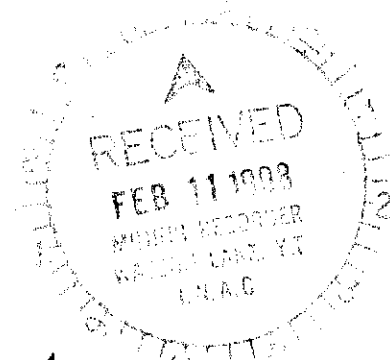


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Geochemical Assessment Report

on the

**ORB 1-4 (YB56495-498)
ORB 5-24 (YB60260-279)
CLAIMS**

**NTS 105-F-7/10
61° 31' N 132° 50' W
Watson Lake M.D.
Yukon Territory**

for

**SRR Mercantile Inc.
Suite 400 - 1200 W. Pender St.
Vancouver, B.C.
V6E 2S9**

by

**Glen C. Macdonald, P.Geol.
Qualicum Beach, B.C.
December 1997**

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 400.00.

M. B. ...
for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

028638

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INTRODUCTION

The Stormy Mountain molybdenum-tungsten deposit was discovered as a result of routine prospecting during the 1955 field season. Canol Metal Mines Ltd. acquired the property in 1956 and conducted additional exploration consisting of detailed prospecting and hand trenching. Encouraged by molybdenum assays varying from 4% to 9% MoS² in the trenching program, access to the area was improved and extensive localized dozer trenching completed. During the 1959 season the access road was improved and an adit was collared below the showing and 1,500 feet of lateral work completed. On completion, 3,460 feet of underground diamond drilling tested the granite-limestone contact in a total of 30 holes. Drilling verified the presence of a somewhat discontinuous, fault controlled mineralized skarn zone along the contact containing molybdenite, scheelite and/or powellite and carrying approximately 2% pyrite and pyrrhotite. The zone is slightly radioactive.

As a result of this program, drill indicated reserves are calculated to be 15,000 tons of 0.73% Mo and 17,000 tons of 1.06% WO³. Mineralization occurs in a relatively flat lying zone along the contact, varying from 7 to slightly over 8 feet thick. Molybdenum reserves occur in the lower portion of the skarn zone and extend into the friable diorite below the skarn. Tungsten values are primarily confined to the skarn zone. The small core size (BQ) drilled resulted in poor core recovery and is undoubtedly responsible for the large discrepancies between molybdenum assays in surface sampling and molybdenum assays from drill core sections.

During 1995 - 1996 Sunstate Resources Ltd. conducted programs of prospecting, road construction, bulldozer trenching, soil sampling and geological mapping at Stormy Mountain. This exploration traced the favourable host horizon containing the original deposit for over 2,000 feet to the north, and located two areas highly anomalous in copper-molybdenum and tungsten content. A new showing of molybdenite mineralization in altered granite was located. An assay from this zone returned a value of 1.10% Mo.

LOCATION AND ACCESS

The Stormy Mountain molybdenum prospect is located in the Yukon Territory on NTS Mapsheet 105-F-7/10 at geographical coordinates 61° 31' North Latitude and 132° 50' West Longitude. Best vehicular access is from Whitehorse, Yukon via the Alaska Highway south to Johnson's Crossing, a distance of some 75 miles, thence northerly on the South Canol Highway for 92 miles to the Upper Sheep Creek access trail. The central portion of the property, including the old campsite and portal, is located approximately 12 miles easterly along this trail. Although the Alaska Highway is paved or chip sealed to Johnson's Crossing, and the South Canol Highway is an all-weather gravel highway, the Upper Sheep Creek access trail will require some dozer upgrading and was accessible by all-wheel drive vehicles only in 1995-1996. Access to northern parts of the property is currently by helicopter.

TOPOGRAPHY AND VEGETATION

The topography of the area is rugged with precipitous talus slopes. The mineralization area occurs well above timberline at the 6,400 foot A.S.L. elevation and is masked by thick talus and/or overburden. Vegetation consists primarily of alpine grasses with isolated patches of arctic birch. Bedrock exposures are sparse and occur primarily on steep, almost vertical slopes and along small defined drainage patterns.

PROPERTY DETAILS

The property consists of claims located as required by the Yukon Quartz Mining Act. Each claim covers an area approximately 1,500 x 1,500 feet. The property status as recorded is as follows:

Claim Name	Record No.	Expiry Date
ORB 1 - 4	YB56495 - YB56498	October 24, 1998*
ORB 5 - 24	YB60260 - YB60279	August 9, 1998*

* Pending

The claims are owned by Sunstate Resources Ltd. of Vancouver, B.C. and optioned to SRR Mercantile Inc. Claim locations are shown on Figure 2 - Stormy Mountain Claims.

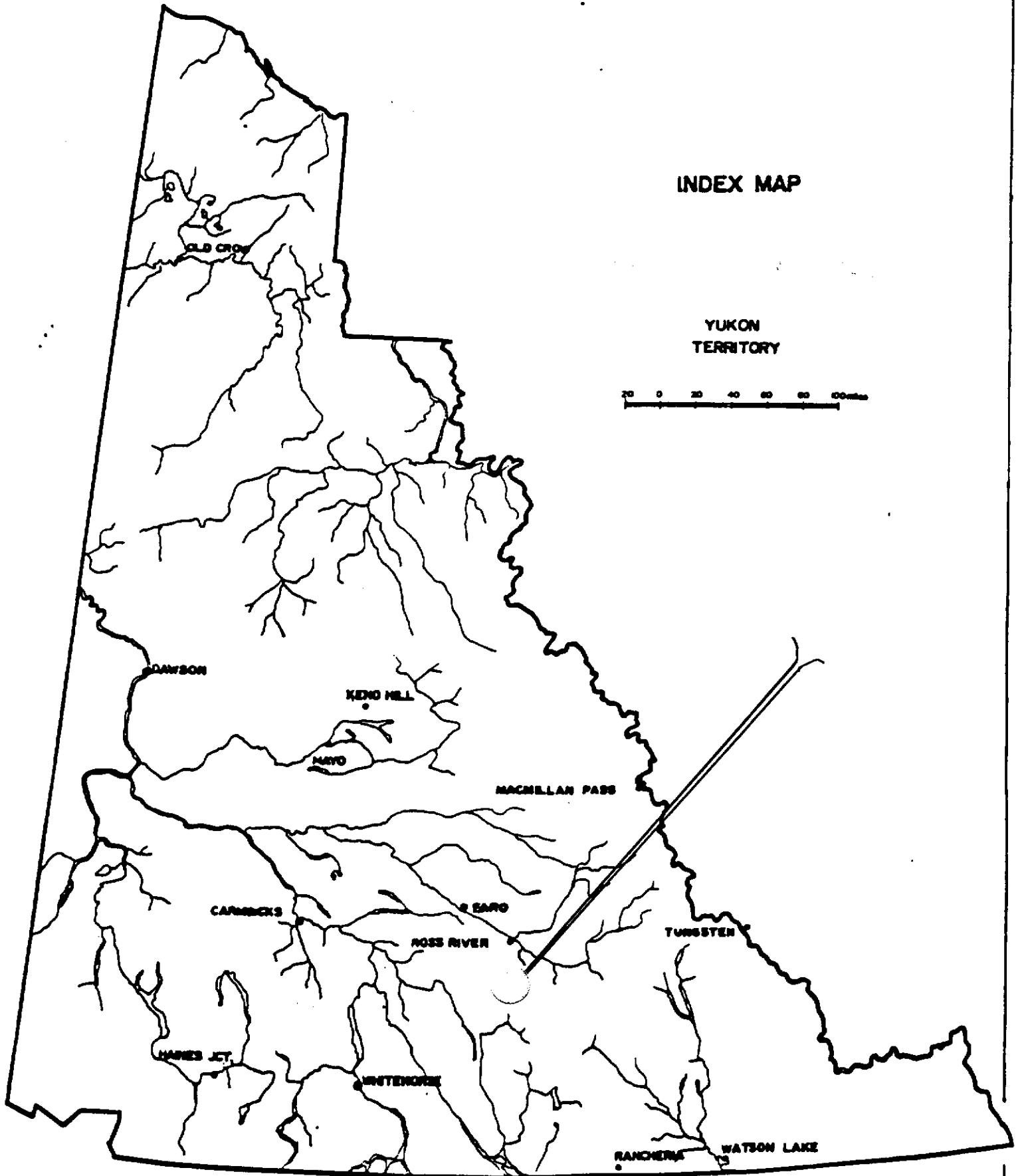
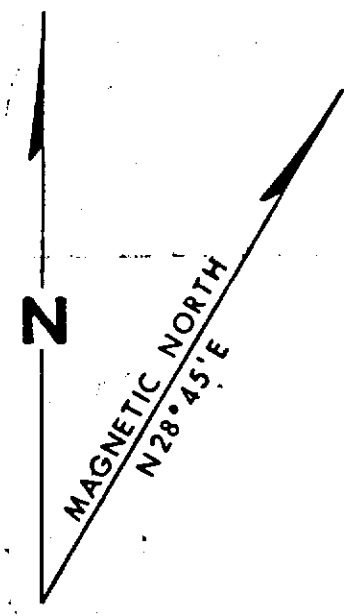
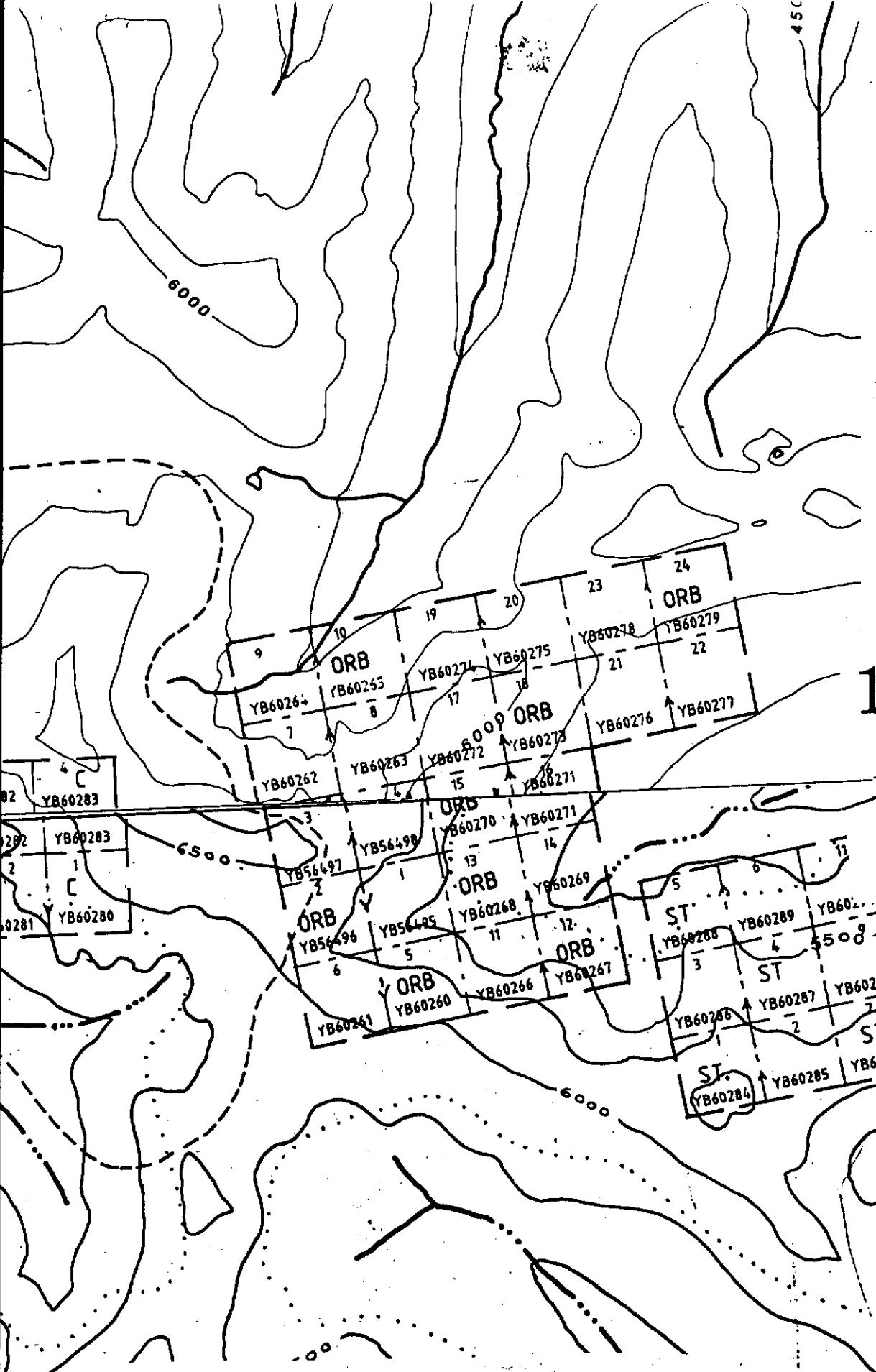


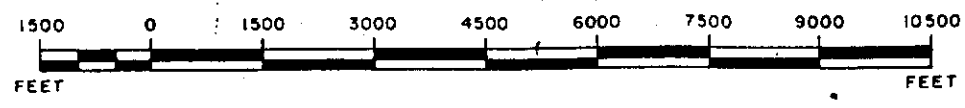
FIGURE 1.



105F-10

105-F-7

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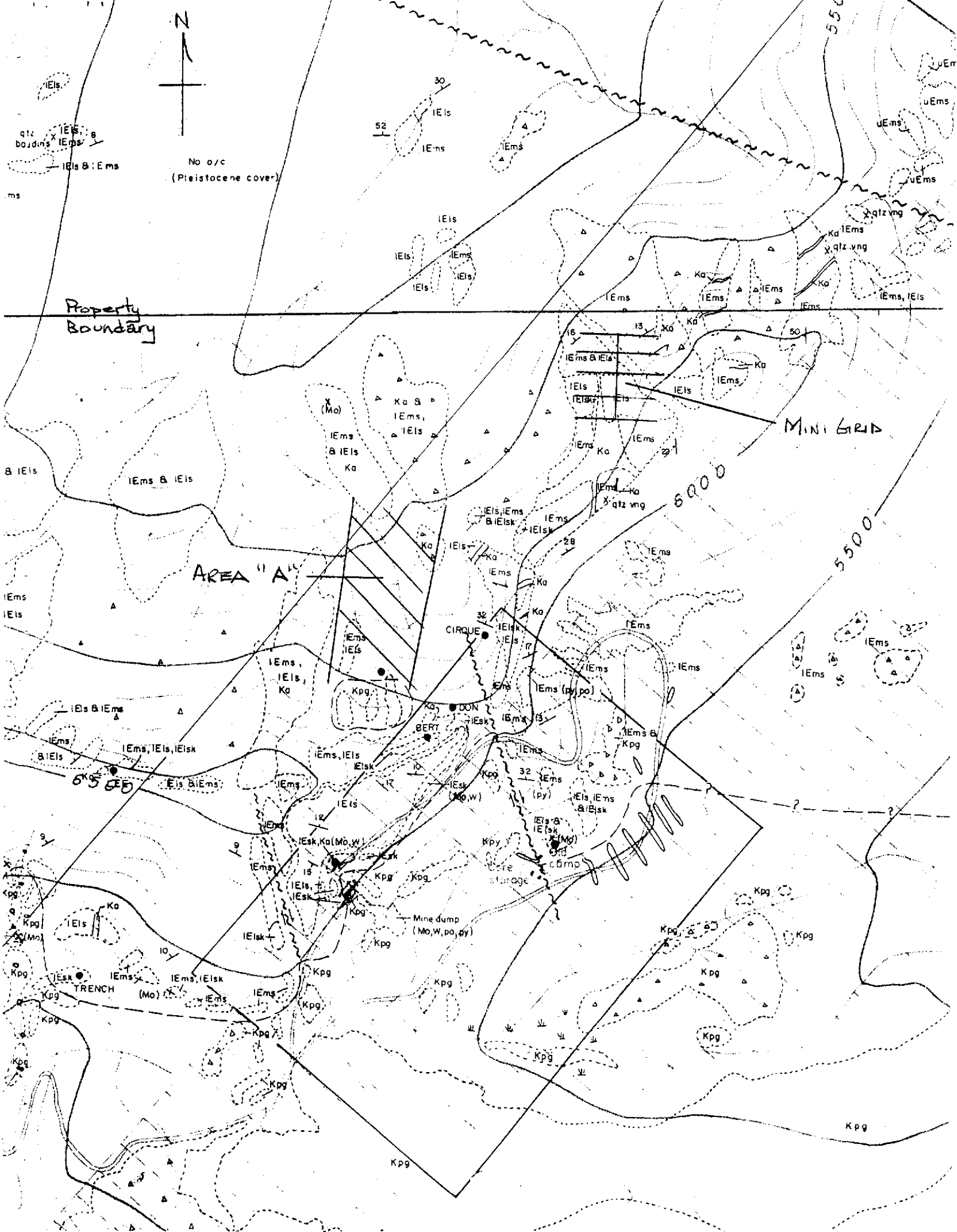


SUMMARY OF GEOLOGY

The deposit is hosted by a contact metamorphic skarn zone developed along the north contact between the Rose Lake batholith and limestones of Cambrian age. Trenching and diamond drilling indicate that the contact zone is irregular both along strike and dip and has been displaced by numerous steep angle faults.

Intense alteration is evident, with skarn and hornfels developed along the granite-limestone contact. The granite rocks are soft and sericitized. Secondary silicate mineralization is widespread in breccia zones and veining.

The mineralized portions of the skarn contain molybdenite, scheelite and/or powellite, pyrite and pyrrhotite. Pyrite and pyrrhotite generally represent approximately 2 percent of the matrix. The higher grade molybdenum sections are usually found in altered dioritic rocks adjoining the skarn zone while the higher grade tungsten values occur within the skarn. Surface trenching along the dioritic-limestone contact exposed a skarn zone approximately 350 feet in length with a 6 to 10 foot thickness. Assays from this horizon returned values varying from 4 percent to 9 percent MoS_2 . Molybdenite values in this section will undoubtedly average better than 4 percent. The zone is slightly radioactive. A plot of property geology is included as Figure 3 of this report. Units are summarized in Table 1.



- Outcrop
- Frost, heave, talus pile
- Boulder field
- Bedding attitude
- Foliation, schistosity
- Mineral occurrence
- Fault
- Caterpillar trench
- Mineralized showing
- Marshy, springy area

- Po Pyrrhotite
- cpy Chalcopyrite
- py Pyrite
- ctc Calcite
- qtz vng Quartz veining
- Molybdenum
- W Tungsten

GEOLOGY

STORMY MOUNTAIN PROJECT

WATSON LAKE MINING DISTRICT, YUKON TERRITORY
NTS 105 F7 & 105 F10

0 400 800 metres

SCALE 1:10,000

DRAWN BY _____

TABLE 1

TABLE OF FORMATIONS
(to accompany Figure 3)

K	Cretaceous	a	Resistant, light grey sugary textured aplite
		pg	Light grey to pink quartz-feldspar-biotite granite
		d	Dark grey-green diorite
uEms	Upper Cambrian		Recessive weathering meta-sediments; chlorite-muscovite schist and calcareous schist
LE	Lower Cambrian	ms	Metasediments
		ls	White-grey recrystallized limestone
		sk	Massive, fine-medium grained garnet-diopside-calcite skarn (equivalent of Lels)
		lsk	Layered, light red-green diopside-quartz-garnet-tremolite skarn (equivalent of Lels)
uP	Upper Proterozoic	ms	Metasidements, including grey weathering calcareous schist, slate and quartzite.
		sk	Massive, banded diopside-garnet skarn (equivalent of uPms)

HISTORY OF EXPLORATION

The Stormy Mountain molybdenum prospect was discovered during the 1955 exploration season. In 1958, the property was acquired by Canol Metal Mines Ltd. and subjected to an extensive trenching, geologic mapping and sampling program in the immediate discovery area. Encouraged by high grade molybdenum values varying from 4 to 9 percent MoS² in the trench samples, access to the area was upgraded and an "Atco type" camp established on a bench below the discovery zone. During the 1959 season, an adit was collared and 1,050 feet of lateral development completed to test the zone at depth. Thirty short diamond drill up holes, designed to test the skarn zone along the limestone-granite contact, were completed by seasons end for a total drilled footage of 3,460 feet (see Figure 2, 3 & 4). The property remained in good standing until May 1966.

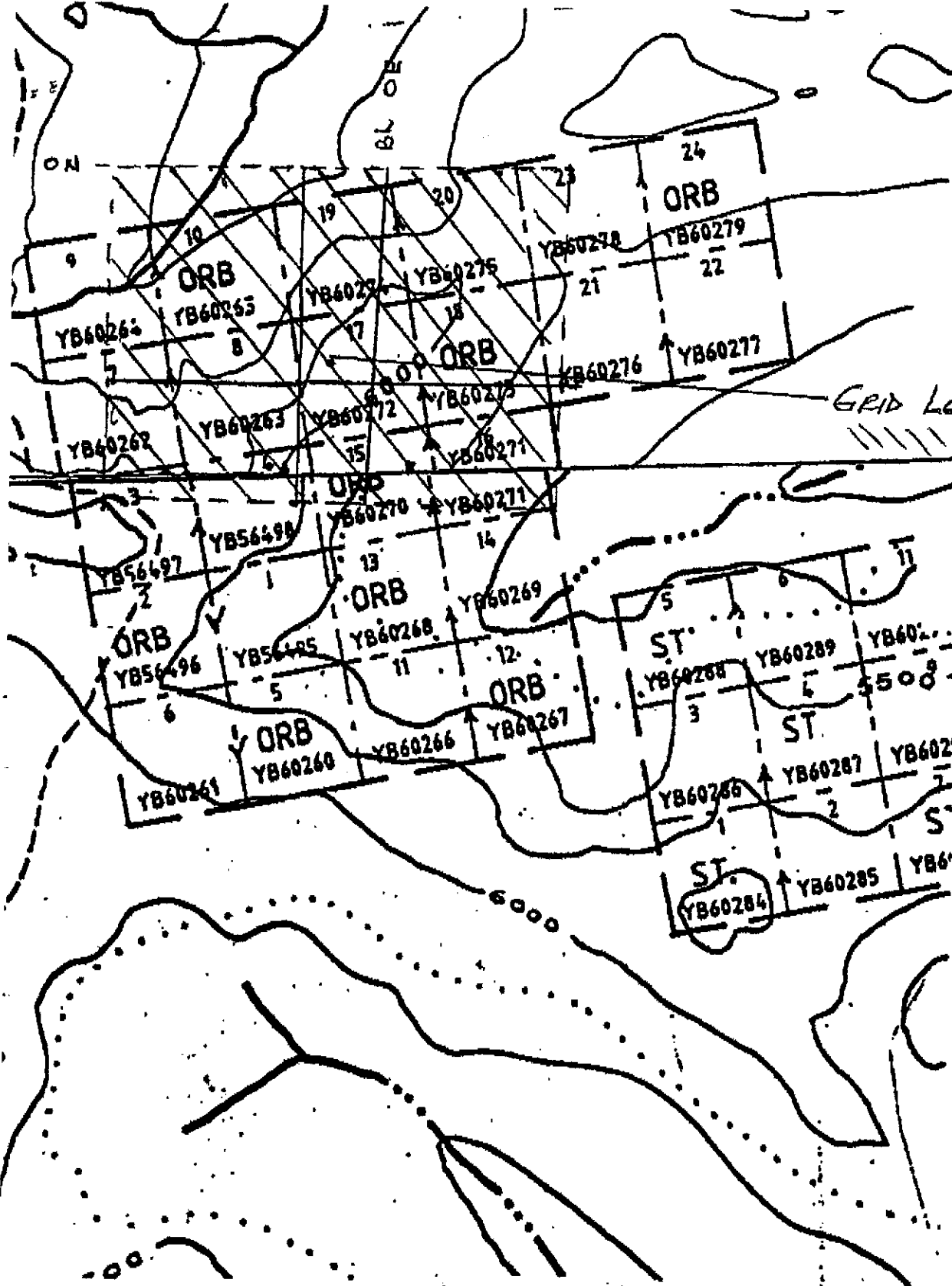
In 1967 the property was acquired by Jason Explorer Ltd. Although a summary report was compiled recommending a 2 phased surface exploration and underground exploration program, it appears that little exploration was undertaken.

The property was acquired in 1979 by Rio Alto Exploration who formed a joint venture with E & B Exploration to explore the claims. During 1980 a program of underground rehabilitation, soil geochemical surveying and diamond drilling (8 holes totalling 690 meters) was completed. This exploration was designed to test the property's gold potential.

During 1996, Sunstate Resources acquired the property (ORB claims) and conducted reconnaissance soil geochemical surveys. The Sunstate exploration work indicated that the prospective host horizon continues north (and over the ridge crest) from the underground workings on the main showing.

