



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

**ASSESSMENT REPORT**  
**TITLE PAGE AND SUMMARY**

<b>TITLE OF REPORT [type of survey(s)]</b>	<b>TOTAL COST</b>
Report on Geology, Prospecting, Rock & Soil Geochemistry	\$12,165.05

AUTHOR(S) Sean Kennedy SIGNATURE(S) \_\_\_\_\_

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) \_\_\_\_\_ YEAR OF WORK 2012

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 5443163

PROPERTY NAME Spike's Big Adventure

CLAIM NAME(S) (on which work was done) 984342, 985682, 985683

COMMODITIES SOUGHT Ag - Pb - Zn

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN \_\_\_\_\_

MINING DIVISION Fort Steele NTS \_\_\_\_\_

UTM Zone: 10 Easting: 585000 Northing: 5451000

OWNER(S)

1) Darlene Lavoie 2) \_\_\_\_\_

MAILING ADDRESS

2290 Dewolfe Ave

Kimberley BC V1A 1P5

OPERATOR(S) [who paid for the work]

1) Kootenay Silver Inc. 2) \_\_\_\_\_

MAILING ADDRESS

1820 - 1055 West Hastings St

Vancouver BC V6E 2E9

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

Base metal mineralization hosted within Middle Aldridge Fm sediments related to fragmental and tourmaline alteration.

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)	1 X 2 Km	All	2200.00
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil	101	All	2694.68
Silt			
Rock	12	All	320.37
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)	1 X 2 Km		3650.00
PREPARATORY/PHYSICAL			
Line/grid (kilometres)	Soil Sampling		1300.00
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other	Report & Drafting		2000.00
		TOTAL COST	\$12,165.05

REPORT ON GEOLOGY, PROSPECTING ROCK AND SOIL GEOCHEMISTRY

SPIKE'S BIG ADVENTURE MINERAL CLAIMS

BC Geological Survey  
Assessment Report  
34178

FORT STEELE MINING DIVISION

SUNDOWN CREEK AREA

SOUTHEAST BC

82G 011/021

585000 E/5451000 N

WORK PERFORMED SUMMER AND FALL 2012

OWNER: DARLENE LAVOIE

OPERATOR: KOOTENAY SILVER INC.

VANCOUVER, BRITISH COLUMBIA

REPORT WRITTEN BY SEAN KENNEDY, PROSPECTOR

JULY 2013

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## INTRODUCTION

During the field season of 2012 a program consisting of prospecting, geological mapping, and rock and soil geochemistry was completed on Spike's Big Adventure (SBA). The property covers Aldridge Fm sediments, a favourable package of rocks that are part of the larger Belt-Purcell Supergroup. These rocks host numerous silver-lead-zinc deposits in the region, including the giant Sullivan sedex deposit at Kimberley, BC.

Sullivan is a large vent-proximal sedex massive sulphide Ag-Pb-Zn deposit which occurs in Aldridge Fm sediments at a specific interval, namely the contact between the Lower and Middle Aldridge Formations. At Sullivan the Lower-Middle Aldridge Contact records a distinctive change in sedimentation whereby the beginning of basinal extension and related turbidite activity has been overlain by silt and mud indicative of a quiet period. This feature appears to have been localized within a unique north-south trending sub-basin referred to as the Sullivan Corridor. During extension and rifting numerous gabbro sills were intruded into the package presumably driving the hydrothermal system that manifested in the vent field which is considered to be the conduit for mineralization at Sullivan. While the footwall rocks at Sullivan are exposed along the corridor, most of the immediate hanging-wall stratigraphy is not due to post-ore tectonism and erosion. Workers in the Belt-Purcell have long recognized that the vent related features seen within the deposit and footwall rocks associated with Sullivan continued episodically into the Middle Aldridge Fm, normally localized along growth faults. These features have been used as indicators and driven current exploration throughout the basin.

Previous work by the current owner and operators on Spike's Big Adventure had discovered numerous favourable geological features indicative of a syn-sedimentary Sullivan style system, these include; fragmental rocks, tourmalinization, favourable mud/silt stratigraphy, and anomalous gabbro activity. These features have led the current operators to determine that Spike's Big Adventure is a favourable exploration target for vent-proximal base and precious metal deposits. During the early part of the 2012 field season prospecting by C. Kennedy led to the discovery of numerous massive galena-sphalerite bearing boulders as well as an occurrence of what is presumably calc-silicate exhalite. After these discoveries mapping, and geochemistry were undertaken to better define the immediate area.

## LOCATION AND ACCESS

The property is located 35 kilometres south of Cranbrook, BC in the Sundown and Sunrise Creek drainages. Access is good and provided by the Sunrise Creek FSR, which joins highway 3 south of the village of Moyie, as well as the Sundown Creek FSR which splits from the Sunrise Creek FSR after 2 kilometers. Numerous logging spur roads of various ages provide additional access to the property.

## PROPERTY

The property is wholly owned by Darlene Lavoie Kimberley, BC. Currently the property is funded under a first right of refusal to Kootenay Silver Inc.

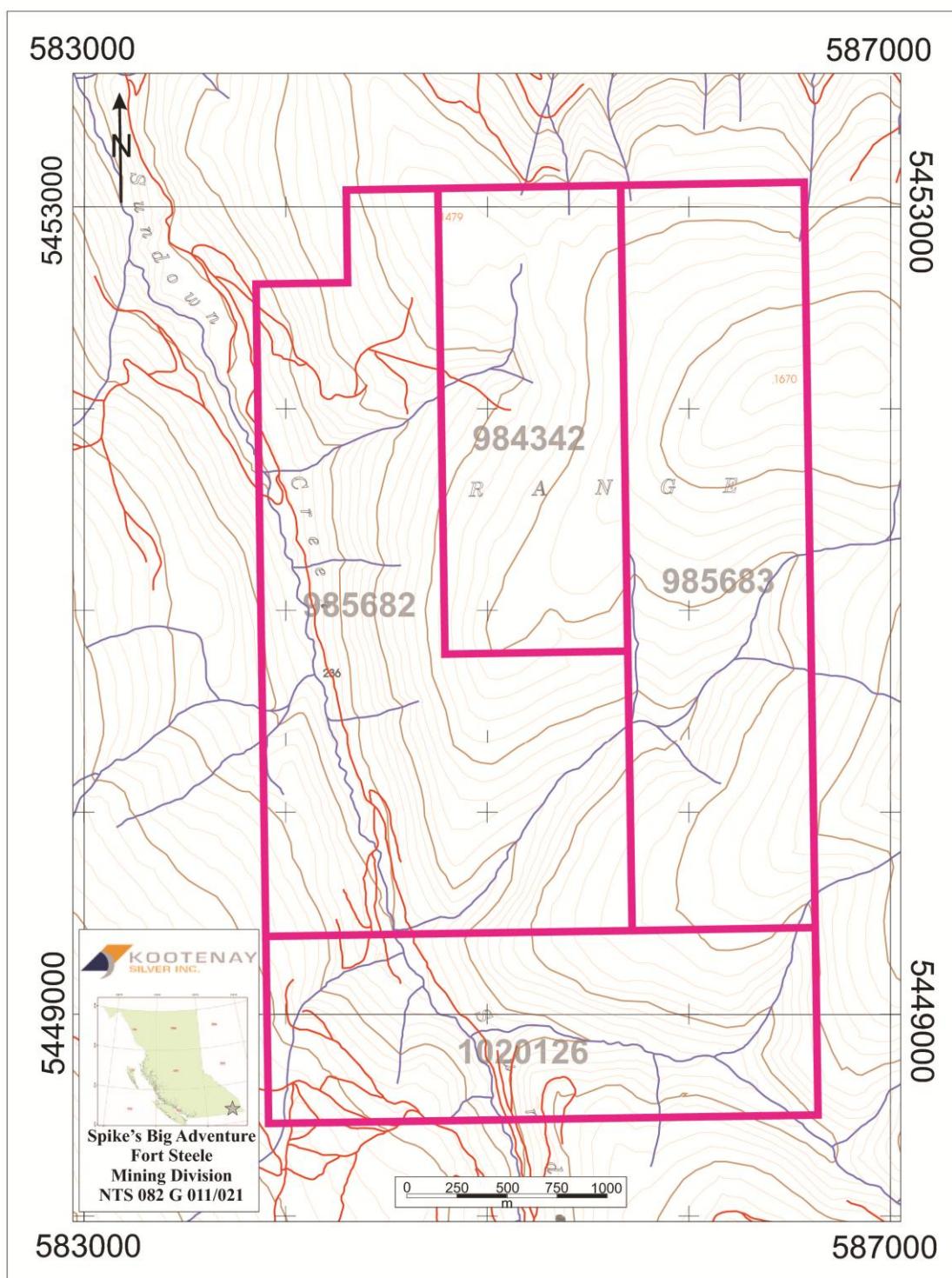


Figure 1. Claim Map

## PHYSIOGRAPHY

The area is typified by forested, rounded glaciated mountains. Bedrock exposure is sparse and limited to ridgelines and random benches. Elevation on the property ranges from 1000 meters to over 1500 meters. The area is primarily forested with lodgepole pine and douglas fir at lower elevations with spruce and balsam fir at higher ones, small patches of cedar are found in wetter areas, and larch is ubiquitous. Underbrush is typically comprised of rhododendron, mountain alder, kinikinik and some small patches of dwarf huckleberry. The area has seen extensive clear-cut logging and is in various stages of regeneration. The field season can be expected to last from early April, at lower elevations, to late October/mid November with the entire property being snow free from early June to late October.

## HISTORY

The property has a limited exploration history. While the property has been held as active tenure consistently from the early 1990s to present, most of the work that was conducted was done on adjoining claims. This work consisted of geological mapping, prospecting, rock sampling, soil sampling, and some limited diamond drilling.

## GEOLOGY

Spike's Big Adventure is underlain by the Mesoproterozoic Belt-Purcell Supergroup. The Belt-Purcell is a thick accumulation of terrigenous clastic, carbonate, and minor volcanic rocks that were deposited within an intracratonic basin related to syn-depositional extension and block faulting. The core of the Belt-Purcell is exposed within the Purcell Anticlinorium, an open gently north plunging fold structure. Structurally the Belt-Purcell is dissected by numerous steeply dipping transverse faults as well as north-south extensional faults active during deposition.

Spike's Big Adventure is completely underlain by Middle Aldridge Fm sediments. The Middle Aldridge is approximately 2500 meters thick and is comprised of thick accumulations of quartz arenite and grey wacke deposited as basinal turbidites. Within the Middle Aldridge numerous sections of argillaceous/finely planar laminated siltstone occur. These units serve as time stratigraphic markers and are correlative and 'matchable' across large distances. Using these marker units it is possible to determine the approximate position one is in within the Middle Aldridge as well as develop a hypothesized depth to the Lower-Middle Aldridge Contact (Sullivan Time).

## GEOLOGICAL MAPPING

During the program detailed geological mapping at a scale of 1:5,000 was conducted in the center of the property over a roughly 2 x 1 km area where recent prospecting efforts had identified zones of cross-cutting fragmental rocks, tourmaline and calc-silicate alteration, and highly altered massive sulphide bearing boulders (Pb-Zn) hosted within mainly argillaceous and silty sections of the Middle Aldridge Fm.

## LITHOLOGIES

During mapping the Middle Aldridge was subdivided into three units; Pa2 1, Pa2 2, and Pa2 3. These units are not stratigraphic but rather record a cyclic depositional history of active turbidite deposition, Pa2 1, followed by quieter silt/mud deposition, Pa2 2.

**Pa2 1** Unit Pa2 1 is comprised of medium to thick bedded quartz arenites and wackes deposited as turbidites. These units tend to form bench-like exposures on the property. They tend to be blocky weathering with a grey to slightly reddish-pink colouration. Graded bedding is sometimes exhibited within these units with the muddy tops often being disrupted and or comprised of a mud-chip conglomerate. Concretions comprised of fine siliceous material with pink garnet, biotite, chlorite, and rare actinolite are common within some beds of Pa2 1 and occur as small to large spheres, some of which are greater than 30 cm across. Glassy extensional quartz veins containing biotite, chlorite, sericite and pyrhotite/pyrite are also commonly hosted within the unit.

