

2003 TECHNICAL REPORT

on work performed by
G Richards
and
D Bennett

As Partial Fulfillment of their
2003 GRASSROOTS PROSPECTING PROGRAM
under the
YUKON MINING INCENTIVES PROGRAM
Numbers 03-066 & 03-067

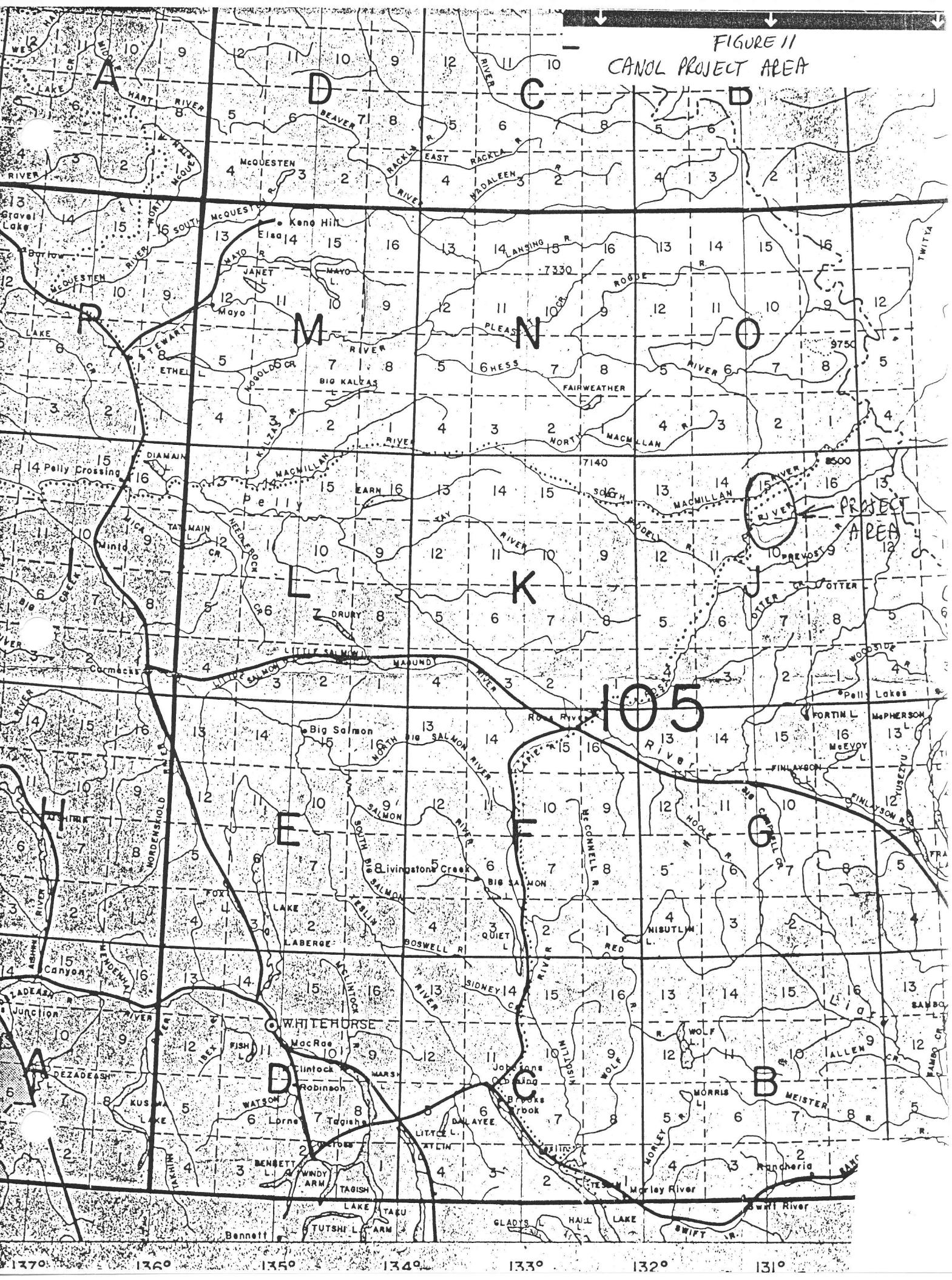
In the
CANOL AREA
NTS 105J/10,11,14,15
and the
DEMPSTER AREA
NTS 116G/01,08,09
116H/14,15
116I/02-04,06-09,16

January 23, 2004

G Richards & D Bennett

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FIGURE 11
CANOL PROJECT AREA



CANOL AREA

LOCATION, ACCESS & WORK PROGRAM.

Richards and Bennett left Carmacks by truck on the morning of June 29 for Sheldon Lake on the Canol Road. They camped at Sheldon Lake. On the 30th they inflated their boat packed gear and boated up the Ross River until shallow water prevented further progress. From a camp on the north shore of the river and a second camp further downstream they conducted exploration traverses over a portion of the survey area. They returned to their truck on the shore of Sheldon Lake on July 6th where they camped and conducted the prospecting until they left the area for Whitehorse on July 10th. Following is a summary of their work.

Day	Date	Activity D Bennett	Activity G Richards
1	June 29	Drove Carmacks – Ross River – Sheldon Lake	
2	30	Inflated boat and boated upstream on Ross River	
3	July 1	Silt & till sampled	Silt & till sampled
4	2	"	"
5	3	"	"
6	4	"	"
7	5	"	"
8	6	Bulk sample and boated down Ross R to Sheldon L	
9	7	Silt & till sampled	Bulk Sampled
10	8	"	Silt & till sampled
11	9	"	"
12	10	Bulk sampled. Packed camp, drove Whitehorse.	

GEOLOGY.

Chert, siltstone and shale of the Road River Group and minor Earn Group sediments underlie most of the area surveyed. Volcanic rocks within the Road River Group, and which formed a target for diamond exploration, were noted in one area and were sampled by till and stream samples for

metals and also by a bulk sample for diamonds. No outcrop or angular float that might be indicative of shallow outcrop was found on the hills that were traversed on both sides of Ross River. The area sampled by P 249 to 263, where the best geochemical results were obtained contained angular float of chert, shale and limy siltstone.

WORK DONE.

Silt and till samples were collected on traverses oriented across ice as best as possible. Till samples were collected as shown on Figure 2 by digging with mattock into till below a thin vegetative cover. About one kg of till was collected and placed into appropriately numbered gusseted kraft sample bags. A corresponding numbered flag was tied to a nearby tree. Rock type of nearby float and type of soil chips in the till sample pit was noted. Rock chip samples were collected from a few pieces of float by collecting from three to seven rock chips and placing them into numbered kraft sample bags and labeling a piece of flagging and tying to an adjacent tree. Silt samples were collected by scoop from active stream sediment in creeks and placed into numbered gusseted kraft sample bags. Many of the silt samples were screened in the field through a minus-20 mesh screen. Biogeochemical samples were collected from bark on a white spruce or black spruce tree, four to eight inches in diameter. A paint scraper and paper plate was used to collect the bark, which was placed into a numbered gusseted kraft sample bag. A numbered flag was hung from the tree. Biogeochemical samples were only collected if the ground was so frozen that till samples could not be collected. 137 till, 10 rock, 44 silt, and 54 bark samples were collected in the area.

5 Bulk samples were collected by wet screening into a large pail 15 to 20 kg of minus-16 mesh material from gravel bars at sample sites. Screened

material was scooped into two, numbered, spun-polyester bags, which allowed much of the water to soak out of the bag and the sample to dry. Samples were carefully packed in large plastic pails for transport back to Whitehorse where they were packed into rice bags for shipment to The Saskatchewan Research Council in Saskatoon for processing. Here samples were further screened and separated by dense liquids to fractions with a specific gravity >3.1 . Magnetic separation was used for further separation. Grains of .25 to .85 mm were examined for selection of grains of pyrope, eclogitic garnet, chromite, ilmenite, olivine, clinopyroxene, tourmaline and others, if present.

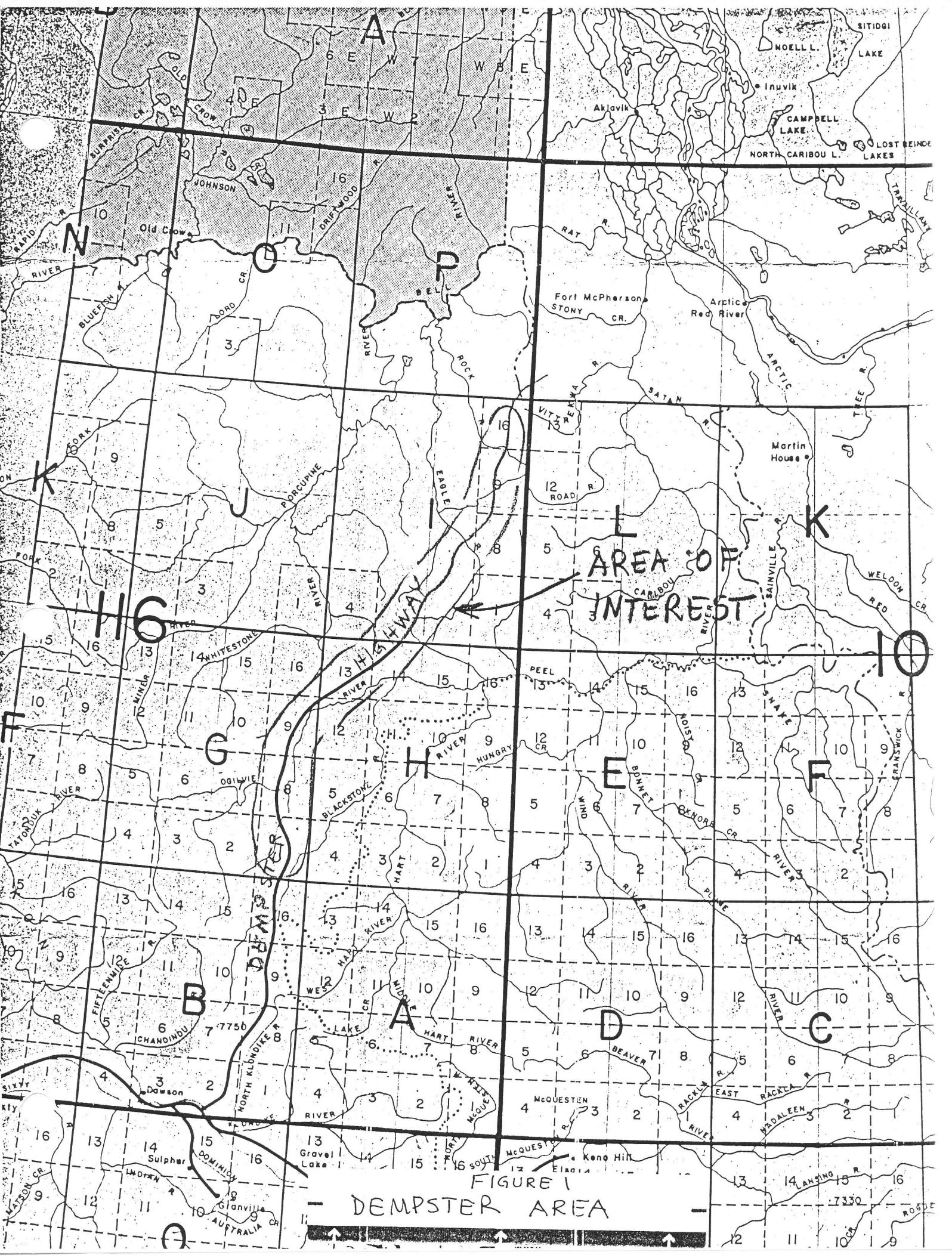
RESULTS.

Results were discouraging. A high background for Zn and Ag is known from RGS data. Till sample P253 and silt samples P254-P259 were anomalous for Ag, Zn, Cu, Mo, Ni, U, and Mn possibly reflecting stratabound mineralization. This area lies about three-km north of minfile occurrence 105J/12 and right over one of the weak airborne government anomalies. Outcrops immediately north, along the Canol road, strike northeasterly with near vertical attitudes. No gold anomalies were found in any of the samples.

Bulk sample J5, which was draining the one area of known volcanic rocks, contained 8 chromite grains and one ilmenite grain. However the chrome oxide content of the chromites were far too low to be of significance as diamond indicator minerals.

CONCLUSIONS AND RECOMMENDATIONS.

No encouragement for gold or diamond mineralization was found in the Canol Area of the project. Some encouragement for base metal



mineralization with anomalous silver exists in one area associated with a weak airmag high and three km north of a minfile Zn occurrence.

The location, metal prices and difficulty of developing interest in a base metal occurrence at this locality makes follow-up unwarranted at this time. However, the presence of anomalous silver values does make this target of some interest.

DEMPSTER AREA

LOCATION, ACCESS AND WORK PROGRAM

The area lies on both sides of the Dempster Highway from Engineer Creek to White Fox Creek, north of the Arctic Circle. Access was made via the Dempster Highway from where traverses were made to creeks targeted for bulk sampling for diamond exploration. One day of helicopter support was used to access slightly more remote sample sites and to collect some of the previously collected and stashed samples. Following is a summary of the prospector's work.

Day	Date	Activity
13	June 2	D Bennett & G Richards Drove Whitehorse-Engineer Creek. Bulk Sample D1.
14	3	Bulk Sample D2, D3
15	4	Bulk Sample D4, drove Eagle Plains
16	5	Bulk Sample D5-7
17	6	Bulk Sample D8-10
18	7	Traverse in to McParker Ck.

19	8	Search for gravel move camp to forks McP Ck
20	9	Search south fork. Traverse back to truck.
21	10	Traverse in, bulk sample D11
22	June 11	Traverse out to truck. Drove Whitehorse.
23	July 21	Drove Whitehorse to Eagle Plain.
24	22	Traverse in, bulk sample D12.
25	23	Traverse out to truck. To Eagle Plain.
26	24	Helicopter spot landings. Bulk sample K1 to K5, pick up stashed D samples.
27	25	Processed K1 to K5 samples
28	26	Traverse in, bulk sample D13.
29	27	Traverse out to truck.
30	28	Bulk sample D14. Drove Ogilvie River.
31	29	Drove Whitehorse, ship samples.

WORK DONE.

Program as proposed was a first pass in untested territory for kimberlites, lamproites and other potassic intrusions using bulk samples reduced by heavy liquids and magnetic processing to yield diamond indicator minerals. Cretaceous sediments cover the central portion of the survey area and Paleozoic sediments cover the north and south portions of the survey area.

19 Bulk samples were collected and processed as described above under the Canol Area. Samples collected by helicopter were approximately 30 to 40 kg of minus-8 mesh material quickly screened. These samples were taken to a nearby creek and screened the following day to minus-16 mesh.

RESULTS.

Results were discouraging. No diamond indicator minerals of any kind were recovered.

CONCLUSIONS AND RECOMMENDATIONS.

No further work is warranted in the immediate area of the samples. If further sampling is undertaken, drainages well removed from the present survey area should be considered.

