ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Dump Rock Study, Silver King Mine

TOTAL COST: $1,730.62

AUTHOR(S): J. Donald Graham, P. Eng.

SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):

YEAR OF WORK: 2015
PROPERTY NAME: Silver King Mine
CLAIM NAME(S) (on which work was done):
unnamed title 1029505

COMMODITIES SOUGHT: silver, copper, lead, zinc

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: 082FSW176

MINING DIVISION: Nelson
NTS / BCGS: 082F/6
LATITUDE: 49 ° 25’ 18" N
LONGITUDE: 117° 18’ 04"
UTM Zone: 11 EASTING: 478200
Northing 5474300

OWNER(S): J. D. Graham & J. D. Graham & Associates Ltd.

MAILING ADDRESS: 8740 Brouwer Place, Chemainus, BC, V0R 1K5

OPERATOR(S) [who paid for the work]: J. D. Graham & Associates Ltd.

MAILING ADDRESS: above

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)

Dump rock, sorting, concentration, assay of copper, silver, lead, zinc. Value of rock

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

EMPR ASS RPT 12611

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
RELATED TECHNICAL			
Sampling / Assaying	4 kg of samples	1029505	$1,730.62
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			

Bonanza Dump Rock Study
Silver King Mine

NELSON MINING DIVISION
BRITISH COLUMBIA

NAD 83 UTM 11 478200E, 5474300N
MAPSHEET: 082F/6

Registered Owner: J. D. Graham

Operator: J. D. Graham & Associates Ltd.

Author J. D. Graham, P. Eng.

Date submitted: October 18, 2015

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List of Maps

Appendix

1. Introduction

The Silver King mine is located 7 kilometres southeast of the town of Nelson in southeastern British Columbia on the north east slope of Toad Mountain. The terrain has moderate slopes in a sub alpine setting. Portions of the property were logged in the late 1980's. Access from the Nelson – Salmo highway is via the Gold Creek logging road.

The property is underlain by the Lower Jurassic Elise Formation. Mineralization occurs in the Silver King shear zone. The Silver King Mine produced from 1889 to 1913, then intermittently up to 1958. Production of 202,049 tonnes of ore returned 138,214,612 grams silver, 8,896 grams gold, 6,789,739 kilograms copper, 15,234 kilograms lead and 4,071 kilograms zinc. Average grade was 684 g/t silver and 3.36% copper.

MINFILE resources include dumps containing 6,186 tonnes, grading Ag 4.13 grams per tonne, Cu 1.16% and Pb 0.09%. (Aylward, Assessment Report 12611, 1983) The work documented in the present report is a preliminary study of the feasibility of identifying ore grade dump mineralization with a view to sorting and shipping for concentration and smelting.

Work was done on the following claim.

Number	Name	Owner	Anniversary	Size (Ha)
1029505	un named	J. D. Graham	July 9	42.03

Note: This claim is held in trust for J. D. Graham & Associates Ltd.

2. Regional and Local Geology

Hoy and Andrew (1989) describe the regional geology of the Nelson area, as follows (Map 2). Most of the Nelson region is underlain by Jurassic-aged mafic to intermediate volcanic rocks of the Rossland Group, comprised of three formations: Archibald, Elise, and Hall. Volcanic rocks of the Elise Formation host the Silver King mine. Coarse clastic sediments make up the overlying Hall Formation, and finer clastic metasediments comprise the underlying Archibald Formation. These formations are intruded by the mid to late Jurassic Nelson Batholith, mid Eocene Coryell syenite, and Tertiary rhyolite and lamprophyre dykes. The Elise Formation consists of interfingering lenses of massive to brecciated, mostly andesitic to mafic flows, tuffs, subvolcanic porphyries, and minor epiclastics. The Silver King mine is hosted by the upper Elise Formation within predominantly mafic to intermediate volcanic and volcanoclastic rocks. Northwest trending tight folds and associated shear zones dominate the structure of the Toad Mountain area. The Hall Creek syncline, a south-

plunging, west-dipping, overturned fold, is the most prominent feature in the region. The core of this fold comprises a zone of intense shearing called the Silver King Shear. The Silver King Property lies directly over this shear zone, which exceeds 1000 metres in width. The shear is the focus of abundant sericite, chlorite, quartz, carbonate, hematite, and epidote alteration in discrete to pervasive zones throughout the property.

