## MAR 20120008: BLACK BUTTE

Black Butte Volcanic Complex - An investigation of minette as a source of potassium, REE or gold.

Received date: Apr 27, 2012

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## PART B

ASSESSMENT REPORT

For

**Black Butte Volcanic Complex** Metallic and Industrial Mineral Permit Number 9306031172

And

## PART C

**APPENDICES** 

For

**Black Butte Volcanic Complex** Metallic and Industrial Mineral Permit Number 9306031172

Black Butte Volcanic Complex (Township 1, Range 8 west of the 4<sup>th</sup> Meridian) NTS: 72E

For

SandSwamp Exploration Ltd.

Submitted by: Lester B. Vanhill

April, 2012

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## **Summary:**

There are seven outcrops of volcanic potassic rocks in the Milk River area of southern Alberta. These rocks have been collectively labelled the "Sweet Grass Intrusives". This assessment report focuses only on one occurrence of the potassic outcropping rocks known as Black Butte or the Black Butte Volcanic Complex. Black Butte is a large volcanic oval dome, which penetrated through the surrounding Oldman Formation. It rises approximately 35 m above the surrounding country landscape. The main surface expression of Black Butte is 450 m by 200 m and in plan-view is orientated in a southwest, northeast direction.

Kjarsgaard, B.A. 1994 (GSC); described Black Butte as, "All exposed outcrops are dark to light grey minette intrusives, with weak to moderate flow textures. This grey minette intrusive is composed of phlogopite + diopside phenocrysts in a groundmass of mica (phlogopite - biotite) + salite + sanidine + magnetite + apatite +/- analcime +/- calcite."

Past exploration of the Black Butte volcanic complex has been focused on diamonds and precious metals. The assessment work completed on this mineral permit for term 3, has investigated the potential for the Black Butte grey minette rock material as a source of agricultural potassium fertilizer or as a source rock for Rare Earth Elements (REEs) and gold.

Geochemistry of Black Butte published by Kjarsgaard, B.A. 1994; and confirmed, but unpublished, by the author in assessment period #1, indicated a K<sub>2</sub>O content of approximately 6%. Potassium along with nitrogen and phosphate are the main components of agricultural forage fertilizer in Alberta. In most Canadian agricultural operations potassium fertilizer is normally sourced from potash salt obtained from mines in Saskatchewan. With the rising costs associated with world demand for Saskatchewan potash-salt, a nonpotash-salt source of potassium could greatly benefit the agricultural operations of Southern Alberta, especially for lands with high salinity.

Various other historic publications have suggested that the volcanic rocks of Southern Alberta may be a source for economic concentrations of gold and/or Rare Earth Elements (REE). Sampling conducted during the third assessment term on this permit was conducted to determine if the volcanic rocks exposed on surface at the Black Butte Volcanic Complex do contain economic concentrations of gold or REEs.

Laboratory analysis of selected rock samples shows that the only currently economic use of the Black Butte Volcanic rocks is for a source of Potassium. No further work is planned for this property for at least 4.5 years.

#### Introduction:

The existence of the Black Butte Volcanic Complex has been known by mineral explorers for over 100 years. In that time, it has been explored for diamonds, gold, uranium and as a source of kitty litter. Past studies by other explorers has resulted in the discovery of microdiamonds from Black Butte samples but the source of these diamonds did not correspond to the mineral assemblage of the main outcropping rock unit, minette.

The author of this report has held the mineral permit # 9306031172 on the Black Butte Volcanic Complex since March of 2006. Over the last two assessment periods the permit has been reduced in size from 9216 Ha to only 48 Ha to cover only the lands directly related to the Black Butte volcanic complex. During this time, prospecting by the author has identified several olivine minette dykes that cross cut the main volcanic body. These dykes may be the original source rocks of the microdiamonds and kimberlite indicator minerals found by other explorers. Although these dykes are of geological interest, there small tonnage and fine-grained nature rules them out as an economical source of diamonds; therefore the focus of this report is to document the potential of the Black Butte minette material as a possible source of gold, REEs and/or potassium fertilizer.

### **Location & Access:**

The Black Butte Volcanic Complex is located within Township 1, Range 8 west of the 4<sup>th</sup> Meridian in Map Sheet 72E. The southern part of the property is located 3.1 kilometres north of the Canada / US border and is road accessible by an all weather county road which cuts through part of the north section of the outcropping complex. The area south of the road is currently used as a crown owned grazing lease for two different local cattle ranching operation. The north side of the road has been under cultivation for at least 10 years.

