



Date Submitted: 20-Jun-11
Invoice No.: A11-5551
Invoice Date: 12-Jul-11
Your Reference: DD-RR

KWG Resources
1158 Russell St.
Thunder Bay Ontario P7B5N2
Canada

ATTN: Lucy Rainovich

CERTIFICATE OF ANALYSIS

13 Soil samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A11-5551

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A11-5551

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
M-2010-5309 12.5-15' #1	< 2	< 0.3	10	0.4	< 1	8	13	21	< 0.01	2.99	1.8	530	< 1	< 2	3.5	8.53	6	53	< 1	0.6	1.82	7	< 1	< 5
M-2010-5309 12.5-15' #2	< 2	< 0.3	11	0.3	< 1	7	13	21	0.01	3.13	< 0.5	390	< 1	< 2	3.8	8.66	6	65	< 1	0.8	1.93	7	< 1	< 5
M-2010-5309 12.5-15' #3	< 2	0.3	9	0.4	< 1	6	12	20	0.01	3.10	< 0.5	480	< 1	< 2	3.2	8.47	6	59	< 1	0.8	2.06	8	< 1	< 5
M-2010-5309 25-30' #1	7	< 0.3	16	0.5	< 1	6	15	24	0.02	3.21	2.5	500	< 1	< 2	3.5	8.48	8	65	< 1	0.8	2.23	8	< 1	< 5
M-2010-5309 25-30' #2	< 2	1.0	17	0.4	< 1	9	15	23	0.02	3.27	< 0.5	310	< 1	< 2	3.8	8.48	6	62	< 1	0.8	2.19	7	< 1	< 5
M-2010-5309 25-30' #3	< 2	0.4	16	0.3	< 1	7	14	23	0.02	3.14	2.8	430	< 1	< 2	3.0	8.31	7	68	< 1	0.9	2.28	7	< 1	< 5
M-2990-15-25' #1	5	0.5	4	0.4	< 1	4	9	14	< 0.01	3.00	1.7	270	< 1	< 2	2.6	6.54	3	41	< 1	0.7	1.41	6	< 1	< 5
M-2990-15-25' #2	< 2	< 0.3	3	< 0.3	< 1	6	10	15	< 0.01	3.16	2.4	260	< 1	< 2	2.9	6.69	3	38	< 1	0.6	1.48	6	< 1	< 5
M-2990-15-25' #3	< 2	0.8	4	< 0.3	< 1	6	9	14	< 0.01	3.22	< 0.5	460	< 1	< 2	3.4	6.99	4	43	< 1	0.7	1.34	7	< 1	< 5
M-2010-2990 2'-10' #1	< 2	0.5	4	< 0.3	< 1	8	11	15	< 0.01	3.29	< 0.5	450	< 1	< 2	2.0	5.80	4	48	< 1	0.7	1.41	7	< 1	< 5
M-2010-2990 2'-10' #2	< 2	< 0.3	4	0.4	< 1	6	10	15	< 0.01	3.33	< 0.5	500	< 1	< 2	< 0.5	5.93	5	37	2	0.7	1.24	5	< 1	< 5
B-2010-4210 #1	< 2	< 0.3	4	< 0.3	< 1	8	12	17	0.05	3.35	3.3	640	1	< 2	< 0.5	6.37	6	60	< 1	< 0.2	1.75	6	< 1	< 5
B-2010-4210 #2	< 2	< 0.3	12	< 0.3	< 1	9	13	20	0.06	3.36	2.4	500	1	< 2	2.6	6.60	6	54	< 1	0.7	1.68	6	< 1	< 5

Activation Laboratories Ltd. Report: A11-5551

Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
M-2010-5309 12.5-15' #1	1.53	9	1.77	333	1.53	0.049	56	< 0.1	6.1	< 3	245	< 0.5	0.19	5.8	< 0.5	33	< 1	11	21.4	38	14	3.5	< 0.01	< 0.5
M-2010-5309 12.5-15' #2	1.59	9	1.81	354	1.52	0.054	48	0.3	6.0	< 3	252	< 0.5	0.24	6.5	2.0	40	< 1	11	21.6	38	17	3.5	< 0.01	0.7
M-2010-5309 12.5-15' #3	1.55	9	1.74	360	1.54	0.058	52	< 0.1	6.2	< 3	253	2.7	0.25	6.7	2.7	47	< 1	11	23.0	38	18	3.8	< 0.01	< 0.5
M-2010-5309 25-30' #1	1.54	10	1.73	419	1.50	0.073	< 15	0.3	6.6	< 3	271	< 0.5	0.31	6.5	< 0.5	61	< 1	14	23.2	44	22	4.0	< 0.01	< 0.5
M-2010-5309 25-30' #2	1.57	10	1.61	394	1.49	0.055	50	< 0.1	6.8	< 3	277	< 0.5	0.19	7.4	2.7	41	< 1	12	24.2	44	14	4.0	< 0.01	< 0.5
M-2010-5309 25-30' #3	1.55	10	1.66	399	1.57	0.062	57	< 0.1	7.0	< 3	260	< 0.5	0.22	7.3	1.5	44	< 1	13	24.3	43	23	4.0	< 0.01	< 0.5
M-2990-15-25' #1	1.47	6	1.29	253	1.56	0.049	< 15	< 0.1	4.7	< 3	250	< 0.5	0.22	4.2	2.7	40	< 1	9	17.5	29	< 5	2.8	< 0.01	< 0.5
M-2990-15-25' #2	1.53	6	1.28	260	1.58	0.044	< 15	< 0.1	4.9	< 3	262	< 0.5	0.23	4.3	< 0.5	42	< 1	10	17.4	30	15	3.1	< 0.01	< 0.5
M-2990-15-25' #3	1.59	6	1.49	268	1.62	0.047	45	< 0.1	4.8	< 3	260	< 0.5	0.22	4.2	1.4	39	< 1	10	18.3	30	15	3.2	< 0.01	< 0.5
M-2010-2990 2'-10' #1	1.64	7	1.13	265	1.71	0.034	71	< 0.1	5.2	< 3	263	< 0.5	0.21	4.6	< 0.5	37	< 1	10	18.2	34	16	3.0	< 0.01	< 0.5
M-2010-2990 2'-10' #2	1.63	8	1.20	249	1.62	0.029	45	< 0.1	4.8	< 3	255	< 0.5	0.19	4.5	< 0.5	31	< 1	9	15.8	31	10	2.6	< 0.01	< 0.5
B-2010-4210 #1	1.55	7	1.05	286	1.82	0.041	70	< 0.1	5.5	< 3	279	< 0.5	0.19	5.1	< 0.5	42	< 1	9	18.5	36	14	3.0	< 0.01	< 0.5
B-2010-4210 #2	1.54	7	1.16	337	1.79	0.043	36	< 0.1	5.5	< 3	292	< 0.5	0.19	4.6	< 0.5	42	< 1	11	18.0	35	15	3.0	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
M-2010-5309 12.5-15' #1	1.3	0.21	41.5
M-2010-5309 12.5-15' #2	1.2	0.23	42.7
M-2010-5309 12.5-15' #3	1.3	0.29	39.9
M-2010-5309 25-30' #1	1.3	0.24	40.7
M-2010-5309 25-30' #2	1.2	0.24	42.7
M-2010-5309 25-30' #3	1.4	0.08	39.8
M-2990-15-25' #1	1.0	0.16	44.1
M-2990-15-25' #2	1.0	0.20	42.8
M-2990-15-25' #3	1.2	0.16	44.2
M-2010-2990 2'-10' #1	0.9	0.22	40.3
M-2010-2990 2'-10' #2	1.1	0.05	44.0
B-2010-4210 #1	0.8	0.21	41.1
B-2010-4210 #2	0.9	0.16	43.4

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.6		1150	4.1	18	726	44		737		0.24	1.57			1	1390							0.87
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380							0.960
GXR-4 Meas		3.4		6110	0.6	327	40	44		72		1.82	4.64			2	12							1.04
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0							1.01
SDC-1 Meas		< 0.3		29	0.6	< 1	23	41		104		0.07	5.83			3	< 2							1.11
SDC-1 Cert		0.0410		30.0	0.0800	0.250	25.0	38.0		103		0.0650	8.34			3.00	2.60							1.00
SCO-1 Meas		0.3		27	0.5	< 1	24	31		98			4.37			2	< 2							1.83
SCO-1 Cert		0.134		28.7	0.140	1.37	31.0	27.0		103			7.24			1.84	0.370							1.87
GXR-6 Meas		0.6		68	0.5	< 1	92	30		135		0.01	8.94			1	< 2							0.18
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290							0.180
DNC-1a Meas				95				265		56														
DNC-1a Cert				100				247		70.0														
OREAS 13b (4-Acid) Meas		0.9		2250		8		2270		106		1.14												
OREAS 13b (4-Acid) Cert		0.86		2300.000		9.0		2247		133		1.20												
DMMAS 112 Meas	1750													1800	1200					43	84			3.55
DMMAS 112 Cert	1721													1862	1288					43	80			3.34
Method Blank Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01
Method Blank Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		2		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					

Activation Laboratories Ltd. Report: A11-5551

Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.04	8	0.21	1060		0.058					291					94					28
GXR-1 Cert				0.0500	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-4 Meas				4.22	11	1.75	151		0.133					219					96					14
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
SDC-1 Meas				2.93	37	1.08	929		0.056					180	0.13				41					35
SDC-1 Cert				2.72	34.0	1.02	883		0.0690					183	0.606				102					40.0
SCO-1 Meas				2.33	44	1.52	398		0.082					152	0.36				139					16
SCO-1 Cert				2.30	45.0	1.64	410		0.0900					174	0.380				131					26.0
GXR-6 Meas				1.94	35	0.63	1140		0.037					41					156					14
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
DNC-1a Meas					5									132					150					15
DNC-1a Cert					5.20									144					148					18.0
OREAS 13b (4-Acid) Meas																								
OREAS 13b (4-Acid) Cert																								
DMMAS 112 Meas								2.04				7.4						18.5				17.3		23
DMMAS 112 Cert								2.05				7.17						17.84				15.92		26.56
Method Blank Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5
Method Blank Method Blank				< 0.01	< 1	< 0.01	15		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank Method Blank				< 0.01	< 1	< 0.01	1		< 0.001					< 1		< 0.01			< 2					< 1

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
OREAS 13b (4-Acid) Meas						
OREAS 13b (4-Acid) Cert						
DMMAS 112 Meas	2.9					
DMMAS 112 Cert	2.34					
Method Blank Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.0
Method Blank Method Blank						
Method Blank Method Blank						
Method Blank Method Blank						



Date Submitted: 27-Sep-11
Invoice No.: A11-11078 (i)
Invoice Date: 08-Nov-11
Your Reference: DD-RR

KWG Resources
1158 Russell St.
Thunder Bay Ontario P7B5N2
Canada

ATTN: Lucy Rainovich

CERTIFICATE OF ANALYSIS

72 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A11-11078 (i)

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

NO sample # 55 as per customer.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



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Activation Laboratories Ltd. Report: A11-11078 (i) rev 2

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
R-2010-7380 (4'-5.5')	<2	<0.3	12	<0.3	<1	7	10	18	0.01	2.46	2.4	350	<1	<2	2.5	10.6	5	27	<1	0.5	1.05	5	<1	<5
B-2010-7570 84.6	<2	0.4	10	0.3	<1	7	16	22	0.04	2.59	3.0	460	<1	<2	2.7	10.2	6	46	<1	0.6	1.45	6	<1	<5
R-2010-7625 340.6	<2	<0.3	6	0.3	<1	7	13	21	0.01	2.59	2.2	430	<1	<2	2.7	11.3	4	27	<1	0.4	1.11	3	<1	<5
R-2010-7685-F-A-8 19.0	<2	0.5	14	<0.3	1	10	22	29	0.01	3.16	1.8	490	1	<2	2.9	8.38	7	52	<1	0.9	2.61	6	<1	<5
R-2010-7688 6.02	<2	<0.3	6	<0.3	<1	10	19	29	0.04	3.07	4.8	600	1	<2	2.5	9.07	6	46	<1	1.1	1.54	2	<1	<5
R-2010-7696 73.9	<2	0.5	7	0.3	<1	8	11	19	0.01	2.43	1.2	560	<1	<2	3.1	10.6	4	46	2	0.9	1.39	9	<1	<5
C-7710 6.6	7	0.4	35	0.4	<1	16	30	43	0.48	2.78	26.0	600	<1	<2	5.4	12.0	7	74	2	0.8	2.38	6	<1	<5
R-2010-7800 8.89	<2	0.3	25	0.4	<1	10	37	74	0.12	3.67	4.6	560	1	<2	<0.5	9.25	12	76	3	1.0	3.83	4	<1	<5
R-2010-8031 44.1	<2	<0.3	18	0.3	<1	16	30	42	0.01	3.21	2.6	450	1	<2	3.2	9.65	10	65	<1	1.0	2.12	6	<1	<5
R-2010-8070 46.9	<2	<0.3	6	<0.3	<1	9	12	22	<0.01	2.78	1.3	430	1	<2	3.1	8.30	3	41	<1	0.8	1.49	8	<1	<5
R-2010-1980 107.0	<2	<0.3	36	0.3	<1	12	24	55	0.02	3.12	4.3	550	1	<2	3.1	11.5	7	43	<1	0.6	2.07	3	<1	<5
R-2010-3830 23.0	<2	<0.3	33	0.3	<1	15	30	48	0.05	3.22	3.0	470	1	<2	3.2	9.76	7	68	3	0.9	3.50	5	<1	<5
R-2010-5100 TOP (3.5'-5.5')	5	<0.3	18	<0.3	<1	8	9	22	<0.01	2.63	2.4	380	<1	<2	2.4	8.97	4	31	<1	0.5	1.18	3	<1	<5
R-2010-1770-3 109.5	<2	<0.3	21	<0.3	<1	10	17	24	<0.01	2.82	2.1	450	<1	<2	2.7	9.55	5	31	<1	0.6	1.33	4	<1	<5
R-2010-2390 29.78	10	0.3	35	0.4	<1	14	47	72	0.03	3.81	6.2	570	2	<2	3.9	9.03	17	116	3	0.6	5.50	3	<1	<5
R-2010-6000 17.02	<2	<0.3	17	0.5	<1	9	22	31	0.01	2.66	2.2	400	<1	<2	<0.5	8.51	6	42	<1	0.7	5.93	2	<1	<5
R-2010-4190-6 31.79	<2	<0.3	25	0.4	1	8	21	26	0.14	2.18	6.2	440	<1	<2	2.2	10.7	6	49	<1	0.5	6.90	2	<1	<5
R-2010-7200 28.78	24	<0.3	56	0.5	2	32	67	38	0.01	2.86	8.6	530	1	<2	2.6	6.84	42	75	2	1.0	9.52	2	<1	<5
R-2010-7220 7.30	<2	<0.3	33	1.7	4	13	33	28	0.03	1.53	4.1	390	<1	3	5.2	5.37	8	73	<1	<0.2	20.7	2	<1	<5
R-2010-6070 42.04	<2	0.3	33	0.7	1	103	78	68	0.02	3.96	32.7	700	2	<2	3.5	5.74	56	99	3	1.8	8.16	3	<1	<5
R-2010-3589-C 41.98	<2	0.5	36	0.4	<1	12	41	53	0.05	3.36	4.4	540	1	<2	3.8	8.50	12	113	2	0.8	6.44	3	<1	<5
R-2010-1970-6 40.15	<2	<0.3	15	<0.3	<1	11	30	30	0.01	2.88	4.2	480	1	<2	<0.5	10.8	20	66	2	0.5	2.67	2	<1	<5
R-2010-3420 33.33	<2	<0.3	20	0.3	<1	14	35	47	0.03	3.55	3.8	400	1	<2	3.1	10.8	10	91	2	0.6	2.24	2	<1	<5
R-2010-6250 10.17	6	<0.3	33	0.8	4	11	42	41	0.19	2.92	14.1	540	1	4	<0.5	12.2	10	70	2	0.6	9.12	2	<1	<5
R-2010-7430 196.8	<2	<0.3	9	<0.3	<1	10	13	18	0.02	2.63	2.3	370	<1	<2	2.4	11.9	3	22	<1	0.4	1.45	<1	<1	<5
R-2010-7030 67.3	<2	<0.3	29	0.5	<1	9	33	40	0.01	3.66	3.2	510	1	<2	2.5	10.9	8	70	2	0.6	4.19	2	<1	<5
R-2010-1860-7 107.7	<2	<0.3	10	<0.3	<1	9	15	21	0.04	2.61	2.1	480	<1	<2	2.7	9.72	4	40	<1	0.5	1.91	4	<1	<5
R-2010-3400 47.42	<2	<0.3	30	0.5	<1	10	44	74	0.03	3.79	4.6	520	1	<2	<0.5	10.9	14	78	4	0.9	3.72	3	<1	<5
R-2010-1900 90.34	<2	0.4	15	0.4	<1	7	20	33	0.04	2.86	2.0	450	<1	<2	2.4	10.9	5	43	<1	0.5	2.60	4	<1	<5
R-2010-2410 21.36	<2	0.4	33	0.4	<1	14	46	75	0.03	4.18	5.4	450	2	<2	2.2	8.12	14	67	3	0.8	3.52	3	<1	<5
R-2010-3228 1.72	<2	0.4	13	0.4	<1	11	21	22	0.28	3.12	6.1	410	<1	<2	2.3	7.61	8	48	<1	0.9	2.46	8	<1	<5
R-2010-3489-C 15.58	<2	0.4	39	0.4	<1	15	60	95	0.02	4.45	6.2	650	2	<2	<0.5	8.71	19	101	5	0.8	4.92	3	<1	<5
R-2010-6150 1.84	<2	0.4	22	0.4	<1	9	25	36	0.06	3.22	3.4	540	1	<2	2.1	8.41	8	47	2	0.7	2.43	4	<1	<5
R-2010-6170 10.61	<2	0.3	18	0.4	<1	14	33	33	0.01	3.31	3.9	400	1	<2	3.5	9.31	14	43	2	0.8	2.01	4	<1	<5
R-2010-3479 19.86	<2	0.5	39	0.4	<1	16	62	98	0.02	4.74	5.5	540	2	<2	1.5	8.38	18	92	5	0.7	3.98	3	<1	<5
R-2010-1060-5 221.9	<2	<0.3	7	<0.3	<1	9	14	18	0.02	3.08	1.5	550	<1	<2	2.4	8.06	3	29	<1	0.5	1.19	5	<1	<5
R-2010-1890-6 33.2	<2	0.4	12	<0.3	1	6	16	23	0.04	2.58	1.4	410	<1	<2	3.9	10.3	5	44	<1	0.8	1.50	7	<1	<5
B-2010-1920-4 66.0	<2	<0.3	11	0.3	1	9	16	24	0.05	2.97	2.0	550	<1	<2	2.7	10.2	4	43	<1	0.5	1.78	2	<1	<5
B-2010-1970-6 BOTTOM 30.4	<2	0.3	18	<0.3	<1	12	24	39	0.03	3.11	2.2	470	1	<2	3.3	11.2	9	57	2	0.6	2.15	5	<1	<5
R-2010-2000 21.08	<2	0.3	43	0.3	<1	7	19	42	0.05	2.46	1.8	410	<1	<2	3.5	13.6	5	32	<1	0.5	2.38	3	<1	<5
R-2010-2110 77.0	<2	<0.3	37	0.5	<1	24	50	87	0.02	4.25	3.1	610	2	<2	2.5	9.71	14	73	3	0.8	3.38	3	<1	<5
B-2010-2200 141.5	<2	<0.3	7	<0.3	2	14	11	17	0.03	3.24	1.3	430	<1	<2	2.5	8.33	3	26	<1	0.5	1.07	5	<1	<5
R-2010-2340 120.0	<2	0.4	20	0.4	<1	15	30	43	0.01	3.75	4.8	430	1	<2	2.6	9.81	9	46	2	0.6	2.52	3	<1	<5
R-2010-2370 18.1	<2	<0.3	39	0.5	<1	22	69	88	0.01	4.84	7.6	640	2	<2	<0.5	8.00	25	99	5	1.1	4.63	5	<1	<5
C-2010-2839 135.7	<2	<0.3	11	<0.3	<1	11	20	24	<0.01	3.10	2.5	550	1	<2	2.5	9.22	9	41	<1	0.6	1.38	3	<1	<5
R-2010-2929B 21.2	<2	0.4	34	0.4	<1	9	63	99	0.01	4.28	3.6	570	2	<2	1.9	4.19	21	126	4	1.3	5.97	5	<1	<5
R-2010-3113 178.4	<2	<0.3	9	<0.3	<1	9	18	28	<0.01	3.12	<0.5	440	1	<2	2.4	8.94	6	54	2	0.6	1.68	5	<1	<5
C-2010-3123-B 242.68	<2	0.5	61	0.4	<1	20	55	98	0.01	4.23	7.4	650	2	<2	<0.5	9.75	18	90	4	0.8	4.35	3	<1	<5
B-2010-3225-C 132.1	5	0.3	6	<0.3	<1	8	11	15	0.07	2.92	3.5	430	<1	<2	2.4	8.07	4	29	<1	0.5	1.04	4	<1	<5

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Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
R-2010-3276-C 9.15	< 2	< 0.3	12	< 0.3	< 1	8	18	21	< 0.01	3.19	< 0.5	460	1	< 2	3.0	8.50	4	38	< 1	0.3	1.92	2	< 1	< 5
R-2010-3420 0.4	< 2	0.4	41	0.6	< 1	19	64	97	0.02	4.71	5.8	520	2	< 2	3.1	9.64	20	108	4	0.9	5.83	4	< 1	< 5
R-2010-3400 11.24	< 2	< 0.3	32	0.4	< 1	15	49	81	0.02	4.08	4.2	670	2	< 2	3.1	11.5	17	114	4	0.7	3.79	3	< 1	< 5
R-2010-3588-C 23.0	< 2	0.4	39	0.4	< 1	15	46	60	0.04	3.72	3.3	450	1	< 2	2.4	9.99	13	88	3	0.5	5.75	5	< 1	< 5
R-2010-4250 7.72	< 2	0.7	39	0.4	< 1	15	61	99	0.03	4.89	7.1	720	2	< 2	2.5	9.29	17	130	5	0.9	4.24	4	< 1	< 5
R-2010-5100 BOTTOM 10.5-do not run																								
R-2010-5152 129.9	< 2	< 0.3	14	< 0.3	< 1	11	21	31	0.01	3.39	2.0	570	1	< 2	2.1	10.9	5	34	< 1	0.6	1.33	4	< 1	< 5
R-2010-5172 35.2	< 2	0.5	17	< 0.3	< 1	9	16	26	< 0.01	3.20	0.8	520	< 1	< 2	2.6	8.59	5	43	< 1	0.8	1.45	7	< 1	< 5
R-2010-5269 133.5	< 2	< 0.3	11	0.3	< 1	11	20	28	< 0.01	3.38	1.8	460	1	< 2	2.2	7.92	6	37	< 1	0.6	1.69	3	< 1	< 5
R-2010-5288 19.6	< 2	< 0.3	2	< 0.3	< 1	8	12	19	< 0.01	3.27	0.9	500	1	< 2	2.0	1.46	3	22	< 1	0.6	0.73	< 1	< 1	< 5
R-2010-5340 49.7	< 2	< 0.3	34	0.5	< 1	16	58	93	0.01	4.54	4.2	580	2	< 2	2.0	8.96	18	94	4	0.8	4.12	3	< 1	< 5
R-2010-5381 57.3	< 2	< 0.3	30	0.3	< 1	17	43	49	0.02	3.35	3.7	600	1	< 2	3.6	10.0	18	55	3	0.7	2.56	3	< 1	< 5
R-2010-5470 14.23	< 2	< 0.3	8	< 0.3	1	9	16	22	0.02	3.04	1.4	390	1	< 2	2.6	9.60	5	30	< 1	0.4	1.26	2	< 1	< 5
R-2010-5500 145.2	< 2	< 0.3	6	< 0.3	< 1	9	12	19	0.02	2.62	2.3	460	< 1	< 2	2.6	11.2	4	31	< 1	0.5	1.09	6	< 1	< 5
C-2010-5600 2.5	< 2	< 0.3	11	< 0.3	< 1	8	16	26	0.35	2.85	8.2	420	< 1	< 2	2.8	10.7	5	45	2	0.8	1.64	6	< 1	< 5
R-2010-5950 79.5	4	< 0.3	9	< 0.3	< 1	13	15	21	< 0.01	2.93	2.2	510	< 1	< 2	2.2	7.49	5	39	2	0.5	1.39	5	< 1	< 5
R-2010-6000 .52	2	< 0.3	57	0.6	2	13	53	56	0.02	3.24	7.7	660	1	< 2	< 0.5	9.09	17	125	3	0.7	9.12	3	< 1	< 5
R-2010-6030 28.4	< 2	0.5	27	< 0.3	< 1	15	43	39	0.01	3.06	3.7	400	1	< 2	2.6	9.75	20	61	2	0.9	3.78	4	< 1	< 5
R-2010-6130 9.04	< 2	< 0.3	8	0.5	1	34	32	49	< 0.01	3.56	7.4	700	2	< 2	2.2	1.29	35	56	< 1	1.0	3.51	2	< 1	< 5
R-2010-6610 11.8	2	< 0.3	10	0.4	< 1	9	14	33	< 0.01	3.33	1.4	630	1	< 2	2.5	5.62	5	44	< 1	0.8	1.19	5	< 1	< 5
R-2010-7380 (5-7)	< 2	< 0.3	7	< 0.3	< 1	4	8	13	0.01	2.38	1.1	540	< 1	< 2	2.6	10.1	3	27	< 1	0.6	1.11	6	< 1	< 5
R-2010-7390 8.77	< 2	< 0.3	13	< 0.3	1	8	15	23	0.01	2.65	1.0	410	< 1	< 2	2.8	9.58	4	29	2	0.5	1.56	4	< 1	< 5
R-2010-8031 108.9	< 2	< 0.3	7	< 0.3	< 1	9	12	16	< 0.01	2.83	1.4	590	< 1	< 2	2.0	8.19	3	29	< 1	0.5	1.11	3	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA
R-2010-7380 (4'-5.5')	1.27	11	1.93	338	1.20	0.028	49	< 0.1	3.7	< 3	214	< 0.5	0.14	5.1	1.5	26	6	8	16.1	31	13	2.4	< 0.01	< 0.5
B-2010-7570 84.6	1.50	11	1.97	359	1.31	0.044	46	0.3	4.5	< 3	217	< 0.5	0.19	5.4	< 0.5	34	3	9	17.9	35	13	2.8	< 0.01	0.5
R-2010-7625 340.6	1.32	11	1.43	266	1.27	0.025	< 15	0.2	3.8	< 3	220	< 0.5	0.15	4.8	< 0.5	29	3	7	14.6	24	16	2.1	< 0.01	< 0.5
R-2010-7685-F-A-8 19.0	1.63	15	1.60	503	1.46	0.045	38	< 0.1	5.8	< 3	239	< 0.5	0.21	5.6	< 0.5	45	90	10	21.4	53	20	2.8	< 0.01	< 0.5
R-2010-7688 6.02	1.51	13	1.09	285	1.77	0.048	< 15	0.3	5.0	< 3	263	< 0.5	0.14	6.0	1.7	31	< 1	9	22.0	52	22	4.6	< 0.01	< 0.5
R-2010-7696 73.9	1.51	9	2.13	299	1.66	0.047	55	0.3	5.3	< 3	208	< 0.5	0.21	7.1	0.9	33	10	9	24.2	42	19	3.7	< 0.01	< 0.5
C-7710 6.6	1.85	21	2.49	447	1.22	0.049	61	0.4	7.0	< 3	199	1.7	0.23	10.6	1.3	50	131	11	24.4	52	19	3.6	< 0.01	< 0.5
R-2010-7800 8.89	2.02	34	2.18	468	1.18	0.054	81	0.4	8.9	< 3	191	< 0.5	0.25	9.5	1.4	70	5	12	30.4	75	20	3.4	< 0.01	< 0.5
R-2010-8031 44.1	1.83	22	2.18	592	1.22	0.042	69	< 0.1	7.1	< 3	206	< 0.5	0.15	7.7	< 0.5	34	3	11	25.5	64	20	3.2	< 0.01	< 0.5
R-2010-8070 46.9	1.50	9	1.33	271	1.43	0.027	< 15	< 0.1	4.6	< 3	228	< 0.5	0.15	5.8	0.9	28	5	10	21.0	50	17	2.6	< 0.01	< 0.5
R-2010-1980 107.0	1.76	22	2.41	461	1.18	0.045	41	0.3	5.5	< 3	219	< 0.5	0.18	6.9	1.3	44	4	10	20.0	36	17	2.8	< 0.01	< 0.5
R-2010-3830 23.0	1.76	25	1.90	495	1.22	0.045	58	0.4	6.8	< 3	210	< 0.5	0.20	6.4	< 0.5	53	12	10	23.4	58	17	2.8	< 0.01	0.8
R-2010-5100 TOP (3.5'-5.5')	2.20	10	1.77	249	1.32	0.033	37	< 0.1	4.0	< 3	215	1.3	0.18	5.8	1.2	29	36	9	16.4	27	17	2.4	< 0.01	< 0.5
R-2010-1770-3 109.5	1.56	11	1.88	408	1.33	0.039	23	0.2	4.1	< 3	235	< 0.5	0.16	4.9	0.7	32	< 1	9	16.3	31	14	2.5	< 0.01	< 0.5
R-2010-2390 29.78	1.99	43	1.94	639	1.14	0.045	65	0.5	10.9	< 3	195	1.4	0.25	16.6	2.4	82	6	11	31.1	68	21	3.8	< 0.01	< 0.5
R-2010-6000 17.02	1.40	15	1.06	491	1.27	0.022	< 15	< 0.1	4.5	< 3	202	< 0.5	0.10	5.6	< 0.5	31	< 1	6	14.1	40	21	1.9	< 0.01	< 0.5
R-2010-4190-6 31.79	1.21	12	1.53	546	1.21	0.025	67	0.5	4.2	< 3	191	< 0.5	0.12	5.3	< 0.5	29	< 1	6	13.6	27	11	2.0	< 0.01	< 0.5
R-2010-7200 28.78	1.48	19	1.15	2940	1.28	0.034	82	0.6	6.6	< 3	185	< 0.5	0.18	13.8	< 0.5	61	5	11	31.9	141	22	4.2	< 0.01	< 0.5
R-2010-7220 7.30	0.80	6	0.66	941	0.91	0.016	< 15	0.7	3.5	< 3	136	< 0.5	0.08	3.5	< 0.5	22	139	4	8.1	28	< 5	1.6	< 0.01	< 0.5
R-2010-6070 42.04	2.11	35	1.73	4350	1.27	0.081	82	0.6	9.7	< 3	190	< 0.5	0.29	38.2	< 0.5	159	< 1	23	83.3	329	60	10.9	< 0.01	< 0.5
R-2010-3589-C 41.98	1.68	29	1.61	665	1.25	0.036	62	0.3	8.6	< 3	201	< 0.5	0.21	13.2	< 0.5	69	5	9	24.4	55	20	3.4	< 0.01	< 0.5
R-2010-1970-6 40.15	1.48	15	1.35	1350	1.47	0.029	71	0.4	5.1	< 3	229	< 0.5	0.14	7.7	0.9	39	< 1	7	19.4	46	12	2.5	< 0.01	< 0.5
R-2010-3420 33.33	1.87	28	1.78	468	1.34	0.039	72	0.2	6.8	< 3	235	< 0.5	0.12	9.2	< 0.5	34	8	9	20.7	47	21	2.6	< 0.01	< 0.5
R-2010-6250 10.17	1.67	25	1.84	562	1.02	0.038	50	0.6	5.9	< 3	192	< 0.5	0.19	8.6	1.1	50	9	8	18.9	43	13	2.6	< 0.01	< 0.5
R-2010-7430 196.8	1.26	9	1.10	278	1.19	0.021	< 15	0.2	2.9	< 3	254	< 0.5	0.11	2.6	0.5	23	13	5	11.2	31	9	1.2	< 0.01	< 0.5
R-2010-7030 67.3	1.84	26	1.73	522	1.38	0.038	78	0.4	6.1	< 3	258	< 0.5	0.22	8.4	< 0.5	57	3	9	18.4	41	13	2.5	< 0.01	< 0.5
R-2010-1860-7 107.7	1.42	9	1.67	344	1.42	0.037	24	0.3	4.1	< 3	223	< 0.5	0.17	4.8	1.1	38	9	7	15.7	28	14	2.4	< 0.01	< 0.5
R-2010-3400 47.42	2.13	44	2.50	622	1.11	0.053	93	0.4	9.4	< 3	195	< 0.5	0.28	12.2	1.8	84	3	13	32.2	56	20	4.2	< 0.01	< 0.5
R-2010-1900 90.34	1.55	15	2.06	415	1.29	0.060	43	0.2	4.6	< 3	229	< 0.5	0.20	5.4	1.1	44	2	9	17.0	29	16	2.5	< 0.01	< 0.5
R-2010-2410 21.36	2.21	45	2.17	616	1.27	0.054	106	0.4	9.3	< 3	208	< 0.5	0.26	13.3	2.0	80	6	13	31.5	58	24	4.2	< 0.01	< 0.5
R-2010-3228 1.72	1.68	10	1.82	395	1.45	0.061	< 15	0.3	4.9	< 3	259	< 0.5	0.25	4.0	1.1	44	< 1	11	17.8	42	15	2.5	< 0.01	< 0.5
R-2010-3489-C 15.58	2.24	56	2.20	808	1.02	0.060	116	0.4	12.1	< 3	165	< 0.5	0.28	16.2	1.9	100	< 1	14	38.1	67	34	4.8	< 0.01	< 0.5
R-2010-6150 1.84	1.81	19	1.82	322	1.43	0.048	47	< 0.1	5.5	< 3	220	1.0	0.20	7.1	< 0.5	46	11	9	19.8	38	19	2.9	< 0.01	0.7
R-2010-6170 10.61	1.80	20	2.20	1050	1.27	0.050	56	0.3	6.1	< 3	212	< 0.5	0.21	8.4	< 0.5	51	2	14	27.4	54	24	3.9	< 0.01	< 0.5
R-2010-3479 19.86	2.54	60	2.55	717	1.18	0.059	93	0.3	11.1	< 3	204	< 0.5	0.33	15.6	2.2	111	9	16	36.5	68	30	4.6	< 0.01	0.8
R-2010-1060-5 221.9	1.57	7	1.50	276	1.70	0.048	< 15	< 0.1	4.2	< 3	262	< 0.5	0.18	4.7	< 0.5	33	2	9	16.0	31	12	2.5	< 0.01	< 0.5
R-2010-1890-6 33.2	1.51	12	2.29	410	1.22	0.048	36	< 0.1	4.8	< 3	223	< 0.5	0.21	5.3	1.1	39	8	9	18.2	46	12	2.4	< 0.01	< 0.5
B-2010-1920-4 66.0	1.65	12	1.64	342	1.44	0.036	39	0.3	4.3	< 3	253	< 0.5	0.16	4.3	1.0	36	29	8	15.7	29	14	2.3	< 0.01	< 0.5
B-2010-1970-6 BOTTOM 30.4	1.78	22	2.44	419	1.25	0.051	66	0.3	6.5	< 3	225	< 0.5	0.21	6.7	0.7	50	14	10	23.6	62	17	2.8	< 0.01	< 0.5
R-2010-2000 21.08	1.53	14	3.41	396	1.05	0.045	< 15	< 0.1	4.1	< 3	212	< 0.5	0.19	4.6	0.9	35	5	9	15.9	30	12	2.5	< 0.01	< 0.5
R-2010-2110 77.0	2.38	50	2.34	622	1.13	0.053	83	0.3	9.2	< 3	202	< 0.5	0.23	12.2	0.9	73	9	14	30.0	54	22	4.1	< 0.01	< 0.5
B-2010-2200 141.5	1.74	7	1.56	275	1.77	0.048	< 15	0.2	3.9	< 3	295	< 0.5	0.18	3.7	1.4	36	< 1	8	14.5	26	15	2.2	< 0.01	< 0.5
R-2010-2340 120.0	2.20	29	2.06	574	1.27	0.053	54	0.3	6.0	< 3	239	< 0.5	0.23	6.8	1.1	63	3	11	20.3	35	16	2.8	< 0.01	< 0.5
R-2010-2370 18.1	2.62	58	2.29	1150	0.99	0.058	108	0.4	11.6	< 3	200	< 0.5	0.34	14.6	1.5	115	8	15	37.1	99	27	4.0	< 0.01	< 0.5
C-2010-2839 135.7	1.80	14	1.64	532	1.46	0.042	43	0.3	4.7	< 3	245	< 0.5	0.19	4.8	< 0.5	43	8	9	16.0	30	12	2.4	< 0.01	< 0.5
R-2010-2929B 21.2	1.95	58	2.10	563	1.03	0.055	117	0.5	13.3	< 3	171	< 0.5	0.33	14.1	1.3	118	5	13	35.9	90	28	4.0	< 0.01	< 0.5
R-2010-3113 178.4	1.73	16	1.50	332	1.42	0.043	31	0.3	5.1	< 3	241	< 0.5	0.20	5.5	1.3	44	< 1	9	17.6	31	16	2.6	< 0.01	< 0.5
C-2010-3123-B 242.68	2.37	55	2.40	790	0.99	0.053	101	0.4	10.8	< 3	187	< 0.5	0.23	15.0	2.0	77	4	14	34.4	66	24	4.6	< 0.01	< 0.5
B-2010-3225-C 132.1	1.65	7	1.50	241	1.59	0.038	34	0.2	3.7	< 3	268	< 0.5	0.17	3.8	1.4	31	3	7	14.2	25	10	2.2	< 0.01	< 0.5
R-2010-3276-C 9.15	1.65	12	1.09	262	1.62	0.025	48	< 0.1	4.3	< 3	270	< 0.5	0.14											

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
R-2010-3420 0.4	2.55	61	2.50	913	0.92	0.054	75	0.3	11.4	< 3	209	< 0.5	0.23	12.7	2.5	98	12	15	35.1	88	25	3.6	< 0.01	< 0.5
R-2010-3400 11.24	2.34	51	2.70	637	1.10	0.053	76	0.3	11.9	< 3	199	< 0.5	0.25	18.6	1.8	78	< 1	14	36.1	80	28	4.5	< 0.01	< 0.5
R-2010-3588-C 23.0	2.06	36	1.96	780	1.08	0.052	90	0.4	8.4	< 3	238	< 0.5	0.26	8.5	1.9	78	5	12	26.6	69	20	2.9	< 0.01	< 0.5
R-2010-4250 7.72	2.75	64	2.62	757	1.15	0.060	140	0.4	12.9	< 3	203	< 0.5	0.34	21.9	1.5	112	8	16	40.9	93	27	5.1	< 0.01	0.6
R-2010-5100 BOTTOM 10.5-do not run																								
R-2010-5152 129.9	1.98	17	1.96	380	1.33	0.052	43	< 0.1	4.7	< 3	273	< 0.5	0.11	5.9	< 0.5	27	< 1	11	18.3	34	12	2.8	< 0.01	< 0.5
R-2010-5172 35.2	1.76	12	1.43	363	1.52	0.066	49	< 0.1	5.5	< 3	264	< 0.5	0.24	6.2	0.9	46	5	11	19.7	51	20	2.7	< 0.01	< 0.5
R-2010-5269 133.5	1.81	15	1.31	333	1.53	0.044	37	< 0.1	4.8	< 3	263	< 0.5	0.19	5.6	0.9	44	14	9	16.8	31	17	2.5	< 0.01	< 0.5
R-2010-5288 19.6	1.81	8	0.43	164	1.72	0.028	50	< 0.1	3.0	< 3	280	< 0.5	0.10	1.4	0.7	23	5	5	10.6	27	10	1.6	< 0.01	< 0.5
R-2010-5340 49.7	2.54	58	2.38	679	1.04	0.050	87	0.4	11.3	< 3	187	< 0.5	0.19	15.6	2.0	63	5	15	34.6	64	26	4.6	< 0.01	< 0.5
R-2010-5381 57.3	1.96	28	2.09	1300	1.14	0.047	59	0.4	6.5	< 3	203	< 0.5	0.20	8.8	1.4	56	12	11	23.7	57	19	3.3	< 0.01	< 0.5
R-2010-5470 14.23	1.64	13	1.14	258	1.42	0.024	54	< 0.1	4.0	< 3	243	< 0.5	0.13	4.1	< 0.5	32	< 1	6	13.9	33	9	1.6	< 0.01	< 0.5
R-2010-5500 145.2	1.46	9	1.82	324	1.23	0.038	28	< 0.1	3.8	< 3	239	< 0.5	0.14	5.7	1.0	24	< 1	8	16.0	29	14	2.4	< 0.01	< 0.5
C-2010-5600 2.5	1.72	13	2.01	331	1.29	0.057	48	0.2	4.7	< 3	238	< 0.5	0.19	5.0	1.1	37	10	9	20.0	53	15	2.6	< 0.01	< 0.5
R-2010-5950 79.5	1.69	12	1.36	276	1.45	0.038	38	0.2	4.6	< 3	229	< 0.5	0.16	5.4	0.8	33	3	8	17.3	30	17	2.6	< 0.01	< 0.5
R-2010-6000 .52	1.81	32	1.75	741	1.10	0.043	< 15	0.8	8.8	< 3	180	< 0.5	0.21	14.6	< 0.5	66	6	10	26.4	64	21	3.4	< 0.01	< 0.5
R-2010-6030 28.4	1.81	24	1.76	1380	1.19	0.047	< 15	0.3	7.1	< 3	208	< 0.5	0.24	8.2	1.4	61	24	11	26.5	76	18	3.1	< 0.01	< 0.5
R-2010-6130 9.04	2.04	18	0.56	3330	1.54	0.022	84	0.2	5.3	< 3	214	< 0.5	0.19	13.4	< 0.5	82	4	10	36.2	205	29	4.8	< 0.01	< 0.5
R-2010-6610 11.8	1.83	11	1.21	275	1.73	0.039	65	0.2	5.1	< 3	249	< 0.5	0.18	6.3	1.1	32	34	9	18.7	39	17	2.9	< 0.01	< 0.5
R-2010-7380 (5'-7')	2.34	8	1.85	279	1.28	0.031	37	0.2	3.9	< 3	207	1.2	0.17	5.3	1.1	25	< 1	8	16.4	31	13	2.6	< 0.01	< 0.5
R-2010-7390 8.77	1.55	12	1.83	301	1.27	0.034	51	0.3	4.2	< 3	212	< 0.5	0.14	5.3	0.9	26	< 1	8	16.2	30	17	2.4	< 0.01	< 0.5
R-2010-8031 108.9	1.43	8	1.16	284	1.55	0.035	34	< 0.1	4.1	< 3	247	< 0.5	0.13	4.5	< 0.5	25	3	8	15.8	31	13	2.3	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
R-2010-7380 (4'-5.5')	0.9	< 0.05	44.0
B-2010-7570 84.6	1.1	< 0.05	42.4
R-2010-7625 340.6	0.7	< 0.05	41.9
R-2010-7685-F-A-8 19.0	1.2	0.26	9.95
R-2010-7688 6.02	1.0	0.15	2.17
R-2010-7696 73.9	1.4	< 0.05	42.7
C-7710 6.6	1.4	0.27	1.68
R-2010-7800 8.89	1.5	0.32	7.23
R-2010-8031 44.1	1.6	0.30	9.40
R-2010-8070 46.9	1.2	0.21	11.3
R-2010-1980 107.0	0.9	< 0.05	38.5
R-2010-3830 23.0	1.2	0.24	8.36
R-2010-5100 TOP (3.5'-5.5')	0.9	< 0.05	43.8
R-2010-1770-3 109.5	0.8	< 0.05	46.1
R-2010-2390 29.78	1.3	0.25	1.50
R-2010-6000 17.02	< 0.2	0.14	0.483
R-2010-4190-6 31.79	0.9	0.12	2.08
R-2010-7200 28.78	1.3	0.27	1.88
R-2010-7220 7.30	< 0.2	< 0.05	0.297
R-2010-6070 42.04	2.8	0.48	1.32
R-2010-3589-C 41.98	1.0	0.25	1.92
R-2010-1970-6 40.15	0.8	0.13	1.15
R-2010-3420 33.33	1.2	0.18	0.284
R-2010-6250 10.17	0.9	0.17	1.79
R-2010-7430 196.8	0.5	0.12	10.6
R-2010-7030 67.3	0.8	0.17	1.88
R-2010-1860-7 107.7	0.7	< 0.05	45.3
R-2010-3400 47.42	1.2	< 0.05	31.4
R-2010-1900 90.34	0.9	< 0.05	41.2
R-2010-2410 21.36	1.3	< 0.05	32.0
R-2010-3228 1.72	1.2	0.28	10.9
R-2010-3489-C 15.58	1.4	0.07	29.7
R-2010-6150 1.84	0.9	< 0.05	39.1
R-2010-6170 10.61	1.2	0.06	42.0
R-2010-3479 19.86	1.5	0.07	29.1
R-2010-1060-5 221.9	0.7	< 0.05	45.6
R-2010-1890-6 33.2	1.2	0.23	10.6
B-2010-1920-4 66.0	0.8	< 0.05	41.1
B-2010-1970-6 BOTTOM 30.4	1.3	0.29	8.76
R-2010-2000 21.08	0.8	< 0.05	38.5
R-2010-2110 77.0	1.4	< 0.05	30.5
B-2010-2200 141.5	0.7	< 0.05	46.7
R-2010-2340 120.0	0.9	< 0.05	39.0
R-2010-2370 18.1	1.7	0.33	7.87
C-2010-2839 135.7	0.7	< 0.05	40.4
R-2010-2929B 21.2	2.0	0.33	7.89
R-2010-3113 178.4	1.0	< 0.05	42.6
C-2010-3123-B 242.68	1.3	< 0.05	29.0
B-2010-3225-C 132.1	0.7	< 0.05	48.3
R-2010-3276-C 9.15	0.7	0.13	2.08

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
R-2010-3420 0.4	1.2	0.33	7.56
R-2010-3400 11.24	1.6	0.31	1.48
R-2010-3588-C 23.0	1.3	0.25	8.74
R-2010-4250 7.72	1.8	0.35	1.37
R-2010-5100 BOTTOM 10.5-do not run			
R-2010-5152 129.9	0.9	< 0.05	40.7
R-2010-5172 35.2	1.2	0.23	11.3
R-2010-5269 133.5	0.8	< 0.05	42.7
R-2010-5288 19.6	0.4	0.11	10.8
R-2010-5340 49.7	1.3	0.07	30.7
R-2010-5381 57.3	1.0	< 0.05	32.5
R-2010-5470 14.23	0.6	0.14	9.78
R-2010-5500 145.2	0.9	< 0.05	43.6
C-2010-5600 2.5	1.2	0.26	11.0
R-2010-5950 79.5	0.8	< 0.05	41.5
R-2010-6000 .52	1.6	0.30	0.336
R-2010-6030 28.4	1.4	0.27	8.93
R-2010-6130 9.04	1.4	0.27	1.85
R-2010-6610 11.8	1.3	0.19	2.13
R-2010-7380 (5'-7')	1.0	< 0.05	42.3
R-2010-7390 8.77	0.9	< 0.05	43.2
R-2010-8031 108.9	0.7	< 0.05	42.0

Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	As	Ba	Be	Bi	Br	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.5	50	1	2	0.5	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		32.2		1200	3.3	14	728	41		730				1	1390									
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760				1.22	1380									
GXR-1 Meas		30.8		978	3.3	14	695	39		708				1	1380									
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760				1.22	1380									
GXR-1 Meas		30.1		921	4.2	13	667	38		690				1	1330									
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760				1.22	1380									
GXR-4 Meas		3.3		6430	0.5	314	47	46		70				2	7									
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0				1.90	19.0									
GXR-4 Meas		4.0		6650	0.8	314	48	46		79				2	19									
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0				1.90	19.0									
GXR-4 Meas		3.8		6410	0.6	306	48	46		79				2	18									
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0				1.90	19.0									
SDC-1 Meas		< 0.3		29	< 0.3	< 1	24	37		96				3	< 2									
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00				3.00	2.60									
SDC-1 Meas		< 0.3		29	0.4	< 1	24	41		113				3	< 2									
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00				3.00	2.60									
SDC-1 Meas		< 0.3		29	< 0.3	< 1	24	40		114				3	< 2									
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00				3.00	2.60									
SCO-1 Meas		< 0.3		27	< 0.3	< 1	26	27		92				2	< 2									
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100				1.80	0.37									
SCO-1 Meas		< 0.3		27	0.3	< 1	31	30		108				2	< 2									
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100				1.80	0.37									
SCO-1 Meas		0.4		28	0.3	< 1	29	31		107				2	< 2									
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100				1.80	0.37									
GXR-6 Meas		< 0.3		65	< 0.3	< 1	82	26		122				1	< 2									
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118				1.40	0.290									
GXR-6 Meas		0.7		63	0.5	3	92	29		127				1	< 2									
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118				1.40	0.290									
GXR-6 Meas		0.4		65	0.5	< 1	99	32		138				1	< 2									
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118				1.40	0.290									
DNC-1a Meas				95				252		55														
DNC-1a Cert				100				247		70.0														
DNC-1a Meas				88				256		60														
DNC-1a Cert				100				247		70.0														
DNC-1a Meas				84				240		58														
DNC-1a Cert				100				247		70.0														
OREAS 13b (4-Acid) Meas		0.8		2380		7		2240		160														
OREAS 13b (4-Acid) Cert		0.86		2300.000		9.0		2247		133														
OREAS 13b (4-Acid) Meas		0.9		2160		8		2240		115														
OREAS 13b (4-Acid) Cert		0.86		2300.000		9.0		2247		133														
OREAS 13b (4-Acid) Meas		0.9		2220		7		2220		140														
OREAS 13b (4-Acid) Cert		0.86		2300.000		9.0		2247		133														
DMMAS 114 Meas	2230										1500	1620				39	85				3.37			
DMMAS 114 Cert	2199										1624	1561				42	84				3.31			
DMMAS 114 Meas	2380										1890	1840				42	82				3.26			
DMMAS 114 Cert	2199										1624	1561				42	84				3.31			
DMMAS 114 Meas	2120										1700	1700				39	86				3.07			
DMMAS 114 Cert	2199										1624	1561				42	84				3.31			
DMMAS 114 Meas	2380										1890	1840				42	82				3.26			
DMMAS 114 Cert	2199										1624	1561				42	84				3.31			
DMMAS 114 Meas	2120										1700	1700				39	86				3.07			
DMMAS 114 Cert	2199										1624	1561				42	84				3.31			
DMMAS 114 Meas	2230										1500	1620				39	85				3.37			

Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	As	Ba	Be	Bi	Br	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.5	50	1	2	0.5	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
DMMAS 114 Cert	2199											1624	1561				42	84			3.31			
DMMAS 114 Meas	2230											1500	1620				39	85			3.37			
DMMAS 114 Cert	2199											1624	1561				42	84			3.31			
R-2010-2390 29.78 Orig		0.4		37	0.4	< 1	15	47		74					2									
R-2010-2390 29.78 Dup		0.3		32	0.4	< 1	13	46		71					2									
R-2010-1900 90.34 Orig		0.3		15	0.3	< 1	8	21		36					< 1									
R-2010-1900 90.34 Dup		0.4		15	0.4	< 1	7	20		30					< 1									
R-2010-3276-C 9.15 Orig		< 0.3		11	< 0.3	< 1	8	18		20					1									
R-2010-3276-C 9.15 Dup		< 0.3		13	< 0.3	< 1	7	18		22					1									
R-2010-5950 79.5 Orig		< 0.3		7	< 0.3	< 1	10	14		22					< 1									
R-2010-5950 79.5 Dup		< 0.3		10	0.4	< 1	16	16		21					< 1									
Method Blank Method Blank		< 0.3		1	< 0.3	< 1	< 3	< 1		2					< 1									
Method Blank Method Blank		< 0.3		2	< 0.3	< 1	< 3	< 1		7					< 1									
Method Blank Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1					< 1									
Method Blank Method Blank	< 2		< 5						< 20		< 50	< 0.5	< 50			< 0.5	< 1	< 2	< 1	< 0.2	< 0.01	< 1	< 1	< 5

