorite + epidote + calcite. Due to the presence of the green minerals chlorite and epidote, propylitic alteration is usually easily recognized by its color. Often this zone is quite large, forming a halo around



mineralization centers.

Pyroclastic - A general term applied to volcanic materials that have been explosively or aerially ejected from a volcanic vent. Also, a general term for the class of rocks made up of these materials.

Sinter - A chemical sediment deposited by a mineral spring, either hot or cold.

Stockwork - A rock mass interpenetrated by small veins.

Subduction - Descent of one tectonic unit under another.

Vitrophyre - Porphyritic volcanic glass.

Xenolith - Rock fragments foreign to the body of igneous rock in which they occur; an inclusion.

## **ABBREVIATIONS**

\$	United States Dollar	MSL	Mean Sea Level
#	Number	MVT	Mississippi Valley Type
		MWMP	Meteoritic Water Mobility Procedure
µm	Micrometer(s)	N	North
°C	Degree Celsius	NA	Not Available/No Assay
°F	Degree Fahrenheit	NAD27	North American Datum 1927
2WD	Two Wheel Drive	NAD83	North American Datum 1983
4WD	Four Wheel Drive	NBMG	Nevada Bureau of Mines and Geology
AA	Atomic Absorption	NDEP	Nevada Department of Environmental Protection
ABA	Acid-Base Accounting	Ni	Nickel
		NEPA	National Environmental Policy Act
AEC	Atomic Energy Commission	NNP	Net Neutralization Potential
Ag	Silver	NOAA	National Oceanic and Atmospheric Association
AGP	Acid Generating Potential	NOI	Notice of Intent
a.k.a.	also known as	NOS	National Ocean Service
AMSL	Above Mean Sea Level	NP	Neutralizing Potential
ANP	Acid Neutralizing Potential	NPR	Neutralization Potential Ratio
AP	Acid Potential	opt	Ounces (troy) per (short) ton
APP	Acid Production Potential	oz/st	Troy ounces per short ton
ARD	Acid Rock Drainage	POO	Plan of Operations
Au	Gold	ppb	Parts Per Billion

AZ	Azimuth	ppm	Parts Per Million
BLM	U.S. Bureau of Land Management	QA/QC	Quality Assurance / Quality Control
Co	Cobalt	Q.E.D.	Quod Erat Demonstrandum (which was to be demonstrated)
Cu	Copper	Pb	Lead
Comp(s)	Composite(s)	PGMs	Platinum Group Metals
ea.	Each	S	South
Elev.	Elevation	SOP	Standard Operation Procedure
EPA	Environmental Protection Agency	SPCC	Spill Prevention Control and Countermeasures Plan
Ft (or ft)	Feet or Foot (measurement)	SRCE	Standard Reclamation Cost Estimator
ft <sup>2</sup>	Square Feet	st	Short Ton
ft <sup>3</sup>	Cubic Feet	SWPPP	Storm Water Pollution Prevention Plan
g	Grams	t	Short ton (2000 pounds = 0.90718474T)
g/t (or g/T)	Grams per (Metric) Tonne	T	(Metric) Tonne
GIS	Geographical Information Services	TD	Total Depth (drill holes)
GPS	Global Positioning System	Toz	Troy Ounces
ha	Hectare(s)	T/d	Tonnes per Day
ICP	Inductively Coupled Plasma	Tr	Trace
ID	Identification	UPS	United Parcel Service
in	inches	U.S.(US)	United States of America
JV	Joint Venture	USBM	United States Bureau of Mines
kg	Kilogram	USD	United States Dollars
lb	Pound	USFS	United States Forest Service
m	Meter(s)	USGS	United States Geological Survey
M	Million or Mega	UTM	Universal Transverse Mercator
Ma	Mega Annum (million years)	WGS84	World Geodetic Survey 1984
MDBM	Mount Diablo Base and Meridian	WWI	World War I (1914-1918)
mg/L	milligrams per liter	WWII	World War II (1939-1945)
mi	mile(s)	Zn	Zinc

## **APPENDIX A**

### **Claim Information**

### Claim Information - Ivanhoe Creek Property

CLAIM NAME	ORIGINAL LOCATION DATE	FILING NAME	FILE NO. BLM NV-	SECTIONS	TOWNSHIP	RANGE
IC No. 1	10-Feb-2021	R. R. Redfern	105229345	18	38N	48E
IC No. 2	11-Feb-2021	R. R. Redfern	105229346	17	38N	48E
IC No. 3	10-Feb-2021	R. R. Redfern	105229347	18,19	38N	48E
IC No. 4	8-Sep-2008	R. R. Redfern	101765904	17	38N	48E
IC No. 5	10-Feb-2021	R. R. Redfern	105229348	13;18	38N	47E;48E
IC No. 6	8-Sep-2008	R. R. Redfern	101657371	17	38N	48E
IC No. 7	10-Feb-2021	R. R. Redfern	105229349	13,24;18,19	38N	47E;48E
IC No. 8	8-Sep-2008	R. R. Redfern	101657372	17	38N	48E
IC No. 9	10-Feb-2021	R. R. Redfern	105229350	13	38N	47E
IC No. 10	19-Oct-2018	R. R. Redfern	101765905	17	38N	48E
IC No. 11	10-Feb-2021	R. R. Redfern	105229351	13,24	38N	47E
IC No. 12	19-Oct-2018	R. R. Redfern	101765906	17	38N	48E
IC No. 13	19-Oct-2018	R. R. Redfern	101765907	17,18	38N	48E
IC No. 15	19-Oct-2018	R. R. Redfern	101765908	8	38N	48E
IC No. 16	19-Oct-2018	R. R. Redfern	101766061	8;17	38N	48E
IC No. 17	11-Feb-2021	R. R. Redfern	105229352	8	38N	48E
IC No. 18	11-Feb-2021	R. R. Redfern	105229353	8,17	38N	48E
IC No. 19	11-Feb-2021	R. R. Redfern	105229354	8	38N	48E
IC No. 20	11-Feb-2021	R. R. Redfern	105229355	8,17	38N	48E
IC No. 21	19-Oct-2018	R. R. Redfern	101766062	17	38N	48E
IC No. 22	19-Oct-2018	R. R. Redfern	101766063	17,20	38N	48E
IC No. 23	9-Sep-2008	R. R. Redfern	101657373	17,20	38N	48E
IC No. 24	9-Sep-2008	R. R. Redfern	101657374	20	38N	48E
IC No. 25	9-Sep-2008	R. R. Redfern	101657375	17,20	38N	48E
IC No. 26	9-Sep-2008	R. R. Redfern	101657376	20	38N	48E
IC No. 27	9-Sep-2008	R. R. Redfern	101657377	17,20	38N	48E
IC No. 28	9-Sep-2008	R. R. Redfern	101657378	20	38N	48E
IC No. 29	10-Feb-2021	R. R. Redfern	105229356	20	38N	48E
IC No. 30	10-Feb-2021	R. R. Redfern	105229357	20	38N	48E
IC No. 31	14-Mar-2012	R. R. Redfern	101543796	7,18	38N	48E
IC No. 33	9-Sep-2008	R. R. Redfern	101656970	7,18	38N	48E
IC No. 35	9-Sep-2008	R. R. Redfern	101656971	18	38N	48E
IC No. 36	9-Sep-2008	R. R. Redfern	101656972	7,18	38N	48E
IC No. 37	14-Mar-2012	R. R. Redfern	101543797	7,8	38N	48E
IC No. 38	14-Mar-2012	R. R. Redfern	101543798	8	38N	48E
IC No. 39	14-Mar-2012	R. R. Redfern	101543799	7,18	38N	48E
IC No. 40	10-Feb-2021	R. R. Redfern	105229358	7,18	38N	48E
IC No. 41	14-Mar-2012	R. R. Redfern	101543800	7,18	38N	48E
IC No. 43	19-Oct-2018	R. R. Redfern	101766064	17;18	38N	48E
IC No. 44	19-Oct-2018	R. R. Redfern	101766065	17,18,19,20	38N	48E
IC No. 47	11-Feb-2021	R. R. Redfern	105229359	18	38N	48E
IC No. 48	11-Feb-2021	R. R. Redfern	105229360	17	38N	48E



IC No. 50	11-Feb-2021	R. R. Redfern	105229361	20	38N	48E
IC No. 53	10-Feb-2021	R. R. Redfern	105229362	18	38N	48E
IC No. 54	10-Feb-2021	R. R. Redfern	105229363	18,19	38N	48E
IC No. 55	10-Feb-2021	R. R. Redfern	105229364	18	38N	48E
IC No. 56	10-Feb-2021	R. R. Redfern	105229365	18,19	38N	48E
IC No. 57	10-Feb-2021	R. R. Redfern	105229366	18	38N	48E
IC No. 58	10-Feb-2021	R. R. Redfern	105229367	18,19	38N	48E
IC No. 59	10-Feb-2021	R. R. Redfern	105229368	18	38N	48E
IC No. 60	10-Feb-2021	R. R. Redfern	105229369	18,19	38N	48E
IC No. 61	10-Feb-2021	R. R. Redfern	105229370	18	38N	48E
IC No. 62	10-Feb-2021	R. R. Redfern	105229371	18,19	38N	48E
IC No. 63	10-Feb-2021	R. R. Redfern	105229372	18	38N	48E
IC No. 64	10-Feb-2021	R. R. Redfern	105229373	18,19	38N	48E
IC No. 65	10-Feb-2021	R. R. Redfern	105229374	18	38N	48E
IC No. 66	10-Feb-2021	R. R. Redfern	105229375	18,19	38N	48E
IC No. 67	10-Feb-2021	R. R. Redfern	105229376	18	38N	48E
IC No. 68	10-Feb-2021	R. R. Redfern	105229377	18,19	38N	48E
IC No. 69	11-Feb-2021	R. R. Redfern	105229378	8	38N	48E
IC No. 70	11-Feb-2021	R. R. Redfern	105229379	8,17	38N	48E
IC No. 71	11-Feb-2021	R. R. Redfern	105229380	8	38N	48E
IC No. 72	11-Feb-2021	R. R. Redfern	105229381	8,17	38N	48E
IC No. 77	11-Feb-2021	R. R. Redfern	105229382	8	38N	48E
IC No. 78	11-Feb-2021	R. R. Redfern	105229383	8	38N	48E
IC No. 81	11-Feb-2021	R. R. Redfern	105229384	8	38N	48E
IC No. 82	11-Feb-2021	R. R. Redfern	105229385	8	38N	48E
IC No. 83	11-Feb-2021	R. R. Redfern	105229386	8	38N	48E
IC No. 84	11-Feb-2021	R. R. Redfern	105229387	8	38N	48E
IC No. 85	11-Feb-2021	R. R. Redfern	105229388	8	38N	48E
IC No. 86	11-Feb-2021	R. R. Redfern	105229389	8	38N	48E
IC No. 87	14-Mar-2012	R. R. Redfern	101543801	8	38N	48E
IC No. 88	14-Mar-2012	R. R. Redfern	101543802	8	38N	48E
IC No. 89	14-Mar-2012	R. R. Redfern	101543803	8	38N	48E
IC No. 90	14-Mar-2012	R. R. Redfern	101543804	8	38N	48E
IC No. 91	9-Sep-2008	R. R. Redfern	101656973	8	38N	48E
IC No. 92	9-Sep-2008	R. R. Redfern	101656974	8	38N	48E
IC No. 93	8-Sep-2008	R. R. Redfern	101657364	8	38N	48E
IC No. 94	8-Sep-2008	R. R. Redfern	101657365	8	38N	48E
IC No. 95	8-Sep-2008	R. R. Redfern	101657366	7,8	38N	48E
IC No. 96	8-Sep-2008	R. R. Redfern	101657367	7,8	38N	48E
IC No. 97	14-Mar-2012	R. R. Redfern	101543805	17	38N	48E
IC No. 98	8-Sep-2008	R. R. Redfern	101657368	17	38N	48E
IC No. 99	9-Sep-2008	R. R. Redfern	101657369	17	38N	48E
IC No. 100	9-Sep-2008	R. R. Redfern	101657370	17	38N	48E
IC No. 102	14-Mar-2012	R. R. Redfern	101543806	7	38N	48E
IC No. 103	14-Mar-2012	R. R. Redfern	101545127	7	38N	48E
IC No. 104	14-Mar-2012	R. R. Redfern	101545128	7	38N	48E
IC No. 105	14-Mar-2012	R. R. Redfern	101545129	7	38N	48E

IC No. 106	14-Mar-2012	R. R. Redfern	101545130	7	38N	48E
IC No. 108	14-Mar-2012	R. R. Redfern	101545131	7	38N	48E
IC No. 148 Fraction	10-Feb-2021	R. R. Redfern	105229390	19,20	38N	48E
IC No. 149 Fraction	10-Feb-2021	R. R. Redfern	105229391	20	38N	48E
IC No. 150	10-Feb-2021	R. R. Redfern	105229392	20	38N	48E
IC No. 151	10-Feb-2021	R. R. Redfern	105229393	20	38N	48E
IC No. 152	10-Feb-2021	R. R. Redfern	105229394	20	38N	48E
IC No. 153	10-Feb-2021	R. R. Redfern	105229395	20	38N	48E
IC No. 154	10-Feb-2021	R. R. Redfern	105229396	20	38N	48E
IC No. 155	10-Feb-2021	R. R. Redfern	105229397	20	38N	48E
IC No. 156	10-Feb-2021	R. R. Redfern	105229398	20	38N	48E
IC No. 157	10-Feb-2021	R. R. Redfern	105229399	20	38N	48E
IC No. 158	10-Feb-2021	R. R. Redfern	105229400	20	38N	48E
IC No. 159	10-Feb-2021	R. R. Redfern	105229401	20	38N	48E
RMB #1	4-Nov-2005	Soloro Cobalt and Gold Corp.	101734616	17	38N	48E
RMB #2	4-Nov-2005	Soloro Cobalt and Gold Corp.	101734617	17	38N	48E
RMB #3	4-Nov-2005	Soloro Cobalt and Gold Corp.	101734618	17	38N	48E
RMB #4	4-Nov-2005	Soloro Cobalt and Gold Corp.	101734619	17	38N	48E
RMB #5	4-Nov-2005	Soloro Cobalt and Gold Corp.	101734620	17	38N	48E
RMB #6	4-Nov-2005	Soloro Cobalt and Gold Corp.	101734621	17	38N	48E
RMB #8	27-Oct-2005	Soloro Cobalt and Gold Corp.	101734622	17	38N	48E
RMB #9	27-Oct-2005	Soloro Cobalt and Gold Corp.	101734623	17	38N	48E
RMB #10	27-Oct-2005	Soloro Cobalt and Gold Corp.	101734624	17	38N	48E
RMB #11	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735645	17	38N	48E
RMB #13	4-Nov-2005	Soloro Cobalt and Gold Corp.	101735646	17,18	38N	48E
RIMRMB #1	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735647	18	38N	48E
RIMRMB #2	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735648	18	38N	48E
RIMRMB #3	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735649	18	38N	48E
RIMRMB #4	4-Nov-2005	Soloro Cobalt and Gold Corp.	101735650	18	38N	48E


RIMRMB #5	4-Nov-2005	Soloro Cobalt and Gold Corp.	101735651	18	38N	48E
RIMRMB #6	4-Nov-2005	Soloro Cobalt and Gold Corp.	101735652	18	38N	48E
RIMRMB #7	4-Nov-2005	Soloro Cobalt and Gold Corp.	101735653	18	38N	48E
RIMRMB #8	4-Nov-2005	Soloro Cobalt and Gold Corp.	101735654	18	38N	48E
RIMRMB #9	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735655	18	38N	48E
RIMRMB #10	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735656	18	38N	48E
RIMRMB #11	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735657	18	38N	48E
RIMRMB #12	27-Oct-2005	Soloro Cobalt and Gold Corp.	101735658	18	38N	48E
IC No. 226	10-Feb-2021	CAT Strategic Metals Corporation.	105229260	20	38N	48E
IC No. 227	10-Feb-2021	CAT Strategic Metals Corporation.	105229261	20	38N	48E
IC No. 228	10-Feb-2021	CAT Strategic Metals Corporation.	105229262	20	38N	48E
IC No. 229	10-Feb-2021	CAT Strategic Metals Corporation.	105229263	20	38N	48E
IC No. 230	10-Feb-2021	CAT Strategic Metals Corporation.	105229264	20	38N	48E
IC No. 231	10-Feb-2021	CAT Strategic Metals Corporation.	105229265	20	38N	48E

## **APPENDIX 2 – LABORATORY ASSAY CERTIFICATES**

### **INCLUDED RESULTS:**

**A0227718  
A0230313  
EL02006581  
EL03013432  
EL03038710  
EL03048427  
EL04053141  
EL18269901  
WN07053030  
WN07056006  
WN07059081  
WN07067510  
WN07082588  
WN07091102  
12-338-08679-01**

**A0227718**



**ALS Chemex**  
Chemex Labs, Inc.  
Analytical Chemists • Geochemists • Registered Assayers  
884 Glendale Ave., Unit 3,  
Sparks, NV 89411  
PHONE: 775-356-5385 FAX: 775-356-0179

To: REDFERN, RICHARD  
758 E. THORPE DR.  
SPRING CREEK, NEVADA  
89316, USA

Comments: ATTN: Rick Redfern

A0227718

**CERTIFICATE**      **A0227718**

(TCW) - REDFERN, RICHARD  
Project: ICROW  
P.O. #:  
Samples submitted to our lab in Elko, NV  
This report was printed on 18-NOV-2012.

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	DETECTION LIMIT	UPPER LIMIT
Au-ICP21	5	Au ppb: FA ICP package	1	10000
Hg-CV41	5	Hg ppb: HR03-HCl digestion	10	100000
Ag-MS61	5	Ag ppm: ICP + ICP-MS package	0.02	100.0
As-MS61	5	As ppm: ICP + ICP-MS package	0.2	10000
Ba-MS61	5	Ba ppm: ICP + ICP-MS package	0.5	10000
Be-MS61	5	Be ppm: ICP + ICP-MS package	0.05	10000
Bi-MS61	5	Bi ppm: ICP + ICP-MS package	0.01	10000
Ca-MS61	5	Ca %: ICP + ICP-MS package	0.01	25.0
Cd-MS61	5	Cd ppm: ICP + ICP-MS package	0.02	500
Ce-MS61	5	Ce ppm: ICP + ICP-MS package	0.01	500
Co-MS61	5	Co ppm: ICP + ICP-MS package	0.1	10000
Cr-MS61	5	Cr ppm: ICP + ICP-MS package	0.1	10000
Cu-MS61	5	Cu ppm: ICP + ICP-MS package	0.2	10000
Ga-MS61	5	Ga ppm: ICP + ICP-MS package	0.1	50.0
Ge-MS61	5	Ge ppm: ICP + ICP-MS package	0.05	500.0
Hf-MS61	5	Hf ppm: ICP + ICP-MS package	0.1	500
In-MS61	5	In ppm: ICP + ICP-MS package	0.005	500
K-MS61	5	K %: ICP + ICP-MS package	0.5	10000
La-MS61	5	La ppm: ICP + ICP-MS package	0.2	500
Li-MS61	5	Li ppm: ICP + ICP-MS package	0.01	15.00
Mg-MS61	5	Mg %: ICP + ICP-MS package	0.1	10000
Mn-MS61	5	Mn ppm: ICP + ICP-MS package	0.01	10000
Mo-MS61	5	Mo ppm: ICP + ICP-MS package	0.01	1000
Nb-MS61	5	Nb ppm: ICP + ICP-MS package	0.1	500
NI-MS61	5	NI ppm: ICP + ICP-MS package	0.2	10000
Na-MS61	5	Na %: ICP + ICP-MS package	10	10000
Ni-MS61	5	Ni ppm: ICP + ICP-MS package	0.5	10000
Pb-MS61	5	Pb ppm: ICP + ICP-MS package	0.002	50.0
Re-MS61	5	Re ppm: ICP + ICP-MS package	0.01	10.00
S-MS61	5	S %: ICP + ICP-MS package	0.05	1000.0
Se-MS61	5	Se ppm: ICP + ICP-MS package	0.05	1000.0
Si-MS61	5	Si ppm: ICP + ICP-MS package	1	1000
Sr-MS61	5	Sr ppm: ICP + ICP-MS package	0.2	500


METHOD CODE	NUMBER SAMPLES	DESCRIPTION	DETECTION LIMIT	UPPER LIMIT
FA-ICP	5	FA-ICP package	1	10000
AAS-FLAMELESS	5	AAS-FLAMELESS	0.02	100000
ICP-MS/ICP	5	ICP-MS/ICP package	0.02	100.0
ICP	5	ICP package	0.2	10000
ICP-MS/ICP	5	ICP-MS/ICP package	0.5	10000
ICP-MS/ICP	5	ICP-MS/ICP package	0.05	10000
ICP-MS/ICP	5	ICP-MS/ICP package	0.01	10000
ICP-MS/ICP	5	ICP-MS/ICP package	0.01	25.0
ICP-MS/ICP	5	ICP-MS/ICP package	0.02	500
ICP-MS/ICP	5	ICP-MS/ICP package	0.01	500
ICP-MS/ICP	5	ICP-MS/ICP package	0.1	10000
ICP-MS	5	ICP-MS package	0.1	10000
ICP	5	ICP package	0.2	10000
ICP-MS	5	ICP-MS package	0.1	50.0
ICP-MS	5	ICP-MS package	0.05	500.0
ICP-MS/ICP	5	ICP-MS/ICP package	0.005	500
ICP-MS/ICP	5	ICP-MS/ICP package	0.5	10000
ICP-MS	5	ICP-MS package	0.2	500
ICP	5	ICP package	0.01	15.00
ICP	5	ICP package	0.1	10000
ICP	5	ICP package	0.01	10000
ICP	5	ICP package	0.01	1000
ICP-MS	5	ICP-MS package	0.1	500
ICP-MS/ICP	5	ICP-MS/ICP package	0.2	10000
ICP-MS/ICP	5	ICP-MS/ICP package	10	10000
ICP-MS/ICP	5	ICP-MS/ICP package	0.5	10000
ICP-MS/ICP	5	ICP-MS/ICP package	0.002	50.0
ICP-MS/ICP	5	ICP-MS/ICP package	0.01	10.00
ICP-MS	5	ICP-MS package	0.05	1000.0
ICP-MS/ICP	5	ICP-MS/ICP package	1	1000
ICP-MS/ICP	5	ICP-MS/ICP package	0.2	500

**ANALYTICAL PROCEDURES 1 of 2**

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geologic materials collected by the prospective investor or by a third person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project

Statement required by Nevada State Law NRS 519





**ALS Chemex**  
 Chemex Labs, Inc.  
 Analytical Chemicals • Geochemists • Registered Assayers  
 884 Glendale Ave., Unit 3, Sparks, NV 89411  
 PHONE: 775-356-6385 FAX: 775-355-0179

To: REDFERN, RICHARD  
 768 E. THORPE DR.  
 SPRING CREEK, NEVADA  
 89615, USA  
 A0227718

Comments: ATTN: Rick Redfern

**CERTIFICATE**      A0227718

(TCW) - REDFERN, RICHARD  
 Project: ICROW  
 P.O.#:

Samples submitted to our lab in Elko, NV  
 This report was printed on 18-NOV-2002.

**SAMPLE PREPARATION**

METHOD CODE	NUMBER SAMPLES	DESCRIPTION
205	5	Geochem ring to approx 150 mesh
226	5	6-3 Kg crush and split
3204	5	Save 1 Kg reject for 30 days

**ANALYTICAL PROCEDURES 2 of 2**

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
Sr-MS61	5	Sr ppm: ICP + ICP-MS package	ICP-MS/ICP	0.2	10000
Th-MS61	5	Th ppm: ICP + ICP-MS package	ICP-MS	0.5	1000
Tb-MS61	5	Tb ppm: ICP + ICP-MS package	ICP-MS	0.05	500
Tm-MS61	5	Tm ppm: ICP + ICP-MS package	ICP-MS	0.2	500
Y-MS61	5	Y ppm: ICP + ICP-MS package	ICP-MS	0.01	10.00
Zr-MS61	5	Zr ppm: ICP + ICP-MS package	ICP-MS	0.1	500
U-MS61	5	U ppm: ICP + ICP-MS package	ICP-MS	0.1	10000
V-MS61	5	V ppm: ICP + ICP-MS package	ICP-MS/ICP	0.1	10000
Cr-MS61	5	Cr ppm: ICP + ICP-MS package	ICP-MS	0.1	10000
Ni-MS61	5	Ni ppm: ICP + ICP-MS package	ICP-MS	0.2	10000
Zn-MS61	5	Zn ppm: ICP + ICP-MS package	ICP-MS/ICP	0.5	500

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined by the qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519

Page Number : 11-A  
 Total Pages : 18  
 Date : 10/NOV/2002  
 Invoice No. : 10227718  
 P.O. Number :  
 Account : TCW

To: REDFERN, RICHARD  
 258 E. TORRE DR  
 59510, GARDNER, NEVADA  
 89415, USA  
 Project: ICRCW  
 Comments: ATTN: Rick Redfern


**ALS Chemex**  
 Chemex Labs, Inc.  
 Analytical Chemists • Geochemists • Registered Assayers  
 10400 S. 26th St., Suite 103  
 N94 Gardnerville, Utah, 89431  
 U.S.A.  
 PHONE: 775-356-5385 FAX: 775-356-0179



**CERTIFICATE OF ANALYSIS A0227718**

SAMPLE	PREP CODE	Au Ppb	Hg Ppb	Ag Ppm	Al %	As Ppm	Ba Ppm	Bi Ppm	Ca %	Cd Ppm	Co Ppm	Cr Ppm	Cs Ppm	Cu Ppm	Fe %	Ga Ppm	Ge Ppm	Hf Ppm		
		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP		
553352	205 226	< 1	28600	0.08	0.58	8.0	410.5	0.25	1.63	0.20	0.08	5.90	0.6	52	3.00	15.0	1.01	1.80	< 0.05	0.3
553353	205 226	< 1	100000	0.14	0.66	20.6	1059.5	0.30	1.18	0.24	0.26	13.90	3.2	74	1.40	30.4	2.80	6.00	< 0.05	0.1
553354	205 226	< 1	53800	0.12	0.64	73.2	2780	0.45	0.15	0.20	0.16	4.42	0.5	38	5.65	31.2	6.92	1.80	0.15	0.1
553355	205 226	< 1	1240	0.22	0.28	3.8	1106.5	1.05	0.35	0.38	0.06	63.0	1.3	91	0.60	11.8	1.32	20.55	0.05	0.3
553356	205 226	< 1	1240	0.22	0.28	3.8	1121.0	0.95	0.08	0.29	0.10	7.92	1.3	116	0.85	11.6	0.39	0.80	< 0.05	0.3

CERTIFICATION: *Redfern*



**ALS Chemex**  
 Analytical Chemists • Geochemists • Registered Assayers  
 994 Glendale Ave., Unit 3, Sparks, NV 89431  
 Nevada, U.S.A. PHONE: 775-366-5395 FAX: 775-365-0179

To: REDFERN, RICHARD  
 758 E. THORPE DR.  
 SPRING CREEK, NEVADA  
 89616, USA  
 Project: ICRW/  
 Comments: ATN: Rick Redfern

Page Number : 1-B  
 Total Pages : 1  
 Certificate Date : 18-NOV-2002  
 P.O. Number : 10227716  
 Account : TCW

**CERTIFICATE OF ANALYSIS**      A0227718

SAMPLE	PREP CODE	In ppm	K % (ICP)	Ca ppm (ICP)	Li ppm (ICP)	Hg % (ICP)	Mn ppm (ICP)	Mo ppm (ICP)	Ni % (ICP)	Nb ppm (ICP)	Na % (ICP)	P ppm (ICP)	Pb ppm (ICP)	Rb ppm (ICP)	Re ppm	S % (ICP)	Sb ppm (ICP)	Se ppm	Si ppm (ICP)	Sr ppm (ICP)	Tl ppm (ICP)	U ppm (ICP)	V ppm (ICP)	Zn ppm (ICP)	
153352	205 226	0.020	0.11	3.5	0.8	0.04	25	2.00	0.02	8.0	2.2	60	21.0	9.5	0.002	0.03	3.15	1	2.2	40.0					
153353	205 226	0.018	0.14	3.0	1.2	0.06	25	8.30	0.04	9.8	1.0	130	38.0	3.7	0.002	0.14	2.40	< 1	2.8	70.8					
153354	205 226	0.018	0.14	3.0	1.2	0.06	25	8.30	0.04	9.8	1.0	280	9.0	16.4	0.002	0.14	5.70	5	3.6	70.9					
153355	205 226	0.010	0.41	50.5	7.4	0.07	55	2.55	0.09	16.3	5.8	490	27.5	3.2	0.002	0.56	0.80	< 1	1.8	86.2					
153356	205 226	<	0.055	0.11	6.5	7.2	0.05	135	3.40	0.07	22.1	5.2	520	4.0	3.1	0.002	0.05	0.90	< 1	3.6	89.0				

CERTIFICATION: *[Signature]*



**ALS Chemex**  
 Chemex Labs, Inc. • Geochemists • Registered Assayers  
 5000 S. McCullough Blvd., Sparks, NV 89435  
 500 Glendale Ave., Unit 3, Sparks, NV 89435  
 Nevada, U.S.A. PHONE: 775-356-5385 FAX: 775-355-0179

To: REDFERN, RICHARD  
 758 E. THORPE DR.  
 WHEELEN, NEVADA  
 89815, USA

Project: ICRGW  
 Comments: ATTN: Rick Redfern

Page Number : 1-C  
 Page Pairs : 1  
 Certificate Date: 18-NOV-2002  
 Invoice No. : 10227718  
 Customer :  
 Account : TCW

**CERTIFICATE OF ANALYSIS**      **A0227718**

SAMPLE	PREP CODE	Th		U		V		W		Y		Zn		Zr	
		(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)
153352	205 226	< 0.05	< 0.05	2.4	0.23	0.16	4.0	21	1.8	7.9	18	24.5			
153353	205 226	< 0.05	< 0.05	1.0	0.20	0.28	8.9	216	4.5	9.6	24	20.0			
153354	205 226	< 0.05	< 0.05	13.0	0.13	0.08	6.5	26	1.9	13.9	10	18.0			
153355	205 226	0.20	0.05	4.8	0.12	0.06	6.1	29	3.7	5.0	0	0.5			
153356	205 226														

CERTIFICATION: *[Signature]*

**A0230313**

**ALS Chemex**  
 ALS USA Inc.  
 Analytical Chemists - Geochemists \* Registered Assayers  
 934 Glendale Ave., Unit 3,  
 Sparks, NV 89431  
 PHONE: 775-356-6388 FAX: 775-356-0178

To: REDFERN, RICHARD  
 758 E. THORPE DR.  
 SPRING CREEK, NEVADA  
 89815, USA  
 IC DTT IV-94-885 grad chips  
 A0230313  
 Comments: ATTN: Rick Redfern

**CERTIFICATE**      **A0230313**

(ICW) - REDFERN, RICHARD  
 Project: SPRINKLEPW

Samples submitted to our lab in Elko, NV  
 This report was printed on 07-JAN-2003.