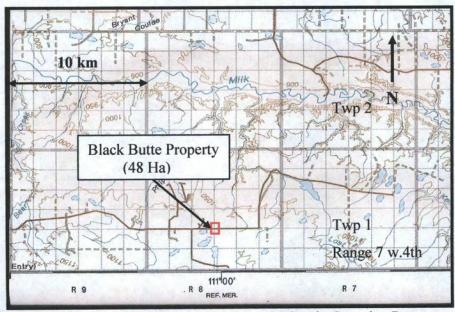


Figure 1: Location Map of Black Butte Volcanic Complex Property.

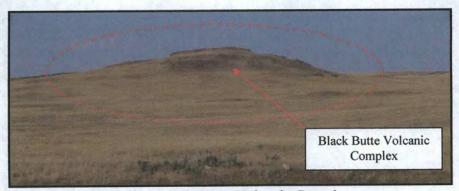
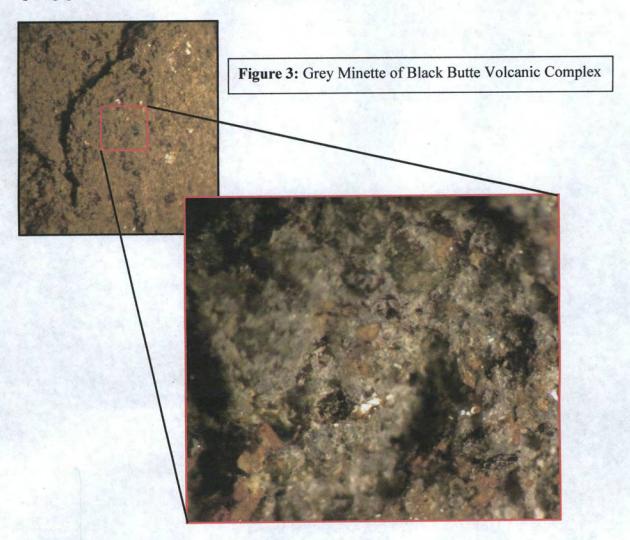


Figure 2: View of the Black Butte Volcanic Complex

## Geology of the Black Butte Volcanic Complex:

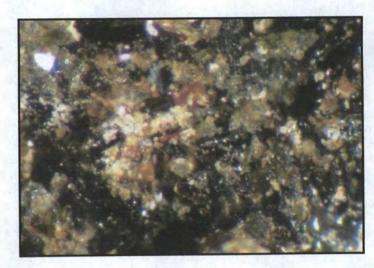
Kjarsgaard, B.A. 1994; described Black Butte as, "All exposed outcrops are dark to light grey minette intrusives, with weak to moderate flow textures. This grey minette intrusive is composed of phlogopite+diopside phenocrysts in a groundmass of mica (phlogopite-biotite)+salite+sanidine+magnetite+apatite+/-analcime+/-calcite."



Past ground prospecting and test pitting coupled with a review by the author of existing public airborne magnetic data, (Marum Resources, 1994) has shown the main Black Butte volcanic complex to have been intruded by no less than three distinct narrow dykes. The author classes hand samples of these weathered dykes as olivine minette or

fine-grained kimberlite. They show similar mineral assemblage as the above-mentioned grey minette with the addition of olivine. Of interest to diamond exploration, the olivine minette phase of the Black Butte Volcanic Complex contains numerous suspected (not confirmed by microprobe) kimberlite indicator minerals such as pyrope garnet, chrome diopside, eclogitic garnet, picroilmenites and dark blue corundum (sapphire). It is this phase of the Black Butte Volcanic Complex that may have contributed to the diamond content of prior exploration by previous permit owners.

Figure 4: view of olivine minette material "whole rock" from narrow dyke



These olivine minette dykes within Black Butte are finer grained and more magnetic than the surrounding grey minette material. The grey minette material is more magnetic than the surrounding country rock of the Oldman Formation.

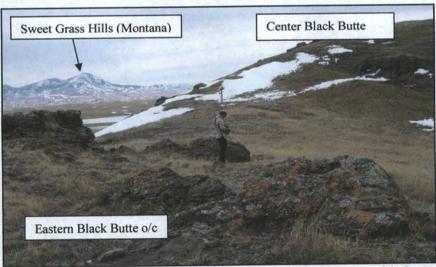


Figure 5: Outcropping grey minette rocks on Black Butte with Sweet Grass Hills Eastern Butte (Montana) in background.