Respectfully yours



Gordon G Richards



David Bennett

GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT CANOL File # A303591

6410 Holly Park Drive, Delta BC V4K 4W6

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	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 ppm	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	Al %	Na %	K %	W ppm	Zr ppm	Sn ppm	Be ppm	Sc ppm	S %
P201	7.82	36.60	13.82	145.6	441	26.7	12.0	559	2.82	22.2	3.7 <1	6.6	69	.52	3.69	.26	210	.29	.120	26	73	.45	2456	.258	4.50	.383	1.46	2.3	57.6	1.9	1	6.1 <.04		
P203	3.48	42.71	12.29	165.5	800	38.8	6.7	215	2.34	15.3	3.8 <1	7.9	103	1.13	2.43	.23	169	.46	.126	32	88	.39	3250	.284	4.72	.361	1.43	1.4	66.4	1.7	2	7.1 .05		
P204	4.69	43.51	13.49	192.8	715	33.7	6.9	282	2.54	26.1	4.6 <1	7.6	87	.67	3.81	.23	209	.34	.132	30	68	.43	2535	.252	4.49	.320	1.34	8.8	57.4	1.6	1	6.0 <.04		
P205	17.37	72.61	19.18	171.1	626	39.4	5.5	230	3.93	38.8	6.4 <1	7.2	90	.69	7.03	.26	273	.18	.121	28	66	.44	2541	.215	4.34	.223	1.45	1.2	53.1	1.6	2	6.6 .16		
P208	4.76	22.65	16.66	95.1	684	14.9	3.6	159	2.48	22.9	3.1 <1	7.5	80	.23	2.29	.26	204	.21	.088	32	66	.44	1991	.324	4.86	.262	1.59	1.3	69.1	2.3	1	6.3 <.04		
P219	7.28	26.11	18.28	111.8	1151	12.6	3.2	175	2.51	19.8	3.3 <1	6.1	97	.87	3.19	.32	230	.28	.094	29	59	.33	1850	.312	4.45	.397	1.30	3.2	50.5	2.0	1	5.6 .06		
P221	6.28	50.13	18.66	253.1	986	31.3	5.6	293	4.06	33.4	3.6 <1	6.5	78	.57	4.87	.24	243	.30	.213	25	83	.51	2547	.233	4.74	.274	1.39	1.5	53.3	1.7	2	6.0 <.04		
P225	4.16	52.50	15.18	134.1	241	28.5	6.3	231	2.52	20.2	4.0 <1	8.5	75	.37	3.68	.26	163	.26	.113	32	57	.45	2499	.293	4.10	.285	1.43	1.3	61.9	1.5	1	6.9 <.04		
P227	3.94	44.41	15.39	156.6	354	36.7	7.5	315	2.87	20.7	3.3 <1	7.8	77	.32	3.15	.27	176	.30	.115	32	68	.69	2197	.299	4.87	.410	1.48	1.3	59.9	1.9	2	7.7 <.04		
P230	4.10	31.63	13.88	101.4	561	18.1	5.5	300	2.61	18.6	3.1 <1	6.4	96	.39	2.29	.28	216	.33	.149	27	78	.49	2235	.301	5.60	.427	1.64	1.2	66.2	2.1	1	7.0 <.04		
P232	4.56	74.84	17.60	216.2	414	47.3	14.1	513	2.94	25.8	4.7 <1	8.9	77	1.39	4.45	.26	175	.30	.143	32	60	.49	2508	.252	4.32	.288	1.46	1.0	58.1	1.5	2	7.3 <.04		
P236	5.60	79.31	19.62	251.5	216	43.5	13.5	550	3.21	43.4	5.6 <1	9.6	102	.85	5.63	.28	210	.49	.151	37	68	.54	3373	.235	4.72	.371	1.69	1.5	60.7	2.1	2	9.2 <.04		
P237	4.71	58.44	16.57	207.3	296	43.9	11.6	614	2.81	32.0	4.6 <1	8.0	90	.96	4.29	.24	202	.45	.146	33	66	.50	2988	.254	4.70	.377	1.56	1.3	53.6	1.8	2	7.5 <.04		
P238	5.08	70.01	19.40	191.4	549	37.9	9.1	292	3.11	33.2	4.1 <1	8.8	106	.40	.27	201	.38	.087	30	67	.50	2406	.235	5.19	.486	1.58	4.6	60.7	1.8	2	7.0 .07			
P239	3.81	64.91	16.34	136.7	281	35.7	7.6	208	2.63	27.7	3.7 <1	7.8	77	.32	3.92	.25	171	.33	.065	25	66	.48	2556	.230	4.97	.347	1.53	1.7	53.3	1.8	2	7.0 <.04		
RE P239	3.83	66.97	17.63	139.8	311	35.9	8.1	214	2.69	28.2	3.9 <1	8.8	82	.33	4.13	.29	173	.34	.066	26	69	.49	2608	.224	5.08	.350	1.62	1.1	55.5	1.8	2	7.0 <.04		
P241	3.94	36.87	16.17	120.8	496	26.5	5.9	247	2.26	28.5	3.3 <1	8.2	83	.66	2.76	.29	162	.42	.069	31	58	.43	2016	.285	4.75	.419	1.43	1.3	61.9	2.2	2	6.2 <.04		
P251	6.42	56.30	17.75	226.8	580	46.3	11.5	404	2.01	22.5	5.1 <1	9.5	124	2.13	4.67	.27	212	.70	.165	37	55	.39	3609	.242	4.32	.455	1.70	1.1	59.1	1.6	2	6.5 .05		
P253	13.11	101.00	14.32	500.2	1835	86.7	7.1	290	2.27	21.4	16.6 <1	8.9	130	6.59	10.99	.22	614	.58	.177	36	116	.57	3095	.293	4.87	.256	1.81	1.1	70.8	1.6	2	8.3 <.04		
P261	6.96	57.13	16.34	255.6	530	43.5	7.4	357	2.11	23.2	5.5 <1	9.1	118	1.79	4.86	.26	244	.66	.168	36	58	.38	3371	.239	4.23	.435	1.66	1.1	58.5	1.5	2	6.1 .05		
P266	8.59	38.92	16.59	201.3	867	27.4	4.1	189	2.34	21.0	4.4 <1	7.5	99	.61	4.70	.23	368	.28	.155	28	92	.38	2027	.253	4.70	.245	1.68	1.2	63.3	1.7	1	6.5 .08		
P267	7.34	66.53	17.31	255.9	1052	43.5	8.9	344	2.58	23.8	4.8 <1	8.3	111	1.35	5.13	.30	275	.45	.159	30	73	.42	2245	.249	4.95	.379	1.79	1.2	62.0	1.8	2	8.0 .04		
P268	3.09	16.84	13.64	67.7	634	11.9	2.9	163	1.35	10.8	2.7 <1	7.3	125	.45	1.51	.30	172	.47	.066	31	56	.33	1348	.335	4.73	.670	1.67	1.4	69.5	2.0	1	5.9 .04		
P269	6.09	38.69	19.53	185.0	402	31.3	6.8	283	3.45	27.4	3.7 <1	9.1	81	.53	3.76	.35	264	.31	.087	28	82	.51	1591	.269	5.77	.395	1.58	1.4	58.8	2.1	2	7.2 .06		
P270	7.68	76.05	18.74	224.3	656	39.5	4.5	200	2.47	23.3	5.9 <1	9.1	120	1.47	3.93	.39	479	.45	.143	32	129	.56	2326	.325	6.52	.349	1.73	1.6	70.5	2.8	2	10.2 <.04		
P271	7.43	65.93	18.14	241.0	1234	44.8	6.9	286	2.55	28.4	5.2 <1	9.4	94	.85	5.66	.35	331	.44	.130	33	84	.49	2012	.271	5.54	.400	1.68	1.5	60.6	2.0	2	7.5 .06		
P280	4.97	48.61	13.03	129.4	409	24.7	4.8	243	1.38	15.9	4.7 <1	8.0	113	.87	3.53	.18	184	.61	.136	35	49	.30	3419	.272	3.80	.432	1.50	1.2	62.1	1.4	2	5.4 .09		
P281	9.41	96.35	25.42	279.7	2137	45.5	6.4	234	3.34	35.1	8.0 <1	10.8	95	1.35	5.50	.50	656	.28	.223	34	168	.69	2379	.327	7.86	.292	2.03	1.9	76.5	2.9	3	13.2 <.04		
P283	9.73	30.24	17.47	142.1	776	21.6	6.1	336	1.80	19.3	3.3 <1	6.8	97	.58	3.80	.28	258	.40	.084	27	68	.36	1980	.253	4.70	.482	1.74	1.3	59.6	1.9	2	6.2 .06		
P284	1.82	12.66	10.68	31.8	360	4.8	1.6	118	.77	5.3	2.4 <1	6.8	136	.23	.91	.14	109	.36	.034	31	40	.24	1192	.343	4.00	.658	1.50	1.1	69.8	1.8	1	4.5 .05		
P288	2.35	10.32	10.95	26.9	21	6.0	2.0	116	.91	13.3	2.8 <1	6.7	77	.18	1.65	.17	131	.17	.034	29	44	.21	1088	.375	3.93	.340	1.19	1.4	71.4	1.7	1	4.6 <.04		
P289	4.34	31.41	24.43	138.3	126	24.0	7.7	325	3.54	31.7	3.0 <1	7.6	82	.30	5.12	.33	201	.22	.145	29	68	.41	1593	.323	5.20	.350	1.36	1.4	63.0	1.9	1	6.3 <.04		
P290	4.29	68.81	18.23	172.0	390	40.0	11.4	416	2.61	24.5	5.4 <1	9.5	112	.66	4.26	.30	150	.45	.106	36	53	.37	2297	.336	4.74	.502	1.38	1.3	66.7	1.7	1	8.6 .04		
P291	4.07	40.71	17.34	141.6	158	27.4	7.9	324	2.78	25.6	3.0 <1	8.6	96	.49	3.58	.25	150	.51	.116	29	60	.44	1753	.319	5.04	.569	1.46	2.0	62.5	1.6	2	7.0 .04		
STANDARD DST5	13.35	141.05	28.08	157.4	336	29.8	14.8	1048	4.18	22.6	7.1 <1	6.3	368	5.01	6.38	5.66	117	2.37	.107	26	227	1.18	692	.397	7.45	1.709	1.34	9.2	51.0	6.6	2	11.5 <.04		

GROUP 1T-MS - 0.25 GM SAMPLE DIGESTED WITH HClO4-HNO3-HCl-HF TO 10 ML. UPPER LIMITS - AG, AU, W = 200 PPM; MO, CO, CD, SB, BI, TH & U = 4,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. DIGESTION IS PARTIAL FOR SOME MINERALS & MAY VOLATIZE SOME ELEMENTS, ANALYSIS BY ICP-MS.
- SAMPLE TYPE: TILL S150 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 21 2003 DATE REPORT MAILED: Sept 16/03 SIGNED BY..... D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data L FA



Richards, Gordon PROJECT CANOL FILE # A303591

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	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 %	Al %	Na %	K %	W ppm	Zr ppm	Sn ppm	Be ppm	Sc ppm	S %
P292	3.67	43.20	18.13	164.4	507	34.2	10.5	383	2.74	28.8	3.5	<.1	9.4	101	.73	4.17	.32	155	.45	.123	36	62	.43	2377	.351	5.22	.488	1.51	1.5	58.8	1.9	2	6.8 <.04	
P293	2.12	10.71	17.17	72.4	111	9.9	3.5	221	1.96	15.7	2.8	<.1	7.0	89	.21	1.78	.29	165	.24	.109	32	55	.35	1516	.644	5.17	.468	1.54	2.0	71.4	2.6	1	5.6 <.04	
P294	2.82	41.01	16.55	188.3	428	37.1	12.0	413	2.92	22.8	3.1	<.1	8.7	99	.60	3.06	.22	135	.42	.090	33	53	.44	1998	.415	5.29	.557	1.38	1.3	63.6	1.8	2	6.2 <.04	
P295	3.34	18.11	15.37	102.5	201	17.8	7.2	271	3.52	43.6	3.0	<.1	7.7	87	.31	3.64	.28	173	.24	.156	34	63	.42	1508	.544	5.95	.363	1.63	1.7	68.1	2.3	2	6.4 <.04	
P297	3.54	45.10	16.07	179.1	190	48.6	14.6	448	3.74	38.9	3.0	<.1	7.6	102	.49	6.60	.27	181	.44	.153	34	78	.55	1680	.656	5.14	.434	1.46	3.1	73.7	2.1	2	6.7 <.04	
P298	3.30	29.37	15.73	151.1	103	43.8	11.6	328	4.14	46.5	3.2	<.1	8.3	107	.26	7.83	.28	184	.32	.128	39	85	.54	1755	.661	6.00	.409	1.59	2.4	79.0	2.5	2	7.2 <.04	
P299	3.23	15.70	15.64	100.2	181	17.7	5.6	238	2.62	20.3	2.7	<.1	7.6	119	.25	2.23	.29	167	.45	.047	34	64	.48	1859	.352	5.64	.441	1.46	3.1	57.0	2.1	1	6.4 <.04	
Q107	2.42	19.46	16.34	50.6	409	3.7	2.6	216	1.54	6.9	3.0	<.1	8.3	424	.41	1.76	.20	106	.66	.138	37	35	.31	3315	.346	5.84	1.290	1.95	2.1	102.4	1.6	2	5.3 .06	
Q115	3.46	34.57	17.87	140.5	436	29.6	7.9	330	2.02	20.6	4.0	<.1	9.4	153	.60	3.39	.35	156	.60	.126	37	55	.59	2568	.274	5.25	.598	2.04	1.6	61.2	2.5	3	7.3 <.04	
Q117	6.91	28.39	21.13	203.9	481	28.9	5.5	269	4.58	36.0	3.3	<.1	6.4	69	1.01	4.93	.28	262	.18	.250	25	72	.48	2089	.233	5.45	.231	1.36	1.3	52.6	1.8	1	6.0 <.04	
Q118	3.73	18.33	15.58	63.7	205	7.8	2.2	191	1.58	17.4	3.0	<.1	5.9	128	.25	2.07	.27	166	.29	.093	28	44	.31	1729	.253	4.25	.492	1.75	1.5	64.8	1.8	1	4.8 <.04	
Q120	9.32	38.11	35.30	147.3	1532	20.6	4.2	271	4.60	53.6	3.2	<.1	6.2	96	.31	7.78	.36	246	.21	.315	25	66	.44	1912	.242	4.43	.271	1.41	1.4	54.0	2.0	1	6.2 .15	
Q122	4.24	21.79	14.20	82.9	589	16.1	3.7	184	1.96	16.2	3.7	<.1	7.3	78	.31	2.55	.29	177	.25	.097	32	67	.48	2068	.297	4.50	.292	1.50	1.3	57.4	2.1	1	6.6 <.04	
Q125	3.42	20.94	10.75	63.3	146	12.0	2.4	126	1.33	15.5	3.3	<.1	6.8	75	.24	1.92	.20	163	.21	.064	32	57	.30	1719	.304	3.83	.282	1.63	1.8	65.2	2.0	2	5.6 <.04	
Q126	3.98	28.84	13.40	132.0	1300	23.3	4.9	180	2.68	15.9	3.0	<.1	7.0	67	.36	3.10	.26	161	.19	.078	24	63	.44	1692	.242	4.93	.354	1.34	1.2	47.7	1.7	2	5.6 .04	
Q132	4.23	40.88	15.34	144.0	462	28.8	5.3	253	2.27	20.9	3.3	<.1	6.4	122	.38	3.18	.22	158	.39	.150	27	54	.42	2133	.208	4.32	.437	1.69	1.1	54.6	1.6	2	5.8 .06	
Q133	5.35	38.12	18.16	163.8	200	27.3	7.8	409	2.41	23.2	3.0	<.1	6.5	72	.40	3.88	.27	192	.23	.112	28	65	.45	2301	.261	4.10	.226	1.53	1.2	48.0	1.9	1	6.2 <.04	
Q135	4.15	23.38	11.59	118.2	856	20.1	3.4	175	1.91	16.4	3.1	<.1	6.5	95	.21	2.59	.20	164	.35	.167	30	57	.47	2267	.246	4.05	.292	1.65	1.4	48.7	1.7	1	5.8 <.04	
RE Q135	4.11	22.72	11.62	114.8	829	19.8	3.5	161	1.89	17.3	3.2	<.1	6.6	96	.22	2.56	.20	166	.35	.167	29	59	.47	2245	.256	4.03	.301	1.60	1.2	50.3	1.6	1	5.8 <.04	
Q141	6.53	24.64	18.76	122.5	715	20.0	4.0	210	3.24	39.8	3.2	<.1	6.2	78	.34	3.92	.30	270	.24	.173	28	82	.50	2180	.248	5.32	.249	1.81	1.6	51.1	2.4	2	7.3 .04	
Q142	3.64	19.71	14.10	104.9	680	18.9	3.9	197	2.13	18.4	3.1	<.1	7.1	76	.23	2.55	.21	174	.24	.054	29	61	.41	1832	.286	4.77	.349	1.58	1.5	52.3	2.0	2	6.1 <.04	
Q145	4.56	53.15	21.71	207.6	484	43.6	10.6	371	2.46	33.8	4.7	<.1	10.2	128	1.22	4.36	.39	185	.58	.131	40	63	.56	3572	.284	5.47	.463	2.17	1.7	57.3	2.5	2	9.2 .05	
Q146	5.89	44.85	20.03	201.5	399	37.6	11.1	422	2.51	32.4	4.1	<.1	10.2	117	.85	4.33	.40	190	.48	.126	36	65	.51	2521	.289	5.51	.472	2.09	2.0	61.7	2.4	2	8.5 .08	
Q149	5.48	40.02	15.63	182.7	274	31.5	5.5	287	2.58	30.6	3.4	<.1	7.3	99	.32	4.08	.25	194	.36	.111	33	65	.50	2341	.262	4.65	.352	1.72	1.4	54.9	2.1	2	7.0 <.04	
Q159	6.51	64.31	15.19	194.1	1236	32.8	4.5	286	2.54	17.4	6.3	<.1	7.9	192	2.18	3.52	.28	338	.58	.150	29	99	.49	1970	.260	6.71	.856	1.90	1.3	71.9	2.2	2	8.4 .07	
Q160	5.91	20.76	18.11	83.1	654	11.6	2.2	86	2.07	20.7	2.8	<.1	5.5	50	.16	3.53	.20	229	.11	.076	23	53	.27	1112	.202	3.35	.168	1.09	1.2	46.2	1.6	1	4.4 .06	
Q161	3.99	13.44	13.67	42.9	214	6.1	1.3	62	1.17	15.7	2.6	<.1	6.5	62	.12	4.23	.15	130	.10	.054	26	40	.20	1173	.274	2.94	.227	1.05	1.4	58.3	1.6	1	4.2 .04	
Q164	11.92	23.68	17.68	50.4	345	6.5	1.7	99	1.79	16.1	3.0	<.1	6.5	104	.09	2.93	.24	204	.20	.069	27	48	.23	1824	.288	3.87	.361	1.17	1.3	58.6	2.4	1	4.5 .09	
Q165	4.85	15.50	12.38	46.3	677	6.7	1.7	130	1.17	12.9	2.9	<.1	6.2	87	.13	2.10	.20	177	.21	.039	29	42	.23	1225	.293	3.64	.360	1.19	1.5	58.9	1.8	1	4.5 <.04	
Q166	7.02	63.25	15.20	59.8	1909	10.1	2.9	204	2.15	11.9	4.7	<.1	7.2	221	.20	2.36	.21	218	.56	.111	29	47	.35	1280	.270	5.67	1.056	1.68	1.2	78.2	1.6	1	7.1 .10	
Q168	6.34	40.98	18.34	147.9	620	31.5	6.3	180	2.69	26.8	3.5	<.1	7.7	95	.47	4.25	.33	224	.27	.093	30	70	.39	1903	.266	5.55	.382	1.60	1.4	63.5	2.0	2	6.9 <.04	
Q172	9.99	44.96	20.94	273.8	21598	39.5	7.8	516	4.52	41.5	5.3	<.1	7.6	69	1.15	6.27	.29	389	.25	.298	26	95	.41	1637	.215	5.21	.221	1.60	1.3	56.6	1.9	2	6.8 .07	
Q173	5.74	35.88	17.33	171.6	649	25.9	7.0	298	2.44	19.3	4.0	<.1	8.4	119	.47	2.96	.26	235	.30	.084	31	70	.35	1414	.258	5.08	.493	1.81	1.3	66.2	1.8	2	6.3 .04	
Q174	5.84	43.10	17.85	213.7	970	35.7	7.8	335	2.12	31.5	5.3	<.1	7.4	109	1.65	4.03	.26	294	.50	.153	30	80	.36	1861	.207	4.88	.468	1.59	2.1	51.5	1.7	2	6.0 .08	
STANDARD DST5	14.29	145.04	29.46	161.5	343	31.8	14.4	1117	4.20	23.0	7.4	<.1	6.5	367	5.03	6.46	5.98	117	2.30	.104	28	230	1.25	710	.403	7.73	1.700	1.45	10.3	47.6	7.2	2	11.9 .05	

Sample type: TILL S150. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA



Richards, Gordon PROJECT CANOL FILE # A303591

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	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 %	Al %	Na %	K %	W ppm	Zr ppm	Sn ppm	Be ppm	Sc ppm	S %
Q175	5.23	120.50	15.03	150.4	573	29.7	6.6	246	2.10	29.0	4.7	<.1	7.2	123	2.00	3.49	.26	214	.59	.172	27	59	.31	1649	.172	4.00	.480	1.77	1.5	48.2	1.4	2	6.9	.08
Q176	6.75	41.51	26.08	104.7	1847	17.8	5.1	229	2.42	27.0	4.8	<.1	8.3	200	.52	6.38	.62	274	.25	.208	32	92	.37	345	.324	4.70	.268	1.95	2.4	66.6	1.9	2	8.3	.20
Q177	5.84	54.64	16.71	166.3	104	28.0	7.9	307	2.48	22.1	5.1	<.1	9.2	144	.65	4.13	.26	241	.43	.114	32	71	.41	1944	.268	5.14	.584	1.78	1.6	65.0	1.6	2	7.1	<.04
Q178	6.20	61.66	18.25	205.6	681	50.9	14.7	556	2.61	34.8	4.8	<.1	8.5	115	1.44	4.71	.29	264	.52	.190	29	75	.39	2013	.223	4.79	.452	1.67	1.6	50.9	1.8	2	7.0	<.04
Q180	3.93	20.03	13.36	36.0	2037	8.5	1.7	90	2.39	27.7	3.8	<.1	7.9	93	.09	3.08	.23	204	.23	.067	31	64	.32	1688	.300	4.46	.339	1.58	1.5	59.4	1.9	1	6.9	<.04
Q181	4.32	33.51	15.33	139.3	559	20.4	6.6	265	2.78	29.1	3.2	<.1	7.6	74	.46	3.06	.25	179	.41	.189	23	54	.28	1371	.166	4.72	.337	1.25	1.9	41.1	1.2	1	5.3	.04
Q182	5.61	32.48	18.82	108.4	828	20.7	4.4	242	1.71	19.0	3.9	<.1	7.0	183	.66	3.36	.25	233	.55	.119	26	66	.35	2142	.259	4.45	.719	1.70	1.5	68.0	1.8	1	6.4	.05
Q183	8.04	41.62	19.56	157.7	1165	26.8	7.1	804	2.20	20.2	4.8	<.1	7.6	180	1.51	4.46	.26	266	.64	.174	29	81	.43	2796	.260	4.69	.634	1.68	2.0	64.3	1.7	1	7.5	.10
Q184	6.24	45.44	18.39	186.0	405	34.6	9.5	385	2.80	24.2	4.1	<.1	8.6	120	1.10	2.98	.23	193	.58	.185	31	68	.45	2030	.261	5.08	.635	1.65	1.3	61.6	1.8	2	7.6	.04
Q185	18.60	70.25	18.91	304.0	1969	61.1	15.7	359	3.01	21.9	4.8	<.1	11.1	58	4.04	5.19	.21	426	.96	.211	37	94	.74	1330	.389	6.39	.138	2.14	1.2	76.0	2.3	3	11.0	<.04
Q187	4.06	44.63	17.21	195.5	408	40.2	12.6	512	3.30	18.5	3.1	<.1	9.5	105	1.11	2.11	.22	144	1.80	.204	33	78	.89	1716	.357	6.27	.613	2.13	1.3	64.0	2.2	2	10.3	.04
Q188	12.99	65.15	16.45	234.0	538	47.2	7.7	334	3.43	33.3	3.9	<.1	8.4	103	1.28	4.15	.27	220	.44	.156	29	89	.47	2059	.313	5.32	.455	1.86	1.1	71.1	1.8	2	9.4	<.04
Q189	5.35	61.36	16.15	202.6	377	34.7	10.0	367	3.10	29.2	4.2	<.1	8.9	99	.54	4.56	.24	223	.31	.114	34	71	.51	3587	.328	4.82	.388	1.65	1.3	58.2	1.8	2	8.3	<.04
Q190	4.37	38.35	12.11	129.5	410	19.7	4.5	221	2.32	19.8	3.3	<.1	6.9	150	.28	3.11	.19	186	.45	.100	28	54	.43	2686	.301	4.93	.720	1.67	1.1	65.2	1.6	2	6.1	<.04
RE Q190	4.34	35.97	11.88	132.4	429	19.3	4.6	222	2.29	19.1	3.1	<.1	6.6	154	.26	3.08	.17	186	.44	.100	28	45	.43	2649	.293	4.85	.721	1.64	1.3	66.2	1.5	1	6.1	<.04
Q192	5.85	71.02	15.19	256.0	526	50.4	9.6	457	3.07	29.5	4.8	<.1	8.0	113	1.11	5.12	.22	256	.42	.159	31	79	.55	5401	.291	4.78	.339	1.78	1.3	53.5	1.6	2	9.0	.07
Q193	5.25	70.91	23.93	223.6	488	58.8	28.8	800	3.72	29.7	4.0	<.1	10.0	151	1.00	5.38	.33	218	.71	.135	37	86	.66	4290	.358	6.13	.332	2.27	1.5	61.7	2.0	2	10.6	.05
Q200	7.66	40.12	16.02	200.5	790	28.3	7.9	356	2.44	25.3	3.9	<.1	6.8	93	.77	4.06	.21	270	.46	.128	25	68	.36	1674	.218	4.48	.480	1.48	1.3	47.1	1.5	2	5.9	<.04
STANDARD DST5	13.87	151.51	29.94	171.8	380	33.2	15.6	1105	4.41	23.9	7.0	<.1	6.7	384	4.99	6.88	5.95	123	2.31	.120	27	233	1.23	715	.421	7.39	1.846	1.43	10.6	47.7	7.0	2	12.9	.08

