1993 PROSPECTOR ASSISTANCE PROGRAM

YTG MINERAL INCENTIVES PROGRAM

PROJECT #93-055

CARIBOU LAKE PROSPECTING PROGRAM

105D/9
Lat. 60 35' Long. 134 30'

by: R. S. Berdahl
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Y1A 5L5

For Worked Performed between
May 12 - Oct. 16, 1993

TABLE OF CONTENTS

SUMMARY

Reconnaissance prospecting continued in a 100km square area between the Jan claims, at Caribou Lake, and the ET claims 8km to the northwest. The targets of prospecting have been any expressions of the motherlode mezothermal (archean greenstone) gold lode model. Specifically areas overlying electromagnetic anomalies (thought to represent graphite shears); oblique 'riedel' shears off major northwest structures; and sediment (Leberge Group), volcanics (Lewes River Group) and ultramafic (Cache Creek) contacts were considered. No new mineralized structures were discovered. This is not surprising given the character of the ground. Little outcrop is encountered with glacial till and swampy lakes covering most lowlands. Many faults have discontinuous permafrost, making soil sampling very difficult. A better understanding of the geology and its potential for hosting mineralized motherlode targets off the current claim blocks was gleened.

1.0 Introduction

This report was prepared to compile information gathered during the 1993 field season. Its purpose is to help assess the areas economic and exploration potential as well as to satisfy one of the requirements of the Yukon Mineral Incentive Program under which this project was partially funded (project #93-055).

The project area is in the southern Yukon approximately 30 miles southeast of Whitehorse. Reconnaissance prospecting was performed in order to find mineralized mezothermal gold veins in association with perceived model targets.

A classic motherlode gold type deposit is being sought.

2.0 Access/Location

Caribou Lake lies about 4km northeast of Marsh Lake at Lat. 60 31', Long. 134 15' on NTS map sheet 105D/9. The area of interest surrounds the lake and extends over 10km to the northeast. The prospecting area can be reached along a tote road which passes north of Caribou Lake. This tote road leaves the Alaska Highway approximately 30 miles south of Whitehorse near the old Marsh Lake Marina. The entire area is within the jurisdiction of the Whitehorse Mining Recorder.

Access to the area was by vehicle to approximately km 4 of the tote road and then north and south on foot. Alternatively a float plane could land on Caribou Lake. With the location and ready access the use of helicopter or plane is not foreseen.

3.0 History

Several adits which predate the Klondike gold rush can be

found along Marsh Lake. Given the difficult conditions of glacial overburden and permafrost the area has not been subject to much conventional prospecting. Interest in base metals prompted Prado Exploration Ltd. to stake claims and run EM, and magnetic surveys over the area in 1968. The rising price of gold in the 1970's and 80's prompted gold exploration along the Marsh Lake trend, most notably at the Rossbank and nearer Squanga Lakes on the Tog et al claims. The 'IS' claims were staked in 1989 by the author to cover structures with carbonitized ultramafic alterations float. More recently claims were staked by myself and G. Rushant to cover newly discovered gold shears (ET and Janet).

4.0 Physiography/Vegetation

The area is characterized by hills rising to about 1700 feet above broad, and in places, swampy lowlands.

Northwesterly flowing glaciers have exposed and rounded the bedrock at higher elevations while dumping debris of unknown depths in the adjacent valleys.

Vegetation is variable with pines concentrating on the drier glacial benches and more typical boreal plants elsewhere. Aspen grows on south facing slopes often surrounding grassy windswept openings. Labrador Tea and moss seem to favour areas harbouring permafrost. Alder, willow, cottonwood are common. Spruce is more or less ubiquitous over the entire area.

5.0 Geology

5.1 Regional Geology

The Caribou Lake project lies within the Intermontane Super

terrane. The oldest rocks (Miss. to Triassic) in the area are those of the Cache Creek group which consist of oceanic mafic volcanics and overlying chert, carbonates and volcanics.

In the mid Jurassic the amalgamated Triassic Lewes River volcanics and Jurassic Leberge sediments which constitute the Whitehorse Trough were abducted over the Cache Creek Terrane. The mid to late Jurassic accretion of the Insular Super Terrane created the Coast 'complex' of metamorphosed volcanics and sediments which is thought to have produced the plutons within the Intermontane from the mid Jurassic to the Cretaceous.

5.2 Property Geology

Wheeler (1961) mapped the area as unit A and Aa, volcanic rocks of uncertain age and metamorphosed volcanic rocks respectively. He has also mapped the intrusive east of Caribou as a Cretaceous pegmatitic syenite. Most of contact areas are overburden covered.

Generally Leberge group sediments are thought to juxtapose the `A' volcanics (diorites and altered diorites) along a strong northeast linement marked by linear magnetic anomalies and a series of EM anomalies. Interspersed in both are limestones, black cherts, banded cherts and shales, black crystalline limestones and serpentinites thought to belong to the Cache Creek group. (see property map CPcc) Outcrop in low lying 'contact areas' is less than 10%.

Along a southeast trending fault south of the "lake showing" on the ET claims meta-ultramafics or possibly mylonites juxtapose

the volcanics and altered volcanics. Soil samples from the critical contact fault cannot be taken because of permafrost.

6.0 Mineralogy/Modelling

No new mineralized zones were discovered. Large quartz carbonate/mariposite float boulders (to 1.5m) were located in a northwest trending pattern adjacent the highway south of the ET claims (R3D0919).

Despite not locating new mineral showings the 'property' has a glove like fit to the mezothermal motherlode gold model. Previously three mineralized shears and other anomalies have been found. The property has the models volcanic/sediment contacts, Cache Creek ultramafics, deep structure with 'riedel' shear offsets, the spatially important (if genetically unknown) porphyritic syenites; gold arsenic, antimony associations; listwanitites alteration etc.

7.0 Methodology

Select targets such as EM and mag anomalies, east trending 'riedel' shears and contacts were considered. A 1.5 inch soil auger was employed for sampling these targets. Ten days were spent prospecting between May 12 and October 16.

32 rock, soil and stream sediment samples were analyzed. Lab analysis was carried out by NAL of Whitehorse using 30 element ICP (by IPL in Vancouver) and fire assay gold.

Anomalous soil samples include D3D927, D3D910 and D3D911 with 29, 29 and 45 ppb Au respectively. However numbers D3D910 and 11

lack the companion anomalies of As and Sb. Soil D3D97 is anomalous in Ag (4.9), and Cu (188) W (11), Sr (183) and V (240), with As at 48 and Sb at 9.

Rock samples R3D93 and 4 register 1.6% and 1.3% Barium while rock R3D98 contains 1.2% Ti.

More importantly to the mezothermal model is the relative depletion of potassium in these Caribou Lake project samples as compared with those in other areas (see assay sheet-appendix B).

Ground proofing did not discover an obvious source for the EM anomalies west of Caribou Lake. A limestone pod with clasts in the adjacent sheared metavolcanics are interpreted as Cache Creek group rocks. Quartz float over the area has millimetre wide smears of a possibly graphitic schist.

The auger was unsuccessful at penetrating frozen ground. Good results were obtained in thawed fine textured mineral soils.

8.0 Conclusion and Recommendations

The Caribou area has the geology, structure and the associated mineralization for a classic motherlode deposit. Ground conditions make conventional prospecting difficult and expensive.

Methods must be procured that will delineate specific targets that then can be trenched or otherwise sampled.

Precise ground geophysics may be able to help locate exact EM anomalies and give some idea of depth to target.

Botanical sampling may be used to overcome problems of sampling in overburden. The unknown depths of glacial till in many areas would complicate the survey. Funding for such a Yukon

demonstration project may be available through the MDA.

REFERENCES

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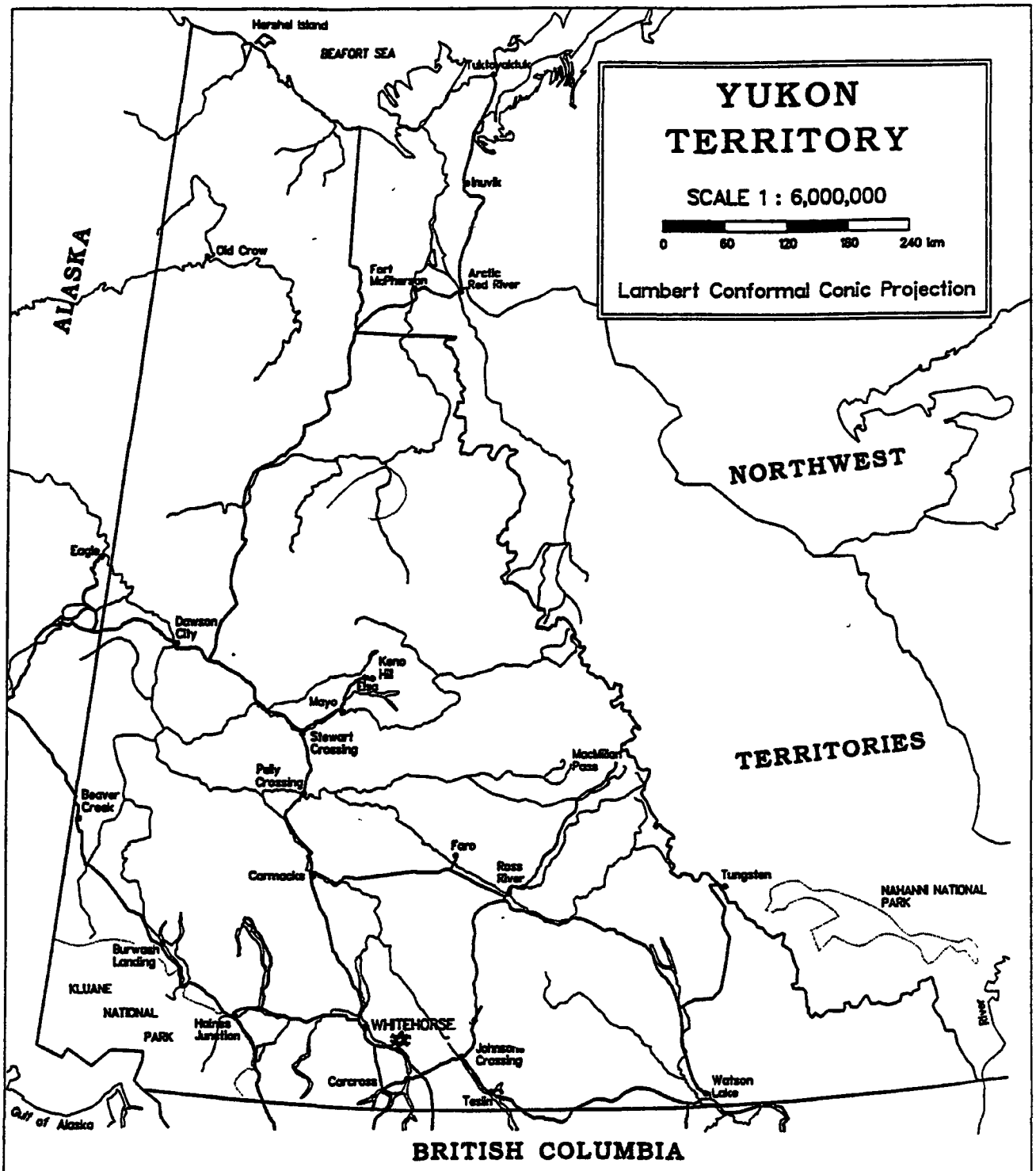
Memoir 312: Whitehorse Map Area, Yukon Territory, 105D. Geological Survey of Canada, 1961.

Wheeler, J.O., Brookfield H.J., Gabrielse, H., Monger, J.W.H., Tipper H.W. and Woodworth G.J. 1991
Geology of the Cordilleran Origin in Canada, Geology of North America vol G-2, Geologic Survey of Canada.

