

LOG NO: DEC 18 1991 RD.

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FILE NO:

GEOCHEMISTRY REPORT

GOATFELL PROPERTY  
FORT STEELE AND NELSON MINING DIVISION  
BRITISH COLUMBIA

OPERATOR/OWNER: GORDON LEASK

SUB-RECORDER  
RECEIVED  
DEC 11 1991

NTS: 82F/1  
LAT: 49° 8' N  
LONG: 116° 12' W

M.R. # ..... \$ .....  
VANCOUVER, B.C.

by: G. Leask, BaSc.  
November 13, 1991

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

21,939

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## **1.0 INTRODUCTION**

The Goat claims cover a stratiform base metal prospect hosted within the Aldridge Formation. Stratigraphically the prospective base metal horizon is situated 600m above the Lower-Middle Aldridge Formation contact. The property was staked in 1985 to protect a large area of tourmaline alteration located on the railway tracks at Goatfell. Subsequent work uncovered an extensive area of tourmalinite float on the south western portion of the Goat 3 claim. This southern tourmalinite occurrence is geochemically distinct from the occurrence on the railway tracks in that it contains galena and sphalerite within an intensely brecciated tourmalinized matrix.

Work during the 1990 and 1991 field seasons by Barkhor Resources and Kokanee Explorations on the Kidd-Star property, located 8km north of Goatfell, identified bedded Pb-Zn-Ag mineralization 600m above the Lower-Middle Aldridge contact. Structural mapping on the Kidd-Star and Goatfell properties has identified an east-west "corridor" of mineralization with Goatfell being the right lateral offset of the Kidd-Star trend. This corridor is marked by tourmalinite, albite, quartz-chlorite-pyrite alteration, crosscutting gabbro intrusive complexes, minette lamprophyre dykes and sills, pervasive stratiform and vein Pb-Zn-Ag mineralization and graben development.

To date only limited soil geochemistry has been performed along the prospective horizon on the Goatfell property. A significant persistent soil Pb-Zn anomaly exists in the central portion of the Goatfell property at the same stratigraphic level as the Kidd-Star mineralization. The 1991 soil geochemistry program was designed to test the prospective horizon in the vicinity of the southern tourmalinite float occurrence.

## **2.0 LOCATION, ACCESS & PHYSIOGRAPHY**

The Goatfell property is located approximately 10km northwest of Yahk, B.C. (Fig 1). It is approximately centred at latitude  $49^{\circ}8'N$  and longitude  $116^{\circ}12'W$  within NTS map sheet 82F/1. A natural gas pipeline and the Canadian Pacific rail line cross the central portion of the property. In addition, several new forestry access roads cross the property and provide excellent access for the entire claim group. Elevations on the Goatfell property range from approximately 800 - 1450m ASL. Topography ranges from a broad open valley to steep cliff forming ridges. Vegetation is dominated by coniferous with lesser deciduous growth.



G. P. LEASK	
LOCATION MAP	
GOATFELL PROPERTY	
DATE: NOV. 1991	SCALE
NTS: 82F/1	FIGURE: 1

### **3.0 CLAIM STATUS**

<u>Claim Name</u>	<u>Record #</u>	<u># Units</u>	<u>Expiry Date</u>
GOAT 1	4007	20	29 Jan 99
GOAT 2	4008	20	29 Jan 99
GOAT 3	3286	20	07 Feb 99
G1	305687	1	04 Oct 92
G2	305688	1	04 Oct 92
G3	305689	1	04 Oct 92
G4	305690	1	04 Oct 92
G5	305691	1	04 Oct 92
G6	305692	1	04 Oct 92
G7	305693	1	04 Oct 92
G8	305694	1	04 Oct 92
G9	305695	1	04 Oct 92
G10	305696	1	04 Oct 92
G11	305697	1	04 Oct 92
G12	305698	1	04 Oct 92
G13	305699	1	04 Oct 92
G14	305700	1	04 Oct 92
G15	305701	1	05 Oct 92
G16	305702	1	05 Oct 92
G17	305703	1	05 Oct 92
G18	305704	1	05 Oct 92
G19	305769	1	05 Oct 92
G20	305764	1	05 Oct 92
G21	305765	1	05 Oct 92
G22	305766	1	05 Oct 92

### **4.0 PROPERTY HISTORY**

The Goat claims were staked in January of 1985 to protect a large area of tourmaline alteration located on the CPR rail line at Goatfell. Geological mapping during the 1985 field season resulted in the discovery of a zone of tourmalinite breccia in float on the southern portion of the property. In addition two minette dyke/sills were found near the sharp hair pin corner on the rail tracks within the central portion of the property. Geological similarities between Goatfell and the Sullivan mine were recognized and in 1987 the claims were optioned to Chevron Minerals Canada. Four diamond drill holes were drilled during the 1988 and 1989 field seasons with the target stratigraphy being the Sullivan time horizon. The target stratigraphy was not intersected and sulphide mineralization was not encountered. The claims were returned by Chevron to Mr. Leask.

Subsequent exploration on the adjacent Kidd-Star property by Kokanee Explorations and Barkhor Resources discovered a significant zone of stratiform, replacement and vein-like Zn-Pb-Ag mineralization within a stratigraphic interval near the base of the Middle Aldridge formation.

R C E L L

N T A N S

A M O U N T A I N S

GOAT 1

GOAT 2

GOAT 3

G1	G2
G3	G4
G5	G6
G7	G8
G9	G10
G11	G12
G13	G14
G15	G16
G17	G19 G21
G18	G20 G22

CLAIM LOCATION MAP

GOATFELL PROPERTY

DATE 12/11/91	SCALE 1:50,000
NTS: 82F/1	FWS No. 2

## **5.0 GEOCHEMICAL SURVEY**

A geochemical survey designed to test the stratigraphic interval 600m above the Sullivan time horizon in the vicinity of the southern tourmalinite occurrence was carried out in the period from October 18 to 28, 1991. In total, 214 soil samples were taken from the 'B' soil horizon using a mattock and placed in kraft bags. The sample bags were air dried then shipped to the Noranda Exploration lab in Vancouver, B.C. for analysis.

The southern grid, lines 00N to 1350N (Figures 3 and 4) constitute the 1991 soil program. The northern geochemical data was obtained from the 1988 Chevron work.

The samples were screennd to -35 mesh and then 0.2 g were digested with 3 ml  $\text{HClO}_4/\text{HNO}_3$  (4:1) at 203°C for 4 hours, diluted to 11 ml with water and analyzed using a Leeman PS3000 ICP unit. The results of the analyses are presented in Appendix 1 and on Figures 3 and 4.