Sample type: TILL S150. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT CANOL File # A303591 Page 1 (b)
6410 Holly Park Drive, Delta BC V4K 4W6

SAMPLE#	Y ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Li ppm	Rb ppm	Ta ppm	Nb ppm	Cs ppm	Ga ppm
P201	11.9	47.45	5.7	21.4	3.9	.6	2.9	.4	2.3	.4	1.6	.2	1.9	.2	1.81	23.8	79.2	.6	6.86	5.5	12.24
P203	20.1	55.49	6.9	27.4	5.1	1.1	4.6	.7	3.9	.7	2.4	.3	2.5	.3	2.10	25.0	81.5	.6	7.09	6.8	11.94
P204	16.3	52.26	6.6	26.1	4.9	.9	3.5	.6	3.0	.6	1.9	.2	1.8	.2	1.71	23.7	72.2	.6	6.68	4.6	10.90
P205	11.3	49.19	5.9	22.4	3.9	.7	2.7	.4	2.1	.3	1.4	.2	1.7	.2	1.66	21.0	77.3	.5	5.96	6.7	11.12
P208	10.9	57.94	6.6	24.3	3.9	.6	2.1	.4	1.9	.4	1.5	.2	1.7	.2	2.08	26.0	108.0	.8	9.39	7.7	15.90
P219	9.1	49.94	5.9	22.6	3.6	.6	2.3	.3	1.8	.3	1.2	.2	1.3	.2	1.60	17.6	86.7	.7	8.27	5.3	14.69
P221	10.8	42.80	5.1	19.6	3.4	.5	2.4	.4	1.8	.4	1.4	.2	1.5	.2	1.60	26.3	85.8	.5	6.27	5.7	12.48
P225	16.5	58.87	7.3	28.1	5.7	1.0	3.9	.7	3.2	.6	2.1	.2	2.1	.2	1.87	26.9	68.8	.7	8.97	3.8	10.35
P227	15.2	57.83	6.9	26.3	5.1	1.0	3.7	.6	3.0	.5	2.0	.2	1.9	.2	1.93	37.9	85.5	.7	8.65	5.2	13.68
P230	10.9	48.67	5.5	19.9	3.4	.6	2.3	.4	1.8	.4	1.3	.2	1.6	.2	2.04	23.9	110.7	.7	8.45	7.4	16.74
P232	16.2	58.98	7.1	27.7	5.6	1.0	4.0	.7	3.3	.5	1.9	.2	2.1	.2	1.69	28.6	72.4	.6	7.77	4.2	10.98
P236	22.3	65.86	8.6	33.5	6.8	1.4	5.8	.9	4.0	.8	2.8	.3	2.9	.3	1.84	29.3	85.3	.6	7.38	5.2	12.73
P237	18.0	59.57	7.3	28.9	5.8	1.1	4.6	.7	3.3	.6	2.1	.2	2.1	.3	1.66	27.4	78.5	.6	7.21	4.4	12.24
P238	11.6	52.32	6.2	23.3	4.2	.8	2.5	.4	2.2	.4	1.5	.2	1.5	.2	1.88	32.0	81.7	.6	6.69	5.4	12.92
P239	10.6	45.50	5.2	19.4	3.6	.6	2.5	.4	2.1	.4	1.3	.2	1.6	.2	1.64	28.5	79.6	.5	6.01	6.0	12.48
RE P239	11.0	46.46	5.3	20.8	3.7	.6	2.6	.4	2.0	.4	1.4	.2	1.6	.2	1.69	30.6	82.2	.5	6.00	6.4	12.53
P241	11.9	55.44	6.6	24.3	4.5	.8	2.8	.5	2.3	.4	1.5	.2	1.6	.2	1.85	29.0	84.9	.6	7.84	5.8	14.35
P251	19.3	66.32	8.4	33.0	6.2	1.0	4.7	.8	3.5	.6	2.2	.3	2.5	.3	1.82	22.6	75.7	.6	6.76	3.4	10.76
P253	27.8	60.26	8.3	33.8	6.6	1.2	5.2	.9	4.6	.9	3.2	.4	3.3	.4	1.84	25.7	86.6	.6	8.19	4.7	13.39
P261	19.3	61.79	8.4	32.5	6.2	1.2	4.3	.7	3.5	.6	2.2	.3	2.3	.3	1.66	20.2	72.8	.5	6.31	2.9	10.60
P266	13.7	47.97	6.2	24.7	4.5	.8	2.9	.5	2.5	.5	1.7	.2	1.9	.2	1.70	20.8	98.4	.5	6.74	6.3	14.27
P267	17.0	52.86	6.7	26.4	5.2	1.0	3.5	.6	3.1	.6	2.0	.2	2.1	.2	1.83	26.4	91.6	.6	6.72	5.8	13.90
P268	10.0	57.76	6.8	25.5	4.4	.8	2.6	.4	1.9	.3	1.2	.2	1.4	.2	2.09	17.2	106.1	.8	8.79	5.9	15.15
P269	10.9	48.51	5.8	22.1	4.0	.6	2.3	.4	2.1	.4	1.4	.2	1.6	.2	1.77	37.5	89.7	.6	6.66	6.1	15.28
P270	18.3	52.69	6.7	26.1	4.8	.9	3.3	.6	3.0	.6	2.0	.3	2.3	.3	2.02	31.3	119.2	.7	8.05	8.3	20.24
P271	15.1	56.94	7.2	28.9	5.1	.9	3.6	.6	2.8	.5	1.7	.2	2.0	.2	1.81	31.0	85.5	.6	6.67	4.6	13.77
P280	19.2	63.29	8.2	34.8	6.5	1.2	4.2	.7	3.4	.6	2.1	.3	2.3	.3	1.82	17.2	62.5	.6	6.76	2.5	9.15
P281	20.8	56.99	7.1	27.5	5.3	1.0	4.1	.7	3.8	.7	2.4	.3	2.4	.3	2.16	40.7	135.6	.7	7.99	10.2	24.73
P283	10.8	47.01	5.7	21.9	4.0	.7	2.6	.4	1.9	.4	1.4	.2	1.6	.2	1.82	20.2	101.9	.5	6.29	5.1	13.60
P284	8.4	54.03	6.4	24.7	4.2	.6	2.4	.3	1.7	.3	1.1	.1	1.2	.2	2.07	14.5	66.4	.8	8.73	5.2	13.61
P288	8.9	51.52	5.7	21.9	3.6	.6	1.9	.3	1.6	.3	1.1	.1	1.4	.2	2.12	21.2	74.3	.8	9.23	4.8	12.16
P289	10.0	51.99	5.9	22.1	3.9	.6	2.0	.3	1.7	.4	1.3	.2	1.5	.2	1.90	32.4	91.4	.7	8.14	5.7	14.80
P290	26.8	65.23	8.5	35.3	7.6	1.6	5.8	1.1	5.2	.9	3.2	.4	2.8	.3	2.13	30.0	68.8	.7	8.68	4.2	11.25
P291	13.7	52.67	6.3	24.8	4.9	.8	3.2	.6	2.7	.5	1.6	.2	1.7	.2	1.87	30.0	71.4	.6	8.11	4.0	12.68
STANDARD DST5	14.8	49.65	5.5	21.2	4.3	1.0	3.3	.6	3.0	.5	1.9	.2	1.8	.2	1.64	23.2	54.6	.5	8.59	8.3	18.10

GROUP 1T-MS - 0.25 GM SAMPLE DIGESTED WITH HClO4-HNO3-HCl-HF TO 10 ML. UPPER LIMITS - AG, AU, W = 200 PPM; MO, CO, CD, SB, BI, TH & U = 4,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. DIGESTION IS PARTIAL FOR SOME MINERALS & MAY VOLATIZE SOME ELEMENTS, ANALYSIS BY ICP-MS.
- SAMPLE TYPE: TILL S150 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 21 2003 DATE REPORT MAILED: Sept 16/03 SIGNED BY C.L. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA



Richards, Gordon PROJECT CANOL FILE # A303591

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SAMPLE#	Y ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Li ppm	Rb ppm	Ta ppm	Nb ppm	Cs ppm	Ga ppm
P292	15.5	63.08	7.0	29.3	6.0	1.2	4.0	.6	3.3	.6	1.8	.2	2.3	.2	1.84	31.2	62.6	.8	9.26	4.7	12.77
P293	9.1	56.13	5.9	23.1	3.9	.7	2.1	.3	1.9	.4	1.1	.2	1.7	.2	2.27	23.6	88.1	1.3	14.80	14.8	17.28
P294	12.6	57.79	6.2	26.3	5.1	1.0	3.6	.5	2.9	.5	1.5	.2	1.8	.2	2.09	30.6	56.2	1.0	11.55	6.6	12.18
P295	10.3	60.40	6.5	25.5	4.7	.9	2.8	.4	2.2	.4	1.2	.2	1.7	.2	2.19	41.5	88.9	1.3	17.09	8.2	17.41
P297	13.0	62.18	6.9	29.2	5.6	1.3	3.7	.6	2.9	.5	1.4	.2	1.9	.2	2.25	32.8	60.4	1.4	17.55	5.7	14.01
P298	12.3	68.64	7.3	30.6	5.7	1.2	3.4	.5	2.8	.5	1.3	.2	1.9	.2	2.45	54.1	70.4	1.5	18.82	6.3	17.36
P299	9.5	61.39	6.2	24.2	4.3	.7	2.5	.3	2.0	.4	1.2	.2	1.7	.2	1.85	38.2	76.6	.8	9.23	7.1	15.04
Q107	11.5	66.96	7.2	30.4	6.4	1.5	4.4	.5	2.6	.4	1.4	.2	2.2	.2	3.13	27.5	57.0	.7	8.13	6.6	17.77
Q115	15.8	65.90	7.2	29.9	5.8	1.0	3.7	.5	3.2	.6	1.6	.2	2.4	.2	2.07	32.5	81.0	.7	7.63	4.6	14.49
Q117	8.4	42.06	4.6	18.3	3.1	.6	1.7	.3	1.6	.3	1.1	.2	1.6	.2	1.74	36.7	76.8	.6	6.38	5.1	15.53
Q118	8.8	48.16	5.2	20.7	3.4	.6	1.9	.3	1.5	.3	1.0	.2	1.6	.2	2.09	16.8	89.1	.6	7.20	5.5	14.78
Q120	9.1	43.56	4.6	18.3	3.1	.5	1.8	.3	1.7	.3	1.0	.2	1.7	.2	1.68	20.0	85.2	.6	7.32	5.3	17.54
Q122	11.6	55.09	5.9	23.8	4.3	.7	2.5	.4	2.3	.4	1.2	.2	2.0	.2	1.81	30.4	71.2	.7	9.40	5.3	13.90
Q125	10.4	55.08	5.9	24.1	4.0	.8	2.1	.3	2.0	.4	1.2	.2	1.9	.2	2.08	16.9	67.7	.8	9.42	4.4	13.43
Q126	8.7	40.89	4.2	16.7	2.9	.5	1.7	.3	1.6	.3	1.0	.2	1.6	.1	1.51	37.1	60.9	.6	7.31	4.4	12.58
Q132	11.4	46.64	5.2	21.2	4.2	.8	2.7	.4	2.0	.4	1.2	.2	1.8	.2	1.76	26.0	61.8	.5	6.40	3.7	12.78
Q133	10.6	50.14	5.4	22.7	4.1	.8	2.6	.3	2.0	.4	1.1	.2	1.7	.2	1.49	24.1	64.5	.6	7.42	4.0	12.65
Q135	12.2	52.06	5.7	23.5	4.2	.8	2.7	.4	2.2	.5	1.3	.2	1.8	.2	1.64	23.9	64.4	.6	7.74	3.8	12.23
RE Q135	12.2	49.22	5.4	22.8	4.3	.8	2.7	.4	2.4	.4	1.3	.2	1.9	.2	1.67	25.2	66.0	.6	8.00	3.8	12.14
Q141	11.0	47.55	5.0	20.2	3.9	.6	2.2	.3	2.1	.4	1.2	.2	1.8	.2	1.60	29.4	103.9	.6	6.97	7.5	18.23
Q142	9.6	50.01	5.3	21.1	3.7	.7	2.2	.3	1.9	.3	1.0	.2	1.7	.2	1.74	30.4	77.9	.7	8.14	4.8	13.62
Q145	18.6	68.81	7.4	30.4	6.2	1.1	4.1	.6	3.6	.7	1.9	.3	2.5	.3	1.81	35.1	85.0	.7	8.32	5.7	15.10
Q146	15.3	63.00	6.8	27.7	5.5	1.0	3.6	.5	3.1	.6	1.6	.2	2.3	.2	2.01	34.5	87.6	.8	8.39	5.9	15.77
Q149	12.7	57.47	6.3	25.6	4.7	.8	2.8	.4	2.3	.5	1.3	.2	1.9	.2	1.77	26.1	77.2	.7	7.84	4.8	14.17
Q159	13.3	46.10	4.8	19.4	3.8	.8	2.4	.4	2.3	.4	1.3	.2	1.9	.2	2.18	22.8	79.3	.6	6.81	6.3	19.89
Q160	7.5	38.36	4.0	16.2	2.7	.4	1.4	.2	1.4	.3	.8	.1	1.4	.2	1.48	17.4	53.3	.5	5.60	5.4	12.40
Q161	7.9	44.15	4.5	18.4	3.4	.5	1.7	.3	1.4	.3	.9	.1	1.3	.1	1.86	14.3	48.1	.7	7.45	5.4	10.76
Q164	8.1	45.71	4.7	19.3	3.2	.5	1.6	.2	1.5	.3	.9	.1	1.6	.2	1.92	15.7	50.4	.6	6.52	5.0	14.28
Q165	8.2	48.86	4.8	18.8	3.3	.5	1.8	.3	1.5	.3	.9	.1	1.4	.1	1.82	15.7	50.5	.6	7.57	3.7	11.96
Q166	12.4	47.62	4.7	19.3	3.7	.7	2.6	.4	2.1	.4	1.2	.2	1.7	.2	2.32	17.5	57.5	.6	6.93	9.9	16.34
Q168	11.3	49.88	5.2	21.0	3.7	.7	2.2	.3	2.1	.4	1.3	.2	1.9	.2	2.00	33.7	70.1	.6	7.14	5.6	15.12
Q172	12.6	42.71	4.7	19.6	3.4	.6	2.1	.4	2.2	.5	1.4	.2	2.0	.2	1.79	26.1	82.2	.5	6.31	5.5	15.65
Q173	11.1	52.43	5.6	22.9	4.0	.7	2.1	.3	2.1	.4	1.2	.2	1.8	.2	2.00	20.8	76.0	.6	7.20	5.2	15.74
Q174	14.9	49.89	5.5	23.2	4.4	.9	2.9	.5	2.7	.5	1.5	.2	2.0	.2	1.64	21.4	63.5	.5	5.36	4.1	12.82
STANDARD DST5	14.0	52.96	5.2	21.7	4.5	1.1	3.5	.5	2.7	.5	2.0	.2	1.8	.2	1.64	25.4	49.2	.6	7.80	8.1	19.20

Sample type: TILL S150. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

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Data FA



Richards, Gordon PROJECT CANOL FILE # A303591

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SAMPLE#	Y ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Li ppm	Rb ppm	Ta ppm	Nb ppm	Cs ppm	Ga ppm
Q175	17.2	45.83	6.4	25.7	5.2	1.0	3.7	.6	3.1	.6	1.9	.2	2.1	.2	1.51	15.8	70.0	.4	5.67	4.9	11.57
Q176	19.3	51.30	7.5	29.9	6.4	1.3	4.3	.8	3.8	.7	2.4	.3	2.3	.3	2.05	22.3	90.6	.8	9.74	10.9	15.22
Q177	14.9	53.07	7.0	26.5	5.1	.9	3.4	.6	3.0	.5	1.8	.3	1.8	.2	2.09	26.6	84.5	.6	7.04	7.9	14.29
Q178	16.1	47.72	6.3	25.6	4.9	1.0	3.4	.6	3.0	.5	1.9	.2	2.1	.3	1.65	24.3	79.1	.5	6.22	6.3	13.37
Q180	12.8	49.27	6.5	24.8	4.8	.9	3.1	.5	2.5	.5	1.7	.2	2.0	.3	1.98	22.2	78.7	.7	9.00	15.4	14.54
Q181	11.2	39.17	5.1	19.8	3.9	.7	2.7	.5	2.3	.4	1.4	.2	1.4	.2	1.40	23.6	61.9	.4	4.84	5.0	10.60
Q182	13.9	42.52	5.6	22.2	4.3	.8	3.4	.5	2.6	.5	1.7	.2	1.9	.2	2.18	21.4	76.9	.6	7.27	5.8	15.11
Q183	16.3	45.06	6.4	25.2	5.0	.9	4.1	.6	3.1	.6	2.0	.3	2.4	.3	2.11	23.5	77.8	.6	7.09	7.0	14.42
Q184	18.5	54.20	7.0	27.4	5.5	1.1	4.1	.7	3.6	.7	2.2	.3	2.3	.3	1.97	32.5	79.1	.6	6.91	6.1	14.31
Q185	26.8	62.96	8.6	33.8	7.0	1.2	5.4	1.0	5.1	.9	3.2	.4	3.1	.4	2.55	28.4	109.2	.7	8.58	6.5	17.80
Q187	23.0	57.13	7.6	29.9	6.1	1.2	5.0	.9	4.5	.8	2.9	.3	2.6	.3	2.17	30.3	99.6	.7	8.48	8.3	17.14
Q188	20.0	49.44	6.5	25.5	5.3	.9	4.1	.7	3.6	.7	2.4	.3	2.4	.3	2.08	27.2	84.3	.6	8.17	9.1	16.41
Q189	17.0	56.31	7.3	29.8	5.4	1.0	4.0	.6	3.4	.6	2.0	.3	2.3	.3	1.93	28.1	79.0	.7	9.66	4.9	13.40
Q190	12.4	46.71	6.1	22.8	3.9	.7	3.1	.5	2.2	.4	1.5	.2	1.7	.2	2.08	23.6	72.4	.7	8.81	4.2	13.66
RE Q190	12.5	46.55	5.9	22.4	4.1	.6	2.7	.4	2.2	.4	1.5	.2	1.7	.2	1.95	24.0	72.5	.7	8.68	4.2	13.82
Q192	19.0	51.51	6.9	27.3	5.4	1.0	4.6	.7	3.7	.7	2.2	.3	2.4	.3	1.66	27.8	78.9	.6	8.73	5.8	13.71
Q193	18.2	64.96	8.4	32.4	6.3	1.2	4.8	.7	3.7	.6	2.1	.3	2.2	.3	1.94	45.6	101.2	.8	10.48	10.0	17.79
Q200	12.6	40.56	5.4	20.8	4.0	.7	2.8	.5	2.5	.5	1.5	.2	1.8	.2	1.53	25.8	69.0	.5	5.74	4.3	11.86
STANDARD DST5	14.9	48.66	5.7	22.4	4.5	1.1	3.4	.6	3.0	.5	1.8	.2	1.7	.2	1.56	24.4	54.9	.5	7.84	8.8	18.39

