BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	1996/1997
REPORT #:	PAP 96-40
NAME:	RICHARD LODMELL

Richard Delmar Lodmell

1996 Prospecting Report

Ref. No. 96/97 P84

Duffer 1 Claim 92I/10E

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations, section 15, 16 and 17.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (*see* section 16) required with this TECHNICAL REPORT.

Name Richard Delmar Lodmell Reference Number 96/97 P84

LOCATION/COMMODITIES

Project Area (as listed in Part A) Duffer 1 Claim MINFILE No. if applicable

Location of Project Area NTS 92I/10E Lat 50° 39' 30" Long 120° 40' 00"

Description of Location and Access Via Highway 1 West of Kamloops to Cherry Creek Road then to Duffy Lake Road the LCP is 8 Km West on duffy Lake Road on the North side of the Road.

Main Commodities Searched For Copper and Gold

Known Mineral Occurrences in Project Area The Duffer 1 Claim is situated on or near the southern edge of the Iron Mask Batholith.

WORK PERFORMED

1. Conventional Prospecting (area) 20 unit 4 post claim
2. Geological Mapping (hectares/scale) 500 hectares, scale 1 cm = 100meters
3. Geochemical (type and no. of samples) 77 soil, 9 rock, 2 silt and 2 vegetation
4. Geophysical (type and line km) Magnetometer for 6.6 Km and VLF/EM for 6.6 Km
5. Physical Work (type and amount) Baseline for 2 Km
6. Drilling (no,. holes, size, depth in m, total m)
7. Other (specify)

SIGNIFICANT RESULTS

Commodities Claim Name

Location (show on map) Lat Long Elevation

Best assay/sample type

Description of mineralization, host rocks, anomalies

See Duffer 1 Prospecting Summary

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act.*

DUFFER 1 PROSPECTING SUMMARY

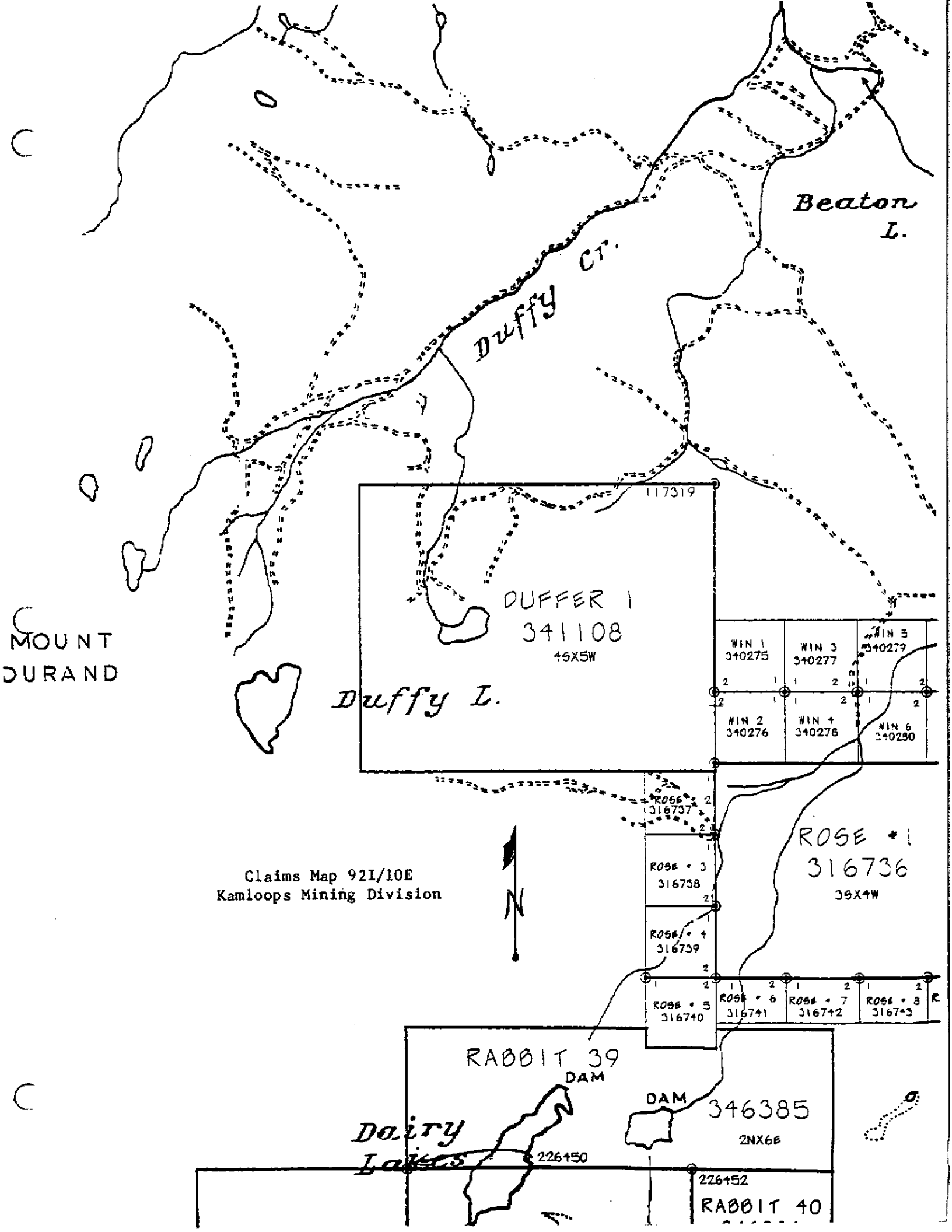
A baseline 00E to 2000E with 100 meter picketed stations was constructed for geological, geochemical and geophysical control over the property. (See Duffer 1 Prospecting Map in this report) The prospecting and mapping of the property commenced at stations 00E and 100E north and south for 600 meters. This area was designated as (1) , the property was investigated in 16 areas as shown from (1) to (16).