Quality Control																								
Analyte Symbol	Li	Mn	Na	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	g
Detection Limit	1	1	0.01	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5	0.2	0.05	
Analysis Method	TD-ICP	TD-ICP	INAA	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas	8	886						290					94		28									
GXR-1 Cert	8.20	852						275					80.0		32.0									
GXR-1 Meas	11	834						267					81		23									
GXR-1 Cert	8.20	852						275					80.0		32.0									
GXR-1 Meas	11	829						256					78		22									
GXR-1 Cert	8.20	852						275					80.0		32.0									
GXR-4 Meas	11	149						212					94		14									
GXR-4 Cert	11.1	155						221					87.0		14.0									
GXR-4 Meas	11	167						229					98		14									
GXR-4 Cert	11.1	155						221					87.0		14.0									
GXR-4 Meas	11	184						219					97		14									
GXR-4 Cert	11.1	155						221					87.0		14.0									
SDC-1 Meas	35	880						170		0.30			69		33									
SDC-1 Cert	34.00	880.00						180.00		0.606			102.00		40.0									
SDC-1 Meas	35	1010						188		0.13			43		34									
SDC-1 Cert	34.00	880.00						180.00		0.606			102.00		40.0									
SDC-1 Meas	34	979						183		0.12			38		33									
SDC-1 Cert	34.00	880.00						180.00		0.606			102.00		40.0									
SCO-1 Meas	43	385						159		0.33			131		19									
SCO-1 Cert	45	410						170		0.380			130		26									
SCO-1 Meas	41	428						172		0.25			123		19									
SCO-1 Cert	45	410						170		0.380			130		26									
SCO-1 Meas	41	432						174		0.31			139		19									
SCO-1 Cert	45	410						170		0.380			130		26									
GXR-6 Meas	36	1030						42					132		13									
GXR-6 Cert	32.0	1010						35.0					186		14.0									
GXR-6 Meas	34	1060						29					208		2									
GXR-6 Cert	32.0	1010						35.0					186		14.0									
GXR-6 Meas	37	1110						48					133		13									
GXR-6 Cert	32.0	1010						35.0					186		14.0									
DNC-1a Meas	5							131					141		16									
DNC-1a Cert	5.20							144					148		18.0									
DNC-1a Meas	4							134					145		15									
DNC-1a Cert	5.20							144					148		18.0									
DNC-1a Meas	4							124					136		13									
DNC-1a Cert	5.20							144					148		18.0									
OREAS 13b (4-Acid) Meas																								
OREAS 13b (4-Acid) Cert																								
OREAS 13b (4-Acid) Meas																								
OREAS 13b (4-Acid) Cert																								
OREAS 13b (4-Acid) Meas																								
OREAS 13b (4-Acid) Cert																								
DMMAS 114 Meas			1.77		10.1	6.8						17.0				15.2	26			2.1				
DMMAS 114 Cert			1.78		11.2	6.5						17.4				15.1	23.7			2.4				
DMMAS 114 Meas			1.81		10.3	6.5						17.6				16.8	28			2.7				
DMMAS 114 Cert			1.78		11.2	6.5						17.4				15.1	23.7			2.4				
DMMAS 114 Meas			1.95		11.4	6.6						17.0				16.2	28			2.5				
DMMAS 114 Cert			1.78		11.2	6.5						17.4				15.1	23.7			2.4				
DMMAS 114 Meas			1.81		10.3	6.5						17.6				16.8	28			2.7				
DMMAS 114 Cert			1.78		11.2	6.5						17.4				15.1	23.7			2.4				
DMMAS 114 Meas			1.95		11.4	6.6						17.0				16.2	28			2.5				
DMMAS 114 Cert			1.78		11.2	6.5						17.4				15.1	23.7			2.4				
DMMAS 114 Meas			1.77		10.1	6.8						17.0				15.2	26			2.1				

Quality Control																									
Analyte Symbol	Li	Mn	Na	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb	Yb	Lu	Mass	
Unit Symbol	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	g	
Detection Limit	1	1	0.01	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5	0.2	0.05		
Analysis Method	TD-ICP	TD-ICP	INAA	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	
DMMAS 114 Cert			1.78		11.2	6.5						17.4				15.1	23.7		2.4						
DMMAS 114 Meas			1.77		10.1	6.8						17.0				15.2	26		2.1						
DMMAS 114 Cert			1.78		11.2	6.5						17.4				15.1	23.7		2.4						
R-2010-2390 29.78 Orig	43	652						197		0.26			83		12										
R-2010-2390 29.78 Dup	42	627						193		0.24			81		11										
R-2010-1900 90.34 Orig	16	433						236		0.22			46		10										
R-2010-1900 90.34 Dup	14	397						222		0.18			42		8										
R-2010-3276-C 9.15 Orig	12	271						270		0.13			33		8										
R-2010-3276-C 9.15 Dup	12	253						270		0.14			35		7										
R-2010-5950 79.5 Orig	12	269						227		0.15			32		8										
R-2010-5950 79.5 Dup	12	283						231		0.17			35		8										
Method Blank Method Blank	< 1	12						< 1		< 0.01			< 2		< 1										
Method Blank Method Blank	< 1	9						< 1		< 0.01			< 2		< 1										
Method Blank Method Blank	< 1	7						< 1		0.02			< 2		< 1										
Method Blank Method Blank			< 0.01	< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.0	

Quality Control						
Analyte Symbol	S	Al	Ca	K	Mg	P
Unit Symbol	%	%	%	%	%	%
Detection Limit	0.01	0.01	0.01	0.01	0.01	0.001
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP

DMMAS 114 Cert						
DMMAS 114 Meas						
DMMAS 114 Cert						
R-2010-2390 29.78 Orig	0.03	3.87	9.05	2.03	1.96	0.048
R-2010-2390 29.78 Dup	0.03	3.76	9.02	1.95	1.92	0.042
R-2010-1900 90.34 Orig	0.05	2.97	11.3	1.61	2.15	0.078
R-2010-1900 90.34 Dup	0.04	2.75	10.4	1.49	1.97	0.042
R-2010-3276-C 9.15 Orig	< 0.01	3.18	8.53	1.61	1.09	0.026
R-2010-3276-C 9.15 Dup	< 0.01	3.21	8.47	1.68	1.09	0.025
R-2010-5950 79.5 Orig	< 0.01	2.95	7.56	1.70	1.38	0.037
R-2010-5950 79.5 Dup	< 0.01	2.92	7.42	1.69	1.35	0.039
Method Blank Method Blank	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001
Method Blank Method Blank	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001
Method Blank Method Blank	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.005
Method Blank Method Blank						



Date Submitted: 19-Oct-11
Invoice No.: A11-12149
Invoice Date: 11-Nov-11
Your Reference:

True North Minerals
68 Bruce Ave, box # 3230
South Porcupine ON P0N 1H0

ATTN: Owner/Operator Anna Muller

CERTIFICATE OF ANALYSIS

8 Crushed Rock samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A11-12149

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
M-2010-0120	16	< 0.3	27	< 0.3	< 1	6	13	17	0.02	3.09	14.1	340	< 1	< 2	2.5	6.99	4	38	< 1	0.6	1.39	6	< 1	< 5
M-2010-0291	8	0.8	8	< 0.3	< 1	5	12	19	< 0.01	3.06	6.4	530	< 1	< 2	2.2	6.27	5	39	< 1	0.7	1.78	5	< 1	< 5
M-2010-0950	< 2	0.4	5	< 0.3	< 1	7	11	14	0.01	3.18	4.4	480	< 1	< 2	< 0.5	5.74	4	34	< 1	0.8	1.50	7	< 1	< 5
M-2010-0980	< 2	< 0.3	5	< 0.3	< 1	3	9	18	< 0.01	2.84	3.6	420	< 1	< 2	2.5	6.84	3	38	< 1	0.5	1.15	5	< 1	< 5
M-2010-1540	9	< 0.3	5	< 0.3	< 1	6	12	13	< 0.01	2.99	5.2	450	< 1	< 2	2.4	6.72	4	35	< 1	0.7	1.38	7	< 1	< 5
M-2010-1550	< 2	0.5	6	< 0.3	< 1	6	12	14	< 0.01	3.04	10.2	530	< 1	< 2	2.4	6.38	5	37	< 1	0.6	1.36	6	< 1	< 5
M-2010-2980	< 2	< 0.3	4	< 0.3	< 1	< 3	13	14	< 0.01	3.05	6.1	500	< 1	< 2	2.0	6.41	4	32	< 1	0.6	1.18	5	< 1	< 5
M-2010-2990	< 2	< 0.3	5	< 0.3	< 1	6	10	14	< 0.01	2.71	3.4	450	< 1	< 2	2.9	6.95	3	48	< 1	0.7	1.28	7	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
M-2010-0120	2.93	8	1.35	259	1.81	0.043	< 15	0.3	4.5	< 3	264	< 0.5	0.18	4.6	< 0.5	41	< 1	9	16.8	26	20	2.8	< 0.01	< 0.5
M-2010-0291	1.51	7	1.09	263	1.96	0.047	44	< 0.1	5.4	< 3	258	< 0.5	0.19	5.7	< 0.5	47	3	9	18.2	32	16	2.8	< 0.01	< 0.5
M-2010-0950	1.69	6	1.17	245	1.87	0.042	< 15	< 0.1	4.8	< 3	270	< 0.5	0.20	4.9	1.0	43	< 1	8	18.4	36	14	2.9	< 0.01	< 0.5
M-2010-0980	2.42	6	1.44	206	1.62	0.034	42	0.5	4.0	< 3	245	< 0.5	0.17	3.7	2.0	36	< 1	8	14.4	26	14	2.3	< 0.01	< 0.5
M-2010-1540	2.27	6	1.32	261	1.74	0.041	60	0.5	4.5	< 3	260	< 0.5	0.17	5.0	< 0.5	42	< 1	8	18.0	33	18	2.9	< 0.01	< 0.5
M-2010-1550	2.30	7	1.20	235	1.89	0.038	< 15	0.6	4.6	< 3	260	< 0.5	0.15	3.7	1.6	36	< 1	8	16.4	29	7	2.6	< 0.01	< 0.5
M-2010-2980	2.64	6	1.17	211	1.78	0.029	43	0.3	4.0	< 3	261	< 0.5	0.13	3.8	1.1	30	< 1	8	14.8	28	13	2.4	< 0.01	< 0.5
M-2010-2990	2.13	6	1.49	221	1.64	0.031	< 15	< 0.1	4.3	< 3	234	< 0.5	0.08	4.6	< 0.5	20	< 1	8	16.7	28	13	2.8	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
M-2010-0120	0.9	< 0.05	42.6
M-2010-0291	0.9	< 0.05	41.0
M-2010-0950	1.0	< 0.05	42.0
M-2010-0980	0.7	< 0.05	41.2
M-2010-1540	0.6	< 0.05	42.3
M-2010-1550	0.8	< 0.05	40.4
M-2010-2980	0.9	< 0.05	42.5
M-2010-2990	0.9	< 0.05	41.2

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Quality Control																										
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe		
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%		
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01		
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA		
GXR-1 Meas		31.1		1050	3.3	12	672	46		664		0.23	1.54													
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52													
GXR-4 Meas		3.6		6840	0.4	316	40	47		69		1.79	4.55													
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20													
SDC-1 Meas		< 0.3		32	< 0.3	< 1	19	41		96		0.06	4.77													
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34													
SCO-1 Meas		< 0.3		27	< 0.3	< 1	25	31		95		0.06	4.86													
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24													
GXR-6 Meas		0.4		71	0.4	< 1	94	32		128		0.02	9.65													
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7													
DNC-1a Meas				85				237		46																
DNC-1a Cert				100				247		70.0																
OREAS 13b (4-Acid) Meas		0.9		2060		6		2140		91		0.98														
OREAS 13b (4-Acid) Cert		0.86		2300.000		9.0		2247		133		1.20														
DMMAS 114 Meas	1960													1820	1680					42	96			3.31		
DMMAS 114 Cert	2199													1624	1561					42	84			3.31		
Method Blank Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01													
Method Blank Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01													
Method Blank Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50					< 0.5		< 1	< 2	< 1	< 0.2	< 0.01

Activation Laboratories Ltd. Report: A11-12149

Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.05	7	0.21	772		0.055					265					83					26
GXR-1 Cert				0.0500	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-4 Meas				4.35	11	1.72	147		0.136					219					100					14
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
SDC-1 Meas				1.91	33	0.95	832		0.056					166		0.31			75					29
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SCO-1 Meas				3.92	42	1.58	353		0.079					167		0.23			128					20
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
GXR-6 Meas				2.21	37	0.67	1070		0.039					45					163					14
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
DNC-1a Meas					4									113					138					12
DNC-1a Cert					5.20									144					148					18.0
OREAS 13b (4-Acid) Meas																								
OREAS 13b (4-Acid) Cert																								
DMMAS 114 Meas								1.99			12.3	6.8						18.7				16.7	25	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
Method Blank Method Blank				< 0.01	< 1	< 0.01	4		< 0.001					< 1		< 0.01			< 2			< 1		
Method Blank Method Blank				< 0.01	< 1	< 0.01	2		< 0.001					< 1		< 0.01			< 2			< 1		
Method Blank Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
OREAS 13b (4-Acid) Meas						
OREAS 13b (4-Acid) Cert						
DMMAS 114 Meas	2.5					
DMMAS 114 Cert	2.4					
Method Blank Method Blank						
Method Blank Method Blank						
Method Blank Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.0



Date Submitted: 11-Nov-11
Invoice No.: A11-13411
Invoice Date: 09-Dec-11
Your Reference:

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: Sarah Marriott (Invoices)

CERTIFICATE OF ANALYSIS

59 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A11-13411

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Eseme". The signature is written over a horizontal line.

Emmanuel Eseme , Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A11-13411

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
0010(7)	<2	<0.3	33	<0.3	<1	10	15	25	0.03	3.30	1.6	660	<1	<2	2.4	8.28	4	45	<1	0.6	1.92	6	<1	<5
0050(1-2)	<2	0.4	10	<0.3	<1	7	28	34	<0.01	4.35	<0.5	740	1	<2	<0.5	2.06	9	71	<1	0.7	2.66	7	<1	<5
0060(6a-7b)	<2	<0.3	19	<0.3	<1	6	14	21	0.02	3.37	1.9	500	1	<2	2.4	6.95	5	47	<1	0.6	1.57	5	<1	<5
0070(6)	<2	<0.3	9	<0.3	<1	4	12	19	0.03	3.40	2.5	570	1	<2	2.5	6.45	5	32	<1	0.6	1.26	5	<1	<5
0090(5a-6)	<2	<0.3	12	<0.3	<1	5	26	25	<0.01	3.52	1.3	520	1	<2	2.2	5.88	8	65	<1	0.8	1.98	6	<1	<5
0100(1-7)	<2	0.5	5	<0.3	<1	5	14	13	0.01	3.41	1.7	640	1	<2	2.5	6.56	4	37	<1	0.6	1.30	5	<1	<5
0120(1-4)	<2	0.4	8	<0.3	<1	5	11	17	<0.01	3.07	1.7	470	<1	<2	2.1	6.83	5	25	<1	0.8	1.44	6	<1	<5
0130(1-5)	<2	<0.3	5	<0.3	<1	4	13	14	<0.01	3.39	<0.5	640	1	<2	1.6	5.55	4	31	<1	0.6	1.25	5	<1	<5
0150(3)	<2	<0.3	7	<0.3	<1	5	11	14	0.02	3.34	1.7	520	1	<2	2.8	6.85	5	36	<1	0.6	1.39	4	<1	<5
0190(1-5)	<2	<0.3	13	<0.3	<1	7	15	19	<0.01	3.50	1.5	630	1	<2	2.4	6.86	6	32	<1	0.7	1.36	7	<1	<5
0200(1-2)	<2	<0.3	6	<0.3	<1	10	11	18	<0.01	3.49	3.3	600	1	<2	2.8	4.68	3	30	<1	<0.2	1.43	5	<1	<5
0210(3b-4a)	5	<0.3	12	<0.3	<1	6	13	26	0.01	3.49	2.3	600	1	<2	2.8	6.51	6	34	<1	0.7	1.75	8	<1	<5
0220(3A-7)	<2	<0.3	4	<0.3	<1	9	10	14	0.02	3.31	3.3	600	1	<2	2.3	7.01	3	29	<1	0.6	1.34	6	<1	<5
0230(1-7)	<2	0.3	16	<0.3	<1	5	13	16	0.01	3.31	3.6	480	1	<2	2.2	6.62	4	28	<1	0.6	1.29	6	<1	<5
0240(3-7)	<2	<0.3	5	<0.3	<1	8	10	15	<0.01	3.51	3.0	610	1	<2	<0.5	5.88	4	28	<1	0.6	1.30	5	<1	<5
0250(4-6)	<2	<0.3	6	<0.3	<1	6	14	14	0.01	3.25	2.0	490	<1	<2	2.9	6.38	5	30	<1	0.6	1.27	6	<1	<5
0260(4-6)	<2	<0.3	4	<0.3	<1	<3	14	12	0.01	2.80	1.7	440	<1	<2	2.5	6.04	4	38	<1	0.6	1.36	6	<1	<5
0271(3-7)	<2	0.3	4	<0.3	<1	4	10	13	<0.01	3.22	3.6	590	<1	<2	<0.5	6.02	5	30	<1	0.6	1.34	6	<1	<5
0291(2)	<2	<0.3	15	<0.3	<1	8	15	19	<0.01	3.22	4.0	610	1	<2	3.0	7.54	9	32	<1	0.6	1.57	5	<1	<5
0291(3)	9	<0.3	12	<0.3	<1	6	21	22	<0.01	3.27	5.1	800	1	<2	2.7	7.78	8	36	<1	0.7	1.90	6	<1	<5
0300(2-5)	<2	<0.3	4	<0.3	<1	5	9	12	<0.01	2.96	2.6	680	<1	<2	2.1	5.94	5	33	<1	0.7	1.25	6	<1	<5
0300(7)	11	<0.3	8	<0.3	<1	5	14	17	<0.01	3.31	3.9	720	1	<2	2.6	8.09	5	34	<1	0.6	1.44	5	<1	<5
0320(2)	<2	0.3	6	<0.3	<1	5	10	14	<0.01	3.42	2.5	680	1	<2	2.1	5.70	3	38	<1	0.7	1.53	6	<1	<5
0330(5-8)	<2	<0.3	7	<0.3	<1	6	13	14	0.03	3.36	4.1	770	1	<2	2.6	6.80	5	35	<1	0.6	1.34	6	<1	<5
0340(3-5)	4	<0.3	6	<0.3	<1	7	12	15	0.01	3.28	2.2	680	1	<2	2.4	7.26	4	36	<1	0.6	1.40	5	<1	<5
0410(2-5)	<2	<0.3	11	<0.3	<1	7	13	22	0.02	3.50	2.8	670	<1	<2	2.5	5.85	5	40	<1	0.7	1.94	7	<1	<5
0450(1)	<2	0.6	5	<0.3	<1	7	15	20	<0.01	5.15	1.7	630	1	<2	1.9	2.66	6	50	<1	0.8	2.21	8	<1	<5
0450(6)	<2	<0.3	20	<0.3	<1	8	11	21	0.02	3.61	2.8	660	1	<2	1.9	5.02	6	40	<1	0.8	1.77	6	<1	<5
0470(5-8)	<2	<0.3	3	<0.3	<1	5	10	17	0.01	3.26	1.8	650	<1	<2	2.5	6.31	4	37	<1	0.6	1.26	5	<1	<5
0480(1-4)	7	<0.3	5	<0.3	<1	7	10	14	<0.01	3.31	2.3	620	<1	<2	<0.5	5.86	6	33	<1	0.6	1.33	5	<1	<5
0490(1-3)	<2	<0.3	9	<0.3	<1	7	12	20	<0.01	3.67	2.1	520	1	<2	<0.5	5.27	7	36	<1	0.8	1.87	6	<1	<5
0500(2-8)	<2	<0.3	4	<0.3	<1	7	11	12	0.02	3.26	1.5	710	<1	<2	2.3	6.85	5	29	<1	0.7	1.30	5	<1	<5
0510(3-6)	<2	0.4	5	<0.3	<1	5	11	17	<0.01	3.31	2.3	610	<1	<2	2.5	6.94	6	37	<1	0.5	1.35	5	<1	<5
0810(6-7)	<2	<0.3	15	<0.3	<1	5	11	19	0.02	3.31	3.0	630	1	<2	<0.5	6.47	5	28	<1	0.6	1.38	5	<1	<5
0820(1-7)	<2	0.4	7	<0.3	<1	6	12	16	0.03	2.94	1.9	630	1	<2	2.3	7.93	4	30	<1	0.6	1.40	6	<1	<5
0900(3-8)	<2	<0.3	5	<0.3	<1	5	9	16	0.02	3.27	2.3	580	<1	<2	<0.5	6.23	5	24	<1	0.5	1.15	5	<1	<5
0910(4-9)	5	<0.3	7	<0.3	<1	7	10	15	0.03	3.22	2.3	540	<1	<2	2.5	7.19	4	25	<1	0.6	1.07	4	<1	<5
0920(1-5)	<2	<0.3	6	<0.3	<1	5	14	13	<0.01	3.35	2.1	600	1	<2	2.2	6.43	5	32	<1	0.6	1.36	6	<1	<5
0920(6-7)	17	<0.3	6	<0.3	<1	<3	11	16	0.04	3.38	3.2	660	1	<2	2.1	6.66	3	30	<1	0.6	1.37	6	<1	<5
0930(2-4)	<2	<0.3	6	<0.3	<1	6	10	15	<0.01	3.39	1.7	570	<1	<2	1.8	6.21	5	26	<1	0.6	1.29	6	<1	<5
0930(5-7)	<2	<0.3	4	<0.3	<1	4	10	16	0.03	3.39	2.2	550	1	<2	2.1	6.13	4	26	<1	0.6	1.25	6	<1	<5
0940(1-2)	<2	0.4	6	<0.3	<1	6	13	18	<0.01	3.43	3.2	630	1	<2	2.3	5.17	5	35	<1	0.8	1.60	7	<1	<5
0950B(3-5)	<2	<0.3	7	<0.3	<1	10	12	14	<0.01	3.21	2.5	660	<1	<2	2.8	6.77	4	28	<1	0.6	1.35	6	<1	<5
0950(6b-9)	<2	<0.3	5	<0.3	<1	7	10	14	0.03	3.33	1.8	460	<1	<2	2.2	5.69	4	28	<1	0.6	1.19	5	<1	<5
0980(1-4a)	<2	<0.3	5	<0.3	<1	7	10	16	<0.01	3.37	2.6	700	1	<2	2.3	6.12	3	30	<1	0.8	1.48	7	<1	<5
1110(1-2)	<2	<0.3	6	<0.3	<1	6	14	19	<0.01	3.51	<0.5	770	1	<2	<0.5	3.72	4	37	<1	0.5	1.52	4	<1	<5
1110(5-6)	<2	0.4	5	<0.3	<1	5	11	17	<0.01	3.44	3.5	510	<1	<2	<0.5	5.46	3	31	<1	0.6	1.32	5	<1	<5
1120(6-7)	<2	<0.3	8	<0.3	<1	5	11	15	<0.01	3.44	2.9	630	1	<2	1.5	6.30	5	33	<1	<0.2	1.35	6	<1	<5
1305A(1)	<2	<0.3	10	<0.3	<1	9	28	38	<0.01	4.12	4.1	610	1	<2	<0.5	2.35	10	53	<1	0.8	2.32	5	<1	<5
1329A(3-7)	<2	<0.3	11	<0.3	<1	6	11	15	0.04	3.11	2.9	540	<1	<2	2.7	6.84	4	32	<1	0.7	1.21	5	<1	<5
1349A(2-3)	<2	0.5	5	<0.3	<1	6	86	44	<0.01	4.20	2.2	430	2	<2	<0.5	5.91	18	227	<1	0.8	3.09	3	<1	<5

Activation Laboratories Ltd. Report: A11-13411

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
1391A(1)	<2	<0.3	7	<0.3	2	10	15	21	<0.01	3.79	2.1	680	1	<2	<0.5	1.67	6	55	<1	0.7	1.68	9	<1	<5
1391A(1-2)	5	<0.3	7	<0.3	<1	9	17	20	<0.01	3.47	3.1	640	1	<2	1.7	2.95	3	45	<1	0.7	1.73	7	<1	<5
1391A(2-5)	<2	0.4	4	<0.3	<1	6	13	16	<0.01	3.17	2.0	600	<1	<2	2.8	6.77	5	45	<1	0.7	1.71	6	<1	<5
1391A(5)	<2	0.4	5	<0.3	<1	6	10	19	<0.01	3.20	1.9	540	<1	<2	2.7	6.53	4	34	<1	0.5	1.24	4	<1	<5
0510(7)	<2	0.3	9	<0.3	<1	5	13	18	0.03	2.90	5.4	620	<1	<2	3.8	7.43	6	50	<1	0.9	1.95	8	<1	<5
0530(1)	<2	<0.3	7	<0.3	<1	7	22	30	<0.01	4.32	2.5	650	1	<2	<0.5	2.56	10	75	4	0.6	2.32	5	<1	<5
0570(4-5A)	<2	<0.3	6	<0.3	<1	7	12	19	<0.01	3.37	2.1	390	<1	<2	2.2	6.27	4	48	<1	0.7	2.06	9	<1	<5
0570(5b-7)	<2	<0.3	7	<0.3	<1	6	10	13	0.02	3.09	2.3	710	<1	<2	2.4	7.54	5	36	<1	0.6	1.34	7	<1	<5

Activation Laboratories Ltd. Report: A11-13411

Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
0010(7)	1.69	9	1.44	312	1.76	0.040	61	< 0.1	5.2	< 3	254	1.9	0.18	7.0	< 0.5	47	< 1	12	19.5	37	17	3.0	< 0.01	< 0.5
0050(1-2)	1.58	18	0.82	334	2.24	0.055	< 15	0.4	7.5	< 3	316	2.0	0.28	5.9	< 0.5	63	< 1	12	17.3	33	15	3.1	< 0.01	< 0.5
0060(6a-7b)	1.39	9	1.25	261	1.81	0.046	75	< 0.1	5.4	< 3	269	< 0.5	0.17	4.5	< 0.5	41	< 1	11	17.0	33	17	3.0	< 0.01	< 0.5
0070(6)	1.30	7	1.09	219	1.95	0.034	< 15	0.2	4.5	< 3	275	< 0.5	0.15	3.7	< 0.5	32	< 1	9	15.3	28	14	2.5	< 0.01	< 0.5
0090(5a-6)	1.39	17	1.41	354	2.17	0.055	56	< 0.1	6.3	< 3	292	< 0.5	0.20	4.5	< 0.5	46	< 1	12	18.4	37	17	3.3	< 0.01	< 0.5
0100(1-7)	1.49	7	1.09	233	1.97	0.034	< 15	< 0.1	4.6	< 3	285	< 0.5	0.15	4.1	< 0.5	34	< 1	9	15.7	30	18	2.6	< 0.01	< 0.5
0120(1-4)	1.70	7	1.31	289	1.76	0.070	< 15	< 0.1	4.9	< 3	281	< 0.5	0.20	3.9	1.6	41	< 1	10	17.7	34	11	3.4	< 0.01	< 0.5
0130(1-5)	1.94	7	1.05	257	1.89	0.036	< 15	< 0.1	4.7	< 3	277	< 0.5	0.17	4.1	< 0.5	35	< 1	9	15.3	29	18	2.6	< 0.01	< 0.5
0150(3)	1.87	7	1.13	220	1.92	0.036	65	< 0.1	4.8	< 3	279	2.3	0.17	4.4	< 0.5	36	< 1	10	16.2	27	< 5	2.5	< 0.01	< 0.5
0190(1-5)	2.07	9	1.58	381	1.87	0.037	< 15	< 0.1	5.3	< 3	263	< 0.5	0.20	5.1	1.9	38	< 1	11	17.7	32	10	2.9	< 0.01	< 0.5
0200(1-2)	1.81	8	1.33	243	2.06	0.049	< 15	< 0.1	5.2	< 3	275	2.4	0.18	5.7	0.6	37	< 1	11	18.1	30	14	3.0	< 0.01	0.5
0210(3b-4a)	1.65	9	1.18	326	2.16	0.051	52	< 0.1	7.0	< 3	266	< 0.5	0.18	6.1	1.8	32	7	15	20.6	36	14	3.4	< 0.01	< 0.5
0220(3A-7)	1.62	7	1.25	214	1.97	0.035	55	0.3	4.6	< 3	276	< 0.5	0.14	5.0	< 0.5	33	< 1	9	15.9	26	20	2.7	< 0.01	< 0.5
0230(1-7)	2.01	7	1.19	253	1.89	0.034	43	< 0.1	4.7	< 3	273	1.9	0.15	4.5	< 0.5	31	< 1	10	17.1	35	17	2.8	< 0.01	< 0.5
0240(3-7)	1.82	7	0.86	217	1.94	0.035	35	< 0.1	4.6	< 3	280	< 0.5	0.14	4.2	1.1	33	< 1	9	14.8	30	14	2.4	< 0.01	< 0.5
0250(4-6)	1.93	7	1.30	231	2.01	0.037	44	< 0.1	4.9	< 3	262	< 0.5	0.16	5.6	1.3	33	< 1	10	17.3	31	17	2.8	< 0.01	< 0.5
0260(4-6)	1.32	6	1.04	209	2.01	0.036	< 15	< 0.1	4.6	< 3	256	1.2	0.16	4.2	< 0.5	32	< 1	8	16.7	31	17	2.7	< 0.01	< 0.5
0271(3-7)	1.48	6	1.06	245	1.87	0.038	58	< 0.1	4.7	< 3	266	< 0.5	0.17	4.4	1.4	36	< 1	9	16.3	30	16	2.6	< 0.01	< 0.5
0291(2)	1.65	9	1.35	369	1.90	0.036	73	< 0.1	5.5	< 3	247	< 0.5	0.18	5.9	< 0.5	41	< 1	10	18.6	36	12	2.9	< 0.01	< 0.5
0291(3)	1.64	11	1.41	443	2.03	0.036	< 15	0.4	6.3	< 3	248	< 0.5	0.18	6.5	< 0.5	43	< 1	11	20.3	39	27	3.4	< 0.01	< 0.5
0300(2-5)	1.65	5	1.15	213	2.00	0.034	60	< 0.1	4.5	< 3	250	1.7	0.14	5.0	< 0.5	29	< 1	8	15.9	29	27	2.7	< 0.01	< 0.5
0300(7)	1.63	9	1.66	276	1.88	0.039	59	< 0.1	4.9	< 3	268	< 0.5	0.16	4.3	1.2	36	5	10	17.1	32	18	2.8	< 0.01	< 0.5
0320(2)	1.53	7	0.99	230	2.14	0.038	66	< 0.1	5.2	< 3	281	< 0.5	0.18	5.6	1.2	36	< 1	10	18.7	36	15	2.9	< 0.01	< 0.5
0330(6-8)	1.51	7	1.32	246	2.06	0.036	< 15	< 0.1	5.1	< 3	271	< 0.5	0.15	4.7	1.7	33	< 1	10	18.1	35	15	2.8	< 0.01	< 0.5
0340(3-5)	1.80	8	1.29	268	1.93	0.036	< 15	< 0.1	5.0	< 3	264	< 0.5	0.10	4.7	< 0.5	23	< 1	10	17.8	35	< 5	2.8	< 0.01	< 0.5
0410(2-5)	1.51	10	0.98	271	2.13	0.042	< 15	0.3	6.4	< 3	254	< 0.5	0.19	9.1	1.3	42	< 1	10	22.7	41	19	3.5	< 0.01	< 0.5
0450(1)	1.65	8	0.95	366	2.27	0.065	58	< 0.1	7.1	< 3	305	< 0.5	0.41	7.2	< 0.5	64	< 1	20	23.7	44	16	3.7	< 0.01	< 0.5
0450(6)	1.50	10	0.73	232	2.38	0.050	< 15	0.4	5.9	< 3	324	< 0.5	0.17	6.4	< 0.5	38	< 1	10	19.5	38	22	3.5	< 0.01	< 0.5
0470(5-8)	1.95	7	1.10	210	1.97	0.034	< 15	< 0.1	4.7	< 3	266	< 0.5	0.14	3.6	< 0.5	31	< 1	10	16.1	29	14	2.5	< 0.01	< 0.5
0480(1-4)	1.36	7	1.02	238	2.01	0.037	48	< 0.1	5.0	< 3	263	< 0.5	0.15	4.1	< 0.5	34	< 1	9	16.0	30	12	2.6	< 0.01	< 0.5
0490(1-3)	1.44	9	0.87	320	2.25	0.032	71	< 0.1	6.9	< 3	271	< 0.5	0.16	5.1	< 0.5	45	< 1	10	18.0	37	14	3.1	< 0.01	< 0.5
0500(2-8)	1.47	7	1.11	233	2.02	0.032	< 15	0.3	4.7	< 3	277	< 0.5	0.14	3.8	< 0.5	31	< 1	9	15.5	30	14	2.6	< 0.01	< 0.5
0510(3-6)	1.50	7	1.32	260	1.95	0.041	< 15	0.2	4.8	< 3	264	< 0.5	0.17	4.5	1.2	36	< 1	10	16.6	33	15	2.6	< 0.01	< 0.5
0810(6-7)	1.50	7	0.94	215	2.03	0.036	< 15	< 0.1	4.8	< 3	278	< 0.5	0.15	4.3	< 0.5	33	< 1	9	16.5	31	17	2.6	< 0.01	< 0.5
0820(1-7)	1.50	7	1.28	279	1.83	0.045	41	< 0.1	4.9	< 3	304	< 0.5	0.21	4.7	< 0.5	45	< 1	10	17.6	32	12	2.8	< 0.01	< 0.5
0900(3-8)	1.56	6	0.99	189	1.87	0.034	< 15	0.3	4.1	< 3	266	< 0.5	0.14	3.4	0.8	31	< 1	9	14.7	25	14	2.3	< 0.01	< 0.5
0910(4-9)	1.64	7	1.37	217	1.74	0.038	49	0.2	4.0	< 3	266	< 0.5	0.16	3.8	1.7	34	< 1	10	14.1	28	13	2.2	< 0.01	< 0.5
0920(1-5)	1.72	6	1.03	245	1.91	0.038	47	< 0.1	4.9	< 3	274	< 0.5	0.17	4.2	< 0.5	37	2	10	16.3	33	14	2.7	< 0.01	< 0.5
0920(6-7)	1.86	6	1.14	214	1.94	0.041	37	< 0.1	4.7	< 3	284	< 0.5	0.16	4.3	< 0.5	35	5	10	16.3	30	10	2.7	< 0.01	< 0.5
0930(2-4)	1.92	6	1.00	235	1.81	0.035	64	< 0.1	4.6	< 3	277	< 0.5	0.15	4.2	< 0.5	31	< 1	9	15.5	29	12	2.6	< 0.01	< 0.5
0930(5-7)	1.44	6	1.07	211	1.82	0.036	< 15	< 0.1	4.5	< 3	270	< 0.5	0.15	4.4	< 0.5	32	< 1	9	15.9	29	9	2.5	< 0.01	< 0.5
0940(1-2)	1.71	9	0.99	245	2.01	0.035	55	< 0.1	5.7	< 3	266	< 0.5	0.18	5.8	1.5	37	< 1	10	18.0	33	15	2.9	< 0.01	< 0.5
0950B(3-5)	1.88	6	1.20	228	1.87	0.047	50	< 0.1	4.7	< 3	263	< 0.5	0.16	4.6	< 0.5	33	< 1	10	16.5	29	16	2.8	< 0.01	< 0.5
0950(5b-9)	1.83	6	0.95	197	1.89	0.038	< 15	< 0.1	4.4	< 3	275	< 0.5	0.15	3.8	< 0.5	31	< 1	9	14.7	28	< 5	2.5	< 0.01	< 0.5
0980(1-4a)	1.80	6	0.94	270	1.91	0.038	< 15	< 0.1	5.8	< 3	274	< 0.5	0.16	4.8	1.7	31	< 1	14	17.5	32	17	3.3	< 0.01	< 0.5
1110(1-2)	1.94	9	0.64	221	2.04	0.029	< 15	0.2	5.2	< 3	267	< 0.5	0.16	4.3	< 0.5	36	< 1	8	15.3	30	14	2.4	< 0.01	< 0.5
1110(5-6)	1.66	7	0.79	216	1.82	0.039	38	0.2	4.8	< 3	272	< 0.5	0.15	5.9	1.7	34	< 1	8	16.7	30	13	2.6	< 0.01	< 0.5
1120(6-7)	1.39	7	0.96	268	1.77	0.043	< 15	< 0.1	4.6	< 3	273	< 0.5	0.18	5.4	< 0.5	39	< 1	11	17.0	30	12	2.8	< 0.01	< 0.5
1305A(1)	1.32	22	0.91	383	2.01	0.027	54	< 0.1	7.3	< 3	267	< 0.5	0.26	7.8	< 0.5	64	< 1	13	23.8	44	20	3.6	< 0.01	< 0.5
1329A(3-7)	1.74	6	1.12	233	1.73	0.039	49	< 0.1	4.6	< 3	255	< 0.5	0.18	4.8	< 0.5	37	< 1	11	17.3	31	16	2.7	< 0.01	< 0.5
1349A(2-3)	1.05	16	3.14	711	1.19	0.053	42	< 0.1	15.3	< 3	590	< 0.5	0.23	5.										

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
1391A(1-2)	1.61	10	0.72	255	1.90	0.035	67	< 0.1	6.0	< 3	265	< 0.5	0.18	9.2	1.9	40	< 1	11	26.1	45	22	4.0	< 0.01	< 0.5
1391A(2-5)	1.44	7	0.95	284	1.70	0.039	30	< 0.1	5.4	< 3	259	< 0.5	0.16	6.3	1.2	36	< 1	11	19.5	37	18	3.0	< 0.01	< 0.5
1391A(5)	1.85	7	0.93	217	1.72	0.038	< 15	< 0.1	4.3	< 3	260	< 0.5	0.16	4.2	1.0	35	< 1	10	15.9	29	21	2.3	< 0.01	< 0.5
0510(7)	1.47	9	1.25	249	2.44	0.036	< 15	< 0.1	6.9	< 3	253	< 0.5	0.16	7.6	2.0	37	< 1	9	25.4	40	18	3.8	< 0.01	< 0.5
0530(1)	1.76	14	0.74	470	2.96	0.025	60	< 0.1	10.4	< 3	276	< 0.5	0.25	3.7	3.6	61	< 1	12	7.9	13	< 5	1.8	< 0.01	< 0.5
0570(4-5A)	1.70	7	1.09	289	2.02	0.043	< 15	0.2	5.8	< 3	267	< 0.5	0.20	6.7	< 0.5	48	< 1	11	21.8	42	24	3.4	< 0.01	< 0.5
0570(5b-7)	1.54	6	1.41	229	1.84	0.034	< 15	< 0.1	4.6	< 3	257	< 0.5	0.16	4.9	< 0.5	34	< 1	10	16.5	32	18	2.8	< 0.01	< 0.5

Analyte Symbol Unit Symbol Detection Limit Analysis Method	Yb		Lu		Mass	
	ppm	ppm	ppm	ppm	g	g
	INAA	INAA	INAA	INAA	INAA	INAA
0010(7)	1.0	<0.05			44	
0050(1-2)	1.0	0.10			37	
0060(6a-7b)	0.8	<0.05			45	
0070(6)	0.8	<0.05			44	
0090(5a-6)	1.1	<0.05			45	
0100(1-7)	0.9	<0.05			44	
0120(1-4)	0.9	<0.05			44	
0130(1-5)	0.7	<0.05			45	
0150(3)	0.7	<0.05			43	
0190(1-5)	1.0	<0.05			41	
0200(1-2)	1.0	0.05			39	
0210(3b-4a)	1.2	0.08			43	
0220(3A-7)	0.8	<0.05			47	
0230(1-7)	0.8	<0.05			45	
0240(3-7)	0.8	<0.05			48	
0250(4-6)	1.0	<0.05			46	
0260(4-6)	0.9	<0.05			43	
0271(3-7)	0.8	<0.05			47	
0291(2)	0.9	<0.05			34	
0291(3)	0.9	<0.05			26	
0300(2-5)	0.9	<0.05			46	
0300(7)	0.8	<0.05			38	
0320(2)	0.8	<0.05			46	
0330(6-8)	0.9	<0.05			46	
0340(3-5)	0.9	<0.05			45	
0410(2-5)	1.2	0.07			42	
0450(1)	1.3	0.09			44	
0450(6)	0.8	<0.05			43	
0470(5-8)	0.9	<0.05			49	
0480(1-4)	0.8	<0.05			44	
0490(1-3)	1.3	<0.05			44	
0500(2-8)	0.6	<0.05			46	
0510(3-6)	0.9	<0.05			46	
0610(6-7)	0.8	<0.05			39	
0620(1-7)	0.8	<0.05			46	
0600(0-8)	0.8	<0.05			46	
0910(4-9)	0.6	<0.05			47	
0920(1-5)	0.8	<0.05			40	
0920(6-7)	0.9	<0.05			42	
0930(2-4)	0.8	<0.05			45	
0930(5-7)	0.8	<0.05			47	
0940(1-2)	1.0	<0.05			43	
0950BE(3-6)	0.8	<0.05			44	
0950(6b-9)	0.8	<0.05			47	
0990(1-4a)	1.0	0.09			45	
1110(1-2)	1.0	<0.05			43	
1110(5-6)	0.9	<0.05			46	
1120(6-7)	0.8	<0.05			47	
1305A(1)	1.2	0.16			40	
1329A(3-7)	0.9	<0.05			46	
1349A(2-3)	1.3	0.07			40	
1391A(1)	1.0	0.17			44	

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
1391A(1-2)	1.3	0.16	41
1391A(2-5)	1.0	< 0.05	44
1391A(5)	0.7	< 0.05	44
0510(7)	1.2	< 0.05	33
0530(1)	1.5	0.18	33
0570(4-5A)	1.0	< 0.05	43
0570(5b-7)	0.9	< 0.05	39

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.6		1150	3.3	15	728	48		706		0.22	0.97			< 1	1400							0.92
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380							0.960
GXR-4 Meas		3.3		6480	0.3	313	35	47		71		1.78	4.40			2	3							1.05
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0							1.01
SDC-1 Meas		< 0.3		30	< 0.3	1	21	43		100		0.07	5.64			3	< 2							1.13
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60							1.00
SCO-1 Meas		0.3		30	< 0.3	< 1	26	32		101		0.07	5.15			2	< 2							2.03
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37							1.87
GXR-6 Meas		0.5		68	< 0.3	1	88	32		130		0.02	9.40			1	< 2							0.20
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290							0.180
DNC-1a Meas				95				260		61														
DNC-1a Cert				100				247		70.0														
OREAS 13b (4-Acid) Meas		1.1		2320		12		2220		138		1.04												
OREAS 13b (4-Acid) Cert		0.86		2300.000		9.0		2247		133		1.20												
DMMAS 114 Meas	2140													1740	1650					44	85			3.40
DMMAS 114 Cert	2199													1624	1561					42	84			3.31
0210(3b-4a) Orig		< 0.3		14	< 0.3	< 1	7	12		26		0.01	3.44			1	< 2							6.58
0210(3b-4a) Dup		< 0.3		10	< 0.3	< 1	6	13		29		0.01	3.55			1	< 2							6.45
0410(2-5) Orig		0.4		13	< 0.3	< 1	9	13		21		0.02	3.35			< 1	< 2							5.56
0410(2-5) Dup		< 0.3		9	< 0.3	< 1	4	13		22		0.02	3.66			1	< 2							6.14
1110(5-6) Orig		0.5		6	< 0.3	< 1	6	11		18		< 0.01	3.44			< 1	< 2							5.56
1110(5-6) Dup		< 0.3		5	< 0.3	< 1	5	10		16		< 0.01	3.44			1	< 2							5.35
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2							< 0.01
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	0.01			< 1	< 2							< 0.01
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01

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Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.04	7	0.19	853		0.059					289					81		14			
GXR-1 Cert				0.0500	8.20	0.217	852		0.0650					275					80.0		32.0			
GXR-4 Meas				1.63	10	1.65	146		0.129					207					86		17			
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0		14.0			
SDC-1 Meas				2.74	34	1.01	865		0.056					173		0.14			37		42			
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00		40.0			
SCO-1 Meas				2.28	44	1.65	402		0.088					166		0.36			137		26			
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130		26			
GXR-6 Meas				1.83	35	0.64	1080		0.037					42					137		18			
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186		14.0			
DNC-1a Meas					4									129					142		19			
DNC-1a Cert					5.20									144					148		18.0			
OREAS 13b (4-Acid) Meas																								
OREAS 13b (4-Acid) Cert																								
DMMAS 114 Meas								1.95			11.8	7.1						18.7				17.3	29	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
0210(3b-4a) Orig				1.48	8	1.24	331		0.056					260		0.21			36		16			
0210(3b-4a) Dup				1.82	9	1.12	322		0.047					273		0.15			28		14			
0410(2-5) Orig				1.42	10	0.97	255		0.044					239		0.19			40		10			
0410(2-5) Dup				1.60	11	0.99	287		0.040					268		0.19			43		11			
1110(5-6) Orig				1.97	6	0.84	227		0.045					274		0.16			36		9			
1110(5-6) Dup				1.34	7	0.75	205		0.034					270		0.14			33		8			
Method Blank				< 0.01	< 1	< 0.01	14		< 0.001					< 1		< 0.01			< 2		< 1			
Method Blank				< 0.01	< 1	< 0.01	20		< 0.001					1		< 0.01			< 2		< 1			
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
OREAS 13b (4-Acid) Meas						
OREAS 13b (4-Acid) Cert						
DMMAS 114 Meas	2.6					
DMMAS 114 Cert	2.4					
0210(3b-4a) Orig						
0210(3b-4a) Dup						
0410(2-5) Orig						
0410(2-5) Dup						
1110(5-6) Orig						
1110(5-6) Dup						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30



Date Submitted: 02-Dec-11
Invoice No.: A11-14387
Invoice Date: 04-Jan-12
Your Reference:

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: Sarah Marriott (Invoices)

CERTIFICATE OF ANALYSIS

50 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A11-14387

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Esemé".