Results of the survey show a Pb-Zn soil anomaly that follows bedding about 600m stratigraphically above the Sullivan Time Horizon for a strike length of 1.2km. It would appear that the tourmaline alteration zone may be the fringes of a footwall breccia pipe associated with stratiform mineralization.

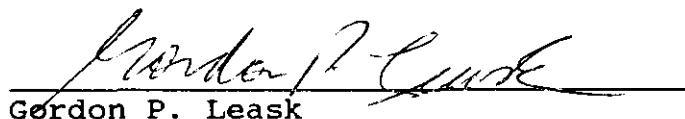
## **6.0 Statement of Expenditures**

Geochemistry:	sampling and grid preparation Gordon Leask 7 days @ \$400/day	\$ 2,800.00
Fuel		286.10
Vehicle mileage	3000km @ \$0.30/km	900.00
Lodging	7 days @ \$40/day	280.00
Sample analysis	214 samples @ \$13/sample	2,782.00
Report preparation	2 days @ \$250/day	<u>500.00</u>
	Total	\$ 7,548.10

**7.0 STATEMENT OF QUALIFICATIONS**

I, Gordon P. Leask, do hereby certify that:

1. I am a geologist with resident at 1940 Chesterfield Avenue, North Vancouver, B.C., V7M 2P5.
2. I am a graduate of the University of British Columbia with a Bachelor of Applied Science degree in Geological Engineering (1985).
3. I have been involved in mining exploration since 1979.

  
\_\_\_\_\_  
Gordon P. Leask

**NORANDA VANCOUVER LABORATORY**  
**Geochemical Analysis**

Project Name & No.: **GOMFELL - 127**  
Material: **226 SOILS**

Geol.: J.M.C.  
Sheet: 1 of 6

Date received: NOV. 01  
Date completed: NOV. 14

**LAB CODE: 9111-012 R**

Remarks: \* Sample screened @ -35 MESH (0.5 mm)  
\*\* Organic, & Humus, Sulfide

As - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO<sub>4</sub>/HNO<sub>3</sub> (4:1) at 203 °C for 4 hours diluted to 11 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ca, La, Li, Sr are rarely dissolved completely from geological materials with this acid dissolution method.

N.B. Sample statistics in pg/g.

T.T.	SAMPLE No.	Ag ppm	Al % ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca % ppm	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe % ppm	K % ppm	La ppm	Li ppm	Mg % ppm	Mn ppm	Mo ppm	Na % ppm	Ni ppm	P % ppm	Pb ppm	Sr ppm	Tl % ppm	V ppm	Zn ppm
2	ON-0E	0.2	3.30	4	314	1.0	5	0.29	0.2	57	8	12	15	1.74	0.89	29	22	0.34	408	1	0.07	10	0.03	9	26	0.20	46	62
3	25	0.4	4.93	3	466	1.8	5	0.32	0.2	104	13	16	24	2.65	1.10	38	29	0.43	764	1	0.11	20	0.07	16	34	0.23	57	110
4	50	0.4	3.73	2	396	1.5	5	0.36	0.2	85	9	13	16	1.92	1.16	35	24	0.37	556	1	0.05	12	0.04	9	33	0.19	49	66
5	75	0.2	3.57	2	358	1.3	5	0.36	0.2	69	10	12	14	1.96	1.16	28	22	0.39	327	1	0.05	9	0.03	8	31	0.21	51	45
6	ON-100E	0.4	3.87	2	397	1.2	5	0.34	0.2	57	10	14	14	1.92	1.08	27	23	0.36	370	1	0.09	13	0.04	13	32	0.22	52	83
7	ON-125E	0.2	4.53	2	425	1.9	5	0.33	0.2	133	25	18	28	2.61	1.23	48	32	0.48	1270	1	0.11	18	0.05	23	41	0.23	59	90
8	150	0.2	2.59	2	296	0.7	5	0.25	0.2	39	8	14	13	1.55	0.53	20	17	0.21	1045	1	0.14	9	0.09	7	29	0.20	42	113
9	175	0.2	4.06	4	323	1.2	5	0.32	0.2	69	13	18	19	2.33	0.69	25	30	0.32	664	1	0.13	22	0.10	11	32	0.22	51	126
10	200	0.2	3.28	2	270	1.0	5	0.47	0.2	53	9	19	16	1.92	0.71	23	20	0.35	215	1	0.08	17	0.05	7	27	0.17	47	70