#### Work Performed:

During the third term (years 5 and 6) of Alberta mineral exploration permit # 9306031172, the assessment work performed was limited to three main aspects of mineral exploration, land owner consultation, outcrop sampling for geochemical analysis and a ground magnetic spot orientation survey.

In 2011, several small fertilizer companies and (2) Alberta based universities were contacted and offered the authors Black Butte data base as well as a controlling interest in permit # 9306031172, in exchange for conducting a controlled scientific experiment to investigate and document the benefits, if any, to forage crops from potassium sourced from Black Butte rock. Neither the fertilizer companies nor the universities were willing to conduct such a study. One interested fertilizer company stated that they felt that Alberta was a mining unfriendly jurisdiction and that even if the Black Butte rocks were an economical source of agricultural useable potassium, the Alberta government would never allow a quarry to operate in Southern Alberta to extract the rock material.

With efforts to have an independent and credible study conducted on the Black Butte potassium fertilizer potential hampered by a mining unfriendly provincial government, exploration efforts of the Black Butte Volcanic Complex switched to less intrusive gold and REE exploration. At that point in time, in 2012, both gold and REE minerals were in very high demand and past government publications have suggested that the unique rocks associated with the Black Butte Volcanic Complex may contain or be proximal to economic grades of gold and/or REE minerals.

The main objective of exploration for this permit was to obtain fresh grab samples from the various exposed outcrops of the Black Butte volcanic complex and have selected representative rock samples tested for gold and REE concentrations.

On March 27, 2012, a two man exploration crew was mobilized from Dapp, Alberta to Southern Alberta. The crew met a fellow prospector / Geo-tech, Bob Ryziuk whom owns the mineral permit surrounding the Black Butt mineral permit and holds an informal 50% interest in the Black Butte permit. During the meeting, a plan was formulated to take advantage of data Mr. Ryziuk had obtained during his 2011/2012 gold and REE prospecting trips to the same general area. After the exploration planning meeting, the field crew continued the long drive to Southern Alberta. Accommodations were used in Lethbridge, Alberta, the nearest large center to the property.

On March 28, 2012 the crew travelled to the small town of Milk River, Alberta. At Milk River, efforts were made to insure the crew truck was decontaminated of potentially harmful and/or noxious weed seeds contained in undercarriage mud. Both high pressure water and compressed air (at the local truck wash) were utilized to complete this task. The public road used to access the Black Butte permit passes through some small areas of native prairie grassland and the crew wanted to insure that northern B.C. weed seeds were not introduced to that sensitive environment via the crew truck mud.

After obtaining food and fuel in Milk River, the crew continued on to the permit area, via a network of paved then graveled public roads. Once at the permit area, the

crew met with the Grazing Lease holder which contains the main Black Butte outcrops to re-establish permission to enter the permit lands. The original Grazing Lease holder from assessment periods 1 & 2 had passed away and his son had taken over the ranching operation. Due to this change of ownership as well as increased oil exploration in the general area, land owner consultation needed to be more in-depth than originally planned, but access for out crop sampling was obtained. This young rancher seemed to be a hardworking, decent guy.

The crew then travelled the approximate 4 kms back to the Black Butte permit, were exploration and outcrop sampling started. Within 20 minutes of entering the property by foot access from the public road, a second area rancher approached the field crew. He was the holder of the Grazing Lease that covered the south-west outcrop as well as the owner of the lands north of the public road, (north outcrop exposure). Despite his Grazing Lease being public land and no cattle or crop present on the Grazing Lease this second rancher refused permission for foot access. This refusal of land access is in contravention of the Alberta Public Lands Act, but the field crew never planned to sample the west or north outcrops anyway. This "land owner consultation", with the second rancher took approximately 1 hour and effectively left the author with a feeling of discouragement for any future attempts to invest in any part of Southern Alberta. It was very obvious that land access to the west Grazing Lease was being denied only because the first rancher had given permission for access and the second rancher was in some type of range feud with him and his family. After the second rancher left, sampling continued.