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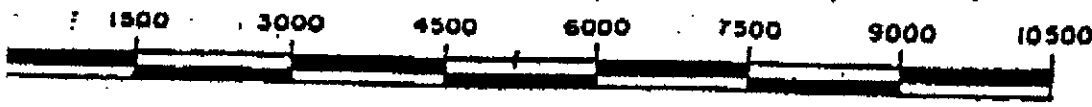
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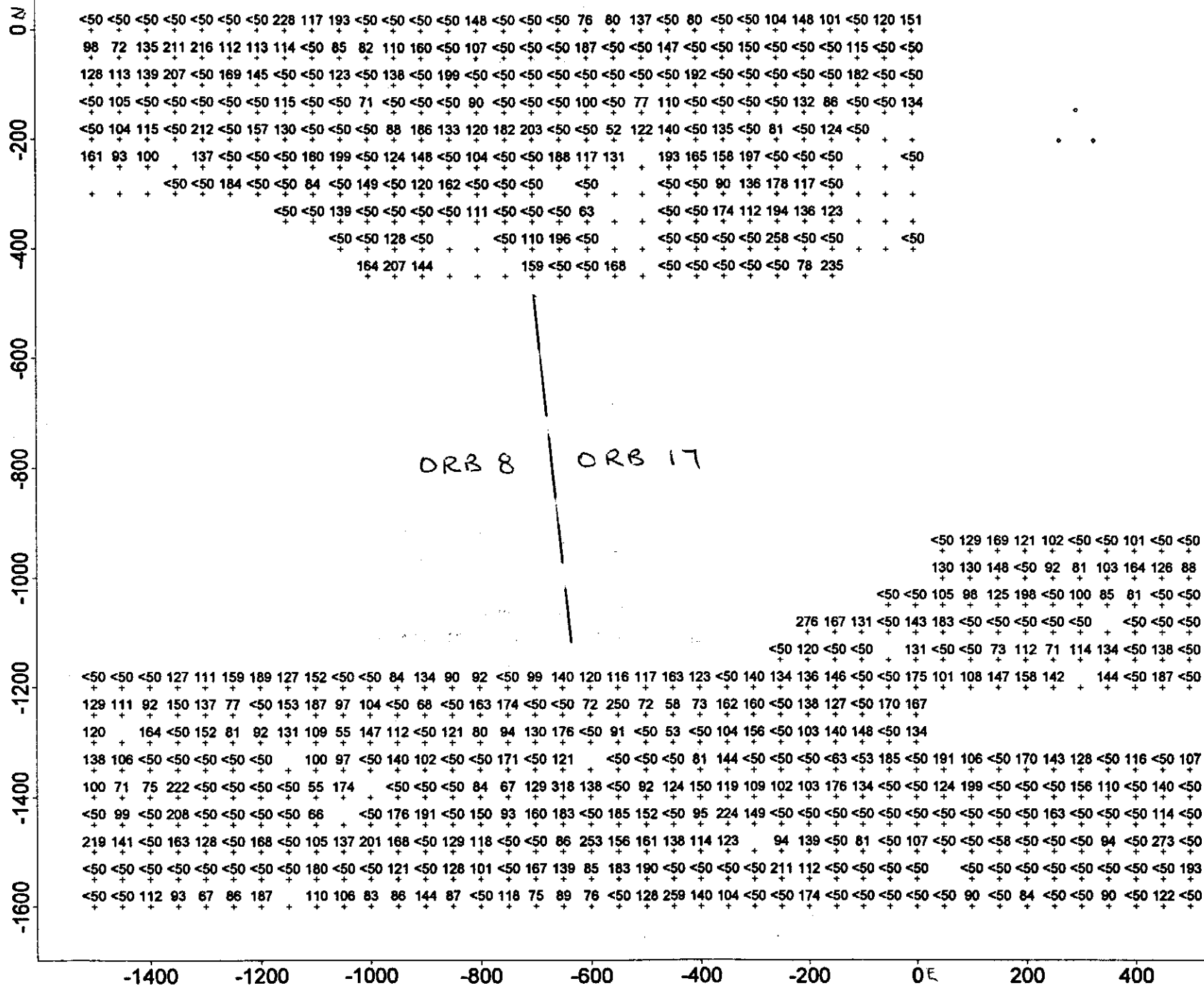


105-F
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SCALE





Scale 1:10 000 December 1997

The Ketz Group / Stormy Mtn Project
 SURFACE GEOCHEMISTRY Zn(ppm)

1997 EXPLORATION PROGRAM

The ORB claims were optioned to SRR Mercantile Inc. who undertook a detailed grid soil sampling and geological review survey in 1997.

Results of this survey are summarized in Appendix 2 of this report; and plans of results for molybdenum, tungsten and zinc are presented as Figures 4, 5, 6 of this report. A statistical summary for these geochemical results is included as Appendix 3 of this report.

An area strongly anomalous in molybdenum and tungsten content occurs from grid locations 200 to 400 west between 1,300 and 1,600 south. Zinc content in soil samples is generally elevated peripheral to the main anomaly. A total of 692 samples were obtained from the grided area. The geochemical anomalies are open to the south.

DISCUSSION OF RESULTS

A detailed soil sampling program based on a survey grid was conducted during 1997 at the Stormy Mountain molybdenum-tungsten project.

An area strongly anomalous in molybdenum and tungsten content has been located. This coincident anomaly exceeds 300 meters in length and is approximately 200 meters in width. Float mineralization consisting of disseminated molybdenite in highly altered granite was noted in the vicinity of the anomaly.

CONCLUSIONS

The 1997 soil geochemical survey has located a coincident molybdenum-tungsten anomaly on the northern part of the Stormy Mountain property. The anomaly may represent a northward extension of mineralization explored by underground development and drilling prior to 1980. Additional exploration to determine the anomaly's source and relationship to main zone mineralization is warranted as an expansion of the known resource could result.

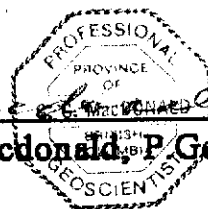
APPENDIX 1

STATEMENT OF QUALIFICATIONS

I, GLEN MACDONALD, of 3789 West Island Highway, Qualicum Beach, B.C., hereby certify that:

1. I am a graduate of the University of British Columbia with degrees in Economics (B.A., 1971) and Geology (B.Sc., 1973);
2. I have practiced my profession as Geologist since graduation;
3. I have worked as a Geologist for Whitehorse Copper Mine and acted as District Manager for Exploration for Yukon/Western N.W.T. for Noranda Exploration;
4. I have practised Geology as an Independent Consulting Geologist since 1983;
5. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta (No. 36214);
6. I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 20464);
7. I am a Director of SRR Mercantile Ltd.
8. I hereby grant my permission for SRR Mercantile Ltd. to use this report for any corporate use normal to the business of the Company.


Glen C. Macdonald, P. Geol., P. Geo.



APPENDIX 2



CanTech Laboratories Inc.

March 5, 1998

Ketza Group
320, 475 Howe Street
Vancouver, B.C.
V6C 2B3

Attention: Mr. Blake Macdonald

Dear Blake:

Approximately 700 soil samples were submitted by you in August 1997 for routine multi-element analysis.

The preparation of these samples involved drying followed by sieving the complete sample through an 80 mesh screen.

Approximately 25 grams of minus 80 mesh material was weighed into a small plastic vial and analysed for 35 elements by instrumental neutron activation analysis (INAA). INAA is an analytical technique measuring the gamma radiation emitted by the radioactive isotopes produced by irradiating samples in a nuclear reactor.

I hope this is the information that you require. If you have any questions, please do not hesitate to contact me.

Yours truly,
CanTech Laboratories, Inc.

C. Douglas Read

4200B-10 Street, NE
Calgary, Alberta
Canada T2E 6K3
Tel (403) 250-1901
Fax (403) 250-8265

Kinne Waterstraat 2-0
Box 2510
Pittsburgh, Sumner
Tel (597) 421523
Fax (597) 421633

Element	AU	AG	AS	BA	BR	CA	CO	CR	CS	FE	HF	HG	IR	MO	NA	NI	RB	SB	SC	SE	SN	SR	TA	TH	U	W	ZN	LA	CE	ND	SM	EU	TB	YB	LU	Mass
	PPB	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	%	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
OS 4+50W	6	6	22	910	4	3	13	79	11	4.80	4	<1	6	0.89	6	110	0.6	13.0	6	<0.02	<0.05	2	15.0	4.7	6	147	48	72	37	6.0	1.7	<0.5	2.50	0.41	32.3	
OS 5+50W	6	6	5	790	7	<1	9	11	<2	2.76	4	<1	6	2.85	6	120	0.4	6.4	6	<0.02	<0.05	<1	7.3	4.2	<4	60	23	36	25	2.8	1.0	<0.5	1.20	0.21	19.6	
OS 5+50W	6	6	12	690	<1	3	17	87	11	4.43	6	<1	6	1.04	6	120	<0.2	15.0	6	<0.02	<0.05	<1	18.0	4.8	<4	60	61	100	46	7.3	1.9	1.3	3.60	0.57	28.2	
OS 6+50W	6	6	10	670	6	3	15	89	12	5.50	4	<1	6	1.06	6	85	0.5	15.0	6	<0.02	<0.05	<1	17.0	6.1	5	187	53	82	35	6.5	1.8	<0.5	2.50	0.40	28.5	
OS 6+50W	6	6	16	580	13	4	10	43	25	4.11	4	<1	14	1.05	6	110	0.8	12.0	6	<0.02	<0.05	<1	13.0	21.0	5	60	46	71	25	5.9	1.7	<0.5	2.10	0.44	20.1	
OS 7+50W	6	6	17	630	7	2	17	52	22	5.71	7	<1	8	1.16	6	91	0.9	18.0	7	<0.02	<0.05	<1	18.0	6.1	7	60	52	89	45	7.1	1.9	<0.5	3.10	0.57	25.8	
OS 7+50W	6	6	13	580	5	4	13	71	13	4.90	5	<1	8	1.15	6	120	0.4	13.0	6	<0.02	<0.05	3	16.0	6.6	<4	60	40	77	29	5.2	1.5	<0.5	2.20	0.39	23.8	
OS 8+50W	6	6	9	780	7	<1	14	73	9	4.99	4	<1	6	1.03	6	130	0.8	9.9	6	<0.02	<0.05	2	13.0	4.4	6	107	31	63	28	4.1	1.2	<0.5	1.80	0.27	21.9	
OS 8+50W	6	6	11	780	7	<1	10	40	8	3.58	5	<1	6	1.97	6	140	0.6	7.8	6	<0.02	<0.05	2	8.6	3.4	<4	60	27	51	14	3.3	0.9	<0.5	1.60	0.25	19.0	
OS 9+50W	6	6	13	650	8	4	14	57	16	5.02	4	<1	6	1.03	6	110	0.7	9.6	6	<0.02	<0.05	2	13.0	2.3	<4	180	31	64	16	3.9	1.1	<0.5	1.50	0.27	18.9	
OS 9+50W	6	6	16	740	13	<1	13	78	11	5.45	6	<1	6	0.73	6	85	0.6	13.0	6	<0.02	<0.05	<1	16.0	3.4	5	110	41	75	31	5.0	1.3	<0.5	2.20	0.38	23.2	
OS 10+50W	6	6	10	700	7	<1	10	78	8	3.81	5	<1	6	1.39	6	73	0.8	10.0	6	<0.02	<0.05	3	13.0	2.6	<4	82	31	54	16	3.8	1.1	<0.5	2.10	0.35	25.1	
OS 10+50W	6	6	15	740	5	<1	18	81	11	5.57	5	<1	6	1.01	6	98	0.6	14.0	6	<0.02	<0.05	<1	16.0	5.0	<4	85	54	94	36	6.8	2.0	<0.5	2.80	0.50	26.9	
OS 11+50W	6	6	36	750	9	<1	14	64	13	4.58	6	<1	6	1.31	6	100	0.8	12.0	6	<0.02	<0.05	<1	14.0	9.5	<4	60	46	82	28	5.6	1.6	<0.5	2.50	0.37	23.0	
OS 11+50W	6	6	17	730	16	<1	15	81	13	6.37	5	<1	6	0.68	6	120	0.5	13.0	6	<0.02	<0.05	<1	16.0	4.3	6	114	42	79	30	5.4	1.4	<0.5	2.70	0.41	19.4	
OS 12+50W	6	6	21	690	10	<1	15	76	13	5.58	4	<1	6	0.74	6	75	0.6	13.0	6	<0.02	<0.05	<1	17.0	2.7	6	113	45	83	29	5.5	1.6	<0.5	2.40	0.46	24.0	
OS 12+50W	6	6	3	460	6	<1	13	26	7	3.80	4	<1	6	2.12	6	10	0.2	8.2	6	<0.02	<0.05	<1	10.0	3.6	<4	112	30	50	25	3.9	1.3	<0.5	2.00	0.31	20.8	
OS 13+50W	6	6	9	410	14	<1	61	77	23	6.91	2	<1	6	0.47	6	130	0.3	15.0	6	<0.02	<0.05	<1	16.0	2.5	<4	216	49	86	32	6.1	1.6	<0.5	7.10	1.06	25.0	
OS 13+50W	6	6	14	1100	5	<1	18	92	9	5.36	5	<1	6	1.05	6	83	1.2	14.0	6	<0.02	<0.05	<1	13.0	2.0	<4	211	47	76	31	5.7	1.9	<0.5	2.90	0.56	25.9	
OS 14+50W	6	6	11	930	9	2	12	62	7	4.25	4	<1	6	1.60	6	86	0.7	9.8	6	<0.02	<0.05	<1	10.0	2.5	<4	135	34	60	20	4.1	1.3	<0.5	1.90	0.31	25.0	
OS 14+50W	6	6	17	1200	6	<1	14	89	10	4.64	4	<1	6	0.91	6	51	1.6	14.0	6	<0.02	<0.05	<1	14.0	2.0	<4	72	48	78	26	5.7	1.8	<0.5	3.30	0.51	21.8	
OS 15+50W	6	6	9	990	8	<1	10	70	8	3.76	4	<1	6	1.14	6	120	0.6	11.0	6	<0.02	<0.05	<1	11.0	4.1	<4	98	40	65	31	4.6	1.6	<0.5	2.70	0.43	21.5	
OS 0+50W	6	6	33	390	11	4	23	110	21	3.56	2	<1	6	0.34	6	77	0.8	6.5	6	<0.02	<0.05	<1	7.3	9.0	<4	60	32	47	17	3.5	1.3	<0.5	1.44	0.18	3.5	
OS 0+50W	6	6	11	820	9	<1	6	13	3	2.33	4	<1	6	2.08	6	60	0.4	4.6	6	<0.02	<0.05	<1	6.1	3.3	<4	60	21	37	20	2.5	0.7	<0.5	0.70	0.08	16.0	
OS 1+50W	6	6	25	780	8	<1	5	49	8	3.04	6	<1	6	1.54	6	10	1.0	8.3	6	<0.03	<0.05	<1	10.0	5.1	<4	182	27	43	27	3.3	0.6	<0.5	1.60	0.26	9.3	
OS 1+50W	6	6	6	920	9	3	11	21	3	3.86	5	<1	6	2.39	6	85	0.6	7.1	6	<0.02	<0.05	<1	7.4	3.8	<4	60	27	49	23	3.5	1.1	<0.5	1.20	0.23	19.1	
OS 2+50W	6	6	6	920	8	4	7	23	2	2.37	5	<1	6	2.40	6	110	0.3	5.2	6	<0.02	0.09	8	8.0	3.6	<4	60	22	41	18	2.6	0.9	<0.5	1.00	0.18	19.5	
OS 2+50W	6	6	29	820	6	<1	16	61	9	4.81	4	<1	6	1.05	6	74	0.2	8.7	6	<0.02	<0.05	4	14.0	7.8	5	60	40	94	22	5.4	1.4	<0.5	2.00	0.37	23.5	
OS 3+50W	6	6	20	860	8	<1	10	37	8	3.48	4	<1	6	1.49	6	60	0.7	7.6	6	<0.02	<0.05	<1	13.0	3.6	6	60	31	55	31	3.8	1.1	<0.5	1.50	0.21	21.4	
OS 3+50W	6	6	22	1000	4	<1	14	57	13	5.08	4	<1	6	0.78	6	60	0.2	13.0	6	<0.02	<0.05	<1	15.0	5.8	5	60	44	74	37	5.6	1.5	<0.5	2.40	0.42	21.6	
OS 4+50W	6	6	120	1200	<1	<1	34	50	16	7.79	9	<1	13	1.43	6	120	0.6	19.0	6	<0.04	<0.05	7	20.0	9.5	8	182	67	130	52	10.0	2.9	2.2	4.40	0.68	11.1	
OS 4+50W	6	6	46	650	8	<1	21	55	21	4.52	4	<1	8	1.20	6	130	0.7	10.0	6	<0.03	<0.05	<1	16.0	6.7	6	60	37	58	15	4.6	1.2	<0.5	1.70	0.33	19.2	
OS 5+50W	6	6	8	810	7	<1	6	30	6	2.42	4	<1	6	2.01	6	80	0.4	5.8	6	<0.02	<0.05	<1	7.9	3.6	<4	60	23	40	16	2.9	0.8	<0.5	1.20	0.15	19.3	
OS 5+50W	6	6	5	810	6	3	6	<10	3	1.64	4	<1	6	2.28	6	60	0.6	3.6	6	<0.03	<0.05	<1	6.1	3.1	<4	60	19	24	12	2.0	0.8	<0.5	0.70	0.17	16.5	
OS 6+50W	6	6	12	850	5	2	7	<10	4	2.51	5	<1	6	2.26	6	60	0.6	5.2	6	<0.03	<0.05	<1	5.7	2.6	<4	60	19	35	16	2.4	1.0	<0.5				

Element	AU	AG	AS	BA	BR	CA	CO	CR	CS	FE	HF	HG	IR	MO	NA	NI	RB	SB	SC	SE	SN	SR	TA	TH	U	W	ZN	LA	CE	ND	SM	EU	TB	YB	LU	Mass	
Units	PPB	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	%	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0	
+00S 9+00W	6	6	4	<100	15	<1	<5	<10	2	1.19	3	<1	6	6	0.61	60	60	<0.2	3.9	6	<0.03	<0.05	<1	11.0	<0.5	<4	60	22	26	14	2.2	0.4	<0.5	<0.2	<0.05	6.4	
+00S 9+50W	7	7	17	880	8	<1	9	31	8	3.15	4	<1	6	6	1.90	60	60	0.8	7.2	6	<0.02	<0.05	<1	10.0	7.3	<4	138	35	62	26	4.2	1.3	<0.5	1.80	0.38	18.5	
+00S 10+00W	6	6	10	960	7	<1	10	74	9	3.82	5	<1	6	6	1.26	60	88	0.7	11.0	6	<0.02	<0.05	<1	14.0	3.9	6	60	37	63	31	4.6	1.2	<0.5	2.10	0.34	23.6	
+00S 10+50W	6	6	5	820	12	<1	8	21	6	2.34	4	<1	6	6	2.80	60	60	0.6	5.3	6	<0.02	<0.05	4	7.1	5.8	<4	123	25	42	16	3.0	0.9	<0.5	1.00	0.22	18.5	
+00S 11+00W	13	6	4	780	7	<1	6	<10	<2	2.23	4	<1	6	9	2.78	60	60	0.7	4.5	6	<0.02	<0.05	<1	5.0	2.1	<4	60	20	32	13	2.4	0.8	<0.5	1.20	0.19	18.9	
+00S 11+50W	6	6	12	870	8	<1	12	58	7	4.07	5	<1	6	6	1.67	60	83	0.5	11.0	6	<0.02	<0.05	<1	12.0	3.9	4	60	36	57	23	4.3	1.4	<0.5	1.90	0.36	24.0	
+00S 12+00W	6	6	19	1000	6	3	19	88	12	5.54	6	<1	6	6	1.05	60	130	0.4	15.0	6	<0.02	<0.05	<1	18.0	4.4	6	145	49	93	25	6.3	1.7	<0.5	2.70	0.45	26.3	
+00S 12+50W	6	6	11	780	7	<1	14	83	9	4.41	5	<1	6	7	1.32	60	120	0.8	12.0	6	<0.02	<0.05	<1	14.0	4.5	<4	189	42	74	33	5.5	1.6	<0.5	2.80	0.41	24.9	
+00S 13+00W	6	6	4	900	9	<1	15	21	4	3.19	5	<1	6	6	2.24	60	76	0.2	6.4	6	<0.03	<0.05	<1	6.7	<0.5	<4	60	23	38	17	3.3	1.0	<0.5	1.40	0.21	16.1	
+00S 13+50W	6	6	7	580	7	3	42	81	19	6.39	3	<1	6	16	0.56	60	130	0.5	14.0	6	<0.02	<0.05	<1	16.0	<0.5	<4	207	64	110	48	8.2	2.2	1.2	5.10	0.83	19.7	
+00S 14+00W	6	6	8	930	7	6	22	80	16	5.80	5	<1	6	6	1.10	60	120	1.0	14.0	6	<0.02	<0.05	<1	14.0	2.1	<4	139	50	90	40	6.2	1.9	0.8	3.40	0.53	24.8	
+00S 14+50W	6	6	4	1300	5	8	18	85	10	5.05	4	<1	6	6	0.73	60	100	0.7	13.0	6	<0.02	<0.05	3	13.0	3.6	<4	113	47	75	31	5.5	1.5	<0.5	2.50	0.47	27.5	
+00S 15+00W	6	6	10	1300	5	7	25	81	12	6.29	3	<1	6	6	0.99	60	75	0.7	13.0	6	<0.02	<0.05	<1	12.0	3.5	<4	128	43	85	32	4.9	1.8	<0.5	2.30	0.48	25.9	
+50S 0+00W	12	6	47	600	6	5	45	75	27	8.75	4	<1	6	9	0.39	80	150	1.2	13.0	6	<0.02	<0.05	<1	17.0	9.8	18	134	67	110	44	8.9	3.0	1.0	4.20	0.64	22.4	
+50S 0+50W	6	6	58	430	13	4	13	19	5	3.18	3	1	6	6	1.53	60	88	0.8	5.7	6	<0.02	<0.05	<1	7.8	4.9	<4	60	26	43	12	3.3	1.4	0.7	1.70	0.24	14.6	
+50S 1+00W	6	6	9	830	7	<1	9	<10	3	3.02	5	<1	6	6	2.75	60	60	0.3	6.6	6	<0.02	<0.05	<1	7.1	3.9	<4	60	21	32	9	2.6	1.0	<0.5	1.10	0.16	17.3	
+50S 1+50W	6	6	16	960	8	<1	10	48	5	3.38	5	<1	6	6	1.49	60	67	0.6	7.9	6	<0.02	<0.05	<1	15.0	3.6	<4	86	40	75	27	4.7	1.3	<0.5	1.80	0.33	23.8	
+50S 2+00W	6	6	3	640	11	<1	6	<10	<2	1.83	4	<1	6	11	2.82	60	71	0.4	4.0	6	<0.02	<0.05	<1	6.6	2.3	<4	132	23	38	6	2.8	0.9	<0.5	1.20	0.13	19.2	
+50S 2+50W	6	6	19	900	13	<1	13	11	5	5.05	5	<1	6	6	1.89	60	72	0.7	4.9	6	<0.02	<0.05	3	9.6	5.1	<4	60	29	42	21	3.5	1.2	<0.5	1.00	0.22	16.7	
+50S 3+00W	6	6	32	1200	8	<1	6	68	17	5.96	3	<1	6	6	1.01	60	180	0.5	16.0	6	<0.02	<0.05	<1	17.0	4.9	10	60	59	100	54	7.5	2.3	1.0	3.50	0.53	8.7	
+50S 3+50W	6	6	14	810	4	2	15	74	11	6.17	4	<1	6	8	0.72	60	130	0.4	13.0	6	<0.02	<0.05	<1	16.0	2.9	5	60	37	63	27	4.3	1.0	<0.5	1.80	0.34	25.3	
+50S 4+00W	6	6	170	950	5	<1	13	21	13	5.59	6	<1	6	6	1.39	60	76	1.5	13.0	6	<0.02	<0.05	2	15.0	5.1	6	60	41	79	29	5.7	1.8	1.1	2.80	0.43	21.9	
+50S 4+50W	6	6	240	940	5	<1	36	86	42	6.61	6	<1	6	18	0.87	60	150	0.8	20.0	6	<0.02	<0.05	2	32.0	12.0	11	110	76	100	50	7.9	2.1	<0.5	4.30	0.46	3.5	
+50S 5+00W	6	6	46	460	6	3	25	68	28	4.99	2	<1	6	6	0.71	60	100	0.2	14.0	6	<0.02	<0.05	<1	15.0	6.7	9	77	40	64	24	4.6	1.4	<0.5	2.37	0.37	6.0	
+50S 5+50W	6	6	47	610	<1	<1	24	86	19	6.17	4	<1	6	6	1.15	60	98	0.2	20.0	6	<0.02	<0.05	<1	20.0	3.8	<4	60	65	110	51	7.7	1.7	<0.5	3.95	0.50	3.7	
+50S 6+00W	6	6	31	880	9	4	8	36	9	3.40	4	<1	6	6	1.54	60	81	0.6	7.9	6	<0.02	0.13	<1	9.5	5.7	<4	100	28	53	23	3.7	0.8	<0.5	1.70	0.26	17.5	
+50S 6+50W	6	6	10	780	6	<1	12	45	4	3.16	6	<1	6	6	2.32	60	110	0.2	9.9	6	<0.02	<0.05	<1	9.2	<0.5	<4	60	29	49	6	3.7	1.0	<0.5	1.78	0.27	3.1	
+50S 7+00W	6	6	3	680	7	<1	6	13	2	1.74	4	<1	6	6	2.58	60	60	0.3	4.2	6	<0.02	<0.05	<1	4.4	2.1	<4	60	17	23	10	1.7	0.7	<0.5	1.00	0.15	5.4	
+50S 7+50W	6	6	5	720	9	<1	7	<10	4	2.73	6	<1	6	6	2.33	60	60	0.6	6.5	6	<0.02	<0.05	<1	7.6	3.5	<4	60	34	44	25	4.0	1.0	<0.5	1.50	0.20	9.2	
+50S 8+00W	6	6	11	1000	7	4	9	34	10	3.51	5	<1	6	6	1.88	60	76	0.6	7.3	6	<0.02	<0.05	<1	9.0	2.7	<4	60	34	39	14	2.9	0.7	<0.5	1.00	0.20	19.0	
+50S 8+50W	6	6	4	230	6	3	7	16	6	1.35	2	<1	6	6	0.79	60	60	0.3	4.6	6	<0.02	<0.05	<1	3.5	<0.5	<4	60	12	18	6	1.6	0.4	<0.5	0.88	0.13	3.8	
+50S 9+00W	6	6	5	<100	29	5	6	<10	4	0.41	2	<1	6	6	0.12	60	60	0.2	1.4	6	<0.02	<0.05	<1	1.0	24.0	<4	60	7	6	6	<0.1	<0.2	<0.5	1.10	0.16	2.6	
+50S 9+50W	6	6	32	710	10	<1	20	56	15	5.01	4	<1	6	6	1.36	180	76	0.2	11.0	6	<0.02	<0.05	<1	13.0	12.0	<4	60	36	64	25	4.6	1.2	0.8	2.10	0.37	15.3	
+50S 10+00W	6	6	12	840	6	<1	13	86	11	4.24	5	<1	6	6	1.11	60	51	0.6	12.0	6	<0.02	<0.05	3	15.0	4.3	<4	60	42	72	31	5.1	1.1	<0.5	2.50	0.38	28.1	
+50S 10+50W	6	6	18	800	12	<1	14	76	10	5.36	5	<1	6	6	0.68	60	100	0.4	12.0	6	<0.02	<0.05	3	19.0	3.8	5	60	43	88	31	5.1	1.4	<0.5	1.90	0.29	19.4	
+50S 11+00W	6	6	10	480	9	<1	9	95	8	5.51	8	<1	6	6	0.83	60	60	0.6	12.0	6	<0.02	<0.05	<1	16.0	4.1	<4	60	32	62	15	4.3	1.0	<0.5	1.90	0.32	9.7	
+50S 11+50W	6	6	8	790	26	4	12	62	7	3.57	2	<1	6	6	0.51	60	60	0.6	11.0	6	<0.02	<0.05	<1	11.0	<0.5	<4	115	31	53	30	5.0	1.7	1.1	2.60	0.38	10.3	
+50S 12+00W	6	6	5	950	9	4	8	17	3	2.96	5	<1	6	6	2.53	60	60	0.7	6.9	6	<0.02	<0.05	<1	5.6	2.8	<4	60	22	38	13	2.8	1.1	<0.5	1.10	0.20	19.7	
+50S 12+50W	6	6	4																																		

To: Ketza Group

From: CanTech Laboratories, Inc.