Emmanuel Esemé, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A11-14387

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
0520(3-5)	< 2	0.5	11	< 0.3	< 1	8	10	17	0.02	3.52	2.5	550	< 1	< 2	1.8	7.50	3	32	< 1	0.9	1.27	9	< 1	< 5
0550(3b-5)	< 2	0.3	4	< 0.3	< 1	9	12	22	< 0.01	2.63	3.0	550	< 1	< 2	1.4	5.33	4	38	< 1	1.0	1.62	8	< 1	< 5
0590(4-6)	< 2	0.7	6	< 0.3	< 1	7	13	17	0.01	3.48	2.3	540	< 1	< 2	1.3	5.90	4	37	< 1	0.9	1.45	7	< 1	< 5
0600(3)	< 2	< 0.3	4	< 0.3	< 1	7	11	16	< 0.01	3.49	2.2	570	1	< 2	1.1	6.09	3	38	< 1	0.9	1.36	8	< 1	< 5
0610(1-7)	< 2	< 0.3	4	< 0.3	< 1	7	11	15	< 0.01	3.41	2.7	580	< 1	< 2	1.7	6.09	3	34	< 1	0.9	1.24	7	< 1	< 5
0610(8)	9	< 0.3	5	< 0.3	< 1	12	9	16	0.04	3.28	2.6	630	< 1	< 2	1.4	6.91	4	35	< 1	0.9	1.37	8	< 1	< 5
0660(5)	< 2	< 0.3	10	< 0.3	< 1	9	11	22	0.03	3.47	3.0	530	1	< 2	1.4	5.94	4	38	< 1	0.9	1.70	8	< 1	< 5
0780(3)	< 2	< 0.3	7	< 0.3	< 1	7	11	16	0.02	3.04	4.0	740	< 1	< 2	< 0.5	7.84	5	47	< 1	1.1	1.88	10	< 1	< 5
0830(2-5)	5	0.4	9	< 0.3	< 1	7	11	22	< 0.01	3.11	2.6	620	< 1	< 2	1.7	7.72	6	38	< 1	1.0	1.88	9	< 1	< 5
0830(6-7)	< 2	< 0.3	4	< 0.3	< 1	6	11	15	0.03	3.25	< 0.5	520	< 1	< 2	1.3	7.04	3	39	< 1	0.9	1.50	9	< 1	< 5
0840(1-4)	4	< 0.3	4	< 0.3	< 1	6	9	15	< 0.01	3.28	2.4	570	< 1	< 2	1.4	6.62	5	33	< 1	0.9	1.21	7	< 1	< 5
0850(2-3)	9	0.6	3	< 0.3	< 1	8	10	17	< 0.01	3.37	2.3	620	< 1	< 2	1.2	5.49	4	41	< 1	0.9	1.39	9	< 1	< 5
0880(5-6)	< 2	0.5	6	< 0.3	< 1	4	10	14	0.03	3.51	< 0.5	440	< 1	< 2	1.3	6.56	3	39	< 1	0.9	1.44	8	< 1	< 5
0890(2-7)	< 2	0.8	4	< 0.3	< 1	6	9	15	0.02	3.25	< 0.5	550	< 1	< 2	1.5	6.93	3	34	< 1	0.9	1.22	8	< 1	< 5
1000(3-7)	< 2	< 0.3	3	< 0.3	< 1	8	10	15	< 0.01	3.39	2.4	510	< 1	< 2	1.1	6.21	3	28	2	0.8	1.14	6	< 1	< 5
1010(2-7)	3	0.4	3	< 0.3	< 1	7	8	13	< 0.01	3.23	2.3	480	< 1	< 2	1.4	6.10	3	30	< 1	0.8	1.16	7	< 1	< 5
1020(2-7)	< 2	< 0.3	6	< 0.3	< 1	8	10	19	0.01	3.36	2.8	510	< 1	< 2	1.1	6.22	3	35	< 1	0.9	1.50	7	< 1	< 5
1030(1-5)	< 2	< 0.3	4	< 0.3	< 1	6	10	18	< 0.01	3.45	1.5	560	< 1	< 2	1.4	5.98	4	28	< 1	0.8	1.24	5	< 1	< 5
1040(2-5)	4	< 0.3	6	< 0.3	< 1	14	18	17	< 0.01	3.34	2.1	500	< 1	< 2	1.1	6.80	4	32	< 1	0.8	1.27	6	< 1	< 5
1050(2-7)	< 2	< 0.3	6	< 0.3	< 1	8	10	18	< 0.01	3.21	2.5	530	< 1	< 2	< 0.5	7.14	4	34	< 1	0.9	1.36	7	< 1	< 5
1060(4-8)	< 2	< 0.3	6	< 0.3	< 1	6	10	16	0.02	3.29	2.2	480	< 1	< 2	1.1	6.57	4	35	< 1	0.9	1.22	7	< 1	< 5
1070(2-5)	291	0.7	16	< 0.3	< 1	4	11	21	< 0.01	2.61	2.1	530	< 1	< 2	1.4	7.12	3	32	< 1	1.0	1.30	8	< 1	< 5
1090(4-7)	< 2	< 0.3	7	< 0.3	< 1	7	11	14	0.02	3.12	2.2	480	< 1	< 2	1.8	7.07	3	26	< 1	0.9	0.98	6	< 1	< 5
1220(3b-5)	7	< 0.3	9	< 0.3	< 1	8	10	15	< 0.01	3.15	< 0.5	590	< 1	< 2	1.6	7.00	3	31	< 1	0.8	1.14	6	< 1	< 5
1240(5-9)	< 2	< 0.3	8	< 0.3	< 1	6	12	13	0.04	3.30	2.5	510	< 1	< 2	1.3	6.30	5	31	< 1	0.8	1.35	7	< 1	< 5
1249A(3)	< 2	< 0.3	7	< 0.3	< 1	11	13	21	< 0.01	3.34	2.1	500	1	< 2	1.4	6.19	5	45	< 1	0.9	1.56	7	< 1	< 5
1259A(2-3)	< 2	< 0.3	7	< 0.3	< 1	8	12	19	< 0.01	3.21	2.3	510	< 1	< 2	1.3	7.07	4	42	< 1	0.8	1.48	6	< 1	< 5
1287A(2-3)	3	< 0.3	4	< 0.3	< 1	9	12	18	< 0.01	3.34	1.5	520	< 1	< 2	1.3	6.14	4	37	< 1	0.9	1.57	8	< 1	< 5
1287A(4-7)	< 2	< 0.3	12	0.4	< 1	8	13	20	0.04	3.32	2.5	430	1	< 2	< 0.5	5.93	4	38	< 1	0.8	1.47	7	< 1	< 5
1431A(4-5)	< 2	< 0.3	5	< 0.3	< 1	7	11	19	< 0.01	3.15	2.2	530	< 1	< 2	< 0.5	6.92	4	40	< 1	0.8	1.54	7	< 1	< 5
1441A(4-6)	< 2	0.4	5	< 0.3	< 1	7	10	15	0.02	2.99	1.6	520	< 1	< 2	1.0	6.82	3	37	< 1	0.7	1.15	5	< 1	< 5
1450(1-4)	3	1.3	7	< 0.3	< 1	10	16	33	< 0.01	3.15	3.2	480	< 1	< 2	2.2	8.32	6	90	< 1	1.0	3.23	10	< 1	< 5
1450(5-6)	< 2	< 0.3	4	< 0.3	< 1	6	11	14	0.02	3.15	3.2	590	< 1	< 2	1.8	7.12	5	52	< 1	0.9	1.89	7	< 1	< 5
1490(2-4)	< 2	< 0.3	4	< 0.3	< 1	7	12	15	< 0.01	2.97	1.8	540	< 1	< 2	1.7	7.54	5	49	< 1	0.9	1.50	8	< 1	< 5
1490(5-9)	5	< 0.3	4	< 0.3	< 1	8	10	22	0.03	3.28	2.8	580	< 1	< 2	< 0.5	7.17	3	34	< 1	0.8	1.28	5	< 1	< 5
1510(1-4)	< 2	< 0.3	4	< 0.3	< 1	7	10	13	< 0.01	3.20	1.9	630	< 1	< 2	1.6	7.07	4	33	< 1	0.9	1.25	7	< 1	< 5
1510(5-6)	5	< 0.3	5	< 0.3	< 1	7	8	15	0.03	3.13	< 0.5	560	< 1	< 2	1.4	7.37	3	34	< 1	0.9	1.35	9	< 1	< 5
1520(2-9)	3	0.4	3	< 0.3	< 1	7	9	16	0.02	3.09	2.4	540	< 1	< 2	2.0	7.55	4	38	< 1	0.9	1.22	7	< 1	< 5
1530(2-3)	< 2	< 0.3	4	< 0.3	< 1	5	10	15	< 0.01	3.25	< 0.5	610	< 1	< 2	2.0	7.16	4	40	< 1	0.9	1.42	7	< 1	< 5
1540(1-3)	< 2	< 0.3	4	< 0.3	< 1	10	11	15	< 0.01	3.09	1.9	580	< 1	< 2	1.8	7.27	4	37	< 1	0.9	1.38	8	< 1	< 5
1550(1-5)	8	0.6	5	< 0.3	< 1	5	14	16	< 0.01	3.06	< 0.5	590	< 1	< 2	1.4	6.69	4	38	< 1	0.9	1.32	7	< 1	< 5
1560(4-6)	< 2	< 0.3	3	< 0.3	< 1	7	11	15	0.02	3.15	1.8	620	< 1	< 2	2.0	7.22	4	42	< 1	0.9	1.58	9	< 1	< 5
1570(4-7)	< 2	< 0.3	7	< 0.3	< 1	6	9	18	0.03	3.02	1.4	540	< 1	< 2	1.9	7.78	4	35	< 1	0.9	1.36	8	< 1	< 5
1580(4-7)	< 2	< 0.3	4	< 0.3	< 1	5	11	16	0.02	3.03	2.5	590	< 1	< 2	1.9	7.88	3	37	< 1	0.9	1.28	8	< 1	< 5
1590(1-7)	< 2	< 0.3	4	< 0.3	< 1	7	9	14	0.01	3.28	< 0.5	630	1	< 2	1.3	6.40	4	33	< 1	0.8	1.30	7	< 1	< 5
1600(2-4)	< 2	< 0.3	4	< 0.3	< 1	8	11	16	< 0.01	3.17	2.3	480	< 1	< 2	1.7	7.53	3	38	< 1	0.9	1.31	7	< 1	< 5
1600(6)	< 2	< 0.3	4	< 0.3	< 1	10	12	21	0.03	3.21	< 0.5	610	< 1	< 2	1.4	6.95	5	44	< 1	0.9	1.57	9	< 1	< 5
1610(4-8)	< 2	< 0.3	4	< 0.3	< 1	7	10	15	0.03	2.97	3.1	580	< 1	< 2	1.6	7.91	4	38	< 1	0.8	1.27	7	< 1	< 5
1620(1-5)	< 2	< 0.3	4	< 0.3	< 1	7	11	14	< 0.01	3.23	1.8	600	< 1	< 2	1.5	6.74	4	37	< 1	0.8	1.33	6	< 1	< 5
1630(3C-4)	< 2	< 0.3	4	< 0.3	< 1	6	9	15	< 0.01	3.04	2.1	570	< 1	< 2	< 0.5	7.55	3	41	< 1	0.9	1.39	9	< 1	< 5

Activation Laboratories Ltd. Report: A11-14387

Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
0520(3-5)	2.21	8	1.59	289	1.86	0.047	< 15	< 0.1	5.0	< 3	287	< 0.5	0.18	4.5	< 0.5	32	< 1	9	18.1	44	15	2.8	< 0.01	< 0.5
0550(3b-5)	1.62	9	0.95	277	2.10	0.039	48	< 0.1	6.1	< 3	270	< 0.5	0.18	4.5	1.0	38	< 1	5	17.4	41	16	2.9	< 0.01	< 0.5
0590(4-6)	1.38	7	1.13	283	1.93	0.046	56	< 0.1	5.4	< 3	281	< 0.5	0.19	4.1	1.1	40	< 1	8	15.6	37	14	2.5	< 0.01	< 0.5
0600(3)	1.59	7	1.20	279	1.86	0.041	54	0.2	4.9	< 3	283	0.9	0.20	4.1	< 0.5	41	< 1	9	16.3	38	13	2.7	< 0.01	< 0.5
0610(1-7)	1.65	7	1.30	248	1.96	0.041	< 15	< 0.1	4.8	< 3	275	< 0.5	0.18	3.6	1.6	33	< 1	8	16.1	41	15	2.5	< 0.01	< 0.5
0610(8)	1.49	6	1.18	257	1.89	0.036	43	< 0.1	4.8	< 3	285	< 0.5	0.17	3.6	1.6	34	< 1	7	15.8	42	19	2.5	< 0.01	< 0.5
0660(5)	1.51	7	0.98	308	1.93	0.043	56	< 0.1	5.5	< 3	282	< 0.5	0.15	4.5	1.6	34	< 1	10	17.6	43	17	2.9	< 0.01	< 0.5
0780(3)	1.58	8	1.22	285	1.80	0.034	< 15	< 0.1	6.0	< 3	249	< 0.5	0.13	7.5	< 0.5	20	7	9	24.8	64	20	3.6	< 0.01	< 0.5
0830(2-5)	1.80	9	1.55	325	1.71	0.054	48	< 0.1	5.5	< 3	254	< 0.5	0.19	4.8	0.8	41	3	9	21.1	49	17	3.2	< 0.01	< 0.5
0830(6-7)	1.66	7	1.21	265	1.85	0.039	43	< 0.1	4.9	< 3	279	< 0.5	0.14	3.8	< 0.5	30	< 1	7	17.5	43	11	2.8	< 0.01	< 0.5
0840(1-4)	1.85	7	1.34	264	1.80	0.038	60	< 0.1	4.4	< 3	269	1.3	0.14	3.1	1.4	27	< 1	7	15.3	37	11	2.4	< 0.01	0.5
0850(2-3)	2.02	7	0.92	280	1.85	0.051	52	< 0.1	5.3	< 3	275	< 0.5	0.18	4.8	1.4	34	< 1	8	19.3	46	16	3.0	< 0.01	< 0.5
0880(5-6)	1.29	7	1.04	248	1.85	0.040	< 15	0.3	4.8	< 3	271	< 0.5	0.17	4.7	1.4	32	3	7	17.7	43	16	2.6	< 0.01	< 0.5
0890(2-7)	1.50	6	1.49	262	1.84	0.043	53	< 0.1	4.5	< 3	275	< 0.5	0.18	3.9	0.9	33	< 1	8	15.6	37	15	2.4	< 0.01	< 0.5
1000(3-7)	1.53	7	1.20	247	1.78	0.037	49	< 0.1	4.3	< 3	275	< 0.5	0.17	3.5	< 0.5	32	< 1	7	14.3	36	16	2.3	< 0.01	< 0.5
1010(2-7)	2.80	6	1.24	235	1.84	0.042	55	< 0.1	4.5	< 3	261	< 0.5	0.16	3.4	< 0.5	29	< 1	7	14.6	35	14	2.4	< 0.01	< 0.5
1020(2-7)	1.42	7	1.22	274	1.87	0.039	62	< 0.1	4.9	< 3	271	< 0.5	0.18	4.0	< 0.5	37	< 1	8	15.5	37	10	2.4	< 0.01	< 0.5
1030(1-5)	1.82	8	1.01	276	1.78	0.034	53	0.2	4.5	< 3	273	< 0.5	0.15	3.2	< 0.5	31	< 1	7	14.2	33	9	2.3	< 0.01	< 0.5
1040(2-5)	1.34	7	1.33	269	1.75	0.037	< 15	< 0.1	4.4	< 3	264	< 0.5	0.16	3.5	1.3	30	3	8	15.5	38	11	2.3	< 0.01	< 0.5
1050(2-7)	1.46	7	1.44	261	1.77	0.036	54	< 0.1	4.6	< 3	272	< 0.5	0.12	3.8	1.3	23	3	8	15.7	38	14	2.5	< 0.01	< 0.5
1060(4-8)	1.42	7	1.30	236	1.84	0.036	32	< 0.1	4.6	< 3	261	< 0.5	0.15	3.9	< 0.5	30	3	7	15.3	40	17	2.5	< 0.01	< 0.5
1070(2-5)	1.30	8	1.72	296	1.67	0.047	43	< 0.1	5.1	< 3	243	< 0.5	0.21	4.7	1.4	33	3	7	17.9	43	14	2.8	< 0.01	< 0.5
1090(4-7)	1.47	7	1.75	249	1.71	0.037	55	< 0.1	4.3	< 3	246	< 0.5	0.16	3.8	< 0.5	26	< 1	7	15.4	39	14	2.4	< 0.01	0.9
1220(3b-5)	1.40	8	1.42	232	1.64	0.034	55	< 0.1	4.5	< 3	245	< 0.5	0.15	3.8	1.3	28	< 1	7	15.4	40	14	2.4	< 0.01	< 0.5
1240(5-9)	1.57	7	1.14	270	1.73	0.038	43	0.2	4.7	< 3	262	< 0.5	0.16	4.4	1.5	33	< 1	8	17.4	41	14	2.5	< 0.01	< 0.5
1249A(3)	1.41	11	1.19	313	1.56	0.033	56	< 0.1	5.7	< 3	241	< 0.5	0.17	4.4	1.6	33	8	9	18.8	45	16	2.7	< 0.01	< 0.5
1259A(2-3)	1.82	9	1.14	502	1.57	0.037	58	0.2	5.0	< 3	241	< 0.5	0.17	4.8	0.9	35	< 1	7	17.5	45	14	2.6	< 0.01	< 0.5
1287A(2-3)	1.70	7	1.08	296	1.78	0.048	56	< 0.1	5.4	< 3	262	< 0.5	0.13	5.0	0.7	29	< 1	9	18.8	46	16	3.0	< 0.01	< 0.5
1287A(4-7)	1.90	8	1.05	293	1.72	0.047	32	< 0.1	4.9	< 3	266	< 0.5	0.20	5.8	1.7	43	3	9	18.7	46	16	2.7	< 0.01	< 0.5
1431A(4-5)	1.85	7	1.10	283	1.66	0.037	< 15	0.2	4.7	< 3	270	< 0.5	0.17	4.5	1.7	34	< 1	9	18.5	41	13	2.5	< 0.01	< 0.5
1441A(4-6)	1.24	7	1.12	215	1.63	0.031	55	< 0.1	4.1	< 3	250	< 0.5	0.15	2.8	0.9	28	6	5	13.9	33	10	2.1	< 0.01	< 0.5
1450(1-4)	1.25	11	1.76	533	1.56	0.053	44	< 0.1	8.5	< 3	252	< 0.5	0.34	12.6	1.7	70	9	14	35.4	82	26	4.7	< 0.01	< 0.5
1450(5-6)	1.35	7	0.99	274	1.77	0.035	47	< 0.1	5.0	< 3	266	< 0.5	0.20	6.7	< 0.5	45	< 1	7	21.8	54	20	3.1	< 0.01	< 0.5
1490(2-4)	1.39	8	1.33	295	1.67	0.035	58	0.2	5.1	< 3	240	< 0.5	0.17	4.6	1.0	30	< 1	7	18.8	49	14	2.8	< 0.01	< 0.5
1490(5-9)	1.22	7	1.18	242	1.91	0.038	46	< 0.1	4.6	< 3	267	< 0.5	0.15	3.5	< 0.5	30	< 1	7	15.6	38	14	2.4	< 0.01	< 0.5
1510(1-4)	1.96	7	1.34	246	1.84	0.038	37	< 0.1	4.7	< 3	260	1.0	0.16	3.7	1.0	28	15	7	16.5	43	13	2.5	< 0.01	< 0.5
1510(5-6)	2.14	6	1.54	255	1.74	0.040	55	< 0.1	4.6	< 3	261	< 0.5	0.17	4.6	1.3	33	< 1	8	17.5	44	17	2.7	< 0.01	< 0.5
1520(2-9)	2.15	7	1.57	267	1.74	0.040	47	0.2	4.6	< 3	258	< 0.5	0.18	3.7	< 0.5	32	< 1	8	16.6	40	14	2.5	< 0.01	< 0.5
1530(2-3)	1.78	7	1.32	264	1.93	0.036	48	< 0.1	4.9	< 3	276	< 0.5	0.12	4.3	1.2	27	< 1	8	17.5	43	14	2.7	< 0.01	< 0.5
1540(1-3)	2.02	7	1.56	274	1.78	0.033	63	0.2	4.8	< 3	258	< 0.5	0.13	4.3	< 0.5	25	< 1	7	17.9	45	14	3.0	< 0.01	< 0.5
1550(1-5)	1.49	7	1.30	302	1.80	0.039	36	< 0.1	4.7	< 3	270	< 0.5	0.16	3.8	< 0.5	32	< 1	6	16.5	42	14	2.6	< 0.01	0.7
1560(4-6)	1.52	7	1.20	281	1.78	0.032	59	0.2	5.2	< 3	254	< 0.5	0.18	4.8	1.4	34	3	7	19.5	46	21	2.8	< 0.01	< 0.5
1570(4-7)	1.57	7	1.66	262	1.81	0.034	48	0.2	4.7	< 3	254	< 0.5	0.17	4.3	1.8	31	< 1	7	17.7	43	16	2.6	< 0.01	< 0.5
1580(4-7)	1.47	7	1.76	271	1.77	0.038	36	< 0.1	4.6	< 3	247	< 0.5	0.17	4.3	0.9	32	< 1	8	17.1	37	14	2.6	0.04	< 0.5
1590(1-7)	1.80	7	1.05	243	1.73	0.033	52	0.2	4.5	< 3	270	< 0.5	0.14	4.3	1.2	26	< 1	6	16.1	41	13	2.5	< 0.01	< 0.5
1600(2-4)	1.60	7	1.45	272	1.71	0.038	< 15	< 0.1	4.6	< 3	260	< 0.5	0.15	4.1	< 0.5	29	< 1	8	16.6	42	15	2.6	< 0.01	< 0.5
1600(6)	1.52	7	1.23	291	1.98	0.037	< 15	< 0.1	5.4	< 3	268	< 0.5	0.16	4.7	< 0.5	33	< 1	8	19.0	48	18	3.1	< 0.01	< 0.5
1610(4-8)	1.75	7	1.43	254	1.49	0.038	60	< 0.1	4.4	< 3	242	< 0.5	0.15	4.2	< 0.5	31	3	7	16.8	42	14	2.5	< 0.01	< 0.5
1620(1-5)	1.47	7	1.36	268	1.74	0.034	46	< 0.1	4.6	< 3	261	< 0.5	0.12	3.9	1.3	22	< 1	8	16.3	40	13	2.5	< 0.01	< 0.5
1630(3C-4)	1.69	7	1.46	274	1.65	0.035	45	0.3	4.8	< 3	253	< 0.5	0.17	4.4	< 0.5	29	< 1	8	18.1	44	16	2.8	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
0520(3-5)	1.2	0.23	43
0550(3b-5)	1.3	0.25	42
0590(4-6)	1.3	0.24	46
0600(3)	1.1	0.22	45
0610(1-7)	1.2	0.21	41
0610(8)	1.1	0.17	41
0660(5)	1.2	0.23	39
0780(3)	1.4	0.25	18
0830(2-5)	1.4	0.25	44
0830(6-7)	1.4	0.23	42
0840(1-4)	1.0	0.14	45
0850(2-3)	1.3	0.23	44
0880(5-6)	1.0	0.21	43
0890(2-7)	1.2	0.21	43
1000(3-7)	0.9	0.15	46
1010(2-7)	1.2	0.20	44
1020(2-7)	1.1	0.20	47
1030(1-5)	0.9	0.17	49
1040(2-5)	1.0	0.19	47
1050(2-7)	1.1	0.17	47
1060(4-8)	1.0	0.19	45
1070(2-5)	1.2	0.24	43
1090(4-7)	1.1	0.16	43
1220(3b-5)	1.3	0.23	45
1240(5-9)	1.1	0.21	46
1249A(3)	1.3	0.24	47
1259A(2-3)	1.1	0.22	45
1287A(2-3)	1.4	0.23	44
1287A(4-7)	1.2	0.18	43
1431A(4-5)	1.2	0.23	42
1441A(4-6)	0.9	0.16	46
1450(1-4)	1.9	0.32	44
1450(5-6)	1.4	0.20	29
1490(2-4)	1.2	0.25	46
1490(5-9)	1.2	0.17	45
1510(1-4)	1.3	0.20	44
1510(5-6)	1.1	0.21	46
1520(2-9)	1.2	0.22	46
1530(2-3)	1.2	0.25	42
1540(1-3)	1.1	0.24	43
1550(1-5)	1.1	0.22	44
1560(4-6)	1.3	0.26	46
1570(4-7)	1.2	< 0.05	43
1580(4-7)	1.3	0.24	44
1590(1-7)	1.2	0.18	44
1600(2-4)	1.1	0.18	46
1600(6)	1.4	0.24	31
1610(4-8)	1.1	0.20	46
1620(1-5)	1.2	0.20	45
1630(3C-4)	1.3	0.19	45

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.4		1160	3.3	13	765	45		788		0.24	1.70			1	1380							0.96
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380							0.960
GXR-4 Meas		3.3		6470	0.4	315	52	44		77		1.77	4.54			2	15							1.09
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0							1.01
SDC-1 Meas		< 0.3		33	< 0.3	< 1	23	40		104		0.07	5.37			3	< 2							1.13
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60							1.00
SCO-1 Meas		0.6		27	< 0.3	1	24	37		100		0.06	4.32			2	< 2							1.89
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37							1.87
GXR-6 Meas		0.9		64	< 0.3	< 1	88	27		127		0.02	9.35			1	< 2							0.22
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290							0.180
DNC-1a Meas				91				258		59														
DNC-1a Cert				100				247		70.0														
OREAS 13b (4-Acid) Meas		1.2		2240		10		2230		107		1.13												
OREAS 13b (4-Acid) Cert		0.86		2300.000		9.0		2247		133		1.20												
DMMAS 114 Meas	2260													1770	1790					42	87			3.63
DMMAS 114 Cert	2199													1624	1561					42	84			3.31
0520(3-5) Orig		0.9		10	< 0.3	< 1	8	11		19		0.02	3.60			< 1	< 2							8.01
0520(3-5) Dup		< 0.3		12	< 0.3	< 1	8	10		15		0.01	3.43			< 1	< 2							7.00
1000(3-7) Orig		< 0.3		3	< 0.3	< 1	8	9		15		< 0.01	3.36			< 1	< 2							6.26
1000(3-7) Dup		< 0.3		4	< 0.3	< 1	8	10		15		< 0.01	3.43			< 1	< 2							6.15
1510(1-4) Orig		< 0.3		4	< 0.3	< 1	9	9		13		< 0.01	3.13			< 1	< 2							7.05
1510(1-4) Dup		< 0.3		4	< 0.3	< 1	5	10		13		< 0.01	3.27			< 1	< 2							7.09
1630(3C-4) Orig		< 0.3		5	< 0.3	< 1	7	9		16		< 0.01	3.01			< 1	< 2							7.59
1630(3C-4) Dup		< 0.3		3	< 0.3	< 1	5	9		14		< 0.01	3.06			< 1	< 2							7.50
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2							< 0.01
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2							< 0.01
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	1		1		< 0.01	< 0.01			< 1	< 2							< 0.01
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01

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Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.05	8	0.23	961		0.058					290					88					26
GXR-1 Cert				0.0500	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-4 Meas				2.57	11	1.75	160		0.132					211					91					13
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
SDC-1 Meas				2.88	34	1.04	960		0.057					170		0.17			43					30
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SCO-1 Meas				1.69	42	1.55	406		0.081					149		0.35			134					16
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
GXR-6 Meas				1.44	36	0.66	1120		0.036					43					186					12
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
DNC-1a Meas					5									123					141					14
DNC-1a Cert					5.20									144					148					18.0
OREAS 13b (4-Acid) Meas																								
OREAS 13b (4-Acid) Cert																								
DMMAS 114 Meas								1.92			3.2	7.5						19.5				18.1	34	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
0520(3-5) Orig				2.20	8	1.77	304		0.054					296		0.18			32					9
0520(3-5) Dup				2.23	7	1.41	275		0.041					278		0.18			31					8
1000(3-7) Orig				1.52	7	1.24	252		0.039					272		0.18			32					8
1000(3-7) Dup				1.55	7	1.17	242		0.035					277		0.17			32					7
1510(1-4) Orig				1.82	7	1.36	249		0.035					262		0.16			28					7
1510(1-4) Dup				2.10	7	1.32	244		0.041					257		0.16			28					8
1630(3C-4) Orig				1.62	7	1.48	269		0.032					253		0.16			26					8
1630(3C-4) Dup				1.77	7	1.44	279		0.038					252		0.18			33					7
Method Blank				< 0.01	< 1	< 0.01	5		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01	6		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01	9		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
OREAS 13b (4-Acid) Meas						
OREAS 13b (4-Acid) Cert						
DMMAS 114 Meas	2.8					
DMMAS 114 Cert	2.4					
0520(3-5) Orig						
0520(3-5) Dup						
1000(3-7) Orig						
1000(3-7) Dup						
1510(1-4) Orig						
1510(1-4) Dup						
1630(3C-4) Orig						
1630(3C-4) Dup						
Method Blank						
Method Blank						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30



Date Submitted: 21-Dec-11
Invoice No.: A11-15290
Invoice Date: 26-Jan-12
Your Reference:

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: President Chris Meraw

CERTIFICATE OF ANALYSIS

53 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A11-15290

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



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Activation Laboratories Ltd. Report: A11-15290

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
1640 (6-8)	2	< 0.3	3	< 0.3	< 1	5	9	12	0.02	3.09	1.6	490	< 1	< 2	3.2	7.67	4	36	< 1	0.5	1.26	4	< 1	< 5
1650 (4-7)	< 2	< 0.3	6	< 0.3	< 1	6	9	15	0.02	2.92	2.0	490	< 1	< 2	3.7	8.57	4	33	< 1	0.6	1.33	6	< 1	< 5
1660 (2-7)	< 2	0.3	3	< 0.3	< 1	6	9	14	0.01	3.23	1.7	510	< 1	< 2	3.3	8.00	4	33	< 1	0.5	1.23	4	< 1	< 5
1670 (2-7)	< 2	< 0.3	6	0.4	< 1	6	11	18	0.02	3.21	1.6	410	< 1	< 2	3.2	8.27	5	54	< 1	0.7	1.52	6	< 1	< 5
1680 (2-7)	< 2	< 0.3	4	< 0.3	< 1	5	10	14	0.02	3.27	1.6	370	< 1	< 2	3.3	7.84	4	44	< 1	0.5	1.40	5	< 1	< 5
1690 (2-7)	< 2	0.4	5	< 0.3	< 1	6	10	14	0.01	3.14	1.4	510	< 1	< 2	3.5	8.36	4	41	< 1	0.6	1.32	5	< 1	< 5
1700 (2-6)	< 2	< 0.3	7	< 0.3	< 1	6	9	13	< 0.01	2.98	1.5	480	< 1	< 2	3.4	8.53	3	33	< 1	0.6	1.23	5	< 1	< 5
1710 (1b-7)	< 2	0.5	5	< 0.3	< 1	7	12	14	0.01	2.88	2.1	440	< 1	< 2	3.3	8.80	4	36	< 1	0.6	1.28	5	< 1	< 5
1720 (2b-9)	< 2	0.5	4	< 0.3	< 1	5	9	12	0.02	3.03	2.4	440	< 1	< 2	2.6	8.35	4	40	< 1	0.6	1.22	4	< 1	< 5
1730 (2-4)	7	< 0.3	3	< 0.3	< 1	6	10	14	< 0.01	2.74	1.9	420	< 1	< 2	3.3	7.60	5	51	< 1	0.6	1.60	6	< 1	< 5
1730 (5-7)	< 2	< 0.3	3	< 0.3	< 1	5	9	13	0.01	3.01	2.3	370	< 1	< 2	2.3	8.30	4	39	1	0.5	1.26	5	< 1	< 5
1740 (3-4)	< 2	< 0.3	4	< 0.3	< 1	6	11	17	< 0.01	2.93	2.9	330	< 1	< 2	3.8	9.07	6	39	1	0.6	1.21	6	< 1	< 5
1740 (5-7)	9	0.4	5	< 0.3	< 1	7	10	14	0.02	3.01	1.1	480	< 1	< 2	3.3	8.94	4	41	< 1	0.7	1.40	6	< 1	< 5
1750 (2-7)	10	< 0.3	4	< 0.3	< 1	8	10	13	< 0.01	2.98	2.3	480	< 1	< 2	3.0	8.79	6	39	< 1	0.6	1.31	6	< 1	< 5
1760 (2-5)	8	< 0.3	4	< 0.3	< 1	8	12	16	< 0.01	3.02	2.3	530	< 1	< 2	3.3	8.82	6	42	< 1	0.7	1.45	6	< 1	< 5
1760 (6)	15	0.5	8	< 0.3	< 1	6	12	17	< 0.01	3.23	< 0.5	420	< 1	< 2	2.4	7.32	4	43	1	0.7	1.50	6	< 1	< 5
1770 (2-7)	12	< 0.3	4	< 0.3	< 1	7	13	15	< 0.01	3.37	2.1	500	< 1	< 2	2.9	7.04	6	45	< 1	0.6	1.36	6	< 1	< 5
1780 (2b-5)	7	0.3	7	< 0.3	< 1	6	13	20	< 0.01	3.28	2.1	450	< 1	< 2	3.6	8.41	6	48	< 1	0.6	1.46	8	< 1	< 5
1780 (7a-8)	< 2	0.4	7	< 0.3	< 1	6	11	22	0.05	3.18	1.9	540	< 1	< 2	2.2	8.21	6	54	< 1	0.7	1.56	6	< 1	< 5
1790 (2b-5)	< 2	0.4	11	< 0.3	< 1	9	27	25	0.01	2.94	3.8	410	< 1	< 2	3.8	9.57	10	66	2	0.8	1.98	6	< 1	< 5
1790 (8-9)	< 2	0.4	4	< 0.3	< 1	11	10	13	0.04	2.98	1.9	530	< 1	< 2	3.3	7.50	4	65	< 1	0.7	1.47	7	< 1	< 5
1800 (3-8)	< 2	0.4	7	< 0.3	< 1	7	11	16	0.03	2.99	3.2	440	< 1	< 2	3.4	8.56	6	53	< 1	0.7	1.72	7	< 1	< 5
1820 (2-3)	< 2	< 0.3	4	< 0.3	< 1	5	10	14	< 0.01	3.32	1.6	400	< 1	< 2	2.2	7.19	4	38	< 1	0.6	1.28	5	< 1	< 5
1830 (6a-b)	< 2	0.4	6	< 0.3	< 1	6	11	19	0.03	3.08	2.0	410	< 1	< 2	2.6	8.20	5	61	< 1	0.6	1.59	6	< 1	< 5
1840 (1-3)	6	< 0.3	6	< 0.3	< 1	10	16	24	< 0.01	3.31	2.7	560	< 1	< 2	3.4	8.21	6	40	2	0.7	1.63	5	< 1	< 5
1850 (2-3)	3	0.4	5	< 0.3	< 1	6	13	15	< 0.01	3.14	1.2	420	< 1	< 2	2.8	7.97	5	47	< 1	0.6	1.46	5	< 1	< 5
1860 (9)	< 2	< 0.3	4	< 0.3	< 1	8	11	15	0.04	3.35	2.4	440	< 1	< 2	2.8	7.13	4	49	< 1	< 0.2	1.64	6	< 1	< 5
1870 (5-7)	< 2	0.5	4	< 0.3	< 1	6	9	13	0.04	3.24	1.4	530	< 1	< 2	2.6	7.53	4	40	< 1	0.6	1.33	5	< 1	< 5
1890 (9)	6	0.4	13	< 0.3	< 1	4	11	14	0.04	3.27	1.3	420	< 1	< 2	2.9	7.68	4	42	< 1	0.6	1.44	5	< 1	< 5
1900 (4-5)	6	< 0.3	6	< 0.3	< 1	4	10	13	0.02	2.63	2.1	420	< 1	< 2	2.9	8.83	4	43	< 1	0.5	1.37	6	< 1	< 5
1910 (16-18)	< 2	0.3	3	< 0.3	< 1	8	8	13	0.02	3.39	1.2	600	< 1	< 2	2.4	6.72	4	28	< 1	0.6	1.12	4	< 1	< 5
2000 (11)	< 2	< 0.3	7	< 0.3	< 1	7	10	21	0.04	3.24	2.6	470	< 1	< 2	2.3	6.77	4	51	< 1	0.7	1.81	6	< 1	< 5
2000 (12)	< 2	0.3	5	< 0.3	< 1	8	11	15	0.04	3.40	3.8	540	< 1	< 2	2.8	7.30	4	39	< 1	0.6	1.66	5	< 1	< 5
2010 (9-10)	< 2	< 0.3	8	< 0.3	< 1	7	11	15	0.05	3.38	2.0	460	< 1	< 2	2.6	6.92	4	43	< 1	0.7	1.50	6	< 1	< 5
2020 (11-13)	< 2	< 0.3	7	< 0.3	< 1	6	10	14	0.04	2.97	2.1	430	< 1	< 2	3.2	8.41	4	48	< 1	0.7	1.40	6	< 1	< 5
2030 (7-9)	< 2	< 0.3	12	< 0.3	2	9	13	20	0.04	2.84	2.0	400	2	< 2	4.3	9.76	5	49	1	0.8	1.60	7	< 1	< 5
2040 (6-7)	< 2	< 0.3	30	< 0.3	< 1	5	10	18	0.04	3.05	< 0.5	480	< 1	< 2	< 0.5	8.82	3	62	< 1	0.8	1.61	8	< 1	< 5
2040 (8)	6	0.5	4	< 0.3	1	4	10	14	0.04	3.96	2.2	400	< 1	< 2	< 0.5	7.63	4	33	< 1	0.6	1.39	6	< 1	< 5
2050 (3-7)	< 2	0.4	3	< 0.3	< 1	7	9	12	< 0.01	3.15	1.3	450	< 1	< 2	3.1	7.48	3	34	< 1	0.6	1.19	4	< 1	< 5
2060 (4-8)	< 2	< 0.3	4	< 0.3	< 1	7	10	13	0.02	3.20	1.3	460	< 1	< 2	2.8	7.63	4	37	< 1	0.6	1.32	6	< 1	< 5
2070 (6-7)	< 2	< 0.3	4	< 0.3	< 1	8	9	14	0.03	3.26	< 0.5	500	< 1	< 2	2.6	7.64	4	35	< 1	0.7	1.30	6	< 1	< 5
2080 (3)	< 2	< 0.3	5	< 0.3	< 1	13	14	14	< 0.01	3.04	1.6	400	< 1	< 2	3.3	8.46	6	44	< 1	0.7	1.36	7	< 1	< 5
2080 (5)	6	0.4	5	< 0.3	< 1	7	11	19	< 0.01	3.28	2.4	340	< 1	< 2	2.9	7.32	6	48	< 1	0.6	1.85	7	< 1	< 5
2080 (6b-7)	< 2	0.3	5	< 0.3	< 1	5	10	14	0.01	3.35	1.8	440	< 1	< 2	2.6	6.96	4	35	< 1	0.7	1.43	6	< 1	< 5
2090 (5b-6a)	14	0.4	6	< 0.3	< 1	6	11	16	< 0.01	3.36	3.1	550	< 1	< 2	3.2	7.17	4	44	< 1	0.7	1.59	6	< 1	< 5
2090 (6b-8a)	6	0.6	5	< 0.3	< 1	7	9	17	0.02	3.40	1.8	520	< 1	< 2	< 0.5	7.07	3	29	< 1	0.6	1.09	3	< 1	< 5
2090 (8b)	10	0.4	4	< 0.3	< 1	5	11	19	0.04	3.49	2.4	370	< 1	< 2	< 0.5	7.32	3	38	< 1	0.6	1.38	6	< 1	< 5
2100 (7-9)	< 2	0.3	4	< 0.3	< 1	6	9	13	0.02	3.26	1.5	350	< 1	< 2	2.4	6.92	3	29	< 1	0.5	1.06	4	< 1	< 5
2110 (7)	< 2	0.5	6	< 0.3	< 1	6	10	16	0.05	3.00	1.9	400	< 1	< 2	2.3	8.13	5	86	< 1	0.7	1.47	7	< 1	< 5
2110 (8-9a)	8	0.4	5	< 0.3	< 1	12	11	15	0.03	3.44	1.8	400	< 1	< 2	2.7	7.16	5	44	< 1	0.7	1.63	6	< 1	< 5
2110 (9b)	13	< 0.3	4	< 0.3	< 1	7	11	17	0.03	3.42	2.1	450	< 1	< 2	2.9	6.97	4	42	< 1	0.7	1.50	6	< 1	< 5

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Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
2120 (5-8)	2	< 0.3	4	< 0.3	< 1	9	10	13	0.03	3.27	1.7	550	< 1	< 2	3.3	7.26	4	38	< 1	0.6	1.22	5	< 1	< 5
2130 (4b-8)	< 2	< 0.3	6	< 0.3	< 1	9	9	14	0.02	3.39	< 0.5	340	2	< 2	< 0.5	7.54	4	39	1	0.6	1.34	6	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
1640 (6-8)	1.36	7	1.39	251	1.77	0.043	76	< 0.1	4.8	< 3	240	< 0.5	0.17	3.5	< 0.5	37	< 1	8	16.7	30	14	3.0	< 0.01	< 0.5
1650 (4-7)	1.37	7	1.74	245	1.65	0.039	49	< 0.1	4.9	< 3	230	1.4	0.17	4.4	< 0.5	36	4	8	17.7	32	15	3.4	< 0.01	< 0.5
1660 (2-7)	1.44	7	1.53	257	1.73	0.041	40	< 0.1	4.6	< 3	253	< 0.5	0.18	3.4	1.8	38	< 1	7	15.4	26	15	2.7	< 0.01	< 0.5
1670 (2-7)	1.41	7	1.50	283	1.65	0.040	37	< 0.1	5.3	< 3	241	< 0.5	0.19	4.8	1.4	43	< 1	8	18.7	34	13	3.4	< 0.01	< 0.5
1680 (2-7)	1.46	7	1.44	270	1.73	0.038	54	< 0.1	5.0	< 3	248	1.6	0.17	3.7	< 0.5	38	< 1	7	17.3	32	11	3.2	< 0.01	0.5
1690 (2-7)	1.45	7	1.68	277	1.68	0.037	61	< 0.1	4.8	< 3	245	1.3	0.18	3.7	< 0.5	37	< 1	7	16.9	28	16	3.2	< 0.01	< 0.5
1700 (2-6)	1.42	7	1.74	252	1.52	0.034	57	0.2	4.4	< 3	232	< 0.5	0.16	4.0	1.0	33	< 1	8	16.3	28	13	2.8	< 0.01	< 0.5
1710 (1b-7)	1.39	7	1.81	286	1.60	0.039	58	0.2	4.7	< 3	223	< 0.5	0.16	3.8	2.8	35	< 1	7	17.3	26	17	3.2	< 0.01	< 0.5
1720 (2b-9)	1.37	6	1.51	252	1.66	0.035	47	< 0.1	4.5	< 3	237	< 0.5	0.17	3.2	< 0.5	36	< 1	7	15.0	27	13	2.7	< 0.01	< 0.5
1730 (2-4)	1.21	7	1.12	298	1.60	0.037	59	< 0.1	5.3	< 3	222	< 0.5	0.18	5.3	< 0.5	40	< 1	7	20.3	35	16	3.5	< 0.01	< 0.5
1730 (5-7)	1.36	6	1.50	265	1.59	0.043	60	0.2	4.6	< 3	234	< 0.5	0.18	4.0	1.2	38	2	8	16.4	28	< 5	2.8	< 0.01	< 0.5
1740 (3-4)	1.38	7	1.77	312	1.57	0.033	45	0.2	4.8	< 3	224	< 0.5	0.17	4.1	1.6	36	< 1	7	16.8	30	12	3.0	< 0.01	< 0.5
1740 (5-7)	1.40	7	1.81	277	1.62	0.038	65	0.1	4.9	< 3	228	< 0.5	0.17	4.7	1.4	36	< 1	7	17.6	30	13	3.1	< 0.01	< 0.5
1750 (2-7)	1.38	7	1.61	276	1.64	0.037	51	< 0.1	4.8	< 3	228	< 0.5	0.17	4.1	1.2	36	< 1	7	17.4	30	< 5	3.1	< 0.01	< 0.5
1760 (2-5)	1.41	9	1.73	327	1.51	0.037	66	0.2	5.1	< 3	224	< 0.5	0.17	4.7	1.0	38	< 1	8	18.6	31	14	3.2	< 0.01	< 0.5
1760 (6)	1.41	7	1.45	268	1.78	0.050	54	< 0.1	5.4	< 3	246	< 0.5	0.21	5.6	1.3	42	6	8	19.6	32	9	3.5	< 0.01	< 0.5
1770 (2-7)	1.49	7	1.22	353	1.84	0.043	47	0.2	4.9	< 3	256	< 0.5	0.19	4.2	< 0.5	42	< 1	8	17.4	31	15	3.2	< 0.01	< 0.5
1780 (2b-5)	1.49	10	1.79	378	1.57	0.049	41	0.2	5.7	< 3	229	< 0.5	0.24	5.5	< 0.5	42	< 1	9	21.9	41	20	3.8	< 0.01	< 0.5
1780 (7a-8)	1.40	7	1.49	329	1.73	0.056	< 15	< 0.1	5.3	< 3	257	< 0.5	0.25	5.1	< 0.5	51	< 1	9	19.0	33	11	3.4	< 0.01	< 0.5
1790 (2b-5)	1.41	15	2.17	511	1.50	0.041	77	0.4	6.5	< 3	196	< 0.5	0.20	6.4	2.4	46	6	8	23.1	40	19	3.7	< 0.01	< 0.5
1790 (8-9)	1.38	6	1.37	254	1.67	0.042	51	0.1	5.4	< 3	234	< 0.5	0.19	5.2	1.5	39	< 1	8	19.8	36	14	3.4	< 0.01	< 0.5
1800 (3-8)	1.34	8	1.39	378	1.56	0.041	67	< 0.1	5.4	< 3	231	< 0.5	0.21	5.1	< 0.5	45	< 1	8	20.1	36	11	3.5	< 0.01	< 0.5
1820 (2-3)	1.47	6	1.24	259	1.77	0.037	< 15	0.2	5.0	< 3	252	< 0.5	0.16	3.6	1.5	36	< 1	7	16.0	27	12	2.9	< 0.01	< 0.5
1830 (6a-b)	1.37	7	1.35	304	1.70	0.044	40	< 0.1	5.1	< 3	244	< 0.5	0.21	4.9	< 0.5	44	< 1	8	19.6	33	18	3.4	< 0.01	< 0.5
1840 (1-3)	1.57	12	1.75	418	1.58	0.035	30	0.2	5.8	< 3	218	< 0.5	0.15	5.0	< 0.5	36	11	9	21.3	39	16	3.7	< 0.01	0.5
1850 (2-3)	1.41	7	1.36	376	1.64	0.044	66	< 0.1	5.0	< 3	243	< 0.5	0.19	4.4	< 0.5	42	< 1	9	18.5	30	11	3.2	< 0.01	< 0.5
1860 (9)	1.38	6	1.00	259	1.69	0.042	< 15	0.2	4.8	< 3	264	< 0.5	0.18	3.8	< 0.5	43	6	7	15.0	38	9	2.5	< 0.01	< 0.5
1870 (5-7)	1.45	6	1.41	249	1.84	0.039	50	0.1	4.7	< 3	252	< 0.5	0.18	3.6	1.4	37	< 1	7	16.0	26	7	2.8	< 0.01	< 0.5
1890 (9)	1.38	6	1.37	265	1.74	0.045	46	< 0.1	4.8	< 3	258	< 0.5	0.20	4.1	< 0.5	44	< 1	8	17.3	29	16	3.2	< 0.01	< 0.5
1900 (4-5)	1.21	6	1.64	264	1.47	0.039	33	0.2	4.5	< 3	208	< 0.5	0.20	4.4	1.5	38	2	7	17.1	28	16	2.9	< 0.01	< 0.5
1910 (16-18)	1.45	6	1.18	258	1.94	0.036	< 15	< 0.1	4.5	< 3	265	< 0.5	0.15	3.5	1.5	33	< 1	7	14.7	26	9	2.7	< 0.01	< 0.5
2000 (11)	1.34	6	1.05	298	1.90	0.033	< 15	< 0.1	5.5	< 3	260	< 0.5	0.23	5.0	1.0	54	< 1	9	20.8	35	15	3.6	< 0.01	< 0.5
2000 (12)	1.44	7	1.25	297	2.01	0.040	59	< 0.1	5.1	< 3	270	< 0.5	0.19	4.7	1.2	42	< 1	8	18.7	33	13	3.4	< 0.01	< 0.5
2010 (9-10)	1.43	6	1.15	281	1.88	0.034	69	< 0.1	5.1	< 3	265	1.0	0.17	4.3	1.4	39	< 1	8	17.8	31	15	3.1	< 0.01	< 0.5
2020 (11-13)	1.39	7	1.62	271	1.61	0.035	36	0.2	4.8	< 3	232	< 0.5	0.16	4.0	< 0.5	35	< 1	8	17.2	29	15	3.1	< 0.01	< 0.5
2030 (7-9)	1.33	9	1.87	304	1.26	0.039	41	0.3	4.8	< 3	215	< 0.5	0.19	5.8	1.7	44	< 1	8	17.0	40	8	2.6	< 0.01	< 0.5
2040 (6-7)	1.35	7	1.43	285	1.52	0.042	< 15	< 0.1	4.8	< 3	242	< 0.5	0.19	5.4	< 0.5	42	< 1	8	18.0	42	16	2.8	< 0.01	0.7
2040 (8)	1.41	6	1.25	236	1.82	0.043	44	0.2	4.7	< 3	258	1.0	0.19	3.8	< 0.5	39	< 1	9	17.3	31	12	3.1	< 0.01	< 0.5
2050 (3-7)	1.44	6	1.48	252	1.77	0.040	42	0.2	4.5	< 3	242	< 0.5	0.16	3.1	< 0.5	34	< 1	7	15.1	26	13	3.0	< 0.01	< 0.5
2060 (4-8)	1.41	6	1.31	270	1.73	0.042	< 15	0.2	4.6	< 3	253	< 0.5	0.17	3.8	0.9	39	< 1	8	16.8	31	10	3.0	< 0.01	< 0.5
2070 (6-7)	1.43	6	1.46	258	1.74	0.036	36	0.2	4.6	< 3	259	< 0.5	0.18	4.2	< 0.5	38	< 1	8	17.0	30	12	3.1	< 0.01	< 0.5
2080 (3)	1.41	7	1.44	345	1.64	0.039	42	0.2	5.1	< 3	234	< 0.5	0.18	4.0	< 0.5	39	< 1	8	17.4	29	17	3.2	< 0.01	< 0.5
2080 (5)	1.34	7	1.31	306	1.82	0.049	46	0.2	5.7	< 3	257	< 0.5	0.22	5.2	1.0	52	< 1	9	19.5	33	11	3.4	< 0.01	< 0.5
2080 (6b-7)	1.45	5	1.20	231	1.87	0.041	< 15	< 0.1	4.8	< 3	267	< 0.5	0.17	3.8	< 0.5	38	< 1	8	16.8	32	14	3.2	< 0.01	< 0.5
2090 (5b-6a)	1.41	6	1.11	271	1.82	0.048	< 15	0.2	5.2	< 3	268	< 0.5	0.20	4.0	< 0.5	45	< 1	8	18.3	34	19	3.1	< 0.01	< 0.5
2090 (6b-8a)	1.43	6	1.03	213	1.85	0.035	46	0.2	4.3	< 3	268	< 0.5	0.14	2.1	2.0	33	< 1	6	13.0	23	8	2.2	< 0.01	< 0.5
2090 (8b)	1.47	6	1.11	275	1.84	0.048	< 15	< 0.1	4.9	< 3	283	< 0.5	0.20	4.1	1.1	44	< 1	8	17.6	29	< 5	3.0	< 0.01	< 0.5
2100 (7-9)	1.45	6	1.27	217	1.71	0.036	29	< 0.1	4.1	< 3	258	< 0.5	0.15	2.4	< 0.5	34	< 1	6	12.7	23	10	2.4	< 0.01	< 0.5
2110 (7)	1.40	7	1.55	287	1.36	0.047	< 15	< 0.1	4.7	< 3	228	1.9	0.21	4.4	< 0.5	42	3	8	16.0	35	6	2.6	< 0.01	< 0.5
2110 (8-9a)	1.41	6	0.98	300	1.84	0.042	54	0.2	5.2	< 3	272	< 0.5	0.20	4.8	1.0	45	< 1	8	18.5	33	14	3.0	< 0.01	< 0.5
2110 (9b)	1.45	6	1.14	260	1.87	0.037	< 15	0.2	4.9	< 3	271	< 0.5	0.19	4.2	< 0.5	42	< 1	8	16.5	27	15	3.0	< 0.01	< 0.5
2120 (5-8)	1.45	6	1.19	231	1.78	0.037	52	< 0.1	4.5	< 3	258	< 0.5	0.15	3.3	1.									