The Elise Formation is the main host rock for mineralization at Silver King, and is mainly comprised of volcanic augite porphyry and chlorite schist. Volcaniclastic rocks are mostly coarse mafic to intermediate pyroclastic or flow breccias. Lenses of more felsic material are common, and have been variously interpreted as either metasedimentary/metavolcanic layers or intrusives. The Silver King Porphyry, a plagioclase porphyry of quartz-dioritic composition, outcrops to the southeast of the Silver King Mine area (Mulligan, 1952 and Hoy and Andrew, 1989), but is not presently a major host to mineralization. The Silver King Shear Zone trends northwest along the Hall Creek Syncline and is bounded by the Silver King Intrusion in the southeast and the Eagle Creek Plutonic Complex in the northwest.

There are several mineralized veins and structures on the Silver King property, including the Main Silver King Vein, King Vein, Iroquois Vein, and Kohinoor Vein. These veins strike southeast, subparallel to the Silver King shear. Other known veins include the K-vein, Cross Fault structure, and Queen Vein which strike approximately north-south or east-west. All mineralized veins occur as siliceous (quartz-chalcedony-chert) breccias within larger iron-manganese carbonate alteration halos. Hematite spotting and dusting is common in the carbonate alteration halo, and often extends into lesser-altered andesite host rocks. The andesite may be chloritized or sericitic, and locally exhibits epidote alteration. Significant zones within the andesitic host rocks comprise quartz ± carbonate “spotted” andesites. However, this spotted texture, previously referred to as “amygdaloidal”, is actually a feature resulting from tectonic milling in a hydrothermal environment, resulting in shearing and cross-shearing of previously formed quartz and carbonate veins and stockwork. The main sulphide minerals in the veins include pyrite, chalcopyrite, galena, sphalerite, tetrahedrite-tennantite, and bornite. There is also minor argentite, stromeyerite, and other silver-bearing minerals. Alteration associated with mineralized veins is well-zoned, is well-zoned, from distal regional calcite and chlorite to proximal iron manganese carbonate and quartz.

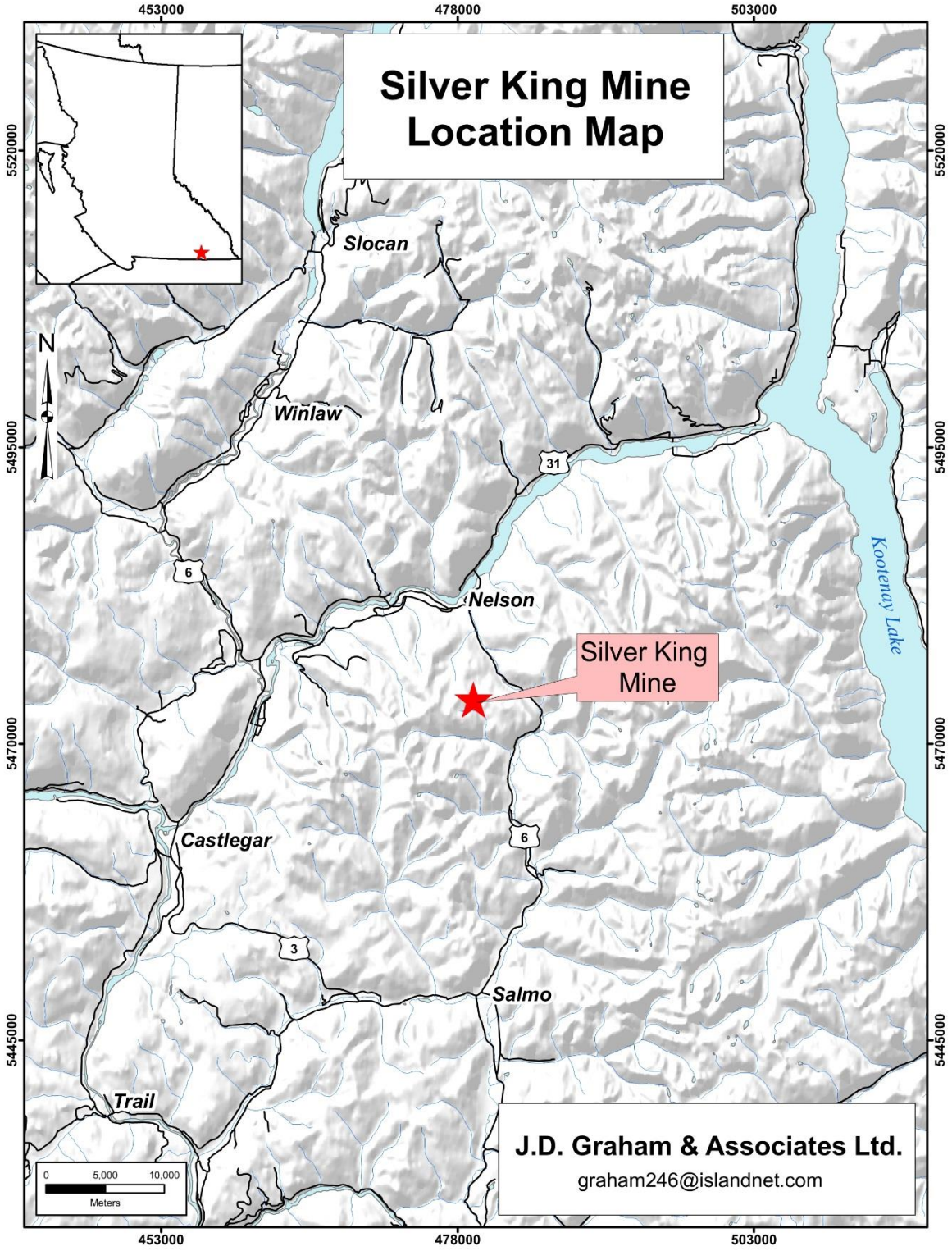
3. Detailed Technical Data and Interpretation