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Element	AU	AG	AS	BA	BR	CA	CO	CR	CS	FE	HF	HG	IR	MO	NA	NI	RB	SB	SC	SE	SN	SR	TA	TH	U	W	ZN	LA	CE	ND	SM	EU	TB	YB	LU	Mass	
Concentration	PPB	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	%	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0	
SOS 13+50W	ND	ND	5	630	7	2	16	25	8	4.22	5	ND	ND	6	1.86	ND	91	0.3	8.4	ND	<0.02	<0.05	<1	9.3	2.2	<4	60	29	50	25	3.9	1.0	<0.5	1.90	0.27	18.3	
SOS 14+00W	ND	ND	7	980	9	<1	15	55	8	4.23	3	<1	ND	6	1.37	ND	63	0.4	8.9	ND	<0.02	<0.05	<1	9.5	3.3	<4	60	34	55	30	4.1	1.3	<0.5	2.20	0.40	17.8	
SOS 14+50W	ND	ND	3	620	8	<1	10	42	5	2.81	<1	<1	ND	ND	0.46	ND	ND	<0.2	6.5	ND	<0.02	<0.05	<1	6.2	2.1	<4	105	21	30	15	2.6	0.8	<0.5	1.50	0.26	8.0	
SOS 15+00W	ND	ND	6	660	10	5	17	49	8	3.78	<1	<1	ND	ND	0.83	ND	ND	<0.2	7.4	ND	<0.02	<0.05	<1	8.0	3.0	<4	60	26	42	14	3.1	0.9	<0.5	1.50	0.26	9.4	
SOS 0+00W	NO SAMPLE																																				
SOS 0+50W	NO SAMPLE																																				
SOS 1+00W	ND	ND	25	960	10	<1	9	65	9	4.00	6	<1	ND	6	1.21	ND	110	0.6	9.7	ND	<0.02	0.12	<1	19.0	5.8	7	60	43	75	35	4.9	1.4	<0.5	1.80	0.38	22.9	
SOS 1+50W	ND	ND	37	970	8	<1	12	51	8	4.10	5	<1	ND	10	1.20	ND	140	0.8	9.1	ND	<0.02	<0.05	<1	17.0	4.6	9	124	41	81	30	4.6	1.3	<0.5	1.90	0.29	19.4	
SOS 2+00W	ND	ND	17	930	7	<1	6	61	10	3.27	7	<1	ND	9	1.34	ND	67	0.6	8.4	ND	<0.02	<0.05	<1	11.0	3.9	<4	60	29	47	18	3.3	0.8	0.7	1.80	0.31	22.0	
SOS 2+50W	ND	ND	30	920	4	2	12	66	9	3.94	7	<1	ND	ND	0.85	ND	53	0.6	10.0	ND	<0.02	<0.05	2	21.0	9.9	9	81	49	86	32	5.5	1.5	<0.5	2.40	0.34	27.6	
SOS 3+00W	ND	ND	17	730	12	2	20	37	9	3.40	4	<1	ND	ND	1.23	ND	ND	<0.2	8.0	ND	<0.02	<0.05	<1	11.0	3.9	<4	60	56	84	43	5.5	1.5	<0.5	1.80	0.30	14.7	
SOS 3+50W	13	ND	200	1100	5	<1	21	24	18	6.54	7	<1	ND	ND	1.42	ND	110	0.4	18.0	ND	<0.03	<0.05	<1	16.0	5.3	9	136	55	99	56	7.4	1.8	1.5	3.40	0.53	15.2	
SOS 4+00W	7	ND	60	990	5	3	19	81	17	7.13	8	<1	ND	9	1.10	ND	110	<0.2	18.0	ND	<0.03	<0.05	<1	19.0	5.7	<4	60	54	100	31	7.2	2.5	<0.5	3.30	0.46	16.9	
SOS 4+50W	9	ND	200	500	9	<1	36	92	41	6.45	5	<1	ND	13	0.74	ND	180	0.6	20.0	ND	<0.03	<0.05	3	26.0	21.0	14	140	70	99	41	7.3	2.0	<0.5	3.61	0.47	3.7	
SOS 5+00W	ND	ND	62	460	5	3	34	90	33	7.65	4	<1	ND	31	0.70	ND	200	1.2	18.0	ND	<0.03	<0.05	<1	26.0	8.7	22	122	63	110	42	8.0	2.6	<0.5	4.50	0.69	14.9	
SOS 5+50W	ND	ND	18	290	7	2	10	34	7	2.04	2	<1	ND	ND	0.47	ND	61	<0.2	5.7	ND	<0.01	<0.05	<1	5.5	2.2	<4	52	19	33	6	2.6	0.6	<0.5	0.80	0.18	0.7	
SOS 6+00W	ND	ND	14	880	6	<1	8	46	6	3.25	5	<1	ND	ND	1.85	ND	100	0.4	7.6	ND	<0.02	<0.05	<1	11.0	2.9	<4	60	31	57	13	3.8	1.1	<0.5	1.70	0.27	23.0	
SOS 6+50W	ND	ND	14	850	8	<1	6	28	5	3.25	5	<1	ND	ND	2.10	ND	98	<0.2	6.7	ND	<0.02	<0.05	<1	9.4	2.9	<4	60	29	47	<5	3.3	0.8	<0.5	1.40	0.17	17.6	
SOS 7+00W	ND	ND	9	860	8	<1	6	29	4	2.96	5	<1	ND	ND	2.45	ND	77	0.4	6.1	ND	<0.02	<0.05	<1	9.4	2.9	<4	203	27	46	21	3.0	0.8	<0.5	1.30	0.26	18.0	
SOS 7+50W	ND	ND	68	920	20	<1	12	46	14	3.54	4	<1	ND	7	1.54	ND	ND	0.7	9.4	ND	<0.02	<0.05	<1	12.0	7.5	<4	182	45	61	34	5.5	1.7	0.9	2.50	0.42	18.4	
SOS 8+00W	ND	ND	22	640	<1	2	16	76	6	5.35	5	<1	ND	ND	1.21	ND	66	0.7	13.0	ND	<0.02	<0.05	<1	16.0	5.0	8	120	42	81	34	5.4	1.1	0.9	2.60	0.42	19.3	
SOS 8+50W	ND	ND	24	950	6	<1	8	51	10	4.04	6	<1	ND	ND	1.14	ND	120	<0.2	8.6	ND	<0.02	<0.05	<1	14.0	3.2	<4	133	28	52	19	3.4	0.8	<0.5	1.80	0.27	15.5	
SOS 9+00W	ND	ND	<2	790	9	3	8	15	4	2.53	5	<1	ND	ND	2.74	ND	ND	0.4	5.5	ND	<0.03	<0.05	<1	5.8	2.7	<4	186	21	37	8	2.5	1.0	<0.5	0.80	0.22	14.7	
SOS 9+50W	ND	ND	14	890	9	<1	11	67	10	4.53	5	<1	ND	ND	1.26	ND	97	0.8	11.0	ND	<0.02	<0.05	<1	15.0	4.6	10	88	37	73	29	4.5	1.2	<0.5	2.00	0.28	21.2	
SOS 10+00W	ND	ND	4	990	7	3	8	<10	<2	2.70	5	<1	ND	ND	2.97	ND	110	0.4	5.9	ND	<0.03	<0.05	<1	5.1	3.5	<4	60	22	40	17	2.9	0.8	<0.5	1.00	0.19	20.2	
SOS 10+50W	ND	ND	17	900	11	<1	ND	23	5	2.74	4	<1	ND	ND	2.21	ND	ND	0.4	5.9	ND	<0.03	<0.05	<1	6.7	8.9	<4	60	24	40	10	2.9	0.5	<0.5	1.40	0.14	17.3	
SOS 11+00W	ND	ND	30	780	10	<1	ND	65	18	5.06	4	<1	ND	ND	1.22	ND	73	0.6	11.0	ND	<0.03	<0.05	<1	11.0	5.0	4	60	36	66	13	4.4	1.0	<0.5	2.30	0.21	17.2	
SOS 11+50W	ND	ND	22	590	5	5	20	54	11	4.03	4	<1	ND	ND	1.31	ND	ND	0.4	12.0	ND	<0.02	<0.05	<1	7.1	2.8	<4	130	27	39	<5	3.5	1.1	<0.5	1.80	0.21	6.3	
SOS 12+00W	ND	ND	19	940	11	<1	22	50	9	4.37	3	<1	ND	ND	1.41	ND	ND	0.2	9.6	ND	<0.03	<0.05	<1	8.5	8.9	<4	157	34	61	29	4.2	1.3	<0.5	1.90	0.26	17.8	
SOS 12+50W	ND	ND	9	820	6	<1	15	58	9	3.68	5	<1	ND	ND	1.80	ND	120	0.5	9.3	ND	<0.03	<0.05	<1	9.5	3.4	<4	60	38	71	23	4.6	1.1	<0.5	2.20	0.19	22.1	
SOS 13+00W	7	ND	29	910	10	2	14	57	9	4.11	5	<1	ND	ND	1.82	ND	ND	<0.2	9.6	ND	<0.03	<0.05	<1	10.0	2.3	<4	212	40	68	28	4.9	1.1	<0.5	2.10	0.36	21.1	
SOS 13+50W	ND	ND	6	960	6	2	15	47	7	3.84	3	<1	ND	ND	1.73	ND	70	<0.2	9.0	ND	<0.03	<0.05	<1	9.6	3.7	<4	115	36	58	25	4.2	1.2	<0.5	2.20	0.22	21.9	
SOS 14+00W	ND	ND	7	910	10	2	18	59	9	4.39	3	<1	ND	ND	0.67	ND	ND	0.4	11.0	ND	<0.03	<0.05	<1	9.4	2.4	<4	115	37	58	24	4.7	1.4	0.9	2.80	0.34	17.0	
SOS 14+50W	ND	ND	8	770	6	<1	ND	85	12	5.80	2	<1	ND	ND	0.71	ND	130	0.8	14.0	ND	<0.04	<0.05	<1	11.0	3.3	<4	104	48	75	24	5.7	1.6	<0.5	3.30	0.28	21.1	
SOS 15+00W	ND	ND	7	880	5	<1	27	84	13	6.18	3	<1	ND	ND	0.85	ND	68	0.6	13.0	ND	<0.04	<0.05	<1	12.0	3.9	<4	60	48	85	34	6.2	1.2	<0.5	3.10	0.27	21.5	
SOS 0+00W	10	ND	440	800	6	7	31	75	19	7.32	4	<1	ND	ND	0.60	ND	130	0.2	14.0	ND	<0.02	<0.05	<1	14.0	5.9	9	60	58	100	41	8.0	1.8	<0.5	4.00	0.22	15.3	
SOS 0+50W	NO SAMPLE																																				
SOS 1+00W	NO SAMPLE																																				
SOS 1+50W	6	ND	22	860	17	2	ND	59	5	3.24	6	<1	ND	7	0.92	ND	ND	<0.2	8.4	ND	<0.03	<0.05	3	21.0	4.6	7	60	47	85	31	5.1	1.3	<0.5	2.40	0.25	19.1	
SOS 2+00W	ND	ND	4	770	10	<1	7	19	4	2.04	5	<1	ND	9	2.29	ND	110	0.4	5.1	ND	<0.04	<0.05	<1	7.1	3.4	<4	60	24	40	15	2.8	0.8	<0.5	1.20	0.19	18.2	

Certified: 

To: Ketzia Group

From: CanTech Laboratories, Inc.

Element	AU	AG	AS	BA	BR	CA	CO	CR	CS	FE	HF	HG	IR	MO	NA	NI	RB	SB	SC	SE	SN	SR	TA	TH	U	W	ZN	LA	CE	ND	SM	EU	TB	YB	LU	Mass	
Units	PPB	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	%	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0	
+50S 2+50W	14	5	5	750	9	<1	7	22	3	2.28	3	<1	5	11	1.96	50	30	0.2	6.5	5	-0.04	-0.05	<1	7.4	3.4	<4	50	41	62	31	5.0	1.5	<0.5	2.00	0.25	17.3	
+50S 3+00W	7	5	220	1100	4	<1	30	54	18	6.74	6	<1	5	10	1.01	50	30	0.2	15.0	5	-0.03	-0.05	<1	17.0	6.9	6	197	69	140	42	8.9	2.6	1.6	4.70	0.62	12.3	
+50S 3+50W	11	5	290	930	3	<1	20	37	21	6.48	6	<1	5	11	0.88	50	30	0.2	16.0	5	-0.04	-0.05	<1	17.0	6.5	9	158	60	110	44	8.1	2.1	1.8	3.80	0.44	20.8	
+50S 4+00W	5	5	37	820	3	<1	16	41	18	5.91	7	<1	5	16	1.15	50	30	0.2	17.0	5	-0.04	-0.05	2	17.0	6.5	9	165	53	100	37	6.9	2.0	1.3	3.20	0.27	20.1	
+50S 4+50W	5	5	25	660	9	<1	21	60	11	4.46	5	<1	5	16	0.83	50	30	0.4	10.0	5	-0.03	-0.05	<1	16.0	4.9	7	193	51	120	27	5.9	1.6	<0.5	2.80	0.29	28.1	
+50S 5+00W	NO SAMPLE																																				
+50S 5+50W	5	5	40	680	6	<1	33	77	31	6.33	5	<1	5	15	0.56	50	140	0.3	15.0	5	-0.03	-0.05	<1	20.0	4.8	33	131	61	110	45	8.7	2.5	<0.5	4.50	0.48	9.8	
+50S 6+00W	5	5	52	750	4	<1	9	63	9	3.37	5	<1	5	15	1.08	50	90	0.3	9.5	5	-0.03	-0.05	<1	13.0	5.2	6	117	39	72	22	4.6	1.2	<0.5	2.50	0.25	27.2	
+50S 6+50W	8	5	19	680	4	3	17	71	14	5.11	5	<1	5	5	0.96	50	130	0.2	11.0	5	-0.03	-0.05	<1	14.0	3.5	5	188	39	75	27	4.9	1.4	1.0	2.20	0.18	18.3	
+50S 7+00W	5	5	5	700	6	<1	7	16	4	2.38	4	<1	5	4	2.21	50	40	0.4	5.4	4	-0.04	-0.05	<1	6.6	2.4	<4	50	22	42	14	2.6	0.7	<0.5	1.20	0.21	18.3	
+50S 7+50W	5	5	7	810	8	<1	5	24	4	2.42	5	<1	5	4	2.52	50	76	0.5	6.3	5	-0.03	0.14	5	6.4	2.6	<4	50	23	45	17	2.7	0.9	<0.5	1.30	0.13	19.2	
+50S 8+00W	5	5	47	630	9	<1	9	63	15	4.04	5	<1	5	4	0.80	50	110	0.6	9.9	5	-0.03	-0.05	<1	11.0	7.4	4	104	33	55	21	3.9	1.1	<0.5	2.00	0.27	20.6	
+50S 8+50W	5	5	4	900	7	<1	9	16	<2	2.17	4	<1	5	4	2.46	50	82	0.4	4.9	5	-0.04	-0.05	<1	5.1	2.0	<4	50	20	36	9	2.3	0.7	<0.5	1.20	0.05	17.3	
+50S 9+00W	5	5	6	830	7	<1	9	29	5	2.76	4	<1	5	4	2.22	50	80	0.3	7.0	5	-0.04	-0.05	<1	7.1	3.1	<4	148	26	48	12	3.3	1.0	<0.5	1.50	0.15	17.5	
+50S 9+50W	7	5	8	740	7	<1	5	27	7	2.65	5	<1	5	4	2.20	50	82	0.4	6.7	5	-0.03	-0.05	<1	7.9	2.5	<4	124	24	51	13	3.1	1.0	<0.5	1.40	0.09	18.0	
+50S 10+00W	6	5	25	880	7	2	5	76	12	4.33	5	<1	5	7	1.16	50	84	0.5	12.0	5	-0.03	-0.05	<1	14.0	4.2	5	50	41	81	28	4.9	1.2	<0.5	2.40	0.33	23.5	
+50S 10+50W	15	5	21	840	6	<1	13	88	14	4.56	7	<1	5	7	1.37	50	110	0.5	12.0	5	-0.03	-0.05	<1	16.0	4.4	<4	199	44	88	26	5.7	1.0	<0.5	2.50	0.30	9.4	
+50S 11+00W	5	5	25	950	22	4	13	53	11	3.92	5	<1	5	21	1.72	50	130	0.4	11.0	5	-0.03	-0.05	<1	9.7	17.0	<4	168	39	78	31	4.8	1.6	<0.5	2.40	0.19	9.0	
+50S 11+50W	5	5	7	840	10	<1	10	47	6	3.14	5	<1	5	4	1.89	50	130	0.5	8.3	5	-0.03	-0.05	<1	7.5	2.2	<4	50	29	49	14	3.6	0.9	<0.5	1.80	0.21	21.9	
+50S 12+00W	5	5	<2	840	11	<1	6	11	3	2.49	4	<1	5	4	2.82	50	130	0.6	5.6	5	-0.03	-0.05	<1	6.1	<0.5	<4	50	21	38	16	2.7	0.7	<0.5	1.20	0.08	19.1	
+50S 12+50W	5	5	38	800	<1	<1	32	80	17	6.31	3	<1	5	4	0.98	50	130	0.5	14.0	5	-0.03	-0.05	<1	11.0	2.1	<4	50	45	80	23	5.9	1.5	<0.5	3.40	0.50	23.7	
+50S 13+00W	5	5	17	930	3	<1	26	72	16	5.28	3	<1	5	4	0.50	50	130	0.6	11.0	5	-0.02	-0.05	<1	9.9	3.1	<4	137	39	66	21	4.4	1.4	<0.5	2.30	<0.05	29.0	
+50S 13+50W	NO SAMPLE																																				
+50S 14+00W	5	5	9	920	5	<1	21	60	11	5.37	2	<1	5	6	0.52	50	82	0.3	11.0	5	-0.02	0.07	2	9.4	2.1	<4	100	38	63	18	4.7	1.4	<0.5	2.50	<0.05	27.1	
+50S 14+50W	5	5	9	740	6	7	23	89	13	5.62	3	<1	5	4	0.80	50	58	0.3	12.0	5	-0.03	-0.05	<1	11.0	3.1	4	93	44	68	30	5.5	1.6	<0.5	3.50	0.28	23.6	
+50S 15+00W	5	5	6	540	10	6	27	80	14	6.57	2	<1	5	4	0.58	50	98	0.3	12.0	5	-0.03	-0.05	<1	11.0	4.1	<4	161	49	78	21	6.2	1.4	1.1	3.50	0.44	16.7	
+00S 0+00W	NO SAMPLE																																				
+00S 0+50W	NO SAMPLE																																				
+00S 1+00W	NO SAMPLE																																				
+00S 1+50W	5	5	22	960	13	2	5	75	9	3.78	7	<1	5	5	0.94	50	98	0.6	9.6	5	-0.03	-0.05	<1	17.0	4.2	5	50	42	71	27	4.8	1.2	<0.5	2.40	0.27	23.3	
+00S 2+00W	5	5	28	980	6	2	10	80	9	3.87	7	<1	5	4	1.13	50	120	0.3	9.6	5	-0.03	-0.05	<1	22.0	4.1	8	117	50	88	28	5.4	1.4	<0.5	2.40	0.28	26.7	
+00S 2+50W	5	5	63	980	6	<1	16	28	17	5.92	6	<1	5	4	1.03	50	85	0.3	19.0	5	-0.03	-0.05	<1	14.0	4.6	8	178	54	94	37	7.8	1.9	1.3	4.10	0.63	25.5	
+00S 3+00W	5	5	300	650	11	<1	15	17	19	4.53	4	<1	5	4	1.39	50	100	0.2	15.0	5	-0.03	-0.05	<1	13.0	4.3	6	136	29	80	21	3.7	1.0	<0.5	2.20	0.26	19.2	
+00S 3+50W	11	5	17	900	<1	4	34	82	15	7.39	4	<1	5	13	0.73	50	73	0.6	18.0	5	-0.03	-0.05	<1	10.0	4.8	4	90	50	78	32	6.2	2.0	<0.5	3.10	0.53	31.6	
+00S 4+00W	5	5	19	650	5	<1	9	51	15	4.56	5	<1	5	14	1.36	50	79	0.6	13.0	5	-0.03	-0.05	<1	13.0	6.2	7	50	46	83	33	5.7	1.5	<0.5	2.40	0.34	21.4	
+00S 4+50W	5	5	27	840	11	<1	10	46	8	3.36	7	<1	5	9	1.11	50	100	0.3	8.3	5	-0.03	-0.05	1	18.0	3.5	9	50	49	89	30	5.3	1.4	<0.5	2.20	0.26	24.6	
+00S 5+00W	NO SAMPLE																																				

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
L3+00S 7+00W	5	5	23	590	9	<1	10	59	8	3.86	5	<1	5	1.57	50	82	0.2	9.7	5	<0.03	<0.05	<1	13.0	3.6	<4	50	51	80	30	5.5	1.4	<0.5	2.50	0.42	21.1	
L3+00S 7+50W	7	5	16	880	8	<1	8	42	9	2.82	5	<1	5	1.80	50	110	0.4	8.3	5	<0.03	<0.05	<1	11.0	3.8	<4	50	38	67	24	4.5	1.1	<0.5	2.30	0.32	20.3	
L3+00S 8+00W	5	5	85	480	8	2	18	79	13	5.18	4	<1	5	0.97	50	96	0.4	14.0	5	<0.03	<0.05	<1	13.0	5.1	<4	162	50	79	33	6.3	1.7	0.9	3.80	0.43	20.2	
L3+00S 8+50W	9	5	89	960	13	<1	26	83	23	5.67	4	<1	5	0.95	50	100	0.5	13.0	5	<0.03	<0.05	<1	13.0	5.1	<4	162	50	79	33	6.3	1.7	0.9	3.80	0.43	20.2	
L3+00S 9+00W	8	5	23	860	11	2	21	69	17	4.75	4	<1	5	1.07	50	68	0.5	12.0	5	<0.03	<0.05	<1	11.0	5.2	<4	120	42	73	24	5.3	1.5	<0.5	3.00	0.23	17.2	
L3+00S 9+50W	5	5	3	730	9	<1	5	13	<2	1.92	5	<1	5	2.85	50	73	0.5	4.3	5	<0.03	0.11	<1	5.8	1.7	<4	50	20	36	<5	2.3	0.7	<0.5	1.10	<0.05	18.7	
L3+00S 10+00W	7	5	43	550	13	<1	23	72	19	5.16	4	<1	5	1.12	50	98	0.6	13.0	5	<0.03	<0.05	<1	12.0	8.4	<4	148	46	80	31	5.9	1.6	<0.5	3.20	0.50	19.6	
L3+00S 10+50W	5	5	44	600	12	<1	30	91	20	6.15	4	<1	5	1.07	50	81	0.8	15.0	5	<0.04	<0.05	<1	14.0	7.1	<4	50	48	86	38	8.5	1.7	<0.5	4.00	0.47	11.8	
L3+00S 11+00W	5	5	33	620	6	<1	29	74	18	5.11	4	<1	5	0.77	50	89	<0.2	14.0	5	<0.02	<0.05	<1	9.9	3.0	<4	84	36	50	20	4.4	1.2	<0.5	2.31	0.28	7.1	
L3+00S 11+50W	5	5	80	390	12	<1	13	58	17	3.76	5	<1	5	0.79	50	<30	0.3	12.0	5	<0.02	<0.05	<1	10.0	9.5	<4	50	43	52	27	5.0	1.4	<0.5	1.97	0.31	5.2	
L3+00S 12+00W	5	5	4	970	14	<1	<5	14	5	2.47	6	<1	5	2.77	55	<30	0.5	5.4	5	<0.03	<0.05	<1	6.7	2.7	<4	50	24	45	19	3.1	1.1	<0.5	1.40	0.13	10.6	
L3+00S 12+50W	5	5	33	770	7	<1	21	73	17	6.01	7	<1	5	1.26	50	130	0.3	14.0	5	<0.03	<0.05	<1	19.0	3.9	<4	184	60	110	44	7.7	1.6	<0.5	3.00	0.33	18.6	
L3+00S 13+00W	5	5	23	710	<1	13	30	93	17	5.44	3	<1	5	0.81	50	97	0.4	14.0	5	<0.02	<0.05	<1	10.0	2.7	<4	50	38	58	<5	4.2	1.2	<0.5	2.02	0.18	4.9	
L3+00S 13+50W	5	5	18	1000	5	7	25	73	17	5.57	3	<1	5	0.50	50	86	0.6	12.0	5	<0.02	<0.05	<1	9.7	2.6	<4	50	40	68	28	4.6	1.3	<0.5	2.30	0.06	28.0	
L3+00S 14+00W	NO SAMPLE																																			
L3+00S 14+50W	NO SAMPLE																																			
L3+00S 15+00W	NO SAMPLE																																			
L3+50S 0+00W	NO SAMPLE																																			
L3+50S 0+50W	NO SAMPLE																																			
L3+50S 1+00W	NO SAMPLE																																			
L3+50S 1+50W	5	5	28	820	4	2	10	49	7	3.31	6	<1	5	1.15	50	94	0.3	9.0	5	<0.02	<0.05	<1	17.0	5.3	9	123	53	110	30	6.0	1.7	<0.5	2.60	0.41	30.4	
L3+50S 2+00W	5	5	<2	1200	1	2	15	61	21	5.43	5	<1	5	0.30	50	87	0.4	13.0	5	<0.02	<0.05	<1	14.0	7.1	<4	136	52	77	33	7.0	2.4	0.8	3.80	0.54	29.7	
L3+50S 2+50W	5	5	20	950	<1	<1	25	22	23	6.96	8	<1	5	1.46	50	93	0.4	22.0	5	<0.04	<0.05	<1	17.0	6.3	13	194	65	130	47	9.4	2.3	<0.5	4.30	0.57	14.0	
L3+50S 3+00W	17	5	17	780	7	<1	8	18	7	2.98	5	<1	5	1.87	50	90	0.2	7.7	5	<0.03	<0.05	<1	7.8	1.4	<4	112	24	41	16	3.1	0.9	<0.5	1.60	<0.05	19.3	
L3+50S 3+50W	5	5	70	670	5	3	16	33	20	5.58	6	<1	5	1.15	50	98	0.6	18.0	5	<0.03	<0.05	<1	17.0	5.7	12	174	55	100	38	7.4	1.9	<0.5	3.70	0.54	21.5	
L3+50S 4+00W	5	5	20	890	5	<1	10	41	6	3.21	5	<1	5	1.34	50	78	0.2	8.2	5	<0.03	<0.05	<1	17.0	3.4	5	50	41	76	25	4.3	1.2	<0.5	1.80	0.24	19.9	
L3+50S 4+50W	5	5	25	750	4	2	22	67	15	5.09	5	<1	5	1.00	50	100	0.4	12.0	5	<0.03	<0.05	<1	18.0	4.7	6	50	62	110	41	7.0	1.7	<0.5	3.40	0.51	25.2	
L3+50S 5+00W	NO SAMPLE																																			
L350S 5+50W	NO SAMPLE																																			
L3+50S 6+00W	5	5	27	900	8	<1	14	72	10	4.19	5	<1	5	0.94	50	83	<0.2	11.0	5	<0.03	<0.05	<1	19.0	4.4	7	63	56	110	34	6.1	1.6	<0.5	2.50	0.46	22.3	
L3+50S 6+50W	5	5	24	780	9	<1	15	63	8	4.20	5	<1	5	1.42	50	<30	0.3	11.0	5	<0.03	<0.05	<1	16.0	6.4	4	50	53	95	27	6.3	2.5	1.1	3.80	0.50	21.3	
L3+50S 7+00W	5	5	12	660	7	<1	21	36	19	3.65	3	<1	5	1.64	50	<30	0.7	7.6	5	<0.03	<0.05	<1	8.9	2.1	<4	50	35	61	24	4.0	1.0	<0.5	2.20	0.25	20.4	
L3+50S 7+50W	5	5	23	810	5	<1	<5	62	12	4.01	5	<1	5	1.32	50	110	0.4	11.0	5	<0.03	<0.05	<1	16.0	6.1	<4	50	41	70	29	5.0	1.1	<0.5	2.90	0.36	22.3	
L3+50S 8+00W	10	5	52	920	8	<1	17	95	13	4.94	5	<1	5	1.09	50	100	0.5	14.0	5	<0.03	<0.05	<1	17.0	5.6	6	111	51	94	42	6.3	1.5	<0.5	2.80	0.29	25.9	
L3+50S 8+50W	5	5	26	580	7	<1	26	71	21	5.86	3	<1	5	0.87	50	<30	<0.2	13.0	5	<0.03	<0.05	<1	11.0	3.2	<4	50	45	84	35	6.0	1.7	<0.5	2.60	0.39	20.8	
L3+50S 9+00W	5	5	6	750	8	<1	8	21	3	1.98	5	<1	5	2.74	50	<30	<0.2	4.6	5	<0.03	<0.05	<1	5.5	2.5	<4	50	22	37	17	2.5	0.5	<0.5	1.20	<0.05	19.8	
L3+50S 9+50W	5	5	17	880	8	<1	19	82	11	4.84	6	<1	5	1.17	50	150	0.4	13.0	5	<0.03	<0.05	<1	15.0	3.0	6	50	51	96	31	6.2	1.7	0.6	3.00	0.31	27.8	
L3+50S 10+00W	5	5	21	860	6	<1	26	96	13	5.31	5	<1	5	1.13	50	110	0.4	16.0	5	<0.03	<0.05	<1	17.0	4.7	<4	50	58	110	35	7.0	1.4	<0.5	3.90	0.50	28.3	
L3+50S 10+50W	5	5	16	650	8	<1	29	81	18	5.54	5	<1	5	1.17	50	110	0.6	14.0	5	<0.03	<0.05	<1	15.0	6.1	<4	138	48	85	34	8.4	1.3	<0.5	3.40	0.39	24.4	
L3+50S 11+00W	5	5	9	560	5	4	31	93	22	6.06	4	<1	5	0.95	50	140	0.6	18.0	5	<0.03	<0.05	<1	17.0	7.2	8	50	57	100	39	7.4	1.8	1.8	4.00	0.66	28.4	