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
2130 (4b-8)	1.54	7	1.39	238	1.76	0.041	57	0.3	4.7	< 3	257	< 0.5	0.18	3.5	1.2	37	< 1	7	15.9	28	13	2.8	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
1640 (6-8)	0.8	< 0.05	39.28
1650 (4-7)	0.9	< 0.05	38.93
1660 (2-7)	0.8	< 0.05	39.78
1670 (2-7)	0.9	< 0.05	38.93
1680 (2-7)	0.8	< 0.05	38.85
1690 (2-7)	0.8	< 0.05	39.96
1700 (2-6)	0.8	< 0.05	44.05
1710 (1b-7)	0.9	< 0.05	40.14
1720 (2b-9)	0.8	< 0.05	43.29
1730 (2-4)	0.9	< 0.05	43.99
1730 (5-7)	0.8	< 0.05	45.02
1740 (3-4)	0.8	0.15	43.62
1740 (5-7)	0.9	< 0.05	41.92
1750 (2-7)	0.9	0.15	41.42
1760 (2-5)	1.0	< 0.05	43.54
1760 (6)	0.9	< 0.05	42.36
1770 (2-7)	0.9	0.14	40.14
1780 (2b-5)	1.1	< 0.05	40.61
1780 (7a-8)	0.9	0.19	41.45
1790 (2b-5)	1.1	< 0.05	38.41
1790 (8-9)	1.1	0.23	42.76
1800 (3-8)	1.0	< 0.05	42.02
1820 (2-3)	0.8	0.15	41.33
1830 (6a-b)	0.9	< 0.05	41.49
1840 (1-3)	0.9	< 0.05	40.92
1850 (2-3)	0.9	< 0.05	41.75
1860 (9)	0.9	0.18	10.12
1870 (5-7)	0.8	< 0.05	43.28
1890 (9)	0.7	0.17	42.70
1900 (4-5)	0.9	0.18	43.15
1910 (16-18)	0.8	< 0.05	43.23
2000 (11)	0.9	< 0.05	41.97
2000 (12)	0.8	< 0.05	33.35
2010 (9-10)	0.9	< 0.05	42.33
2020 (11-13)	0.8	0.19	43.06
2030 (7-9)	1.0	0.22	10.62
2040 (6-7)	1.0	0.22	11.20
2040 (8)	0.9	0.15	44.15
2050 (3-7)	0.9	< 0.05	43.80
2060 (4-8)	0.9	< 0.05	43.31
2070 (6-7)	0.9	0.14	43.42
2080 (3)	1.0	< 0.05	42.67
2080 (5)	0.9	0.17	42.29
2080 (6b-7)	0.9	0.18	41.88
2090 (5b-6a)	1.0	0.17	41.98
2090 (6b-8a)	0.6	0.12	43.26
2090 (8b)	0.9	0.14	41.54
2100 (7-9)	0.7	0.11	45.09
2110 (7)	1.0	0.17	11.71
2110 (8-9a)	0.7	0.17	42.96
2110 (9b)	0.9	0.19	40.78
2120 (5-8)	0.7	0.18	43.77

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
2130 (4b-8)	0.9	0.15	45.71

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Quality Control																									
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	Be	Bi	Ca	K	Li	Mg	Mn	P	Sr	Ti	V	Y	Ni	
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	%	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	
Detection Limit	2	0.3	5	1	0.3	1	3	1	1	0.01	0.01	1	2	0.01	0.01	1	0.01	1	0.001	1	0.01	2	1	20	
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	
GXR-1 Meas		29.3		1010	3.1	13	667	41	696	0.21	3.21	1	1230	0.92	0.05	10	0.29	847	0.051	260		75	23		
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0	760	0.257	3.52	1.22	1380	0.960	0.0500	8.20	0.217	852	0.0650	275		80.0	32.0		
GXR-4 Meas		3.7		6520	0.4	321	39	44	78	1.74	4.86	2	11	1.08	3.75	11	1.71	160	0.137	213		95	12		
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0	73.0	1.77	7.20	1.90	19.0	1.01	4.01	11.1	1.66	155	0.120	221		87.0	14.0		
SDC-1 Meas		< 0.3		31	< 0.3	< 1	19	41	124	0.07	6.45	3	2	1.19	2.75	36	1.06	1010	0.059	187	0.38	75	33		
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0	103.00	0.0650	8.34	3.00	2.60	1.00	2.72	34.00	1.02	880.00	0.0690	180.00	0.606	102.00	40.0		
SCO-1 Meas		0.5		27	< 0.3	1	28	30	101	0.06	3.24	2	< 2	1.68	2.32	38	1.24	391	0.079	131	0.34	131	8		
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27	100	0.0630	7.24	1.80	0.37	1.87	2.30	45	1.64	410	0.0900	170	0.380	130	26		
GXR-6 Meas		0.5		60	0.4	< 1	78	27	119	0.02	14.1	1	3	0.28	1.73	43	0.86	1020	0.043	58		165	16		
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0	118	0.0160	17.7	1.40	0.290	0.180	1.87	32.0	0.609	1010	0.0350	35.0		186	14.0		
DNC-1a Meas				86				241	58							4				121		136	11		
DNC-1a Cert				100.0				247	70.0							5.20				144.0		148.0	18.0		
DMMAS 114 Meas	2110																								
DMMAS 114 Cert	2199																								
DMMAS 114 Meas	2120																								
DMMAS 114 Cert	2199																								
1740 (5-7) Orig		0.3		4	< 0.3	< 1	6	11	14	0.02	3.00	< 1	< 2	9.06	1.40	7	1.83	284	0.034	229	0.16	33	8		
1740 (5-7) Dup		0.5		5	< 0.3	< 1	8	10	15	0.02	3.01	< 1	< 2	8.83	1.40	7	1.79	269	0.043	228	0.17	38	7		
1860 (9) Orig		0.4		4	< 0.3	< 1	8	11	15	0.04	3.32	< 1	< 2	7.10	1.37	6	1.01	275	0.042	264	0.18	44	8		
1860 (9) Dup		< 0.3		4	< 0.3	< 1	8	11	15	0.04	3.38	< 1	< 2	7.16	1.39	6	0.99	242	0.041	265	0.17	41	7		
2100 (7-9) Orig		< 0.3		4	< 0.3	< 1	7	9	12	0.02	3.37	< 1	< 2	6.85	1.50	6	1.19	215	0.034	268	0.14	32	6		
2100 (7-9) Dup		0.3		3	< 0.3	< 1	5	10	13	0.02	3.16	< 1	< 2	6.98	1.39	5	1.35	219	0.038	249	0.16	35	7		
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1	< 1	< 0.01	< 0.01	< 1	< 2	< 0.01	< 0.01	< 1	< 0.01	7	< 0.001	< 1	< 0.01	< 2	< 1		
Method Blank	< 2		< 5																					< 20	
Method Blank	< 2		< 5																						< 20

Activation Laboratories Ltd. Report: A11-15290

Quality Control																								
Analyte Symbol	Zn	As	Ba	Br	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir	Na	Rb	Sb	Sc	Se	Ta	Th	U	W	La	Ce	Nd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	50	0.5	50	0.5	1	2	1	0.2	0.01	1	1	5	0.01	15	0.1	0.1	3	0.5	0.2	0.5	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas																								
GXR-1 Cert																								
GXR-4 Meas																								
GXR-4 Cert																								
SDC-1 Meas																								
SDC-1 Cert																								
SCO-1 Meas																								
SCO-1 Cert																								
GXR-6 Meas																								
GXR-6 Cert																								
DNC-1a Meas																								
DNC-1a Cert																								
DMMAS 114 Meas		1680	1600		40	91			3.45				1.80		11.0	7.1			18.0		16.0	30		
DMMAS 114 Cert		1624	1561		42	84			3.31				1.78		11.2	6.5			17.4		15.1	23.7		
DMMAS 114 Meas		1730	1400		43	88			3.50				1.90		13.1	7.4			20.9		16.3	26		
DMMAS 114 Cert		1624	1561		42	84			3.31				1.78		11.2	6.5			17.4		15.1	23.7		
1740 (5-7) Orig																								
1740 (5-7) Dup																								
1860 (9) Orig																								
1860 (9) Dup																								
2100 (7-9) Orig																								
2100 (7-9) Dup																								
Method Blank																								
Method Blank	< 50	< 0.5	< 50	< 0.5	< 1	< 2	< 1	< 0.2	< 0.01	< 1	< 1	< 5	< 0.01	< 15	< 0.1	< 0.1	< 3	< 0.5	< 0.2	< 0.5	< 1	< 0.5	< 3	< 5
Method Blank	< 50	< 0.5	< 50	< 0.5	< 1	< 2	< 1	< 0.2	< 0.01	< 1	< 1	< 5	< 0.01	< 15	< 0.1	< 0.1	< 3	< 0.5	< 0.2	< 0.5	< 1	< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 114 Meas	2.5					
DMMAS 114 Cert	2.4					
DMMAS 114 Meas	3.1					
DMMAS 114 Cert	2.4					
1740 (5-7) Orig						
1740 (5-7) Dup						
1860 (9) Orig						
1860 (9) Dup						
2100 (7-9) Orig						
2100 (7-9) Dup						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.00
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	10.00



Date Submitted: 16-Jan-12
Invoice No.: A12-00298
Invoice Date: 31-Jan-12
Your Reference: DD-RR

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: Sarah Smeenk

CERTIFICATE OF ANALYSIS

58 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A12-00298

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A12-00298

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
1403(2-5)	< 2	< 0.3	11	< 0.3	2	15	18	26	0.02	3.48	< 0.5	440	1	< 2	2.5	5.55	5	55	2	0.9	1.84	8	< 1	< 5
2140(6-8)	< 2	< 0.3	4	< 0.3	< 1	8	10	14	0.01	3.09	2.0	420	< 1	< 2	3.0	7.61	4	42	< 1	0.6	1.21	5	< 1	< 5
2171(5b-7)	< 2	< 0.3	8	< 0.3	< 1	9	10	15	0.03	3.36	1.3	370	< 1	< 2	2.0	7.21	3	44	< 1	0.7	1.67	8	< 1	< 5
2190(3b-8)	< 2	< 0.3	6	< 0.3	< 1	66	10	16	0.03	3.28	1.7	450	< 1	< 2	2.5	7.38	5	38	< 1	0.6	1.34	5	< 1	< 5
2200(4-10)	5	< 0.3	4	< 0.3	< 1	11	9	15	0.04	3.28	1.6	430	< 1	< 2	2.2	7.01	3	37	< 1	0.6	1.47	5	< 1	< 5
2210(4-8)	< 2	< 0.3	4	< 0.3	< 1	9	9	14	0.03	3.24	< 0.5	440	< 1	< 2	2.6	7.09	4	39	< 1	0.7	1.55	6	< 1	< 5
2210(9-12)	< 2	< 0.3	3	< 0.3	< 1	6	7	12	0.02	3.20	1.2	500	< 1	< 2	2.3	7.17	4	30	< 1	0.7	1.08	5	< 1	< 5
2221(6-7)	< 2	< 0.3	6	< 0.3	< 1	9	8	15	< 0.01	3.04	1.0	480	< 1	< 2	2.1	7.05	4	34	2	0.7	1.35	6	< 1	< 5
2230(4-6)	< 2	< 0.3	10	< 0.3	< 1	9	11	16	< 0.01	3.31	1.2	550	< 1	< 2	2.1	7.24	4	41	2	0.9	1.51	6	< 1	< 5
2240(5b)	< 2	0.3	8	< 0.3	< 1	8	7	15	< 0.01	2.62	1.2	550	< 1	< 2	2.2	6.32	4	44	< 1	0.7	1.49	6	< 1	< 5
2260(5-6)	< 2	< 0.3	6	< 0.3	< 1	7	8	15	0.04	2.97	2.0	480	< 1	< 2	2.7	7.68	4	44	< 1	0.7	1.36	6	< 1	< 5
2270(6-7)	< 2	< 0.3	6	< 0.3	< 1	8	9	18	0.04	2.86	< 0.5	510	< 1	< 2	3.0	8.54	5	51	< 1	0.8	1.68	7	< 1	< 5
2280(6b-7)	< 2	< 0.3	4	< 0.3	< 1	9	9	20	0.03	3.08	1.8	540	< 1	< 2	2.3	7.60	4	47	< 1	0.7	1.46	7	< 1	< 5
2290(4-7)	< 2	< 0.3	4	< 0.3	< 1	8	8	15	< 0.01	3.15	1.5	480	< 1	< 2	2.5	7.37	4	42	< 1	0.7	1.45	6	< 1	< 5
2300(4-7)	< 2	< 0.3	4	< 0.3	< 1	8	10	15	< 0.01	3.21	1.8	420	< 1	< 2	2.5	7.38	3	38	< 1	0.6	1.26	6	< 1	< 5
2310(2-5)	< 2	< 0.3	3	< 0.3	< 1	9	8	14	< 0.01	3.35	< 0.5	490	< 1	< 2	2.0	6.65	3	41	< 1	0.7	1.50	6	< 1	< 5
2320(2-5)	6	< 0.3	6	< 0.3	< 1	8	9	15	< 0.01	3.24	1.0	480	< 1	< 2	2.6	7.15	4	40	< 1	0.6	1.38	6	< 1	< 5
2330(2-4)	< 2	< 0.3	4	< 0.3	< 1	8	12	18	< 0.01	3.11	2.3	320	< 1	< 2	2.6	7.83	6	47	< 1	0.6	1.41	6	< 1	< 5
2340(3-6)	< 2	< 0.3	6	< 0.3	< 1	8	11	18	0.02	3.36	2.3	440	< 1	< 2	2.0	7.33	6	44	2	0.7	1.53	6	< 1	< 5
2340(7-9)	5	< 0.3	2	< 0.3	< 1	8	7	14	0.02	2.68	1.0	520	< 1	< 2	2.7	7.20	3	43	< 1	0.7	1.47	6	< 1	< 5
2350(4-7)	< 2	< 0.3	5	< 0.3	< 1	7	9	16	< 0.01	3.29	1.0	460	< 1	< 2	2.5	6.61	6	43	< 1	0.8	1.56	7	< 1	< 5
2360(4-6)	< 2	< 0.3	3	< 0.3	< 1	9	9	14	0.02	3.21	< 0.5	420	< 1	< 2	2.6	6.74	4	44	< 1	0.8	1.52	7	< 1	< 5
2360(7)	< 2	1.3	6	< 0.3	< 1	9	11	16	0.04	3.27	2.0	400	< 1	< 2	2.6	6.70	5	51	2	0.8	2.10	8	< 1	< 5
2370(2-7)	< 2	< 0.3	7	< 0.3	< 1	8	10	17	0.03	3.09	2.2	420	< 1	< 2	2.5	7.42	5	50	< 1	0.8	1.50	7	< 1	< 5
2390(5b-9)	< 2	< 0.3	4	< 0.3	< 1	7	9	15	0.03	3.21	1.8	450	< 1	< 2	< 0.5	7.10	5	37	< 1	0.6	1.43	6	< 1	< 5
2410-2420	< 2	< 0.3	4	< 0.3	< 1	7	10	15	0.03	3.29	2.4	470	< 1	< 2	2.6	6.78	4	31	2	0.6	1.30	5	< 1	< 5
2430(5-9)	4	0.3	6	< 0.3	< 1	8	11	20	0.03	3.35	1.8	540	< 1	< 2	2.7	6.74	4	43	2	0.7	1.66	7	< 1	< 5
2440(3-7)	< 2	< 0.3	3	< 0.3	< 1	7	8	14	< 0.01	3.25	1.7	460	< 1	< 2	2.8	7.04	3	34	< 1	0.7	1.28	6	< 1	< 5
2440(8-9)	< 2	< 0.3	4	< 0.3	< 1	8	8	14	0.03	3.17	1.3	450	< 1	< 2	2.6	7.76	3	33	< 1	0.7	1.36	6	< 1	< 5
2460(1)	< 2	1.0	3	< 0.3	< 1	9	12	19	< 0.01	3.62	1.9	590	1	< 2	< 0.5	2.31	5	55	< 1	0.7	1.64	8	< 1	< 5
2470(1)	< 2	< 0.3	5	< 0.3	< 1	8	13	20	< 0.01	3.18	2.2	550	< 1	< 2	1.8	7.92	6	58	2	0.9	1.83	7	< 1	< 5
2483(1-6a)	< 2	< 0.3	5	< 0.3	2	7	9	15	< 0.01	3.25	1.8	470	< 1	< 2	2.2	6.67	5	49	< 1	0.6	1.66	7	< 1	< 5
2483(6b-8)	< 2	< 0.3	2	< 0.3	< 1	9	8	14	0.03	3.27	< 0.5	480	< 1	< 2	2.4	6.99	4	40	< 1	0.7	1.39	6	< 1	< 5
2486(6b-9)	< 2	< 0.3	3	< 0.3	< 1	8	11	15	0.03	3.10	2.5	510	< 1	< 2	3.6	7.80	5	43	< 1	0.8	1.42	9	< 1	< 5
KC-735	< 2	< 0.3	29	< 0.3	< 1	17	42	58	0.01	4.09	5.1	610	2	< 2	2.1	9.57	19	85	2	1.0	3.02	5	< 1	< 5
KC-734	< 2	0.3	26	< 0.3	2	10	23	42	0.02	3.52	4.0	590	1	< 2	3.5	9.65	7	54	2	0.6	2.04	6	< 1	< 5
KC-733	< 2	< 0.3	15	< 0.3	< 1	8	16	26	0.02	3.05	2.2	570	< 1	< 2	2.6	9.85	5	50	< 1	0.7	1.55	7	< 1	< 5
KC-732	< 2	< 0.3	9	< 0.3	< 1	6	13	20	0.04	2.91	2.6	460	< 1	< 2	3.1	9.55	5	36	2	0.9	1.29	8	< 1	< 5
KC-731	13	< 0.3	20	< 0.3	< 1	8	22	39	0.03	3.52	2.0	620	1	< 2	3.2	9.06	9	68	2	0.7	2.15	6	< 1	< 5
KC-730	< 2	< 0.3	13	< 0.3	< 1	13	12	22	0.05	2.88	< 0.5	410	< 1	< 2	3.0	10.1	6	52	< 1	0.8	1.39	6	< 1	< 5
KC-729	< 2	< 0.3	8	0.4	< 1	9	10	19	0.04	2.87	1.2	480	< 1	< 2	3.5	9.42	5	41	< 1	0.7	1.21	7	< 1	< 5
KC-728	< 2	< 0.3	20	< 0.3	< 1	8	15	25	0.01	3.06	< 0.5	560	< 1	< 2	3.0	9.73	5	48	2	0.8	1.47	8	< 1	< 5
KC-727	< 2	< 0.3	18	< 0.3	< 1	14	26	33	< 0.01	3.39	2.2	530	1	< 2	2.9	9.05	13	65	2	0.9	2.18	7	< 1	< 5
KC-726	35	< 0.3	7	< 0.3	< 1	9	9	18	0.03	3.13	1.8	630	< 1	< 2	3.6	7.84	4	35	< 1	0.8	1.22	7	< 1	< 5
KC-725	< 2	< 0.3	43	< 0.3	< 1	12	41	73	0.01	4.35	3.5	730	2	< 2	< 0.5	9.08	15	91	3	1.3	3.41	7	< 1	< 5
KC-724	< 2	< 0.3	8	< 0.3	< 1	6	12	19	0.04	2.76	< 0.5	630	< 1	< 2	3.8	9.54	6	46	< 1	0.8	1.25	8	< 1	< 5
KC-723	< 2	< 0.3	27	< 0.3	< 1	13	30	57	0.01	4.08	6.2	750	1	< 2	< 0.5	7.76	14	87	2	1.1	3.29	7	< 1	< 5
KC-722	3	< 0.3	18	< 0.3	< 1	10	20	35	< 0.01	3.34	4.4	590	1	< 2	3.3	9.19	9	59	2	1.1	2.27	9	< 1	< 5
KC-721	< 2	< 0.3	8	< 0.3	< 1	8	12	21	< 0.01	3.01	1.6	610	< 1	< 2	3.4	8.22	4	53	1	0.9	1.23	8	< 1	< 5
KC-720	< 2	< 0.3	10	< 0.3	< 1	8	13	26	0.03	3.05	< 0.5	610	< 1	< 2	4.9	7.62	4	61	< 1	0.9	1.38	8	< 1	< 5
KC-719	< 2	< 0.3	5	< 0.3	< 1	9	12	16	< 0.01	2.95	2.1	650	< 1	< 2	3.0	8.58	7	48	1	0.9	1.30	8	< 1	< 5

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Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
KC-718	< 2	< 0.3	12	< 0.3	< 1	8	14	25	0.04	3.07	2.8	450	< 1	< 2	3.2	8.74	6	47	1	0.9	1.55	7	< 1	< 5
KC-717	< 2	< 0.3	14	< 0.3	< 1	8	11	20	0.03	2.82	1.8	660	< 1	< 2	4.1	9.03	4	62	< 1	0.9	1.22	9	< 1	< 5
KC-736	9	< 0.3	10	< 0.3	< 1	7	14	25	0.04	2.99	< 0.5	670	< 1	< 2	4.0	9.68	7	53	1	0.8	1.42	7	< 1	< 5
KC-739	< 2	< 0.3	9	< 0.3	< 1	9	12	21	< 0.01	2.90	2.3	630	< 1	< 2	3.3	9.63	4	42	< 1	1.0	1.46	8	< 1	< 5
KC-740	< 2	< 0.3	6	< 0.3	< 1	7	9	16	0.02	2.83	2.8	350	< 1	< 2	3.7	9.42	4	43	< 1	0.7	1.14	7	< 1	< 5
KC-741	< 2	< 0.3	7	< 0.3	< 1	10	10	18	0.03	2.98	< 0.5	740	< 1	< 2	3.4	8.66	4	36	2	0.8	1.28	6	< 1	< 5
KC-742	< 2	< 0.3	9	< 0.3	< 1	7	12	19	0.03	2.86	< 0.5	490	< 1	< 2	3.3	9.30	5	44	< 1	0.6	1.08	7	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
1403(2-5)	1.33	10	1.32	315	1.87	0.043	49	0.2	6.5	< 3	249	< 0.5	0.22	6.6	2.0	46	< 1	10	24.7	38	22	4.9	< 0.01	< 0.5
2140(6-8)	1.33	8	1.42	245	1.68	0.034	55	< 0.1	4.7	< 3	243	< 0.5	0.16	3.0	1.2	29	< 1	7	14.3	23	15	3.2	< 0.01	< 0.5
2171(5b-7)	1.58	7	1.28	290	1.92	0.048	54	0.2	5.1	< 3	281	< 0.5	0.21	4.4	< 0.5	45	< 1	9	17.2	28	15	3.7	< 0.01	< 0.5
2190(3b-8)	1.71	7	1.30	249	1.74	0.037	46	< 0.1	4.7	< 3	264	1.5	0.16	3.7	1.0	32	< 1	7	14.7	25	16	3.3	< 0.01	< 0.5
2200(4-10)	1.50	7	1.13	232	1.86	0.033	< 15	< 0.1	4.8	< 3	262	< 0.5	0.15	3.6	1.1	34	< 1	7	15.2	25	16	3.3	< 0.01	< 0.5
2210(4-8)	1.22	7	1.20	243	1.91	0.036	35	< 0.1	5.1	< 3	264	< 0.5	0.16	4.0	1.0	36	2	8	15.8	25	18	3.4	< 0.01	< 0.5
2210(9-12)	1.50	6	1.32	229	1.83	0.039	46	0.2	4.3	< 3	261	< 0.5	0.16	3.1	0.9	30	< 1	8	13.8	23	16	3.0	< 0.01	< 0.5
2221(6-7)	1.59	6	1.32	227	1.80	0.037	57	0.2	4.7	< 3	247	< 0.5	0.17	3.7	< 0.5	33	< 1	8	15.2	24	15	3.3	< 0.01	< 0.5
2230(4-6)	1.66	7	1.50	270	1.88	0.049	62	< 0.1	5.3	< 3	271	< 0.5	0.20	4.2	1.4	37	< 1	9	18.9	32	23	4.2	< 0.01	< 0.5
2240(5b)	1.41	6	0.88	220	1.99	0.041	44	< 0.1	5.1	< 3	261	< 0.5	0.16	5.3	< 0.5	32	< 1	7	19.7	32	16	4.2	< 0.01	< 0.5
2260(5-6)	1.56	8	1.57	265	1.55	0.041	< 15	0.2	4.7	< 3	233	< 0.5	0.18	3.6	0.8	35	< 1	8	14.3	23	13	3.2	< 0.01	< 0.5
2270(6-7)	1.35	8	1.35	275	1.67	0.039	49	< 0.1	5.4	< 3	233	< 0.5	0.19	4.7	1.1	38	< 1	8	18.1	30	13	3.8	< 0.01	< 0.5
2280(6b-7)	1.55	7	1.36	254	1.84	0.037	57	< 0.1	5.2	< 3	252	< 0.5	0.17	3.9	1.3	32	3	8	16.6	28	16	3.7	< 0.01	< 0.5
2290(4-7)	1.53	7	1.22	267	1.85	0.038	31	< 0.1	5.0	< 3	255	< 0.5	0.17	3.8	< 0.5	34	< 1	8	16.1	26	15	3.5	< 0.01	< 0.5
2300(4-7)	1.71	7	1.31	244	1.75	0.035	39	< 0.1	4.6	< 3	257	< 0.5	0.14	3.0	1.2	26	< 1	7	14.2	23	17	3.0	< 0.01	< 0.5
2310(2-5)	1.65	6	1.20	244	2.06	0.039	43	< 0.1	5.3	< 3	276	< 0.5	0.13	3.7	1.2	26	< 1	8	15.6	26	16	3.4	< 0.01	< 0.5
2320(2-5)	1.50	7	1.19	250	1.91	0.039	56	0.2	4.9	< 3	262	1.2	0.16	3.3	1.1	34	< 1	8	14.9	26	14	3.3	< 0.01	< 0.5
2330(2-4)	1.51	9	1.39	321	1.54	0.037	46	0.2	4.9	< 3	236	< 0.5	0.17	3.7	< 0.5	36	< 1	8	14.6	26	18	3.2	< 0.01	< 0.5
2340(3-6)	1.36	10	1.36	286	1.79	0.038	53	0.2	5.3	< 3	256	< 0.5	0.18	3.9	1.4	37	< 1	9	15.8	26	17	3.4	< 0.01	< 0.5
2340(7-9)	1.42	6	1.22	250	2.02	0.042	52	0.2	5.0	< 3	257	< 0.5	0.17	4.1	1.0	33	< 1	7	16.8	28	14	3.7	< 0.01	< 0.5
2350(4-7)	1.49	7	1.29	313	1.97	0.047	< 15	< 0.1	5.8	< 3	259	< 0.5	0.17	5.0	1.4	38	< 1	8	18.9	31	22	4.1	< 0.01	< 0.5
2360(4-6)	1.39	7	1.16	260	1.91	0.035	70	0.2	5.2	< 3	256	0.9	0.18	3.6	< 0.5	36	< 1	8	16.3	28	16	3.8	< 0.01	< 0.5
2360(7)	1.43	7	1.04	278	1.93	0.036	52	0.2	5.9	< 3	266	< 0.5	0.19	5.5	1.4	45	2	8	18.6	32	20	3.9	< 0.01	< 0.5
2370(2-7)	1.51	7	1.49	272	1.81	0.038	50	0.2	5.4	< 3	248	< 0.5	0.19	3.8	1.7	38	< 1	9	17.0	28	20	3.7	0.02	< 0.5
2390(5b-9)	1.58	7	1.23	242	1.89	0.039	40	0.2	5.0	< 3	263	< 0.5	0.16	4.0	1.2	33	< 1	8	15.2	26	18	3.3	< 0.01	< 0.5
2410-2420	1.79	7	1.18	249	1.90	0.042	54	0.2	4.9	< 3	272	< 0.5	0.18	3.4	1.1	37	< 1	8	14.5	22	12	3.2	< 0.01	< 0.5
2430(5-9)	1.65	10	1.37	301	1.82	0.038	< 15	0.2	5.6	< 3	254	< 0.5	0.18	4.1	1.3	40	< 1	8	17.4	29	20	3.7	< 0.01	< 0.5
2440(3-7)	1.68	6	1.26	236	1.73	0.041	46	< 0.1	4.5	< 3	269	< 0.5	0.15	3.2	1.0	32	< 1	8	14.1	24	14	3.1	< 0.01	< 0.5
2440(8-9)	1.60	7	1.37	250	1.77	0.035	< 15	0.2	4.7	< 3	259	< 0.5	0.15	3.4	< 0.5	32	< 1	8	15.2	24	17	3.4	< 0.01	< 0.5
2460(1)	1.70	9	0.60	257	1.97	0.028	50	< 0.1	5.8	< 3	265	< 0.5	0.24	3.9	1.4	42	4	9	15.6	27	19	3.4	< 0.01	< 0.5
2470(1)	1.57	12	1.43	371	1.66	0.038	41	< 0.1	6.2	< 3	231	1.1	0.20	5.0	1.0	40	11	9	19.8	35	27	4.3	< 0.01	< 0.5
2483(1-6a)	1.47	7	1.05	285	1.97	0.040	80	0.2	5.5	< 3	268	< 0.5	0.19	3.8	< 0.5	40	< 1	8	16.9	28	17	3.7	< 0.01	< 0.5
2483(6b-8)	1.68	6	1.27	253	1.89	0.035	62	0.2	4.9	< 3	267	< 0.5	0.14	3.3	1.0	30	< 1	8	15.2	26	17	3.4	< 0.01	< 0.5
2486(6b-9)	1.65	7	1.36	262	1.52	0.038	< 15	< 0.1	4.4	< 3	250	< 0.5	0.16	4.2	2.3	32	< 1	8	19.0	42	13	2.6	< 0.01	< 0.5
KC-735	1.31	39	2.50	1060	1.04	0.043	100	< 0.1	8.2	< 3	185	1.9	0.17	10.0	3.1	49	< 1	12	31.0	85	15	3.9	0.08	< 0.5
KC-734	2.00	26	2.28	401	1.11	0.043	54	< 0.1	6.3	< 3	198	< 0.5	0.22	8.1	< 0.5	51	< 1	10	25.0	57	15	3.4	0.09	< 0.5
KC-733	1.66	15	2.04	342	1.19	0.035	42	< 0.1	5.2	< 3	209	< 0.5	0.12	5.8	< 0.5	25	< 1	9	21.0	49	9	3.0	< 0.01	< 0.5
KC-732	1.60	12	1.84	309	1.19	0.045	< 15	< 0.1	4.6	< 3	209	< 0.5	0.19	4.9	< 0.5	34	< 1	9	19.0	42	< 5	2.7	< 0.01	< 0.5
KC-731	1.48	24	1.95	418	1.26	0.043	50	0.3	6.8	< 3	214	2.3	0.22	7.9	1.7	54	< 1	10	26.0	59	19	3.3	< 0.01	< 0.5
KC-730	1.52	13	2.34	309	1.19	0.040	< 15	< 0.1	4.7	< 3	205	< 0.5	0.18	4.8	< 0.5	36	4	9	20.0	44	13	2.8	< 0.01	< 0.5
KC-729	1.28	9	1.98	276	1.31	0.038	< 15	< 0.1	4.2	< 3	222	< 0.5	0.17	4.7	2.8	30	< 1	8	18.0	40	15	2.4	< 0.01	< 0.5
KC-728	1.33	14	1.97	305	1.27	0.033	55	< 0.1	4.9	< 3	212	< 0.5	0.17	5.3	1.4	34	5	9	22.0	47	17	2.8	< 0.01	< 0.5
KC-727	1.57	21	1.72	629	1.30	0.038	< 15	0.4	6.4	< 3	220	2.0	0.19	7.1	< 0.5	46	< 1	10	25.0	65	16	3.3	< 0.01	0.5
KC-726	1.53	8	1.61	253	1.53	0.038	41	0.3	4.2	< 3	242	< 0.5	0.15	3.9	2.4	30	< 1	8	17.0	40	9	2.4	< 0.01	< 0.5
KC-725	1.52	45	2.31	576	1.18	0.046	95	0.4	10.1	< 3	188	< 0.5	0.22	12.1	< 0.5	66	10	12	36.3	80	21	4.3	< 0.01	< 0.5
KC-724	1.63	10	2.22	294	1.34	0.037	43	< 0.1	4.5	< 3	206	< 0.5	0.15	4.7	1.9	26	7	8	18.7	42	10	2.5	< 0.01	< 0.5
KC-723	1.52	33	1.92	680	1.34	0.056	55	0.3	8.7	< 3	205	< 0.5	0.26	11.0	< 0.5	70	7	12	35.2	79	20	4.3	< 0.01	< 0.5
KC-722	1.66	22	1.78	382	1.28	0.040	77	0.4	6.8	< 3	204	< 0.5	0.21	8.3	2.1	49	4	10	27.5	62	17	3.5	< 0.01	< 0.5
KC-721	1.67	11	1.65	294	1.47	0.037	< 15	< 0.1	5.1	< 3	222	< 0.5	0.19	5.4	< 0.5	33	< 1	9	22.0	46	11	3.1	< 0.01	< 0.5
KC-720	1.33	12	1.81	252	1.54	0.041	59	0.3	5.4	< 3	214	< 0.5	0.20	5.2	2.8	31	< 1	9	20.9	48	15	2.9	< 0.01	< 0.5
KC-719	1.37	9	1.70	361	1.47	0.037	< 15	< 0.1	4.4	< 3	231	< 0.5	0.18	4.1	1.1	31	< 1	9	18.7	45	12	2.8	< 0.01	< 0.5
KC-718	1.46	14	1.80	298	1.43	0.038	55	0.4	5.4	< 3														

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
KC-717	1.60	9	2.09	264	1.53	0.036	< 15	0.3	4.6	< 3	216	1.8	0.14	4.0	2.0	24	8	8	19.8	45	< 5	2.8	< 0.01	< 0.5
KC-736	1.71	13	2.25	292	1.36	0.036	31	< 0.1	5.1	< 3	214	< 0.5	0.18	5.1	1.8	34	< 1	9	20.9	41	6	2.8	< 0.01	< 0.5
KC-739	1.62	12	1.93	286	1.36	0.033	< 15	0.2	4.8	< 3	213	< 0.5	0.13	5.8	< 0.5	25	< 1	8	20.9	45	18	3.0	< 0.01	< 0.5
KC-740	1.59	9	2.04	263	1.29	0.038	< 15	< 0.1	4.0	< 3	219	< 0.5	0.11	3.6	2.2	21	< 1	8	17.0	37	< 5	2.3	< 0.01	< 0.5
KC-741	1.66	9	1.75	269	1.45	0.035	< 15	< 0.1	4.2	< 3	234	< 0.5	0.10	5.0	< 0.5	20	3	8	17.0	32	< 5	2.6	< 0.01	< 0.5
KC-742	1.64	10	1.99	278	1.28	0.035	< 15	< 0.1	4.2	< 3	222	< 0.5	0.14	4.9	2.0	25	45	8	18.0	42	< 5	2.3	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
1403(2-5)	1.2	0.09	43.46
2140(6-8)	0.8	< 0.05	42.92
2171(5b-7)	1.2	0.16	43.95
2190(3b-8)	0.9	0.16	44.24
2200(4-10)	0.9	< 0.05	43.40
2210(4-8)	1.2	< 0.05	44.15
2210(9-12)	0.8	0.14	43.84
2221(6-7)	1.0	0.17	41.24
2230(4-6)	1.2	0.19	41.77
2240(5b)	1.0	0.17	40.69
2260(5-6)	1.0	0.19	42.42
2270(6-7)	1.2	0.20	41.40
2280(6b-7)	1.2	0.18	42.06
2290(4-7)	1.0	0.15	40.33
2300(4-7)	1.0	0.15	43.97
2310(2-5)	1.0	0.15	41.07
2320(2-5)	0.9	0.16	41.37
2330(2-4)	0.9	0.15	40.07
2340(3-6)	1.0	0.16	41.98
2340(7-9)	1.0	< 0.05	42.17
2350(4-7)	1.1	< 0.05	42.89
2360(4-6)	1.1	0.18	41.01
2360(7)	1.1	0.20	41.84
2370(2-7)	1.1	0.21	43.64
2390(5b-9)	0.9	0.15	42.03
2410-2420	0.9	0.14	42.85
2430(5-9)	1.1	0.18	39.14
2440(3-7)	0.9	0.16	45.48
2440(8-9)	1.0	0.16	43.70
2460(1)	1.2	0.19	39.01
2470(1)	1.3	0.20	39.23
2483(1-6a)	1.0	0.17	40.29
2483(6b-8)	1.0	0.15	42.48
2486(6b-9)	1.2	0.24	42.35
KC-735	1.9	0.35	28.18
KC-734	1.3	0.16	30.29
KC-733	1.3	0.25	37.47
KC-732	1.6	0.27	40.94
KC-731	1.5	0.29	37.67
KC-730	1.5	0.27	33.44
KC-729	1.2	0.29	39.58
KC-728	1.5	0.25	36.57
KC-727	1.6	0.32	36.87
KC-726	1.1	0.24	41.41
KC-725	2.1	0.34	30.98
KC-724	1.4	0.25	39.40
KC-723	1.8	0.32	32.62
KC-722	2.0	0.30	35.39
KC-721	1.5	0.32	38.88
KC-720	1.6	0.33	33.70
KC-719	1.5	0.31	40.97
KC-718	1.5	0.29	39.73

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
KC-717	1.4	0.24	29.89
KC-736	1.5	0.28	37.66
KC-739	1.5	0.26	36.89
KC-740	1.1	0.25	41.15
KC-741	1.2	0.20	41.73
KC-742	1.2	0.19	42.64

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.4		1180	3.3	15	768	42		763		0.23	1.67			1	1380							0.94
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380							0.960
GXR-4 Meas		3.6		6450	0.3	313	48	45		75		1.79	4.70			2	17							1.14
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0							1.01
SDC-1 Meas		< 0.3		31	< 0.3	< 1	25	38		106		0.07	5.90			3	< 2							1.16
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60							1.00
SCO-1 Meas		0.4		27	< 0.3	< 1	26	28		104		0.07	5.18			2	< 2							2.02
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37							1.87
GXR-6 Meas		0.4		62	< 0.3	< 1	87	24		127		0.01	9.91			1	< 2							0.23
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290							0.180
DNC-1a Meas				96				242		60														
DNC-1a Cert				100.0				247		70.0														
DMMAS 114 Meas	2040													1760	1440					40	97			3.55
DMMAS 114 Cert	2199													1624	1561					42	84			3.31
DMMAS 114 Meas	2090													1800	1680					40	97			3.27
DMMAS 114 Cert	2199													1624	1561					42	84			3.31
2280(6b-7) Orig		< 0.3		5	< 0.3	< 1	9	10		19		0.03	3.04			< 1	< 2							7.50
2280(6b-7) Dup		< 0.3		3	< 0.3	< 1	10	8		20		0.03	3.13			< 1	< 2							7.70
2430(5-9) Orig		0.3		5	< 0.3	< 1	8	11		20		0.03	3.37			< 1	< 2							6.72
2430(5-9) Dup		0.3		7	< 0.3	< 1	9	11		20		0.03	3.34			< 1	< 2							6.77
KC-722 Orig		< 0.3		22	< 0.3	< 1	10	21		38		< 0.01	3.40			1	< 2							9.34
KC-722 Dup		< 0.3		14	< 0.3	< 1	9	20		33		< 0.01	3.28			1	< 2							9.05
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2							< 0.01
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		0.01	< 0.01			< 1	< 2							< 0.01
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2							< 0.01
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2							< 0.01
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01

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Quality Control																									
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	
GXR-1 Meas				0.05	8	0.22	1000		0.060					287					86					26	
GXR-1 Cert				0.0500	8.20	0.217	852		0.0650					275					80.0					32.0	
GXR-4 Meas				3.44	11	1.70	159		0.133					220					94					13	
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0	
SDC-1 Meas				1.70	34	0.99	953		0.053					171	0.16				46					33	
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00	0.606				102.00					40.0	
SCO-1 Meas				2.11	43	1.60	419		0.084					160	0.34				134					19	
SCO-1 Cert				2.30	45	1.64	410		0.0900					170	0.380				130					26	
GXR-6 Meas				1.57	35	0.60	1070		0.033					43					147					12	
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0	
DNC-1a Meas					5									129					138					14	
DNC-1a Cert					5.20									144.0					148.0					18.0	
DMMAS 114 Meas								1.92			13.1	7.4						20.8				14.9	22		
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7		
DMMAS 114 Meas								1.78			15.0	6.5						20.6				18.0	26		
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7		
2280(6b-7) Orig				1.45	7	1.34	257		0.037					247	0.18				34					8	
2280(6b-7) Dup				1.65	7	1.39	252		0.036					257	0.15				29					8	
2430(5-9) Orig				1.54	10	1.36	301		0.039					254	0.18				39					8	
2430(5-9) Dup				1.76	10	1.38	300		0.037					253	0.19				41					8	
KC-722 Orig				1.59	22	1.79	377		0.036					208	0.20				48					10	
KC-722 Dup				1.73	22	1.76	388		0.044					199	0.23				49					10	
Method Blank				< 0.01	< 1	< 0.01	3		< 0.001					< 1	< 0.01				< 2					< 1	
Method Blank				< 0.01	< 1	< 0.01	15		< 0.001					< 1	< 0.01				< 2					< 1	
Method Blank				< 0.01	< 1	< 0.01	6		< 0.001					< 1	< 0.01				< 2					< 1	
Method Blank				< 0.01	< 1	< 0.01	18		< 0.001					< 1	< 0.01				< 2					< 1	
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5			< 0.2	< 0.5		< 1		< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 114 Meas	3.3					
DMMAS 114 Cert	2.4					
DMMAS 114 Meas	2.3					
DMMAS 114 Cert	2.4					
2280(6b-7) Orig						
2280(6b-7) Dup						
2430(5-9) Orig						
2430(5-9) Dup						
KC-722 Orig						
KC-722 Dup						
Method Blank						
Method Blank						
Method Blank						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.00



Date Submitted: 03-Feb-12
Invoice No.: A12-00928
Invoice Date: 23-Feb-12
Your Reference: DD-RR

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: President Chris Meraw

CERTIFICATE OF ANALYSIS

50 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A12-00928

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



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Activation Laboratories Ltd. Report: A12-00928

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
2522 (3-7)	< 2	< 0.3	4	< 0.3	< 1	10	10	18	0.03	3.11	1.4	530	< 1	< 2	2.2	8.23	5	44	< 1	0.7	1.44	7	< 1	< 5
2523 (4b-10)	< 2	< 0.3	4	< 0.3	< 1	9	8	17	0.04	2.88	1.7	470	< 1	< 2	2.6	7.79	5	40	< 1	0.7	1.45	7	< 1	< 5
2531 (3-6)	< 2	< 0.3	3	< 0.3	< 1	8	10	16	< 0.01	3.17	1.5	500	< 1	< 2	2.0	6.43	5	41	1	0.6	1.43	5	< 1	< 5
2539 (2-4)	< 2	< 0.3	8	< 0.3	< 1	7	10	16	< 0.01	3.16	1.4	580	< 1	< 2	2.6	8.54	4	49	< 1	0.8	1.46	7	< 1	< 5
2539 (5-7)	3	< 0.3	4	< 0.3	< 1	7	8	15	0.02	2.94	< 0.5	590	< 1	< 2	3.1	8.35	4	32	< 1	0.7	1.15	5	< 1	< 5
2550 (4b-8)	< 2	< 0.3	14	< 0.3	< 1	8	11	18	0.03	3.11	< 0.5	560	< 1	< 2	1.3	7.99	4	41	< 1	0.6	1.35	5	< 1	< 5
2570 (4-5)	< 2	< 0.3	7	< 0.3	< 1	8	13	19	0.03	3.09	1.5	450	< 1	< 2	2.8	8.50	5	50	< 1	0.6	1.42	5	< 1	< 5
2620 (3-8)	16	< 0.3	4	< 0.3	< 1	7	11	15	< 0.01	3.00	< 0.5	480	< 1	< 2	2.4	8.21	4	41	1	0.7	1.21	5	< 1	< 5
2640 (6-7)	< 2	< 0.3	6	< 0.3	< 1	8	11	17	0.02	3.03	1.4	500	< 1	< 2	2.5	8.62	5	50	< 1	0.7	1.50	6	< 1	< 5
2660 (4b-8)	< 2	< 0.3	4	< 0.3	< 1	9	12	20	0.03	3.21	< 0.5	570	1	< 2	2.3	7.56	4	49	< 1	0.8	1.62	8	< 1	< 5
2670 (7-8)	< 2	< 0.3	4	< 0.3	< 1	8	10	17	0.03	3.22	2.1	570	1	< 2	2.3	7.36	4	39	< 1	0.7	1.35	5	< 1	< 5
2680 (6-10)	< 2	< 0.3	5	< 0.3	< 1	8	8	16	0.04	3.05	< 0.5	490	< 1	< 2	2.5	8.76	4	39	< 1	0.8	1.33	6	< 1	< 5
2690 (1-9)	< 2	< 0.3	3	< 0.3	< 1	8	9	14	< 0.01	2.96	1.4	600	< 1	< 2	2.8	7.53	4	38	< 1	0.7	1.22	5	< 1	< 5
2700 (2-7)	< 2	< 0.3	4	< 0.3	< 1	8	8	15	0.02	3.11	1.7	510	< 1	< 2	2.6	8.80	4	34	< 1	0.7	1.19	6	< 1	< 5
2750 (2-6)	< 2	< 0.3	3	< 0.3	< 1	7	10	15	0.01	3.08	< 0.5	520	< 1	< 2	2.3	8.01	4	39	< 1	0.7	1.31	5	< 1	< 5
2771 (3-7)	< 2	< 0.3	4	< 0.3	< 1	8	10	14	0.03	3.00	1.3	580	< 1	< 2	2.8	8.29	4	36	< 1	0.7	1.20	5	< 1	< 5
2781 (5-9)	< 2	< 0.3	5	< 0.3	< 1	8	10	15	0.03	3.10	1.6	550	< 1	< 2	2.7	8.26	5	45	1	0.7	1.48	6	< 1	< 5
2805 (4-7)	< 2	< 0.3	8	< 0.3	< 1	12	10	15	0.04	3.11	< 0.5	520	< 1	< 2	3.4	9.10	5	49	< 1	0.7	1.30	7	< 1	< 5
2818 (3b-4)	< 2	< 0.3	4	< 0.3	< 1	8	12	17	< 0.01	3.16	1.9	530	< 1	< 2	2.4	9.16	5	45	< 1	0.6	1.28	5	< 1	< 5
2825 (3-7)	< 2	< 0.3	4	< 0.3	< 1	8	9	14	< 0.01	3.05	1.2	550	< 1	< 2	2.4	8.65	3	32	< 1	0.6	1.13	5	< 1	< 5
2839 (B5-B7b)	< 2	< 0.3	5	< 0.3	< 1	8	12	19	0.05	3.15	1.8	510	< 1	< 2	2.5	8.07	6	40	< 1	0.7	1.75	6	< 1	< 5
2851 (B4-B6)	< 2	< 0.3	3	< 0.3	< 1	14	9	16	0.03	3.29	1.6	490	< 1	< 2	2.4	7.03	4	37	< 1	0.7	1.40	6	< 1	< 5
2870 (2b-7)	< 2	0.3	10	< 0.3	< 1	12	7	13	0.03	2.60	< 0.5	530	< 1	< 2	2.9	8.72	4	41	< 1	0.7	1.37	7	< 1	< 5
2880 (7)	< 2	< 0.3	7	< 0.3	< 1	10	9	14	0.05	3.10	< 0.5	530	< 1	< 2	2.6	8.45	5	51	< 1	0.7	1.43	6	< 1	< 5
2890 (2-7)	< 2	< 0.3	4	< 0.3	< 1	9	10	15	0.01	3.00	1.5	590	< 1	< 2	2.3	7.93	4	33	< 1	0.7	1.17	5	< 1	< 5
2910 (7b-9)	< 2	< 0.3	4	< 0.3	< 1	7	10	15	0.02	3.09	1.9	510	< 1	< 2	2.4	7.47	4	35	< 1	0.6	1.17	5	< 1	< 5
2920 (7b-10)	< 2	< 0.3	5	< 0.3	< 1	8	10	17	0.03	3.09	< 0.5	550	< 1	< 2	2.3	7.85	4	40	< 1	0.7	1.42	6	< 1	< 5
2929 (7-8)	< 2	0.3	4	< 0.3	< 1	8	9	18	0.03	2.92	1.4	560	< 1	< 2	2.7	9.27	4	47	< 1	0.8	1.42	8	< 1	< 5
2939 (4-9)	< 2	< 0.3	31	< 0.3	< 1	7	8	15	0.03	3.11	1.2	480	< 1	< 2	3.2	8.28	3	34	< 1	0.7	1.12	6	< 1	< 5
2949 (3-8)	< 2	< 0.3	8	< 0.3	< 1	24	9	17	0.03	3.12	< 0.5	520	< 1	< 2	2.4	7.68	4	37	< 1	0.6	1.41	6	< 1	< 5
2961 (5-7)	< 2	< 0.3	6	< 0.3	< 1	6	9	16	0.01	3.05	< 0.5	600	< 1	< 2	3.0	9.26	4	34	< 1	0.7	1.09	6	< 1	< 5
2980 (1-8)	< 2	< 0.3	4	< 0.3	< 1	7	9	15	< 0.01	2.74	1.7	570	< 1	< 2	2.5	7.73	4	39	< 1	0.7	1.31	5	< 1	< 5
2990 (2-7)	< 2	< 0.3	4	< 0.3	< 1	8	10	15	< 0.01	3.06	1.6	480	< 1	< 2	2.7	7.88	4	37	< 1	0.7	1.26	5	< 1	< 5
2990 (8)	< 2	< 0.3	7	< 0.3	< 1	15	11	17	< 0.01	3.07	< 0.5	540	< 1	< 2	2.9	7.57	4	42	< 1	0.7	1.25	6	< 1	< 5
2990 (9a-9b)	< 2	< 0.3	6	< 0.3	< 1	8	9	15	0.01	3.03	< 0.5	480	< 1	< 2	1.4	8.07	4	37	< 1	0.6	1.35	6	< 1	< 5
2998 (1-3)	< 2	< 0.3	2	< 0.3	< 1	11	10	16	< 0.01	3.30	1.5	510	< 1	< 2	2.0	6.14	4	50	< 1	0.7	1.49	7	< 1	< 5
3009 (2-3)	< 2	< 0.3	9	< 0.3	1	8	20	23	< 0.01	3.64	< 0.5	620	1	< 2	1.4	4.90	6	67	< 1	1.0	1.69	8	< 1	< 5
3079 (4-9)	< 2	< 0.3	8	< 0.3	< 1	8	11	17	0.04	3.16	1.6	540	< 1	< 2	2.3	8.39	5	37	< 1	0.7	1.39	5	< 1	< 5
3087 (6-8b)	< 2	< 0.3	7	< 0.3	< 1	7	8	15	0.05	3.03	1.7	550	< 1	< 2	2.6	8.18	4	43	< 1	0.7	1.34	6	< 1	< 5
3113 (6-8)	< 2	< 0.3	5	< 0.3	< 1	6	10	17	0.04	3.14	< 0.5	480	< 1	< 2	2.4	8.40	4	42	< 1	0.7	1.36	6	< 1	< 5
3113 (5)	38	0.4	7	< 0.3	< 1	7	9	18	0.02	2.82	1.7	500	< 1	< 2	3.2	9.57	5	43	< 1	0.7	1.32	5	< 1	< 5
3142 (3-7)	< 2	< 0.3	5	< 0.3	1	7	9	15	0.02	2.99	< 0.5	500	< 1	< 2	2.6	7.60	4	37	< 1	0.6	1.21	4	< 1	< 5
3153 (1-11)	< 2	< 0.3	4	< 0.3	< 1	7	9	14	0.02	3.01	1.9	560	< 1	< 2	2.9	8.23	4	37	< 1	0.7	1.22	5	< 1	< 5
3165 (3-6)	3	< 0.3	4	< 0.3	< 1	9	9	16	0.02	3.13	2.0	470	< 1	< 2	2.7	8.51	4	41	1	0.7	1.26	7	< 1	< 5
3165 (7-8)	< 2	< 0.3	8	< 0.3	< 1	8	10	15	0.04	3.04	1.2	570	< 1	< 2	2.7	8.26	3	32	< 1	0.6	1.25	5	< 1	< 5
3165 (9)	< 2	< 0.3	5	< 0.3	< 1	8	9	17	0.04	3.03	1.7	490	< 1	< 2	2.6	7.74	4	41	< 1	0.7	1.34	6	< 1	< 5
3179 (1-8)	< 2	< 0.3	3	< 0.3	< 1	7	8	26	< 0.01	3.04	1.5	580	< 1	< 2	2.4	8.31	3	32	< 1	0.7	1.03	5	< 1	< 5
3189 (4b-5b)	< 2	< 0.3	4	< 0.3	< 1	6	10	13	0.02	2.96	2.0	520	< 1	< 2	2.4	8.62	5	52	< 1	0.7	1.44	6	< 1	< 5
3199 (2a-9)	< 2	< 0.3	5	< 0.3	< 1	7	11	36	0.02	3.15	2.1	540	< 1	< 2	2.5	8.32	5	37	< 1	0.6	1.27	5	< 1	< 5
3224 (2b-12)	< 2	< 0.3	6	< 0.3	< 1	8	9	15	0.03	3.25	2.4	570	< 1	< 2	3.0	8.87	4	33	< 1	0.7	1.22	5	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
2522 (3-7)	1.49	7	1.38	280	1.65	0.045	35	< 0.1	4.8	< 3	266	< 0.5	0.21	5.2	1.6	37	< 1	9	17.7	36	18	3.1	< 0.01	< 0.5
2523 (4b-10)	1.34	7	1.51	263	1.73	0.040	50	0.1	4.8	< 3	250	< 0.5	0.18	4.9	1.0	31	< 1	7	17.6	36	18	3.5	< 0.01	< 0.5
2531 (3-6)	1.32	7	0.89	230	1.83	0.039	50	0.1	4.9	< 3	267	< 0.5	0.18	4.1	< 0.5	37	< 1	8	15.6	32	16	2.8	< 0.01	< 0.5
2539 (2-4)	1.35	7	1.57	291	1.66	0.043	45	0.1	4.9	< 3	247	1.2	0.22	5.4	0.7	40	< 1	9	18.7	37	15	3.4	< 0.01	< 0.5
2539 (5-7)	1.39	7	1.59	233	1.67	0.038	48	0.1	4.3	< 3	249	< 0.5	0.17	3.8	1.3	30	< 1	8	15.2	28	13	2.8	< 0.01	< 0.5
2550 (4b-8)	1.37	7	1.15	249	1.70	0.040	30	0.2	4.7	< 3	264	< 0.5	0.19	4.2	1.2	37	< 1	9	16.2	32	19	2.8	< 0.01	< 0.5
2570 (4-5)	1.61	11	1.47	306	1.51	0.040	< 15	< 0.1	4.8	< 3	246	< 0.5	0.17	4.7	1.2	32	< 1	8	16.7	35	22	3.0	< 0.01	< 0.5
2620 (3-8)	1.49	7	1.54	239	1.62	0.038	26	< 0.1	4.4	< 3	256	< 0.5	0.18	4.6	0.9	31	< 1	8	16.1	29	15	2.9	< 0.01	< 0.5
2640 (6-7)	1.51	8	1.66	264	1.66	0.041	42	< 0.1	5.0	< 3	257	< 0.5	0.19	4.9	1.1	36	< 1	9	18.0	35	19	3.2	< 0.01	< 0.5
2660 (4b-8)	1.57	8	1.47	289	1.79	0.044	39	< 0.1	5.1	< 3	269	1.0	0.21	5.3	1.2	42	< 1	10	19.0	37	21	3.3	< 0.01	< 0.5
2670 (7-8)	1.56	8	1.11	242	1.78	0.037	48	0.1	4.7	< 3	269	< 0.5	0.16	4.4	1.1	31	< 1	7	16.5	33	14	2.9	< 0.01	< 0.5
2680 (6-10)	1.58	7	1.65	264	1.75	0.045	50	< 0.1	4.8	< 3	262	0.7	0.20	4.2	1.4	34	< 1	8	16.7	35	18	3.0	< 0.01	< 0.5
2690 (1-9)	1.34	7	1.37	270	1.83	0.043	55	0.2	4.7	< 3	252	0.8	0.19	4.3	1.2	33	< 1	8	16.5	34	18	3.0	< 0.01	< 0.5
2700 (2-7)	1.33	7	1.85	244	1.76	0.039	48	< 0.1	4.4	< 3	244	< 0.5	0.18	3.9	1.0	30	< 1	8	16.1	31	17	3.0	< 0.01	< 0.5
2750 (2-6)	1.46	7	1.28	264	1.70	0.038	43	0.1	4.6	< 3	260	< 0.5	0.19	4.0	1.1	36	< 1	8	15.7	32	19	2.8	0.03	< 0.5
2771 (3-7)	1.45	7	1.47	276	1.74	0.041	34	< 0.1	4.6	< 3	254	< 0.5	0.19	3.8	0.8	33	< 1	8	15.8	32	15	2.9	< 0.01	< 0.5
2781 (5-9)	1.65	7	1.18	258	1.76	0.031	48	0.1	4.9	< 3	262	< 0.5	0.18	5.4	1.2	34	< 1	8	18.3	37	17	3.2	< 0.01	< 0.5
2805 (4-7)	1.50	7	1.75	285	1.62	0.046	37	0.1	4.6	< 3	241	< 0.5	0.21	4.7	< 0.5	36	< 1	9	17.2	35	15	3.1	< 0.01	< 0.5
2818 (3b-4)	1.51	8	1.48	284	1.60	0.041	54	0.1	4.6	< 3	247	1.0	0.18	4.4	1.4	30	< 1	9	15.8	32	16	2.8	< 0.01	< 0.5
2825 (3-7)	1.58	7	1.65	233	1.73	0.041	41	< 0.1	4.3	< 3	259	< 0.5	0.18	3.4	1.0	30	< 1	8	14.9	28	15	2.8	< 0.01	0.5
2839 (B5-B7b)	1.47	8	1.43	330	1.77	0.048	38	0.1	6.2	< 3	267	< 0.5	0.23	5.1	0.8	55	< 1	9	17.8	37	16	3.1	< 0.01	< 0.5
2851 (B4-B6)	1.60	8	1.13	243	1.86	0.038	52	0.1	4.7	< 3	277	0.8	0.18	3.9	< 0.5	34	3	7	15.8	32	19	2.9	< 0.01	< 0.5
2870 (2b-7)	1.32	7	1.65	262	1.72	0.045	46	< 0.1	4.7	< 3	249	1.1	0.21	4.7	1.1	36	< 1	8	17.4	34	18	3.1	< 0.01	< 0.5
2880 (7)	1.38	8	1.50	275	1.71	0.040	37	0.1	4.8	< 3	255	< 0.5	0.21	5.1	0.9	38	9	8	17.6	36	20	3.1	< 0.01	< 0.5
2890 (2-7)	1.49	7	1.33	260	1.74	0.041	46	< 0.1	4.4	< 3	256	0.5	0.19	4.1	1.2	32	< 1	8	15.0	29	20	2.8	< 0.01	< 0.5
2910 (7b-9)	1.46	7	1.23	221	1.69	0.036	43	< 0.1	4.4	< 3	259	0.9	0.17	3.8	0.8	29	< 1	7	14.7	27	18	2.7	< 0.01	< 0.5
2920 (7b-10)	1.50	7	1.43	279	1.80	0.048	41	< 0.1	4.9	< 3	270	0.6	0.20	5.1	0.9	40	< 1	9	17.6	36	16	3.2	< 0.01	< 0.5
2929 (7-8)	1.48	7	1.73	289	1.71	0.047	44	< 0.1	5.0	< 3	253	0.8	0.22	5.3	1.5	39	2	9	19.0	38	16	3.3	< 0.01	< 0.5
2939 (4-9)	1.56	7	1.87	236	1.60	0.041	36	0.1	4.2	< 3	247	< 0.5	0.17	4.0	< 0.5	30	2	8	16.2	30	18	2.9	< 0.01	< 0.5
2949 (3-8)	1.50	7	1.20	261	1.74	0.040	40	< 0.1	4.7	< 3	271	< 0.5	0.19	4.5	< 0.5	36	< 1	9	16.3	32	18	3.0	< 0.01	< 0.5
2961 (5-7)	1.55	8	2.06	246	1.60	0.040	28	0.1	4.4	< 3	239	0.6	0.17	3.8	< 0.5	27	5	8	15.9	33	14	2.9	< 0.01	< 0.5
2980 (1-8)	1.20	7	1.27	274	1.82	0.041	42	0.1	4.7	< 3	253	< 0.5	0.19	4.7	0.8	33	< 1	6	17.2	33	18	3.0	< 0.01	< 0.5
2990 (2-7)	1.42	7	1.34	263	1.80	0.045	57	0.1	4.6	< 3	265	< 0.5	0.20	4.0	0.9	35	< 1	8	16.2	30	16	2.9	< 0.01	< 0.5
2990 (8)	1.50	7	1.26	236	1.84	0.039	57	0.1	4.8	< 3	259	< 0.5	0.18	4.3	0.6	32	< 1	8	16.9	33	18	3.1	< 0.01	< 0.5
2990 (9a-9b)	1.57	7	1.31	260	1.75	0.039	41	0.1	4.7	< 3	258	< 0.5	0.18	4.5	1.1	33	< 1	8	17.2	32	18	3.1	< 0.01	< 0.5
2998 (1-3)	1.55	8	0.99	256	1.82	0.038	41	< 0.1	5.1	< 3	275	< 0.5	0.20	5.8	1.7	37	2	8	20.3	40	18	3.3	< 0.01	< 0.5
3009 (2-3)	1.59	10	1.09	322	1.93	0.082	32	0.2	7.2	< 3	298	< 0.5	0.24	10.6	1.8	49	< 1	10	28.2	54	27	4.4	< 0.01	< 0.5
3079 (4-9)	1.56	7	1.42	269	1.74	0.045	31	< 0.1	4.7	< 3	272	< 0.5	0.20	4.4	< 0.5	37	< 1	9	17.1	34	16	3.1	< 0.01	< 0.5
3087 (6-8b)	1.58	7	1.60	246	1.70	0.044	42	0.1	4.7	< 3	257	< 0.5	0.19	4.1	1.2	33	< 1	8	16.9	35	16	3.0	< 0.01	< 0.5
3113 (6-8)	1.57	8	1.40	278	1.65	0.046	45	0.1	4.6	< 3	269	< 0.5	0.21	4.2	1.2	40	< 1	8	16.2	30	16	2.7	< 0.01	< 0.5
3113 (5)	1.47	10	2.08	277	1.44	0.042	30	0.1	4.6	< 3	220	< 0.5	0.19	4.5	0.7	32	2	8	16.7	36	15	3.0	< 0.01	< 0.5
3142 (3-7)	1.54	7	1.14	245	1.80	0.041	40	< 0.1	4.5	< 3	255	< 0.5	0.18	3.9	1.0	33	< 1	7	15.4	31	16	2.8	< 0.01	< 0.5
3153 (1-11)	1.39	7	1.50	242	1.73	0.038	32	0.1	4.5	< 3	253	< 0.5	0.18	4.0	1.0	31	1	8	15.5	31	15	2.7	< 0.01	< 0.5
3165 (3-6)	1.36	8	1.58	243	1.71	0.044	38	0.1	4.6	< 3	253	0.7	0.18	4.7	0.8	32	< 1	8	17.5	36	18	3.1	< 0.01	< 0.5
3165 (7-8)	1.49	7	1.51	249	1.76	0.040	50	< 0.1	4.6	< 3	259	< 0.5	0.18	4.3	1.5	34	2	8	15.8	32	16	2.8	< 0.01	< 0.5
3165 (9)	1.52	7	1.42	245	1.76	0.036	27	0.2	4.7	< 3	260	< 0.5	0.17	4.5	0.8	32	< 1	8	16.8	34	18	3.0	< 0.01	< 0.5
3179 (1-8)	1.58	7	1.60	239	1.69	0.043	26	< 0.1	4.1	< 3	256	< 0.5	0.18	3.2	< 0.5	30	< 1	8	13.9	28	16	2.6	< 0.01	< 0.5
3189 (4b-5b)	1.57	8	1.43	326	1.57	0.039	32	0.1	4.8	< 3	237	< 0.5	0.19	5.0	1.2	34	< 1	8	17.7	36	17	3.1	< 0.01	< 0.5
3199 (2a-9)	1.43	8	1.53	292	1.65	0.043	49	0.1	4.5	< 3	251	1.1	0.18	4.5	1.4	34	< 1	8	16.6	34	18	2.8	< 0.01	< 0.5
3224 (2b-12)	1.61	8	1.83	249	1.67	0.044	51	< 0.1	4.4	< 3	257	< 0.5	0.18	4.0	1.7	31	< 1	8	15.9	32	17	2.7	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
2522 (3-7)	0.9	0.21	42.10
2523 (4b-10)	1.0	0.22	37.59
2531 (3-6)	0.7	0.17	38.00
2539 (2-4)	1.0	0.21	35.43
2539 (5-7)	0.8	0.18	37.24
2550 (4b-8)	0.9	0.16	37.17
2570 (4-5)	0.9	0.17	35.97
2620 (3-8)	0.8	0.16	39.37
2640 (6-7)	0.9	0.22	40.10
2660 (4b-8)	1.0	0.19	39.80
2670 (7-8)	0.9	0.20	39.57
2680 (6-10)	0.9	0.18	38.00
2690 (1-9)	0.9	0.18	38.15
2700 (2-7)	0.9	0.16	41.58
2750 (2-6)	0.9	0.15	39.29
2771 (3-7)	0.9	0.17	39.11
2781 (5-9)	0.9	0.20	37.87
2805 (4-7)	1.0	0.17	38.15
2818 (3b-4)	0.9	0.18	39.58
2825 (3-7)	0.8	0.16	42.96
2839 (B5-B7b)	0.9	0.19	40.09
2851 (B4-B6)	0.8	0.18	39.40
2870 (2b-7)	0.9	0.18	39.92
2880 (7)	0.9	0.19	36.98
2890 (2-7)	0.8	0.13	41.00
2910 (7b-9)	0.8	0.17	40.38
2920 (7b-10)	0.9	0.19	37.34
2929 (7-8)	1.1	0.21	37.94
2939 (4-9)	0.9	0.19	41.82
2949 (3-8)	0.9	0.18	39.66
2961 (5-7)	0.9	0.19	38.39
2980 (1-8)	0.9	0.16	41.25
2990 (2-7)	0.8	0.18	39.67
2990 (8)	0.9	0.20	37.95
2990 (9a-9b)	0.8	0.17	39.65
2998 (1-3)	0.9	0.20	40.55
3009 (2-3)	1.2	0.21	39.12
3079 (4-9)	0.9	0.19	39.51
3087 (6-8b)	0.9	0.16	39.19
3113 (6-8)	0.8	0.15	40.41
3113 (5)	1.0	0.20	38.98
3142 (3-7)	0.8	0.14	38.22
3153 (1-11)	0.8	0.15	41.50
3165 (3-6)	1.0	0.19	38.27
3165 (7-8)	0.9	0.18	40.01
3165 (9)	0.9	0.16	40.61
3179 (1-8)	0.8	0.14	41.80
3189 (4b-5b)	1.0	0.20	33.02
3199 (2a-9)	0.8	0.14	42.58
3224 (2b-12)	0.9	0.14	41.15