Sample type: TILL S150. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT CANOL File # A303593, Page 1 (a)
6410 Holly Park Drive, Delta BC V4K 4W6



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	Al	Xe	X	W	Zr	Sn	Be	Sc	S		
	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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
P210	5.38	33.16	18.58	261.1	476	40.6	10.6	1599	2.66	21.9	5.6 <1	9.1	138	1.40	3.08	30	204	1.04	.109	30	61	.56	2728	.227	5.35	.466	1.98	1.7	50.7	2.0	2	7.5	.05			
P211	8.12	45.61	18.59	756.7	589	77.9	11.1	1094	2.77	24.9	5.7 <1	8.8	145	4.07	4.11	31	249	1.09	.129	31	63	.59	2867	.220	5.45	.644	1.85	6.8	52.2	2.0	2	7.8	.04			
P212	5.68	49.25	16.95	459.9	986	77.1	16.5	621	2.65	14.6	4.2 <1	8.9	178	2.05	3.12	30	215	9.2	.123	30	64	.56	3331	.249	5.79	.716	1.73	1.2	61.3	2.0	3	8.2	.06			
P213	2.40	28.92	19.61	162.9	619	32.0	10.1	531	3.58	25.5	3.6 <1	11.4	177	1.16	2.44	.32	186	1.14	.105	36	62	.59	3071	.257	6.01	.774	1.93	1.4	63.3	2.0	2	8.7	.06			
P214	6.06	40.32	21.85	849.2	572	81.8	11.0	708	3.10	28.4	4.3 <1	9.7	148	3.97	3.93	.30	213	1.04	.137	34	60	.51	4185	.231	5.46	.637	1.85	1.3	58.2	2.1	2	7.4	.08			
P242	4.27	39.96	16.36	178.3	588	34.1	7.5	336	2.23	14.7	4.5 <1	9.0	144	1.16	3.21	.20	275	.96	.120	30	66	.53	3362	.262	5.26	.613	1.86	1.1	58.0	1.8	2	7.8	.08			
P243	7.31	85.68	20.02	357.3	1635	83.6	15.7	640	3.53	22.1	5.7 <1	9.4	194	3.24	6.13	.35	343	.99	.127	29	90	.70	2639	.282	7.01	.652	2.11	1.4	70.4	2.3	2	12.6	.06			
P244	9.24	53.42	22.53	230.0	825	38.8	12.7	649	2.88	29.3	5.7 <1	11.8	149	1.53	5.65	.43	335	.78	.153	37	74	.55	5086	.274	5.80	.587	2.09	2.0	67.8	2.2	2	9.2	.07			
P245	6.33	36.51	16.08	278.5	688	56.1	15.3	1418	4.36	37.5	3.9 <1	8.4	131	1.73	3.86	.28	265	.84	.165	28	73	.55	3391	.233	5.48	.442	1.81	1.2	53.2	2.0	2	8.6	.05			
P246	4.29	28.52	17.51	142.8	732	30.6	10.7	575	2.34	15.7	3.9 <1	9.0	143	1.09	2.97	.23	256	.74	.111	30	69	.52	3012	.261	5.34	.670	1.93	1.2	58.8	1.9	2	7.9	.05			
P247	3.92	24.52	11.55	177.8	283	30.6	19.8	1505	3.18	20.7	3.2 <1	6.1	141	1.19	1.92	.14	187	.89	.112	22	49	.48	2296	.220	4.55	.553	1.49	1.0	50.2	1.4	1	6.4	.09			
P250	7.45	56.18	16.92	278.7	972	44.0	11.3	801	2.58	17.4	7.2 <1	12.4	167	2.51	4.36	.24	333	.95	.196	43	83	.65	5023	.289	5.25	.492	2.16	2.7	76.3	2.1	3	9.4	.14			
P254	29.11	127.37	11.29	1501.3	2293	173.0	12.7	996	2.31	28.7	16.9 <1	7.3	166	12.73	15.24	.19	919	1.03	.156	29	159	.73	982	.263	4.70	.197	1.86	1.2	68.0	1.6	3	9.1	.06			
P255	56.52	63.02	17.03	516.1	1159	123.5	54.1	>9999	3.65	27.7	14.1 <1	8.3	151	9.56	5.07	.30	301	.94	.153	27	75	.62	2794	.232	5.13	.437	1.62	1.0	62.2	1.6	2	8.8	.06			
P256	12.63	86.77	15.93	428.7	1069	72.5	9.5	665	3.43	20.2	7.4 <1	10.8	151	2.16	6.41	.25	378	.98	.206	35	95	.73	2839	.284	5.23	.436	2.12	1.3	70.9	1.9	2	9.3	.08			
P257	12.11	68.73	16.09	437.7	1078	67.5	11.0	973	2.91	18.9	10.6 <1	8.8	156	2.98	5.49	.30	391	.95	.180	29	87	.66	3045	.262	5.23	.495	1.82	1.5	62.1	1.7	2	8.8	.10			
P258	34.32	67.40	14.59	1271.5	1274	293.9	13.2	>9999	3.33	26.7	17.9 <1	7.6	130	17.30	4.75	.25	346	.97	.168	27	83	.53	2760	.238	4.85	.424	1.57	1.2	55.7	1.7	2	7.9	.05			
P259	15.86	70.16	14.27	544.5	1159	93.4	7.8	956	2.93	21.1	7.8 <1	8.0	137	2.20	5.40	.25	385	1.08	.176	27	93	.57	2985	.254	4.95	.413	1.86	1.9	58.7	1.7	2	8.5	.12			
RE P259	15.47	70.21	14.11	532.4	1144	85.3	7.4	864	2.89	20.5	7.5 <1	7.3	132	2.12	5.26	.23	379	1.05	.171	25	90	.57	2966	.246	4.86	.416	1.77	1.3	56.3	1.7	2	8.2	.15			
P264	23.12	70.02	13.61	783.8	1530	181.4	43.4	7551	10.38	55.5	4.6 <1	5.7	128	6.48	5.84	.21	353	.77	.250	20	90	.47	2081	.172	4.69	.313	1.41	.9	52.4	1.6	2	8.1	.05			
P275	12.00	62.19	16.25	285.3	1399	45.3	9.7	634	2.42	17.9	6.2 <1	8.1	140	2.37	5.17	.26	430	.69	.195	29	98	.52	3142	.255	5.02	.419	1.81	1.1	65.4	1.7	2	8.6	.05			
P276	9.18	60.07	14.04	223.2	1186	35.0	6.1	284	2.28	17.4	5.9 <1	8.2	117	1.94	5.46	.21	459	.65	.171	29	102	.47	3850	.263	4.51	.370	1.59	10.0	62.3	1.6	2	7.5	.06			
P277	12.63	76.19	16.78	448.3	1213	61.8	10.4	741	2.64	21.3	6.7 <1	8.9	139	3.19	6.49	.29	446	.78	.186	31	101	.57	3593	.267	5.23	.412	1.90	1.4	67.7	1.8	2	8.7	.08			
P278	9.29	62.59	13.73	262.9	1182	39.4	6.7	418	2.12	18.1	6.3 <1	9.7	132	1.74	5.08	.21	379	.73	.167	31	86	.45	2788	.248	4.46	.423	1.61	1.3	63.8	1.5	2	7.1	.07			
P279	14.59	67.13	13.94	320.3	1769	45.9	9.5	477	2.91	17.5	6.9 <1	9.5	147	2.30	5.92	.22	530	.73	.181	31	115	.59	4030	.290	5.12	.411	1.77	2.9	76.0	1.8	2	9.1	.11			
P285	31.88	47.68	10.35	726.0	1255	159.2	38.9	9386	8.96	60.9	4.3 <1	5.2	152	6.44	3.80	.19	256	.98	.491	17	59	.40	2232	.148	4.61	.563	1.02	.9	51.1	1.0	2	7.3	.13			
P286	6.75	57.97	13.17	372.7	1147	59.5	15.4	4125	4.09	15.2	4.1 <1	7.4	171	4.63	2.36	.26	182	.88	.155	28	87	.47	2000	.296	6.28	.593	1.67	1.1	72.1	1.7	2	12.2	.13			
P300	3.36	44.27	21.51	203.9	494	36.2	12.7	1101	3.33	20.8	3.2 <1	9.9	146	1.29	3.52	.31	171	.89	.117	32	65	.50	2493	.310	5.50	.554	1.76	8.1	64.0	2.0	2	9.1	.09			
P301	5.82	57.15	15.06	389.2	1081	88.6	19.7	8026	5.01	23.8	3.8 <1	9.1	228	4.46	4.09	.33	217	1.45	.143	26	75	.62	2672	.251	6.45	.589	1.67	1.1	68.4	1.7	2	10.9	.12			
Q103	3.55	35.94	15.43	294.8	542	42.6	6.1	331	2.07	12.2	4.1 <1	7.5	155	1.74	2.65	.19	222	1.02	.139	29	58	.51	3240	.234	5.03	.725	1.86	1.0	49.6	1.8	2	7.1	.09			
Q104	4.43	38.62	14.85	284.3	830	49.3	14.6	2248	5.08	29.8	3.4 <1	6.5	139	2.28	2.83	.26	223	1.02	.191	24	61	.49	2807	.203	4.81	.542	1.58	1.2	47.3	1.7	2	7.2	.09			
Q105	4.22	30.02	16.08	109.1	627	21.6	4.1	222	2.36	19.1	3.1 <1	7.1	186	.67	2.87	.26	192	.86	.121	26	55	.48	2714	.253	5.35	.856	1.78	1.2	66.6	1.9	1	7.3	.09			
Q108	4.36	34.85	15.61	201.9	651	31.4	7.2	410	2.43	16.3	3.8 <1	11.1	167	1.09	3.15	.25	227	1.06	.111	34	62	.55	5080	.280	5.10	.665	1.76	8.4	68.0	1.9	2	7.7	.14			
Q109	4.89	45.06	16.51	203.9	1174	33.8	9.2	495	2.40	17.7	4.3 <1	9.3	151	1.31	3.55	.28	267	.86	.136	30	71	.54	3990	.278	5.21	.589	1.77	1.4	63.3	2.0	2	8.1	.11			
STANDARD DSTS	13.68	150.07	28.08	164.2	357	30.1	15.5	1069	4.22</																											

Richards, Gordon PROJECT CANOL FILE # A303593

Page 2 (a)



ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	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 %	Al %	Na %	K %	W ppm	Zr ppm	Sn ppm	Be ppm	Sc ppm	S %
Q110	10.24	54.53	17.71	539.0	1159	106.1	21.1	3283	6.05	36.5	4.3	<.1	8.3	157	6.94	4.11	.35	263	.95	.236	28	74	.52	3087	.218	5.34	.498	1.65	2.0	52.9	1.9	2	7.8	.06
Q111	10.53	83.01	18.52	792.5	1072	106.8	11.4	880	2.75	23.5	7.1	<.1	10.0	166	6.15	5.78	.30	365	.92	.190	33	85	.53	2455	.252	5.17	.522	1.78	3.5	62.8	1.9	2	8.0	.06
Q112	7.44	45.82	16.41	429.3	856	82.0	14.7	617	2.37	12.9	4.5	<.1	9.8	211	3.05	2.43	.26	238	1.15	.139	35	64	.61	3118	.285	5.94	.810	1.80	1.8	65.0	2.1	2	7.8	.06
Q113	8.16	106.22	16.74	1543.6	984	169.9	13.5	648	2.75	21.4	5.4	<.1	10.6	184	8.75	4.36	.23	311	1.05	.193	38	76	.58	4298	.260	5.27	.730	1.72	5.2	61.4	2.0	2	7.8	.08
Q114	8.16	33.35	17.03	380.1	476	44.3	10.0	1048	4.51	31.3	5.1	<.1	9.5	149	1.85	2.98	.25	215	1.04	.153	34	60	.54	3000	.230	5.00	.618	1.84	1.2	53.1	1.9	2	7.2	.05
Q137	5.97	36.52	14.08	221.3	505	42.4	8.6	469	2.84	14.0	5.2	<.1	11.6	129	1.31	2.74	.19	261	.65	.119	35	70	.52	2723	.292	5.13	.320	1.99	5.1	72.0	2.0	2	7.8	.04
Q147	12.84	44.71	15.44	638.3	655	98.6	16.4	1871	4.83	33.2	4.8	<.1	9.9	143	2.85	3.79	.24	244	.87	.156	28	68	.46	1260	.245	4.83	.409	1.51	2.1	60.9	1.7	2	7.5	.06
Q148	9.65	37.10	13.92	515.8	591	94.7	14.7	3073	4.21	26.7	4.1	<.1	8.6	143	2.66	3.13	.20	222	.90	.155	28	64	.46	1651	.230	4.62	.408	1.48	1.0	56.5	1.5	2	6.9	<.04
Q169	5.90	41.22	12.56	462.1	694	115.1	31.0	2187	4.37	17.1	4.5	<.1	8.2	140	1.84	2.09	.17	172	.99	.166	29	57	.46	2592	.233	5.07	.552	1.41	1.0	61.5	1.6	2	7.9	.11
RE Q169	5.61	44.69	12.00	445.4	608	110.3	30.3	2113	4.22	16.8	4.2	<.1	7.5	135	1.66	1.94	.16	158	.95	.162	27	55	.44	2403	.225	4.88	.533	1.34	2.1	56.0	1.4	2	7.6	.07
Q170	7.87	38.90	12.03	324.3	581	56.6	15.3	6130	5.03	30.7	4.0	<.1	6.6	137	1.94	2.19	.19	161	1.10	.225	22	56	.43	2546	.208	4.49	.567	1.32	.9	47.6	1.3	1	6.7	.09
Q186	6.02	27.55	10.31	228.6	538	39.1	10.1	2959	3.36	11.7	3.5	<.1	7.5	129	2.05	1.34	.13	182	1.17	.187	26	55	.47	1598	.283	4.85	.590	1.42	2.2	65.9	1.5	2	6.8	.06
STANDARD	13.87	151.51	29.94	171.8	380	33.2	15.6	1105	4.41	23.9	7.0	<.1	6.7	384	4.99	6.88	5.95	123	2.31	.120	27	233	1.23	715	.421	7.39	1.698	1.43	10.6	50.3	7.0	2	12.9	.06

Standard is STANDARD DST5. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT CANOL File # A303593 Page 1 (b)
 6410 Holly Park Drive, Delta BC V4K 4W6

SAMPLE#	Y ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Li ppm	Rb ppm	Ta ppm	Nb ppm	Cs ppm	Ga ppm
P210	14.9	51.93	6.8	26.0	5.0	.9	4.0	.7	3.2	.6	2.0	.2	1.9	.2	1.66	32.7	84.8	.5	5.48	4.9	14.12
P211	16.3	55.30	7.0	26.5	5.0	.9	4.2	.7	3.3	.6	2.2	.2	2.3	.2	1.69	33.5	86.3	.4	5.29	5.3	14.21
P212	21.7	53.71	6.9	27.7	5.9	1.2	5.2	.9	4.6	.8	2.7	.3	2.7	.3	1.96	35.9	83.4	.5	5.92	5.7	15.11
P213	16.2	64.11	8.1	31.8	6.2	1.0	4.4	.8	3.4	.6	2.0	.2	2.2	.2	2.08	41.6	94.6	.5	5.91	6.7	16.30
P214	16.9	58.95	7.6	29.7	5.8	.9	4.6	.7	3.5	.6	2.3	.3	2.5	.3	2.10	31.7	84.5	.5	5.44	5.2	14.60
P242	14.9	51.94	6.7	25.6	5.2	.8	3.5	.6	2.9	.5	1.9	.2	2.2	.2	2.05	30.9	84.0	.4	5.65	5.9	14.40
P243	20.0	51.74	6.5	26.3	6.0	1.2	5.4	.9	4.4	.7	2.5	.3	2.7	.3	2.15	47.0	113.6	.5	6.49	18.3	20.21
P244	16.7	63.64	8.0	30.2	5.8	.7	4.1	.7	3.5	.6	2.2	.2	2.4	.3	2.07	34.1	97.0	.5	6.79	7.6	16.39
P245	15.4	49.97	6.3	24.3	4.8	.9	3.8	.6	3.0	.5	2.1	.2	2.1	.2	1.71	38.5	90.7	.5	5.72	7.5	15.37
P246	13.7	52.12	6.7	25.2	4.8	.9	3.1	.5	2.7	.5	1.8	.2	1.9	.2	1.86	30.4	89.6	.5	5.80	7.2	15.54
P247	11.6	39.88	5.0	19.8	3.8	.7	2.7	.4	2.4	.4	1.5	.2	1.6	.2	1.58	23.7	66.9	.4	4.97	4.4	12.46
P250	20.9	76.85	9.9	37.1	7.0	1.0	4.8	.8	4.0	.7	2.5	.3	3.0	.3	2.41	30.7	97.8	.6	7.49	5.7	17.16
P254	34.2	44.60	7.0	29.6	6.1	1.2	5.0	.9	5.1	1.0	3.9	.4	3.7	.4	1.80	21.5	85.1	.5	6.26	5.0	14.82
P255	19.1	56.66	6.2	24.6	5.2	.9	3.9	.7	3.6	.7	2.4	.3	2.5	.3	1.89	26.1	79.2	.5	6.38	5.3	16.38
P256	22.0	62.13	8.4	32.8	6.2	1.1	4.9	.8	4.1	.7	2.7	.3	2.9	.4	2.07	26.3	86.3	.6	7.91	5.3	15.47
P257	20.7	49.59	6.9	27.3	5.3	1.0	4.2	.8	3.8	.7	2.6	.3	2.9	.3	1.90	26.6	85.9	.5	6.81	5.3	15.35
P258	19.5	46.65	6.2	24.6	5.0	.9	3.8	.7	3.2	.6	2.4	.3	2.6	.3	1.64	24.6	78.1	.5	6.05	4.8	15.22
P259	18.8	45.74	6.5	25.1	4.9	1.0	3.7	.6	3.3	.6	2.3	.3	2.5	.3	1.73	26.1	86.6	.5	6.71	5.1	14.81
RE P259	18.0	42.81	5.9	22.7	4.5	.8	3.3	.6	3.0	.6	2.2	.3	2.4	.3	1.67	24.7	81.9	.5	6.47	4.9	14.35
P264	17.8	33.90	4.6	18.7	4.2	.9	3.7	.6	3.0	.6	2.3	.3	2.4	.3	1.60	23.7	84.2	.3	4.40	7.9	15.26
P275	18.9	47.59	6.6	26.0	5.3	.9	3.8	.7	3.4	.7	2.3	.3	2.5	.3	1.94	25.9	92.0	.5	6.46	5.0	15.38
P276	17.2	49.67	6.9	26.9	5.3	.8	3.9	.6	3.2	.6	2.2	.3	2.4	.3	2.02	20.2	78.3	.5	6.13	4.2	13.43
P277	20.8	53.58	7.3	28.5	5.4	1.0	4.4	.7	3.6	.7	2.5	.3	2.7	.3	2.15	26.5	92.9	.6	6.91	5.2	15.76
P278	18.4	54.25	7.6	29.5	5.8	1.0	4.1	.7	3.3	.6	2.3	.3	2.5	.3	2.05	20.4	77.5	.5	6.03	4.0	13.03
P279	20.7	52.89	7.5	29.0	5.7	1.0	4.4	.7	3.5	.7	2.6	.3	2.8	.3	2.31	24.2	87.2	.5	6.62	5.1	16.27
P285	18.2	32.69	4.1	17.3	4.1	.9	3.3	.6	3.2	.6	2.3	.3	2.4	.3	1.54	26.9	56.3	.2	3.50	5.8	12.36
P286	22.0	54.02	6.7	26.8	5.7	1.1	4.6	.8	4.1	.8	2.6	.3	2.4	.3	2.13	41.0	94.6	.6	9.40	15.7	17.22
P300	15.6	57.84	7.1	27.0	5.3	1.0	3.7	.6	3.1	.6	2.1	.2	2.1	.2	2.16	37.2	88.9	.6	7.50	8.0	15.41
P301	18.9	51.27	6.0	23.1	5.0	1.0	3.9	.7	3.3	.6	2.3	.3	2.6	.3	2.11	43.6	99.4	.5	6.59	9.5	17.90
Q103	15.8	51.20	6.6	25.6	5.4	.9	4.1	.6	3.0	.5	2.0	.2	2.2	.2	1.57	24.5	79.7	.5	5.76	4.4	13.15
Q104	14.6	42.10	5.4	20.9	4.2	.8	3.4	.5	2.7	.5	1.9	.2	1.9	.2	1.54	26.0	75.0	.4	5.08	5.0	13.20
Q105	12.9	44.34	5.7	21.8	4.3	.8	3.1	.5	2.6	.5	1.7	.2	1.9	.2	2.06	24.8	82.8	.5	6.00	5.4	14.72
Q108	15.1	62.39	7.9	30.9	6.1	.9	4.5	.6	3.3	.5	2.0	.2	2.2	.2	2.50	27.5	85.4	.5	5.67	5.0	14.25
Q109	16.1	52.36	6.9	26.1	5.3	.9	3.7	.6	3.1	.6	2.2	.2	2.2	.3	2.09	29.0	87.3	.5	6.17	5.7	15.03
STANDARD DST5	14.8	47.88	5.6	22.3	4.6	1.1	3.4	.6	2.9	.5	1.9	.2	1.7	.2	1.62	24.0	54.6	.5	7.77	8.5	18.91