**Pa2 1** Unit Pa2 2 is comprised of finely planar laminated rusty weathering pyrite and pyrhotite rich siltstone, argillite, and thin bedded quartz arenite/wacke. Although it is not clear Pa2 2 units appears to thicken within the area that was mapped. Additional mapping to the north and south would help determine if this is true. Sections within Pa2 2 alternate with light to dark green, mauve, and dark grey to black coloured bands. Biotite, white spotting, and chlorite are common, as well as uniformly dispersed dark black quartz grains. Unit Pa2 2 hosts distinctive barcode like varved sequences. These barcode like units are likely sections of Middle Aldridge marker units, however, as of this point these markers have not been matched but based on regional government mapping it appears that they may correlate with the Shaft marker. Pa2 2 often has a conspicuous buff weathering and has shown to be variably calcareous across the section. Locally within Pa2 2 thin, 1 mm thick, continuous pyrite bands were noted.

**Pa2 3** Unit Pa2 3 represents a mixed lithology comprised of interbedded quartz arenite, siltsone, and argillite.

## MOYIE INTRUSIONS

One small gabbro-diorite sill crops out in the area that was mapped. The sill is tentatively correlated with the 'R' sill, a regionally extensive intrusive body that is hosted by the upper portion of the Middle Aldridge Fm. The sill appears to have a thickness of less than ten meters and appears to be offset in at least one location. It is locally cut and altered by numerous quartz-sericite-pyrite veins which have a rusty goethite/carbonate alteration and bleaching developed along their margins.

A narrow northerly trending gabbro dyke occurs within a large fragmental mound. The gabbro is traceable and occurs as 'pods' within a zone of north trending subvertically dipping cleavage localized within the fragmental unit.

## STRUCTURE

Bedding attitudes generally strike 320-340 degrees and dip shallowly to the east. Extensional quartz veins trend east-west and usually dip vertical too sub-vertically. Cleavage measurements show two distinct sets, one oriented roughly 10° and dipping vertically, the other oriented more northwest also with a steep to vertical dip. The northerly trending cleavage appears to be associated in some part with fragmental rocks and may be indicative of syn-sedimentary faulting, albeit there appears to be little offset associated with these trends. Northwest trending gullies and recessive zones appear to be related to offset on the 'R' sill where the sill is down-dropped to the north.

## FRAGMENTAL ROCKS AND ALTERATION

Extensive zones of fragmental occur within the area that was mapped. These fragmentals occur as bedding parallel conglomerates, unbedded zones of slumping and soft-sediment deformation, cross-cutting dikes, and as cross-cutting mounds. The two largest zones of fragmental occur as mound-like outcrops which are discordant with bedding. Both mounds are oriented in north-south directions, the eastern one appears to be controlled in some part by north-south structure. Both fragmentals have surface expressions greater than 450 meters in length.

The western fragmental appears to be at least 25 meters thick and is comprised of elongated hard whitish clasts that may be albitized. The matrix is a dark black and pyrhotite rich silt with patchy sericite, biotite, and chlorite alteration. Often times the unit appears as rounded outcrops of unbedded disturbed exposures as opposed to the more planar bedded Middle Aldridge. The western fragmental appears to taper off to the north where it appears to manifest as a thick, greater than 3 meter wide, unbedded unit within unit Pa2 2. The southern extension of the western fragmental is associated with a conformable calc-silicate unit comprised of massive fibrous tremolite, garnet, chlorite, actinolite, and carbonate. The calc-silicate measures approximately 2 meters wide and can be traced on surface 20 meters. It shows some banding which may be original bedding features that have been preserved. Immediately below, and down section of the western fragmental and calc-silicate is an extensive zone of thinly bedded black and white banded quartzite and siltstone. This unit forms a distinctive alteration and lithology within unit Pa2 2. The quartzite layers have been saturated with subhedral brown-red garnet while the siltier layers have been considerably biotite and sericite altered. Some zones of aphanitic brown-black coloured alteration within this unit show a definite hardening and will not be scratched by a knife and break conchoidally (tourmaline?). Underlying this altered zone is a series of intensely sericitized wackes, arenite, and silts with intense, but patchy silicification and pyrite/pyrhotite flooding.

The eastern fragmental appears to be at least 50 meters thick and is stratigraphically upsection of the western fragmental. Clasts vary in size with the largest observed clasts being up to 15 cm in length. They are elongate and show a preferred orientation much like the western fragmental. A gabbro dyke appears to occupy a north-south structural zone within the fragmental that may have controlled the mound formation. Alteration and sulphide mineralization is similar to as what is seen at the western fragmental. The unit is overlain by pyrhotite rich Pa2 2 and is underlain by thick Pa2 1 quartzites.

## MINERALIZATION

Pyrrhotite and pyrite are the most common sulphide minerals on the property. They occur as disseminations, irregular clots, lenses/bands, and as fracture fills related to chlorite-garnet alteration. Chalcopyrite, and lesser bornite are sometimes found as disseminations particularly where more intense silicification and pyrrhotite occur. Of principal interest are the massive galena and sphalerite bearing float boulders that are localized in the southern half of the property. These boulders contain coarsely crystalline galena and sphalerite in a chloritic/garnet rich matrix. Some quartz is associated with the boulders as well as biotite and actinolite. Some boulders appear to have sediment clasts and appear to be fragmental rocks derived from unit Pa2 2. Rare fracture galena and sphalerite was noted in a few locations, particularly in the two largest fragmental units discussed above. Only one bedrock location was noted with disseminated galena and chalcopyrite. This occurrence was also localized within a Pa2 2 band.

## ROCK GEOCHEMISTRY AND PROSPECTING

During the program 12 rock samples were collected and analyzed for a 36 element ICP by Acme Labs. Sample locations, descriptions, and results as well as a map with Pb plotted in ppm are included in the Appendix. These samples were collected as prospector grabs of altered material.

Samples SK12-14 and 20 were collected from float boulders containing appreciable galena and sphalerite mineralization in a chlorite, garnet, and actinolite rich matrix. The best value came from SK12-20 which assayed over 40% Pb and 771 ppm Ag. Samples collected from the calc-silicate unit and underlying alteration (SAK12-1-5) returned low values for base metals.

## SOIL GEOCHEMISTRY

Five soil lines were completed during the program. The lines were run east-west at 25 meter sample nodes to try to determine if any part of the section showed elevated values for base metals. All samples were analyzed for a 36 element ICP by Acme Labs. Sample analysis and maps with sample IDs and lead plotted in ppm are included in the Appendix.

Anomalous lead values were determined to be 25 ppm or greater. Fourteen of the samples collected returned values above this threshold. Results appear somewhat scattered across the lines and do not show a strong correlation with any particular lithology. Line 5, completed over the eastern fragmental appears to show some elevated values, both across the fragmental unit and above it where anomalous geochemistry remains open. Values were spotty on the remaining lines except for Line 2 where a cluster of anomalous lead values occur towards the eastern edge of the line. Soil sampling may have been particularly hampered in the area due to extensive logging activity as well as poorly developed soil profiles in terrain largely covered by till.

## CONCLUSIONS AND RECOMMENDATIONS

During the field season of 2012 a program consisting of geological mapping, prospecting, and rock and soil geochemistry was undertaken on Spike's Big Adventure, a property in southeastern BC

which shows characteristics indicative of a syn-sedimentary base metal system. Results of mapping and prospecting were positive showing a number of fragmental units, some of which appear mound like, with associated intense hydrothermal alteration. Massive sulphide bearing float boulders discovered south of these showings may be directly sourced from these fragmental units, possibly as feeder systems. Soil sampling along lines run to cut the section produced spotty results but did show some elevated values for lead associated with at least one of the fragmental units.

Additional mapping, prospecting, and geochemistry are warranted on the property. Particular attention should be paid to determining the size, both in strike, as well as stratigraphic thickness of the area that was active during sedimentation. Marker collection could provide a useful tool in determining offset along hidden faults which may be conduits for mineralization. A ground based mag/VLF EM survey would be useful in potentially identifying the source of mineralized float boulders at surface.

**STATEMENT OF COSTS**

Rock/soil samples	113 Samples @26.68/sample (includes freight)	\$ 3,015.05
Craig Kennedy	May 10, 18 & Jul 24 3 Man days @ 350 3 Truck days @ 150	1,050.00 450.00
Sara Kennedy:	May-10 1 Man days @ 250	250.00
Mike Kennedy:	May 12, 14, 18, 31 & Jun 1 5 Man days @ 350 1 Truck days @ 150	1,750.00 150.00
Sean Kennedy:	May 14, 23, 31, Jun 1, 5 5 Man days @ 350 3 Truck days @ 150	1,750.00 450.00
Report Drafting	2 man days @ 350	700.00 1,300.00
Daniel Klewchuk:	Nov 14 & 15 2 Man days @ 250 2 Truck days @ 150	500.00 300.00
Matt Harris:	Nov 14 & 15 2 Man days @ 250	500.00
	<b><i>Total</i></b>	<b><u>\$12,165.05</u></b>

**STATEMENT OF QUALIFICATIONS**

I, Sean Kennedy, certify that:

1. I am an independent prospector residing at 107 6<sup>th</sup> Ave, Kimberley, BC.
2. I have been actively prospecting in the throughout BC, Nevada, and Mexico for the past 15 years
3. I have been employed as a professional prospector by junior mineral exploration companies.
4. I own and maintain mineral claims in BC.

APPENDIX

Sample #	UTM E	UTM N	Description
SK12-2	584601	5451448	Pyrite rich siltstone, some qtz veins
SK12-3	584590	5451459	Pyrite rich siltstone, some qtz veins
SK12-4	584679	5451782	Pyrite rich siltstone
SK12-14	584697	5450678	Chlorite-garnet altered breccia w/Py/PbS in fragmental float, biotite
Sk12-20	585050	5450225	Float boulder with massive Pbs/Zns matrix in chloritzited fragmental with biotite, actinolite, and garnet
MK12-1	584857	5451339	Sc of Po rich ss with ,Pbs,Zns fractures
MK12-2	585661	5451520	Oc of 120 degree trending vertical fracture zone,with small qtz veins with Mn,lim
MK12-3	585213	5451559	Oc of 40/50 degree pipe fragmental structure crosscuting marker bed.With Po,black and white alt fragments
MK12-4	584561	5448388	Oc of Qtzite,purple and siliceous blue green alt,and muscovite ,and Py fractures.
MK12-5	584641	5448346	Oc of 180 degree structure dipping to west 80 degrees,with albitized alt, and Po,Py
MK12-6	585975	5454595	Oc of 130 degree trending zone on rd.30 metres wide ,muscovite rich rock
MK12-7	587479	5454686	Oc at rd.junction, qtz veins 120/70 S with qtz veins with Lim stain /qtz breccia.Also some 345/55 fractures with qtz,lim.
MK12-8	588157	5455259	Sc of 110 degree trending qtz,veins with massive chl,bio,muscovite, and rare Py.
SAK12-01	584788	5451501	Some frags, muscovite, garnets?, fracturing and sericite alt
SAK12-02	584788	5451422	Sericite alt with garnet beds? Thin beds of limestone? Striking 5 degrees and dipping 22 degrees to the east
SAK12-03	584914	5451330	Limestone with garnets, actinolite, py, and arsenic?
SAK12-04	584914	5451330	Same as above but along contact
SAK12-05	584796	5451315	Same as above



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

[www.acmelab.com](http://www.acmelab.com)

**Client:** Kootenay Silver Inc.  
Suite 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 Canada

Submitted By: Email Distribution List - Soil & Rock  
Receiving Lab: Canada-Vancouver  
Received: August 27, 2012  
Report Date: September 11, 2012  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN12004029.1

### CLIENT JOB INFORMATION

Project: SWEET SPOT

Shipment ID:

P.O. Number

Number of Samples: 14

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days

DISP-RJT Dispose of Reject After 90 days

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	14	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1DX3	14	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
G6Gr	1	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN
7AR	2	1:1:1 Aqua Regia Digestion ICP-ES Finish	0.4	Completed	VAN
7AR.1	1	1:1:1 Aqua Regia Digestion ICP-ES Finish	0.1	Completed	VAN

### ADDITIONAL COMMENTS

Acme 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 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9  
Canada

CC:



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. Acme 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.



