



BUREAU VERITAS MINERAL LABORATORIES
Canada

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

Client: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Submitted By: James Rogers
Receiving Lab: Canada-Whitehorse
Received: August 24, 2018
Report Date: January 24, 2019
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CERTIFICATE OF ANALYSIS

WHI18000740.1

CLIENT JOB INFORMATION

Project: 2018-Ellen
Shipment ID:
P.O. Number
Number of Samples: 320

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps
PICKUP-RJT Client to Pickup Rejects

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

Invoice To: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1
Canada

CC: Vedran Pobric

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	320	Dry at 60C			WHI
SS80	320	Dry at 60C sieve 100g to -80 mesh			WHI
SVRJT	320	Save all or part of Soil Reject			WHI
FA330	313	Fire assay fusion Au Pt Pd by ICP-ES	30	Completed	VAN
EN002	320	Environmental disposal charge-Fire assay lead waste			VAN
AQ300	320	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
SHP01	320	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS



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



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Method	Analyte	Unit	MDL	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300			
				Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
				ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%		
1318501	Soil			8	<3	14	2	262	<3	155	0.8	85	39	1140	7.36	32	<2	30	0.6	<3	<3	134	0.71
1318502	Soil			16	<3	21	2	251	3	122	0.6	62	32	1030	6.61	30	<2	29	<0.5	<3	<3	114	0.74
1318503	Soil			18	4	17	4	311	<3	116	0.4	68	34	1165	6.49	28	<2	29	1.1	<3	<3	132	1.01
1318504	Soil			16	<3	17	4	350	3	105	0.7	73	34	1101	6.72	43	<2	26	0.8	<3	<3	151	1.03
1318505	Soil			13	5	13	4	242	4	96	0.7	51	27	840	4.64	122	<2	38	0.9	<3	<3	102	1.45
1318506	Soil			8	<3	15	4	253	5	105	0.7	50	29	887	4.96	109	<2	41	0.6	<3	<3	101	1.34
1318507	Soil			20	<3	7	3	254	4	107	0.8	54	29	860	4.49	101	<2	40	1.4	<3	<3	93	1.43
1318508	Soil			16	5	33	2	426	<3	103	0.4	68	35	905	6.13	209	<2	23	0.6	<3	<3	139	1.22
1318509	Soil			15	<3	30	2	331	3	87	0.7	58	27	917	5.25	88	<2	29	0.7	<3	<3	105	1.57
1318510	Soil			I.S.	I.S.	I.S.	2	335	<3	89	0.6	60	29	876	5.49	91	<2	30	0.7	<3	<3	112	1.65
1318511	Soil			33	<3	25	2	309	5	97	0.3	52	22	768	4.37	54	<2	38	1.0	<3	<3	83	1.79
1318512	Soil			19	<3	11	2	262	4	99	0.8	56	23	756	4.61	54	<2	33	0.7	<3	<3	92	1.38
1318513	Soil			I.S.	I.S.	I.S.	2	279	5	97	0.4	58	21	683	4.26	39	<2	38	0.7	<3	<3	83	1.51
1318514	Soil			10	<3	12	2	265	4	106	0.8	60	22	691	4.59	32	<2	35	0.7	<3	<3	91	1.22
1318515	Soil			I.S.	I.S.	I.S.	4	259	5	140	0.7	50	27	943	4.96	55	<2	28	0.9	<3	<3	92	0.58
1318516	Soil			13	<3	10	3	201	4	96	0.9	46	20	651	4.42	32	<2	27	<0.5	<3	<3	90	0.92
1318517	Soil			6	<3	9	<1	140	<3	83	0.6	67	20	714	4.07	12	<2	25	0.5	<3	<3	98	0.88
1318518	Soil			I.S.	I.S.	I.S.	2	271	5	120	0.5	62	24	775	4.74	34	<2	32	0.7	<3	<3	90	1.06
1318519	Soil			19	<3	12	2	177	7	121	0.7	69	25	670	4.47	19	<2	35	<0.5	<3	<3	97	0.73
1318520	Soil			16	<3	12	4	110	6	103	0.4	51	23	1012	3.84	25	<2	35	1.0	<3	<3	84	0.80
1318521	Soil			8	<3	9	4	159	13	144	<0.3	59	31	1140	5.59	154	3	53	1.0	4	<3	68	0.99
1318522	Soil			13	<3	13	6	205	11	182	0.4	70	34	1113	6.41	152	3	47	1.7	3	<3	99	0.88
1318523	Soil			15	<3	8	4	261	4	123	<0.3	81	37	1145	6.57	99	<2	26	1.2	<3	<3	111	0.68
1318524	Soil			20	<3	24	3	281	6	104	0.3	52	24	767	4.17	39	<2	56	0.7	<3	<3	77	1.71
1318525	Soil			9	<3	21	3	403	7	122	1.3	73	38	1079	6.49	36	<2	28	1.4	<3	<3	147	0.95
1318526	Soil			8	6	9	4	180	6	130	0.4	47	27	989	4.75	34	<2	35	1.1	<3	<3	88	0.85
1318527	Soil			17	9	25	3	338	6	117	<0.3	45	21	812	4.52	21	<2	45	1.0	<3	<3	81	1.40
1318528	Soil			31	3	29	2	407	5	120	0.4	52	21	767	4.60	20	<2	40	1.0	<3	<3	81	1.19
1318529	Soil			7	7	27	1	357	<3	109	0.6	60	29	878	5.70	11	<2	30	0.9	<3	<3	101	1.16
1318530	Soil			9	11	30	1	360	4	109	0.8	62	30	908	5.67	11	<2	30	0.7	<3	<3	104	1.16

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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318501	Soil	0.068	10	126	2.78	250	0.139	<20	3.21	<0.01	0.14	<2	<0.05	<1	<5	<5	12
1318502	Soil	0.065	9	115	2.68	217	0.112	<20	2.93	<0.01	0.14	<2	0.07	<1	<5	<5	6
1318503	Soil	0.079	8	95	2.23	147	0.216	<20	2.55	<0.01	0.20	<2	0.07	<1	<5	<5	7
1318504	Soil	0.060	8	102	2.25	139	0.313	<20	2.69	<0.01	0.17	<2	0.05	<1	<5	<5	8
1318505	Soil	0.099	7	68	1.23	138	0.144	<20	1.94	<0.01	0.09	<2	0.12	<1	<5	<5	6
1318506	Soil	0.095	11	68	1.24	191	0.112	<20	2.18	<0.01	0.07	<2	0.12	<1	<5	<5	6
1318507	Soil	0.097	8	67	1.27	169	0.141	<20	1.88	<0.01	0.09	<2	0.12	<1	<5	<5	5
1318508	Soil	0.055	7	97	1.94	134	0.216	<20	2.62	<0.01	0.10	<2	0.06	<1	<5	<5	9
1318509	Soil	0.059	7	106	1.65	170	0.160	<20	2.23	<0.01	0.09	<2	0.08	<1	<5	<5	7
1318510	Soil	0.062	7	109	1.70	167	0.183	<20	2.31	<0.01	0.09	<2	0.09	<1	<5	<5	8
1318511	Soil	0.097	8	83	1.33	188	0.084	<20	1.97	<0.01	0.10	<2	0.12	<1	<5	<5	6
1318512	Soil	0.067	7	89	1.48	149	0.141	<20	2.05	<0.01	0.10	<2	0.08	<1	<5	<5	7
1318513	Soil	0.078	8	84	1.41	179	0.110	<20	1.99	<0.01	0.09	<2	0.09	<1	<5	<5	6
1318514	Soil	0.067	8	94	1.57	172	0.134	<20	2.20	<0.01	0.08	<2	0.07	<1	<5	<5	7
1318515	Soil	0.073	8	80	1.50	140	0.152	<20	2.10	<0.01	0.09	<2	0.06	<1	<5	<5	6
1318516	Soil	0.070	7	81	1.42	163	0.135	<20	2.07	<0.01	0.07	<2	0.05	<1	<5	<5	6
1318517	Soil	0.072	5	105	1.57	74	0.289	<20	1.91	<0.01	0.06	<2	<0.05	<1	<5	<5	7
1318518	Soil	0.089	11	91	1.56	187	0.101	<20	2.16	<0.01	0.06	<2	0.06	<1	<5	<5	7
1318519	Soil	0.076	12	96	1.51	210	0.109	<20	2.35	<0.01	0.07	<2	<0.05	<1	<5	<5	8
1318520	Soil	0.095	7	93	1.26	155	0.094	<20	1.81	<0.01	0.07	<2	0.07	<1	<5	<5	5
1318521	Soil	0.061	18	44	1.63	244	0.030	<20	2.44	<0.01	0.13	<2	0.07	<1	<5	6	7
1318522	Soil	0.081	14	74	2.18	198	0.085	<20	2.84	<0.01	0.15	<2	0.05	<1	<5	5	8
1318523	Soil	0.068	8	126	3.06	177	0.201	<20	3.09	<0.01	0.17	<2	<0.05	<1	<5	<5	6
1318524	Soil	0.084	7	67	1.37	150	0.065	<20	1.91	<0.01	0.09	<2	0.12	<1	<5	<5	<5
1318525	Soil	0.066	8	107	1.69	111	0.241	<20	2.57	<0.01	0.10	<2	<0.05	<1	<5	<5	10
1318526	Soil	0.096	11	72	1.38	212	0.106	<20	2.09	<0.01	0.08	<2	0.10	<1	<5	<5	6
1318527	Soil	0.103	8	71	1.26	203	0.071	<20	1.83	<0.01	0.10	<2	0.11	<1	<5	<5	<5
1318528	Soil	0.089	9	83	1.41	187	0.091	<20	2.00	<0.01	0.09	<2	0.08	<1	<5	<5	6
1318529	Soil	0.071	6	122	1.83	115	0.147	<20	2.31	<0.01	0.08	<2	<0.05	<1	<5	<5	10
1318530	Soil	0.069	6	123	1.84	121	0.143	<20	2.35	<0.01	0.09	<2	<0.05	<1	<5	<5	10



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Method	Analyte	Unit	MDL	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300		
				Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
				ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
				2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318531	Soil			8	4	16	2	215	3	122	0.5	53	22	716	4.92	14	<2	30	0.9	<3	<3	92	0.87
1318532	Soil			14	5	14	1	225	6	116	0.8	74	22	689	4.39	16	<2	41	0.6	<3	<3	81	1.16
1318533	Soil			7	3	8	4	135	6	146	0.6	44	25	815	4.55	33	<2	29	1.0	<3	<3	80	0.50
1318534	Soil			17	3	13	4	243	7	124	0.4	47	25	911	4.88	28	<2	27	0.6	<3	<3	82	0.55
1318535	Soil			5	<3	7	4	128	5	126	0.9	44	23	1029	4.29	19	<2	25	0.5	<3	<3	85	0.49
1318536	Soil			7	<3	7	4	126	6	107	0.5	44	18	719	3.99	26	<2	26	0.8	<3	<3	74	0.40
1318537	Soil			8	4	11	2	190	<3	115	1.1	51	20	693	4.06	11	<2	28	1.1	<3	<3	86	0.85
1318538	Soil			7	5	13	3	219	4	124	0.7	63	23	818	4.42	19	<2	32	0.7	<3	<3	83	0.82
1318539	Soil			12	9	12	2	200	4	107	0.7	56	24	927	4.80	41	<2	38	0.6	<3	<3	90	1.14
1318540	Soil			10	9	15	2	233	5	104	0.6	57	24	920	4.48	40	<2	40	0.6	<3	<3	87	1.16
1318541	Soil			7	7	14	3	233	4	132	0.7	60	25	1226	4.09	30	<2	45	0.9	<3	<3	77	1.40
1318542	Soil			10	5	10	5	184	11	188	0.4	77	37	1249	6.05	159	3	68	1.8	3	<3	80	1.45
1318543	Soil			8	<3	15	3	224	7	115	0.3	58	29	1044	5.13	109	<2	46	0.8	<3	<3	79	0.89
1318544	Soil			18	7	17	3	307	7	107	0.3	60	31	926	4.56	259	<2	58	1.1	3	<3	84	1.73
1318545	Soil			22	7	25	3	381	4	126	0.8	73	39	1001	6.58	398	<2	26	1.2	3	<3	142	0.89
1318546	Soil			10	6	16	4	217	6	116	0.4	51	22	728	4.15	61	<2	44	1.0	<3	<3	76	1.41
1318547	Soil			10	4	31	3	377	5	113	0.4	56	29	946	5.49	54	<2	41	1.0	<3	<3	105	1.46
1318548	Soil			15	<3	19	3	188	5	114	<0.3	41	17	647	3.88	41	<2	51	1.3	<3	<3	68	2.17
1318549	Soil			7	<3	7	2	113	6	91	<0.3	58	17	629	3.38	20	<2	64	0.8	<3	<3	56	1.86
1318550	Soil			9	<3	7	2	120	6	93	<0.3	64	20	673	3.46	20	<2	61	0.9	<3	<3	59	1.81
1318551	Soil			13	5	14	17	241	14	461	1.1	76	29	1378	7.32	83	4	50	6.4	7	<3	54	0.16
1318552	Soil			8	<3	8	6	132	8	308	0.6	54	19	768	4.21	53	<2	32	3.0	3	<3	50	0.42
1318553	Soil			12	10	20	5	234	8	130	0.8	61	31	1158	5.86	182	<2	26	0.9	<3	<3	101	0.49
1318554	Soil			7	<3	6	4	102	11	185	0.4	42	22	1136	3.78	52	<2	55	1.6	<3	<3	51	0.97
1318555	Soil			9	5	19	3	279	4	217	0.6	117	44	1275	5.57	41	<2	43	1.5	<3	<3	108	1.32
1318556	Soil			11	<3	20	4	249	5	165	0.7	65	30	1030	5.62	49	<2	37	1.4	<3	<3	108	0.96
1318557	Soil			14	5	19	3	251	5	129	1.4	64	32	1078	6.14	33	<2	28	0.9	<3	<3	134	0.86
1318558	Soil			33	3	19	19	314	4	112	0.7	66	33	930	5.30	56	<2	45	1.2	<3	<3	115	1.62
1318559	Soil			10	<3	19	5	301	7	120	0.4	54	26	946	4.29	49	<2	46	1.3	<3	<3	84	1.44
1318560	Soil			12	<3	20	4	292	7	126	0.5	53	26	948	4.22	48	<2	48	1.4	<3	<3	85	1.62