11	ON-225E	0.2	5.46	2	434	2.0	6	0.32	0.2	112	23	20	48	3.09	0.84	37	38	0.50	548	2	0.14	32	0.06	19	39	0.25	64	127
12	ON-250E	0.2	4.70	2	224	1.5	5	0.27	0.2	67	17	13	26	2.33	0.31	19	27	0.24	659	1	0.26	27	0.12	11	36	0.23	50	146
13	275	0.2	4.23	2	355	1.2	5	0.39	0.2	70	12	15	24	2.46	0.61	27	25	0.37	1020	1	0.16	21	0.13	11	35	0.22	57	116
14	300	0.2	3.88	2	282	1.2	6	0.29	0.2	65	14	18	31	3.04	0.58	31	27	0.47	1402	1	0.13	19	0.13	17	30	0.25	64	104
15	325	0.2	3.40	2	248	0.9	6	0.69	0.2	55	10	17	22	2.40	0.55	24	21	0.41	602	1	0.10	15	0.07	10	33	0.23	60	73
16	ON-350E	0.2	4.01	2	273	1.5	5	0.19	0.2	111	17	18	32	3.33	0.74	47	34	0.49	757	2	0.10	26	0.16	23	30	0.26	65	124
17	ON-375E	0.2	3.41	2	241	1.7	5	0.24	0.2	102	28	17	31	2.77	0.64	47	30	0.42	724	2	0.12	32	0.07	20	34	0.24	60	99
18	400	0.2	3.82	3	248	1.5	5	0.27	0.2	89	28	18	23	2.80	0.56	28	39	0.40	602	1	0.14	27	0.05	21	31	0.26	63	113
19	425	0.2	4.34	2	297	1.8	6	0.39	0.2	110	17	18	29	2.93	0.62	40	32	0.49	973	2	0.12	21	0.08	22	36	0.23	67	103
20	ON-450E	0.2	3.63	2	288	1.1	6	0.31	0.2	65	10	19	23	2.70	0.61	36	24	0.47	1248	2	0.09	15	0.11	18	28	0.21	62	96
21	150N-225W	0.2	3.93	4	295	1.0	5	0.25	0.2	44	11	16	24	2.57	0.68	24	33	0.39	503	1	0.15	18	0.05	13	29	0.23	60	87
22	150N-200W	0.2	3.07	2	309	0.8	5	0.29	0.2	47	9	14	14	1.84	0.79	26	24	0.36	608	1	0.06	12	0.03	8	27	0.20	50	77
23	175	0.2	4.48	2	315	1.2	5	0.24	0.2	69	12	15	24	2.51	0.58	24	29	0.32	614	1	0.13	23	0.10	14	28	0.22	53	107
24	150	0.2	3.00	2	324	0.9	5	0.29	0.2	40	6	10	10	1.45	1.00	23	14	0.29	463	1	0.04	7	0.03	6	25	0.18	41	39
25	125	0.2	3.33	2	281	1.0	5	0.24	0.2	58	8	15	18	1.97	0.73	32	27	0.36	532	1	0.14	13	0.03	12	27	0.22	49	68
26	150N-100W	0.2	3.58	2	356	1.1	5	0.28	0.2	56	8	13	14	1.88	1.01	27	26	0.34	389	1	0.07	12	0.04	8	27	0.22	48	71
27	150N-75W	0.2	3.79	2	335	1.1	5	0.28	0.2	55	10	15	16	2.15	0.96	28	32	0.36	439	1	0.09	14	0.05	11	29	0.22	51	104
28	50	0.2	3.23	5	343	0.9	5	0.39	0.2	45	5	13	11	1.67	1.12	26	17	0.35	235	1	0.04	8	0.03	7	25	0.18	47	40
29	150N-25W	0.2	3.41	2	282	0.9	5	0.25	0.2	41	9	15	15	1.85	0.72	20	24	0.32	203	1	0.13	13	0.03	11	26	0.18	45	71
30	150N-0E	0.2	3.83	2	287	1.6	5	0.24	0.2	84	13	19	26	2.43	0.83	32	27	0.40	435	1	0.12	18	0.04	19	28	0.21	53	76
31	150N-25E	0.2	3.62	2	310	1.8	5	0.28	0.2	96	15	18	24	2.09	0.78	43	28	0.36	959	1	0.09	16	0.04	17	33	0.20	51	72
32	150N-50E	0.4	3.47	2	328	1.0	5	0.25	0.2	45	12	15	18	2.09	0.67	23	29	0.29	438	1	0.12	21	0.06	15	31	0.22	50	124
33	75	0.4	4.32	2	400	1.3	5	0.27	0.2	86	12	15	25	2.41	0.94	32	29	0.36	393	1	0.10	23	0.11	15	29	0.22	53	119
34	100	0.2	4.00	2	414	1.2	5	0.25	0.2	63	11	14	21	2.10	0.82	24	26	0.30	886	1	0.11	20	0.10	12	30	0.20	49	118
35	125	0.2	3.57	2	409	1.1	5	0.25	0.2	44	7	12	14	1.81	1.02	23	21	0.31	393	1	0.07	14	0.04	8	27	0.20	45	62
36	150N-150E	0.2	3.66	2	305	1.0	5	0.24	0.2	36	11	13	17	2.06	0.46	17	26	0.26	772	1	0.17	21	0.08	11	29	0.20	47	98

