

Ministry of Energy & Mines
Energy & Minerals Division
Geological Survey Branch

**ASSESSMENT REPORT
TITLE PAGE AND SUMMARY**

TITLE OF REPORT [type of survey(s)] <i>DOWN DIP PROPERTY ROCK GEOCHEMISTRY & PROSPECTING PROGRAM</i>	TOTAL COST <i># 3321.37</i>
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AUTHOR(S) *CRAIG KENNEDY* SIGNATURE(S) *Craig Kennedy*

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) *N/A* YEAR OF WORK *2016*

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) *5610236* *2016/JULY/12*

PROPERTY NAME *DOWN DIP*

CLAIM NAME(S) (on which work was done) *DOWN DIP 01-15 , DOWN DIP 02-15*

COMMODITIES SOUGHT *Pb / Zn / Ag*

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN —

MINING DIVISION *FORT STEELE* NTS *0826.011*

LATITUDE — ° — ' — " LONGITUDE — ° — ' — " (at centre of work)

OWNER(S) *UTM COORDINATES 543700N - 580900E*

1) *DARLENE LAVOIE* 2) _____

MAILING ADDRESS

2290 DEWOLFE AVE
KIMBERLEY B.C. VIA-1P5

OPERATOR(S) [who paid for the work]

1) *CRAIG KENNEDY* 2) _____

MAILING ADDRESS

2290 DEWOLFE AVE
KIMBERLEY B.C. VIA-1P5

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Middle Aldridge rocks within upper Sill package in Area of stacked Mud volcanism, Tourmaline fragmental vent hosts pyrrhotite rich outcrop of "chemical mud some visible fracture and disseminated mineralization. Foliation indicates late north/south movement.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS —

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 _____			
GEOCHEMICAL			
(number of samples analysed for ...)			
Soil _____			
Silt _____			
Rock _____	4 samples	DOWN DIP 02-15	132 ⁻
Other _____			
DRILLING			
(total metres; number of holes, size)			
Core _____			
Non-core _____			
RELATED TECHNICAL			
Sampling/assaying _____			
Petrographic _____			
Mineralographic _____			
Metallurgic _____			
PROSPECTING (scale, area) _____	MAP 1:10,000 GPS VENT GEOLOGY 1:500	DOWN DIP 01-15, 02-15 DOWN DIP 02-15	22.00 ⁻
PREPARATORY/PHYSICAL			
Line/grid (kilometres) _____			
Topographic/Photogrammetric (scale, area) _____			
Legal surveys (scale, area) _____			
Road, local access (kilometres)/trail _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____	REPORT & MAPS		1000 ⁻
TOTAL COST			7 3332.00

Assessment Report

ROCK GEOCHEMISTRY & PROSPECTING

DOWN DIP PROPERTY

FORT STEELE MINING DIVISION

N.T.S. MAP SHEET 082G.011

UTM COORDINATES 543700N – 580900E

OWNER

Darlene Lavoie
Kimberley BC

REPORT AUTHOR

Craig Kennedy
Prospector

October 2016

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Down Dip Property

ROCK GEOCHEM & PROSPECTING REPORT

Craig Kennedy

October 2016

1.00 INTRODUCTION

1.10 Location and Access

The Down Dip Property is centered at UTM 5437100N – 580900E. Trim map 082G.011. The property is located approximately 50 km southwest of Cranbrook BC and is 13 km due east of Yahk BC. Access is provided by taking the Hawkins Creek logging road east from its junction with highway #3 at Yahk. At 12 km on the Hawkins logging road you break off onto the north trending Cold Creek Road; at 6 km you take the all-terrain east running branch road. Old logging roads and cat skid trails provide foot access to most of the property.

1.20 Property

The Down Dip is made up of tenure # 1037317 and 1039036. The property is registered to Darlene Lavoie of Kimberley BC.

1.30 Physiography

The Down Dip Property has seen extensive historic logging, all of which is now regenerated. Outcrops, where encountered, are in most cases mafic intrusives (dio-gabbro) sills and dikes(?) Terrain is moderate to gentle with thick decadent spruce, balsam and pine in areas not harvested. These areas can host heavy deadfall which inhibits foot travel.

1.40 History of Previous Exploration

The area has seen moderate exploration activity over the last 60 years carried out by major and junior mining companies. The majority of activity has been

directed at searching for Pb/Zn/Ag style deposits similar to the Sullivan or the St. Eugene past producers.