# AcmeLabs

1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
Phone (604) 253-3158 Fax (604) 253-1716

Acme Analytical Laboratories (Vancouver) Ltd.

## **Client:**

Kootenay Silver Inc.

Suite 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 Canada

Project: SWEET SPOT

Report Date: September 11, 2012

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Page: 2 of 2

Part: 1 of 3

## CERTIFICATE OF ANALYSIS

VAN12004029.1

Method	WGHT	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	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	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01
G1	Prep Blank	<0.01	0.2	1.9	2.8	49	<0.1	3.5	3.8	585	1.81	<0.5	1.3	<0.5	4.8	57	<0.1	<0.1	<0.1	33	0.41
G1	Prep Blank	<0.01	0.2	2.3	2.8	49	<0.1	4.0	3.9	595	1.89	<0.5	1.1	<0.5	4.6	58	<0.1	<0.1	<0.1	33	0.42
SK12 2	Rock	0.64	0.4	30.1	16.1	61	<0.1	19.3	10.2	307	2.92	0.5	1.2	<0.5	13.3	3	<0.1	0.3	0.2	16	0.17
SK12 3	Rock	0.64	7.9	96.6	14.5	52	0.2	32.8	25.2	225	4.04	<0.5	1.1	<0.5	10.0	10	<0.1	0.5	1.2	25	0.16
SK12 4	Rock	0.35	2.1	17.9	23.4	28	<0.1	3.3	2.1	190	2.59	1.6	0.3	<0.5	5.0	9	<0.1	0.5	0.5	<2	0.02
SK12 14	Rock	0.67	0.3	75.7	1199	1481	2.9	22.3	8.4	362	5.26	6.7	1.3	3.8	9.4	3	7.9	3.3	0.4	14	0.06
SK12 20	Rock	0.78	0.2	209.8	>10000	2396	>100	7.5	9.2	1806	4.85	24.3	0.3	137.1	1.7	1	64.5	908.7	2.5	<2	0.08
SK12 5	Rock	0.19	0.7	0.1	1001	265	0.0	0.7	0.0	0.00	0.50	105.5	1.0	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0



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Phone (604) 253-3158 Fax (604) 253-1716

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Client: **Kootenay Silver Inc.**  
Suite 920 - 1055 W. Hastings St.  
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Project: SWEET SPOT  
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Method	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	G6Gr	7AR		
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Pb	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	
MDL	0.001	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	50	0.01	
G1	Prep Blank	0.063	8	7	0.52	203	0.107	<1	0.92	0.084	0.45	<0.1	<0.01	2.8	0.3	<0.05	5	<0.5	<0.2		
G1	Prep Blank	0.067	9	6	0.51	201	0.107	<1	0.92	0.095	0.45	<0.1	<0.01	2.9	0.2	<0.05	5	<0.5	<0.2		
SK12 2	Rock	0.047	33	17	0.99	30	0.068	<1	1.47	0.030	0.26	0.1	<0.01	2.2	0.2	0.57	4	<0.5	<0.2		
SK12 3	Rock	0.060	31	25	1.01	53	0.117	<1	1.54	0.037	0.96	<0.1	<0.01	3.2	0.6	1.92	5	0.7	0.5		
SK12 4	Rock	0.019	36	1	0.02	11	<0.001	<1	0.18	0.022	0.09	<0.1	<0.01	0.9	<0.1	<0.05	<1	<0.5	<0.2		
SK12 14	Rock	0.017	21	14	0.31	70	0.134	<1	1.90	0.007	1.07	<0.1	<0.01	2.4	0.9	0.91	5	<0.5	<0.2		
SK12 20	Rock	0.006	4	2	0.12	5	0.005	<1	0.39	0.001	0.01	<0.1	0.12	1.1	0.2	7.39	2	1.5	<0.2	771	>10



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**Project:** SWEET SPOT  
**Report Date:** September 11, 2012

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## CERTIFICATE OF ANALYSIS

VAN12004029.1

Method	7AR	7AR.1
Analyte	Zn	Pb
Unit	%	%
MDL	0.01	0.01
G1	Prep Blank	
G1	Prep Blank	
SK12 2	Rock	
SK12 3	Rock	
SK12 4	Rock	
SK12 14	Rock	
SK12 20	Rock	0.25 40.34



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## QUALITY CONTROL REPORT

VAN12004029.1

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Project:

SWEET SPOT

Report Date:

September 11, 2012

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## QUALITY CONTROL REPORT

VAN12004029.1

Method	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	G6Gr	7AR		
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Pb
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%
MDL	0.001	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	50	0.01
Pulp Duplicates																				
REP G1	QC	0.070	9	6	0.50	195	0.109	<1	0.91	0.094	0.44	<0.1	<0.01	2.7	0.3	<0.05	4	<0.5	<0.2	
SK12 7	Rock	0.011	14	8	0.33	29	0.073	<1	1.12	0.031	0.36	<0.1	0.02	2.0	0.3	1.30	4	1.4	<0.2	0.06
REP SK12 7	QC																		0.03	
Reference Materials																				
STD AGPROOF	Standard																		96	
STD CCU-1C	Standard																			
STD CZN-3	Standard																			
STD DS9	Standard	0.081	13	118	0.61	295	0.112	1	0.97	0.089	0.39	2.6	0.20	2.5	5.2	0.15	4	4.5	4.6	
STD GBM997-6	Standard																			
STD GC-7	Standard																		>10	
STD GC-7	Standard																		>10	
STD PTC-1A	Standard																			
STD SP49	Standard																		57	
STD DS9 Expected		0.0819	13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02	
STD GC-7 Expected																			10.44	
STD CCU-1C Expected																				
STD CZN-3 Expected																				
STD GBM997-6 Expected																				
STD SP49 Expected																			60.2	
STD AGPROOF Expected																			94	
BLK	Blank	<0.001	<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	
BLK	Blank																		<0.01	
BLK	Blank																			
BLK	Blank																		<50	
BLK	Blank																		<50	
Prep Wash																				
G1	Prep Blank																			
G1	Prep Blank	0.067	9	6	0.51	201	0.107	<1	0.92	0.095	0.45	<0.1	<0.01	2.9	0.2	<0.05	5	<0.5	<0.2	

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**Project:** SWEET SPOT  
**Report Date:** September 11, 2012

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## QUALITY CONTROL REPORT

VAN12004029.1

Method	7AR	7AR.1
Analyte	Zn	Pb
Unit	%	%
MDL	0.01	0.01
Pulp Duplicates		
REP G1	QC	
SK12 7	Rock	1.28
REP SK12 7	QC	1.28
Reference Materials		
STD AGPROOF	Standard	
STD CCU-1C	Standard	0.36
STD CZN-3	Standard	0.11
STD DS9	Standard	
STD GBM997-6	Standard	23.15
STD GC-7	Standard	21.85
STD GC-7	Standard	21.68
STD PTC-1A	Standard	0.05
STD SP49	Standard	
STD DS9 Expected		
STD GC-7 Expected		22.06
STD CCU-1C Expected		0.34
STD CZN-3 Expected		0.113
STD GBM997-6 Expected		23.75
STD SP49 Expected		
STD AGPROOF Expected		
BLK	Blank	
BLK	Blank	<0.01
BLK	Blank	0.02
BLK	Blank	
BLK	Blank	
Prep Wash		
G1	Prep Blank	
G1	Prep Blank	



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## QUALITY CONTROL REPORT

VAN12004029.1

	WGHT	1DX30																				
	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca		
	kg	ppm	%	ppm	ppm	ppb	ppm	%														
	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.1	0.5	0.1	1	0.1	0.1	0.1	0.1	0.1	2	0.01
G1	Prep Blank	0.2	1.9	2.8	49	<0.1	3.5	3.8	585	1.81	<0.5	1.3	<0.5	4.8	57	<0.1	<0.1	<0.1	<0.1	33	0.41	



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Project: SWEET SPOT  
Report Date: September 11, 2012

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## QUALITY CONTROL REPORT

VAN12004029.1

	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	G6Gr	7AR	
	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Pb
	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm/t	%	
G1	Prep Blank	0.063	8	7	0.52	203	0.107	<1	0.92	0.084	0.45	<0.1	<0.01	2.8	0.3	<0.05	5	<0.5	<0.2	



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**Project:** SWEET SPOT  
**Report Date:** September 11, 2012

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## QUALITY CONTROL REPORT

VAN12004029.1

7AR	7AR.1
Zn	Pb
%	%
0.01	0.01

G1

Prep Blank



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**Client:** Kootenay Silver Inc.  
Suite 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 Canada

Submitted By: Email Distribution List - Soil & Rock  
Receiving Lab: Canada-Vancouver  
Received: September 20, 2012  
Report Date: October 12, 2012  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN12004449.1

### CLIENT JOB INFORMATION

Project: SBA  
Shipment ID:  
P.O. Number  
Number of Samples: 7

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	7	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1DX3	7	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN

### SAMPLE DISPOSAL

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

### ADDITIONAL COMMENTS

Acme 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 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9  
Canada

CC:



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\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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**Hastings One Inc.**  
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Project: SBA

Report Date: October 12, 2012

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Part: 1 of 1

## CERTIFICATE OF ANALYSIS

VAN12004449.1

Method	WGHT	1DX30																			
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	%	ppm	ppm	ppb	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	0.1	0.5	0.1	1	0.1	0.1	2	0.01	
G1	Prep Blank	<0.01	0.1	3.9	2.7	52	<0.1	4.8	5.5	590	2.07	<0.5	1.5	2.1	5.1	53	<0.1	<0.1	<0.1	39	0.46
MK12-2	Rock	0.45	0.3	21.8	12.5	24	<0.1	6.7	3.0	271	1.44	<0.5	1.9	2.2	18.6	4	<0.1	<0.1	0.2	5	0.02
MK12-3	Rock	0.61	3.4	24.7	16.8	31	<0.1	15.3	11.6	436	2.28	0.7	0.9	1.5	9.6	18	<0.1	0.9	0.4	28	0.47
MK12-4	Rock	0.31	1.1	29.6	11.9	47	<0.1	8.3	6.6	182	1.95	1.1	1.5	8.2	11.3	14	<0.1	0.3	0.2	21	0.21
MK12-5	Rock	1.22	2.4	12.0	5.7	8	<0.1	9.8	26.8	41	1.45	8.2	0.5	5.0	9.1	11	<0.1	0.1	1.2	14	0.15
MK12-6	Rock	0.47	0.3	10.5	5.7	51	<0.1	10.9	4.1	166	2.77	1.4	2.2	7.1	17.3	25	<0.1	0.2	0.3	36	0.07
MK12-7	Rock	0.49	4.0	24.2	7.6	35	<0.1	5.2	1.6	38	2.61	<0.5	0.2	4.6	1.3	4	<0.1	0.1	0.2	2	<0.01
MK12-8	Rock	0.52	0.3	87.3	25.2	216	<0.1	40.5	20.3	990	10.05	14.3	0.6	1.8	0.4	3	<0.1	0.5	0.6	30	0.02



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Project: SBA  
Report Date: October 12, 2012