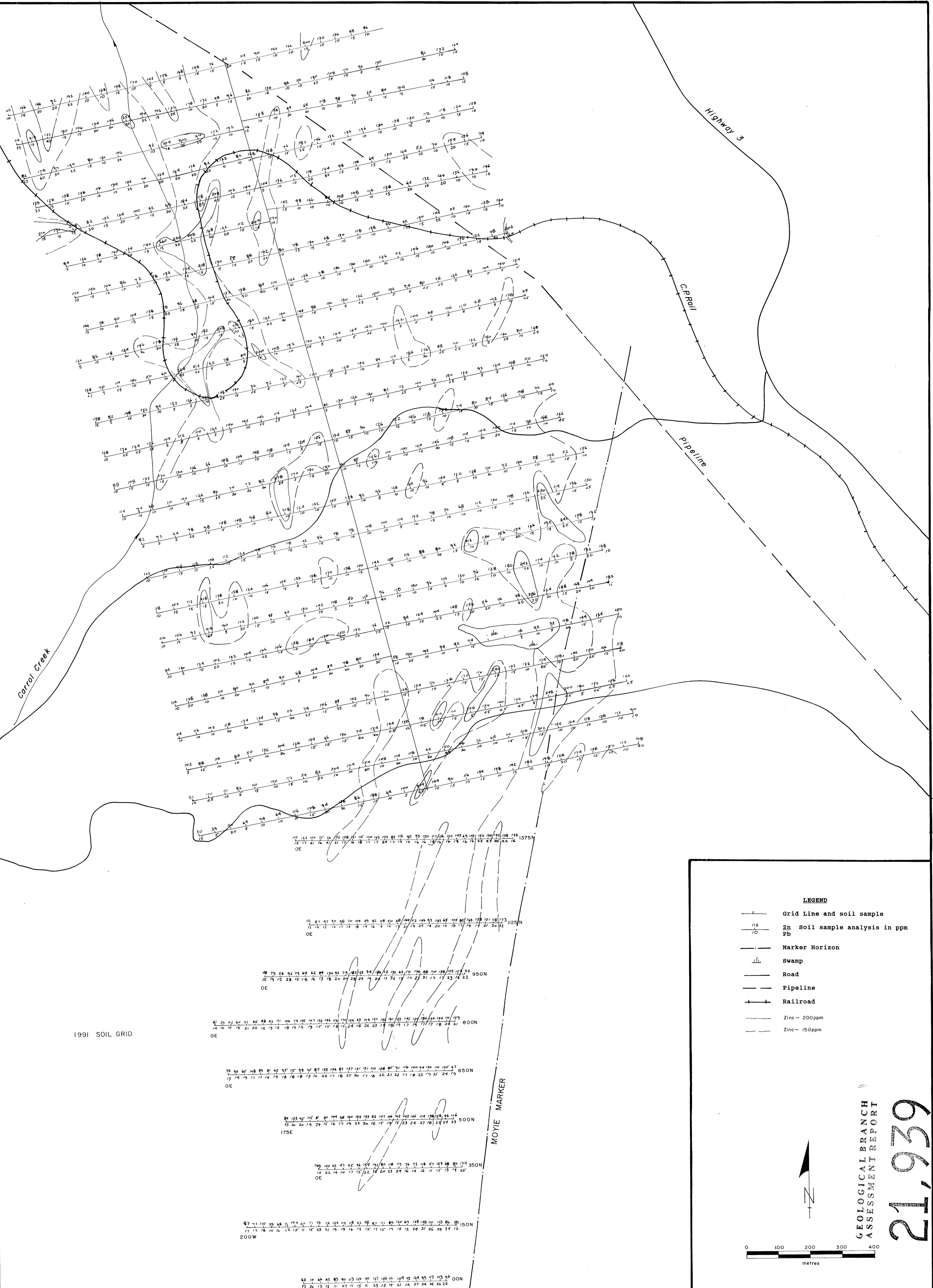
T.T. No.	SAMPLE No.	Ag ppm	Al %	As ppm	Be ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Co ppm	Cr ppm	Cr ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni %	P ppm	Pb ppm	Sr ppm	Tl %	V ppm	Zn ppm	9111-012 Pg. 2 of 6
37	150N-175E	0.2	3.91	2	300	1.0	5	0.24	0.2	45	10	15	19	2.31	0.48	21	27	0.31	658	1	0.17	17	0.10	13	24	0.22	52	97	
38	200	0.2	3.86	2	200	1.1	5	0.26	0.2	44	10	15	18	2.19	0.47	19	25	0.30	504	1	0.16	20	0.07	11	25	0.21	49	111	
39	225	0.2	3.38	2	200	0.9	5	0.36	0.2	46	10	16	15	2.04	0.55	21	23	0.30	603	1	0.11	18	0.10	10	29	0.20	47	89	
40	230	0.2	3.62	2	201	1.0	5	0.34	0.2	46	13	16	15	2.06	0.53	20	30	0.31	550	1	0.12	26	0.08	11	32	0.20	48	120	
41	150N-275E	0.2	3.69	2	311	1.0	5	0.61	0.2	54	11	18	21	2.15	0.66	23	21	0.36	386	1	0.10	18	0.05	8	36	0.21	53	69	
42	150N-300E	0.2	4.64	2	323	1.4	5	0.30	0.2	94	15	17	29	3.01	0.67	44	31	0.44	1206	1	0.13	22	0.15	20	36	0.25	64	128	
43	325	0.2	4.37	2	378	1.5	6	0.27	0.2	88	16	19	33	3.55	0.75	49	26	0.47	1661	1	0.11	24	0.25	27	30	0.27	71	148	
44	350	0.2	4.18	2	264	1.3	6	0.28	0.2	83	16	17	33	3.22	0.73	37	28	0.50	1115	1	0.10	23	0.12	22	28	0.25	68	110	
45	375	0.2	3.77	3	330	1.3	8	0.41	0.2	75	18	16	25	3.04	0.76	38	29	0.46	973	1	0.11	18	0.06	25	34	0.26	66	123	
46	150N-425E	0.2	3.75	2	286	1.6	9	0.30	0.2	89	22	15	32	3.07	0.71	46	25	0.44	1751	1	0.10	15	0.15	30	32	0.27	70	86	
47	150N-450E	0.2	4.02	3	332	1.1	6	0.31	0.2	58	11	14	26	2.80	0.68	27	26	0.45	1229	1	0.14	18	0.11	12	27	0.24	66	89	
48	350N-0E	0.2	3.39	2	340	0.9	5	0.25	0.2	51	8	13	12	1.89	0.71	25	26	0.26	548	1	0.13	13	0.08	11	28	0.22	49	109	
49	25	0.2	3.45	2	245	0.9	5	0.21	0.2	44	13	14	20	2.00	0.51	18	25	0.30	374	1	0.20	19	0.07	18	24	0.22	46	100	
51	50	0.2	3.16	2	281	1.0	5	0.26	0.2	58	8	13	21	1.82	0.86	27	20	0.33	398	1	0.06	12	0.04	10	25	0.19	44	62	
52	350N-75E	0.2	3.36	2	312	0.8	5	0.32	0.2	49	5	12	11	1.50	1.03	28	16	0.30	190	1	0.06	8	0.03	6	26	0.22	52	47	
53	350N-100E	0.2	4.08	2	356	1.2	5	0.37	0.2	67	11	14	20	2.18	0.92	33	29	0.40	301	1	0.09	18	0.04	13	31	0.22	54	95	
54	125	0.2	4.27	2	339	1.2	5	0.35	0.2	57	10	14	20	2.53	0.74	25	26	0.36	427	1	0.14	17	0.09	11	32	0.23	58	96	
55	150	0.2	5.09	2	432	1.9	5	0.41	0.2	125	14	14	25	2.71	0.71	33	33	0.38	577	1	0.16	31	0.09	18	38	0.26	58	154	
56	175	0.2	5.71	2	435	3.0	5	0.41	0.2	173	20	15	40	3.20	0.74	41	44	0.43	611	1	0.15	47	0.10	28	45	0.28	62	191	
57	350N-200E	0.2	3.84	2	299	1.7	5	0.40	0.2	99	14	16	22	2.25	0.77	43	29	0.36	886	1	0.12	19	0.04	16	38	0.25	56	80	
58	350N-225E	0.2	4.71	2	388	1.6	5	0.41	0.2	70	16	17	30	2.67	0.85	31	35	0.40	506	1	0.10	31	0.07	19	37	0.25	58	118	