APPENDIX A

LOCATION MAP



LOCATION MAP

CARIBOU PROJECT

FIGURE 1

APPENDIX B

GEOCHEM RESULTS

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25-Aug-93date | Assay Certificate | Page1

Ron Berdahl | Caribou D-9 | WO 00270

Sample	Au ppb
BC-4	12
BC-1	9
2N 10X	364
R3G 81	9
R3G 87	6
R3G 88	16
R3G 89	13
R3G 810	50
R3G 812	6
R3G 817	12
R3D 91	12
R3D 92	12
R3D 93	10
R3D 94	17
R3D 95	16
R3D 98	<5
R3G 7X	58
R3G 710	31
R3G 711	14
R3G 713	5
R3G 714	15
R3G 715	10
R3G 716	11
R3G 719	10
R3G 720	25
S3G 71	<5
S3G 72	10
S3G 73	<5
S3G 74	<5
S3G 75	5
S3G 76	<5
S3G 77	6
S3G 78	<5
D3G 79	7
S3G 712	7
S3G 717	7
S3G 718	8
S3G 721	5
D3G 96	11
D3G 97	19
S3G 82	15
S3G 83	62

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Caribou
D-9

CERTIFICATE OF ANALYSIS
iPL 93H2409

Client: Northern Analytical Laboratories iPL: 93H2409 Out: Aug 25, 1993 Page 1 of 2 Section 1 of 1
Project: 00270 52 Pulp In: Aug 24, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
N - 10X	P	8.4	326	66	94	32	<	<	21	<	<	<	14	59	60	6	121	48	115	<	14	6	1	<	0.92	0.02	17.14	0.07	0.24	0.04	0.03
C - 1	P	<	106	11	21	10	<	<	15	<	<	<	9	15	52	<	56	58	63	8	19	4	2	0.01	1.44	0.14	3.37	1.00	0.14	0.06	0.11
C - 2	P	<	19	47	4	20	<	<	107	<	3	<	23	36	505	14	245	996	651	9	27	8	1	0.01	0.28	0.04	23.32	0.01	0.06	0.02	<
3G - 1222	P	1.3	18	11	158	21	<	<	13	<	<	<	34	20	73	201	39	393	535	68	18	3	2	0.48	0.62	0.54	10.61	0.33	0.06	0.02	0.19
3D - 96	P	<	10	12	115	<	<	<	6	<	<	<	16	42	175	7	71	61	470	8	26	3	3	0.17	1.31	0.48	2.26	0.83	0.07	0.03	0.04
3D - 97	P	4.9	188	45	355	48	9	<	78	<	2	<	22	121	66	11	109	240	219	14	183	25	6	0.76	0.55	0.23	13.87	0.32	0.69	0.06	0.14
3G - 79	P	<	178	31	127	<	<	<	23	<	<	<	9	8	190	<	18	23	411	26	4	3	3	0.09	1.75	0.01	7.50	1.02	0.76	0.03	0.03
3G - 718	P	<	17	12	122	<	<	<	7	<	<	<	12	19	95	<	12	16	888	47	8	6	4	0.01	0.72	0.10	2.95	0.24	0.17	0.02	0.02
3G - 816	P	1.9	92	34	185	18	<	<	12	<	<	0.7	7	32	738	5	21	52	199	16	75	1	2	0.01	1.06	0.17	2.56	0.27	0.07	0.02	0.17
3D - 91	P	<	72	25	115	<	<	<	20	<	<	<	30	57	115	5	195	314	596	13	19	23	20	0.48	1.78	0.85	4.64	2.17	0.13	0.05	0.10
3D - 92	P	<	65	7	75	<	34	<	10	<	<	<	35	85	70	<	32	187	1688	<	88	1	28	<	0.48	5.83	7.16	7.75	0.03	0.02	0.01
3D - 93	P	1.2	42	89	113	39	5	3	5	<	<	1.0	18	19	1.6%	<	117	11	298	2	32	2	3	<	1.41	0.14	1.34	0.10	0.13	0.02	0.01
3D - 94	P	<	34	10	406	47	<	<	6	<	<	6.2	14	14	1.3%	<	137	8	75	2	19	1	2	<	0.85	0.11	1.36	0.17	0.12	0.03	0.01
3D - 95	P	<	52	13	53	<	<	3	8	<	2	0.2	9	19	650	5	127	42	245	8	67	3	5	0.11	0.79	4.03	1.66	0.90	0.12	0.03	0.03
3D - 98	P	<	80	21	64	<	13	<	11	<	<	<	51	219	290	<	762	108	781	6	24	23	33	1.2%	3.11	1.13	8.65	2.28	0.26	0.02	0.03
3G - 7X	P	35.0	3.0%	3605	15958	17	<	<	123	<	65	36.5	19	26	22	87	109	10	895	3	101	2	<	<	0.12	2.36	10.89	0.02	0.01	0.01	<
3G - 81	P	<	69	13	1262	30	<	<	12	<	<	12.5	19	128	621	7	97	29	7470	2	42	5	3	<	0.23	0.12	4.94	0.03	0.05	0.02	0.01
3G - 87	P	<	4	21	5	5	<	<	6	<	<	<	2	3	96	<	69	5	38	19	9	28	<	<	0.21	0.02	1.42	0.01	0.25	0.03	0.01
3G - 88	P	0.9	83	1335	17	679	<	<	32	<	<	<	6	7	94	<	111	142	34	3	66	7	1	0.03	0.10	<	13.12	<	0.62	0.02	0.12
3G - 89	P	0.6	59	24	116	230	7	<	13	<	<	<	9	32	136	<	75	50	70	<	14	3	1	<	1.58	0.03	10.50	0.01	0.22	0.03	0.06
3G - 710	P	0.5	563	9	8	9	<	<	14	<	50	<	82	65	8	53	108	7	73	14	7	2	1	0.02	0.30	0.27	9.40	0.24	0.01	0.02	0.10
3G - 711	P	<	170	33	95	<	<	<	5	<	<	0.3	5	4	31	6	57	11	1053	14	95	4	1	0.05	0.80	4.09	2.03	0.06	0.01	0.03	0.04
3G - 713	P	<	148	18	26	<	<	<	18	<	<	<	15	10	81	6	61	15	1636	9	328	3	3	0.06	2.12	3.49	4.09	0.43	0.10	0.16	0.06
3G - 714	P	0.4	653	6	17	12	<	<	10	<	<	<	30	13	8	<	53	10	767	<	16	1	<	0.01	0.53	2.17	6.56	0.11	<	0.02	0.02
3G - 715	P	0.7	945	8	13	<	<	<	10	<	<	<	44	15	3	<	55	17	1318	<	7	1	<	0.02	1.04	2.49	7.54	0.12	<	0.02	0.02
3G - 716	P	0.3	444	12	28	<	<	<	10	<	<	<	29	15	23	7	50	16	1075	5	52	2	1	0.10	0.93	2.96	6.14	0.29	0.01	0.05	0.04
3G - 719	P	0.6	128	36	58	17	<	<	6	<	<	<	5	14	21	<	124	5	66	7	2	4	1	<	0.18	0.03	1.80	0.02	0.06	0.01	0.01
3G - 720	P	<	29	16	66	<	<	<	11	<	<	<	5	24	303	<	178	69	187	6	7	3	3	0.06	0.87	0.05	2.93	0.17	0.38	0.03	0.01
3G - 810	P	<	46	19	32	372	<	<	12	<	<	<	26	195	111	<	206	24	1741	3	172	3	5	<	0.72	7.54	6.10	3.76	0.10	0.02	0.08
3G - 812	P	<	14	5	16	25	<	<	9	<	<	<	16	26	155	<	63	15	2072	10	94	1	3	<	0.23	7.83	5.30	1.90	0.04	0.02	0.04
3G - 817	P	<	<	8	30	<	7	<	11	<	<	<	93	0.2%	13	<	311	9	807	<	1	<	3	<	0.08	0.08	4.41	23%	<	0.01	<
S3G - 71	P	<	59	22	134	<	<	<	7	<	<	<	20	51	253	<	58	78	886	20	22	1	6	0.17	1.73	0.74	4.05	1.50	0.66	0.03	0.23
S3G - 72	P	<	40	19	82	<	<	<	8	<	<	<	22	43	261	<	73	96	537	24	19	1	6	0.19	1.87	0.67	3.87	1.51	0.72	0.03	0.19
S3G - 73	P	<	31	17	77	10	<	<	9	<	<	<	20	35	408	11	54	72	4136	19	26	1	5	0.14	1.35	0.93	5.50	1.09	0.46	0.03	0.28
S3G - 74	P	<	70	22	155	<	<	<	10	<	<	<	24	62	268	7	67	89	1113	21	22	1	7	0.21	2.01	0.63	4.79	1.77	0.82	0.03	0.18
S3G - 75	P	<	74	21	156	<	<	<	9	<	<	<	23	58	277	6	66	90	1054	22	22	1	7	0.21	2.03	0.59	4.79	1.74	0.84	0.03	0.16
S3G - 76	P	<	40	14	93	<	<	3	8	<	<	<	20	30	367	5	48	82	2095	18	25	1	6	0.17	1.57	0.85	4.49	1.22	0.67	0.03	0.27
S3G - 77	P	<	138	34	224	<	<	<	12	<	<	<	21	96	231	5	69	46	773	25	16	2	5	0.10	1.48	0.37	4.84	1.68	0.51	0.03	0.10
S3G - 78	P	<	309	45	316	<	<	<	16	<	<	<	23	24	230	8	28	37	947	39	9	2	5	0.10	1.81	0.22	5.56	1.18	0.71	0.03	0.05
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

--=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

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20-Sep-93date | Assay Certificate | Page1

Ron Berdani | Caribou D-9 | WO 00300

Sample	Au ppb
D3D99	14
D3D910	29
D3D911	45
D3D912	7
D3E121	21
D3E122	11
D3E123	13
D3E124	12
D3E125	11
D3E126	17
D3E127	9
D3E128	10
S3E1210	19
D3E1213	13
D3E1214	8
D3E1215	14
D3E1216	47
D3E1217	11
D3E1218	14
D3E1219	33
S3E1220	9
S3E1221	10
D3E1222? (not clearly legible)	14
D3E1223	13
D3E1224	15
S3E1225	10
D3E1226	22
M3E1227	12
D3E1228	13
D3E1229	51
D3E1230	10
S3E1231-1	29
S3E1231-2	3
D3E1232	16
D3E1233	11
D3E12x3	16
D3E12x4	24
D3E12x5	17
D3E12x6	7
?-#15	17
S3N102	11
S3N103	9

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Caribou
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CERTIFICATE OF ANALYSIS
iPL 93I2004