Certified: 

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
3+50S 11+50W	<5	<5	26	770	14	<1	19	92	17	5.59	6	<1	<5	8	1.01	<50	110	0.6	14.0	<5	<0.03	<0.05	<1	17.0	3.2	4	<50	50	91	31	6.3	1.4	1.0	3.30	0.31	25.8
4+00S 0+00W	11	<5	140	940	<1	<1	25	31	46	8.41	6	<1	<5	<5	1.55	<50	150	0.5	20.0	<5	<0.03	<0.05	<1	14.0	4.0	<4	<50	55	110	52	10.0	2.3	<0.5	3.40	0.24	11.1
4+00S 0+50W	NO SAMPLE																																			
4+00S 1+00W	NO SAMPLE																																			
4+00S 1+50W	<5	<5	26	1000	11	<1	13	41	7	3.33	6	<1	<5	<5	1.89	<50	100	0.3	7.6	<5	<0.04	<0.05	<1	14.0	5.3	6	<50	40	80	29	4.5	1.5	<0.5	1.90	0.28	23.0
4+00S 2+00W	<5	<5	14	1100	9	<1	<5	52	14	4.73	5	<1	<5	<5	1.68	<50	110	0.8	9.7	<5	<0.04	<0.05	<1	18.0	10.0	10	<50	56	98	29	6.7	1.5	<0.5	2.90	0.20	18.5
4+00S 2+50W	6	<5	5	800	<1	<1	<5	62	22	7.36	3	<1	<5	27	0.88	<50	130	0.7	11.0	<5	<0.03	<0.05	4	19.0	11.0	97	258	53	100	40	7.0	1.8	<0.5	4.30	0.40	18.6
4+00S 3+00W	9	<5	6	530	9	3	15	37	15	6.37	6	<1	<5	91	1.20	<50	120	0.8	7.4	<5	<0.03	<0.05	<1	11.0	5.7	180	<50	31	61	20	4.0	1.1	<0.5	1.80	0.10	18.9
4+00S 3+50W	<5	<5	6	390	9	5	8	40	8	2.88	3	<1	<5	<5	1.07	<50	<30	0.3	7.7	<5	<0.02	<0.05	<1	7.3	5.2	5	<50	26	39	17	3.2	0.8	<0.5	1.94	0.24	3.9
4+00S 4+00W	<5	<5	14	1000	11	<1	10	37	10	3.19	4	<1	<5	22	1.70	<50	<30	0.6	7.7	<5	<0.03	<0.05	<1	11.0	4.1	7	<50	44	61	25	4.7	1.2	<0.5	2.10	0.16	15.8
4+00S 4+50W	<5	<5	99	570	1	<1	26	83	27	5.77	6	<1	<5	27	0.74	<50	160	<0.2	15.0	<5	<0.03	<0.05	<1	30.0	9.7	16	<50	67	120	43	8.0	1.8	<0.5	4.70	0.57	27.3
4+00S 5+00W	NO SAMPLE																																			
4+00S 5+50W	NO SAMPLE																																			
4+00S 6+00W	<5	<5	3	<100	18	5	5	10	3	0.94	2	<1	<5	<5	0.21	<50	<30	<0.2	2.8	<5	<0.02	<0.05	<1	3.1	1.6	<4	<50	9	12	45	1.3	0.6	<0.5	1.35	0.20	1.9
4+00S 6+50W	7	<5	53	650	10	<1	24	45	7	6.34	3	<1	<5	<5	1.07	<50	<30	0.2	12.0	<5	<0.03	0.10	<1	11.0	3.8	<4	196	65	110	40	8.7	6.3	1.1	3.60	0.59	20.9
4+00S 7+00W	<5	<5	140	510	9	3	29	76	11	6.95	3	<1	<5	12	0.63	<50	110	<0.2	15.0	<5	<0.03	<0.05	<1	14.0	3.3	<4	110	62	110	46	8.0	3.8	1.8	3.70	0.33	17.3
4+00S 7+50W	<5	<5	8	580	15	<1	<5	45	7	3.48	3	<1	<5	<5	1.58	<56	81	<0.2	8.6	<5	<0.03	<0.05	<1	7.3	3.3	<4	<50	31	55	28	4.5	1.3	<0.5	2.80	0.26	11.8
4+00S 8+00W	NO SAMPLE																																			
4+00S 8+50W	NO SAMPLE																																			
4+00S 9+00W	<5	<5	3	770	11	3	<5	23	2	3.07	4	<1	<5	6	2.16	<50	<30	<0.2	7.0	<5	<0.03	<0.05	<1	6.2	2.2	<4	<50	22	45	17	3.3	1.2	<0.5	1.60	0.09	18.0
4+00S 9+50W	<5	<5	13	740	6	<1	14	57	10	4.22	4	<1	<5	9	1.43	<50	96	<0.2	10.0	<5	<0.03	<0.05	<1	11.0	2.6	<4	128	37	68	25	4.6	0.9	<0.5	2.10	0.14	19.9
4+00S 10+00W	<5	<5	16	670	18	<1	16	70	16	4.33	5	<1	<5	<5	0.87	<57	130	0.8	12.0	<5	<0.03	<0.05	<1	14.0	4.6	<4	<50	41	82	20	5.4	1.2	0.9	2.10	0.36	10.3
4+00S 10+50W	<5	<5	22	630	14	<1	23	86	21	6.28	5	<1	<5	<5	1.49	<50	130	0.5	16.0	<5	<0.03	<0.05	<1	15.0	3.4	6	<50	45	87	35	6.3	1.6	<0.5	3.20	0.32	18.5
4+50S 1+50W	<5	<5	12	1500	6	<1	26	110	20	6.97	6	<1	<5	<5	1.16	<56	170	<0.2	19.0	<5	<0.03	<0.05	<1	21.0	6.2	13	235	78	150	47	9.5	2.0	<0.5	4.10	0.46	13.7
4+50S 2+00W	10	<5	33	600	5	<1	14	30	10	3.47	5	<1	<5	<5	1.70	<50	70	0.4	9.6	<5	<0.02	<0.05	<1	10.0	3.0	6	78	40	53	14	3.7	1.0	<0.5	1.97	0.21	7.1
4+50S 2+50W	<5	<5	7	270	7	<1	<5	11	5	1.08	3	<1	<5	<5	0.34	<50	<30	0.3	3.8	<5	<0.02	<0.05	<1	3.9	2.0	4	<50	13	23	5	1.3	0.3	<0.5	0.95	0.12	3.1
4+50S 3+00W	<5	<5	24	960	9	3	16	53	24	4.47	6	<1	<5	12	1.00	<50	99	2.7	9.2	<5	<0.03	<0.05	<1	16.0	4.8	7	<50	42	74	22	4.9	1.4	<0.5	2.10	0.35	22.5
4+50S 3+50W	<5	<5	21	940	8	2	10	47	8	3.40	3	<1	<5	10	1.63	<50	110	0.5	8.9	<5	<0.03	<0.05	<1	16.0	4.7	11	<50	48	77	28	5.1	1.1	<0.5	2.40	0.25	26.4
4+50S 4+00W	7	<5	46	820	8	<1	14	48	12	4.04	5	<1	<5	7	1.68	<50	130	0.3	9.8	<5	<0.03	<0.05	<1	13.0	4.0	7	<50	48	78	31	5.2	1.2	<0.5	2.00	0.22	21.2
4+50S 4+50W	<5	<5	54	490	5	<1	23	80	23	5.98	8	<1	<5	18	0.74	<50	170	<0.2	16.0	<5	<0.03	<0.05	<1	30.0	7.9	17	<50	66	120	42	7.5	1.6	<0.5	4.40	0.58	25.9
4+50S 5+00W	NO SAMPLE																																			
4+50S 5+50W	13	<5	160	250	<1	<1	44	95	31	8.38	10	<1	<5	36	0.66	<50	200	2.4	21.0	<5	<0.03	<0.05	1	31.0	6.5	50	168	86	190	55	12.0	2.8	1.7	6.00	0.93	13.6
4+50S 6+00W	<5	<5	71	330	12	<1	35	48	9	5.76	2	<1	<5	11	0.91	<50	87	0.3	9.6	<5	<0.04	<0.05	<1	9.1	9.4	<4	<50	46	82	38	6.6	3.4	<0.5	2.90	0.53	12.6
4+50S 6+50W	<5	<5	56	380	9	3	<5	38	7	4.32	2	<1	<5	10	0.71	<50	67	0.3	7.2	<5	<0.03	<0.05	<1	7.2	7.0	<4	<50	36	66	30	5.0	2.6	<0.5	1.90	0.21	17.0
4+50S 7+00W	6	<5	220	600	<1	6	34	71	13	3.31	4	<1	<5	5	0.75	<50	120	0.8	10.0	<5	<0.02	<0.05	1	11.0	4.1	<4	159	55	110	35	6.8	3.0	<0.5	3.80	0.57	33.7
4+50S 7+50W	NO SAMPLE																																			
4+50S 8+00W	NO SAMPLE																																			
4+50S 8+50W	NO SAMPLE																																			
4+50S 9+00W	<5	<5	9	450	7	5	24	63	25	5.45	2	<1	<5	<5	0.73	<50	68	0.7	11.0	<5	<0.03	<0.05	<1	10.0	3.0	<4	144	38	68	30	5.2	1.5	<0.5	3.00	0.50	22.4
4+50S 9+50W	6	<5	8	430	6	4	24	73	21	6.08	3	<1	<5	<5	0.50	<50	98	0.5	14.0	<5	<0.03	0.08	<1	12.0	2.5	<4	207	49	86	31	6.8	1.9	0.9	4.20	0.40	26.2

Certified: 

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
+50S 10+00W	5	5	13	650	11	2	36	99	18	5.90	4	<1	5	0.96	<50	110	0.5	15.0	5	<0.03	<0.05	<1	15.0	4.3	5	164	52	110	33	6.5	1.5	<0.5	3.10	0.37	25.9	
+50S 0+50E	6	5	23	650	<1	3	23	94	13	5.64	7	<1	12	1.17	<50	120	0.3	15.0	5	<0.03	<0.05	<1	16.0	4.3	44	<50	60	110	38	7.4	1.9	<0.5	3.60	0.54	32.2	
+50S 1+00E	5	5	14	870	7	<1	11	64	8	4.51	6	<1	10	1.42	<50	61	0.4	10.0	5	<0.03	<0.05	<1	13.0	3.7	140	129	45	84	27	5.5	1.3	<0.5	2.30	0.23	24.2	
+50S 1+50E	5	5	16	730	7	3	15	83	9	4.88	3	<1	6	1.06	<50	90	0.5	13.0	5	<0.03	<0.05	2	17.0	4.1	31	169	53	100	26	6.6	1.6	1.2	3.10	0.51	27.0	
+50S 2+00E	7	5	13	810	8	<1	14	72	8	4.50	5	<1	5	1.16	<50	110	0.4	12.0	5	<0.03	<0.05	2	17.0	4.6	31	121	50	93	32	6.0	1.5	<0.5	2.80	0.31	26.7	
+50S 2+50E	5	5	15	870	9	<1	12	68	8	3.91	6	<1	5	1.12	<50	130	0.4	11.0	5	<0.03	<0.05	<1	17.0	4.3	11	102	48	82	27	5.9	1.5	<0.5	2.80	0.32	27.4	
+50S 3+00E	5	5	9	990	10	<1	7	61	7	2.97	7	<1	5	1.44	<50	83	0.5	8.7	5	<0.03	<0.05	<1	13.0	4.1	5	<50	34	61	24	4.1	1.0	<0.5	1.80	0.34	23.8	
+50S 3+50E	5	5	8	780	14	<1	8	20	3	2.84	2	<1	5	2.22	<50	30	0.4	6.5	5	<0.03	<0.05	<1	8.6	4.0	14	<50	28	45	18	3.2	1.1	<0.5	1.50	0.24	19.0	
+50S 4+00E	5	5	12	850	7	<1	13	93	14	4.65	6	<1	5	1.00	<50	120	0.5	13.0	5	<0.03	<0.05	<1	16.0	4.2	11	101	50	92	35	6.1	1.4	<0.5	2.90	0.38	26.9	
+50S 4+50E	5	5	13	810	8	<1	13	68	9	4.33	6	<1	5	1.22	<50	75	0.6	11.0	5	<0.03	<0.05	2	14.0	3.8	4	<50	47	82	28	5.5	1.6	<0.5	2.50	0.25	25.8	
+50S 5+00E	5	5	12	1000	8	<1	5	57	8	2.92	7	<1	7	1.38	<50	120	0.4	8.7	5	<0.03	0.08	<1	13.0	4.3	5	<50	38	67	19	4.4	1.1	<0.5	2.30	0.22	20.8	
10+00S 0+50E	5	5	13	830	5	<1	19	94	11	5.44	7	<1	10	1.10	<50	97	0.6	15.0	5	<0.03	<0.05	2	18.0	4.9	31	130	59	110	39	7.2	1.7	<0.5	3.90	0.44	29.7	
10+00S 1+00E	5	5	12	710	6	2	17	100	8	4.89	7	<1	5	1.12	<50	100	0.6	13.0	5	<0.03	<0.05	2	17.0	3.9	21	130	54	110	33	6.8	1.4	<0.5	3.40	0.47	25.5	
10+00S 1+50E	5	5	14	760	3	<1	16	97	9	4.80	8	<1	7	1.10	<50	120	0.5	14.0	5	<0.03	<0.05	<1	18.0	4.7	22	148	62	110	38	7.5	1.5	1.6	3.80	0.45	32.3	
10+00S 2+00E	5	5	10	740	6	<1	24	81	11	7.34	5	<1	8	0.82	<50	64	0.5	14.0	5	<0.03	<0.05	2	14.0	2.8	13	<50	54	93	35	7.4	2.2	1.1	4.10	0.38	26.5	
10+00S 2+50E	5	5	12	740	7	3	13	68	8	4.69	5	<1	5	1.33	<50	54	0.7	11.0	5	<0.03	<0.05	<1	14.0	3.5	11	92	44	79	32	5.8	1.6	<0.5	2.90	0.28	25.9	
10+00S 3+00E	5	5	13	840	8	<1	18	77	10	4.73	5	<1	7	1.27	<50	30	0.5	13.0	5	<0.03	<0.05	<1	15.0	4.1	13	81	50	88	27	6.5	1.2	<0.5	3.10	0.32	21.0	
10+00S 3+50E	5	5	18	930	7	<1	13	70	9	4.20	6	<1	5	1.17	<50	100	0.5	11.0	5	<0.03	<0.05	<1	17.0	4.0	10	103	47	89	29	5.7	1.3	<0.5	2.50	0.41	26.5	
10+00S 4+00E	5	5	7	830	10	<1	5	35	4	2.44	5	<1	5	2.26	<50	63	0.5	6.5	5	<0.03	<0.05	<1	8.2	3.5	4	164	28	50	18	3.3	1.0	<0.5	1.80	0.24	20.2	
10+00S 4+50E	5	5	26	1100	7	3	14	76	11	4.19	7	<1	7	1.25	<50	140	0.6	11.0	5	<0.03	<0.05	<1	20.0	3.6	11	126	52	100	23	5.9	1.5	<0.5	2.90	0.41	26.9	
10+00S 5+00E	5	5	13	890	8	2	9	52	9	3.35	7	<1	5	1.58	120	96	0.5	8.5	5	<0.03	<0.05	<1	11.0	3.5	6	88	35	59	19	4.2	1.2	<0.5	2.00	0.19	20.9	
10+50S 0+00W	5	5	13	930	12	2	21	98	14	6.33	3	<1	11	1.04	<50	96	0.8	16.0	5	<0.03	<0.05	<1	18.0	4.6	21	<50	59	110	44	7.5	1.8	<0.5	3.30	0.40	25.3	
10+50S 0+50W	5	5	12	810	10	2	19	96	9	5.08	8	<1	5	1.14	<50	97	0.8	14.0	5	<0.03	<0.05	<1	17.0	5.5	13	<50	56	100	34	7.3	1.8	<0.5	3.70	0.51	25.6	
10+50S 0+50E	5	5	10	850	9	<1	15	73	7	4.65	7	<1	9	1.83	<50	30	0.4	13.0	5	<0.03	<0.05	<1	16.0	3.5	17	105	53	96	35	6.9	1.5	1.2	3.30	0.29	26.4	
10+50S 1+00E	5	5	11	840	<1	3	16	90	9	5.19	7	<1	7	1.19	<50	120	0.6	14.0	5	<0.03	<0.05	2	17.0	3.9	31	98	59	110	39	7.5	1.6	<0.5	3.90	0.39	32.4	
10+50S 1+50E	5	5	9	750	6	4	21	81	10	9.50	4	<1	5	0.67	<50	91	0.4	15.0	5	<0.03	<0.05	<1	15.0	4.8	10	125	82	100	39	9.2	3.6	1.4	5.60	0.62	28.6	
10+50S 2+00E	5	5	13	920	8	4	18	87	11	5.35	3	<1	8	1.23	<50	93	0.4	13.0	5	<0.03	<0.05	<1	18.0	4.6	17	196	55	89	37	6.9	1.6	<0.5	2.90	0.27	29.3	
10+50S 2+50E	5	5	16	940	14	2	14	69	8	4.38	6	<1	5	1.49	<50	92	0.6	11.0	5	<0.03	<0.05	<1	15.0	3.8	12	<50	47	84	28	6.1	1.5	<0.5	2.90	0.50	26.9	
10+50S 3+00E	5	5	12	790	7	2	17	71	11	5.07	5	<1	8	0.94	<50	80	0.6	13.0	5	<0.03	<0.05	<1	15.0	4.3	10	100	48	96	31	6.5	1.6	<0.5	3.00	0.27	29.3	
10+50S 3+50E	5	5	17	970	7	<1	6	43	6	2.88	7	<1	7	1.76	<50	140	0.4	7.2	5	<0.03	<0.05	<1	12.0	4.4	4	85	30	53	18	3.4	0.9	0.7	1.60	0.19	20.6	
10+50S 4+00E	5	5	18	890	10	2	18	89	10	5.58	7	<1	7	1.20	<50	140	0.5	14.0	5	<0.03	<0.05	<1	16.0	5.5	18	81	58	110	35	7.4	1.7	1.4	3.40	0.29	27.3	
10+50S 4+50E	5	5	17	890	10	<1	7	26	6	2.84	5	<1	11	2.26	<50	30	0.4	6.3	5	<0.04	<0.05	<1	12.0	7.0	4	<50	30	52	18	3.6	0.9	<0.5	1.50	0.09	17.7	
10+50S 5+00E	5	5	7	780	9	<1	5	23	9	2.24	6	<1	7	2.31	<50	30	0.4	5.9	5	<0.04	<0.05	<1	10.0	3.6	4	<50	30	49	17	3.2	0.8	<0.5	1.30	0.25	20.3	
11+00S 0+00W	5	5	7	790	13	2	5	93	7	4.18	6	<1	5	1.08	<50	120	0.6	12.0	5	<0.04	<0.05	<1	13.0	3.8	8	143	49	92	34	5.8	1.2	<0.5	3.20	0.47	20.4	
11+00S 0+50W	5	5	9	780	4	<1	17	91	10	4.97	6	<1	7	1.14	<50	92	0.5	14.0	5	<0.03	<0.05															