GROUP 1T-MS - 0.25 GM SAMPLE DIGESTED WITH HClO4-HNO3-HCl-HF TO 10 ML. UPPER LIMITS - AG, AU, W = 200 PPM; MO, CO, CD, SB, BI, TH & U = 4,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. DIGESTION IS PARTIAL FOR SOME MINERALS & MAY VOLATIZE SOME ELEMENTS, ANALYSIS BY ICP-MS.
 - SAMPLE TYPE: SILT S150 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 21 2003 DATE REPORT MAILED: Sept 17/03 SIGNED BY C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



Richards, Gordon PROJECT CANOL FILE # A303593

Page 2 (b)



SAMPLE#	Y ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Li ppm	Rb ppm	Ta ppm	Nb ppm	Cs ppm	Ga ppm
Q110	19.3	47.65	6.2	24.8	5.3	1.0	4.4	.7	3.7	.7	2.4	.3	2.6	.3	1.66	30.4	84.8	.4	5.50	6.0	14.30
Q111	22.7	53.95	7.2	29.5	6.0	1.1	4.4	.8	4.2	.8	2.7	.3	2.8	.3	2.13	28.7	85.2	.5	6.53	5.4	14.07
Q112	19.4	58.07	7.8	30.7	6.2	1.3	4.8	.7	3.6	.6	2.2	.3	2.4	.3	2.19	39.0	85.2	.5	6.48	5.2	15.13
Q113	23.5	61.75	8.3	32.0	6.3	1.1	4.5	.8	4.1	.8	2.7	.3	2.8	.3	2.11	26.9	79.3	.5	6.58	4.6	13.66
Q114	17.0	57.07	7.5	29.2	5.9	1.1	4.3	.7	3.3	.6	2.0	.2	2.1	.2	1.91	28.3	79.1	.5	5.56	4.7	13.22
Q137	17.0	60.13	7.8	30.2	5.6	.8	3.5	.7	3.0	.6	2.0	.2	2.3	.3	2.43	24.3	88.5	.6	7.09	5.8	14.26
Q147	18.5	47.25	6.3	24.3	5.0	.8	3.4	.6	3.2	.6	2.1	.3	2.0	.2	2.02	26.3	83.0	.5	5.67	6.9	13.30
Q148	16.7	47.41	6.2	23.7	4.8	.8	3.4	.6	3.1	.6	1.9	.2	2.0	.2	1.82	22.9	75.2	.4	5.25	6.2	13.01
Q169	20.8	48.41	6.3	24.8	5.4	1.0	4.6	.7	3.9	.7	2.6	.3	2.6	.3	1.97	38.6	74.9	.5	5.92	6.6	13.44
RE Q169	20.2	45.07	5.8	23.6	5.1	1.0	4.2	.8	3.8	.7	2.3	.3	2.3	.3	1.78	35.2	70.6	.4	5.81	6.2	12.84
Q170	15.3	36.53	4.9	19.0	4.0	.7	3.1	.6	2.8	.5	1.8	.2	1.9	.2	1.40	26.7	64.5	.4	5.65	5.7	11.76
Q186	20.3	43.42	6.0	24.5	5.1	1.0	4.3	.7	3.7	.7	2.4	.3	2.3	.3	2.17	28.8	76.8	.5	6.05	5.9	12.74
STANDARD DST5	14.9	48.66	5.7	22.4	4.5	1.1	3.4	.6	3.0	.5	1.8	.2	1.7	.2	1.56	24.4	54.9	.5	7.84	8.8	18.39

Sample type: SILT S150. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT CANOL File # A303594 (b)
6410 Holly Park Drive, Delta BC V4K 4W6

SAMPLE#	Y ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Li ppm	Rb ppm	Ta ppm	Nb ppm	Cs ppm	Ga ppm
P209	21.6	46.45	5.4	20.9	4.8	1.0	3.7	.7	3.7	.8	2.6	.3	2.3	.3	1.39	31.4	13.3	.6	7.66	.5	13.34
P265	3.2	8.01	.7	2.7	.4	.1	.3	.1	.5	.1	.4	.1	.5	.1	.48	7.7	27.2	.1	2.08	2.3	5.26
P296	12.2	132.43	15.3	61.1	11.0	2.8	6.5	1.0	4.0	.5	1.3	.1	.9	.1	3.00	209.6	66.8	5.4	66.08	4.0	32.49
Q106	1.5	8.38	1.0	4.1	.8	.1	.5	.1	.3	.1	.2	<.1	.4	<.1	.57	37.9	9.0	.1	1.30	1.1	2.71
Q151	8.9	37.41	4.8	18.1	3.4	.5	1.8	.3	1.8	.4	1.3	.2	1.4	.2	1.62	14.0	116.2	.4	5.51	5.5	15.79
Q152	10.5	39.23	4.6	17.9	3.5	.5	1.8	.4	2.1	.4	1.7	.2	1.7	.2	2.20	19.3	133.8	.5	7.26	6.2	18.43
Q162	14.2	79.03	8.9	35.7	6.7	1.1	4.1	.7	3.0	.5	2.0	.3	2.0	.3	2.69	81.0	125.2	.3	3.30	6.5	23.92
Q171	4.6	6.36	.8	3.1	.6	.1	.8	.1	.7	.2	.5	<.1	.4	.1	.35	10.7	8.6	.1	2.06	.5	3.85
RE Q171	4.8	6.61	.8	3.2	.7	.1	.7	.1	.8	.1	.4	.1	.4	.1	.35	10.8	8.7	.1	2.06	.5	3.72
Q179	4.0	6.01	1.0	4.6	1.2	.2	.9	.2	.7	.1	.5	.1	.5	.1	.32	24.4	10.0	.1	1.05	1.4	2.41
Q191	5.7	30.62	3.2	11.9	1.9	.3	1.2	.2	1.0	.2	.7	.1	.6	.1	1.25	64.1	43.7	.1	1.43	1.7	5.85

ACME ANALYTICAL LABORATORIES LTD.
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GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT CANOL File # A303594 (a)
6410 Holly Park Drive, Delta BC V4K 4W6

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	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 %	Al %	Na %	K %	W ppm	Zr ppm	Sn ppm	Be ppm	Sc ppm	S %
P209	8.29	39.74	4.12	94.5	282	40.9	18.8	4796	6.06	31.4	3.0	<.1	7.8	195	.28	1.10	.78	70	10.50	.200	25	56	3.35	95	.339	5.92	.228	.18	2.2	37.3	6.5	1	9.5	2.28
P265	.35	44.30	.09	80.0	53	13.4	5.6	1813	2.08	3.7	.3	<.1	1.3	18	.52	.18	.06	29	.08	.005	3	25	.26	1047	.085	1.67	.038	.69	.8	15.3	.5	1	3.0	<.04
P296	9.98	11.25	14.56	269.0	32	11.1	40.0	1531	11.91	64.7	1.0	<.1	4.8	94	.66	15.01	.05	183	.79	.563	66	5	.29	793	1.753	9.56	.229	2.16	1.3	84.8	3.3	2	4.4	<.04
Q106	.22	5.20	1.44	5.8	55	2.7	.5	41	.41	2.8	.3	<.1	1.1	19	.06	.62	.04	33	.02	.010	4	12	.03	1474	.045	.91	.016	.23	.6	17.1	.3	<1	1.4	.05
Q151	1.06	81.04	6.55	86.3	210	18.9	4.5	126	2.89	4.0	1.4	<.1	6.8	51	.21	.56	.18	69	.05	.023	17	51	.54	87	.258	4.99	.213	2.52	1.5	46.4	1.7	2	9.1	.89
Q152	2.59	43.09	9.89	76.8	241	20.5	4.7	276	3.91	6.3	2.0	<.1	7.4	48	.25	.77	.26	77	.07	.017	18	63	.71	60	.341	6.06	.077	2.94	1.9	65.5	2.1	2	9.8	1.10
Q162	3.03	28.67	20.75	91.1	107	47.8	16.0	861	5.31	9.8	2.8	<.1	12.3	143	.10	.66	.29	162	.99	.108	42	113	1.39	346	.266	8.56	.564	2.74	1.1	78.2	2.7	3	16.8	1.54
Q171	.43	24.48	1.37	31.4	23	16.9	4.6	126	3.71	3.3	.3	<.1	1.1	14	.10	.71	.08	24	.03	.043	4	23	.05	856	.044	1.12	.012	.21	.4	11.0	.3	<1	3.5	<.04
RE Q171	.46	28.57	1.02	33.2	213	25.3	5.4	117	3.71	3.2	.3	<.1	1.2	15	.08	.71	.08	24	.03	.045	4	20	.05	856	.043	1.09	.011	.21	1.0	12.0	.3	1	3.7	<.04
Q179	.84	12.51	6.74	14.5	488	8.0	.8	224	2.46	4.1	.5	<.1	.7	30	.07	1.34	.05	40	.02	.021	3	38	.05	36	.042	.77	.010	.21	.5	11.5	.3	<1	1.8	1.69
Q191	.26	9.37	11.18	118.6	61	37.2	3.0	247	2.01	8.6	161	1.11	14.99	.05	20	.05	.010	16	22	.06	551	.068	2.80	.038	.72	.5	33.9	.6	<1	2.5	.08			
STANDARD	13.51	153.20	30.32	171.8	355	32.4	15.9	1116	4.51	22.7	6.8	<.1	6.4	374	5.48	6.67	5.85	123	2.37	.113	27	236	1.26	712	.427	7.42	1.739	1.45	10.1	48.1	6.7	2	11.8	<.04

Standard is STANDARD DST5.

GROUP 1T-MS - 0.25 GM SAMPLE DIGESTED WITH HClO4-HNO3-HCl-HF TO 10 ML. UPPER LIMITS - AG, AU, W = 200 PPM; MO, CO, CD, SB, BI, TH & U = 4,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. DIGESTION IS PARTIAL FOR SOME MINERALS & MAY VOLATIZE SOME ELEMENTS, ANALYSIS BY ICP-MS.
- SAMPLE TYPE: ROCK R150 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 21 2003 DATE REPORT MAILED: Sept 9/03 SIGNED BY C.L. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT CANOL File # A303592 Page 1
6410 Holly Park Drive, Delta BC V4K 4W6



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppb	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti ppm	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm
P202	.02	3.54	.32	38.1	20	.7	.05	299	.005	.1<.01	9.1	.01	6.4	.05<.02<.02	<2	.26	.017	.02	1.92	.024	40.0	2	7 <.01	.001	.08 <.1	.2<.02	<.01	59	.1<.02	<.1							
P206	.02	2.53	.19	43.4	17	.5	.07	319	.003	.1<.01	1.7	.01	15.1	.06<.02<.02	<2	.58	.011	.02	1.77	.031	86.6	1	10 <.01	.001	.06 <.1	.1<.02	<.01	47	.1<.02	<.1							
P207	.02	3.31	.23	80.5	13	.1	.03	589	.003	.1<.01	1.2<.01	6.5	.06<.02<.02	<2	.46	.010	.02	1.88	.034	37.8	1	8 <.01	.001	.06 <.1	.1<.02	<.01	38	<.1<.02	<.1								
P215	.02	2.66	.22	54.1	11	.1	.03	505	.003	<.1<.01	.2<.01	6.6	.03<.02<.02	<2	.47	.012	.02	1.79	.032	37.6	1	6 <.01	.001	.06 <.1	.1<.02	<.02	43	<.1<.02	<.1								
P216	.02	2.73	.21	50.6	18	.2	.05	329	.004	.1<.01	1.2<.01	10.1	.07<.02<.02	<2	.41	.011	.02	1.86	.026	34.2	1	6 <.01	.001	.04 <.1	.2<.02	<.01	43	<.1<.02	<.1								
P217	.01	2.77	.36	51.6	13	.2	.03	365	.004	.2<.01	.3	.01	8.3	.03<.02<.02	<2	.35	.013	.02	1.97	.033	33.7	1	8 <.01	.001	.07 <.1	.1<.02	.02	54	<.1<.02	<.1							
P218	.02	4.40	.34	52.8	21	1.2	.03	509	.004	.3<.01	.4	.01	7.3	.03<.02<.02	<2	.41	.013	.03	1.85	.028	42.6	1	5 <.01	.001	.08 <.1	.2<.02	.03	56	<.1<.02	<.1							
P220	.02	2.87	.22	68.0	21	.6	.04	216	.005	.3<.01	.3	.01	27.7	.07<.02<.02	<2	.48	.016	.02	2.00	.033	159.0	1	6 <.01	.001	.06 <.1	.2<.02	.02	83	<.1<.02	<.1							
P222	.02	2.72	.41	64.6	16	<.1	.04	337	.005	.2<.01	.5<.01	17.6	.08<.02<.02	<2	.57	.014	.02	1.80	.029	45.1	1	10 <.01	.001	.07 <.1	.2<.02	.03	112	<.1<.02	<.1								
P224	.02	2.18	.37	60.3	22	<.1	.03	501	.004	.3<.01	<.2	.01	12.0	.05<.02<.02	<2	.57	.016	.03	1.84	.020	65.7	1	5 <.01	<.001	.04 <.1	.1<.02	.01	78	<.1<.02	<.1							
P226	.01	2.50	.29	47.5	23	1.1	.05	223	.004	.3<.01	.6	.01	14.2	.14<.02<.02	<2	.38	.013	.02	1.95	.028	105.7	1	7 <.01	.001	.07 <.1	.1<.02	.02	48	<.1<.02	<.1							
P228	.02	2.52	.39	61.0	17	<.1	.06	523	.004	<.1<.01	.2	.01	15.3	.14<.02<.02	<2	.68	.015	.03	1.69	.037	47.9	1	10 <.01	.002	.09 <.1	.1<.02	.02	74	<.1<.02	<.1							
P229	.01	2.29	.30	56.9	10	.1	.06	465	.004	.2<.01	.4	.01	17.6	.21<.02<.02	<2	.63	.014	.02	1.65	.031	93.0	1	9 <.01	.001	.06 <.1	.1<.02	.02	61	<.1<.02	<.1							
P231	.01	2.67	.18	37.1	15	.9	.03	196	.003	.1<.01	.3<.01	12.1	.04<.02<.02	<2	.33	.013	.01	1.69	.026	82.4	1	6 <.01	.001	.07 <.1	.1<.02	.01	49	<.1<.02	<.1								
P233	.02	2.26	.49	48.3	17	.2	.06	642	.005	.1<.01	.5	.01	9.7	.04<.02<.02	<2	.41	.013	.03	1.72	.031	61.7	2	7 <.01	.001	.06 <.1	.1<.02	.01	73	<.1<.02	<.1							
P234	.02	2.07	.26	62.9	18	<.1	.05	551	.003	<.1<.01	<.2	<.01	7.7	.06<.02<.02	<2	.40	.009	.01	1.71	.032	24.4	1	9 <.01	.001	.04 <.1	.1<.02	.02	60	<.1<.02	<.1							
P235	.03	2.90	.26	66.3	20	<.1	.08	630	.006	.2<.01	.6	.01	13.4	.08<.02<.02	<2	.54	.014	.04	1.71	.029	61.7	2	9 <.01	.002	.07 <.1	.1<.02	.03	77	<.1<.02	<.1							
P240	.01	2.73	.43	46.3	23	<.1	.04	336	.005	.3<.01	.2	.01	5.7	.06<.02<.02	<2	.47	.013	.03	1.73	.028	42.2	2	7 <.01	.001	.06 <.1	.1<.02	.01	70	<.1<.02	<.1							
RE P240	.01	2.65	.39	47.6	21	<.1	.04	344	.005	.3<.01	.2	.01	5.7	.06<.02<.02	<2	.48	.014	.03	1.81	.029	42.9	2	7 <.01	.001	.05 <.1	.1<.02	.02	70	<.1<.02	<.1							
P248	.02	3.04	1.29	68.7	29	.3	.07	546	.005	.3<.01	.7	.01	6.9	.09<.02<.02	<2	.40	.017	.02	1.67	.037	64.6	2	7 <.01	.001	.07 <.1	.1<.02	.02	76	<.1<.02	<.1							
P249	.02	3.38	.27	64.3	20	1.3	.02	383	.003	.2<.01	1.0<.01	13.7	.07<.02<.02	<2	.44	.014	.02	1.66	.028	83.5	1	6 <.01	.001	.06 <.1	.1<.02	.03	41	<.1<.02	<.1								
P252	.03	3.05	.26	76.0	18	1.3	.11	692	.005	.3<.01	.2	.01	16.2	.55<.02<.02	<2	.55	.018	.02	1.67	.039	79.0	2	7 <.01	.002	.09 <.1	.1<.02	.02	51	<.1<.02	<.1							
P260	.03	2.76	.28	47.4	21	<.1	.04	325	.004	.4<.01	.2	.01	7.8	.08<.02<.02	<2	.58	.013	.03	1.78	.021	49.7	2	6 <.01	.001	.07 <.1	.1<.02	.01	58	<.1<.02	<.1							
P262	.02	3.08	.44	61.7	30	1.3	.04	454	.005	.5<.01	<.2	.01	7.2	.02<.02<.02	<2	.45	.015	.03	1.89	.037	43.8	2	6 <.01	.001	.08 <.1	.2<.02	.03	73	<.1<.02	<.1							
P263	.04	2.72	.66	63.9	13	.4	.06	618	.005	.4<.01	.3	.01	7.5	.08<.02<.02	<2	.58	.012	.03	1.65	.021	45.2	1	6 <.01	.001	.05 <.1	.1<.02	.02	73	<.1<.02	<.1							
P272	.01	3.39	.31	94.2	28	<.1	.01	141	.003	.1<.01	.5<.01	33.6	.13<.02<.02	<2	.95	.014	.02	1.85	.030	334.7	1	10 <.01	.001	.14 <.1	.1<.02	<.01	52	<.1<.02	<.1								
P273	.03	3.21	.63	52.7	11	1.6	.13	760	.008	.2	.01	.6	.01	17.4	1.08<.02<.02	<2	.57	.022	.05	1.70	.027	176.1	2	9 <.01	.001	.06 <.1	.1<.02	.02	263	<.1<.02	<.1						
P274	.02	2.76	.34	39.2	52	1.0	.06	769	.004	.2<.01	.5<.01	13.0	.24<.02<.02	<2	.61	.015	.02	1.57	.020	77.1	1	8 <.01	.001	.05 <.1	.1<.02	<.01	92	<.1<.02	<.1								
P282	.02	3.52	.28	47.2	26	1.0	.07	322	.003	.2<.01	.2<.01	10.2	.61<.02<.02	<2	.28	.017	.01	1.72	.015	77.9	1	8 <.01	.001	.06 <.1	.2<.02	<.01	74	<.1<.02	<.1								
P287	.02	2.35	.24	52.8	11	<.1	.04	631	.003	.2<.01	.3<.01	19.1	.34<.02<.02	<2	.68	.011	.02	1.72	.015	109.4	1	6 <.01	.001	.04 <.1	.1<.02	<.01	54	<.1<.02	<.1								
Q116	.02	2.02	.32	53.4	7	.2	.06	455	.003	.4<.01	.2	.01	16.3	.18<.02<.02	<2	.85	.011	.02	1.54	.031	103.4	1	8 <.01	.001	.07 <.1	.1<.02	.01	31	<.1<.02	<.1							
Q119	.02	1.99	.37	82.2	10	.1	.03	592	.004	.4<.01	<.2	.01	5.2	.15<.02<.02	<2	.38	.013	.02	1.67	.032	36.5	1	7 <.01	.001	.07 <.1	.1<.02	<.01	53	<.1<.02	<.1							
Q121	.03	2.12	.28	46.8	23	.1	.05	320	.005	.5<.01	.3	.01	9.9	.03<.02<.02	<2	.48	.010	.03	1.71	.016	68.1	1	5 <.01	.001	.04 <.1	.2<.02	.01	67	<.1<.02	<.1							
STANDARD V6	.29	7.59	17.65	36.6	16	3.2	.39	43	.076	.5	.05	.8	.11	30.3	.22<.05	.02	.73	.046	.83	3.90	.110	9.7	19	10	.05	.007	.09 <.1	.2<.02	.05	39	<.1<.02	.1					