The geography of the property is in an area of low rolling hills with easy slopes with limited rock exposures due to heavy overburden.

The outcrop is limited mostly to the south-east portion of the property, areas (10) (11) (14) and (15) and is of a basaltic nature, similar rock occurs in outcrops in the center of the property at 800E + 300N and 1200E + 300S these samples were chosen for assay as representative of the area with 800E + 300N assaying at 131 ppm for copper, the highest result of this disappointing survey. Samples were chosen from quartz material at Mini Lake, 950E + 575S and 1200E + 300S with barren results. What appears to be a dyke of hard fine grained greenish rock was sampled at 1000E + 375S, 1000E + 375S #2, 1025E + 375S and 1075E + 375S and also proved barren. Silt samples were taken from Mini Lake and from the out-flowing creek as well as a vegetation sample from an alkaline pond that was taken to compare with an alkaline vegetation sample taken from a pond near Afton Mine. None of thes samples show any encouragement.

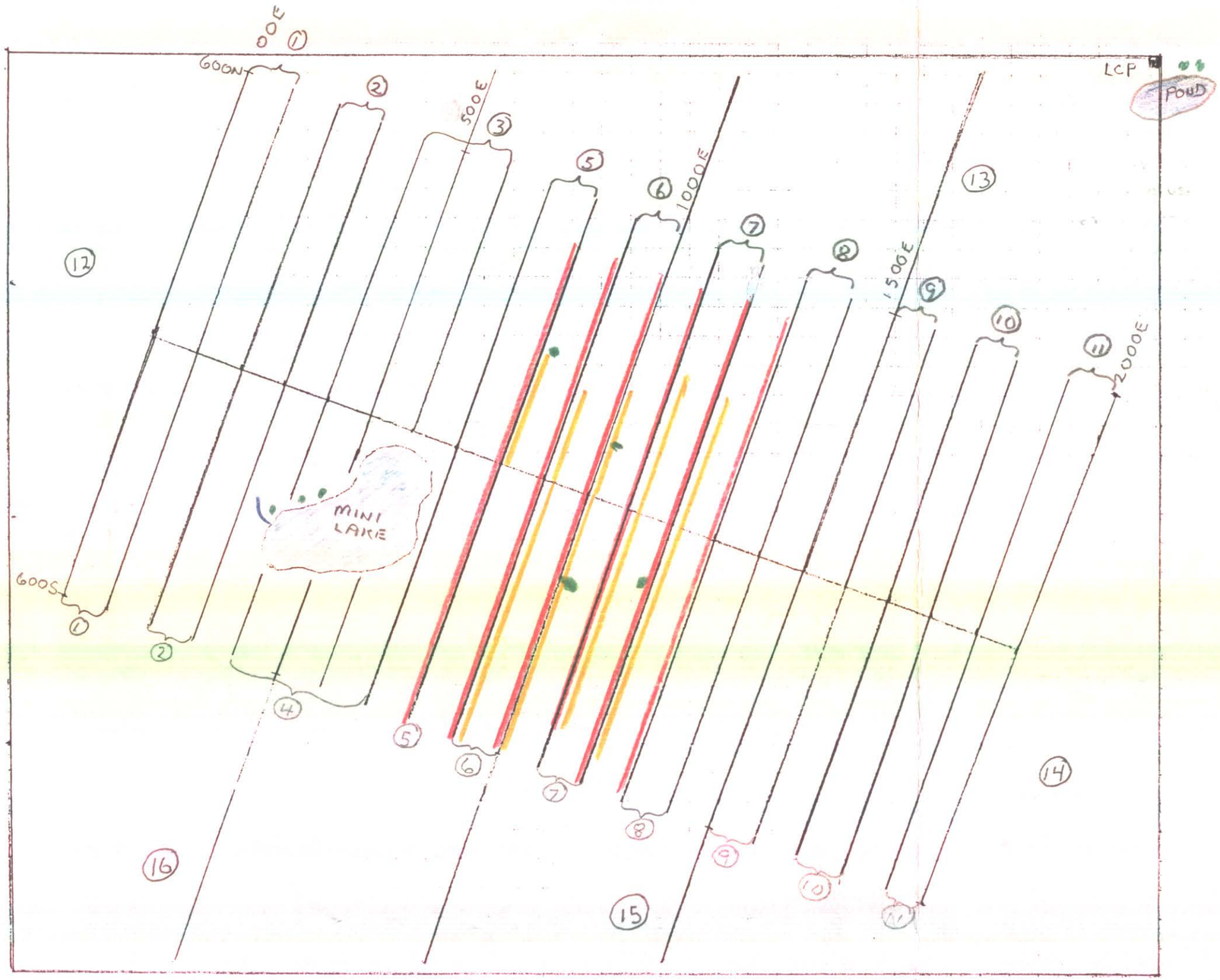
This property was origionally staked to surround an air magnetometer anomaly, for that reason a geochemical survey was conducted in the center of the property as well as VLF-EM and magnetometer surveys. (see prospecting map)

It was upon the compilation of the results of the geochemical for soils and the geophysical data that further detailed geochemical and geophysical surveys would be conducted. The results of the surveys indicate that there is no reason that this property should be further investigated. The data from the geochemical and geophysical surveys are included in this report, no conturing was done as the results do not give any definitionS.