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Client: Northern Analytical Laboratories iPL: 93I2004 Out: Sep 23, 1993 Page 1 of 2 Section 1 of 1
Project: 00300 44 Pulp In: Sep 20, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
15	P	<	21	8	39		<	<	1	<	<	<	7	12	77		16	37	217	5	74	2	3	0.06	0.93	0.64	1.57	0.51	0.05	0.05	0.07
3099	P	<	87	13	52		<	<	2	<	<	<	22	138	435		61	55	877	15	28	4	12	0.08	1.90	0.48	2.92	0.58	0.05	0.03	0.08
30 910	P	<	28	9	35		<	<	1	<		<	12	65	273	5	44	39	932	10	21	1	5	0.07	1.30	0.42	2.03	0.48	0.09	0.03	0.07
30 911	P	<	31	4	15		<	<	1	<		<	5	17	139		30	31	102	9	18	2	3	0.06	0.89	0.35	1.03	0.33	0.03	0.02	0.07
30 912	P	<	15	10	29		<	<	1	<		<	7	32	284	6	38	34	156	7	19	2	3	0.07	1.18	0.35	1.60	0.46	0.04	0.03	0.04
3E 12X 3	P	<	39	13	69		<	<	1	<		<	11	21	132		28	54	504	10	102	2	5	0.09	1.37	1.42	2.45	0.73	0.09	0.04	0.08
3E 12X 4	P	<	40	19	66	5	<	<	1	<		<	12	23	120		30	56	433	10	84	2	5	0.09	1.41	1.65	2.57	0.76	0.09	0.04	0.08
3E 12X 5	P	<	38	13	60	5	<	<	2	<		<	11	21	105		26	53	464	11	95	3	5	0.08	1.28	2.53	2.40	0.75	0.08	0.04	0.09
3E 12X 6	P	<	65	6	116	5	<	<	16	<		1.0	4	11	72		10	47	34	3	111	4	2	0.03	0.61	2.52	1.17	0.21	<	0.02	0.06
3E 121	P	<	36	10	60		<	<	2	<		<	10	13	64		26	67	300	6	199	7	5	0.10	1.28	2.09	2.48	0.85	0.04	0.03	0.08
3E 122	P	<	37	9	58		<	<	2	<		<	11	17	73		22	52	318	9	135	4	5	0.07	1.15	2.36	2.34	0.70	0.08	0.03	0.08
3E 123	P	<	35	10	36		<	<	1	<		<	8	17	93		22	42	207	7	64	2	3	0.07	1.14	0.99	1.73	0.52	0.08	0.04	0.04
3E 124	P	<	33	11	63		<	<	1	<		<	10	27	161		28	50	429	9	56	2	4	0.08	1.26	1.12	2.27	0.65	0.07	0.04	0.09
3E 125	P	<	17	12	45		<	<	1	<		<	11	19	143		29	53	486	7	32	2	4	0.10	1.70	0.45	2.48	0.62	0.13	0.03	0.05
3E 126	P	<	37	9	52		<	<	1	<		<	9	19	124		26	54	305	10	46	2	4	0.09	1.19	0.66	2.41	0.64	0.06	0.04	0.09
3E 127	P	<	43	11	52		<	<	2	<		<	12	35	175		34	55	485	11	115	4	5	0.10	1.33	4.61	2.52	0.96	0.07	0.04	0.09
3E 128	P	<	41	15	59		<	<	1	<		<	10	22	136		31	56	309	11	55	2	5	0.10	1.49	0.82	2.57	0.77	0.10	0.04	0.09
3E 1213	P	<	31	14	48		<	<	1	<	2	<	8	20	109		23	47	276	7	88	2	4	0.06	1.09	1.10	2.06	0.69	0.05	0.04	0.08
3E 1214	P	<	34	12	58		<	<	2	<		<	9	20	189		29	53	312	11	80	2	5	0.09	1.48	1.90	2.58	0.83	0.12	0.04	0.08
3E 1215	P	<	14	13	55		<	<	2	<		<	12	18	158		29	49	747	7	28	3	4	0.09	1.76	0.41	2.63	0.56	0.20	0.03	0.07
3E 1216	P	<	28	14	54		<	<	2	<		<	9	20	138		29	54	354	11	40	2	5	0.09	1.40	0.58	2.52	0.65	0.09	0.04	0.07
3E 1217	P	<	56	12	64		<	<	1	<		<	11	24	186		30	55	603	12	60	2	6	0.07	1.56	1.17	2.44	0.64	0.06	0.03	0.05
3E 1218	P	<	19	9	61		<	<	1	<		<	8	17	91	5	26	50	210	9	68	4	4	0.08	1.06	0.98	2.03	0.65	0.05	0.03	0.08
3E 1219	P	<	25	8	61		<	<	1	<		0.2	5	12	93		15	31	282	5	178	3	2	0.04	0.76	1.92	1.22	0.51	0.04	0.03	0.09
3E 1222	P	<	13	7	52		<	<	1	<		<	6	10	79		18	38	243	8	69	2	3	0.06	0.90	0.98	1.48	0.50	0.04	0.03	0.08
3E 1223	P	<	11	6	37		<	<	<	<		<	5	9	89		15	34	195	7	46	1	2	0.06	0.85	0.70	1.32	0.43	0.04	0.03	0.09
3E 1224	P	<	18	13	68		<	<	2	<		<	11	21	112		32	67	350	9	67	3	5	0.10	1.44	0.79	2.55	0.88	0.05	0.03	0.10
3E 1225	P	<	6	<	36		<	<	<	<		0.1	6	7	66		12	30	156	7	51	2	2	0.06	0.66	0.68	1.07	0.40	0.05	0.03	0.09
3E 1226	P	<	14	15	48		<	<	<	<		0.1	5	7	99		12	24	832	5	112	2	1	0.04	0.65	1.60	1.05	0.40	0.05	0.03	0.09
3E 1227	P	<	24	12	53		<	<	1	<		0.2	4	8	104		12	20	525	4	158	3	1	0.04	0.69	2.23	0.93	0.44	0.04	0.03	0.09
3E 1228	P	<	32	12	62		<	<	1	<		<	8	15	93		23	50	506	8	91	2	4	0.08	1.10	1.25	2.02	0.64	0.07	0.03	0.10
3E 1229	P	<	21	13	54	5	<	<	2	<		<	10	13	100		20	54	278	9	59	4	4	0.08	1.15	0.80	2.72	0.55	0.09	0.04	0.10
3E 1230	P	<	24	11	59		<	<	2	<		<	10	17	78		27	56	297	9	123	3	4	0.11	1.41	0.87	2.52	0.74	0.11	0.04	0.05
3E 1232	P	<	36	10	54		<	<	2	<		<	11	22	117		27	59	355	11	81	3	5	0.10	1.34	1.68	2.51	0.83	0.12	0.04	0.08
3E 1233	P	<	25	12	48	5	<	<	1	<		<	11	22	129		31	59	381	12	90	3	5	0.10	1.55	0.99	2.68	0.73	0.11	0.04	0.05
R3N 101 (R3E129)	P	<	8	11	28		<	<	3	<		0.1	2	5	26		127	3	423	<	8	<	1	<	0.09	0.33	1.07	0.04	0.02	0.01	0.04
R3N 3129	P	<	21	3	89		<	<	4	<		0.8	9	10	1212		38	37	873	5	84	2	3	0.01	0.38	10.30	4.90	0.26	0.12	0.02	0.05
S3E 1210	P	<	21	6	55		<	<	1	<		0.2	5	10	132		13	29	453	5	86	2	2	0.04	0.67	1.36	1.36	0.44	0.05	0.03	0.08
S3E 1220	P	<	32	16	103	5	<	<	1	<		0.4	6	16	99		22	38	367	8	157	3	4	0.05	0.93	1.58	1.45	0.74	0.07	0.02	0.08
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

---=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

Analytical Laboratories ltd.

18-Oct-93date | Assay Certificate | Page1

Ron Berdahl | Caribou D-9 | WO 00336

Sample	Au ppb
R3W1	10
R3D915	22
R3D916	9
R3D918	6
R3D919	10
R3D920	24
D3D921	14
R3D922	12
R3D923	13
R3D924	11
R3D925	18
R3D926	17
D3D926 - 2	638
D3D927	29
D3D928	12
D3D929	21
D3E12X-2	<5

Certified By

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Caribou
D-9

CERTIFICATE OF ANALYSIS
iPL 93J1510

Client: Northern Analytical Laboratories iPL: 93J1510 Out: Oct 20, 1993 Page 1 of 1 Section 1 of 1
Project: WO 00336 15 Pulp In: Oct 15, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
D3D921	P	<	16	12	77	5	<	<	2	<	<	0.2	10	34	143	<	60	43	349	8	45	1	3	0.08	1.21	1.01	1.88	0.86	0.08	0.03	0.08
D3D9206	P	9.7	15435	286	143	13	<	<	97	<	8	<	19	11	553	6	33	110	534	13	29	3	7	0.15	1.90	0.63	4.33	1.51	0.80	0.05	0.15
D3D92[illegible]	P	0.1	71	51	53	22	<	<	2	<	<	0.1	11	33	284	<	44	43	736	9	92	2	3	0.06	1.23	1.60	1.78	0.70	0.05	0.04	0.10
D3D928	P	<	18	15	41	6	<	<	2	<	<	<	8	27	172	<	41	38	295	10	56	2	3	0.07	1.10	1.00	1.60	0.69	0.05	0.04	0.08
R3D915	P	<	131	23	86	28	<	<	5	<	<	<	29	13	112	<	69	172	895	11	48	11	6	0.18	2.27	2.82	5.75	2.31	0.06	0.07	0.17
R3D916	P	<	53	20	22	8	<	<	3	<	<	<	18	7	16	<	73	90	279	11	263	10	4	0.20	2.73	4.29	2.16	0.37	0.02	0.02	0.17
R3D918	P	<	27	<	25	<	<	<	4	<	<	0.1	3	17	25	<	147	39	174	4	8	4	2	<	0.30	0.12	1.07	0.27	0.01	0.03	0.03
R3D919	P	<	4	6	14	<	18	4	5	<	<	<	72	0.2%	44	<	717	22	618	<	179	1	6	<	0.17	1.42	4.20	20%	<	0.02	<
R3D920	P	<	91	23	91	<	<	<	4	<	<	<	37	25	164	<	37	321	704	8	82	15	6	0.34	1.84	0.86	6.38	1.49	0.19	0.04	0.09
R3D922	P	<	181	14	95	<	<	<	2	<	<	<	32	6	53	<	20	381	677	<	35	11	6	0.47	2.56	1.21	7.55	1.33	0.08	0.16	0.09
R3D923	P	<	47	18	57	17	<	<	4	<	<	<	19	11	64	<	45	128	594	8	16	16	7	0.26	2.34	1.49	4.75	1.83	0.08	0.06	0.12
R3D924	P	<	57	9	29	<	5	<	6	<	<	<	12	16	664	<	95	49	304	3	14	7	4	0.13	1.21	0.80	2.82	0.77	0.05	0.04	0.05
R3D925	P	<	38	13	99	11	15	<	11	<	<	0.5	9	25	538	<	163	51	239	4	21	7	4	0.10	1.19	1.51	1.88	0.59	0.06	0.03	0.02
R3D926	P	0.2	47	19	21	7	<	<	8	<	<	<	3	15	1320	<	126	11	68	5	10	3	1	<	0.28	0.07	1.52	0.16	0.11	0.02	0.02
R3W 1	P	<	8	16	<	251	25	<	16	<	<	<	5	32	19	<	167	13	31	2	14	3	<	0.01	0.23	0.28	17%	<	0.09	0.03	<

No D3D922 taken

No D3D929 analyzed

Min Limit	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*	99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

--=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

Northern Analytical Laboratories ltd.

6-Nov-96date | Assay Certificate | Page

Ron Bergoni | Caribou D-9 | WO 00595

Sample	Au ppb
R3D917	3
DTH 1	11
DTH 2	23
D3930	10
D3D931	11
D3D932	14
DTH31	19

Confirmed DV

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CERTIFICATE OF ANALYSIS
iPL 93K2909

Caribou D-9

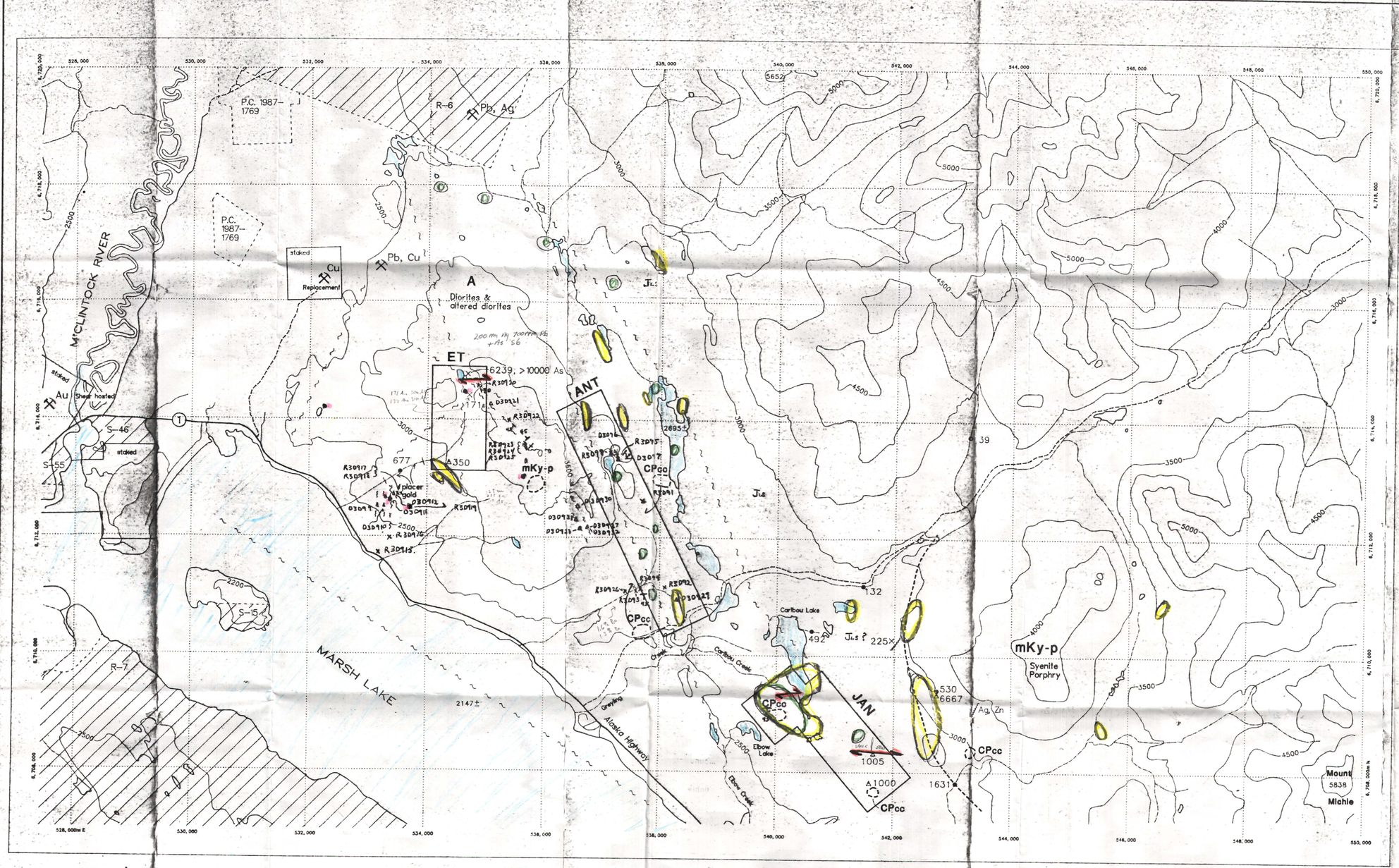
Client: Northern Analytical Laboratories iPL: 93K2909 Out: Dec 01, 1993 Page 1 of 1 Section 1 of 1
Project: WO#00385 7 Pulp In: Nov 29, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
D3730 D30930	P	<	30	111	35	5	<	<	1	<	4	<	8	31	143	4	39	40	213	12	34	2	3	0.07	0.85	0.65	1.65	0.60	0.04	0.03	0.07
D37931 D30931	P	<	41	21	33	4	<	<	2	<	2	<	7	24	146	4	35	35	214	11	43	1	2	0.05	0.91	0.91	1.59	0.54	0.06	0.03	0.07
D37932 D30932	P	<	55	46	39	7	<	<	1	<	4	<	9	30	194	4	43	42	667	10	69	1	3	0.05	1.04	1.19	1.85	0.70	0.05	0.03	0.09
DTH31	P	0.8	119	64	79	14	5	<	2	<	4	0.1	22	40	157	4	96	75	1011	7	22	1	7	0.03	1.61	0.40	4.48	1.19	0.10	0.02	0.09
R30917	P	<	145	15	54	4	<	<	4	<	4	<	21	101	31	4	122	26	984	11	13	4	5	0.08	0.51	0.23	1.40	0.50	0.04	0.03	0.03
RTH-1	P	<	129	3	55	4	<	<	3	<	4	<	7	8	495	4	40	28	469	4	45	2	3	<	0.35	5.50	3.38	0.14	0.14	0.03	0.07
RTH-2	P	3.3	265	36	228	11	8	<	10	<	4	8.2	2	9	25	4	124	9	38	3	3	4	1	<	0.23	0.15	0.70	0.05	0.12	0.01	0.03
.Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

---=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

APPENDIX C

PROPERTY MAP



GEOLOGY LEGEND

A	Volcanic and metavolcanic rocks of uncertain age. (diorites and altered diorites)
mKy-p	Cretaceous porphyritic syenite
CPcc	Carboniferous and Permian Cache Creek Group. (basalts, limestone, cherts, serpentinites)
JLs	Jurassic Lebarge Group. (sediments)

SYMBOLS

- Geological boundary (assumed)
- Fault (assumed)
- Vein
- Oblique graphitic argillic shears with anomalous Au,Ag,As,Cu,Pb,Zn
- EM anomaly
- Magnetic anomaly
- Magnetic low
- × 6239 — Anomalous rock sample, Au ppb, (other elements noted)
- △ 350 — Anomalous soil sample, Au ppb
- • 132 — Anomalous stream sediment sample, Au ppb
- ○ 39 — GSC regional geochem, Au ppb
- Pb, Cu — Documented occurrence, type

Contour interval 500 feet, unless noted.