59	250	0.2	4.50	2	314	1.8	5	0.36	0.2	105	20	17	25	2.70	0.54	27	34	0.31	650	1	0.16	32	0.09	20	43	0.25	58	119	
60	275	0.2	3.38	5	288	1.0	5	0.34	0.2	63	12	18	19	1.95	0.73	30	26	0.32	374	1	0.12	17	0.03	12	31	0.22	53	76	
61	300	0.2	3.36	4	338	1.0	5	0.43	0.2	59	9	13	21	2.02	0.99	30	20	0.37	344	1	0.06	14	0.04	10	30	0.21	51	73	
62	350N-325E	0.2	3.89	2	376	1.2	5	0.38	0.2	66	13	14	21	2.22	0.62	24	26	0.30	920	1	0.12	22	0.16	12	39	0.21	52	118	
63	350N-350E	0.2	3.58	2	355	1.0	5	0.40	0.2	55	8	12	17	1.88	1.07	26	24	0.40	260	1	0.05	13	0.03	7	28	0.20	51	57	
64	375	0.4	3.58	2	329	0.9	5	0.40	0.2	48	14	13	17	2.16	0.53	21	27	0.29	976	1	0.15	20	0.08	11	40	0.24	54	129	
65	400	0.2	3.50	3	257	0.9	5	0.43	0.2	47	11	13	19	1.97	0.56	20	22	0.29	417	1	0.13	16	0.09	9	26	0.21	50	68	
66	425	0.2	4.06	3	307	1.2	5	0.45	0.2	72	12	14	24	2.31	0.45	25	24	0.33	727	1	0.17	21	0.08	10	34	0.23	54	86	
67	350N-450E	0.2	4.31	4	304	1.4	5	0.28	0.2	88	14	16	26	3.06	0.71	48	30	0.45	1165	1	0.12	22	0.16	21	34	0.25	61	134	
68	500N-175E	0.2	3.45	3	320	1.0	5	0.28	0.2	53	10	13	15	1.89	0.75	24	25	0.28	593	1	0.10	16	0.06	9	25	0.20	47	84	
69	200	0.2	4.98	3	480	1.3	5	0.30	0.2	53	13	16	18	2.16	1.10	23	32	0.38	617	1	0.12	23	0.06	16	33	0.22	54	123	
70	225	0.4	4.29	4	298	1.2	5	0.28	0.2	81	14	17	24	2.34	0.53	22	30	0.29	336	1	0.15	24	0.07	16	28	0.21	49	95	
71	250	0.4	4.81	2	346	1.5	5	0.33	0.2	58	17	14	25	2.59	0.59	22	40	0.32	517	1	0.16	30	0.08	15	34	0.25	57	115	
72	500N-275E	0.2	3.63	2	285	1.5	5	0.32	0.2	90	20	15	26	2.21	0.74	39	29	0.37	1279	2	0.13	18	0.04	25	34	0.23	56	81	
73	500N-300E	0.2	3.44	2	309	1.0	5	0.37	0.2	48	9	13	16	1.93	0.81	27	29	0.36	383	2	0.08	15	0.04	11	30	0.22	50	80	
74	325	0.2	3.62	2	323	1.0	5	0.34	0.2	41	10	12	18	2.23	0.82	22	28	0.35	465	1	0.08	21	0.06	12	26	0.21	49	104	
75	350	0.2	3.36	2	315	0.9	5	0.32	0.2	49	12	12	15	2.03	0.58	22	28	0.30	577	1	0.17	22	0.05	13	32	0.23	49	98	
76	375	0.2	3.95	2	294	1.4	5	0.35	0.2	68	18	15	26	2.45	0.68	29	33	0.37	436	1	0.12	25	0.08	18	36	0.23	53	140	
77	500N-400E	0.2	4.27	2	324	1.6	5	0.30	0.2	80	16	15	21	2.50	0.59	25	31	0.34	735	1	0.16	29	0.12	15	32	0.23	52	134	
78	500N-425E	0.2	3.64	2	303	1.2	5	0.26	0.2	85	14	16	23	2.17	0.59	29	28	0.32	859	1	0.14	25	0.06	16	29	0.22	51	143	
79	450	0.2	4.10	2	408	1.2	5	0.37	0.2	57	10	16	20	2.28	1.05	25	23	0.41	435	1	0.10	18	0.10	14	34	0.21	56	82	
80	475	0.2	4.02	2	276	1.1	5	0.25	0.2	57	9	14	18	2.11	0.31	17	25	0.26	886	2	0.21	20	0.13	11	31	0.21	44	107	
81	500	0.2	3.82	3	419	1.1	5	0.30	0.2	55	11	17	26	2.53	0.77	25	26	0.42	1321	1	0.10	16	0.13	15	28	0.21	55	106	
82	500N-525E	0.2	3.79	3	434	1.0	5	0.30	0.2	49	10	16	20	2.20	0.62	23	25	0.33	2047	1	0.12	17	0.15	11	30	0.22	51	162	