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## CERTIFICATE OF ANALYSIS

VAN12004449.1

	Method	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30								
Analyte		P	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		0.001	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
G1	Prep Blank	0.084	9	9	0.61	236	0.122	<1	1.01	0.075	0.52	<0.1	<0.01	2.5	0.3	<0.05	5	<0.5	<0.2
MK12-2	Rock	0.015	48	11	0.09	55	0.005	<1	0.55	0.024	0.20	<0.1	<0.01	1.6	<0.1	<0.05	2	<0.5	<0.2
MK12-3	Rock	0.160	19	18	1.28	46	0.163	<1	1.56	0.027	0.33	<0.1	<0.01	1.9	0.3	0.21	5	<0.5	<0.2
MK12-4	Rock	0.017	10	23	0.89	122	0.098	<1	1.44	0.070	0.75	<0.1	0.01	4.9	0.4	0.44	4	<0.5	<0.2
MK12-5	Rock	0.059	15	16	0.05	32	0.098	<1	0.19	0.037	0.11	<0.1	<0.01	3.0	0.1	0.56	<1	<0.5	<0.2
MK12-6	Rock	0.042	40	27	0.65	136	0.167	2	1.76	0.017	1.24	0.2	<0.01	4.0	0.7	<0.05	5	<0.5	<0.2
MK12-7	Rock	0.014	4	3	0.03	6	0.007	2	0.21	0.005	<0.01	<0.1	<0.01	0.8	<0.1	<0.05	<1	<0.5	<0.2
MK12-8	Rock	0.007	2	5	2.43	33	0.028	1	4.39	<0.001	0.14	<0.1	<0.01	3.9	<0.1	<0.05	15	<0.5	<0.2



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SBA

Report Date:

October 12, 2012

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## QUALITY CONTROL REPORT

VAN12004449.1

Method Analyte Unit MDL	WGHT	1DX30																			
	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
	kg	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%									
	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01	
Pulp Duplicates																					
MK12-3	Rock	0.61	3.4	24.7	16.8	31	<0.1	15.3	11.6	436	2.28	0.7	0.9	1.5	9.6	18	<0.1	0.9	0.4	28	0.47
REP MK12-3	QC		3.4	25.0	17.1	30	<0.1	15.5	11.8	444	2.33	0.7	0.9	2.0	9.9	17	<0.1	0.8	0.4	27	0.45
REP MK12-4	QC		1.8	31.0	12.2	49	<0.1	8.9	6.9	188	2.06	1.9	1.5	4.6	12.0	15	<0.1	0.2	0.2	23	0.23
MK12-8	Rock	0.52	0.3	87.3	25.2	216	<0.1	40.5	20.3	990	10.05	14.3	0.6	1.8	0.4	3	<0.1	0.5	0.6	30	0.02
REP MK12-8	QC		0.3	91.0	26.2	218	<0.1	39.9	20.7	1043	10.46	15.7	0.6	5.1	0.4	3	<0.1	0.5	0.7	31	0.03
Core Reject Duplicates																					
MK12-4	Rock	0.31	1.1	29.6	11.9	47	<0.1	8.3	6.6	182	1.95	1.1	1.5	8.2	11.3	14	<0.1	0.3	0.2	21	0.21
DUP MK12-4	QC	<0.01	2.3	28.3	11.0	46	<0.1	9.5	6.6	180	2.02	1.9	1.6	8.2	12.2	14	<0.1	0.2	0.2	22	0.16
Reference Materials																					
STD DS9	Standard		12.2	109.0	118.8	297	1.8	40.0	7.9	557	2.25	25.9	2.8	109.8	6.9	66	2.4	5.4	6.9	39	0.71
STD DS9	Standard		12.6	113.4	129.0	322	1.9	45.1	8.0	613	2.40	25.4	2.8	129.6	6.4	74	2.1	5.3	6.1	41	0.76
STD DS9 Expected			12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	2.69	118	6.38	69.6	2.4	4.94	6.32	40	0.7201
BLK	Blank		<0.1	0.5	<0.1	<1	<0.1	<0.1	<1	<0.01	<0.5	<0.1	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<2	<0.01
BLK	Blank		<0.1	0.2	<0.1	<1	<0.1	<0.1	<0.1	2	0.04	<0.5	<0.1	<0.5	<0.1	<1	<0.1	0.4	<0.1	<2	<0.01
Prep Wash																					
G1	Prep Blank	<0.01	0.1	3.9	2.7	52	<0.1	4.8	5.5	590	2.07	<0.5	1.5	2.1	5.1	53	<0.1	<0.1	<0.1	39	0.46



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Project: SBA  
Report Date: October 12, 2012

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## QUALITY CONTROL REPORT

VAN12004449.1

Method	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	
Analyte	P	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	0.001	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	
Pulp Duplicates																			
MK12-3	Rock	0.160	19	18	1.28	46	0.163	<1	1.56	0.027	0.33	<0.1	<0.01	1.9	0.3	0.21	5	<0.5	<0.2
REP MK12-3	QC	0.159	19	17	1.30	45	0.155	<1	1.54	0.027	0.33	<0.1	<0.01	1.8	0.3	0.21	5	<0.5	<0.2
REP MK12-4	QC	0.017	11	24	0.94	129	0.101	1	1.54	0.077	0.81	<0.1	0.02	5.1	0.4	0.46	5	<0.5	<0.2
MK12-8	Rock	0.007	2	5	2.43	33	0.028	1	4.39	<0.001	0.14	<0.1	<0.01	3.9	<0.1	<0.05	15	<0.5	<0.2
REP MK12-8	QC	0.007	3	5	2.52	36	0.028	1	4.59	<0.001	0.14	<0.1	<0.01	3.4	<0.1	<0.05	16	<0.5	<0.2
Core Reject Duplicates																			
MK12-4	Rock	0.017	10	23	0.89	122	0.098	<1	1.44	0.070	0.75	<0.1	0.01	4.9	0.4	0.44	4	<0.5	<0.2
DUP MK12-4	QC	0.018	10	24	0.92	128	0.098	1	1.49	0.065	0.81	<0.1	0.01	5.0	0.4	0.42	5	<0.5	<0.2
Reference Materials																			
STD DS9	Standard	0.085	13	118	0.60	276	0.105	3	0.92	0.085	0.39	2.8	0.20	2.5	5.3	0.16	4	4.9	5.2
STD DS9	Standard	0.091	13	127	0.67	318	0.116	3	1.01	0.079	0.40	2.9	0.19	3.0	5.3	0.17	5	5.9	5.2
STD DS9 Expected		0.0819	13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<0.001	<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
BLK	Blank	<0.001	<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																			
G1	Prep Blank	0.084	9	9	0.61	236	0.122	<1	1.01	0.075	0.52	<0.1	<0.01	2.5	0.3	<0.05	5	<0.5	<0.2



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

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**Client:** Kootenay Silver Inc.  
Suite 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 Canada

Submitted By: Email Distribution List - Soil & Rock  
Receiving Lab: Canada-Vancouver  
Received: August 27, 2012  
Report Date: August 15, 2012  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN12003535.1

### CLIENT JOB INFORMATION

Project: Spikes Big-Adventure  
Shipment ID:  
P.O. Number  
Number of Samples: 5

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	5	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1DX3	5	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN

### SAMPLE DISPOSAL

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

### ADDITIONAL COMMENTS

Acme 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 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9  
Canada

CC:



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. Acme 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.



# AcmeLabs

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Acme Analytical Laboratories (Vancouver) Ltd.

**Client:**

Kootenay Silver Inc.

**Rosetray Silver Inc.**  
Suite 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 Canada

Project: Spikes Big-Adventure

Report Date: August 15, 2012

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Page: 2 of 2

Part: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN12003535.1

Method	WGHT	1DX30																			
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
	Unit	kg	ppm	%	ppm	ppb	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	
G1	Prep Blank	<0.01	0.2	2.6	2.4	49	<0.1	4.5	5.0	580	1.96	<0.5	0.9	4.0	44	<0.1	<0.1	<0.1	36	0.46	0.072
SAK12-01	Rock	0.41	0.2	0.7	2.6	25	<0.1	21.1	4.5	188	1.29	0.6	<0.5	12.8	2	<0.1	0.3	0.2	18	0.13	0.059
SAK12-02	Rock	0.33	1.0	6.1	9.2	31	<0.1	7.4	3.1	299	1.58	7.5	0.6	6.3	8	<0.1	0.7	4.2	19	0.16	0.051
SAK12-03	Rock	0.46	1.3	9.1	22.9	18	<0.1	15.2	8.1	525	1.20	0.9	<0.5	6.9	92	<0.1	0.2	0.1	8	1.58	0.062
SAK12-04	Rock	0.37	2.4	4.4	10.6	101	<0.1	25.1	14.7	592	2.60	18.1	<0.5	9.2	99	<0.1	<0.1	<0.1	53	1.29	0.051
SAK12-05	Rock	0.54	2.0	11.5	45.4	20	<0.1	20.8	8.3	307	1.94	3.5	<0.5	12.1	82	<0.1	0.3	0.3	10	1.10	0.030



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Client: **Kootenay Silver Inc.**  
Suite 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 Canada

Project: Spikes Big-Adventure  
Report Date: August 15, 2012

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Part: 2 of 2

## CERTIFICATE OF ANALYSIS

VAN12003535.1

Method	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	
	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
	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	
G1	Prep Blank	6	8	0.64	239	0.126	1	0.94	0.070	0.51	<0.1	<0.01	2.1	0.3	<0.05	5	<0.5	<0.2
SAK12-01	Rock	33	18	2.10	47	0.087	8	1.97	0.019	1.38	<0.1	<0.01	2.0	0.9	<0.05	5	<0.5	<0.2
SAK12-02	Rock	9	18	1.65	48	0.112	2	1.81	0.050	1.23	<0.1	<0.01	2.0	0.8	<0.05	6	<0.5	0.4
SAK12-03	Rock	18	9	0.63	49	0.048	<1	2.39	0.218	0.18	<0.1	<0.01	1.2	0.1	0.07	5	0.6	<0.2
SAK12-04	Rock	18	51	3.71	227	0.175	<1	5.11	0.258	2.69	<0.1	<0.01	7.8	1.0	0.09	14	<0.5	<0.2
SAK12-05	Rock	24	9	0.55	22	0.076	<1	2.04	0.248	0.09	<0.1	<0.01	1.4	<0.1	0.10	4	1.4	<0.2



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Acme Analytical Laboratories (Vancouver) Ltd.

Client:

**Kootenay Silver Inc.**

Suite 920 - 1055 W. Hastings St.  
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Project:

Spikes Big-Adventure

Report Date:

August 15, 2012

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Page: 1 of 1

Part: 1 of 2

## QUALITY CONTROL REPORT

VAN12003535.1

Method	WGHT	1DX30																			
	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	ppb	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
Pulp Duplicates																					
SAK12-01	Rock	0.41	0.2	0.7	2.6	25	<0.1	21.1	4.5	188	1.29	0.6	<0.5	12.8	2	<0.1	0.3	0.2	18	0.13	0.059
REP SAK12-01	QC		0.3	0.7	2.6	26	<0.1	22.0	4.5	193	1.34	0.8	<0.5	13.0	3	<0.1	0.3	0.2	19	0.14	0.061
SAK12-05	Rock	0.54	2.0	11.5	45.4	20	<0.1	20.8	8.3	307	1.94	3.5	<0.5	12.1	82	<0.1	0.3	0.3	10	1.10	0.030
REP SAK12-05	QC		2.1	10.6	44.2	19	<0.1	20.2	7.9	302	1.88	3.7	<0.5	12.3	81	<0.1	0.3	0.3	10	1.07	0.028
Reference Materials																					
STD DS9	Standard		12.4	117.2	127.2	312	1.9	44.5	7.9	586	2.47	25.7	115.7	6.1	63	2.4	5.2	6.4	41	0.70	0.082
STD DS9 Expected			12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819
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																					
G1	Prep Blank	<0.01	0.2	2.6	2.4	49	<0.1	4.5	5.0	580	1.96	<0.5	0.9	4.0	44	<0.1	<0.1	<0.1	36	0.46	0.072



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Acme Analytical Laboratories (Vancouver) Ltd.