2.00 SUMMARY

Recent exploration in the Middle Aldridge Formation of the Belt Purcell Super Group has been largely focused in the search for base metals, specifically Pb/Zn, associated with Mud Volcanism. A large portion the known surface geology in the Canadian Belt belongs to the upper sill package which occupies the central portion of the Middle Aldridge. Three mafic sills generally reside within this section with the largest being the Sundown sill at its base. The Sundown can be in excess of 100 meters in width and in some locations shows signs of near intrusion. The Meadowbrook and R sills tend to be much narrower with the R sill being no greater than 25 meters in width.

Mud volcanism is intimately associated with the Middle Aldridge sill package. Prospecting has long recognized that areas associated with mud volcanism are often environments exhibiting alteration styles similar to those seen with the Sullivan mine at Kimberley BC. Mud volcanism is thought to be the product of dewatering of the Belt basin brought on by deep seated seismic activity. Fluidized sedimentary material was channeled along and up conduits to be deposited onto the ancient sea floor.

At Sullivan this process is thought to have occurred with extrusion and subsequent collapse of dewatering sedimentary material. This process was immediately followed by a metal rich hydrothermal event which began the development of the Sullivan orebody. Structures responsible for channeling fluidized sediments in some cases remain open and receptive to ongoing activity. This includes the movement of hydrothermal gas and fluid, some of which may be endowed with metal. Recognition of these types of geological settings is an important focus for prospecting. The Down Dip property is one such area and requires a detailed evaluation.