CARIBOU PROJECT

1993 GRASSROOTS PROSPECTING PROGRAM
JAN, ET & ANT Claims

GEOFF RUSHANT/RON BERDAHL, PROSPECTORS

SCALE: 1 : 35,000		DATE: December, 1993
N.T.S.: 105 D/9	DRAWN: R.S.	FIGURE

1993 PROSPECTOR ASSISTANCE PROGRAM

YTG MINERAL INCENTIVES PROGRAM

PROJECT #93-055

SWAN LAKE PROGRAM

105N/9-10
Lat. 63 35' Long. 132 45'

by: R. S. Berdahl
Box 5664
Whitehorse, Yukon
Y1A 5L5

For Worked Performed between
Aug. 20 - Aug. 26, 1993

TABLE OF CONTENTS

SUMMARY

Grassroots prospecting was employed to attempt to find a rumoured copper showing on the upper lake of the West Lake chain.

The West Lakes area is in the Selwyn Basin of the central Yukon.

The area was found to be a glaciated valley with very limited outcrop. No mineralization, copper or otherwise, was found insitu or float.

1.0 Introduction

This report was prepared to satisfy one of the requirements of the Yukon Mineral Incentives Program under which this project was partially funded. (project #93-055)

The project area is in the central Yukon approximately 100 air miles north of Faro. Reconnaissance prospecting was employed to attempt to locate an undocumented copper showing on the Lake chain.

No particular deposit type was considered. Copper oxides were reported.

2.0 Access/Location

The area is located on NTS mapsheets 105N/9 & 10. The northern most 'West Lake' was accessed. The area is within the Mayo Mining District.

Access was by vehicle to Ross River and then by 206 float plane. Several aborted landings at the Clearwater project 50 miles South were attempted initially. Access by float plane at West Lakes is hampered by the thermokarst topography the Lakes formed over. These shallow "reefs" appear from the air to render the lake too short to utilize. Most reefs are over three foot below surface.

3.0 History

There are no reported mineral showings in the immediate area. The Plata silver property is 20 airmiles southeast. The author's D'OR Aztec gold prospect is 20 miles to the southwest.

A local trapper reported 'extensive' malachite and azurite float on the lake shore in the late 70's.

Most recently Kennecott staked several blocks of claims in all directions to cover stream sediment anomalies after a GSC regional geochemical release in 1991 (GSC O.F. 2363).

4.0 Physiography and Vegetation

The West Lakes valley is a northwest trending, wide (2km +) valley filled with varying depths of glacial till. A severe, extensive forest fire in the late 70's or early 80's destroyed a large climax spruce forest. Much deadfall is present. Buckbrush and willow dominates the area.

5.0 Geology

5.1 Regional Geology

The West Lakes area is situated within the Selwyn Basin, part of the Omisica Belt (Wheeler et al 1991). The Selwyn Basin is imperfectly defined but here is that part of the Cordillera miogeosyncline comprised of a 'prism' of sedimentary rock of pre-Cambrian to mid-Jurassic ages.

The eastern margin of the Basin is at the shale-carbonate interface while the western margin is the Teslin fault. Most stratabound SEDEX type base metal deposits in the northern Cordillera are found here. Major rock units are the Hyland Group (grit unit) of gritty quartz sandstones, shales and phyllites. The Hyland Group is overlain by Ordovician to Silurian Road River rocks which consist of graphitic black shales, calcareous and noncalcareous shales, silty limestones and cherts. Devonian-Mississippian Earn group rock also overlie the Hyland rocks. Distinctive 'gun blue' weathering shales and chert pebble

conglomerates mark this horizon.

5.2 Property Geology

The area is represented by all three basic Selwyn basin suites. Road River black, non-calcareous shales are found on the northwest trending ridge east of the lake. 80% of stream rocks draining the ridge are these shales. Pleasant Creek float consisted of a wide variety of rock types including maroon and green argillites (Hyland Group) and chert pebble conglomerates. No outcrop was seen along the creek.

To the west of the lake westerly (280 degrees) striking and vertically dipping orange weathering shales intermingle with dark, fine grained quartzite schists. Minor thrust faults tilt some of these same rocks 30 degrees south. It is assumed the rocks all along the west part of the valley are Hyland group. Limonitic filled vugs in quartz veins with the mafic quartzite schist are common.

Light stains of manganese and 'rust' are noted. These stains are not restricted to any particular rock type.

6.0 Mineralization

Except for minor pyrites in felsic siliceous float northwest of the upper lake no sulfides were seen. No copper mineralization was found.

7.0 Methodology

Basic prospecting ground proofing the area and taking sediment samples was employed. The area did not lend itself to easy

prospecting. Glacial till is of unknown depth and dead fall was treacherous. The author stabbed a stick into his leg (knee) within hours of the planes departure. The stick was removed in Ross River six days later. The incident limited mobility.

No mineralized bedrock was encountered. The limonitic quartz associated with the Grit Unit was common enough not to arouse interest. The one sample taken (R3N101) was dead.

Four samples were taken and analyzed by N.A.L. in Whitehorse using ICP (IPL Vancouver) for 30 elements and fire assay for gold. One rock sample R3NIOX which was taken from 'Candy Creek' on 105N/10 returned elevated gold and silver numbers.

8.0 Conclusion and Recommendations

The rumoured copper occurrence was not found. Nothing in the area points to a mineralized target of any kind. I recommend sticking to better documented or geologically interesting targets. I also recommend antibiotics and pain killers, if not radios, when in the middle of the Selwyn Basin.

REFERENCES

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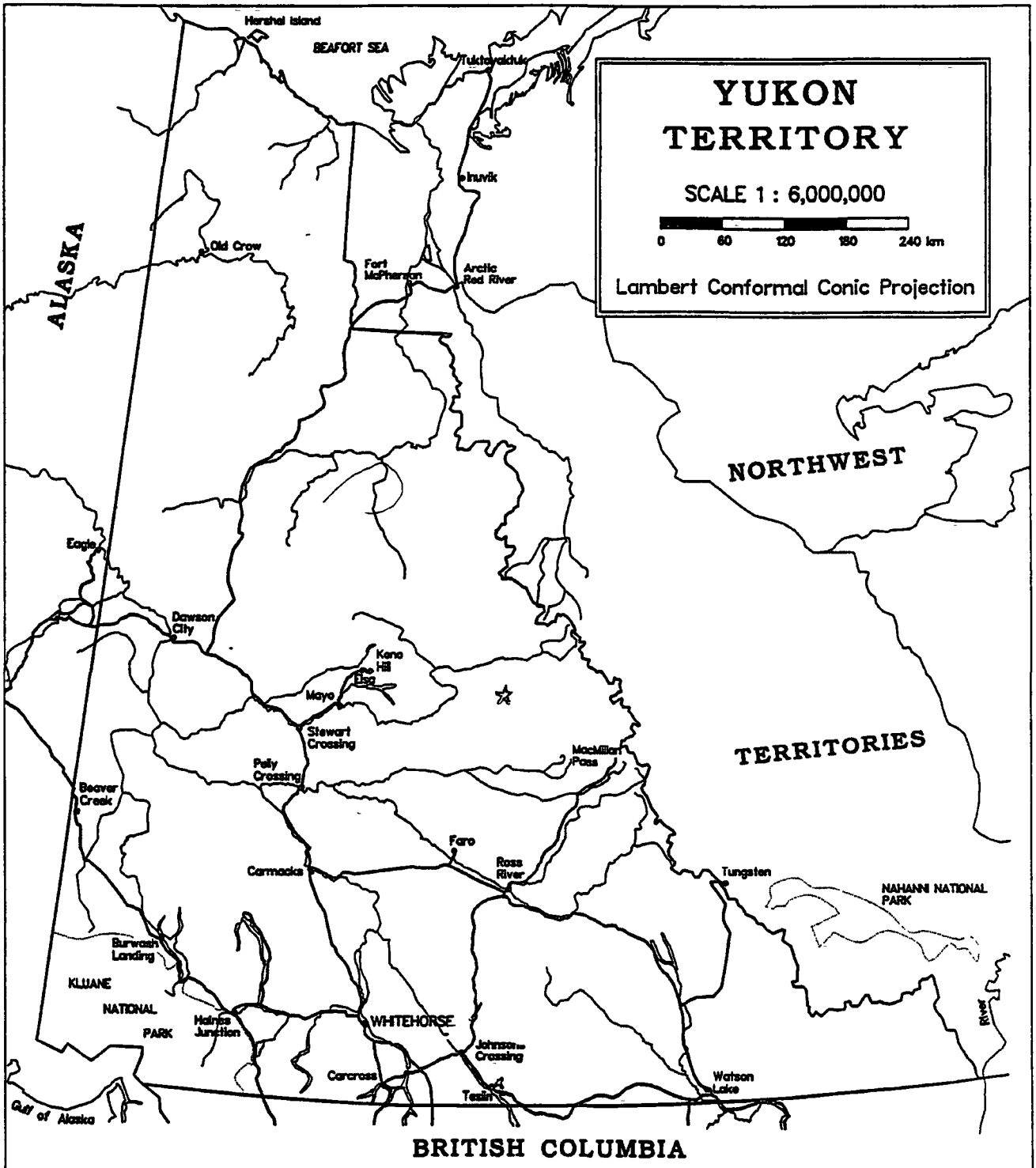
Regional Stream Sediment and Water Geochemical Data, East Central Yukon; 105N, Geological Survey of Canada, Open File 2363.

Wheller O.J., and McFeely P,. 1991.
Tectonic Assemblage Map of the Canadian Cordillera and Adjacent parts of the U.S.A.; Geologic Survey of Canada, Map 1712A.