**Client:** **Kootenay Silver Inc.**  
Suite 920 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 Canada

**Project:** Spikes Big-Adventure  
**Report Date:** August 15, 2012

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Part: 2 of 2

## QUALITY CONTROL REPORT

VAN12003535.1

Method	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	
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	
Pulp Duplicates																		
SAK12-01	Rock	33	18	2.10	47	0.087	8	1.97	0.019	1.38	<0.1	<0.01	2.0	0.9	<0.05	5	<0.5	<0.2
REP SAK12-01	QC	34	19	2.24	50	0.092	9	2.01	0.022	1.47	0.1	<0.01	2.0	1.0	<0.05	6	<0.5	<0.2
SAK12-05	Rock	24	9	0.55	22	0.076	<1	2.04	0.248	0.09	<0.1	<0.01	1.4	<0.1	0.10	4	1.4	<0.2
REP SAK12-05	QC	24	9	0.53	22	0.075	<1	2.00	0.242	0.09	<0.1	<0.01	1.3	<0.1	0.10	4	1.2	<0.2
Reference Materials																		
STD DS9	Standard	11	128	0.64	281	0.110	3	0.93	0.084	0.41	3.1	0.21	2.1	5.4	0.18	4	6.8	5.7
STD DS9 Expected		13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
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																		
G1	Prep Blank	6	8	0.64	239	0.126	1	0.94	0.070	0.51	<0.1	<0.01	2.1	0.3	<0.05	5	<0.5	<0.2



Acme Analytical Laboratories (Vancouver) Ltd.

PHONE (604) 253-3158

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**Client:** Kootenay Silver Inc.  
Suite 1820 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 CANADA

Submitted By: Email Distribution List - Soil & Rock  
Receiving Lab: Canada-Vancouver  
Received: January 30, 2013  
Report Date: February 22, 2013  
Page: 1 of 5

## CERTIFICATE OF ANALYSIS

VAN13000383.1

### CLIENT JOB INFORMATION

Project: Spikes Big-Adventure  
Shipment ID:  
P.O. Number  
Number of Samples: 101

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	101	Dry at 60C			VAN
SS80	101	Dry at 60C sieve 100g to -80 mesh			VAN
IDX3	101	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT-SOIL Immediate Disposal of Soil Reject

### ADDITIONAL COMMENTS

Acme 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 BC V6E 2E9  
CANADA

CC:



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. Acme 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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Acme Analytical Laboratories (Vancouver) Ltd

PHONE (604) 253-3158

## **Client:**

Kootenay Silver Inc.

**Rooftop City Inn**  
Suite 1820 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 CANADA

Project: Spikes Big-Adventure  
Report Date: February 22, 2013

Page: 2 of 5

Part: 1 of 1

## CERTIFICATE OF ANALYSIS

VAN13000383.1

Method	Analyte	1DX30																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm						
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
VV-L1-0W	Soil	0.4	28.4	11.9	110	0.2	27.3	10.3	265	1.98	1.8	0.5	3.5	19	0.1	0.1	0.2	26	0.17	0.046	14
VV-L1-1W	Soil	0.3	22.5	11.2	136	0.2	31.8	10.1	268	1.74	3.3	1.3	3.5	33	0.2	<0.1	0.2	24	0.16	0.255	11
VV-L1-2W	Soil	0.5	23.4	14.8	145	0.2	36.7	12.2	298	2.28	4.1	<0.5	5.2	27	0.2	0.1	0.3	27	0.23	0.167	15
VV-L1-3W	Soil	0.3	14.9	14.1	140	0.2	34.3	11.1	359	1.91	2.7	1.3	3.5	29	0.2	0.1	0.2	24	0.22	0.140	12
VV-L1-4W	Soil	0.4	13.7	12.1	156	0.1	33.5	9.9	750	1.75	1.9	1.2	3.6	27	0.2	<0.1	0.2	21	0.20	0.145	14
VV-L1-5W	Soil	0.3	11.0	11.6	141	0.1	32.5	11.7	438	1.64	1.8	<0.5	3.3	32	0.1	<0.1	0.2	20	0.23	0.118	11
VV-L1-6W	Soil	0.4	18.9	14.0	119	0.2	38.6	12.9	475	1.91	2.8	<0.5	4.9	22	0.2	0.1	0.2	22	0.17	0.107	18
VV-L1-7W	Soil	0.9	28.3	19.8	111	0.2	43.0	14.4	279	2.59	4.1	1.2	8.0	31	0.1	0.2	0.3	29	0.21	0.110	22
VV-L1-8W	Soil	0.7	28.6	18.8	114	0.1	31.0	12.9	324	2.41	3.1	1.1	7.9	23	0.1	0.2	0.3	28	0.14	0.071	30
VV-L1-9W	Soil	1.0	41.4	21.8	124	0.2	45.3	14.6	403	2.59	3.4	<0.5	8.6	26	0.2	0.2	0.3	30	0.18	0.079	35
VV-L1-10W	Soil	0.9	30.7	16.8	120	0.3	38.5	13.6	822	2.16	3.0	0.8	6.0	31	0.3	0.2	0.3	29	0.25	0.155	29
VV-L1-11W	Soil	0.6	22.6	17.2	112	0.1	31.5	12.4	501	2.10	3.3	1.4	5.8	23	<0.1	0.2	0.2	27	0.18	0.117	23
VV-L1-12W	Soil	0.8	33.9	21.0	142	0.2	40.5	15.1	384	2.48	3.4	1.9	7.7	26	0.2	0.2	0.3	30	0.17	0.088	31
VV-L1-13W	Soil	0.7	20.4	17.5	107	0.1	29.4	11.7	250	2.36	2.2	0.7	6.3	24	0.1	0.2	0.2	27	0.15	0.061	24
VV-L1-14W	Soil	0.7	23.1	15.0	96	0.2	31.4	12.9	468	2.07	2.0	0.6	6.1	23	0.2	0.2	0.2	26	0.15	0.067	23
VV-L1-15W	Soil	0.5	19.9	14.1	110	0.1	28.9	10.5	317	2.05	2.2	0.5	5.9	23	<0.1	0.2	0.2	24	0.17	0.081	19
VV-L1-16W	Soil	0.4	14.1	13.0	112	0.1	27.0	8.9	359	1.68	1.5	<0.5	5.0	21	0.1	0.1	0.2	20	0.17	0.047	19
VV-L1-17W	Soil	0.6	21.2	13.6	115	0.2	35.2	10.7	335	1.96	2.8	0.8	5.3	25	0.2	0.1	0.2	27	0.20	0.110	16
VV-L1-18W	Soil	0.6	27.6	15.3	95	0.3	33.8	10.1	244	2.14	2.8	<0.5	6.6	21	0.1	0.2	0.2	27	0.17	0.069	22
VV-L1-19W	Soil	0.7	18.9	12.3	45	<0.1	15.1	5.5	130	1.77	2.5	<0.5	6.8	11	<0.1	0.2	0.1	23	0.10	0.018	22
VV-L1-20W	Soil	0.6	17.6	14.8	96	0.2	29.3	10.6	681	1.85	2.2	1.2	5.0	17	0.2	0.1	0.2	25	0.16	0.094	17
VV-L1-21W	Soil	0.7	20.1	16.7	86	0.1	31.7	12.2	531	2.03	2.4	0.8	6.0	27	<0.1	0.2	0.2	27	0.17	0.065	21
VV-L1-22W	Soil	0.4	12.4	13.9	101	0.1	23.2	9.2	217	1.68	1.3	0.6	5.0	16	<0.1	0.1	0.2	20	0.12	0.042	17
VV-L1-23W	Soil	0.4	13.5	12.7	66	<0.1	17.2	6.9	209	1.57	1.3	0.6	4.3	12	<0.1	0.1	0.2	19	0.11	0.017	18
VV-L1-24W	Soil	0.5	23.4	15.9	74	0.1	26.5	9.5	213	1.90	2.0	<0.5	6.4	20	<0.1	0.2	0.2	23	0.13	0.044	21
VV-L1-25W	Soil	0.6	26.5	16.5	90	0.2	38.3	10.8	281	2.07	2.5	<0.5	7.4	20	<0.1	0.2	0.2	27	0.14	0.070	27
VV-L1-26W	Soil	0.5	22.3	16.0	84	0.2	29.4	10.6	214	1.91	2.7	<0.5	6.5	23	0.2	0.1	0.2	23	0.13	0.045	21
VV-L1-27W	Soil	0.4	15.4	14.5	90	<0.1	20.9	7.6	161	1.58	1.3	1.0	4.8	14	<0.1	0.1	0.2	20	0.11	0.020	22
VV-L1-28W	Soil	0.6	15.5	13.6	78	0.1	30.9	10.1	252	1.74	2.1	<0.5	5.2	20	<0.1	0.1	0.2	23	0.13	0.067	16
VV-L2-0E	Soil	0.5	23.2	18.7	145	<0.1	39.4	11.6	394	2.27	3.0	<0.5	4.6	23	0.1	0.1	0.3	32	0.22	0.074	13

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.



Acme Analytical Laboratories (Vancouver) Ltd.

[www.acmelab.com](http://www.acmelab.com)

Client: **Kootenay Silver Inc.**  
Suite 1820 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 CANADA

Project: Spikes Big-Adventure  
Report Date: February 22, 2013

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## CERTIFICATE OF ANALYSIS

VAN13000383.1

Analyte	Method	1DX30															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		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
VV-L1-0W	Soil	12	0.46	296	0.082	2	2.12	0.017	0.26	0.1	0.01	2.3	0.3	<0.05	7	<0.5	<0.2
VV-L1-1W	Soil	11	0.38	299	0.084	2	2.35	0.021	0.21	0.1	0.02	2.4	0.2	<0.05	7	<0.5	<0.2
VV-L1-2W	Soil	13	0.46	276	0.107	2	2.98	0.029	0.24	0.1	0.03	3.2	0.3	<0.05	8	<0.5	<0.2
VV-L1-3W	Soil	13	0.47	206	0.083	3	2.34	0.019	0.24	<0.1	0.02	2.2	0.3	<0.05	7	<0.5	<0.2
VV-L1-4W	Soil	12	0.40	282	0.080	2	2.17	0.020	0.22	<0.1	0.01	2.6	0.2	<0.05	6	<0.5	<0.2
VV-L1-5W	Soil	12	0.39	286	0.073	2	2.04	0.019	0.19	<0.1	0.03	1.9	0.2	<0.05	6	<0.5	<0.2
VV-L1-6W	Soil	13	0.39	292	0.082	1	2.76	0.020	0.24	<0.1	0.03	2.7	0.3	<0.05	7	<0.5	<0.2
VV-L1-7W	Soil	16	0.45	328	0.096	1	3.68	0.017	0.32	0.1	0.04	2.9	0.4	<0.05	8	<0.5	<0.2
VV-L1-8W	Soil	16	0.57	181	0.095	<1	2.72	0.014	0.31	<0.1	0.03	3.7	0.4	0.06	7	<0.5	<0.2
VV-L1-9W	Soil	16	0.50	260	0.107	2	3.44	0.019	0.36	0.1	0.04	4.3	0.5	<0.05	8	<0.5	<0.2
VV-L1-10W	Soil	13	0.35	234	0.109	2	3.52	0.030	0.22	0.1	0.04	4.3	0.4	0.06	8	<0.5	<0.2
VV-L1-11W	Soil	13	0.45	246	0.091	2	2.59	0.017	0.28	<0.1	0.02	2.9	0.3	0.06	7	<0.5	<0.2
VV-L1-12W	Soil	16	0.48	261	0.103	2	3.09	0.015	0.32	<0.1	0.02	3.5	0.4	0.05	7	<0.5	<0.2
VV-L1-13W	Soil	16	0.55	191	0.090	1	2.21	0.011	0.33	<0.1	0.01	2.2	0.3	0.08	6	<0.5	<0.2
VV-L1-14W	Soil	13	0.47	181	0.099	2	2.59	0.017	0.28	<0.1	0.02	3.0	0.3	0.07	6	<0.5	<0.2
VV-L1-15W	Soil	15	0.53	186	0.084	2	2.26	0.013	0.24	<0.1	0.02	2.3	0.3	0.06	6	<0.5	<0.2
VV-L1-16W	Soil	12	0.46	159	0.071	1	1.53	0.011	0.26	<0.1	0.01	1.8	0.2	0.07	5	<0.5	<0.2
VV-L1-17W	Soil	13	0.43	167	0.101	2	2.54	0.017	0.22	<0.1	0.03	2.7	0.2	0.07	7	<0.5	<0.2
VV-L1-18W	Soil	15	0.54	228	0.101	2	2.49	0.016	0.29	<0.1	0.02	3.0	0.3	0.08	6	<0.5	<0.2
VV-L1-19W	Soil	14	0.53	61	0.065	<1	1.14	0.008	0.42	<0.1	<0.01	2.3	0.4	0.06	3	<0.5	<0.2
VV-L1-20W	Soil	14	0.38	221	0.086	1	2.19	0.016	0.19	<0.1	0.02	2.7	0.2	<0.05	6	<0.5	<0.2
VV-L1-21W	Soil	14	0.37	275	0.098	2	2.87	0.016	0.24	<0.1	0.03	2.8	0.3	0.06	7	<0.5	<0.2
VV-L1-22W	Soil	12	0.38	115	0.073	<1	1.70	0.016	0.26	<0.1	0.02	2.0	0.3	0.07	5	<0.5	<0.2
VV-L1-23W	Soil	13	0.47	69	0.069	<1	1.23	0.012	0.29	<0.1	<0.01	1.8	0.3	0.08	4	<0.5	<0.2
VV-L1-24W	Soil	14	0.45	154	0.080	<1	1.97	0.012	0.28	<0.1	0.02	2.2	0.3	0.07	5	<0.5	<0.2
VV-L1-25W	Soil	14	0.37	221	0.102	1	2.97	0.022	0.26	<0.1	0.03	3.2	0.3	0.08	7	<0.5	<0.2
VV-L1-26W	Soil	13	0.40	213	0.088	1	2.25	0.013	0.23	<0.1	0.02	2.2	0.3	0.07	6	<0.5	<0.2
VV-L1-27W	Soil	13	0.45	95	0.075	<1	1.44	0.012	0.24	<0.1	0.01	1.7	0.3	0.08	4	<0.5	<0.2
VV-L1-28W	Soil	12	0.33	185	0.086	1	2.25	0.014	0.18	0.1	0.02	2.0	0.2	0.07	6	<0.5	<0.2
VV-L2-0E	Soil	18	0.65	235	0.121	2	3.02	0.035	0.22	0.1	0.02	2.7	0.2	0.06	8	<0.5	<0.2