Figure 1: Regional Location Map

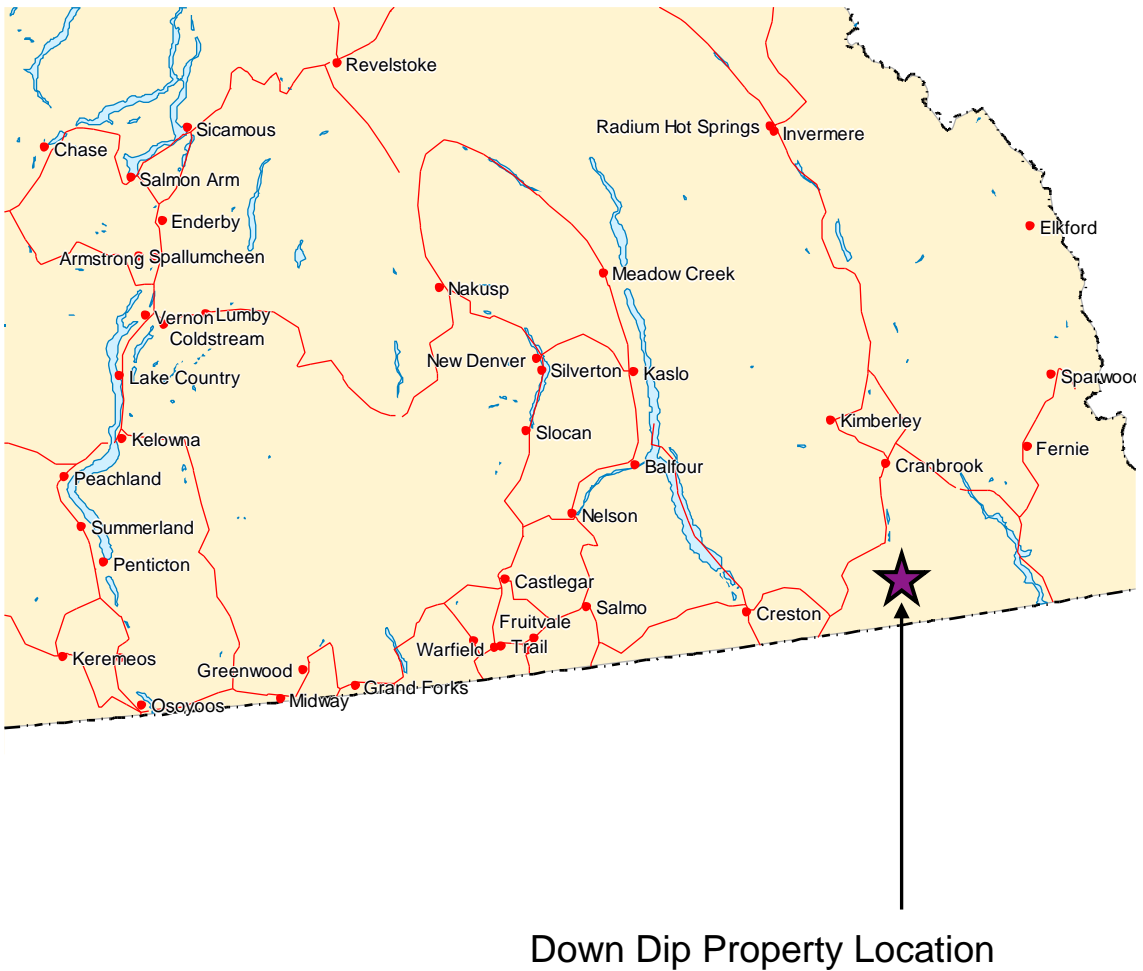
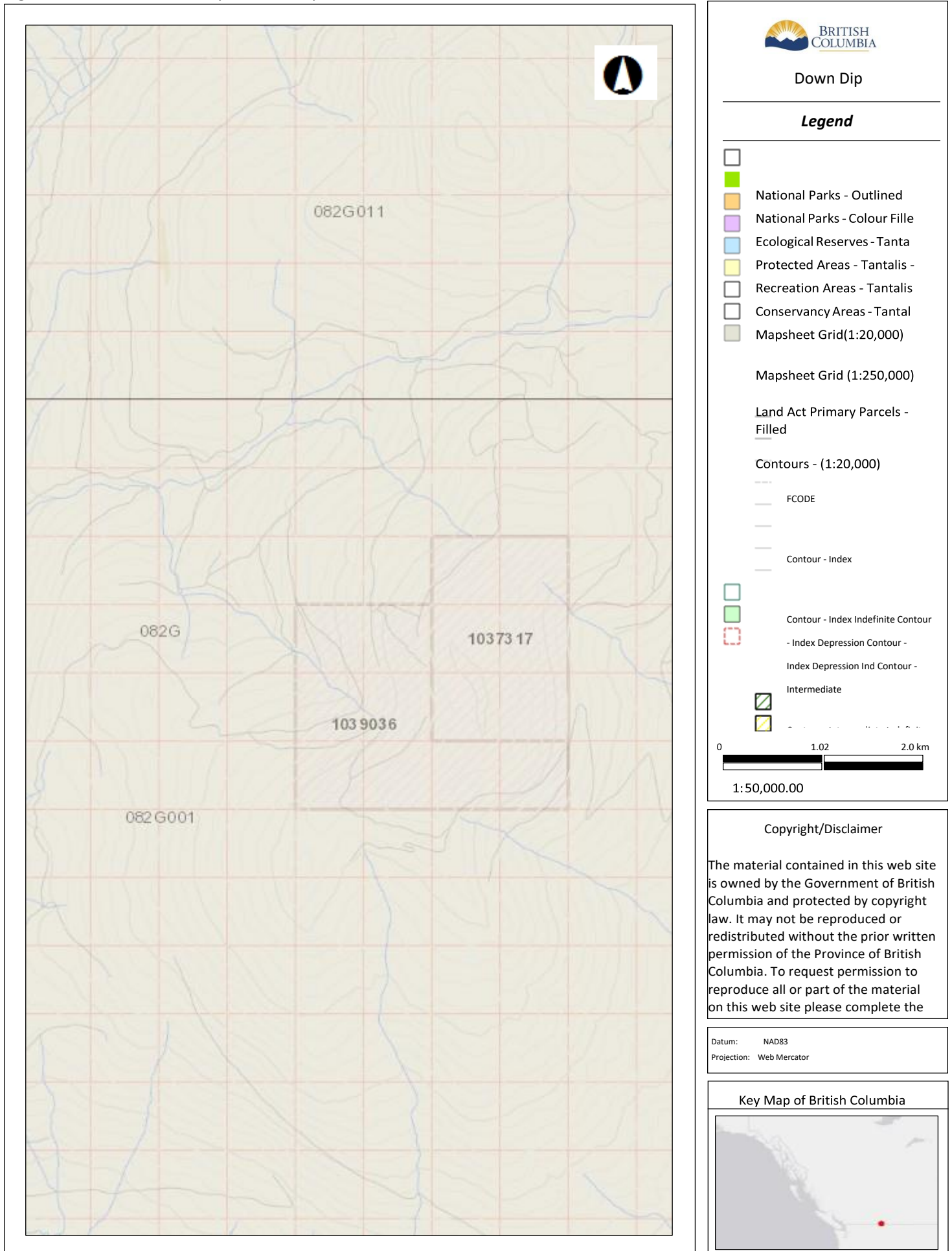