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.7		1140	3.3	15	732	41		782		0.23	1.63			1	1390		0.94					
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380		0.960					
GXR-1 Meas		31.7		1120	4.0	16	744	45		750		0.25	1.57			1	1390		0.94					
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380		0.960					
GXR-4 Meas		3.5		6490	0.4	314	53	50		82		1.79	4.69			2	13		1.12					
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0		1.01					
GXR-4 Meas		3.6		6280	0.3	322	44	44		75		1.79	4.82			2	13		1.18					
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0		1.01					
SDC-1 Meas		< 0.3		31	< 0.3	< 1	21	36		108		0.06	5.82			3	< 2		1.17					
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60		1.00					
SDC-1 Meas		< 0.3		33	< 0.3	< 1	22	39		105		0.07	5.85			3	< 2		1.22					
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60		1.00					
SCO-1 Meas		< 0.3		30	0.3	< 1	26	27		104		0.07	4.96			2	< 2		2.02					
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37		1.87					
SCO-1 Meas		< 0.3		27	< 0.3	< 1	26	29		100		0.07	4.82			2	< 2		2.10					
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37		1.87					
GXR-6 Meas		< 0.3		66	< 0.3	3	97	27		131		0.01	9.92			1	< 2		0.23					
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290		0.180					
GXR-6 Meas		0.5		79	0.4	3	84	30		126		0.02	9.73			1	< 2		0.23					
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290		0.180					
DNC-1a Meas				100				239		58														
DNC-1a Cert				100.0				247		70.0														
DNC-1a Meas				93				253		61														
DNC-1a Cert				100.0				247		70.0														
DMMAS 114 Meas	2170													1810	1800				42	88				3.44
DMMAS 114 Cert	2199													1624	1561				42	84				3.31
DMMAS 114 Meas	2040													1780	1810				43	87				3.52
DMMAS 114 Cert	2199													1624	1561				42	84				3.31
2690 (1-9) Orig		< 0.3		4	< 0.3	< 1	8	9		14		< 0.01	2.87			< 1	< 2		7.57					
2690 (1-9) Dup		< 0.3		3	< 0.3	< 1	8	10		14		0.01	3.05			1	< 2		7.50					
2920 (7b-10) Orig		< 0.3		7	< 0.3	< 1	7	10		18		0.03	3.09			< 1	< 2		7.83					
2920 (7b-10) Dup		< 0.3		4	< 0.3	< 1	10	10		16		0.04	3.09			1	< 2		7.87					
3189 (4b-5b) Orig		< 0.3		5	< 0.3	< 1	4	10		13		0.02	2.96			< 1	< 2		8.62					
3189 (4b-5b) Dup		< 0.3		3	< 0.3	< 1	7	10		13		0.02	2.95			< 1	< 2		8.61					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank		< 0.3		2	< 0.3	< 1	< 3	< 1		2		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank		< 0.3		6	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01

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Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.05	8	0.22	983		0.059					286					89					26
GXR-1 Cert				0.0500	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-1 Meas				0.04	8	0.21	923		0.060					290					87					27
GXR-1 Cert				0.0500	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-4 Meas				2.43	11	1.71	187		0.133					208					91					13
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
GXR-4 Meas				3.25	12	1.74	165		0.136					215					91					13
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
SDC-1 Meas				2.96	35	1.03	980		0.056					176		0.20			50					31
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SDC-1 Meas				2.80	36	1.07	947		0.053					177		0.25			61					33
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SCO-1 Meas				1.59	43	1.59	429		0.082					156		0.35			136					18
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
SCO-1 Meas				1.96	43	1.65	396		0.081					159		0.34			134					18
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
GXR-6 Meas				1.82	37	0.63	1050		0.032					45					103					12
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
GXR-6 Meas				1.73	37	0.63	1030		0.035					43					169					13
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
DNC-1a Meas					5									128					139					14
DNC-1a Cert					5.20									144.0					148.0					18.0
DNC-1a Meas					5									132					149					15
DNC-1a Cert					5.20									144.0					148.0					18.0
DMMAS 114 Meas								1.97			9.1	7.3						21.9				16.7	31	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
DMMAS 114 Meas								1.93			13.0	7.2						21.4				16.9	29	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
2690 (1-9) Orig				1.23	7	1.41	266		0.044					250		0.19			33					8
2690 (1-9) Dup				1.44	7	1.34	273		0.042					254		0.19			33					8
2920 (7b-10) Orig				1.53	7	1.40	269		0.048					268		0.21			41					9
2920 (7b-10) Dup				1.48	7	1.46	289		0.049					271		0.20			40					9
3189 (4b-5b) Orig				1.57	8	1.41	337		0.041					238		0.19			33					8
3189 (4b-5b) Dup				1.57	8	1.46	315		0.038					236		0.19			34					8
Method Blank				< 0.01	< 1	< 0.01	11		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01	24		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01	4		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		2		< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 114 Meas	3.3					
DMMAS 114 Cert	2.4					
DMMAS 114 Meas	3.3					
DMMAS 114 Cert	2.4					
2690 (1-9) Orig						
2690 (1-9) Dup						
2920 (7b-10) Orig						
2920 (7b-10) Dup						
3189 (4b-5b) Orig						
3189 (4b-5b) Dup						
Method Blank						
Method Blank						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.00



Date Submitted: 24-Feb-12
Invoice No.: A12-01730
Invoice Date: 13-Mar-12
Your Reference: DD-RR

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: President Chris Meraw

CERTIFICATE OF ANALYSIS

50 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A12-01730

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A12-01730

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
3105 (3-8)	< 2	< 0.3	5	< 0.3	< 1	8	9	12	0.01	3.10	1.6	430	< 1	< 2	2.7	7.93	4	29	< 1	0.6	1.14	5	< 1	< 5
3123 (4-5)	< 2	< 0.3	11	< 0.3	< 1	8	10	14	0.03	2.95	1.2	430	< 1	< 2	3.0	8.31	4	37	< 1	0.6	1.19	6	< 1	< 5
3126 (3-10)	< 2	< 0.3	5	< 0.3	< 1	7	10	13	0.02	2.99	1.5	450	< 1	< 2	2.7	7.74	4	31	< 1	0.5	1.12	5	< 1	< 5
3208 (5-13)	< 2	< 0.3	10	< 0.3	< 1	5	10	19	0.04	3.18	1.8	440	< 1	< 2	2.7	7.54	5	34	< 1	0.6	1.42	6	< 1	< 5
3215 (2-10a)	< 2	< 0.3	3	< 0.3	< 1	7	11	14	< 0.01	3.23	< 0.5	300	< 1	< 2	2.8	7.55	5	37	1	0.6	1.35	5	< 1	< 5
3215 (10b-11)	< 2	< 0.3	6	< 0.3	< 1	5	11	14	0.04	3.05	1.4	370	< 1	< 2	2.4	7.63	5	44	< 1	0.5	1.57	6	< 1	< 5
3276 (5a-7)	< 2	< 0.3	23	< 0.3	< 1	6	10	15	0.03	3.11	1.0	420	< 1	< 2	2.5	7.61	4	37	< 1	0.6	1.11	4	< 1	< 5
3285 (4b-7b)	< 2	< 0.3	3	< 0.3	< 1	5	10	12	0.01	2.80	< 0.5	530	< 1	< 2	2.9	6.89	4	28	< 1	0.5	1.03	5	< 1	< 5
3295 (2-10)	< 2	< 0.3	3	< 0.3	< 1	8	9	13	0.02	2.90	< 0.5	490	< 1	< 2	< 0.5	7.94	4	39	< 1	0.6	1.20	6	< 1	< 5
3306 (1-8)	< 2	< 0.3	6	< 0.3	< 1	7	10	15	0.01	3.03	1.6	450	< 1	< 2	2.6	7.76	4	40	< 1	0.6	1.23	5	< 1	< 5
3321 (4-9)	< 2	< 0.3	7	< 0.3	< 1	6	8	12	0.02	2.95	< 0.5	430	< 1	< 2	3.3	7.89	4	29	< 1	0.6	1.05	5	< 1	< 5
3328 (3-7)	< 2	< 0.3	7	< 0.3	< 1	7	11	13	0.03	2.96	1.7	410	< 1	< 2	3.4	8.02	4	51	< 1	0.5	1.33	5	< 1	< 5
3340 (2-7)	< 2	< 0.3	6	< 0.3	< 1	8	11	15	0.02	3.03	1.6	510	< 1	< 2	3.5	8.21	5	35	< 1	0.6	1.15	5	< 1	< 5
3350 (5-7)	< 2	0.3	10	< 0.3	< 1	9	14	23	0.04	3.11	< 0.5	400	< 1	< 2	3.3	9.63	5	40	1	0.6	1.61	6	< 1	< 5
3350 (3-4)	< 2	< 0.3	67	< 0.3	< 1	8	11	16	0.02	3.06	< 0.5	440	< 1	< 2	2.2	7.70	3	36	< 1	0.7	1.20	6	< 1	< 5
3350 (8a-9)	< 2	0.4	13	< 0.3	< 1	8	10	14	0.04	3.13	< 0.5	480	< 1	< 2	2.9	8.07	4	37	< 1	0.6	1.40	6	< 1	< 5
3360 (3-7)	< 2	< 0.3	17	< 0.3	< 1	6	11	13	0.02	3.08	1.8	520	< 1	< 2	3.2	7.73	4	39	< 1	0.5	1.26	5	< 1	< 5
3370 (1-7)	< 2	0.3	4	< 0.3	< 1	6	10	12	< 0.01	3.07	< 0.5	470	< 1	< 2	2.2	7.16	3	34	< 1	0.6	1.25	5	< 1	< 5
3380 (2-7)	< 2	< 0.3	15	< 0.3	< 1	8	9	12	0.02	3.08	1.5	450	< 1	< 2	2.8	7.16	4	35	< 1	0.5	1.15	5	< 1	< 5
3390 (5-6)	< 2	< 0.3	5	< 0.3	< 1	7	10	13	< 0.01	3.01	< 0.5	520	< 1	< 2	2.8	7.49	4	43	1	0.5	1.19	5	< 1	< 5
3420 (7-13)	< 2	< 0.3	15	< 0.3	< 1	8	10	14	0.05	3.04	2.2	510	1	< 2	2.9	7.57	4	38	1	0.6	1.32	5	< 1	< 5
3440 (4-14)	< 2	< 0.3	9	< 0.3	< 1	6	9	12	0.02	3.02	1.4	450	< 1	< 2	3.1	7.32	4	28	< 1	0.5	1.04	4	< 1	< 5
3461 (3-12)	< 2	< 0.3	26	< 0.3	< 1	7	10	14	0.03	3.08	< 0.5	500	< 1	< 2	2.6	7.92	3	31	< 1	0.5	1.07	4	< 1	< 5
3472 (5-7)	< 2	< 0.3	9	< 0.3	< 1	9	11	15	0.05	3.15	1.4	370	< 1	< 2	2.6	8.06	4	41	< 1	0.6	1.36	5	< 1	< 5
3479 (8)	< 2	< 0.3	6	< 0.3	< 1	12	13	15	0.04	3.19	1.7	390	< 1	< 2	2.3	7.40	5	43	< 1	0.8	1.60	5	< 1	< 5
3489 (4-7)	< 2	< 0.3	3	< 0.3	< 1	7	11	13	0.03	3.09	< 0.5	410	< 1	< 2	3.0	8.07	3	38	< 1	0.5	1.12	5	< 1	< 5
3498 (6a-7)	< 2	0.3	9	< 0.3	< 1	7	11	16	0.08	5.05	1.8	350	< 1	< 2	3.2	8.48	4	42	< 1	0.5	1.37	5	< 1	< 5
3508 (2b-7)	< 2	< 0.3	4	< 0.3	< 1	4	10	12	0.01	2.99	1.5	470	< 1	< 2	2.3	7.35	3	29	< 1	0.6	1.16	5	< 1	< 5
3519 (3b-7)	< 2	< 0.3	6	< 0.3	< 1	8	11	13	0.02	3.07	1.1	420	< 1	< 2	2.1	7.31	4	37	< 1	0.6	1.33	5	< 1	< 5
3528 (3-7)	< 2	< 0.3	7	< 0.3	< 1	5	10	13	0.03	2.91	1.6	320	< 1	< 2	3.0	8.15	4	41	< 1	0.6	1.17	5	< 1	< 5
3538 (2-7)	< 2	< 0.3	6	< 0.3	< 1	8	10	13	0.02	2.93	1.0	440	< 1	< 2	3.3	8.32	4	34	< 1	0.5	1.11	5	< 1	< 5
3548 (1-8)	< 2	< 0.3	9	< 0.3	2	6	12	14	0.02	3.17	2.3	440	< 1	< 2	3.3	7.52	5	39	< 1	0.6	1.28	5	< 1	< 5
3558 (3-5)	< 2	< 0.3	8	< 0.3	< 1	7	10	13	< 0.01	3.08	1.8	390	< 1	< 2	2.6	7.46	4	38	< 1	0.6	1.24	5	< 1	< 5
3558 (6-7)	< 2	< 0.3	7	< 0.3	< 1	7	9	14	0.03	3.15	1.3	350	< 1	< 2	2.4	7.18	3	30	< 1	0.6	1.26	5	< 1	< 5
3567 (4-7)	< 2	< 0.3	4	< 0.3	< 1	8	13	18	0.04	2.99	2.3	420	< 1	< 2	3.3	8.13	4	52	< 1	0.6	1.40	6	< 1	< 5
3578 (3-4)	< 2	< 0.3	3	< 0.3	2	6	10	12	0.02	2.90	1.6	390	< 1	< 2	2.2	7.28	5	40	1	0.6	1.36	5	< 1	< 5
3588 (8-13)	< 2	< 0.3	6	< 0.3	< 1	8	11	16	0.03	3.21	1.7	450	< 1	< 2	3.0	7.97	5	33	< 1	0.6	1.30	5	< 1	< 5
3618 (1-2)	< 2	< 0.3	7	< 0.3	< 1	8	17	22	< 0.01	3.20	2.2	390	< 1	< 2	2.7	8.64	7	42	< 1	0.8	2.01	5	< 1	< 5
3618 (3b-4)	< 2	< 0.3	10	< 0.3	< 1	8	11	14	0.01	3.00	1.0	340	< 1	< 2	2.7	7.55	4	48	< 1	0.6	1.31	6	< 1	< 5
3618 (5-9)	< 2	< 0.3	10	< 0.3	< 1	7	11	13	0.03	3.05	1.9	370	< 1	< 2	2.9	8.46	4	41	< 1	0.6	1.14	5	< 1	< 5
3628 (2)	< 2	< 0.3	23	< 0.3	< 1	15	22	29	< 0.01	3.38	3.9	500	1	< 2	3.5	8.69	7	57	2	0.6	1.85	5	< 1	< 5
3628 (3-4)	< 2	< 0.3	4	< 0.3	< 1	7	9	12	0.01	3.13	1.5	360	< 1	< 2	3.2	7.71	3	41	< 1	0.6	1.08	5	< 1	< 5
3628 (5-7)	< 2	< 0.3	3	< 0.3	< 1	5	10	14	0.05	3.00	2.0	410	< 1	< 2	2.8	7.47	5	53	< 1	0.7	1.55	7	< 1	< 5
3638 (4b-5)	< 2	< 0.3	7	< 0.3	< 1	5	10	13	0.02	2.80	< 0.5	380	< 1	< 2	3.7	9.23	4	42	< 1	0.6	1.04	5	< 1	< 5
3649 (4)	< 2	< 0.3	5	< 0.3	< 1	7	10	13	< 0.01	3.12	< 0.5	490	< 1	< 2	2.4	7.33	4	38	< 1	0.5	1.21	4	< 1	< 5
3649 (5-9)	< 2	< 0.3	10	< 0.3	< 1	5	11	13	0.03	3.07	1.9	440	< 1	< 2	2.8	7.57	4	32	< 1	0.6	1.17	5	< 1	< 5
3670 (5-6)	< 2	< 0.3	9	< 0.3	< 1	6	9	13	0.03	2.65	2.3	460	< 1	< 2	3.5	8.70	3	43	< 1	0.5	1.08	5	< 1	< 5
3690 (2b-5)	< 2	< 0.3	6	< 0.3	< 1	7	12	13	< 0.01	3.02	1.1	470	< 1	< 2	3.0	7.94	5	41	< 1	0.5	1.23	5	< 1	< 5
3700 (3-5)	< 2	< 0.3	3	< 0.3	< 1	7	10	12	0.03	2.94	< 0.5	340	< 1	< 2	3.5	7.58	5	70	< 1	0.6	1.43	6	< 1	< 5
3760 (1b)	< 2	< 0.3	14	< 0.3	< 1	15	20	22	< 0.01	3.43	2.7	540	1	< 2	2.7	5.19	11	46	< 1	0.9	1.93	7	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
3105 (3-8)	1.66	7	1.70	264	1.60	0.038	41	0.1	4.3	< 3	242	< 0.5	0.17	3.5	< 0.5	32	2	8	15.9	27	11	2.9	< 0.01	< 0.5
3123 (4-5)	1.64	8	1.88	260	1.53	0.033	54	0.2	4.5	< 3	230	< 0.5	0.15	3.6	1.2	31	< 1	8	15.9	28	14	3.0	< 0.01	< 0.5
3126 (3-10)	1.63	7	1.56	236	1.51	0.039	44	0.2	4.2	< 3	236	< 0.5	0.16	3.2	1.6	32	< 1	8	14.5	26	16	2.7	< 0.01	< 0.5
3208 (5-13)	1.59	7	1.22	255	1.60	0.038	< 15	< 0.1	4.7	< 3	251	< 0.5	0.17	4.0	< 0.5	37	< 1	8	16.9	30	12	3.2	< 0.01	< 0.5
3215 (2-10a)	1.61	7	1.23	272	1.63	0.037	74	< 0.1	4.8	< 3	260	< 0.5	0.17	3.9	1.3	36	< 1	8	17.0	28	12	3.0	< 0.01	< 0.5
3215 (10b-11)	1.51	7	1.14	281	1.60	0.042	38	< 0.1	4.9	< 3	258	< 0.5	0.19	4.4	1.1	42	< 1	9	18.4	29	16	3.2	< 0.01	< 0.5
3276 (5a-7)	1.62	7	1.26	233	1.49	0.036	58	0.3	4.2	< 3	247	< 0.5	0.17	3.4	< 0.5	35	< 1	7	14.4	25	14	2.7	< 0.01	< 0.5
3285 (4b-7b)	1.56	7	1.27	203	1.48	0.035	< 15	0.2	4.1	< 3	224	< 0.5	0.13	3.2	< 0.5	29	< 1	6	13.9	22	13	2.6	< 0.01	< 0.5
3295 (2-10)	1.56	7	1.70	247	1.62	0.038	< 15	0.3	4.7	< 3	234	< 0.5	0.18	4.3	< 0.5	35	< 1	8	16.6	28	< 5	3.1	< 0.01	< 0.5
3306 (1-8)	1.62	7	1.49	243	1.55	0.034	57	0.1	4.5	< 3	238	< 0.5	0.17	3.5	1.0	35	< 1	8	16.3	22	14	2.9	< 0.01	< 0.5
3321 (4-9)	1.57	6	1.68	222	1.57	0.035	64	0.2	4.2	< 3	239	< 0.5	0.15	3.6	< 0.5	30	< 1	7	14.7	25	< 5	2.9	< 0.01	< 0.5
3328 (3-7)	1.59	8	1.50	253	1.52	0.036	49	< 0.1	4.7	< 3	228	< 0.5	0.17	3.9	< 0.5	36	< 1	8	16.2	28	12	2.9	< 0.01	< 0.5
3340 (2-7)	1.69	8	1.83	263	1.54	0.036	< 15	0.1	4.4	< 3	235	< 0.5	0.16	3.8	< 0.5	33	< 1	8	16.0	29	15	3.0	< 0.01	< 0.5
3350 (5-7)	1.66	13	1.78	317	1.35	0.042	31	< 0.1	5.5	< 3	228	< 0.5	0.21	5.3	1.5	44	< 1	9	19.5	36	13	3.4	< 0.01	< 0.5
3350 (3-4)	1.54	6	1.28	275	1.57	0.046	46	< 0.1	4.6	< 3	248	< 0.5	0.20	4.4	1.4	39	< 1	8	17.9	28	17	3.1	< 0.01	< 0.5
3350 (8a-9)	1.57	6	1.48	268	1.68	0.045	33	0.2	4.6	< 3	259	< 0.5	0.20	4.0	1.1	42	< 1	8	17.5	30	11	3.2	< 0.01	< 0.5
3360 (3-7)	1.64	8	1.37	256	1.53	0.033	< 15	0.2	4.6	< 3	241	< 0.5	0.13	3.6	< 0.5	29	< 1	8	16.0	29	13	3.0	< 0.01	< 0.5
3370 (1-7)	1.54	7	1.06	262	1.60	0.039	36	< 0.1	4.5	< 3	242	< 0.5	0.17	3.5	< 0.5	36	< 1	7	15.9	27	12	2.9	< 0.01	< 0.5
3380 (2-7)	1.60	7	1.37	245	1.54	0.034	56	0.1	4.3	< 3	243	< 0.5	0.17	3.3	< 0.5	34	< 1	8	15.1	27	11	2.9	< 0.01	< 0.5
3390 (5-6)	1.60	7	1.29	231	1.60	0.036	58	< 0.1	4.5	< 3	250	< 0.5	0.16	3.8	0.9	34	< 1	7	16.0	27	7	2.9	< 0.01	< 0.5
3420 (7-13)	1.59	7	1.30	240	1.61	0.033	45	0.3	4.6	< 3	241	< 0.5	0.17	3.9	1.8	36	< 1	7	16.3	27	< 5	2.9	< 0.01	< 0.5
3440 (4-14)	1.60	6	1.41	211	1.61	0.032	< 15	< 0.1	4.0	< 3	240	< 0.5	0.14	3.1	1.1	30	< 1	7	13.9	24	11	2.6	< 0.01	< 0.5
3461 (3-12)	1.66	7	1.52	250	1.55	0.038	54	0.2	4.2	< 3	250	< 0.5	0.17	2.8	< 0.5	34	< 1	8	13.9	24	8	2.7	< 0.01	< 0.5
3472 (5-7)	1.53	7	1.25	303	1.56	0.045	33	< 0.1	4.7	< 3	255	< 0.5	0.22	4.1	0.9	45	< 1	9	16.5	27	6	2.9	< 0.01	< 0.5
3479 (8)	1.52	7	1.03	273	1.74	0.044	35	0.2	4.8	< 3	262	< 0.5	0.18	3.5	0.7	42	< 1	8	18.0	33	14	2.8	< 0.01	< 0.5
3489 (4-7)	1.61	6	1.56	273	1.55	0.041	42	< 0.1	4.3	< 3	249	1.3	0.19	3.5	1.3	37	< 1	9	14.8	25	11	2.7	< 0.01	< 0.5
3498 (6a-7)	1.58	8	1.47	304	1.46	0.044	44	0.2	4.6	< 3	241	< 0.5	0.21	4.3	< 0.5	43	< 1	9	15.5	27	15	2.9	< 0.01	< 0.5
3508 (2b-7)	1.68	7	1.32	242	1.54	0.040	38	0.2	4.2	< 3	244	< 0.5	0.16	3.5	1.2	34	< 1	7	14.8	26	13	2.7	< 0.01	< 0.5
3519 (3b-7)	1.59	7	1.07	247	1.61	0.033	< 15	< 0.1	4.7	< 3	256	< 0.5	0.17	3.8	1.2	36	< 1	8	15.9	25	13	2.9	< 0.01	< 0.5
3528 (3-7)	1.62	7	1.64	240	1.44	0.038	< 15	< 0.1	4.2	< 3	233	< 0.5	0.17	3.5	< 0.5	35	< 1	7	14.6	26	9	2.8	< 0.01	< 0.5
3538 (2-7)	1.60	7	1.85	260	1.42	0.034	42	< 0.1	4.1	< 3	232	< 0.5	0.17	3.1	1.6	33	< 1	8	14.5	24	12	2.7	< 0.01	< 0.5
3548 (1-8)	1.67	7	1.33	245	1.62	0.036	65	0.2	4.7	< 3	251	< 0.5	0.17	3.5	1.5	34	< 1	7	15.9	28	8	2.8	< 0.01	< 0.5
3558 (3-5)	1.59	7	1.32	233	1.65	0.035	53	0.3	4.6	< 3	248	< 0.5	0.16	3.1	1.4	34	2	8	16.0	28	13	2.9	< 0.01	< 0.5
3558 (6-7)	1.58	7	1.11	236	1.64	0.035	28	0.1	4.5	< 3	253	< 0.5	0.15	3.8	< 0.5	33	5	7	15.9	27	10	2.9	< 0.01	< 0.5
3567 (4-7)	1.56	8	1.43	264	1.51	0.039	37	< 0.1	4.9	< 3	239	< 0.5	0.15	4.2	0.9	30	< 1	8	17.4	28	14	3.2	< 0.01	< 0.5
3578 (3-4)	1.49	7	1.05	227	1.63	0.035	45	0.2	4.8	< 3	230	< 0.5	0.15	3.6	1.6	33	12	7	16.3	26	11	3.1	< 0.01	< 0.5
3588 (8-13)	1.71	9	1.61	254	1.63	0.031	71	0.2	4.7	< 3	254	< 0.5	0.17	3.7	1.0	35	< 1	8	16.7	27	12	3.0	< 0.01	< 0.5
3618 (1-2)	1.62	13	1.33	349	1.45	0.041	57	0.2	5.8	< 3	229	< 0.5	0.23	4.6	< 0.5	51	< 1	10	20.3	38	17	3.1	< 0.01	< 0.5
3618 (3b-4)	1.53	8	1.28	279	1.51	0.039	43	0.3	4.7	< 3	239	< 0.5	0.19	3.9	1.5	38	< 1	8	16.5	26	12	3.0	< 0.01	< 0.5
3618 (5-9)	1.70	8	1.83	273	1.48	0.037	62	0.2	4.4	< 3	238	< 0.5	0.16	3.1	< 0.5	33	< 1	8	15.3	28	8	2.8	< 0.01	< 0.5
3628 (2)	1.85	19	2.10	394	1.30	0.039	41	0.4	6.3	< 3	214	< 0.5	0.21	5.8	< 0.5	46	< 1	9	21.1	36	13	3.6	< 0.01	< 0.5
3628 (3-4)	1.67	7	1.41	234	1.50	0.036	45	0.2	4.3	< 3	250	< 0.5	0.17	3.3	< 0.5	33	< 1	7	15.2	25	12	2.8	< 0.01	< 0.5
3628 (5-7)	1.51	7	1.19	259	1.51	0.044	47	< 0.1	4.9	< 3	245	< 0.5	0.20	4.5	1.3	40	< 1	8	18.2	33	15	3.2	< 0.01	< 0.5
3638 (4b-5)	1.60	7	2.32	275	1.43	0.038	50	< 0.1	4.5	< 3	222	< 0.5	0.16	3.4	< 0.5	32	< 1	8	15.7	26	13	3.0	< 0.01	< 0.5
3649 (4)	1.60	7	1.14	208	1.64	0.038	35	< 0.1	4.3	< 3	249	< 0.5	0.15	3.3	< 0.5	35	< 1	8	14.6	27	13	2.7	< 0.01	< 0.5
3649 (5-9)	1.62	7	1.41	224	1.57	0.034	48	< 0.1	4.2	< 3	240	< 0.5	0.14	3.3	1.5	30	1	7	14.7	26	9	2.6	< 0.01	< 0.5
3670 (5-6)	1.51	7	2.02	238	1.33	0.040	34	0.2	4.2	< 3	208	< 0.5	0.18	3.4	0.8	32	< 1	8	15.1	25	11	2.8	< 0.01	< 0.5
3690 (2b-5)	1.63	7	1.57	294	1.46	0.037	< 15	< 0.1	4.5	< 3	239	< 0.5	0.20	3.1	< 0.5	38	< 1	8	14.9	30	15	2.9	< 0.01	< 0.5
3700 (3-5)	1.57	7	1.20	224	1.49	0.036	< 15	< 0.1	4.9	< 3	233	< 0.5	0.16	4.4	< 0.5	35	< 1	7	17.3	32	13	3.2	< 0.01	< 0.5
3760 (1b)	1.88	14	1.22	690	1.68	0.035	35	0.2	6.2	< 3	232	< 0.5	0.21	6.3	0.9	44	< 1	11	27.5	70	21	3.9	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
3105 (3-8)	0.8	< 0.05	42.90
3123 (4-5)	0.8	< 0.05	43.04
3126 (3-10)	0.8	< 0.05	43.44
3208 (5-13)	0.8	< 0.05	43.81
3215 (2-10a)	0.8	< 0.05	45.84
3215 (10b-11)	0.7	< 0.05	42.66
3276 (5a-7)	0.6	< 0.05	45.03
3285 (4b-7b)	0.8	< 0.05	44.21
3295 (2-10)	0.7	< 0.05	44.45
3306 (1-8)	0.8	< 0.05	44.28
3321 (4-9)	0.9	< 0.05	45.39
3328 (3-7)	0.9	< 0.05	45.34
3340 (2-7)	0.9	< 0.05	44.97
3350 (5-7)	1.0	< 0.05	41.40
3350 (3-4)	0.7	< 0.05	45.27
3350 (8a-9)	0.9	< 0.05	43.20
3360 (3-7)	0.8	< 0.05	45.02
3370 (1-7)	0.8	< 0.05	44.35
3380 (2-7)	0.8	< 0.05	45.43
3390 (5-6)	0.8	< 0.05	45.10
3420 (7-13)	0.7	< 0.05	45.88
3440 (4-14)	0.8	< 0.05	45.17
3461 (3-12)	0.8	< 0.05	43.86
3472 (5-7)	1.0	< 0.05	45.75
3479 (8)	0.9	0.11	11.18
3489 (4-7)	0.9	< 0.05	43.95
3498 (6a-7)	1.0	< 0.05	43.95
3508 (2b-7)	0.7	< 0.05	45.03
3519 (3b-7)	0.8	< 0.05	45.68
3528 (3-7)	0.8	< 0.05	43.68
3538 (2-7)	0.8	< 0.05	45.48
3548 (1-8)	0.8	< 0.05	44.37
3558 (3-5)	0.8	< 0.05	43.83
3558 (6-7)	0.9	< 0.05	45.16
3567 (4-7)	0.9	< 0.05	44.39
3578 (3-4)	0.9	< 0.05	43.64
3588 (8-13)	0.8	0.15	42.99
3618 (1-2)	1.3	0.18	10.57
3618 (3b-4)	1.0	0.17	43.52
3618 (5-9)	0.8	0.14	45.02
3628 (2)	1.0	0.22	39.80
3628 (3-4)	0.9	0.16	41.78
3628 (5-7)	1.0	0.17	45.43
3638 (4b-5)	0.9	0.19	44.10
3649 (4)	0.8	0.14	45.05
3649 (5-9)	0.9	0.15	45.22
3670 (5-6)	1.0	0.22	45.17
3690 (2b-5)	0.8	0.15	45.22
3700 (3-5)	0.9	0.17	43.80
3760 (1b)	1.4	0.20	10.02

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.9		1160	2.9	15	758	45		772		0.24	2.63			1	1400		0.94					
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380		0.960					
GXR-1 Meas		29.3		1060	3.3	13	680	49		684		0.23	3.23			1	1240		0.94					
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380		0.960					
GXR-4 Meas		3.3		6590	0.4	322	46	41		74		1.81	7.83			2	12		1.11					
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0		1.01					
GXR-4 Meas		3.4		6290	0.5	304	42	41		74		1.75	4.59			2	11		1.06					
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0		1.01					
SDC-1 Meas		< 0.3		39	< 0.3	< 1	23	38		105		0.06	8.54			3	< 2		1.07					
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60		1.00					
SDC-1 Meas		< 0.3		32	< 0.3	< 1	25	43		103		0.06	5.95			3	< 2		1.14					
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60		1.00					
SCO-1 Meas		0.4		29	0.4	< 1	27	29		102		0.07	8.40			2	< 2		2.01					
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37		1.87					
SCO-1 Meas		< 0.3		28	0.5	< 1	27	32		100		0.08	5.14			2	< 2		2.01					
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37		1.87					
GXR-6 Meas		0.4		69	0.4	1	95	27		134		0.01	15.3			1	< 2		0.20					
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290		0.180					
GXR-6 Meas		< 0.3		60	0.3	< 1	79	27		116		0.01	11.6			1	< 2		0.28					
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290		0.180					
DNC-1a Meas				99				241		55														
DNC-1a Cert				100.0				247		70.0														
DNC-1a Meas				97				260		56														
DNC-1a Cert				100.0				247		70.0														
DMMAS 114 Meas	2030													1700	1430				40	73				3.44
DMMAS 114 Cert	2199													1624	1561				42	84				3.31
DMMAS 114 Meas	2150													1650	1700				41	92				3.37
DMMAS 114 Cert	2199													1624	1561				42	84				3.31
DMMAS 114 Meas	2060													1710	1530				39	92				3.38
DMMAS 114 Cert	2199													1624	1561				42	84				3.31
3340 (2-7) Orig		< 0.3		7	< 0.3	< 1	8	10		17		0.02	2.99			< 1	< 2		8.21					
3340 (2-7) Dup		0.3		4	< 0.3	< 1	7	11		13		0.02	3.07			< 1	< 2		8.20					
3690 (2b-5) Orig		< 0.3		6	< 0.3	< 1	6	11		13		0.01	3.02			< 1	< 2		7.97					
3690 (2b-5) Dup		< 0.3		5	< 0.3	< 1	7	12		13		< 0.01	3.02			< 1	< 2		7.91					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank	< 2		< 5					< 20		< 50				< 0.5	< 50			< 0.5	< 1	< 2	< 1	< 0.2	< 0.01	
Method Blank	< 2		< 5					< 20		< 50				< 0.5	< 50			< 0.5	< 1	< 2	< 1	< 0.2	< 0.01	
Method Blank		< 0.3		2	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					

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Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.04	7	0.22	971		0.058					279					92					26
GXR-1 Cert				0.050	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-1 Meas				0.06	11	0.31	856		0.054					272					77					25
GXR-1 Cert				0.050	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-4 Meas				4.33	11	1.73	166		0.133					213					93					13
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
GXR-4 Meas				3.43	11	1.67	150		0.130					205					87					13
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
SDC-1 Meas				2.88	34	1.02	961		0.054					168		0.11			45					30
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SDC-1 Meas				3.85	35	1.03	927		0.055					177		0.11			35					33
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SCO-1 Meas				2.42	43	1.60	431		0.083					160		0.33			133					18
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
SCO-1 Meas				2.76	44	1.62	406		0.081					163		0.28			119					19
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
GXR-6 Meas				1.95	35	0.62	1120		0.036					41					132					13
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
GXR-6 Meas				1.82	43	0.70	969		0.033					53					130					12
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
DNC-1a Meas					4									128					145					14
DNC-1a Cert					5.20									144.0					148.0					18.0
DNC-1a Meas					5									129					144					15
DNC-1a Cert					5.20									144.0					148.0					18.0
DMMAS 114 Meas								1.84			9.6	6.9						14.8				16.8	29	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
DMMAS 114 Meas								1.86			12.9	7.2						18.7				15.9	19	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
DMMAS 114 Meas								1.85			13.6	7.4						20.8				16.5	24	
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1	23.7	
3340 (2-7) Orig				1.69	8	1.84	264		0.035					234		0.16			33					7
3340 (2-7) Dup				1.70	8	1.81	262		0.037					235		0.16			33					8
3690 (2b-5) Orig				1.61	7	1.58	297		0.036					238		0.20			39					8
3690 (2b-5) Dup				1.64	7	1.56	291		0.039					240		0.20			38					9
Method Blank				< 0.01	< 1	< 0.01	22		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01	17		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01	7		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5
Method Blank				< 0.01	< 1	< 0.01	3		< 0.001					< 1		< 0.01			< 2					< 1

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 114 Meas	2.8					
DMMAS 114 Cert	2.4					
DMMAS 114 Meas	3.2					
DMMAS 114 Cert	2.4					
DMMAS 114 Meas	3.2					
DMMAS 114 Cert	2.4					
3340 (2-7) Orig						
3340 (2-7) Dup						
3690 (2b-5) Orig						
3690 (2b-5) Dup						
Method Blank						
Method Blank						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.00
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	10.00
Method Blank						



Date Submitted: 09-Mar-12
Invoice No.: A12-02480
Invoice Date: 02-Apr-12
Your Reference: DD-RR

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: President Chris Meraw

CERTIFICATE OF ANALYSIS

51 sand samples were submitted for analysis.
The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)
REPORT A12-02480

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A12-02480

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
3649 (2b-3)	< 2	< 0.3	4	< 0.3	< 1	6	9	14	< 0.01	3.76	< 0.5	440	< 1	< 2	3.4	9.45	4	42	< 1	0.6	1.22	5	< 1	< 5
3660 (4b-7)	< 2	< 0.3	4	< 0.3	< 1	7	9	12	0.02	4.08	1.9	490	< 1	< 2	3.4	8.39	5	40	< 1	0.5	1.22	6	< 1	< 5
3680 (2-5)	< 2	< 0.3	10	< 0.3	< 1	5	10	13	< 0.01	4.04	2.8	480	< 1	< 2	3.0	8.27	4	50	< 1	0.7	1.29	6	< 1	< 5
3720 (2-7)	< 2	0.4	6	< 0.3	< 1	6	7	13	0.01	3.88	2.3	480	< 1	< 2	3.5	8.75	5	39	< 1	0.6	1.08	5	< 1	< 5
3760 (2-3)	< 2	0.4	5	< 0.3	1	4	10	12	< 0.01	3.95	2.0	420	< 1	< 2	3.6	7.90	5	56	< 1	0.7	1.46	7	< 1	< 5
3760 (4)	< 2	< 0.3	5	< 0.3	< 1	6	10	14	< 0.01	3.58	2.0	480	< 1	< 2	4.7	9.14	5	40	< 1	0.5	1.12	5	< 1	< 5
3760 (5-7)	< 2	< 0.3	5	< 0.3	< 1	6	9	14	0.02	3.85	2.2	380	< 1	< 2	3.5	8.57	5	47	< 1	0.7	1.23	5	< 1	< 5
3780 (1-2)	< 2	0.3	8	< 0.3	< 1	14	17	21	0.02	4.78	3.3	510	1	< 2	< 0.5	6.22	10	48	< 1	0.8	1.90	7	< 1	< 5
3780 (2b-5)	< 2	< 0.3	4	< 0.3	< 1	7	11	15	< 0.01	4.07	< 0.5	340	< 1	< 2	3.3	7.54	5	41	< 1	0.6	1.36	5	< 1	< 5
3780 (6-7)	< 2	0.6	8	< 0.3	< 1	9	10	13	0.06	3.70	3.3	450	< 1	< 2	3.1	7.99	6	55	< 1	0.6	1.49	5	< 1	< 5
3790 (6-7)	< 2	0.3	9	< 0.3	< 1	7	9	13	0.06	3.96	2.9	480	< 1	< 2	2.8	8.72	5	43	< 1	0.7	1.48	7	< 1	< 5
3790 (8)	< 2	< 0.3	4	< 0.3	1	7	9	15	0.05	4.27	3.0	540	< 1	< 2	3.6	8.02	5	41	1	0.7	1.59	5	< 1	< 5
3800 (4-8)	6	< 0.3	4	< 0.3	< 1	8	10	17	0.06	4.24	2.3	380	< 1	< 2	2.9	7.86	5	46	< 1	0.6	1.44	4	< 1	< 5
3810 (3-9)	6	< 0.3	7	< 0.3	< 1	5	9	14	0.05	4.01	1.9	400	< 1	< 2	3.1	8.20	5	49	< 1	0.6	1.60	7	< 1	< 5
3820 (5)	< 2	< 0.3	3	< 0.3	< 1	8	11	15	0.04	3.79	2.3	420	< 1	< 2	3.1	8.71	4	38	< 1	0.6	1.18	5	< 1	< 5
3820 (6-7)	< 2	< 0.3	3	< 0.3	< 1	8	10	13	0.04	4.26	< 0.5	510	< 1	< 2	2.6	7.79	4	42	< 1	0.6	1.47	6	< 1	< 5
3830 (9)	< 2	< 0.3	5	< 0.3	< 1	9	9	15	0.06	4.18	< 0.5	450	< 1	< 2	3.3	7.97	4	34	< 1	0.7	1.45	5	< 1	< 5
3840 (5b-7)	< 2	< 0.3	7	< 0.3	< 1	8	9	24	0.05	3.91	< 0.5	470	< 1	< 2	< 0.5	8.33	4	65	< 1	0.6	1.44	5	< 1	< 5
3850 (3)	< 2	< 0.3	12	< 0.3	< 1	10	15	18	< 0.01	4.11	< 0.5	450	< 1	< 2	3.3	9.26	6	46	< 1	0.6	1.33	4	< 1	< 5
3850 (4-7)	< 2	0.3	4	< 0.3	< 1	8	10	13	0.03	3.72	< 0.5	350	< 1	< 2	2.7	8.04	5	52	< 1	0.6	1.47	5	< 1	< 5
3860 (4-6a)	3	< 0.3	4	< 0.3	< 1	6	9	14	0.01	4.03	1.8	400	< 1	< 2	2.4	8.94	4	41	< 1	0.6	1.32	6	< 1	< 5
3860 (6b-7)	< 2	< 0.3	50	< 0.3	< 1	8	11	14	0.06	3.97	2.5	410	< 1	< 2	3.0	7.94	4	66	< 1	0.7	1.50	6	< 1	< 5
3870 (4-7)	< 2	< 0.3	21	< 0.3	< 1	6	10	14	0.04	4.06	< 0.5	480	< 1	< 2	3.0	8.53	4	48	< 1	0.6	1.19	5	< 1	< 5
3880 (3b-6)	< 2	< 0.3	5	< 0.3	< 1	9	9	14	0.03	3.96	< 0.5	480	< 1	< 2	3.5	8.13	4	61	< 1	0.6	1.46	6	< 1	< 5
3890 (3-7)	6	< 0.3	5	< 0.3	< 1	9	9	14	0.03	3.90	1.4	480	< 1	< 2	3.2	8.66	4	53	< 1	0.6	1.26	5	< 1	< 5
3900 (2-5)	< 2	< 0.3	4	< 0.3	< 1	11	10	13	< 0.01	4.28	< 0.5	450	< 1	< 2	3.2	7.77	4	56	< 1	0.7	1.42	6	< 1	< 5
3900 (1b)	< 2	< 0.3	9	< 0.3	< 1	14	12	20	< 0.01	4.48	< 0.5	500	< 1	< 2	2.9	6.51	5	62	< 1	0.7	1.57	6	< 1	< 5
3910 (1b-2a)	< 2	< 0.3	15	< 0.3	< 1	17	22	30	0.01	5.47	5.5	540	1	< 2	< 0.5	3.55	14	76	2	0.9	2.49	8	< 1	< 5
3910 (4b-7)	< 2	< 0.3	20	< 0.3	2	7	8	13	0.03	4.12	< 0.5	450	< 1	< 2	< 0.5	7.79	4	53	< 1	0.5	1.25	5	< 1	< 5
3920 (4-7)	< 2	< 0.3	5	< 0.3	< 1	7	12	13	0.02	3.90	1.7	490	< 1	< 2	2.8	7.78	4	46	< 1	0.5	1.14	5	< 1	< 5
3940 (4a-7)	< 2	0.4	4	< 0.3	1	6	9	13	0.04	3.92	2.4	510	< 1	< 2	2.8	8.16	4	57	< 1	0.7	1.40	6	< 1	< 5
3951 (1)	< 2	< 0.3	7	< 0.3	< 1	12	15	26	0.01	4.49	2.6	420	< 1	< 2	3.7	7.80	6	55	< 1	0.7	1.65	5	< 1	< 5
3951 (2-6)	< 2	< 0.3	4	< 0.3	< 1	9	9	14	0.02	4.18	2.0	460	< 1	< 2	3.4	7.66	4	58	< 1	0.6	1.38	6	< 1	< 5
3962 (1b-2a)	< 2	< 0.3	9	< 0.3	< 1	7	9	16	0.02	4.12	< 0.5	570	< 1	< 2	4.4	8.68	5	50	< 1	0.6	1.27	5	< 1	< 5
3972 (3-5)	< 2	< 0.3	4	< 0.3	< 1	7	11	15	0.02	4.18	1.4	430	< 1	< 2	< 0.5	8.07	5	79	< 1	0.6	1.68	6	< 1	< 5
3982 (6-7)	< 2	< 0.3	11	< 0.3	< 1	7	12	16	0.06	4.60	< 0.5	440	< 1	< 2	2.6	8.70	4	69	< 1	0.7	1.56	5	< 1	< 5
3992 (4-5)	< 2	< 0.3	6	< 0.3	< 1	8	17	16	< 0.01	4.44	1.7	320	< 1	< 2	3.0	8.47	5	53	< 1	0.6	1.52	5	< 1	< 5
3992 (6-7)	< 2	< 0.3	23	< 0.3	< 1	4	10	15	0.02	4.49	2.4	420	< 1	< 2	2.7	8.16	5	63	< 1	0.6	1.50	5	< 1	< 5
4002 (2-3)	< 2	< 0.3	7	< 0.3	< 1	9	11	13	< 0.01	4.43	0.8	320	< 1	< 2	2.2	8.20	5	42	< 1	0.6	1.41	5	< 1	< 5
4061 (6b-8)	< 2	< 0.3	6	< 0.3	< 1	6	7	14	0.04	4.11	< 0.5	510	< 1	< 2	2.8	8.33	4	37	< 1	0.6	1.18	5	< 1	< 5
4071 (5b-7)	< 2	< 0.3	6	< 0.3	< 1	7	9	13	0.03	4.64	1.2	460	< 1	< 2	< 0.5	8.26	3	41	< 1	0.5	1.31	5	< 1	< 5
4081 (3-7)	< 2	< 0.3	4	< 0.3	< 1	5	10	14	0.01	4.20	< 0.5	390	< 1	< 2	3.0	8.27	4	46	< 1	0.7	1.37	6	< 1	< 5
4081 (8)	< 2	< 0.3	5	< 0.3	< 1	9	9	14	0.04	4.65	1.7	460	< 1	< 2	3.0	7.62	4	41	< 1	0.6	1.44	5	< 1	< 5
4092 (2-3a)	< 2	< 0.3	19	< 0.3	< 1	13	23	31	< 0.01	5.13	4.8	460	1	< 2	3.9	8.09	9	53	2	1.0	2.09	6	< 1	< 5
4092 (3b-4a)	< 2	< 0.3	5	< 0.3	< 1	8	9	15	< 0.01	4.18	3.1	500	< 1	< 2	3.5	8.10	4	56	< 1	0.7	1.28	6	< 1	< 5
4092 (4b-7)	< 2	< 0.3	7	< 0.3	< 1	9	10	15	0.05	4.33	1.4	490	< 1	< 2	2.8	8.52	5	81	< 1	0.6	1.74	7	< 1	< 5
4101 (1b-2)	< 2	< 0.3	8	< 0.3	< 1	14	17	21	< 0.01	4.76	2.5	490	< 1	< 2	3.0	7.10	8	56	< 1	0.7	1.72	6	< 1	< 5
4101 (3-4)	< 2	< 0.3	7	< 0.3	< 1	8	9	13	< 0.01	4.15	2.9	410	< 1	< 2	3.3	8.66	4	47	< 1	0.6	1.31	5	< 1	< 5
4111 (2)	9	< 0.3	6	< 0.3	< 1	13	14	21	< 0.01	4.66	3.0	550	1	< 2	< 0.5	6.57	7	59	1	0.8	1.78	7	< 1	< 5
4111 (3-5)	< 2	< 0.3	4	< 0.3	< 1	3	10	14	0.02	4.10	2.9	500	< 1	< 2	3.5	8.02	4	62	1	0.7	1.50	6	< 1	< 5
4101 (5-8)	< 2	0.4	8	< 0.3	1	7	9	13	0.03	3.97	4.0	450	< 1	< 2	3.0	8.96	4	43	< 1	0.6	1.21	5	< 1	< 5