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
L11+00S 1+50E	♂	♂	13	720	12	4	♂	92	11	5.37	3	♂	♂	23	1.05	♂50	150	♂0.2	12.0	♂	♂0.04	♂0.05	♂1	14.0	3.0	18	♂50	49	90	34	5.8	1.4	♂0.5	2.80	0.40	24.5
L11+00S 2+00E	♂	♂	4	580	9	3	11	32	6	3.79	5	♂1	♂	♂	2.19	♂50	91	0.4	7.5	♂	♂0.04	♂0.05	♂1	8.3	2.7	♂4	♂50	27	46	14	3.4	1.1	♂0.5	1.60	0.25	19.9
L11+00S 2+50E	♂	♂	10	580	10	♂1	13	58	8	4.54	4	♂1	♂	♂	1.31	♂50	110	0.3	9.4	♂	♂0.04	♂0.05	♂1	12.0	3.2	8	♂50	36	75	30	4.4	1.3	♂0.5	2.00	0.30	20.4
L11+00S 3+00E	♂	♂	18	810	10	♂1	15	48	11	3.85	4	♂1	♂	♂	1.78	♂50	100	0.4	8.8	♂	♂0.04	♂0.05	♂1	11.0	2.5	♂4	♂50	37	73	27	4.4	1.4	♂0.5	2.20	0.32	18.7
L11+00S 3+50E	NO SAMPLE																																			
L11+00S 4+00E	7	♂	29	950	8	♂1	11	62	8	3.43	7	♂1	♂	7	1.55	♂50	120	0.6	9.0	♂	♂0.03	♂0.05	♂1	16.0	4.2	7	♂50	45	81	23	4.8	1.3	♂0.5	2.30	0.39	23.2
L11+00S 4+50E	♂	♂	16	900	7	♂1	16	87	9	4.73	5	♂1	♂	11	1.24	♂50	61	0.5	13.0	♂	♂0.03	♂0.05	♂1	14.0	3.5	10	♂50	51	91	27	6.0	1.5	♂0.5	2.50	0.38	25.0
L11+00S 5+00E	♂	♂	31	630	5	5	♂	50	19	3.62	5	♂	♂	10	1.61	♂50	44	0.4	10.0	♂	♂0.03	0.07	♂1	17.0	5.8	♂4	♂50	41	61	24	4.8	1.5	♂0.5	2.10	0.35	25.3
L11+50S 0+00W	♂	♂	9	690	5	♂1	19	87	9	5.25	7	♂1	♂	15	1.16	♂50	78	0.6	12.0	♂	♂0.03	♂0.05	2	14.0	3.9	46	131	47	94	25	5.5	1.3	♂0.5	2.80	0.41	28.3
L11+50S 0+50W	NO SAMPLE																																			
L11+50S 1+00W	♂	♂	44	810	♂1	♂1	19	84	7	6.74	8	♂1	♂	13	1.29	♂50	65	0.6	12.0	♂	♂0.03	♂0.05	♂1	19.0	6.8	52	♂50	66	100	42	6.8	1.6	1.2	4.50	0.71	31.2
L11+50S 1+50W	♂	♂	60	860	10	♂1	13	48	8	3.46	3	♂1	♂	62	0.65	♂50	60	♂0.2	9.5	♂	♂0.04	♂0.05	♂1	22.0	5.1	15	♂50	♂1	77	26	4.1	0.9	♂0.5	2.20	0.32	12.5
L11+50S 2+00W	♂	♂	57	470	5	6	♂	71	9	5.48	6	♂1	♂	12	1.03	♂50	54	0.5	10.0	♂	♂0.03	0.06	♂1	16.0	4.2	25	120	47	84	26	5.4	1.4	♂0.5	3.30	0.38	30.4
L11+50S 2+50W	♂	♂	17	270	4	♂1	22	46	10	6.61	1	♂1	♂	13	0.40	♂50	68	♂0.2	8.1	♂	♂0.02	♂0.05	2	7.0	2.3	7	♂50	22	41	12	3.2	0.8	♂0.5	2.10	0.31	31.9
L11+50S 0+50E	♂	♂	9	860	8	3	13	82	11	4.78	5	♂1	♂	12	0.94	♂50	95	0.5	11.0	♂	♂0.03	♂0.05	♂1	13.0	3.5	6	♂50	41	82	29	5.2	1.4	♂0.5	2.60	0.40	22.5
L11+50S 1+00E	♂	♂	7	880	9	♂1	12	93	8	4.60	7	♂1	♂	5	1.05	♂50	68	0.6	12.0	♂	♂0.03	♂0.05	♂1	13.0	3.9	9	♂50	47	86	26	5.4	1.2	♂0.5	3.20	0.38	27.2
L11+50S 1+50E	♂	♂	5	730	4	♂1	15	75	13	4.62	4	♂1	♂	15	0.97	♂50	67	0.5	11.0	♂	♂0.03	♂0.05	♂1	12.0	3.3	20	73	45	82	32	5.1	1.1	♂0.5	2.70	0.41	24.2
L11+50S 2+00E	♂	♂	6	720	5	♂1	14	88	9	5.32	5	♂1	♂	13	1.00	♂50	77	0.3	13.0	♂	♂0.03	♂0.05	♂1	14.0	3.1	18	112	53	93	32	5.9	1.4	♂0.5	2.70	0.41	28.2
L11+50S 2+50E	♂	♂	9	400	8	♂1	♂	61	17	4.13	3	♂1	♂	♂	0.47	♂50	74	0.4	9.8	♂	♂0.03	♂0.05	♂1	12.0	2.6	8	71	♂1	72	22	4.8	1.2	♂0.5	2.50	0.39	20.7
L11+50S 3+00E	♂	♂	53	760	8	♂1	13	52	16	4.29	4	♂1	♂	♂	1.41	♂50	110	0.3	11.0	♂	♂0.03	♂0.05	♂1	15.0	3.5	4	114	47	89	25	5.6	1.9	♂0.5	2.50	0.38	26.6
L11+50S 3+50E	♂	♂	26	850	11	♂1	♂	50	8	3.14	5	♂1	♂	♂	1.72	♂50	80	0.3	7.2	♂	♂0.03	♂0.05	♂1	14.0	4.5	4	134	46	75	24	4.8	1.3	1.0	2.10	0.32	22.5
L11+50S 4+00E	♂	♂	18	870	8	2	9	59	7	3.26	6	♂1	♂	♂	1.86	♂50	87	0.5	9.0	♂	♂0.03	♂0.05	♂1	13.0	3.0	5	♂50	39	68	17	4.3	1.2	♂0.5	2.00	0.31	23.2
L11+50S 4+50E	♂	♂	23	700	10	♂1	9	57	13	3.42	4	♂1	♂	10	1.33	♂50	♂30	0.4	9.5	♂	♂0.03	♂0.05	♂1	14.0	10.0	8	138	65	72	42	6.4	1.6	1.1	2.70	0.38	21.8
L11+50S 5+00E	♂	♂	22	700	7	♂1	7	72	10	3.18	7	♂1	♂	12	1.10	♂50	100	0.4	8.9	♂	♂0.03	♂0.05	2	17.0	3.4	5	♂50	52	66	29	5.3	1.3	♂0.5	2.60	0.40	28.1
L12+00S 0+00W	♂	♂	20	970	9	3	♂	100	12	5.61	7	♂1	♂	21	1.03	♂50	♂30	0.6	14.0	♂	♂0.02	♂0.05	♂1	18.0	4.0	17	175	55	110	42	6.6	1.7	1.5	2.80	0.42	12.3
L12+00S 0+50W	♂	♂	32	910	7	♂1	14	85	10	5.02	10	♂1	♂	17	2.26	♂50	110	0.7	13.0	♂	♂0.02	♂0.05	4	38.0	8.5	28	♂50	75	140	42	7.3	1.8	♂0.5	3.70	0.50	17.0
L12+00S 1+00W	7	♂	13	820	8	♂1	8	33	4	2.82	6	♂1	♂	10	2.20	♂50	110	0.7	7.1	♂	♂0.02	0.11	♂1	17.0	3.8	♂4	♂50	44	72	18	4.1	1.2	♂0.5	1.90	0.32	16.1
L12+00S 1+50W	♂	♂	34	720	6	♂1	12	67	16	4.86	6	♂1	♂	19	1.35	♂50	120	0.6	15.0	♂	♂0.02	♂0.05	♂1	66.0	9.9	6	146	210	200	95	17.0	3.0	♂0.5	6.90	1.12	21.9
L12+00S 2+00W	♂	♂	35	770	♂1	♂1	11	75	9	4.25	9	♂1	♂	22	1.29	140	67	0.4	12.0	♂	♂0.02	♂0.05	2	31.0	5.9	14	136	53	140	28	5.0	1.1	♂0.5	3.30	0.50	24.7
L12+00S 2+50W	♂	♂	21	480	♂1	♂1	15	72	11	4.46	4	♂1	♂	13	0.91	♂50	48	0.5	8.8	♂	♂0.02	♂0.05	3	9.0	3.0	13	134	32	54	17	4.0	1.0	♂0.5	2.70	0.40	30.2
L12+00S 3+00W	♂	♂	200	350	11	5	13	70	17	3.91	4	♂1	♂	5	0.58	♂50	66	♂0.2	10.0	♂	♂0.03	♂0.05	♂1	11.0	2.2	5	140	39	65	22	5.0	1.2	♂0.5	2.90	0.45	23.1
L12+00S 3+50W	♂	♂	61	400	13	♂1	♂	68	14	4.28	3	♂1	♂	♂	0.62	♂50	60	♂0.2	10.0	♂	♂0.03	♂0.05	2	10.0	2.1	♂4	♂50	40	71	19	4.9	1.3	♂0.5	2.70	0.40	23.0
L12+00S 4+00W	♂	♂	270	500	11	4	31	80	23	5.36	4	♂1	♂	♂	0.71	♂50	77	♂0.2	14.0	♂	♂0.03	♂0.05	♂1	16.0	3.6	5	123	54	110	35	6.6	1.6	♂0.5	4.70	0.79	23.8
L12+00S 4+50W	♂	♂	330	360	7	♂1	29	70	14	6.38	2	♂1	♂	16	0.28	♂50	66	♂0.2	11.0	♂	♂0.03	♂0.05	♂1	11.0	2.2	20	163	37	67	25	4.7	1.1	♂0.5	3.30	0.40	26.5
L12+00S 5+00W	♂	♂	14	240	8	♂1	21	46	10	5.24	2	♂1	♂	♂	0.34	♂50	♂30	♂0.2	9.4	♂	♂0.02	♂0.05	♂1	9.3	2.1	8	117	42	75	20	5.1	1.1	0.7	3.80	0.42	27.3
L12+00S 5+50W	♂	♂	110	400	3	2																														

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
L12+00S 8+00W	♂	♂	7	640	5	<1	22	99	16	4.93	6	<1	♂	16	1.01	<50	120	0.8	13.0	♂	<0.03	<0.05	<1	13.0	2.6	8	92	46	84	31	5.4	1.2	<0.5	2.90	0.45	27.1
L12+00S 8+50W	♂	♂	4	470	<1	2	16	120	83	5.23	4	<1	♂	15	0.48	<50	150	<0.2	19.0	♂	<0.02	<0.05	<1	18.0	3.7	5	90	66	120	41	7.5	1.2	1.1	3.70	0.51	27.6
L12+00S 9+00W	♂	♂	5	630	5	<1	19	95	43	4.84	5	<1	♂	6	0.67	<50	110	<0.2	14.0	♂	<0.03	<0.05	<1	14.0	2.3	4	134	51	98	34	5.9	1.0	0.8	3.60	0.50	25.6
L12+00S 9+50W	♂	♂	8	520	8	2	31	91	29	6.23	5	<1	♂	23	0.69	<50	110	<0.2	16.0	♂	<0.03	<0.05	<1	15.0	3.0	41	84	52	100	33	6.4	1.5	0.9	4.00	0.66	24.2
L12+00S 10+00W	♂	♂	22	330	4	<1	17	90	31	4.67	3	<1	♂	8	0.28	<50	200	0.8	15.0	♂	<0.02	<0.05	1	15.0	2.6	11	<50	54	89	34	6.3	1.5	1.0	3.60	0.51	28.7
L12+00S 10+50W	♂	♂	7	450	10	<1	16	84	20	4.64	5	<1	♂	13	0.57	<50	93	0.6	12.0	♂	<0.03	<0.05	<1	13.0	3.2	4	<50	46	88	30	5.6	1.2	<0.5	3.00	0.45	22.1
L12+00S 11+00W	♂	♂	8	570	8	5	30	89	17	5.99	4	<1	♂	13	0.68	<50	110	0.6	15.0	♂	<0.03	<0.05	<1	14.0	2.8	4	152	60	100	32	7.4	1.9	<0.5	4.30	0.61	26.7
L12+00S 11+50W	♂	♂	180	530	14	2	28	100	22	6.16	6	<1	♂	12	0.63	<50	160	<0.2	18.0	♂	<0.03	<0.05	<1	17.0	3.7	5	127	66	120	50	8.2	2.1	0.9	4.50	0.69	24.0
L12+00S 12+00W	♂	♂	7	340	7	<1	29	79	12	5.40	2	<1	♂	30	0.60	<50	83	0.6	13.0	♂	<0.02	<0.05	<1	13.0	2.8	14	189	47	81	30	5.8	1.7	1.1	4.20	0.65	25.3
L12+00S 12+50W	♂	♂	22	320	8	9	25	65	14	6.08	3	<1	♂	10	0.38	<50	60	0.9	13.0	♂	<0.03	<0.05	<1	9.9	2.5	9	159	45	77	37	5.9	1.6	1.1	3.70	0.50	23.7
L12+00S 13+00W	♂	♂	6	620	6	3	16	95	7	4.13	5	<1	♂	9	1.15	<50	75	0.4	14.0	♂	<0.03	<0.05	<1	12.0	3.5	4	111	48	89	28	5.8	1.3	<0.5	2.80	0.40	24.4
L12+00S 13+50W	♂	♂	6	420	13	<1	14	76	8	3.71	4	<1	♂	5	0.70	<50	30	0.4	11.0	♂	<0.03	<0.05	2	9.5	3.0	4	127	44	82	34	6.1	1.7	1.1	3.10	0.47	18.6
L12+00S 14+00W	♂	♂	9	250	14	<1	♂	53	10	3.43	3	<1	♂	5	0.53	<50	87	<0.2	9.7	♂	<0.03	<0.05	<1	8.9	<0.5	4	<50	38	70	27	5.3	1.6	0.9	3.50	0.50	14.0
L12+00S 14+50W	♂	♂	18	670	6	4	♂	91	15	4.80	4	<1	♂	8	0.61	<50	110	0.5	15.0	♂	<0.03	<0.05	<1	13.0	2.3	4	<50	53	90	36	6.6	1.6	1.0	3.90	0.55	24.8
L12+00S 15+00W	♂	♂	3	940	6	<1	18	94	15	4.95	4	<1	♂	5	0.52	<50	130	0.5	16.0	♂	<0.03	<0.05	2	14.0	2.1	4	<50	56	97	40	6.6	1.6	0.9	3.30	0.48	26.4
L12+00S 0+50E	♂	♂	5	960	11	<1	21	81	6	3.98	8	<1	♂	10	1.31	<50	82	0.6	11.0	♂	<0.03	<0.05	<1	13.0	2.4	4	101	46	83	28	5.0	1.2	0.8	2.40	0.40	25.8
L12+00S 1+00E	♂	♂	10	720	10	<1	14	77	10	4.44	6	<1	♂	15	0.79	<50	100	0.5	11.0	♂	<0.03	<0.05	<1	13.0	3.8	8	108	47	81	28	5.2	1.1	<0.5	2.40	0.35	22.1
L12+00S 1+50E	♂	♂	8	790	4	3	18	82	10	5.87	5	<1	♂	5	1.00	<50	100	0.4	12.0	♂	<0.02	<0.05	<1	14.0	3.4	10	147	55	93	32	5.9	1.4	<0.5	2.90	0.43	32.0
L12+00S 2+00E	♂	♂	6	630	6	<1	17	55	13	3.65	4	<1	♂	38	0.62	<50	120	0.5	8.9	♂	<0.03	<0.05	<1	11.0	3.2	10	158	33	61	21	3.9	0.9	<0.5	2.10	0.31	18.2
L12+00S 2+50E	♂	♂	23	730	6	<1	18	78	12	4.85	5	<1	♂	14	1.00	<50	90	0.5	12.0	♂	<0.02	<0.05	2	18.0	4.5	8	142	52	100	30	5.9	1.6	<0.5	3.00	0.45	27.7
L12+00S 3+00E	NO SAMPLE																																			
L12+00S 3+50E	♂	♂	21	700	6	2	8	48	7	2.81	6	<1	♂	7	1.85	<50	100	0.4	7.2	♂	<0.01	<0.05	<1	13.0	2.4	6	144	32	57	16	3.5	1.0	<0.5	1.50	0.28	20.3
L12+00S 4+00E	♂	♂	52	850	11	2	6	28	9	2.58	5	<1	♂	16	2.15	<50	70	0.4	6.1	♂	<0.02	<0.05	2	14.0	20.0	8	<50	45	66	28	4.0	1.0	<0.5	1.70	0.28	21.3
L12+00S 4+50E	♂	♂	52	840	12	3	12	68	18	3.76	4	<1	♂	12	1.30	<50	65	<0.2	11.0	♂	<0.02	<0.05	1	21.0	8.1	7	187	54	120	33	4.6	1.2	<0.5	2.40	0.36	22.7
L12+00S 5+00E	♂	♂	6	660	8	2	8	19	2	3.40	4	<1	♂	5	2.30	<50	54	0.4	8.0	♂	<0.02	<0.05	<1	7.1	<0.5	4	<50	25	55	24	3.0	1.0	<0.5	1.50	0.26	23.6
L12+50S 0+00W	♂	♂	26	910	5	2	15	80	12	5.30	5	<1	♂	5	0.85	<50	110	0.6	11.0	♂	<0.02	<0.05	1	20.0	4.6	4	167	56	130	35	6.1	1.6	<0.5	2.50	0.39	23.4
L12+50S 0+50W	♂	♂	41	830	<1	<1	13	60	13	4.74	12	<1	♂	14	1.40	<50	120	0.4	11.0	♂	<0.02	<0.05	2	55.0	8.0	4	170	70	160	45	6.7	1.4	<0.5	3.20	0.54	25.9
L12+50S 1+00W	♂	♂	26	350	5	2	13	68	10	4.70	8	<1	♂	11	1.02	<60	72	1.0	10.0	♂	<0.02	<0.05	1	41.0	6.7	23	<50	70	160	41	6.8	1.3	<0.5	4.00	0.60	22.6
L12+50S 1+50W	♂	♂	20	670	<1	<1	11	70	8	4.90	12	<1	♂	10	1.29	<50	80	0.4	11.0	♂	<0.02	<0.05	2	60.0	9.8	16	127	140	250	60	11.0	2.0	<0.5	4.00	0.66	28.8
L12+50S 2+00W	♂	♂	29	800	8	<1	12	86	10	5.00	6	<1	♂	6	1.19	<50	70	0.8	11.0	♂	<0.02	<0.05	2	39.0	6.5	19	138	79	160	46	8.2	1.6	<0.5	3.90	0.56	25.4
L12+50S 2+50W	♂	♂	55	690	10	5	15	85	12	5.29	6	<1	♂	20	0.95	<50	91	0.7	12.0	♂	<0.02	<0.05	1	30.0	4.0	16	<50	65	130	40	7.1	1.5	<0.5	3.80	0.52	24.0
L12+50S 3+00W	♂	♂	81	220	5	6	15	40	21	6.31	7	<1	♂	85	0.82	<50	110	1.2	10.0	♂	<0.02	<0.05	2	48.0	6.8	52	160	98	180	30	6.5	1.0	<0.5	4.00	0.65	28.0
L12+50S 3+50W	♂	♂	51	520	8	8	14	60	11	3.95	4	<1	♂	5	0.59	<50	55	0.9	10.0	♂	<0.02	<0.05	<1	9.8	2.2	4	162	33	58	29	4.3	1.2	<0.5	2.60	0.38	24.9
L12+50S 4+00W	♂	♂	130	330	12	14	15	40	10	3.95	2	<1	♂	8	0.23	<50	51	0.3	8.0	♂	<0.02	<0.05	1	7.7	2.5	4	73	26	47	13	3.2	0.9	<0.5	1.90	0	

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
L12+50S 7+50W	<5	<5	10	650	10	<1	19	84	12	5.58	4	<1	<5	20	0.68	<50	81	0.7	15.0	<5	<0.03	<0.05	<1	18.0	4.7	11	174	53	97	37	6.4	1.9	<0.5	2.70	0.43	15.3
L12+50S 8+00W	<5	<5	5	360	4	<1	18	89	15	6.05	5	<1	<5	10	0.57	<50	110	0.5	17.0	<5	<0.02	<0.05	2	17.0	2.6	<4	163	57	95	43	6.8	1.8	<0.5	3.20	0.58	26.9
L12+50S 8+50W	<5	<5	7	440	5	7	14	87	9	4.53	5	<1	<5	8	0.84	<50	52	0.5	12.0	<5	<0.02	<0.05	<1	13.0	2.8	<4	<50	41	89	28	4.8	1.4	<0.5	2.80	0.40	29.8
L12+50S 9+00W	<5	<5	6	410	7	14	12	64	10	3.75	4	<1	<5	4	0.51	170	90	0.5	9.0	<5	<0.01	<0.05	2	9.6	1.6	<4	68	32	50	29	3.7	1.0	<0.5	2.00	0.34	30.1
L12+50S 9+50W	<5	<5	60	580	7	3	20	120	25	5.81	5	<1	<5	9	0.53	<50	130	1.3	19.0	<5	<0.02	<0.05	<1	20.0	2.7	13	<50	71	110	52	8.3	2.4	<0.5	4.20	0.66	25.4
L12+50S 10+00W	11	<5	26	500	5	4	25	91	50	5.79	3	<1	<5	34	0.44	<50	150	1.5	15.0	<5	<0.02	0.07	3	16.0	3.0	14	104	59	99	36	7.3	2.2	<0.5	3.80	0.58	30.4
L12+50S 10+50W	<5	<5	9	560	6	2	20	100	17	4.99	7	<1	<5	17	0.92	180	120	1.0	15.0	<5	<0.02	<0.05	2	20.0	4.2	7	97	58	100	42	6.8	1.8	0.9	3.50	0.57	27.5
L12+50S 11+00W	<5	<5	38	660	6	4	23	110	19	6.30	8	<1	<5	21	0.88	<50	130	0.8	17.0	<5	<0.02	<0.05	<1	21.0	5.0	8	187	61	110	37	7.6	2.6	<0.5	3.60	0.69	27.0
L12+50S 11+50W	<5	<5	75	530	8	5	50	82	21	7.82	6	<1	<5	15	1.17	<50	75	0.8	16.0	<5	<0.02	<0.05	<1	18.0	4.5	12	153	63	120	57	8.2	3.3	1.3	3.40	0.63	23.2
L12+50S 12+00W	<5	<5	10	650	5	3	18	77	17	4.85	5	<1	<5	16	0.67	<50	140	0.8	14.0	<5	<0.02	<0.05	3	28.0	3.4	6	<50	49	89	30	5.6	1.6	<0.5	3.70	0.61	25.9
L12+50S 12+50W	<5	<5	16	790	6	<1	17	100	9	4.75	6	<1	<5	6	0.98	<50	78	0.8	14.0	<5	<0.02	<0.05	<1	17.0	5.2	11	77	50	91	35	5.9	1.5	<0.5	3.00	0.40	23.9
L12+50S 13+00W	<5	<5	9	650	6	3	14	76	9	4.74	5	<1	<5	10	1.07	<50	62	0.8	14.0	<5	<0.02	<0.05	2	15.0	2.9	<4	137	48	90	44	6.0	1.9	<0.5	2.90	0.41	20.8
L12+50S 13+50W	<5	<5	10	590	9	5	14	100	8	5.14	5	2	<5	16	0.67	<50	110	0.6	16.0	<5	<0.02	<0.05	<1	14.0	2.2	<4	150	51	87	36	6.5	1.9	<0.5	4.00	0.61	23.7
L12+50S 14+00W	12	<5	13	440	5	3	17	110	9	5.04	5	<1	<5	11	1.16	<50	110	0.5	15.0	<5	<0.02	<0.05	<1	16.0	3.8	<4	92	55	97	35	6.8	1.7	<0.5	3.30	0.57	25.6
L12+50S 14+50W	<5	<5	12	550	6	4	20	110	8	5.77	5	<1	<5	10	1.03	<50	79	0.4	17.0	<5	<0.02	<0.05	2	16.0	3.6	<4	111	51	85	42	6.4	1.9	<0.5	3.60	0.54	23.9
L12+50S 15+00W	<5	<5	7	1100	6	4	18	110	13	5.27	4	<1	<5	10	0.79	<50	130	0.5	17.0	<5	<0.02	<0.05	<1	17.0	2.2	<4	129	60	99	47	6.9	2.1	<0.5	3.70	0.55	24.6
L13+00S 0+00W	<5	<5	48	900	6	<1	20	77	14	6.02	8	<1	<5	21	1.08	<50	140	0.7	16.0	<5	<0.02	<0.05	3	48.0	11.0	19	134	87	190	65	8.9	1.9	1.4	4.00	0.64	26.2
L13+00S 0+50W	<5	<5	210	470	4	4	11	37	22	5.36	20	<1	<5	14	1.89	<50	160	1.9	16.0	<5	<0.02	<0.05	6	130.0	20.0	17	<50	92	410	61	8.3	2.0	<0.5	5.40	0.97	28.9
L13+00S 1+00W	<5	<5	28	410	<1	5	11	36	14	6.14	27	<1	<5	11	2.09	<50	160	0.6	17.0	<5	<0.02	<0.05	6	120.0	18.0	16	148	140	320	79	13.0	2.7	<0.5	7.70	1.22	30.8
L13+00S 1+50W	<5	<5	23	710	3	5	12	62	13	5.80	18	<1	<5	7	1.72	<50	130	0.8	17.0	<5	<0.02	<0.05	5	99.0	14.0	20	140	150	260	89	13.0	2.5	<0.5	7.30	1.21	27.6
L13+00S 2+00W	<5	<5	41	570	8	<1	8	55	12	4.51	12	<1	<5	22	1.20	<50	120	0.8	14.0	<5	<0.02	<0.05	4	83.0	11.0	12	103	120	190	82	9.4	1.7	<0.5	5.10	0.79	18.7
L13+00S 2+50W	<5	<5	24	400	8	7	9	47	12	3.69	7	<1	<5	24	0.94	<50	59	0.6	11.0	5	<0.02	<0.05	<1	36.0	4.3	13	<50	63	110	41	6.3	1.5	<0.5	3.20	0.57	23.1
L13+00S 3+00W	<5	<5	39	460	2	15	13	53	13	3.99	4	<1	<5	21	0.87	120	73	1.2	10.0	<5	<0.02	<0.05	3	26.0	4.7	14	156	49	81	32	5.4	1.2	<0.5	3.30	0.55	30.6
L13+00S 3+50W	<5	<5	280	370	5	13	16	64	14	4.50	4	<1	<5	14	0.62	<50	83	2.0	11.0	<5	<0.02	<0.05	<1	11.0	2.7	5	104	37	61	24	4.5	1.3	<0.5	2.90	0.35	28.7
L13+00S 4+00W	7	<5	40	290	6	15	12	41	15	3.26	3	<1	<5	5	0.22	<50	51	0.8	8.4	<5	<0.01	<0.05	<1	7.8	2.9	<4	<50	24	39	19	3.0	0.8	<0.5	1.60	0.26	28.1
L13+00S 4+50W	<5	<5	67	310	5	14	19	58	15	4.91	2	<1	<5	5	0.34	<50	76	0.8	10.0	<5	<0.01	<0.05	<1	9.1	1.7	7	53	32	50	14	3.9	1.0	<0.5	2.10	0.36	27.1
L13+00S 5+00W	<5	<5	55	420	10	11	14	53	13	4.27	2	<1	<5	8	0.40	99	39	0.5	8.8	<5	<0.01	<0.05	<1	8.7	1.6	<4	<50	27	44	15	3.5	1.1	<0.5	1.80	0.26	25.1
L13+00S 5+50W	<5	<5	31	520	2	9	25	84	19	6.94	4	3	<5	8	0.48	<50	82	0.6	14.0	<5	<0.02	<0.05	<1	14.0	2.4	<4	91	47	80	34	5.5	1.7	<0.5	2.60	0.44	31.9
L13+00S 6+00W	<5	<5	39	480	9	8	31	91	16	6.22	4	<1	<5	8	0.54	<50	110	0.8	15.0	<5	<0.02	<0.05	<1	17.0	1.8	<4	<50	57	110	47	7.1	2.0	<0.5	4.20	0.65	26.7
L13+00S 6+50W	<5	<5	10	900	3	3	24	100	20	8.84	3	<1	<5	5	0.54	180	150	0.7	18.0	<5	<0.02	<0.05	<1	20.0	2.9	11	176	53	100	44	6.8	1.9	1.1	3.80	0.56	30.0
L13+00S 7+00W	<5	<5	15	570	7	6	15	100	14	5.65	5	<1	<5	5	0.92	<50	98	0.6	14.0	<5	<0.02	<0.05	<1	15.0	2.5	<4	130	47	76	31	5.7	1.8	1.4	3.00	0.53	25.8
L13+00S 7+50W	<5	<5	52	300	7	<1	20	90	19	5.96	5	<1	<5	12	0.73	<50	76	0.5	16.0	<5	<0.02	<0.05	<1	17.0	1.8	8	94	56	91	36	6.6	1.7	<0.5	3.40	0.51	24.3
L13+00S 8+00W	<5	<5	5	360	4	8	18	83	14	5.66	4	<1	<5	5	0.55	<50	140	0.5	14.0	<5	<0.02	<0.05	<1	15.0	2.9	<4	80	49	79	38	5.7	1.5	0.8	2.90	0.44	26.5
L13+00S 8+50W	<5	<5																																		