METHOD NUMBER CODE	SAMPLES	DESCRIPTION
205	3	Geochem ring to approx 150 mesh
320	3	-3 2g crush and split
3204	3	Save 1 kg reject for 90 days

**ANALYTICAL PROCEDURES 1 of 2**

METHOD CODE	SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
Au-TC21	3	Au ppm: FA ICP package	FA-ICP	1	10000
Hg-CV41	3	Hg ppm: HMO3-ICP digestion	ICP-MS/ICP	0.02	10000
Ag-MS61	3	Ag ppm: ICP + ICP-MS package	ICP-MS/ICP	0.01	25.0
Al-MS61	3	Al %: ICP + ICP-MS package	ICP-MS/ICP	0.01	10000
As-MS61	3	As ppm: ICP + ICP-MS package	ICP-MS/ICP	0.2	10000
Ba-MS61	3	Ba ppm: ICP + ICP-MS package	ICP-MS/ICP	0.5	10000
Bi-MS61	3	Bi ppm: ICP + ICP-MS package	ICP-MS/ICP	0.01	10000
Ca-MS61	3	Ca %: ICP + ICP-MS package	ICP-MS/ICP	0.01	25.0
Co-MS61	3	Co ppm: ICP + ICP-MS package	ICP-MS/ICP	0.02	500
Cr-MS61	3	Cr ppm: ICP + ICP-MS package	ICP-MS/ICP	0.01	10000
Cu-MS61	3	Cu ppm: ICP + ICP-MS package	ICP-MS/ICP	0.01	10000
Fe-MS61	3	Fe %: ICP + ICP-MS package	ICP-MS	0.05	10000
Ga-MS61	3	Ga ppm: ICP + ICP-MS package	ICP-MS	0.01	25.0
Ge-MS61	3	Ge ppm: ICP + ICP-MS package	ICP-MS	0.05	500.0
Hf-MS61	3	Hf ppm: ICP + ICP-MS package	ICP-MS/ICP	0.1	500
Ir-MS61	3	Ir ppm: ICP + ICP-MS package	ICP-MS/ICP	0.005	500
K-MS61	3	K %: ICP + ICP-MS package	ICP-MS	0.01	10.00
La-MS61	3	La ppm: ICP + ICP-MS package	ICP-MS	0.5	500
Li-MS61	3	Li ppm: ICP + ICP-MS package	ICP-MS	0.1	1500
Mg-MS61	3	Mg %: ICP + ICP-MS package	ICP-MS	0.01	10000
Mn-MS61	3	Mn ppm: ICP + ICP-MS package	ICP-MS	0.05	10000
Nb-MS61	3	Nb ppm: ICP + ICP-MS package	ICP-MS/ICP	0.1	500
Ni-MS61	3	Ni ppm: ICP + ICP-MS package	ICP-MS/ICP	0.01	10.00
P-MS61	3	P ppm: ICP + ICP-MS package	ICP-MS	0.1	10000
Rb-MS61	3	Rb ppm: ICP + ICP-MS package	ICP-MS/ICP	0.5	10000
Re-MS61	3	Re ppm: ICP + ICP-MS package	ICP-MS/ICP	0.1	500
S-MS61	3	S %: ICP + ICP-MS package	ICP-MS/ICP	0.002	50.0
Sb-MS61	3	Sb ppm: ICP + ICP-MS package	ICP-MS/ICP	0.01	10.00
Se-MS61	3	Se ppm: ICP + ICP-MS package	ICP-MS/ICP	0.01	1000.0
Sn-MS61	3	Sn ppm: ICP + ICP-MS package	ICP-MS/ICP	0.1	500

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investor has been determined based on the results of assays of multiple samples of geologic materials submitted by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519





To: REDFERN, RICHARD  
 768 E. THORPE DR.  
 SPRING CREEK, NEVADA  
 89815, USA

A0230313

Comments: ATTN: Rick Redfern

**CERTIFICATE** A0230313

(TCW) - REDFERN, RICHARD  
 Project: SPRINKLE/PW

Samples submitted to our lab in Elko, NV  
 This report was printed on 07-JAN-2003.

**SAMPLE PREPARATION**

METHOD NUMBER CODE	NUMBER SAMPLES	DESCRIPTION
205	3	Geochem ring to approx 150 mesh
226	3	0-3 Kg crush and split
3204	3	Save 1 Kg reject for 90 days

**ANALYTICAL PROCEDURES 2 of 2**

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
Sr-MS61	3	6r ppm: ICP + ICP-MS package	ICP-MS/ICP	0.2	10000
Te-MS61	3	Te ppm: ICP + ICP-MS package	ICP-MS	0.05	100.0
Ta-MS61	3	Ta ppm: ICP + ICP-MS package	ICP-MS	0.05	100.0
Tl-MS61	3	Tl ppm: ICP + ICP-MS package	ICP-MS	0.01	500
Tl %	3	Tl %: ICP + ICP-MS package	ICP	0.01	10.00
U-MS61	3	U ppm: ICP + ICP-MS package	ICP-MS	0.02	500
V-MS61	3	V ppm: ICP + ICP-MS package	ICP	0.1	500
W-MS61	3	W ppm: ICP + ICP-MS package	ICP-MS/ICP	0.1	10000
Y-MS61	3	Y ppm: ICP + ICP-MS package	ICP-MS	0.1	500
Zn-MS61	3	Zn ppm: ICP + ICP-MS package	ICP	0.2	10000
Zr-MS61	3	Zr ppm: ICP + ICP-MS package	ICP-MS/ICP	0.5	500

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geologic materials collected by the prospective investor or by a qualified person of the same caliber and based on an evaluation of all engineering data which is available concerning any proposed project.  
 Statement required by Nevada State Law NRS 519

**ALS Chemex**  
 ALS USA Inc.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 984 Glendale Ave., Unit 3, Sparks, NV 89431  
 Nevada, U.S.A.  
 PHONE: 775-356-5395 FAX: 775-355-0179

To: REDFERN, RICHARD  
 758 E. THORPE DR.  
 SPRING CREEK, NEVADA  
 89815, USA  
 Project: SPRINKLEPW  
 Comments: ATTN: Rick Redfern

Page Number : 1-A  
 Total Pages : 1  
 Certificate Date: 06-JAN-2003  
 Invoice No. : 10230313  
 A.C. Number :  
 Assay : TCW

**CERTIFICATE OF ANALYSIS**      **A0230313**

SAMPLE	PREP CODE	Au ppb ICP	Hg ppb ICP	Ag ppm (ICP)	Al % (ICP)	As ppm (ICP)	Ba ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cs ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	Ga ppm (ICP)	Ge ppm (ICP)	HF ppm	
153165	205 226	< 1.0	0.02	0.05	0.58	1.0	578.1	1.80	0.19	0.13	0.02	14.50	0.6	47	1.25	4.8	0.26	2.95	0.05
153166	205 226	4	200	0.02	0.58	1.0	578.1	1.80	0.19	0.13	0.02	14.50	0.6	47	1.25	4.8	0.26	2.95	0.05
153166	205 226	72	1060	0.02	0.11	20.0	315.5	0.05	< 0.01	> 25.0	0.36	1.26	1.7	4	0.15	3.2	0.38	0.10	< 0.1

CERTIFICATION: \_\_\_\_\_

Page Number : 1-B  
 Total Pages : 1  
 Analyze Date : 15 JAN 2003  
 Invoice No : 10220313  
 P.O. Number :  
 Account : TCW

To: REDFERN, RICHARD  
 769 E. THORPE DR  
 VIRGINIA CITY, NEVADA  
 89415, USA  
 Project: SPRINKLEFW  
 Comments: ATTN: Rick Redfern

**ALS Chemex**  
 ALS USA Inc.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 Sparks  
 994 Glendale Ave., Unit 3,  
 Nevada, USA  
 PHONE: 775-356-5395 FAX: 775-356-0179

**CERTIFICATE OF ANALYSIS A0230313**

SAMPLE	PREP CODE	In ppm	K % (ICP)	Ca ppm (ICP)	Li ppm (ICP)	Mg % (ICP)	Mn ppm (ICP)	Mo ppm (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Se ppm (ICP)	Sr ppm (ICP)	S % (ICP)	Te ppm (ICP)	Zn ppm (ICP)				
11794-885	205 226	0.005	0.07	12.0	2.0	0.05	35	4.15	0.03	14.2	2.2	10	9.0	3.7	< 0.002	0.03	0.60	< 1	2.8	37.0
113365	205 226	0.060	0.12	4.5	9.8	0.06	3070	4.45	0.02	2.1	14.0	100	2.5	4.8	< 0.01	0.40	< 1	0.2	18.8	
113366	205 226	< 0.005	0.04	0.5	2.0	6.49	350	0.75	0.02	0.3	2.4	90	3.5	1.3	< 0.002	0.05	5.85	< 1	< 0.2	95.2

CERTIFICATION: \_\_\_\_\_




Page Number : 1-C  
 Pages : 1  
 Certificate Date: 06-JAN-2003  
 Invoice No. : 10230313  
 Order Number :  
 Account : TCW

To: REDFERN, RICHARD  
 768 E. THORPE DR.  
 SPRING CREEK, NEVADA  
 89615, USA

Project: SPRINKLE PAV  
 Comments: ATTN: Rick Redfern

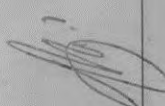
**CERTIFICATE OF ANALYSIS**  
 A0230313



**ALS Chemex**  
 ALS USA Inc.  
 Analytical Chemists • Geochemists • Registered Assayers  
 904 Glendale Ave., Unit 3,  
 Nevada, U.S. 89431  
 PHONE: 775-396-5385 FAX: 775-355-0179

SAMPLE	PREP CODE	Ta ppm		Tb ppm		Tc ppm		Ti %		Tl ppm		U ppm		V ppm		W ppm		Y ppm		Zn ppm		Zr ppm	
		(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)	(ICP)
UV94-885	205	2.6	0.18	< 0.05	3.2	0.11	0.18	20.2	8	1.4	4.1	4	101.5										
153365	205	2.6	< 0.05	< 0.05	1.0	< 0.01	0.04	8.8	40	0.5	0.8	48	13.5										
153366	205	2.6	< 0.05	< 0.05	< 0.12	< 0.01	0.66	0.5	4	0.4	0.8	48	13.5										

CERTIFICATION: \_\_\_\_\_



**EL02006581**

**ALS Chemex**  
Chemex Labs, Inc.  
 EXCELLENCE IN ANALYTICAL CHEMISTRY  
 884 Gibraltar Avenue, Suite C  
 Sparks, NV 89411-4730 USA  
 Phone: 775.356.5395 Fax: 775.356.0179

To: **RMIC GOLD**  
**758 E. THORPE DR.**  
**SPRING CREEK NV 89815**

Page #: 1  
 Date : 17-Dec-2002  
 Account: TCW

**CERTIFICATE EL02006581**

Project : MISC  
 P.O. No:  
 This report is for 9 ROCK samples submitted to our lab in Elko, Nevada, USA on  
 2-Dec-2002.  
 The following have access to data associated with this certificate:  
 RICHARD REDFERN

To: **RMIC GOLD**  
**ATTN: RICHARD REDFERN**  
**758 E. THORPE DR.**  
**SPRING CREEK NV 89815**

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
AU-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
ME-MS61	47 element four acid ICP-MS	ICP-AES
ME-ICP611	ICP-AES elements for ME-MS61	ICP-MS
ME-MS611	ICP-MS elements for ME-MS61	ICP-MS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:



Page #: 2 - A  
 Total # of pages: 2 (A - D)  
 Date: 17-Dec-2002  
 Account: TCW

To: RMIC GOLD  
 758 E. THORPE DR.  
 SPRING CREEK NV 89815

**ALS Chemex**  
 EXCELLENCE IN ANALYTICAL CHEMISTRY  
 994 Glendale Avenue, Unit 3  
 Sparks Nevada 89431-5730 USA  
 Phone: 775 358 5395 Fax: 775 355 0179

Project: MISC *Sugarloaf IS, MR*

CERTIFICATE OF ANALYSIS EL02006581

Sample Description	Method Analyte Units LOR	WEL-21 Recvd Wt kg 0.02	Au-CP21 Au ppm 0.001	Hg-CV41 Hg ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 0.5	ME-MS61 Bi ppm 0.05	ME-MS61 Br ppm 0.01	ME-MS61 Cd ppm 0.01	ME-MS61 Ca ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	
153352		1.22	0.003	0.20	0.17	7.11	106.5	689	0.44	17365	0.14	0.10	76.0	4.4	66	0.14
153358		0.16	0.005	0.14	0.10	5.98	80.0	720	0.40	0.23	0.09	0.16	82.0	4.9	94	0.14
153359		0.38	0.002	40.2	0.16	0.22	8.0	580	0.40	0.17	0.10	0.04	2.21	0.8	87	1.03
153360		0.14	0.008	>100	0.11	2.74	4.6	87.7	0.68	0.45	-0.02	0.11	33.9	0.8	195	0.26
153361		1.10	0.005	0.65	0.16	5.18	10.3	590	2.08	0.13	0.03	0.30	70.9	0.4	53	0.55
153362		1.20	0.003	2.37	0.10	2.92	47.3	860	2.38	0.11	0.45	0.45	57.9	1.3	27	12.70
153363		0.62	<0.001	0.54	0.19	5.20	6.0	700	4.29	0.10	0.34	0.34	94.0	0.8	37	2.67
153364		1.30	0.001	0.35	0.11	3.11	5.8	770	2.48	0.08	0.07	0.62	21.3	0.8	96	1.69

Comments: REE's may not be totally soluble in MS61 method.

Page #: 2 - B  
 Total # of pages : 2 (A - D)  
 Date : 17-Dec-2002  
 Account: TCW

To: RMIC GOLD  
 758 E. THORPE DR.  
 SPRING CREEK NV 89815

**ALS Chemex**  
 EXCELLENCE IN ANALYTICAL CHEMISTRY

Chemex Labs, Inc.  
 994 Glendale Avenue, Unit 9  
 Sparks, NV 89411-5720 USA  
 Phone: 775.359.5395 Fax: 775.359.0179



Project : MISC

CERTIFICATE OF ANALYSIS EL02006581

Sample Description	Method Analyte Units LOR	ME-MS61 Cu ppm 0.2	ME-MS61 Fe % 0.01	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	ME-MS61 In ppm 0.005	ME-MS61 K ppm 0.01	ME-MS61 Ni ppm 0.5	ME-MS61 Rb ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm g	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.5
1533552		17.6	11.15	24.5	0.30	0.9	0.150	0.08	45.1	27.2	0.04	60	6.74	0.03	6.0	5.2
1533557		11.8	8.03	21.3	0.4	0.8	0.436	0.05	49.0	22.4	0.03	35	6.17	0.03	5.1	3.5
1533558		8.9	6.22	17.8	0.10	0.4	0.006	0.05	2.7	0.9	0.02	54	1.48	0.03	7.1	17.8
1533559		15.6	0.36	10.50	0.08	1.3	0.006	0.05	2.1	2.5	0.02	50	3.25	0.03	7.7	5.6
1533560					0.37	0.3	0.032	1.09	23.2	1.4	0.01	29	1.84	0.06	7.7	5.6
1533581		7.0	2.54	16.15	0.18	0.7	0.089	4.33	47.0	33.1	0.09	51	1.84	1.07	7.2	3.2
1533582		8.0	1.49	10.70	0.16	0.3	0.075	0.85	30.8	1.8	0.10	72	2.37	1.99	15.0	4.0
1533583		8.1	1.66	21.4	0.18	0.7	0.170	3.59	83.9	7.8	0.05	502	2.23	0.88	20.6	7.6
1533584		10.5	0.88	14.00	0.13	3.5	0.067	2.17	15.7	5.0	0.05	80				

Comments: REE's may not be totally soluble in MS61 method.

Page #: 2 - C  
 Total # of pages: 2 (A - D)  
 Date: 17-Dec-2002  
 Account: TCW

To: RMIC GOLD  
 758 E. THORPE DR.  
 SPRING CREEK NV 89815

**ALS Chemex**  
 EXCELLENCE IN ANALYTICAL CHEMISTRY



Chemex Labs, Inc.  
 20000 Lakeshore Blvd. S.  
 Sparks Nevada 89431-5730 USA  
 Phone: 775 358 5395 Fax: 775 358 0179

Project: MISC

CERTIFICATE OF ANALYSIS EL02006581

Sample Description	Method Analyte Units	LOI	P	Pb	ME-MS61	Rb	ME-MS61	Ro	ME-MS61	S	ME-MS61	Sb	ME-MS61	Se	ME-MS61	Sn	ME-MS61	Sr	ME-MS61	Ta	ME-MS61	Tb	ME-MS61	Ti	ME-MS61	Tl	ME-MS61	U	
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
153352			1430	32.3	1.1	0.003	0.24	4.33	7	2.0	1340	0.17	1.53	11.2	0.42	0.13	2.2												
153353			1440	28.9	1.2	0.003	0.20	3.76	12	1.8	1370	0.15	0.87	12.0	0.44	0.15	2.1												
153358			130	8.1	2.7	<0.002	0.02	0.07	<1	0.5	23.8	<0.05	<0.05	0.5	0.03	0.06	20.3												
153359			50	3.4	2.3	<0.002	0.02	0.05	1	1.9	15.3	<0.05	<0.05	1.3	0.13	0.03	4.0												
153360			720	14.2	5.1	<0.002	1.08	5.47	97	3.0	369	<0.05	<0.05	9.9	0.21	0.27	10.9												
153361			180	17.9	183.0	<0.002	0.10	0.60	2	2.7	42.7	<0.05	<0.05	18.8	0.21	0.42	4.2												
153362			220	14.4	98.6	<0.002	0.11	<0.05	1	1.4	68.8	<0.05	<0.05	8.2	0.09	0.37	10.2												
153363			90	32.8	119.0	0.003	0.01	<0.05	2	1.4	14.4	<0.05	<0.05	15.8	0.09	1.18	5.5												
153364			60	15.1	76.8	<0.002	0.02	<0.05	1	2.5	39.6	0.74	<0.05	7.8	0.07	0.50	2.8												

Comments: REE's may not be totally soluble in MS61 method.



Page #: 2 - D  
 Total # of pages : 2 (A - D)  
 Date : 17-Dec-2002  
 Account: TCW

To: RMIC GOLD  
 758 E. THORPE DR.  
 SPRING CREEK NV 89815

Project : MISC

CERTIFICATE OF ANALYSIS EL02006581

**ALS Chemex**  
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 Chemex Labs, Inc.  
 894 Glendale Avenue, Unit 3  
 Sparks, NV 89410, USA  
 Phone: 775.358.5285 Fax: 775.355.0179



Sample Description	ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61	
	V	W	Y	Zn	Zr	V	W	Y	Zn	Zr
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
153362	378	7.1	4.8	53	28.5					
153363	17	3.1	2.0	13	21.3					
153369	16	1.7	1.5	8	70.3					
153380	51	2.9	11.7	12	46.7					
153381	3	0.2	32.3	27	73.1					
153382	44	1.8	30.0	66	19.1					
153383	20	1.2	64.8	123	51.5					
153384	14	1.3	12.2	31	131.0					

Comments: REE's may not be fully soluble in MS61 method.

**EL03013432**

**ALS Chemex**  
EXCELLENCE IN ANALYTICAL CHEMISTRY  
ALS USA, Inc.  
864 Clendinning Avenue, Las Vegas, NV 89123, USA  
Phone: 775 885 5385 Fax: 775 355 0179

To: **RMIC GOLD**  
758 E. THORPE DR.  
SPRING CREEK NV 89815

Page #: 1  
Date : 8-May-2003  
Account: TCW

**CERTIFICATE EL03013432**

Project : IVANHOE/CORRIDORWSC  
P.O. No:  
This report is for 3 ROCK samples submitted to our lab in Elko, Nevada, USA on 29-Apr-2003.  
The following have access to data associated with this certificate:  
RICHARD REDFERN

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rod w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Hg-OV41	Trace Hg - cold vapor/AAS	FIMS
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-MS61	47 element four acid ICP-MS	

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be based on the results of this assay. The results of this assay are preliminary and are not intended to be used for the purpose of making any investment decision. The results of this assay are preliminary and are not intended to be used for the purpose of making any investment decision. The results of this assay are preliminary and are not intended to be used for the purpose of making any investment decision. The results of this assay are preliminary and are not intended to be used for the purpose of making any investment decision. Statement required by Nevada State Law NRS 519.

To: **RMIC GOLD**  
ATTN: RICHARD REDFERN  
758 E. THORPE DR.  
SPRING CREEK NV 89815

*Richard Redfern*  
**Signature:**

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.



Page #: 2 - A  
 Total # of pages : 2 (A - D)  
 Date : 8-May-2003  
 Account: TCW

To: RMIC GOLD  
 758 E. THORPE DR.  
 SPRING CREEK NV 88815

Project: IVANHOE/CORRIDOR/WSC

**ALS Chemex**  
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 994 Gardside Avenue, Unit 3  
 Sparks Nevada 89431-5730 USA  
 Phone: 775 356 5385 Fax: 775 356 0179



**CERTIFICATE OF ANALYSIS** EL03013432

Method Analyte Units LOR	WEL-21 Recvd Wt Kg 0.02	Au-ICP21 Au ppm 0.001	Hg-CV41 Hg ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Au ppm 0.5	ME-MS61 Ba ppm 0.05	ME-MS61 Bi ppm 0.05	ME-MS61 Br ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Co ppm 0.01	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	
153376	1.86	0.009	>100	0.35	0.67	8.2	670	1.27	0.35	0.10	0.09	0.09	12.35	1.1	245	8.35
153384	2.14	0.002	5.20	0.10	7.15	21.9	1190	0.59	0.47	0.22	0.15	0.15	106.5	10.8	18	0.72
WSC-1	1.04	0.001	0.65	0.07	6.31	3.3	990	3.95	0.07	0.20	0.07	0.07	190.5	0.4	6	2.20

Comments: REE's may not be totally soluble in MS61 method.

Page #: 2 - B  
 Total # of pages : 2 (A - D)  
 Date : 8-May-2003  
 Account: TCW

To: RMIC GOLD  
 758 E. THORPE DR.  
 SPRING CREEK NV 89815

Project : IVANHOE/CORRIDORWSC

CERTIFICATE OF ANALYSIS EL03013432

**ALS Chemex**  
 EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS USA Inc.  
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 Phone: 775 356 5385 Fax: 775 355 0179



Method	Analyte	Unit	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
Sample Description		LOR	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
			ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
153376			10.9	2.14	3.22	0.20	2.6	0.029	0.28	6.8	4.8	0.06	71	6.48	0.03	18.8	14.2
153304			14.6	4.91	19.95	0.24	2.4	0.071	2.31	52.7	4.7	0.02	35	5.15	0.34	9.0	3.8
MSC-1			5.7	1.69	27.2	0.14	6.2	0.130	2.74	50.1	7.9	0.02	47	3.16	1.66	43.5	3.5

Comments: REE's may not be totally soluble in MS61 method.

**ALS Chemex**  
EXCELLENCE IN ANALYTICAL CHEMISTRY  
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To: RMIC GOLD  
758 E. THORPE DR.  
SPRING CREEK NV 89815

Page #: 2 - C  
Total # of pages : 2 (A - D)  
Date : 8-May-2003  
Account: TCW

Project : IVANHOE/CORRIDOR/WSC

**CERTIFICATE OF ANALYSIS** EL03013432

Method Analyte Unit LOR	ME-MS61 P	ME-MS61 Pb	ME-MS61 Bi	ME-MS61 Rb	ME-MS61 Re	ME-MS61 S	ME-MS61 Sb	ME-MS61 Se	ME-MS61 Sn	ME-MS61 Sr	ME-MS61 Ta	ME-MS61 Te	ME-MS61 Th	ME-MS61 Tl	ME-MS61 U
Sample Description	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
153376	140	9.6	75.1	0.002	1.20	0.08	<1	5.2	30.2	1.09	-0.05	3.2	0.36	0.81	13.1
153377	2500	13.0	5.5	<0.002	4.87	0.57	4	1.5	1645	0.57	0.13	6.5	0.40	0.06	6.4
WSC-1	140	30.9	136.5	<0.002	0.60	0.03	1	4.9	46.4	2.10	-0.05	19.7	0.13	0.80	3.5

Comments: REE's may not be totally soluble in MS61 method.



Page #: 2 - D  
 Total # of pages: 2 (A - D)  
 Date: 8-May-2003  
 Account: TCW

To: RMIC GOLD  
 758 E. THORPE DR.  
 SPRING CREEK NV 89815

Project: IVANHOE/CORRIDORWSC

CERTIFICATE OF ANALYSIS EL03013432

**ALS Chemex**  
 EXCELLENCE IN ANALYTICAL CHEMISTRY

901 Cherokee Avenue, Unit 3  
 Sparks Nevada 89431-6730 USA  
 Phone: 775 356 5395 Fax: 775 355 0179



Sample Description	ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61	
	V	W	Y	Zn	Zr	ppm	ppm	ppm	ppm	ppm
1E33378	36	2.5	7.4	8	98.6					
1E33384	208	1.5	4.5	15	81.2					
WSC-1	7	1.6	38.1	37	169.0					

Comments: REE's may not be totally soluble in MS61 method.