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## Acme Analytical Laboratories (Vancouver) Ltd.

**Client:**

Kootenay Silver Inc.

Suite 1820 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 CANADA

Project: Spikes Big-Adventure  
Report Date: February 22, 2013

PHONE (604) 253-3158

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## CERTIFICATE OF ANALYSIS

VAN13000383.1

Method	Analyte	1DX30																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm						
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
VV-L2-1E	Soil	0.3	19.5	14.8	170	0.2	36.5	11.3	339	1.84	3.9	0.6	3.8	20	0.1	0.1	0.2	25	0.17	0.118	11
VV-L2-2E	Soil	0.7	35.3	20.9	116	<0.1	35.4	11.5	299	2.26	1.8	0.8	4.9	15	<0.1	0.2	0.2	30	0.18	0.021	31
VV-L2-3E	Soil	0.5	28.3	22.4	136	<0.1	42.0	11.2	352	2.44	1.9	1.0	5.1	23	<0.1	0.1	0.3	32	0.25	0.023	22
VV-L2-4E	Soil	0.5	24.8	17.4	95	0.2	36.4	12.0	162	2.07	3.4	0.6	4.8	18	<0.1	0.1	0.3	29	0.17	0.040	14
VV-L2-5E	Soil	0.2	10.4	13.1	140	<0.1	28.2	5.2	447	1.16	2.3	<0.5	3.1	26	0.2	<0.1	0.2	18	0.22	0.156	8
VV-L2-6E	Soil	2.0	36.2	62.4	92	<0.1	42.9	14.5	298	2.93	4.6	0.7	9.9	17	<0.1	0.4	0.5	31	0.16	0.043	34
VV-L2-7E	Soil	0.7	17.4	20.9	98	<0.1	29.8	10.4	214	1.91	2.4	1.0	5.0	16	<0.1	0.2	0.2	26	0.12	0.039	14
VV-L2-8E	Soil	0.6	16.0	15.3	117	<0.1	31.8	10.1	499	1.99	3.7	<0.5	4.6	22	0.2	0.2	0.2	29	0.17	0.104	12
VV-L2-9E	Soil	0.5	21.1	15.6	114	0.1	33.3	8.9	442	1.78	4.9	0.5	5.0	24	0.3	0.1	0.3	27	0.19	0.122	16
VV-L2-10E	Soil	1.0	25.8	26.9	132	<0.1	58.1	14.3	503	2.35	3.9	0.6	6.8	24	<0.1	0.2	0.4	28	0.18	0.077	24
VV-L2-11E	Soil	0.6	19.2	28.2	114	<0.1	27.3	11.6	734	2.10	4.0	0.5	5.8	29	0.1	0.2	0.4	25	0.18	0.081	20
VV-L2-12E	Soil	0.8	22.8	29.9	93	<0.1	24.6	11.5	308	2.39	3.4	<0.5	7.4	22	<0.1	0.3	0.4	29	0.19	0.049	23
VV-L2-13E	Soil	1.0	17.1	21.7	111	<0.1	25.3	13.3	648	2.56	3.4	<0.5	6.1	17	0.1	0.2	0.3	35	0.13	0.093	24
VV-L2-14E	Soil	1.0	22.2	21.4	124	<0.1	34.6	14.3	798	2.42	2.5	0.7	7.1	18	0.2	0.2	0.3	32	0.15	0.064	24
VV-L2-15E	Soil	1.0	31.4	29.7	130	0.1	41.9	15.5	490	2.48	3.4	0.7	7.1	10	0.1	0.3	0.3	29	0.06	0.059	33
VV-L2-16E	Soil	1.2	25.6	24.7	92	<0.1	25.7	12.4	213	2.45	3.7	0.6	8.4	12	<0.1	0.2	0.3	30	0.09	0.079	33
VV-L2-17E	Soil	1.1	18.3	24.1	96	<0.1	19.4	9.5	378	2.39	2.4	<0.5	6.7	11	<0.1	0.2	0.3	29	0.11	0.046	18
VV-L2-18E	Soil	0.9	18.1	22.5	82	<0.1	18.5	9.4	430	2.22	2.7	1.0	6.6	10	<0.1	0.2	0.3	27	0.09	0.041	19
VV-L2-19E	Soil	1.0	17.4	22.1	69	<0.1	14.1	7.4	253	2.14	2.6	0.5	6.8	11	<0.1	0.2	0.2	25	0.08	0.075	17
VV-L2-20E	Soil	1.0	16.8	17.7	77	<0.1	20.3	9.5	516	1.99	2.8	<0.5	6.2	13	<0.1	0.2	0.2	25	0.11	0.046	18
VV-L3-0E	Soil	0.4	19.3	10.4	103	0.1	24.4	8.8	487	1.75	4.7	<0.5	3.5	24	0.1	0.1	0.2	26	0.20	0.154	9
VV-L3-1E	Soil	0.8	28.4	21.3	108	0.2	29.3	13.1	520	2.09	4.4	<0.5	5.1	21	<0.1	0.2	0.3	29	0.19	0.099	20
VV-L3-2E	Soil	0.5	30.0	18.8	79	0.5	55.9	16.5	128	2.00	4.8	<0.5	3.9	17	0.1	0.1	0.3	33	0.17	0.039	15
VV-L3-3E	Soil	0.4	22.9	13.6	148	0.2	38.1	10.7	301	1.73	3.2	<0.5	4.5	17	0.2	0.1	0.2	25	0.13	0.101	14
VV-L3-4E	Soil	0.5	75.1	20.7	109	<0.1	44.1	19.8	415	2.28	3.4	0.7	3.7	18	0.1	0.2	0.3	40	0.18	0.044	12
VV-L3-5E	Soil	0.9	46.5	25.8	133	0.2	56.3	17.4	132	2.12	4.9	<0.5	6.1	17	0.1	0.2	0.6	29	0.16	0.024	28
VV-L3-6E	Soil	1.1	27.2	14.6	102	<0.1	29.6	12.6	278	2.73	4.4	0.7	7.7	21	<0.1	0.2	0.6	31	0.13	0.055	20
VV-L3-7E	Soil	0.6	18.1	10.7	102	0.1	32.1	12.3	350	2.09	8.3	0.7	4.9	34	0.2	0.1	0.5	26	0.28	0.062	13
VV-L3-8E	Soil	0.7	24.9	22.3	124	<0.1	48.1	16.0	571	2.74	2.9	<0.5	6.4	24	<0.1	0.2	0.4	32	0.21	0.066	22
VV-L3-9E	Soil	0.9	18.9	23.6	132	0.1	31.7	10.8	456	2.32	2.7	<0.5	4.9	14	0.1	0.2	0.3	32	0.13	0.057	13

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Part: 2 of 1

## CERTIFICATE OF ANALYSIS

VAN13000383.1

Analyte	Method	1DX30															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		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
VV-L2-1E	Soil	15	0.47	196	0.094	2	2.34	0.025	0.19	0.1	0.02	2.1	0.2	0.05	7	<0.5	<0.2
VV-L2-2E	Soil	20	0.74	70	0.102	<1	2.11	0.014	0.21	<0.1	0.01	2.5	0.3	0.09	6	<0.5	<0.2
VV-L2-3E	Soil	24	0.90	178	0.119	<1	2.53	0.018	0.27	<0.1	0.01	2.8	0.3	0.07	7	<0.5	<0.2
VV-L2-4E	Soil	15	0.48	209	0.098	<1	2.56	0.015	0.20	<0.1	0.02	2.2	0.2	<0.05	6	<0.5	<0.2
VV-L2-5E	Soil	8	0.14	284	0.066	2	1.68	0.017	0.12	<0.1	0.02	1.6	0.1	<0.05	4	<0.5	<0.2
VV-L2-6E	Soil	19	0.52	94	0.079	<1	2.47	0.007	0.39	<0.1	0.02	3.4	0.5	0.05	5	<0.5	<0.2
VV-L2-7E	Soil	13	0.39	143	0.088	1	2.15	0.011	0.22	<0.1	0.02	1.9	0.3	<0.05	6	<0.5	<0.2
VV-L2-8E	Soil	14	0.39	173	0.115	2	2.83	0.016	0.16	0.1	0.03	2.3	0.2	<0.05	7	<0.5	<0.2
VV-L2-9E	Soil	12	0.34	157	0.103	2	2.82	0.021	0.16	0.1	0.03	3.0	0.3	<0.05	6	<0.5	<0.2
VV-L2-10E	Soil	15	0.50	163	0.098	2	2.72	0.010	0.20	<0.1	0.03	2.4	0.3	<0.05	7	<0.5	<0.2
VV-L2-11E	Soil	14	0.51	195	0.089	2	2.34	0.011	0.19	<0.1	0.02	2.2	0.3	<0.05	6	<0.5	<0.2
VV-L2-12E	Soil	17	0.58	128	0.100	2	2.41	0.009	0.21	<0.1	0.03	2.3	0.3	<0.05	6	<0.5	<0.2
VV-L2-13E	Soil	16	0.42	189	0.105	1	2.58	0.009	0.17	0.2	0.04	2.2	0.3	<0.05	8	<0.5	<0.2
VV-L2-14E	Soil	17	0.49	251	0.094	2	2.62	0.008	0.20	0.1	0.03	2.6	0.3	<0.05	6	<0.5	<0.2
VV-L2-15E	Soil	17	0.53	94	0.088	<1	2.09	0.007	0.23	<0.1	0.04	2.1	0.4	0.05	6	<0.5	<0.2
VV-L2-16E	Soil	17	0.51	86	0.096	<1	2.76	0.007	0.20	0.1	0.04	2.5	0.4	0.06	6	<0.5	<0.2
VV-L2-17E	Soil	17	0.52	149	0.086	<1	2.12	0.007	0.22	<0.1	0.03	2.0	0.3	0.05	6	<0.5	<0.2
VV-L2-18E	Soil	15	0.46	182	0.087	<1	2.36	0.007	0.20	<0.1	0.03	2.2	0.3	<0.05	6	<0.5	<0.2
VV-L2-19E	Soil	14	0.46	128	0.086	1	2.14	0.007	0.20	<0.1	0.03	2.1	0.3	<0.05	6	<0.5	<0.2
VV-L2-20E	Soil	13	0.37	185	0.086	1	2.24	0.008	0.19	<0.1	0.03	2.2	0.3	0.06	6	<0.5	<0.2
VV-L3-0E	Soil	12	0.31	169	0.108	2	3.03	0.033	0.12	0.1	0.03	2.4	0.2	0.05	7	<0.5	<0.2
VV-L3-1E	Soil	16	0.50	199	0.098	1	2.67	0.019	0.18	0.1	0.03	2.8	0.3	0.05	7	<0.5	<0.2
VV-L3-2E	Soil	11	0.16	166	0.104	1	3.08	0.025	0.11	0.1	0.03	2.2	0.1	0.06	8	<0.5	<0.2
VV-L3-3E	Soil	12	0.30	285	0.091	2	2.32	0.018	0.16	<0.1	0.03	2.4	0.2	0.05	6	<0.5	<0.2
VV-L3-4E	Soil	18	0.54	278	0.079	2	2.37	0.012	0.16	<0.1	0.01	2.4	0.2	<0.05	6	<0.5	<0.2
VV-L3-5E	Soil	15	0.49	98	0.091	<1	2.32	0.015	0.18	<0.1	0.01	2.4	0.3	0.06	6	<0.5	<0.2
VV-L3-6E	Soil	20	0.87	126	0.114	1	2.64	0.010	0.32	0.1	0.02	2.7	0.4	0.07	7	<0.5	<0.2
VV-L3-7E	Soil	14	0.65	153	0.103	2	2.79	0.029	0.13	0.1	0.03	2.3	0.2	0.07	7	<0.5	<0.2
VV-L3-8E	Soil	21	1.40	157	0.110	2	3.10	0.009	0.19	0.1	0.02	2.7	0.3	0.07	8	<0.5	<0.2
VV-L3-9E	Soil	15	0.62	181	0.111	1	2.86	0.013	0.17	<0.1	0.03	2.2	0.3	0.06	8	<0.5	<0.2