Figure 2, Claim Location Map – Down Dip







Down Dip

Legend

-  National Parks - Outlined
 -  National Parks - Colour Fille
 -  Ecological Reserves - Tanta
 -  Protected Areas - Tantalis -
 -  Recreation Areas - Tantalis
 -  Conservancy Areas - Tantal
 -  Mapsheet Grid(1:20,000)

 - Mapsheet Grid (1:250,000)

 - Land Act Primary Parcels - Filled

 - Contours - (1:20,000)
 - FCODE
 - Contour - Index
 -  Contour - Index Indefinite Contour
 -  - Index Depression Contour -
 -  Index Depression Ind Contour -
 - Intermediate
 - 
- 0 1.02 2.0 km
- 1:50,000.00

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Datum: NAD83
Projection: Web Mercator

Key Map of British Columbia



3.00 PROGRAM

The Down Dip Property occupies Middle Aldridge stratigraphy within the upper sill package. The property partially covers an area which hosts a number of tourmalinized fragmental outcrops, two of which have disseminated and fracture controlled Pb/Zn mineralization. In the section west of the property below the Sundown sill exists an extensive 100 – 250 meter wide and in excess of 4 km long, small clast fragmental unit. This unit is interpreted to be the distal edge of a large mud volcano sequence; potentially part of a Caldera setting such as that which host's the Sullivan deposit at Kimberley BC.

A mineralized tourmaline fragmental occurrence on the property was detail mapped for structure and alteration. At the Cruz property, near Moyie Lake, an unmineralized tourmalinized vent was tested by four drill holes in 1994. Drilling indicated continued mud volcano style alteration to the depth of drilling. Spurious anomalous mineralization was intersected at a number of intervals within the drilling. Interestingly, the deepest hole intersected a stratabound horizon of fragmental rocks in the same interpreted position of the fragmental west of the Down Dip property. The tourmalinized fragmental complex "A" on the attached prospecting map is one of 5 similar features on or close to the property. These fragmentals are layered through an approximate 300 meters of stratigraphy; this indicates a common structural control with potential deep seated connections. The detailed mapping of the most mineralized complex was completed in hopes of defining structural controls and alteration zoning which may support some short hole drilling. General prospecting indicates that other than the fragmentals complexes very little sedimentary rock is available for view. Most outcrop encountered are coarse to medium grained diorite to gabbro intrusive rocks. Some zones of these outcrops are rusty and have finely disseminated pyrrhotite with rare chalcopyrite. Occasional blocks of fragmental and grey-brown sericite float are seen, these are sporadically scattered throughout the general area.

4.00 CONCLUSION & RECOMMENDATIONS

A number of property and regional scale geological attributes require more detailed work. The Down Dip property occupies a stratigraphic level which host mud volcano activity regionally. Venting is wide spread and can be found at many different levels, this active geology is found within the domain hosted by the Moyie anticline. Recognition of disseminated and fracture controlled Pb/Zn mineralization with the "A" mud volcano complex on the Down Dip is an economically important characteristic. Recent work at the St. Eugene Mine has indicated the importance of focused resurgent structure for development of significant mineralization. The St. Eugene structure was an active growth fault responsible for episodal mud volcanism in a large scale economic Pb/Zn/Ag mineralization developed at a number of levels in this geological setting. The Down Dip may represent the same undiscovered opportunity.

Follow-up work should include more detailed geology and rock geochemistry. Geology should attempt to locate evidence of growth fault activity and focus. A VLF survey may prove to be a worthwhile exercise.

5.00 STATEMENT OF EXPENDITURES

Rock Geochemistry
Down Dip Property

Work performed: Summer 2015

Craig Kennedy - 1 day @ 500/day	Jul 11/16	\$500.00
1 4X4 Truck @ 100/day		100.00
Tom Kennedy - 1 day @ 500/day	Jul 11/16	500.00
Mike Kennedy - 1 day @ 500/day	Jul 11/16	500.00
Sean Kennedy – 1 day @500/day	Jul 11/16	500.00
1 4X4 Truck @ 100/day		100.00
4 Rock Samples – Acme		132.00
Craig Kennedy – Report & Maps		<u>1000.00</u>
Total:		<u>\$3332.00</u>

6.00 AUTHOR'S QUALIFICATIONS

1. As the author of this report I, Craig Kennedy, certify that:
2. I am an independent prospector residing at 2290 Dewolfe Avenue, Kimberley, BC.
3. I have been actively prospecting in the East and West Kootenays district of BC for the past 35 years and have made my living prospecting for the past 26 years.
4. I have been employed as a professional prospector by major and junior mineral exploration companies.
5. I own and maintain mineral claims in BC and have optioned numerous claims to various exploration companies.