Beaton L.
Duffy Cr.
MOUNT DURAND
117319
DUFFER 1
341108
46X5W
Duffy L.
WIN 1
340275
WIN 3
340277
WIN 5
340279
WIN 2
340276
WIN 4
340278
WIN 6
340280
ROSE
316737
ROSE #1
316736
36X4W
ROSE #3
316738
ROSE #4
316739
ROSE #5
316740
ROSE #6
316741
ROSE #7
316742
ROSE #8
316743
Claims Map 92I/10E
Kamloops Mining Division
N
RABBIT 39
DAM
DAM
346385
2NX6E
Dairy Lakes
226450
226452
RABBIT 40

DUFFER 1 PROSPECTING MAP

Scale 1 cm = 100 meters



Geophysical Survey

Geochemical Survey

Sample Sites

96-40 (1)

September 4, 1996

To: Acme Analytical Laboratory
852 East Hastings
Vancouver, B.C.
V6A 1R6

Attention: Clarence Leong - (604) 253-3158

From: Richard Lodmell - (604) 372-1199
Box 1192
Kamloops, B.C.
V2C 6H3

Re: British Columbia Prospectors Assistance Program Reference No. 96/97 P84
Duffer 1 Claim tenure number 341108 geochemical analysis

Dear Clarence,

Please conduct a 32 element I.C.P. analysis on soil samples from these lines:

800E + 00N to 250N
900E + 600S to 200N
1000E + 600S to 300N
1100E + 525S to 300N
1200E + 550S to 300N (1200E + 300S is a rock sample)

a total of 77 samples.

There are also 9 rock samples that need a 32 element I.C.P. analysis as well. They are:

Mini Lake
800E + 300N
950E + 575S
1000E + 150N
1000E + 375S (2 samples)
1025E + 375S
1075E + 375S
1200E + 300S

Please conduct a 32 element I.C.P. on two vegetation samples, Duffer pond and Afton pond as well. THERE ARE ALSO 2 SILT SAMPLES, MINI LAKE AND DUFFER POND

Thank you.

Yours truly,

Richard Lodmell

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Richard Lodmell PROJECT DUFFER 1 File # 96-4284 Page 1

Box 1192, Kamloops BC V2C 6H3

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
MINI LAKE	1	58	7	89	<.3	9	21	1157	4.77	5	<5	<2	<2	444	.7	<2	<2	182	16.60	.072	4	6	6.29	108	.02	6	.66	.02	.08	<2	<5	4
800E 300N	1	131	4	82	<.3	17	24	935	5.73	<2	<5	<2	<2	180	<.2	<2	3	262	1.99	.100	6	25	1.90	74	.14	11	3.09	.27	.16	<2	<5	1
950E 575S	1	6	6	55	<.3	10	6	634	2.05	3	<5	<2	<2	235	.4	<2	<2	39	4.13	.094	19	43	1.93	86	<.01	6	.87	.06	.15	2	<5	<1
1000E 150N	2	5	5	9	<.3	4	<1	71	.45	<2	<5	<2	<2	5	<.2	<2	<2	3	.06	.008	3	15	.04	21	<.01	<3	.27	.06	.17	4	<5	<1
1000E 375S	1	8	8	42	<.3	3	2	280	1.45	<2	<5	<2	7	34	<.2	<2	<2	24	.48	.040	24	8	.34	128	.04	3	.84	.05	.30	3	<5	<1
1000E 375S #2	1	99	7	78	<.3	8	19	799	3.50	<2	<5	<2	<2	90	<.2	<2	<2	108	1.34	.123	4	13	1.98	55	.31	4	2.57	.04	.18	<2	<5	<1
1025E 375S	<1	79	<3	71	<.3	19	17	701	3.04	6	<5	<2	<2	166	.5	<2	3	126	2.56	.119	3	81	1.92	173	.30	<3	2.11	.05	.13	<2	<5	1
RE 1025E 375S	<1	83	7	73	<.3	20	18	737	3.16	9	<5	<2	<2	179	.5	<2	8	134	2.73	.120	3	85	2.00	173	.31	3	2.21	.05	.14	<2	<5	<1
1075E 375S	1	18	9	50	<.3	4	2	399	1.59	<2	<5	<2	8	41	.2	<2	2	26	.53	.045	25	12	.42	81	.03	4	.99	.06	.20	2	<5	<1
1200E 300S	<1	72	<3	81	<.3	50	20	1024	5.43	4	<5	<2	<2	37	.3	<2	4	238	4.31	.086	5	68	2.46	46	.29	19	3.96	.06	.06	<2	<5	1
STANDARD C2	21	61	42	150	6.9	78	36	1250	4.08	42	21	8	37	56	22.0	19	22	77	.55	.109	43	71	1.00	219	.09	29	2.19	.07	.16	12	<5	3