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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318531	Soil	0.064	7	99	1.55	122	0.113	<20	2.12	<0.01	0.09	<2	0.05	<1	<5	<5	9
1318532	Soil	0.061	9	90	1.56	144	0.119	<20	2.05	<0.01	0.09	<2	0.05	<1	<5	<5	6
1318533	Soil	0.078	8	79	1.28	111	0.124	<20	1.86	<0.01	0.08	<2	0.07	<1	<5	<5	<5
1318534	Soil	0.101	9	89	1.38	152	0.063	<20	2.22	<0.01	0.06	<2	<0.05	<1	<5	<5	5
1318535	Soil	0.066	6	84	1.34	111	0.138	<20	2.01	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
1318536	Soil	0.100	8	69	1.11	192	0.056	<20	1.90	<0.01	0.05	<2	0.05	<1	<5	<5	<5
1318537	Soil	0.077	5	85	1.39	96	0.210	<20	1.82	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
1318538	Soil	0.087	9	94	1.52	168	0.109	<20	2.11	<0.01	0.07	<2	<0.05	<1	<5	<5	6
1318539	Soil	0.080	8	79	1.56	157	0.141	<20	2.09	<0.01	0.07	<2	<0.05	<1	<5	<5	6
1318540	Soil	0.084	9	78	1.44	179	0.114	<20	1.97	<0.01	0.07	<2	0.05	<1	<5	<5	6
1318541	Soil	0.086	8	81	1.34	162	0.111	<20	1.86	<0.01	0.07	<2	0.06	<1	<5	<5	6
1318542	Soil	0.165	20	63	1.67	275	0.024	<20	2.45	<0.01	0.14	<2	0.12	<1	<5	9	8
1318543	Soil	0.076	13	78	1.81	259	0.050	<20	2.41	<0.01	0.12	<2	0.08	<1	<5	9	5
1318544	Soil	0.100	9	72	1.38	167	0.058	<20	1.91	<0.01	0.11	<2	0.13	<1	<5	6	<5
1318545	Soil	0.057	7	98	2.18	128	0.175	<20	2.60	<0.01	0.14	<2	<0.05	<1	<5	6	9
1318546	Soil	0.096	8	63	1.13	168	0.069	<20	1.85	<0.01	0.09	<2	0.11	<1	<5	5	<5
1318547	Soil	0.088	8	85	1.49	129	0.082	<20	2.23	<0.01	0.13	<2	0.08	<1	<5	7	12
1318548	Soil	0.095	9	55	1.03	153	0.042	<20	1.56	<0.01	0.10	<2	0.14	<1	<5	<5	7
1318549	Soil	0.086	8	64	1.06	152	0.076	<20	1.47	0.01	0.08	<2	0.13	<1	<5	<5	<5
1318550	Soil	0.095	8	68	1.14	158	0.080	<20	1.48	0.01	0.08	<2	0.11	<1	<5	<5	<5
1318551	Soil	0.139	20	31	0.74	255	0.043	<20	1.40	<0.01	0.09	<2	0.19	<1	<5	<5	7
1318552	Soil	0.052	13	34	0.90	182	0.034	<20	1.43	<0.01	0.07	<2	0.06	<1	<5	<5	<5
1318553	Soil	0.042	12	79	1.87	213	0.132	<20	2.68	<0.01	0.11	<2	<0.05	<1	<5	<5	7
1318554	Soil	0.115	14	38	1.02	218	0.024	<20	1.78	<0.01	0.11	<2	0.11	<1	<5	<5	<5
1318555	Soil	0.107	11	206	2.74	162	0.119	<20	2.82	<0.01	0.13	<2	0.10	<1	<5	9	8
1318556	Soil	0.071	10	107	2.21	218	0.115	<20	2.55	<0.01	0.11	<2	0.08	<1	<5	6	7
1318557	Soil	0.059	7	99	2.33	170	0.219	<20	2.59	<0.01	0.19	<2	0.06	<1	<5	6	6
1318558	Soil	0.085	8	84	1.76	181	0.178	<20	2.22	<0.01	0.15	<2	0.11	<1	<5	<5	7
1318559	Soil	0.112	10	68	1.31	182	0.087	<20	1.86	<0.01	0.11	<2	0.14	<1	<5	<5	5
1318560	Soil	0.109	10	68	1.30	177	0.095	<20	1.84	<0.01	0.11	<2	0.14	<1	<5	<5	5



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PHONE (604) 253-3158

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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318561	Soil	9	<3	15	4	295	8	114	0.9	61	33	1141	5.18	116	<2	31	1.0	<3	<3	110	0.88
1318562	Soil	9	3	18	3	236	6	95	0.4	50	25	816	3.84	71	<2	43	1.2	<3	<3	79	1.86
1318563	Soil	7	3	11	4	193	6	127	0.9	52	31	1065	4.88	60	<2	33	1.2	<3	<3	96	0.86
1318564	Soil	14	3	11	3	181	5	111	0.5	46	25	854	4.01	44	<2	40	1.3	<3	<3	78	1.27
1318565	Soil	10	<3	10	4	182	6	122	0.4	50	26	962	4.62	49	<2	40	1.0	<3	<3	85	0.96
1318566	Soil	8	4	15	4	238	6	126	0.3	51	29	1084	5.38	46	<2	32	1.0	<3	<3	101	0.85
1318567	Soil	9	<3	18	2	305	5	108	0.6	71	27	884	4.85	31	<2	30	0.8	<3	<3	94	0.89
1318568	Soil	15	<3	17	2	276	5	97	0.6	55	19	602	4.11	26	<2	36	0.6	<3	<3	77	1.22
1318569	Soil	7	7	17	1	314	6	96	0.8	63	24	752	4.22	15	<2	34	0.6	<3	<3	85	1.03
1318570	Soil	8	5	16	2	315	4	100	0.8	63	24	777	4.27	15	<2	35	0.8	<3	<3	84	1.08
1318571	Soil	9	4	13	3	238	4	114	0.7	53	29	941	4.75	27	<2	33	1.0	<3	<3	97	0.82
1318572	Soil	10	5	18	2	307	3	106	0.4	51	21	684	4.33	23	<2	29	0.5	<3	<3	82	0.96
1318573	Soil	6	4	12	2	162	<3	131	0.8	47	25	865	4.33	13	<2	27	0.9	<3	<3	89	1.04
1318574	Soil	11	10	16	1	221	<3	106	0.3	47	24	776	4.51	14	<2	24	0.8	<3	<3	97	1.11
1318575	Soil	28	5	11	3	196	<3	91	<0.3	43	28	931	5.20	30	<2	20	0.5	<3	<3	106	0.82
1318576	Soil	11	<3	15	3	215	<3	106	0.9	43	24	769	4.36	19	<2	30	0.6	<3	<3	88	1.17
1318577	Soil	8	4	12	2	170	<3	122	0.8	50	21	757	4.02	21	<2	28	1.9	<3	<3	84	0.94
1318578	Soil	479	4	9	2	181	<3	112	0.4	50	22	776	4.41	23	<2	24	1.0	<3	<3	89	0.76
1318579	Soil	10	<3	11	7	140	6	262	0.5	55	21	854	4.33	75	<2	30	2.6	3	<3	56	0.52
1318580	Soil	8	<3	9	6	132	7	242	0.5	52	20	805	4.06	75	<2	33	2.3	3	<3	55	0.57
1318581	Soil	12	5	10	8	122	8	223	0.7	50	19	808	4.28	104	2	35	1.8	7	<3	51	0.51
1318582	Soil	21	7	23	3	251	3	114	0.8	72	31	938	5.44	39	<2	24	0.9	<3	<3	118	0.64
1318583	Soil	52	8	18	5	247	6	125	1.0	55	32	1100	6.12	40	<2	25	1.3	<3	<3	146	0.68
1318584	Soil	8	7	18	3	330	5	142	0.3	58	31	960	4.08	30	<2	50	2.1	<3	<3	75	1.80
1318585	Soil	8	7	18	4	243	4	117	0.7	57	31	954	4.95	62	<2	33	1.5	<3	<3	114	1.21
1318586	Soil	7	4	16	3	221	6	111	0.4	51	23	829	4.38	64	<2	39	1.1	<3	<3	86	1.33
1318587	Soil	9	9	26	3	369	<3	96	0.7	71	36	1036	6.18	124	<2	16	0.5	<3	<3	132	0.60
1318588	Soil	11	7	9	4	139	6	126	0.3	45	27	975	4.20	48	<2	30	1.1	<3	<3	76	0.64
1318589	Soil	10	8	19	4	166	7	111	0.3	40	24	850	4.14	38	<2	25	0.6	<3	<3	70	0.40
1318590	Soil	86	6	11	5	174	8	120	0.4	43	29	1034	4.63	45	<2	29	0.8	<3	<3	80	0.51



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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318561	Soil	0.083	10	85	1.54	151	0.131	<20	2.29	<0.01	0.10	<2	0.08	<1	<5	5	6
1318562	Soil	0.091	7	68	1.26	129	0.102	<20	1.68	<0.01	0.10	<2	0.13	<1	<5	<5	<5
1318563	Soil	0.096	9	79	1.49	181	0.116	<20	2.19	<0.01	0.10	<2	0.10	<1	<5	<5	5
1318564	Soil	0.095	8	72	1.20	142	0.101	<20	1.77	<0.01	0.11	<2	0.13	<1	<5	<5	5
1318565	Soil	0.113	9	78	1.28	175	0.088	<20	2.00	<0.01	0.10	<2	0.12	<1	<5	<5	5
1318566	Soil	0.101	9	92	1.52	187	0.094	<20	2.32	<0.01	0.09	<2	0.09	<1	<5	<5	6
1318567	Soil	0.068	9	103	1.55	172	0.116	<20	2.14	<0.01	0.09	<2	0.06	<1	<5	<5	7
1318568	Soil	0.074	8	81	1.31	139	0.110	<20	1.78	0.01	0.08	<2	0.10	<1	<5	<5	<5
1318569	Soil	0.070	8	96	1.48	158	0.124	<20	2.02	<0.01	0.07	<2	0.06	<1	<5	<5	6
1318570	Soil	0.074	7	96	1.48	143	0.132	<20	1.97	<0.01	0.07	<2	0.06	<1	<5	<5	6
1318571	Soil	0.059	8	94	1.43	200	0.145	<20	2.12	<0.01	0.07	<2	0.06	<1	<5	<5	6
1318572	Soil	0.077	7	89	1.47	161	0.096	<20	2.03	<0.01	0.07	<2	0.07	<1	<5	<5	5
1318573	Soil	0.068	4	93	1.53	105	0.133	<20	1.97	<0.01	0.06	<2	<0.05	<1	<5	<5	5
1318574	Soil	0.064	4	93	1.57	105	0.200	<20	2.00	<0.01	0.08	<2	<0.05	<1	<5	<5	5
1318575	Soil	0.064	5	93	1.62	105	0.198	<20	2.11	<0.01	0.07	<2	<0.05	<1	<5	<5	5
1318576	Soil	0.071	5	95	1.44	137	0.142	<20	1.94	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
1318577	Soil	0.082	5	77	1.35	83	0.179	<20	1.70	<0.01	0.13	<2	<0.05	<1	<5	<5	5
1318578	Soil	0.080	6	81	1.43	74	0.203	<20	1.78	<0.01	0.14	<2	<0.05	<1	<5	<5	5
1318579	Soil	0.074	11	42	1.03	156	0.068	<20	1.42	<0.01	0.08	<2	0.06	<1	<5	<5	<5
1318580	Soil	0.074	11	41	1.00	168	0.061	<20	1.38	<0.01	0.07	<2	0.06	<1	<5	<5	<5
1318581	Soil	0.057	13	30	0.67	201	0.010	<20	1.13	<0.01	0.09	<2	0.09	<1	<5	<5	5
1318582	Soil	0.036	6	135	2.51	178	0.178	<20	2.56	<0.01	0.10	<2	<0.05	<1	<5	<5	5
1318583	Soil	0.060	7	92	2.63	183	0.129	<20	2.48	<0.01	0.12	<2	0.06	<1	<5	<5	7
1318584	Soil	0.091	8	55	1.27	171	0.059	<20	1.60	<0.01	0.11	<2	0.13	<1	<5	<5	<5
1318585	Soil	0.063	6	78	1.60	98	0.157	<20	1.94	<0.01	0.11	<2	0.08	<1	<5	<5	9
1318586	Soil	0.101	8	72	1.34	150	0.061	<20	1.86	<0.01	0.10	<2	0.11	<1	<5	<5	6
1318587	Soil	0.041	7	106	2.01	102	0.179	<20	2.64	<0.01	0.09	<2	<0.05	<1	<5	<5	10
1318588	Soil	0.083	7	69	1.21	172	0.056	<20	1.83	<0.01	0.09	<2	0.09	<1	<5	<5	<5
1318589	Soil	0.099	9	64	1.08	156	0.041	<20	1.76	<0.01	0.07	<2	0.09	<1	<5	<5	<5
1318590	Soil	0.108	9	70	1.21	170	0.052	<20	1.95	<0.01	0.08	<2	0.11	<1	<5	<5	<5