Activation Laboratories Ltd. Report: A12-02480

Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
3649 (2b-3)	1.62	8	2.11	238	1.40	0.039	41	0.3	4.7	< 3	212	< 0.5	0.17	3.8	1.3	28	< 1	8	16.2	27	11	2.9	< 0.01	< 0.5
3660 (4b-7)	1.68	7	1.72	251	1.55	0.039	56	0.3	4.7	< 3	230	< 0.5	0.16	3.7	1.5	30	< 1	8	15.9	30	11	2.8	< 0.01	< 0.5
3680 (2-5)	1.63	8	1.62	241	1.48	0.041	33	0.2	4.8	< 3	227	< 0.5	0.18	3.4	< 0.5	33	< 1	8	16.5	26	12	2.9	< 0.01	< 0.5
3720 (2-7)	1.62	7	1.94	233	1.39	0.042	29	0.2	4.4	< 3	218	< 0.5	0.17	3.1	2.0	28	< 1	8	15.0	28	12	2.7	< 0.01	0.6
3760 (2-3)	1.51	6	1.31	294	1.51	0.050	49	0.3	4.8	< 3	234	< 0.5	0.19	4.2	< 0.5	39	< 1	8	17.2	31	14	2.9	< 0.01	< 0.5
3760 (4)	1.58	7	2.17	282	1.41	0.041	48	0.3	4.5	< 3	203	< 0.5	0.16	4.1	< 0.5	27	< 1	7	16.3	29	15	3.0	< 0.01	< 0.5
3760 (5-7)	1.63	8	1.82	247	1.37	0.041	< 15	< 0.1	4.5	< 3	214	< 0.5	0.16	3.3	< 0.5	32	< 1	8	15.2	29	10	2.8	< 0.01	< 0.5
3780 (1-2)	1.82	12	1.10	531	1.67	0.049	43	< 0.1	6.3	< 3	238	< 0.5	0.20	6.2	1.5	46	< 1	10	24.3	57	20	4.0	< 0.01	< 0.5
3780 (2b-5)	1.47	8	1.52	261	1.62	0.041	50	0.2	4.9	< 3	215	< 0.5	0.17	2.9	< 0.5	31	< 1	7	14.8	26	13	2.8	< 0.01	< 0.5
3780 (6-7)	1.50	7	1.32	296	1.51	0.044	51	< 0.1	4.8	< 3	230	< 0.5	0.20	4.2	< 0.5	39	< 1	8	16.1	27	10	2.8	< 0.01	< 0.5
3790 (6-7)	1.51	7	1.44	282	1.45	0.043	42	0.3	5.0	< 3	225	< 0.5	0.19	4.9	< 0.5	36	< 1	8	17.7	35	16	3.0	< 0.01	< 0.5
3790 (8)	1.52	7	1.11	272	1.86	0.034	45	< 0.1	5.3	< 3	252	< 0.5	0.17	4.8	< 0.5	35	< 1	7	17.5	32	11	3.2	< 0.01	< 0.5
3800 (4-8)	1.52	7	1.12	286	1.68	0.039	< 15	0.2	5.1	< 3	252	< 0.5	0.19	3.8	< 0.5	36	< 1	9	17.0	31	12	2.9	< 0.01	< 0.5
3810 (3-9)	1.53	7	1.42	260	1.58	0.039	46	0.2	5.0	< 3	238	0.9	0.19	4.8	< 0.5	38	< 1	8	18.6	33	19	3.2	< 0.01	< 0.5
3820 (5)	1.42	7	1.20	256	1.38	0.032	46	0.2	4.2	< 3	229	< 0.5	0.15	4.3	1.3	25	< 1	9	15.7	26	10	2.8	< 0.01	< 0.5
3820 (6-7)	1.61	6	1.27	263	1.65	0.038	35	< 0.1	4.9	< 3	251	< 0.5	0.17	4.1	< 0.5	33	< 1	8	17.4	31	15	3.1	< 0.01	< 0.5
3830 (9)	1.50	7	1.07	257	1.64	0.045	< 15	< 0.1	4.3	< 3	248	< 0.5	0.18	3.1	< 0.5	41	< 1	8	16.0	35	14	2.3	< 0.01	< 0.5
3840 (5b-7)	1.57	7	1.50	263	1.44	0.041	39	0.2	4.8	< 3	230	< 0.5	0.19	4.3	< 0.5	36	< 1	8	16.6	30	8	2.9	< 0.01	< 0.5
3850 (3)	1.66	10	1.74	310	1.40	0.038	43	0.2	5.0	< 3	217	< 0.5	0.17	4.0	1.2	32	< 1	8	16.5	29	10	3.0	< 0.01	< 0.5
3850 (4-7)	1.55	7	1.36	324	1.57	0.044	49	0.2	5.0	< 3	222	< 0.5	0.19	3.6	< 0.5	35	< 1	8	16.8	31	10	3.0	< 0.01	< 0.5
3860 (4-6a)	1.55	8	1.56	275	1.52	0.039	45	0.2	5.0	< 3	229	< 0.5	0.18	5.1	< 0.5	30	< 1	9	18.3	32	14	3.3	< 0.01	< 0.5
3860 (6b-7)	1.51	7	1.33	288	1.52	0.040	40	0.2	5.1	< 3	230	< 0.5	0.20	4.5	< 0.5	41	< 1	9	17.4	30	17	3.0	< 0.01	0.5
3870 (4-7)	1.64	7	1.72	243	1.55	0.035	57	< 0.1	4.6	< 3	232	< 0.5	0.15	4.0	1.4	29	< 1	8	16.6	30	13	2.8	< 0.01	< 0.5
3880 (3b-6)	1.61	8	1.55	246	1.54	0.035	51	0.2	5.0	< 3	227	< 0.5	0.17	3.9	1.1	33	< 1	8	17.3	32	15	3.0	< 0.01	< 0.5
3890 (3-7)	1.65	7	1.86	255	1.43	0.038	< 15	< 0.1	4.6	< 3	223	< 0.5	0.13	3.3	< 0.5	25	< 1	8	15.3	28	13	2.8	< 0.01	< 0.5
3900 (2-5)	1.68	8	1.36	271	1.46	0.036	38	< 0.1	4.9	< 3	240	< 0.5	0.15	4.1	1.3	30	< 1	7	17.3	31	14	3.0	< 0.01	< 0.5
3900 (1b)	1.73	9	1.25	283	1.62	0.041	25	< 0.1	5.5	< 3	235	< 0.5	0.19	5.0	< 0.5	37	< 1	9	19.5	36	20	3.4	< 0.01	< 0.5
3910 (1b-2a)	1.95	16	0.92	615	1.81	0.044	54	0.2	7.7	< 3	248	1.2	0.27	9.3	< 0.5	63	< 1	12	29.0	63	16	5.0	< 0.01	< 0.5
3910 (4b-7)	1.67	8	1.38	246	1.47	0.034	36	< 0.1	4.7	< 3	231	< 0.5	0.17	4.3	< 0.5	31	< 1	7	15.8	28	14	2.8	< 0.01	< 0.5
3920 (4-7)	1.57	7	1.57	227	1.47	0.035	54	< 0.1	4.3	< 3	222	0.9	0.15	3.2	1.6	27	< 1	7	14.7	27	11	2.7	< 0.01	< 0.5
3940 (4a-7)	1.59	7	1.48	249	1.54	0.042	59	0.2	4.9	< 3	229	< 0.5	0.18	4.1	< 0.5	32	< 1	8	17.2	31	18	3.0	< 0.01	< 0.5
3951 (1)	1.74	12	1.38	307	1.52	0.043	50	0.2	5.9	< 3	230	< 0.5	0.20	6.0	< 0.5	39	< 1	10	20.1	38	18	3.6	< 0.01	< 0.5
3951 (2-6)	1.66	8	1.24	236	1.54	0.031	40	< 0.1	4.9	< 3	232	< 0.5	0.15	3.9	1.1	29	< 1	7	16.2	27	10	2.9	< 0.01	< 0.5
3962 (1b-2a)	1.70	8	1.80	266	1.51	0.038	33	0.2	4.8	< 3	223	< 0.5	0.16	3.7	< 0.5	28	< 1	8	16.4	32	14	2.9	< 0.01	< 0.5
3972 (3-5)	1.61	8	1.34	305	1.52	0.041	23	< 0.1	5.5	< 3	235	0.7	0.18	4.5	< 0.5	38	< 1	9	18.7	34	12	3.3	< 0.01	< 0.5
3982 (6-7)	1.82	9	1.48	285	1.59	0.047	49	< 0.1	5.0	< 3	262	< 0.5	0.18	4.1	1.6	39	< 1	9	17.6	29	15	2.9	< 0.01	< 0.5
3992 (4-5)	1.68	8	1.22	312	1.54	0.037	35	< 0.1	5.0	< 3	254	< 0.5	0.17	3.8	< 0.5	34	< 1	8	17.2	33	17	3.0	< 0.01	< 0.5
3992 (6-7)	1.74	8	1.31	256	1.51	0.036	37	< 0.1	5.0	< 3	250	< 0.5	0.13	4.1	1.7	27	< 1	8	17.3	29	16	2.9	< 0.01	< 0.5
4002 (2-3)	1.70	7	1.59	307	1.68	0.037	42	< 0.1	4.9	< 3	257	1.0	0.17	3.8	< 0.5	32	< 1	9	17.6	30	13	3.0	< 0.01	< 0.5
4061 (6b-8)	1.68	6	1.76	259	1.63	0.042	< 15	0.2	4.4	< 3	246	< 0.5	0.16	3.5	1.2	29	< 1	8	14.6	25	9	2.7	< 0.01	0.6
4071 (5b-7)	1.75	7	1.35	267	1.66	0.039	55	0.2	4.6	< 3	276	< 0.5	0.19	3.5	1.4	38	< 1	8	16.1	29	13	2.7	< 0.01	< 0.5
4081 (3-7)	1.64	7	1.50	249	1.64	0.040	41	< 0.1	5.0	< 3	244	< 0.5	0.18	4.1	< 0.5	33	< 1	9	17.4	32	14	3.0	< 0.01	< 0.5
4081 (8)	1.72	6	1.23	270	1.88	0.039	66	< 0.1	5.0	< 3	280	< 0.5	0.17	4.1	< 0.5	36	< 1	9	17.5	29	18	3.2	< 0.01	< 0.5
4092 (2-3a)	1.94	17	1.53	613	1.35	0.043	45	0.2	5.9	< 3	246	< 0.5	0.21	7.4	1.4	44	6	13	25.1	56	25	3.2	< 0.01	< 0.5
4092 (3b-4a)	1.63	7	1.49	236	1.57	0.039	< 15	0.2	4.8	< 3	239	< 0.5	0.16	4.1	< 0.5	29	< 1	8	17.0	29	13	3.1	< 0.01	< 0.5
4092 (4b-7)	1.70	8	1.45	290	1.53	0.040	29	< 0.1	5.3	< 3	245	< 0.5	0.16	5.0	< 0.5	35	< 1	9	19.2	34	17	3.3	< 0.01	< 0.5
4101 (1b-2)	1.82	12	1.41	482	1.52	0.043	47	< 0.1	5.7	< 3	246	1.2	0.17	5.6	< 0.5	34	< 1	10	21.0	40	20	3.6	< 0.01	< 0.5
4101 (3-4)	1.70	7	1.69	262	1.45	0.037	48	< 0.1	4.6	< 3	237	< 0.5	0.16	3.5	< 0.5	31	< 1	8	15.5	27	13	2.9	< 0.01	< 0.5
4111 (2)	1.91	12	1.41	455	1.57	0.036	38	< 0.1	5.9	< 3	228	< 0.5	0.20	6.3	< 0.5	40	< 1	10	22.7	41	18	4.1	< 0.01	< 0.5
4111 (3-5)	1.64	7	1.41	253	1.51	0.043	30	0.3	5.0	< 3	231	< 0.5	0.19	3.9	2.2	35	< 1	8	16.3	30	14	3.0	< 0.01	< 0.5
4101 (5-8)	1.72	8	1.95	251	1.44	0.045	42	0.3	4.3	< 3	224	0.9	0.17	3.6	1.4	30	< 1	8	15.7	25	17	2.8	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
3649 (2b-3)	1.2	0.22	37.76
3660 (4b-7)	0.9	0.18	41.55
3680 (2-5)	0.9	0.19	41.92
3720 (2-7)	0.9	0.21	41.03
3760 (2-3)	0.9	0.18	39.86
3760 (4)	0.9	0.22	39.70
3760 (5-7)	0.9	0.14	41.20
3780 (1-2)	1.1	0.23	36.68
3780 (2b-5)	1.0	0.16	40.68
3780 (6-7)	0.9	0.20	39.90
3790 (6-7)	0.9	0.20	40.93
3790 (8)	0.8	0.24	25.01
3800 (4-8)	0.9	0.17	41.76
3810 (3-9)	1.1	0.17	40.20
3820 (5)	0.9	0.22	41.61
3820 (6-7)	0.8	0.20	40.22
3830 (9)	0.8	0.12	10.75
3840 (5b-7)	1.0	0.20	39.89
3850 (3)	1.0	0.19	38.70
3850 (4-7)	1.1	0.19	41.19
3860 (4-6a)	1.1	0.19	41.09
3860 (6b-7)	0.9	0.19	39.95
3870 (4-7)	1.2	0.18	41.72
3880 (3b-6)	1.1	0.22	41.16
3890 (3-7)	1.0	0.20	40.81
3900 (2-5)	1.1	0.20	41.83
3900 (1b)	1.2	0.24	40.37
3910 (1b-2a)	1.5	0.27	35.59
3910 (4b-7)	0.9	0.16	41.47
3920 (4-7)	0.8	0.17	41.37
3940 (4a-7)	1.0	0.19	41.26
3951 (1)	1.1	0.19	39.85
3951 (2-6)	1.0	0.19	40.95
3962 (1b-2a)	1.2	0.22	40.35
3972 (3-5)	1.2	0.22	41.81
3982 (6-7)	1.2	0.20	41.63
3992 (4-5)	0.9	0.20	40.57
3992 (6-7)	1.0	0.17	41.15
4002 (2-3)	0.9	0.21	41.56
4061 (6b-8)	0.9	0.16	40.03
4071 (5b-7)	0.8	0.17	41.68
4081 (3-7)	0.9	0.20	40.33
4081 (8)	0.9	0.17	40.39
4092 (2-3a)	1.3	< 0.05	10.96
4092 (3b-4a)	0.9	0.20	40.14
4092 (4b-7)	1.0	0.17	42.08
4101 (1b-2)	1.3	0.25	39.53
4101 (3-4)	0.9	0.20	41.77
4111 (2)	1.4	0.23	37.72
4111 (3-5)	1.0	0.21	41.64
4101 (5-8)	0.9	0.19	41.37

Activation Laboratories Ltd. Report: A12-02480

Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.2		1030	3.3	13	691	38		703		0.21	4.76			1	1380		0.96					
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380		0.960					
GXR-4 Meas		3.8		6600	0.4	316	48	46		79		1.81	6.80			2	17		1.17					
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0		1.01					
SDC-1 Meas		< 0.3		28	< 0.3	< 1	21	39		100		0.06	7.31			3	< 2		1.10					
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60		1.00					
SCO-1 Meas		0.4		28	< 0.3	< 1	31	29		100		0.07	7.07			2	< 2		2.09					
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37		1.87					
GXR-6 Meas		< 0.3		58	0.5	< 1	82	23		117		0.01	14.9			1	< 2		0.27					
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290		0.180					
DNC-1a Meas				87				246		55														
DNC-1a Cert				100.0				247		70.0														
DMMAS 114 Meas	2050													1670	1490					40	78			3.65
DMMAS 114 Cert	2199													1624	1561					42	84			3.31
DMMAS 114 Meas	2200													1750	1500					41	89			3.49
DMMAS 114 Cert	2199													1624	1561					42	84			3.31
3800 (4-8) Orig		< 0.3		4	< 0.3	< 1	8	9		13		0.06	4.21			< 1	< 2		7.82					
3800 (4-8) Dup		< 0.3		4	< 0.3	< 1	8	11		21		0.06	4.28			< 1	< 2		7.90					
3900 (1b) Orig		< 0.3		13	< 0.3	< 1	9	11		18		< 0.01	4.46			< 1	< 2		6.36					
3900 (1b) Dup		< 0.3		4	< 0.3	< 1	20	12		21		< 0.01	4.49			< 1	< 2		6.65					
4101 (3-4) Orig		< 0.3		7	< 0.3	< 1	10	9		12		< 0.01	4.20			< 1	< 2		8.70					
4101 (3-4) Dup		< 0.3		8	< 0.3	< 1	6	9		15		< 0.01	4.11			< 1	< 2		8.61					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01

Activation Laboratories Ltd. Report: A12-02480

Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.06	11	0.30	886		0.055					274					83					25
GXR-1 Cert				0.050	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-4 Meas				3.61	11	1.73	162		0.139					218					95					14
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
SDC-1 Meas				2.81	33	0.98	924		0.058					164		0.30			70					30
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SCO-1 Meas				2.60	43	1.57	409		0.087					164		0.31			130					19
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
GXR-6 Meas				1.67	39	0.65	962		0.031					51					101					12
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
DNC-1a Meas					4									121					142					11
DNC-1a Cert					5.20									144.0					148.0					18.0
DMMAS 114 Meas								1.83			11.0	6.8						19.3				18.2		36
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1		23.7
DMMAS 114 Meas								1.86			11.8	7.4						19.3				17.2		32
DMMAS 114 Cert								1.78			11.2	6.5						17.4				15.1		23.7
3800 (4-8) Orig				1.51	7	1.08	271		0.038					249		0.18			35					8
3800 (4-8) Dup				1.52	7	1.16	300		0.040					254		0.20			37					9
3900 (1b) Orig				1.73	9	1.19	281		0.041					233		0.19			37					9
3900 (1b) Dup				1.74	9	1.31	284		0.041					238		0.20			37					10
4101 (3-4) Orig				1.71	7	1.68	256		0.035					237		0.15			29					8
4101 (3-4) Dup				1.68	7	1.71	268		0.038					237		0.17			32					8
Method Blank				< 0.01	< 1	< 0.01	20		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 114 Meas	2.3					
DMMAS 114 Cert	2.4					
DMMAS 114 Meas	3.0					
DMMAS 114 Cert	2.4					
3800 (4-8) Orig						
3800 (4-8) Dup						
3900 (1b) Orig						
3900 (1b) Dup						
4101 (3-4) Orig						
4101 (3-4) Dup						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.00
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	10.0



Date Submitted: 23-Mar-12
Invoice No.: A12-03108
Invoice Date: 12-Apr-12
Your Reference: DD-RR

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: President Chris Meraw

CERTIFICATE OF ANALYSIS

66 sand samples were submitted for analysis.
The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)
REPORT A12-03108

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A12-03108

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
4013(2-11)	57	< 0.3	4	0.3	2	11	11	16	0.09	4.29	2.6	570	< 1	< 2	2.8	8.09	6	61	< 1	0.8	1.55	8	< 1	< 5
4111(6-8)	< 2	< 0.3	5	< 0.3	< 1	8	8	12	0.09	4.22	2.4	590	< 1	< 2	3.1	8.58	5	42	< 1	0.8	1.27	7	< 1	< 5
4120(4-7)	4	< 0.3	6	0.3	< 1	8	13	14	0.08	4.00	1.9	590	< 1	< 2	3.5	7.50	4	76	< 1	0.8	1.64	9	< 1	< 5
4130(1-3)	12	< 0.3	5	< 0.3	< 1	14	12	15	0.05	4.22	1.4	580	< 1	< 2	3.2	7.01	6	65	< 1	0.9	1.62	9	< 1	< 5
4130(4-7)	12	< 0.3	5	0.5	< 1	10	12	15	0.06	4.09	2.1	520	< 1	< 2	3.8	8.79	5	60	< 1	0.9	1.40	8	< 1	< 5
4140(6-8)	< 2	< 0.3	6	0.5	< 1	14	11	15	0.07	4.17	3.2	420	< 1	< 2	2.8	7.33	5	64	< 1	0.9	1.62	9	< 1	< 5
4150(3-7)	< 2	< 0.3	10	< 0.3	< 1	14	11	15	0.07	4.21	2.4	500	1	< 2	2.8	8.27	5	74	< 1	< 0.2	1.60	8	< 1	< 5
4160(2b-5)	5	< 0.3	4	0.3	< 1	10	11	14	0.05	4.43	1.3	540	< 1	< 2	3.0	7.76	5	63	< 1	0.9	1.56	9	< 1	< 5
4170(6-7)	< 2	< 0.3	5	< 0.3	< 1	13	11	21	0.08	4.44	2.2	530	< 1	< 2	2.6	7.48	5	53	< 1	0.9	1.76	9	< 1	< 5
4180(5b-7)	< 2	< 0.3	4	< 0.3	< 1	13	11	14	0.06	4.61	< 0.5	510	< 1	< 2	3.4	6.47	4	54	< 1	0.8	1.66	8	< 1	< 5
4210(8-9b)	< 2	< 0.3	48	0.4	< 1	23	11	19	0.08	4.66	2.2	600	< 1	< 2	3.2	7.69	6	57	< 1	0.9	1.81	8	< 1	< 5
4480(12)	< 2	< 0.3	7	< 0.3	< 1	12	10	18	0.11	4.14	1.9	520	< 1	< 2	3.7	8.44	5	58	< 1	0.8	1.51	9	< 1	< 5
4490(11)	< 2	< 0.3	7	< 0.3	< 1	10	13	20	0.27	4.05	7.4	550	< 1	< 2	3.5	8.42	8	92	< 1	1.1	2.57	9	< 1	< 5
4520(10-12)	7	< 0.3	5	0.3	< 1	12	10	13	0.11	3.81	< 0.5	460	< 1	< 2	3.5	8.33	5	58	< 1	0.8	1.55	8	< 1	< 5
4680(6c-7)	< 2	< 0.3	6	< 0.3	< 1	8	12	16	0.08	4.51	4.0	410	< 1	< 2	3.6	7.91	4	61	< 1	0.9	1.85	6	< 1	< 5
4776(5b-7)	< 2	< 0.3	9	0.6	< 1	22	16	29	0.06	4.32	< 0.5	800	< 1	< 2	3.4	8.62	9	114	< 1	1.5	3.30	18	< 1	< 5
4788(1-3)	< 2	< 0.3	9	< 0.3	< 1	9	11	17	0.05	4.73	2.4	510	< 1	< 2	2.5	7.43	5	65	< 1	0.8	1.97	9	1	< 5
4878(7-12)	< 2	< 0.3	6	< 0.3	< 1	9	9	14	0.09	4.48	< 0.5	710	< 1	< 2	2.8	8.33	4	45	< 1	0.7	1.37	7	< 1	< 5
4900(9)	< 2	< 0.3	15	< 0.3	< 1	9	10	16	0.08	4.38	< 0.5	530	< 1	< 2	2.7	7.97	5	44	< 1	0.9	1.58	11	< 1	< 5
4908(6-7a)	< 2	< 0.3	7	0.4	< 1	11	11	16	0.08	4.30	< 0.5	650	< 1	< 2	3.4	8.47	5	55	< 1	1.1	1.53	11	< 1	< 5
4908(8-9)	< 2	< 0.3	9	0.4	< 1	10	13	17	0.12	4.30	2.1	600	< 1	< 2	3.3	8.18	6	77	< 1	0.9	1.89	8	< 1	< 5
4920(7)	< 2	< 0.3	8	0.3	< 1	11	12	18	0.09	4.31	1.8	580	< 1	< 2	3.5	9.30	5	57	< 1	1.2	1.94	13	< 1	< 5
4930(4b-6)	< 2	0.4	14	0.5	1	16	14	18	0.10	4.44	1.1	480	< 1	< 2	3.1	8.57	5	76	< 1	1.1	2.18	13	< 1	< 5
4940(3-4a)	< 2	< 0.3	5	0.5	< 1	10	9	14	0.07	3.66	< 0.5	580	< 1	< 2	2.5	9.84	5	35	< 1	0.7	1.24	9	< 1	< 5
4940(4b-7)	< 2	< 0.3	5	0.5	< 1	11	11	15	0.09	4.18	< 0.5	390	< 1	< 2	2.9	7.88	6	49	< 1	0.9	1.78	10	< 1	< 5
4950(4a)	< 2	< 0.3	6	< 0.3	< 1	13	10	17	0.06	3.56	1.8	300	< 1	< 2	3.4	9.20	4	40	< 1	0.9	1.39	8	< 1	< 5
4950(4b-7)	< 2	< 0.3	12	< 0.3	< 1	10	11	16	0.08	4.34	1.3	510	< 1	< 2	2.8	8.02	5	52	< 1	0.9	1.66	8	< 1	< 5
4960(2-3)	< 2	< 0.3	6	0.4	< 1	12	13	21	0.05	4.42	2.2	530	< 1	< 2	2.6	7.90	6	60	< 1	1.0	1.75	10	< 1	< 5
4960(5)	< 2	< 0.3	6	< 0.3	< 1	11	13	17	0.06	4.37	2.2	270	< 1	< 2	3.8	8.33	4	52	< 1	0.9	1.85	6	< 1	< 5
4970(4-7)	< 2	< 0.3	4	< 0.3	< 1	9	10	14	0.07	4.60	2.2	440	< 1	< 2	2.8	7.69	5	56	< 1	0.9	1.59	9	< 1	< 5
4980(2-4b)	< 2	< 0.3	6	0.5	< 1	13	12	17	0.05	4.28	< 0.5	490	< 1	< 2	2.4	8.32	6	51	< 1	0.9	1.75	9	< 1	< 5
4990(3-7)	16	< 0.3	6	0.3	2	13	8	12	0.07	4.04	2.2	580	< 1	< 2	3.5	8.61	3	32	< 1	0.8	1.31	7	< 1	< 5
5001(5-7)	< 2	< 0.3	4	0.4	< 1	10	10	18	0.08	4.14	2.9	550	< 1	< 2	2.9	7.44	5	47	< 1	0.9	1.53	9	< 1	< 5
5010(2-3)	< 2	< 0.3	5	< 0.3	< 1	12	12	18	0.04	4.38	2.6	580	< 1	< 2	3.0	6.43	5	48	3	0.9	1.87	7	< 1	< 5
5010(5-6)	< 2	< 0.3	7	0.3	< 1	13	9	13	0.09	4.04	3.2	530	< 1	< 2	3.0	8.77	4	38	< 1	0.9	1.31	7	< 1	< 5
5020(4b-7)	< 2	< 0.3	9	0.4	2	14	10	15	0.07	4.22	1.7	550	< 1	< 2	2.8	8.49	4	42	< 1	0.8	1.11	7	< 1	< 5
5030(2-3)	< 2	< 0.3	6	< 0.3	< 1	14	11	15	0.10	4.38	2.2	510	< 1	< 2	3.2	8.58	5	42	< 1	0.9	1.43	7	< 1	< 5
5030(4-5)	< 2	< 0.3	5	0.3	< 1	12	9	15	0.09	4.30	2.5	540	< 1	< 2	2.5	7.79	4	40	< 1	0.9	1.50	9	< 1	< 5
5040(4b-7)	7	< 0.3	5	< 0.3	< 1	12	10	15	0.09	4.46	7.1	500	< 1	< 2	3.3	8.29	4	48	2	0.7	1.32	8	< 1	< 5
5050(5b-7)	7	< 0.3	7	< 0.3	< 1	10	13	17	0.12	4.48	7.3	500	< 1	< 2	2.2	8.38	5	51	< 1	0.9	1.77	9	< 1	< 5
5060(4-7)	< 2	< 0.3	8	0.4	< 1	11	11	17	0.09	4.34	3.0	570	< 1	< 2	3.5	8.74	5	39	< 1	0.8	1.45	8	< 1	< 5
5070(2-4)	< 2	< 0.3	9	0.4	< 1	8	12	16	0.07	4.09	3.5	540	< 1	< 2	3.2	8.65	4	50	1	0.9	1.48	8	< 1	< 5
5080(4-5)	< 2	< 0.3	4	0.4	< 1	12	10	20	0.08	3.71	4.0	470	< 1	< 2	3.4	9.41	4	40	< 1	0.6	1.32	7	< 1	< 5
5080(6b-7)	< 2	< 0.3	8	0.3	< 1	11	9	26	0.09	4.04	3.2	510	< 1	< 2	3.5	8.63	5	44	< 1	0.8	1.32	8	< 1	< 5
5090(2-4)	< 2	< 0.3	8	0.4	< 1	13	12	17	0.05	4.51	1.3	520	< 1	< 2	3.0	7.56	5	36	< 1	0.9	1.36	7	< 1	< 5
5100(4-7)	< 2	< 0.3	7	0.4	< 1	12	10	15	0.09	4.35	1.0	630	< 1	< 2	3.1	8.68	5	40	< 1	0.8	1.26	7	< 1	< 5
5112(3a-6)	5	< 0.3	7	0.3	< 1	11	10	18	0.07	4.46	4.1	450	< 1	< 2	3.5	8.46	5	43	< 1	0.8	1.48	8	< 1	< 5
5122(2-4)	< 2	< 0.3	8	< 0.3	< 1	9	11	16	0.06	4.34	3.3	460	< 1	< 2	2.5	9.32	6	38	< 1	0.9	1.30	7	< 1	< 5
5122(5-6)	< 2	< 0.3	12	0.4	< 1	13	12	18	0.06	4.50	3.1	430	< 1	< 2	2.4	7.85	5	47	1	0.9	1.56	9	< 1	< 5
5178(2-4)	< 2	< 0.3	5	< 0.3	< 1	8	10	14	0.06	4.49	2.4	460	< 1	< 2	2.8	8.58	5	43	< 1	0.9	1.41	6	< 1	< 5
7120(6)	< 2	< 0.3	8	< 0.3	< 1	16	12	19	0.09	3.94	< 0.5	550	< 1	< 2	4.5	11.4	6	86	< 1	0.9	2.31	9	< 1	< 5

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Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
5100(2-3)	< 2	< 0.3	5	0.3	< 1	12	10	15	0.05	4.07	2.9	530	< 1	< 2	2.9	7.76	3	41	< 1	0.7	1.37	8	< 1	< 5
5132(2-4)	< 2	< 0.3	5	0.3	< 1	10	9	14	0.05	4.41	2.2	590	< 1	< 2	3.1	7.47	3	44	< 1	0.8	1.35	7	< 1	< 5
5132(5-6)	< 2	< 0.3	6	< 0.3	< 1	8	10	14	0.06	4.61	2.4	510	< 1	< 2	2.1	8.16	3	30	1	0.8	1.16	6	< 1	< 5
5152(2-3)	< 2	< 0.3	11	0.6	< 1	15	17	22	0.05	4.48	5.5	510	< 1	< 2	2.3	7.56	10	51	< 1	0.9	1.96	7	< 1	< 5
5152(4-5)	2	< 0.3	5	< 0.3	< 1	8	12	14	0.05	4.42	1.5	550	< 1	< 2	2.7	8.22	4	33	< 1	0.7	1.17	5	< 1	< 5
5152(6)	< 2	< 0.3	4	< 0.3	< 1	11	10	13	0.07	4.60	3.5	340	< 1	< 2	2.6	7.24	4	32	< 1	0.7	1.25	6	< 1	< 5
5162(2b-4)	< 2	< 0.3	4	0.4	< 1	10	11	15	0.05	4.38	2.2	510	< 1	< 2	2.7	7.91	5	39	< 1	0.7	1.44	5	< 1	< 5
5172(3-5)	7	< 0.3	8	< 0.3	< 1	13	11	15	0.07	4.32	1.7	350	< 1	< 2	2.2	7.93	5	37	< 1	0.7	1.43	6	< 1	< 5
5172(6-7)	< 2	< 0.3	5	< 0.3	< 1	11	12	17	0.11	4.39	1.9	400	< 1	< 2	2.6	7.89	5	45	< 1	0.8	1.72	6	1	< 5
5178(B)	< 2	< 0.3	6	< 0.3	< 1	9	11	15	0.06	4.51	< 0.5	440	< 1	< 2	2.6	7.86	4	81	< 1	0.8	1.52	5	< 1	< 5
6610(6b)	< 2	< 0.3	7	< 0.3	< 1	9	10	14	0.06	4.21	1.9	570	< 1	< 2	3.0	8.23	4	46	< 1	< 0.2	1.63	7	< 1	< 5
6720(3-4)	< 2	< 0.3	4	0.6	< 1	11	11	16	0.06	4.03	1.8	440	< 1	< 2	2.6	8.13	5	40	< 1	0.8	1.40	6	< 1	< 5
6770(3-4)	< 2	< 0.3	9	0.5	< 1	9	11	17	0.06	3.90	< 0.5	530	< 1	< 2	3.4	8.50	6	52	< 1	0.9	1.58	8	< 1	< 5
6870(13)	< 2	< 0.3	33	0.5	< 1	13	12	19	0.07	4.32	1.1	440	< 1	< 2	2.7	8.02	5	39	< 1	0.8	1.33	6	< 1	< 5
7160(7)	< 2	< 0.3	7	< 0.3	< 1	12	8	14	0.14	3.99	3.1	400	< 1	< 2	3.1	9.08	5	44	< 1	0.7	1.30	6	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
4013(2-11)	1.55	8	1.45	284	1.57	0.035	< 15	< 0.1	5.0	< 3	232	< 0.5	0.14	4.2	< 0.5	30	4	8	18.9	40	11	2.6	< 0.01	< 0.5
4111(6-8)	1.64	7	1.97	261	1.58	0.036	< 15	< 0.1	4.5	< 3	224	< 0.5	0.15	3.3	< 0.5	28	< 1	7	17.7	39	12	2.6	< 0.01	0.7
4120(4-7)	1.44	7	1.19	251	1.56	0.039	57	< 0.1	5.1	< 3	215	< 0.5	0.17	5.2	1.4	33	< 1	7	20.1	44	11	3.0	< 0.01	< 0.5
4130(1-3)	1.47	7	1.02	400	1.58	0.030	42	< 0.1	5.2	< 3	222	< 0.5	0.16	5.4	1.8	34	< 1	9	22.4	53	17	3.0	< 0.01	< 0.5
4130(4-7)	1.92	9	1.86	291	1.46	0.034	< 15	< 0.1	4.8	< 3	212	< 0.5	0.18	4.6	2.1	31	< 1	8	20.1	45	14	2.7	< 0.01	< 0.5
4140(6-8)	1.48	8	1.29	282	1.71	0.037	< 15	< 0.1	5.4	< 3	226	1.9	0.20	5.3	1.9	34	< 1	8	22.4	52	< 5	2.8	< 0.01	< 0.5
4150(3-7)	1.57	8	1.54	270	1.48	0.039	< 15	< 0.1	4.8	< 3	228	< 0.5	0.12	4.6	< 0.5	24	< 1	8	18.9	44	13	2.8	< 0.01	< 0.5
4160(2b-5)	1.59	8	1.24	267	1.50	0.032	< 15	< 0.1	4.8	< 3	233	< 0.5	0.13	4.2	< 0.5	24	< 1	7	20.1	41	9	2.8	< 0.01	< 0.5
4170(6-7)	1.52	7	1.24	302	1.75	0.037	70	0.2	5.2	< 3	247	< 0.5	0.15	4.8	< 0.5	32	< 1	9	21.2	47	9	3.0	< 0.01	< 0.5
4180(5b-7)	1.61	7	0.93	256	1.88	0.028	57	< 0.1	5.3	< 3	255	< 0.5	0.12	4.4	< 0.5	27	< 1	6	18.9	41	9	2.7	< 0.01	< 0.5
4210(8-9b)	1.60	8	1.34	294	1.84	0.034	54	< 0.1	5.4	< 3	256	< 0.5	0.16	5.8	< 0.5	35	< 1	7	22.4	52	15	3.0	< 0.01	< 0.5
4480(12)	1.43	7	1.50	322	1.64	0.040	50	0.2	4.8	< 3	227	< 0.5	0.17	5.9	2.2	32	< 1	9	20.1	45	15	2.5	< 0.01	< 0.5
4490(11)	1.28	8	1.13	364	1.65	0.044	59	< 0.1	6.5	< 3	223	< 0.5	0.23	7.2	1.9	45	< 1	8	26.0	54	11	3.3	< 0.01	< 0.5
4520(10-12)	1.35	7	1.41	287	1.53	0.031	35	< 0.1	4.7	< 3	217	< 0.5	0.18	5.1	1.2	35	< 1	8	20.1	41	8	2.6	< 0.01	< 0.5
4680(6c-7)	1.56	8	1.12	313	1.70	0.039	< 15	1.5	5.6	< 3	236	< 0.5	0.19	3.8	0.9	40	< 1	8	20.0	39	15	2.8	< 0.01	< 0.5
4776(5b-7)	1.29	12	1.71	451	1.62	0.098	< 15	0.2	9.8	< 3	241	< 0.5	0.37	10.9	2.2	69	< 1	15	37.8	86	27	5.7	< 0.01	< 0.5
4788(1-3)	1.55	8	1.11	304	1.81	0.037	65	< 0.1	5.8	< 3	256	< 0.5	0.14	5.2	< 0.5	25	< 1	9	22.4	50	7	3.1	< 0.01	< 0.5
4878(7-12)	1.64	7	1.64	257	1.64	0.034	57	< 0.1	4.6	< 3	240	< 0.5	0.13	3.8	< 0.5	25	< 1	7	17.7	40	< 5	2.6	< 0.01	< 0.5
4900(9)	1.54	7	1.48	288	1.59	0.041	32	< 0.1	5.2	< 3	229	< 0.5	0.12	5.5	1.5	24	< 1	9	22.4	48	18	3.1	< 0.01	< 0.5
4908(6-7a)	1.77	8	1.43	284	1.64	0.040	< 15	< 0.1	5.4	< 3	232	< 0.5	0.15	5.9	1.2	28	< 1	8	22.4	48	< 5	3.2	< 0.01	< 0.5
4908(8-9)	1.51	9	1.25	314	1.56	0.036	53	0.2	5.3	< 3	227	< 0.5	0.15	6.0	< 0.5	35	< 1	8	21.2	47	15	3.0	< 0.01	< 0.5
4920(7)	1.51	7	1.70	376	1.63	0.045	< 15	0.4	6.0	< 3	236	< 0.5	0.13	7.0	1.8	27	< 1	11	26.0	55	19	3.5	< 0.01	< 0.5
4930(4b-6)	1.51	8	1.36	352	1.55	0.051	44	0.2	6.2	< 3	239	< 0.5	0.25	7.0	1.4	47	< 1	10	26.5	56	16	3.5	< 0.01	< 0.5
4940(3-4a)	1.45	9	1.70	266	1.23	0.037	29	< 0.1	4.3	< 3	194	< 0.5	0.17	5.3	1.5	28	< 1	7	19.5	45	12	2.5	< 0.01	< 0.5
4940(4b-7)	1.46	7	1.34	283	1.61	0.041	64	< 0.1	5.4	< 3	222	< 0.5	0.19	6.1	2.0	36	< 1	8	23.0	52	17	3.2	< 0.01	< 0.5
4950(4a)	1.23	7	1.32	299	1.42	0.033	58	0.6	4.7	< 3	198	< 0.5	0.21	5.2	1.1	35	< 1	9	19.6	39	14	2.7	< 0.01	0.6
4950(4b-7)	1.50	8	1.31	267	1.62	0.038	40	0.2	5.3	< 3	230	< 0.5	0.17	5.1	< 0.5	32	< 1	8	19.5	47	13	3.0	< 0.01	< 0.5
4960(2-3)	1.65	12	1.35	315	1.61	0.037	52	0.2	5.8	< 3	225	1.4	0.13	6.2	1.1	25	3	9	25.3	54	16	3.2	< 0.01	< 0.5
4960(5)	1.50	9	1.27	290	1.69	0.038	87	0.4	5.6	< 3	232	< 0.5	0.12	4.6	1.3	25	< 1	8	19.8	41	16	2.8	< 0.01	< 0.5
4970(4-7)	1.64	8	1.25	262	1.56	0.035	52	< 0.1	5.1	< 3	241	< 0.5	0.13	4.7	1.5	27	< 1	7	19.5	43	8	2.9	< 0.01	1.0
4980(2-4b)	1.48	9	1.28	308	1.61	0.039	39	< 0.1	5.4	< 3	228	1.0	0.10	5.8	< 0.5	19	< 1	9	23.0	52	17	3.0	< 0.01	< 0.5
4990(3-7)	1.54	7	1.75	254	1.62	0.035	51	< 0.1	4.6	< 3	216	< 0.5	0.14	3.7	1.3	25	< 1	7	18.4	41	12	2.6	< 0.01	< 0.5
5001(5-7)	1.45	7	1.15	253	1.67	0.043	43	0.3	5.3	< 3	224	< 0.5	0.18	3.9	< 0.5	33	< 1	7	19.5	40	9	2.9	< 0.01	< 0.5
5010(2-3)	1.48	7	1.03	295	1.80	0.039	< 15	0.4	5.9	< 3	230	< 0.5	0.24	5.8	< 0.5	46	< 1	9	21.6	48	18	3.2	< 0.01	< 0.5
5010(5-6)	1.56	7	1.91	259	1.55	0.038	55	0.4	4.7	< 3	215	< 0.5	0.16	4.5	< 0.5	28	< 1	8	18.9	44	13	2.6	< 0.01	< 0.5
5020(4b-7)	1.63	8	1.90	261	1.55	0.036	60	0.2	4.6	< 3	219	< 0.5	0.14	4.1	< 0.5	24	< 1	8	18.9	40	12	2.6	< 0.01	< 0.5
5030(2-3)	1.54	7	1.53	304	1.60	0.042	50	< 0.1	4.8	< 3	234	0.9	0.15	4.7	1.7	30	< 1	9	18.9	39	14	2.6	< 0.01	< 0.5
5030(4-5)	1.49	6	1.47	291	1.65	0.036	42	< 0.1	4.7	< 3	240	< 0.5	0.15	4.1	< 0.5	32	2	8	18.9	42	13	2.7	< 0.01	< 0.5
5040(4b-7)	1.65	7	1.68	277	1.65	0.037	59	0.8	4.7	< 3	243	< 0.5	0.16	4.2	< 0.5	31	< 1	8	18.9	40	14	2.6	< 0.01	< 0.5
5050(5b-7)	1.55	8	1.40	336	1.53	0.045	27	0.6	5.2	< 3	236	0.9	0.21	5.7	1.1	45	< 1	9	22.4	46	12	2.8	< 0.01	< 0.5
5060(4-7)	1.63	8	1.75	278	1.52	0.040	38	0.2	4.7	< 3	223	< 0.5	0.16	4.4	1.7	31	< 1	8	18.9	41	14	2.6	< 0.01	< 0.5
5070(2-4)	1.55	9	1.70	274	1.46	0.044	46	0.2	5.0	< 3	216	< 0.5	0.19	4.0	< 0.5	36	< 1	8	18.9	45	11	2.7	< 0.01	< 0.5
5080(4-5)	1.30	8	1.40	287	1.38	0.034	40	0.4	4.4	< 3	205	< 0.5	0.18	4.7	1.9	34	< 1	8	18.9	39	13	2.2	< 0.01	< 0.5
5080(6b-7)	1.58	7	1.90	266	1.48	0.039	41	0.2	4.5	< 3	219	< 0.5	0.17	4.2	< 0.5	30	< 1	7	17.7	38	9	2.6	< 0.01	< 0.5
5090(2-4)	1.69	8	1.57	287	1.56	0.038	53	< 0.1	4.8	< 3	230	< 0.5	0.18	4.1	< 0.5	33	< 1	8	18.4	40	15	2.6	< 0.01	< 0.5
5100(4-7)	1.64	8	1.71	257	1.54	0.039	33	< 0.1	4.6	< 3	229	< 0.5	0.14	3.6	< 0.5	28	< 1	8	17.3	40	12	2.5	< 0.01	< 0.5
5112(3a-6)	1.58	8	1.35	292	1.55	0.039	55	0.3	4.9	< 3	239	1.0	0.15	4.6	2.0	31	< 1	9	18.4	39	10	2.5	< 0.01	< 0.5
5122(2-4)	1.56	9	1.51	314	1.39	0.037	48	0.3	4.5	< 3	227	< 0.5	0.15	5.2	< 0.5	28	< 1	9	19.5	43	12	2.5	< 0.01	< 0.5
5122(5-6)	1.61	8	1.32	290	1.59	0.045	55	< 0.1	4.9	< 3	240	< 0.5	0.19	4.7	< 0.5	34	< 1	9	19.5	40	8	2.8	< 0.01	< 0.5
5178(2-4)	1.71	8	1.66	293	1.58	0.044	39	< 0.1	4.8	< 3	240	< 0.5	0.20	3.5	1.0	35	< 1	9	17.3	38	10	2.4	< 0.01	< 0.5
7120(6)	1.18	8	1.63	335	1.45	0.040	< 15	< 0.1	7.2	< 3	225	< 0.5	0.19	6.9	< 0.5	39	< 1	9	24.8	52	23	3.6	< 0.01	< 0.5
5100(2-																								

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
5132(2-4)	1.62	8	1.39	238	1.66	0.040	39	< 0.1	4.9	< 3	232	< 0.5	0.17	3.8	1.6	32	< 1	8	18.4	43	14	2.5	< 0.01	< 0.5
5132(5-6)	1.64	7	1.42	257	1.63	0.041	22	< 0.1	4.6	< 3	238	< 0.5	0.18	3.2	1.5	34	< 1	9	16.1	37	9	2.2	< 0.01	< 0.5
5152(2-3)	1.58	12	1.24	491	1.68	0.038	59	0.3	6.3	< 3	221	< 0.5	0.19	6.2	< 0.5	35	< 1	9	25.2	59	22	3.5	< 0.01	< 0.5
5152(4-5)	1.64	7	1.85	268	1.59	0.031	48	0.1	4.2	< 3	231	< 0.5	0.16	3.1	0.9	29	< 1	7	14.6	31	8	2.2	< 0.01	< 0.5
5152(6)	1.66	7	1.46	273	1.83	0.032	57	0.2	4.5	< 3	246	< 0.5	0.15	3.0	1.4	30	< 1	7	15.5	31	11	2.4	< 0.01	< 0.5
5162(2b-4)	1.52	8	1.13	273	1.64	0.035	70	0.2	5.0	< 3	228	< 0.5	0.13	3.8	1.4	25	< 1	8	16.3	34	11	2.6	< 0.01	< 0.5
5172(3-5)	1.54	8	1.24	283	1.62	0.044	58	0.2	5.0	< 3	227	< 0.5	0.16	4.4	0.9	31	< 1	9	17.0	32	8	2.7	< 0.01	< 0.5
5172(6-7)	1.51	8	1.17	308	1.63	0.040	66	0.2	5.4	< 3	237	< 0.5	0.16	4.5	1.2	35	< 1	9	18.1	35	12	2.8	< 0.01	< 0.5
5178(B)	1.61	8	1.32	281	1.69	0.035	32	0.2	5.3	< 3	233	< 0.5	0.15	3.4	0.9	28	< 1	8	16.6	32	9	2.6	< 0.01	< 0.5
6610(6b)	1.49	7	1.26	289	1.78	0.039	70	< 0.1	5.0	< 3	236	< 0.5	0.17	4.7	1.5	34	< 1	7	18.8	40	11	3.0	< 0.01	< 0.5
6720(3-4)	1.45	8	1.33	290	1.58	0.041	59	< 0.1	5.1	< 3	223	< 0.5	0.19	3.8	1.5	36	< 1	8	17.7	37	11	2.7	< 0.01	< 0.5
6770(3-4)	1.60	9	1.96	300	1.64	0.048	48	0.1	6.1	< 3	200	< 0.5	0.25	5.1	2.2	35	< 1	9	21.6	45	14	3.8	< 0.01	< 0.5
6870(13)	1.57	9	1.64	279	1.65	0.031	60	0.1	5.0	< 3	214	< 0.5	0.13	4.5	1.1	23	< 1	8	18.4	39	9	2.8	< 0.01	< 0.5
7160(7)	1.45	10	1.57	251	1.42	0.030	40	< 0.1	4.4	< 3	206	1.2	0.13	3.4	0.8	24	< 1	8	15.8	32	11	2.5	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
4013(2-11)	1.2	0.24	42.0
4111(6-8)	1.3	0.26	38.0
4120(4-7)	1.4	0.26	37.8
4130(1-3)	1.3	0.29	38.6
4130(4-7)	1.5	0.24	36.4
4140(6-8)	1.5	0.24	36.7
4150(3-7)	1.4	0.26	38.2
4160(2b-5)	1.4	0.31	37.3
4170(6-7)	1.2	0.26	37.8
4180(5b-7)	1.2	0.20	37.4
4210(8-9b)	1.3	0.26	37.2
4480(12)	1.4	0.24	37.2
4490(11)	1.7	0.33	28.2
4520(10-12)	1.3	0.22	35.3
4680(6c-7)	1.2	0.18	10.9
4776(5b-7)	2.2	0.42	27.9
4788(1-3)	1.3	0.21	34.8
4878(7-12)	1.2	0.25	35.8
4900(9)	1.8	0.31	36.1
4908(6-7a)	1.7	0.26	38.0
4908(8-9)	1.4	0.26	37.2
4920(7)	2.0	0.39	32.5
4930(4b-6)	2.0	0.38	36.9
4940(3-4a)	1.5	0.31	36.6
4940(4b-7)	1.6	0.28	36.6
4950(4a)	1.0	0.18	10.1
4950(4b-7)	1.4	0.26	35.4
4960(2-3)	1.6	0.30	34.3
4960(5)	1.1	0.18	10.1
4970(4-7)	1.5	0.25	35.3
4980(2-4b)	1.6	0.29	38.1
4990(3-7)	1.3	0.29	33.8
5001(5-7)	1.3	0.25	35.7
5010(2-3)	1.4	0.16	9.61
5010(5-6)	1.5	0.28	36.5
5020(4b-7)	1.4	0.27	37.0
5030(2-3)	1.2	0.22	34.2
5030(4-5)	1.2	0.22	35.2
5040(4b-7)	1.3	0.29	36.2
5050(5b-7)	1.4	0.31	37.2
5060(4-7)	1.4	0.27	36.2
5070(2-4)	1.4	0.28	35.4
5080(4-5)	1.2	0.26	39.6
5080(6b-7)	1.3	0.28	34.1
5090(2-4)	1.4	0.24	36.5
5100(4-7)	1.5	0.25	38.4
5112(3a-6)	1.3	0.22	38.3
5122(2-4)	1.4	0.25	34.6
5122(5-6)	1.4	0.26	36.2
5178(2-4)	1.3	0.26	37.4
7120(6)	1.7	0.21	8.77
5100(2-3)	1.1	0.26	35.1