3.1 Objective and Scope

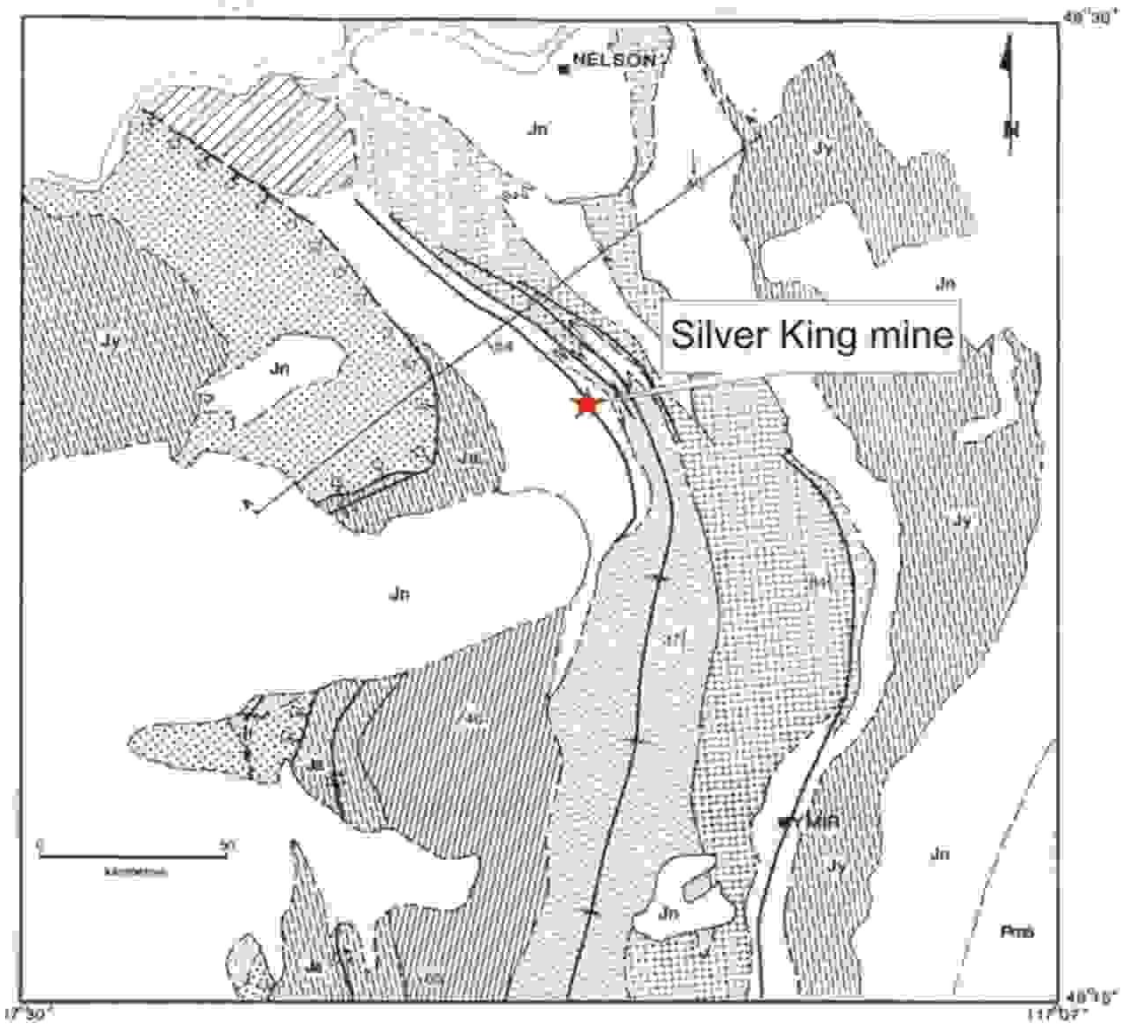
The potential exists for recovering ore from the Silver King dumps. On-site preliminary concentration is indicated to reduce the cost of transport to a final concentration site. Various approaches for on-site preliminary concentration are possible including sink-float technology and hand sorting. Visual grade estimation would be required to guide the on-site preliminary concentration.