APPENDIX A

LOCATION MAP



LOCATION MAP

SWAN PROJECT

FIGURE 1

APPENDIX B

GEOCHEM RESULTS

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Saon

Assay Certificate

25-Aug-93date

WO 00270

Ron Berdahl

Sample	Au ppb
~~BC-1~~	12
BC-1	9
2N 10X	364
~~R3G 81~~	9
R3G 87	6
R3G 88	16
R3G 89	13
R3G 810	50
R3G 812	6
R3G 817	12
R3D 91	12
R3D 92	10
R3D 93	17
R3D 94	16
R3D 95	<5
R3D 98	58
R3G 7X	31
R3G 710	14
R3G 711	5
R3G 713	15
R3G 714	10
R3G 715	11
R3G 716	10
R3G 719	25
R3G 720	<5
S3G 71	10
S3G 72	<5
S3G 73	<5
S3G 74	5
S3G 75	<5
S3G 76	6
S3G 77	<5
S3G 78	7
D3G 79	7
S3G 712	7
S3G 717	8
S3G 718	5
S3G 721	11
D3G 96	19
D3G 97	15
S3G 82	63
S3G 83	

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CERTIFICATE OF ANALYSIS
iPL 93H2409

Client: Northern Analytical Laboratories iPL: 93H2409 Out: Aug 25, 1993 Page 1 of 2 Section 1 of 1
Project: 00270 52 Pulp In: Aug 24, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
2N - 10X	P	8.4	326	66	94	32	<	<	21	<	<	<	14	59	60	6	121	48	115	<	14	6	1	<	0.92	0.02	17.14	0.07	0.24	0.04	0.03
BC - 1	P	<	106	11	21	10	<	<	15	<	<	<	9	15	52	<	56	58	63	8	19	4	2	0.01	1.44	0.14	3.37	1.00	0.14	0.06	0.11
BC - 2	P	<	19	47	4	20	<	<	107	<	3	<	23	36	505	14	245	996	651	9	27	8	1	0.01	0.28	0.04	23.32	0.01	0.06	0.02	<
C3G - 1222	P	1.3	18	11	158	21	<	<	13	<	<	<	34	20	73	201	39	393	535	68	18	3	2	0.48	0.62	0.54	10.61	0.33	0.06	0.02	0.19
D3D - 96	P	<	10	12	115	<	<	<	6	<	<	<	16	42	175	7	71	61	470	8	26	3	3	0.17	1.31	0.48	2.26	0.83	0.07	0.03	0.04
D3D - 97	P	4.9	188	45	355	48	9	<	78	<	2	<	22	121	66	11	109	240	219	14	183	25	6	0.76	0.55	0.23	13.87	0.32	0.69	0.06	0.14
D3G - 79	P	<	178	31	127	<	<	<	23	<	<	<	9	8	190	<	18	23	411	26	4	3	3	0.09	1.75	0.01	7.50	1.02	0.76	0.03	0.03
D3G - 718	P	<	17	12	122	<	<	<	7	<	<	<	12	19	95	<	12	16	888	47	8	6	4	0.01	0.72	0.10	2.95	0.24	0.17	0.02	0.02
D3G - 816	P	1.9	92	34	185	18	<	<	12	<	<	0.7	7	32	738	5	21	52	199	16	75	1	2	0.01	1.06	0.17	2.56	0.27	0.07	0.02	0.17
R3D - 91	P	<	72	25	115	<	<	<	20	<	<	<	30	57	115	5	195	314	596	13	19	23	20	0.48	1.78	0.85	4.64	2.17	0.13	0.05	0.10
R3D - 92	P	<	65	7	75	<	34	<	10	<	<	<	35	85	70	<	32	187	1688	<	88	1	28	<	0.48	5.83	7.16	7.75	0.03	0.02	0.01
R3D - 93	P	1.2	42	89	113	39	5	3	5	<	<	1.0	18	19	1.6%	<	117	11	298	2	32	2	3	<	1.41	0.14	1.34	0.10	0.13	0.02	0.01
R3D - 94	P	<	34	10	406	47	<	<	6	<	<	6.2	14	14	1.3%	<	137	8	75	2	19	1	2	<	0.85	0.11	1.36	0.17	0.12	0.03	0.01
R3D - 95	P	<	52	13	53	<	<	3	8	<	2	0.2	9	19	650	5	127	42	245	8	67	3	5	0.11	0.79	4.03	1.66	0.90	0.12	0.03	0.03
R3D - 98	P	<	80	21	64	<	13	<	11	<	<	<	51	219	290	<	762	108	781	6	24	23	33	1.2%	3.11	1.13	8.65	2.28	0.26	0.02	0.03
R3G - 7X	P	35.0	3.0%	3605	15958	17	<	<	123	<	65	36.5	19	26	22	87	109	10	895	3	101	2	<	<	0.12	2.36	10.89	0.02	0.01	0.01	<
R3G - 81	P	<	69	13	1262	30	<	<	12	<	<	12.5	19	128	621	7	97	29	7470	2	42	5	3	<	0.23	0.12	4.94	0.03	0.05	0.02	0.01
R3G - 87	P	<	4	21	5	5	<	<	6	<	<	<	2	3	96	<	69	5	38	19	9	28	<	<	0.21	0.02	1.42	0.01	0.25	0.03	0.01
R3G - 88	P	0.9	83	1335	17	679	<	<	32	<	<	<	6	7	94	<	111	142	34	3	66	7	1	0.03	0.10	<	13.12	<	0.62	0.02	0.12
R3G - 89	P	0.6	59	24	116	230	7	<	13	<	<	<	9	32	136	<	75	50	70	<	14	3	1	<	1.58	0.03	10.50	0.01	0.22	0.03	0.06
R3G - 710	P	0.5	563	9	8	9	<	<	14	<	50	<	82	65	8	53	108	7	73	14	7	2	1	0.02	0.30	0.27	9.40	0.24	0.01	0.02	0.10
R3G - 711	P	<	170	33	95	<	<	<	5	<	<	0.3	5	4	31	6	57	11	1053	14	95	4	1	0.05	0.80	4.09	2.03	0.06	0.01	0.03	0.04
R3G - 713	P	<	148	18	26	<	<	<	18	<	<	<	15	10	81	6	61	15	1636	9	328	3	3	0.06	2.12	3.49	4.09	0.43	0.10	0.16	0.06
R3G - 714	P	0.4	653	6	17	12	<	<	10	<	<	<	30	13	8	<	53	10	767	<	16	1	<	0.01	0.53	2.17	6.56	0.11	<	0.02	0.02
R3G - 715	P	0.7	945	8	13	<	<	<	10	<	<	<	44	15	3	<	55	17	1318	<	7	1	<	0.02	1.04	2.49	7.54	0.12	<	0.02	0.02
R3G - 716	P	0.3	444	12	28	<	<	<	10	<	<	<	29	15	23	7	50	16	1075	5	52	2	1	0.10	0.93	2.96	6.14	0.29	0.01	0.05	0.04
R3G - 719	P	0.6	128	36	58	17	<	<	6	<	<	<	5	14	21	<	124	5	66	7	2	4	1	<	0.18	0.03	1.80	0.02	0.06	0.01	0.01
R3G - 720	P	<	29	16	66	<	<	<	11	<	<	<	5	24	303	<	178	69	187	6	7	3	3	0.06	0.87	0.05	2.93	0.17	0.38	0.03	0.01
R3G - 810	P	<	46	19	32	372	<	<	12	<	<	<	26	195	111	<	206	24	1741	3	172	3	5	<	0.72	7.54	6.10	3.76	0.10	0.02	0.08
R3G - 812	P	<	14	5	16	25	<	<	9	<	<	<	16	26	155	<	63	15	2072	10	94	1	3	<	0.23	7.85	5.30	1.90	0.04	0.02	0.04
R3G - 817	P	<	<	8	30	<	7	<	11	<	<	<	93	0.2%	13	<	311	9	807	<	1	<	3	<	0.08	0.08	4.41	23%	<	0.01	<
R3G - 71	P	<	59	22	134	<	<	<	7	<	<	<	20	51	253	<	58	78	886	20	22	1	6	0.17	1.73	0.74	4.05	1.50	0.66	0.03	0.23
R3G - 72	P	<	40	19	82	<	<	<	8	<	<	<	22	43	261	<	73	96	537	24	19	1	6	0.19	1.87	0.67	3.87	1.51	0.72	0.03	0.19
R3G - 73	P	<	31	17	77	10	<	<	9	<	<	<	20	35	408	11	54	72	4136	19	26	1	5	0.14	1.35	0.93	5.50	1.09	0.46	0.03	0.28
R3G - 74	P	<	70	22	155	<	<	<	10	<	<	<	24	62	268	7	67	89	1113	21	22	1	7	0.21	2.01	0.63	4.79	1.77	0.82	0.03	0.18
R3G - 75	P	<	74	21	156	<	<	<	9	<	<	<	23	58	277	6	66	90	1054	22	22	1	7	0.21	2.03	0.59	4.79	1.74	0.84	0.03	0.16
R3G - 76	P	<	40	14	93	<	<	3	8	<	<	<	20	30	367	5	48	82	2095	18	25	1	6	0.17	1.57	0.85	4.49	1.22	0.67	0.03	0.27
R3G - 77	P	<	138	34	224	<	<	<	12	<	<	<	21	96	231	5	69	46	773	25	16	2	5	0.10	1.48	0.37	4.84	1.68	0.51	0.03	0.10
R3G - 78	P	<	309	45	316	<	<	<	16	<	<	<	23	24	230	8	28	37	947	39	9	2	5	0.10	1.81	0.22	5.56	1.18	0.71	0.03	0.05
Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
od		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

o Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

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Ron Berdahl Swan N10 WO 00300

Sample	Au ppb
RE3129	15
R3N101	11 ?

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20-Sep-93date | Assay Certificate | Page1

Ron Berdahl | Swan N-10 | WO 00300

Sample	Au ppb
D3D99	14
D3D910	29
D3D911	45
D3D912	7
D3E121	21
D3E122	11
D3E123	13
D3E124	12
D3E125	11
D3E126	17
D3E127	9
D3E128	10
S3E1210	19
D3E1213	13
D3E1214	9
D3E1215	14
D3E1216	47
D3E1217	11
D3E1218	14
D3E1219	33
S3E1220	9
S3E1221	10
D3E1222? (not clearly legible)	14
D3E1223	13
D3E1224	15
S3E1225	10
D3E1226	22
M3E1227	12
D3E1228	13
D3E1229	51
D3E1230	10
S3E1231-1	29
S3E1231-2	3
D3E1232	16
D3E1233	11
D3E12x3	16
D3E12x4	24
D3E12x5	17
D3E12x6	7
#15	17
S3N102	11
S3N103	9

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CERTIFICATE OF ANALYSIS

iPL 93I2004

Copy Swan

Client: Northern Analytical Laboratories iPL: 93I2004 Out: Sep 23, 1993 Page 1 of 2 Section 1 of 1
Project: 00300 44 Pulp In: Sep 20, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
#15		<	21	8	39	<	<	<	1	<	<	<	7	12	77	<	16	37	217	5	74	2	3	0.06	0.93	0.64	1.57	0.51	0.05	0.05	0.07
D3099		<	87	13	52	5	<	<	2	<	<	<	22	138	435	<	61	55	877	15	28	4	12	0.08	1.90	0.48	2.92	0.58	0.05	0.03	0.08
D30 910		<	28	9	35	<	<	<	1	<	<	<	12	65	273	5	44	39	932	10	21	1	5	0.07	1.30	0.42	2.03	0.48	0.09	0.03	0.07
D30 911		<	31	4	15	<	<	<	1	<	<	<	5	17	139	<	30	31	102	9	18	2	3	0.06	0.89	0.35	1.03	0.33	0.03	0.02	0.07
D30 912		<	15	10	29	<	<	<	1	<	<	<	7	32	284	6	38	34	156	7	19	2	3	0.07	1.18	0.35	1.60	0.46	0.04	0.03	0.04
D3E 12X	3	<	39	13	69	<	<	<	1	<	<	<	11	21	132	<	28	54	504	10	102	2	5	0.09	1.37	1.42	2.45	0.73	0.09	0.04	0.08
D3E 12X	4	<	40	19	66	5	<	<	1	<	<	<	12	23	120	<	30	56	433	10	84	2	5	0.09	1.41	1.65	2.57	0.76	0.09	0.04	0.08
D3E 12X	5	<	38	13	60	5	<	<	2	<	<	<	11	21	105	<	26	53	464	11	95	3	5	0.08	1.28	2.53	2.40	0.75	0.08	0.04	0.09
D3E 12X	6	<	65	6	116	5	<	<	16	<	1.0	4	11	72	<	10	47	34	3	111	4	2	0.03	0.61	2.52	1.17	0.21	<	0.02	0.06
D3E	121	<	36	10	60	<	<	<	2	<	<	<	10	13	64	<	26	67	300	6	199	7	5	0.10	1.28	2.09	2.48	0.85	0.04	0.03	0.08
D3E	122	<	37	9	58	<	<	<	2	<	<	<	11	17	73	<	22	52	318	9	135	4	5	0.07	1.15	2.36	2.34	0.70	0.08	0.03	0.08
D3E	123	<	35	10	36	<	<	<	1	<	<	<	8	17	93	<	22	42	207	7	64	2	3	0.07	1.14	0.99	1.73	0.52	0.08	0.04	0.04
D3E	124	<	33	11	63	5	<	<	1	<	<	<	10	27	161	<	28	50	429	9	56	2	4	0.08	1.26	1.12	2.27	0.65	0.07	0.04	0.09
D3E	125	<	17	12	45	<	<	<	1	<	<	<	11	19	143	<	29	53	486	7	32	2	4	0.10	1.70	0.45	2.48	0.62	0.13	0.03	0.05
D3E	126	<	37	9	52	<	<	<	1	<	<	<	9	19	124	<	26	54	305	10	46	2	4	0.09	1.19	0.66	2.41	0.64	0.06	0.04	0.09
D3E	127	<	43	11	52	<	<	<	2	<	<	<	12	35	175	<	34	55	485	11	115	4	5	0.10	1.33	4.61	2.52	0.96	0.07	0.04	0.09
D3E	128	<	41	15	59	<	<	<	1	<	<	<	10	22	136	<	31	56	309	11	55	2	5	0.10	1.49	0.82	2.57	0.77	0.10	0.04	0.09
D3E	1213	<	31	14	48	<	<	<	1	<	<	<	8	20	109	<	23	47	276	7	86	2	4	0.06	1.09	1.10	2.06	0.69	0.05	0.04	0.08
D3E	1214	<	34	12	58	<	<	<	2	<	<	<	9	20	189	<	29	53	312	11	80	2	5	0.09	1.48	1.90	2.58	0.83	0.12	0.04	0.08
D3E	1215	<	14	13	55	<	<	<	2	<	<	<	12	18	158	<	29	49	747	7	28	3	4	0.09	1.76	0.41	2.63	0.56	0.20	0.03	0.07
D3E	1216	<	28	14	54	<	<	<	2	<	<	<	9	20	138	<	29	54	354	11	40	2	5	0.09	1.40	0.58	2.52	0.65	0.09	0.04	0.07
D3E	1217	<	56	12	64	<	<	<	1	<	<	<	11	24	186	<	30	55	603	12	60	2	6	0.07	1.56	1.17	2.44	0.64	0.06	0.03	0.05
D3E	1218	<	19	9	61	<	<	<	1	<	<	<	8	17	91	5	26	50	210	9	68	4	4	0.08	1.06	0.98	2.03	0.65	0.05	0.03	0.08
D3E	1219	<	25	8	61	<	<	<	1	<	<	0.2	5	12	93	<	15	31	282	5	178	3	2	0.04	0.76	1.92	1.22	0.51	0.04	0.03	0.09
D3E	1222	<	13	7	52	<	<	<	1	<	<	<	6	10	79	<	18	38	243	8	69	2	3	0.06	0.90	0.98	1.48	0.50	0.04	0.03	0.08
D3E	1223	<	11	6	37	<	<	<	<	<	<	<	5	9	89	<	15	34	195	7	46	1	2	0.06	0.85	0.70	1.32	0.43	0.04	0.03	0.09
D3E	1224	<	18	13	68	<	<	<	2	<	<	<	11	21	112	<	32	67	350	9	67	3	5	0.10	1.44	0.79	2.55	0.88	0.05	0.03	0.10
D3E	1225	<	6	<	36	<	<	<	<	<	<	0.1	6	7	66	<	12	30	156	7	51	2	2	0.06	0.66	0.66	1.07	0.40	0.05	0.03	0.09
D3E	1226	<	14	15	48	<	<	<	<	<	<	0.1	5	7	99	<	12	24	832	5	112	2	1	0.04	0.65	1.60	1.05	0.40	0.05	0.03	0.09
D3E	1227	<	24	12	53	<	<	<	1	<	<	0.2	4	8	104	<	12	20	525	4	158	3	1	0.04	0.69	2.23	0.93	0.44	0.04	0.03	0.09
D3E	1228	<	32	12	62	<	<	<	1	<	<	<	8	15	93	<	23	50	506	8	91	2	4	0.08	1.10	1.25	2.02	0.64	0.07	0.03	0.10
D3E	1229	<	21	13	54	6	<	<	2	<	<	<	10	13	100	<	20	54	278	9	59	4	4	0.08	1.15	0.80	2.72	0.55	0.09	0.04	0.10
D3E	1230	<	24	11	59	<	<	<	2	<	<	<	10	17	78	<	27	56	297	9	123	3	4	0.11	1.41	0.87	2.52	0.74	0.11	0.04	0.05
D3E	1232	<	36	10	54	<	<	<	2	<	<	<	11	22	117	<	27	59	355	11	81	3	5	0.10	1.34	1.68	2.51	0.83	0.12	0.04	0.08
D3E	1233	<	25	12	48	5	<	<	1	<	<	<	11	22	129	<	31	59	381	12	50	3	5	0.10	1.55	0.58	2.68	0.73	0.11	0.04	0.05
R3N	101	<	8	11	28	<	<	<	3	<	<	0.1	2	5	26	<	127	3	423	<	8	<	1	<	0.09	0.33	1.07	0.04	0.02	0.01	0.04
R3N	3129	<	21	3	89	<	<	<	4	<	<	0.8	9	10	1212	<	38	37	873	5	84	2	3	0.01	0.38	10.30	4.90	0.26	0.12	0.02	0.05
S3E	1210	<	21	6	55	<	<	<	1	<	<	0.2	5	10	132	<	13	29	453	5	86	2	2	0.04	0.67	1.36	1.36	0.44	0.05	0.03	0.08
S3E	1220	<	32	16	103	<	<	<	1	<	<	0.4	6	16	99	<	22	38	367	8	157	3	4	0.05	0.93	1.58	1.45	0.74	0.07	0.02	0.08
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

