ALS Canada Ltd.

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

To: **IMPALA CANADA LTD.**
BUSINESS NUMBER 131081184
556 TENTH AVE
THUNDER BAY ON P7B 2R2

Finalized Date: 3-FEB-2020
This copy reported on
5-MAY-2020
Account: MZI

CERTIFICATE TB20013844

Project: 18-300

P.O. No.: 212623

This report is for 78 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 17-JAN-2020.

The following have access to data associated with this certificate:

KAITLYN CHOVANCAK STU GIBBINS CLAIRE MCGUINNESS	SAM DAVIES MARK LACOMBE LDIM WEBTRIEVE	DENIS DECHARTE LINETTE MACINNIS

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
LOG-21	Sample logging - ClientBarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-32	Fine Crushing 90% <2mm
SPL-21	Split sample - riffle splitter
PUL-35	Pulv 250 g Split to 95%<106 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Cu-OG62	Ore Grade Cu - Four Acid	
Ni-OG62	Ore Grade Ni - Four Acid	
PGM-ICP23	Pt, Pd, Au 30g FA ICP	ICP-AES
ME-ICP61	33 element four acid ICP-AES	ICP-AES

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:

Saa Traxler, General Manager, North Vancouver

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CERTIFICATE OF ANALYSIS TB20013844

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg 0.02	PGM-ICP23 Au ppb 1	PGM-ICP23 Pd ppb 1	PGM-ICP23 Pt ppb 5	ME-ICP61 Cu ppm 1	ME-ICP61 Ni ppm 1	ME-ICP61 Co ppm 1	ME-ICP61 Mg % 0.01	ME-ICP61 Ag ppm 0.5	Cu-OG62 Cu ppm 10	Ni-OG62 Ni ppm 10
AA19-110999		1.49	<1	<1	<5	<1	<1	<1	11.70	<0.5		
AA19-111000		0.07	4560	2000	1270	88	86	63	0.26	0.5		
AA19-111001		2.44	46	823	142	672	921	93	10.40	<0.5		
AA19-111002		2.45	90	940	157	784	979	93	10.30	0.5		
AA19-111003		2.25	108	932	153	787	1015	95	10.45	0.5		
AA19-111004		2.65	123	1110	182	920	1100	99	10.45	0.6		
AA19-111005		2.76	136	1220	185	972	1105	99	10.30	0.5		
AA19-111006		2.34	99	1170	179	1020	1090	100	10.40	0.6		
AA19-111007		1.80	105	1160	176	837	1020	94	10.45	0.6		
AA19-111008		2.56	162	1670	220	897	1100	96	10.15	0.7		
AA19-111009		2.34	578	8050	746	2190	2160	126	10.00	1.7		
AA19-111010		2.34	223	4230	427	1190	1370	103	10.10	1.6		
AA19-111011		2.06	106	3580	403	1230	1320	105	10.35	0.8		
AA19-111012		2.32	129	2070	256	828	1040	94	10.05	0.7		
AA19-111013		2.34	330	3950	453	1540	1500	112	10.85	0.8		
AA19-111014		2.23	389	3970	449	1290	1300	101	9.87	0.7		
AA19-111015		2.31	281	2850	321	1010	1155	97	10.05	0.5		
AA19-111016		2.14	298	2820	355	1110	1250	100	10.10	0.6		
AA19-111017		2.25	227	2210	279	994	1180	101	10.25	0.6		
AA19-111018		2.30	148	1650	194	586	914	88	10.15	<0.5		
AA19-111019		0.07	87	606	326	4400	4290	115	3.84	1.8		
AA19-111020		2.22	79	769	115	392	716	84	9.96	<0.5		
AA19-111021		2.24	133	1180	171	580	829	88	10.10	<0.5		
AA19-111022		2.13	204	1880	259	947	990	95	10.40	0.5		
AA19-111023		2.12	124	891	141	469	736	86	10.00	<0.5		
AA19-111024		1.48	26	786	115	275	698	90	10.40	0.7		
AA19-111025		1.60	31	1060	186	560	634	68	7.78	<0.5		
AA19-111026		1.68	40	1420	225	606	850	72	8.08	0.7		
AA19-111027		1.75	10	516	59	115	295	29	2.77	<0.5		
AA19-111028		2.14	33	846	100	524	510	42	3.65	0.7		
AA19-111029		2.02	4	45	18	78	158	21	2.72	<0.5		
AA19-111030		2.42	12	943	133	746	720	71	6.88	0.9		
AA19-111031		1.76	15	1220	207	1280	1065	87	6.73	0.7		
AA19-111032		1.41	26	157	30	133	203	22	2.40	<0.5		
AA19-111033		1.62	4	110	25	163	166	25	2.24	<0.5		
AA19-111034		2.13	6	48	16	76	122	23	2.00	<0.5		
AA19-111035		2.56	13	143	24	119	147	19	1.57	<0.5		
AA19-111036		0.98	28	309	23	366	144	12	0.63	<0.5		
AA19-111037		2.27	11	77	14	202	218	43	4.38	<0.5		
AA19-111038		1.92	26	609	50	348	218	31	2.20	0.5		