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PHONE (604) 253-3158

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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318591	Soil	10	7	14	3	238	4	132	0.4	48	27	981	4.54	30	<2	35	2.0	<3	<3	82	0.89
1318592	Soil	10	4	16	4	267	5	113	0.4	46	27	990	4.09	34	<2	31	0.9	<3	<3	69	0.65
1318593	Soil	10	11	18	3	243	5	115	0.6	47	25	819	4.45	29	<2	35	1.4	<3	<3	81	0.94
1318594	Soil	10	11	14	2	255	3	120	0.3	42	27	995	3.99	30	<2	39	2.1	<3	<3	78	1.65
1318595	Soil	12	9	9	3	156	5	107	0.8	39	25	881	4.10	27	<2	36	0.7	<3	<3	81	1.12
1318596	Soil	9	4	16	1	238	3	85	0.7	70	23	732	4.11	17	<2	32	0.5	<3	<3	79	0.88
1318597	Soil	12	5	17	<1	282	3	89	0.7	67	23	689	4.31	12	<2	26	0.5	<3	<3	86	0.90
1318598	Soil	14	6	15	2	174	5	85	<0.3	44	23	726	3.99	18	<2	27	<0.5	<3	<3	79	0.61
1318599	Soil	9	3	11	3	144	5	128	0.3	41	19	821	3.55	19	<2	39	1.2	<3	<3	65	0.97
1318600	Soil	12	5	11	3	134	6	128	<0.3	41	20	843	3.57	18	<2	37	1.2	<3	<3	66	0.89
1318601	Soil	7	3	9	2	112	6	104	0.6	66	21	724	3.69	17	<2	46	0.9	<3	<3	63	1.26
1318602	Soil	8	4	11	2	143	3	95	<0.3	54	18	652	3.81	15	<2	28	0.6	<3	<3	76	0.83
1318603	Soil	38	4	16	1	289	6	97	0.4	57	21	771	3.43	15	<2	54	0.7	<3	<3	63	1.45
1318604	Soil	29	5	10	2	245	5	101	0.7	51	22	809	3.81	14	<2	39	0.9	<3	<3	79	0.97
1318605	Soil	6	4	11	3	146	5	83	0.3	38	22	1483	3.54	23	<2	32	1.0	<3	<3	64	0.73
1318606	Soil	10	3	9	3	82	6	99	<0.3	35	14	586	3.83	28	<2	38	0.6	<3	<3	70	0.94
1318607	Soil	10	6	11	2	165	5	113	0.8	49	26	798	4.57	23	<2	31	<0.5	<3	<3	92	0.82
1318608	Soil	8	6	17	4	486	8	115	0.4	57	28	1228	4.54	35	<2	47	0.7	<3	<3	70	1.14
1318609	Soil	8	5	13	3	276	9	103	0.3	55	22	905	3.94	26	<2	39	0.7	<3	<3	75	0.95
1318610	Soil	8	7	11	3	259	7	110	0.4	53	26	1187	4.37	33	<2	41	0.9	<3	<3	79	1.02
1318611	Soil	6	4	9	3	104	4	117	<0.3	37	19	909	4.19	35	<2	35	0.7	<3	<3	82	1.03
1318612	Soil	9	3	9	11	148	10	624	1.0	91	31	1048	5.64	43	3	102	9.5	5	<3	68	0.87
1318613	Soil	11	<3	11	7	153	12	257	0.5	59	27	992	5.15	151	3	69	1.9	5	<3	67	0.60
1318614	Soil	9	4	24	2	374	4	107	1.1	67	29	940	5.05	21	<2	32	1.0	<3	<3	112	0.73
1318615	Soil	10	8	22	2	219	6	106	0.3	53	23	798	4.68	34	<2	42	0.6	<3	<3	86	1.11
1318616	Soil	8	4	18	3	219	7	109	0.3	53	25	869	4.70	32	<2	36	0.9	<3	<3	78	0.84
1318617	Soil	14	6	25	2	264	5	104	0.3	50	23	819	4.67	22	<2	31	<0.5	<3	<3	77	0.72
1318618	Soil	10	8	22	2	241	6	96	<0.3	41	20	748	4.18	19	<2	32	0.8	<3	<3	68	0.89
1318619	Soil	7	<3	19	2	179	6	103	<0.3	40	19	791	3.86	18	<2	38	0.7	<3	<3	65	1.16
1318620	Soil	8	6	18	2	173	6	103	<0.3	40	19	765	3.90	18	<2	38	0.8	<3	<3	64	1.19



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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318591	Soil	0.096	7	80	1.32	149	0.087	<20	1.88	<0.01	0.10	<2	0.11	<1	<5	<5	5
1318592	Soil	0.112	9	70	1.11	172	0.058	<20	1.76	<0.01	0.09	<2	0.14	<1	<5	<5	<5
1318593	Soil	0.085	8	77	1.28	148	0.088	<20	1.87	<0.01	0.10	<2	0.09	<1	<5	<5	5
1318594	Soil	0.085	7	66	1.10	151	0.110	<20	1.54	<0.01	0.14	<2	0.11	<1	<5	<5	5
1318595	Soil	0.069	6	70	1.22	121	0.119	<20	1.68	<0.01	0.08	<2	0.09	<1	<5	<5	<5
1318596	Soil	0.044	6	93	1.49	113	0.151	<20	1.80	<0.01	0.07	<2	<0.05	<1	<5	<5	5
1318597	Soil	0.076	5	107	1.57	88	0.178	<20	1.85	<0.01	0.08	<2	<0.05	<1	<5	<5	6
1318598	Soil	0.065	5	79	1.22	144	0.089	<20	1.75	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
1318599	Soil	0.083	7	62	1.03	183	0.054	<20	1.67	<0.01	0.06	<2	0.06	<1	<5	<5	<5
1318600	Soil	0.079	7	63	1.04	172	0.054	<20	1.67	<0.01	0.06	<2	0.05	<1	<5	<5	<5
1318601	Soil	0.084	8	76	1.34	140	0.111	<20	1.59	0.01	0.09	<2	0.06	<1	<5	<5	<5
1318602	Soil	0.044	5	82	1.45	71	0.195	<20	1.77	<0.01	0.09	<2	<0.05	<1	<5	<5	<5
1318603	Soil	0.063	7	70	1.16	186	0.065	<20	1.73	<0.01	0.07	<2	0.07	<1	<5	<5	<5
1318604	Soil	0.069	7	85	1.34	119	0.125	<20	1.89	<0.01	0.08	<2	<0.05	<1	<5	<5	6
1318605	Soil	0.093	7	60	1.01	178	0.052	<20	1.58	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
1318606	Soil	0.091	5	63	1.11	141	0.071	<20	1.61	<0.01	0.05	<2	0.05	<1	<5	<5	<5
1318607	Soil	0.072	7	81	1.63	182	0.119	<20	2.22	<0.01	0.07	<2	<0.05	<1	<5	7	6
1318608	Soil	0.110	15	63	0.92	225	0.023	<20	1.85	<0.01	0.04	<2	0.07	<1	<5	5	7
1318609	Soil	0.075	11	71	1.13	193	0.046	<20	1.90	<0.01	0.06	<2	0.05	<1	<5	<5	6
1318610	Soil	0.088	10	71	1.17	207	0.043	<20	1.98	<0.01	0.06	<2	0.06	<1	<5	<5	6
1318611	Soil	0.077	5	68	1.40	146	0.100	<20	1.90	<0.01	0.06	<2	0.05	<1	<5	<5	<5
1318612	Soil	0.116	30	34	0.81	224	0.002	<20	1.44	<0.01	0.10	<2	0.27	<1	<5	<5	10
1318613	Soil	0.060	24	39	1.24	308	0.011	<20	2.14	<0.01	0.10	<2	0.14	<1	<5	6	7
1318614	Soil	0.046	7	110	1.98	158	0.187	<20	2.34	<0.01	0.10	<2	<0.05	<1	<5	<5	6
1318615	Soil	0.064	7	84	1.64	150	0.080	<20	2.19	<0.01	0.09	<2	0.07	<1	<5	<5	5
1318616	Soil	0.074	8	70	1.39	161	0.060	<20	2.13	<0.01	0.08	<2	0.07	<1	<5	<5	<5
1318617	Soil	0.049	7	79	1.55	135	0.074	<20	2.18	<0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318618	Soil	0.056	7	69	1.28	133	0.057	<20	1.82	<0.01	0.08	<2	0.06	<1	<5	<5	<5
1318619	Soil	0.065	7	69	1.27	121	0.069	<20	1.82	<0.01	0.08	<2	0.06	<1	<5	<5	<5
1318620	Soil	0.064	7	67	1.27	119	0.073	<20	1.81	<0.01	0.08	<2	0.07	<1	<5	<5	<5



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PHONE (604) 253-3158

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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318621	Soil	13	4	13	2	131	6	114	0.4	48	17	582	4.01	20	2	35	0.7	<3	<3	66	0.93
1318622	Soil	6	7	15	2	181	5	97	0.3	48	18	675	4.01	17	<2	48	0.7	<3	<3	67	1.33
1318623	Soil	8	4	12	2	148	7	98	<0.3	48	19	728	3.75	16	<2	50	0.5	<3	<3	65	1.29
1318624	Soil	29	<3	8	2	95	7	103	<0.3	59	19	665	3.83	16	<2	48	<0.5	<3	<3	60	1.15
1318625	Soil	6	<3	8	2	54	6	104	0.6	64	20	711	3.57	15	<2	62	1.1	<3	<3	57	1.78
1318626	Soil	7	5	9	2	116	6	92	<0.3	59	20	695	3.49	15	<2	48	0.7	<3	<3	57	1.16
1318627	Soil	13	6	10	2	152	8	105	0.4	113	25	835	4.08	17	<2	48	0.5	<3	<3	66	1.16
1318628	Soil	17	<3	11	3	190	5	104	<0.3	40	21	707	4.15	25	<2	28	<0.5	<3	<3	70	0.49
1318629	Soil	10	5	7	2	98	6	140	0.3	56	21	737	3.89	15	<2	43	1.1	<3	<3	64	1.01
1318630	Soil	6	<3	5	2	88	6	127	<0.3	52	19	683	3.46	15	<2	42	0.9	<3	<3	61	0.98
1318631	Soil	7	3	6	3	72	8	130	0.3	48	24	949	4.28	19	<2	34	<0.5	<3	<3	70	0.58
1318632	Soil	10	3	10	1	222	6	129	<0.3	64	19	632	3.92	12	<2	56	0.5	<3	<3	61	1.48
1318633	Soil	7	6	6	2	114	6	124	<0.3	52	23	799	3.96	16	<2	45	0.6	<3	<3	67	1.15
1318634	Soil	9	6	6	1	184	5	131	<0.3	58	19	734	3.28	13	<2	74	1.4	<3	<3	55	1.96
1318635	Soil	9	4	5	3	99	10	114	0.3	43	23	883	4.21	51	2	54	1.1	<3	<3	53	1.04
1318636	Soil	6	8	25	2	301	6	103	0.3	65	29	849	5.89	16	<2	37	<0.5	<3	<3	112	0.91
1318637	Soil	21	6	15	2	209	5	91	0.7	50	25	749	4.51	15	<2	32	0.6	<3	<3	82	0.83
1318638	Soil	8	4	10	3	150	6	139	0.3	49	26	1077	4.25	45	2	49	1.3	<3	<3	69	1.35
1318639	Soil	8	6	9	3	111	7	135	0.3	44	24	957	4.62	33	<2	39	0.9	<3	<3	74	0.68
1318640	Soil	8	<3	9	3	106	7	132	<0.3	44	23	951	4.70	31	<2	36	0.9	<3	<3	72	0.64
1318641	Soil	7	7	14	3	174	5	120	<0.3	50	23	859	4.62	34	<2	38	0.7	<3	<3	77	0.92
1318642	Soil	6	<3	9	3	118	6	99	<0.3	37	21	935	3.82	30	<2	43	0.6	<3	<3	61	1.14
1318643	Soil	7	3	19	2	167	5	102	<0.3	44	21	764	4.10	22	<2	36	0.6	<3	<3	67	1.07
1318644	Soil	7	5	16	2	182	5	113	<0.3	43	16	577	3.55	14	<2	44	0.7	<3	<3	60	1.28
1318645	Soil	6	<3	7	2	105	7	105	1.1	42	22	868	3.91	20	<2	44	<0.5	<3	<3	63	1.04
1318646	Soil	29	<3	13	2	149	6	109	0.3	46	16	666	3.77	15	<2	52	0.6	<3	<3	64	1.36
1318647	Soil	7	<3	8	2	120	9	128	0.4	46	18	687	3.91	19	<2	56	0.7	<3	<3	64	1.55
1318648	Soil	7	<3	8	2	123	7	118	0.3	47	17	653	4.02	15	<2	50	0.6	<3	<3	66	1.22
1318649	Soil	7	5	11	2	105	5	114	<0.3	45	17	804	3.73	11	<2	44	0.7	<3	<3	71	1.10
1318650	Soil	7	<3	9	1	95	5	110	<0.3	40	15	724	3.61	10	<2	41	0.8	<3	<3	66	1.06