**EL03038710**

Page #: 1  
Date : 7-Oct-2003  
Account: RELGEO

To: RELIANCE GEOLOGICAL SERVICES  
418 EAST 14TH STREET  
NORTH VANCOUVER BC V7L2N8

**ALS Chemex**  
EXCELLENCE IN ANALYTICAL CHEMISTRY  
ALS Canada Ltd.  
212 Brooksbank Avenue  
North Vancouver BC V7J 2C1 Canada  
Phone: 604 964 0221 Fax: 604 964 0218



**CERTIFICATE EL03038710**

Project : IVANHOE CREEK-RIMROCK  
P.O. No:  
This report is for 8 ROCK samples submitted to our lab in Elko, Nevada, USA on 29-Sep-2003.  
The following have access to data associated with this certificate:  
RICK REDFERN  
TONY SIMON

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter

ALS CODE	DESCRIPTION	INSTRUMENT
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-MS61	47 element four acid ICP-MS	

The results of this assay were based solely upon the content of the samples submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays made by a qualified professional. This report is for information only and does not constitute a contract. No liability is assumed by ALS Chemex for any loss or damage to the samples or for any delay in the completion of the analysis. This report is prepared by ALS Chemex and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519.

To: RELIANCE GEOLOGICAL SERVICES  
ATTN: RICK REDFERN  
758 E. THORPE DRIVE  
SPRING CREEK NV 89815 USA

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Page #: 2 - A  
 Total # of pages : 2 (A - D)  
 Date : 7-Oct-2003  
 Account: RELGEO

To: RELIANCE GEOLOGICAL SERVICES  
 418 EAST 14TH STREET  
 NORTH VANCOUVER BC V7L2N8

**ALS Chemex**  
 EXCELLENCE IN ANALYTICAL CHEMISTRY  
 ALS Canada, Ltd.  
 212 Brookbank Avenue  
 North Vancouver BC V7J 2C1 Canada  
 Phone: 604 984 0221 Fax: 604 984 0218

Project : IVANHOE CREEK-RIMROCK

**CERTIFICATE OF ANALYSIS** ELO3038710

Sample Description	Method Analyte Units LOR	WEL-21 Recvd Wt kg 0.02	Au-ICP21 Au ppm 0.001	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Bi ppm 0.01	ME-MS61 Br % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Co ppm 0.01	ME-MS61 Cr ppm 1	ME-MS61 Cu ppm 0.05	ME-MS61 Mn ppm 0.2
153374		1.13	0.004	0.30	8.13	9.8	210	0.56	0.59	0.27	110.0	2.7	18	7.22
153375		2.05	0.004	0.06	5.34	9.5	1080	0.23	0.47	0.27	75.5	1.0	28	7.5
153377		0.60	0.003	0.17	4.11	8.7	180	0.81	0.25	0.12	55.7	1.0	89	10.2
153378		0.50	0.005	0.31	4.95	10.8	300	0.17	0.26	<0.02	42.5	0.7	68	7.5
153383		2.42	0.001	0.09	8.80	22.0	160	<0.01	0.38	0.27	114.5	5.1	13	10.2
153387		1.90	0.002	0.11	0.59	9.9	840	0.38	0.14	0.15	6.76	0.9	41	2.85
10657		0.75	0.007	0.15	0.28	9.8	2610	0.43	0.14	0.15	8.13	0.4	212	0.35
MULE CANYON 1		0.75	7.65	63.5	3.01	1690	120	<0.01	14.20	0.28	21.1	16.2	24	1.39

Comments: Interference: Ca>10% on ICP-MS As ICP-AES results shown. REE's may not be totally soluble in MS61 method.

Page #: 2 - B  
 Total # of pages: 2 (A, D)  
 Date: 7 Oct 2003  
 Account: RELGEO

To: RELIANCE GEOLOGICAL SERVICES  
 418 EAST 14TH STREET  
 NORTH VANCOUVER BC V7L2N8

**ALS Chemex**  
 EXCELLENCE IN ANALYTICAL CHEMISTRY  
 ALS Canada Ltd.  
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 Phone: 604 984 0221 Fax: 604 984 0218



Project: IVANHOE CREEK-RIMROCK

**CERTIFICATE OF ANALYSIS** ELO3038710

Sample Description	Method Analyte Unit UR	ME-MS61 Fe % 0.01	ME-MS61 Ca ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	Hg-CV41 Hg ppm 0.01	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg ppm 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na ppm 0.01	ME-MS61 Ni ppm 0.1	ME-MS61 Pb ppm 0.2
153374		1.25	32.1	0.22	11.4	9.37	0.140	2.27	58.0	53.7	0.40	167	2.52	0.81	37.1	3.4
153375		1.80	25.1	0.19	1.7	26.4	0.077	1.87	31.4	60.9	0.33	217	3.22	1.05	17.0	5.6
153377		1.69	32.4	0.14	1.5	36.8	0.154	1.17	33.7	12.0	0.19	69	5.45	1.75	15.0	4.2
153378		1.02	27.5	0.16	2.4	0.53	0.104	3.00	22.6	22.2	0.06	102	5.59	0.31	6.7	2.9
153383		5.40	29.2	0.28	1.4	0.49	0.074	2.32	52.6							
153387		0.91	4.68	0.15	1.2	>100	<0.005	0.11	4.4	1.6	0.04	33	3.32	0.03	10.2	2.8
10957		1.40	1.18	0.07	0.1	24.4	0.079	0.06	5.5	3.9	0.05	117	4.44	0.03	0.6	7.6
MULE CANYON 1		15.25	10.30	0.72	2.3	22.3	0.047	0.46	10.4	10.8	0.41	1555	27.0	0.01	3.8	9.5

Comments: Interference: Cp>10% on ICP-MS As ICP-AES results shown. REE's may not be totally soluble in MS61 method.



Page #: 2 - C  
Total # of pages: 2 (A - D)  
Date: 7-Oct-2003  
Account: RELGEO

**ALS Chemex**  
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To: RELIANCE GEOLOGICAL SERVICES  
418 EAST 14TH STREET  
NORTH VANCOUVER BC V7L2N8

Project: IVANHOE CREEK-RIMROCK  
**CERTIFICATE OF ANALYSIS** EL03038710

Sample Description	Method Analyte Units LSN	ME-MS61 P ppm 10	ME-MS61 Pb ppm 0.5	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S% 0.01	ME-MS61 Sc ppm 0.05	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.2	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1
153374		740	32.4	131.5	0.003	2.98	6.32	8.0	383	2.05	-0.05	22.3	0.69	0.16
153375		250	28.8	134.7	0.003	0.35	1.47	8.1	125.0	0.09	-0.05	24.5	0.25	0.51
153377		120	38.9	13.4	0.003	2.44	1.59	3.9	299	-0.05	-0.05	8.1	0.05	0.81
153378		120	41.3	337	0.003	0.03	1.58	1	33.3	0.52	-0.05	6.0	0.05	1.38
153383		3710	12.8	14.6	0.002	3.88	0.57	1.6	1760	0.58	-0.05	6.0	0.38	0.05
153387		170	15.4	5.1	-0.002	0.13	4.04	5	73.3	0.17	-0.05	4.6	0.49	0.28
10857		140	7.4	2.6	0.004	0.08	0.93	2	47.3	-0.05	-0.05	2.0	0.22	0.05
MULE CANYON 1		1010	3.0	9.9	0.011	>10.00	595	139	216	0.65	-0.05	2.0	0.31	6.81


Comments: Interference: Ca>10% on ICP-MS As, CP-AES results shown. REE's may not be totally soluble in MS61 method.



Page #: 2 - D  
Total # of pages : 2 (A - D)  
Date : 7-Oct-2003  
Account: RELGEO

To: RELIANCE GEOLOGICAL SERVICES  
418 EAST 14TH STREET  
NORTH VANCOUVER BC V7L2N8

Project : IVANHOE CREEK-RIMROCK  
**CERTIFICATE OF ANALYSIS** EL03038710



**ALS Chemex**  
EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.  
212 Brookbank Avenue  
North Vancouver BC V7J 2C1 Canada  
Phone: 604 884 0221 Fax: 604 884 0218

Sample Description	MS-AES1		MS-AES1		MS-AES1		MS-AES1		MS-AES1	
	Method Units	Y	W	Y	Zn	Y	Zn	Y	Zn	
LCR	1	0.1	0.1	0.1	2	0.1	2	0.5	0.5	
153374	67	10.0	62.1	66	321					
153375	35	3.7	71.2	77	92.1					
153376	61	4.2	22.1	11	122.0					
153378	12	3.0	57.2	51	58.6					
153383	208	1.7	7.9	24	59.1					
153387	20	3.0	15.1	26	83.8					
10657	39	1.1	21.3	6	13.0					
MULE CANYON 1	115	2.7	17.2	108	80.6					

Comments: Interference: Ca>10% on ICP-MS As; ICP-AES results shown. REE's may not be totally soluble in MSF1 method.

**EL03048427**

To: SENATOR MINERALS INC.  
 418 E 14TH ST  
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 2103 Dollarton Hwy  
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Page: 1  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 28-NOV-2003  
 This copy reported on  
 26-APR-2021  
 Account: TCA



**CERTIFICATE EL03048427**

Project: IC-WSC-WH

This report is for 5 samples of Rock submitted to our lab in Elko, NV, USA on 18-NOV-2003.

The following have access to data associated with this certificate:

WAYNE FRITZ

RICK REDFERN

**SAMPLE PREPARATION**

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250µ 85% <75 µm

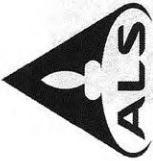
**ANALYTICAL PROCEDURES**

ALS CODE	DESCRIPTION	INSTRUMENT
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-M561	48 element four acid ICP-MS	

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assay of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 319.

*Saa Traxler*  
**Signature:** Saa Traxler, General Manager, North Vancouver

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.  
 \*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



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 Phone: +1 604 984 0221 Fax: +1 604 984 0218  
 www.alsglobal.com/geochemistry

To: SENATOR MINERALS INC.  
 418 E 14TH ST  
 NORTH VANCOUVER BC V7L 2N8

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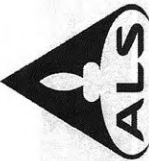
Project: IC-WSC-WH

**CERTIFICATE OF ANALYSIS EL03048427**

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg	Au-ICP21 Au ppm	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm
10866		1.14	0.004	0.06	0.21	33.0	1160	3.53	0.04	0.22	0.96	8.44	3.9	102	3.43	10.8
10867		0.58	0.003	0.14	4.82	5.5	130	0.74	0.20	0.12	0.02	65.8	0.5	18	1.07	7.9
10868		0.53	<0.001	0.07	3.35	24.2	640	1.10	0.23	0.44	0.17	43.0	1.8	47	0.63	9.3
10871		0.55	0.018	0.54	7.49	256	50	1.85	0.05	0.51	0.14	93.0	3.6	13	0.43	24.4
10872		0.24	0.004	0.29	0.39	3.9	440	0.20	0.19	0.06	<-0.02	9.75	0.6	104	0.95	7.6

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*





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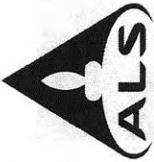
Project: IC-WSC-WH

**CERTIFICATE OF ANALYSIS EL03048427**

Sample Description	Method Analyte Units LOD	ME-M561 Fe %	ME-M561 Ga ppm	ME-M561 Ge ppm	ME-M561 Hf ppm	Hg-CV41 Hg ppm	ME-M561 In ppm	ME-M561 K %	ME-M561 La ppm	ME-M561 Li ppm	ME-M561 Mg %	ME-M561 Mn ppm	ME-M561 Mo ppm	ME-M561 Na %	ME-M561 Nb ppm	ME-M561 Ni ppm
10866		2.85	1.24	0.09	0.2	1.96	<0.005	0.11	7.6	8.4	0.06	4660	3.00	0.02	1.5	6.5
10867		0.70	19.10	0.27	15.8	>100	0.036	0.88	34.8	9.8	0.06	50	4.69	0.15	36.7	3.0
10868		3.71	6.61	0.14	0.6	1.19	0.015	3.93	21.7	44.7	0.16	172	3.96	0.17	6.1	4.1
10871		6.53	19.80	0.25	0.4	21.1	0.126	1.84	36.3	4.8	0.10	28	7.64	0.67	11.0	1.8
10872		0.52	3.02	0.30	4.2	>100	<0.005	0.07	5.0	4.9	0.04	30	3.85	0.03	13.0	6.8

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*





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 Account: TCA

Project: IC-WSC-WH

**CERTIFICATE OF ANALYSIS EL03048427**

Sample Description	Method Analyte Units LOD	P	Pb	Rb	Re	S	Sb	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
10866		530	4.9	9.7	<0.002	0.01	7.93	<1	0.3	41.6	<0.05	0.05	0.5	0.01	1.58	11.0
10867		130	25.4	22.1	<0.002	1.28	1.04	3	7.1	50.0	1.50	0.05	16.2	0.26	0.34	3.5
10868		750	12.2	109.5	<0.002	0.92	0.85	3	1.4	244	0.07	<0.05	10.1	0.51	0.45	3.5
10871		4680	12.4	32.4	<0.002	5.71	7.26	4	2.2	448	0.22	<0.05	5.2	0.89	0.44	3.5
10872		30	5.1	3.3	<0.002	0.08	4.14	<1	4.0	19.4	0.26	<0.05	3.2	0.28	0.05	5.1

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



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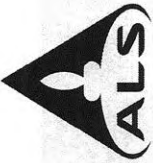
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 Finalized Date: 28-NOV-2003  
 Account: TCA

Project: IC-WSC-WH

CERTIFICATE OF ANALYSIS EL03048427

Sample Description	Method Analyte Units LOD	ME-MS61 V ppm	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm
10866		74	4.5	6.7	17	11.0
10867		15	3.7	27.4	15	467
10868		50	1.5	7.9	8	47.7
10871		374	3.2	69.1	35	32.3
10872		14	1.8	5.0	7	155.0

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 Account: TCA

Project: IC-WSC-WH

CERTIFICATE OF ANALYSIS EL03048427

<p>Applies to Method:</p>	<p><b>CERTIFICATE COMMENTS</b></p> <p><b>ANALYTICAL COMMENTS</b></p> <p>REEs may not be totally soluble in this method.                  ME-MS61</p>
---------------------------	--

# EL04053141

To: RELIANCE GEOLOGICAL SERVICES  
418 EAST 14TH STREET  
NORTH VANCOUVER BC V7L 2N8

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Total # Pages: 2 (A - D)  
Finalized Date: 23-AUG-2004  
This copy reported on  
26-APR-2021  
Account: RELGEO

## CERTIFICATE EL04053141

Project: IC

This report is for 14 samples of Rock submitted to our lab in Elko, NV, USA on 13-AUG-2004.

The following have access to data associated with this certificate:

WAYNE FRITZ  
TONY SIMON

ED HARRINGTON

RICK REDFERN

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250µ 85% <75 µm

### ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
AU-ICP22	Au 50q FA ICP-AES finish	ICP-AES
ME-MS41	Ultra Trace Aqua Reqla ICP-MS	

This results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim for deposit has been determined based on the results of multiple samples of geological materials collected by the prospective investor or by a qualified third party. The results of this assay are not intended to be used as a basis for any legal action concerning any proposed project. Statement required by Nevada State Law NRS 519

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Saa Traxler, General Manager, North Vancouver



# EL18269901

To: SOLORO COBALT AND GOLD CORP.  
 1982 RUBY VIEW DRIVE  
 ELKO NV 89801-2688

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 Reno NV 89502  
 Phone: +1 775 356 5395 Fax: +1 775 355 0179  
 www.alsglobal.com/geochemistry

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 Total # Pages: 2 (A - D)  
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 Finalized Date: 13-NOV-2018  
 This copy reported on  
 22-APR-2021  
 Account: OLDORO

**CERTIFICATE EL18269901**

Project: Hat Copper

This report is for 10 samples of Rock submitted to our lab in Elko, NV, USA on 25-OCT-2018.

The following have access to data associated with this certificate:  
 RICK REDFERN

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SND-ALS	Send samples to Internal laboratory
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250µ 85% <75 µm

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS61	48 element four acid ICP-MS	ICP-MS
Hq-MS42	Trace Hq by ICPMS	
Aq-OG62	Ore Grade Aq - Four Acid	ICP-AES
ME-OG62	Ore Grade Elements - Four Acid	
Cu-OG62	Ore Grade Cu - Four Acid	
AU-AA24	Au 50q FA AA finish	AAS

This results of this assay were based solely upon the sample submitted. No adjustment is made should be made only after the potential involvement value of the claim to deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and dated by an evaluation of all engineering data which is available concerning any proposed project. \*Statement required by Nevada State Law NRS 519.

*Saa Traxler*  
**Signature:** Saa Traxler, General Manager, North Vancouver

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.  
 \*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

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To: RELIANCE GEOLOGICAL SERVICES  
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 Finalized Date: 23-AUG-2004  
 Account: RELGEO

Project: IC

**CERTIFICATE OF ANALYSIS EL04053141**

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt kg	Au-ICP22 Au ppm	ME-MS41 Ag ppm	ME-MS41 Al %	ME-MS41 As ppm	ME-MS41 B ppm	ME-MS41 Ba ppm	ME-MS41 Be ppm	ME-MS41 Bi ppm	ME-MS41 Ca %	ME-MS41 Cd ppm	ME-MS41 Ce ppm	ME-MS41 Co ppm	ME-MS41 Cr ppm	ME-MS41 Cs ppm
335754		0.94	0.001	0.03	0.25	2.5	<10	270	0.83	0.44	0.63	0.15	37.9	1.3	87	0.95
335755		0.95	0.001	1.08	0.04	2.5	<10	110	1.06	0.48	0.02	0.11	4.52	<0.1	128	0.18
335761		0.78	<0.001	0.01	0.07	1.4	<10	380	0.12	0.22	0.02	0.02	1.8	0.8	112	0.14
335762		1.23	<0.001	0.11	0.06	8.7	<10	2000	0.15	3.67	0.04	0.06	10.25	0.5	124	0.07
335763		0.62	0.001	0.02	0.04	2.7	<10	220	0.12	0.04	0.02	0.03	6.97	0.4	54	0.1
335764		0.82	<0.001	0.02	0.15	52.6	<10	530	2.25	0.01	0.19	0.14	3.26	1.9	66	0.09
335765		0.62	0.008	0.01	0.07	10.7	<10	180	0.89	0.01	0.09	0.18	3.4	0.9	106	0.32
335766		0.52	<0.001	0.02	0.19	1	<10	60	0.08	0.12	0.12	0.02	6.2	0.3	39	0.46
335767		0.64	<0.001	0.04	0.19	8.4	<10	570	0.45	0.03	0.44	0.11	18.45	1.2	115	0.23
335768		0.67	<0.001	0.01	0.12	1.3	<10	820	0.16	0.07	0.05	0.05	4.92	1.2	150	0.12
335769		0.86	0.010	0.34	0.05	4.4	<10	2070	0.16	0.63	0.04	0.1	1.97	0.8	158	0.1
335770		0.99	0.001	0.1	0.16	2.6	<10	1550	0.19	0.12	1.04	0.01	3.1	1.2	148	0.23
335771		0.62	<0.001	0.02	0.03	3.9	<10	980	0.14	0.63	0.03	0.04	1.3	0.7	147	0.06
335772		1.14	0.016	1.4	0.09	<0.1	<10	1280	1.18	0.63	0.05	0.19	3.31	0.1	188	0.09

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Project: IC

Sample Description	Method Analyte Units LOD	CERTIFICATE OF ANALYSIS EL04053141														
		ME-MS41 Cu ppm	ME-MS41 Fe %	ME-MS41 Ca ppm	ME-MS41 Cr ppm	ME-MS41 Hf ppm	ME-MS41 Hg ppm	ME-MS41 In ppm	ME-MS41 K %	ME-MS41 La ppm	ME-MS41 Li ppm	ME-MS41 Mg %	ME-MS41 Mn ppm	ME-MS41 Mo ppm	ME-MS41 Na %	ME-MS41 Nb ppm
335754	8	0.58	0.21	1.6	0.08	0.75	0.36	0.14	0.11	19.8	10.8	0.25	130	4.18	0.06	3.05
335755	23.3	0.21	1.2	0.85	0.38	1105	<0.005	0.01	3.1	2.9	0.01	13	7.73	0.01	1.34	
335761	4	0.26	0.32	<0.05	0.18	4.18	<0.005	0.01	1.8	0.5	0.01	18	4.97	0.01	0.13	
335762	4.9	0.8	0.84	0.06	0.25	112.5	<0.005	0.03	8.9	0.5	0.01	44	2	0.01	0.23	
335763	2.2	0.47	0.31	<0.05	0.24	24.5	0.048	0.02	4.9	0.3	0.01	42	0.41	0.02	0.19	
335764	3.1	>15.0	2.5	0.49	0.21	3.58	0.006	0.03	2.8	1.9	0.03	221	1.94	0.02	0.12	
335765	2.3	1.82	0.33	0.21	0.08	1.13	<0.005	0.02	2.2	0.6	0.02	236	1.64	0.02	0.09	
335766	3	0.22	1.07	<0.05	0.79	1.36	0.014	0.06	3.5	0.3	0.03	11	0.92	0.02	0.1	
335767	2.5	0.71	1.06	0.05	0.21	25.6	0.011	0.08	12.8	1.5	0.03	503	1.12	0.03	0.19	
335768	4.7	0.31	0.48	<0.05	0.63	0.72	<0.005	0.03	4.5	0.4	0.01	103	4.17	0.02	0.13	
335769	5.9	0.69	0.69	0.11	1	605	<0.005	0.01	3.1	0.7	0.01	65	1.32	0.02	0.29	
335770	10.4	0.35	0.75	0.08	0.29	145.5	<0.005	0.03	3.8	1.5	0.04	61	5	0.02	0.23	
335771	4.3	0.76	0.46	<0.05	0.23	22	0.005	0.02	1.4	0.3	0.01	43	1.62	0.02	0.09	
335772	13.1	0.37	1.25	0.62	0.41	8390	<0.005	0.02	2.7	2.8	0.02	50	5.93	0.01	0.84	

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Sample Description	CERTIFICATE OF ANALYSIS EL04053141														
	ME-MS41 Ni ppm	ME-MS41 P ppm	ME-MS41 Pb ppm	ME-MS41 Rb ppm	ME-MS41 Re ppm	ME-MS41 S %	ME-MS41 Sb ppm	ME-MS41 Sc ppm	ME-MS41 Se ppm	ME-MS41 Sn ppm	ME-MS41 Sr ppm	ME-MS41 Ta ppm	ME-MS41 Te ppm	ME-MS41 Th ppm	ME-MS41 Tl %
335754	6.8	130	8.2	13.5	<0.001	0.03	0.31	1.1	0.9	5.9	38.3	0.01	0.02	13.8	0.012
335755	9.3	40	24.9	2.7	0.098	0.03	5.2	<0.1	38.9	5.9	24	<0.01	0.08	3.6	0.005
335761	6.1	20	4.6	1.2	<0.001	0.02	0.46	0.6	0.2	0.9	10.4	<0.01	0.01	0.4	0.005
335762	2.8	120	24.9	0.7	0.016	0.14	1.12	<0.1	2.5	4.4	51.6	<0.01	0.02	0.6	0.006
335763	1.5	30	6.3	0.9	<0.001	0.03	0.29	0.2	0.3	0.9	7.7	<0.01	0.01	1	0.006
335764	2.7	1140	3.9	1	<0.001	0.11	4.42	1.5	0.4	0.6	28.8	<0.01	0.01	0.4	0.02
335765	3.3	280	3.1	1.7	<0.001	0.03	4.55	0.5	0.2	0.2	12.4	<0.01	0.03	0.2	<0.005
335766	1.9	40	13	2.3	<0.001	0.04	0.21	1.2	<0.2	1.4	24.4	<0.01	0.02	1	0.005
335767	3.6	380	3	2.8	<0.001	0.1	0.79	1	0.6	0.5	36.8	<0.01	0.02	2.4	0.005
335768	6.8	100	5.4	1.2	<0.001	0.08	0.34	0.7	<0.2	0.7	21.4	<0.01	0.01	0.4	0.005
335769	5.6	50	23.1	1	0.009	0.09	1.3	1.3	3.3	1.7	33.6	<0.01	0.08	0.5	0.007
335770	8.1	90	6	2	0.011	0.06	0.74	0.5	2.6	1.4	64.2	<0.01	0.01	0.5	0.008
335771	3.8	40	15.6	0.6	<0.001	0.07	0.43	0.4	2.1	1.1	18.1	<0.01	0.02	0.2	0.005
335772	6.8	90	18.4	1.3	0.089	0.18	4.58	<0.1	30.8	7	29.5	<0.01	0.48	0.5	0.014



To: RELIANCE GEOLOGICAL SERVICES  
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 Total # Pages: 2 (A - D)  
 Finalized Date: 23-AUG-2004  
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CERTIFICATE OF ANALYSIS EL04053141

Sample Description	Method Analyte Units LOD	ME-MS41										
		Ti ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	0.5	24	0.5	
335754		0.32	2.51	9	1.72	53.8	42	24				
335755		<0.02	0.86	7	0.54	4.88	3	16.2				
335761		<0.02	1.14	9	0.17	1.88	2	11.4				
335762		0.04	2.48	22	0.54	5.61	5	10.9				
335763		<0.02	0.52	9	<0.05	5.98	5	8.7				
335764		<0.02	0.35	144	0.74	5.41	20	9.6				
335765		0.03	1.22	32	0.56	4.29	6	5.9				
335766		<0.02	1.18	8	<0.05	0.98	5	50.3				
335767		0.11	0.72	12	0.12	6.98	4	11.2				
335768		<0.02	1.18	8	0.21	2.89	3	32.8				
335769		<0.02	1.44	12	0.25	2.12	3	52.8				
335770		<0.02	0.5	14	0.24	3.02	4	14.6				
335771		0.07	1.39	15	0.09	1.72	3	13				
335772		<0.02	1.47	16	0.24	2.35	3	23.1				

# EL18269901

To: SOLORO COBALT AND GOLD CORP.  
1982 RUBY VIEW DRIVE  
ELKO NV 89801-2688

ALS USA Inc.  
4977 Energy Way  
Reno NV 89502  
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Page: 1  
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Account: OLDORO

## CERTIFICATE EL18269901

Project: Hat Copper

This report is for 10 samples of Rock submitted to our lab in Elko, NV, USA on 25-OCT-2018.