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**Client:**

Kootenay Silver Inc.

Suite 1820 - 1055 W. Hastings St.  
Vancouver BC V6E 2E9 CANADA

Project: Spikes Big-Adventure  
Report Date: February 22, 2013

PHONE (604) 253-3158

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## CERTIFICATE OF ANALYSIS

VAN13000383.1

Method	Analyte	1DX30																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm						
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
VV-L3-10E	Soil	0.4	14.6	15.1	108	<0.1	53.6	11.3	563	1.63	2.3	1.4	4.4	22	<0.1	0.1	0.2	20	0.16	0.046	16
VV-L3-11E	Soil	0.7	32.4	25.1	148	0.1	75.5	18.3	424	2.00	3.3	0.8	7.1	18	0.2	0.1	0.3	25	0.12	0.081	22
VV-L3-12E	Soil	0.9	29.8	20.8	138	<0.1	46.2	18.2	620	2.90	2.7	<0.5	8.7	22	<0.1	0.2	0.4	34	0.14	0.118	29
VV-L3-13E	Soil	1.7	38.4	20.8	96	<0.1	47.0	15.3	236	2.63	4.2	<0.5	7.6	12	<0.1	0.3	0.3	31	0.08	0.063	24
VV-L4-0E	Soil	0.6	25.2	15.0	84	<0.1	32.4	14.7	243	2.07	2.8	<0.5	4.5	24	<0.1	0.1	0.5	28	0.19	0.055	14
VV-L4-1E	Soil	0.5	18.3	11.6	71	0.2	19.6	8.5	344	1.60	4.1	<0.5	4.0	19	0.1	0.1	0.2	24	0.15	0.100	16
VV-L4-2E	Soil	1.1	40.4	18.5	84	0.2	45.1	17.4	140	2.57	10.7	0.5	5.2	21	<0.1	0.2	0.6	34	0.16	0.081	16
VV-L4-3E	Soil	0.6	48.9	13.7	82	<0.1	32.5	13.7	144	2.17	4.3	1.4	4.9	17	0.1	0.2	0.2	33	0.15	0.040	16
VV-L4-4E	Soil	0.5	25.5	8.3	50	0.3	29.2	8.4	289	1.46	6.1	<0.5	3.3	22	0.2	<0.1	0.2	25	0.20	0.118	14
VV-L4-5E	Soil	0.5	37.2	11.5	76	0.2	29.3	11.3	252	1.83	4.8	1.3	3.7	20	0.1	<0.1	0.3	29	0.16	0.068	12
VV-L4-6E	Soil	0.8	25.7	13.3	61	<0.1	19.7	9.3	231	2.18	5.3	<0.5	5.1	15	<0.1	0.2	0.5	34	0.13	0.029	14
VV-L4-7E	Soil	0.5	17.4	12.8	90	0.2	28.9	16.4	265	1.86	16.9	2.9	4.3	21	0.1	0.2	3.2	28	0.18	0.107	15
VV-L4-8E	Soil	0.9	22.4	18.6	118	0.1	22.3	10.8	518	2.67	6.5	<0.5	4.8	23	0.1	0.1	0.5	40	0.17	0.104	12
VV-L4-9E	Soil	0.8	19.8	10.8	122	0.1	33.6	11.2	586	2.09	3.2	<0.5	4.3	24	0.2	0.1	0.3	28	0.20	0.064	14
VV-L4-10E	Soil	3.1	59.3	44.7	132	0.3	120.3	29.5	452	3.20	11.7	1.5	16.8	19	0.2	0.5	0.7	37	0.11	0.120	70
VV-L4-11E	Soil	0.4	13.3	15.2	187	0.2	28.9	9.3	1414	1.60	5.1	<0.5	4.4	29	0.3	0.1	0.2	21	0.24	0.261	19
VV-L4-12E	Soil	0.5	17.8	15.2	137	0.1	44.9	12.9	355	1.95	2.7	<0.5	5.6	16	0.2	<0.1	0.2	24	0.10	0.077	17
VV-L4-13E	Soil	0.5	17.3	13.6	80	<0.1	22.0	9.2	266	1.92	3.7	<0.5	6.2	11	0.1	0.1	0.2	26	0.08	0.101	16
VV-L4-14E	Soil	0.4	14.9	12.8	65	<0.1	18.9	9.3	147	1.67	2.7	<0.5	5.2	13	<0.1	<0.1	0.2	23	0.07	0.063	19
VV-L4-15E	Soil	0.5	15.7	12.2	86	0.1	32.5	12.5	648	1.57	3.4	<0.5	3.7	17	0.2	<0.1	0.2	23	0.12	0.104	14
VV-L4-16E	Soil	0.5	19.8	20.5	118	0.2	44.9	16.7	621	1.92	3.3	<0.5	5.1	21	0.2	0.2	0.2	24	0.13	0.080	20
VV-L4-17E	Soil	0.8	21.2	17.4	148	0.1	40.9	11.6	419	2.25	3.7	<0.5	4.9	20	0.2	0.2	0.2	30	0.16	0.074	16
VV-L4-18E	Soil	3.2	61.9	37.8	263	0.3	178.5	114.1	922	3.41	5.1	<0.5	13.7	19	0.2	0.3	0.5	35	0.10	0.116	48
VV-L4-19E	Soil	1.2	40.7	18.5	229	0.2	72.4	29.5	274	2.08	1.9	<0.5	4.5	20	0.1	0.2	0.3	26	0.14	0.027	27
VV-L4-20E	Soil	0.4	8.7	9.9	103	0.1	21.0	11.2	488	1.30	1.1	<0.5	2.9	18	0.1	<0.1	0.2	15	0.13	0.072	13
VV-L4-21E	Soil	0.9	25.3	15.5	116	0.4	48.5	16.6	426	2.11	3.1	<0.5	5.1	25	0.2	0.1	0.2	25	0.19	0.074	19
VV-L5-0E	Soil	0.6	12.3	18.2	118	<0.1	36.7	10.8	108	1.60	2.5	1.6	5.0	14	<0.1	0.1	0.2	18	0.09	0.035	17
VV-L5-1E	Soil	0.6	15.7	14.8	161	0.1	39.3	10.3	719	1.76	3.2	<0.5	4.4	17	0.2	0.1	0.2	26	0.12	0.088	17
VV-L5-2E	Soil	0.7	17.2	17.2	200	0.1	40.5	12.0	806	1.94	2.7	<0.5	4.6	20	0.4	0.1	0.2	26	0.14	0.175	19
VV-L5-3E	Soil	0.7	21.8	16.5	114	0.1	29.8	10.6	305	2.08	3.3	<0.5	5.7	17	0.2	0.1	0.2	28	0.12	0.079	17

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.



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Project: Spikes Big-Adventure  
Report Date: February 22, 2013