---=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

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Rampart

Swan N10

CERTIFICATE OF ANALYSIS
iPL 93I2004

Client: Northern Analytical Laboratories iPL: 93I2004 Out: Sep 23, 1993 Page 2 of 2 Section 1 of 1
Project: 00300 44 Pulp In: Sep 20, 1993 Certified BC Assayer: David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
S3E 1221 P	<	21	32	46	<	<	<	1	<	<	0.1	6	10	100	<	12	29	355	6	130	2	2	0.04	0.57	1.47	1.16	0.41	0.05	0.03	0.07
S3E 1231-1 P	<	29	5	54	<	<	<	1	<	<	0.1	6	10	69	<	13	30	413	6	156	1	2	0.05	0.74	1.56	1.41	0.51	0.07	0.03	0.08
S3E 1231-2 P	<	13	<	47	<	<	<	<	<	<	<	5	8	41	<	11	33	150	6	75	1	2	0.06	0.70	0.76	1.29	0.43	0.05	0.03	0.09
SEN 102 P	<	31	15	111	8	<	<	3	<	<	0.3	13	31	420	<	20	29	1035	6	26	<	3	0.01	0.73	0.24	2.90	0.40	0.07	0.01	0.07
SEN 103 P	<	28	17	136	26	<	<	7	<	<	0.8	11	37	663	<	14	32	951	5	47	<	2	<	0.71	0.33	2.68	0.31	0.06	0.01	0.08
Min Limit	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*	99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

---=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

APPENDIX C

PROPERTY MAP

Typical 'West Lakes' topography and ground cover. Glacial history is evident. Outcrop is found on other sides of Lake in back ground. Looking south toward Plata Inca Silver on mountains in background. Ridge photo is taken from is probably Road River black shales.

RS BERDAHL
YMIP #093-055
SWAN PROJECT
105N9/10

SCALE:
1:30,000

x-sample location R-rock S-stream

t20 strike/DIP

flt - float

mini thrust

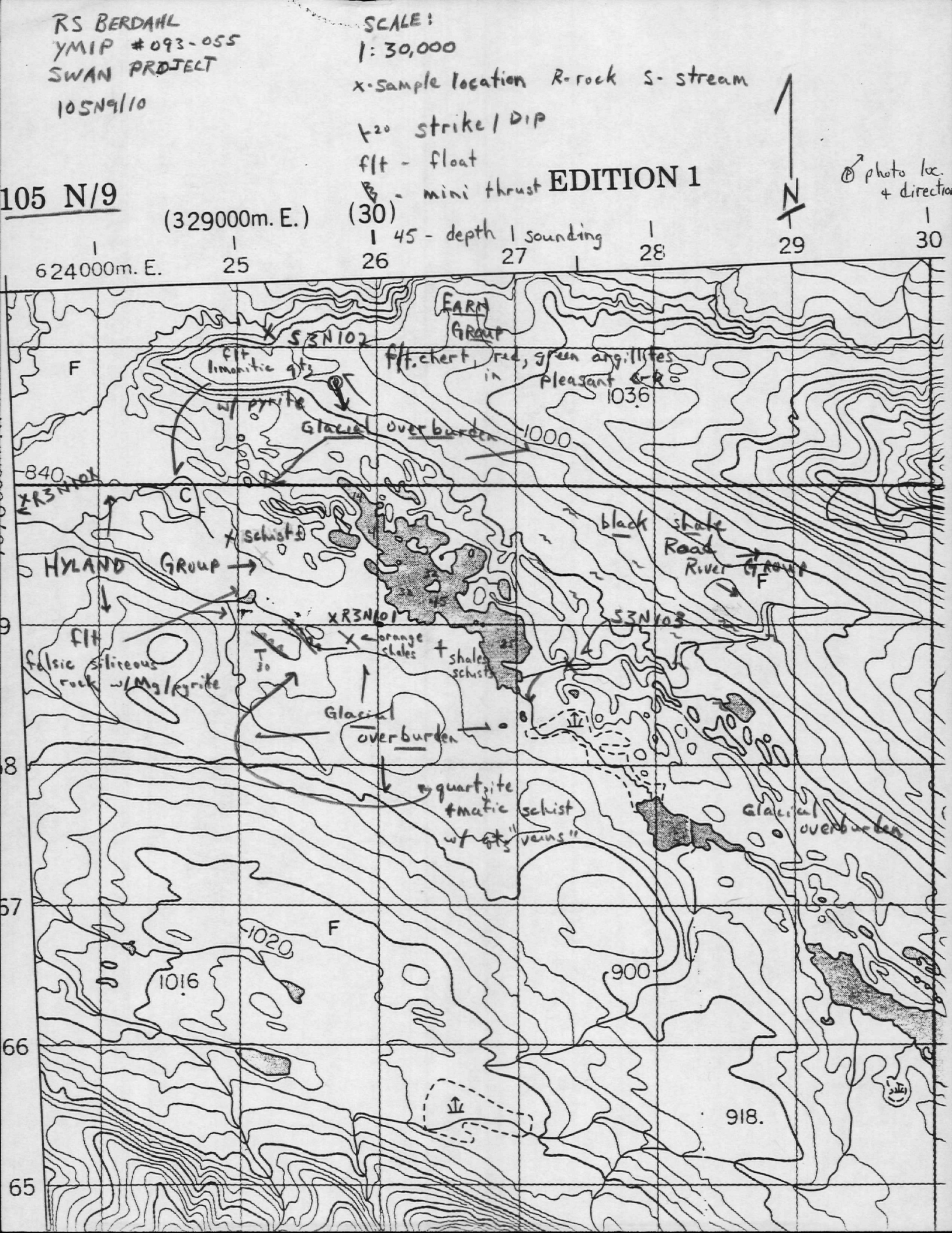
45 - depth/sounding

EDITION 1

105 N/9

(329000m. E.)

624000m. E.



1993 PROSPECTOR ASSISTANCE PROGRAM

YTG MINERAL INCENTIVES PROGRAM

PROJECT #93-055

NORTH LAKE PROSPECTING PROGRAM
105G/7-8
Lat. 61 20' Long. 130 25'

By: R.S. Berdahl
Box 5664
Whitehorse, Y.T.

for worked performed between
Aug. 2 to Aug 12, 1993

TABLE OF CONTENTS

SUMMARY

Reconnaissance exploration was undertaken in a 25 square kilometre area around the largest North Lake in an attempt to find an extension to the nearby PAK VMS showing.

In 1988 pyrrhotite float was found along North Lakes shore. This combined with GSC stream sediment anomalies in the area prompted exploration.

Stream sediment samples returned disappointing results. More "massive sulphide" float was located but it resembles, in geochemistry, a metalliferous skarn located northeast of North Lake. While the skarn lies in the same stratigraphic horizon as the PAK showing metal values especially for Pb and Zn were very low. Cominco staked two proposed exploration targets.

1.0 Introduction

This report was prepared to satisfy one of the requirements of the Yukon Mineral Incentives Program under which this project was partially funded (project #93-055). Its main focus is to assess the project areas economic potential.

The project area is located approximately 150 kilometres northwest of Watson Lake (appendix A).

Prospecting consisted of ground proofing, sediment sampling and panning for the purpose of locating volcanogenic massive sulphide deposits.

2.0 Access/Location

The project area is approximately 35 kilometres south of Finlayson Lake. Finlayson Lake is a base for Kluane Airs Beaver which was used to access the lake. Helicopter support is available at Ross River (70 km NW) and possibly at Finlayson.

The area is under the jurisdiction of the Watson Lake Mining Recorder. Its specific location is Lat. 61 20', Long. 130 25'.

3.0 History

This area was probably explored for placer gold before and after the Klondike gold rush by prospectors working up the Liard. The area was explored for lead-zinc deposits in the 1960's. The PAK showing was discovered in 1961 by some unnamed prospector working for Conwest. The Fyre Lake deposit was found the previous year by Cassiar Asbestos Corp.

The area has been explored intermittently since the 1960's. Cominco has staked two of the authors exploration targets in this

area. Cominco was active in the area during the mid seventies as well. Evidence of exploration was evident on all sides of North Lake.

4.0 Physiography/Vegetation

The North Lakes occupy high (over 4000') broad (2 km) valleys at the head waters of the Liard River system. Rounded to rugged mountains to over 7,700 feet surround the valleys. The drainages immediately north eventually empty into the Pacific while North Lake waters go to the arctic via the MacKenzie.

The valleys have a mix of glacial and alluvial weathering patterns. They are generally treeless but covered with thick buckbrush. Trees (fir & spruce) cling to the valley walls to approximately 4,500 on south slopes. There are few bears but an abundance of wolverine, wolves, moose and caribou (August).

5.0 Geology

5.1 Regional Geology

The Wolverine Project is within the Ominica Belt (Wheeler et al., 1991). The oldest rocks exposed are the Upper Proterozoic to Triassic cataclastic sediments and volcanics of the Nisutlin subterrane (Klondike Schists) part of the Kootenay pericratonic terrane is stratigraphically or structurally different than the North American Craton but no significant displacement (accretion is evident. Younger oceanic marginal basin volcanic and sedimentary rocks of the Devonian-Triassic allochthonous Slide Mountain Terrane are also found in the area thrust over sedimentary rocks of the Cassia Platform.