Craig Kennedy

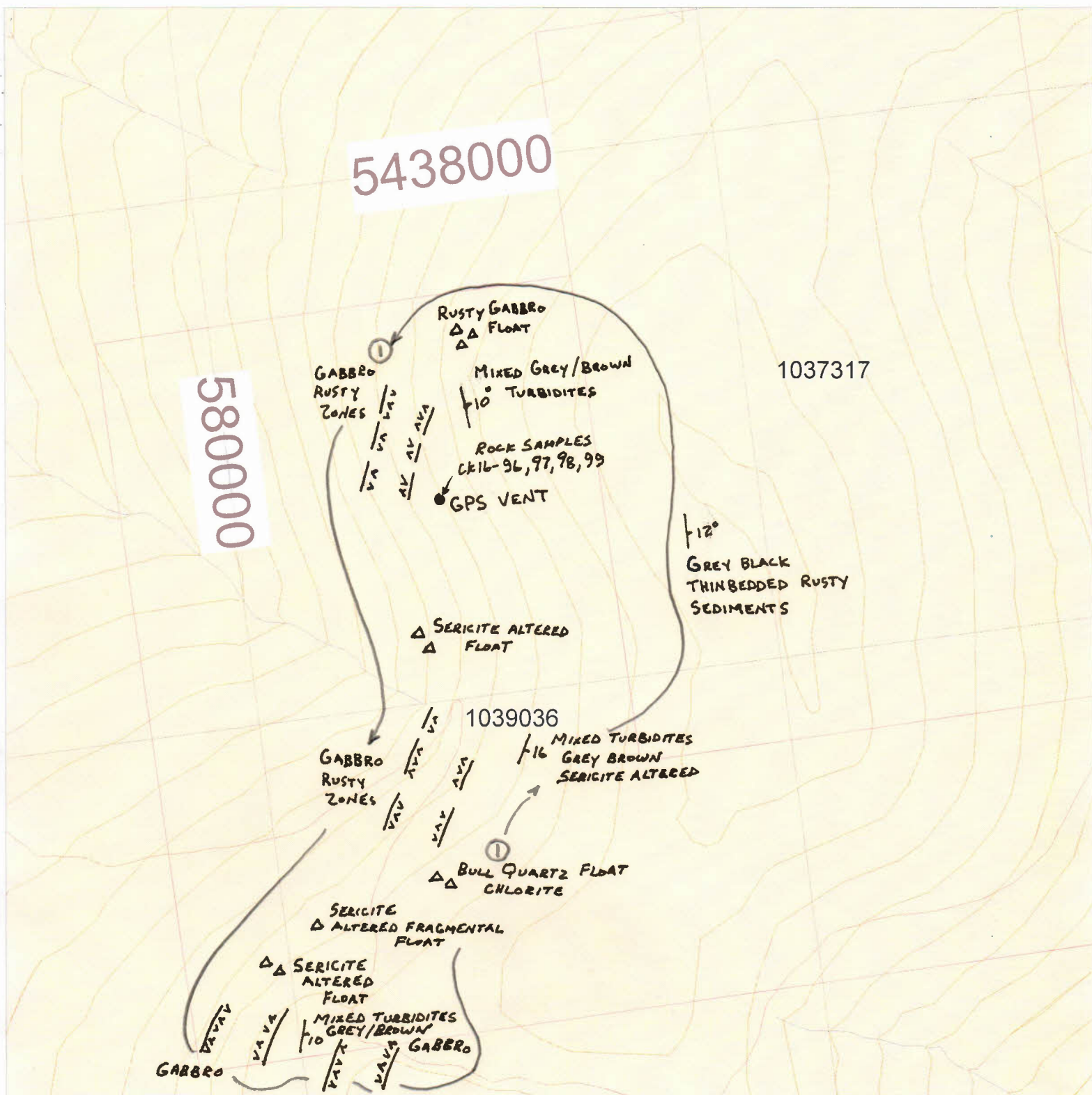
Craig Kennedy, Prospector

7.00 Rock Sample Descriptions

Sample No.	UTM N	UTM E	Property	Description
CK16-96	5437370	580391	Down Dip	Dark black biotite, quartz grained wacke clots & disseminations of Po/Py/Pbs/Zns
CK16-97	5437375	580393	Down Dip	Same as above but no visible Pbs/Zns
CK16-98	5437375	580390	Down Dip	Same as above but no visible Pbs/Zns
CK16-99	5437372	580390	Down Dip	Same as above with rare Pbs/Zns