The following have access to data associated with this certificate:

RICK REDFERN

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample log/in - Rcd w/o BarCode
SND-ALS	Send samples to Internal laboratory
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250g 85% <75 um

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS61	48 element four acid ICP-MS	ICP-MS
Hg-MS42	Trace Hg by ICPMS	
Ag-OG62	Ore Grade Ag - Four Acid	ICP-AES
ME-OG62	Ore Grade Elements - Four Acid	
Cu-OG62	Ore Grade Cu - Four Acid	
Au-AA24	Au 50g FA AA finish	AAS

The results of this assay were based solely upon the content of the sample submitted. Any alteration to the sample should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified geologist. The results of this assay are not intended to be used for all purposes. All sampling data which is available concerning this project is available at [www.alsglobal.com](http://www.alsglobal.com). Statements required by Nevada State Law NRS 514

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.  
\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature: Saa Traxler, General Manager, North Vancouver

To: SOLORO COBALT AND GOLD CORP.  
 1982 RUBY VIEW DRIVE  
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Project: Hat Copper



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CERTIFICATE OF ANALYSIS EL18269901

Sample Description	Method Analyte Units LOD	ME-MS61													
		WEI-21 Recyd Wt. kg	Au-AA24 Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
14807		0.36	2.73	1.07	6.54	72.5	760	0.84	0.90	1.53	36.7	24.2	51	3.03	>10000
14803		1.44	0.22	79.6	4.76	74.1	870	1.03	0.25	0.96	40.4	4.1	6	5.63	149.5
14808		1.34	0.04	140	4.44	71.8	1520	1.14	0.20	0.30	54.2	2.5	8	7.24	114.5
14802A		1.08	2.22	6.80	5.99	89.3	1920	1.17	0.60	1.35	44.3	2.4	5	7.30	50.7
14801		1.42	0.031	1.44	7.02	25.9	1160	0.97	0.36	1.47	39.0	28.0	52	3.15	>10000
14804		2.10	0.007	0.12	2.84	14.4	80	1.23	0.09	0.02	41.7	15.7	28	2.19	136.0
14805		2.66	0.005	0.14	2.93	6.0	40	0.93	0.12	0.05	40.3	0.5	9	0.39	10.1
14806		1.36	0.024	0.19	3.25	14.2	190	2.38	47.0	0.08	25.1	0.9	9	0.33	25.6
10934		1.34	0.005	0.07	6.03	47.2	1270	2.74	0.31	0.15	80.9	28.7	7	0.95	47.1
											80.1	2.0	6	2.66	5.0

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

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Project: Hat Copper



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CERTIFICATE OF ANALYSIS EL18269901

Method Analyte Units LOD	ME-MS61 Fe %	ME-MS61 Co ppm	ME-MS61 Ni ppm	ME-MS61 Cu ppm	ME-MS61 Pb ppm	ME-MS61 Zn ppm	ME-MS61 Mn ppm	ME-MS61 K %	ME-MS61 Ca ppm	ME-MS61 Mg ppm	ME-MS61 Cl ppm	ME-MS61 S %	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm
14807	7.76	18.35	0.07	0.4	-0.005	0.622	3.51	18.9	16.9	3.89	0.91	0.01	4.34	2.30	6.6	42.7
14803	1.00	14.00	0.10	1.0	0.287	0.022	4.68	20.8	17.8	0.16	19.40	0.12	14.80	0.12	8.6	8.9
14808	0.71	12.55	0.09	0.7	1.050	0.019	3.52	27.2	42.6	0.15	4.11	0.15	5.66	0.08	8.1	6.4
14809	0.97	14.70	0.08	1.1	0.115	0.024	4.42	23.1	22.1	0.14	5.59	0.12	3.07	0.12	7.8	5.5
14802A	7.35	20.6	0.09	0.5	0.009	0.773	3.32	20.4	20.3	3.91	8.91	0.02	4.91	2.79	6.0	41.1
14801	3.50	17.10	0.10	1.3	0.007	0.061	2.60	20.5	15.8	1.40	5.31	0.05	2.80	2.24	5.9	25.0
14804	0.68	6.54	0.14	0.4	-0.005	0.060	0.37	18.4	8.3	0.05	5.7	0.04	0.47	1.72	6.7	2.7
14805	0.53	7.06	0.13	0.5	-0.005	0.028	0.19	10.9	9.5	0.04	1.39	0.04	0.41	1.81	3.8	2.5
14806	7.00	12.75	0.14	0.4	0.007	0.215	1.11	43.7	21.3	0.45	6.43	0.45	1.45	0.24	6.9	10.0
10934	1.86	18.85	0.16	7.2	6.02	0.148	0.69	44.9	33.9	0.05	7.2	0.05	1.10	0.36	29.4	2.7

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



To: SOLORO COBALT AND GOLD CORP.  
 1982 RUBY VIEW DRIVE  
 ELKO NV 89801-2688

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Project: Hat Copper



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CERTIFICATE OF ANALYSIS EL18269901

Sample Description	Method Analyte Units LOD	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Ta	Te	Th	Ti	Tl
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
14807		1680	22.1	207	0.008	0.07	0.56	10.4	2	3.7	422	0.33	1.10	0.05	4.04	0.490	0.40
14803		140	894	257	0.002	0.07	17.55	1.6	<1	0.4	438	0.55	<0.05	5.26	0.039	2.94	
14808		250	458	211	0.002	0.07	34.1	1.4	1	0.8	40.9	0.46	<0.05	4.78	0.030	1.96	
14809		130	275	247	0.002	0.07	7.80	1.6	1	0.3	47.6	0.89	0.06	5.83	0.040	2.61	
14802A		1510	74.7	178.5	0.008	0.05	0.58	10.5	1	3.8	47.2	0.53	0.89	4.21	0.492	0.34	
14801		790	20.5	86.2	<0.002	0.04	0.47	8.6	3	0.6	57.5	0.48	0.07	6.39	0.335	0.73	
14804		70	6.0	28.3	<0.002	0.01	0.46	1.5	<1	1.1	62.2	0.16	<0.05	14.70	0.060	0.10	
14805		40	6.6	16.9	<0.002	0.01	0.35	0.8	<1	0.5	51.9	0.22	<0.05	6.52	0.027	0.07	
14806		220	36.6	86.9	<0.002	0.01	0.37	2.7	1	1.7	21.4	0.37	0.21	12.90	0.053	0.31	
10934		320	19.6	59.0	<0.002	0.24	5.70	5.3	<1	4.3	150.0	2.02	<0.05	16.20	0.124	0.38	

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 Plus Appendix Pages  
 Finalized Date: 13-NOV-2018  
 Account: OLDORO

Project: Hat Copper

CERTIFICATE OF ANALYSIS EL18269901

Sample Description	Method Analyte Units LOD	ME-MS61											Ag-OGR2		Cu-OC62			
		U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	Ag ppm	Cu %	Ag ppm	Cu %	Ag ppm	Cu %	Ag ppm	Cu %			
14807		3.3	156	1.2	13.5	604	11.7										1.255	
14803		2.3	17	1.1	13.5	674	21.7											
14808		1.9	43	1.0	15.6	250	15.8										163	
14809		2.6	13	1.0	13.8	360	27.8											
14802A		6.1	163	1.7	16.3	664	14.5										0.984	
14801		1.9	101	1.5	13.8	101	33.2											
14804		1.2	6	0.4	6.1	8	8.1											
14802		7.1	47	3.0	22.7	116	11.0											
10934		9.8	50	2.4	33.1	28	233											

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 Finalized Date: 13-NOV-2018  
 Account: OLDORO

Project: Hat Copper

CERTIFICATE OF ANALYSIS EL18269901

CERTIFICATE COMMENTS	
Applies to Method: ME-MS61	REEs may not be totally soluble in this method.  ANALYTICAL COMMENTS
Applies to Method: AU-AA24	Processed at ALS Reno located at 4977 Energy Way, Reno, NV, USA.  LABORATORY ADDRESSES
Applies to Method: CRU-31 PUL-QC	Processed at ALS Elko located at 1345 Water St., Elko, NV, USA CRU-QC SND-ALS
Applies to Method: Ag-OC62 ME-OG62	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. Ag-OC62 Hg-MS42 Cu-OG62  PUL-31 WEI-21 ME-MS61

# WN07053030

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To: RELIANCE GEOLOGICAL SERVICES  
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## CERTIFICATE WN07053030

Project: Ivan Hoe Creek  
 P.O. No.:  
 This report is for 20 Drill Core samples submitted to our lab in Winnemucca, NV, USA on 25-MAY-2007.  
 The following have access to data associated with this certificate:  
 WAYNE FRITZ  
 ED HARRINGTON

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample Login - Rcd w/o BarCode
LOG-24	Pulp Login - Rcd w/o BarCode
PUL-OC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ALS CODE	DESCRIPTION
ME-MS61	48 element four acid ICP-MS
Hg-CV/41	Trace Hg - cold vapor/AAS
Au-ICP22	Au 50g FA ICP-AES finish
	FIMS
	ICP-AES

To: RELIANCE GEOLOGICAL SERVICES  
 ATTN: ED HARRINGTON  
 3476 DARTMOOR PLACE  
 VANCOUVER BC V5S 4G2

*Lawrence Ng*  
 Lawrence Ng, Laboratory Manager - Vancouver

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.



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Project: Ivanhoe Creek

Project: Ivanhoe Creek

Sample Description	Method Analyte Unit LOR	CERTIFICATE OF ANALYSIS WN07053030															
		WEI-21 Rec'd Wt. lg	Au-ICP22 Au ppm	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm		
785001		0.60	0.001	0.05	9.13	4.7	130	2.07	0.22	1.53	0.05	28.50	15.5	28	6.22	28.3	
785002		0.58	0.003	0.05	9.23	3.1	330	2.61	0.27	1.60	0.04	4.00	0.4	14	6.91	18.1	
785003		0.66	0.002	0.10	8.86	3.1	130	3.60	0.31	1.57	0.07	52.70	7.2	16	6.91	48.9	
785004		0.78	0.001	0.16	7.70	2.2	160	2.68	0.22	1.73	0.12	41.00	9.2	15	6.53	23.7	
785005		0.78	0.001	0.13	7.61	1.1	1270	1.63	0.01	1.08	0.03	62.00	4.9	3	7.03	3.8	
785006		0.72	0.001	0.08	7.34	2.7	1200	2.14	-0.01	1.38	0.05	60.80	4.1	2	13.40	4.0	
785007		0.84	0.054	0.51	7.85	35.5	910	1.61	-0.01	0.38	0.05	76.30	3.9	3	11.95	3.9	
785008		0.94	0.024	0.28	7.55	32.3	710	1.88	-0.03	0.36	0.07	74.00	2.9	2	14.65	4.4	
785009		0.76	0.083	0.77	7.35	72.2	1210	1.80	-0.01	0.33	0.08	70.80	4.0	3	11.05	4.3	
785010		1.86	0.035	0.30	7.77	40.9	1490	2.16	-0.01	0.41	0.27	70.60	4.5	3	15.95	4.3	
785111		0.86	<0.001	0.05	6.47	2.6	830	1.53	0.12	4.40	0.27	51.00	20.7	20	2.45	12.0	
785112		0.56	0.001	0.08	6.50	0.9	460	1.69	0.06	6.15	0.38	55.50	15.2	3	2.80	11.7	
785113		0.68	<0.001	0.08	6.62	2.5	170	3.54	0.27	2.07	0.26	83.30	9.3	4	4.01	6.1	
785114		0.69	0.001	0.07	6.47	7.9	620	2.59	0.15	3.49	0.26	65.70	15.7	9	3.11	10.5	
785115		0.69	0.001	0.08	6.45	3.1	190	3.10	0.30	1.99	0.41	74.70	6.3	3	4.03	10.6	
785116		0.66	0.001	0.07	7.60	4.1	370	3.45	0.29	1.81	0.22	104.00	8.4	6	3.26	15.0	
785117		0.72	0.001	0.08	7.51	0.4	1090	3.45	0.34	3.51	0.21	88.00	7.6	7	2.61	19.4	
785118		0.66	0.002	0.08	9.21	5.7	290	1.73	0.21	4.34	0.31	31.80	18.4	27	4.34	52.9	
785119		0.78	<0.001	0.07	8.06	1.2	1640	1.38	0.03	0.83	0.08	59.40	8.5	6	4.01	10.7	
78520		0.08	0.074														

Comments: REE's may not be totally soluble in MS61 method.

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Project: Ivan Hoe Creek

**CERTIFICATE OF ANALYSIS WN07053030**

Sample Description	ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81			
	Method Analyte Units LOR	Fe %	Ga ppm	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	As ppm	Br ppm	Cd ppm	Co ppm	Cu ppm		
78901		5.08	26.10	0.13	4.8	0.02	0.073	1.39	12.3	18.0	0.71	233	0.79	0.09	12.0	18.5								
78902		4.55	26.60	0.11	4.4	0.01	0.100	1.21	11.7	26.6	0.67	532	0.77	0.08	23.9	11.5								
78903		3.65	27.50	0.12	6.2	0.15	0.074	1.21	23.4	39.4	0.54	516	0.88	0.08	17.8	10.0								
78904		3.88	22.70	0.12	6.1	0.10	0.068	1.30	16.8	40.8	0.38	624	0.79	0.06	13.5	6.7								
78905		3.67	20.50	0.12	2.6	0.03	0.032	3.08	30.2	25.8	0.51	257	0.51	0.34	12.7	1.9								
78906		1.91	19.80	0.12	2.4	1.26	0.023	3.13	31.9	31.0	0.45	395	1.88	0.34	12.1	1.3								
78907		2.46	21.80	0.13	2.6	0.50	0.023	3.97	41.5	22.3	0.33	81	3.79	0.50	12.6	1.5								
78908		2.84	20.90	0.13	2.6	0.39	0.031	3.72	39.8	25.4	0.32	111	2.15	0.45	12.2	1.3								
78909		1.95	20.50	0.13	2.4	0.97	0.027	3.86	38.7	27.1	0.28	76	5.55	0.37	11.8	1.5								
78910		2.46	21.70	0.13	2.4	0.37	0.030	3.66	35.2	23.4	0.44	129	1.29	0.38	12.3	1.7								
78911		6.11	20.30	0.16	5.1	0.08	0.087	0.82	24.3	27.6	1.54	1500	0.39	0.08	11.8	7.6								
78912		5.98	20.80	0.16	5.1	0.08	0.077	1.45	26.4	19.2	1.46	1850	0.98	0.07	12.2	2.8								
78913		2.97	23.10	0.16	11.1	0.06	0.106	2.12	37.0	31.2	1.00	809	0.70	0.10	22.7	1.8								
78914		4.62	20.80	0.16	6.3	0.15	0.088	1.86	35.3	27.4	1.07	1760	4.01	0.08	14.7	7.0								
78915		3.55	22.20	0.15	7.9	0.10	0.093	2.43	36.8	30.5	0.81	1190	0.74	0.13	18.1	2.4								
78916		3.90	25.40	0.17	12.6	0.07	0.115	1.80	48.0	29.2	0.32	644	1.54	0.21	27.3	4.9								
78917		2.89	23.50	0.15	8.8	0.02	0.093	1.30	45.6	31.1	0.76	1240	0.71	0.12	23.8	6.2								
78918		4.96	25.90	0.12	4.8	0.01	0.067	1.45	13.1	33.7	0.59	1570	0.81	0.11	10.0	21.4								
78919		2.35	21.00	0.12	3.9	0.04	0.032	3.75	27.7	40.8	0.50	228	1.17	0.58	13.7	3.2								
78920																								

Comments: REE's may not be totally soluble in MS81 method.

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Project: Ivan Hoe Creek

**CERTIFICATE OF ANALYSIS WNO7053030**

Sample Description	ME-MSB1 P ppm 10	ME-MSB1 Pb ppm 0.5	ME-MSB1 Rb ppm 0.1	ME-MSB1 Re ppm 0.002	ME-MSB1 S %	ME-MSB1 Sb ppm 0.05	ME-MSB1 Sc ppm 0.1	ME-MSB1 Se ppm 1	ME-MSB1 Sn ppm 0.2	ME-MSB1 Sr ppm 0.2	ME-MSB1 Ta ppm 0.05	ME-MSB1 Te ppm 0.05	ME-MSB1 Th ppm 0.2	ME-MSB1 Ti ppm 0.05	ME-MSB1 Tl ppm 0.02
78901	1330	13.3	46.6	<-0.002	<-0.01	0.95	19.4	2	1.7	213.0	0.80	0.08	5.4	0.467	0.62
78902	180	18.5	43.3	<-0.002	0.01	0.91	14.5	2	3.3	215.0	1.50	0.08	7.4	0.482	0.60
78903	250	28.3	63.9	<-0.002	0.01	1.26	14.5	2	2.5	198.5	1.20	0.10	12.5	0.451	0.68
78904	220	20.1	54.1	<-0.002	<-0.01	1.44	12.1	2	2.0	182.5	0.87	0.09	8.5	0.451	0.59
78905	240	18.4	121.0	<-0.002	<-0.01	1.83	6.6	2	1.1	164.5	0.81	<-0.05	14.0	0.258	0.93
78906	520	22.2	137.0	<-0.002	0.13	4.54	5.9	2	0.7	118.5	0.78	<-0.05	13.0	0.233	0.67
78907	510	22.0	176.0	<-0.002	1.70	10.65	8.2	4	1.0	121.0	0.83	<-0.05	15.9	0.241	0.84
78908	460	18.6	173.0	<-0.002	1.79	10.75	5.9	3	0.9	114.0	0.82	<-0.05	15.2	0.232	0.91
78909	470	20.3	178.0	0.002	1.33	16.15	5.7	5	1.0	107.0	0.79	<-0.05	15.0	0.228	1.07
78910	580	20.6	173.5	<-0.002	0.84	11.40	5.6	3	1.2	124.5	0.81	<-0.05	14.6	0.253	0.95
78911	1100	9.7	43.6	<-0.002	0.06	0.55	24.7	3	1.9	187.0	0.69	<-0.05	6.8	0.682	0.31
78912	1900	10.1	90.6	<-0.002	0.02	0.65	24.9	3	1.9	186.0	0.70	<-0.05	6.1	0.686	0.33
78913	290	19.5	110.5	<-0.002	0.02	1.45	12.6	3	3.5	135.5	1.46	<-0.05	16.9	0.328	0.65
78914	890	16.0	108.0	0.004	0.13	0.88	20.7	3	2.4	155.0	0.86	<-0.05	9.8	0.642	0.79
78915	280	14.5	122.5	<-0.002	0.03	1.08	12.6	3	2.8	123.5	1.19	<-0.05	12.6	0.447	0.82
78916	220	18.9	96.3	<-0.002	0.11	0.78	13.9	3	3.7	154.0	2.00	<-0.05	19.2	0.375	0.71
78917	1700	20.1	64.3	<-0.002	0.04	0.52	10.7	3	3.8	144.5	1.62	<-0.05	16.3	0.349	0.48
78918	980	15.5	45.1	<-0.002	<-0.01	0.70	17.1	2	1.7	204.0	0.66	0.11	5.1	0.500	0.49
78919	150	21.0	132.0	<-0.002	0.03	0.59	11.0	2	1.0	162.0	0.92	<-0.05	14.0	0.274	0.98
78920															

\*Comments: REE's may not be totally soluble in MSB1 method.

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To: RELIANCE GEOLOGICAL SERVICES  
 418 EAST 14TH ST  
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Project: Ivan Hoe Creek

**CERTIFICATE OF ANALYSIS WND07053030**

Sample Description	ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81		ME-MS81	
	U	V	W	Y	Zn	Zn	Zn	Zn	Zn	Zn	Zn	Zn
Method Analyte Units LOR	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
78901	2.6	140	1.3	22.0	79	187.5						
78902	1.4	101	2.2	17.7	80	323.0						
78903	3.1	101	2.2	22.2	80	202.0						
78904	3.2	114	7.8	21.1	56	205.0						
78905	4.5	46	1.8	20.5	71	80.2						
78906	3.5	35	1.7	19.1	60	68.7						
78907	4.9	36	4.9	17.4	44	71.7						
78908	4.2	37	4.4	15.7	36	70.9						
78909	4.6	38	4.8	16.5	58	66.2						
78910	4.2	41	5.6	17.9	59	61.9						
78911	2.1	158	0.6	35.0	95	191.0						
78912	1.7	223	0.9	34.7	89	187.0						
78913	7.0	48	2.6	58.7	105	354.0						
78914	5.8	139	1.6	37.6	110	229.0						
78915	6.3	52	2.9	42.1	90	249.0						
78916	6.5	58	1.5	52.7	102	417.0						
78917	7.1	42	1.3	59.1	87	289.0						
78918	2.6	137	1.3	18.8	81	169.0						
78919	5.4	51	1.7	13.5	62	122.0						
78920												

Comments: REE's may not be totally soluble in MS61 method.



**WN07056006**

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**CERTIFICATE WN07056006**

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-22	Crushing QC Test
PUL-22	Pulverizing QC Test
LOG-24	Pulp Login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

Project: IVANHOE CREEK  
 P.O. No.:  
 This report is for 60 Drill Core samples submitted to our lab in Winnemucca, NV, USA on 18-JUN-2007.  
 The following have access to data associated with this certificate:  
 ED HARRINGTON

ALS CODE	DESCRIPTION	INSTRUMENT
AU-ICP22	Au 50g FA ICP-AES finish	ICP-AES
ME-MS61	48 element four acid ICP-MS	
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS

To: RELIANCE GEOLOGICAL SERVICES  
 ATTN: ED HARRINGTON  
 3476 DARTMOOR PLACE  
 VANCOUVER BC V5S 4G2

*Lawrence Ng*  
 Lawrence Ng, Laboratory Manager - Vancouver

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

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Project: IVANHOE CREEK

**CERTIFICATE OF ANALYSIS WN07056006**

Method Analyte Units LOR	WEI-ZI Reord WL 0.02	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
78939	0.56	0.08	6.36	3.2	320	0.94	0.05	6.79	0.21	35.60	23.4	67	3.92	14.0	5.68
78940	0.06	0.08	9.57	0.7	100	1.81	0.58	1.81	0.02	22.90	18.2	52	18.90	18.7	2.71
78941	0.72	0.07	7.12	1.6	640	0.84	0.01	3.86	0.09	33.00	25.7	80	3.19	11.4	5.62
78942	0.56	0.07	6.69	1.5	2090	0.59	-0.01	8.54	0.17	22.20	22.3	82	2.27	11.8	5.68
78943	0.66	0.21	7.18	2.9	70	2.08	0.15	2.53	0.24	75.50	17.9	28	3.04	17.1	4.98
78944	0.72	0.12	7.31	1.6	100	1.50	0.15	3.62	0.31	52.30	19.8	31	2.57	13.8	4.90
78945	0.54	0.12	6.97	2.9	100	1.05	0.11	4.87	0.38	64.70	18.6	40	1.26	13.4	4.09
78946	0.62	0.06	6.74	2.7	90	1.56	0.10	2.44	0.17	41.70	20.1	26	3.04	12.8	6.13
78947	0.56	0.16	7.74	2.0	1510	2.27	0.18	4.41	0.30	101.50	16.6	3	2.67	11.3	4.77
78948	0.64	0.09	5.97	2.4	490	2.58	0.18	1.13	0.12	54.80	13.4	9	3.50	7.7	4.14
78949	0.62	0.12	6.67	9.4	810	3.20	0.19	3.40	0.81	68.00	27.0	7	3.60	10.3	4.92
78950	0.72	0.15	7.19	3.4	230	3.01	0.53	1.88	0.16	96.00	17.7	7	3.07	10.0	3.98
78951	0.84	0.09	7.92	2.8	460	2.93	0.36	1.88	0.18	89.90	11.1	8	3.03	20.8	4.98
78952	0.88	0.12	8.83	1.6	370	2.69	0.26	2.45	0.21	65.10	13.6	13	4.89	33.8	4.86
78953	0.72	0.11	8.68	2.0	370	1.87	0.31	3.06	0.19	58.60	19.4	33	2.57	53.9	5.98
78954	0.74	0.12	8.91	2.3	320	1.46	0.16	3.41	0.07	26.20	16.9	26	3.98	74.2	4.41
78955	0.52	0.11	6.63	3.3	500	2.26	0.19	5.04	0.20	77.60	8.0	10	4.30	30.6	2.97
78956	0.66	0.11	8.11	1.5	2140	1.45	-0.01	1.75	0.03	67.90	4.8	3	3.03	6.3	2.19
78957	0.98	0.18	8.31	1.5	2860	1.63	-0.01	1.66	0.02	53.40	5.5	3	3.53	5.6	1.99
78958	1.28	2.00	5.98	20.2	640	2.02	0.11	0.49	0.25	61.10	9.2	48	6.68	74.1	1.99
78959	0.78	5.27	2.90	11.9	500	1.52	0.08	0.32	0.06	23.60	1.0	123	3.76	108.5	2.85
78960	0.06	0.05	9.71	0.5	100	1.64	0.86	1.82	-0.02	22.20	17.7	53	18.25	17.8	2.76
78961	1.50	2.83	0.82	9.4	420	0.38	0.02	0.07	-0.02	12.15	0.7	43	0.81	38.1	1.23
78962	1.40	4.47	0.97	15.8	470	0.70	0.04	0.05	0.09	20.80	0.8	77	1.32	55.9	1.46
78963	1.26	3.12	1.30	4.3	560	0.78	0.06	0.08	0.05	30.40	0.7	71	1.43	51.7	1.39
78964	0.74	2.13	4.01	8.2	960	1.08	0.01	0.25	0.06	42.50	2.7	39	5.83	27.9	1.53
78965	0.94	2.72	1.55	49.8	300	0.96	0.05	0.12	0.35	40.50	1.9	67	2.47	59.6	2.67
78966	0.86	2.55	1.15	15.9	470	0.62	0.03	0.10	0.14	31.30	1.6	53	1.73	47.8	1.54
78967	1.12	0.11	0.30	0.9	60	0.10	-0.01	0.01	-0.02	9.88	0.5	15	0.21	4.9	0.25
78968	1.48	0.44	5.48	2.8	1230	1.18	0.09	0.27	0.83	58.60	1.7	67	4.28	58.7	1.79
78969	1.06	0.20	5.72	3.0	1010	1.08	0.07	0.15	0.66	63.10	2.0	43	4.60	37.6	1.11
78970	1.04	0.24	6.22	1.2	2120	1.92	0.10	0.25	0.40	59.60	1.7	50	5.42	48.2	1.40
78971	0.56	0.20	6.12	3.9	620	2.56	0.07	0.13	0.74	49.30	4.7	46	14.70	85.2	3.51
78972	1.26	0.20	5.87	1.7	750	2.38	0.11	0.13	0.92	58.80	7.3	54	17.45	40.1	2.11
78973	1.04	0.26	5.46	2.5	1070	1.93	0.09	0.13	2.23	55.30	8.5	50	11.90	41.6	2.20
78974	0.96	0.18	5.48	2.2	800	2.09	0.09	0.15	1.05	55.10	10.3	48	10.30	45.2	2.05
78975	1.06	0.04	4.41	1.1	1140	1.52	0.08	0.10	1.27	48.90	12.0	31	8.29	54.7	1.93
78976	1.72	0.14	4.58	1.6	880	1.90	0.11	0.15	4.38	46.90	7.0	46	7.24	58.9	1.47
78977	1.34	0.07	3.57	1.0	990	1.02	0.07	0.14	15.10	39.10	5.7	24	3.13	19.4	1.08
78978	1.32	0.08	3.35	0.7	610	1.29	0.07	0.13	6.91	38.10	6.3	25	3.69	27.3	1.02

Comments: REE's may not be totally soluble in MS61 method.

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Project: IVANHOE CREEK

**CERTIFICATE OF ANALYSIS WN07056006**

Sample	Description	Method Analyte Units LOR	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 HI ppm 0.1	ME-MS61 Hg-CV41 Hg ppm 0.01	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10
78939			16.25	0.25	3.6	0.04	0.058	1.44	18.6	28.6	1.78	1610	0.44	0.08	7.6	8.8	1300
78940			24.10	0.17	2.1	<0.01	0.022	5.10	10.7	4.4	1.49	434	1.50	3.69	15.4	58.7	1150
78941			17.30	0.21	3.6	0.03	0.065	1.09	15.3	29.1	1.84	637	0.23	0.08	6.9	6.6	1160
78942			14.25	0.20	2.3	0.01	0.047	0.95	10.5	15.4	1.85	1690	0.23	0.07	4.5	10.5	1100
78943			22.30	0.22	10.3	0.04	0.111	0.73	34.9	29.0	1.80	149	0.64	0.15	18.5	7.0	760
78944			19.80	0.21	5.0	0.04	0.082	0.86	25.0	25.5	1.77	595	0.50	0.13	11.6	9.2	1110
78945			21.60	0.17	9.0	0.07	0.099	0.61	31.0	28.0	1.69	990	0.28	0.13	16.7	11.3	730
78946			20.50	0.21	5.3	0.07	0.087	1.20	19.9	26.0	1.80	555	1.16	0.13	10.3	6.3	700
78947			27.20	0.21	13.6	0.08	0.127	1.03	49.7	18.7	1.85	957	0.71	0.15	23.6	2.9	1050
78948			19.20	0.20	7.0	0.07	0.080	2.05	24.5	28.4	1.95	135	0.85	0.11	13.7	4.0	560
78949			19.50	0.21	6.6	0.14	0.084	1.87	34.4	24.2	1.00	1060	1.09	0.12	13.4	12.3	1930
78950			26.10	0.21	11.9	0.07	0.135	1.99	45.6	22.8	0.76	401	0.54	0.16	23.7	3.2	260
78951			24.00	0.20	5.8	0.07	0.095	2.58	38.9	21.1	0.76	592	0.80	0.24	19.8	4.9	260
78952			25.00	0.21	7.6	0.04	0.092	1.80	27.9	19.6	1.00	521	0.79	0.15	17.1	2.3	820
78953			23.50	0.21	7.3	0.06	0.104	1.03	27.8	22.6	0.99	538	0.93	0.14	15.6	22.0	630
78954			23.60	0.19	4.4	0.04	0.066	1.36	10.0	22.9	0.76	898	0.72	0.15	8.6	16.6	520
78955			22.80	0.21	5.9	0.14	0.062	1.01	54.4	27.3	0.83	1180	0.53	0.22	15.9	9.1	1000
78956			20.10	0.17	2.7	0.04	0.027	4.14	36.0	24.2	0.63	553	0.54	0.69	12.2	1.7	540
78957			21.40	0.16	2.9	0.09	0.037	4.14	28.5	18.4	0.74	397	0.35	0.50	12.6	1.7	570
78958			18.70	0.17	2.5	1.55	0.050	0.89	36.6	28.9	0.46	88	13.60	0.08	10.2	4.5	860
78959			14.35	0.20	1.7	0.39	0.036	1.01	18.7	18.7	0.35	305	7.19	0.07	7.7	5.8	1150
78960			23.50	0.18	2.1	<0.01	0.021	5.14	10.5	4.2	1.52	444	1.40	3.78	15.6	56.9	1170
78961			4.39	0.11	0.7	0.99	0.009	0.26	6.2	14.8	0.09	75	1.17	0.05	4.2	2.6	100
78962			6.62	0.13	1.0	0.95	0.017	0.36	12.2	11.6	0.10	35	2.88	0.05	6.1	4.3	210
78963			8.04	0.12	1.4	0.48	0.027	0.46	17.2	13.3	0.17	496	1.40	0.05	7.5	3.4	320
78964			12.35	0.16	1.8	0.60	0.017	1.56	23.7	15.3	0.28	103	4.08	0.19	8.4	2.7	390
78965			7.60	0.20	1.6	2.71	0.019	0.63	25.0	10.0	0.16	82	19.25	0.05	7.7	5.9	560
78966			5.20	0.15	1.2	1.87	0.014	0.47	17.7	9.8	0.11	108	6.67	0.04	6.2	3.8	450
78967			0.89	0.07	0.5	0.08	<0.005	0.12	5.8	1.5	0.02	20	0.68	0.02	0.8	2.2	50
78968			15.85	0.17	3.3	1.14	0.036	2.37	30.8	13.1	0.63	363	2.12	0.06	9.6	16.1	1120
78969			14.50	0.12	3.8	1.22	0.027	3.53	31.7	10.8	0.50	68	0.81	0.06	9.7	24.4	820
78970			15.85	0.13	3.2	1.18	0.037	2.52	30.5	13.2	0.57	25	0.70	0.06	10.0	32.7	1420
78971			13.85	0.17	2.7	0.07	0.034	2.33	25.5	13.6	0.53	35	2.11	0.06	8.8	89.6	410
78972			16.45	0.15	3.2	0.04	0.047	2.89	30.0	9.8	0.77	39	0.84	0.07	10.3	87.7	260
78973			15.05	0.16	2.7	0.07	0.036	2.79	28.7	11.6	0.70	44	1.11	0.07	9.4	92.3	290
78974			15.05	0.15	2.7	0.04	0.036	2.83	27.9	9.9	0.76	47	0.44	0.07	9.5	92.4	420
78975			11.65	0.10	3.3	0.04	0.023	2.51	24.9	10.7	0.86	40	0.37	0.06	7.1	90.2	270
78976			12.55	0.10	3.2	0.71	0.033	2.58	25.1	10.5	0.57	37	0.65	0.05	7.6	65.6	510
78977			8.70	0.08	3.1	0.65	0.019	2.09	21.1	10.8	0.43	28	0.38	0.05	5.4	60.1	540
78978			8.67	0.08	2.7	0.31	0.021	1.80	20.3	10.9	0.42	32	0.45	0.04	5.3	55.3	470

Comments: REE's may not be totally soluble in MS61 method.