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: P1 ROCK P2 TO P4 SOIL P5 SEDIMENT Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 6 1996 **DATE REPORT MAILED:** Sep 24/96 **SIGNED BY** .....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
800E 250N	1	40	3	71	<.3	54	16	840	4.03	2	<5	<2	<2	54	<.2	<2	<2	114	.82	.045	9	94	.94	213	.16	10	2.26	.03	.21	<2	<5	1
800E 200N	<1	53	4	88	.4	54	16	1249	3.83	4	<5	<2	<2	83	<.2	<2	2	105	.84	.084	10	111	.92	382	.12	6	2.30	.03	.29	2	<5	2
800E 150N	1	45	4	50	.3	22	8	1286	2.09	<2	<5	<2	<2	214	<.2	<2	2	47	1.66	.071	6	28	1.03	402	.07	14	1.52	.03	.27	<2	<5	<1
800E 100N	1	60	<3	94	<.3	51	14	1181	4.14	2	<5	<2	<2	68	<.2	<2	2	117	.98	.093	11	75	.76	412	.14	11	2.41	.03	.41	<2	<5	1
800E 50N	1	54	4	71	<.3	38	11	803	3.15	<2	<5	<2	<2	144	.2	<2	6	76	.91	.068	9	50	1.44	292	.10	14	2.16	.05	.32	<2	<5	1
800E 0N	1	28	4	64	<.3	30	9	882	3.27	<2	<5	<2	<2	46	<.2	<2	3	98	.63	.030	6	56	.58	209	.14	7	1.38	.03	.18	<2	<5	<1
900E 200N	<1	64	6	92	<.3	59	17	1090	4.40	<2	6	<2	<2	80	.2	<2	4	123	1.03	.059	12	85	.95	360	.15	14	2.56	.02	.45	<2	<5	2
900E 150N	1	48	5	49	<.3	24	5	559	1.70	3	<5	<2	<2	946	.4	<2	<2	52	11.20	.120	6	25	3.78	474	.06	40	1.31	.08	.12	<2	<5	1
900E 100N	<1	115	6	59	<.3	42	6	300	2.33	3	<5	<2	<2	248	.2	<2	<2	71	1.74	.090	7	39	2.96	485	.09	27	1.94	.09	.23	<2	<5	1
900E 50N	<1	32	7	64	<.3	39	8	452	3.43	<2	<5	<2	<2	44	<.2	<2	<2	99	.49	.058	10	60	.65	237	.15	8	1.98	.03	.17	<2	<5	1
900E 0N	<1	24	<3	97	<.3	34	8	792	3.37	<2	<5	<2	<2	41	.2	<2	4	86	.55	.052	6	59	.54	279	.12	9	1.94	.03	.25	<2	<5	1
900E 50S	<1	35	4	74	<.3	44	11	1169	3.79	3	<5	<2	<2	46	<.2	<2	5	111	.66	.053	7	73	.68	279	.13	7	1.75	.02	.20	<2	<5	<1
900E 100S	<1	43	3	79	<.3	50	12	984	3.87	<2	<5	<2	<2	60	<.2	<2	2	108	.83	.069	10	70	.76	321	.13	10	2.21	.03	.30	<2	<5	1
900E 150S	<1	39	4	70	<.3	49	13	932	3.92	<2	<5	<2	<2	56	<.2	<2	<2	107	.74	.048	11	73	.81	283	.15	11	2.28	.02	.32	<2	<5	<1
900E 200S	1	28	<3	68	<.3	28	11	1004	3.16	<2	<5	<2	<2	65	<.2	<2	<2	84	.68	.040	6	53	.68	261	.12	7	1.73	.02	.23	<2	<5	<1
900E 250S	<1	49	<3	81	<.3	46	12	717	3.54	<2	<5	<2	<2	131	.2	<2	<2	82	.78	.031	10	61	1.39	318	.12	13	2.51	.04	.29	<2	<5	2
RE 900E 250S	<1	48	5	81	<.3	46	11	711	3.51	<2	<5	<2	<2	131	<.2	<2	2	80	.78	.030	10	61	1.38	323	.12	14	2.50	.03	.29	<2	<5	2
900E 300S	1	29	5	82	<.3	35	9	1756	2.67	<2	<5	<2	<2	139	.2	<2	<2	75	1.95	.070	6	56	.65	403	.11	15	1.51	.02	.30	<2	<5	1
900E 350S	1	40	5	56	<.3	52	13	843	3.63	<2	<5	<2	<2	94	<.2	<2	<2	101	.74	.059	9	81	.90	249	.14	8	2.02	.03	.22	<2	<5	2
900E 400S	<1	24	10	90	<.3	31	9	926	3.07	<2	<5	<2	<2	83	<.2	<2	<2	90	.76	.066	4	76	.57	254	.13	6	1.32	.03	.18	<2	<5	<1
900E 450S	1	27	<3	59	<.3	42	10	776	3.37	<2	<5	<2	<2	58	<.2	<2	2	95	.61	.049	6	79	.72	190	.14	6	1.74	.02	.22	<2	<5	1
900E 500S	1	50	9	143	<.3	108	19	1643	3.96	9	<5	<2	<2	115	.5	<2	4	101	1.08	.149	8	177	1.00	375	.12	11	3.28	.03	.26	<2	<5	1
900E 550S	1	78	<3	84	.4	152	19	585	4.73	2	<5	<2	2	91	.3	<2	<2	126	.83	.071	18	207	1.24	331	.19	8	4.23	.02	.18	<2	<5	<1
900E 600S	1	33	5	98	<.3	45	11	1668	3.24	3	<5	<2	<2	73	<.2	<2	<2	84	1.00	.041	8	66	.59	453	.13	8	1.94	.02	.19	<2	<5	1
1000E 300N	1	32	5	123	<.3	31	11	2559	3.31	<2	<5	<2	<2	54	.5	<2	<2	94	.90	.060	6	55	.51	469	.12	7	1.67	.02	.23	<2	<5	1
1000E 250N	1	37	3	74	<.3	56	14	954	4.12	<2	<5	<2	<2	45	<.2	3	3	127	.69	.032	8	91	.73	267	.14	12	1.68	.02	.25	<2	<5	2
1000E 200N	1	55	<3	99	<.3	54	14	1764	3.66	3	<5	<2	<2	79	.5	<2	5	103	1.38	.075	10	65	.78	490	.10	9	2.05	.01	.30	<2	<5	1
1000E 150N	1	49	3	85	<.3	52	14	1070	4.13	<2	<5	<2	<2	57	.3	<2	4	113	.80	.095	11	77	.80	306	.14	10	2.47	.03	.43	<2	<5	2
1000E 100N	1	42	<3	67	<.3	51	11	840	3.34	<2	<5	<2	<2	69	<.2	<2	2	92	.82	.057	8	72	.83	256	.12	8	1.98	.03	.30	<2	<5	<1
1000E 50N	<1	27	<3	94	<.3	25	7	921	2.78	2	<5	<2	<2	74	<.2	<2	<2	73	.81	.100	6	48	.50	321	.12	17	1.60	.02	.45	<2	<5	<1
1000E 0N	1	22	<3	90	<.3	28	5	1302	2.68	<2	<5	<2	<2	44	<.2	<2	<2	72	.55	.046	5	53	.45	333	.11	7	1.39	.02	.23	<2	<5	<1
1000E 50S	1	26	<3	61	<.3	34	10	344	3.44	<2	<5	<2	<2	41	.3	<2	<2	102	.52	.044	5	70	.56	196	.14	6	1.64	.03	.14	<2	<5	<1
1000E 100S	1	28	<3	66	<.3	37	10	1538	3.18	<2	<5	<2	<2	55	<.2	<2	<2	90	.72	.065	6	63	.61	300	.12	7	1.54	.02	.25	<2	<5	1
1000E 150S	1	31	<3	67	<.3	28	10	947	2.99	<2	<5	<2	<2	63	.2	2	<2	80	.63	.042	7	51	.59	283	.12	9	1.74	.02	.25	<2	<5	1
1000E 200S	<1	37	<3	90	<.3	27	8	943	3.14	<2	<5	<2	<2	91	.3	<2	2	75	.86	.040	5	51	.74	254	.11	10	1.93	.03	.24	<2	<5	1
STANDARD C2	21	58	35	144	6.8	75	33	1162	4.02	38	26	8	34	55	20.9	15	23	74	.54	.109	42	66	.99	204	.08	29	2.13	.06	.15	11	<5	3