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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	%	ppm	ppm	ppm	ppm	
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	0.05	1	5	5	5	
1318621	Soil	0.058	7	71	1.29	102	0.097	<20	1.72	<0.01	0.08	<2	0.05	<1	<5	<5	<5
1318622	Soil	0.068	8	71	1.34	139	0.061	<20	1.91	<0.01	0.08	<2	0.08	<1	<5	<5	<5
1318623	Soil	0.066	8	67	1.27	159	0.058	<20	1.94	<0.01	0.07	<2	0.07	<1	<5	<5	<5
1318624	Soil	0.054	7	67	1.25	136	0.077	<20	1.89	0.01	0.09	<2	0.06	<1	<5	<5	<5
1318625	Soil	0.090	7	83	1.34	91	0.131	<20	1.45	0.01	0.09	<2	0.13	<1	<5	<5	<5
1318626	Soil	0.059	7	63	1.14	134	0.074	<20	1.67	<0.01	0.08	<2	0.06	<1	<5	<5	<5
1318627	Soil	0.057	8	102	1.60	137	0.083	<20	1.95	0.01	0.10	<2	0.06	<1	<5	<5	5
1318628	Soil	0.088	6	75	1.23	130	0.053	<20	1.89	<0.01	0.06	<2	0.08	<1	<5	<5	<5
1318629	Soil	0.077	6	69	1.25	125	0.077	<20	1.88	0.01	0.10	<2	<0.05	<1	<5	<5	<5
1318630	Soil	0.076	6	64	1.08	119	0.067	<20	1.69	<0.01	0.09	<2	<0.05	<1	<5	<5	<5
1318631	Soil	0.099	7	67	1.18	160	0.055	<20	2.02	<0.01	0.07	<2	<0.05	<1	<5	<5	<5
1318632	Soil	0.082	8	75	1.28	178	0.068	<20	1.87	<0.01	0.08	<2	0.07	<1	<5	<5	5
1318633	Soil	0.083	6	73	1.32	142	0.082	<20	1.85	<0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318634	Soil	0.082	8	64	1.05	175	0.047	<20	1.66	<0.01	0.09	<2	0.09	<1	<5	<5	<5
1318635	Soil	0.074	15	33	1.13	141	0.010	<20	1.85	<0.01	0.12	<2	0.08	<1	<5	8	7
1318636	Soil	0.053	6	125	2.68	122	0.092	<20	2.86	<0.01	0.13	<2	0.05	<1	<5	6	5
1318637	Soil	0.087	5	85	1.84	127	0.174	<20	2.07	<0.01	0.10	<2	<0.05	<1	<5	<5	<5
1318638	Soil	0.075	10	59	1.34	222	0.044	<20	1.89	<0.01	0.08	<2	0.10	<1	<5	<5	<5
1318639	Soil	0.065	10	65	1.34	215	0.055	<20	2.23	<0.01	0.07	<2	0.05	<1	<5	<5	<5
1318640	Soil	0.060	9	62	1.36	197	0.054	<20	2.17	<0.01	0.06	<2	0.05	<1	<5	<5	<5
1318641	Soil	0.058	8	75	1.58	163	0.063	<20	2.10	<0.01	0.08	<2	0.07	<1	<5	5	<5
1318642	Soil	0.089	8	54	1.18	173	0.039	<20	1.74	<0.01	0.08	<2	0.09	<1	<5	<5	<5
1318643	Soil	0.069	7	66	1.28	121	0.057	<20	1.83	<0.01	0.10	<2	0.08	<1	<5	<5	<5
1318644	Soil	0.059	7	61	1.15	124	0.081	<20	1.69	<0.01	0.08	<2	0.06	<1	<5	<5	<5
1318645	Soil	0.093	8	58	1.13	170	0.073	<20	1.87	<0.01	0.10	<2	0.08	<1	<5	<5	<5
1318646	Soil	0.064	8	63	1.22	137	0.087	<20	1.86	<0.01	0.09	<2	0.07	<1	<5	<5	<5
1318647	Soil	0.064	8	59	1.21	149	0.089	<20	1.88	<0.01	0.10	<2	0.07	<1	<5	<5	5
1318648	Soil	0.070	10	61	1.25	152	0.083	<20	2.09	<0.01	0.09	<2	0.06	<1	<5	<5	5
1318649	Soil	0.065	8	68	1.38	149	0.093	<20	2.14	<0.01	0.09	<2	0.06	<1	<5	<5	5
1318650	Soil	0.062	7	62	1.31	139	0.087	<20	1.99	<0.01	0.08	<2	0.06	<1	<5	<5	<5

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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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318651	Soil	8	<3	8	5	129	10	178	0.5	52	23	887	4.84	51	2	50	1.6	<3	<3	74	0.82
1318652	Soil	9	4	14	4	193	7	131	0.4	54	30	1058	5.19	37	<2	42	1.1	<3	<3	98	0.87
1318653	Soil	9	5	11	4	196	13	158	0.4	71	40	1159	5.51	110	<2	55	1.6	<3	<3	77	1.00
1318654	Soil	10	<3	7	3	170	12	163	<0.3	69	41	1177	5.24	198	2	47	0.7	3	<3	62	0.79
1318655	Soil	41	<3	10	6	209	13	189	0.5	61	27	1056	4.92	159	<2	66	1.0	4	<3	68	1.19
1318656	Soil	6	<3	9	3	216	6	132	0.7	67	33	1076	5.91	41	<2	34	1.3	<3	<3	118	0.76
1318657	Soil	9	4	9	4	140	7	130	<0.3	55	27	1048	5.05	29	<2	36	0.8	<3	<3	89	0.69
1318658	Soil	9	7	22	4	437	8	122	<0.3	102	54	1008	6.17	23	<2	29	1.4	<3	<3	117	1.08
1318659	Soil	28	<3	9	4	140	6	119	<0.3	43	24	863	4.12	35	<2	39	0.9	<3	<3	68	0.88
1318660	Soil	6	3	12	4	130	7	122	0.3	46	25	882	4.15	36	<2	38	0.6	<3	<3	71	0.86
1318661	Soil	8	5	16	4	262	6	126	<0.3	58	25	883	4.79	44	<2	38	1.0	<3	<3	83	0.79
1318662	Soil	10	<3	16	2	212	4	108	<0.3	57	31	1542	5.79	22	<2	38	1.0	<3	<3	123	1.15
1318663	Soil	23	4	26	3	234	6	117	0.4	53	25	1015	5.36	21	<2	47	0.9	<3	<3	103	1.50
1318664	Soil	16	4	16	2	249	<3	100	0.6	51	26	838	5.42	10	<2	25	<0.5	<3	<3	105	0.87
1318665	Soil	10	<3	22	2	305	4	104	0.4	52	25	836	5.31	13	<2	33	0.7	<3	<3	95	1.27
1318666	Soil	10	5	18	1	280	5	111	0.4	65	21	706	4.39	13	<2	43	0.6	<3	<3	79	1.48
1318667	Soil	7	7	11	2	172	5	101	<0.3	48	16	619	3.45	15	<2	53	0.5	<3	<3	61	1.69
1318668	Soil	11	<3	8	1	168	3	109	0.7	51	23	824	4.25	12	<2	26	<0.5	<3	<3	81	0.59
1318669	Soil	8	<3	8	1	205	5	108	0.5	60	25	790	4.22	14	<2	36	<0.5	<3	<3	79	0.84
1318670	Soil	13	<3	10	1	173	4	101	0.5	51	22	728	3.90	12	<2	33	0.6	<3	<3	73	0.75
1318671	Soil	I.S.	I.S.	I.S.	3	227	6	135	0.4	49	21	877	3.71	22	<2	47	0.8	<3	<3	64	1.15
1318672	Soil	6	<3	9	3	113	5	112	<0.3	40	21	851	3.75	19	<2	34	0.8	<3	<3	67	0.73
1318673	Soil	5	<3	10	3	191	6	142	<0.3	53	22	854	3.83	17	<2	44	1.9	<3	<3	70	1.25
1318674	Soil	7	<3	9	4	88	8	121	0.4	40	15	684	3.93	65	<2	58	0.6	<3	<3	62	1.16
1318675	Soil	7	5	4	5	119	11	147	<0.3	45	22	1083	4.48	77	<2	56	1.0	<3	<3	65	0.82
1318676	Soil	6	<3	10	7	143	11	181	0.4	54	26	1040	5.54	236	<2	37	0.8	5	<3	73	0.52
1318677	Soil	16	10	23	2	277	<3	111	0.7	67	34	1053	6.47	39	<2	29	0.7	<3	<3	121	0.85
1318678	Soil	16	6	23	2	300	<3	104	0.8	60	30	984	6.05	44	<2	28	<0.5	<3	<3	110	0.76
1318679	Soil	10	8	32	2	494	3	107	1.1	90	58	1290	7.40	96	<2	21	1.1	<3	<3	168	1.11
1318680	Soil	7	7	32	2	503	<3	112	1.3	93	59	1326	7.60	100	<2	23	0.7	<3	<3	169	1.22



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2018-Ellen
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Method Analyte Unit MDL	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	S %	Hg ppm	Tl ppm	Ga ppm	Sc ppm	
1318651	Soil	0.063	12	47	1.46	225	0.047	<20	2.20	<0.01	0.09	<2	0.12	<1	<5	<5	6
1318652	Soil	0.089	10	65	1.73	197	0.081	<20	2.40	<0.01	0.09	<2	0.09	<1	<5	<5	7
1318653	Soil	0.114	16	53	1.71	224	0.070	<20	2.45	<0.01	0.14	<2	0.08	<1	<5	<5	7
1318654	Soil	0.070	22	33	1.29	380	0.012	<20	2.21	<0.01	0.10	<2	0.09	<1	<5	<5	7
1318655	Soil	0.123	22	60	1.34	299	0.020	<20	2.02	<0.01	0.10	<2	0.11	<1	<5	<5	6
1318656	Soil	0.086	9	89	1.79	166	0.182	<20	2.64	<0.01	0.11	<2	0.07	<1	<5	<5	7
1318657	Soil	0.102	8	74	1.38	179	0.078	<20	2.16	<0.01	0.09	<2	0.09	<1	<5	<5	5
1318658	Soil	0.093	7	97	1.62	92	0.212	<20	2.42	<0.01	0.12	<2	0.06	<1	<5	<5	7
1318659	Soil	0.108	9	59	1.03	197	0.043	<20	1.77	0.01	0.07	<2	0.12	<1	<5	<5	<5
1318660	Soil	0.105	8	63	1.06	190	0.045	<20	1.81	0.01	0.07	<2	0.10	<1	<5	<5	<5
1318661	Soil	0.122	11	71	1.19	167	0.050	<20	2.09	0.01	0.08	<2	0.11	<1	<5	<5	5
1318662	Soil	0.080	13	92	1.48	134	0.059	<20	2.13	<0.01	0.08	<2	0.09	<1	<5	7	16
1318663	Soil	0.090	10	81	1.37	130	0.042	<20	2.04	0.01	0.07	<2	0.11	<1	<5	<5	9
1318664	Soil	0.054	5	93	1.47	73	0.180	<20	1.94	<0.01	0.07	<2	<0.05	<1	<5	<5	10
1318665	Soil	0.065	7	93	1.60	95	0.102	<20	2.08	<0.01	0.08	<2	0.07	<1	<5	<5	8
1318666	Soil	0.070	8	90	1.56	135	0.101	<20	2.10	0.02	0.09	<2	0.07	<1	<5	<5	6
1318667	Soil	0.086	7	65	1.12	149	0.071	<20	1.59	0.01	0.07	<2	0.10	<1	<5	<5	<5
1318668	Soil	0.055	6	80	1.47	110	0.162	<20	2.02	<0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318669	Soil	0.063	7	91	1.48	173	0.107	<20	2.09	0.01	0.09	<2	<0.05	<1	<5	<5	6
1318670	Soil	0.056	7	81	1.35	144	0.114	<20	1.87	0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318671	Soil	0.109	9	65	1.05	200	0.047	<20	1.71	<0.01	0.05	<2	0.10	<1	<5	<5	<5
1318672	Soil	0.091	7	69	1.11	157	0.061	<20	1.71	<0.01	0.05	<2	0.07	<1	<5	<5	<5
1318673	Soil	0.085	7	78	1.30	150	0.079	<20	1.84	<0.01	0.08	<2	0.08	<1	<5	<5	<5
1318674	Soil	0.102	10	53	1.12	250	0.037	<20	1.83	0.01	0.07	<2	0.11	<1	<5	<5	<5
1318675	Soil	0.108	12	49	1.14	281	0.024	<20	1.98	0.01	0.08	<2	0.10	<1	<5	<5	<5
1318676	Soil	0.057	18	50	1.46	185	0.040	<20	2.26	<0.01	0.12	<2	0.06	<1	<5	<5	7
1318677	Soil	0.049	7	108	2.62	197	0.163	<20	2.90	<0.01	0.14	<2	<0.05	<1	<5	<5	7
1318678	Soil	0.040	7	106	2.39	198	0.150	<20	2.67	<0.01	0.12	<2	<0.05	<1	<5	<5	6
1318679	Soil	0.073	6	98	2.21	75	0.311	<20	2.93	<0.01	0.11	<2	<0.05	<1	<5	<5	12
1318680	Soil	0.083	6	98	2.27	79	0.292	<20	3.02	<0.01	0.11	<2	<0.05	<1	<5	<5	12