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
5132(2-4)	1.4	0.25	33.2
5132(5-6)	1.0	0.20	37.5
5152(2-3)	1.3	0.19	9.10
5152(4-5)	0.8	0.14	39.3
5152(6)	0.9	0.15	36.9
5162(2b-4)	0.9	0.15	37.0
5172(3-5)	1.1	0.17	36.2
5172(6-7)	1.1	0.18	38.3
5178(B)	1.2	0.17	38.2
6610(6b)	1.2	0.15	27.7
6720(3-4)	1.2	0.17	37.0
6770(3-4)	1.5	0.26	27.3
6870(13)	1.3	0.18	35.4
7160(7)	1.1	0.18	37.2

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Quality Control																								
Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	Be	Bi	Ca	K	Li	Mg	Mn	P	Sr	Ti	V	Y	Ag	Ni
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	%	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	1	2	0.01	0.01	1	0.01	1	0.001	1	0.01	2	1	5	20
Analysis Method	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	INAA
GXR-1 Meas		30.7	1100	3.0	13	730	40	760	0.24	2.18	1	1330	0.90	0.04	7	0.21	943	0.057	276		87		25	
GXR-1 Cert		31.0	1110	3.30	18.0	730	41.0	760	0.257	3.52	1.22	1380	0.960	0.050	8.20	0.217	852	0.0650	275		80.0		32.0	
GXR-4 Meas		3.2	6070	0.9	293	45	41	70	1.61	7.29	2	19	1.10	2.52	12	1.65	185	0.121	201		88		12	
GXR-4 Cert		4.00	6520	0.860	310	52.0	42.0	73.0	1.77	7.20	1.90	19.0	1.01	4.01	11.1	1.66	155	0.120	221		87.0		14.0	
SDC-1 Meas		< 0.3	27	0.5	2	26	39	103	0.07	8.16	3	< 2	1.16	3.91	35	1.02	913	0.053	169	0.11	36		30	
SDC-1 Cert		0.0410	30.00	0.0800	0.250	25.00	38.0	103.00	0.0650	8.34	3.00	2.60	1.00	2.72	34.00	1.02	880.00	0.0690	180.00	0.606	102.00		40.0	
SCO-1 Meas		< 0.3	29	0.4	< 1	32	29	103	0.08	7.40	2	< 2	2.08	2.61	44	1.63	429	0.077	161	0.26	125		18	
SCO-1 Cert		0.134	29	0.140	1.4	31.0	27	100	0.0630	7.24	1.80	0.37	1.87	2.30	45	1.64	410	0.0900	170	0.380	130		26	
GXR-6 Meas		0.5	68	0.5	< 1	102	29	139	0.02	13.3	1	< 2	0.19	2.01	34	0.62	1190	0.035	40		113		13	
GXR-6 Cert		1.30	66.0	1.00	2.40	101	27.0	118	0.0160	17.7	1.40	0.290	0.180	1.87	32.0	0.609	1010	0.0350	35.0		186		14.0	
DNC-1a Meas			96				246	55							5				126		142		14	
DNC-1a Cert			100.0				247	70.0							5.20				144.0		148.0		18.0	
DMMAS 114 Meas	1960																							
DMMAS 114 Cert	2199																							
DMMAS 114 Meas	2250																							
DMMAS 114 Cert	2199																							
4490(11) Orig		0.3	7	< 0.3	< 1	9	13	23	0.26	4.12	< 1	< 2	8.63	1.32	8	1.19	372	0.050	230	0.25	48		9	
4490(11) Dup		< 0.3	8	0.5	< 1	10	12	17	0.27	3.97	< 1	< 2	8.20	1.24	8	1.08	356	0.037	216	0.21	42		8	
4950(4b-7) Orig		< 0.3	17	< 0.3	< 1	11	11	16	0.08	4.25	< 1	< 2	8.03	1.47	8	1.34	269	0.040	226	0.18	35		8	
4950(4b-7) Dup		< 0.3	7	< 0.3	< 1	10	11	16	0.07	4.43	< 1	< 2	8.00	1.54	8	1.27	265	0.037	234	0.16	28		8	
5122(2-4) Orig		< 0.3	5	< 0.3	< 1	7	10	17	0.06	4.48	< 1	< 2	9.36	1.59	9	1.52	308	0.036	232	0.13	23		9	
5122(2-4) Dup		< 0.3	10	< 0.3	< 1	10	12	16	0.06	4.20	< 1	< 2	9.27	1.54	8	1.49	320	0.038	223	0.18	33		9	
6610(6b) Orig		< 0.3	7	0.4	< 1	11	10	15	0.06	4.30	< 1	< 2	8.16	1.53	7	1.19	280	0.033	241	0.15	30		7	
6610(6b) Dup		0.4	6	< 0.3	< 1	7	9	14	0.06	4.12	< 1	< 2	8.30	1.45	7	1.34	298	0.044	231	0.19	38		8	
Method Blank		< 0.3	< 1	< 0.3	< 1	< 3	< 1	< 1	< 0.01	< 0.01	< 1	< 2	< 0.01	< 0.01	< 1	< 0.01	4	< 0.001	< 1	< 0.01	< 2		< 1	
Method Blank		< 0.3	< 1	< 0.3	< 1	< 3	< 1	< 1	< 0.01	< 0.01	< 1	< 2	< 0.01	< 0.01	< 1	< 0.01	12	< 0.001	< 1	< 0.01	< 2		< 1	
Method Blank		< 0.3	< 1	< 0.3	< 1	< 3	< 1	< 1	< 0.01	< 0.01	< 1	< 2	< 0.01	< 0.01	< 1	< 0.01	6	< 0.001	< 1	< 0.01	< 2		< 1	
Method Blank	< 2																						< 5	< 20

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Quality Control																								
Analyte Symbol	Zn	As	Ba	Br	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir	Na	Rb	Sb	Sc	Se	Ta	Th	U	W	La	Ce	Nd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	50	0.5	50	0.5	1	2	1	0.2	0.01	1	1	5	0.01	15	0.1	0.1	3	0.5	0.2	0.5	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas																								
GXR-1 Cert																								
GXR-4 Meas																								
GXR-4 Cert																								
SDC-1 Meas																								
SDC-1 Cert																								
SCO-1 Meas																								
SCO-1 Cert																								
GXR-6 Meas																								
GXR-6 Cert																								
DNC-1a Meas																								
DNC-1a Cert																								
DMMAS 114 Meas		1690	1400		42	96			3.58				1.91		12.5	7.1			20.3		17.9	31		
DMMAS 114 Cert		1624	1561		42	84			3.31				1.78		11.2	6.5			17.4		15.1	23.7		
DMMAS 114 Meas		1770	1650		44	97			3.58				1.91		12.6	7.2			20.2		17.0	28		
DMMAS 114 Cert		1624	1561		42	84			3.31				1.78		11.2	6.5			17.4		15.1	23.7		
4490(11) Orig																								
4490(11) Dup																								
4950(4b-7) Orig																								
4950(4b-7) Dup																								
5122(2-4) Orig																								
5122(2-4) Dup																								
6610(6b) Orig																								
6610(6b) Dup																								
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank	< 50	< 0.5	< 50	< 0.5	< 1	< 2	< 1	< 0.2	< 0.01	< 1	< 1	< 5	< 0.01	< 15	< 0.1	< 0.1	< 3	< 0.5	< 0.2	< 0.5	< 1	< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 114 Meas	2.2					
DMMAS 114 Cert	2.4					
DMMAS 114 Meas	2.5					
DMMAS 114 Cert	2.4					
4490(11) Orig						
4490(11) Dup						
4950(4b-7) Orig						
4950(4b-7) Dup						
5122(2-4) Orig						
5122(2-4) Dup						
6610(6b) Orig						
6610(6b) Dup						
Method Blank						
Method Blank						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	10.0



Date Submitted: 26-Apr-12
Invoice No.: A12-04453
Invoice Date: 15-May-12
Your Reference: DD-RR

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: President Chris Meraw

CERTIFICATE OF ANALYSIS

103 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A12-04453

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



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Activation Laboratories Ltd. Report: A12-04453 rev 1

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
5142 (3-7)	5	< 0.3	11	< 0.3	1	9	20	15	0.07	4.19	3.4	470	< 1	< 2	2.8	7.49	4	32	< 1	0.7	1.22	6	< 1	< 5
5152 (7)	7	< 0.3	7	< 0.3	< 1	7	13	17	0.07	4.56	5.0	500	< 1	< 2	2.3	6.93	5	41	< 1	0.6	1.51	4	< 1	< 5
5162 (5-7)	< 2	< 0.3	10	< 0.3	< 1	7	11	14	0.08	4.38	1.7	570	< 1	< 2	2.8	7.30	4	39	< 1	0.8	1.52	7	< 1	< 5
5178 (5-10)	< 2	< 0.3	8	< 0.3	< 1	4	10	13	0.09	4.27	6.6	460	< 1	< 2	3.2	7.51	4	34	2	0.7	1.16	5	< 1	< 5
5230 (2-3a)	< 2	< 0.3	13	< 0.3	< 1	11	22	32	0.06	4.85	4.6	600	1	< 2	1.9	7.40	8	60	3	0.7	2.17	6	< 1	< 5
5230 (3b-4)	< 2	< 0.3	8	< 0.3	< 1	5	11	14	0.06	4.01	2.5	530	< 1	< 2	2.9	7.80	4	44	< 1	0.8	1.54	11	< 1	< 5
5230 (5-6)	< 2	< 0.3	13	< 0.3	< 1	5	11	15	0.07	4.11	2.5	400	< 1	< 2	3.3	8.28	4	37	< 1	0.7	1.25	5	< 1	< 5
5360 (7b)	11	< 0.3	11	< 0.3	< 1	6	13	15	0.11	4.27	2.1	430	< 1	< 2	2.3	7.19	4	44	1	0.8	1.61	7	< 1	< 5
5370 (7b-8)	< 2	0.5	8	< 0.3	< 1	6	11	19	0.10	4.06	1.6	460	< 1	< 2	2.0	6.93	5	43	< 1	0.7	1.69	7	< 1	< 5
5381 (7)	< 2	< 0.3	14	< 0.3	< 1	6	16	24	0.08	4.04	2.2	370	< 1	< 2	2.1	8.20	5	82	< 1	0.9	3.21	10	< 1	< 5
5410 (6b-7)	< 2	< 0.3	5	< 0.3	< 1	9	12	15	0.08	4.34	2.0	470	< 1	< 2	2.8	7.21	4	47	1	0.9	1.60	8	< 1	< 5
5420 (6-7)	< 2	< 0.3	4	< 0.3	< 1	6	10	15	0.08	3.99	1.3	410	< 1	< 2	2.3	7.88	4	51	< 1	0.7	1.39	7	< 1	< 5
5430 (6-7)	< 2	< 0.3	8	< 0.3	< 1	7	12	16	0.07	4.00	1.5	400	< 1	< 2	2.8	8.22	5	58	< 1	0.8	1.68	7	< 1	< 5
5440 (6)	< 2	< 0.3	4	< 0.3	< 1	8	10	13	0.07	4.34	2.0	530	< 1	< 2	< 0.5	7.07	4	51	< 1	0.6	1.40	4	< 1	< 5
5450 (5-7)	< 2	< 0.3	4	< 0.3	< 1	5	10	14	0.09	4.14	1.5	490	< 1	< 2	2.7	7.67	4	40	< 1	0.7	1.41	7	< 1	< 5
5460 (5-7)	< 2	< 0.3	5	< 0.3	< 1	6	11	13	0.09	4.23	2.0	460	< 1	< 2	2.8	7.98	4	40	< 1	0.7	1.24	7	< 1	< 5
5470 (5b-7)	< 2	< 0.3	7	< 0.3	< 1	8	11	15	0.09	4.31	< 0.5	550	< 1	< 2	3.1	7.84	4	42	< 1	0.9	1.50	7	< 1	< 5
5490 (8)	< 2	< 0.3	27	< 0.3	< 1	10	16	22	0.17	4.08	< 0.5	530	< 1	< 2	2.1	7.78	5	75	< 1	0.7	2.95	8	< 1	< 5
5570 (6)	< 2	0.6	7	< 0.3	< 1	6	13	22	0.07	3.73	< 0.5	450	< 1	< 2	< 0.5	8.04	5	73	< 1	0.7	2.16	7	< 1	< 5
5579 (6b-7)	< 2	< 0.3	14	< 0.3	< 1	11	14	21	0.10	3.84	< 0.5	450	< 1	< 2	2.6	8.56	5	103	< 1	0.9	3.08	12	< 1	< 5
5591 (5-8)	< 2	< 0.3	8	< 0.3	< 1	7	10	13	0.11	4.15	2.3	470	< 1	< 2	3.1	7.42	4	40	1	0.6	1.32	7	< 1	< 5
5750 (4b-5)	< 2	< 0.3	4	< 0.3	< 1	8	11	15	0.06	4.41	1.9	440	< 1	< 2	2.5	7.42	5	42	< 1	0.8	1.44	6	< 1	< 5
5750 (6)	< 2	< 0.3	8	< 0.3	< 1	8	13	15	0.10	4.42	< 0.5	540	< 1	< 2	3.1	7.45	4	38	< 1	0.6	1.58	5	< 1	< 5
5760 (6-7)	< 2	< 0.3	5	< 0.3	< 1	7	12	17	0.11	4.37	1.5	490	< 1	< 2	2.2	7.10	5	47	< 1	0.8	1.81	7	< 1	< 5
5770 (2-3)	< 2	< 0.3	8	< 0.3	< 1	7	13	16	0.05	4.30	1.5	370	< 1	< 2	2.6	6.43	5	45	< 1	0.8	1.66	7	< 1	< 5
5770 (4-5)	< 2	0.3	7	< 0.3	< 1	7	14	16	0.07	4.48	1.0	420	< 1	< 2	2.5	7.60	5	44	1	0.8	1.47	7	< 1	< 5
5780 (4b)	< 2	< 0.3	9	< 0.3	< 1	7	14	16	0.06	4.52	1.6	440	< 1	< 2	2.9	7.23	5	43	< 1	0.7	1.65	7	< 1	< 5
5780 (5)	< 2	< 0.3	5	< 0.3	< 1	7	12	15	0.05	4.30	< 0.5	460	< 1	< 2	2.5	7.02	4	51	< 1	0.9	1.85	9	< 1	< 5
5780 (7)	< 2	0.4	6	< 0.3	< 1	7	10	13	0.08	4.05	1.4	500	< 1	< 2	3.1	7.25	5	53	< 1	0.8	1.53	7	< 1	< 5
5810 (4-6)	< 2	< 0.3	4	< 0.3	< 1	7	11	14	0.05	4.34	0.9	470	< 1	< 2	2.5	7.14	4	40	< 1	0.7	1.34	7	< 1	< 5
5810 (7)	< 2	< 0.3	7	< 0.3	< 1	8	13	18	0.05	4.48	< 0.5	500	< 1	< 2	< 0.5	6.54	5	44	1	0.8	1.39	5	< 1	< 5
5820 (4-7)	< 2	< 0.3	7	< 0.3	< 1	8	10	15	0.06	4.16	1.2	440	< 1	< 2	1.8	7.07	4	37	< 1	0.7	1.45	5	< 1	< 5
5830 (8)	2	< 0.3	4	< 0.3	< 1	5	13	18	0.06	4.41	1.1	470	< 1	< 2	2.5	7.18	4	54	< 1	0.8	2.08	8	< 1	< 5
5840 (5-7)	< 2	< 0.3	11	< 0.3	< 1	5	12	15	0.09	4.18	1.1	430	< 1	< 2	2.8	8.23	4	36	< 1	0.7	1.19	5	< 1	< 5
5850 (8)	< 2	0.4	7	< 0.3	< 1	6	12	17	0.13	4.17	< 0.5	410	< 1	< 2	2.8	7.32	4	57	< 1	0.8	1.45	8	< 1	< 5
6470 (11-14)	< 2	< 0.3	22	< 0.3	1	5	15	25	0.10	3.35	5.6	370	< 1	< 2	3.7	11.1	8	75	< 1	0.6	2.42	4	< 1	< 5
6790 (2-7)	< 2	< 0.3	18	< 0.3	< 1	6	11	18	0.08	4.05	0.8	360	< 1	< 2	2.9	7.60	4	39	1	0.8	1.33	5	< 1	< 5
6790 (8-14)	< 2	< 0.3	46	< 0.3	< 1	6	12	15	0.11	4.07	1.6	370	< 1	< 2	2.7	7.57	5	38	1	0.7	1.30	5	< 1	< 5
6870 (2-7)	< 2	< 0.3	13	< 0.3	< 1	5	11	19	0.11	3.83	2.4	340	< 1	< 2	2.9	7.57	5	43	< 1	0.6	1.36	5	< 1	< 5
6870 (9-12)	< 2	0.3	6	< 0.3	< 1	8	11	15	0.07	4.41	2.3	350	< 1	< 2	1.8	6.39	3	36	< 1	0.6	1.08	5	< 1	< 5
6890 (5b-8)	3	< 0.3	7	< 0.3	< 1	5	12	15	0.11	4.04	1.4	390	< 1	< 2	3.6	8.57	4	40	1	0.8	1.42	7	< 1	< 5
6930 (4b-8)	< 2	0.4	7	< 0.3	< 1	6	13	16	0.08	4.06	< 0.5	400	< 1	< 2	2.7	8.12	4	40	1	0.8	1.24	7	< 1	< 5
6970 (8)	< 2	< 0.3	13	< 0.3	< 1	10	11	13	0.10	3.68	1.9	380	< 1	< 2	2.7	8.25	4	41	< 1	0.6	1.28	7	< 1	< 5
7030 (6-7)	< 2	< 0.3	13	< 0.3	< 1	4	9	12	0.09	4.22	1.5	470	< 1	< 2	3.1	7.73	3	29	< 1	0.6	1.11	5	< 1	< 5
7040 (2a-3)	< 2	< 0.3	14	< 0.3	< 1	6	13	19	0.07	3.94	2.2	410	< 1	< 2	2.5	8.54	5	36	1	0.8	1.45	7	< 1	< 5
7100 (9-12)	< 2	0.5	14	< 0.3	< 1	6	13	21	0.09	3.71	3.7	330	< 1	< 2	3.5	9.24	5	136	< 1	0.7	2.45	7	< 1	< 5
7120 (7)	< 2	< 0.3	5	< 0.3	< 1	6	9	11	0.09	3.61	< 0.5	460	< 1	< 2	2.1	8.51	4	37	< 1	0.6	1.17	6	< 1	< 5
7120 (8)	< 2	< 0.3	11	< 0.3	< 1	8	10	15	0.09	3.85	1.3	470	< 1	< 2	2.6	7.98	5	43	< 1	0.7	1.24	7	< 1	< 5
7120 (9)	< 2	< 0.3	9	< 0.3	< 1	8	12	13	0.12	4.06	1.8	490	< 1	< 2	2.7	7.25	4	51	1	0.7	1.58	7	< 1	< 5
7150 (6-8)	< 2	< 0.3	5	< 0.3	< 1	6	12	15	0.07	3.87	2.0	470	< 1	< 2	3.1	7.82	5	64	1	0.7	1.83	9	< 1	< 5
7150 (9)	< 2	< 0.3	6	< 0.3	< 1	6	10	14	0.09	3.88	1.4	440	< 1	< 2	3.3	8.56	5	39	< 1	0.8	1.24	7	< 1	< 5

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Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
7180 (7)	< 2	< 0.3	9	< 0.3	< 1	6	11	15	0.16	3.67	2.5	320	< 1	< 2	2.5	8.50	5	83	< 1	0.6	1.69	7	< 1	< 5
7190 (6-7)	< 2	0.5	12	< 0.3	< 1	7	11	16	0.20	3.60	4.7	460	< 1	< 2	2.9	8.52	5	98	< 1	0.7	1.94	9	< 1	< 5
7190 (8-10)	3	0.9	33	< 0.3	< 1	16	27	22	0.36	4.56	0.9	780	< 1	< 2	1.2	0.92	7	67	2	0.9	1.22	14	< 1	< 5
7200 (5a)	< 2	< 0.3	11	< 0.3	< 1	9	17	24	0.08	3.68	< 0.5	420	< 1	< 2	2.0	9.35	8	181	< 1	1.0	3.32	19	< 1	< 5
7200 (5b)	< 2	< 0.3	14	< 0.3	< 1	8	13	18	0.07	4.19	< 0.5	460	< 1	< 2	< 0.5	7.75	5	66	< 1	0.7	1.72	6	< 1	< 5
7210 (6)	< 2	< 0.3	6	< 0.3	< 1	6	14	20	0.09	3.54	1.5	380	< 1	< 2	3.7	8.67	6	144	< 1	0.9	3.07	13	< 1	< 5
7290 (7)	< 2	< 0.3	8	< 0.3	< 1	6	13	16	0.13	3.71	2.2	400	< 1	< 2	2.6	8.00	5	94	< 1	0.7	2.06	7	< 1	< 5
7308 (3-4)	< 2	< 0.3	3	< 0.3	< 1	6	11	14	0.06	3.97	< 0.5	590	< 1	< 2	3.7	7.26	5	92	< 1	0.8	2.11	11	< 1	< 5
7321 (3-4)	< 2	< 0.3	17	< 0.3	< 1	10	14	21	0.08	3.74	< 0.5	250	< 1	< 2	2.8	9.46	6	53	< 1	0.8	1.79	8	< 1	< 5
7332 (4-9)	< 2	< 0.3	6	< 0.3	< 1	5	11	13	0.09	3.84	2.0	460	< 1	< 2	3.1	8.59	4	51	< 1	0.6	1.40	6	< 1	< 5
7332 (11)	< 2	< 0.3	61	< 0.3	< 1	11	8	14	0.19	3.69	0.8	850	< 1	< 2	1.2	1.34	5	41	2	1.0	0.84	13	< 1	< 5
7332 (12)	< 2	< 0.3	10	< 0.3	< 1	7	24	5	0.16	3.43	< 0.5	760	< 1	< 2	< 0.5	1.40	4	59	< 1	0.6	0.40	14	< 1	< 5
7341 (3a)	< 2	< 0.3	5	< 0.3	< 1	7	12	16	0.07	3.75	< 0.5	590	< 1	< 2	3.2	9.01	5	45	2	0.6	1.44	5	< 1	< 5
7341 (3b)	< 2	< 0.3	9	< 0.3	< 1	8	13	14	0.07	4.23	< 0.5	360	< 1	< 2	2.7	7.86	5	52	< 1	0.6	1.51	6	< 1	< 5
7341 (4-5)	< 2	< 0.3	9	< 0.3	< 1	7	11	15	0.06	3.67	1.3	330	< 1	< 2	3.3	8.43	4	80	1	0.6	1.45	6	< 1	< 5
7351 (4-5)	4	< 0.3	6	< 0.3	2	6	9	14	0.06	3.65	1.6	400	< 1	< 2	2.2	7.51	3	32	1	0.6	1.10	5	< 1	< 5
7351 (6)	< 2	< 0.3	11	< 0.3	< 1	9	13	19	0.07	3.70	4.5	380	< 1	< 2	3.0	9.48	5	52	< 1	0.7	1.92	6	< 1	< 5
7351 (7)	< 2	< 0.3	9	< 0.3	< 1	7	11	15	0.08	3.81	< 0.5	340	< 1	< 2	3.0	8.45	4	40	< 1	0.6	1.46	6	< 1	< 5
7361 (2-4)	< 2	< 0.3	4	< 0.3	< 1	6	8	13	0.08	3.22	1.2	370	< 1	< 2	2.8	9.21	3	32	< 1	0.6	0.93	6	< 1	< 5
7370 (2-5)	< 2	< 0.3	4	< 0.3	< 1	7	9	13	0.08	3.78	< 0.5	390	< 1	< 2	2.5	7.81	3	41	< 1	0.6	1.15	6	< 1	< 5
7380 (2-4)	< 2	0.3	9	< 0.3	< 1	9	11	13	0.08	3.52	1.3	330	< 1	< 2	2.3	9.44	4	26	< 1	0.6	0.91	6	< 1	< 5
7380 (6-7)	< 2	< 0.3	4	< 0.3	< 1	5	10	14	0.08	4.15	1.2	320	< 1	< 2	2.2	8.11	3	33	< 1	0.6	1.21	6	< 1	< 5
7400 (3-9)	< 2	< 0.3	8	< 0.3	< 1	6	10	13	0.10	3.98	0.7	370	< 1	< 2	2.8	8.23	4	34	1	0.6	1.11	5	< 1	< 5
7410 (4-6)	< 2	< 0.3	51	< 0.3	< 1	5	10	23	0.08	3.86	< 0.5	350	< 1	< 2	3.0	8.62	4	36	< 1	0.6	1.20	6	< 1	< 5
7420 (3-6)	< 2	0.4	5	< 0.3	< 1	6	11	14	0.09	3.82	< 0.5	360	< 1	< 2	2.6	8.13	3	38	< 1	0.7	1.29	8	< 1	< 5
7420 (7)	< 2	< 0.3	5	< 0.3	< 1	7	11	14	0.08	4.22	< 0.5	450	< 1	< 2	2.7	7.26	4	37	< 1	0.5	1.20	5	< 1	< 5
7440 (5-7)	< 2	< 0.3	6	< 0.3	< 1	7	12	14	0.11	3.92	2.3	260	< 1	< 2	3.0	8.65	4	37	< 1	0.6	1.29	5	< 1	< 5
7460 (6-7)	< 2	< 0.3	4	< 0.3	< 1	6	11	15	0.09	4.01	1.7	450	< 1	< 2	< 0.5	8.00	5	43	< 1	0.6	1.42	7	< 1	< 5
7471 (3-7)	< 2	< 0.3	9	< 0.3	< 1	7	12	16	0.10	3.83	2.0	400	< 1	< 2	2.5	9.37	4	33	1	0.7	1.19	5	< 1	< 5
7480 (8-9)	4	0.3	14	< 0.3	< 1	6	12	15	0.14	4.02	1.7	350	< 1	< 2	3.1	8.38	3	64	1	0.6	1.41	6	< 1	< 5
7490 (6-8)	17	< 0.3	9	< 0.3	< 1	7	12	17	0.13	4.05	1.9	290	< 1	< 2	3.3	9.16	4	47	< 1	0.6	1.41	5	< 1	< 5
7605 (6)	< 2	0.3	13	< 0.3	< 1	6	11	16	0.11	3.97	1.6	470	< 1	< 2	2.5	8.79	5	39	< 1	0.6	1.37	6	< 1	< 5
7630 (3-5)	< 2	< 0.3	4	< 0.3	< 1	6	13	14	0.08	4.04	< 0.5	490	< 1	< 2	2.5	8.65	3	36	< 1	0.6	1.37	7	< 1	< 5
7650 (1)	< 2	< 0.3	2	< 0.3	< 1	7	11	14	0.04	4.46	1.5	360	< 1	< 2	2.6	5.34	5	38	2	0.7	1.53	5	< 1	< 5
7650 (8)	47	< 0.3	6	< 0.3	< 1	5	10	13	0.08	3.66	1.4	420	< 1	< 2	3.5	8.57	3	38	< 1	0.6	1.23	7	< 1	< 5
7655 (5)	< 2	< 0.3	11	< 0.3	< 1	7	10	15	0.07	3.64	1.3	380	< 1	< 2	3.1	8.68	4	47	< 1	0.8	1.69	8	< 1	< 5
7660 (5)	< 2	< 0.3	4	< 0.3	< 1	7	10	13	0.07	3.86	1.6	420	< 1	< 2	2.5	8.21	3	31	< 1	0.6	1.11	6	< 1	< 5
7670 (3-4)	< 2	< 0.3	5	< 0.3	< 1	6	11	14	0.08	4.04	1.0	500	< 1	< 2	1.8	8.22	3	28	< 1	0.6	1.08	5	< 1	< 5
7670 (5-7)	< 2	< 0.3	3	< 0.3	< 1	8	10	14	0.10	4.02	2.0	470	< 1	< 2	2.4	7.84	5	37	< 1	0.7	1.46	9	< 1	< 5
7690 (4-7)	15	0.3	10	< 0.3	< 1	6	10	16	0.11	3.80	1.0	470	< 1	< 2	2.5	8.91	4	38	< 1	0.8	1.40	9	< 1	< 5
7693 (7)	< 2	< 0.3	5	< 0.3	< 1	6	8	12	0.10	3.64	< 0.5	500	< 1	< 2	2.4	9.95	4	28	< 1	0.7	1.06	7	< 1	< 5
7696 (6)	< 2	0.3	11	< 0.3	< 1	7	11	16	0.07	3.99	1.8	370	< 1	< 2	2.6	8.90	4	44	< 1	0.6	1.50	10	< 1	< 5
7696 (7)	< 2	< 0.3	9	< 0.3	< 1	7	11	14	0.10	4.03	2.7	480	< 1	< 2	3.2	8.71	5	38	< 1	0.8	1.29	7	< 1	< 5
7625 (4-7)	< 2	< 0.3	13	< 0.3	< 1	7	17	16	0.07	4.14	< 0.5	490	< 1	< 2	2.3	8.17	5	45	< 1	0.6	1.34	7	< 1	< 5
7685 (4b-6)	< 2	< 0.3	9	< 0.3	< 1	7	11	17	0.07	3.89	1.8	380	< 1	< 2	2.5	8.64	4	46	< 1	0.7	1.64	11	< 1	< 5
7715 (8-9)	< 2	0.3	6	< 0.3	< 1	6	11	23	0.11	3.78	2.0	440	< 1	< 2	2.5	8.28	5	34	< 1	0.7	1.30	6	< 1	< 5
7645 (4-6)	< 2	< 0.3	3	< 0.3	< 1	7	12	15	0.08	3.97	1.4	410	< 1	< 2	2.4	8.20	4	35	< 1	0.7	1.44	8	< 1	< 5
7450 (4-7)	< 2	< 0.3	12	< 0.3	< 1	6	10	15	0.10	3.96	< 0.5	400	< 1	< 2	2.6	8.56	5	35	< 1	0.6	1.34	8	< 1	< 5
7655 (6b-7)	< 2	< 0.3	11	< 0.3	< 1	5	10	15	0.07	3.80	1.9	500	< 1	< 2	2.7	8.45	4	42	< 1	0.7	1.41	8	< 1	< 5
7635 (5-7)	< 2	< 0.3	9	< 0.3	< 1	6	10	14	0.08	3.80	< 0.5	410	< 1	< 2	2.7	8.75	4	36	< 1	0.8	1.36	9	< 1	< 5
7620 (3b-4)	< 2	0.5	6	< 0.3	2	7	11	18	0.09	4.02	2.3	460	< 1	< 2	2.4	8.74	4	50	< 1	0.7	1.44	9	< 1	< 5

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Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
7610 (3-4)	< 2	< 0.3	8	< 0.3	< 1	8	10	15	0.08	3.88	1.5	380	< 1	< 2	1.7	8.48	3	34	1	0.7	1.27	6	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA
5142 (3-7)	1.53	8	1.54	246	1.50	0.036	44	0.4	4.6	< 3	222	< 0.5	0.15	3.7	< 0.5	35	< 1	8	15.1	24	18	3.5	< 0.01	< 0.5
5152 (7)	1.53	7	1.31	284	1.70	0.037	< 15	< 0.1	4.6	< 3	258	< 0.5	0.19	3.0	1.8	44	< 1	9	15.0	33	14	2.3	< 0.01	< 0.5
5162 (5-7)	1.52	7	1.40	277	1.73	0.040	63	< 0.1	5.0	< 3	245	< 0.5	0.14	3.4	< 0.5	36	< 1	8	16.4	29	12	3.8	< 0.01	< 0.5
5178 (5-10)	1.55	7	1.75	248	1.54	0.039	40	0.4	4.3	< 3	231	< 0.5	0.17	2.8	1.7	36	< 1	7	13.7	24	13	3.2	< 0.01	< 0.5
5230 (2-3a)	1.75	21	1.61	354	1.29	0.047	77	< 0.1	6.8	< 3	210	< 0.5	0.26	7.1	< 0.5	58	8	11	24.1	54	17	3.4	< 0.01	< 0.5
5230 (3b-4)	1.42	7	1.40	265	1.46	0.045	< 15	0.2	5.1	< 3	224	< 0.5	0.20	6.1	1.1	41	< 1	9	20.0	36	25	4.4	< 0.01	< 0.5
5230 (5-6)	1.57	8	1.85	248	1.46	0.042	< 15	0.3	4.6	< 3	220	< 0.5	0.19	3.9	1.4	39	< 1	8	14.9	28	19	3.5	< 0.01	< 0.5
5360 (7b)	1.47	7	1.17	257	1.61	0.037	< 15	< 0.1	5.1	< 3	227	< 0.5	0.20	5.4	1.2	43	< 1	8	17.3	31	19	3.8	< 0.01	< 0.5
5370 (7b-8)	1.45	7	1.02	262	1.50	0.034	34	< 0.1	4.7	< 3	224	< 0.5	0.20	4.9	< 0.5	42	< 1	8	16.7	29	23	3.8	< 0.01	< 0.5
5381 (7)	1.30	9	1.46	387	1.36	0.055	< 15	0.4	6.4	< 3	225	< 0.5	0.34	8.9	2.1	75	< 1	12	27.8	62	23	4.1	< 0.01	< 0.5
5410 (6b-7)	1.53	8	1.38	294	1.49	0.040	57	0.2	4.9	< 3	232	< 0.5	0.22	3.8	< 0.5	46	< 1	9	16.3	29	18	3.9	< 0.01	< 0.5
5420 (6-7)	1.44	7	1.87	262	1.48	0.039	< 15	< 0.1	4.6	< 3	222	< 0.5	0.15	3.4	1.2	33	< 1	9	14.9	26	19	3.6	< 0.01	< 0.5
5430 (6-7)	1.39	7	1.72	303	1.45	0.044	56	< 0.1	5.2	< 3	220	< 0.5	0.21	4.6	1.7	43	< 1	9	17.6	30	21	3.8	< 0.01	< 0.5
5440 (6)	1.53	7	1.25	255	1.61	0.038	40	0.4	4.4	< 3	238	< 0.5	0.17	3.7	< 0.5	40	< 1	7	15.3	35	15	2.5	< 0.01	< 0.5
5450 (5-7)	1.56	7	1.54	258	1.55	0.047	< 15	0.2	4.7	< 3	233	< 0.5	0.21	3.8	< 0.5	42	< 1	9	15.4	28	16	3.7	< 0.01	< 0.5
5460 (5-7)	1.57	7	1.79	252	1.57	0.045	74	< 0.1	4.7	< 3	229	< 0.5	0.20	3.7	< 0.5	41	< 1	8	15.2	26	16	3.6	< 0.01	< 0.5
5470 (5b-7)	1.57	7	1.63	246	1.65	0.046	< 15	0.3	5.1	< 3	236	< 0.5	0.20	4.6	< 0.5	40	< 1	9	17.6	31	22	4.2	< 0.01	< 0.5
5490 (8)	1.37	7	1.32	458	1.37	0.042	< 15	0.3	5.6	< 3	225	< 0.5	0.29	8.4	1.7	72	< 1	12	24.7	53	18	3.4	< 0.01	< 0.5
5570 (6)	1.23	7	1.33	408	1.31	0.060	35	< 0.1	5.4	< 3	218	< 0.5	0.33	5.0	1.2	71	< 1	11	19.1	41	15	2.9	< 0.01	< 0.5
5579 (6b-7)	1.26	8	1.49	415	1.26	0.042	< 15	< 0.1	6.3	< 3	217	< 0.5	0.34	8.5	2.1	77	< 1	12	27.5	57	21	3.7	< 0.01	< 0.5
5591 (5-8)	1.51	7	1.50	256	1.56	0.038	36	0.2	4.6	< 3	225	< 0.5	0.18	3.1	< 0.5	37	< 1	8	14.2	25	17	3.4	< 0.01	< 0.5
5750 (4b-5)	1.55	8	1.32	248	1.51	0.038	< 15	0.1	4.8	< 3	233	< 0.5	0.18	4.2	1.4	38	< 1	7	15.7	27	17	3.6	< 0.01	< 0.5
5750 (6)	1.55	8	1.24	254	1.57	0.041	72	0.2	4.8	< 3	235	< 0.5	0.12	3.7	1.0	35	< 1	9	17.0	38	15	2.7	< 0.01	< 0.5
5760 (6-7)	1.43	7	1.12	277	1.73	0.041	40	0.2	5.7	< 3	241	< 0.5	0.15	5.3	1.3	39	< 1	9	17.7	31	26	4.2	< 0.01	< 0.5
5770 (2-3)	1.54	8	1.21	271	1.63	0.042	< 15	< 0.1	5.5	< 3	246	< 0.5	0.18	4.9	1.3	40	2	9	18.0	31	23	4.1	< 0.01	< 0.5
5770 (4-5)	1.56	8	1.45	267	1.52	0.047	50	0.2	5.2	< 3	235	< 0.5	0.16	3.5	< 0.5	37	3	9	15.5	30	11	3.8	< 0.01	0.9
5780 (4b)	1.51	8	1.18	310	1.58	0.039	< 15	< 0.1	5.3	< 3	247	< 0.5	0.16	4.2	1.8	36	8	9	17.1	30	18	3.9	0.03	< 0.5
5780 (5)	1.50	7	1.25	269	1.72	0.042	46	< 0.1	5.8	< 3	240	< 0.5	0.22	4.9	< 0.5	46	3	9	19.7	34	16	4.6	< 0.01	< 0.5
5780 (7)	1.44	7	1.44	262	1.62	0.049	23	< 0.1	5.2	< 3	224	1.4	0.21	4.2	1.1	41	< 1	8	16.1	30	19	4.0	< 0.01	< 0.5
5810 (4-6)	1.46	7	1.33	259	1.59	0.042	36	< 0.1	4.9	< 3	231	< 0.5	0.21	4.2	< 0.5	42	< 1	9	16.5	29	19	3.8	< 0.01	< 0.5
5810 (7)	1.55	9	1.21	261	1.52	0.040	< 15	< 0.1	5.1	< 3	236	< 0.5	0.19	4.4	1.0	40	< 1	9	18.6	33	20	4.0	< 0.01	< 0.5
5820 (4-7)	1.39	7	1.07	240	1.47	0.037	< 15	< 0.1	4.7	< 3	227	< 0.5	0.15	3.7	1.4	35	2	8	15.9	29	14	3.6	< 0.01	< 0.5
5830 (8)	1.47	8	1.07	296	1.60	0.042	47	< 0.1	5.6	< 3	248	< 0.5	0.17	5.3	1.0	47	2	8	20.9	34	23	4.4	< 0.01	< 0.5
5840 (5-7)	1.55	8	1.86	247	1.42	0.043	47	0.1	4.4	< 3	224	< 0.5	0.19	3.5	1.2	37	< 1	8	14.6	26	18	3.6	< 0.01	< 0.5
5850 (8)	1.47	7	1.43	295	1.50	0.039	65	0.3	4.3	< 3	226	< 0.5	0.17	3.4	< 0.5	40	6	9	16.6	33	15	2.2	< 0.01	< 0.5
6470 (11-14)	1.47	11	2.99	939	1.12	0.054	29	< 0.1	5.1	< 3	181	1.2	0.21	5.7	1.4	44	4	8	17.6	37	18	2.7	< 0.01	< 0.5
6790 (2-7)	1.57	10	1.67	272	1.31	0.041	35	< 0.1	4.6	< 3	208	< 0.5	0.22	3.1	0.8	41	< 1	8	15.2	26	20	3.6	< 0.01	< 0.5
6790 (8-14)	1.53	9	1.41	251	1.37	0.032	59	< 0.1	4.2	< 3	216	< 0.5	0.16	3.2	1.1	36	< 1	7	14.3	26	15	3.3	< 0.01	< 0.5
6870 (2-7)	1.59	9	1.75	259	1.23	0.037	44	0.3	4.4	< 3	199	< 0.5	0.18	2.9	1.3	36	2	8	14.0	25	18	3.4	< 0.01	< 0.5
6870 (9-12)	1.43	6	0.91	248	1.33	0.032	41	0.1	4.0	< 3	235	< 0.5	0.18	2.9	1.0	35	2	7	12.8	22	16	2.9	< 0.01	< 0.5
6890 (5b-8)	1.50	8	1.74	273	1.45	0.042	41	< 0.1	4.7	< 3	220	< 0.5	0.17	3.7	1.1	38	< 1	8	17.2	30	20	4.0	< 0.01	< 0.5
6930 (4b-8)	1.48	8	1.67	259	1.37	0.043	47	0.2	4.5	< 3	220	< 0.5	0.18	3.5	0.7	36	< 1	8	15.7	30	19	3.8	< 0.01	< 0.5
6970 (8)	1.38	6	1.56	270	1.27	0.036	43	< 0.1	3.9	< 3	206	< 0.5	0.19	3.7	< 0.5	39	< 1	7	15.0	26	18	3.3	< 0.01	< 0.5
7030 (6-7)	1.54	6	1.71	246	1.61	0.034	38	0.2	4.1	< 3	229	< 0.5	0.17	2.7	< 0.5	35	< 1	7	12.9	23	16	3.1	< 0.01	< 0.5
7040 (2a-3)	1.51	11	1.84	345	1.31	0.035	52	< 0.1	5.0	< 3	199	< 0.5	0.18	5.3	1.1	37	< 1	8	18.3	33	22	4.2	< 0.01	< 0.5
7100 (9-12)	1.36	9	1.81	359	1.16	0.050	< 15	< 0.1	5.3	< 3	206	< 0.5	0.27	5.5	1.3	60	< 1	9	21.2	46	17	3.0	< 0.01	< 0.5
7120 (7)	1.30	6	1.59	249	1.26	0.028	36	0.2	3.7	< 3	206	< 0.5	0.16	3.4	1.2	31	< 1	7	15.0	34	15	2.3	< 0.01	< 0.5
7120 (8)	1.36	7	1.50	239	1.41	0.036	33	< 0.1	4.4	< 3	213	< 0.5	0.17	3.3	1.3	35	< 1	7	14.4	25	16	3.4	< 0.01	< 0.5
7120 (9)	1.54	7	1.46	267	1.43	0.037	67	0.3	4.7	< 3	216	< 0.5	0.21	3.7	< 0.5	39	< 1	9	15.1	30	18	3.6	< 0.01	< 0.5
7150 (6-8)	1.35	8	1.23	262	1.38	0.027	< 15	0.3	5.1	< 3	215	< 0.5	0.13	6.1	1.2	28	< 1	7	19.4	34	19	4.0	< 0.01	< 0.5
7150 (9)	1.41	7	1.66	237	1.48	0.035	51	0.1	4.6	< 3	211	< 0.5	0.15	3.6	1.4	33	< 1	8	15.0	26	20	3.5	< 0.01	< 0.5
7180 (7)	1.33	7	1.50	2																				

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
7190 (6-7)	1.25	6	1.74	347	1.19	0.043	< 15	0.4	4.6	< 3	200	< 0.5	0.25	5.8	1.0	55	< 1	9	20.3	44	12	2.9	< 0.01	< 0.5
7190 (8-10)	4.03	23	0.37	177	0.09	0.023	86	< 0.1	4.9	< 3	98	< 0.5	0.37	8.4	2.1	24	5	20	18.5	36	18	4.5	< 0.01	0.6
7200 (5a)	1.15	10	1.65	441	1.26	0.055	< 15	0.2	7.3	< 3	208	< 0.5	0.31	11.8	2.2	66	< 1	14	38.8	81	29	3.9	< 0.01	< 0.5
7200 (5b)	1.49	8	1.48	274	1.39	0.038	32	< 0.1	4.9	< 3	224	< 0.5	0.16	4.5	2.0	36	4	11	17.8	40	12	2.8	< 0.01	< 0.5
7210 (6)	1.17	8	1.59	395	1.22	0.044	< 15	< 0.1	6.9	< 3	195	1.4	0.27	7.6	< 0.5	59	< 1	11	24.3	43	24	5.1	< 0.01	0.6
7290 (7)	1.27	7	1.68	306	1.37	0.042	63	0.2	5.3	< 3	200	< 0.5	0.24	3.7	1.3	52	4	10	18.0	40	14	2.9	< 0.01	< 0.5
7308 (3-4)	1.39	8	1.05	225	1.49	0.032	64	< 0.1	6.0	< 3	224	< 0.5	0.18	6.0	1.9	38	< 1	8	23.2	51	19	3.7	< 0.01	0.7
7321 (3-4)	1.24	8	1.77	345	1.44	0.040	< 15	0.2	5.4	< 3	218	< 0.5	0.18	5.1	< 0.5	39	< 1	10	22.4	46	10	2.7	< 0.01	0.6
7332 (4-9)	1.40	7	1.69	272	1.44	0.032	39	< 0.1	4.6	< 3	212	< 0.5	0.11	3.3	1.1	27	< 1	8	15.1	25	15	3.3	< 0.01	< 0.5
7332 (11)	3.62	16	0.22	106	0.13	0.026	94	< 0.1	3.8	< 3	103	< 0.5	0.26	8.5	2.3	25	< 1	16	14.9	32	19	4.4	< 0.01	0.5
7332 (12)	4.35	4	0.05	101	0.06	0.012	75	< 0.1	2.5	< 3	93	< 0.5	0.22	3.9	2.0	12	< 1	6	10.3	21	14	2.6	< 0.01	< 0.5
7341 (3a)	1.29	8	1.94	257	1.37	0.039	< 15	< 0.1	4.9	< 3	199	< 0.5	0.14	3.9	< 0.5	28	< 1	9	16.7	37	15	2.6	< 0.01	< 0.5
7341 (3b)	1.39	7	1.41	252	1.51	0.041	< 15	< 0.1	4.6	< 3	227	< 0.5	0.19	4.3	< 0.5	37	< 1	9	17.3	35	10	2.7	< 0.01	< 0.5
7341 (4-5)	1.27	7	1.49	265	1.23	0.026	29	< 0.1	4.5	< 3	202	< 0.5	0.11	3.8	< 0.5	21	< 1	8	15.3	25	16	3.4	< 0.01	< 0.5
7351 (4-5)	1.34	6	1.25	229	1.30	0.039	49	0.3	3.8	< 3	202	< 0.5	0.20	3.2	< 0.5	36	< 1	7	12.7	23	14	2.9	< 0.01	0.5
7351 (6)	1.22	7	1.48	332	1.20	0.038	< 15	< 0.1	5.0	< 3	212	< 0.5	0.23	4.2	0.9	51	< 1	9	16.4	27	16	3.5	< 0.01	< 0.5
7351 (7)	1.32	7	1.39	250	1.32	0.032	< 15	< 0.1	4.4	< 3	210	< 0.5	0.18	4.6	1.2	37	6	8	17.1	37	13	2.7	< 0.01	< 0.5
7361 (2-4)	1.16	5	1.92	279	1.10	0.030	22	< 0.1	3.3	< 3	186	< 0.5	0.14	3.7	1.4	28	1	8	13.1	23	14	2.9	< 0.01	< 0.5
7370 (2-5)	1.32	6	1.50	255	1.29	0.032	42	< 0.1	3.9	< 3	210	< 0.5	0.10	3.6	1.3	24	< 1	7	14.2	25	15	3.1	< 0.01	< 0.5
7380 (2-4)	1.27	7	1.74	294	1.02	0.031	23	< 0.1	3.2	< 3	200	< 0.5	0.11	3.8	1.4	26	< 1	7	12.6	24	20	2.9	< 0.01	< 0.5
7380 (6-7)	1.44	7	1.59	273	1.34	0.040	< 15	0.3	4.0	< 3	225	< 0.5	0.20	3.8	1.0	42	< 1	8	14.7	25	20	3.3	< 0.01	< 0.5
7400 (3-9)	1.45	7	1.59	255	1.30	0.033	37	0.1	3.8	< 3	217	< 0.5	0.13	3.2	1.1	30	< 1	7	12.8	21	12	3.0	< 0.01	< 0.5
7410 (4-6)	1.43	8	1.85	283	1.22	0.032	47	0.1	4.0	< 3	203	< 0.5	0.18	3.7	1.3	36	< 1	7	14.0	24	17	3.2	< 0.01	< 0.5
7420 (3-6)	1.30	7	1.44	299	1.32	0.042	40	< 0.1	4.5	< 3	211	< 0.5	0.23	4.1	0.9	42	< 1	9	15.9	29	19	3.6	< 0.01	< 0.5
7420 (7)	1.41	6	1.16	272	1.48	0.035	48	0.2	4.2	< 3	233	1.1	0.21	4.1	1.6	41	< 1	8	15.7	33	13	2.3	< 0.01	< 0.5
7440 (5-7)	1.38	8	1.49	273	1.38	0.034	49	0.3	4.3	< 3	215	< 0.5	0.17	3.4	< 0.5	36	< 1	8	13.8	23	13	3.2	< 0.01	< 0.5
7460 (6-7)	1.36	8	1.27	269	1.38	0.029	60	0.2	4.6	< 3	218	< 0.5	0.16	4.2	2.0	37	< 1	7	15.0	26	15	3.4	< 0.01	< 0.5
7471 (3-7)	1.39	9	1.92	262	1.28	0.031	40	0.2	4.3	< 3	201	1.2	0.11	3.6	1.5	26	< 1	8	14.2	27	14	3.3	< 0.01	< 0.5
7480 (8-9)	1.46	8	1.62	284	1.33	0.042	43	< 0.1	4.4	< 3	220	< 0.5	0.16	3.6	1.4	39	< 1	10	14.0	25	12	3.2	< 0.01	< 0.5
7490 (6-8)	1.48	9	1.81	275	1.25	0.039	34	0.1	4.4	< 3	216	< 0.5	0.18	3.6	1.2	40	< 1	8	14.1	25	18	3.2	< 0.01	< 0.5
7605 (6)	1.33	7	1.45	289	1.40	0.035	60	0.3	4.4	< 3	221	< 0.5	0.17	3.8	1.3	37	< 1	8	14.6	25	16	3.3	< 0.01	< 0.5
7630 (3-5)	1.37	7	1.36	241	1.38	0.035	70	0.1	4.4	< 3	222	< 0.5	0.19	3.5	1.1	39	< 1	8	14.1	27	20	3.4	< 0.01	< 0.5
7650 (1)	1.38	8	0.88	265	1.57	0.032	49	0.3	4.9	< 3	238	< 0.5	0.17	3.8	< 0.5	36	< 1	7	15.1	26	18	3.4	< 0.01	< 0.5
7650 (8)	1.37	7	1.89	255	1.33	0.039	40	< 0.1	4.2	< 3	202	< 0.5	0.20	3.4	1.2	35	< 1	7	14.1	25	22	3.4	< 0.01	< 0.5
7655 (5)	1.18	6	1.20	266	1.33	0.034	< 15	0.3	4.5	< 3	210	< 0.5	0.20	5.2	1.4	44	< 1	8	17.1	29	19	3.6	< 0.01	< 0.5
7660 (5)	1.35	6	1.47	234	1.39	0.032	37	0.1	3.8	< 3	216	< 0.5	0.17	2.7	1.1	35	< 1	7	11.7	20	13	2.9	< 0.01	< 0.5
7670 (3-4)	1.28	7	1.32	282	1.48	0.032	43	< 0.1	4.2	< 3	231	< 0.5	0.17	3.5	< 0.5	31	< 1	9	16.0	30	12	2.0	< 0.01	< 0.5
7670 (5-7)	1.34	6	1.21	261	1.53	0.033	< 15	< 0.1	4.5	< 3	227	< 0.5	0.15	4.4	< 0.5	33	< 1	7	19.0	35	11	2.4	< 0.01	< 0.5
7690 (4-7)	1.33	7	1.58	262	1.37	0.036	48	< 0.1	4.4	< 3	213	< 0.5	0.13	4.6	1.4	31	< 1	9	18.0	36	8	2.4	< 0.01	< 0.5
7693 (7)	1.22	6	1.63	256	1.23	0.034	< 15	< 0.1	3.4	< 3	214	< 0.5	0.17	3.6	1.1	36	6	8	15.0	30	12	1.9	< 0.01	< 0.5
7696 (6)	1.27	7	1.35	290	1.35	0.042	< 15	0.2	4.6	< 3	224	< 0.5	0.22	4.8	< 0.5	46	4	9	19.0	41	8	2.5	< 0.01	< 0.5
7696 (7)	1.40	7	1.51	262	1.41	0.036	< 15	< 0.1	4.3	< 3	222	< 0.5	0.17	4.0	< 0.5	36	< 1	8	18.0	35	10	2.3	< 0.01	< 0.5
7625 (4-7)	1.41	8	1.41	256	1.34	0.036	< 15	< 0.1	4.3	< 3	221	< 0.5	0.19	4.5	< 0.5	41	< 1	8	18.0	36	11	2.3	< 0.01	< 0.5
7685 (4b-6)	1.28	7	1.29	284	1.35	0.033	38	< 0.1	4.8	< 3	216	1.4	0.20	6.2	1.5	45	4	9	21.9	46	11	2.7	< 0.01	< 0.5
7715 (8-9)	1.28	7	1.27	250	1.40	0.030	29	< 0.1	4.3	< 3	211	< 0.5	0.18	4.1	< 0.5	38	< 1	7	16.0	34	8	2.2	< 0.01	< 0.5
7645 (4-6)	1.29	7	1.23	262	1.40	0.027	< 15	< 0.1	4.5	< 3	218	< 0.5	0.18	4.7	1.6	39	< 1	8	19.0	34	10	2.3	< 0.01	< 0.5
7450 (4-7)	1.37	8	1.45	252	1.34	0.033	54	0.2	4.2	< 3	218	< 0.5	0.15	4.4	0.9	35	< 1	7	17.0	35	11	2.3	< 0.01	< 0.5
7655 (6b-7)	1.32	7	1.42	260	1.37	0.036	< 15	< 0.1	4.4	< 3	215	< 0.5	0.13	4.7	1.6	28	< 1	8	18.0	41	11	2.3	< 0.01	< 0.5
7635 (5-7)	1.33	7	1.56	245	1.38	0.037	< 15	< 0.1	4.3	< 3	212	< 0.5	0.14	4.2	< 0.5	31	3	8	20.0	40	9	2.5	< 0.01	< 0.5
7620 (3b-4)	1.35	7	1.55	291	1.29	0.042	29	0.2	4.4	< 3	222	< 0.5	0.20	4.7	< 0.5	43	4	9	19.0	36	13	2.4	< 0.01	< 0.5
7610 (3-4)	1.32	7	1.40	253	1.28	0.038	< 15	0.1	3.9	< 3	220	< 0.5	0.15	4.0	0.9	33	2	8	16.0	32	12	1.9	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
5142 (3-7)	1.1	0.17	36.1
5152 (7)	1.2	0.16	10.9
5162 (5-7)	1.2	0.19	36.2
5178 (5-10)	1.0	0.17	35.7
5230 (2-3a)	1.7	0.22	9.74
5230 (3b-4)	1.4	0.25	32.8
5230 (5-6)	1.2	0.19	34.3
5360 (7b)	1.2	0.18	35.1
5370 (7b-8)	1.0	0.21	34.7
5381 (7)	2.1	0.32	11.2
5410 (6b-7)	1.3	0.23	33.2
5420 (6-7)	1.1	0.19	37.5
5430 (6-7)	1.1	0.19	38.3
5440 (6)	1.2	0.20	10.8
5450 (5-7)	1.1	0.19	32.7
5460 (5-7)	1.0	0.19	35.6
5470 (5b-7)	1.3	0.20	32.9
5490 (8)	1.6	0.29	11.9
5570 (6)	1.3	0.20	10.6
5579 (6b-7)	2.1	0.34	10.7
5591 (5-8)	1.0	0.15	34.8
5750 (4b-5)	1.1	0.18	35.8
5750 (6)	1.2	0.17	9.57
5760 (6-7)	1.2	0.21	32.8
5770 (2-3)	1.1	0.19	36.1
5770 (4-5)	1.0	0.21	34.8
5780 (4b)	1.4	0.22	33.9
5780 (5)	1.5	0.24	35.5
5780 (7)	1.5	0.21	35.0
5810 (4-6)	1.2	0.18	34.4
5810 (7)	1.2	0.18	33.3
5820 (4-7)	1.0	0.19	36.6
5830 (8)	1.2	0.18	35.5
5840 (5-7)	1.1	0.22	34.5
5850 (8)	0.9	0.17	2.20
6470 (11-14)	1.3	0.17	9.46
6790 (2-7)	1.4	0.21	34.7
6790 (8-14)	1.0	0.14	35.6
6870 (2-7)	1.3	0.21	34.7
6870 (9-12)	1.0	0.15	35.9
6890 (5b-8)	1.4	0.21	31.7
6930 (4b-8)	1.2	0.20	34.4
6970 (8)	1.2	0.18	36.7
7030 (6-7)	0.9	0.12	33.2
7040 (2a-3)	1.5	0.22	33.2
7100 (9-12)	1.4	0.20	10.3
7120 (7)	1.3	0.19	10.1
7120 (8)	1.0	0.19	35.6
7120 (9)	1.3	0.22	33.4
7150 (6-8)	1.2	0.18	34.8
7150 (9)	1.2	0.21	33.9
7180 (7)	1.0	0.19	34.8