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CERTIFICATE OF ANALYSIS TB20013844

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg 0.02	PGM-ICP23 Au ppb 1	PGM-ICP23 Pd ppb 1	PGM-ICP23 Pt ppb 5	ME-ICP61 Cu ppm 1	ME-ICP61 Ni ppm 1	ME-ICP61 Co ppm 1	ME-ICP61 Mg % 0.01	ME-ICP61 Ag ppm 0.5	Cu-OG62 Cu ppm 10	Ni-OG62 Ni ppm 10
AA19-111039		1.70	<1	<1	<5	1	1	<1	11.60	<0.5		
AA19-111040		2.28	3	36	5	91	80	19	1.67	<0.5		
AA19-111041		2.08	6	106	5	98	97	18	1.62	<0.5		
AA19-111042		2.08	43	336	31	222	163	21	1.59	<0.5		
AA19-111043		2.41	3	44	7	87	56	14	1.30	<0.5		
AA19-111044		2.33	6	15	<5	92	90	20	1.84	<0.5		
AA19-111045		1.92	5	34	6	88	113	20	1.98	<0.5		
AA19-111046		2.24	5	17	<5	79	199	33	3.89	<0.5		
AA19-111047		2.27	6	43	6	80	102	23	2.12	<0.5		
AA19-111048		2.15	12	72	12	115	102	19	1.78	<0.5		
AA19-111049		2.59	16	81	8	158	102	16	1.56	<0.5		
AA19-111050		2.32	24	399	34	196	149	16	1.10	<0.5		
AA19-111051		0.88	21	241	18	193	144	30	2.06	<0.5		
AA19-111052		2.24	12	56	11	87	195	43	3.83	<0.5		
AA19-111053		2.33	10	26	8	81	204	40	4.18	<0.5		
AA19-111054		1.59	10	54	11	77	232	43	4.50	<0.5		
AA19-111055		2.31	152	328	37	251	334	54	5.79	<0.5		
AA19-111056		2.22	15	313	53	203	334	52	5.55	<0.5		
AA19-111057		2.27	6	86	10	151	322	51	5.50	<0.5		
AA19-111058		2.24	15	116	17	185	357	51	5.93	<0.5		
AA19-111059		0.08	211	3500	791	>10000	>10000	947	3.71	3.9	15750	44300
AA19-111060		2.11	26	443	113	403	544	53	5.00	<0.5		
AA19-111061		2.35	12	150	19	150	287	46	5.17	<0.5		
AA19-111062		2.22	18	5	<5	400	493	60	5.53	<0.5		
AA19-111063		2.24	55	217	50	395	448	53	5.19	<0.5		
AA19-111064		2.44	197	2050	222	1040	987	65	5.03	0.6		
AA19-111065		2.46	148	2210	257	1120	994	62	4.07	0.7		
AA19-111066		2.38	111	1600	175	912	706	52	3.41	<0.5		
AA19-111067		2.42	52	647	112	399	591	56	5.12	<0.5		
AA19-111068		2.27	38	685	91	346	490	54	5.37	<0.5		
AA19-111069		2.31	46	776	95	603	855	59	4.21	<0.5		
AA19-111070		2.47	247	2570	350	1330	1145	75	5.01	0.7		
AA19-111071		2.36	9	142	21	122	270	44	4.62	<0.5		
AA19-111072		2.38	30	325	29	473	531	49	4.04	<0.5		
AA19-111073		2.49	19	78	9	360	417	51	4.70	<0.5		
AA19-111074		2.26	23	7	<5	419	429	46	3.74	<0.5		
AA19-111075		2.20	35	364	62	525	575	69	5.96	<0.5		
AA19-111076		0.07	79	596	310	4390	4220	112	3.72	1.8		

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CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Thunder Bay located at 645 Norah Crescent, Thunder Bay, ON, Canada

Applies to Method:	CRU-32	CRU-QC	LOG-21	LOG-23
	PUL-35	PUL-QC	SPL-21	WEI-21

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

Applies to Method:	Cu-OG62	ME-ICP61	ME-OG62	Ni-OG62
	PGM-ICP23			