T.T. No.	SAMPLE No.	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Cr ppm	Co ppm	Cr ppm	Cs ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Tl %	V ppm	Zn ppm
		9111-012																										
		Pg. 4 of 6																										
129	800N-125E	0.2	3.57	2	327	1.1	5	0.27	0.2	79	10	12	23	1.94	0.56	24	24	0.28	492	1	0.13	23	0.07	14	29	0.19	42	106
130	130	0.2	3.03	5	270	1.0	5	0.30	0.2	81	14	15	19	1.84	0.71	36	25	0.35	621	1	0.09	14	0.04	15	29	0.18	44	79
131	175	0.2	3.47	2	306	0.9	5	0.24	0.2	41	13	15	27	1.91	0.48	19	31	0.27	614	1	0.14	26	0.09	15	26	0.20	45	145
132	200	0.2	3.92	2	311	1.2	5	0.25	0.2	60	11	14	30	2.16	0.63	22	29	0.31	335	1	0.11	26	0.07	15	26	0.19	45	107
133	800N-225E	0.2	3.54	2	309	1.0	5	0.27	0.2	55	11	13	20	1.93	0.52	21	30	0.28	603	1	0.13	24	0.07	11	28	0.20	43	132
134	800N-250E	0.2	3.99	2	331	1.1	5	0.27	0.2	60	11	13	19	2.18	0.55	23	29	0.30	436	1	0.16	23	0.11	11	25	0.22	47	146
135	275	0.2	4.55	2	364	1.5	5	0.29	0.2	81	13	14	25	2.41	0.81	25	30	0.36	447	1	0.12	27	0.09	14	28	0.21	52	119
136	300	0.2	3.86	2	303	1.0	5	0.31	0.2	44	11	13	19	2.27	0.36	19	30	0.26	1106	1	0.21	22	0.17	11	33	0.24	48	170
137	325	0.4	4.10	2	251	1.3	5	0.24	0.2	74	13	14	22	2.37	0.47	27	40	0.31	507	1	0.16	31	0.09	20	26	0.24	51	129
138	800N-350E	0.2	3.42	2	278	1.1	5	0.31	0.2	58	9	12	17	2.03	0.71	27	24	0.36	310	1	0.06	17	0.03	14	28	0.19	47	63
139	800N-375E	0.4	3.74	2	352	1.2	5	0.31	0.2	83	13	15	30	2.24	0.77	32	27	0.35	914	1	0.11	22	0.11	22	35	0.20	50	104
140	400	0.2	4.24	3	339	1.5	5	0.28	0.2	85	17	17	26	2.52	0.68	31	35	0.38	718	1	0.10	34	0.13	19	27	0.20	52	127
141	425	0.2	4.48	2	306	1.4	5	0.28	0.2	69	15	18	31	2.62	0.73	25	30	0.39	231	1	0.11	30	0.08	14	28	0.20	54	122
142	450	0.4	3.70	2	316	1.1	5	0.26	0.2	54	18	17	24	2.18	0.66	24	35	0.34	553	1	0.12	25	0.08	14	28	0.21	52	161
143	800N-475E	0.4	3.40	4	293	1.0	5	0.30	0.2	49	10	18	18	2.60	0.68	29	27	0.39	675	1	0.10	17	0.06	15	26	0.23	59	123
144	800N-500E	0.2	3.50	3	379	0.9	5	0.30	0.2	48	13	15	18	2.13	0.54	22	26	0.31	1420	1	0.13	22	0.07	13	31	0.22	50	145
145	525	0.2	3.61	2	342	1.0	5	0.41	0.2	60	12	18	20	2.13	0.83	31	25	0.39	1044	1	0.10	19	0.05	15	34	0.22	54	129
146	550	0.2	4.16	2	391	1.1	5	0.34	0.2	59	14	16	22	2.44	0.70	25	31	0.41	465	1	0.12	29	0.10	13	30	0.22	53	186
147	575	0.4	3.61	3	357	1.1	5	0.40	0.2	72	15	18	25	2.27	0.71	27	27	0.39	672	1	0.11	26	0.08	13	37	0.21	53	126
148	800N-600E	0.2	3.92	3	384	1.1	5	0.27	0.2	63	15	17	19	2.29	0.57	23	26	0.35	912	1	0.13	24	0.10	14	28	0.20	51	144
152	800N-625E	0.2	3.95	2	324	1.4	5	0.24	0.2	77	21	18	28	2.80	0.73	38	25	0.43	1538	1	0.09	20	0.15	20	28	0.22	59	110
153	800N-650E	0.2	4.19	2	371	1.2	5	0.39	0.2	67	14	18	33	2.88	0.76	30	27	0.44	1207	1	0.10	23	0.15	17	41	0.23	63	159
154	930N-0E	0.2	2.86	3	348	0.9	5	0.34	0.2	66	8	14	13	1.47	0.64	30	20	0.28	423	1	0.07	10	0.03	11	26	0.19	43	48
155	25	0.2	3.40	2	265	1.1	5	0.26	0.2	57	10	16	18	1.90	0.58	25	28	0.33	503	1	0.15	18	0.03	15	28	0.21	49	79
156	930N-50E	0.2	2.89	3	268	0.8	5	0.29	0.2	50	6	13	13	1.58	0.67	22	20	0.26	229	1	0.08	10	0.03	11	24	0.18	44	56
157	930N-75E	0.2	5.39	3	412	1.7	5	0.24	0.2	85	17	16	33	2.69	0.56	28	32	0.33	367	1	0.14	28	0.06	24	29	0.23	54	92
158	100	0.2	3.30	6	324	0.8	5	0.27	0.2	48	10	15	14	1.79	0.61	19	22	0.24	479	1	0.12	13	0.09	11	24	0.20	47	79
159	125	0.2	3.38	9	305	1.1	5	0.27	0.2	68	8	15	15	1.72	0.88	30	24	0.37	333	1	0.07	13	0.03	14	25	0.18	46	64
160	150	0.2	3.05	2	265	0.9	5	0.24	0.2	63	8	17	12	1.45	0.73	28	23	0.29	508	1	0.07	11	0.03	12	24	0.18	42	62
161	930N-175E	0.2	3.40	2	273	1.0	5	0.21	0.2	53	9	14	18	1.65	0.71	27	24	0.28	392	1	0.07	14	0.04	9	23	0.17	40	84
162	930N-200E	0.2	4.41	2	416	1.3	5	0.23	0.2	73	14	14	24	2.33	0.61	24	30	0.32	327	1	0.12	23	0.07	14	26	0.21	48	130
163	225	0.2	3.58	2	311	1.0	5	0.19	0.2	55	12	13	19	1.93	0.64	24	25	0.29	509	1	0.11	17	0.05	16	23	0.19	45	92
164	250	0.2	3.39	2	293	1.2	5	0.26	0.2	89	12	15	21	1.85	0.73	35	28	0.34	1052	1	0.10	15	0.04	16	27	0.19	47	79
165	275	0.2	5.72	2	452	1.8	5	0.30	0.2	74	17	16	35	2.85	0.78	32	42	0.43	754	1	0.11	43	0.13	24	36	0.22	51	182
166	930N-300E	0.2	4.24	3	335	1.4	6	0.28	0.2	79	16	17	30	2.52	0.84	32	35	0.44	617	1	0.14	27	0.08	20	30	0.21	53	123
167	930N-325E	0.2	3.05	2	319	0.8	5	0.27	0.2	48	9	14	13	1.57	0.74	23	27	0.31	476	1	0.11	14	0.04	10	25	0.20	47	94
168	350	0.2	4.19	2	410	1.2	5	0.33	0.2	80	13	16	21	2.22	0.67	30	35	0.36	1163	1	0.12	31	0.09	16	34	0.22	48	186
169	375	0.2	3.13	2	301	0.9	5	0.34	0.2	63	8	16	14	1.62	0.90	29	28	0.34	416	1	0.07	10	0.03	13	28	0.18	47	72
170	400	0.2	5.35	3	457	2.1	7	0.39	0.2	158	14	23	36	2.92	1.35	59	57	0.59	1685	1	0.08	28	0.07	28	38	0.22	64	132
171	930N-425E	0.2	3.25	2	307	0.9	5	0.37	0.2	59	7	15	17	1.71	1.03	33	31	0.37	381	1	0.05	11	0.03	8	28	0.18	47	62
172	930N-450E	0.2	4.00	2	358	1.1	5	0.43	0.2	65	10	17	22	2.23	0.84	30	43	0.40	628	1	0.11	25	0.09	13	43	0.21	52	171
173	475	0.2	5.62	2	510	1.6	5	0.33	0.2	150	15	17	33	3.14	0.88	42	46	0.47	569	1	0.11	41	0.11	23	35	0.24	57	170
174	500	0.2	3.86	5	357	1.3	5	0.41	0.2	83	15	18	21	2.55	1.20	67	32	0.47	573	1	0.06	18	0.05	27	43	0.21	58	88
175	525	0.2	3.41	3	35																							