The primary objective of this study is to obtain a preliminary measure of the grade of mineralized rock in the dump. The secondary objective is to establish a guide for visual grade estimation and to provide experience in identifying stromeyerite, the primary silver bearing mineral. The scope of this work is the study and analysis of a limited number of hand specimens collected from dumps to achieve the stated objectives.

The Bonanza area is the site of various small pits and the collar of the Bonanza shaft. Small dumps surround these workings and sections of the bed rock is mineralized. On a previous examination of this area by BC government geologists stromeyerite was observed on several dump cobles. This dump was not sampled nor mentioned by Aylward.


Silver King Mine
Location Map
453000
478000
503000
5520000
5495000
5470000
5445000
Slocan
N
Winlaw
31
6
Nelson
Kootenay Lake
Silver King
Mine
Castlegar
6
3
Salmo
Trail
0
5,000
10,000
Meters
J.D. Graham & Associates Ltd.
graham246@islandnet.com

Map 1



LEGEND

MIDDLE JURASSIC
Jn NELSON intrusions

LOWER OR MIDDLE JURASSIC (?)
diorite (?)

LOWER JURASSIC
ROSSLAND GROUP
SILVER KING intrusions
HALL FORMATION

ELISE FORMATION
upper Elise
intermediate to mafic lapilli, crystal and lithic tuff
intermediate lapilli and crystal tuff

lower Elise
mafic flow breccia, flows
mafic pyroclastic breccia, crystal tuff

Ja ARCHIBALD FORMATION

Jy YMIR GROUP

PALEOZOIC
Pms metasedimentary rocks

Hoy and Andrew (1989)

Regional Geology
Map 2

3.2 Ore Minerals

Ore minerals are primarily chalcopyrite, bornite, stromeyerite, galena and sphalerite. In the Kootenay mines silver is usually associated with galena. However at the Silver King the presence of stromeyerite suggests a closer silver – copper association.

3.3 Selection and treatment of samples

The Bonanza dump was chosen for study because of the abundance of higher grade rock and reported presence of Stromeyerite. Approximately 4 kilograms of well mineralized dump rock was collected. Lab work commenced by selecting four of the more heavily mineralized samples for study (samples Bon1 – Bon4). Sample sizes varied from 300 to 500 grams..

The author examined, described and estimated the Cu, Ag and Pb grade of each sample. A one centimetre slice was cut from the middle of each sample using a diamond blade. Orientation of the cut was such that the slice was representative of the grade of the sample.

Assay results are required to evaluate the visual grade estimates. Slices from Bon1, Bon2, Bon3 and Bon4 were submitted for assay.

3.4 Description of the Samples

Assay values are **Bold**

Bon1

High specific gravity, dark rock, siliceous ground mass. Sulfides on fresh faces. 30% of surfaces covered with vuggy black oxide layer which extends up to cm into the interior of the specimen as seen on the cut face. Cut face shows sulphides (chalcopyrite and galena) in poorly defined stringers and disseminating out from the stringers. 15% to 20% chalcopyrite (5% to 7% Cu), 5% to 10 % galena **Assay results: Ag 337 g/tonne, Cu 2.5%, Pb 3.1%, Zn 5.3%**

Bon2

Heavy light grey rock, with black staining on some faces. Minor malachite staining. Somewhat layered appearance. Cut faces show an irregular veining of a soft browny – orange oxide. Thin (1-2 mm) chalcopyrite in veining sub