GROUP 1VE - 1.000 GM SAMPLE LEACHED WITH 2 ML HNO3 FOR ONE HOUR, THEN 6 ML 2-2-2 HCl-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 20 ML, ANALYSED BY ICP/ES & MS. UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: BARK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 21 2003 DATE REPORT MAILED: Sept 8/03 SIGNED BY: C.L. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS Data FA



Richards, Gordon PROJECT CANOL FILE # A303592

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti ppm	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm
Q123	.03	2.50	.47	57.0	21	<.1	.06	431	.007	.9<.01	<.2	.01	15.5	.03<.02<.02	<2	.87	.014	.03	1.80	.024	54.7	2	5 <.01	.001	.05 <.1	1<.02	.01	92	.2<.02	<.1							
Q124	.02	2.26	.23	85.9	11	<.1	.03	546	.003	.8<.01	.4<.01	14.3	.04<.02<.02	<2	.83	.007	.02	1.72	.031	57.5	1	7 <.01	.001	.04 <.1	.2<.02	.01	27	.1<.02	<.1								
Q127	.03	2.89	.39	47.6	19	.2	.07	494	.006	.8<.01	.4	.01	14.9	.07<.02<.02	<2	.66	.013	.03	1.79	.019	94.6	2	4 <.01	<.001	.03 <.1	.1<.02	.01	84	.1<.02	<.1							
Q128	.02	1.72	.18	62.4	4	<.1	.02	315	.003	.9<.01	1.0<.01	14.3	.02<.02<.02	<2	.76	.007	.01	1.71	.019	41.7	1	6 <.01	<.001	.02 <.1	.2<.02	<.01	20	<.1<.02	<.1								
Q129	.02	2.14	.34	45.3	12	.3	.12	521	.004	.9<.01	.2<.01	16.9	.12<.02<.02	<2	.53	.012	.02	1.70	.026	155.7	1	7 <.01	.001	.06 <.1	.2<.02	.01	47	.1<.02	<.1								
Q130	.02	1.95	.29	57.5	23	<.1	.05	441	.003	1.1<.01	.7<.01	16.3	.17<.02<.02	<2	.81	.010	.01	1.70	.019	60.1	1	5 <.01	<.001	.02 <.1	.2<.02	.01	32	.1<.02	<.1								
Q131	.02	1.92	.19	55.7	13	<.1	.04	428	.002	1.0<.01	.2<.01	12.0	.09<.02<.02	<2	.47	.007	.01	1.61	.023	129.6	1	5 <.01	<.001	.03 <.1	.1<.02	<.01	22	<.1<.02	<.1								
Q134	.02	1.93	.33	59.7	18	<.1	.06	462	.003	.9<.01	<.2<.01	14.6	.07<.02<.02	<2	.68	.011	.02	1.54	.019	92.6	1	5 <.01	<.001	.03 <.1	.1<.02	<.01	43	<.1<.02	<.1								
Q136	.02	2.81	.51	50.4	32	<.1	.05	517	.004	.7<.01	.9	.01	9.2	.05<.02<.02	<2	.47	.014	.02	1.69	.036	40.4	1	10 <.01	.001	.06 <.1	.1<.02	<.01	57	.1<.02	<.1							
Q138	.02	2.59	.38	47.4	7	.1	.02	457	.004	.7<.01	.2	.01	6.0	.05<.02<.02	<2	.32	.013	.02	1.74	.020	17.1	2	7 <.01	.001	.06 <.1	.2<.02	.01	68	.1<.02	<.1							
Q139	.02	1.98	.48	41.0	8	<.1	.04	435	.003	.8<.01	.4<.01	5.2	.04<.02<.02	<2	.32	.013	.01	1.71	.022	19.7	1	5 <.01	<.001	.04 <.1	.1<.02	<.01	62	<.1<.02	<.1								
Q140	.02	2.07	.50	40.8	14	.2	.07	298	.004	.8<.01	.4	.01	9.1	.16<.02<.02	<2	.48	.016	.03	1.82	.023	40.1	2	6 <.01	.001	.04 <.1	.3<.02	.01	67	.1<.02	<.1							
RE Q140	.01	2.06	.47	40.8	14	.2	.09	300	.004	.8<.01	.3	.01	8.9	.16<.02<.02	<2	.46	.016	.02	1.73	.023	39.1	1	8 <.01	.001	.04 <.1	.2<.02	.02	74	.1<.02	<.1							
Q143	.01	2.42	.12	61.7	17	1.2	.06	472	.002	.9<.01	.3<.01	13.1	.31<.02<.02	<2	.66	.010	.01	1.61	.033	107.6	1	9 <.01	<.001	.06 <.1	.1<.02	.02	32	.1<.02	<.1								
Q144	.02	2.35	.25	57.1	15	.8	.06	259	.004	1.0<.01	.3	.01	15.9	.10<.02<.02	<2	.55	.020	.03	1.80	.036	90.1	2	8 <.01	.001	.10 <.1	.2<.02	.03	77	<.1<.02	<.1							
Q153	.02	2.86	.52	89.8	25	1.5	.04	53	.004	.8<.01	<.2<.01	27.8	.13<.02<.02	<2	.75	.022	.03	1.93	.037	391.8	1	8 <.01	.001	.17 <.1	.2<.02	.02	63	.1<.02	<.1								
Q154	.03	2.51	.42	37.6	14	.8	.03	396	.004	.7<.01	<.2	.01	9.9	.24<.02<.02	<2	.31	.023	.02	1.48	.027	54.3	2	7 <.01	.001	.08 <.1	.2<.02	.02	103	<.1<.02	<.1							
Q155	.02	2.66	.36	134.7	13	2.3	.06	337	.004	1.0<.01	<.2<.01	35.0	.11<.02<.02	<2	1.18	.019	.02	1.77	.031	155.5	1	9 <.01	.001	.08 <.1	.2<.02	.01	91	.1<.02	<.1								
Q156	.02	4.61	.21	64.7	12	<.1	.03	134	.003	.5<.01	5.3<.01	17.1	.08<.02<.02	<2	.55	.019	.01	1.61	.028	103.7	1	10 <.01	<.001	.20 <.1	.2<.02	.01	67	.1<.02	<.1								
Q157	.05	2.73	.33	49.7	29	.6	.02	213	.003	.5<.01	<.2<.01	2.7	.02<.02<.02	<2	.21	.016	.01	1.55	.035	16.8	1	6 <.01	.001	.07 <.1	.2<.02	.01	85	<.1<.02	<.1								
Q158	.03	2.46	.35	56.5	21	.5	.04	301	.006	.6<.01	<.2	.01	9.4	.03	.02<.02	<2	.43	.028	.03	1.76	.048	45.8	2	8 .01	.002	.09 <.1	.1	.02	96	.1<.02	<.1						
Q163	.02	2.94	.09	53.3	20	2.3	.06	514	.002	.5<.01	<.2<.01	9.6	.70<.02<.02	<2	.53	.012	.01	1.44	.018	146.4	1	8 <.01	<.001	.07 <.1	.1<.02	.01	40	<.1<.02	<.1								
Q167	.02	2.27	.31	49.8	12	<.1	.07	565	.004	.8<.01	<.2<.01	13.9	.11	.02<.02	<2	.94	.014	.02	1.46	.027	90.6	1	7 <.01	.001	.05 <.1	.1<.02	.02	72	<.1<.02	<.1							
STANDARD V6	.25	7.49	18.00	37.9	20	3.4	.38	42	.069	.5 .05	.9	.11	30.5	.20	.05	.02	<2	.71	.044	.89	3.63	.113	9.1	19	9 .05	.006	.08 <.1	.2<.02	.05	39	.1<.02	.1					

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

Kimberlite Indicator Mineral Microprobe Sheet

Group: OT03:104

Checked by: _____

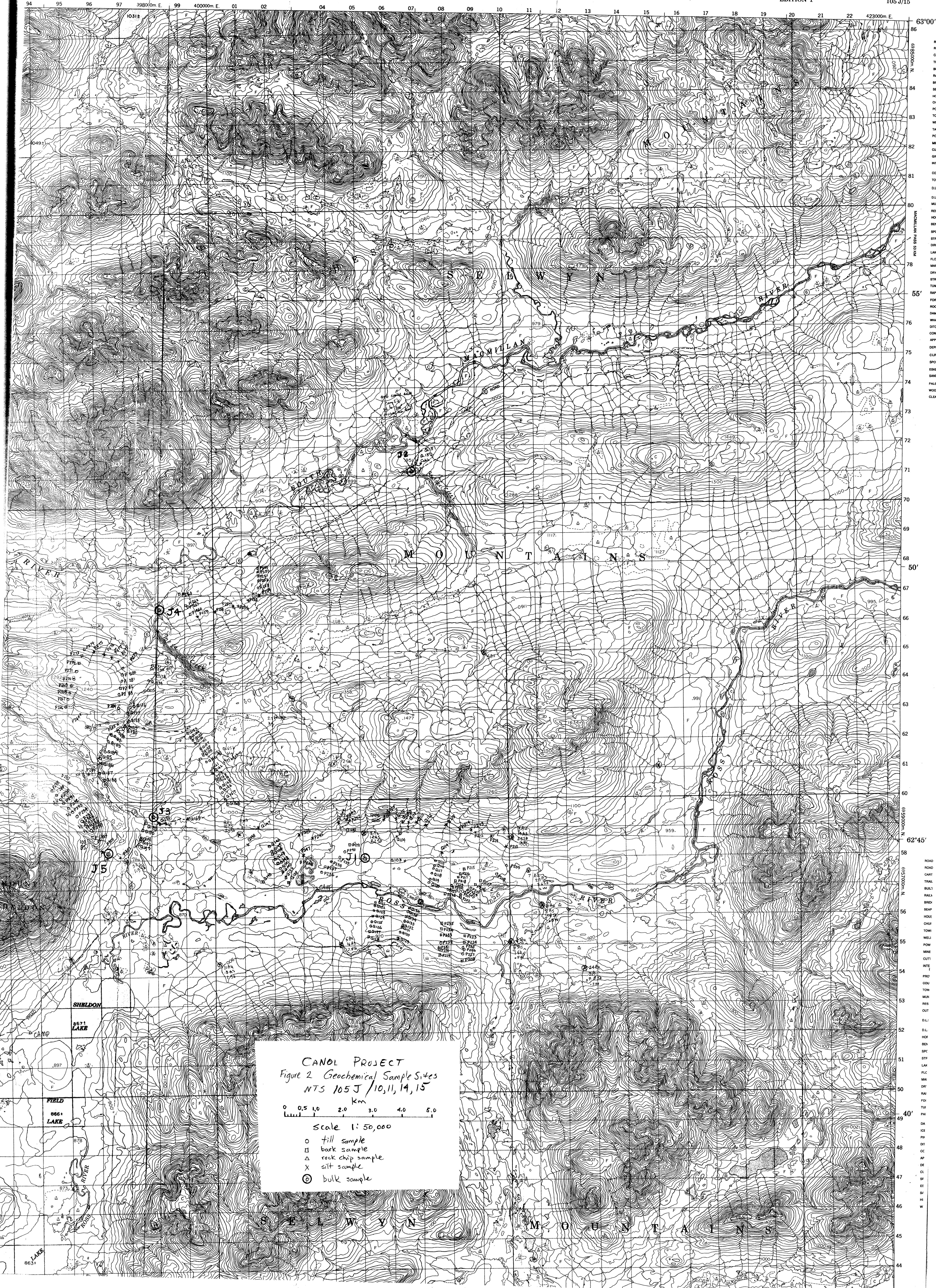
Oxide	Percent	Project OT03-104											
Pt#	SiO ₂	TiO ₂	Nb ₂ O ₅	Al ₂ O ₃	Cr ₂ O ₃	FeO	MgO	MnO	NiO	ZnO	Total,		
1,	0.0000,	0.0825,	0.0000,	16.39,	47.78,	24.19,	12.01,	0.3218,	0.1275,	0.2403,	100.14,	J5 #2	
2,	0.0498,	0.7376,	0.0643,	28.51,	34.71,	19.24,	15.96,	0.1766,	0.2050,	0.0105,	99.66,	J5 #3	
3,	0.1402,	0.6479,	0.0000,	27.07,	35.68,	21.05,	14.74,	0.2157,	0.1908,	0.1063,	99.84,	J5 #4	
4,	0.0639,	0.0328,	0.1786,	34.05,	30.78,	15.17,	18.59,	0.1964,	0.2678,	0.0861,	99.40,	J5 #5	
5,	0.0702,	0.8601,	0.0803,	26.10,	36.50,	17.72,	17.61,	0.1905,	0.2016,	0.0316,	99.36,	J5 #6	
6,	0.1796,	0.5026,	0.0000,	30.59,	33.06,	18.53,	16.44,	0.1722,	0.1585,	0.0879,	99.73,	J5 #8	
7,	0.0248,	3.87,	0.0793,	17.64,	32.38,	32.04,	13.62,	0.1940,	0.1439,	0.0747,	100.06,	J5 #9	
8,	0.1666,	0.9883,	0.0000,	25.17,	37.37,	18.87,	16.97,	0.1851,	0.1583,	0.0667,	99.94,	J5 #10	
9,	0.1063,	0.6009,	0.0000,	29.62,	33.55,	18.08,	17.37,	0.1678,	0.1935,	0.0442,	99.74,	J5 inclusion #2	
Weight	Percent												
Pt#	Si,	Ti,	Nb,	Al,	Cr,	Fe,	Mg,	Mn,	Ni,	Zn,	O,	Total,	
1,	0.0000,	0.0494,	0.0000,	8.15,	32.69,	18.80,	7.24,	0.2492,	0.1002,	0.1931,	32.67,	100.14,	J5 #2
2,	0.0233,	0.4422,	0.0449,	15.09,	23.75,	14.95,	9.62,	0.1368,	0.1611,	0.0084,	35.43,	99.66,	J5 #3
3,	0.0655,	0.3884,	0.0000,	14.33,	24.41,	16.36,	8.89,	0.1670,	0.1499,	0.0854,	34.99,	99.84,	J5 #4
4,	0.0299,	0.0196,	0.1248,	18.02,	21.06,	11.79,	11.21,	0.1521,	0.2104,	0.0692,	36.72,	99.40,	J5 #5
5,	0.0328,	0.5156,	0.0561,	13.81,	24.97,	13.77,	10.62,	0.1476,	0.1584,	0.0254,	35.25,	99.36,	J5 #6
6,	0.0840,	0.3013,	0.0000,	16.19,	22.16,	14.41,	9.92,	0.1333,	0.1245,	0.0706,	35.88,	99.73,	J5 #8
7,	0.0116,	2.3219,	0.0555,	9.33,	22.16,	24.91,	8.21,	0.1502,	0.1131,	0.0600,	32.74,	100.06,	J5 #9
8,	0.0779,	0.5925,	0.0000,	13.32,	25.57,	14.67,	10.23,	0.1433,	0.1244,	0.0536,	35.16,	99.94,	J5 #10
9,	0.0497,	0.3602,	0.0000,	15.68,	22.96,	14.06,	10.48,	0.1299,	0.1521,	0.0355,	35.84,	99.74,	J5 inclusion #2

Note: J5 #1, J5 #7, J5 #12, J5 #13, J1 #14 and J1 #15 were feroan spinels and were not analyzed.

J5 #11 was a low Mg ilmenite and was not analyzed

J5 inclusion grain #1 was a feroan spinel and was not analyzed.