T.T. No.	SAMPLE No.	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Cr %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Co ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni %	P ppm	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	Pa. 8 of 8	Pa. 111-112
177	930N-575E	0.2	4.88	2	436	1.7	5	0.33	0.2	131	25	18	32	2.75	0.72	38	30	0.42	678	1	0.13	32	0.09	19	32	0.24	61	155		
178	600	0.2	4.25	2	439	1.2	5	0.30	0.2	76	13	16	22	2.37	0.56	24	27	0.34	1092	1	0.19	25	0.16	12	31	0.22	51	156		
179	930N-625E	0.2	4.06	2	429	1.2	5	0.35	0.2	67	12	19	23	2.66	0.70	25	26	0.41	1235	1	0.13	19	0.11	18	30	0.22	60	112		
180	1125N-0E	0.2	2.57	7	225	0.8	5	0.31	0.2	45	6	14	12	1.52	0.73	23	16	0.27	245	1	0.04	9	0.03	8	21	0.16	41	42		
181	1125N-25E	0.2	4.64	3	297	1.2	5	0.24	0.2	54	11	17	33	2.53	0.56	26	32	0.34	200	1	0.15	27	0.06	15	29	0.21	50	87		
182	1125N-30E	0.2	2.57	5	214	0.6	5	0.31	0.2	37	6	13	12	1.58	0.60	19	17	0.25	205	1	0.05	9	0.03	8	21	0.15	41	42		
183	75	0.2	2.75	2	238	0.6	5	0.28	0.2	40	7	13	12	1.59	0.50	19	21	0.21	257	2	0.08	12	0.09	10	25	0.17	39	90		
184	100	0.2	3.50	2	274	0.8	5	0.24	0.2	46	8	15	15	1.97	0.59	22	28	0.29	180	1	0.09	17	0.11	13	23	0.19	44	98		
185	125	0.2	3.14	3	266	0.9	5	0.24	0.2	50	9	12	16	1.84	0.61	20	20	0.26	246	1	0.09	18	0.05	10	22	0.17	40	70		
186	1125N-150E	0.2	3.14	2	284	0.8	5	0.38	0.2	58	10	15	16	1.79	0.63	25	28	0.28	639	1	0.11	17	0.06	14	33	0.21	46	104		
187	1125N-175E	0.2	3.11	2	270	0.8	5	0.32	0.2	57	7	16	13	1.73	0.88	30	26	0.35	247	1	0.06	12	0.03	10	27	0.19	47	69		
188	200	0.2	3.21	6	271	0.9	5	0.30	0.2	52	11	15	14	1.70	0.73	24	24	0.28	472	1	0.07	14	0.04	12	25	0.19	43	82		
189	225	0.2	2.52	4	249	0.7	5	0.30	0.2	46	4	11	8	1.17	0.85	24	12	0.23	229	1	0.03	6	0.02	5	19	0.17	39	28		
190	250	0.2	2.96	2	272	0.9	5	0.28	0.2	51	7	14	12	1.58	0.85	26	20	0.30	245	1	0.06	10	0.02	10	23	0.18	41	30		
191	1125N-275E	0.2	3.11	3	257	0.9	5	0.26	0.2	55	8	17	18	1.72	0.69	28	25	0.30	404	1	0.11	14	0.03	13	26	0.19	45	68		
192	1125N-300E	0.2	4.67	2	395	1.2	5	0.27	0.2	66	15	16	24	2.38	0.60	25	39	0.33	536	1	0.13	31	0.12	17	30	0.24	52	164		
193	325	0.2	3.20	5	262	1.0	5	0.30	0.2	72	10	14	18	1.82	0.63	36	29	0.34	946	1	0.11	17	0.04	15	28	0.22	48	112		
194	350	0.2	4.78	3	370	1.4	5	0.31	0.2	74	16	16	28	2.72	0.72	31	41	0.40	695	1	0.13	34	0.08	20	31	0.25	57	146		
195	375	0.2	3.66	4	321	1.1	5	0.30	0.2	65	12	14	18	2.16	0.91	32	31	0.41	348	1	0.11	18	0.04	14	27	0.22	55	93		
196	1125N-400E	0.2	4.40	3	359	1.2	5	0.29	0.2	67	18	15	21	2.46	0.77	27	37	0.35	465	1	0.12	30	0.11	16	29	0.22	53	143		
197	1125N-425E	0.2	3.00	7	312	0.8	5	0.33	0.2	46	7	13	13	1.83	0.92	26	19	0.33	404	1	0.04	10	0.04	10	23	0.19	46	64		
198	450	0.2	4.03	2	381	1.1	5	0.28	0.2	49	11	15	15	2.31	0.88	24	27	0.36	528	1	0.08	20	0.14	14	26	0.21	51	104		
199	475	0.2	4.12	2	360	1.1	5	0.29	0.2	57	10	15	17	2.24	0.84	23	24	0.37	310	1	0.10	19	0.06	13	25	0.19	51	85		
200	500	0.2	4.30	4	312	1.3	5	0.35	0.2	90	16	16	29	2.33	0.57	23	31	0.33	635	2	0.15	29	0.10	15	32	0.21	52	169		
202	1125N-525E	0.2	3.69	4	296	1.0	5	0.29	0.2	52	12	15	20	2.31	0.51	24	25	0.30	684	1	0.15	22	0.23	15	28	0.20	50	158		
203	1125N-550E	0.2	3.83	2	436	1.0	5	0.33	0.2	73	12	14	20	2.34	0.70	30	27	0.35	700	2	0.11	22	0.17	17	30	0.22	53	131		
204	575	0.2	3.39	3	398	1.0	8	0.37	0.2	83	16	15	24	2.76	0.83	39	24	0.41	2012	1	0.09	20	0.08	26	36	0.24	63	118		
205	1125N-600E	0.2	4.36	4	362	1.7	12	0.41	0.2	136	22	16	31	3.39	0.80	49	37	0.51	885	2	0.08	31	0.09	28	37	0.25	64	173		
206	1375N-0E	0.2	3.89	2	307	1.1	5	0.35	0.2	68	11	13	25	2.20	0.52	24	22	0.31	370	1	0.19	19	0.10	11	27	0.21	50	110		
207	1375N-25E	0.2	3.65	5	253	0.9	5	0.33	0.2	52	11	15	16	2.05	0.51	21	25	0.27	787	2	0.16	18	0.10	13	28	0.21	51	122		
208	1375N-50E	0.2	4.72	2	232	1.3	6	0.40	0.2	77	13	16	24	2.50	0.53	24	29	0.33	497	1	0.17	26	0.11	17	29	0.22	55	104		
209	75	0.2	3.54	6	357	1.0	6	0.34	0.2	58	8	16	17	2.07	0.86	26	20	0.35	236	2	0.07	16	0.04	12	25	0.19	50	75		
210	100	0.2	3.52	3	295	1.0	5	0.33	0.2	55	11	18	17	1.97	0.70	26	29	0.35	812	1	0.10	19	0.04	17	29	0.20	49	96		
211	125	0.2	3.93	2	307	1.0	5	0.30	0.2	47	11	16	19	2.40	0.54	23	26	0.27	290	1	0.13	17	0.09	17	31	0.22	51	152		
212	1375N-150E	0.2	4.54	2	307	1.4	5	0.30	0.2	73	12	14	23	2.43	0.47	20	29	0.30	556	1	0.18	26	0.12	13	32	0.22	51	158		
213	1375N-175E	0.2	4.46	2	291	1.2	5	0.26	0.2	61	9	11	19	2.27	0.46	18	26	0.27	495	1	0.21	20	0.08	12	29	0.22	47	121		
214	200	0.2	5.15	2	177	1.4	5	0.19	0.2	66	10	8	24	2.22	0.21	14	24	0.20	297	1	0.29	20	0.11	14	23	0.22	44	115		
215	225	0.2	4.11	2	269	1.0	5	0.18	0.2	39	9	12	18	2.24	0.30	17	23	0.20	514	1	0.20	14	0.37	13	22	0.21	47	120		
216	250	0.2	4.63	2	229	1.2	5	0.21	0.2	56	10	12	20	2.20	0.38	15	25	0.25	617	1	0.24	22	0.15	13	24	0.21	44	123		
217	1375N-275E	0.2	3.97	4	366	1.2	5	0.22	0.2	77	9	15	25	2.20	0.57	28	29	0.33	414	1	0.20	25	0.04	20	29	0.21	46	103		
218	1375N-300E	0.2	3.30	2	281	0.8	5	0.18	0.2	34	8	12	13	1.87	0.69	16	24	0.25	340	1	0.12	15	0.05	13	22	0.19	40	87		
219	325	0.2	3.52	2	277	1.0	5	0.24	0.2	46	10	15	15	1.88	0.63	21	27	0.28	516	1	0.16	18	0.09	9	30	0.19	44	116		
220	350	0.2	3.96	2	233	1.2	5	0.19	0.2	64	9	13	18	1.87	0.39	18	24	0.22	473	1	0.19	19	0.09	8	26	0.18	40	95		
221	375	0.2	3.42	6	264	0.9	5	0.30	0.2	52	9	18	18	2.07	0.76	26	33	0.36	242	1	0.07	19	0.03	12	29	0.18	47	93		
222	1375N-400E	0.2	3.77	2	266	0.9	5	0.26	0.2	39	12	14	18	2.18	0.35	18	27	0.22	772	1	0.22	19	0.22	12	29	0.22	46	150		