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To: RELIANCE GEOLOGICAL SERVICES  
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Project: IVANHOE CREEK

**CERTIFICATE OF ANALYSIS WN07056006**

Sample Description	Method Analyte Units LOR	ME-MS61 Pb ppm	ME-MS61 Bi ppm	ME-MS61 Po ppm	ME-MS61 At ppm	ME-MS61 Th ppm	ME-MS61 Pa ppm	ME-MS61 U ppm	ME-MS61 Th ppm	ME-MS61 Pa ppm	ME-MS61 U ppm	ME-MS61 Th ppm	ME-MS61 Pa ppm	ME-MS61 U ppm
78539		5.8	73.3	-0.002	0.02	0.72	23.5	1	1.1	205.0	0.42	0.585	0.32	0.7
78540		23.8	770.0	-0.002	0.01	0.09	5.0	1	1.6	274.0	1.06	0.465	4.69	0.8
78541		4.8	59.4	-0.002	0.02	0.37	28.7	1	1.1	223.0	0.39	0.601	0.23	0.6
78542		3.1	48.7	-0.002	0.06	0.27	22.9	1	0.8	238.0	0.24	0.462	0.14	0.6
78543		15.8	42.6	-0.002	0.01	1.00	19.3	1	3.6	238.0	1.25	0.551	0.17	2.4
78544		12.6	38.6	-0.002	0.01	0.65	19.7	1	2.3	248.0	0.78	0.587	0.23	2.1
78545		11.8	19.4	0.002	0.04	0.73	21.4	1	2.8	233.0	1.03	0.489	0.22	5.0
78546		9.8	59.8	-0.002	0.01	0.64	25.6	1	1.8	212.0	0.67	0.665	0.30	1.2
78547		17.7	63.7	-0.002	0.07	0.87	18.5	1	3.9	242.0	1.59	0.638	0.30	5.5
78548		11.0	130.0	-0.002	0.02	1.38	12.8	1	2.5	127.0	0.93	0.546	0.48	2.4
78549		13.7	116.5	-0.002	0.16	1.08	15.3	1	2.2	169.5	0.92	0.581	1.23	3.6
78550		22.3	98.8	-0.002	0.05	1.04	7.4	1	3.9	162.5	1.65	0.289	0.74	6.2
78551		13.4	139.0	-0.002	0.02	0.90	14.4	1	2.8	166.0	1.38	0.605	0.66	4.2
78552		14.1	138.5	-0.002	0.01	0.57	17.2	1	2.6	226.0	1.16	0.648	0.61	2.8
78553		12.6	53.7	-0.002	0.01	0.51	16.0	1	2.3	254.0	1.03	0.30	0.39	1.7
78554		12.2	52.0	-0.002	0.01	0.45	13.6	1	1.5	242.0	0.91	0.480	0.42	0.8
78555		15.1	70.8	-0.002	0.06	0.85	18.9	1	1.9	252.0	1.13	0.490	0.56	7.7
78556		20.5	153.5	-0.002	0.14	0.99	5.3	1	0.4	192.0	0.84	0.264	0.74	3.7
78557		23.4	104.5	-0.002	0.08	0.75	5.3	1	1.7	221.0	0.87	0.271	0.82	3.4
78558		17.0	75.4	-0.002	1.05	8.22	8.4	7	1.5	91.5	0.87	0.255	1.13	6.8
78559		8.5	62.7	-0.002	1.39	10.50	7.4	21	1.0	106.5	0.47	0.166	0.51	6.7
78560		24.0	790.0	-0.002	0.01	0.08	4.8	1	1.5	278.0	1.13	0.471	4.74	0.8
78561		6.1	13.6	-0.002	1.09	7.65	2.8	5	0.3	50.7	0.15	0.048	0.46	1.5
78562		10.9	21.8	-0.002	1.35	11.35	5.2	7	0.4	63.9	0.26	0.16	0.31	0.68
78563		12.3	26.8	-0.002	0.38	5.60	6.2	5	0.6	62.0	0.32	0.26	0.31	4.0
78564		13.3	78.9	-0.002	0.64	6.37	5.5	3	0.6	88.8	0.48	0.12	0.58	3.8
78565		12.2	36.0	-0.002	2.63	12.10	5.9	5	0.6	104.5	0.39	0.088	1.35	6.7
78566		9.0	25.4	-0.002	1.38	8.57	3.6	8	0.4	89.6	0.30	0.076	0.82	5.2
78567		1.3	4.9	-0.002	0.05	0.60	0.5	1	-0.2	17.3	-0.05	0.022	0.04	0.7
78568		15.6	106.5	-0.002	0.16	4.23	7.1	2	1.7	120.5	0.63	0.280	0.59	4.8
78569		12.0	111.5	-0.002	0.08	3.61	6.7	2	1.6	118.0	0.66	0.275	0.58	4.2
78570		12.3	115.0	-0.002	0.09	5.79	9.1	3	1.7	239.0	0.66	0.269	0.47	3.6
78571		11.1	140.5	-0.002	0.01	16.35	7.7	2	1.5	62.5	0.59	0.267	1.74	3.6
78572		10.4	159.0	-0.002	0.01	4.54	9.6	1	1.8	63.4	0.71	0.288	0.81	3.0
78573		12.7	140.0	-0.002	0.01	4.00	8.1	2	1.5	66.9	0.63	0.258	0.82	2.7
78574		8.8	134.5	-0.002	-0.01	2.50	8.4	1	1.6	61.6	0.63	0.273	0.75	2.4
78575		6.7	111.5	-0.002	-0.01	1.34	7.2	2	1.2	52.6	0.49	0.215	0.69	2.1
78576		9.0	108.5	-0.002	0.05	1.74	8.0	3	1.3	55.4	0.53	0.219	0.71	3.5
78577		7.4	72.4	-0.002	-0.01	1.13	5.2	3	0.9	51.2	0.39	0.154	0.39	2.2
78578		6.5	69.2	-0.002	-0.01	1.03	5.5	3	0.9	45.3	0.39	0.158	0.37	2.5

Comments: REE's may not be totally soluble in MS61 method.



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Project: IVANHOE CREEK

CERTIFICATE OF ANALYSIS WN07056006

Sample Description	ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		Au-ICP22	
	V ppm	W ppm	Y ppm	Z ppm	Y ppm	Z ppm	Y ppm	Z ppm	Y ppm	Z ppm	Au ppm	Au ppm
78839	131	0.6	25.9	96	130.5	0.004						
78840	59	0.3	6.2	39	84.4	0.088						
78841	151	0.5	24.8	102	132.0	0.005						
78842	112	1.3	19.7	88	84.8	0.003						
78843	89	1.1	50.3	139	349.0	0.004						
78844	142	0.7	35.1	97	207.0	0.002						
78845	150	2.5	48.3	205	288.0	0.003						
78846	177	1.1	29.6	97	183.0	0.001						
78847	246	1.6	67.5	151	428.0	0.001						
78848	124	2.1	31.6	78	236.0	0.002						
78849	133	1.7	46.8	99	219.0	0.001						
78850	37	1.6	60.5	130	365.0	<-0.001						
78851	90	1.6	38.0	117	290.0	<-0.001						
78852	94	1.4	33.1	108	250.0	<-0.001						
78853	112	0.9	25.6	102	249.0	0.001						
78854	127	0.8	13.8	78	147.0	0.001						
78855	55	1.5	35.0	60	218.0	0.001						
78856	48	1.3	17.2	60	79.6	<-0.001						
78857	52	1.0	15.1	65	81.7	<-0.001						
78858	294	1.5	25.2	67	90.6	0.008						
78859	612	1.1	29.3	17	80.2	0.025						
78860	60	0.3	5.1	40	84.2	0.074						
78861	173	0.9	7.9	6	29.9	0.026						
78862	413	0.3	19.7	0	82.6	0.051						
78863	449	0.7	16.0	13	65.9	0.041						
78864	220	1.5	14.2	28	66.2	0.031						
78865	675	1.2	26.2	31	70.7	0.055						
78866	408	0.9	22.3	21	54.5	0.025						
78867	22	0.6	5.5	3	17.2	0.002						
78868	263	1.1	22.8	81	119.0	0.014						
78869	156	1.4	18.3	134	131.0	0.027						
78870	171	1.2	23.1	162	112.0	0.015						
78871	258	1.2	38.2	610	91.4	0.015						
78872	207	1.2	15.2	773	109.0	0.002						
78873	159	1.0	14.4	866	97.9	0.003						
78874	124	1.0	13.8	958	94.8	0.001						
78875	71	0.9	13.3	676	93.8	0.002						
78876	245	0.9	15.4	509	93.4	0.002						
78877	82	0.6	12.0	393	86.2	0.002						
78878	95	0.7	11.7	344	80.3	0.002						

Comments: REE's may not be totally soluble in MS61 method.

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Project: IVANHOE CREEK

**CERTIFICATE OF ANALYSIS WN07056006**

Method Analyte Unit LOR	WEI21 Rec'd Wt µg	ME-MSB1 Ag ppm	ME-MSB1 Al %	ME-MSB1 As ppm	ME-MSB1 Ba ppm	ME-MSB1 Be ppm	ME-MSB1 Bi ppm	ME-MSB1 Ca %	ME-MSB1 Cd ppm	ME-MSB1 Ce ppm	ME-MSB1 Co ppm	ME-MSB1 Cr ppm	ME-MSB1 Cs ppm	ME-MSB1 Cu ppm	ME-MSB1 Fe %
78879	1.38	0.15	5.61	1.1	900	1.99	0.13	0.19	5.10	65.20	9.7	48	6.84	63.6	1.62
78880	0.06	-0.01	9.70	0.5	90	1.68	0.66	1.81	0.04	26.30	16.7	47	18.85	17.1	2.66
78881	1.26	0.28	4.92	3.6	1080	1.52	0.11	0.15	9.71	54.30	12.0	46	3.40	35.8	1.90
78882	1.02	0.71	5.14	0.7	750	1.97	0.10	0.14	0.55	55.50	7.7	42	4.95	22.4	1.65
78883	1.24	0.17	6.22	8.1	950	2.39	0.12	0.17	0.23	64.80	16.6	59	4.76	22.2	2.26
78884	1.08	0.07	6.10	3.0	1010	2.38	0.12	0.24	0.82	61.80	13.0	60	5.55	31.5	1.74
78885	1.06	0.23	7.01	9.3	820	2.62	0.14	0.26	0.57	71.70	20.5	66	5.81	25.3	2.64
78886	0.88	0.19	5.87	5.9	910	2.12	0.15	0.32	0.57	57.20	13.3	57	4.57	33.6	2.48
78887	1.28	0.05	5.52	2.7	1120	1.99	0.12	0.68	0.18	46.70	9.3	37	4.33	35.2	2.08
78888	0.84	0.01	5.18	2.5	860	1.82	0.13	0.24	0.08	47.50	9.3	36	4.60	35.2	1.65
78889	0.70	0.55	5.57	6.3	970	1.95	0.16	0.25	0.04	52.60	14.4	35	4.51	33.9	2.56
78890	0.54	0.08	4.49	6.4	1060	1.54	0.18	0.22	0.12	42.70	11.0	31	3.52	54.7	1.99
78891	0.84	0.57	5.67	13.4	460	2.03	0.29	0.16	0.14	53.70	13.4	64	6.21	89.5	2.88
78892	0.50	0.57	2.28	6.5	540	1.05	0.08	0.06	0.29	20.40	7.4	44	2.59	52.3	1.70
78893	0.80	0.65	1.65	4.9	420	0.79	0.09	0.05	0.08	15.35	2.5	95	2.43	74.9	1.47
78894	0.50	1.02	2.52	5.3	240	1.15	0.17	0.08	0.16	24.10	2.6	100	4.08	83.8	2.38
78895	0.36	0.20	0.72	2.0	270	0.38	0.08	0.03	0.43	8.16	6.9	26	0.97	63.3	0.90
78896	0.56	0.24	0.85	2.2	350	0.37	0.06	0.03	0.32	10.75	7.9	21	1.00	62.4	0.93
78897	0.58	0.05	1.28	3.9	480	0.48	0.10	0.11	0.53	12.75	9.7	27	1.41	68.3	1.66
78898	0.80	0.04	1.90	6.3	480	0.65	0.11	0.05	0.53	16.25	11.5	33	1.98	77.8	1.59

Comments: REEs may not be totally soluble in MSB1 method.

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Project: IVANHOE CREEK

**CERTIFICATE OF ANALYSIS WN07056006**

Method Analyte Units LOR	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.09	ME-MS61 Hf ppm 0.1	Hg-CV41 Hg ppm 0.01	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10
78979	15.80	0.13	3.9	0.04	0.041	3.05	32.4	14.1	0.76	53	0.34	0.05	9.6	88.5	650
78980	21.30	0.11	2.3	-0.01	0.025	5.07	14.8	4.1	1.37	47.4	1.39	3.08	14.7	35.7	170
78981	12.10	0.15	3.3	0.15	0.034	2.45	27.3	19.3	0.75	75	1.32	0.06	1.6	84.6	500
78982	13.25	0.12	3.3	0.45	0.035	2.57	28.7	19.4	0.94	72	0.16	0.07	8.2	61.9	500
78983	15.55	0.12	3.8	0.16	0.046	3.06	30.6	27.3	1.25	154	3.79	0.09	9.7	85.8	500
78984	15.50	0.12	3.8	0.16	0.046	3.06	30.6	27.3	1.25	154	3.79	0.09	9.7	85.8	500
78985	17.80	0.14	4.0	1.29	0.045	3.26	35.0	27.5	1.37	162	3.49	0.11	10.7	87.9	760
78986	15.45	0.13	3.1	0.43	0.050	2.82	28.5	33.2	1.50	134	5.18	0.06	9.2	95.5	1250
78987	13.80	0.10	2.7	0.44	0.041	2.67	23.9	28.4	1.26	127	1.01	0.06	8.6	65.6	2980
78988	13.85	0.12	3.1	0.10	0.038	2.89	26.4	24.2	1.08	89	0.33	0.06	8.7	47.0	890
78989	15.40	0.12	3.8	0.40	0.049	2.56	26.1	30.7	1.09	192	6.11	0.10	11.5	50.5	360
78990	12.30	0.12	3.3	0.18	0.036	2.84	21.3	27.0	0.83	112	4.31	0.05	7.6	59.5	830
78991	18.00	0.13	3.6	0.36	0.054	3.20	25.6	26.2	0.98	117	3.39	0.06	10.1	84.7	480
78992	10.50	0.08	1.3	0.31	0.025	0.91	9.9	16.6	0.48	86	2.71	0.05	4.0	70.0	120
78993	8.47	0.08	1.1	0.38	0.021	0.70	8.5	12.2	0.25	66	1.20	0.03	3.0	41.0	110
78994	13.90	0.12	1.8	0.84	0.040	1.07	11.5	12.0	0.44	126	2.24	0.04	4.5	52.4	180
78995	4.88	0.05	0.4	0.18	0.019	0.28	4.0	9.4	0.11	49	1.29	0.04	1.3	65.8	60
78996	5.56	0.05	0.5	0.25	0.015	0.30	5.2	13.4	0.17	51	0.96	0.04	1.5	61.5	60
78997	5.79	0.06	0.7	0.65	0.020	0.53	6.0	13.2	0.22	63	1.65	0.04	2.1	49.8	390
78998	8.87	0.06	1.1	1.28	0.033	0.72	8.0	17.5	0.31	62	0.87	0.04	3.1	57.9	70

Comments: REE's may not be totally soluble in MS61 method.

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Project: IVANHOE CREEK

**CERTIFICATE OF ANALYSIS WN07056006**

Sample Description	ME-MSB1		ME-MSB1		ME-MSB1		ME-MSB1		ME-MSB1		ME-MSB1		ME-MSB1		ME-MSB1		ME-MSB1		ME-MSB1		
	Pb	Rb	Re	S	Sb	Sc	Se	Sh	Sr	Ta	Te	Ti	Tl	Tl	Tl	Tl	Tl	Tl	Tl	Tl	U
Method Analyte Units LOR	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
78879	10.3	120.5	-0.002	-0.01	1.38	10.1	5	1.6	81.4	0.64	0.05	11.9	0.267	0.67	0.67	0.67	0.67	0.67	0.67	0.67	6.4
78880	23.6	810.0	-0.002	-0.01	0.10	5.6	2	1.4	274.0	1.00	-0.05	2.4	0.434	4.96	4.96	4.96	4.96	4.96	4.96	4.96	0.9
78881	14.2	83.1	0.007	0.41	1.14	7.8	15	1.5	49.9	0.55	0.05	9.6	0.236	0.47	0.47	0.47	0.47	0.47	0.47	0.47	4.0
78882	5.6	102.5	-0.002	0.07	0.57	8.9	8	1.5	51.1	0.59	-0.05	9.8	0.268	0.47	0.47	0.47	0.47	0.47	0.47	0.47	1.7
78883	17.9	113.5	0.043	0.74	1.73	10.0	3	1.8	52.5	0.71	-0.05	11.3	0.322	0.61	0.61	0.61	0.61	0.61	0.61	0.61	3.1
78884	13.8	115.0	-0.002	0.18	0.82	10.0	6	1.7	96.3	0.66	-0.05	10.5	0.286	0.52	0.52	0.52	0.52	0.52	0.52	0.52	2.7
78885	32.9	124.0	0.015	0.95	2.11	11.4	5	2.1	59.5	0.78	-0.05	12.0	0.348	0.70	0.70	0.70	0.70	0.70	0.70	0.70	4.4
78886	19.4	110.0	0.069	0.56	4.23	10.3	3	1.8	46.9	0.66	-0.05	10.2	0.291	0.63	0.63	0.63	0.63	0.63	0.63	0.63	3.5
78887	7.9	107.0	0.017	0.18	1.22	9.7	2	1.6	50.0	0.60	-0.05	8.8	0.268	0.51	0.51	0.51	0.51	0.51	0.51	0.51	2.6
78888	9.8	111.0	-0.002	0.88	0.91	9.4	2	1.4	50.3	0.63	-0.05	9.3	0.243	0.48	0.48	0.48	0.48	0.48	0.48	0.48	1.9
78889	18.1	108.0	0.003	0.70	2.02	10.2	3	2.0	57.3	0.80	-0.05	10.3	0.332	0.64	0.64	0.64	0.64	0.64	0.64	0.64	3.3
78890	11.2	97.0	0.003	0.62	1.47	8.3	3	1.3	47.3	0.54	0.15	9.9	0.203	0.50	0.50	0.50	0.50	0.50	0.50	0.50	3.1
78891	12.5	118.5	0.004	1.16	2.36	12.8	3	1.7	41.0	0.71	0.33	11.7	0.276	0.56	0.56	0.56	0.56	0.56	0.56	0.56	2.7
78892	5.6	44.2	0.007	0.92	1.34	5.5	5	0.7	24.1	0.26	0.08	3.1	0.122	0.23	0.23	0.23	0.23	0.23	0.23	0.23	2.4
78893	13.1	34.9	0.008	1.20	1.50	4.8	8	0.6	18.3	0.19	0.09	2.3	0.095	0.21	0.21	0.21	0.21	0.21	0.21	0.21	3.9
78894	19.3	54.1	-0.002	1.70	3.17	7.9	13	0.8	23.4	0.28	0.13	3.4	0.143	0.36	0.36	0.36	0.36	0.36	0.36	0.36	5.5
78895	4.4	13.7	-0.002	0.43	1.00	2.1	4	0.3	16.5	0.07	0.07	0.8	0.036	0.08	0.08	0.08	0.08	0.08	0.08	0.08	1.0
78896	4.9	15.3	-0.002	0.43	0.94	2.6	4	0.3	16.5	0.08	0.08	1.0	0.042	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.4
78897	3.8	25.1	-0.002	1.09	0.96	4.1	2	0.5	28.2	0.13	0.07	1.5	0.063	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.5
78898	3.4	37.6	-0.002	0.81	1.48	5.8	2	0.6	19.5	0.19	0.10	2.3	0.085	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.6

\*Comments: REE's may not be totally soluble in MSB1 method.



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To: RELIANCE GEOLOGICAL SERVICES  
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 NORTH VANCOUVER BC V7L 2N8

Project: IVANHOE CREEK

**CERTIFICATE OF ANALYSIS WN07056006**

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Sample Description	Method Analyte Units LOR	ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		Au-ICP22	
		V ppm	W ppm	Y ppm	Zr ppm	Y ppm	Zr ppm	Y ppm	Zr ppm	Y ppm	Zr ppm	Au ppm	Au ppm
78879		112	1.1	18.1	505	111.5	0.013						
78880		54	0.3	6.5	37	79.0	0.070						
78881		120	0.6	13.6	454	96.4	0.006						
78882		58	3.6	44.1	290	1.3	0.003						
78883		80	1.1	16.2	671	95.3	0.003						
78884		69	1.0	17.6	592	103.0	0.003						
78885		106	1.2	23.4	460	111.5	0.003						
78886		95	1.1	22.6	693	86.1	0.003						
78887		74	1.1	13.8	520	81.0	0.002						
78888		58	0.9	16.3	82	88.1	<0.001						
78889		72	2.9	16.1	84	107.0	0.001						
78890		79	1.4	17.7	67	99.1	0.003						
78891		150	2.1	18.1	97	108.5	0.015						
78892		109	0.8	9.2	106	44.0	0.010						
78893		116	0.6	11.4	34	41.6	0.032						
78894		174	1.0	16.4	70	65.2	0.035						
78895		52	0.9	5.5	50	19.6	0.006						
78896		48	0.6	4.9	72	21.3	0.007						
78897		44	1.0	7.6	77	25.5	0.007						
78898		50	1.4	6.8	76	37.0	0.004						

\* Comments: REEs may not be totally soluble in MS61 method.

**WN07059081**

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SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rod w/o BarCode
CRU-OC	Crushing QC Test
PUL-OC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

**CERTIFICATE WN07059081**

Project: Ivanhoe Creek  
 P.O. No.:  
 This report is for 18 Drill Core samples submitted to our lab in Winnemucca, NV, USA on 6-JUN-2007.  
 The following have access to data associated with this certificate:  
 ED HARRINGTON

ANALYTICAL PROCEDURES	
ALS CODE	DESCRIPTION
ME-MS61	48 element four acid ICP-MS
Hg-CV41	Trace Hg - cold vapor/AAS
Au-ICP22	Au 50g FA ICP-AES finish
	FIMS
	ICP-AES

To: RELIANCE GEOLOGICAL SERVICES  
 ATTN: ED HARRINGTON  
 3476 DARTMOOR PLACE  
 VANCOUVER BC V6S 4G2

*Lawrence Ng*  
 Lawrence Ng, Laboratory Manager - Vancouver

**Signature:**

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

To: RELIANCE GEOLOGICAL SERVICES  
418 EAST 14TH ST  
NORTH VANCOUVER BC V7L 2N8  
Project: Ivanhoe Creek

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**CERTIFICATE OF ANALYSIS WN07059081**

Method Analyte Unit LOR	WEI21 Ag ppm 0.02	Au-ICP22 Au ppm 0.001	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2
78921	0.88	0.016	0.13	7.14	4.5	1780	1.37	0.03	1.19	0.12	71.00	5.2	5	9.21	9.8
78922	0.76	0.001	0.10	7.78	1.9	1820	1.49	0.01	1.31	0.05	71.90	4.8	3	6.20	6.2
78923	0.84	-0.001	0.17	7.23	0.6	850	2.51	0.08	3.59	0.15	52.90	5.3	4	6.01	6.7
78924	0.98	0.085	0.15	0.97	60.0	450	0.66	0.10	0.08	0.02	18.45	1.2	31	1.53	25.4
78925	0.64	0.003	0.17	9.83	18.5	620	2.17	0.80	0.65	0.06	78.00	19.0	18	6.29	69.7
78926	0.82	0.010	0.12	2.08	6.8	390	1.08	0.10	0.08	0.04	33.40	1.4	33	2.83	26.9
78927	0.92	0.016	0.24	2.84	12.4	590	2.00	0.17	0.13	0.06	51.00	1.9	38	3.61	52.7
78928	0.52	0.030	0.68	3.44	21.8	490	2.15	0.20	0.24	0.08	59.00	1.9	60	4.94	42.1
78929	0.68	0.014	0.38	1.73	12.5	640	1.14	0.08	0.13	0.02	29.30	0.3	31	2.18	46.6
78930	0.66	0.018	0.42	2.66	9.0	390	1.40	0.09	0.11	0.04	39.60	1.2	36	2.73	56.0
78931	0.40	0.012	0.44	3.14	7.2	250	1.34	0.12	0.22	0.04	38.30	1.5	38	2.81	68.7
78932	0.46	0.024	0.44	2.32	31.0	320	1.19	0.09	0.15	0.03	38.40	1.4	34	2.31	60.3
78933	0.74	0.013	0.14	0.25	4.3	20	0.08	0.01	0.02	0.03	9.96	0.7	15	0.20	12.9
78934	1.50	0.006	0.06	0.34	5.7	20	0.11	0.01	0.04	0.11	10.70	0.7	21	0.22	32.6
78935	1.00	0.012	0.09	0.27	14.0	30	0.15	0.01	0.08	0.16	8.54	1.1	28	0.18	45.1
78936	1.16	0.001	0.12	0.44	2.1	20	0.12	0.01	0.02	-0.02	9.82	0.5	31	0.29	8.8
78937	1.16	0.002	0.09	0.23	2.7	20	0.14	0.01	0.02	-0.02	13.20	0.3	25	0.21	6.1
78938	1.38	-0.001	0.05	0.20	1.9	10	0.11	0.01	0.01	-0.02	8.99	0.3	23	0.20	3.1

Comments: REE's may not be totally soluble in MS61 method.