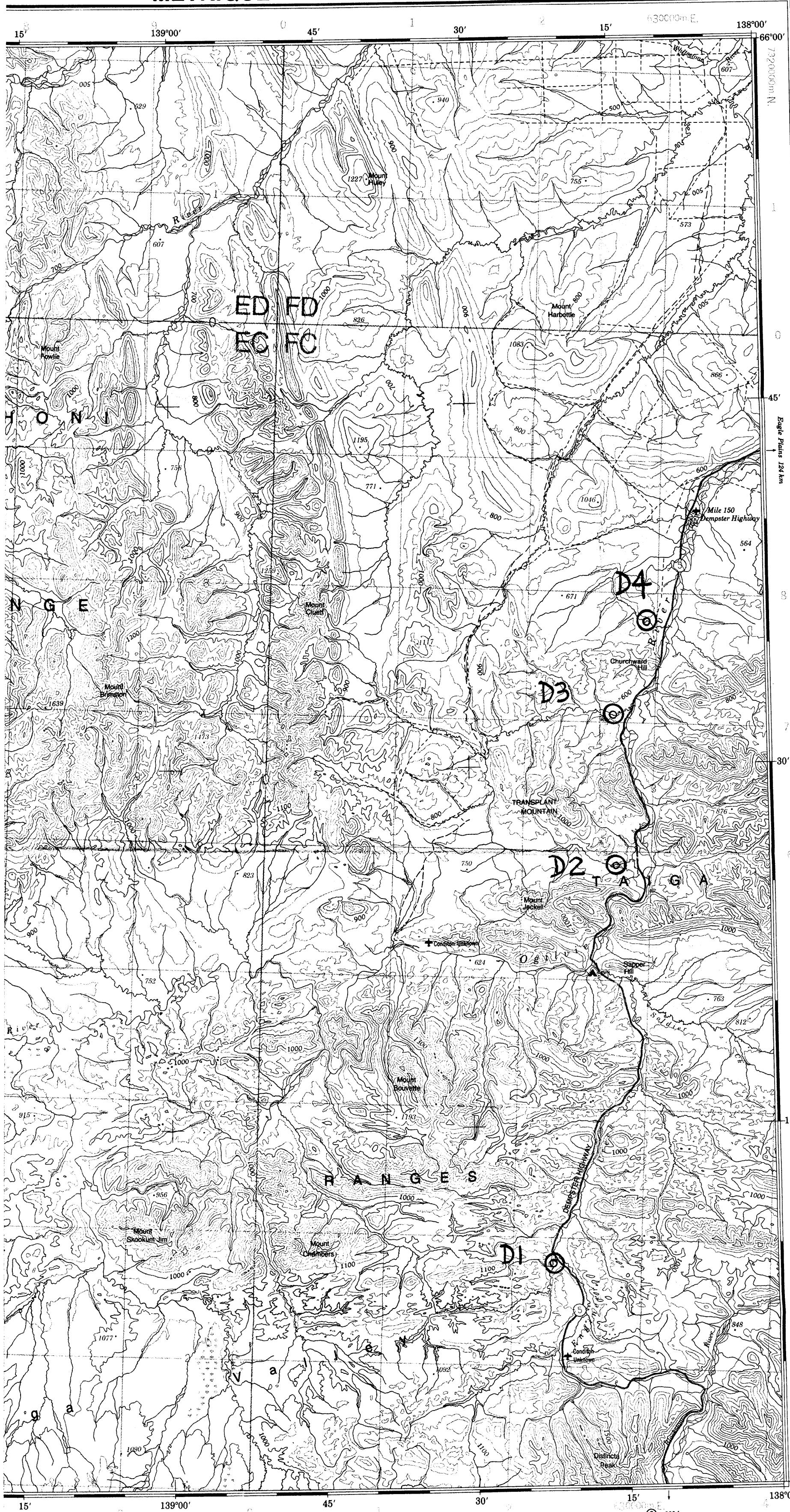
J5 inclusion grain #3 was a grossular garnet and was not analyzed



MÉTRIQUE

ÉDITION 3

116 G & 116 F



OGILVIE RIVER
116 G & 116 F

EDITION 3 ÉDITION

Military users,
refer to this map as:
SERIES A 502 SÉRIE
MAP 116G & 116F CARTE
Référence de cette carte
pour usage militaire:
EDITION 3 MCE ÉDITION

METRIC/MÉTRIQUE

TEN THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7
QUADRILLAGE UNIVERSEL TRANSVERSE DE MERCATOR
DE DIX MILLE MÈTRES

GRID ZONE DESIGNATION: DÉSIGNATION DE LA ZONE DU QUADRILLAGE:		100 000 m SQUARE IDENTIFICATION: IDENTIFICATION DU Carré DE 100 000 m
7 W	ED EC	FD FC 73 5 6

EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 1000 METRES EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR FIXER DES REPÈRES À 1000 MÈTRES PRÈS	
1	NU
0	NT
9	1
2	3
3	4
4	5
5	

REFERENCE POINT POINT DE REPÈRE CHURCH - ÉGLISE (as above)
CARRÉ: Read number of 100 000m square NU
EASTING: Read number on grid line immediately to left of point: 4
ABSCISSE: Note the chiffre de la ligne du quadrillage immédiatement à gauche du repère:
Estimate tenths of a square from this line eastward to point:
Estimer le nombre de dixièmes du Carré entre cette ligne et le repère en direction est: 5
NORTHING: Read number on grid line immediately below point:
ORDONNÉE: Note the chiffre de la ligne ou quadrillage immédiatement en dessous du repère:
Estimate tenths of a square from this line northward to point:
Estimer le nombre de dixièmes du Carré entre cette ligne et le repère en direction nord: 0
GRID REFERENCE: RÉFÉRENCE AU QUADRILLAGE: NU4504
If reporting beyond 18° in any direction, prefix Grid Zone designation as: 14VNNU4504
Si vous faites connaître votre position à quelque un qui se trouve à plus de 18°, peu importe la direction, indiquez également la zone du quadrillage tel que: 14VNNU4504

Pour tout renseignement concernant les repères et bornes altimétriques, s'adresser aux levés géodésiques. Direction des levés et de la cartographie, Ottawa.

ÉTABLIE PAR LA DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE,
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES.
TIRÉE DE CARTES AU 1:50 000. RENSEIGNEMENTS À JOUR TELS
QU'INDIQUENT AU DIAGRAMME. PUBLIÉE EN 1987.

CES CARTES SONT EN VENTE AU BUREAU DES CARTES DU
CANADA, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, OTTAWA, OU CHEZ LE VENDEUR LE PLUS PRÈS.
© 1987, SA MAJESTÉ LA REINE DU CHEF DU CANADA.
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES.

KON

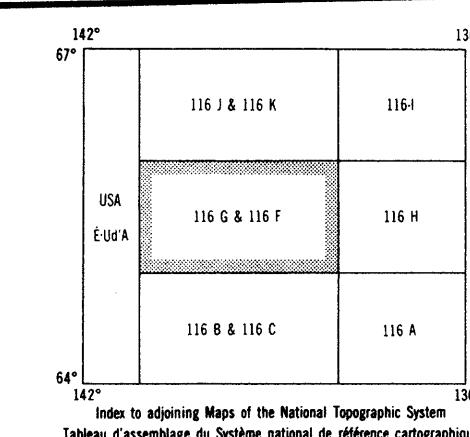
15 20 Miles
25 30 Kilomètres

CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100 150 200 250 300 Mètres
Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000 Pieds

CONTOUR INTERVAL 100 METRES
Elevations in Metres above Mean Sea Level

ÉCHELLE DE CONVERSION DES ALTITUDES
Altitudes en mètres

ÉQUIDISTANCE DES COURBES 100 MÈTRES
Altitudes en mètres

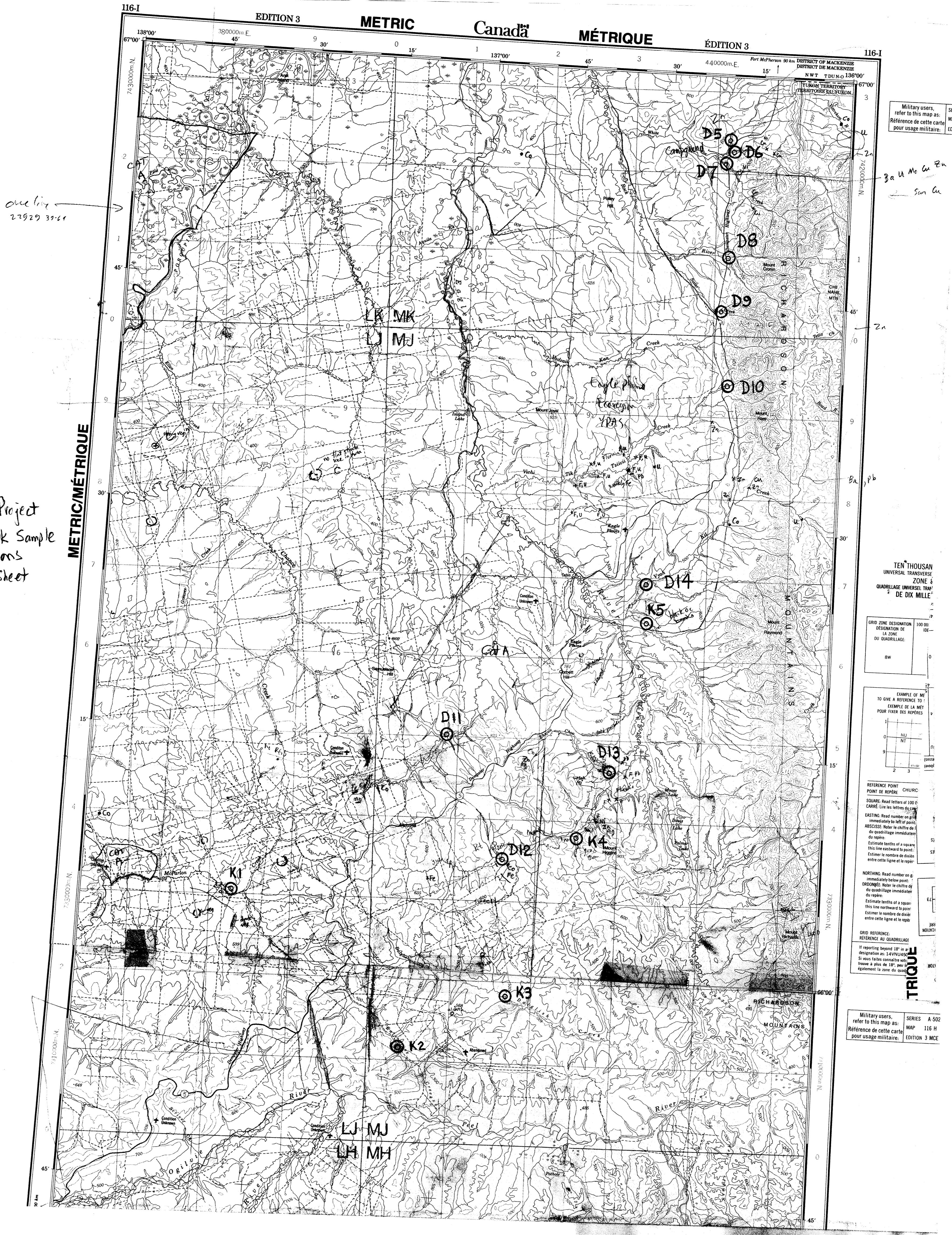


OGILVIE RIVER
116 G & 116 F
EDITION 3 ÉDITION



Energy, Mines and Resources Canada

Énergie, Mines et Ressources Canada



2003 CANOL G. Richards Notes

Russ Rich Camp - shallow
prevented further upstream progress
 $\Delta A_{02} = 406,927 / 6,956,433 \approx 5.0$

388°

crossed deep WY fluv. area. Could
feel grit on bottom w pale blue water
too high

Q103 unconsolidated fine sediment from
under water along banks.
Tilly stump visible on bank

Q104 unconsolidated leafy stream sed in
willows very fine + esp. just

Q105 unconsolidated silt near base slope
Q106 RC 1m sand of 3 units in chert + or
silicified sand (S)

Q107 Soil very rocky

lunch 405,966 / 6,959,416

Q108 Unconsolidated silt. 1' first good one off of
hillside hilly E all dark grey to yellow

Q109 unconsolidated silt. grey sed like before GPS

Q110 " " without quite as many
stream sandy & shall. rx.
flowing on very black blds

Q111 No sandy high edge silt in willows

Q112 Good fine grey silt GPS

Q113 Good main creek bed silt GPS
Q114 Big dk. down in flats. Dune washed
+ good silt in middle center. Gravelly
sandy + very light

+ 10m to very big bank NS

Q115 wet blue grey till w/ ltrs

[Q19°] 0 m

205m Q116 Bank 5" Blk spruce cones

280 Q117 Good till under 5cm
loess + 5cm A horizon till

460 Q118 yellow till on top hill

680 Q119 5" BS Bank Prysingud

780 Q120 yellow till gentle S slope

870+ est 200' bank of washed ground

NORPAC 180-480-350-2 - 47 Level

Start chaining on bench overlooking Ross River
on south side

[189°] 0 m

30m washed igneous bank Flat top head

200m Q121 BS bank 4" No cones
but typical bark + tree form

only BS cones on ground no WS near

15° slope flatter zone ahead

270 Q122 wet grey till from soil
well rounded to subangular phylls

970 Q123 BS 3 1/2" w cones 5-10° N slope

670 Q124 4" BS w cones 5° north slope

850 Q125 wet grey till on flats

1000 Q126 3" till flats

1200 Q127 4" BS w cones

9370 Q128 4" BS BS cones on ground
also WS on ground sparse

E 930m to GPS to start line

[1020°] 0 m 16" BS bank w cones

200m Q130 5 1/2" BS " " "

400m Q131 4 1/2" BS " " " near flat

426" Q132 very wet fill

600 Q133 wet grey bn till sheet

800 Q134 5 1/2" BS bank w cones

980 Q135 wet till C break slope

1080 Q136 BS bank base slope

J 1 Bulk sample 2m x 10 cm deep
rippling wave in flats E of DME
hill cps are all shaly + chert
+ Sample sandy not too silty

Q 137 sampled J 1 for analyses A/MC

NORPAC 1-800-480-3542 - 47 Level

Comp 2 R. River travelled w/ DME

Δ 102, 49.9 / 6, 957, 207

[324] 6 m

70m Q 138 WS Bank 4 1/2" w/ caves
10° slope

280m Q 139 4" BS Bank w/ caves
5-10° slope

490 Q 140 6" BS w/ caves 10-15°

640 Q 141 1.5m till under gray or tan FM/A
@ break in slope onto top

840 Q 142 1.5m tan blk chert cps
+ red chert on top of hill flat

1050 Q 143 1.7" BS bank w/ caves
in 20° slope

1250 Q 144 4 1/2" BS bank w/ caves
5-10° slope

1300 Q 145 Gray FM on top of hill

1390 1.5m up bank

1490 Q 146 Wet gray till red blck

Δ 401, 77.0 / 86, 1958, 439

Q 147 Silty sand - 25 with silt
8' x 6" rippling just after blck
gravel bar w/ 99% blck cps
most calc., 88% blck, 11% plw.

701, 237 / 6, 958, 859

Q 148 Silty sand - 25 with silt
Same until ~ 19.7" but S of
Silt

Q 149 Till bar on 29.2° reg @ base of

Canal Rd S Mac R.

Boulder Crk

J2 bulk sample 100 m above bridge
very coarse material. Used side
gravel bar. Blcys granite. Fri
various sizes - chert, calcs³, shale.
No vc. 21 screens full.
 Creek 20' x 1' running over bbs

(Pic)

Q151 + Q152 are f clm bds from
road fill material 1-4" dia + hrs
py - p in calc's sides (S) of both

1. Km west of Boulder Crk - was similar
V angular bds in ditch could be
away from road fill or out of the
mountain.

2. Km west of Boulder Crk a borrow pit
1-15' wide pyritic gneiss with
Q151 + 152.

4.1 1 km rough spur rd bds white + rd
7.9 gravelly + some rd vs yellow

6.2 4.2 sand³, gravelly + (mines near rd)

7.8 borrow + small w m m rusty sides

8.7 Crk + borrow pit + rd v. many rusty sides

in flt + rd

9.1 Moose Crk

J3 4' x 1' fast tumbling bds
Very leaves @ l. 35 screens full

J4 Bulk Sample Moose Crk 19 screens
50 m above bridge @ first bend.
Creek material 10' x 4"-10" very worn.

Lrg Canal Rd Hdg east along S side
hill

+ 30 m ac. clst. crumbled + mixed

~ 2 km crossed 1st creek water off
on mass. No silt

Q153 6" WS bank ^{BS} concave 10-15° slope
steamy buckbrush on surface

Q154 210 m 6" BS bank w concave
5° slope more concave

Q155 400 m 6" WS 5° slope
concave on floor of stream w
fir trees around.
steamy air? even

460 m (H) gravelly bedrock

600 m Q157 7" WS Bank Concave on ground

700 m creek 3 x 1' NO SILT

830 fir side steaming ground

900 Q155 5" BS w lots of concave
almost tree firm

1160 0 m

220 m Q158 16" BS bank w concave
Caribou marsh

225 m Q159. Black fill or clay clst
+ others 6" deep

350 ± 50 creek swamp

490 Q160 Till on land surface
with many chert pebble cyl + other
almost (H) able

- 2.0 Q 182 Gray bn till all chert & calc^s silt^(?) ft.
- 2.3 Q 183 Wet till and cobble + bldrs
+ W dark bn gray by survey stake
very abundant grain bldrs
- 2.4 small borrow pit all glacial gray top
then flats
- 2.5 cutbank
- 2.65 Q 184 Dark choc bn gray till All
and cobble + bldrs. (P) smaller
much less cherty
- 2.75 stony slabs orange - wth^(?) (calcareous?)
- 3.0 Q 185 Dark grey marshy (carbonate?) till
w slabs ~ 2.75
- 3.15 creek Q 186 Screened ~ 2.5 mesh silt
very till, silt, chert, All
silt^s flingy ft.
- 3.3 Q 187 Dark bn gray + M - flingy silt ft.
in draw between ~~rocks~~
- 3.45 OC C91/585 1" flingy silt^s
- 3.6 Q 188 BN till on silt ft. one piece
w carbonates + ~ 1/2 cherts py
- 3.9 outwash quarry NLS
- 4.0 "
- 4.2 "
- 4.4 "
- 4.6 "
- 4.8 "
- 3.0 "
- 5.2 "
- 5.4 "
- 5.8 " @ lakeft pt for bulk sample

NORPAC 1-800-480-3542 - 47 Level

- 6.0 outwash Q 189 bn till sandy mud cobble
are 1/2 in (calcareous?)
- 6.3 Q 190 LF bn till. 1/2 in bldrs
Joliet silt^s + w/c esp shale - silt^s
+ many mud frags
- 6.6 Q 191 RC large 2 in bldrs 1/2 m
1/2 in ~~slimy~~ silt^s alt silt^s
- My till pto fig seed plain
deposit? Other bldrs silt^s
- 6.7 Q 192 on hill. Till dark gray
possibly partly weathered few
silt^s bldrs 2 in others all on
- 6.9 Q 193 Soil collected over 7 places
dry dc finely screened + breasted
and/or shale - silt^s + chert
generally dark bluish + screen(s)
(S) no + coarse grained - mostly dark
gray screened avg - shale silt^s
Spin Rd. sweeps up around pile + flat
grassy - good camping
- 7.0 creek

ROSS RIVER AREA

[River camp] Sampling near mag anomaly
on N. side of Ross River

- At N end of large V bend in river approx 900 m
1 km EN of camp.

[080°] - 400m

- P 201 - brown slightly sandy wet
till from 0.6 to 1.2 m depth.
some ^{sub} angular chips of silicr-org?

- P 202 5-6" White Spruce w/ cones

[055°] reset to 0m

- 150 m P 203 grey brown t/N .4 m depth
- sub ang. mudstone fragments

- 300 m P 204 brown slightly sandy till
from .4 m depth (Deeper appears more washed)
- sub ang. siltstone / argillite / mudstone fragments
3m diam granite erratic nearby.

= 465 m P 205 brown grey good till from 0.4 m depth
- ang - sub ang black org / mudstone chips
- several more small granite cobbles from 350 to 400 m

- 550 - getting muskeg
- 650 no HN P 206 5" Black Spruce?
not many cones but more elongate
than normal black spruce

- 830 m no till P 207 4" Black Spruce?
same as 206 - cones more elongate
than typical Bl Sp. but not obvious Wsp.
Cones along trunk as well as branches.

- 900-1200 m swampy areas

- 1275 m P 208 brown grey good HN
- mainly arg / mudstone frags.