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
1000E 250S	<1	34	<3	90	<.3	29	10	780	2.66	2	<5	<2	<2	191	.2	<2	<2	62	1.37	.032	6	46	1.29	188	.10	24	1.71	.06	.30	<2	<5	<1
1000E 300S	2	41	<3	82	<.3	42	11	1009	3.08	<2	<5	<2	<2	132	.3	<2	<2	83	.98	.052	7	62	.86	305	.12	13	1.76	.03	.29	<2	<5	<1
1000E 350S	2	39	5	93	<.3	34	9	1064	2.41	<2	<5	<2	<2	220	.2	<2	<2	53	1.00	.061	6	44	1.43	293	.09	13	1.76	.03	.44	<2	<5	<1
1000E 400S	2	30	5	140	<.3	29	10	1491	2.94	<2	<5	<2	<2	138	<.2	<2	3	71	1.00	.105	13	52	.63	379	.11	6	2.17	.02	.26	<2	<5	<1
1000E 450S	1	45	5	50	<.3	56	12	712	3.36	<2	<5	<2	<2	96	<.2	<2	2	87	.88	.041	10	77	1.09	334	.13	6	2.36	.04	.29	<2	<5	1
1000E 500S	<1	34	<3	54	<.3	25	5	542	1.20	3	<5	<2	<2	1327	<.2	<2	<2	31	20.63	.084	4	21	5.07	484	.05	32	1.03	.05	.09	<2	<5	<1
1000E 550S	1	15	4	33	<.3	28	9	535	2.79	<2	<5	<2	<2	62	<.2	2	4	70	.51	.024	3	65	.74	179	.12	5	1.77	.04	.16	<2	<5	<1
1000E 600S	<1	31	<3	49	<.3	53	11	657	3.20	<2	<5	<2	<2	151	.2	<2	4	78	.96	.029	7	103	1.11	241	.12	8	2.27	.05	.22	<2	<5	<1
1100E 300N	<1	18	<3	53	<.3	19	6	614	2.71	<2	<5	<2	<2	43	<.2	<2	<2	74	.47	.028	4	41	.47	143	.13	7	1.46	.03	.14	<2	<5	<1
1100E 250N	<1	25	4	137	<.3	27	7	1393	2.90	3	<5	<2	<2	39	.2	<2	<2	72	.65	.050	5	39	.47	305	.11	7	1.83	.02	.23	<2	<5	<1
1100E 200N	<1	68	<3	173	<.3	167	26	2435	3.61	<2	<5	<2	<2	71	<.2	<2	<2	108	1.13	.167	6	140	2.63	665	.18	7	3.29	.02	.09	<2	<5	1
1100E 150N	1	26	3	102	<.3	25	9	1174	3.22	<2	<5	<2	<2	58	.4	<2	<2	84	.81	.044	6	44	.53	330	.13	7	1.97	.03	.25	<2	<5	<1
1100E 100N	1	21	3	118	<.3	22	7	1553	2.69	<2	<5	<2	<2	44	<.2	<2	3	69	.60	.051	4	41	.45	315	.12	9	1.60	.02	.22	<2	<5	<1
1100E 50N	<1	31	6	69	<.3	30	9	918	2.89	<2	<5	<2	<2	58	<.2	<2	<2	75	.65	.048	7	53	.62	284	.12	8	1.89	.02	.16	<2	<5	<1
1100E 0N	1	27	6	103	<.3	35	9	2337	2.98	2	<5	<2	<2	66	<.2	<2	5	87	1.04	.063	6	59	.49	455	.12	11	1.58	.03	.19	<2	<5	<1
RE 1100E 0N	1	29	4	99	<.3	36	10	2271	2.88	<2	<5	<2	<2	67	.2	2	5	82	1.08	.064	5	56	.49	457	.12	10	1.59	.02	.19	<2	<5	<1
1100E 50S	<1	36	<3	97	<.3	48	13	1484	3.82	<2	<5	<2	<2	66	.2	<2	4	103	.98	.064	9	79	.71	411	.13	11	2.02	.03	.29	<2	<5	<1
1100E 100S	<1	57	6	156	<.3	41	15	2632	3.59	5	<5	<2	<2	57	.3	2	5	105	.95	.228	8	57	.69	438	.12	7	3.53	.02	.14	<2	<5	<1
1100E 150S	1	47	<3	95	<.3	63	18	2146	4.42	<2	<5	<2	<2	54	.3	<2	<2	127	.84	.042	11	91	.93	355	.14	7	2.36	.02	.32	<2	<5	1
1100E 200S	<1	57	<3	133	<.3	87	20	1642	4.44	<2	<5	<2	<2	85	<.2	<2	7	116	1.06	.142	11	106	1.00	337	.14	10	3.43	.03	.39	<2	<5	1
1100E 250S	<1	41	4	92	<.3	50	11	1092	3.69	<2	<5	<2	<2	54	.4	<2	2	92	.77	.047	8	72	.72	228	.14	8	2.43	.03	.37	<2	<5	1
1100E 300S	<1	41	<3	116	<.3	44	12	1219	3.42	<2	<5	<2	<2	136	<.2	<2	5	84	1.35	.053	10	62	.61	462	.12	10	2.04	.02	.35	<2	<5	<1
1100E 350S	1	39	6	78	<.3	40	12	1205	3.17	<2	<5	<2	<2	82	<.2	<2	4	78	1.03	.065	9	55	.74	424	.12	10	2.19	.02	.34	<2	<5	1
1100E 400S	1	44	<3	82	<.3	51	14	1008	3.63	<2	<5	<2	<2	66	<.2	<2	2	94	.77	.063	10	77	.84	332	.14	10	2.28	.02	.49	<2	<5	<1
1100E 450S	1	29	7	59	<.3	34	11	946	3.10	<2	<5	<2	<2	53	<.2	<2	<2	90	.65	.046	7	65	.61	210	.14	6	1.48	.03	.21	<2	<5	<1
1100E 500S	<1	27	<3	53	<.3	30	10	864	2.94	2	<5	<2	<2	78	<.2	2	3	84	.52	.020	8	58	.63	196	.16	5	1.56	.03	.18	<2	<5	1
1100E 525S	<1	41	<3	34	<.3	35	7	570	2.17	2	<5	<2	<2	738	.4	<2	<2	56	4.31	.051	8	47	2.92	314	.08	33	1.66	.19	.23	<2	<5	1
1200E 300N	<1	54	<3	101	<.3	30	11	1279	3.51	<2	<5	<2	<2	65	.2	<2	2	81	1.02	.047	11	47	1.00	426	.13	10	3.15	.03	.30	<2	<5	1
1200E 250N	<1	34	<3	65	<.3	26	9	527	3.46	<2	<5	<2	<2	47	<.2	<2	2	92	.62	.043	7	50	.47	240	.13	8	1.96	.03	.26	<2	<5	1
1200E 200N	<1	45	<3	88	<.3	38	14	1844	4.41	2	<5	<2	<2	56	.2	<2	5	135	.84	.038	10	64	.64	374	.17	5	2.28	.02	.25	<2	<5	<1
1200E 150N	<1	50	5	125	<.3	31	6	192	2.56	<2	<5	<2	<2	91	<.2	<2	<2	61	.99	.050	11	41	.81	387	.14	11	4.25	.04	.09	<2	<5	2
1200E 100N	<1	30	<3	84	<.3	33	10	888	3.57	2	<5	<2	<2	42	<.2	<2	4	98	.68	.045	7	61	.62	216	.15	6	2.23	.02	.17	<2	<5	<1
1200E 50N	<1	77	<3	79	<.3	37	9	741	2.38	2	5	<2	<2	284	.4	<2	2	59	1.80	.081	9	41	2.00	640	.09	14	2.19	.06	.18	<2	<5	<1
1200E 0N	1	18	5	93	<.3	23	6	1548	2.29	<2	<5	<2	<2	49	<.2	<2	3	59	.49	.040	4	42	.38	283	.11	6	1.28	.03	.16	<2	<5	<1
1200E 50S	<1	19	<3	112	<.3	24	6	996	2.65	3	<5	<2	<2	40	<.2	<2	6	73	.57	.040	4	49	.54	233	.12	7	1.31	.45	.22	<2	<5	1
STANDARD C2	20	57	34	141	6.6	72	33	1124	3.93	34	18	8	34	53	19.9	15	19	72	.53	.103	41	65	.96	200	.08	28	2.08	.07	.15	11	<5	2