Sampling focused on the center and eastern volcanic outcrops as well as a large sandstone-volcanic laminated hoodoo (Sample # BB-12-01) east of the main volcanic outcrops. During the first pass of sampling several thin (1 to 5mm thick) weathered quartz veins in grey minette were located and sampled (Sample # BB-12-02) on the eastern outcrops. The rock surrounding both sides of these thin veins contained a weathered clay type material but still showed rusty staining from weathered sulphide minerals.

Representative samples from numerous other exposed outcrops on the east part of the property were sampled. Since these samples appeared to be mineralogically similar, only one representative sample (Sample # BB-12-03) was deemed necessary for lab analyses from these other outcrops.

Due to a lack of daylight, cold weather and hard feelings caused by the second rancher, the ground magnet survey that had been planned for the property was cancelled. However the field crew did conduct a quick magnetometer orientation spot-survey over three locations on the eastern outcrop group as well as the grassy area directly between the eastern outcrop group and the main large center outcrop group. This orientation spot survey showed that the Black Butte Volcanic Complex does appear to emanate variable magnetic signatures difference of 9.78nT over a short distance covering its diverse surface area. This confirms magnetic data performed by previous property owners in exploration done during the 1990's. See the table below for the magnetic spot survey results.

**Magnetometer Orientation Spot-Survey Data:** 

Location	Surface Type	Northing	Easting	Elevation	nT
Mag St # 1	Grey minette o/c (east)	5430560	499650	1085m	0.00*
Mag St # 2	Edge of minette o/c (east)	5430510	499625	1083m	+4.00
Mag St # 3	Grassy area below main o/c	5430460	499600	1081m	+9.78

<sup>\*</sup>Corrected Magnetic Data St # 1 "Zeroed" from 15860.00nT (UTM: NAD 83; Zone 12U)

After the magnetometer orientation spot-survey was finished, the field crew packed up and mobilized back to Dapp, Alberta.

On March 29, 2012 collected rock samples were viewed under a binocular microscope by the author to determine which samples were mineralogically unique enough to warrant the high cost of laboratory analysis. Three samples representing the three distinctively different rock types of the exposed volcanic complex were chosen for this laboratory analysis. These samples were split, rebagged, relabelled and then sent to ALS Minerals of Vancouver for sample preparation and analyses using currently acceptable techniques to determine the concentrations of various economic elements as well as to obtain overall whole-rock chemistry. See the table below for sample numbers, sample location sites and rock type description. See appendix for full laboratory analyses done and results.

**Rock Sample Location Data:** 

Sample #	Rock Type	Northing	Easting	Elevation
BB-12-01	Sandstone/Volcanic	5430572	499681	1078m
BB-12-02	Quartz vein in Grey Minette	5430560	499646	1086m
BB-12-03	Grey Minette	5430423	499470	1092m

(UTM: NAD 83; Zone 12U)

Figure 6: Quartz vein in grey Minette Eastern Black Butte o/c area (Glove used for scale)



## **Exploration Results:**

The three samples were analyzed for whole rock geochemistry, standard ICP element suite, REE element suite and gold assay. Because only three samples from the Black Butte property were to be analyzed, three other samples from other Alberta properties were added to the laboratory order to facilitate a quicker processing turnaround time. The cost for these three other samples has not been included as costs for this permits assessment work.

With the exception of 6% K<sub>2</sub>O, the rocks analyzed do not appear to contain any valuable elements in economical concentrations. See full results listed in the ALS Minerals Certificate of Analysis within the Appendices of this report.

### Conclusion:

Due to the anti-mining policies that appear to be conveyed by the current Alberta Government, no further exploration work is planned for the Black Butte Volcanic Complex. The property will be moth-balled for the next 4.5 years. A future study to investigate the economics of producing a potassium fertilizer from the Black Butte rocks may be conducted in order to determine if the property warrants further investment.