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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318681	Soil	5	5	11	3	206	3	112	<0.3	43	21	742	4.22	60	<2	37	1.0	<3	<3	71	1.01
1318682	Soil	5	<3	13	3	261	3	101	<0.3	38	22	786	3.82	35	<2	38	0.8	<3	<3	66	1.06
1318683	Soil	5	3	9	5	109	7	142	<0.3	37	29	1257	4.10	52	<2	38	1.4	<3	<3	66	0.69
1318684	Soil	8	6	21	3	290	8	118	<0.3	41	23	844	4.45	31	<2	33	1.1	<3	<3	75	1.02
1318685	Soil	8	6	16	2	237	5	91	0.3	45	17	616	3.47	20	<2	44	0.7	<3	<3	58	1.44
1318686	Soil	9	3	23	2	242	4	106	<0.3	48	18	638	3.84	24	<2	45	<0.5	<3	<3	64	1.46
1318687	Soil	I.S.	I.S.	I.S.	2	166	4	121	0.3	44	19	749	3.59	27	<2	45	0.9	<3	<3	64	1.47
1318688	Soil	21	<3	5	2	131	<3	91	0.7	59	22	669	3.72	18	<2	30	0.6	<3	<3	66	0.69
1318689	Soil	13	<3	12	2	126	4	88	<0.3	45	18	579	3.27	18	<2	41	<0.5	<3	<3	57	0.97
1318690	Soil	15	<3	5	1	132	<3	69	<0.3	42	17	628	2.74	12	<2	55	<0.5	<3	<3	51	1.59
1318691	Soil	I.S.	I.S.	I.S.	1	156	<3	86	<0.3	50	18	693	2.91	12	<2	64	0.8	<3	<3	55	1.88
1318692	Soil	8	4	16	2	264	4	80	<0.3	42	20	686	3.41	12	<2	41	<0.5	<3	<3	66	1.03
1318693	Soil	7	4	14	3	209	3	77	<0.3	41	23	892	3.40	14	<2	42	<0.5	<3	<3	65	0.95
1318694	Soil	7	4	12	2	199	<3	90	<0.3	43	22	791	3.57	12	<2	37	<0.5	<3	<3	66	0.84
1318695	Soil	12	<3	7	3	103	3	95	<0.3	33	16	678	2.73	16	<2	57	1.9	<3	<3	43	1.32
1318696	Soil	8	6	6	3	131	5	121	<0.3	44	21	720	3.72	22	<2	40	0.8	<3	<3	70	0.88
1318697	Soil	4	<3	8	2	194	<3	134	0.4	48	19	736	3.56	15	<2	39	1.7	<3	<3	64	1.13
1318698	Soil	9	<3	8	7	130	9	184	0.5	53	23	1005	4.25	274	<2	77	1.4	4	<3	52	1.16
1318699	Soil	5	8	14	3	278	3	143	0.4	65	34	1018	6.31	89	<2	48	1.0	<3	<3	115	0.76
1318700	Soil	5	5	15	3	296	4	149	0.8	71	35	1065	6.50	91	<2	52	0.7	<3	<3	136	0.84
1318701	Soil	7	5	5	2	101	3	95	0.7	52	17	627	3.47	18	<2	44	0.5	<3	<3	62	1.22
1318702	Soil	10	6	12	1	143	<3	86	0.7	44	21	596	3.45	11	<2	35	<0.5	<3	<3	63	0.89
1318703	Soil	8	5	10	4	198	5	158	<0.3	48	30	1167	4.30	34	<2	43	1.6	<3	<3	69	0.90
1318704	Soil	10	11	8	3	81	<3	76	<0.3	24	11	578	1.78	14	<2	88	0.8	<3	<3	27	2.58
1318705	Soil	17	13	4	2	144	<3	53	<0.3	33	7	247	1.74	9	<2	67	<0.5	<3	<3	22	1.71
1318706	Soil	5	4	3	3	124	4	65	<0.3	31	13	691	2.68	17	<2	46	0.7	<3	<3	48	0.96
1318707	Soil	9	6	8	4	122	6	128	<0.3	45	23	1081	3.62	82	<2	68	1.2	<3	<3	59	1.53
1318708	Soil	6	6	17	3	227	3	71	<0.3	43	19	684	3.13	47	<2	124	0.7	<3	<3	63	3.00
1318709	Soil	10	6	17	2	226	5	118	0.8	59	28	1013	5.64	53	<2	38	0.5	<3	<3	110	0.82
1318710	Soil	7	6	17	2	226	5	120	0.9	60	28	1010	5.69	55	<2	39	0.7	<3	<3	111	0.81



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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	%	ppm	ppm	ppm	ppm	
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	0.05	1	5	5	5	
1318681	Soil	0.086	8	60	1.20	163	0.051	<20	1.78	<0.01	0.07	<2	0.11	<1	<5	<5	
1318682	Soil	0.111	7	59	1.14	141	0.045	<20	1.70	<0.01	0.09	<2	0.11	<1	<5	<5	
1318683	Soil	0.093	9	58	0.98	199	0.040	<20	1.69	<0.01	0.07	<2	0.10	<1	<5	<5	
1318684	Soil	0.096	7	70	1.23	126	0.036	<20	1.85	<0.01	0.08	<2	0.11	<1	<5	7	
1318685	Soil	0.080	7	60	1.06	145	0.052	<20	1.52	<0.01	0.06	<2	0.12	<1	<5	<5	
1318686	Soil	0.080	7	67	1.30	169	0.056	<20	1.82	<0.01	0.06	<2	0.09	<1	<5	<5	
1318687	Soil	0.087	8	65	1.19	181	0.045	<20	1.76	<0.01	0.06	<2	0.09	<1	<5	<5	
1318688	Soil	0.041	5	75	1.22	97	0.126	<20	1.58	<0.01	0.07	<2	<0.05	<1	<5	<5	
1318689	Soil	0.066	6	64	1.03	134	0.058	<20	1.45	0.01	0.06	<2	0.08	<1	<5	<5	
1318690	Soil	0.095	5	58	0.89	125	0.058	<20	1.32	<0.01	0.05	<2	0.09	<1	<5	<5	
1318691	Soil	0.102	6	63	0.99	136	0.078	<20	1.45	0.01	0.06	<2	0.10	<1	<5	<5	
1318692	Soil	0.072	6	71	1.10	147	0.091	<20	1.71	<0.01	0.06	<2	0.08	<1	<5	<5	
1318693	Soil	0.087	7	72	1.06	181	0.073	<20	1.68	<0.01	0.06	<2	0.08	<1	<5	<5	
1318694	Soil	0.076	6	80	1.25	141	0.084	<20	1.80	<0.01	0.07	<2	0.07	<1	<5	<5	
1318695	Soil	0.112	6	45	0.81	204	0.036	<20	1.23	<0.01	0.05	<2	0.14	<1	<5	<5	
1318696	Soil	0.090	6	70	1.15	201	0.058	<20	1.80	<0.01	0.05	<2	0.05	<1	<5	<5	
1318697	Soil	0.078	5	73	1.29	113	0.114	<20	1.68	<0.01	0.07	<2	0.06	<1	<5	<5	
1318698	Soil	0.116	21	35	0.91	251	0.006	<20	1.62	<0.01	0.08	<2	0.16	<1	<5	5	
1318699	Soil	0.038	12	101	2.55	243	0.084	<20	2.80	<0.01	0.08	<2	0.07	<1	<5	8	
1318700	Soil	0.039	14	110	2.69	260	0.125	<20	3.06	<0.01	0.10	<2	0.06	<1	<5	7	
1318701	Soil	0.065	6	70	1.28	74	0.153	<20	1.63	<0.01	0.08	<2	<0.05	<1	<5	<5	
1318702	Soil	0.054	5	82	1.24	99	0.142	<20	1.70	<0.01	0.06	<2	0.07	<1	<5	<5	
1318703	Soil	0.101	8	77	1.34	209	0.059	<20	1.93	<0.01	0.08	<2	0.11	<1	<5	<5	
1318704	Soil	0.111	4	26	0.55	161	0.022	<20	0.77	<0.01	0.05	<2	0.19	<1	<5	<5	
1318705	Soil	0.121	7	29	0.52	186	0.021	<20	0.88	<0.01	0.05	<2	0.17	<1	<5	<5	
1318706	Soil	0.111	8	35	0.61	225	0.029	<20	1.15	<0.01	0.03	<2	0.12	<1	<5	<5	
1318707	Soil	0.112	13	45	1.11	195	0.019	<20	1.65	<0.01	0.12	<2	0.13	<1	<5	5	
1318708	Soil	0.085	7	58	1.30	169	0.031	<20	1.50	<0.01	0.08	<2	0.18	<1	<5	<5	
1318709	Soil	0.051	10	86	2.07	181	0.160	<20	2.82	<0.01	0.08	<2	<0.05	<1	<5	8	
1318710	Soil	0.051	10	88	2.06	183	0.156	<20	2.80	<0.01	0.08	<2	<0.05	<1	<5	8	



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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318711	Soil	7	<3	9	3	157	5	117	<0.3	48	20	813	4.31	54	<2	53	0.7	<3	<3	77	1.17
1318712	Soil	7	<3	10	3	130	6	135	<0.3	43	24	990	4.03	46	<2	53	1.3	<3	<3	68	1.31
1318713	Soil	8	5	13	4	126	7	125	<0.3	44	25	1009	4.21	39	<2	47	0.7	<3	<3	70	1.05
1318714	Soil	9	<3	19	3	207	6	124	0.4	42	17	673	3.83	27	<2	55	1.0	<3	<3	63	1.76
1318715	Soil	11	5	17	2	192	7	116	0.4	46	17	689	3.88	24	<2	45	0.6	<3	<3	66	1.37
1318716	Soil	8	<3	11	2	149	5	106	<0.3	43	16	668	3.58	18	<2	45	0.6	<3	<3	61	1.40
1318717	Soil	14	11	17	2	79	6	115	0.7	40	15	629	3.81	16	<2	29	<0.5	<3	<3	63	0.66
1318718	Soil	6	4	8	2	139	6	95	0.3	47	15	630	3.37	16	<2	47	<0.5	<3	<3	54	1.28
1318719	Soil	8	5	10	2	114	6	102	0.3	50	18	722	3.85	15	<2	35	<0.5	<3	<3	64	0.71
1318720	Soil	9	<3	11	2	118	6	102	0.4	49	18	716	3.95	16	<2	35	<0.5	<3	<3	65	0.71
1318721	Soil	6	<3	3	3	53	8	100	<0.3	29	14	631	3.54	19	<2	59	<0.5	<3	<3	55	1.26
1318722	Soil	8	6	8	2	131	8	95	<0.3	38	23	777	3.72	18	<2	45	<0.5	<3	<3	63	0.98
1318723	Soil	8	<3	10	2	144	7	98	<0.3	34	15	571	3.21	14	<2	54	<0.5	<3	<3	54	1.49
1318724	Soil	7	<3	9	2	118	6	98	<0.3	35	18	664	3.42	14	<2	39	<0.5	<3	<3	60	0.90
1318725	Soil	6	<3	7	2	78	5	92	<0.3	32	12	475	2.73	14	<2	63	0.5	<3	<3	46	1.88
1318726	Soil	6	<3	7	2	86	7	132	<0.3	48	21	816	3.74	14	<2	39	<0.5	<3	<3	68	0.79
1318727	Soil	6	3	6	2	83	5	105	<0.3	35	15	581	2.97	12	<2	54	0.7	<3	<3	52	1.55
1318728	Soil	6	<3	3	3	53	5	152	<0.3	24	13	546	2.36	14	<2	38	2.0	<3	<3	38	0.79
1318729	Soil	6	<3	8	2	169	5	86	<0.3	41	17	660	3.22	14	<2	52	0.5	<3	<3	53	1.37
1318730	Soil	6	<3	6	2	157	5	104	<0.3	43	18	738	3.87	17	<2	41	0.6	<3	<3	65	1.03
1318731	Soil	6	<3	6	2	99	4	147	<0.3	32	13	684	2.49	12	<2	66	2.0	<3	<3	41	1.96
1318732	Soil	6	<3	9	4	98	8	103	0.4	39	20	768	3.65	18	<2	49	0.7	<3	<3	64	1.05
1318733	Soil	10	<3	21	4	168	9	119	0.5	41	19	779	3.91	35	<2	55	0.7	<3	<3	60	1.25
1318734	Soil	7	<3	9	4	123	6	106	0.4	40	17	693	3.88	19	<2	34	<0.5	<3	<3	66	0.64
1318735	Soil	11	3	10	2	176	5	106	<0.3	44	20	738	4.14	39	<2	50	0.8	<3	<3	75	1.36
1318736	Soil	7	<3	13	2	181	5	114	<0.3	49	24	895	4.92	70	<2	40	0.6	<3	<3	92	1.05
1318737	Soil	11	<3	9	2	97	3	114	0.7	43	21	824	4.35	35	<2	30	0.9	<3	<3	84	0.91
1318738	Soil	23	<3	14	2	98	5	104	0.5	40	25	936	4.67	25	<2	24	<0.5	<3	<3	96	0.55
1318739	Soil	14	4	14	2	149	4	109	0.8	51	21	749	4.53	21	<2	31	<0.5	<3	<3	88	0.73
1318740	Soil	17	<3	13	2	169	4	110	0.9	52	22	915	4.62	21	<2	30	0.8	<3	<3	87	0.73



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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318711	Soil	0.084	10	67	1.47	219	0.071	<20	2.09	<0.01	0.09	<2	0.11	<1	<5	5	<5
1318712	Soil	0.098	10	60	1.26	223	0.053	<20	1.87	<0.01	0.09	<2	0.13	<1	<5	<5	<5
1318713	Soil	0.096	9	61	1.28	220	0.053	<20	2.01	<0.01	0.08	<2	0.10	<1	<5	5	<5
1318714	Soil	0.101	9	63	1.17	164	0.046	<20	1.78	<0.01	0.09	<2	0.11	<1	<5	<5	<5
1318715	Soil	0.085	9	65	1.26	160	0.049	<20	1.87	<0.01	0.08	<2	0.09	<1	<5	<5	<5
1318716	Soil	0.069	7	59	1.14	137	0.063	<20	1.67	<0.01	0.08	<2	0.09	<1	<5	<5	<5
1318717	Soil	0.029	6	59	1.22	92	0.130	<20	1.74	<0.01	0.07	<2	<0.05	<1	<5	<5	<5
1318718	Soil	0.057	7	57	1.08	137	0.051	<20	1.62	<0.01	0.06	<2	0.08	<1	<5	<5	<5
1318719	Soil	0.047	7	69	1.29	153	0.070	<20	1.93	<0.01	0.07	<2	<0.05	<1	<5	<5	<5
1318720	Soil	0.045	7	69	1.31	153	0.074	<20	1.93	<0.01	0.07	<2	<0.05	<1	<5	<5	<5
1318721	Soil	0.075	6	48	0.96	132	0.044	<20	1.69	<0.01	0.07	<2	0.08	<1	<5	5	<5
1318722	Soil	0.061	8	56	1.11	117	0.067	<20	1.79	<0.01	0.08	<2	0.06	<1	<5	<5	<5
1318723	Soil	0.074	8	52	0.89	151	0.051	<20	1.46	<0.01	0.05	<2	0.07	<1	<5	<5	<5
1318724	Soil	0.078	9	55	1.02	158	0.053	<20	1.66	<0.01	0.05	<2	0.07	<1	<5	<5	<5
1318725	Soil	0.098	6	46	0.90	161	0.032	<20	1.36	<0.01	0.04	<2	0.12	<1	<5	<5	<5
1318726	Soil	0.085	8	69	1.29	150	0.062	<20	2.01	<0.01	0.08	<2	<0.05	<1	<5	<5	5
1318727	Soil	0.099	6	56	1.06	169	0.038	<20	1.57	<0.01	0.05	<2	0.10	<1	<5	<5	<5
1318728	Soil	0.095	5	32	0.54	106	0.031	<20	0.91	<0.01	0.07	<2	0.14	<1	<5	<5	<5
1318729	Soil	0.100	7	59	1.03	176	0.039	<20	1.60	<0.01	0.06	<2	0.10	<1	<5	<5	<5
1318730	Soil	0.089	7	71	1.30	172	0.055	<20	1.93	<0.01	0.06	<2	0.06	<1	<5	<5	<5
1318731	Soil	0.099	5	40	0.80	117	0.044	<20	1.20	<0.01	0.08	<2	0.12	<1	<5	<5	<5
1318732	Soil	0.085	8	55	1.01	227	0.034	<20	1.70	<0.01	0.06	<2	0.09	<1	<5	7	<5
1318733	Soil	0.108	10	53	0.97	186	0.028	<20	1.60	<0.01	0.06	<2	0.10	<1	<5	6	<5
1318734	Soil	0.090	9	61	1.18	226	0.027	<20	1.93	<0.01	0.05	<2	0.07	<1	<5	6	<5
1318735	Soil	0.054	7	69	1.67	140	0.068	<20	2.00	<0.01	0.09	<2	0.08	<1	<5	<5	<5
1318736	Soil	0.080	9	71	1.95	145	0.086	<20	2.31	<0.01	0.11	<2	0.06	<1	<5	5	6
1318737	Soil	0.063	5	67	1.81	109	0.127	<20	2.04	<0.01	0.09	<2	0.06	<1	<5	<5	<5
1318738	Soil	0.038	10	79	1.78	112	0.115	<20	2.32	<0.01	0.09	<2	<0.05	<1	<5	<5	7
1318739	Soil	0.072	8	78	1.74	123	0.140	<20	2.34	<0.01	0.10	<2	<0.05	<1	<5	<5	7
1318740	Soil	0.074	8	77	1.75	127	0.138	<20	2.33	<0.01	0.10	<2	<0.05	<1	<5	<5	7