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
1200E 100S	<1	33	<3	108	<.3	41	15	1859	3.43	10	<5	<2	<2	48	<.2	3	2	102	.77	.048	7	68	.57	380	.13	3	1.97	.02	.23	<2	<5	<1
1200E 150S	<1	26	<3	116	<.3	31	6	221	2.46	12	<5	<2	<2	42	<.2	<2	4	61	.62	.097	8	64	.51	237	.14	3	2.08	.02	.27	<2	<5	<1
1200E 200S not received	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1200E 250S	<1	35	<3	78	<.3	57	15	1335	3.70	11	<5	<2	2	46	.3	2	<2	115	.78	.034	8	81	.68	283	.15	4	1.78	.02	.30	<2	<5	<1
1200E 350S	<1	35	<3	100	<.3	53	14	1319	3.22	10	<5	<2	<2	63	.2	<2	2	91	1.10	.054	5	79	.69	275	.14	7	1.94	.02	.25	<2	<5	1
1200E 400S	<1	45	<3	91	<.3	75	19	1293	3.87	12	<5	<2	<2	58	.2	<2	<2	113	.82	.034	8	93	.79	326	.13	5	1.92	.05	.32	<2	<5	<1
1200E 450S	<1	32	<3	68	<.3	41	14	896	3.22	11	<5	<2	<2	52	<.2	<2	<2	90	.66	.039	8	63	.65	317	.14	4	1.68	.03	.29	<2	<5	<1
RE 1200E 450S	<1	32	<3	67	<.3	39	13	879	3.14	10	<5	<2	<2	51	<.2	<2	3	87	.65	.038	8	61	.64	312	.13	4	1.65	.02	.29	<2	<5	<1
1200E 500S	<1	32	4	77	<.3	36	14	1088	3.00	13	<5	<2	<2	62	<.2	<2	<2	83	.76	.032	9	54	.60	273	.16	<3	1.82	.03	.27	<2	<5	1
1200E 550S	<1	27	6	39	<.3	51	13	612	2.83	9	<5	<2	<2	88	<.2	<2	2	84	.64	.019	5	88	.89	180	.14	5	1.40	.03	.21	<2	<5	<1
STANDARD C2	19	56	35	135	6.1	72	35	1095	3.74	47	21	9	34	52	20.4	18	21	72	.51	.103	39	62	.93	205	.08	24	1.94	.06	.15	14	<5	5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
POND SEDIMENT	1	74	<3	66	<.3	25	12	486	3.37	7	<5	<2	<2	437	.2	<2	<2	147	3.84	.097	9	48	1.58	276	.12	56	1.78	.06	.13	<2	<5	2
CREEK SEDIMENT	<1	56	7	61	<.3	48	11	677	2.66	2	<5	<2	<2	375	.6	<2	<2	66	6.75	.103	8	47	3.01	286	.11	19	1.89	.05	.18	<2	<5	<1
ALKALINE SEDIMENT	1	32	6	39	<.3	12	4	329	1.18	3	<5	<2	<2	941	.4	<2	<2	48	4.98	.204	3	16	7.12	181	.04	942	.66	.83	.30	<2	<5	1
AFTON ALKALINE SEDIMENT	2	173	6	47	<.3	15	4	878	1.11	9	<5	<2	<2	1818	.3	<2	<2	32	5.89	.195	5	18	3.18	50	.04	170	.49	10.37	.57	<2	<5	1
RE AFTON ALKALINE SEDIMENT	2	174	7	46	<.3	15	4	872	1.09	11	<5	<2	<2	1806	.2	<2	<2	31	5.83	.192	4	17	3.15	53	.04	170	.47	10.31	.57	<2	<5	2