# Air Photograph of the Black Butte Volcanic Complex:

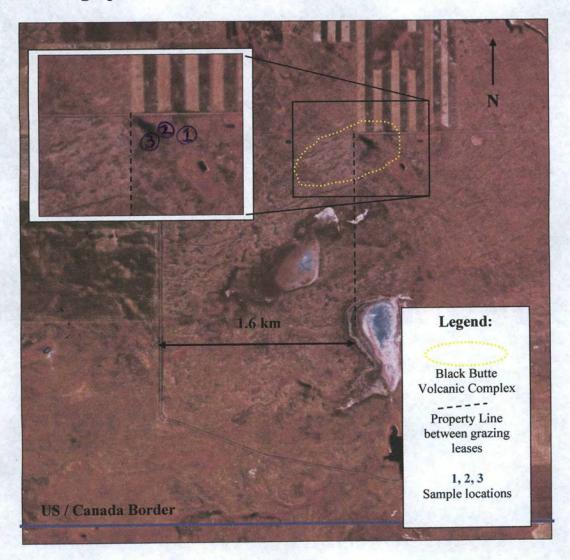


Figure 7: Air photograph of Black Butte and Area

## **Author's Qualifications:**

I. Lester B. Vanhill, of Dapp, Alberta, Canada do hereby certify that:

- 1. I am a prospector with; and sole owner of; SandSwamp Exploration Ltd.
- 2. I am a graduate of the Northern Alberta Institute of Technology (N.A.I.T.) with an honours diploma in Geological Technology (2003) and a diploma in Business Administration (1997).
- 3. Since 2002 I have made the majority of my lively-hood from geological exploration and/or resource mining activities.
- 4. I have been an active mineral exploration prospector within the Yukon, NWT, Nunavut, British Columbia and Alberta at various times since 1994.
- 5. I have continuously owned Alberta Mineral Permits since 2001.
- 6. I do not belong to any professional association(s).
- 7. I currently hold 50% beneficial interest in this property.
- 8. I am not currently aware of any geological facts or information that has been omitted from this report.
- 9. The contents of this report are based on information and observations deemed to be accurate and complete at the time of its printing.



Sign at: Dapp, Alberta, Canada April 24, 2012

#### References:

Aasen A. & Bjorge M., 2009: Alberta forage manual, 2<sup>nd</sup> edition; Alberta Agriculture and Rural Development p. 90-93 & 170-192.

ALS Minerals Certificate of Analysis Certificate # VA12070895, April 18, 2012 LESVAN.

Chesterman, C. W., 1979: National Audubon Society Field Guide to North American Rocks and Minerals. 16<sup>th</sup> printing.

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Marum Resources Inc: Report on The Pinhorn Property Milk River Area; Walker R.T.; Alberta Assessment Report # 19940008.

Mussieux M. & Nelson M.,1998: A Traveller's Guide to Geological Wonders in Alberta. The Provincial Museum of Alberta; p.234 & 235.

Ross G.M. et al, 1995: Was Eocene Magmatism Widespread in the Subsurface of Southern Alberta? Evidence from New Aeromagnetic Anomaly Data. Geological Survey of Canada Bulletin 500; p 235-246.

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Vanhill, L. B.: Internal Data Base "Southern Alberta Radioactive Sites" 2001-2012. Unpublished Regional Data.

Vanhill, L. B.: Internal Data Base "Mineral Samples of Alberta" Thin Sections # 247-261, 2001-2012. Unpublished Regional Data.

### **Detailed Expenditure Statement**

Metallic and Industrial Mineral Permit Number 9306031172

Black Butte Volcanic Complex,

(Township 1, Range 8 west of the 4<sup>th</sup> Meridian) NTS: 72E

Categories	Description		<b>Total Cost</b>
Cause to Send Exploration	1:		
Days of Work: "LBV"	2 days = Field Explo		
	1 day = Sample prep	, shipping & res	
Total	: 3 days @ \$600/day		\$1800.00
Sub:	2 days @ \$50/day		\$100.00
Days of Work: "HWG"	2 days = Field Explo	oration	
Total	: 2 days @ \$250/day		\$500.00
Sub:	2 days @ \$50/day		\$100.00
Travel: "4x4 1500"	1670 km @ \$1.00/k	cm	\$1670.00
Out of Pocket:			
Sample Shipping (to Vanco	uver)	\$ 25.00	
ALS labs invoice		\$311.95	
Maps	1 @ \$12.49	\$ 12.50	
Truck Wash (Milk River)	1 @ \$ 9.00	\$ 9.00	
Sample Pails	2 @ \$ 4.50	\$ 9.00	\$ 367.45
Assessment Report Writin	ng:		
Days of Work:	1 day @ \$600/day	\$600.00	
Binding:	3 @ \$5 each	\$ 15.00	
Office Consumables	Flat Rate	\$ 25.00	\$640.00
Total Cost (Without 10% (	Overhead Cost)		\$5177.45
10% Overhead Allowance			\$ 517.75
Total Assessment Expend	itures:		\$5,695.20

I, Lester Vanhill, certify that these expenditures are valid and were incurred while conducting assessment work on the metallic and industrial mineral permit associated with this assessment report.