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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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460-688 West Hastings St.

Vancouver British Columbia V6B 1P1 Canada

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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318741	Soil	11	3	8	2	128	4	95	<0.3	41	16	729	3.60	20	<2	52	<0.5	<3	<3	66	1.63
1318742	Soil	18	<3	9	2	81	5	93	<0.3	35	14	527	3.39	18	<2	45	<0.5	<3	<3	58	1.68
1318743	Soil	11	<3	<2	2	88	5	91	<0.3	36	14	579	2.99	16	<2	56	0.8	<3	<3	50	2.86
1318744	Soil	10	<3	9	2	105	5	100	0.9	49	18	733	3.81	16	<2	40	<0.5	<3	<3	68	1.29
1318745	Soil	10	<3	7	2	80	6	105	0.4	45	18	603	3.64	14	<2	38	<0.5	<3	<3	64	1.04
1318746	Soil	8	<3	5	2	86	6	99	<0.3	45	19	560	3.58	14	<2	39	0.6	<3	<3	64	1.04
1318747	Soil	7	<3	5	<1	65	5	95	<0.3	41	18	558	3.28	11	<2	46	<0.5	<3	<3	57	1.49
1318748	Soil	10	<3	7	3	63	6	95	<0.3	35	15	497	3.80	19	<2	36	<0.5	<3	<3	65	0.95
1318749	Soil	7	<3	5	2	114	4	83	<0.3	49	15	618	2.69	11	<2	59	<0.5	<3	<3	44	2.13
1318750	Soil	8	3	5	2	105	5	88	<0.3	46	14	625	2.80	12	<2	57	<0.5	<3	<3	45	2.03
1318751	Soil	7	<3	9	3	136	7	122	0.4	49	25	1029	3.98	46	<2	53	1.1	<3	<3	66	1.00
1318752	Soil	9	<3	6	4	100	8	128	<0.3	42	23	834	4.14	35	<2	40	0.7	<3	<3	67	0.64
1318753	Soil	12	8	22	3	241	4	83	<0.3	33	16	620	3.15	29	<2	47	0.6	<3	<3	50	1.45
1318754	Soil	10	<3	22	2	222	6	100	0.4	42	19	739	3.84	30	<2	46	1.0	<3	<3	62	1.49
1318755	Soil	21	3	17	3	153	5	99	0.4	36	16	615	3.84	28	<2	45	0.8	<3	<3	59	1.31
1318756	Soil	8	<3	18	2	200	7	107	0.4	48	18	722	4.02	26	<2	51	0.7	<3	<3	63	1.43
1318757	Soil	9	5	6	2	97	6	110	<0.3	70	21	723	3.98	21	<2	40	0.9	<3	<3	59	0.88
1318758	Soil	17	4	12	2	92	6	107	<0.3	46	17	681	3.44	16	<2	49	0.9	<3	<3	56	1.24
1318759	Soil	11	5	13	2	126	7	101	<0.3	50	15	549	3.54	19	<2	60	0.7	<3	<3	58	1.55
1318760	Soil	7	<3	7	2	121	6	103	<0.3	53	15	557	3.70	19	<2	58	0.6	<3	<3	60	1.45
1318761	Soil	10	4	14	2	127	6	100	<0.3	54	16	641	3.50	19	<2	48	0.8	<3	<3	59	1.09
1318762	Soil	8	4	7	2	64	7	111	<0.3	39	18	683	3.64	19	<2	50	0.8	<3	<3	60	1.03
1318763	Soil	6	<3	5	2	95	7	94	0.3	36	14	471	3.09	19	<2	70	1.0	<3	<3	50	1.64
1318764	Soil	7	6	8	1	136	8	97	<0.3	46	19	632	3.40	16	<2	60	<0.5	<3	<3	55	1.27
1318765	Soil	7	<3	5	1	95	4	84	0.5	63	20	570	3.29	10	<2	30	0.5	<3	<3	63	0.62
1318766	Soil	6	<3	8	2	158	7	97	<0.3	61	22	764	3.54	11	<2	45	0.6	<3	<3	65	0.97
1318767	Soil	7	<3	7	4	117	6	86	0.3	37	20	869	3.94	27	<2	31	0.5	<3	<3	64	0.48
1318768	Soil	6	3	6	2	88	7	110	0.8	49	17	695	3.92	17	<2	33	0.9	<3	<3	62	0.85
1318769	Soil	8	<3	4	2	115	6	123	<0.3	84	21	679	3.93	14	<2	35	0.6	<3	<3	67	0.64
1318770	Soil	8	4	6	2	115	5	126	<0.3	85	22	666	3.95	14	<2	37	0.6	<3	<3	68	0.67



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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318741	Soil	0.062	7	61	1.26	145	0.065	<20	1.79	<0.01	0.08	<2	0.10	<1	<5	<5	<5
1318742	Soil	0.060	7	51	1.12	137	0.064	<20	1.57	<0.01	0.07	<2	0.09	<1	<5	<5	<5
1318743	Soil	0.075	7	47	1.41	138	0.049	<20	1.42	0.01	0.07	<2	0.11	<1	<5	<5	<5
1318744	Soil	0.072	8	66	1.43	112	0.132	<20	1.96	0.01	0.10	<2	<0.05	<1	<5	<5	6
1318745	Soil	0.065	8	61	1.23	128	0.099	<20	1.94	<0.01	0.10	<2	0.05	<1	<5	<5	5
1318746	Soil	0.056	8	61	1.24	129	0.104	<20	1.97	<0.01	0.10	<2	0.08	<1	<5	<5	5
1318747	Soil	0.055	7	58	1.15	128	0.084	<20	1.74	<0.01	0.10	<2	0.07	<1	<5	<5	<5
1318748	Soil	0.047	6	62	1.24	122	0.078	<20	1.94	<0.01	0.08	<2	0.05	<1	<5	<5	<5
1318749	Soil	0.087	7	46	0.96	159	0.034	<20	1.42	0.01	0.07	<2	0.14	<1	<5	<5	<5
1318750	Soil	0.087	7	47	0.99	152	0.035	<20	1.46	0.01	0.07	<2	0.14	<1	<5	<5	<5
1318751	Soil	0.092	10	56	1.22	267	0.039	<20	1.81	<0.01	0.10	<2	0.12	<1	<5	<5	<5
1318752	Soil	0.085	9	57	1.14	198	0.044	<20	2.02	<0.01	0.08	<2	0.08	<1	<5	<5	<5
1318753	Soil	0.097	6	50	0.92	147	0.028	<20	1.36	<0.01	0.06	<2	0.14	<1	<5	<5	<5
1318754	Soil	0.098	8	65	1.17	177	0.031	<20	1.75	<0.01	0.08	<2	0.11	<1	<5	<5	<5
1318755	Soil	0.091	8	56	1.05	144	0.033	<20	1.60	<0.01	0.07	<2	0.10	<1	<5	<5	<5
1318756	Soil	0.111	9	68	1.22	179	0.030	<20	1.88	<0.01	0.08	<2	0.11	<1	<5	<5	<5
1318757	Soil	0.079	8	87	1.22	124	0.086	<20	1.60	0.01	0.08	<2	0.05	<1	<5	<5	5
1318758	Soil	0.061	6	62	1.14	129	0.061	<20	1.61	0.01	0.07	<2	0.08	<1	<5	<5	<5
1318759	Soil	0.082	7	62	1.15	168	0.055	<20	1.75	<0.01	0.08	<2	0.09	<1	<5	<5	<5
1318760	Soil	0.079	8	64	1.19	167	0.060	<20	1.80	0.01	0.08	<2	0.08	<1	<5	<5	<5
1318761	Soil	0.078	8	65	1.13	179	0.039	<20	1.71	<0.01	0.07	<2	0.08	<1	<5	<5	<5
1318762	Soil	0.070	6	55	1.15	157	0.059	<20	1.88	<0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318763	Soil	0.066	8	49	0.82	178	0.046	<20	1.43	<0.01	0.07	<2	0.08	<1	<5	<5	<5
1318764	Soil	0.056	9	52	1.05	136	0.074	<20	1.72	<0.01	0.09	<2	0.06	<1	<5	<5	<5
1318765	Soil	0.052	5	90	1.33	69	0.119	<20	1.60	0.01	0.09	<2	<0.05	<1	<5	<5	<5
1318766	Soil	0.068	7	79	1.24	138	0.073	<20	1.80	<0.01	0.07	<2	0.05	<1	<5	<5	<5
1318767	Soil	0.117	9	60	0.97	198	0.028	<20	1.75	<0.01	0.05	<2	0.07	<1	<5	<5	<5
1318768	Soil	0.082	7	64	1.27	83	0.126	<20	1.76	<0.01	0.09	<2	<0.05	<1	<5	<5	<5
1318769	Soil	0.068	9	86	1.32	208	0.083	<20	2.06	<0.01	0.08	<2	<0.05	<1	<5	<5	6
1318770	Soil	0.069	9	88	1.33	214	0.088	<20	2.10	<0.01	0.09	<2	<0.05	<1	<5	<5	6

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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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318771	Soil	7	<3	6	2	101	7	115	0.3	57	21	787	3.46	13	<2	36	<0.5	<3	<3	57	0.69
1318772	Soil	7	<3	7	4	69	7	80	0.3	30	16	711	2.95	14	<2	33	1.1	<3	<3	51	0.54
1318773	Soil	7	<3	5	3	101	7	93	0.4	44	15	570	3.09	17	<2	45	0.8	<3	<3	53	0.90
1318774	Soil	9	<3	10	7	131	8	276	0.7	45	18	834	4.72	35	<2	19	1.5	<3	<3	66	0.26
1318775	Soil	8	<3	12	4	154	7	130	0.3	49	26	976	3.90	23	<2	44	1.2	<3	<3	62	1.03
1318776	Soil	8	<3	14	2	171	6	119	0.4	44	17	557	3.50	19	<2	46	1.2	<3	<3	64	1.38
1318777	Soil	9	<3	16	3	190	6	119	<0.3	50	24	853	4.71	64	<2	52	1.3	<3	<3	85	1.28
1318778	Soil	8	4	77	3	287	6	103	0.4	38	15	610	3.52	29	<2	68	1.0	<3	<3	57	1.86
1318779	Soil	7	<3	21	3	158	6	108	0.4	41	15	594	3.40	23	<2	64	0.9	<3	<3	52	1.88
1318780	Soil	8	8	23	3	151	6	106	0.4	39	15	587	3.29	23	<2	63	0.9	<3	<3	50	1.79
1318781	Soil	11	<3	20	3	183	7	115	0.3	46	21	799	4.31	24	<2	43	1.0	<3	<3	67	0.93
1318782	Soil	23	<3	38	2	217	5	92	0.4	43	15	663	3.52	16	<2	49	0.8	<3	<3	57	1.64
1318783	Soil	8	4	14	2	126	5	95	<0.3	43	14	516	3.48	14	<2	39	0.5	<3	<3	57	1.42
1318784	Soil	7	<3	13	2	110	6	106	<0.3	43	14	487	3.33	16	<2	44	0.9	<3	<3	55	1.48
1318785	Soil	7	<3	9	2	80	6	104	0.3	39	15	616	3.85	15	<2	37	0.7	<3	<3	60	0.84
1318786	Soil	7	<3	10	<1	141	6	112	0.6	46	17	507	3.68	9	<2	43	1.1	<3	<3	63	1.20
1318787	Soil	6	<3	8	2	65	5	88	<0.3	35	13	484	3.25	11	<2	44	<0.5	<3	<3	54	1.24
1318788	Soil	9	<3	7	1	74	7	104	0.6	42	19	641	3.81	14	<2	36	0.6	<3	<3	67	0.83
1318789	Soil	9	<3	7	2	70	6	95	<0.3	40	18	567	3.59	14	<2	39	0.8	<3	<3	58	1.21
1318790	Soil	8	<3	8	1	70	7	98	<0.3	41	19	598	3.68	15	<2	38	0.6	<3	<3	61	1.00
1318791	Soil	6	3	9	1	115	6	102	<0.3	51	17	645	3.46	11	<2	41	0.8	<3	<3	57	1.23
1318792	Soil	6	<3	6	1	40	6	80	<0.3	31	15	553	2.66	11	<2	61	0.6	<3	<3	44	1.98
1318793	Soil	6	<3	8	<1	67	5	112	<0.3	46	17	668	3.32	9	<2	44	0.8	<3	<3	55	1.19
1318794	Soil	8	<3	10	1	95	6	101	<0.3	64	18	608	3.48	10	<2	43	0.6	<3	<3	58	1.26
1318795	Soil	8	<3	8	1	97	5	98	<0.3	44	13	463	3.16	10	<2	49	0.6	<3	<3	53	1.69
1318796	Soil	5	<3	5	2	75	6	129	<0.3	34	20	616	3.74	14	<2	34	0.9	<3	<3	61	0.75
1318797	Soil	13	<3	11	2	59	4	92	<0.3	29	19	952	2.97	15	<2	49	0.9	<3	<3	51	1.50
1318798	Soil	4	<3	4	2	55	8	112	<0.3	33	19	766	3.27	11	<2	34	0.8	<3	<3	55	0.82
1318799	Soil	6	<3	5	2	84	5	110	<0.3	36	15	579	3.20	10	<2	39	0.6	<3	<3	53	0.92
1318800	Soil	6	3	6	2	92	6	111	<0.3	36	16	602	3.17	11	<2	40	0.7	<3	<3	51	0.98