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	Ni PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g		
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0		
L13+00S 12+00W	♂	♂	13	700	5	<1	15	100	8	4.86	7	<1	♂	♂	1.01	<50	100	0.8	14.0	♂	<0.02	<0.05	<1	18.0	3.0	7	92	49	91	33	5.9	1.5	0.9	3.30	0.48	30.1		
L13+00S 12+50W	♂	♂	10	720	7	3	11	71	9	3.64	5	<1	♂	♂	0.61	<50	61	0.5	14.0	♂	<0.02	<0.05	<1	17.0	4.7	6	81	41	77	30	4.9	1.2	<0.5	2.10	0.38	20.0		
L13+00S 13+00W	♂	♂	32	470	5	4	18	73	13	4.58	4	<1	♂	♂	14	0.62	<50	100	0.8	14.0	♂	<0.02	<0.05	3	16.0	3.5	8	152	47	87	32	5.7	1.5	<0.5	2.90	0.45	20.5	
L13+00S 13+50W	♂	♂	18	740	6	3	16	88	8	4.58	5	<1	♂	♂	♂	0.90	<50	100	0.5	15.0	♂	<0.02	<0.05	2	15.0	3.3	<4	<50	52	100	37	6.8	2.0	1.2	3.30	0.48	22.5	
L13+00S 14+00W	♂	♂	86	740	10	4	16	76	12	4.33	4	<1	♂	♂	8	0.89	<50	100	1.1	13.0	♂	<0.02	<0.05	<1	14.0	3.1	<4	164	45	79	33	5.9	1.9	0.9	3.60	0.50	18.5	
L13+00S 14+50W	NO SAMPLE																																					
L13+00S 15+00W	♂	♂	75	710	3	3	24	90	11	5.18	7	<1	♂	♂	5	1.08	<50	72	0.8	15.0	♂	<0.02	<0.05	<1	16.0	4.2	<4	120	55	96	39	6.7	1.9	<0.5	3.40	0.53	26.0	
L13+50S 0+00W	♂	♂	43	440	5	<1	16	77	12	5.68	11	<1	♂	♂	16	1.29	<50	150	0.3	15.0	♂	<0.02	<0.05	3	48.0	11.0	17	<50	78	150	56	8.1	1.9	<0.5	3.80	0.68	17.6	
L13+50S 0+50W	♂	♂	75	790	5	<1	12	56	13	5.69	15	<1	♂	♂	♂	1.43	<50	150	0.6	14.0	♂	<0.02	<0.05	<1	75.0	11.0	25	185	110	240	61	10.0	2.4	<0.5	4.90	0.74	23.7	
L13+50S 1+00W	20	♂	27	800	4	<1	13	84	12	5.40	17	<1	♂	♂	34	2.19	<50	170	1.5	15.0	♂	<0.02	<0.05	<2	77.0	12.0	17	<53	64	210	50	7.1	2.2	<0.5	4.10	0.69	9.9	
L13+50S 1+50W	14	♂	52	1200	<1	<1	18	57	34	6.89	24	<1	♂	♂	47	2.22	<50	170	<0.2	21.0	♂	<0.02	<0.05	<2	160.0	21.0	18	<63	250	510	150	21.0	2.0	<0.5	10.20	1.81	9.0	
L13+50S 2+00W	10	♂	49	620	4	9	9	39	18	4.94	15	<1	♂	♂	68	1.42	<50	170	0.8	14.0	♂	<0.02	<0.05	<1	81.0	12.0	20	<50	140	220	84	11.0	1.8	<0.5	5.60	0.96	19.8	
L13+50S 2+50W	♂	♂	23	400	10	<1	9	69	9	3.86	4	<1	♂	♂	8	0.75	<50	83	0.8	10.0	♂	<0.03	<0.05	<1	16.0	3.3	12	<50	43	70	31	5.1	1.3	<0.5	2.70	0.47	16.0	
L13+50S 3+00W	♂	♂	57	600	4	5	13	57	19	5.15	11	<1	♂	♂	♂	1.12	<50	140	0.4	16.0	♂	<0.03	<0.05	<1	65.0	8.0	8	<50	120	200	78	10.0	2.4	3.0	5.40	0.88	27.7	
L13+50S 3+50W	♂	♂	41	420	6	7	13	54	10	4.58	3	<1	♂	♂	♂	0.70	<50	<30	<0.2	11.0	♂	<0.03	<0.05	<1	13.0	3.5	<4	144	36	66	21	4.8	1.3	1.1	2.50	0.37	20.3	
L13+50S 4+00W	♂	♂	15	330	11	10	6	25	7	1.55	2	<1	♂	♂	7	0.23	<50	<30	0.4	5.7	♂	<0.02	<0.05	<1	5.4	<0.5	4	81	18	29	22	2.4	0.3	<0.5	1.35	0.22	3.6	
L13+50S 4+50W	♂	♂	20	<110	<1	5	10	39	20	4.65	9	<1	♂	♂	279	1.32	<67	150	0.6	13.0	♂	<0.05	<0.05	5	58.0	20.0	400	<50	84	140	44	8.1	1.7	<0.5	6.10	0.95	17.0	
L13+50S 5+00W	8	♂	7	590	10	<1	23	71	15	5.84	4	<1	♂	♂	♂	0.69	<50	92	0.5	14.0	♂	<0.03	<0.05	<1	13.0	3.7	6	<50	45	73	31	5.8	1.8	<0.5	3.70	0.54	20.0	
L13+50S 5+50W	♂	♂	9	590	9	7	33	76	16	6.18	4	<1	♂	♂	♂	0.68	<50	87	<0.2	13.0	♂	<0.03	<0.05	<1	12.0	2.3	<4	<50	48	82	21	6.0	1.7	<0.5	3.10	0.43	22.2	
L13+50S 6+00W	NO SAMPLE																																					
L13+50S 6+50W	♂	♂	14	750	8	3	23	110	16	5.87	5	<1	♂	♂	♂	0.87	<50	130	1.0	16.0	♂	<0.03	<0.05	<1	17.0	6.2	<4	121	56	110	41	6.8	1.8	<0.5	3.90	0.59	25.3	
L13+50S 7+00W	7	♂	13	640	19	3	14	67	11	4.81	<1	<1	♂	♂	♂	0.57	<50	100	0.3	14.0	♂	<0.02	<0.05	<1	15.0	<0.5	<4	<50	44	63	48	5.8	1.3	<0.5	2.30	0.34	10.4	
L13+50S 7+50W	♂	♂	7	500	12	<1	17	90	17	4.95	4	<1	♂	♂	♂	0.61	<50	120	0.4	14.0	♂	<0.02	<0.05	<1	14.0	<0.5	<4	171	48	95	38	6.1	1.8	1.1	2.50	0.47	13.2	
L13+50S 8+00W	♂	♂	44	700	13	5	15	90	23	5.89	4	<1	♂	♂	♂	0.81	<50	92	1.1	17.0	♂	<0.02	<0.05	<1	18.0	4.8	8	<50	56	110	56	7.4	1.9	<0.5	4.60	0.64	7.5	
L13+50S 8+50W	♂	♂	13	790	8	<1	21	100	15	5.83	6	<1	♂	♂	♂	0.83	<50	<30	0.6	15.0	♂	<0.03	<0.05	<1	14.0	3.0	7	<50	55	96	37	7.0	2.3	1.8	3.70	0.57	21.5	
L13+50S 9+00W	9	♂	12	430	5	4	28	100	28	6.71	5	<1	♂	♂	♂	0.80	<50	110	0.8	16.0	♂	<0.02	<0.05	<1	16.0	2.2	<4	102	53	92	33	6.6	2.3	0.7	3.60	0.55	27.3	
L13+50S 9+50W	♂	♂	6	590	5	13	15	70	10	5.25	4	<1	♂	♂	♂	0.57	<50	62	0.5	10.0	♂	<0.02	<0.05	<1	10.0	2.5	<4	140	33	58	20	4.2	1.5	<0.5	2.00	0.37	25.6	
L13+50S 10+00W	♂	♂	11	680	9	8	14	71	12	5.05	4	<1	♂	♂	♂	0.63	<50	120	0.8	12.0	♂	<0.02	<0.05	<1	12.0	<0.5	7	<50	41	69	36	5.2	1.8	<0.5	2.30	0.40	23.3	
L13+50S 10+50W	8	♂	38	750	4	3	15	110	18	6.04	7	<1	♂	♂	♂	12	0.92	<50	82	0.8	16.0	♂	<0.03	<0.05	<1	18.0	3.8	36	97	58	98	40	7.0	1.7	1.0	3.40	0.60	27.7
L13+50S 11+00W	♂	♂	70	740	5	<1	17	69	14	4.87	7	<1	♂	♂	♂	1.18	<50	140	0.9	14.0	♂	<0.03	0.09	2	78.0	9.3	11	100	71	200	40	6.3	1.6	<0.5	3.70	0.67	23.1	
L13+50S 11+50W	NO SAMPLE																																					
L13+50S 12+00W	♂	♂	13	780	7	<1	8	25	10	2.68	8	<1	♂	♂	14	1.88	<50	150	<0.2	7.8	♂	<0.03	<0.05	4	47.0	5.7	<4	<50	40	140	24	3.7	1.0	<0.5	2.10	0.43	19.6	
L13+50S 12+50W	♂	♂	72	840	7	<1	19	84	13	5.51	9	<1	♂	♂	29	0.87	<50	170	1.3	14.0	♂	<0.03	<0.05	<1	28.0	6.3	7	<50	53	96	25	6.4	2.0	<0.5	3.60	0.68	15.9	
L13+50S 13+00W	♂	♂	140	710	6	<1	19	57	12	4.34	6	<1	♂	♂	25	1.49	<50	170	1.5	11.0	♂	<0.03	<0.05	<1	22.0	3.5												

Element	AU	AG	AS	BA	BR	CA	CO	CR	CS	FE	HF	HG	IR	MO	NA	NI	RB	SB	SC	SE	SN	SR	TA	TH	U	W	ZN	LA	CE	ND	SM	EU	TB	YB	LU	Mass	
Units	PPB	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	%	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0	
3+50S 1+50E	8	8	7	590	12	<1	12	38	<2	1.85	3	<1	8	27	0.41	<50	<30	0.4	4.4	8	<0.02	<0.05	<1	7.8	3.0	<4	<50	30	48	25	3.3	<0.2	<0.5	1.00	0.15	5.5	
3+50S 2+00E	8	8	51	820	3	3	19	72	13	5.50	6	<1	8	6	1.03	<50	110	0.3	12.0	8	<0.02	<0.05	2	22.0	4.2	7	170	61	100	39	6.6	2.0	<0.5	3.00	0.51	31.5	
3+50S 2+50E	8	8	42	970	3	<1	13	53	9	3.82	9	<1	8	8	1.69	<50	110	0.8	11.0	8	<0.02	<0.05	<1	28.0	6.4	8	143	53	92	40	5.4	1.8	<0.5	2.40	0.45	28.8	
3+50S 3+00E	8	8	46	1100	7	<1	17	68	13	5.51	11	<1	8	8	1.75	<50	77	<0.2	14.0	8	<0.03	<0.05	<1	45.0	9.7	9	128	83	150	46	8.2	2.3	<0.5	4.40	0.59	15.6	
3+50S 3+50E	8	8	46	730	5	4	10	48	11	4.00	8	<1	13	13	1.75	<50	78	0.9	11.0	8	<0.03	<0.05	3	50.0	6.4	<4	<50	64	120	46	6.1	1.7	<0.5	2.90	0.44	24.2	
3+50S 4+00E	8	8	37	940	5	3	11	51	9	3.48	11	<1	8	8	1.61	<50	160	0.9	10.0	8	<0.02	<0.05	<1	34.0	9.4	8	116	62	110	27	6.2	1.8	<0.5	3.30	0.50	26.6	
3+50S 4+50E	8	8	31	890	7	<1	7	45	11	3.32	9	<1	9	9	1.66	<50	160	0.5	9.0	8	<0.02	<0.05	3	36.0	4.4	7	<50	44	86	27	4.6	1.2	<0.5	2.30	0.39	24.6	
3+50S 5+00E	8	8	11	880	9	<1	6	19	3	2.53	5	<1	11	11	2.56	140	120	0.6	5.1	8	<0.02	<0.05	<1	14.0	3.3	<4	107	24	47	20	2.5	1.0	<0.5	1.20	0.15	18.1	
4+00S 0+00W	8	8	30	320	7	5	10	45	18	3.50	10	<1	8	8	1.20	<50	<30	0.4	12.0	8	<0.02	<0.05	<1	32.0	24.0	15	<50	94	93	40	6.8	1.6	<0.5	3.80	0.51	7.0	
4+00S 0+50W	8	8	40	620	5	3	12	63	13	4.54	8	<1	16	16	1.28	<50	120	0.9	12.0	8	<0.02	<0.05	2	40.0	5.7	17	<50	73	130	42	7.0	1.8	1.7	3.50	0.61	24.9	
4+00S 1+00W	8	8	39	500	7	7	10	55	19	4.90	11	<1	19	19	1.56	<50	130	1.2	13.0	8	<0.03	<0.05	4	52.0	8.8	21	134	95	160	48	8.5	1.9	<0.5	4.50	0.74	18.6	
4+00S 1+50W	8	8	49	630	2	6	13	56	15	5.38	14	<1	73	73	1.53	140	110	0.5	16.0	8	<0.03	<0.05	2	99.0	10.0	13	178	180	310	98	13.0	2.4	<0.5	6.50	1.10	26.1	
4+00S 2+00W	8	8	52	460	5	8	13	59	14	4.71	5	<1	9	9	1.08	<50	90	0.7	12.0	8	<0.02	<0.05	<1	41.0	4.8	26	103	60	140	55	7.4	1.8	<0.5	3.70	0.62	23.3	
4+00S 2+50W	8	8	94	470	3	11	14	62	13	3.94	4	<1	7	7	0.89	<50	73	1.0	11.0	8	<0.03	<0.05	3	21.0	3.6	7	102	50	84	38	5.4	1.5	<0.5	2.90	0.44	25.9	
4+00S 3+00W	8	8	48	610	4	10	15	61	12	4.43	5	<1	8	8	0.88	<50	85	0.8	11.0	8	<0.02	<0.05	<1	23.0	3.9	<4	109	51	82	37	5.3	1.3	<0.5	2.70	0.44	19.2	
4+00S 3+50W	8	8	54	410	4	12	11	45	12	4.01	5	<1	17	17	0.56	<50	71	0.3	10.0	8	<0.02	<0.05	2	30.0	4.9	26	119	60	100	37	5.6	1.1	<0.5	3.10	0.47	24.6	
4+00S 4+00W	8	8	68	620	<1	10	20	70	14	5.82	4	<1	57	57	0.64	<50	110	1.1	11.0	8	<0.02	<0.05	<1	14.0	5.3	200	150	42	73	40	5.2	1.5	1.0	2.70	0.41	30.5	
4+00S 4+50W	8	8	7	780	2	10	16	66	11	4.00	3	<1	13	13	0.80	<50	72	0.6	9.5	8	<0.02	<0.05	<1	9.5	2.8	8	124	33	59	18	4.3	1.2	<0.5	2.40	0.38	29.0	
4+00S 5+00W	8	8	6	630	6	11	15	68	12	4.40	3	<1	8	8	0.62	<50	75	0.4	9.7	8	<0.02	<0.05	<1	9.3	3.5	<4	92	32	61	25	4.2	1.2	<0.5	2.30	0.38	26.4	
4+00S 5+50W	8	8	8	960	7	<1	26	85	13	5.45	6	<1	9	9	0.79	<50	75	0.6	12.0	8	<0.02	<0.05	1	13.0	3.3	4	<50	44	86	32	5.3	1.6	<0.5	2.70	0.50	21.0	
4+00S 6+00W	8	8	5	600	3	3	22	94	16	6.09	3	<1	3	3	0.29	<50	114	0.3	16.0	8	<0.03	<0.05	3	17.0	2.9	4	138	58	101	38	7.0	1.8	<0.5	3.60	0.58	30.5	
4+00S 6+50W	8	8	5	900	14	8	32	88	23	5.88	5	<1	8	8	0.55	<50	110	0.6	15.0	8	<0.03	<0.05	<1	16.0	6.3	5	318	55	110	58	7.4	2.1	<0.5	3.90	0.64	12.2	
4+00S 7+00W	8	8	10	880	9	2	16	130	17	6.14	5	<1	18	18	0.74	200	100	0.7	15.0	8	<0.02	<0.05	<1	17.0	8.4	<4	129	58	100	29	7.0	1.9	<0.5	3.40	0.52	21.1	
4+00S 7+50W	8	8	8	440	11	<1	12	70	30	3.47	2	<1	8	8	0.29	<50	67	0.7	11.0	8	<0.02	<0.05	<1	7.8	7.5	<4	67	27	40	24	4.3	1.5	<0.5	3.20	0.23	3.9	
4+00S 8+00W	8	8	13	660	4	5	34	83	12	6.60	5	<1	10	10	0.71	<50	63	0.6	14.0	8	<0.02	<0.05	<1	14.0	3.7	<4	84	52	88	33	6.7	1.8	<0.5	3.60	0.63	29.7	
4+00S 8+50W	8	8	10	760	9	<1	14	88	10	4.91	5	<1	8	8	0.89	<50	48	0.6	15.0	8	<0.03	<0.05	<1	17.0	6.1	<4	<50	57	98	48	7.3	2.2	<0.5	3.80	0.58	10.6	
4+00S 9+00W	8	8	25	680	4	4	27	95	19	6.97	6	<1	8	8	0.76	<50	170	0.8	17.0	8	<0.02	<0.05	<1	18.0	4.8	6	<50	62	110	49	7.8	2.2	1.1	4.60	0.91	22.3	
4+00S 9+50W	8	8	5	<100	9	2	8	19	4	1.05	2	<1	8	8	0.22	<50	<30	<0.2	3.7	8	<0.03	0.06	<1	4.0	<0.5	<4	<50	13	17	<5	1.6	0.3	<0.5	0.90	0.15	1.7	
4+00S 10+00W	NO SAMPLE																																				
4+00S 10+50W	8	8	49	450	4	2	18	87	15	5.57	3	<1	9	9	0.79	<50	110	0.7	14.0	8	<0.02	<0.05	3	15.0	3.0	12	174	47	86	25	5.8	1.5	<0.5	2.80	0.43	24.6	
4+00S 11+00W	8	8	55	440	7	5	11	53	11	3.83	3	<1	8	8	0.40	<50	150	0.6	8.9	8	<0.02	<0.05	2	12.0	3.3	21	55	32	63	21	4.0	1.1	<0.5	2.30	0.35	20.4	
4+00S 11+50W	8	8	42	640	5	<1	12	48	12	4.23	8	<1	7	7	1.21	<50	140	0.9	12.0	8	<0.03	<0.05	5	79.0	8.5	<4	<50	110	250	50	8.5	1.9	2.0	4.40	0.67	22.8	
4+00S 12+00W	8	8	23	650	7	<1	7	27	12	2.99	9	<1	8	8	1.58	<50	180	<0.2	7.9	8	<0.02	<0.05	4	66.0	5.5	12	<50	65	180	20	3.8	1.0	<0.5	2.60	0.46	25.3	
4+00S 12+50W	8	8	19	660	5	<1	9	28	8	2.85	11	<1	12	12	1.76	<50	120	0.3	7.7	8	<0.02	<0.05	5	62.0	7.6	6	<50	48	140	32	3.8	1.0	<0.5	3.00	0.38	28.1	
4+00S 13+00W	8	8	32	700	7	2	11	25	5	2.76	5	<1	8	8	2.27	<50	62	0.3	5.8	8	<0.03	<0.05	<1	8.9	3.0	<4	<50	25	44	13	3.0	0.8	<0.5	1.30	0.30	17.6	
4+00S 13+50W	8	8	58	700	3	3	12	46	10	3.77	7	<1	16	16	1.72	<50	150	1.0	10.0	8	<0.03	<0.05	<1	43.0	5.1	7	222	50	110	38	5.0	1.1	<0.5	2.70	0.48	16.0	
4+00S 14+00W	8	8	33	480	2	3	11	43	12	5.37	11	<1	16	16	1.56	<50	150	0.3	11.0	8	<0.02	<0.05	5	73.0	9.0	7	75	76	240	51	7.1	1.2	<0.5	3.90	0.63	30.2	
4+00S 14+50W	8	8	36	540	4	3	13	60	14	3.79	6	<1	14	14	1.20	<50	140	0.6	12.0	8	<0.02	<0.05	4	43.0	12.0	<4	71	55	110	40	5.7	1.4	<0.5	3.50	0.63	28.3	
4+00S 15+00W	8	8	14	540	8	3	8	46	11	3.37	4	<1	10	10	0.94</																						

Element	AU	AG	AS	BA	BR	CA	CO	CR	CS	FE	HF	HG	IR	MO	NA	NI	RB	SB	SC	SE	SN	SR	TA	TH	U	W	ZN	LA	CE	ND	SM	EU	TB	YB	LU	Mess	
Units	PPB	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	%	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g	
Section Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0	
4+00S 1+00E	♂	♂	50	890	<1	<1	16	71	17	6.00	13	<1	♂	♂	2.15	<67	250	0.9	16.0	♂	<0.02	<0.05	5	77.0	9.0	<4	199	140	240	83	12.0	2.4	<0.5	5.30	0.96	12.7	
4+00S 1+50E	♂	♂	8	730	9	4	♂	17	3	2.49	4	<1	♂	♂	2.45	<50	<30	0.4	5.4	♂	<0.02	<0.05	<1	10.0	2.8	<4	<50	23	42	16	2.7	0.8	<0.5	1.00	0.18	20.2	
4+00S 2+00E	♂	♂	4	920	7	<1	7	11	<2	2.71	4	<1	♂	♂	2.70	<50	<30	0.5	5.4	♂	<0.03	<0.05	<1	6.4	2.4	<4	<50	21	31	17	2.5	0.8	<0.5	0.90	0.24	20.8	
4+00S 2+50E	♂	♂	31	730	4	3	6	42	8	2.57	10	<1	♂	♂	5	1.84	<50	180	<0.2	7.1	♂	<0.02	<0.05	4	35.0	4.0	9	<50	34	65	22	4.2	1.2	<0.5	2.30	0.46	32.4
4+00S 3+00E	♂	♂	28	610	7	3	5	53	15	3.71	11	<1	♂	♂	8	1.31	<50	170	0.7	8.2	♂	<0.02	<0.05	3	34.0	5.5	9	156	22	34	<5	2.2	0.7	<0.5	1.90	0.34	24.0
4+00S 3+50E	♂	♂	33	620	8	<1	6	30	8	2.93	7	<1	♂	♂	♂	1.18	<50	110	0.5	6.4	♂	<0.02	<0.05	3	25.0	3.2	6	110	22	53	15	2.3	0.8	<0.5	1.50	0.31	20.5
4+00S 4+00E	♂	♂	56	870	<1	<1	10	53	14	3.96	11	<1	♂	♂	7	1.76	<50	190	0.5	11.0	♂	<0.03	<0.05	<1	65.0	8.5	15	<50	110	180	69	9.6	2.3	2.1	4.50	0.69	22.3
4+00S 4+50E	♂	♂	4	950	9	<1	♂	14	3	1.92	5	<1	♂	♂	♂	2.53	<50	80	0.7	4.3	♂	<0.02	0.14	<1	6.2	4.0	<4	140	21	36	<5	2.2	0.5	<0.5	0.80	0.21	19.5
4+00S 5+00E	♂	♂	11	740	6	<1	5	15	8	2.07	5	<1	♂	♂	♂	1.85	<50	<30	<0.2	4.9	♂	<0.02	<0.05	<1	10.0	3.2	<4	<50	21	33	<5	2.1	0.8	<0.5	1.10	0.19	16.9
4+50S 0+00W	♂	♂	42	950	11	<1	7	25	38	3.45	7	<1	♂	♂	♂	1.13	<50	140	1.1	13.0	♂	<0.03	<0.05	3	80.0	64.0	10	<50	180	220	48	8.0	1.6	<0.5	3.36	0.42	5.5
4+50S 0+50W	♂	♂	100	660	5	<1	7	20	13	2.75	8	<1	♂	♂	19	1.46	<50	180	1.3	7.5	♂	<0.02	<0.05	5	49.0	5.4	12	<50	42	85	25	3.8	1.1	<0.5	1.80	0.33	22.2
4+50S 1+00W	♂	♂	46	700	9	<1	10	84	17	4.38	6	<1	♂	♂	32	1.02	<66	98	0.7	12.0	♂	<0.02	<0.05	<1	46.0	9.0	18	<50	87	150	57	7.7	1.6	<0.5	3.80	0.74	8.6
4+50S 1+50W	♂	♂	31	850	7	<1	7	54	9	4.04	6	<1	♂	♂	9	0.71	<50	79	0.6	9.3	♂	<0.02	<0.05	3	20.0	4.8	8	<50	36	65	29	3.9	1.1	<0.5	2.00	0.38	24.5
4+50S 2+00W	♂	♂	73	250	4	10	13	56	11	4.16	4	<1	♂	♂	♂	0.70	<50	<30	0.8	11.0	♂	<0.02	<0.05	<1	19.0	3.8	6	<50	45	79	37	5.0	1.6	<0.5	2.50	0.41	27.1
4+50S 2+50W	♂	♂	82	390	<1	6	13	55	17	4.67	6	<1	♂	♂	7	1.12	<50	110	0.5	14.0	♂	<0.03	<0.05	<1	52.0	6.2	6	<50	110	190	58	9.7	1.9	<0.5	4.50	0.83	27.5
4+50S 3+00W	♂	♂	56	610	4	<1	♂	63	15	4.46	5	<1	♂	♂	19	0.70	<50	98	0.4	12.0	♂	<0.02	<0.05	<1	19.0	4.5	120	149	51	87	24	5.7	1.4	0.8	3.20	0.14	24.6
4+50S 3+50W	♂	♂	71	470	6	6	21	61	25	5.96	8	<1	♂	♂	98	0.94	<50	190	0.6	16.0	♂	<0.02	<0.05	<1	49.0	8.4	180	224	97	170	59	9.9	1.7	<0.5	5.90	0.84	11.0
4+50S 4+00W	♂	♂	52	630	4	3	15	60	27	4.49	6	<1	♂	♂	125	1.08	<50	190	0.8	14.0	♂	<0.02	<0.05	<1	42.0	13.0	110	95	80	140	35	7.8	1.7	0.9	4.60	0.58	20.1
4+50S 4+50W	♂	♂	19	710	6	<1	15	70	12	4.53	4	<1	♂	♂	7	0.80	<50	110	0.4	12.0	♂	<0.02	<0.05	<1	15.0	3.3	12	<50	49	87	37	6.0	1.5	<0.5	3.60	0.31	24.6
4+50S 5+00W	♂	♂	43	770	4	4	26	72	22	5.25	5	<1	♂	♂	14	0.75	<50	100	1.6	13.0	♂	<0.02	<0.05	<1	13.0	4.7	11	152	50	90	38	6.4	1.7	<0.5	3.80	0.38	26.0
4+50S 5+50W	♂	♂	8	790	<1	4	20	100	13	5.30	6	<1	♂	♂	7	0.94	<50	110	0.6	15.0	♂	<0.02	<0.05	<1	15.0	3.6	<4	185	60	110	36	7.3	1.6	<0.5	4.10	0.52	32.3
4+50S 6+00W	♂	♂	13	1000	<1	<1	34	110	23	7.38	5	<1	♂	♂	29	0.52	<50	160	0.8	16.0	♂	<0.02	<0.05	<1	17.0	10.0	<4	<50	71	130	50	9.1	2.3	1.0	4.90	0.64	13.3
4+50S 6+50W	♂	♂	44	870	5	<1	11	100	13	4.05	7	<1	♂	♂	17	1.07	<50	82	1.5	12.0	♂	<0.02	<0.05	<1	12.0	5.0	4	183	47	83	24	4.8	1.2	0.9	2.90	0.36	28.2
4+50S 7+00W	♂	♂	160	1100	6	<1	18	120	25	6.15	7	<1	♂	♂	21	0.98	<50	180	2.9	16.0	♂	<0.02	<0.05	<1	17.0	11.0	<4	160	69	120	41	9.2	2.9	<0.5	4.80	0.56	16.9
4+50S 7+50W	♂	♂	28	640	3	<1	15	120	30	5.25	5	<1	♂	♂	19	0.76	<50	170	<0.2	16.0	♂	<0.03	<0.05	<1	15.0	4.7	<4	150	63	110	42	7.9	2.3	<0.5	4.30	0.49	24.3
4+50S 8+00W	♂	♂	17	680	6	<1	15	110	18	5.28	6	<1	♂	♂	8	0.83	<50	90	0.8	16.0	♂	<0.03	<0.05	<1	15.0	4.7	<4	150	63	110	42	7.9	2.3	<0.5	4.30	0.49	24.3
4+50S 8+50W	♂	♂	6	150	10	2	7	23	4	1.09	4	<1	♂	♂	♂	0.18	<50	<30	<0.2	3.5	♂	<0.03	<0.05	<1	3.8	2.8	<4	<50	14	20	<5	1.9	0.8	<0.5	1.66	0.20	1.5
4+50S 9+00W	♂	♂	15	730	5	<1	18	100	13	5.31	6	<1	♂	♂	6	0.90	<50	100	0.4	16.0	♂	<0.03	<0.02	<1	16.0	3.9	5	191	65	110	41	8.2	2.2	<0.5	4.50	0.69	24.2
4+50S 9+50W	♂	♂	90	830	7	<1	29	78	33	6.53	5	<1	♂	♂	14	0.66	<50	120	1.0	14.0	♂	<0.03	<0.05	3	14.0	7.3	5	176	55	110	35	7.0	2.1	<0.5	3.60	0.41	16.9
4+50S 10+00W	♂	♂	10	<100	15	6	8	19	5	2.01	<1	<1	♂	♂	♂	<0.05	<51	<30	<0.2	5.4	♂	<0.02	<0.05	<1	6.7	2.2	<4	<50	25	30	16	3.3	0.9	0.7	1.50	0.19	4.4
4+50S 10+50W	NO SAMPLE																																				
4+50S 11+00W	♂	♂	90	360	7	3	13	46	11	3.40	3	<1	♂	♂	♂	0.48	<50	99	0.4	10.0	♂	<0.02	<0.05	<1	18.0	3.5	21	86	39	74	20	4.3	1.2	<0.5	2.31	0.28	4.8
4+50S 11+50W	♂	♂	23	640	7	<1	14	75	16	4.72	6	<1	♂	♂	19	0.89	<50	92																			