Report Author Date

Black Butte Volcanic Complex, Part B & C SandSwamp Exploration Ltd. April, 2012 Page 13

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2103 Dollarton Hwy North Vancouver BC V7H 0A7

Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: LESTER VANHILL

DAPP AB TOG OSO

Page: 1 Finalized Date: 18- APR- 2012 Account: VANLES

## CERTIFICATE VA12070895

Project: Black Butt Alberta

P.O. No.:

This report is for 6 Rock samples submitted to our lab in Vancouver, BC, Canada on 5- APR- 2012.

The following have access to data associated with this certificate:

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

	ANALYTICAL PROCEDUR	ES
ALS CODE	DESCRIPTION	INSTRUMENT
ME- MS42	Up to 34 elements by ICP- MS	ICP- MS
OA- GRA05	Loss on Ignition at 1000C	WST- SEQ
TOT- ICP06	Total Calculation for ICP06	ICP- AES
ME- 4ACD81	Base Metals by 4- acid dig.	ICP- AES
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP06	Whole Rock Package - ICP- AES	ICP- AES
C- IR07	Total Carbon (Leco)	LECO
S- IR08	Total Sulphur (Leco)	LECO
ME- MS81	38 element fusion ICP- MS	ICP- MS

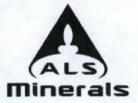
To: LESTER VANHILL
ATTN: LESTER VANHILL

DAPP AB TOG 0S0

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



To: LESTER VANHILL

DAPP AB TOG OSO

Page: 2 - A Total # Pages: 2 (A - E) Finalized Date: 18- APR- 2012 Account: VANLES

Minera	15							CI	ERTIFIC	YSIS	VA12070895					
Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	ME- ICP06 SiO2 % 0.01	ME- ICP06 AI2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME- ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME- ICP06 Na2O % 0.01	ME- ICP06 K2O % 0.01	ME- ICP06 Cr2O3 % 0.01	ME- ICP06 TiO2 % 0.01	ME- ICP06 MnO % 0.01	ME- ICP06 P2O5 % 0.01	ME- ICP06 SrO % 0.01	ME- ICP06 BaO % 0.01	C- IR07 C % 0.01
BB- 12- 01		0.88	78.0	9.32	1.88	1.14	0.98	1.56	2.31	<0.01	0.33	0.02	0.15	0.02	0.08	0.21
BB- 12- 02		88.0	53.2	10.35	7.17	7.40	7.89	2.29	6.55	0.07	0.92	0.13	1.13	0.22	0.51	0.28
BB- 12- 03		0.60	39.9	9.06	6.06	17.00	5.32	1.92	5.71	0.06	0.80	0.15	0.98	0.24	0.44	3.01
P-12-01		0.80	9.21	2.58	17.85	31.4	1.22	0.16	0.11	0.20	9.79	0.42	0.23	0.02	0.04	6.68
P-12-02		0.00	12.00	2.07	50.7	4.71	3.67	0.18	0.08	0.22	9.54	0.41	0.44	0.01	0.04	4.65
BF-12-633		0.48	41.8	12.60	17.20	10.55	7.27	1.99	2.03	<0.01	1.86	0.24	1.57	0.05	0.09	0.19



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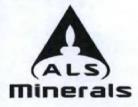
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Page: 2 - B Total # Pages: 2 (A - E) Finalized Date: 18- APR- 2012

Account: VANLES

illinera	15							CERTIFICATE OF ANALYSIS VA12070895								
Sample Description	Method Analyte Units LOR	S- IR08 S % 0.01	ME- MS81 Ba ppm 0.5	ME- MS81 Ce ppm 0.5	ME- MS81 Cr ppm 10	ME- MS81 Cs ppm 0.01	ME- MS81 Dy ppm 0.05	ME- MS81 Er ppm 0.03	ME- MS81 Eu ppm 0.03	ME- MS81 Ga ppm 0.1	ME- MS81 Gd ppm 0.05	ME- MS81 Hf ppm 0.2	ME- MS81 Ho ppm 0.01	ME- MS81 La ppm 0.5	ME- MS81 Lu ppm 0.01	ME- MS81 Nb ppm 0.2
BB- 12- 01		0.02	742	48.3	40	2.19	2.74	1.57	0.84	13.8	3.21	3.5	0.56	24.1	0.25	7.8
BB- 12- 02		0.01	4250	120.5	580	2.39	4.13	1.66	2.71	17.4	6.99	7.1	0.69	57.8	0.20	13.5
BB- 12- 03		0.03	3700	104.0	460	2.49	3.64	1.56	2.35	14.6	6.22	6.9	0.64	49.6	0.19	12.8
P-12-01		0.01	371	123.0	1380	0.19	4.05	2.47	1.10	21.8	4.98	40.3	0.83	71.1	0.61	29.2
P-12-02		0.01	352	102.0	1140	0.15	3.34	2.11	0.98	24.1	4.39	31.1	0.68	54.7	0.52	23.1
BF-12-633		0.15	803	487	30	0.60	31.4	15.85	4.67	31.8	40.8	9.1	6.03	212	1.89	46.9