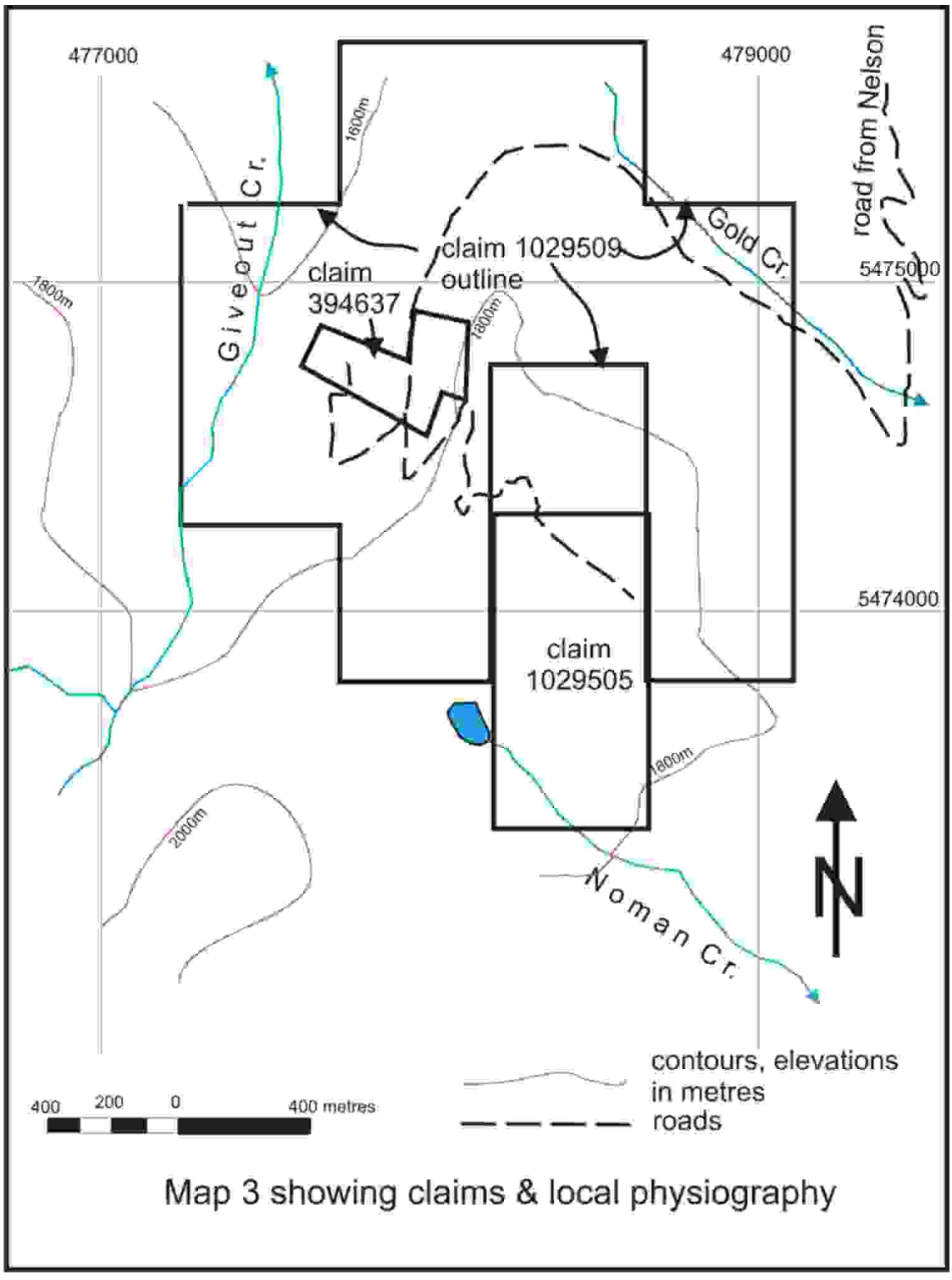
parallel to layering seen on surface (fracture planes?) Similar to Specimen "Strom" listed in Assessment Report dated January 16, 2015. Less than 5% Chalcopyrite (less than 2% Cu)
Assay results: Ag 53 g/tonne, Cu 2.2%, Pb 0.3%, Zn 0.2%