T.T. No.	SAMPLE No.	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Cr ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	Pa. 6 of 6
223	1375N-425E	0.2	3.88	6	350	1.2	5	0.27	0.2	54	10	15	22	2.49	0.92	27	26	0.40	359	2	0.09	23	0.07	14	26	0.21	53	117	
224	450	0.2	4.37	2	225	1.0	5	0.16	0.2	34	12	13	18	2.37	0.28	14	27	0.22	531	1	0.24	20	0.23	12	19	0.23	47	156	
225	475	0.2	3.77	6	397	1.0	5	0.22	0.2	45	9	14	17	2.22	0.63	21	26	0.31	523	1	0.16	18	0.09	12	26	0.22	46	130	
226	500	0.2	4.56	3	263	1.3	5	0.23	0.2	54	11	15	19	2.47	0.51	20	28	0.30	679	1	0.20	27	0.11	15	24	0.22	49	143	
227	1375N-525E	0.2	3.39	7	307	1.1	6	0.33	0.2	67	10	14	18	1.99	0.98	33	25	0.41	505	1	0.05	15	0.03	12	25	0.19	49	59	
228	1375N-530E	0.2	3.62	6	273	1.0	5	0.30	0.2	46	12	15	18	2.17	0.48	21	25	0.27	464	2	0.21	20	0.13	12	31	0.22	48	143	
229	575	0.2	4.61	5	353	1.7	5	0.31	0.2	117	16	18	34	2.80	0.76	41	33	0.43	361	1	0.12	33	0.07	19	28	0.22	57	152	
230	600	0.2	5.63	8	371	1.9	5	0.32	0.2	111	18	19	32	3.12	0.72	32	40	0.43	629	2	0.16	40	0.13	23	31	0.24	60	169	
231	625	0.4	4.35	9	328	1.5	5	0.39	0.2	78	15	24	33	2.68	0.77	37	33	0.44	831	2	0.12	29	0.09	21	38	0.23	58	142	
232	1375N-630E	0.2	4.79	5	401	1.3	5	0.37	0.2	65	15	18	26	2.60	0.85	25	33	0.44	1067	1	0.13	32	0.10	18	31	0.22	59	158	
233	1375N-675E	0.2	3.64	5	369	1.0	5	0.37	0.2	61	13	15	20	2.05	0.59	25	30	0.32	710	2	0.19	27	0.17	12	36	0.21	49	196	
Lowest Value :		0.2	2.11	2	177	0.6	5	0.16	0.2	34	4	8	8	1.17	0.21	14	10	0.15	148	1	0.03	6	0.02	5	18	0.13	36	28	
Highest Value :		0.4	5.72	9	510	3.0	12	0.69	0.2	173	30	24	48	3.55	1.35	69	57	0.59	2047	2	0.29	47	0.37	30	45	0.28	71	196	
Average Value:		0.22	3.82	3	320	1.2	5	0.29	0.2	67	12	15	21	2.23	0.69	28	27	0.34	653	1	0.12	20	0.08	14	29	0.21	51	106	
Std Deviation :		0.06	0.64	1	61	0.3	1	0.06	<0.2	24	4	2	6	0.44	0.18	8	6	0.07	362	0	0.04	7	0.05	5	5	0.02	7	34	
s.d.																													



**EOLeOGICAL BRANCH  
ASSESSMENT REPORT**

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G. P. LEASK

# GOATFELL PROPERTY

## SOIL GEOCHEMISTRY (ZINC & LEAD)

DATE: Nov. 1991	REVISED:	FIG. 3
DRAWN: TLE	APPROVED: GPL	
N.T.S.: 82F/1	SCALE: 1: 5,000	