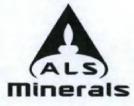
2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: LESTER VANHILL

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Page: 2 - C Total # Pages: 2 (A - E) Finalized Date: 18- APR- 2012 Account: VANLES

IIInera	IIS						CERTIFICATE OF ANALYSIS VA12070895									
Sample Description	Method Analyte Units LOR	ME- MS81 Nd ppm 0.1	ME- MS81 Pr ppm 0.03	ME- MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME- MS81 Sn ppm 1	ME- MS81 Sr ppm 0.1	ME- MS81 Ta ppm 0.1	ME- MS81 Tb ppm 0.01	ME- MS81 Th ppm 0.05	ME- MS81 TI ppm 0.5	ME- MS81 Tm ppm 0.01	ME- MS81 U ppm 0.05	ME- MS81 V ppm 5	ME- MS81 W ppm 1	ME- MS81 Y ppm 0.5
BB- 12- 01		20.1	5.63	78.0	3.89	1	223	0.7	0.49	7.28	0.5	0.23	2.60	60	1	16.5
BB- 12- 02		58.8	15.35	198.0	10.90	2	1900	0.7	0.86	11.30	0.7	0.21	2.83	142	<1	19.9
BB- 12- 03		50.6	13.20	173.0	9.36	2	2080	0.6	0.76	10.60	0.7	0.19	3.83	126	<1	18.2
P-12-01		45.2	13.60	3.5	7.44	6	-183.5	1.6	0.72	15.55	<0.5	0.43	3.60	1030	1	24.9
P-12-02		37.9	11.35	2.7	6.43	- 5	92.2	0.9	0.61	12.75	<0.5	0.37	3.33	1050	-1	20.8
BE 13 633		274	60.2	81.2	54.6	12	423	22	5.80	32.3	<0.5	2.19	2.94	352	_	167.0



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Page: 2 - D Total # Pages: 2 (A - E) Finalized Date: 18- APR- 2012

Account: VANLES

ilinera	15						CERTIFICATE OF ANALYSIS VA12070895									
Sample Description	Method Analyte Units LOR	ME- MS81 Yb ppm 0.03	ME- MS81 Zr ppm 2	ME- MS42 As ppm 0.1	ME- MS42 Bi ppm 0.01	ME- MS42 Hg ppm 0.005	ME- MS42 Sb ppm 0.05	ME- MS42 Se ppm 0.2	ME- MS42 Te ppm 0.01	OA- GRA05 LOI % 0.01	TOT- ICP06 Total % 0.01	ME- 4ACD81 Ag ppm 0.5	ME- 4ACD81 Cd ppm 0.5	ME- 4ACD81 Co ppm 1	ME- 4ACD81 Cu ppm 1	ME- 4ACD81 Mo ppm 1
BB- 12- 01		1.47	126	13.4	0.12	0.013	0.32	0.5	0.01	4.05	99.84	<0.5	<0.5	11	4	2
BB- 12- 02		1.31	269	0.4	0.07	0.013	<0.05	0.7	< 0.01	2.31	100.14	<0.5	<0.5	30	52	3
BB- 12- 03		1.21	252	0.5	0.08	0.016	0.07	1.1	< 0.01	12.85	100.49	< 0.5	<0.5	25	53	2
P-12-01		3.09	1640	<0.1	0.03	0.029	0.18	0.8	<0.01	26.1	99.33	<0.5	<0.5	16	27	3
P-12-02		2.62	1340	0.1	0.03	0.016	0.21	0.4	<0.01	16.30	100.37	<0.5	<0.5	46	22	2
DE 12 622		10.55	227	0.0	0.04	0.042	<0.0E	2.0	-0.04	9.00	00.04	-0.5	-0.5	- 20	100	