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318771	Soil	0.085	8	68	1.10	181	0.043	<20	1.77	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
1318772	Soil	0.115	6	47	0.73	170	0.025	<20	1.34	<0.01	0.05	<2	0.08	<1	<5	<5	<5
1318773	Soil	0.094	7	57	0.84	209	0.031	<20	1.45	<0.01	0.06	<2	0.06	<1	<5	<5	<5
1318774	Soil	0.058	11	50	1.04	174	0.066	<20	1.82	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
1318775	Soil	0.092	9	65	1.23	199	0.039	<20	1.69	<0.01	0.09	<2	0.11	<1	<5	<5	<5
1318776	Soil	0.066	7	64	1.21	142	0.061	<20	1.58	<0.01	0.09	<2	0.08	<1	<5	<5	<5
1318777	Soil	0.089	10	68	1.70	172	0.057	<20	2.07	<0.01	0.11	<2	0.07	<1	<5	<5	6
1318778	Soil	0.081	9	53	1.11	148	0.037	<20	1.49	<0.01	0.07	<2	0.15	<1	<5	<5	<5
1318779	Soil	0.100	9	49	0.97	150	0.028	<20	1.45	<0.01	0.07	<2	0.15	<1	<5	<5	<5
1318780	Soil	0.095	9	49	0.94	144	0.024	<20	1.43	0.01	0.07	<2	0.14	<1	<5	<5	<5
1318781	Soil	0.077	9	64	1.27	177	0.039	<20	1.95	<0.01	0.07	<2	0.08	<1	<5	<5	<5
1318782	Soil	0.078	8	56	1.15	146	0.039	<20	1.67	<0.01	0.07	<2	0.12	<1	<5	<5	<5
1318783	Soil	0.055	8	59	1.34	141	0.067	<20	1.69	<0.01	0.07	<2	0.06	<1	<5	<5	<5
1318784	Soil	0.062	7	54	1.11	121	0.069	<20	1.53	<0.01	0.09	<2	0.08	<1	<5	<5	<5
1318785	Soil	0.048	8	59	1.16	124	0.078	<20	1.83	<0.01	0.08	<2	<0.05	<1	<5	<5	5
1318786	Soil	0.064	10	60	1.28	134	0.105	<20	1.87	<0.01	0.09	<2	<0.05	<1	<5	<5	6
1318787	Soil	0.053	7	51	1.06	119	0.069	<20	1.67	0.01	0.08	<2	0.07	<1	<5	<5	<5
1318788	Soil	0.064	9	60	1.23	106	0.117	<20	1.99	<0.01	0.09	<2	<0.05	<1	<5	<5	6
1318789	Soil	0.059	8	53	1.24	121	0.081	<20	1.81	0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318790	Soil	0.059	8	55	1.18	123	0.088	<20	1.88	0.01	0.09	<2	<0.05	<1	<5	<5	5
1318791	Soil	0.071	7	65	1.28	122	0.078	<20	1.83	0.01	0.11	<2	0.07	<1	<5	<5	<5
1318792	Soil	0.062	5	44	0.91	102	0.051	<20	1.30	0.01	0.09	<2	0.10	<1	<5	<5	<5
1318793	Soil	0.046	7	59	1.15	118	0.079	<20	1.75	0.01	0.09	<2	0.06	<1	<5	<5	<5
1318794	Soil	0.060	7	73	1.30	138	0.080	<20	1.77	0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318795	Soil	0.066	6	64	1.14	148	0.059	<20	1.65	0.01	0.07	<2	0.07	<1	<5	<5	<5
1318796	Soil	0.074	6	57	1.02	142	0.042	<20	1.72	<0.01	0.07	<2	<0.05	<1	<5	<5	<5
1318797	Soil	0.068	5	38	0.81	152	0.057	<20	1.23	0.02	0.06	<2	0.09	<1	<5	<5	<5
1318798	Soil	0.079	6	52	1.01	108	0.042	<20	1.65	<0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318799	Soil	0.069	6	51	1.05	128	0.066	<20	1.65	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
1318800	Soil	0.069	7	49	1.00	133	0.058	<20	1.59	<0.01	0.06	<2	<0.05	<1	<5	<5	<5



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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

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Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318801	Soil	6	3	12	2	89	6	113	<0.3	36	15	510	3.86	13	<2	34	0.8	<3	<3	70	0.86
1318802	Soil	7	<3	10	3	94	6	110	<0.3	35	13	453	4.42	32	<2	29	0.7	<3	<3	65	0.65
1318803	Soil	6	<3	8	2	100	6	119	<0.3	43	15	539	3.52	15	<2	44	0.7	<3	<3	56	1.12
1318804	Soil	6	<3	6	2	103	7	81	<0.3	41	18	665	3.31	14	<2	51	<0.5	<3	<3	52	1.15
1318805	Soil	6	<3	5	2	65	8	91	<0.3	35	20	703	3.67	14	<2	37	<0.5	<3	<3	62	0.80
1318806	Soil	8	6	27	3	516	9	131	0.6	59	22	846	5.09	30	<2	38	1.0	<3	<3	93	1.13
1318807	Soil	7	5	13	3	173	5	113	0.3	38	17	661	3.50	15	<2	36	1.2	<3	<3	58	0.70
1318808	Soil	10	9	21	5	198	6	93	<0.3	62	51	4364	3.67	19	<2	53	1.2	<3	4	57	1.43
1318809	Soil	6	<3	6	2	128	5	116	<0.3	37	16	592	2.91	9	<2	47	1.0	<3	<3	49	1.29
1318810	Soil	6	<3	9	2	102	5	107	<0.3	33	18	763	3.16	12	<2	41	0.7	<3	<3	55	1.07
1318811	Soil	8	<3	9	4	112	8	151	0.4	45	24	1051	4.15	25	<2	42	1.4	<3	<3	63	0.84
1318812	Soil	9	4	22	2	179	4	100	0.7	51	28	910	5.07	17	<2	22	1.0	<3	<3	96	0.55
1318813	Soil	8	<3	16	5	126	8	121	0.5	43	19	843	3.57	23	<2	47	0.8	<3	<3	52	1.06
1318814	Soil	6	<3	6	4	76	7	148	<0.3	36	25	1145	4.24	24	<2	26	0.9	<3	<3	66	0.40
1318815	Soil	7	5	12	4	108	4	126	0.3	44	29	903	6.21	48	<2	25	0.8	<3	<3	89	0.61
1318816	Soil	9	<3	15	2	130	4	104	<0.3	44	21	870	4.47	48	<2	30	0.9	<3	<3	86	0.74
1318817	Soil	5	4	13	2	116	4	118	<0.3	48	29	791	5.81	45	<2	22	0.7	<3	<3	108	0.57
1318818	Soil	6	4	14	2	147	5	99	<0.3	45	22	724	4.61	34	<2	32	0.5	<3	<3	85	0.79
1318819	Soil	6	<3	11	3	119	5	119	<0.3	51	28	1252	5.10	30	<2	27	0.8	<3	<3	95	0.62
1318820	Soil	5	<3	12	2	131	4	111	<0.3	47	23	751	4.76	31	<2	33	0.8	<3	<3	90	0.78



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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318801	Soil	0.059	6	64	1.47	108	0.094	<20	2.13	<0.01	0.10	<2	0.06	<1	<5	<5	<5
1318802	Soil	0.054	7	62	1.20	118	0.062	<20	1.90	<0.01	0.10	<2	0.07	<1	<5	<5	<5
1318803	Soil	0.048	6	50	1.06	105	0.103	<20	1.75	0.01	0.11	<2	<0.05	<1	<5	<5	<5
1318804	Soil	0.092	8	50	0.92	158	0.044	<20	1.64	<0.01	0.07	<2	0.09	<1	<5	<5	<5
1318805	Soil	0.050	7	60	1.15	127	0.065	<20	1.86	<0.01	0.08	<2	<0.05	<1	<5	<5	<5
1318806	Soil	0.090	7	73	1.51	69	0.147	<20	1.93	0.01	0.14	<2	<0.05	<1	<5	<5	9
1318807	Soil	0.097	8	59	1.04	150	0.037	<20	1.63	<0.01	0.06	<2	0.06	<1	<5	<5	<5
1318808	Soil	0.099	8	51	0.96	281	0.029	<20	1.55	<0.01	0.05	<2	0.08	<1	7	<5	<5
1318809	Soil	0.078	7	53	0.97	152	0.046	<20	1.46	<0.01	0.06	<2	0.07	<1	<5	<5	<5
1318810	Soil	0.079	6	56	1.01	135	0.045	<20	1.55	<0.01	0.06	<2	0.06	<1	<5	<5	<5
1318811	Soil	0.086	10	54	1.18	215	0.031	<20	1.76	<0.01	0.08	<2	0.09	<1	<5	<5	<5
1318812	Soil	0.050	6	105	2.06	109	0.136	<20	2.47	<0.01	0.10	<2	<0.05	<1	<5	<5	<5
1318813	Soil	0.101	9	48	0.90	256	0.023	<20	1.51	<0.01	0.06	<2	0.08	<1	<5	<5	<5
1318814	Soil	0.084	7	56	1.13	186	0.041	<20	1.94	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
1318815	Soil	0.074	7	67	1.82	122	0.102	<20	2.13	<0.01	0.09	<2	<0.05	<1	<5	<5	<5
1318816	Soil	0.065	7	67	1.71	170	0.094	<20	2.01	<0.01	0.09	<2	<0.05	<1	<5	<5	5
1318817	Soil	0.081	7	81	2.31	129	0.080	<20	2.66	<0.01	0.09	<2	<0.05	<1	<5	<5	6
1318818	Soil	0.057	7	72	1.67	159	0.064	<20	2.13	<0.01	0.08	<2	<0.05	<1	<5	<5	5
1318819	Soil	0.057	6	85	1.86	157	0.093	<20	2.36	<0.01	0.08	<2	<0.05	<1	<5	<5	6
1318820	Soil	0.064	7	77	1.72	158	0.076	<20	2.24	<0.01	0.08	<2	<0.05	<1	<5	<5	6



QUALITY CONTROL REPORT

WHI18000740.1

Method	Analyte	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																					
1318520	Soil	16	<3	12	4	110	6	103	0.4	51	23	1012	3.84	25	<2	35	1.0	<3	<3	84	0.80
REP 1318520	QC				4	111	5	104	0.5	51	23	1027	3.90	25	<2	35	1.2	<3	<3	84	0.81
1318556	Soil	11	<3	20	4	249	5	165	0.7	65	30	1030	5.62	49	<2	37	1.4	<3	<3	108	0.96
REP 1318556	QC				4	257	5	172	0.8	68	31	1053	5.75	49	<2	38	1.3	<3	<3	109	1.00
1318559	Soil	10	<3	19	5	301	7	120	0.4	54	26	946	4.29	49	<2	46	1.3	<3	<3	84	1.44
REP 1318559	QC	11	<3	18																	
1318592	Soil	10	4	16	4	267	5	113	0.4	46	27	990	4.09	34	<2	31	0.9	<3	<3	69	0.65
REP 1318592	QC				4	251	6	107	0.4	44	26	950	3.95	34	<2	29	0.9	<3	<3	68	0.61
1318594	Soil	10	11	14	2	255	3	120	0.3	42	27	995	3.99	30	<2	39	2.1	<3	<3	78	1.65
REP 1318594	QC	11	5	14																	
1318628	Soil	17	<3	11	3	190	5	104	<0.3	40	21	707	4.15	25	<2	28	<0.5	<3	<3	70	0.49
REP 1318628	QC				3	191	6	104	<0.3	39	21	711	4.21	25	<2	27	<0.5	<3	<3	70	0.49
1318629	Soil	10	5	7	2	98	6	140	0.3	56	21	737	3.89	15	<2	43	1.1	<3	<3	64	1.01
REP 1318629	QC	7	<3	4																	
1318664	Soil	16	4	16	2	249	<3	100	0.6	51	26	838	5.42	10	<2	25	<0.5	<3	<3	105	0.87
REP 1318664	QC	20	<3	21	2	261	<3	103	0.6	53	27	866	5.64	10	<2	25	0.5	<3	<3	106	0.89
1318700	Soil	5	5	15	3	296	4	149	0.8	71	35	1065	6.50	91	<2	52	0.7	<3	<3	136	0.84
REP 1318700	QC				3	289	4	150	0.7	70	36	1091	6.73	92	<2	51	1.0	<3	<3	135	0.83
1318734	Soil	7	<3	9	4	123	6	106	0.4	40	17	693	3.88	19	<2	34	<0.5	<3	<3	66	0.64
REP 1318734	QC	10	<3	9																	
1318736	Soil	7	<3	13	2	181	5	114	<0.3	49	24	895	4.92	70	<2	40	0.6	<3	<3	92	1.05
REP 1318736	QC				2	176	5	112	<0.3	48	23	867	4.79	70	<2	39	0.7	<3	<3	90	1.03
1318769	Soil	8	<3	4	2	115	6	123	<0.3	84	21	679	3.93	14	<2	35	0.6	<3	<3	67	0.64
REP 1318769	QC	10	3	6																	
1318772	Soil	7	<3	7	4	69	7	80	0.3	30	16	711	2.95	14	<2	33	1.1	<3	<3	51	0.54
REP 1318772	QC				4	71	7	79	0.3	30	17	710	2.83	15	<2	34	1.0	<3	<3	50	0.55
1318804	Soil	6	<3	6	2	103	7	81	<0.3	41	18	665	3.31	14	<2	51	<0.5	<3	<3	52	1.15
REP 1318804	QC	10	<3	9																	