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
4+50S 0+50E	AS	AS	29	600	5	<1	6	29	10	2.40	7	<1	AS	21	1.87	AS	100	0.4	6.6	AS	<0.03	<0.05	<1	20.0	5.6	<4	<50	34	69	19	3.5	1.0	<0.5	1.60	0.16	18.3
4+50S 1+00E	AS	AS	52	640	6	<1	6	44	11	2.89	10	<1	AS	7	1.28	AS	160	0.5	8.4	AS	<0.02	<0.05	<1	33.0	5.3	9	<50	34	65	22	3.5	0.9	<0.5	2.20	0.40	22.4
4+50S 1+50E	AS	AS	46	580	7	<1	6	53	12	3.01	12	<1	AS	14	1.15	AS	150	0.5	8.1	AS	<0.02	<0.05	<1	25.0	4.5	15	<50	30	51	17	3.0	0.8	<0.5	2.30	0.33	21.4
4+50S 2+00E	AS	AS	58	650	4	<1	6	16	18	3.31	13	<1	AS	6	1.81	AS	150	0.5	9.3	AS	<0.03	<0.05	4	60.0	5.9	8	<50	42	85	19	4.1	0.9	<0.5	3.10	0.44	17.6
4+50S 2+50E	AS	AS	70	760	<1	6	12	39	23	5.61	16	<1	AS	28	2.17	AS	180	0.9	18.0	AS	<0.02	<0.05	5	100.0	13.0	23	163	190	320	100	15.0	2.9	<0.5	8.30	1.31	13.2
4+50S 3+00E	AS	AS	21	580	5	<1	5	51	17	2.87	15	<1	AS	20	1.29	AS	190	0.6	8.0	AS	<0.03	<0.05	3	21.0	5.5	18	<50	26	53	16	2.5	0.7	<0.5	2.00	0.28	14.2
4+50S 3+50E	AS	AS	300	1000	<1	<1	19	42	25	5.28	10	<1	AS	30	1.58	AS	220	0.5	13.0	AS	<0.05	<0.05	3	77.0	8.7	25	<50	160	250	81	12.0	2.7	<0.5	5.40	0.69	11.6
4+50S 4+00E	AS	AS	59	710	8	<1	7	27	11	2.92	10	<1	AS	9	1.57	AS	130	0.3	7.4	AS	<0.03	<0.05	<1	37.0	4.4	17	<50	37	70	23	3.4	0.9	0.7	2.20	0.28	20.2
4+50S 4+50E	AS	AS	120	900	<1	<1	6	45	18	3.13	8	<1	AS	11	1.65	AS	120	0.3	9.3	AS	<0.03	<0.05	<1	26.0	4.6	14	114	38	72	26	3.9	1.1	<0.5	1.70	0.38	16.8
4+50S 5+00E	AS	AS	40	830	7	<1	<5	38	14	2.15	11	<1	AS	17	1.65	AS	140	0.5	7.0	AS	<0.03	<0.05	<1	17.0	4.1	15	<50	29	55	22	2.9	1.0	<0.5	2.10	0.37	15.2
5+00S 0+00W	AS	AS	66	1000	<1	<1	8	16	22	3.58	14	<1	AS	34	2.08	AS	200	1.0	11.0	AS	<0.02	<0.05	4	100.0	21.0	16	107	150	270	84	12.0	2.3	<0.5	5.70	0.84	15.3
5+00S 0+50W	AS	AS	13	570	10	3	7	<10	9	2.10	4	<1	AS	20	2.29	AS	89	0.3	5.5	AS	<0.02	0.16	<1	26.0	18.0	<4	<50	63	72	32	5.4	1.5	0.7	2.00	0.26	17.3
5+00S 1+00W	AS	AS	66	790	<1	<1	<5	32	16	3.01	9	<1	AS	18	1.28	AS	140	0.4	7.7	AS	<0.02	<0.05	<1	31.0	4.2	11	81	43	82	23	3.8	1.0	<0.5	2.40	0.39	25.8
5+00S 1+50W	AS	AS	88	350	4	5	13	43	14	3.90	5	<1	AS	10	1.06	AS	100	<0.2	11.0	AS	<0.02	<0.05	2	29.0	3.6	5	<50	64	110	40	6.0	1.4	0.9	3.30	0.36	24.9
5+00S 2+00W	AS	AS	53	530	5	<1	14	54	14	4.31	7	<1	AS	7	0.90	AS	100	0.4	12.0	AS	<0.03	0.11	2	33.0	4.3	7	139	73	120	42	7.3	1.8	<0.5	4.00	0.39	24.4
5+00S 2+50W	AS	AS	48	370	6	<1	11	43	13	3.79	5	<1	AS	18	1.17	AS	96	0.4	10.0	AS	<0.02	<0.05	2	24.0	4.5	21	94	57	88	30	5.6	1.4	<0.5	3.10	0.33	22.8
5+00S 3+00W	NO SAMPLE																																			
5+00S 3+50W	AS	AS	58	570	<1	<1	14	43	18	4.80	8	<1	AS	79	0.85	AS	140	0.6	13.0	AS	<0.03	<0.05	3	43.0	9.5	140	123	86	140	50	8.3	1.7	<0.5	4.80	0.64	29.1
5+00S 4+00W	AS	AS	43	860	4	<1	15	67	11	4.00	5	<1	AS	10	0.80	AS	130	<0.2	12.0	AS	<0.02	<0.05	<1	25.0	6.6	6	114	62	100	34	6.1	1.5	<0.5	3.20	0.40	29.1
5+00S 4+50W	AS	AS	9	790	4	<1	19	88	18	5.36	5	<1	AS	7	0.71	AS	140	0.6	16.0	AS	<0.02	<0.05	<1	14.0	2.2	<4	138	60	110	35	7.3	1.7	<0.5	4.10	0.45	26.5
5+00S 5+00W	AS	AS	87	700	3	<1	21	71	19	5.06	6	<1	AS	9	0.79	AS	160	0.6	13.0	AS	<0.02	<0.05	<1	24.0	6.7	6	161	68	120	42	6.9	1.7	<0.5	4.00	0.49	31.5
5+00S 5+50W	AS	AS	18	790	7	<1	17	82	14	4.87	5	<1	AS	11	0.77	AS	94	0.6	13.0	AS	<0.02	<0.05	<1	13.0	4.8	<4	156	48	85	32	5.8	1.1	<0.5	3.30	0.35	24.0
5+00S 6+00W	AS	AS	110	680	<1	<1	36	82	23	5.85	5	<1	AS	27	0.39	AS	110	3.2	15.0	AS	<0.02	<0.05	3	15.0	11.0	6	253	51	80	32	5.8	2.0	1.2	3.30	0.61	25.5
5+00S 6+50W	AS	AS	26	100	7	3	17	82	9	4.54	5	<1	AS	<5	0.85	AS	91	1.0	13.0	AS	<0.02	<0.05	3	16.0	4.8	<4	86	54	88	40	5.9	1.7	0.9	2.80	0.47	24.4
5+00S 7+00W	AS	AS	11	100	11	3	17	100	6	4.57	5	<1	AS	<5	0.77	AS	110	0.7	15.0	AS	<0.02	<0.05	<1	17.0	5.5	<4	<50	60	100	46	6.8	1.7	1.0	3.20	0.52	24.0
5+00S 7+50W	AS	AS	31	950	7	4	11	93	10	4.08	5	<1	AS	9	0.71	AS	95	1.0	14.0	AS	<0.02	<0.05	<1	18.0	11.0	<4	<50	54	85	30	7.1	2.3	<0.5	3.50	0.56	21.4
5+00S 8+00W	AS	AS	19	700	4	2	12	100	12	5.12	6	<1	AS	14	0.99	AS	120	1.1	15.0	AS	<0.02	<0.05	3	16.0	7.7	5	118	56	91	37	7.4	2.4	1.3	3.70	0.61	21.0
5+00S 8+50W	AS	AS	12	780	6	3	15	99	10	5.24	4	<1	AS	<5	1.01	AS	110	0.6	16.0	AS	<0.02	<0.05	<1	17.0	4.4	<4	129	57	98	39	7.3	2.3	<0.5	3.70	0.52	23.9
5+00S 9+00W	AS	AS	5	730	7	2	8	14	2	2.29	5	<1	AS	7	2.46	AS	<30	0.5	5.5	AS	<0.02	<0.05	<1	6.5	2.7	<4	<50	23	38	<5	2.7	0.9	<0.5	1.00	0.19	17.8
5+00S 9+50W	AS	AS	28	790	3	2	21	96	11	5.61	5	<1	AS	6	0.68	AS	82	0.6	15.0	AS	<0.02	<0.05	<1	18.0	5.6	7	168	58	100	50	6.8	1.7	<0.5	3.50	0.54	31.2
5+00S 10+00W	AS	AS	58	810	5	6	19	76	10	5.81	2	<1	AS	<5	0.79	AS	78	0.6	13.0	AS	<0.02	<0.05	2	17.0	4.4	9	201	48	83	33	5.6	1.6	<0.5	2.70	0.40	24.9
5+00S 10+50W	AS	AS	9	590	7	3	21	86	13	6.29	4	<1	AS	<5	0.72	AS	93	0.6	15.0	AS	<0.02	<0.05	<1	15.0	2.3	9	137	53	87	41	6.9	2.3	<0.5	3.70	0.58	26.6
5+00S 11+00W	AS	AS	31	690	4	2	20	96	17	5.92	3	<1	AS	9	0.83	AS	120	0.7	16.0	AS	<0.02	<0.05	2	19.0	3.2	20	105	59	110	36	7.2	2.0	<0.5	3.50	0.53	26.1
5+00S 11+50W	AS	AS	18	920	9	5	8	27	3	2.72	5	<1	AS	11	2.67	AS	<30	0.5	6.4	AS	<0.03	<0.05	<1	11.0	7.7	7	<50	28	47	18	2.7	0.8	<0.5	1.20	0.22	19.1
5+00S 12+00W	AS	AS	110	660	7	<1	17	84	18	5.47	6	2	AS	13	1.20	AS	120	<0.2	13.0	AS	<0.02	<0.05	<1	30.0	6.6	53	168	51	110	3						

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0
5+00S 15+00W	<5	<5	35	800	5	<1	7	53	8	3.23	5	<1	<5	1.91	<50	100	0.4	9.5	<5	<0.03	<0.05	<1	24.0	7.7	6	219	44	78	19	4.8	1.4	<0.5	2.30	0.38	20.2	
5+00S 0+50E	8	<5	100	610	3	<1	11	18	16	3.52	10	<1	<5	2.02	<50	190	0.4	10.0	<5	<0.03	<0.05	2	67.0	10.0	23	<50	82	160	54	6.6	1.4	<0.5	3.00	0.55	24.1	
5+00S 1+00E	<5	<5	91	1100	4	<1	13	23	41	4.55	15	<1	<5	2.54	<50	210	0.8	16.0	<5	<0.03	<0.05	<1	110.0	61.0	23	<50	160	260	110	12.0	2.3	<0.5	5.40	1.08	9.3	
5+00S 1+50E	<5	<5	60	860	<1	9	10	<10	17	4.51	19	<1	<5	1.91	<50	150	0.8	14.0	<5	<0.03	<0.05	<1	81.0	13.0	31	<58	140	240	80	12.0	2.5	<0.5	5.60	0.93	15.0	
5+00S 2+00E	<5	<5	37	910	6	<1	7	36	11	2.72	11	<1	<5	1.56	<50	140	<0.2	8.0	<5	<0.03	<0.05	<1	26.0	5.6	20	<50	30	55	20	2.8	1.0	<0.5	1.70	0.34	17.3	
5+00S 2+50E	<5	<5	51	720	7	<1	8	53	11	3.18	9	<1	<5	1.88	<50	<30	<0.2	9.1	<5	<0.03	<0.05	<1	41.0	6.0	17	<50	50	86	31	4.6	1.2	<0.5	2.10	0.43	24.0	
5+00S 3+00E	<5	<5	95	740	<1	5	16	36	24	5.50	14	<1	<5	2.06	<50	190	0.3	15.0	<5	<0.03	<0.05	<1	86.0	12.0	19	<50	140	240	83	12.0	2.2	<0.5	4.90	0.77	12.8	
5+00S 3+50E	10	<5	75	730	8	<1	7	49	12	3.11	9	<1	<5	1.25	<50	160	<0.2	8.1	<5	<0.02	<0.05	3	40.0	7.1	18	94	37	81	23	3.8	0.8	<0.5	2.00	0.31	23.2	
5+00S 4+00E	6	<5	60	750	12	3	6	<10	5	2.38	4	<1	<5	2.35	<50	85	<0.2	5.8	<5	<0.03	<0.05	<1	22.0	9.7	<4	<50	41	70	24	3.6	0.9	<0.5	1.50	0.18	15.8	
5+00S 4+50E	<5	<5	16	770	7	<1	8	<10	5	2.12	5	<1	<5	2.77	<50	<30	<0.2	6.2	<5	<0.02	0.15	<1	8.0	4.4	<4	273	42	42	29	3.6	1.0	<0.5	1.20	0.15	17.9	
5+00S 5+00E	6	<5	27	960	7	<1	6	17	4	2.38	4	<1	<5	2.52	<50	<30	<0.2	5.9	<5	<0.02	<0.05	<1	17.0	5.4	<4	<50	47	57	36	4.6	1.1	<0.5	1.40	0.23	17.3	
5+50S 0+00W	<5	<5	15	840	9	4	8	<10	5	2.32	5	<1	<5	2.69	<50	<30	0.4	6.3	<5	<0.02	<0.05	<1	15.0	25.0	<4	<50	36	65	19	3.1	1.2	<0.5	1.30	0.26	16.6	
5+50S 0+50W	<5	<5	59	470	13	<1	10	19	11	3.06	4	<1	<5	1.88	<50	<30	<0.2	9.2	<5	<0.03	0.15	<1	27.0	12.0	<4	<50	44	82	36	4.6	1.4	1.9	2.40	0.38	10.0	
5+50S 1+00W	<5	<5	7	780	8	<1	<5	<10	<2	2.01	5	<1	<5	3.04	<50	<30	0.5	4.7	<5	<0.02	<0.05	<1	7.7	4.5	<4	<50	22	44	20	2.4	0.7	<0.5	1.10	0.10	17.0	
5+50S 1+50W	<5	<5	130	830	10	6	14	60	20	4.48	4	<1	<5	3.33	<50	80	<0.2	12.0	<5	<0.03	<0.05	<1	31.0	24.0	18	<50	54	99	37	5.6	1.6	1.1	3.10	0.55	11.5	
5+50S 2+00W	9	<5	50	700	8	5	13	45	16	4.16	4	<1	<5	1.53	<50	86	0.5	11.0	<5	<0.02	<0.05	<1	26.0	7.9	22	112	51	82	43	5.8	1.5	<0.5	2.70	0.40	17.8	
5+50S 2+50W	<5	<5	84	580	<1	7	18	79	23	6.52	11	<1	<5	1.16	<50	160	0.5	17.0	<5	<0.03	<0.05	<1	57.0	13.0	420	211	100	170	67	10.0	2.3	<0.5	5.10	0.76	14.0	
5+50S 3+00W	<5	<5	120	660	6	<1	11	56	27	3.99	4	<1	<5	0.69	<50	110	0.3	11.0	<5	<0.02	<0.05	<1	62.0	35.0	8	<50	140	130	78	9.6	2.2	<0.5	3.30	0.54	18.7	
5+50S 3+50W	8	<5	84	680	<1	4	18	68	18	5.45	6	<1	<5	1.55	<50	200	<0.2	16.0	<5	<0.03	<0.05	4	45.0	8.6	67	<50	75	150	44	7.7	1.8	<0.5	3.70	0.56	15.3	
5+50S 4+00W	<5	<5	86	450	7	5	12	47	20	4.26	6	<1	<5	1.26	<50	120	0.4	13.0	<5	<0.02	<0.05	<1	43.0	6.6	6	<50	100	130	61	8.6	1.8	<0.5	3.80	0.62	20.3	
5+50S 4+50W	<5	<5	43	870	5	<1	19	98	16	5.67	5	<1	<5	1.12	<50	120	0.5	16.0	<5	<0.02	<0.05	<1	25.0	7.6	6	<50	63	120	35	7.2	1.8	1.3	3.30	0.53	18.2	
5+50S 5+00W	<5	<5	11	440	6	<1	12	36	8	2.52	4	<1	<5	1.06	<50	<30	<0.2	8.6	<5	<0.02	<0.05	<1	12.0	2.8	7	190	34	51	24	3.6	0.7	<0.5	1.50	0.24	3.9	
5+50S 5+50W	<5	<5	48	610	3	4	14	85	18	4.63	4	<1	<5	0.73	<50	100	1.4	14.0	<5	<0.02	<0.05	<1	17.0	5.4	4	183	45	77	32	5.2	1.1	<0.5	2.20	0.39	23.5	
5+50S 6+00W	<5	<5	19	470	4	<1	16	90	11	4.15	4	<1	<5	1.21	<50	95	0.5	14.0	<5	<0.02	<0.05	3	20.0	4.2	6	85	60	100	37	6.1	1.3	<0.5	2.60	0.43	25.0	
5+50S 6+50W	<5	<5	74	800	3	3	29	95	14	5.20	4	<1	<5	0.96	<50	94	<0.2	15.0	<5	<0.02	<0.05	<1	19.0	3.8	6	139	54	99	36	5.8	1.5	<0.5	2.70	0.45	27.8	
5+50S 7+00W	6	<5	12	1200	5	4	17	100	9	4.92	6	<1	<5	1.15	<50	88	0.5	16.0	<5	<0.02	<0.05	<1	20.0	4.4	<4	167	58	110	37	6.7	1.6	<0.5	2.80	0.42	18.1	
5+50S 7+50W	<5	<5	9	310	9	5	8	46	5	2.07	2	<1	<5	0.28	<50	<30	0.4	7.6	<5	<0.02	<0.05	<1	7.4	3.4	<4	<50	19	30	16	2.5	0.8	<0.5	1.33	0.14	3.6	
5+50S 8+00W	<5	<5	26	1000	5	<1	13	84	9	4.05	5	<1	<5	1.05	<50	87	0.9	13.0	<5	<0.02	<0.05	<1	19.0	5.2	<4	101	49	96	31	5.6	1.3	<0.5	2.40	0.35	27.7	
5+50S 8+50W	<5	<5	16	750	4	2	13	99	12	4.57	6	<1	<5	1.25	<50	80	<0.2	15.0	<5	<0.02	<0.05	<1	18.0	5.2	<4	128	52	93	40	6.2	1.5	1.0	2.80	0.38	22.0	
5+50S 9+00W	<5	<5	22	590	7	<1	13	47	10	3.17	5	<1	<5	0.82	<50	100	0.3	11.0	<5	<0.03	<0.05	<1	14.0	4.8	7	<50	40	60	32	4.0	1.2	<0.5	2.23	0.24	4.5	
5+50S 9+50W	<5	<5	15	490	3	6	26	55	27	3.98	3	<1	<5	0.82	<50	89	0.4	11.0	<5	<0.02	<0.05	<1	15.0	3.3	<4	121	36	71	28	4.1	1.1	<0.5	2.30	0.38	21.4	
5+50S 10+00W	<5	<5	25	870	8	<1	6	36	12	2.52	5	<1	<5	2.24	<50	86	0.7	7.7	<5	<0.02	<0.05	<1	14.0	7.2	4	<50	35	60	29	3.7	1.0	<0.5	1.40	0.21	17.2	
5+50S 10+50W	10	<5	27	690	10	3	12	53	13	5.01	4	<1	<5	29	1.44	<50	130	0.5	10.0	<5	<0.02	<0.05	<1	19.0	6.1	600	<50	37	69	20	4.2	1.2	2.3	2.10	0.29	20.7
5+50S 11+00W	<5	<5	37	1000	5	4	22	110	23	5.83	8	<1	<5	1.18	<50	230	0.3	18.0	<5	<0.02	<0.05	<1	57.0	15.0	11	180	100	180	63	10.0	2.4	2.2	5.20	0.84	11.7	
5+50S 11+50W	<5	<5	76	920	5	4	24	110	20	7.85	6	<1	<5	13	0.72	<50	120	0.4	19.0	<5	<0.02	<0.05	3	27.0	7.8	130	<50	73	150	53	8.9	2.4	1.6	3.80	0.56	19.8
5+50S 12+00W	<5	<5	180	340	<1	<1	7	<10	51	1.82	7	<1	<5	0.43	<50	350	1.1	8.1	<5	<0.02	<0.05	2	53.0	5.0	13	<50	65	83	34	4.5	1.1	<0.5	3.19	0.47	6.0	
5+50S 12+50W	<5	<5	3	890	6	<1	7	18	2	2.43	4	<1	<5	9	2.96	<50	<30	<0.2	6.5	<5	<0.02	<0.05	<1	7.8	<0.5	<4	<50	20	37	<5	2.5	0.8	<0.5	0.70	0.18	18.5
5+50S 13+00W	<5	<5	33	560	<1	8	16	68	13	4.69	4	<1	<5	17	0.78	<50	110	0.3	13.0	<5																