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## CERTIFICATE OF ANALYSIS

VAN13000383.1

Analyte	Method	1DX30															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		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
VV-L3-10E	Soil	11	0.30	198	0.082	<1	2.00	0.012	0.22	<0.1	0.01	1.7	0.3	0.07	5	<0.5	<0.2
VV-L3-11E	Soil	13	0.31	202	0.099	1	2.82	0.016	0.18	0.1	0.03	2.7	0.3	0.06	7	<0.5	<0.2
VV-L3-12E	Soil	19	0.50	256	0.120	2	3.03	0.010	0.32	0.1	0.03	3.0	0.5	0.06	7	<0.5	<0.2
VV-L3-13E	Soil	19	0.69	87	0.109	<1	2.77	0.009	0.21	<0.1	0.04	2.6	0.4	0.06	7	<0.5	<0.2
VV-L4-0E	Soil	19	0.90	175	0.099	1	2.58	0.017	0.28	0.1	0.02	2.6	0.3	<0.05	7	<0.5	<0.2
VV-L4-1E	Soil	9	0.19	188	0.099	2	2.78	0.029	0.12	0.2	0.03	3.2	0.2	0.07	6	<0.5	<0.2
VV-L4-2E	Soil	17	0.42	230	0.087	1	2.97	0.012	0.19	<0.1	0.03	2.0	0.3	<0.05	7	<0.5	<0.2
VV-L4-3E	Soil	19	0.59	173	0.072	1	1.80	0.009	0.19	<0.1	0.01	2.2	0.3	<0.05	5	<0.5	<0.2
VV-L4-4E	Soil	8	0.13	214	0.105	3	3.07	0.038	0.07	0.2	0.04	3.9	0.2	<0.05	7	<0.5	<0.2
VV-L4-5E	Soil	13	0.36	257	0.090	2	2.34	0.017	0.14	<0.1	0.03	2.5	0.2	<0.05	6	<0.5	<0.2
VV-L4-6E	Soil	20	0.62	169	0.081	1	2.15	0.007	0.18	<0.1	0.03	2.4	0.3	<0.05	6	<0.5	<0.2
VV-L4-7E	Soil	12	0.44	165	0.109	2	3.01	0.017	0.12	0.1	0.03	2.6	0.2	<0.05	8	<0.5	0.7
VV-L4-8E	Soil	21	0.97	165	0.131	2	3.97	0.021	0.11	0.2	0.05	4.6	0.2	<0.05	10	0.7	<0.2
VV-L4-9E	Soil	13	0.45	167	0.116	4	3.25	0.029	0.19	0.1	0.03	3.1	0.3	<0.05	7	<0.5	<0.2
VV-L4-10E	Soil	17	0.31	139	0.136	2	4.24	0.016	0.19	0.2	0.10	4.9	0.4	0.08	10	<0.5	<0.2
VV-L4-11E	Soil	10	0.16	245	0.083	2	2.37	0.017	0.15	<0.1	0.03	2.3	0.2	<0.05	6	<0.5	<0.2
VV-L4-12E	Soil	13	0.34	179	0.087	2	2.17	0.012	0.25	0.1	0.02	2.2	0.3	<0.05	6	<0.5	<0.2
VV-L4-13E	Soil	14	0.30	147	0.102	1	2.57	0.011	0.23	0.1	0.04	2.7	0.3	<0.05	6	<0.5	<0.2
VV-L4-14E	Soil	12	0.23	159	0.086	1	2.15	0.013	0.26	<0.1	0.02	2.5	0.3	<0.05	6	<0.5	<0.2
VV-L4-15E	Soil	9	0.17	180	0.088	2	2.64	0.019	0.12	<0.1	0.03	2.5	0.2	<0.05	6	<0.5	<0.2
VV-L4-16E	Soil	12	0.25	212	0.083	1	2.22	0.016	0.17	<0.1	0.03	2.3	0.3	<0.05	6	<0.5	<0.2
VV-L4-17E	Soil	16	0.51	213	0.104	2	2.65	0.014	0.15	<0.1	0.04	2.4	0.3	<0.05	7	<0.5	<0.2
VV-L4-18E	Soil	20	0.46	148	0.106	2	4.51	0.016	0.29	<0.1	0.06	4.2	0.9	<0.05	9	<0.5	<0.2
VV-L4-19E	Soil	18	0.62	80	0.081	<1	2.07	0.013	0.25	<0.1	0.01	2.1	0.5	<0.05	5	<0.5	<0.2
VV-L4-20E	Soil	10	0.27	152	0.051	1	1.40	0.011	0.22	<0.1	0.01	1.2	0.2	<0.05	4	<0.5	<0.2
VV-L4-21E	Soil	13	0.34	194	0.092	2	2.99	0.019	0.25	<0.1	0.04	2.6	0.4	0.05	7	<0.5	<0.2
VV-L5-0E	Soil	10	0.20	149	0.057	<1	1.77	0.009	0.18	<0.1	0.01	1.4	0.2	<0.05	5	<0.5	<0.2
VV-L5-1E	Soil	11	0.18	192	0.086	2	2.71	0.015	0.14	<0.1	0.03	2.6	0.2	<0.05	7	<0.5	<0.2
VV-L5-2E	Soil	12	0.21	252	0.081	2	2.42	0.016	0.17	0.1	0.03	2.6	0.3	<0.05	6	<0.5	<0.2
VV-L5-3E	Soil	12	0.32	191	0.111	2	3.01	0.018	0.15	<0.1	0.03	3.3	0.3	<0.05	8	<0.5	<0.2

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Project: Spikes Big-Adventure  
Report Date: February 22, 2013

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Part: 1 of 1

## CERTIFICATE OF ANALYSIS

VAN13000383.1

Method	Analyte	1DX30																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm						
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
VV-L5-4E	Soil	1.2	24.5	25.6	90	<0.1	25.2	12.4	261	2.32	2.9	0.9	7.8	17	0.1	0.3	0.3	24	0.10	0.052	22
VV-L5-5E	Soil	0.9	21.5	15.5	156	0.2	30.9	13.8	868	2.50	4.5	0.7	5.0	13	0.2	0.2	0.3	38	0.13	0.219	21
VV-L5-6E	Soil	3.0	50.9	33.8	162	0.3	91.5	27.0	532	3.69	4.3	0.9	12.4	21	0.1	0.3	0.5	37	0.10	0.120	38
VV-L5-7E	Soil	1.1	27.0	18.1	164	0.2	60.3	13.3	550	2.22	3.3	<0.5	4.7	16	0.2	0.2	0.3	29	0.14	0.067	17
VV-L5-8E	Soil	1.4	24.0	16.0	131	0.1	30.6	12.3	644	2.52	3.2	<0.5	5.6	17	0.1	0.2	0.2	33	0.15	0.090	15
VV-L5-9E	Soil	3.9	40.8	31.7	181	0.2	106.9	18.9	453	4.04	6.0	0.8	11.0	32	0.2	0.4	0.5	38	0.17	0.098	42
VV-L5-10E	Soil	1.4	29.6	16.8	139	0.1	49.9	16.1	543	2.68	2.6	<0.5	6.8	23	0.2	0.2	0.2	32	0.21	0.041	13
VV-L5-11E	Soil	2.0	26.5	13.9	108	0.2	25.4	10.5	386	2.35	3.8	<0.5	5.5	14	<0.1	0.2	0.2	32	0.08	0.107	16
VV-L5-12E	Soil	1.3	30.1	21.4	198	0.1	61.0	24.7	970	2.71	5.7	0.7	7.1	21	0.2	0.3	0.4	31	0.12	0.102	31
VV-L5-13E	Soil	2.8	57.4	54.6	156	0.4	112.2	18.8	308	3.82	6.9	1.1	17.4	28	0.1	0.4	0.7	29	0.16	0.059	108
VV-L5-14E	Soil	1.3	25.0	25.5	144	0.2	64.2	12.7	458	2.78	3.6	0.7	7.0	17	0.1	0.2	0.4	24	0.15	0.083	31



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**Project:** Spikes Big-Adventure  
**Report Date:** February 22, 2013

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Part: 2 of 1

## CERTIFICATE OF ANALYSIS

VAN13000383.1

Method	Analyte	1DX30															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		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
VV-L5-4E	Soil	13	0.40	161	0.088	1	2.38	0.011	0.26	<0.1	0.03	2.3	0.4	<0.05	6	<0.5	<0.2
VV-L5-5E	Soil	13	0.22	219	0.117	2	3.88	0.013	0.09	0.1	0.06	2.8	0.3	<0.05	10	<0.5	<0.2
VV-L5-6E	Soil	18	0.42	181	0.122	2	4.87	0.016	0.29	<0.1	0.05	3.9	0.6	<0.05	11	<0.5	<0.2
VV-L5-7E	Soil	15	0.41	151	0.105	2	3.22	0.019	0.15	0.1	0.03	2.7	0.3	<0.05	7	<0.5	<0.2
VV-L5-8E	Soil	22	0.76	153	0.122	1	3.25	0.015	0.14	0.1	0.05	3.3	0.3	<0.05	8	<0.5	<0.2
VV-L5-9E	Soil	24	0.73	190	0.132	1	4.36	0.014	0.28	0.1	0.04	2.8	0.5	0.07	10	<0.5	<0.2
VV-L5-10E	Soil	28	1.13	149	0.126	1	2.86	0.019	0.31	<0.1	0.02	3.0	0.5	<0.05	7	<0.5	<0.2
VV-L5-11E	Soil	12	0.32	131	0.126	2	3.94	0.017	0.10	0.2	0.04	3.1	0.2	0.07	9	<0.5	<0.2
VV-L5-12E	Soil	16	0.45	176	0.111	2	3.22	0.014	0.22	0.1	0.03	2.8	0.4	0.08	8	<0.5	<0.2
VV-L5-13E	Soil	18	0.43	184	0.185	<1	4.69	0.021	0.34	0.1	0.04	4.7	0.6	<0.05	12	<0.5	<0.2
VV-L5-14E	Soil	14	0.35	187	0.151	1	3.72	0.017	0.22	0.1	0.05	2.7	0.3	<0.05	10	<0.5	<0.2



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## QUALITY CONTROL REPORT

VAN13000383.1

Method Analyte Unit MDL	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
	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	1	
Pulp Duplicates																					
VV-L1-5W	Soil	0.3	11.0	11.6	141	0.1	32.5	11.7	438	1.64	1.8	<0.5	3.3	32	0.1	<0.1	0.2	20	0.23	0.118	11
REP VV-L1-5W	QC	0.3	11.4	11.7	141	0.2	32.2	12.0	445	1.63	2.0	0.8	3.3	31	0.1	0.1	0.2	20	0.22	0.118	11
VV-L2-9E	Soil	0.5	21.1	15.6	114	0.1	33.3	8.9	442	1.78	4.9	0.5	5.0	24	0.3	0.1	0.3	27	0.19	0.122	16
REP VV-L2-9E	QC	0.6	21.7	15.9	123	0.1	33.1	9.4	465	1.87	4.8	0.9	5.3	25	0.2	0.1	0.2	28	0.19	0.128	17
VV-L4-7E	Soil	0.5	17.4	12.8	90	0.2	28.9	16.4	265	1.86	16.9	2.9	4.3	21	0.1	0.2	3.2	28	0.18	0.107	15
REP VV-L4-7E	QC	0.7	18.2	13.0	96	0.2	31.0	16.8	221	1.66	18.5	3.3	4.4	22	0.1	0.2	3.3	29	0.20	0.116	17
Reference Materials																					
STD DS9	Standard	13.9	115.4	131.6	338	2.0	42.6	7.9	630	2.52	27.3	134.6	6.4	61	2.3	5.2	6.3	44	0.77	0.089	13
STD DS9	Standard	11.9	109.5	127.2	294	1.7	39.9	7.5	536	2.10	23.8	116.6	5.8	49	2.2	4.5	5.3	39	0.64	0.075	10
STD DS9	Standard	13.7	112.7	130.0	321	1.9	42.1	8.0	599	2.41	25.3	117.1	6.4	60	2.4	4.9	5.8	45	0.72	0.084	13
STD DS9	Standard	12.8	93.1	128.2	300	1.9	42.2	6.6	611	2.34	21.1	119.3	5.2	66	1.9	4.9	6.0	33	0.73	0.066	10
STD DS9 Expected		12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819	13.3
BLK	Blank	<0.1	0.2	<0.1	<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	<1	
BLK	Blank	<0.1	<0.1	<0.1	<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	<1	
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	<2	<0.01	<0.001	<1	
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	<2	<0.01	<0.001	<1	



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Project:

Spikes Big-Adventure

Report Date:

February 22, 2013

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## QUALITY CONTROL REPORT

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Method Analyte Unit MDL	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	
	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
	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	
<b>Pulp Duplicates</b>																	
VV-L1-5W	Soil	12	0.39	286	0.073	2	2.04	0.019	0.19	<0.1	0.03	1.9	0.2	<0.05	6	<0.5	<0.2
REP VV-L1-5W	QC	12	0.38	283	0.073	2	1.99	0.020	0.19	0.1	0.02	2.1	0.2	<0.05	6	<0.5	<0.2
VV-L2-9E	Soil	12	0.34	157	0.103	2	2.82	0.021	0.16	0.1	0.03	3.0	0.3	<0.05	6	<0.5	<0.2
REP VV-L2-9E	QC	13	0.35	163	0.109	3	3.01	0.021	0.17	0.1	0.03	3.0	0.3	<0.05	7	<0.5	<0.2
VV-L4-7E	Soil	12	0.44	165	0.109	2	3.01	0.017	0.12	0.1	0.03	2.6	0.2	<0.05	8	<0.5	0.7
REP VV-L4-7E	QC	13	0.39	173	0.117	3	3.13	0.019	0.12	0.2	0.05	3.6	0.3	0.08	8	<0.5	0.6
<b>Reference Materials</b>																	
STD DS9	Standard	128	0.67	325	0.091	3	0.98	0.092	0.44	3.3	0.22	2.9	6.1	0.22	5	5.7	5.8
STD DS9	Standard	120	0.57	260	0.081	2	0.83	0.073	0.36	3.0	0.20	2.2	5.1	0.20	4	4.9	5.1
STD DS9	Standard	129	0.65	312	0.093	3	0.95	0.088	0.40	3.2	0.20	2.7	5.6	0.21	5	5.5	5.2
STD DS9	Standard	129	0.65	241	0.094	2	0.93	0.076	0.39	3.2	0.21	2.3	5.4	0.20	5	5.4	5.2
STD DS9 Expected		121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	0.07	<1	<0.5	<0.2
BLK	Blank	<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
BLK	Blank	<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
BLK	Blank	<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