QUALITY CONTROL REPORT

WHI18000740.1

Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	
Pulp Duplicates																	
1318520	Soil	0.095	7	93	1.26	155	0.094	<20	1.81	<0.01	0.07	<2	0.07	<1	<5	<5	5
REP 1318520	QC	0.096	8	94	1.28	157	0.095	<20	1.83	<0.01	0.07	<2	0.08	<1	<5	<5	6
1318556	Soil	0.071	10	107	2.21	218	0.115	<20	2.55	<0.01	0.11	<2	0.08	<1	<5	6	7
REP 1318556	QC	0.072	11	109	2.26	224	0.119	<20	2.61	<0.01	0.11	<2	0.08	<1	<5	<5	7
1318559	Soil	0.112	10	68	1.31	182	0.087	<20	1.86	<0.01	0.11	<2	0.14	<1	<5	<5	5
REP 1318559	QC																
1318592	Soil	0.112	9	70	1.11	172	0.058	<20	1.76	<0.01	0.09	<2	0.14	<1	<5	<5	<5
REP 1318592	QC	0.105	9	68	1.07	163	0.056	<20	1.70	<0.01	0.09	<2	0.13	<1	<5	<5	<5
1318594	Soil	0.085	7	66	1.10	151	0.110	<20	1.54	<0.01	0.14	<2	0.11	<1	<5	<5	5
REP 1318594	QC																
1318628	Soil	0.088	6	75	1.23	130	0.053	<20	1.89	<0.01	0.06	<2	0.08	<1	<5	<5	<5
REP 1318628	QC	0.087	6	76	1.24	131	0.053	<20	1.90	<0.01	0.06	<2	0.08	<1	<5	<5	<5
1318629	Soil	0.077	6	69	1.25	125	0.077	<20	1.88	0.01	0.10	<2	<0.05	<1	<5	<5	<5
REP 1318629	QC																
1318664	Soil	0.054	5	93	1.47	73	0.180	<20	1.94	<0.01	0.07	<2	<0.05	<1	<5	<5	10
REP 1318664	QC	0.057	6	95	1.53	76	0.171	<20	2.00	<0.01	0.07	<2	<0.05	<1	<5	<5	11
1318700	Soil	0.039	14	110	2.69	260	0.125	<20	3.06	<0.01	0.10	<2	0.06	<1	<5	7	10
REP 1318700	QC	0.039	13	109	2.74	261	0.128	<20	3.08	<0.01	0.09	<2	0.07	<1	<5	6	10
1318734	Soil	0.090	9	61	1.18	226	0.027	<20	1.93	<0.01	0.05	<2	0.07	<1	<5	6	<5
REP 1318734	QC																
1318736	Soil	0.080	9	71	1.95	145	0.086	<20	2.31	<0.01	0.11	<2	0.06	<1	<5	5	6
REP 1318736	QC	0.078	9	69	1.90	150	0.084	<20	2.24	<0.01	0.10	<2	0.06	<1	<5	6	6
1318769	Soil	0.068	9	86	1.32	208	0.083	<20	2.06	<0.01	0.08	<2	<0.05	<1	<5	<5	6
REP 1318769	QC																
1318772	Soil	0.115	6	47	0.73	170	0.025	<20	1.34	<0.01	0.05	<2	0.08	<1	<5	<5	<5
REP 1318772	QC	0.121	6	50	0.71	175	0.022	<20	1.33	<0.01	0.05	<2	0.08	<1	<5	<5	<5
1318804	Soil	0.092	8	50	0.92	158	0.044	<20	1.64	<0.01	0.07	<2	0.09	<1	<5	<5	<5
REP 1318804	QC																



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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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		FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318806	Soil	8	6	27	3	516	9	131	0.6	59	22	846	5.09	30	<2	38	1.0	<3	<3	93	1.13
REP 1318806	QC				3	527	9	132	0.6	60	22	852	5.06	30	<2	39	0.7	<3	<3	93	1.13
1318816	Soil	9	<3	15	2	130	4	104	<0.3	44	21	870	4.47	48	<2	30	0.9	<3	<3	86	0.74
REP 1318816	QC	11	<3	5																	
1318820	Soil	5	<3	12	2	131	4	111	<0.3	47	23	751	4.76	31	<2	33	0.8	<3	<3	90	0.78
REP 1318820	QC	7	<3	14																	
Reference Materials																					
STD DS11	Standard				14	146	133	352	1.7	77	12	994	3.02	42	7	63	2.3	7	11	48	1.05
STD DS11	Standard				15	158	139	377	1.8	82	13	1083	3.30	45	8	70	2.5	7	12	51	1.15
STD DS11	Standard				14	154	139	368	2.3	81	13	1071	3.24	45	8	70	2.5	7	13	53	1.14
STD DS11	Standard				14	142	127	340	1.5	70	12	996	3.07	41	8	61	2.2	7	11	46	1.02
STD DS11	Standard				14	151	133	357	2.0	77	13	1046	3.20	43	8	68	2.2	7	13	50	1.11
STD DS11	Standard				14	156	132	366	2.1	77	13	1059	3.16	44	8	67	2.3	7	11	50	1.11
STD DS11	Standard				14	155	138	362	1.6	78	13	1034	3.06	45	8	66	2.2	6	11	50	1.09
STD DS11	Standard				14	150	139	355	2.0	78	13	1019	3.10	43	8	65	2.4	7	13	48	1.08
STD DS11	Standard				13	148	131	352	1.8	74	13	989	2.99	43	7	63	2.4	8	12	47	1.04
STD OREAS45EA	Standard				3	671	12	31	0.5	369	49	393	22.21	12	10	3	<0.5	<3	<3	300	0.03
STD OREAS45EA	Standard				3	735	13	34	0.6	404	53	426	25.08	13	11	4	0.7	<3	<3	325	0.03
STD OREAS45EA	Standard				3	749	14	35	0.5	419	54	426	24.98	13	11	4	0.8	<3	<3	337	0.03
STD OREAS45EA	Standard				3	695	12	32	0.5	378	50	406	24.03	11	9	3	<0.5	<3	<3	311	0.03
STD OREAS45EA	Standard				3	757	14	34	0.6	413	53	438	26.02	12	11	4	<0.5	<3	<3	337	0.03
STD OREAS45EA	Standard				3	765	11	37	0.5	418	53	434	26.40	13	11	4	<0.5	<3	<3	338	0.04
STD OREAS45EA	Standard				3	725	12	33	0.6	389	50	419	24.58	12	10	3	<0.5	<3	<3	320	0.03
STD OREAS45EA	Standard				3	690	14	32	0.4	377	49	398	21.69	13	10	4	<0.5	<3	4	303	0.03
STD OREAS45EA	Standard				2	671	14	31	0.5	369	48	391	21.68	11	11	3	<0.5	<3	4	299	0.03
STD PD05	Standard	501	418	588																	
STD PD05	Standard	503	420	615																	
STD PD05	Standard	519	438	620																	
STD PD05	Standard	525	439	635																	



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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

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		AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318806	Soil	0.090	7	73	1.51	69	0.147	<20	1.93	0.01	0.14	<2	<0.05	<1	<5	<5	9
REP 1318806	QC	0.092	7	75	1.52	70	0.142	<20	1.95	0.01	0.14	<2	<0.05	<1	<5	<5	9
1318816	Soil	0.065	7	67	1.71	170	0.094	<20	2.01	<0.01	0.09	<2	<0.05	<1	<5	<5	5
REP 1318816	QC																
1318820	Soil	0.064	7	77	1.72	158	0.076	<20	2.24	<0.01	0.08	<2	<0.05	<1	<5	<5	6
REP 1318820	QC																
Reference Materials																	
STD DS11	Standard	0.065	17	63	0.80	390	0.090	<20	1.13	0.07	0.40	2	0.28	<1	5	<5	<5
STD DS11	Standard	0.077	19	66	0.88	436	0.101	<20	1.25	0.08	0.45	3	0.30	<1	6	<5	<5
STD DS11	Standard	0.075	20	67	0.87	404	0.102	<20	1.26	0.08	0.44	3	0.30	<1	6	<5	<5
STD DS11	Standard	0.064	16	57	0.80	402	0.090	<20	1.09	0.07	0.38	3	0.27	<1	5	<5	<5
STD DS11	Standard	0.069	18	64	0.85	386	0.099	<20	1.23	0.08	0.43	4	0.27	<1	6	<5	<5
STD DS11	Standard	0.069	19	65	0.86	400	0.100	<20	1.23	0.08	0.43	3	0.28	<1	6	<5	<5
STD DS11	Standard	0.070	18	65	0.84	387	0.094	<20	1.18	0.07	0.42	3	0.27	<1	6	<5	<5
STD DS11	Standard	0.072	17	64	0.83	403	0.093	<20	1.16	0.08	0.43	3	0.28	<1	5	<5	<5
STD DS11	Standard	0.067	16	63	0.80	389	0.089	<20	1.11	0.07	0.40	3	0.27	<1	5	<5	<5
STD OREAS45EA	Standard	0.029	8	904	0.10	145	0.102	<20	3.31	0.02	0.06	<2	<0.05	<1	<5	12	83
STD OREAS45EA	Standard	0.033	9	972	0.11	162	0.111	<20	3.76	0.02	0.07	<2	<0.05	<1	<5	11	93
STD OREAS45EA	Standard	0.033	10	1025	0.11	165	0.111	<20	3.80	0.02	0.07	<2	<0.05	<1	<5	26	95
STD OREAS45EA	Standard	0.029	8	912	0.10	147	0.105	<20	3.40	0.02	0.06	<2	<0.05	<1	<5	6	84
STD OREAS45EA	Standard	0.032	8	1007	0.11	163	0.115	<20	3.84	0.02	0.06	<2	<0.05	<1	<5	<5	94
STD OREAS45EA	Standard	0.032	9	1009	0.11	162	0.116	<20	3.76	0.02	0.06	<2	<0.05	<1	<5	<5	95
STD OREAS45EA	Standard	0.030	8	949	0.10	155	0.110	<20	3.44	0.02	0.06	<2	<0.05	<1	<5	8	89
STD OREAS45EA	Standard	0.031	8	911	0.10	149	0.104	<20	3.49	0.02	0.06	<2	<0.05	<1	<5	15	87
STD OREAS45EA	Standard	0.030	8	888	0.10	147	0.101	<20	3.35	0.02	0.06	<2	<0.05	<1	<5	12	83
STD PD05	Standard																
STD PD05	Standard																
STD PD05	Standard																
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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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		FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
STD PD05	Standard	528	438	620																	
STD PD05	Standard	501	429	604																	
STD PD05	Standard	514	443	626																	
STD PG04	Standard	1004	908	1218																	
STD PG04	Standard	1010	941	1222																	
STD PG04	Standard	995	913	1220																	
STD PG04	Standard	986	914	1222																	
STD PG04	Standard	1011	930	1268																	
STD PG04	Standard	979	929	1247																	
STD PG04	Standard	935	885	1219																	
STD PG04	Standard	939	875	1199																	
STD OREAS45EA Expected					1.6	709	14.3	31.4	0.26	381	52	400	22.65	11	10.7	4.05				303	0.036
STD DS11 Expected					13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	7.65	67.3	2.37	7.2	12.2	50	1.063
STD PD05 Expected		519	430	596																	
STD PG04 Expected		1004	903	1196																	
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank	4	<3	3																	
BLK	Blank	3	<3	<2																	
BLK	Blank	2	<3	<2																	
BLK	Blank	2	<3	<2																	
BLK	Blank	2	<3	<2																	



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		AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
STD PD05	Standard																
STD PD05	Standard																
STD PD05	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD OREAS45EA Expected		0.029	7.06	849	0.095	148	0.0984		3.32	0.02	0.053		0.036			12.4	78
STD DS11 Expected		0.0701	18.6	61.5	0.85	417	0.0976	6	1.129	0.0694	0.4	2.9	0.2835	0.3	4.9	4.7	3.1
STD PD05 Expected																	
STD PG04 Expected																	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank																
BLK	Blank																
BLK	Blank																
BLK	Blank																
BLK	Blank																



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		FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
BLK	Blank	3	<3	3																	
BLK	Blank	2	<3	2																	
BLK	Blank	4	<3	2																	
BLK	Blank	3	<3	<2																	
BLK	Blank	3	<3	<2																	
BLK	Blank	3	<3	<2																	
BLK	Blank	3	<3	4																	
BLK	Blank	3	<3	<2																	
BLK	Blank	4	4	3																	
BLK	Blank	2	<3	<2																	
BLK	Blank	<2	<3	<2																	
BLK	Blank	2	<3	<2																	



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		AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
BLK	Blank																
BLK	Blank																
BLK	Blank																
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