Sample type: SEDIMENT. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DUFFER 1 PROJECT * MAGNETOMETER SURVEY * 5-7 AUG 96

	800+E	900+E	1000+E	1100+E	1200+E	1300+E
600+S	57103	56611	56674	Swamp	56644	56879
575+S	57086	56641	56579	Swamp	56556	56782
550+S	57023	56708	56654	Swamp	56563	56887
525+S	56986	56695	56656	56671	56584	56610
500+S	56890	56657	56720	56535	56504	56456
475+S	56954	56731	56698	56734	56500	56886
450+S	56846	56783	56657	56649	56495	56541
425+S	56793	56795	56623	56584	56976	56499
400+S	56864	56726	56630	56542	56470	56522
375+S	56697	56715	56714	56554	56380	56341
350+S	56873	56734	56773	56563	56351	56398
325+S	56978	56765	56700	56571	56296	56476
300+S	57103	56692	56718	56546	56908	56388
275+S	57045	56777	56693	56513	56386	56409
250+S	56872	56764	56699	56510	57466	56871
225+S	56987	56793	56741	56330	57762	56978
200+S	56779	56803	56800	56411	56737	56761
175+S	56879	56864	56828	56141	58071	56805
150+S	57203	56764	56689	56502	57409	56973
125+S	56994	56828	56638	57387	57589	57118
100+S	56749	56720	56659	57352	57142	57095
75+S	56688	56644	56601	56884	57488	56996
50+S	56974	56674	56556	56926	57191	56851
25+S	56453	56649	56487	57041	56802	56656
00+N	56519	56619	56485	56956	56875	56784
25+N	56638	56552	56428	56886	57090	56867
50+N	56600	56454	56410	56870	57142	56606
75+N	56686	56610	56485	57176	57269	56498
100+N	56637	56599	56585	57186	56929	56781
125+N	56687	56585	56903	57231	56821	56887
150+N	56533	56522	57225	57203	56683	56790
175+N	56714	56569	58119	56912	57717	56801
200+N	56603	56702	57855	57042	57522	56730
225+N	56607	56687	57792	57039	57176	56810
250+N	56707	57779	57163	56996	57168	56971
275+N	57621	57451	57069	56679	57407	56993
300+N	59101	57462	57472	56544	57168	56701
325+N	58528	57183	57291	56874	57006	56998
350+N	57489	57155	57282	56959	56873	56703
375+N	57578	57450	57327	56974	56823	56872
400+N	57645	57066	57223	57178	57032	56991
425+N	57803	56903	57638	57326	57056	56901
450+N	57680	56998	57622	56786	56958	56803
475+N	56976	57004	57715	57090	56903	56986
500+N	56879	56965	57512	57138	56981	56898