Rock Sample Locations Down Dip Property

PROSPECTING TRAVERSE MAP



SCALE 1 : 10,000



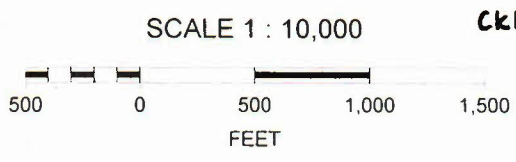
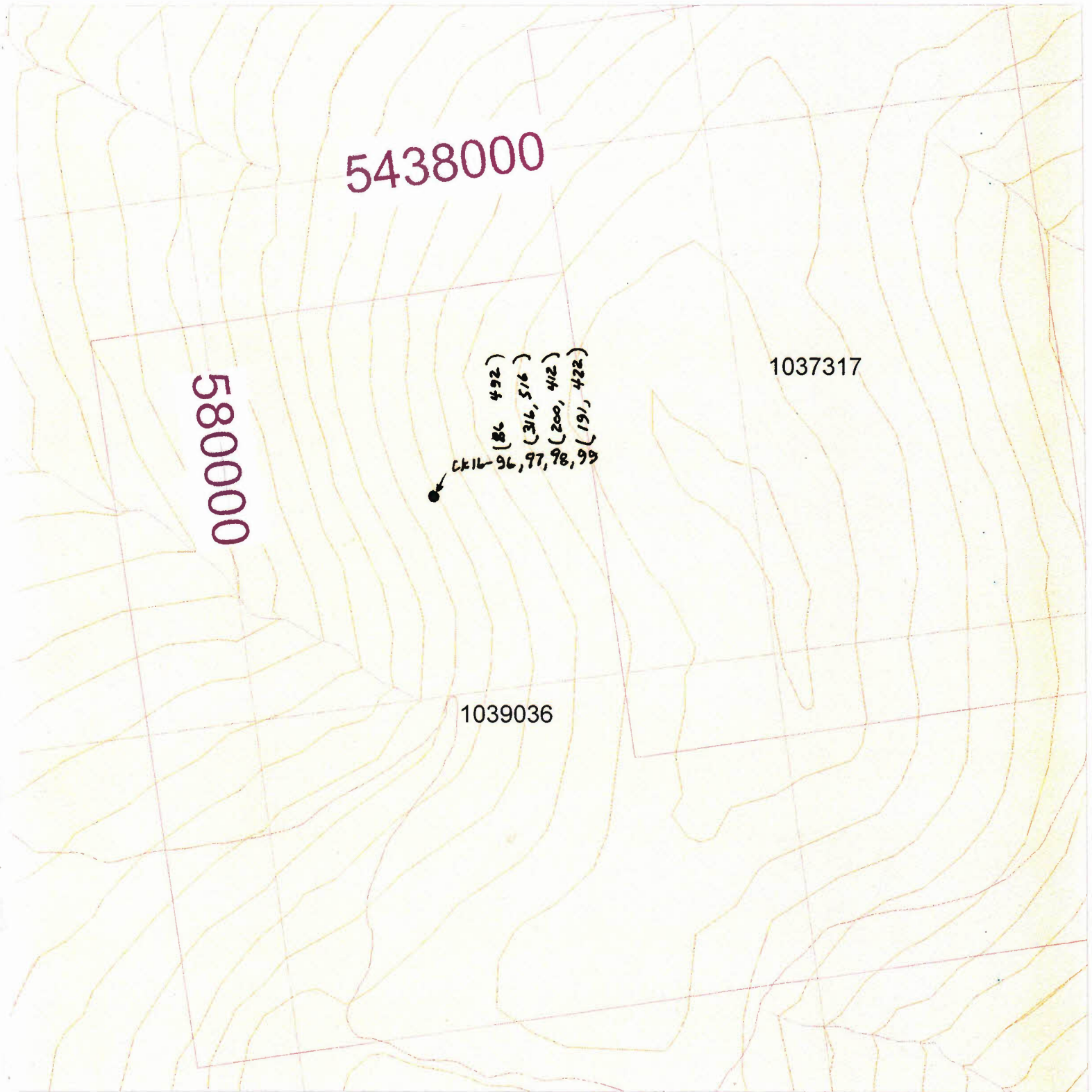
LEGEND