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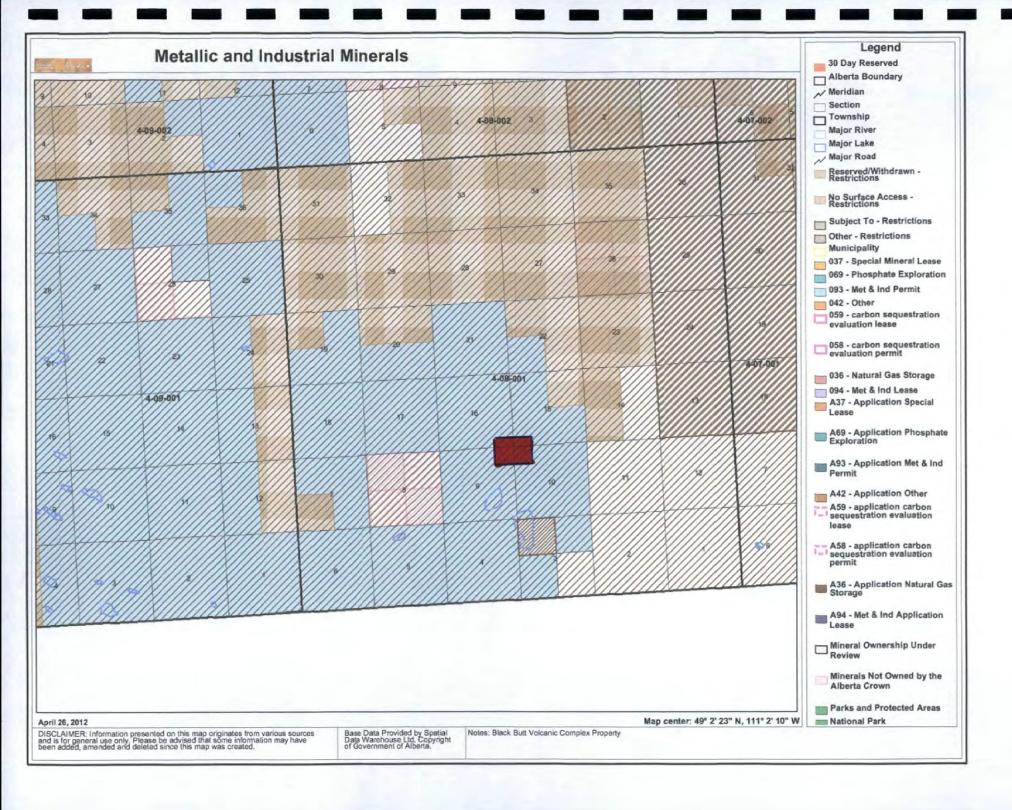
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Page: 2 - E Total # Pages: 2 (A - E) Finalized Date: 18- APR- 2012 Account: VANLES

CERTIFICATE	OF	ANAI VCIC	VA12070895
CENTIFICATE	UF	MINALISIS	VM14U/U093

						CL	KIIIICAI	L OT ANALISIS	VA12070093	
	Markad	ME- 4ACD81	ME- 4ACD81	ME-4ACD81	Au-ICP21					
	Method Analyte	Ni	Pb	Zn	Au					
	Units	ppm	ppm	ppm	ppm					
mple Description	Units LOR	1	2	2	0.001					
-12-01		17	13	40	<0.001					
1-12-02		118	40	86	0.001					
3-12-03		100	28	68	0.001					
12-01		15	10	352	0.055					
12-02		28	13	404	0.002					
F- 12- 633		10	12	172	0.002					





### MINERAL AGREEMENT DETAIL REPORT

Report Date: April 26, 2012 3:18:29 PM

**Agreement Number: 093 9306031172** 

Status: ACTIVE

Term Date: 2006/03/30

Agreement Area: 48.0000

Continuation Date:

### **DESIGNATED REPRESENTATIVE**

Client Id: 8076256

Client Name: SANDSWAMP EXPLORATION LTD.

Address: SITE 1 BOX 241

RR 1

DAPP, AB

CANADA TOG 0S0

### LAND / ZONE DESCRIPTION

**4-08-001:** 09L16;10L13;15L4SE,L4SW;16L1SE,L1SW

METALLIC AND INDUSTRIAL MINERALS