Bon3

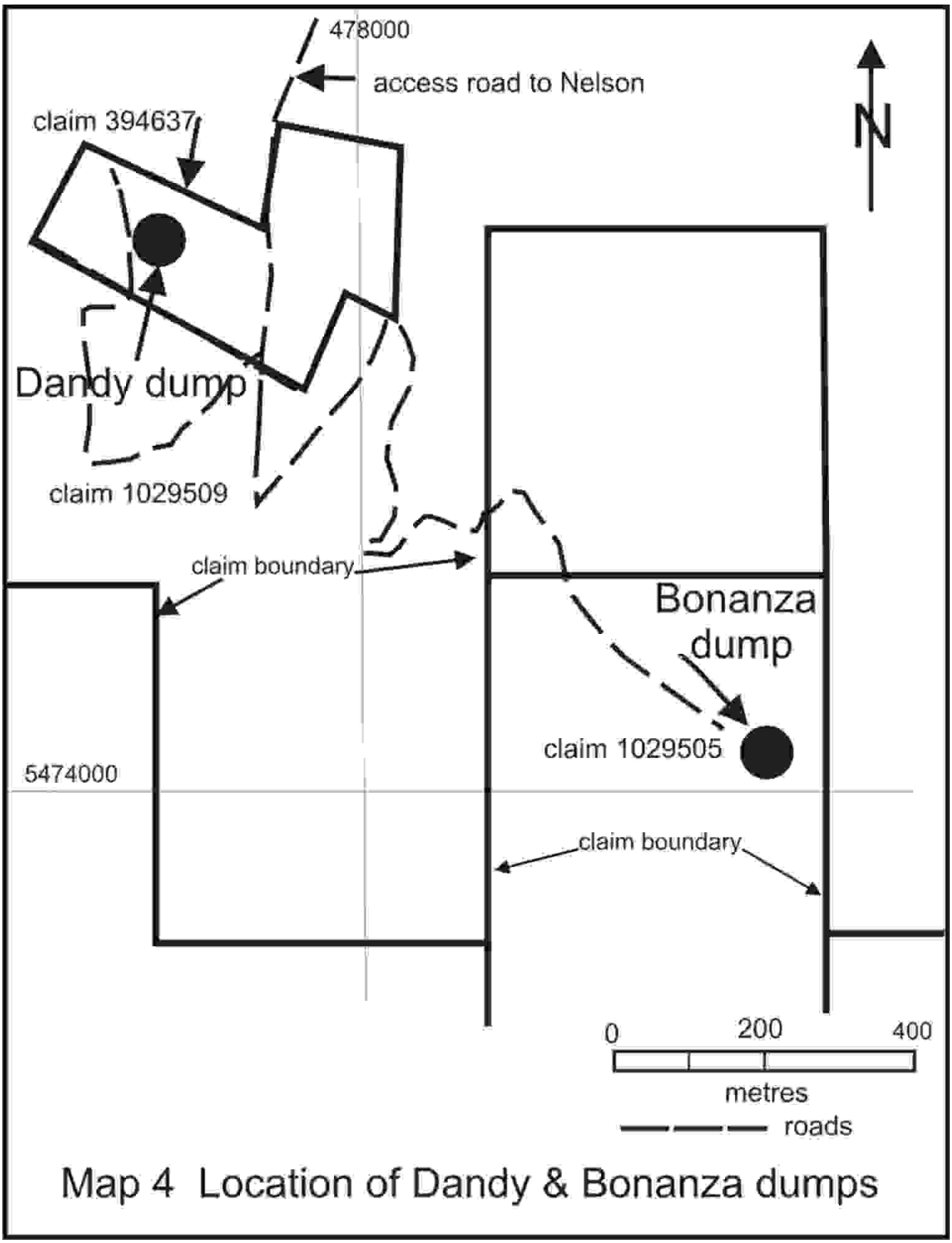
Moderately heavy dark hard siliceous rock, Sulfides on surface. On cut face irregular blebs of chalcopyrite plus irregular blebs of browny orange mineral. 10% to 15% chalcopyrite (3% to 7% Cu)
Assay results: Ag 56 g/tonne, Cu 1.3%, Pb 0.42%, Zn 0.1%