The Tintina Fault, located approximately 40 km southwest of the project area, is believed to follow the Mesozoic suture which separates ancestral North American from accreted terranes. The Fault has experienced approximately 450 km of dextral slip since the late Cretaceous or Early Tertiary time (Templeman-Kluit, 1979).

5.2 Property Geology

The project has been mapped with three main lithologies. Oldest are the `Klondike Schists' ranging from quartz-feldspathic gneiss to quartz and chlorite schists. Templemain-Kluit (1977) identifies the a group 4 `Klondike Schists' being a more metamorphosed version of types 2 and 3. The schists grade from a mafic biotite schist on the foot wall of the PAK showing to felsic quartz schists west of the lake. Shales, quartzites and orange coloured (but barren) quartz veins are common west of North Lake. More variable but generally darker schists are common to the east. Schists dominate everywhere.

Cambrian (?) ultramafics are found in a belt (unmapped) just east of the PAK showing north to the mapped Cpuf body. Ultramafics dominate the 7,721 foot peak east of North Lakes. Similar `slabs' of ultramafics can be seen across the valley to the south. Ultramafics are variable in stream rocks and in outcrop. An orange rind is common on dark green magnetic rocks. No asbestos or jade specimens were seen. Cretaceous quartz monzonites intrude the first two lithologies. This contact was responsible for a bright orange yellow gossan in the valley east of North Lake. Despite the colour no anomalies resulted.

The most striking feature of the areas geology was the consistent flat lying formations and very mild northerly dip. The Pak Showing is found between two flat lying rocks. Mafic biotite schists below and white "feldspar quartzite" as the hanging wall. The same pattern was seen in the cirque gossan immediately northeast of North Lake. There is a 10 metre plus skarn zone which is bounded by the same mafic schist and `quartzite'. The skarn consists of garnet and diopside with low metal values.

The target several miles north of North Lake was not evaluated. However on the flight out it was evident the geology was more complex than shown on the Templeman-Kluit map,1 which registers class 4 schists. A gossan probably associated with an intrusive may be responsible. Good base metal, and not precious metal values, are associated with the drainage.

6.0 Mineralization

Mineralization was observed at the PAK VMS showing. The mineralization is exposed in a cliff face. Float consists of rocks (to .3m) of very rusty weathering massive sulphide with a very dark rusty `peacock' stain, that contains pyrrhotite and disseminated chalcopyrite or barite. (R3G7X - 3% Cu, 1.6% Zn, .36% Pb, 35 ppm Ag)

The float found along the lake is described as being very rusty containing up to 50% metal. It is non metallic with some quartz veining and no peacock staining. No copper minerals are evident. (R3G710 - 563 ppm Cu, 8 ppm Zn, 9 ppm Pb, .5 ppm Ag, 9.4% Fe) No diopside was detected.

At the skarn zone cirque metallic float originates from a 2 metre wide, horizonal, rusty layer above the biotite schist and below the quartzite. Rock R3G715, a very fine grained magnetic `skarn' with 20% metal ran 945 ppm Cu, 13 ppm Zn, 8 ppm Pb, .7 Ag and 7% Fe. Geochemically this resembles the #10 float rock. Stratigraphically it is liken to the PAK.

The float found along the lake shore in 1988 definitely had the peacock stain - no assay was ever made.

7.0 Methodology/Geochem Results

Recce prospecting was employed to rediscover metallic float, resample GSC anomaly sites, evaluate gossans and consider favourable VMS host lithologies.

Prospecting was carried out over eleven days from Aug 2 - 12. Twenty two rock, soil and stream sediment samples were assayed. Lab analysis was carried out by NAL of Whitehorse using 30 element ICP (by IPL in Vancouver) and fire assay gold.

No samples were anomalous in gold. GSC sites were not replicated though most sites were not resampled due to the brand new competitors claim block thrown over many of them. Geochem results are outline in 6.0 mineralization.

8.0 Conclusion and Recommendations

Given the VMS model, specifically their tendency to form in clusters, and the PAK VMS occurrence the North Lake area has potential for more showings. One can only be encouraged that a major, who has previously worked in the areas, has staked two exploration targets in the area. It is obvious by the amount of

prospecting that has already occurred in the immediate area of the PAK showing that a more in depth exploration pattern must be used.

With low base metal prices and little hope for quick improvement (barring war) and low metal values in assayed samples I would not recommend further work in this immediate area. Information on the claims staked to the north (Home, Tag, Plate) should eventually be obtained for future use when metal prices improve. Further the pyrrhotite float puzzle remains unsolved.

In the near term Cominco seems to have a narrow interest in VMS targets in this area. if one could locate other anomalous situations that fit the VMS model (eg. low Pb to Cu rations) in the 105G area there appears to be a ready, if finicky market.

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Yukon Minfile, 1992;
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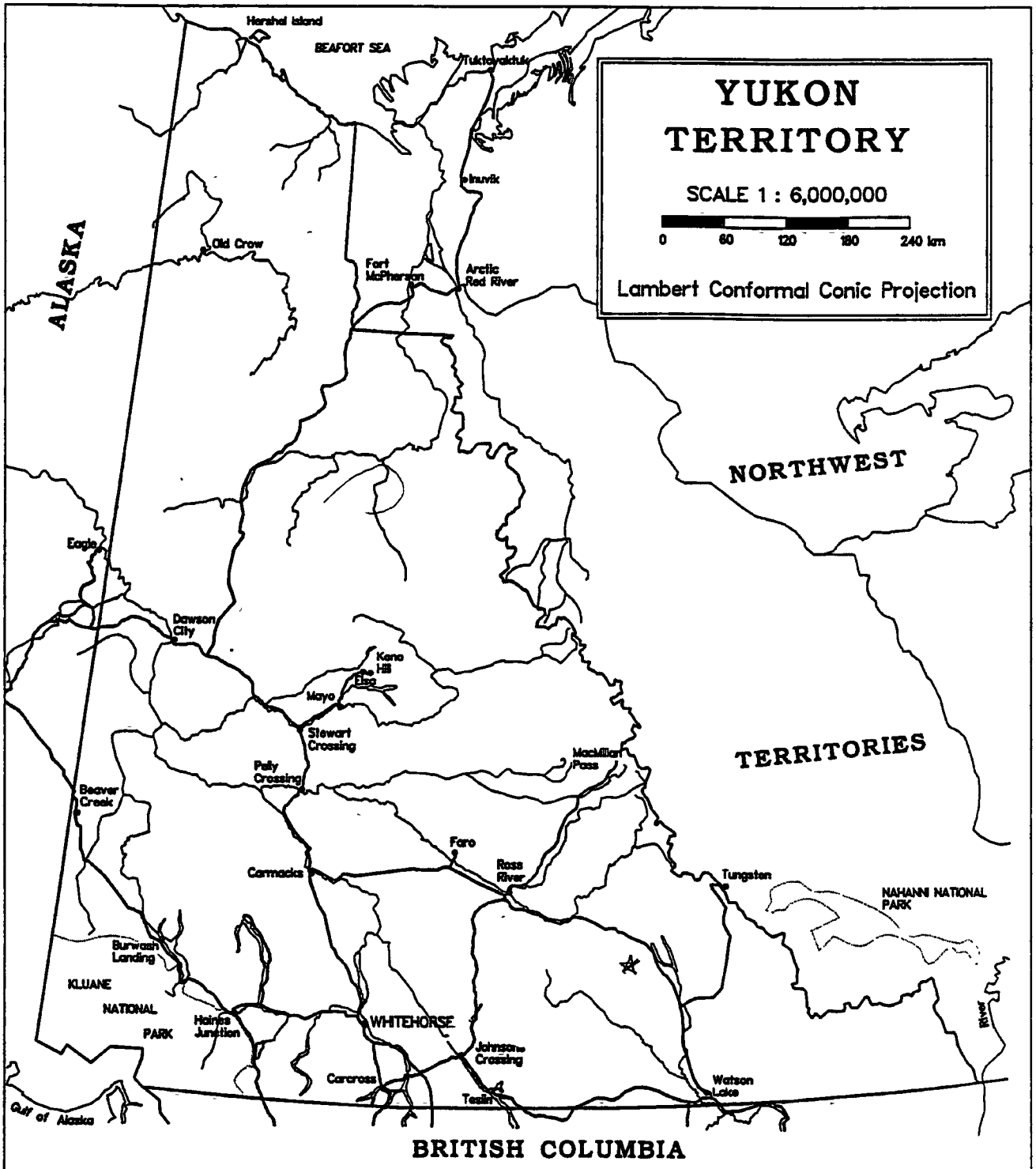
APPENDIX A

LOCATION MAP



LOCATION MAP

NORTH LAKE PROJECT

FIGURE 1

APPENDIX B

GEOCHEM RESULTS

Northern Analytical Laboratories ltd.

25-Aug-93date | Assay Certificate | Page1

Ron Berdahl | North G-7 | WO 00270

Sample (was labelled)	Au ppb
BC-1	12
BC-1	9
2N 10X	364
R3G 81	9
R3G 87	6
R3G 88	16
R3G 89	13
R3G 810	50
R3G 812	6
R3G 817	12
R3D 91	12
R3D 92	12
R3D 93	10
R3D 94	17
R3D 95	16
R3D 98	<5
R3G 7X	58
R3G 710	31
R3G 711	14
R3G 713	5
R3G 714	15
R3G 715	10
R3G 716	11
R3G 719	10
R3G 720	25
S3G 71	<5
S3G 72	10
S3G 73	<5
S3G 74	<5
S3G 75	5
S3G 76	<5
S3G 77	6
S3G 78	<5
D3G 79	7
S3G 712	7
S3G 717	7
S3G 718	8
S3G 721	5
D3G 96	11
D3G 97	19
S3G 82	15
S3G 83	63

Certified by

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North
G-7

CERTIFICATE OF ANALYSIS
iPL 93H2409

Client: Northern Analytical Laboratories iPL: 93H2409 Out: Aug 25, 1993 Page 2 of 2 Section 1 of 1
Project: 00270 52 Pulp In: Aug 24, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
S3G - 82	P	1.2	130	97	460	45	<	<	9	<	A	7.6	10	61	610	6	16	31	866	15	97	1	1	0.01	0.84	0.42	2.56	0.27	0.09	0.02	0.15
S3G - 83	P	1.0	102	67	414	47	7	<	11	<	A	5.3	15	68	611	5	22	42	1230	18	80	1	2	0.01	0.82	0.33	3.34	0.36	0.08	0.02	0.16
S3G - 84	P	0.2	63	21	186	6	<	<	5	<	A	0.7	13	47	514	<	52	45	890	13	65	2	3	0.03	1.34	1.35	2.51	0.77	0.08	0.02	0.12
S3G - 85	P	0.7	65	36	192	7	<	<	5	<	A	0.2	11	39	749	<	30	34	503	33	51	2	3	0.02	1.67	0.58	2.24	0.53	0.11	0.03	0.12
S3G - 86	P	1.0	51	183	184	47	<	<	10	<	A	<	4	17	348	<	9	21	108	17	78	<	<	0.01	0.49	0.05	3.64	0.09	0.19	0.03	0.19
S3G - 712	P	<	55	22	116	<	<	<	7	<	A	<	17	59	545	<	81	87	571	16	22	<	6	0.15	1.99	0.51	2.91	1.37	0.45	0.03	0.14
S3G - 717	P	<	54	16	94	<	<	<	8	<	A	<	31	56	480	<	81	120	625	21	35	1	7	0.22	2.25	1.08	4.71	1.82	0.96	0.03	0.30
S3G - 721	P	<	71	43	336	<	<	<	11	<	A	<	24	34	208	8	63	69	1318	41	20	4	7	0.18	2.37	0.65	5.35	1.86	0.63	0.02	0.15
S3G - 811	P	0.3	44	28	616	25	<	3	9	<	A	6.1	13	84	599	6	23	29	874	14	110	1	1	0.02	0.54	0.48	2.63	0.39	0.04	0.02	0.16
S3G - 813	P	0.1	64	62	458	14	<	<	12	<	A	2.3	14	48	1150	5	19	35	1183	13	45	<	1	0.03	0.87	0.31	3.51	0.40	0.04	0.02	0.12
S3G - 814	P	0.2	103	92	945	15	<	<	13	<	A	5.2	14	84	1268	9	21	36	1377	16	49	1	1	0.02	1.13	0.39	4.20	0.39	0.06	0.02	0.15
S3G - 815	P	0.6	533	176	1841	19	<	<	16	<	A	5.4	64	85	400	10	31	26	5941	22	23	4	5	0.01	3.90	0.17	8.45	0.29	0.06	0.02	0.11
S3G - 1221	P	<	27	13	101	7	<	<	7	<	A	<	17	30	249	10	38	72	461	13	36	1	4	0.18	1.82	0.56	3.46	0.97	0.32	0.04	0.11
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

---=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

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CERTIFICATE OF ANALYSIS
iPL 93H2409