NOTE: This survey was conducted by L.Lutjen using a Geometrics G-816 proton magnetometer, serial # 6424. A magnetometer base station was maintained throughout the survey and all readings are in total gammas and corrected for diurnal variations.

Larry D. Lutjen

DUFFER 1 PROJECT * VLF/EM SURVEY * 8-10 AUG 96

	800+E	900+E	1000+E	1100+E	1200+E	1300+E
600+S	51 -6	51 -8	54 -5	Swamp	50 -4	49 -5
575+S	52 -7	50 -8	49 -9	Swamp	51 -4	48 -6
550+S	51 -6	49 -6	53 -9	Swamp	49 -4	50 -4
525+S	50 -8	50 -7	49 -9	55 -7	48 -3	51 -5
500+S	53 -5	50 -1	50 -5	58 -7	50 -4	46 -6
475+S	54 -6	54 +4	52 -4	50 -8	50 -4	48 -5
450+S	51 -4	53 -6	55 -2	50 -5	51 -5	50 -4
425+S	52 -2	56 -6	54 -3	47 +2	49 -7	48 -5
400+S	54 -3	53 -2	55 -2	48 -4	52 -6	50 -3
375+S	51 -4	49 -1	55 -1	50 -4	50 -4	52 -2
350+S	53 -4	55 +0	58 +0	49 -6	49 -4	49 -5
325+S	51 -3	55 -4	56 -7	49 -4	50 -3	48 -5
300+S	56 -2	52 +0	60 -5	49 -1	51 -2	52 -4
275+S	53 -5	52 -3	57 -4	48 +0	50 -2	50 +0
250+S	52 -5	58 -1	59 -4	50 +0	51 +0	49 -2
225+S	56 -1	55 -4	61 -3	48 +2	50 +1	52 -2
200+S	57 +1	60 -7	58 -2	50 +4	50 +0	51 -4
175+S	58 -4	58 -8	56 -4	50 +5	51 +1	54 -4
150+S	54 -5	60 -8	54 -4	53 +4	55 -4	51 -4
125+S	52 -5	57 -8	53 -5	51 +6	53 -4	52 -3
100+S	51 -2	56 -2	51 -6	55 =6	55 +0	50 +0
75+S	50 -2	57 -2	52 -5	58 +8	51 +2	49 +1
50+S	49 -3	55 -9	51 -7	58 +4	58 -4	48 +0
25+S	48 -4	53 -10	50 -8	52 -2	57 -4	46 -2
00+S	50 +0	50 -12	49 -8	55 +5	52 -5	49 -1
25+N	51 -2	46 -10	51 -9	59 +2	53 -2	50 +0
50+N	50 +2	51 -3	49 -9	53 -5	55 -5	51 -2
75+N	52 +0	48 -6	48 -8	58 -6	54 -5	54 -5
100+N	53 -1	46 -6	46 -7	56 -7	58 -2	50 -2
125+N	55 -2	48 -6	44 -8	55 -8	56 -4	52 -2
150+N	53 -3	49 -7	43 -6	52 -10	58 -6	51 -3
175+N	51 -5	53 -8	44 -6	50 -9	55 -6	55 -2
200+N	53 -6	51 -9	42 -4	50 -7	55 -4	51 -1
225+N	51 -6	50 -7	47 +2	53 -5	56 -2	48 -2
250+N	52 -7	53 -5	48 +4	51 -6	58 -4	46 -6
275+N	53 -8	58 -3	50 -1	54 +2	59 -6	49 -5
300+N	50 -7	50 -4	48 -2	55 -2	58 -6	48 -5
325+N	51 -6	48 -5	50 -3	58 -5	52 -8	49 -5
350+N	52 -7	46 -6	52 -4	56 -6	53 -7	50 -7
375+N	51 -7	49 -7	50 -3	50 -6	54 -8	51 -6
400+N	52 -5	51 -8	48 -3	49 -7	53 -9	50 -6
425+N	50 -6	50 -6	49 -2	49 -6	51 -7	48 -7
450+N	48 -5	49 -7	50 -3	50 -7	50 -6	49 -8
475+N	46 -7	46 -6	49 +1	48 -7	51 -6	51 -8
500+N	43 -8	44 -8	51 +0	47 -6	50 -4	49 -7

NOTE: This survey was conducted by L.Lutjen using a Sabre Mod. 27 VLF/EM, serial # 274, using Annapolis, Md., at 21.4 KHz, as the transmitting station. A reading of (51 -6) indicates a field strength of 50 percent and a tilt angle of -4 degrees.