- △△ FLOAT
- △/△ GABBRO
- ① PROSPECTING TRAVERSE ROUTE

N



Rock Sample Locations Down Dip Property

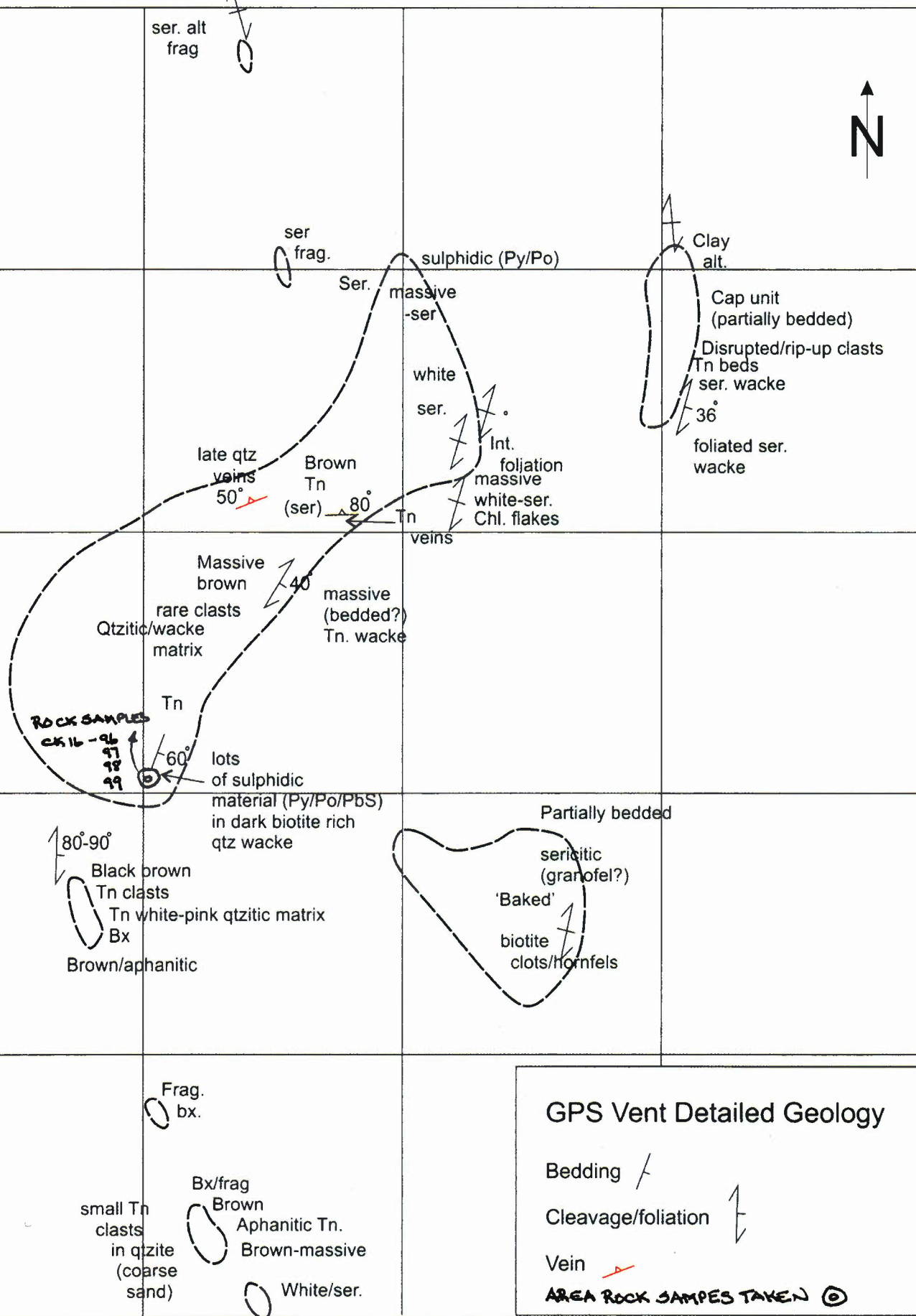


86, 492
CK16-%(Pb, Zn) PPM
VALUES



580370 580390 580410 580430 580450

5437430
5437410
5437390
5437370
5437350
5437330



GPS Vent Detailed Geology

Bedding *f*

Cleavage/foliation *∟*

Vein *—*

AREA ROCK SAMPLES TAKEN

0 20 40m
1:500 m



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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Kootenay Silver Inc.**
Suite 1820 - 1055 W. Hastings St.
Vancouver British Columbia V6E 2E9 Canada

Submitted By: Email Distribution List - Soil & Rock
Receiving Lab: Canada-Vancouver
Received: October 28, 2016
Report Date: November 25, 2016
Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN16002144.1

CLIENT JOB INFORMATION

Project: Down Dip
Shipment ID:
P.O. Number
Number of Samples: 4

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT Dispose of Reject After 90 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.