Bon4

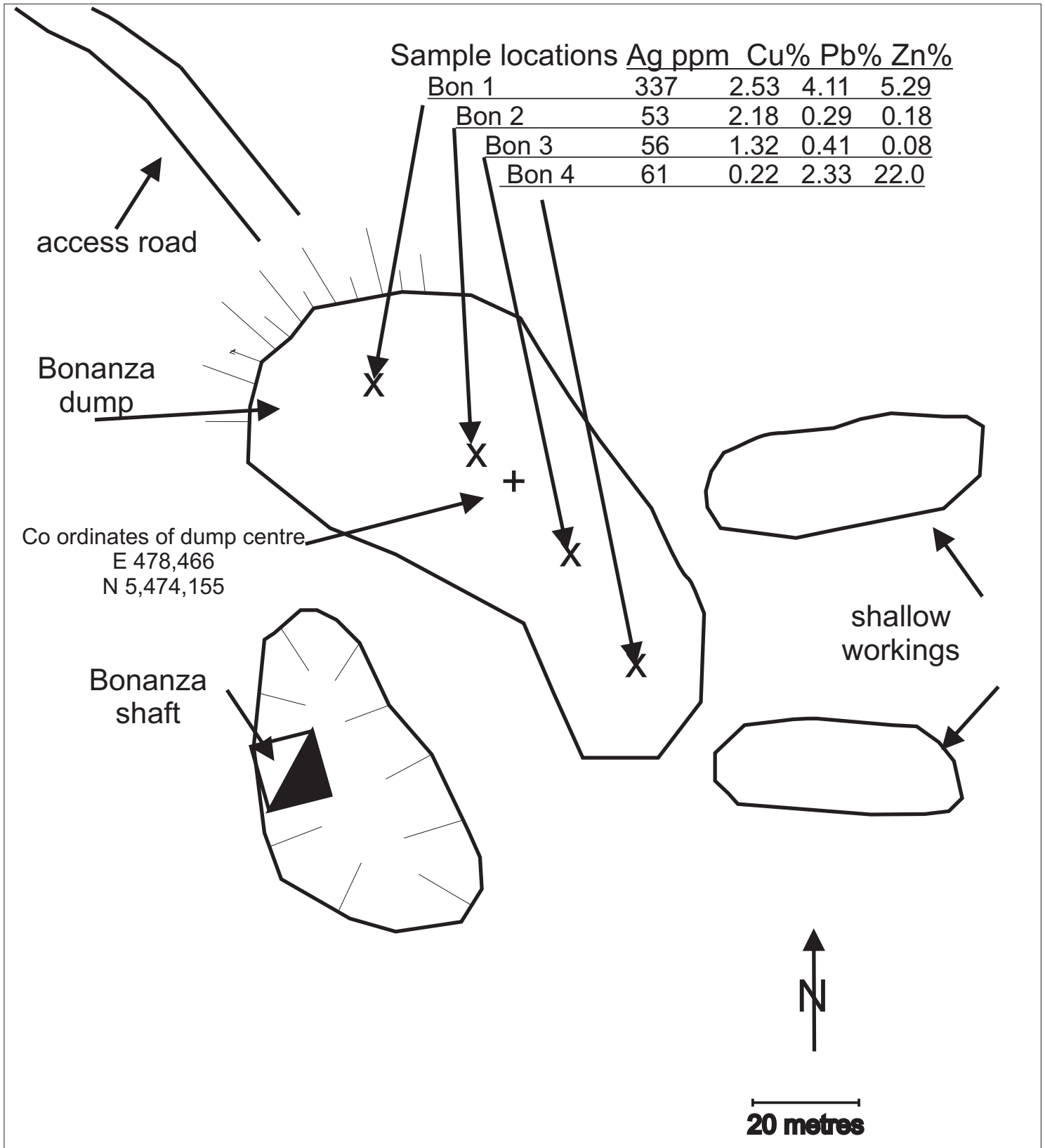
High specific gravity, dark rock. Weathered surface shows a browny orange, white and blue/black (manganese oxide?) coating. 80% of the cut surface somewhat vuggy, friable in places (probably due to oxidized sulfides). This larger section of the cut surface contains up to 25% browny orange soft oxide inter mixed with fine grained chalcopyrite and galena. 1-2 mm irregular bands of a hard (greater than 6) non magnetic mineral. Remaining 20% of the cut face is light grey, siliceous, showing disseminated chalcopyrite and galena. Sulfide content is difficult to estimate due to the fine graining. 5% chalcopyrite, 5% galena (1.5% Cu, 4% Pb)
Assay results: Ag 61 g/tonne, Cu 0.2%, Pb 2.3%, Zn 22.9%



Map 3 showing claims & local physiography



Map 4 Location of Dandy & Bonanza dumps



Map 5 Bonanza Dump Sample Locations and Values

3.5 Discussion/Interpretation of Results

Study of the visual grade estimates compared to assay results listed above leads to the following observations.

In general the copper estimate far exceeded the assay results, however the estimate of 2% Cu for Bon2 was very close to the assay at 2.2% Cu. Visual estimates of lead were closer to assay. For example Bon1 was estimated at 5% to 10% galena (4% to 9% Pb) and the assay was 3.1% Pb. In samples not assigned a lead content the lead assay were negligible. Zinc content was not estimated because sphalerite was not recognized in the hand specimens. However Bon1 and Bon4 showed significant zinc content.

Ag content did not correlated with either copper or lead content.

It is concluded that estimation copper, lead and zinc content is difficult. Sample specific gravity seems to provide the best estimate of grade.

A Canadian dollar value was calculated for the four Bonanza dump samples and is shown in Table B, below. The value listed is for a tonne of rock having a metal content equal to the sample assay.

Assaying was by ALS Canada Ltd. The assay certificate is located in the Appendix.