To: RELIANCE GEOLOGICAL SERVICES  
 418 EAST 14TH ST  
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Project: Ivanhoe Creek

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CERTIFICATE OF ANALYSIS WN07059081

Sample Description	Method Analyte Units LOR	ME-MS61 Fe %	ME-MS61 Ca ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	Hg-CV41 Hg ppm	ME-MS61 In ppm	ME-MS61 K %	La ppm	Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm
78921		2.42	19.35	0.15	2.5	0.06	0.028	3.58	47.4	36.7	0.68	371	1.20	0.99	11.2	2.2
78922		2.46	20.00	0.16	2.7	0.01	0.032	3.78	40.0	30.9	0.70	327	0.87	0.58	11.9	1.7
78923		2.35	21.50	0.18	2.9	0.06	0.041	1.78	27.3	24.7	0.76	752	0.70	0.11	12.4	2.0
78924		1.07	4.10	0.05	0.8	0.01	0.010	0.36	7.6	11.1	0.10	44	1.68	0.04	2.2	5.1
78925		2.74	29.50	0.12	5.4	2.42	0.071	1.21	49.3	53.2	0.31	67	8.99	0.06	16.2	9.8
78926		0.95	6.83	0.07	1.4	0.19	0.014	0.71	16.5	11.6	0.20	65	1.54	0.03	3.9	6.7
78927		1.30	10.35	0.12	1.7	0.30	0.005	1.09	24.5	13.8	0.32	64	1.86	0.04	6.2	10.0
78928		1.52	14.95	0.12	2.5	0.66	0.050	1.28	29.2	14.5	0.38	74	3.38	0.04	7.0	11.4
78929		0.86	6.58	0.08	1.1	0.25	0.017	0.62	14.9	11.9	0.17	35	2.50	0.04	3.3	5.5
78930		1.30	9.33	0.09	1.8	0.43	0.021	0.90	19.7	12.8	0.25	78	2.12	0.03	4.3	6.6
78931		1.39	10.15	0.09	2.3	0.59	0.024	1.08	20.5	9.6	0.27	55	5.78	0.03	5.2	10.4
78932		1.51	8.17	0.10	1.7	0.83	0.021	0.77	19.9	11.3	0.21	51	3.41	0.03	3.9	10.0
78933		0.89	0.71	-0.05	0.5	0.39	-0.005	0.07	6.1	1.8	0.02	29	4.32	-0.01	0.7	5.0
78934		1.17	0.76	-0.05	0.5	1.07	-0.005	0.08	6.1	1.7	0.02	29	1.21	-0.01	0.7	4.4
78935		1.80	0.66	-0.05	0.4	1.51	-0.005	0.07	4.9	1.7	0.02	37	3.08	-0.01	0.6	7.8
78936		0.54	0.96	-0.05	0.5	0.13	-0.005	0.11	5.9	2.3	0.03	34	1.31	-0.01	0.8	4.3
78937		0.40	0.71	-0.05	0.5	0.12	-0.005	0.08	7.3	1.4	0.02	25	1.00	-0.01	0.6	2.7
78938		0.35	0.61	-0.05	0.4	0.09	-0.005	0.08	5.4	1.4	0.02	25	0.73	-0.01	0.6	2.3

Comments: REE's may not be totally soluble in MS61 method.



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To: RELIANCE GEOLOGICAL SERVICES  
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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WN07059081**

Method Analyte Units LOR	P	Pb	ME-MSB1	ME-MSB1	Ro	ME-MSB1	Re	ME-MSB1	S	ME-MSB1	Sb	ME-MSB1	Sc	ME-MSB1	Se	ME-MSB1	Sh	ME-MSB1	Sr	ME-MSB1	Ta	ME-MSB1	Tb	ME-MSB1	Ti	ME-MSB1	Tl		
Sample Description	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
78921	140	21.5	135.0	-0.002	0.01	0.89	6.0	2	0.8	165.5	0.86	-0.05	16.5	0.223	0.66														
78922	240	24.4	150.5	-0.002	0.01	0.91	6.2	2	1.1	175.0	0.90	-0.05	17.8	0.237	0.87														
78923	520	29.3	64.4	-0.002	-0.01	1.12	5.8	2	1.8	173.5	0.94	-0.05	12.5	0.256	0.79														
78924	90	5.8	21.5	-0.002	0.07	6.17	3.3	4	0.5	31.1	1.15	0.05	2.1	0.053	0.19														
78925	730	32.3	86.7	-0.002	2.04	9.04	11.0	2	2.8	92.8	1.28	0.05	21.2	0.449	0.91														
78926	220	7.9	40.5	-0.002	0.33	2.99	6.6	3	0.6	34.2	0.28	0.06	4.1	0.100	0.15														
78927	350	9.2	63.0	-0.002	0.69	6.12	10.0	4	0.9	51.8	0.45	0.08	6.3	0.151	0.24														
78928	860	12.6	76.4	-0.002	0.89	7.53	12.2	7	1.2	59.7	0.55	0.09	8.4	0.176	0.41														
78929	430	7.7	35.8	-0.002	0.48	5.27	5.0	4	0.7	44.3	0.25	0.05	3.9	0.087	0.17														
78930	310	9.7	50.6	-0.002	0.67	5.68	7.1	4	0.8	45.6	0.36	0.06	5.4	0.120	0.27														
78931	740	12.1	57.3	-0.002	0.93	6.65	8.3	5	0.9	41.8	0.41	0.07	6.3	0.146	0.29														
78932	500	9.7	49.4	-0.002	1.16	6.2	6.2	5	0.7	45.8	0.35	0.05	4.9	0.106	0.53														
78933	30	2.1	3.9	-0.002	0.59	1.33	1.0	3	-0.2	5.8	0.05	-0.05	1.0	0.020	0.06														
78934	110	1.8	4.1	-0.002	0.86	1.32	0.9	2	0.2	6.9	0.05	-0.05	0.9	0.016	0.10														
78935	340	1.5	3.5	-0.002	1.52	2.72	0.9	3	-0.2	5.1	-0.05	-0.05	0.9	0.016	0.10														
78936	30	1.9	5.9	-0.002	0.12	0.59	0.9	2	0.2	5.4	-0.05	-0.05	1.1	0.020	0.03														
78937	80	2.0	4.2	-0.002	0.10	0.60	0.7	2	-0.2	7.3	-0.05	-0.05	1.0	0.018	0.03														
78958	30	1.0	3.7	-0.002	0.03	0.37	0.5	2	-0.2	3.7	-0.05	-0.05	0.8	0.016	0.02														

Comments: REE's may not be totally soluble in MSB1 method.

To: RELIANCE GEOLOGICAL SERVICES  
 418 EAST 14TH ST  
 NORTH VANCOUVER BC V7L 2N8  
 Project: Ivanhoe Creek

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**CERTIFICATE OF ANALYSIS WN07059081**

Sample Description	ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61	
	U ppm	V ppm	W ppm	Y ppm	Zn ppm	As ppm	Se ppm	Ag ppm	Cd ppm	Co ppm	Cu ppm	Zr ppm
78921	4.8	44	1.6	19.6	70	72.9						
78922	4.2	44	1.1	17.6	70	76.3						
78923	3.9	45	1.1	15.2	70	79.9						
78924	1.1	29	0.6	5.0	7	30.1						
78925	5.9	105	9.1	21.0	131	153.5						
78926	1.7	78	1.7	13.9	11	49.4						
78927	2.3	148	1.6	19.2	18	62.6						
78928	4.3	182	1.6	53.7	56	92.2						
78929	2.1	80	0.8	21.9	13	43.4						
78930	2.7	97	1.0	28.2	19	62.6						
78931	2.9	119	1.2	31.5	30	82.6						
78932	2.5	93	0.9	27.9	17	60.2						
78933	0.6	20	0.3	3.7	8	17.5						
78934	0.9	31	0.3	5.1	11	16.4						
78935	1.8	40	0.4	5.3	28	15.7						
78936	0.5	20	0.3	4.8	3	19.5						
78937	0.5	16	0.4	6.9	3	15.2						
78938	0.4	14	0.2	2.3	2	13.0						

Comments: REE's may not be totally soluble in MS61 method.

# WN07067510

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**CERTIFICATE WN07067510**

Project: Ivanhoe Creek

P.O. No.

This report is for 26 Drill Core samples submitted to our lab in Winnemucca, NV, USA on 29-JUN-2007.

The following have access to data associated with this certificate:

ED HARRINGTON

ALS CODE	DESCRIPTION
WEH-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-24	Pulp Login - Rcd w/o Barcode
PUL-OC	Pulverizing OC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - rifle splitter
PUL-31	Pulverize split to 85% <75 um

ALS CODE	DESCRIPTION	INSTRUMENT
AU-ICP22	Au 50g FA ICP-AES finish	ICP-AES
ME-MS61	48 element four acid ICP-MS	FIMS
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS

To: RELIANCE GEOLOGICAL SERVICES  
 ATTN: ED HARRINGTON  
 3476 DARTMOOR PLACE  
 VANCOUVER BC V5S 4G2

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Lawrence Ng, Laboratory Manager - Vancouver

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 Total # Pages: 2 (A - D)  
 Finalized Date: 28-JUL-2007  
 Account: RELGEO

To: RELIANCE GEOLOGICAL SERVICES  
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 NORTH VANCOUVER BC V7L 2N8

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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WND07067510**

Sample Description	WEI-Z1		ME-MS1		ME-MS1		ME-MS1		ME-MS1		ME-MS1		ME-MS1		ME-MS1		ME-MS1		ME-MS1	
	Record	Wt	Ag	Al	As	Ba	Be	Bi	Cd	Ce	Co	Cr	Cu	Cs	Fe	Pb	Pt	Sn	Sr	Zn
kg	0.02	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
78999	1.00	0.15	0.01	7.30	3.3	720	2.89	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
79000	0.05	0.04	0.04	8.82	0.8	90	1.88	0.51	1.78	2.69	89.90	21.2	31	4.49	21.4	6.54				
79001	0.80	0.09	0.09	6.66	2.2	580	2.57	0.25	1.29	0.51	96.40	10.3	51	17.10	20.4	2.66				
79002	0.80	0.10	0.10	7.21	1.8	360	2.19	0.62	1.95	1.15	65.70	15.1	20	5.28	19.2	6.05				
79003	0.82	0.06	0.06	7.26	2.8	340	1.48	0.07	2.01	1.01	48.90	26.3	77	3.63	13.2	7.87				
79004	0.90	0.06	0.06	7.86	2.5	120	1.39	0.03	1.87	5.18	35.40	25.3	79	3.74	13.3	6.98				
79005	0.80	0.05	0.05	7.80	2.6	40	1.22	0.05	1.97	0.19	44.00	69.3	125	3.15	17.8	7.87				
79006	0.84	0.09	0.09	8.03	1.4	260	2.22	0.23	1.83	0.66	66.50	24.9	81	2.20	14.5	6.13				
79007	0.80	0.05	0.05	6.69	3.8	90	1.80	0.02	2.28	0.93	37.00	33.3	85	3.46	15.3	8.45				
79008	0.60	0.09	0.09	7.72	2.3	120	1.56	0.18	1.89	0.28	66.50	23.2	17	3.47	14.3	7.06				
79009	0.64	0.13	0.13	7.57	6.5	320	3.74	0.39	1.47	0.30	85.50	11.6	7	6.40	13.3	4.10				
79010	0.72	0.09	0.09	7.28	6.2	310	3.77	0.37	1.27	0.28	81.70	12.6	10	7.23	10.6	3.26				
79011	0.78	0.09	0.09	7.50	3.0	410	2.60	0.30	1.72	0.29	70.60	16.2	6	5.81	14.5	6.30				
79012	0.80	0.09	0.09	7.36	6.2	400	2.72	0.36	1.55	0.36	65.00	12.7	8	6.22	23.9	3.35				
79013	0.74	0.09	0.09	6.81	3.6	480	4.13	0.33	1.28	0.24	76.50	12.4	18	8.43	19.2	4.02				
79014	0.68	0.09	0.09	8.05	80.1	1050	3.82	0.36	1.74	0.29	95.60	20.6	14	6.52	28.1	5.11				
79015	0.86	0.09	0.09	9.32	1.6	180	1.91	0.23	1.41	0.11	34.40	20.0	28	4.02	73.9	5.47				
79016	0.98	0.08	0.08	9.31	1.2	220	2.07	0.28	1.66	0.02	41.90	16.0	30	3.97	52.1	4.96				
79017	0.94	0.09	0.09	8.33	3.4	340	2.32	0.30	1.55	0.07	53.50	11.8	12	4.85	31.3	2.85				
79018	0.98	0.12	0.12	9.12	1.4	270	2.33	0.36	1.18	0.05	56.60	10.3	21	5.31	39.2	3.40				
79019	1.02	0.08	0.08	8.47	1.9	820	3.30	0.36	1.68	0.02	108.50	13.9	16	16.36	24.3	3.51				
79020	0.05	0.03	0.03	6.07	0.8	50	1.87	0.20	1.75	0.02	3.00	9.0	26	1.65	41.1	6.52				
79021	1.12	0.07	0.07	10.15	4.5	330	3.11	0.93	1.32	0.03	44.30	9.0	36	16.73	48.6	6.52				
79022	1.06	0.17	0.17	4.40	14.7	480	1.30	0.30	0.05	0.26	33.50	21.6	30	4.81	53.9	1.31				
79023	1.26	0.08	0.08	1.21	1.9	450	0.59	0.07	0.06	0.06	14.80	3.2	26	1.73	26.9	0.98				
79024	1.06	0.09	0.09	2.38	1.3	380	1.10	0.14	0.10	0.04	36.20	5.0	29	3.55	53.7	1.75				

Comments: REE's may not be totally soluble in MS61 method.



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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WN07067510**

Method Analyte Unit LOL	Sample Description	ME-MS61																ME-MS51																ME-MS1																ME-MS1																ME-MS1																																																																																																																																																																																																																																																																																																																																				
		Ca	Cl	Cr	Fe	Mn	Ni	Pb	Se	Sr	Ti	V	Zn	Al	B	C	K	Li	Mg	Mo	Na	P	S	Si	U	W	As	Br	Co	Cu	F	Hg	I	In	Ir	K	La	Lr	Mn	Mo	Na	Nb	P	S	Se	Si	Ta	Tl	U	V	Zn	Zr																																																																																																																																																																																																																																																																																																																																																		
78989		21.80	0.20	5.9	7.40	0.166	0.41	32.6	31.0	1.01	3050	1.54	0.35	15.4	11.2	1070	21.10	0.14	2.0	-0.01	0.028	4.95	10.9	4.4	1.47	430	1.38	3.68	14.5	59.8	1100	21.00	0.23	10.9	0.34	0.157	1.72	47.4	18.8	0.72	484	1.91	25.5	9.1	740	19.00	0.18	6.6	0.15	0.127	0.49	34.0	23.3	1.08	247	1.27	0.38	14.8	9.3	1420	19.00	0.17	4.4	0.05	0.088	0.37	23.7	27.9	1.57	1105	0.88	0.11	9.6	6.5	1700	18.80	0.16	3.9	0.05	0.082	0.99	16.8	27.7	1.72	1565	0.69	0.18	8.1	7.3	970	18.50	0.18	3.6	0.09	0.082	0.79	21.5	12.9	1.52	1155	0.65	0.07	7.8	23.6	1630	21.40	0.16	7.3	0.12	0.135	0.37	34.0	21.1	1.62	326	0.27	0.16	14.9	10.8	590	18.00	0.19	2.8	0.14	0.064	0.83	19.3	13.3	1.51	7470	0.92	0.35	5.7	18.2	2070	23.50	0.18	7.6	0.07	0.116	0.52	32.6	18.5	1.57	1370	0.73	0.15	16.0	9.5	940	23.10	0.18	10.7	0.04	0.124	1.87	40.0	14.8	0.78	816	2.81	0.60	20.6	3.9	640	23.50	0.21	10.6	0.09	0.126	2.08	38.4	8.0	0.53	565	3.56	0.61	21.2	4.6	530	23.20	0.19	8.1	0.11	0.113	1.18	34.8	9.4	0.62	1995	1.70	0.49	17.0	4.7	1050	23.50	0.18	8.1	0.21	0.114	1.82	31.2	7.4	0.45	314	2.64	0.74	19.1	6.3	700	22.40	0.18	10.4	0.04	0.116	2.57	38.1	7.5	0.41	1040	3.03	0.75	24.5	6.4	1010	25.30	0.21	10.2	0.09	0.118	1.48	44.5	5.5	0.55	503	3.70	0.61	25.7	11.1	670	23.50	0.16	4.8	0.01	0.077	1.38	14.9	22.1	0.71	1740	0.83	0.24	9.9	19.8	450	23.40	0.14	5.5	0.02	0.086	1.55	18.6	10.3	0.80	299	0.53	0.32	11.6	16.0	880	21.40	0.14	5.3	0.04	0.082	0.72	24.2	9.4	0.69	230	0.49	0.66	14.4	10.0	590	23.70	0.15	5.5	0.03	0.080	0.80	25.6	33.4	0.57	163	0.80	0.37	14.6	10.6	450	24.10	0.21	3.3	0.04	0.055	0.81	58.6	12.1	0.65	335	0.86	1.36	15.1	20.1	190	21.70	0.15	2.0	-0.01	0.024	5.00	11.5	4.2	1.47	425	1.36	3.70	14.5	61.5	1100	26.90	0.16	4.6	0.39	0.088	0.78	24.4	77.7	0.26	225	1.58	0.08	14.0	16.1	430	14.10	0.11	2.7	5.45	0.048	0.82	21.9	33.4	0.20	44	1.23	0.05	8.2	24.3	170	5.38	0.08	0.9	0.87	0.013	0.41	9.8	9.3	0.12	150	0.35	0.05	3.9	8.6	40	8.89	0.12	1.6	0.94	0.025	0.80	19.2	12.6	0.22	126	0.49	0.04	5.5	13.9	190

Comments: REE's may not be totally soluble in MS61 method.

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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WN07067510**

Sample Description	Method Analyte Units LOR	Pb	ME-MS61	Rb	ME-MS61	Re	ME-MS61	S	ME-MS61	Sb	ME-MS61	Sc	ME-MS61	Sn	ME-MS61	Sr	ME-MS61	Ta	ME-MS61	Tb	ME-MS61	Tm	ME-MS61	Ti	ME-MS61	U	ME-MS61
78889		14.8	37.1	0.1	0.002	<0.002	0.02	0.01	0.87	26.0	2	2.3	271.0	0.97	0.07	7.9	0.764	2.31	3.3								
78890		23.0	666.0	0.1	0.002	0.01	0.09	5.0	0.89	5.0	2	1.4	265.0	1.13	<0.05	2.0	0.450	4.94	0.9								
79001		19.8	105.3	0.1	0.002	0.01	0.59	16.0	0.92	16.0	3	3.2	137.5	1.64	<0.05	11.8	0.462	0.45	3.6								
79002		19.3	48.7	0.1	0.002	0.02	0.45	23.8	0.96	23.8	2	2.0	360.0	0.96	0.09	7.9	0.656	0.21	2.2								
79003		6.3	35.9	0.1	0.002	0.03	0.30	28.9	0.96	28.9	2	1.3	168.0	0.81	<0.05	4.4	0.725	0.21	1.0								
79004		6.3	30.2	0.1	0.002	0.02	0.26	31.4	0.96	31.4	2	1.2	192.0	0.48	<0.05	3.4	0.702	0.16	0.9								
79005		7.6	48.3	0.1	0.002	0.09	0.49	33.6	0.49	33.6	2	1.1	154.0	0.48	<0.05	2.9	0.660	0.41	1.1								
79006		13.1	28.6	0.1	0.002	0.03	0.49	22.0	0.49	22.0	2	2.3	190.5	1.00	<0.05	7.0	0.458	0.13	2.1								
79007		14.7	33.3	0.1	0.004	0.23	0.96	27.3	0.96	27.3	4	0.8	174.5	0.32	<0.05	2.4	0.497	0.52	2.1								
79008		13.7	42.5	0.1	0.002	0.15	0.51	26.7	0.51	26.7	3	2.5	190.0	1.11	0.05	11.0	0.821	0.29	3.0								
79009		19.5	159.0	0.002	0.19	1.21	14.0	14.0	1.21	14.0	2	3.2	186.0	1.51	0.05	16.9	0.487	0.94	6.8								
79010		20.3	174.5	0.002	0.09	1.28	14.2	14.2	1.28	14.2	2	3.4	164.5	1.57	0.05	18.0	0.516	0.74	5.3								
79011		16.6	88.3	0.002	0.08	0.77	20.3	20.3	0.77	20.3	2	2.8	230.0	1.31	0.05	13.0	0.741	0.52	3.5								
79012		20.4	127.0	0.002	0.16	1.04	13.9	13.9	1.04	13.9	2	2.8	236.0	1.41	0.07	12.3	0.548	1.54	3.9								
79013		18.8	196.0	0.002	0.03	0.68	12.6	12.6	0.68	12.6	2	3.5	156.0	2.00	0.08	16.5	0.480	0.91	6.1								
79014		25.3	99.8	0.002	1.00	1.57	11.7	11.7	1.57	11.7	2	3.8	239.0	2.02	0.08	18.4	0.432	0.30	7.6								
79015		13.5	45.0	0.002	0.02	0.52	16.9	16.9	0.52	16.9	2	1.6	149.0	0.80	0.11	5.9	0.469	0.47	1.1								
79016		13.5	48.2	0.002	0.01	0.50	15.0	15.0	0.50	15.0	1	1.7	182.0	0.91	0.10	6.2	0.474	0.32	1.4								
79017		22.2	95.2	0.002	0.04	1.05	8.7	8.7	1.05	8.7	1	1.9	236.0	1.15	0.09	10.7	0.328	0.66	2.9								
79018		55.1	55.2	0.002	0.01	0.87	13.9	13.9	0.87	13.9	2	2.2	153.5	1.15	0.12	10.7	0.450	0.42	2.8								
79019		31.0	105.5	0.002	0.03	0.64	9.0	9.0	0.64	9.0	2	2.1	458.0	1.17	<0.05	17.6	0.347	1.39	4.0								
79020		23.4	710.0	0.002	0.01	0.08	5.1	5.1	0.08	5.1	2	1.4	273.0	1.15	<0.05	2.3	0.447	4.94	0.9								
79021		16.2	124.0	0.002	0.01	3.03	12.5	12.5	3.03	12.5	2	2.3	71.8	1.04	0.14	9.7	0.575	0.72	2.1								
79022		11.8	53.1	0.002	0.61	1.55	9.5	9.5	1.55	9.5	2	1.2	37.7	0.61	0.13	7.3	0.258	1.09	3.2								
79023		3.2	25.8	0.002	0.10	0.88	3.6	3.6	0.88	3.6	2	0.6	20.7	0.27	0.05	2.5	0.067	0.16	0.8								
79024		5.4	49.8	0.002	0.06	0.65	6.7	6.7	0.65	6.7	1	0.7	24.4	0.39	0.10	5.3	0.123	0.23	1.5								

Comments: REE's may not be totally soluble in MS61 method.

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 418 EAST 14TH ST  
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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WN07067510**

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Sample Description	ME-MS51		ME-MS61		ME-MS61		ME-MS61		Au-ICP22	
	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	Au ppm	Ag ppm	As ppm	Bi ppm	Cd ppm
78999	129	3.3	30.2	135	216.0	0.004				
79000	56	0.3	5.8	38	77.8	0.080				
79001	62	1.3	55.2	151	396.0	0.001				
79002	132	0.8	40.8	144	242.0	0.019				
79003	165	0.5	32.3	93	158.5	<0.001				
79004	178	0.4	22.1	102	138.5	<0.001				
79005	165	0.4	31.2	121	135.5	<0.001				
79006	119	0.6	46.9	127	254.0	<0.001				
79007	171	0.9	32.5	100	103.0	<0.001				
79008	194	1.0	39.1	130	269.0	<0.001				
79009	199	1.5	46.1	134	379.0	<0.001				
79010	89	2.0	49.5	111	359.0	0.001				
79011	118	1.6	41.3	134	269.0	<0.001				
79012	80	1.7	42.1	115	272.0	<0.001				
79013	85	1.9	58.8	141	361.0	<0.001				
79014	57	1.6	48.3	128	342.0	<0.001				
79015	119	0.9	18.8	73	159.0	0.001				
79016	130	0.8	26.9	78	188.0	0.002				
79017	53	1.0	18.5	71	175.5	0.001				
79018	96	1.7	22.8	66	181.5	0.001				
79019	66	3.0	36.5	105	98.5	0.001				
79020	55	0.3	6.0	38	78.5	0.001				
79021	205	5.1	22.4	80	161.0	<0.001				
79022	107	2.6	14.5	51	96.7	0.001				
79023	40	0.6	7.4	23	36.8	0.007				
79024	53	1.2	11.9	61	61.0	0.018				

Comments: REE's may not be totally soluble in MS61 method.

