



ALS Canada Ltd.
2103 Dollarton Hwy
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www.alsglobal.com

To: GROUNDHOG EXPLORATION
PO BOX #566
DAWSON CITY YT Y0B 1G0

Page: 1
Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 21-APR-2016
Account: GROEXP

CERTIFICATE VA16051820

This report is for 2 Sediment samples submitted to our lab in Vancouver, BC, Canada on 5-APR-2016.

The following have access to data associated with this certificate:

ACCOUNTS PAYABLE

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
AuME-TL43	25g Trace Au + Multi Element PKG	ICP-MS

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

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS VA16051820

Sample Description	Method Analyte Units LOR	WEI-21	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
		0.02	0.001	0.01	0.01	0.1	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
5		0.22	0.002	0.25	1.23	4.3	<10	310	0.36	0.22	0.33	0.15	22.3	8.9	26	1.62
6		0.38	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS



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		Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb
		ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
		0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05
5		51.8	2.44	4.92	0.09	0.21	0.04	0.017	0.21	11.5	21.2	0.70	225	0.62	0.01	0.86
6		NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS



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		Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti
		ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2	0.005
5		28.9	770	11.4	27.5	<0.001	<0.01	0.77	4.2	0.3	0.5	22.5	<0.01	0.08	6.3	0.107
6		NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS



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Sample Description	Method Analyte Units LOR	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43
		Tl	U	V	W	Y	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.05	1	0.05	0.05	2	0.5
5		0.16	1.18	43	0.19	5.43	92	7.6
6		NSS	NSS	NSS	NSS	NSS	NSS	NSS



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CERTIFICATE OF ANALYSIS VA16051820

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: NSS is non-sufficient sample.
ALL METHODS

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
AuME-TL43 LOG-22 SCR-41 WEI-21