Table A – Factors Used in calculating values

Can $/US$ exchange rate: 0.75
Recovery of all metals: 85%
Pounds per tonne for each percent: 22
Cu US$/lb: $2.27, Pb US$/lb:$0.75, Ag US$/oz $14.57, Zn US$/lb: $0.75

Table B – Sample Assay Values

Sample	Ag ppm or gm/tonne	Cu %	Pb %	Zn %
Bon1	337	2.5	3.1	5.3
Bon2	53	2.2	0.3	0.2
Bon3	56	1.3	0.4	0.1
Bon4	61	0.2	2.3	22.9

Table C – Sample Dollar Values

Sample	Ag	Cu	Pb	Zn	Recovered value/tonne
Bon1	$179.51	$141.5	$57.97	$99.11	$478.09
Bon2	$ 28.23	$124.52	$5.61	$3.74	$162.10
Bon3	$29.83	$73.58	$ 7.48	$1.87	$112.76
Bon4	$32.49	$11.32	$43.01	$428.23	$515.05

Avg value per Tonne: $317

It is interesting to note that in sample 4 zinc mineralization was not identified but the value of zinc makes this the highest value sample.

4 Conclusions and Recommendations

This preliminary investigation of the Bonanza dump indicates that, even at the lower metal prices prevailing in 2015, the dump shows the potential for a profitable onsite sorting operation. The most reliable indication of value is specific gravity and presence of sulfides on broken surfaces.

The potential to recover ore grade mineralization from the Silver King property warrants the following program:

1. Examination, mapping and surface sampling of the dumps described in the Alyward report;
2. Excavation of the higher potential dumps to obtain a representative sample;
3. Evaluation of preliminary on-site sorting methods and costs; and
4. Estimation of haulage, concentration and smelting costs.

5 References

1. EMPR ASS RPT 12611 by Alyward.
2. **HOY, T. and ANDREW, K**. 1989a; Geology of the Nelson Map Area, Southeastern BC: BC Ministry of Mines. Geological Survey Branch, Open File 1989-11.

3. **HOY, T. and ANDREW, K.** 1989b; The Rossland Group, Nelson Map Area, Southeastern BC: Ministry of Energy and Mines, Fieldwork 1988.
4. **MUMIN, H., 2009**; Technical Report on the Fall 2009 Drilling, Silver King Mine Property: Unpublished Report for Excalibur Resources Ltd.

Itemized Cost Statement

1. J. D. Graham, P. Eng.: (Note Cost of collecting samples has been included in a previously submitted assessment report.) August 15 to Oct 10, 2015 lab work, map preparation and report writing including preparation
of cost statement and submission 8.55 hours @ an a rate of $180/hr. $1,539.00.

2. Expenses: rental of diamond saw and tools $50.00

Postage and vehicle use	$14.20	
Assays	$127.42	
	$191.62	$191.62
	Total	$1,730.62

Author's Qualifications

I, John Donald Graham, P. Eng., certify that:

1. I am a graduate of the University of British Columbia, holding the following degrees granted by UBC: B. Appl. Sc., Geological Engineering, and M. Appl. Sc., Mining Engineering, and

2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, and

3. I have practiced my profession in the areas of mineral exploration and mine operations continuously since 1964. My qualifications include the technical and managerial aspects of the profession.

APPENDIX
ASSAY CERTIFICATE

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com

To: J.D. GRAHAM & ASSOCIATES LTD.
8740 BROUWER PLACE
CHEMAINUS BC V0R 1K5

Finalized Date: 31- AUG- 2015
This copy reported on
1- SEP- 2015
Account: JGRATE

CERTIFICATE VA15125453

This report is for 4 Rock samples submitted to our lab in Vancouver, BC, Canada on 17- AUG- 2015.

The following have access to data associated with this certificate:

DON GRAHAM

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
PUL- QC	Pulverizing QC Test
LOG- 22	Sample 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

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES

To: J.D. GRAHAM & ASSOCIATES LTD.
ATTN: DON GRAHAM
8740 BROUWER PLACE
8740 CHEMAINUS BC V0R 1K5

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:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
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To: J.D. GRAHAM & ASSOCIATES LTD.
8740 BROUWER PLACE
CHEMAINUS BC V0R 1K5

Finalized Date: 31- AUG- 2015
Account: JGRATE

CERTIFICATE OF ANALYSIS VA15125453

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	ME- OG46 Ag ppm 1	ME- OG46 Cu % 0.001	ME- OG46 Pb % 0.001	ME- OG46 Zn % 0.001
Bon 1		0.18	337	2.53	4.11	5.29
Bon 2		0.06	53	2.18	0.289	0.182
Bon 3		0.14	56	1.320	0.418	0.076
Bon 4		0.08	61	0.220	2.33	22.0

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

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To: J.D. GRAHAM & ASSOCIATES LTD.
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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 31- AUG- 2015
Account: JGRATE

CERTIFICATE OF ANALYSIS VA15125453

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:				
	CRU- 31	LOG- 22	ME- OG46	PUL- 31
	PUL- QC	SPL- 21	WEI- 21	