# WN07082588

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## CERTIFICATE WN07082588

Project: Ivanhoe Creek  
 P.O. No.:  
 This report is for 39 Drill Core samples submitted to our lab in Winnemucca, NV, USA on 1-AUG-2007.  
 The following have access to data associated with this certificate:  
 ED HARRINGTON

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample Login - Rod w/o BarCode
LOG-24	Pulp Login - Rod w/o BarCode
CRU-QC	Crushing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ALS CODE	DESCRIPTION
ME-MS61	48 element four acid ICP-MS
Hg-CV41	Trace Hg - cold vapor/AAS
Ag-OG62	Ore Grade Ag - Four Acid
ME-OG62	Ore Grade Elements - Four Acid
Au-ICP22	Au 50g FA ICP-AES finish

To: RELIANCE GEOLOGICAL SERVICES  
 ATTN: ED HARRINGTON  
 3476 DARTMOOR PLACE  
 VANCOUVER BC V5S 4G2

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Lawrence Ng, Laboratory Manager - Vancouver



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Finalized Date: 31-AUG-2007  
Account: RELGEO

CERTIFICATE OF ANALYSIS WN07082588

Sample Description	Method Analyte Units LOR	ME-MSB1																
		WEI-21 Revd Wt. kg	Au-ICP22 Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Co ppm	Cr ppm	Cu ppm	Fe ppm	Mn ppm	Ni ppm	Pb ppm	
79025		1.12	0.018	1.18	2.24	3.6	450	1.09	0.05	0.14	0.13	0.05	28.50	8.4	25	3.49	77.0	
79026		1.12	0.018	1.18	2.60	2.0	470	1.23	0.12	0.15	0.11	0.11	28.30	5.1	23	4.53	107.5	
79027		1.22	0.016	1.11	7.07	3.4	300	2.10	0.25	0.18	0.18	0.18	24.40	1.3	73	6.25	95.4	
79028		1.26	0.014	1.11	7.17	4.8	210	2.28	0.30	0.25	0.11	0.11	70.00	14.3	70	6.25	44.3	
79029		1.48	0.015	1.18	6.40	5.9	160	1.83	0.25	0.30	0.12	0.12	65.10	33.7	73	8.08	42.2	
79030		1.34	0.016	1.15	5.84	3.3	1870	1.76	0.25	0.29	0.29	<0.02	67.10	5.0	67	10.00	23.6	
79031		1.36	0.016	1.13	6.73	5.5	3660	1.87	0.27	0.19	<0.02	<0.02	71.80	4.1	80	13.40	26.4	
79032		1.38	0.023	1.10	6.75	5.1	3710	1.81	0.27	0.14	<0.02	<0.02	78.40	3.5	75	9.83	27.4	
79033		1.10	0.015	1.14	6.52	18.4	650	1.79	0.29	0.13	<0.02	<0.02	67.70	6.5	71	8.82	57.2	
79034		1.04	0.014	1.11	5.30	6.6	390	1.67	0.24	0.12	<0.02	<0.02	59.60	6.2	57	7.76	73.5	
79035		1.18	0.018	0.87	7.95	36.2	1360	2.05	0.01	0.36	0.04	0.04	77.10	4.2	6	13.40	6.2	
79036		1.00	0.025	0.23	7.87	31.1	1150	2.00	0.01	0.36	<0.02	<0.02	77.80	4.7	6	13.40	5.0	
79037		1.36	0.042	0.48	7.95	44.8	990	2.12	0.01	0.37	0.07	0.07	76.70	4.2	5	15.60	5.6	
79038		0.84	0.074	0.78	7.44	34.1	1140	1.87	0.01	0.32	0.05	0.05	71.60	3.7	5	11.10	4.3	
79039		1.06	0.187	1.28	7.73	165.5	300	1.89	0.01	0.33	0.05	0.05	71.30	4.6	5	11.85	6.1	
79040		0.04	0.086															
79041		1.10	0.022	1.58	8.27	34.5	1680	2.21	0.01	0.40	0.05	0.05	79.50	5.3	5	15.80	7.6	
79042		0.80	0.008	0.11	8.08	8.0	1590	2.16	<0.01	0.38	0.05	0.05	72.20	5.0	6	16.40	1.9	
79043		0.58	0.011	0.09	1.30	5.2	380	0.47	0.04	0.06	<0.02	<0.02	24.80	1.0	26	1.10	20.3	
79044		0.46	0.046	0.24	2.85	9.6	570	1.72	0.16	0.09	0.09	0.09	42.40	1.8	38	3.74	58.2	
79045		0.42	0.021	0.45	2.44	18.7	530	1.56	0.12	0.10	0.23	0.23	42.90	2.1	36	3.48	39.0	
79046		0.34	0.020	0.22	2.93	15.4	540	1.86	0.18	0.10	0.12	0.12	37.50	3.3	37	4.00	66.0	
79047		0.62	0.033	0.39	3.07	19.1	500	1.73	0.17	0.10	0.26	0.26	41.80	3.0	41	4.09	57.8	
79048		0.88	0.004	1.93	1.66	5.4	310	0.53	0.10	0.30	0.04	0.04	30.80	4.3	29	1.78	19.5	
79049		1.00	0.010	29.50	1.13	3.7	200	0.39	0.05	0.22	<0.02	<0.02	20.80	3.2	29	0.84	49.4	
79050		1.32	0.010	3.03	0.74	7.3	170	0.29	0.03	0.16	0.02	0.02	17.50	2.3	26	0.55	18.2	
79051		0.84	0.011	3.44	2.13	21.0	470	1.34	0.06	0.22	0.07	0.07	19.25	1.0	80	3.95	85.0	
79052		0.56	0.016	4.86	2.70	6.6	570	1.77	0.11	0.20	0.06	0.06	27.00	0.8	106	4.09	91.4	
79053		1.02	0.009	2.86	1.38	8.5	450	0.77	0.17	0.12	0.04	0.04	29.00	1.0	55	1.58	55.2	
79054		0.54	0.019	2.26	1.39	11.2	500	0.53	0.07	0.09	0.21	0.21	21.70	1.1	68	2.05	94.8	
79055		0.92	0.009	0.10	3.27	2.6	980	1.02	0.13	0.08	0.03	0.03	26.00	3.9	44	3.59	47.1	
79056		1.00	0.012	0.32	3.54	10.7	690	1.83	0.21	0.10	0.02	0.02	39.50	5.5	50	4.89	86.1	
79057		0.84	0.015	0.10	3.12	3.0	980	1.16	0.13	0.10	<0.02	<0.02	30.20	4.1	46	4.03	40.7	
79058		0.62	0.011	>100	5.35	3.9	530	2.07	0.20	0.46	<0.02	<0.02	45.60	8.3	68	7.45	684.0	
79059		0.40	0.007	1.79	3.68	8.7	180	1.71	0.13	0.07	0.16	0.16	27.60	2.9	47	4.46	71.1	
79060		0.04	0.090															
79061		0.36	0.007	0.32	0.87	3.7	620	0.37	0.04	0.07	0.18	0.18	6.12	1.8	34	1.17	20.7	
79062		1.10	0.009	15.05	4.88	6.4	1640	2.00	0.22	0.26	0.21	0.21	40.90	4.0	66	7.65	96.6	
79063		0.54	0.013	1.30	1.52	4.1	1010	0.57	0.06	0.16	0.45	0.45	13.05	2.3	33	2.33	57.5	

Comments: REE's may not be totally soluble in MSB1 method.

To: RELIANCE GEOLOGICAL SERVICES  
 418 EAST 14TH ST  
 NORTH VANCOUVER BC V7L 2N8

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Project: Ivanhoe Creek  
**CERTIFICATE OF ANALYSIS** **WN07082588**

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 Finalized Date: 31-AUG-2007  
 Account: RELGEO

Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	
Sample Description	Fe %	Ca ppm	Co ppm	Ge ppm	Mo %	HI ppm	Hg-Cl/41 ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Nb ppm	Na %	Ni ppm	Ni ppm	Ni ppm	Ni ppm	
79025	1.93	8.67	0.10	1.4	0.43	0.028	0.90	0.028	0.90	14.2	12.5	0.25	179	1.08	0.05	8.3	27.2				
79026	1.79	8.73	0.10	1.9	0.05	0.025	1.17	0.025	1.17	17.1	13.3	0.30	171	1.47	0.05	7.4	24.8				
79027	2.52	22.60	0.19	3.0	0.77	0.070	2.65	0.070	2.65	34.8	11.7	0.84	70	1.11	0.05	13.5	34.4				
79028	2.82	23.00	0.17	3.0	0.43	0.066	2.84	0.066	2.84	31.9	13.0	0.70	195	1.00	0.05	13.6	57.3				
79029	6.77	20.10	0.20	2.6	0.45	0.060	2.48	0.060	2.48	30.9	11.5	0.79	4710	1.10	0.04	11.7	82.4				
79030	7.90	19.35	0.20	2.3	0.38	0.058	2.28	0.058	2.28	35.2	8.5	0.67	363	0.78	0.05	11.3	23.2				
79031	3.87	20.90	0.18	2.8	0.28	0.066	2.79	0.066	2.79	38.4	9.0	0.69	113	0.95	0.06	12.3	16.2				
79032	3.48	21.60	0.18	2.7	0.33	0.058	2.64	0.058	2.64	40.5	9.7	0.66	111	1.05	0.06	12.8	14.2				
79033	3.13	21.40	0.17	2.6	0.42	0.064	2.48	0.064	2.48	37.4	9.8	0.68	118	2.24	0.05	12.1	27.5				
79034	2.93	18.95	0.18	2.1	2.53	0.052	1.95	0.052	1.95	28.6	10.8	0.52	195	1.68	0.05	9.6	25.6				
79035	2.36	23.10	0.18	2.5	0.64	0.030	3.24	0.030	3.24	43.0	27.1	0.36	160	3.34	0.42	12.5	2.1				
79036	2.35	22.30	0.18	2.5	0.53	0.027	3.21	0.027	3.21	42.7	28.0	0.34	86	6.93	0.46	12.1	2.0				
79037	2.47	23.90	0.18	2.6	0.38	0.036	3.21	0.036	3.21	40.3	27.3	0.34	96	2.15	0.47	12.5	1.9				
79038	2.14	21.90	0.17	2.4	0.84	0.036	3.45	0.036	3.45	49.8	25.4	0.25	72	2.55	0.41	11.3	1.7				
79039	2.65	23.10	0.20	2.3	0.66	0.034	3.49	0.034	3.49	37.3	25.6	0.28	67	5.45	0.35	11.6	1.8				
79040																					
79041	2.23	23.90	0.17	2.5	0.85	0.031	3.94	0.031	3.94	44.5	21.7	0.39	141	2.01	0.41	12.3	2.1				
79042	2.06	23.10	0.15	2.3	0.31	0.035	3.70	0.035	3.70	40.0	23.1	0.45	119	1.28	0.40	12.0	2.1				
79043	0.95	3.59	0.09	1.1	0.13	0.008	0.32	0.008	0.32	10.9	11.6	0.07	39	1.78	0.03	2.7	4.5				
79044	1.40	11.60	0.13	1.7	0.28	0.029	1.09	0.029	1.09	21.3	13.6	0.33	149	1.63	0.05	6.4	8.0				
79045	2.15	9.29	0.15	1.5	0.54	0.028	0.63	0.028	0.63	21.3	17.8	0.27	257	1.81	0.04	5.6	8.1				
79046	1.68	12.30	0.13	1.6	0.41	0.028	1.08	0.028	1.08	18.5	14.0	0.35	94	1.50	0.05	7.2	12.3				
79047	1.93	11.95	0.15	1.9	0.54	0.039	1.09	0.039	1.09	22.2	18.6	0.34	129	2.58	0.04	6.8	15.9				
79048	1.22	5.38	0.10	1.3	0.31	0.022	0.49	0.022	0.49	21.3	11.2	0.18	149	5.09	0.10	3.5	5.6				
79049	0.89	3.59	0.09	1.0	0.25	0.010	0.26	0.010	0.26	11.6	4.6	0.12	132	8.05	0.04	2.6	6.3				
79050	1.04	2.39	0.08	0.8	0.43	0.007	0.18	0.007	0.18	10.3	3.7	0.09	117	4.07	0.05	2.0	6.8				
79051	1.30	9.43	0.13	1.1	0.51	0.024	0.78	0.024	0.78	13.6	18.6	0.22	37	13.65	0.05	4.2	6.1				
79052	1.73	14.65	0.13	1.7	0.22	0.029	0.99	0.029	0.99	17.2	14.8	0.30	245	4.53	0.05	8.0	5.1				
79053	1.35	6.52	0.10	1.1	0.36	0.016	0.48	0.016	0.48	15.1	18.0	0.11	50	6.91	0.07	5.5	6.8				
79054	0.86	5.99	0.11	1.1	0.62	0.017	0.58	0.017	0.58	15.0	16.4	0.13	43	11.65	0.03	4.7	8.6				
79055	2.13	8.74	0.09	1.1	1.38	0.028	1.17	0.028	1.17	13.3	12.9	0.35	106	1.30	0.08	4.6	12.7				
79056	3.06	12.05	0.15	1.6	2.59	0.040	1.25	0.040	1.25	21.7	15.3	0.38	122	2.75	0.06	6.6	19.6				
79057	2.02	10.10	0.12	1.2	1.17	0.030	1.14	0.030	1.14	15.4	15.3	0.29	106	2.75	0.06	6.2	18.8				
79058	3.17	17.35	0.15	2.9	0.96	0.049	1.63	0.049	1.63	23.6	15.6	0.57	217	176.50	0.06	5.5	77.1				
79059	2.63	10.55	0.12	1.6	2.07	0.032	1.47	0.032	1.47	14.4	12.2	0.48	57	6.65	0.06	5.6	11.7				
79060																					
79061	0.92	3.11	0.09	0.4	1.28	0.007	0.29	0.007	0.29	3.2	10.6	0.07	49	2.35	0.04	1.2	8.7				
79062	2.57	15.75	0.19	2.3	0.66	0.046	1.79	0.046	1.79	24.4	11.0	0.60	131	35.20	0.08	7.9	19.7				
79063	0.99	4.74	0.11	0.7	1.40	0.011	0.86	0.011	0.86	7.4	9.1	0.14	43	2.79	0.05	2.5	11.5				

\*Comments: REE's may not be totally soluble in MS61 method.

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To: RELIANCE GEOLOGICAL SERVICES  
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Project: Ivanhoe Creek

Sample Description	Method Analyte Units LOR	CERTIFICATE OF ANALYSIS WN07082588																									
		P	Pb	ME-MSR1	Rb	ME-MSR1	Re	ME-MSR1	S	ME-MSR1	Sb	ME-MSR1	Sc	Se	ME-MSR1	Sn	ME-MSR1	Sr	ME-MSR1	Ta	ME-MSR1	Te	ME-MSR1	Th	ME-MSR1	Ti	ME-MSR1
79025	100	4.7	54.5	-0.002	0.11	10.00	7.1	2	0.8	30.0	0.52	0.11	4.6	0.115	0.29												
79026	200	7.4	69.3	-0.002	0.11	1.95	6.2	2	0.9	37.4	0.48	0.06	5.5	0.140	0.28												
79027	440	16.4	185.0	-0.002	0.83	1.97	15.4	8	2.3	171.0	1.00	0.08	13.0	0.357	0.66												
79028	670	16.4	183.5	-0.002	1.28	4.46	15.4	3	2.0	141.5	1.00	0.07	13.0	0.378	0.64												
79029	720	18.9	145.0	0.002	1.38	1.20	12.9	3	2.0	82.4	0.87	0.06	11.5	0.324	0.64												
79030	1250	14.3	141.0	-0.002	0.15	0.90	12.5	3	1.9	265.0	0.81	0.07	11.2	0.305	0.55												
79031	960	16.1	185.5	-0.002	0.19	1.03	13.9	3	2.1	190.0	0.94	0.08	13.1	0.358	0.68												
79032	570	20.0	156.5	-0.002	0.12	1.29	13.6	3	2.1	138.5	0.94	0.08	12.8	0.355	0.56												
79033	400	19.3	154.0	-0.002	1.02	1.61	15.0	2	2.1	79.6	0.89	0.10	12.4	0.333	1.12												
79034	880	21.2	128.5	-0.002	0.65	1.99	11.4	2	1.7	168.5	0.71	0.10	9.8	0.253	0.64												
79035	460	24.1	182.5	-0.002	1.43	12.20	6.4	3	1.1	116.0	0.84	<0.05	18.4	0.243	0.95												
79036	480	22.4	180.5	-0.002	1.55	9.92	6.3	4	0.9	123.5	0.83	<0.05	18.2	0.237	0.84												
79037	510	23.3	183.0	-0.002	1.57	11.20	6.1	4	1.1	128.0	0.84	<0.05	18.0	0.247	0.92												
79038	460	22.2	175.0	0.004	1.77	13.10	5.8	6	0.9	110.0	0.84	<0.05	17.1	0.228	0.89												
79039	500	23.2	178.5	0.004	2.44	23.50	6.2	10	1.1	110.5	0.85	<0.05	15.6	0.245	0.99												
79040																											
79041	570	25.0	198.5	0.002	1.07	9.62	6.4	3	1.2	125.0	0.84	<0.05	18.1	0.253	1.19												
79042	570	22.1	186.5	-0.002	0.57	10.00	6.4	2	1.2	124.0	0.88	<0.05	16.0	0.257	1.01												
79043	180	5.4	17.8	-0.002	0.20	2.34	2.9	3	0.3	28.1	0.18	<0.05	2.5	0.067	0.09												
79044	220	9.8	61.8	-0.002	0.39	6.77	10.0	4	1.0	44.9	0.46	0.09	6.2	0.161	0.25												
79045	280	11.3	49.6	-0.002	0.65	8.99	9.2	5	0.8	35.8	0.38	0.07	5.3	0.131	0.21												
79046	260	10.2	67.7	-0.002	1.03	6.99	10.7	5	1.0	40.4	0.38	0.10	5.9	0.166	0.27												
79047	270	12.2	64.7	-0.002	1.07	10.05	10.8	5	1.0	41.5	0.48	0.10	5.7	0.156	0.25												
79048	200	6.1	26.4	-0.002	0.33	2.54	4.2	2	0.6	45.9	0.22	<0.05	3.7	0.114	0.37												
79049	170	3.9	14.4	-0.002	0.16	1.75	2.6	2	0.4	28.3	0.17	<0.05	2.4	0.081	0.13												
79050	150	3.0	9.9	-0.002	0.45	4.69	2.2	3	0.3	26.3	0.13	<0.05	1.8	0.069	0.10												
79051	860	5.6	49.2	-0.002	0.97	10.95	6.5	11	0.7	54.1	0.28	0.27	3.3	0.124	0.76												
79052	770	7.6	63.3	-0.002	0.62	5.55	8.8	11	1.0	85.9	0.50	0.14	4.9	0.173	0.43												
79053	200	6.0	28.9	-0.002	0.78	7.83	5.1	4	0.6	76.3	0.29	0.08	3.3	0.101	0.38												
79054	380	9.4	29.8	-0.002	0.63	14.00	4.0	10	0.6	66.3	0.22	0.14	3.7	0.080	0.53												
79055	280	5.5	63.9	-0.002	0.50	0.93	6.0	2	0.9	42.5	0.33	0.09	4.4	0.172	0.30												
79056	930	21.5	88.8	-0.002	0.96	2.93	8.7	5	1.3	231.0	0.46	0.16	6.2	0.187	0.49												
79057	370	5.1	72.7	-0.002	0.84	1.16	7.0	2	1.1	59.9	0.36	0.10	5.0	0.161	0.32												
79058	640	14.2	107.5	0.017	0.42	2.10	11.5	4	3.2	141.0	0.71	0.09	8.0	0.281	0.68												
79059	740	8.0	80.1	-0.002	2.11	5.43	6.9	4	1.2	187.0	0.40	0.10	4.6	0.215	0.88												
79060																											
79061	270	2.4	18.0	-0.002	0.43	1.79	1.8	3	0.4	42.0	0.08	<0.05	1.1	0.039	0.15												
79062	1660	12.4	119.5	-0.002	0.53	3.12	10.5	6	1.8	181.0	0.56	0.11	7.3	0.247	0.85												
79063	710	3.8	35.5	-0.002	0.48	2.75	3.1	5	0.7	97.5	0.17	<0.05	2.2	0.075	0.19												

Comments: REE's may not be totally soluble in MS61 method.



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To: RELIANCE GEOLOGICAL SERVICES  
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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WN07082588**

Sample Description	Method Analyte Units L/R	U ppm	V ppm	W ppm	Y ppm	Zn ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	Ag ppm	Ag-OD2 ppm
79025		1.0	38	1.0	9.8	95	50.6					
79026		2.2	77	3.6	13.9	87	61.5					
79027		3.2	160	1.5	35.3	52	98.7					
79028		3.2	158	1.5	33.1	118	100.0					
79029		2.8	142	1.4	20.9	230	84.5					
79030		2.8	139	1.3	14.1	84	76.9					
79031		2.8	168	1.4	13.7	52	89.5					
79032		2.8	154	1.6	13.6	51	88.4					
79033		3.4	156	1.6	13.2	92	86.2					
79034		2.6	128	1.3	13.5	95	68.1					
79035		5.0	37	9.1	16.6	60	68.8					
79036		5.1	41	4.5	17.6	60	67.9					
79037		3.2	51	4.9	16.7	43	68.9					
79038		5.2	34	4.9	16.7	55	62.7					
79039		5.0	49	4.7	17.2	66	60.9					
79040												
79041		5.1	35	12.9	21.3	69	65.5					
79042		3.8	29	2.5	24.0	82	61.6					
79043		0.8	36	0.5	8.5	7	37.8					
79044		2.0	123	1.3	17.2	17	62.5					
79045		2.1	123	1.1	19.3	21	53.2					
79046		2.1	135	1.3	17.4	30	56.3					
79047		2.6	188	1.4	29.4	47	67.9					
79048		1.5	38	6.2	11.9	27	42.2					
79049		1.6	25	82.0	6.6	17	33.1					
79050		0.8	29	8.5	7.5	19	27.7					
79051		5.4	482	0.9	19.9	21	44.4					
79052		5.7	245	1.0	20.8	11	66.5					
79053		2.2	158	2.0	16.8	12	39.7					
79054		5.1	437	1.7	20.3	16	43.5					
79055		1.2	79	1.4	7.4	42	36.3					
79056		2.2	107	1.7	14.9	55	52.2					
79057		1.1	66	2.0	9.5	59	41.1					
79058		4.0	228	1600.0	24.7	94.1	107					
79059		3.0	103	111.8	15.1	70	48.0					
79060												
79061		1.0	15	3.5	2.7	18	12.2					
79062		6.5	185	64.9	18.4	43	69.7					
79063		1.7	57	7.5	6.9	33	23.4					

Comments: REE's may not be totally soluble in MS61 method.



# WN07091102

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**CERTIFICATE WN07091102**

Project: Ivanhoe Creek  
 P.O. No.:  
 This report is for 25 Drill Core samples submitted to our lab in Winnemucca, NV, USA on 18-AUG-2007.  
 The following have access to data associated with this certificate:  
 ED HARRINGTON

ALS CODE	DESCRIPTION
WEL-21	Received Sample Weight
LOG-22	Sample Login - Rcd w/o BarCode
LOG-24	Pulp Login - Rcd w/o Barcode
PUL-OC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ALS CODE	DESCRIPTION
ME-MS61	48 element four acid ICP-MS
Hg-CV41	Trace Hg - cold vapor/AAS
Ag-OG62	Ore Grade Ag - Four Acid
ME-OG62	Ore Grade Elements - Four Acid
AU-ICP22	Au 50g FA ICP-AES finish
	FIMS
	VARIABLE
	ICP-AES
	ICP-AES

To: RELIANCE GEOLOGICAL SERVICES  
 ATTN: ED HARRINGTON  
 3476 DARTMOOR PLACE  
 VANCOUVER BC V6S 4G2

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Lawrence Ng, Laboratory Manager - Vancouver

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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WN07091102**

Sample Description	Method Analysis Units LOR	ME-MS61														ME-MS1			
		WEI-21 Revd Wt kg 0.02	Au-ICP22 Au ppm 0.001	Ag ppm 0.01	As ppm 0.01	Al %	ME-MS61 %	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm	ME-MS61 ppm
75064	0.76	<0.001	0.09	2.16	2.2	380	0.36	0.21	0.54	0.12	49.00	0.3	4	3.47	26.7				
75065	1.22	<0.001	0.01	5.72	10.2	560	1.15	0.34	0.58	0.05	68.80	0.7	9	3.06	8.6				
75066	0.90	<0.001	<0.01	7.50	14.0	110	0.52	0.62	0.85	0.10	105.50	1.1	7	2.40	10.3				
75067	0.76	0.001	0.02	8.78	28.4	90	0.40	0.40	0.52	0.11	97.00	1.2	9	2.16	25.7				
75068	0.70	0.001	<0.01	9.47	13.0	630	0.57	0.64	0.48	0.07	154.00	0.2	9	1.70	20.9				
75069	1.02	0.001	0.17	9.39	84.3	80	0.68	0.11	0.60	1.48	84.60	21.0	<1	0.34	6.2				
75070	0.78	<0.001	0.13	7.27	19.3	480	3.46	1.47	1.18	0.97	88.20	4.8	17	35.60	9.2				
75071	0.68	<0.001	0.18	6.16	35.1	420	3.39	0.59	1.14	0.99	152.50	5.0	6	1.51	11.1				
75072	0.54	<0.001	0.41	7.45	22.8	243	4.38	0.81	1.22	1.08	116.00	4.6	4	24.30	16.7				
75073	0.62	<0.001	0.10	6.86	6.2	290	3.21	1.48	1.04	1.87	92.70	5.3	7	3.85	11.0				
75074	0.66	0.001	0.23	9.05	20.4	690	5.26	0.36	1.33	0.83	207.00	4.2	4	4.69	10.0				
75075	0.94	0.003	0.14	5.84	3.4	750	3.31	0.27	0.15	<0.02	69.00	2.2	81	13.85	32.1				
75076	1.16	0.005	0.26	6.69	4.1	6350	2.56	0.29	0.15	<0.02	80.40	1.6	82	12.80	33.1				
75077	0.52	0.038	0.09	6.44	6.6	290	1.83	0.39	0.21	<0.02	72.00	1.4	86	10.90	26.7				
75078	0.64	0.014	0.20	3.81	4.7	840	0.95	0.13	0.07	<0.02	47.40	1.2	44	4.32	24.9				
75079	0.84	0.007	13.25	3.00	11.9	850	2.33	0.14	0.20	0.08	37.10	4.8	44	3.81	87.3				
75080	0.66	0.004																	
75081	0.58	0.007	0.71	1.37	14.0	850	0.52	0.06	0.39	0.06	10.70	1.1	49	2.04	46.0				
75082	0.65	0.014	0.51	2.55	39.8	160	0.83	0.12	0.27	0.09	21.40	2.1	60	4.40	87.9				
75083	0.80	0.012	12.80	4.55	30.7	600	3.06	0.26	0.97	0.20	59.70	3.7	54	5.76	81.8				
75084	0.70	0.026	60.20	3.28	42.0	360	1.30	0.18	0.68	0.26	40.60	3.1	51	3.22	129.5				
75085	0.001	1.90	1.70	14.1	9.10	146	0.16	0.16	0.53	0.18	34.90	0.3	46	3.36	63.2				
75086	0.88	0.027	14.6	4.73	14.8	930	2.46	0.33	1.08	0.57	82.60	6.3	56	5.07	264.0				
75087	0.58	0.020	>100	4.78	16.9	700	0.63	0.09	2.67	0.29	26.10	1.1	52	3.45	29.5				
75088	0.54	0.023	1.40	2.20	14.7	370	0.63	0.09	2.67	0.29	26.10	1.1	52	3.45	29.5				

Comments: REE's may not be totally soluble in MS61 method. Detection limits on samples requiring dilutions for Hg-Cv41, due to interferences or high concentration levels, have been increased according to the dilution factor.

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Project: Ivanhoe Creek

**CERTIFICATE OF ANALYSIS WN07091102**

Sample Description	Method Analyte Units LOR	ME-MS61		ME-MS51		ME-MS51		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61	
		%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
79064		0.65	9.07	0.10	21.2	1.22	1.33	31.0	3.9	0.27	169	4.24	0.06	41.0	0.1	0.2	
79065		0.74	19.25	0.15	8.8	1.53	0.126	39.8	5.8	0.32	45	2.46	0.22	21.0	0.9		
79066		0.71	24.30	0.16	9.3	2.16	0.187	55.0	4.5	0.31	29	2.16	0.43	19.5	2.5		
79067		1.14	35.00	0.17	10.8	22.4	0.205	48.7	8.4	0.31	223	4.81	0.68	22.8	1.1		
79068		1.41	21.00	0.24	11.1	47.7	0.389	76.5	20.0	0.14	5	3.60	0.29	23.9	1.1		
79069		12.50	21.80	0.28	13.3	2.02	0.130	32.0	21.2	0.39	217	21.60	0.31	26.2	27.3		
79070		4.03	22.80	0.25	15.2	1.52	0.239	43.9	20.5	0.91	101	71.0	0.18	42.3	4.1		
79071		4.35	33.80	0.31	20.1	0.50	0.251	82.3	30.5	0.83	125	5.13	0.22	34.3	5.4		
79072		5.37	27.10	0.28	16.3	2.02	0.46	62.5	24.5	0.85	79	7.00	0.20	23.9	3.6		
79073		2.97	22.40	0.18	12.5	7.47	0.243	49.4	24.5	0.85	79	7.00	0.20	23.9	3.6		
79074		5.074	37.00	0.40	20.6	26.0	0.238	37.4	29.6	1.37	107	25.60	0.38	43.0	3.6		
79075		1.65	16.50	0.16	3.9	1.86	0.075	37.6	16.5	0.57	25	1.50	0.05	10.8	13.0		
79076		2.64	21.90	0.15	5.1	1.89	0.075	37.6	16.5	0.57	25	1.50	0.05	10.8	13.0		
79077		3.82	20.00	0.13	3.1	1.25	0.065	33.3	10.3	0.70	233	3.90	0.08	12.0	6.4		
79078		1.46	10.30	0.11	2.6	0.99	0.022	1.35	21.9	0.26	17	1.73	0.04	7.6	5.7		
79079		2.32	9.97	0.10	2.8	3.28	0.040	16.9	23.0	0.23	117	38.30	0.30	9.9	18.0		
79080		1.02	3.89	0.07	0.7	0.70	0.013	4.8	9.7	0.12	35	4.86	0.05	2.1	6.5		
79081		3.92	7.53	0.12	1.3	3.81	0.027	10.3	11.6	0.29	42	10.64	0.05	4.0	10.1		
79082		2.99	15.85	0.14	5.0	5.63	0.074	30.1	21.0	0.39	130	32.40	0.52	16.7	16.9		
79083																	
79084		2.27	9.33	0.11	3.4	4.40	0.060	18.7	13.0	0.28	90	18.80	0.16	8.6	22.0		
79085		1.72	9.26	0.09	2.9	3.95	0.089	16.4	13.2	0.23	78	9.90	0.23	9.9	13.3		
79086		2.83	4.72	0.07	0.8	1.05	0.072	0.46	8.7	0.11	38	7.62	0.04	4.2	7.0		
79087		1.63	15.75	0.15	7.2	3.06	0.121	32.5	22.7	0.48	124	16.80	0.35	18.8	50.9		
79088		1.97	7.84	0.20	0.8	3.86	0.021	0.88	12.5	0.22	52	5.46	0.05	5.5	6.8		

Comments: REE's may not be totally soluble in MS61 method. Detection limits on samples requiring dilutions for Hg-CV41, due to interferences or high concentration levels, have been increased according to the dilution factor.