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
7190 (6-7)	1.6	0.21	10.3
7190 (8-10)	3.1	0.49	31.1
7200 (5a)	1.9	0.37	2.01
7200 (5b)	1.6	0.26	10.0
7210 (6)	1.6	0.29	33.5
7290 (7)	1.6	0.25	9.94
7308 (3-4)	2.1	0.31	9.89
7321 (3-4)	0.9	0.19	2.01
7332 (4-9)	1.0	0.17	36.8
7332 (11)	2.5	0.40	34.5
7332 (12)	1.9	0.31	32.7
7341 (3a)	1.4	0.19	10.1
7341 (3b)	1.2	0.20	9.82
7341 (4-5)	1.0	0.18	35.1
7351 (4-5)	1.0	0.16	35.4
7351 (6)	1.2	0.18	32.6
7351 (7)	1.3	0.19	9.58
7361 (2-4)	0.9	0.17	34.3
7370 (2-5)	1.0	0.17	34.9
7380 (2-4)	1.0	0.16	34.0
7380 (6-7)	1.0	0.18	36.2
7400 (3-9)	1.0	0.15	35.9
7410 (4-6)	1.0	0.18	35.3
7420 (3-6)	1.3	0.21	34.5
7420 (7)	1.2	0.21	10.9
7440 (5-7)	1.0	0.19	36.2
7460 (6-7)	1.0	0.19	36.7
7471 (3-7)	1.0	0.19	33.8
7480 (8-9)	1.1	0.19	34.1
7490 (6-8)	1.0	0.16	36.4
7605 (6)	1.0	0.17	35.0
7630 (3-5)	1.0	0.16	32.9
7650 (1)	1.0	0.18	34.2
7650 (8)	1.1	0.18	33.1
7655 (5)	1.2	0.18	34.9
7660 (5)	0.9	0.14	35.6
7670 (3-4)	0.8	0.18	36.7
7670 (5-7)	1.1	0.18	32.8
7690 (4-7)	1.1	0.22	35.5
7693 (7)	0.9	0.21	35.0
7696 (6)	1.3	0.22	33.7
7696 (7)	1.3	0.25	37.4
7625 (4-7)	1.2	0.23	35.9
7685 (4b-6)	1.4	0.27	35.7
7715 (8-9)	0.9	0.19	36.5
7645 (4-6)	1.2	0.25	35.3
7450 (4-7)	1.2	0.20	36.0
7655 (6b-7)	1.3	0.25	34.9
7635 (5-7)	1.4	0.22	34.4
7620 (3b-4)	1.3	0.22	40.3
7610 (3-4)	1.1	0.19	42.2

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas		31.5		1150	3.3	14	730	49		722		0.25	2.06			1	1390		0.88					
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52			1.22	1380		0.960					
GXR-4 Meas		3.5		6470	0.4	310	42	48		71		1.75	6.23			2	15		1.03					
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20			1.90	19.0		1.01					
SDC-1 Meas		< 0.3		32	< 0.3	< 1	20	38		101		0.07	8.44			3	< 2		1.09					
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34			3.00	2.60		1.00					
SCO-1 Meas		< 0.3		38	< 0.3	< 1	27	32		97		0.08	7.29			2	< 2		1.91					
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24			1.80	0.37		1.87					
GXR-6 Meas		0.3		61	0.4	< 1	76	27		113		0.01	15.1			1	< 2		0.26					
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7			1.40	0.290		0.180					
DNC-1a Meas				94				269		53														
DNC-1a Cert				100.0				247		70.0														
DMMAS 113 Meas	1830													1530	1520					39	75			3.10
DMMAS 113 Cert	1665													1468	1519					36	75			2.86
DMMAS 113 Meas	1980													1560	1530					36	90			3.22
DMMAS 113 Cert	1665													1468	1519					36	75			2.86
DMMAS 113 Meas	1900													1570	1620					37	77			3.12
DMMAS 113 Cert	1665													1468	1519					36	75			2.86
DMMAS 113 Meas	1910													1620	1810					37	78			3.12
DMMAS 113 Cert	1665													1468	1519					36	75			2.86
5430 (6-7) Orig		< 0.3		6	< 0.3	< 1	7	12		15		0.07	3.98			< 1	< 2		8.27					
5430 (6-7) Dup		< 0.3		10	< 0.3	< 1	7	12		17		0.07	4.02			< 1	< 2		8.17					
5780 (4b) Orig		< 0.3		9	< 0.3	< 1	8	15		16		0.06	4.50			< 1	< 2		7.35					
5780 (4b) Dup		< 0.3		9	< 0.3	< 1	7	14		16		0.06	4.54			< 1	< 2		7.10					
7120 (8) Orig		0.3		10	< 0.3	< 1	7	10		14		0.09	3.67			< 1	< 2		7.67					
7120 (8) Dup		< 0.3		12	< 0.3	< 1	8	10		15		0.09	4.02			< 1	< 2		8.30					
7332 (11) Orig		< 0.3		49	< 0.3	< 1	10	7		14		0.21	3.64			< 1	< 2		1.32					
7332 (11) Dup		< 0.3		72	< 0.3	< 1	13	9		14		0.17	3.73			< 1	< 2		1.35					
7715 (8-9) Orig		0.4		7	< 0.3	< 1	4	10		14		0.11	3.71			< 1	< 2		8.14					
7715 (8-9) Dup		< 0.3		5	< 0.3	< 1	7	12		31		0.11	3.85			< 1	< 2		8.41					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01			< 1	< 2		< 0.01					
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01
Method Blank	< 2		< 5						< 20		< 50			< 0.5	< 50			< 0.5		< 1	< 2	< 1	< 0.2	< 0.01

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Quality Control																								
Analyte Symbol	Hf	Hg	Ir	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd
Unit Symbol	ppm	ppm	ppb	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	1	5	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5
Analysis Method	INAA	INAA	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA
GXR-1 Meas				0.05	7	0.21	916		0.057					274					88					27
GXR-1 Cert				0.050	8.20	0.217	852		0.0650					275					80.0					32.0
GXR-4 Meas				4.24	11	1.69	160		0.132					209					96					13
GXR-4 Cert				4.01	11.1	1.66	155		0.120					221					87.0					14.0
SDC-1 Meas				2.95	36	1.03	921		0.056					175		0.09			39					33
SDC-1 Cert				2.72	34.00	1.02	880.00		0.0690					180.00		0.606			102.00					40.0
SCO-1 Meas				2.39	43	1.59	414		0.080					160		0.28			130					19
SCO-1 Cert				2.30	45	1.64	410		0.0900					170		0.380			130					26
GXR-6 Meas				1.67	41	0.60	927		0.029					47					109					10
GXR-6 Cert				1.87	32.0	0.609	1010		0.0350					35.0					186					14.0
DNC-1a Meas					4									121					143					14
DNC-1a Cert					5.20									144.0					148.0					18.0
DMMAS 113 Meas								2.06				6.5						15.4				16.5		24
DMMAS 113 Cert								1.82				5.8						15.6				14.5		24
DMMAS 113 Meas								1.88				6.5						18.3				15.4		27
DMMAS 113 Cert								1.82				5.8						15.6				14.5		24
DMMAS 113 Meas								1.94				6.6						19.3				14.5		21
DMMAS 113 Cert								1.82				5.8						15.6				14.5		24
DMMAS 113 Meas								1.90				6.5						18.0				16.1		28
DMMAS 113 Cert								1.82				5.8						15.6				14.5		24
5430 (6-7) Orig				1.37	7	1.77	298		0.042					218		0.18			36					9
5430 (6-7) Dup				1.42	7	1.68	307		0.046					223		0.24			49					9
5780 (4b) Orig				1.52	8	1.24	314		0.037					250		0.15			34					10
5780 (4b) Dup				1.50	8	1.11	306		0.041					244		0.17			39					9
7120 (8) Orig				1.30	7	1.44	235		0.036					205		0.17			35					7
7120 (8) Dup				1.43	7	1.55	244		0.035					221		0.17			35					8
7332 (11) Orig				3.64	16	0.22	100		0.024					99		0.26			25					16
7332 (11) Dup				3.61	16	0.22	111		0.028					108		0.26			25					15
7715 (8-9) Orig				1.25	7	1.25	249		0.031					207		0.17			39					7
7715 (8-9) Dup				1.31	7	1.28	250		0.029					215		0.18			37					7
Method Blank				< 0.01	< 1	< 0.01	2		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01			< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01			< 0.001					< 1		< 0.01			< 2					< 1
Method Blank				< 0.01	< 1	< 0.01	4		< 0.001					< 1		< 0.01			< 2					< 1
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5
Method Blank	< 1	< 1	< 5					< 0.01		< 15	< 0.1	< 0.1	< 3		< 0.5		< 0.2	< 0.5		< 1		< 0.5	< 3	< 5

Quality Control						
Analyte Symbol	Sm	Sn	Tb	Yb	Lu	Mass
Unit Symbol	ppm	%	ppm	ppm	ppm	g
Detection Limit	0.1	0.01	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 113 Meas	1.9					
DMMAS 113 Cert	2.2					
DMMAS 113 Meas	2.2					
DMMAS 113 Cert	2.2					
DMMAS 113 Meas	3.3					
DMMAS 113 Cert	2.2					
DMMAS 113 Meas	1.9					
DMMAS 113 Cert	2.2					
5430 (6-7) Orig						
5430 (6-7) Dup						
5780 (4b) Orig						
5780 (4b) Dup						
7120 (8) Orig						
7120 (8) Dup						
7332 (11) Orig						
7332 (11) Dup						
7715 (8-9) Orig						
7715 (8-9) Dup						
Method Blank						
Method Blank						
Method Blank						
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	30.0
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	10.0
Method Blank	< 0.1	< 0.01	< 0.5	< 0.2	< 0.05	1.00



Date Submitted: 27-Jul-12
Invoice No.: A12-08122
Invoice Date: 20-Aug-12
Your Reference: DD-RR

Debut Diamonds Inc.
141 Adelaide Street West
Suite 1000
Toronto ON M5H 3L5
Canada

ATTN: Moe Lavigne

CERTIFICATE OF ANALYSIS

49 sand samples were submitted for analysis.

The following analytical package was requested: Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT A12-08122

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Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY :

Emmanuel Esemé, Ph.D.

Quality Control



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Activation Laboratories Ltd. Report: A12-08122

Analyte Symbol	Au	Ag	Cu	Cd	Mo	Pb	Ni	Zn	S	Al	As	Ba	Be	Bi	Br	Ca	Co	Cr	Cs	Eu	Fe	Hf	Hg	Ir
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb
Detection Limit	2	0.3	1	0.3	1	3	1	1	0.01	0.01	0.5	50	1	2	0.5	0.01	1	2	1	0.2	0.01	1	1	5
Analysis Method	INAA	MULT INAA / TD- ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	MULT INAA / TD- ICP	MULT INAA / TD- ICP	TD-ICP	TD-ICP	INAA	INAA	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
7470 (2-7)	< 2	< 0.3	6	< 0.3	< 1	7	10	16	0.10	4.13	2.7	320	< 1	< 2	2.4	10.3	4	39	< 1	0.7	1.17	5	< 1	< 5
7591 (4-7)	5	< 0.3	5	< 0.3	< 1	< 3	421	25	0.08	2.59	3.7	310	< 1	< 2	1.8	6.09	25	715	< 1	0.5	2.39	3	< 1	< 5
7570 (7-8b)	< 2	< 0.3	9	< 0.3	< 1	7	11	23	0.21	4.13	3.4	370	< 1	< 2	< 0.5	9.16	4	124	< 1	0.7	1.90	9	< 1	< 5
7615 (5-8)	< 2	< 0.3	8	< 0.3	< 1	6	9	16	0.09	4.48	1.6	420	< 1	< 2	1.9	8.57	4	34	< 1	0.6	1.10	4	< 1	< 5
7640 (3-5)	< 2	< 0.3	7	< 0.3	< 1	5	8	16	0.08	4.27	2.5	490	< 1	< 2	3.0	9.12	3	46	< 1	0.7	1.16	6	< 1	< 5
7647 (5-7)	4	< 0.3	6	< 0.3	< 1	7	9	16	0.08	4.33	< 0.5	540	< 1	< 2	3.0	9.01	4	35	< 1	0.7	1.13	5	< 1	< 5
7660 (6-7)	7	< 0.3	6	< 0.3	< 1	6	10	19	0.09	4.47	1.9	490	< 1	< 2	2.5	8.63	3	43	< 1	0.7	1.38	6	< 1	< 5
7665 (4-9)	< 2	0.3	6	< 0.3	< 1	6	10	20	0.11	4.45	3.7	480	< 1	< 2	2.7	8.76	4	44	< 1	0.6	1.27	5	< 1	< 5
7681 (2b-6)	< 2	< 0.3	6	< 0.3	< 1	7	10	24	0.10	4.34	2.9	460	< 1	< 2	2.7	9.26	4	47	< 1	0.9	1.39	7	< 1	< 5
7700 (3-6)	< 2	< 0.3	18	< 0.3	< 1	6	9	16	0.10	4.11	2.2	450	< 1	< 2	3.4	9.81	4	42	< 1	0.7	1.27	7	< 1	< 5
7715 (6-7)	< 2	< 0.3	9	< 0.3	< 1	8	9	17	0.12	3.86	4.2	490	< 1	< 2	3.0	9.95	4	43	< 1	1.0	1.27	9	< 1	< 5
7790 (6-7)	< 2	< 0.3	8	< 0.3	< 1	6	9	18	0.08	3.85	1.8	400	< 1	< 2	3.6	9.62	4	82	< 1	0.8	1.38	7	< 1	< 5
7800 (9)	< 2	< 0.3	15	< 0.3	< 1	9	11	19	0.08	4.07	1.1	390	< 1	< 2	2.2	9.10	3	96	< 1	0.9	1.53	7	< 1	< 5
7810 (4-7)	< 2	< 0.3	19	< 0.3	< 1	7	16	30	0.07	4.30	2.8	520	< 1	< 2	3.4	9.15	8	227	2	1.0	2.33	8	< 1	< 5
7910 (4-6)	< 2	< 0.3	8	< 0.3	< 1	9	10	18	0.07	4.21	< 0.5	350	< 1	< 2	2.6	9.24	4	84	< 1	0.8	1.55	8	< 1	< 5
7920 (5b)	< 2	< 0.3	8	< 0.3	< 1	8	9	18	0.08	4.23	1.9	520	< 1	< 2	2.7	10.0	3	59	1	0.8	1.33	7	< 1	< 5
7981	< 2	< 0.3	7	< 0.3	< 1	6	11	18	0.10	4.09	< 0.5	630	< 1	< 2	2.6	8.82	4	46	< 1	0.8	1.38	7	< 1	< 5
7951 (3-5)	< 2	< 0.3	24	< 0.3	< 1	8	19	34	0.07	4.77	3.5	400	< 1	< 2	3.7	9.24	9	111	< 1	0.9	2.12	6	< 1	< 5
7961 (2-7)	< 2	< 0.3	10	< 0.3	< 1	6	9	15	0.08	3.96	2.2	440	< 1	< 2	3.1	9.97	4	41	2	0.7	1.08	4	< 1	< 5
7971 (core)	< 2	< 0.3	15	< 0.3	< 1	5	11	20	0.13	4.25	1.7	590	< 1	< 2	2.0	8.55	4	56	< 1	0.9	1.72	7	< 1	< 5
7971 (3-4)	< 2	< 0.3	7	< 0.3	< 1	5	9	16	0.22	3.56	2.5	290	< 1	< 2	3.6	8.83	3	74	< 1	0.5	1.23	5	< 1	< 5
7981 (3-6)	< 2	< 0.3	9	< 0.3	< 1	11	10	18	0.52	3.78	6.5	370	< 1	< 2	3.1	11.4	4	43	< 1	0.7	1.61	4	< 1	< 5
7991 (4)	< 2	< 0.3	8	< 0.3	< 1	6	9	17	0.25	3.88	3.9	540	< 1	< 2	2.9	8.08	5	68	< 1	0.7	1.89	6	< 1	< 5
7991 (6)	< 2	< 0.3	5	< 0.3	< 1	7	10	18	0.24	3.89	4.2	410	1	< 2	2.5	8.99	4	51	< 1	0.7	1.59	6	< 1	< 5
8001 (3-6)	5	< 0.3	10	< 0.3	< 1	7	10	17	0.09	4.30	1.3	460	< 1	< 2	2.9	8.88	4	58	< 1	0.7	1.22	6	< 1	< 5
8011 (4-6)	< 2	< 0.3	8	< 0.3	< 1	7	9	17	0.08	3.90	< 0.5	420	< 1	< 2	2.4	10.2	3	39	1	0.7	1.09	6	< 1	< 5
8021 (4b)	< 2	< 0.3	12	< 0.3	< 1	8	8	15	0.07	4.04	< 0.5	320	< 1	< 2	2.5	9.28	3	37	< 1	0.7	1.25	7	< 1	< 5
8021 (5-6)	< 2	< 0.3	7	< 0.3	< 1	7	10	16	0.11	4.03	1.2	510	< 1	< 2	3.1	9.46	3	47	< 1	0.9	1.33	7	< 1	< 5
8031 (4-5)	< 2	< 0.3	14	< 0.3	< 1	6	10	19	0.11	3.78	< 0.5	370	< 1	< 2	4.3	10.6	4	81	< 1	0.7	1.21	4	< 1	< 5
8041 (4a-4b)	21	< 0.3	5	< 0.3	< 1	6	8	15	0.07	3.96	< 0.5	420	< 1	< 2	2.8	9.41	3	44	< 1	1.0	1.27	9	< 1	< 5
8041 (5-6)	< 2	< 0.3	5	< 0.3	< 1	8	8	17	0.09	4.13	< 0.5	510	< 1	< 2	2.0	9.12	3	43	< 1	0.7	1.31	6	< 1	< 5
8050 (2-3)	< 2	< 0.3	6	< 0.3	< 1	6	8	16	0.07	3.97	2.6	440	< 1	< 2	2.6	8.75	5	44	< 1	0.9	1.35	6	< 1	< 5
8050 (4-5)	< 2	< 0.3	7	< 0.3	< 1	8	9	17	0.10	4.07	2.2	420	< 1	< 2	2.8	8.82	4	79	< 1	0.7	1.40	6	< 1	< 5
8060 (2-5)	< 2	< 0.3	9	< 0.3	< 1	8	9	15	0.08	4.04	1.0	500	< 1	< 2	3.3	9.84	5	40	2	0.9	1.25	6	< 1	< 5
8070 (4-7)	< 2	< 0.3	4	< 0.3	< 1	8	9	16	0.10	4.33	1.9	490	< 1	< 2	2.5	8.34	4	55	< 1	0.9	1.42	6	< 1	< 5
8100 (8)	< 2	0.3	7	< 0.3	5	6	8	15	0.11	4.08	1.6	580	< 1	< 2	2.9	8.46	3	58	1	1.0	1.33	7	< 1	< 5
8190 (9-13)	4	0.4	12	< 0.3	< 1	8	15	27	0.11	3.67	5.1	240	< 1	< 2	3.0	12.0	6	282	< 1	0.7	2.18	7	< 1	< 5
8120 (4-5)	< 2	< 0.3	5	< 0.3	< 1	6	10	15	0.07	4.18	1.0	440	< 1	< 2	2.7	8.90	3	55	< 1	0.6	1.38	6	< 1	< 5
8120 (9)	< 2	< 0.3	6	< 0.3	< 1	6	9	16	0.09	4.29	1.5	480	< 1	< 2	3.0	9.25	3	43	< 1	0.6	1.21	5	< 1	< 5
8130 (13)	< 2	< 0.3	20	< 0.3	1	9	12	24	0.11	3.65	3.0	520	< 1	< 2	4.1	12.5	6	105	1	1.0	2.08	7	< 1	< 5
8160 (13-14)	< 2	< 0.3	6	< 0.3	< 1	7	9	16	0.11	3.61	2.4	470	< 1	< 2	3.2	9.45	5	51	< 1	0.9	1.54	6	< 1	< 5
8170 (9-12)	< 2	< 0.3	24	< 0.3	< 1	6	15	28	0.12	3.43	3.9	350	< 1	< 2	5.7	13.7	6	134	< 1	0.6	1.71	3	< 1	< 5
8180 (14)	< 2	0.5	43	< 0.3	< 1	7	19	26	0.14	3.91	4.0	230	< 1	< 2	3.6	11.2	9	610	< 1	0.9	2.96	10	< 1	< 5
8220 (10-14)	< 2	< 0.3	22	< 0.3	< 1	4	13	25	0.12	3.75	3.2	430	< 1	< 2	5.5	13.7	6	167	< 1	0.7	1.70	3	< 1	< 5
8230 (12-15)	< 2	< 0.3	9	< 0.3	< 1	5	10	17	0.07	4.02	1.2	480	< 1	< 2	3.0	9.10	5	73	< 1	0.9	1.40	5	< 1	< 5
8240 (4-6)	3	< 0.3	9	< 0.3	< 1	4	12	22	0.06	4.26	1.6	440	< 1	< 2	3.4	8.43	5	93	< 1	0.9	1.77	9	< 1	< 5
8240 (7-8)	< 2	< 0.3	8	< 0.3	< 1	7	9	13	0.11	4.06	2.1	400	< 1	< 2	2.6	7.92	4	54	< 1	0.7	1.03	4	< 1	< 5
8240 (9)	< 2	< 0.3	8	< 0.3	< 1	7	10	17	0.18	4.02	3.1	470	1	< 2	2.7	8.78	4	110	< 1	0.8	1.76	7	< 1	< 5
8250 (7-8)	3	< 0.3	11	< 0.3	< 1	7	8	15	0.13	3.77	2.2	500	< 1	< 2	4.4	8.63	5	70	< 1	0.8	1.23	7	< 1	< 5

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Analyte Symbol	K	Li	Mg	Mn	Na	P	Rb	Sb	Sc	Se	Sr	Ta	Ti	Th	U	V	W	Y	La	Ce	Nd	Sm	Sn	Tb
Unit Symbol	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
Detection Limit	0.01	1	0.01	1	0.01	0.001	15	0.1	0.1	3	1	0.5	0.01	0.2	0.5	2	1	1	0.5	3	5	0.1	0.01	0.5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
7470 (2-7)	1.55	8	2.16	270	1.25	0.041	60	0.9	4.1	< 3	237	1.5	0.13	4.1	< 0.5	22	< 1	9	15.4	34	14	2.5	< 0.01	< 0.5
7591 (4-7)	0.82	5	7.84	476	0.98	0.030	< 15	0.5	4.1	< 3	160	< 0.5	0.16	2.4	< 0.5	38	< 1	6	9.8	21	5	1.6	< 0.01	< 0.5
7570 (7-8b)	1.40	8	1.37	362	1.19	0.040	< 15	0.1	4.5	< 3	240	< 0.5	0.26	6.5	1.4	50	< 1	9	19.6	47	10	2.6	< 0.01	< 0.5
7615 (5-8)	1.60	8	1.70	260	1.34	0.041	46	0.1	3.6	< 3	254	< 0.5	0.20	2.8	< 0.5	35	< 1	8	13.6	31	7	2.1	< 0.01	< 0.5
7640 (3-5)	1.61	8	1.97	270	1.28	0.040	51	< 0.1	4.1	< 3	242	1.3	0.17	3.5	< 0.5	30	< 1	8	15.2	40	12	2.5	< 0.01	< 0.5
7647 (5-7)	1.58	7	1.98	258	1.39	0.041	46	0.1	4.0	< 3	240	1.5	0.16	3.7	2.1	26	< 1	8	15.1	39	13	2.2	< 0.01	< 0.5
7660 (6-7)	1.49	7	1.39	292	1.35	0.039	< 15	0.2	4.2	< 3	252	< 0.5	0.15	4.1	1.3	28	< 1	9	16.5	37	10	2.5	< 0.01	< 0.5
7665 (4-9)	1.51	8	1.35	285	1.34	0.039	35	0.6	4.1	< 3	251	< 0.5	0.20	3.7	< 0.5	38	< 1	9	15.4	37	11	2.4	< 0.01	< 0.5
7681 (2b-6)	1.43	7	1.58	290	1.35	0.049	< 15	1.0	4.4	< 3	246	1.5	0.20	4.6	0.9	34	< 1	10	17.5	44	11	2.7	< 0.01	< 0.5
7700 (3-6)	1.47	7	1.99	272	1.34	0.041	64	0.7	4.3	< 3	230	< 0.5	0.21	4.2	< 0.5	32	< 1	9	16.8	40	12	2.7	< 0.01	< 0.5
7715 (6-7)	1.37	8	1.89	286	1.20	0.041	< 15	1.6	4.2	< 3	227	< 0.5	0.18	5.8	< 0.5	29	4	9	17.3	48	15	2.7	< 0.01	< 0.5
7790 (6-7)	1.51	8	2.11	289	1.27	0.048	< 15	0.2	4.5	< 3	211	< 0.5	0.19	4.0	2.0	31	< 1	9	16.4	43	8	2.6	< 0.01	< 0.5
7800 (9)	1.40	8	1.58	295	1.25	0.043	30	< 0.1	4.4	< 3	236	< 0.5	0.25	4.7	1.3	43	< 1	10	16.7	35	11	2.4	< 0.01	< 0.5
7810 (4-7)	1.62	12	2.10	411	1.29	0.051	< 15	< 0.1	5.9	< 3	226	< 0.5	0.26	6.3	< 0.5	51	< 1	10	22.0	53	13	3.4	< 0.01	< 0.5
7910 (4-6)	1.35	7	1.52	312	1.28	0.046	54	0.1	4.6	< 3	244	< 0.5	0.21	4.7	1.7	35	< 1	11	17.7	39	12	2.7	< 0.01	< 0.5
7920 (5b)	1.42	7	1.69	282	1.30	0.043	34	0.1	4.1	< 3	249	< 0.5	0.19	4.1	1.0	32	1	9	15.9	38	10	2.4	< 0.01	< 0.5
7981	1.45	7	1.16	285	1.30	0.039	43	< 0.1	4.3	< 3	237	< 0.5	0.18	5.7	1.1	35	< 1	10	19.5	41	11	2.7	< 0.01	< 0.5
7951 (3-5)	1.83	17	2.30	439	1.12	0.048	56	0.2	5.5	< 3	232	< 0.5	0.25	5.7	1.5	50	< 1	10	20.3	48	16	2.8	< 0.01	< 0.5
7961 (2-7)	1.41	6	1.96	293	1.23	0.041	30	0.2	3.7	< 3	238	< 0.5	0.21	4.1	< 0.5	33	< 1	8	15.3	35	9	2.2	< 0.01	< 0.5
7971 (core)	1.40	8	1.09	267	1.34	0.034	< 15	0.2	4.8	< 3	243	< 0.5	0.18	5.9	< 0.5	34	2	8	20.9	48	15	3.0	< 0.01	< 0.5
7971 (3-4)	1.20	6	2.24	317	1.18	0.040	39	0.3	3.6	< 3	217	0.9	0.21	3.3	0.7	32	4	8	13.0	26	10	2.3	< 0.01	< 0.5
7981 (3-6)	1.34	8	1.76	293	1.11	0.038	60	0.1	4.0	< 3	225	< 0.5	0.18	4.0	< 0.5	32	3	8	15.1	32	12	2.2	< 0.01	< 0.5
7991 (4)	1.27	6	1.25	348	1.31	0.046	65	< 0.1	4.5	< 3	226	< 0.5	0.27	7.7	< 0.5	45	2	9	23.1	56	16	3.0	< 0.01	< 0.5
7991 (6)	1.30	7	1.19	502	1.21	0.038	35	< 0.1	4.2	< 3	224	< 0.5	0.24	6.2	1.5	40	< 1	9	18.9	45	12	2.5	< 0.01	< 0.5
8001 (3-6)	1.60	9	2.09	299	1.28	0.042	30	< 0.1	4.2	< 3	234	< 0.5	0.15	3.6	< 0.5	27	< 1	9	15.5	39	13	2.6	< 0.01	< 0.5
8011 (4-6)	1.45	8	2.11	263	1.18	0.037	59	0.1	4.0	< 3	221	< 0.5	0.15	4.1	1.7	24	< 1	8	15.9	40	11	2.5	< 0.01	< 0.5
8021 (4b)	1.30	6	1.31	238	1.36	0.037	32	0.1	4.2	< 3	237	< 0.5	0.17	4.8	1.5	31	< 1	9	16.7	39	10	2.6	< 0.01	< 0.5
8021 (5-6)	1.39	8	1.72	261	1.32	0.041	36	0.2	4.4	< 3	233	< 0.5	0.19	5.1	< 0.5	32	3	8	18.2	43	10	2.8	< 0.01	0.5
8031 (4-5)	1.57	10	2.77	320	1.02	0.039	33	< 0.1	4.0	< 3	209	< 0.5	0.18	4.3	< 0.5	34	< 1	8	15.7	37	10	2.2	< 0.01	< 0.5
8041 (4a-4b)	1.32	7	1.58	253	1.28	0.041	< 15	< 0.1	4.3	< 3	227	< 0.5	0.18	5.0	1.4	31	< 1	9	17.9	43	10	2.8	< 0.01	< 0.5
8041 (5-6)	1.38	7	1.38	239	1.31	0.036	37	< 0.1	4.1	< 3	240	1.1	0.14	4.2	1.0	26	< 1	8	15.8	37	6	2.4	< 0.01	< 0.5
8050 (2-3)	1.33	7	1.38	288	1.39	0.037	< 15	0.3	4.5	3	233	< 0.5	0.20	4.7	1.7	34	< 1	8	17.5	43	11	2.7	< 0.01	< 0.5
8050 (4-5)	1.44	8	1.50	275	1.27	0.037	29	< 0.1	4.3	< 3	231	< 0.5	0.20	4.5	1.5	38	< 1	9	16.4	36	10	2.5	< 0.01	< 0.5
8060 (2-5)	1.45	8	1.89	274	1.37	0.037	40	< 0.1	4.3	< 3	227	< 0.5	0.13	4.6	< 0.5	21	< 1	8	17.2	45	13	2.7	< 0.01	< 0.5
8070 (4-7)	1.64	8	1.90	262	1.43	0.047	33	0.2	4.8	< 3	243	< 0.5	0.21	3.6	< 0.5	34	< 1	9	16.9	44	< 5	2.9	< 0.01	< 0.5
8100 (8)	1.40	7	1.93	294	1.39	0.042	35	0.3	4.5	< 3	234	< 0.5	0.18	4.9	1.4	31	< 1	9	18.3	42	12	2.7	< 0.01	< 0.5
8190 (9-13)	1.48	10	1.96	418	1.00	0.063	27	0.7	5.5	< 3	213	5.0	0.35	5.8	1.2	70	< 1	12	19.6	41	16	3.1	< 0.01	< 0.5
8120 (4-5)	1.38	7	1.22	247	1.34	0.037	48	< 0.1	4.2	< 3	243	< 0.5	0.18	3.9	1.8	33	2	8	15.8	36	6	2.2	< 0.01	< 0.5
8120 (9)	1.47	8	1.81	248	1.35	0.037	< 15	0.2	4.1	< 3	237	< 0.5	0.17	3.7	1.7	30	< 1	8	15.5	37	6	2.2	< 0.01	< 0.5
8130 (13)	1.18	9	1.60	353	1.35	0.034	31	< 0.1	5.5	< 3	225	< 0.5	0.22	7.2	< 0.5	45	2	11	22.1	54	12	3.2	< 0.01	< 0.5
8160 (13-14)	1.25	8	1.39	296	1.36	0.039	40	0.1	4.6	< 3	223	< 0.5	0.20	5.3	2.2	37	< 1	8	17.4	43	12	2.5	< 0.01	< 0.5
8170 (9-12)	1.92	15	2.98	336	0.75	0.039	34	0.3	4.5	< 3	184	< 0.5	0.17	4.2	1.5	35	2	7	14.8	36	12	2.0	< 0.01	< 0.5
8180 (14)	1.42	14	2.10	591	1.09	0.070	35	0.4	6.1	< 3	225	1.4	0.29	5.9	1.0	63	< 1	10	20.7	43	16	3.6	< 0.01	< 0.5
8220 (10-14)	2.32	18	2.88	298	0.80	0.043	55	0.2	4.8	4	190	< 0.5	0.17	4.2	1.1	34	< 1	7	16.0	41	14	2.2	< 0.01	< 0.5
8230 (12-15)	1.52	9	1.74	256	1.27	0.044	26	< 0.1	4.6	< 3	220	< 0.5	0.18	3.2	1.2	30	< 1	8	15.1	37	7	2.5	< 0.01	0.5
8240 (4-6)	1.58	11	1.45	269	1.27	0.041	34	0.2	5.1	< 3	237	< 0.5	0.17	4.5	< 0.5	33	< 1	8	18.2	45	12	3.0	< 0.01	< 0.5
8240 (7-8)	1.51	7	1.25	225	1.17	0.032	37	0.1	3.3	< 3	233	< 0.5	0.15	2.9	1.4	26	< 1	7	11.8	26	8	1.8	< 0.01	< 0.5
8240 (9)	1.37	7	1.31	303	1.31	0.043	29	< 0.1	4.7	< 3	241	< 0.5	0.23	4.8	2.3	41	4	9	17.4	42	9	2.5	< 0.01	< 0.5
8250 (7-8)	1.59	8	2.10	258	1.20	0.040	46	< 0.1	4.0	< 3	212	< 0.5	0.18	4.4	< 0.5	28	< 1	8	15.3	34	10	2.5	< 0.01	< 0.5

Analyte Symbol	Yb	Lu	Mass
Unit Symbol	ppm	ppm	g
Detection Limit	0.2	0.05	
Analysis Method	INAA	INAA	INAA
7470 (2-7)	1.3	< 0.05	30.7
7591 (4-7)	0.6	< 0.05	32.5
7570 (7-8b)	1.1	< 0.05	34.2
7615 (5-8)	0.9	< 0.05	35.6
7640 (3-5)	1.1	< 0.05	32.2
7647 (5-7)	1.2	< 0.05	29.6
7660 (6-7)	1.0	< 0.05	32.2
7665 (4-9)	1.1	< 0.05	33.3
7681 (2b-6)	1.2	< 0.05	35.1
7700 (3-6)	1.2	< 0.05	29.4
7715 (6-7)	1.4	< 0.05	28.6
7790 (6-7)	1.1	< 0.05	30.0
7800 (9)	0.9	< 0.05	36.3
7810 (4-7)	1.3	< 0.05	27.1
7910 (4-6)	1.1	< 0.05	32.2
7920 (5b)	1.0	< 0.05	32.0
7981	1.2	< 0.05	31.2
7951 (3-5)	1.2	< 0.05	28.9
7961 (2-7)	1.0	< 0.05	31.4
7971 (core)	1.1	< 0.05	28.0
7971 (3-4)	0.7	0.13	2.01
7981 (3-6)	1.0	< 0.05	33.7
7991 (4)	1.1	< 0.05	31.6
7991 (6)	1.0	< 0.05	32.2
8001 (3-6)	1.4	< 0.05	35.4
8011 (4-6)	1.2	< 0.05	31.9
8021 (4b)	1.2	< 0.05	30.9
8021 (5-6)	1.3	< 0.05	30.2
8031 (4-5)	1.1	< 0.05	29.1
8041 (4a-4b)	1.4	< 0.05	29.0
8041 (5-6)	1.1	< 0.05	35.5
8050 (2-3)	1.2	< 0.05	25.4
8050 (4-5)	1.1	< 0.05	32.8
8060 (2-5)	1.3	< 0.05	28.5
8070 (4-7)	1.1	< 0.05	28.8
8100 (8)	1.2	< 0.05	29.6
8190 (9-13)	1.1	0.18	2.16
8120 (4-5)	1.0	< 0.05	33.3
8120 (9)	1.1	< 0.05	32.3
8130 (13)	1.6	< 0.05	22.8
8160 (13-14)	1.3	< 0.05	26.5
8170 (9-12)	1.2	< 0.05	31.9
8180 (14)	1.5	0.23	2.05
8220 (10-14)	1.0	< 0.05	24.2
8230 (12-15)	1.2	< 0.05	32.8
8240 (4-6)	1.3	< 0.05	32.5
8240 (7-8)	0.8	0.11	31.0
8240 (9)	1.2	< 0.05	30.0
8250 (7-8)	1.3	< 0.05	32.1

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Quality Control																								
Analyte Symbol	Au	Ag	Ag	Cu	Cd	Mo	Pb	Ni	Ni	Zn	Zn	S	Al	Be	Bi	Br	Ca	Cs	Eu	Hf	Hg	Ir	K	Li
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppb	%	ppm
Detection Limit	2	0.3	5	1	0.3	1	3	1	20	1	50	0.01	0.01	1	2	0.5	0.01	1	0.2	1	1	5	0.01	1
Analysis Method	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	TD-ICP	TD-ICP
GXR-1 Meas		30.6		1140	3.1	15	731	40		739		0.24	2.22	1	1310		0.82						0.04	7
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52	1.22	1380		0.960						0.050	8.20
GXR-1 Meas		32.3		1180	3.3	17	787	43		809		0.26	2.14	1	1380		0.89						0.04	7
GXR-1 Cert		31.0		1110	3.30	18.0	730	41.0		760		0.257	3.52	1.22	1380		0.960						0.050	8.20
GXR-4 Meas		3.0		6160	0.5	297	38	35		61		1.62	6.02	2	13		0.89						2.98	9
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20	1.90	19.0		1.01						4.01	11.1
GXR-4 Meas		3.2		6450	< 0.3	311	40	37		71		1.75	6.84	2	16		0.97						3.75	12
GXR-4 Cert		4.00		6520	0.860	310	52.0	42.0		73.0		1.77	7.20	1.90	19.0		1.01						4.01	11.1
SDC-1 Meas		< 0.3		29	0.4	< 1	16	31		91		0.07	7.66	3	< 2		0.94						2.39	33
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34	3.00	2.60		1.00						2.72	34.00
SDC-1 Meas		< 0.3		28	< 0.3	< 1	20	34		100		0.07	8.21	3	< 2		1.06						2.78	37
SDC-1 Cert		0.0410		30.00	0.0800	0.250	25.00	38.0		103.00		0.0650	8.34	3.00	2.60		1.00						2.72	34.00
SCO-1 Meas		< 0.3		28	0.5	< 1	24	25		86		0.07	6.63	2	< 2		1.67						2.53	41
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24	1.80	0.37		1.87						2.30	45
SCO-1 Meas		< 0.3		28	0.3	< 1	25	27		96		0.08	7.00	2	< 2		1.93						2.21	43
SCO-1 Cert		0.134		29	0.140	1.4	31.0	27		100		0.0630	7.24	1.80	0.37		1.87						2.30	45
GXR-6 Meas		< 0.3		66	0.5	< 1	90	26		124		0.01	12.8	1	< 2		0.15						1.77	32
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7	1.40	0.290		0.180						1.87	32.0
GXR-6 Meas		0.4		70	< 0.3	3	84	25		117		< 0.01	6.96	1	< 2		0.11						1.56	32
GXR-6 Cert		1.30		66.0	1.00	2.40	101	27.0		118		0.0160	17.7	1.40	0.290		0.180						1.87	32.0
DNC-1a Meas				93				223		52														4
DNC-1a Cert				100.0				247		70.0														5.20
DNC-1a Meas				101				249		61														5
DNC-1a Cert				100.0				247		70.0														5.20
DMMAS 113 Meas	1770																							
DMMAS 113 Cert	1665																							
DMMAS 113 Meas	1630																							
DMMAS 113 Cert	1665																							
7790 (6-7) Orig		< 0.3		8	< 0.3	< 1	7	9		18		0.08	3.94	< 1	< 2		9.79						1.53	8
7790 (6-7) Dup		< 0.3		7	< 0.3	< 1	5	9		17		0.08	3.75	< 1	< 2		9.44						1.49	8
8011 (4-6) Orig		< 0.3		8	< 0.3	< 1	7	9		18		0.09	3.89	< 1	< 2		10.3						1.47	8
8011 (4-6) Dup		< 0.3		8	< 0.3	< 1	6	9		17		0.08	3.91	< 1	< 2		10.1						1.43	8
8240 (7-8) Orig		< 0.3		9	< 0.3	< 1	7	10		14		0.11	4.03	< 1	< 2		8.04						1.53	7
8240 (7-8) Dup		< 0.3		7	< 0.3	< 1	7	9		12		0.10	4.09	< 1	< 2		7.80						1.49	7
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01	< 1	< 2		< 0.01						< 0.01	< 1
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01	< 1	< 2		< 0.01						< 0.01	< 1
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01	< 1	< 2		< 0.01						< 0.01	< 1
Method Blank		< 0.3		2	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01	< 1	< 2		< 0.01						< 0.01	< 1
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01	< 1	< 2		< 0.01						< 0.01	< 1
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01	< 1	< 2		< 0.01						< 0.01	< 1
Method Blank		< 0.3		< 1	< 0.3	< 1	< 3	< 1		< 1		< 0.01	< 0.01	< 1	< 2		< 0.01						< 0.01	< 1
Method Blank	< 2		< 5						< 20		< 50					< 0.5		< 1	< 0.2	< 1	< 1	< 5		

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Quality Control																								
Analyte Symbol	Mg	Mn	P	Rb	Sb	Se	Sr	Ta	Ti	Th	V	W	Y	Nd	Sn	Tb	Yb	Lu	Mass	As	Ba	Co	Cr	Fe
Unit Symbol	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	g	ppm	ppm	ppm	ppm	%
Detection Limit	0.01	1	0.001	15	0.1	3	1	0.5	0.01	0.2	2	1	1	5	0.01	0.5	0.2	0.05		0.5	50	1	2	0.01
Analysis Method	TD-ICP	TD-ICP	TD-ICP	INAA	INAA	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
GXR-1 Meas	0.21	903	0.061				289				88		28											
GXR-1 Cert	0.217	852	0.0650				275				80.0		32.0											
GXR-1 Meas	0.22	969	0.066				298				94		29											
GXR-1 Cert	0.217	852	0.0650				275				80.0		32.0											
GXR-4 Meas	1.58	141	0.125				197				83		13											
GXR-4 Cert	1.66	155	0.120				221				87.0		14.0											
GXR-4 Meas	1.65	154	0.134				213				87		13											
GXR-4 Cert	1.66	155	0.120				221				87.0		14.0											
SDC-1 Meas	0.96	813	0.053				169		0.32		60		31											
SDC-1 Cert	1.02	880.00	0.0690				180.00		0.606		102.00		40.0											
SDC-1 Meas	1.06	935	0.061				181		0.34		66		35											
SDC-1 Cert	1.02	880.00	0.0690				180.00		0.606		102.00		40.0											
SCO-1 Meas	1.50	358	0.077				158		0.34		126		19											
SCO-1 Cert	1.64	410	0.0900				170		0.380		130		26											
SCO-1 Meas	1.65	385	0.090				166		0.33		128		20											
SCO-1 Cert	1.64	410	0.0900				170		0.380		130		26											
GXR-6 Meas	0.59	1020	0.033				38				92		14											
GXR-6 Cert	0.609	1010	0.0350				35.0				186		14.0											
GXR-6 Meas	0.33	1030	0.023				26				209		3											
GXR-6 Cert	0.609	1010	0.0350				35.0				186		14.0											
DNC-1a Meas							129				133		15											
DNC-1a Cert							144.0				148.0		18.0											
DNC-1a Meas							143				151		16											
DNC-1a Cert							144.0				148.0		18.0											
DMMAS 113 Meas																				1640	1500	37	86	3.05
DMMAS 113 Cert																				1468	1519	36	75	2.86
DMMAS 113 Meas																				1450	1400	36	79	3.06
DMMAS 113 Cert																				1468	1519	36	75	2.86
7790 (6-7) Orig	2.16	283	0.049				215		0.17		29		9											
7790 (6-7) Dup	2.06	296	0.048				208		0.22		33		9											
8011 (4-6) Orig	2.14	273	0.040				225		0.19		30		9											
8011 (4-6) Dup	2.07	252	0.033				217		0.11		18		8											
8240 (7-8) Orig	1.29	234	0.033				235		0.15		26		7											
8240 (7-8) Dup	1.22	215	0.032				231		0.15		26		8											
Method Blank	< 0.01		< 0.001				< 1		< 0.01		< 2		< 1											
Method Blank	< 0.01		< 0.001				< 1		< 0.01		< 2		< 1											
Method Blank	< 0.01		< 0.001				< 1		< 0.01		< 2		< 1											
Method Blank	< 0.01		< 0.001				< 1		< 0.01		< 2		< 1											
Method Blank	< 0.01		< 0.001				< 1		< 0.01		< 2		< 1											
Method Blank	< 0.01		< 0.001				< 1		< 0.01		< 2		< 1											
Method Blank	< 0.01		< 0.001				< 1		< 0.01		< 2		< 1											
Method Blank				< 15	< 0.1	< 3		< 0.5		< 0.2		< 1		< 5	< 0.01	< 0.5	< 0.2	< 0.05	30.0	< 0.5	< 50	< 1	< 2	< 0.01

Quality Control						
Analyte Symbol	Na	Sc	U	La	Ce	Sm
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.1	0.5	0.5	3	0.1
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA

GXR-1 Meas						
GXR-1 Cert						
GXR-1 Meas						
GXR-1 Cert						
GXR-4 Meas						
GXR-4 Cert						
GXR-4 Meas						
GXR-4 Cert						
SDC-1 Meas						
SDC-1 Cert						
SDC-1 Meas						
SDC-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
SCO-1 Meas						
SCO-1 Cert						
GXR-6 Meas						
GXR-6 Cert						
GXR-6 Meas						
GXR-6 Cert						
DNC-1a Meas						
DNC-1a Cert						
DNC-1a Meas						
DNC-1a Cert						
DMMAS 113 Meas	1.83	6.4	18.8	14.9	24	2.1
DMMAS 113 Cert	1.82	5.8	15.6	14.5	24	2.2
DMMAS 113 Meas	1.90	6.2	19.0	14.4	27	2.5
DMMAS 113 Cert	1.82	5.8	15.6	14.5	24	2.2
7790 (6-7) Orig						
7790 (6-7) Dup						
8011 (4-6) Orig						
8011 (4-6) Dup						
8240 (7-8) Orig						
8240 (7-8) Dup						
Method Blank						
Method Blank						
Method Blank						
Method Blank						
Method Blank						
Method Blank						
Method Blank	< 0.01	< 0.1	< 0.5	< 0.5	< 3	< 0.1