Element Units	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g	
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0	
15+50S 14+50W	Δ	Δ	11	760	8	<1	10	12	<2	2.54	5	<1	Δ	Δ	2.81	<50	<30	<0.2	5.9	Δ	<0.02	0.10	2	7.9	5.9	<4	<50	22	45	11	2.6	0.9	<0.5	1.20	0.15	17.0	
15+50S 15+00W	Δ	Δ	4	880	10	3	6	<10	2	1.49	5	<1	Δ	Δ	3.18	<50	<30	0.5	2.7	Δ	<0.02	<0.05	2	7.6	2.9	<4	<50	23	41	5	2.2	0.6	<0.5	1.00	0.12	17.2	
15+50S 1+00E	Δ	Δ	57	810	3	<1	7	34	15	3.13	14	<1	Δ	Δ	1.94	<50	150	0.5	9.9	Δ	<0.01	<0.05	4	67.0	18.0	26	<50	110	170	60	8.7	1.9	<0.5	3.80	0.76	28.2	
15+50S 1+50E	Δ	Δ	57	620	4	<1	8	46	13	3.36	9	<1	Δ	Δ	1.23	<50	130	0.4	10.0	Δ	<0.02	<0.05	<1	48.0	14.0	10	<50	44	90	28	4.0	0.9	<0.5	2.10	0.40	16.9	
15+50S 2+00E	Δ	Δ	48	810	6	2	6	47	8	2.62	9	<1	Δ	Δ	1.39	<50	98	<0.2	8.8	Δ	<0.01	<0.05	5	35.0	14.0	7	<50	44	80	27	3.9	0.9	<0.5	1.90	0.30	25.5	
15+50S 2+50E	Δ	Δ	17	880	7	<1	6	23	9	2.48	8	<1	Δ	Δ	2.04	<51	80	0.5	6.4	Δ	<0.02	<0.05	4	15.0	6.0	8	<50	28	44	13	2.6	0.6	<0.5	1.40	0.24	17.5	
15+50S 3+00E	Δ	Δ	25	840	8	<1	7	31	5	2.65	7	<1	Δ	Δ	2.21	<54	89	0.4	7.1	Δ	<0.02	<0.05	<1	21.0	5.8	6	<50	33	69	22	3.3	0.9	<0.5	1.50	0.24	17.7	
15+50S 3+50E	Δ	Δ	6	840	8	<1	6	<10	3	2.13	4	<1	Δ	Δ	2.84	<55	<30	0.4	4.9	Δ	<0.02	<0.05	<1	6.6	<0.5	4	<50	23	39	17	2.5	0.8	<0.5	0.80	0.16	18.6	
15+50S 4+00E	Δ	Δ	55	800	9	<1	7	27	6	2.32	6	<1	Δ	Δ	2.42	<55	95	0.2	6.0	Δ	<0.02	<0.05	<1	15.0	5.1	4	<50	32	55	18	3.1	0.9	<0.5	1.30	0.16	19.7	
15+50S 4+50E	Δ	Δ	3	980	8	3	6	<10	3	2.02	4	<1	Δ	Δ	3.06	<55	<30	<0.2	4.3	Δ	<0.02	<0.05	<1	7.3	2.5	4	<50	22	36	12	2.2	0.8	<0.5	1.00	0.14	18.7	
15+50S 5+00E	Δ	Δ	240	890	15	<1	8	41	26	3.36	5	<1	Δ	Δ	0.99	<50	110	0.7	14.0	Δ	<0.02	<0.05	<1	100.0	25.0	4	193	370	560	280	39.0	7.8	4.2	7.50	1.16	16.2	
16+00S 0+00W	Δ	Δ	84	900	7	5	8	61	15	4.04	7	<1	Δ	Δ	27	1.22	<58	85	<0.2	14.0	Δ	<0.02	<0.05	<1	48.0	24.0	6	<50	95	110	57	8.3	1.9	1.6	3.30	0.63	17.7
16+00S 0+50W	Δ	Δ	62	490	3	8	13	49	11	4.18	5	<1	Δ	Δ	0.82	<50	48	<0.2	12.0	Δ	<0.02	<0.05	<1	29.0	6.5	5	<50	59	96	33	6.2	1.5	<0.5	3.00	0.57	26.4	
16+00S 1+00W	Δ	Δ	45	720	7	4	12	53	11	3.68	5	<1	Δ	Δ	11	1.82	<52	<30	<0.2	11.0	Δ	<0.02	<0.05	<1	23.0	6.3	4	<50	48	80	35	5.4	1.4	<0.5	2.80	0.45	20.2
16+00S 1+50W	Δ	Δ	71	810	7	4	11	38	16	3.28	4	<1	Δ	Δ	25	1.83	<58	130	0.3	8.8	Δ	<0.02	<0.05	<1	23.0	9.8	13	<50	73	76	38	6.7	1.8	1.4	2.90	0.52	17.7
16+00S 2+00W	Δ	Δ	120	600	3	<1	12	58	25	4.79	7	<1	Δ	Δ	40	1.07	<50	100	<0.2	14.0	Δ	<0.02	<0.05	<1	50.0	18.0	28	174	83	130	45	7.7	1.7	<0.5	3.70	0.60	27.7
16+00S 2+50W	Δ	Δ	140	760	6	4	16	68	23	5.30	5	<1	Δ	Δ	49	0.80	230	130	0.3	15.0	Δ	<0.02	<0.05	<1	37.0	18.0	180	<50	71	110	46	7.5	1.8	1.2	3.80	0.54	22.0
16+00S 3+00W	Δ	Δ	53	710	4	<1	9	37	17	3.24	10	<1	Δ	Δ	10	1.82	<50	170	0.3	9.7	Δ	<0.02	<0.05	<1	45.0	9.3	14	<50	55	100	32	5.0	1.2	<0.5	2.90	0.39	26.2
16+00S 3+50W	Δ	Δ	44	790	5	2	12	50	19	3.80	6	<1	Δ	Δ	12	1.50	<50	140	0.8	11.0	Δ	<0.02	<0.05	<1	21.0	9.9	6	104	48	82	34	5.0	1.1	<0.5	2.50	0.35	24.7
16+00S 4+00W	Δ	Δ	28	760	6	3	18	95	18	5.78	5	<1	Δ	Δ	5	0.82	<50	120	0.5	16.0	Δ	<0.02	<0.05	<1	23.0	6.3	4	140	64	110	49	7.7	1.8	1.2	3.50	0.59	26.5
16+00S 4+50W	Δ	Δ	49	770	3	3	16	91	18	4.26	5	<1	Δ	Δ	11	0.94	<50	120	1.7	14.0	Δ	<0.02	<0.05	1	19.0	7.6	4	259	54	92	38	6.0	1.6	1.2	2.80	0.47	30.0
16+00S 5+00W	Δ	Δ	43	950	3	4	18	87	16	4.79	4	<1	Δ	Δ	14	0.83	<50	90	1.5	14.0	Δ	<0.01	<0.05	<1	18.0	4.9	4	128	53	89	29	6.0	1.6	<0.5	2.70	0.45	28.9
16+00S 5+50W	Δ	Δ	25	770	<1	5	24	76	18	4.46	4	<1	Δ	Δ	8	0.97	<50	100	0.4	13.0	Δ	<0.01	<0.05	<1	19.0	4.1	4	<50	61	110	38	6.4	1.4	1.4	2.90	0.52	33.7
16+00S 6+00W	Δ	Δ	140	430	<1	<1	7	<10	26	2.36	8	<1	Δ	Δ	26	1.81	<50	270	0.7	9.9	Δ	<0.01	<0.05	4	74.0	12.0	4	76	78	150	28	5.8	1.4	<0.5	4.30	0.68	29.0
16+00S 6+50W	Δ	Δ	44	740	3	5	27	83	17	5.25	4	<1	Δ	Δ	8	0.95	<50	120	0.3	15.0	Δ	<0.01	0.11	<1	22.0	4.2	4	89	61	100	40	6.5	1.5	<0.5	3.30	0.50	27.0
16+00S 7+00W	Δ	Δ	23	880	4	<1	20	87	11	4.81	5	<1	Δ	Δ	5	1.15	170	65	0.3	14.0	Δ	<0.01	<0.05	3	18.0	6.0	5	75	56	110	38	5.7	1.3	<0.5	2.10	0.38	26.1
16+00S 7+50W	Δ	Δ	20	750	5	3	17	78	15	4.23	3	<1	Δ	Δ	5	0.78	<50	87	0.4	13.0	Δ	<0.01	<0.05	2	16.0	4.5	4	118	51	86	39	5.6	1.3	<0.5	2.30	0.45	22.0
16+00S 8+00W	Δ	Δ	16	870	5	4	9	51	6	3.11	5	<1	Δ	Δ	11	1.58	<50	90	0.4	9.1	Δ	<0.01	<0.05	2	16.0	5.9	4	<50	34	62	25	4.0	1.1	<0.5	1.80	0.30	17.4
16+00S 8+50W	Δ	Δ	32	860	5	3	12	71	10	3.87	5	<1	Δ	Δ	9	1.01	<50	99	0.6	12.0	Δ	<0.01	0.06	<1	27.0	6.9	5	87	59	120	43	6.8	1.8	<0.5	2.70	0.41	23.0
16+00S 9+00W	Δ	Δ	26	880	5	2	10	68	10	3.75	5	<1	Δ	Δ	6	1.18	<50	94	0.5	12.0	Δ	<0.01	<0.05	<1	28.0	6.4	4	144	52	97	34	5.9	1.5	1.2	2.40	0.45	21.1
16+00S 9+50W	Δ	Δ	6	850	5	3	10	56	7	3.50	4	<1	Δ	Δ	5	1.34	<50	40	0.5	10.0	Δ	<0.01	<0.05	<1	15.0	3.2	4	86	47	81	32	4.8	1.2	<0.5	2.00	0.29	21.2
16+00S 10+00W	Δ	Δ	7	830	10	3	9	41	8	2.83	4	<1	Δ	Δ	5	1.93	<50	79	<0.2	8.0	Δ	<0.01	<0.05	<1	13.0	2.3	4	83	33	64	25	3.4	0.8	<0.5	1.40	0.11	19.9
16+00S 10+50W	Δ	Δ	69	870	3	5	18	74	17	4.92	5	<1	Δ	Δ	38	1.00	<50	150	0.4	13.0	Δ	<0.01	<0.05	2	26.0	7.5	13	106	63	110	39	6.5	1.5	<0.5	2.90	0.49	30.5
16+00S 11+00W	Δ	Δ	78	660	10	5	17	87	14	5.40																											

To: Ketz Group

From: CanTech Laboratories, Inc.

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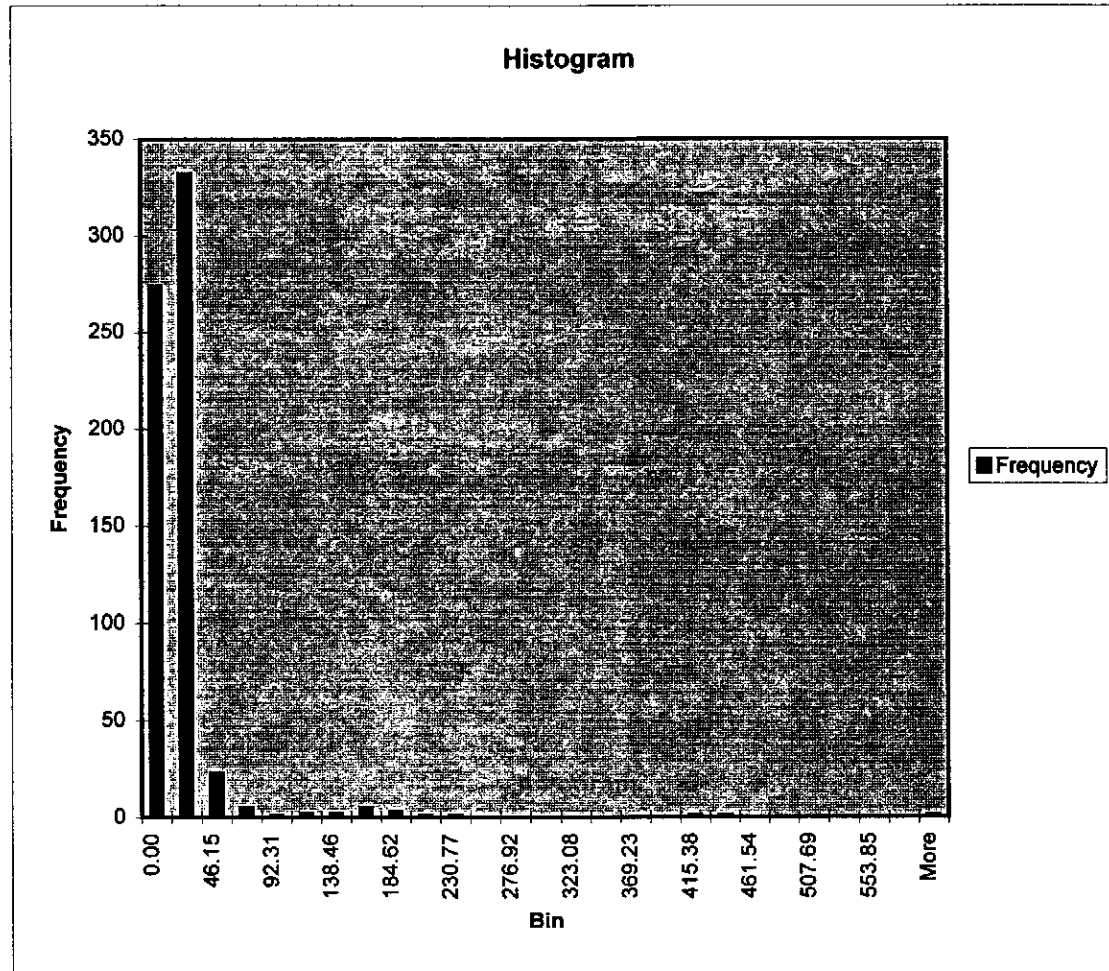
Element	AU	AG	AS	BA	BR	CA	CO	CR	CS	FE	HF	HG	IR	MO	NA	NI	RB	SB	SC	SE	SN	SR	TA	TH	U	W	ZN	LA	CE	ND	SM	EU	TB	YB	LU	Mass	
Units	PPB	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	%	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.01	50	30	0.2	0.1	5	0.01	0.05	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.05	0.05	0.0	
16+00S 14+50W	6	<5	54	850	7	3	6	26	5	2.51	6	<1	<5	<5	2.23	<50	80	0.6	7.2	<5	<0.02	<0.05	<1	21.0	6.9	9	<50	55	82	36	4.8	1.2	1.5	1.70	0.22	19.6	
16+00S 15+00W	<5	<5	31	750	9	<1	6	24	7	2.07	5	<1	<5	10	1.82	<50	<30	0.5	6.0	<5	<0.02	<0.05	<1	23.0	5.7	<4	<50	68	84	34	5.2	1.2	<0.5	1.60	0.21	17.5	
16+00S 0+50E	<5	<5	120	540	8	<1	<5	24	12	2.86	8	<1	<5	28	1.89	<50	110	<0.2	9.6	<5	<0.03	<0.05	<1	48.0	41.0	8	<50	120	120	40	7.3	1.6	<0.5	3.09	0.52	5.0	
16+00S 1+00E	10	<5	16	580	8	<1	<5	12	5	1.85	5	<1	<5	7	2.41	<50	84	0.3	4.3	<5	<0.01	<0.05	<1	21.0	5.3	<4	90	25	47	19	2.4	0.7	<0.5	1.00	0.13	17.5	
16+00S 1+50E	<5	<5	6	800	9	3	7	<10	2	2.08	4	<1	<5	12	2.61	<51	<30	<0.2	5.0	<5	<0.02	<0.05	2	7.9	14.0	<4	<50	23	38	13	2.2	0.8	<0.5	1.20	0.17	14.9	
16+00S 2+00E	<5	<5	13	880	6	<1	5	18	5	1.99	6	<1	<5	9	2.74	<50	<30	0.5	5.0	<5	<0.01	<0.05	2	16.0	4.3	<4	84	38	59	17	3.2	0.8	<0.5	1.30	0.23	21.2	
16+00S 2+50E	<5	<5	89	920	5	<1	8	39	14	3.03	8	<1	<5	14	1.52	<50	100	<0.2	11.0	<5	<0.02	<0.05	4	85.0	26.0	<4	<50	84	120	46	7.6	1.8	<0.5	3.10	0.53	15.8	
16+00S 3+00E	<5	<5	78	860	5	<1	8	21	19	2.64	11	<1	<5	21	2.57	<50	200	0.3	9.2	<5	<0.02	<0.05	<1	60.0	30.0	14	<50	110	170	65	8.5	2.1	<0.5	3.60	0.81	13.2	
16+00S 3+50E	6	<5	62	820	4	<1	10	47	14	3.05	12	<1	<5	<5	2.22	<50	180	0.3	9.8	<5	<0.02	<0.05	3	58.0	9.7	<4	90	80	160	41	8.5	1.5	<0.5	2.90	0.57	26.0	
16+00S 4+00E	<5	<5	17	860	11	<1	8	23	5	2.59	5	<1	<5	<5	2.81	<50	<30	0.4	6.8	<5	<0.02	<0.05	<1	15.0	3.7	<4	<50	33	62	22	3.5	1.0	<0.5	1.30	0.25	20.0	
16+00S 4+50E	<5	<5	35	870	7	<1	6	23	6	1.90	8	<1	<5	6	2.50	<50	85	0.6	4.6	<5	<0.02	<0.05	<1	18.0	6.6	<4	122	31	76	12	2.6	0.7	<0.5	1.40	0.25	16.2	
16+00S 5+00E	<5	<5	77	1200	6	3	5	14	9	2.55	15	<1	<5	<5	2.78	<50	220	<0.2	7.1	<5	<0.02	<0.05	4	70.0	13.0	10	<50	87	160	44	6.7	1.6	<0.5	2.60	0.47	14.3	

CanTech Laboratories, Inc.

Certified: 

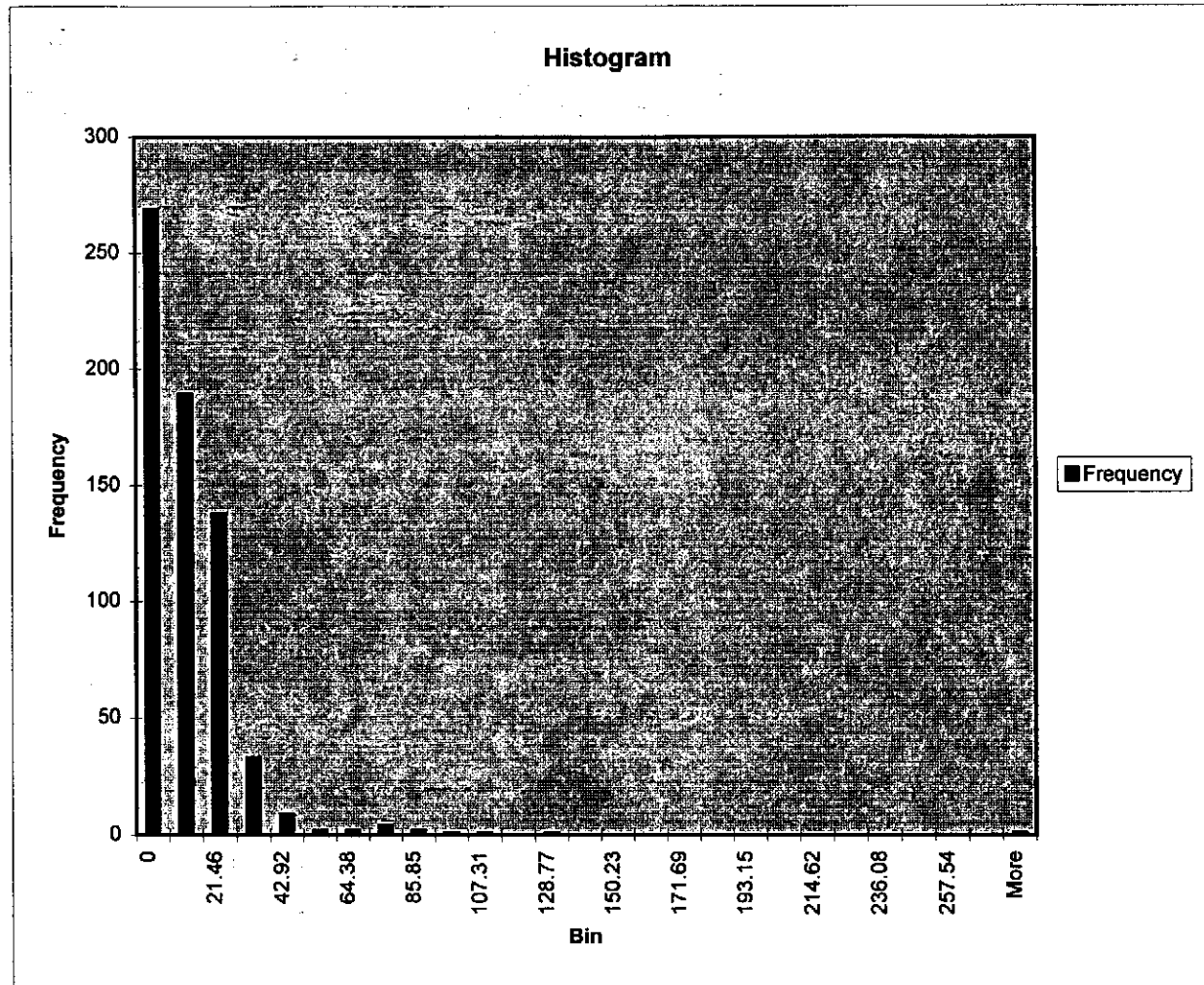
APPENDIX 3

Bin	Frequency
0.00	274
23.08	332
46.15	23
69.23	5
92.31	1
115.38	2
138.46	2
161.54	5
184.62	3
207.69	1
230.77	1
253.85	0
276.92	0
300.00	0
323.08	0
346.15	0
369.23	0
392.31	0
415.38	1
438.46	1
461.54	0
484.62	0
507.69	0
530.77	0
553.85	0
576.92	0
More	1



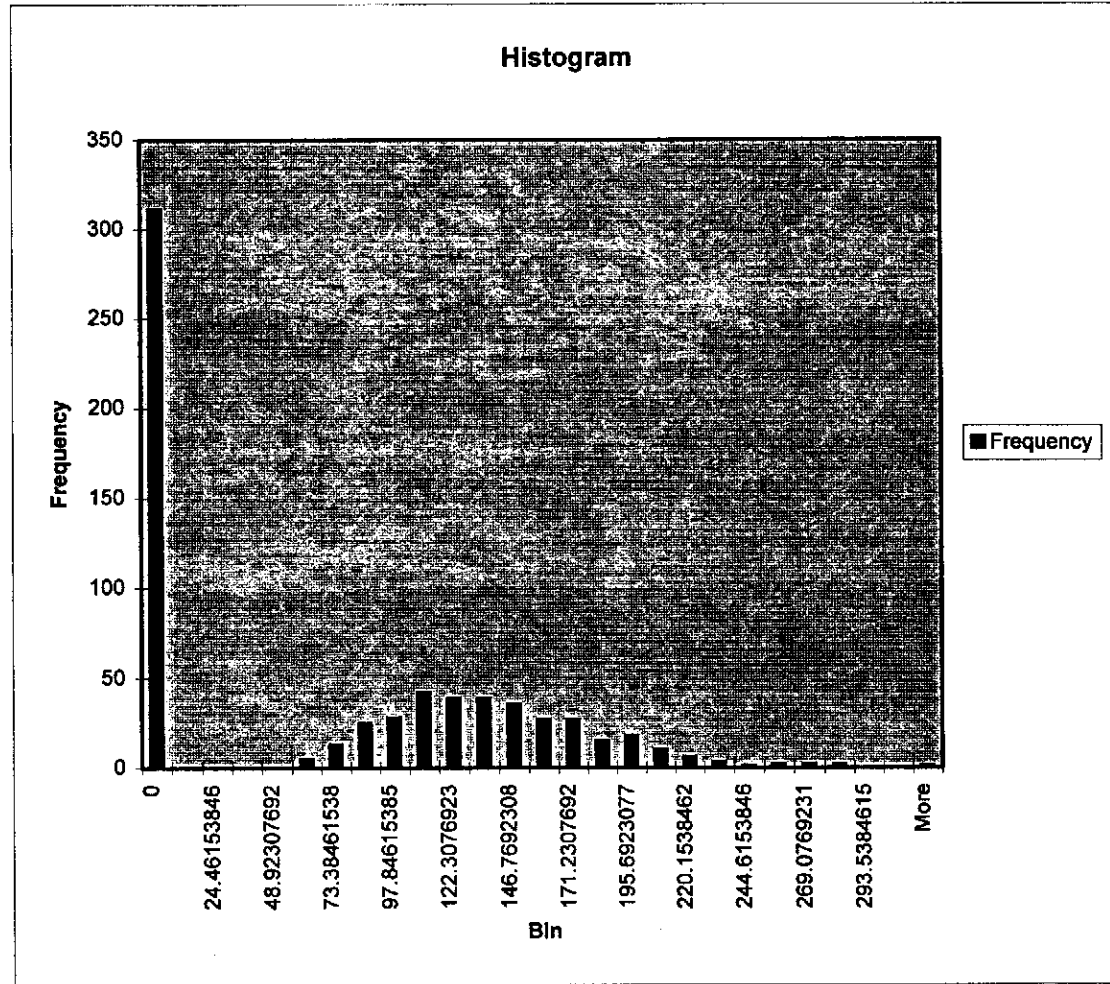
Mo

Bin	Frequency
0	269
10.73	189
21.46	138
32.19	33
42.92	9
53.65	2
64.38	2
75.12	4
85.85	2
96.58	1
107.31	1
118.04	0
128.77	1
139.50	0
150.23	0
160.96	0
171.69	0
182.42	0
193.15	0
203.88	0
214.62	0
225.35	0
236.08	0
246.81	0
257.54	0
268.27	0
More	1



Zn

Bin	Frequency
0	311
12.23077	0
24.46154	0
36.69231	0
48.92308	0
61.15385	5
73.38462	13
85.61538	25
97.84615	28
110.0769	42
122.3077	39
134.5385	39
146.7692	36
159	27
171.2308	27
183.4615	15
195.6923	18
207.9231	10
220.1538	6
232.3846	3
244.6154	1
256.8462	2
269.0769	2
281.3077	2
293.5385	0
305.7692	0
More	1



Ketza Enterprises Ltd.
Suite 320 - 475 Howe Street
Vancouver, B.C. V6C 2B3

Tel: (604) 688-2000
Fax: (604) 688-2021

INVOICE

INVOICE NO.: 98-2263

COMPANY: SRR Mercantile Inc.

PROJECT: Stormy Mountain Project, Yukon

DATE: January 15, 1998

Final Billing

Payroll Period - July 2/97 to August 12/97

Brandon Macdonald - 24 days @ \$200/day	4800.00
Barclay Macdonald - 24 days @ \$200/day	4800.00
Terry McMillan - 20 days @ \$200/day	4000.00
Zackary Witham - 14 days @ \$200/day	2800.00
Al Eckardt - 22 days @ \$250/day	5500.00
Robert Krause - 10 days @ \$400/day	4000.00

Paid by Visa / American Express

600.00, (55% of 924.05) 508.23, 4152.46, 1274.37, 1313.44,	
(55% of 1655.60) 910.58, 73.50, 749.92, 8.55,	
(55% of 1833.86) 1008.63, 651.95, 194.42, 488.03, 3818.37, 254.80	16007.25
Camp - 114 man days @ \$50/day	5700.00
Truck Rental - 25 days @ \$75/day	1875.00
Cantech Labs	12928.01
Ross River Service Centre	991.60
Engineering	<u>4500.00</u>

Total	67901.86
Overhead and Project Administration at 10%	6790.19
Less Received to Date	<50000.00>

Total Owing of 24692.05