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Project: Ivanhoe Creek

CERTIFICATE OF ANALYSIS WN07091102

Sample Description	ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		
	p	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	Tl	Tl	Tl	Tl	Tl	Tl
ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
75064	90	44.7	14.3	<0.002	0.02	0.75	5.5	2	7.2	114.0	2.88	0.06	10.7	0.287	0.13						
75065	1450	41.1	19.3	<0.002	2.48	1.70	13.0	2	3.0	737.0	1.32	-0.05	11.1	0.188	0.07						
75066	1940	19.5	29.2	<0.002	4.15	2.48	10.2	2	3.0	687.0	1.28	-0.05	10.7	0.193	0.06						
75067	1440	25.2	37.0	<0.002	4.93	2.65	12.1	2	3.7	827.0	1.52	-0.05	18.0	0.207	0.17						
75068	1800	21.3	21.6	<0.002	2.59	2.45	13.1	2	3.7	881.0	1.56	-0.05	22.3	0.237	0.07						
75069	210	30.3	5.1	0.008	>10.0	0.58	7.1	3	4.2	123.0	1.77	0.06	19.5	0.171	2.47						
75070	110	26.6	122.0	<0.002	2.22	0.75	9.6	2	4.5	134.0	2.10	0.06	16.0	0.300	1.36						
75071	360	32.6	11.5	<0.002	3.84	0.61	10.6	3	5.9	207.0	2.74	0.06	29.0	0.342	1.34						
75072	120	30.4	72.9	<0.002	3.83	1.48	10.7	3	5.1	147.5	2.34	0.06	19.9	0.286	1.10						
75073	100	20.0	24.7	<0.002	1.18	0.49	10.0	2	4.0	112.5	1.63	0.09	14.9	0.238	0.60						
75074	340	38.5	28.5	<0.002	3.46	1.32	7.4	4	7.0	130.0	2.87	-0.05	22.4	0.324	1.14						
75075	400	12.6	172.0	<0.002	0.51	0.59	11.1	2	1.9	117.0	0.84	-0.05	12.0	0.332	0.85						
75076	600	15.4	188.5	<0.002	0.23	0.98	12.9	2	2.6	150.0	1.13	0.10	15.3	0.332	0.59						
75077	1170	15.9	149.0	<0.002	1.46	1.17	12.9	3	2.2	178.5	0.93	0.09	12.7	0.314	0.56						
75078	290	13.2	70.7	<0.002	0.95	1.03	6.9	2	1.1	80.9	0.58	0.05	8.3	0.210	0.37						
75079	350	11.5	72.4	0.004	1.13	2.16	4.7	2	2.2	66.2	0.85	0.07	7.5	0.115	0.64						
75080	1770	7.2	27.7	<0.002	0.55	4.16	2.6	4	0.6	87.9	0.14	0.05	2.0	0.067	0.23						
75081	1160	7.2	61.8	<0.002	3.51	8.17	5.8	7	0.9	75.3	0.30	0.09	4.0	0.140	1.00						
75083	3170	18.4	110.5	0.003	1.93	6.47	7.2	6	4.1	116.0	1.40	0.06	12.1	0.176	1.07						
75084	2560	7.3	41.4	0.058	1.63	7.17	4.8	6	2.0	167.5	0.83	0.05	5.6	0.114	0.56						
75085	1730	12.1	63.0	0.003	0.64	3.62	2.9	4	0.3	109.5	0.79	0.05	6.6	0.086	1.34						
75086	2210	4.5	28.2	<0.002	0.59	7.43	7.6	4	6.5	116.0	1.45	0.12	12.1	0.082	0.23						
75087	2550	19.3	74.3	0.008	1.52	2.83	7.8	4	6.5	116.0	1.45	0.12	12.1	0.082	0.23						
75088	>10000	7.7	49.0	<0.002	1.80	12.60	5.5	15	0.8	198.5	0.37	0.22	4.4	0.121	0.38						

Comments: REE's may not be totally soluble in MS61 method. Detection limits on samples requiring dilutions for Hg-CV41, due to interferences or high concentration levels, have been increased according to the dilution factor.



To: RELIANCE GEOLOGICAL SERVICES  
418 EAST 14TH ST  
NORTH VANCOUVER BC V7L 2N8

Project: Ivanhoe Creek  
CERTIFICATE OF ANALYSIS WN07091102

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Sample Description	Method		Analysis		Units		COR		ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		Ag-O362	
	U	V	W	Y	Zn	Zr	Ag		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
79064	4.8	28	2.6	19.8	28				0.1	0.1	2	0.5								
79065	9.9	105	1.0	23.4	39															
79066	18.0	59	1.4	41.4	33															
79067	8.3	80	2.1	19.3	36															
79068	11.1	80	2.6	19.4	25															
79069	7.2	43	1.2	77.2	344															
79070	4.2	276	0.9	60.5	143															
79071	6.9	41	1.4	89.1	218															
79072	5.7	32	1.4	72.8	125															
79073	4.2	35	1.5	54.0	223															
79074	6.6	128	1.6	102.5	239															
79075	2.9	138	1.7	16.3	30															
79076	3.2	147	3.2	16.8	24															
79077	2.9	152	1.9	12.0	40															
79078	2.5	110	1.2	11.9	20															
79079	2.5	97	116.5	24.7	56															
79080	1.4	40	1.2	5.3	17															
79081	3.4	92	1.9	10.9	32															
79082	5.5	178	138.0	38.1	66															
79083	2.6	88	354.0	33.1	76															
79084	2.6	77	120.3	22.5	58															
79085	3.9	222	2.0	13.7	13															
79086	7.4	140	1130.0	45.8	118															
79087	14.9	77	1.5	19.0	23															
79088																				

Comments: REE's may not be totally soluble in MS61 method. Detection limits on samples requiring dilutions for Hg-CV41, due to interferences or high concentration levels, have been increased according to the dilution factor.

12-338-08679-01

IAC Sparks, NV  
605 Boxington Way Suite 101  
Sparks, Nevada 89434 USA  
Phone: 775.359.6311

## Certificate of Analysis

### 12-338-08679-01



**Distribution List**  
Attention: Greg Ferdock  
1982 Ruby View Drive  
Elko, Nevada 89801  
EMail: mineraldoc@cgjgeo.com  
Attention: Rick Redfern

Submitted By: Zahav Resources Inc  
1982 Ruby View Drive  
Elko, Nevada 89801

Attention: Greg Ferdock

Client Reference: RMR  
Description: RMR-01 to RMR-18

Date Received: 11/14/2012  
Date Completed: 12/14/2012  
Invoice:

Location	Samples	Type	Preparation Description
Reno, NV	18	Rock	SP-RX-2K/Rock/Clips/Drill Core/Cuttings <2Kg

Location	Quantity	Method	Description
Reno, NV	18	Au-IAT-AA	Au, IAT Fire Assay, AAS
Reno, NV	18	50-4A-UT	50 Element, 4 Acid, ICPMS, Ultra Trace Level
Reno, NV	3	Hg-AR-OR-CVAA	Hg, AQR, CVAA, Ore Grade
Reno, NV	18	Hg-AR-TR-CVAA	Hg, AQR, CVAA, Trace Levels

For and on behalf of: **Inspectorate America Corporation**

By   
Brian Park-U - Operations Manager

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geologic materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project. For our complete terms and conditions please see our website at [www.inspectorate.com](http://www.inspectorate.com).

Zahav Resources Inc  
1982 Ruby View Drive  
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## Certificate of Analysis 12-338-08679-01

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Sparks, Nevada 89434 USA

Sample Description	Sample Type	Cd		Co		Cr		Cs		Cu		Fe		Ga		Ge		In		K		Li		Mg		Mn		Mo	
		ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	%	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	%	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	%	50-4A-UT	ppm	50-4A-UT
RMR-01	Rock	0.05	0.1	0.6	308	0.05	308	0.28	2.0	0.82	2.0	0.82	0.01	1.68	<0.05	<0.01	<0.01	0.01	0.01	0.04	0.01	3.6	0.04	0.01	0.01	0.12	69	1.49	
RMR-02	Rock	0.19	1.0	5.17	150	5.17	150	5.17	7.6	2.30	7.6	2.30	0.82	15.56	0.09	0.07	0.09	0.07	0.07	2.68	61.1	0.12	0.12	0.12	0.12	308	1.86		
RMR-03	Rock	0.17	0.9	4.08	159	4.08	159	4.08	5.3	1.28	5.3	1.28	2.14	15.92	0.26	0.04	0.26	0.04	0.04	3.16	26.4	0.04	0.04	0.04	0.04	163	2.83		
RMR-04	Rock	0.20	1.0	2.60	260	1.30	260	1.30	7.5	2.14	7.5	2.14	3.82	3.82	0.12	0.03	0.12	0.03	0.26	0.26	2.2	0.04	0.04	0.04	0.04	116	2.14		
RMR-05	Rock	0.10	1.0	0.24	531	0.24	531	0.24	2.2	1.03	2.2	1.03	1.30	1.30	0.17	<0.01	0.17	<0.01	0.05	0.05	1.1	0.02	0.02	0.02	0.02	102	0.71		
RMR-06	Rock	0.07	2.6	0.07	626	0.07	626	0.07	2.5	1.26	2.5	1.26	0.43	0.43	0.50	<0.01	0.50	<0.01	0.03	0.03	0.6	<0.01	<0.01	<0.01	<0.01	79	0.40		
RMR-07	Rock	0.22	<0.1	2.39	239	1.01	239	1.01	5.2	6.37	5.2	6.37	5.05	5.05	0.60	0.07	0.60	0.07	0.44	0.44	2.3	0.13	0.13	0.13	0.13	90	5.81		
RMR-08	Rock	0.17	2.3	5.20	520	0.24	520	0.24	3.8	1.28	3.8	1.28	1.39	1.39	0.30	<0.01	0.30	<0.01	0.06	0.06	2.2	0.03	0.03	0.03	0.03	205	0.93		
RMR-09	Rock	0.17	3.1	26	26	5.13	26	5.13	14.4	3.03	14.4	3.03	18.22	18.22	0.31	0.07	0.31	0.07	1.37	1.37	21.5	0.98	0.98	0.98	0.98	315	0.23		
RMR-10	Rock	0.42	0.5	314	314	0.86	314	0.86	5.1	6.38	5.1	6.38	5.34	5.34	1.66	0.06	1.66	0.06	0.11	0.11	1.3	0.03	0.03	0.03	0.03	64	4.14		
RMR-11	Rock	0.44	0.6	39	39	4.71	39	4.71	10.3	2.44	10.3	2.44	13.11	13.11	0.35	0.09	0.35	0.09	1.15	1.15	13.1	0.49	0.49	0.49	0.49	97	3.56		
RMR-12	Rock	0.12	1.3	722	722	0.29	722	0.29	3.1	2.73	3.1	2.73	1.87	1.87	0.41	0.01	0.41	0.01	0.06	0.06	1.9	0.02	0.02	0.02	0.02	107	2.50		
RMR-13	Rock	0.06	0.5	77	77	0.76	77	0.76	0.6	0.51	0.6	0.51	1.16	1.16	0.08	<0.01	0.08	<0.01	0.11	0.11	0.5	0.05	0.05	0.05	0.05	60	0.45		
RMR-14	Rock	<0.02	0.7	70	70	1.13	70	1.13	7.1	1.71	7.1	1.71	15.32	15.32	0.32	0.09	0.32	0.09	0.42	0.42	10.8	0.01	0.01	0.01	0.01	23	4.82		
RMR-15	Rock	0.20	1.2	25	25	2.50	25	2.50	40.3	4.95	40.3	4.95	19.53	19.53	0.16	0.13	0.16	0.13	0.42	0.42	8.1	0.89	0.89	0.89	0.89	179	0.91		
RMR-16	Rock	0.12	0.4	148	148	5.76	148	5.76	3.9	1.20	3.9	1.20	17.08	17.08	0.35	0.07	0.35	0.07	4.09	4.09	51.5	0.07	0.07	0.07	0.07	127	1.74		
RMR-17	Rock	0.12	0.4	148	148	5.76	148	5.76	3.9	1.20	3.9	1.20	17.08	17.08	0.35	0.07	0.35	0.07	3.48	3.48	46.0	0.12	0.12	0.12	0.12	133	2.34		
RMR-18	Rock	0.13	0.7	179	179	5.10	179	5.10	4.6	1.09	4.6	1.09	16.94	16.94	0.26	0.18	0.26	0.18	3.30	3.30	36.9	0.17	0.17	0.17	0.17	90	3.27		

Data Page 2 of 4


Zahav Resources Inc  
1982 Ruby View Drive  
Elko, Nevada 89801

## Certificate of Analysis 12-338-08679-01

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605 Boxington Way Suite 101  
Sparks, Nevada 89434 USA

Au	Au-IAT-AA	Ag	50-4A-UT	Ce	50-4A-UT	Hf	50-4A-UT	La	50-4A-UT	Hg	50-4A-UT	Hg	50-4A-UT	Bi	50-4A-UT	Ca	50-4A-UT





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**Certificate of Analysis**  
**12-338-08679-01**

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1982 Ruby View Drive  
Elko, Nevada 89801

Sample Description	Sample Type	Na		Nb		Ni		P		Pb		Re		Sb		Sc		S		Se		Rb		Sn		Sr		Ta	
		50-4A-UT	%	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	%	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm
RMR-01	Rock	0.01	0.03	<0.1	6.1	0.2	45	3.2	<0.002	1.45	0.2	0.034	<1.0	1.0	0.1	0.2	0.3	25.0	0.05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.05
RMR-02	Rock	1.78	13.2	4.4	409	43.8	1.71	1.3	0.024	1.71	1.3	0.011	2.5	190.1	6.6	40.4	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
RMR-03	Rock	1.92	15.5	4.1	633	29.2	0.026	<0.05	1.1	0.021	2.5	175.7	5.1	29.2	5.1	29.2	5.1	29.2	5.1	29.2	5.1	29.2	5.1	29.2	5.1	29.2	5.1	29.2	5.1
RMR-04	Rock	0.04	4.1	4.3	315	16.9	0.099	0.98	3.3	0.386	<1.0	9.4	1.6	72.9	1.6	72.9	1.6	72.9	1.6	72.9	1.6	72.9	1.6	72.9	1.6	72.9	1.6	72.9	1.6
RMR-05	Rock	0.03	7.1	8.6	63	3.6	<0.002	2.76	1.5	0.025	<1.0	0.4	1.3	16.5	1.3	16.5	1.3	16.5	1.3	16.5	1.3	16.5	1.3	16.5	1.3	16.5	1.3	16.5	1.3
RMR-06	Rock	0.01	<0.1	9.0	22	<0.5	0.094	3.98	1.4	0.012	3.2	<0.1	0.6	3.7	<0.05	3.7	<0.05	3.7	<0.05	3.7	<0.05	3.7	<0.05	3.7	<0.05	3.7	<0.05	3.7	<0.05
RMR-07	Rock	0.03	3.5	4.0	391	13.3	0.010	3.78	5.2	0.300	<1.0	1.4	1.5	126.5	1.5	126.5	1.5	126.5	1.5	126.5	1.5	126.5	1.5	126.5	1.5	126.5	1.5	126.5	1.5
RMR-08	Rock	0.02	7.6	8.0	64	3.7	0.005	1.90	3.1	0.036	1.6	1.3	1.9	23.4	1.9	23.4	1.9	23.4	1.9	23.4	1.9	23.4	1.9	23.4	1.9	23.4	1.9	23.4	1.9
RMR-09	Rock	0.80	8.4	4.9	544	21.1	0.019	<0.05	10.7	0.366	1.8	97.9	3.0	253.7	3.0	253.7	3.0	253.7	3.0	253.7	3.0	253.7	3.0	253.7	3.0	253.7	3.0	253.7	3.0
RMR-10	Rock	0.02	3.7	4.0	179	34.7	0.010	3.60	7.4	0.111	6.5	4.5	2.0	77.4	2.0	77.4	2.0	77.4	2.0	77.4	2.0	77.4	2.0	77.4	2.0	77.4	2.0	77.4	2.0
RMR-11	Rock	0.35	12.8	1.4	478	29.1	0.008	<0.05	4.5	1.098	<1.0	46.2	4.1	103.8	4.1	103.8	4.1	103.8	4.1	103.8	4.1	103.8	4.1	103.8	4.1	103.8	4.1	103.8	4.1
RMR-12	Rock	0.03	3.6	10.1	108	33.0	0.007	3.98	2.6	0.027	<1.0	1.8	1.1	12.5	1.1	12.5	1.1	12.5	1.1	12.5	1.1	12.5	1.1	12.5	1.1	12.5	1.1	12.5	1.1
RMR-13	Rock	0.03	<0.1	1.9	32	13.8	0.006	<0.05	3.5	0.010	<1.0	1.2	1.0	31.5	1.0	31.5	1.0	31.5	1.0	31.5	1.0	31.5	1.0	31.5	1.0	31.5	1.0	31.5	1.0
RMR-14	Rock	0.11	12.5	1.4	1013	23.9	0.016	<0.05	6.9	0.837	2.1	5.3	3.6	835.4	3.6	835.4	3.6	835.4	3.6	835.4	3.6	835.4	3.6	835.4	3.6	835.4	3.6	835.4	3.6
RMR-15	Rock	0.12	16.6	2.1	281	21.8	0.016	<0.05	6.3	0.341	<1.0	26.4	3.5	71.7	3.5	71.7	3.5	71.7	3.5	71.7	3.5	71.7	3.5	71.7	3.5	71.7	3.5	71.7	3.5
RMR-16	Rock	2.83	35.8	3.3	281	54.8	0.025	<0.05	1.0	0.017	2.9	309.1	12.8	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
RMR-17	Rock	1.89	34.1	4.1	185	49.9	0.017	<0.05	0.5	0.017	1.8	245.4	10.7	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48
RMR-18	Rock	2.01	38.6	4.3	182	52.7	0.012	1.84	0.7	0.036	<1.0	219.2	18.7	38.6	18.7	38.6	18.7	38.6	18.7	38.6	18.7	38.6	18.7	38.6	18.7	38.6	18.7	38.6	18.7

Data Page 3 of 4



Zahav Resources Inc  
1982 Ruby View Drive  
Elko, Nevada 89801

**Certificate of Analysis**  
**12-338-08679-01**

 **INSPECTORATE**  
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605 Boxington Way Suite 101  
Sparks, Nevada 89434 USA

Sample Description	Sample Type	Te	Tb	Ti	Ti	U	V	W	Y	Zn	Zn	Zr
		50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT	50-4A-UT
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.05	0.2	0.005	0.02	0.1	1	0.1	0.1	2	2	0.5
RMR-01	Rock	<0.05	2.7	0.034	0.49	16.6	6	<0.1	8.8	<2	<2	24.9
RMR-02	Rock	<0.05	20.7	0.046	1.45	14.4	26	<0.1	80.8	135	135	26.2
RMR-03	Rock	<0.05	21.4	0.047	<0.02	25.5	10	<0.1	73.9	54	54	26.0
RMR-04	Rock	<0.05	5.2	0.279	0.11	9.3	40	<0.1	13.0	3	3	53.2
RMR-05	Rock	<0.05	0.4	0.089	1.54	12.4	4	<0.1	3.9	<2	<2	164.2
RMR-06	Rock	<0.05	<0.2	0.120	0.58	13.3	3	<0.1	0.8	<2	<2	100.3
RMR-07	Rock	<0.05	6.3	0.234	0.14	4.3	197	<0.1	28.9	4	4	117.3
RMR-08	Rock	<0.05	1.3	0.153	0.73	6.2	10	<0.1	5.0	<2	<2	172.2
RMR-09	Rock	<0.05	11.3	0.390	1.26	4.0	54	<0.1	40.5	91	91	300.4
RMR-10	Rock	<0.05	8.2	0.317	0.68	17.8	89	<0.1	29.4	5	5	59.9
RMR-11	Rock	<0.05	11.4	0.408	2.08	3.2	39	<0.1	17.9	69	69	183.4
RMR-12	Rock	<0.05	1.4	0.229	0.68	8.3	36	<0.1	5.6	<2	<2	61.6
RMR-13	Rock	<0.05	0.4	0.130	0.23	7.7	5	<0.1	3.1	3	3	179.1
RMR-14	Rock	<0.05	18.1	0.187	1.27	6.8	33	<0.1	29.8	7	7	108.7
RMR-15	Rock	<0.05	14.3	0.249	1.03	4.4	48	<0.1	42.1	81	81	320.8
RMR-16	Rock	<0.05	34.2	0.048	3.45	7.4	11	<0.1	78.5	88	88	77.9
RMR-17	Rock	<0.05	30.1	0.039	2.46	8.6	13	0.2	70.5	81	81	77.1
RMR-18	Rock	<0.05	33.0	0.043	2.24	8.2	9	0.7	34.4	44	44	95.1

Data Page 4 of 4

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**Certificate of Analysis**  
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Sample Description	Au		Ag		Ce		Hf		La		Hg		Hg		Hg		Al		As		Ba		Be		Bi		Ca		
	Au-IAT-AA ppb	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	Hg-AR-OR-CVAA ppb	Hg-AR-TR-CVAA ppm	Hg-AR-TR-CVAA ppb	Hg-AR-TR-CVAA ppm	Hg-AR-TR-CVAA ppb	Hg-AR-TR-CVAA ppm	50-4A-UT %	50-4A-UT %	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT %	50-4A-UT %	
QC-V1211-010668-0001-BLK	5	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1	100	0.01	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	<0.2	<5	<5	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	
STD-STSD-4 expected		0.00	44.00	5.5	24.0	5.5	24.0												15.0	2000	1.70	1.70							
STD-STSD-4 result		0.29	32.46	<0.1	17.7	<0.1	17.7												10.0	1851	0.90	0.90							
RMR-01		0.27	6.83	<0.1	6.1	<0.1	6.1												1.5	618	3.22	3.22							
RMR-01 Dup		0.27	6.26	<0.1	6.4	<0.1	6.4												2.0	634	3.12	3.12							
QC-V1211-010668-0004-BLK		<0.01	<0.01	<0.1	<0.1	<0.01	<0.1												<0.2	<0.2	<5	<5	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	
STD-OREAS 92 expected		0.70																											
STD-OREAS 92 result		0.83																											
QC-V1211-010669-0001-BLK									<0.01	<10																			
STD-OREAS 45P expected																													
STD-OREAS 45P result																													
RMR-01																													
RMR-01 Dup																													
STD-CDN-ME-8 expected																													
STD-CDN-ME-8 result																													
QC-V1211-010669-0005-BLK																													
STD-CDN-ME-8 expected																													
STD-CDN-ME-8 result																													
QC-V1211-010670-0001-BLK																													
RMR-01																													
RMR-01 Dup																													
STD-OCX87 expected																													
STD-OCX87 result																													
STD-OCX87 expected																													
STD-OCX87 result																													
STD-OCX88 expected																													
STD-OCX88 result																													
STD-OCX81 expected																													
STD-OCX81 result																													
STD-CDN-FCM-6 expected																													
STD-CDN-FCM-6 result																													

QC Data Page 1 of 4

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**Certificate of Analysis**  
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Sparks, Nevada 89434 USA

Sample Description	Sample Type	Cd		Cr		Cs		Cu		Fe		Ga		Ge		In		K		Li		Mg		Mo	
		50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm
QCQ1211-01068-001-BLK		0.02	<0.1	<1	<0.05	<0.2	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
STD-STSD-4 expected		13.0	93	1.90	65.0	4.10	3.89	1.68	1.51	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
STD-STSD-4 result		7.2	56	1.08	67.1	3.89	3.89	1.68	1.51	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
RMR-01	Rock	0.05	0.6	308	0.28	2.0	0.82	1.68	1.51	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
RMR-01 Dup		0.07	0.7	274	0.29	1.9	0.84	1.51	1.51	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
QCQ1211-01068-004-BLK		<0.02	<0.1	<1	<0.05	<0.2	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
STD-OREAS 92 expected		16.3	101			2294.0																			
STD-OREAS 92 result		10.1				2422.9																			
STD-OREAS 45P expected																									
STD-OREAS 45P result																									
STD-CDN-ME-8 expected																									
STD-CDN-ME-8 result																									
STD-CDN-ME-8 expected																									
STD-CDN-ME-8 result																									
STD-OXD87 expected																									
STD-OXD87 result																									
STD-OXD87 expected																									
STD-OXD87 result																									
STD-OXC88 expected																									
STD-OXC88 result																									
STD-OXB1 expected																									
STD-OXB1 result																									
STD-CDN-FCM-6 expected																									
STD-CDN-FCM-6 result																									



Zahav Resources Inc  
1982 Ruby View Drive  
Elko, Nevada 89801

**Certificate of Analysis**  
**12-338-08679-01**



A Bureau Veritas Group Company  
605 Boxington Way Suite 101  
Sparks, Nevada 89434 USA

Sample Description	Na		Nb		Ni		P		Pb		Re		Sb		Sc		S		Se		Rb		Sn		Sr		Ta			
	50-4A-UT	%	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	%	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm	50-4A-UT	ppm		
QCVR11-01068-000-RLK	<0.01		<0.1	<0.2	<10	<0.5	<0.002	<10	<0.5	<0.002	<0.002	<0.002	<0.05	<0.1	<0.01	<1.0	<0.01	<0.01	<1.0	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	
STD-STSD-4 expected																														
STD-STSD-4 result																														
RMR-01	0.03		9.0	30.0	45	16.4		45	16.4			4.90	14.0	0.090	39.0	2.0	0.084	0.084	<1.0	25.3	0.9	350.0	0.60	350.0	0.60	350.0	0.60	350.0	0.60	
RMR-01 Dup	0.02		<0.1	6.1	45	3.2	<0.002	45	3.2	<0.002		2.62	0.2	0.034	0.3	0.3	0.034	0.034	<1.0	0.3	3.3	25.0	1.06	25.0	1.06	25.0	1.06	25.0	1.06	
QCVR11-01068-000-RLK	0.01		<0.1	6.4	<10	3.5	<0.002	<10	3.5	<0.002	<0.002	1.39	0.4	0.035	0.2	0.2	0.035	<0.01	<1.0	<1.0	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	
STD-OREAS-92 expected																														
STD-OREAS-92 result																														
STD-OREAS-43P expected																														
STD-OREAS-43P result																														
STD-CDN-ME-8 expected																														
STD-CDN-ME-8 result																														
STD-CDN-ME-8 expected																														
STD-CDN-ME-8 result																														
STD-CDN-ME-8 expected																														
STD-CDN-ME-8 result																														
STD-CDN-FCM-6 expected																														
STD-CDN-FCM-6 result																														

QC Data Page 3 of 4



Zahav Resources Inc  
1982 Ruby View Drive  
Elko, Nevada 89801

# Certificate of Analysis

## 12-338-08679-01



Bureau Veritas Group Company  
605 Boxington Way Suite 101  
Sparks, Nevada 89434 USA

Sample Description	Sample Type	Te		Th		Tl		U		V		W		Y		Zn		Zr	
		50-4A-UT ppm	50-4A-UT %	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm	50-4A-UT ppm
QC1211-01068-0001-BLK		0.05	0.005	0.2	0.02	<0.05	<0.02	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<2	<0.5	<0.5	<0.5
STD-STSD-4 expected				4.3		0.453		3.0	106	0.0	0.0	0.0	24.0	100	107	190.0	24.1	24.1	24.1
STD-STSD-4 result				2.2		0.322		2.0	83	<0.1	<0.1	<0.1	14.9	100	<2	24.9	24.9	24.9	24.9
RMR-01	Rock			2.7		0.034		16.6	6	<0.1	<0.1	<0.1	8.8	5	5	27.1	27.1	27.1	27.1
RMR-01 Dup				3.1		0.034		17.6	6	<0.1	<0.1	<0.1	9.3	5	5	27.1	27.1	27.1	27.1
QC1211-01068-0004-BLK				<0.05		<0.005		<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<2	<0.5	<0.5	<0.5	<0.5
STD-OREAS 92 expected																			
STD-OREAS 92 result																			
STD-OREAS 45P expected																			
STD-OREAS 45P result																			
STD-CDN-ME-8 expected																			
STD-CDN-ME-8 result																			
STD-CDN-ME-8 expected																			
STD-CDN-ME-8 result																			
STD-OXD87 expected																			
STD-OXD87 result																			
STD-OXD87 expected																			
STD-OXD87 result																			
STD-OCX38 expected																			
STD-OCX38 result																			
STD-OX181 expected																			
STD-OX181 result																			
STD-CDN-FCM-6 expected																			
STD-CDN-FCM-6 result																			

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