Invoice To: Kootenay Silver Inc.
Suite 1820 - 1055 W. Hastings St.
Vancouver British Columbia V6E 2E9
Canada

CC:

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	4	Crush, split and pulverize 250 g rock to 200 mesh			VAN
AQ201	4	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
DRPLP	4	Warehouse handling / disposition of pulps			VAN
DRRJT	4	Warehouse handling / Disposition of reject			VAN

ADDITIONAL COMMENTS


JEFFREY CANNON
Geochemistry Department Supervisor

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Report Date: November 25, 2016

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CERTIFICATE OF ANALYSIS

VAN16002144.1

Method	WGHT	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
CK16-96	Rock	0.38	0.3	283.8	86.4	492	0.2	47.5	50.7	851	11.34	4.8	3.5	1.0	35	0.5	0.5	1.6	428	1.34	0.053
CK16-97	Rock	0.65	0.4	203.9	316.5	516	0.9	39.5	37.4	726	8.44	40.4	5.7	1.2	50	11.1	0.5	5.0	420	1.83	0.059
CK16-98	Rock	0.49	0.4	213.3	200.5	412	0.4	39.3	39.9	626	8.15	80.5	3.5	1.0	57	0.8	0.4	3.3	449	2.03	0.060
CK16-99	Rock	0.38	0.5	296.2	191.6	422	0.5	45.9	52.8	778	10.64	30.8	3.5	1.2	50	1.0	0.5	3.4	431	1.92	0.055



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Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
CK16-96	Rock	3	10	3.70	129	0.208	<1	6.58	0.087	1.13	0.1	<0.01	32.7	0.7	2.38	21	2.6	0.3
CK16-97	Rock	2	11	3.01	139	0.228	<1	6.63	0.120	1.35	0.1	<0.01	34.7	1.1	1.60	20	2.1	0.6
CK16-98	Rock	3	10	2.80	128	0.208	<1	6.64	0.146	1.49	0.1	<0.01	34.4	1.0	1.70	18	2.2	0.3
CK16-99	Rock	3	10	2.96	98	0.221	<1	6.56	0.119	1.48	0.1	<0.01	34.9	1.0	2.45	19	2.3	0.4



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QUALITY CONTROL REPORT

VAN16002144.1

Method	WGHT	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
Reference Materials																					
STD DS10	Standard	15.9	169.3	149.9	385	1.9	78.9	14.1	877	2.78	49.7	124.1	8.1	68	3.0	9.9	12.9	43	1.09	0.078	
STD OXC129	Standard	1.2	28.5	5.8	38	<0.1	75.0	21.2	404	2.99	<0.5	189.0	1.7	175	<0.1	<0.1	<0.1	51	0.69	0.100	
STD DS10 Expected		15.1	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	46.2	91.9	7.5	67.1	2.62	9	11.65	43	1.0625	0.0765	
STD OXC129 Expected		1.3	28	6.3	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.665	0.102	
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	
Prep Wash																					
ROCK-VAN	Prep Blank	1.3	6.0	1.6	31	<0.1	0.6	4.4	463	1.73	5.3	2.3	2.1	18	<0.1	<0.1	<0.1	21	0.64	0.041	



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QUALITY CONTROL REPORT

VAN16002144.1

Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Reference Materials																		
STD DS10	Standard	19	63	0.80	384	0.090	6	1.08	0.072	0.35	3.3	0.30	3.2	5.3	0.27	5	2.4	5.2
STD OXC129	Standard	12	53	1.52	49	0.408	<1	1.62	0.612	0.39	<0.1	<0.01	0.9	<0.1	<0.05	5	<0.5	<0.2
STD DS10 Expected		17.5	54.6	0.775	359	0.0817		1.0755	0.067	0.338	3.32	0.3	3	5.1	0.29	4.5	2.3	5.01
STD OXC129 Expected		13	52	1.545	50	0.4	1	1.58	0.6	0.37			1.1			5.6		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
ROCK-VAN	Prep Blank	5	2	0.45	55	0.068	2	0.85	0.107	0.10	<0.1	<0.01	2.5	<0.1	<0.05	4	<0.5	<0.2