(Possible drenial trend NW-SE)

- 1525 m swampy area with flow to SE

- 1650 m n n n n

n n n n

1800m at 8' wide creek w/ good flow

to S₁ - float mainly sub-angular
to sub rounded

~~float to S₁~~ S₁ - siltstone / argillite / mudstone
H.S. - some rusty thin bedded lamy
siltstone w/ 3-5% Ag pyrite concentrations
along dark layers.

H.S. - similar thin bedded oolithic chert
with <1% f.gr. disc pyri in thicker (5-10mm)
lighter layers of oolithic chert with 10+ % Ag
pyrite in darker argillaceous layers.

- P 209 - stratified siltstone chert with
3-5% disc + fracture pyrite - numerous
pyritic fractures x-cut the bedding

[045°] reset to 0m

- 500 m [315°] = 635 m small creek flowing SW - no sat.

- 930 m Back at large creek flowing S.

P 210 - steered silt

- float mainly siltstone / argillite,
~~grain~~ chert - minor rusty siltstone
and granite. Traces of jasper

Reset to 0m - contouring to lev.

- 625 m at next main creek flowing SW

- good flow - 10-15' wide creek

- similar float to P 210 creek

P 211 - steered silt

- contouring - approx 29.0°

- 1110 m P 212 very fine sandy silt from small
creek flowing S. (Mostly flows S more)

- Silt mainly argillite / silt / mudstone / chert -

larger rounded float in creek mainly
granite.

- 1270m P-213 fine slightly muddy silt from small creek in large weak channel (15' wide 6' deep)
- 1780m P-214
- Sieved SW from sm-med creek with good flow to S.
 - float similar to P 210 + 211
 - rounded boulders of granite main large float
 - small chips in silt mainly siltstone / argillite / mudstone / chert with some rusty - no red jasper
- 1800
- 700m small swampy creek
- 1075m crossed! In creek flowing West (P 211 creek)
- 1335m P-215 6" Black Spruce w. cones
(same description as P 207)
- 2250 reset to 0m
- 205m P 216 5-6' Black Spruce w. cones.
moist - mushy - no till
- 425m P 217 " " "
- 605m P 218 4-5" Black Spruce? (see P 207)
w. cones
- 755m P 219 gray brown good till
argillite / mudstone chips in till
- P 220 6" Black Spruce? (see P 207)
- 940m P 221 brown slightly sandy till
- argillite / mudstone chips in till
- 1130m P 222 4-5" Black Spr. w. cones? (see P 207)

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- On S side of Ross River across from W. end of camp island.
- 110° - Following river for 850m
- then immediately across from E end of long island (approx 150m S. of river)
- 135° - for 1.1 km
- 600-700m large open swamp 50m N.
- 1100m 180° reset to 0m
- P-223 4" Black Spruce w. cones
- 205m P-224 4-5" Black Spr. w. cones
- 400m P-225 gray-brown till (45cm depth)
mainly argillite / mudstone chips in till
- 450m ^{top of} P-226 5" Black Spruce w. cones
- 580m P-227 grey-brown - wet till
argillite / mudstone / chert chips in till
- 800m no till - permafrost
- P-228 5" Black Spruce w. cones
- [noticed hip chain slipping]
- 900m at edge of swamp
- back at 840m 290° reset to 0m
- 800m 360° reset to 0m
- 0m P-229 4-5" Black Spr. w. cones
in till - permafrost
- 220m P 230 brown gray good till w.
arg. chips of argillite / mudstone
- P 231 5-6" Black Spr. w. cones
- 350m at top of hill
- 380m P 2321 brown gray till - lots of
arg. orig. / mudst.
- 610m P 233 4-5" Blk Spr. w. cones
- 800m P 234 4" Blk Spr. w. cones
- 1000m P 235 4-5" Blk Spr. w. cones

At 2nd River Camp - Just South of two lakes

At E bank of creek draining out of S. lake (cut lake)
[NE] along ridge.

- 250m - glaciogenic deposits
- 520m - P 236 grey brown slightly sandy
bentonite - argillite/chert chips (45-60 cm depth)
- 760m P 237 (60-75 cm depth) - minor gts
- one rock (3cm wide) mostly white gts
in contact with argillite HS.
- 1030m P 238 grey brown slightly sandy tln
argillite/chert chips (no gts)
- 1250m washed material
- 1275m P 239 grey brown slightly sandy
tln - argil./chert chips in tln
- 1500m permafrost no tln
P 240 4-5" Block Spns w/ cores
- 1750m washed material
- 1800m "
- 1870m P 241 brown grey slightly sandy tln
interlayered with washed material
- 20cm subangular float on surface
of light grey silty tln, with
calcite filled fractures - oxidized
weathered surface w/o calcite dissolved
from fractures HS

[340°] resist to 0m
- 505-517m cuttop bluff of
pebble conglomerate - pebbles mainly
green to black chert with lesser argillite/mudstone
Bluff trends E-W

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to 750m no creek (possibly want underground
around 450m)

- start contouring to E
- 850m small creek flowing S
- 860-900m outcrops of chert pebble congls.
(extinct sporadically up slope)
- 1050m at mid creek w/ good flow to West
P 242 Sieved silt (3 pars)
- float - Chert / Argil./Lithostatic/conglomerate

resist to 0m - contouring back to W

70m P 243 f.gr.sandy silt from sm. creek
flowing SW - same place as P 242

- 200m P 244 f.gr. silt (sm. in size)
flowing S - same place as P 242
only some silty last, start to 1020m

- continued contouring - (approx 250°)

- 730m small creek - marshy w/ S.

- 1300m P-245 v.f.gr. sandy silt from
small creek, good flow to S. (1m wide)

silt made up mainly of argil./chert

- (continued contouring (approx 280°))

= 1800m P 246 v.f.gr. Sandy silt - from
small creek w/ good flow to S (1m wide)

silt = argil./chert

resist to 0m - heading SSE

500m [1800]

920m P 247 f.gr. Sandy silt from
med. creek flowing SE (1-2 m wide)

- float chert frags/short 330cm dist

[200°] resist to 0m

- 280m 5-6" Black Spns w/ cores P 248

On Canale Rd. near old mine expl. rd. approx 200m E
of historic truck graveyard.

- Hiking S. along rd - (road too badly overgrown to follow)
- at 450 m P-249 4" black Sparre w. cones
- thick moss - no flt.
- 500 m small sappy creek flowing W
- 580 m P-250 f.gr. sandy silt from small creek (w. good flow to W.)
- chips in hill mainly chert
- 715 m P-251 grey good basal hill
- chips mainly chert/argillite - rounded
granite boulder on surface.
- ~ 940 m P-252 4-5" black Sparre w. cones
- 1165 m P-253 dark grey + flt
- sub angular float mainly chert, argillite + some limy sst.
- ~ 1280 started dropping into creek valley
- 1440 m P-254 sieved silt -
- float mainly chert, argillite + limy sst.

Started contouring to WSW reset to On

- ~ 150 m possible old N-S road grade
- 335 m P-255 f.gr. sandy silt (good silt)
from sm creek flowing NW
- 550 m sm sappy creek - no silt
- 780 m P-256 f.gr. sandy silt
creek flows mostly under slumped banks
- chert/argillite float
- = 860 m P-257 f.gr. sandy silt from
small creek with good flow to NW
float mainly chert/argillite lesser siltstone
minor granite

1620 m P-258 f.gr. sandy silt - float siltstone
to P-257 only more siltstone.
(Went 75m downstream to get sample)

- 1930 m sm creek no silt
- 2160 m P-259 f.gr. sandy silt from sm
creek with good flow to NW
- float same as P-258
- 2315 m [3350] reset to 0 m
- 230 m P-260 4-5" Black Sparre w. cones
- 490 m ~~silt~~ glacioglacial material
- 520 m P-261 grey slightly sandy silt
from permafrost layer
- sub angular chips argillite/chert
- P-262 4-5" Black Sparre w. cones
- 735 m swampy creek flowing E - no silt.
- 765 m P-263 4" Black Sparre w. cones

On Canale Rd at 696275 N 97000 E
approx 2.5km E of small lake

D8C

- 100m crossed med creek good flow
P-285 med gr sandy silt - mostly chert float to SW

210-245m outcrop of dk grey ^{light grey green} chert

bedding 080/75 5°

275m small overcrop same

350m sub-crop same

450, 500m GSO n n (some bluish grey)

Var ridge top

1400m headed NW

1500m P 264 f-mid gr sandy silt from

sm. creek flowing W.

cherts in silt mainly chert some org llite

- P 265 sub-angular rusty float from w
of brecciated oolitic grey chert
with saddle fractures + incrust
~ 95% chert fragments in 5% matrix
(grey silt/rust)

- Continued contouring EWW

- 1550-1580 sub-crops of pale grey green
chert - fractured with 1-5mm gts filled
fractures - minor rust

- 1850m at sm. creek only flowing in sections

- upslope for approx 75m and across hillside is
old logging - log piles throughout area

- 1920m SSW in logged area

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1020m P 266 - brown grey hll

- mixed float mostly chert with
quite a bit of org llite showing up

- some rounded granite

- 240m P 267 same as P 266

- 510m P 268 grey hll / soil

- mostly angular chert chips - minor
sub-angular org llite

- 750m - P 269 / grey-green good basalt hll

- float mixed chert org llite with
some rounded granite

- 1000m P 270 grey hll

- mixed float chert/argillite/granite

- minor bleached, rusty float w.

1037m disc py.

- 1175m at top of hill

- 1250m P 271 good grey hll

- more rounded float - mainly granite
- small chips org llite/chert

- 1375m slope steepens

some frost - no hill

- 1560m P 272 7" White Spruce - no cones

- 1750m P 273 4" Black Spruce w/ cones

- 2010m P 274 " " "

- Contouring E towards ~~SW~~ 105°

reset to 0m

430m P 275 f.gr sandy silt from small
creek flowing N. - float sub-angular
chert/argillite/siltstone

735m P 276 f.gr sandy silt from small
creek flowing N. - good sandy flow w/ lots of sand

- float limy silt, chert, argillite - calcareous

- 1080m P 277 f.gr sandy silt from sm. creek
flowing NE. - float mainly limy silt/argillite (over 2)

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with minor chert + granite and a piece
of orange weathered dolomitic limestone.

- 1365m P 278 - f.g. slightly muddy
Silt from sm. creek flowing NE
float - limy st, angular, lesser chert + granite
- 1465m P 279 f.g. good silt from
sm. creek w. good flow to NE (bigger than P 278 creek)
float similar to P 278 only more chert
- 1600m Started heading 200° resurf to 0m
- 150m P 280 grey till mainly angular + chert
- 400m P 281 grey wet till - ang - rounded
float mainly angular chert
- 675m P 282 8-9" White Sparce w. cores
- 900m P 283 grey till
- 950m [180] -
- 1115m to 1225m small outcrops of grey chert - some
fractured + slightly rusty
- 1150m P 284 grey till (soil) - mostly angular
chips of chert but also rounded granite and
sub-angular angular.
- 1155 to 1180m outcrops on top of small hill
good bedding attitude at 1157m
090°/66 S.

(135°) - towards Canale Road

- 1370m hit Canale Road approx 700m N of Car.

On top of small hill (1040m elev)

approx 200m W of Canale Rd [95800m E]
[61000m N]

[250°]

100-150m large dry meadow elongated N-S

- 115m P 286 f.g. sandy silt from
good flowing creek
- float - angular argillite, siltstone

- 270-290m step slope - sub-crop of
orange weathering dolomitic siltstone

- 820m P 287 6-7" Black Sparce w. conc.
- 1470m on top of ridge

[135] - rising ridge top (SW side slightly)

resurf to 0m

P-288 brown grey till - rock chips
mainly sub-angular argillite, chert + siltst.

- 205m P-289 brown grey till -
sub-ang. to sub-round chert, arg. + dol. sst.

- 400m P-290 same as P-289 only less
dol. sst in float

- 590m P-291 same as P-290 also 5" rounded
granite flour

- headed S to 700m to stay close to ridge
then gradually shifted back to SE by 830m

- 855m P-292 same as P-290

- 985m several buried boulders / sub-crop of
orange weathered dolomitic silt.

- 1050m P-293 good grey brown till -
chips of argillite, chert, dol-sst + granite
vary from sub-ang. to rounded
(slightly W of ridge top)

~~angular~~ sub-crop of amygdaloidal nephritic
green andesite H.S.

- 1240m P 294 - grey brown $\text{H}^{\prime\prime}$
 - mixed sub-angular to rounded chert
- 1450m P 295 grey brown $\text{H}^{\prime\prime}$
 subang. argillite, chert, rounded granite
 and in top layer immediately above $\text{H}^{\prime\prime}$ is
 abundant angular float of intensely oxidized + clay altered
 rock w/ qtz veinlets visible in some pieces
 Could be orange weathered dolomitic siltstone
 but appears to have more of a volcanic texture
 \uparrow P 296 \uparrow
- 1560m P 297 grey brown $\text{H}^{\prime\prime}$
 - sub-angular to rounded argillite, chert,
 granite float - more angular dk green
 andesine tuff
- 1640m Sub-crop (2 m wide) of intermediate
 volcanic fragmental - zeolite or possibly
 calcite filling spaces - minor qtz veinlets
 with f.gr. sulfide (HS) - weakly oxidized
 on weathered surface
 Sub-crops continue to 1665m
- 1705m P 298 brown grey $\text{H}^{\prime\prime}$ - subang to
 rounded chert, argillite, granite
 - angular vs some oxidized
- 1780-1800 - outcrop intermediate volcanic frag.
- 1910m P 299 - brown grey $\text{H}^{\prime\prime}$
 same float as P 298
- 1925m at start of steeper slope facing SE
 towards Ross R.
- [160°] east to 0m
 - 600m started heading more S towards creek
 - 650m 15m wide outcrop of thin bedded
 shaly argillite - bedding 100/85 N
 - 670-675 - lt. grey chert - outcrop - chert appears to
 be interbedded w/ argillite visible in sub-crop
 down to creek at 750m

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 - 750m - P 300 scared silt - ~~grey~~, consists
 of angular volc. Fragmental (slightly oxidized)
 ang. to subang. argillite + chert, sub-roundish
 thin bedded siltst., rounded granite
- headed downstream
- 785-800m - S. bank - 6/10d outcrop
 of thin bedded weakly oxidized black argill.
 (looks different - blakcer + less silty
 than outcrop at N bank at 650m)
 Bedding approx 100/45 N
- 825m [090°]
- 1460m P 301 f-mod gr sandy silt
 from sm. creek flowing S.
 float mainly intermediate volc., argillite, chert,
 siltst. w/ boulders of granite
- heading ESE to road.

2003 DEMPSTER G Richards with Dr. Bennett Notes

NORPAC 1-800-480-3542 - 471 revd

10/27/03 NORPAC 1-800-480-3542

- D1 Sampling
Red Ck further N of Englewood
Xby 20' x 1' +? marshy
fast flowing water. Shady gravel
bar w/ few pebbles (lms + ag) long
20' st x 2 red shanks / several
2" below tip of white becket.
- 16' marsh screen + 85 mm (= 20')
dry reach (23, 878) / 7, 228, 638 Not site
2 PICS are on gravel bar on far end.
- D2 Ck Ll Ogilvie 10 km N of Englewood
5' x 3" fast flowing area
lms pebbles - sand same st + 5" long
or bank of Ck 611C lms
35 x 2 shanks screens
- 16' marsh
628, 000 (2) / 7, 259, 000
872

- D3 Davies Ck 800m W of rd
20' x 5" rippling w/ big pools
big gravel bars lms + ag? long
ag + sand + cgs
9" x 2 shanks screens at dry
sand in PIC other side of park
621, 284 / 7, 270, 653 + 3.9

D4 10 km \pm north of Deneck CK
60' x 2 red shingle 5 cm. cal - (General)
lms general 61 K cps avg 1 m - avg
 $5' \times \frac{1}{2} \text{ to } 1'$ sand + rippling
620, 497 / 7, 277, 984
moved upstream 1/2 km

W Fork
D5 Big and 20' x 1' grid flow
Some rippling Deeper pools
Lms milky colour
Dry sieve w ~ 25 x 2 red shingle
from elevated skip stone avg
5 m ~ 2 cm from rd.
black sand

D6 Rock River All lms cobble + 5 cm
black sand 18 x 1' red shingle dry
from sand bar bottom level
lms bar water $15' \times 1'$ rippling
bar 100' wide (pic)
Red sand bar 20 m up ck R limit

D7 E side R.R. lms black - cobbles
black sand Very little water prints
wet sand w ~ 20 x 2 red shingle

Ridge CK confluence

D8 Rock River Dry. lms bldgs blocks
pic from 3 km North looking south
dry sand 2 full bags needed
avg 1.74 m over 13' (200')
River valley cut (200')
" coarse 200' wide

D9 Sister CK " 10' x 1" rippling w pools
All lms. flat + dark sand
w 20-22' x 2 red shingle screens
of - 16 mm pic from rd.

Kan CK sample possible but spacing better
on Tik Tsinii CK to south

D10 Tik Tsinii CK lms bldgs (pic)
OC along the bank in blocks top
within 1 m flat plane surface
black sand dry w 25 red shingle
water 10' x 6" rippling

Parked truck on Highway Dept's

- lowered 300' to dam old stream line

McPantah

Cross in bank

CK

(crossed C) feature City in by

Camped on ck for high water

made no gravel bar, slow
moving in trees.

Next am walked up creek looking for gravel
+ then down to flats.

Camped on WY flowing spur ck. Summary.

walked up creek + out to Dept's
No gravel on S fork

walked into N^W flowing creek and found
gravel bar just N of SE^E flowing
tributary 408,697 / 7,350,380

Banks 60' wide

Sieve - 20 mesh

water 3' x 3' rippling between 20' x 31'

dry pools

About 30 red shanks

Stacked sample above gravel bar.

DII

D

Hiked down ridge to headwaters

Eagle River, swampy area small pool
Flood gravel bar small on bank
415, 427 / 7, 335, 331

Sandbar, st

10' x 1' fairly rippling water

Deep pools

30' shoals - 20 web.

D12

Sampled samples near swampy
flooded small pool. Cut trees
+ 417 gds for pickup.
Camp behind creek.

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Helliester.

K1 382, 680 / 7, 330, 148

D15 Didn't sample gravel

PIC at SE fork flowing upstream

Very slow moving water in mostly
boulders. Dry bank, gravel shingle

K2 Ehlinic ok

D16 rippling + pooled with SS shoals

w sand bars

Sampled fine sand bar unmeasured

PIC w (?)

403, 555 / 7, 311, 947

K3 Dalglish ok

D17 rippling + pooled like bottom PIC from air
of gravel bar + valley
sampled gravel sandy leading edge
of bar filled with

416, 780 / 7, 318, 344

K4 trib from S of Dalglish ok

D18 in low canyon
not much sand.

- 12 web screened bucket by
6' x 2" rippling w shallow pools

425, 076 / 7, 338, 37)

2 PICS 1 yrden 1 dam 1 v 1' Dalglish

K5 [201] deep cut creek from plain
D19 FT SS - shale more bar

from stone channel but ~ 1"

creek 10' x 8" rippling vs pool

432, 722 / 7, 369, 811

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Hiked into mouth Tehnijua Choc CK
along ridge through trees on NE side
Good gravel bars. SS 40' (20's/m)

Coupled on blue shale chips shale ocs

along valley walls.

water 4' x 3" rippling w/ pools

429, 44 / 7, 346, 071

Coupled on Bar

- 20 mesh Sieve

Retraced route in along "ocean".

D13

Traverse in to Uyah Kit CK

from corner Dempster Hwy,

200' wide valley water 20'

wide rippling mostly ss lot

Blk shale ocs along ck.

min 1m s ft.

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D14 432, 326 / 7, 369, 427

- 20 mesh OUT for trade.