North G-7

#9 missing

Client: Northern Analytical Laboratories iPL: 93H2409 Out: Aug 25, 1993 Page 1 of 2 Section 1 of 1
Project: 00270 52 Pulp In: Aug 24, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
2N - 10X	P	8.4	326	66	94	32	<	<	21	<	<	<	14	59	60	6	121	48	115	<	14	6	1	<	0.92	0.02	17.14	0.07	0.24	0.04	0.03
BC - 1	P	<	106	11	21	10	<	<	15	<	<	<	9	15	52	<	56	58	63	8	19	4	2	0.01	1.44	0.14	3.37	1.00	0.14	0.06	0.11
BC - 2	P	<	19	47	4	20	<	<	107	<	3	<	23	36	505	14	245	996	651	9	27	8	1	0.01	0.28	0.04	23.32	0.01	0.06	0.02	<
C3G - 1222	P	1.3	18	11	158	21	<	<	13	<	<	<	34	20	73	201	39	393	535	68	18	3	2	0.48	0.62	0.54	10.61	0.33	0.06	0.02	0.19
D3D - 96	P	<	10	12	115	<	<	<	6	<	<	<	16	42	175	7	71	61	470	8	26	3	3	0.17	1.31	0.48	2.26	0.83	0.07	0.03	0.04
D3D - 97	P	4.9	188	45	355	48	9	<	78	<	2	<	22	121	66	11	109	240	219	14	183	25	6	0.76	0.55	0.23	13.87	0.32	0.69	0.06	0.14
D3G - 79	P	<	178	31	127	<	<	<	23	<	<	<	9	8	190	8	18	23	411	26	4	3	3	0.09	1.75	0.01	7.50	1.02	0.76	0.03	0.03
D3G - 718	P	<	17	12	122	<	<	<	7	<	<	<	12	19	95	<	12	16	888	47	8	6	4	0.01	0.72	0.10	2.95	0.24	0.17	0.02	0.02
D3G - 816	P	1.9	92	34	185	18	<	<	12	<	<	0.7	7	32	738	5	21	52	199	16	75	1	2	0.01	1.06	0.17	2.56	0.27	0.07	0.02	0.17
R3D - 91	P	<	72	25	115	<	<	<	20	<	<	<	30	57	115	5	195	314	596	13	19	23	20	0.48	1.78	0.85	4.64	2.17	0.13	0.05	0.10
R3D - 92	P	<	65	7	75	<	34	<	10	<	<	<	35	85	70	<	32	187	1688	<	88	1	28	<	0.48	5.83	7.16	7.75	0.03	0.02	0.01
R3D - 93	P	1.2	42	89	113	39	5	3	5	<	<	1.0	18	19	1.6%	<	117	11	298	2	32	2	3	<	1.41	0.14	1.34	0.10	0.13	0.02	0.01
R3D - 94	P	<	34	10	406	47	<	<	6	<	<	6.2	14	14	1.3%	<	137	8	75	2	19	1	2	<	0.85	0.11	1.36	0.17	0.12	0.03	0.01
R3D - 95	P	<	52	13	53	<	<	3	8	<	<	0.2	9	19	650	5	127	42	245	8	67	3	5	0.11	0.79	4.03	1.66	0.90	0.12	0.03	0.03
R3D - 98	P	<	80	21	64	<	13	<	11	<	<	<	51	219	290	<	762	108	781	6	24	23	33	1.2%	3.11	1.13	8.65	2.28	0.26	0.02	0.03
R3G - 7X	P	35.0	3.0%	3605	15958	17	<	<	123	<	65	36.5	19	26	22	87	109	10	895	3	101	2	<	<	0.12	2.36	10.89	0.02	0.01	0.01	<
R3G - 81	P	<	69	13	1262	30	<	<	12	<	<	12.5	19	128	621	7	97	29	7470	2	42	5	3	<	0.23	0.12	4.94	0.03	0.05	0.02	0.01
R3G - 87	P	<	4	21	5	5	<	<	6	<	<	<	2	3	96	<	69	5	38	19	9	28	<	<	0.21	0.02	1.42	0.01	0.25	0.03	0.01
R3G - 88	P	0.9	83	1335	17	679	<	<	32	<	<	<	6	7	94	<	111	142	34	3	66	7	1	0.03	0.10	<	13.12	<	0.62	0.02	0.12
R3G - 89	P	0.6	59	24	116	230	7	<	13	<	<	<	9	32	136	<	75	50	70	<	14	3	1	<	1.58	0.03	10.50	0.01	0.22	0.03	0.06
R3G - 710	P	0.5	563	9	8	9	<	<	14	<	50	<	82	65	8	53	108	7	73	14	7	2	1	0.02	0.30	0.27	9.40	0.24	0.01	0.02	0.10
R3G - 711	P	<	170	33	95	<	<	<	5	<	<	0.3	5	4	31	6	57	11	1053	14	95	4	1	0.05	0.80	4.09	2.03	0.06	0.01	0.03	0.04
R3G - 713	P	<	148	18	26	<	<	<	18	<	<	<	15	10	81	6	61	15	1636	9	328	3	3	0.06	2.12	3.49	4.09	0.43	0.10	0.16	0.06
R3G - 714	P	0.4	653	6	17	18	<	<	10	<	<	<	30	13	8	<	53	10	767	<	16	1	<	0.01	0.53	2.17	6.56	0.11	<	0.02	0.02
R3G - 715	P	0.7	945	8	13	<	<	<	10	<	<	<	44	15	3	<	55	17	1318	<	7	1	<	0.02	1.04	2.49	7.54	0.12	<	0.02	0.02
R3G - 716	P	0.3	444	12	28	<	<	<	10	<	<	<	29	15	23	7	50	16	1075	5	52	2	1	0.10	0.93	2.96	6.14	0.29	0.01	0.05	0.04
R3G - 719	P	0.6	128	36	58	17	<	<	6	<	<	<	5	14	21	<	124	5	66	7	2	4	1	<	0.18	0.03	1.80	0.02	0.06	0.01	0.01
R3G - 720	P	<	29	16	66	<	<	<	11	<	<	<	5	24	303	<	178	69	187	6	7	3	3	0.06	0.87	0.05	2.93	0.17	0.38	0.03	0.01
R3G - 810	P	<	46	19	32	372	<	<	12	<	<	<	26	195	111	<	206	24	1741	3	172	3	5	<	0.72	7.54	6.10	3.76	0.10	0.02	0.08
R3G - 812	P	<	14	5	16	25	<	<	9	<	<	<	16	26	155	<	63	15	2072	10	94	1	3	<	0.23	7.83	5.30	1.90	0.04	0.02	0.04
R3G - 817	P	<	<	8	30	<	7	<	11	<	<	<	93	0.2%	13	<	311	9	807	<	1	<	3	<	0.08	0.08	4.41	23%	<	0.01	<
S3G - 71	P	<	59	22	134	<	<	<	7	<	<	<	20	51	253	<	58	78	886	20	22	1	6	0.17	1.73	0.74	4.05	1.50	0.66	0.03	0.23
S3G - 72	P	<	40	19	82	<	<	<	8	<	<	<	22	43	261	<	73	96	537	24	19	1	6	0.19	1.87	0.67	3.87	1.51	0.72	0.03	0.19
S3G - 73	P	<	31	17	77	10	<	<	9	<	<	<	20	35	408	11	54	72	4136	19	26	1	5	0.14	1.35	0.93	5.50	1.09	0.46	0.03	0.28
S3G - 74	P	<	70	22	155	<	<	<	10	<	<	<	24	62	268	7	67	89	1113	21	22	1	7	0.21	2.01	0.63	4.79	1.77	0.82	0.03	0.18
S3G - 75	P	<	74	21	156	<	<	<	9	<	<	<	23	58	277	6	66	90	1054	22	22	1	7	0.21	2.03	0.59	4.79	1.74	0.84	0.03	0.16
S3G - 76	P	<	40	14	93	<	<	3	8	<	<	<	20	30	367	5	48	82	2095	18	25	1	6	0.17	1.57	0.85	4.49	1.22	0.67	0.03	0.27
S3G - 77	P	<	138	34	224	<	<	<	12	<	<	<	21	96	231	5	69	46	773	25	16	2	5	0.10	1.48	0.37	4.84	1.68	0.51	0.03	0.10
S3G - 78	P	<	309	45	316	<	<	<	16	<	<	<	23	24	230	8	28	37	947	39	9	2	5	0.10	1.81	0.22	5.56	1.18	0.71	0.03	0.05
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

---=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

APPENDIX C

PROPERTY MAP


Magnetic North
N32°55E
Note: Entry on certain lands is withdrawn from staking in cross-hatched areas to facilitate the settlement of Native Land Claims without prejudice to Existing Surface and Subsurface Rights.
105G11
105G10
105G9
105G6
105G7
105G8
105G3
105G2
105G1
60° 30'
130° 30'
61° 15'
HOME
TAG
PLATE
PAK
LAKES
NORTH
R-15
FIRE
105G7 YMIP #93-054
NORTH LAKES PROJECT
R S Bardahl
1:30,000
Kgm
PPky
CPa40
Thrust Fault
USGS stream sed. w/ anomalous metals
sample sites R-rock
D-soil
S-sediment
metalliferous float
gossan
horizontal layer
geology after Templeman-Kluit 1977, Bardahl field notes

1993 PROSPECTOR ASSISTANCE PROGRAM

YTG MINERAL INCENTIVES PROGRAM

PROJECT #93-055

WOLVERINE LAKE PROSPECTING PROGRAM
105G/8-9
Lat. 61 25' Long. 130 15'

By: R.S. Berdahl
Box 5664
Whitehorse, Y.T.

for worked performed between
July 24 - July 29, 1993

TABLE OF CONTENTS

SUMMARY

Grassroots exploration was carried out in a roughly sixteen square kilometre area north of Wolverine Lake (105G) based on anomalous GSC stream sediment samples and favourable geology.

Prospecting was aimed at base metals in a lithology favourable to host volcanogenic massive sulphide deposits.

A massive but unmapped shale unit, a Cretaceous intrusion and Devonian Mississippian `Klondike Schists' returned anomalous but inconclusive values in base and precious metals.

1.0 Introduction

This report was prepared to satisfy one of the requirements of the Yukon Mineral Incentives Program under which this project was partially funded (project #93-055). Its main focus is to assess the project areas economic potential.

The project area is located approximately 160 kilometres northwest of Watson Lake (appendix A).

Exploration work consisted of prospecting, geological "mapping" and geochemical sampling for the purpose of locating massive sulphide deposits.

2.0 Access/Location

The project area is approximately 25 kilometres southeast of the south end of Finlayson Lake, and about that distance southeast of the Robert Campbell Highway. This is approximately 160 miles northwest of Watson Lake, more specifically at Lat. 61 25' and 130 15'. The area is within the Watson Lake Mining District.

Access was by helicopter (Inco) and float plane based on Finlayson Lake. A winter tote road leaves the Campbell Highway at the Wolverine Creek crossing. It ends at the lake.

3.0 History

The area was probably explored for placer gold before and after the Klondike rush by prospectors coming up the Liard. The area was explored for lead-zinc deposits in the 1960's which culminated in the discovery Fyre Lake deposit, North Lake showing (PAK) and adjacent Fettish VMS showing.

The immediate area has been explored intermittently since the

1960's. The author found evidence of a soil line run earlier in the year as well as evidence of sampling the year previously.

4.0 Physiography/Vegetation

The Wolverine Lake area covers a range of rounded hills north of Wolverine Lake to elevations of 1700 metres. Outcrop is scarce in the valley bottom but exposed a fair deal along the northwest trending ridge.

Vegetation consists of heavy buckbrush, spruce, fir, and willow below treeline. Frost polygons are evident on the flat areas of the ridge top.

5.0 Geology

5.1 Regional Geology

The Wolverine Project is within the Ominica Belt (Wheeler et al., 1991). The oldest rocks exposed are the Upper Proterozoic to Triassic cataclastic sediments and volcanics of the Nisutlin subterrane (Klondike Schists) part of the Kootenay pericratonic terrane is stratigraphically or structurally different than the North American Craton but no significant displacement accretion is evident. Younger oceanic marginal basin volcanic and sedimentary rocks of the Devonian-Triassic allochthonous Slide Mountain Terrane are also found in the area thrust over sedimentary rocks of the Cassia Platform.

The Tintina Fault, located approximately 40 km southwest of the project area, is believed to follow the Mesozoic suture which separates ancestral North American from accreted terranes. The Fault has experienced approximately 450 km of dextral slip since

the late Cretaceous or Early Tertiary time (Templeman-Kluit, 1979).

5.2 Property Geology

Five main lithologies were observed over the project area. These include the possibly Permian `Klondike Schists', Triassic basalts, Upper Devonian to Mississippian black siliceous shales/slates, chloritic, siliceous phyllites and a Cretaceous intrusion of rhyolite (sericite) feldspar porphyry. Templeman-Kluit (1977) map depicts an Upper Devonian Mississippian chert pebble conglomerate on his 1:250,000 map. Being one of the more exposed lithologies I found it to be a beautiful finely laminated slate formation of 200+ metres and on exposed strike length of three kilometres. The basalt plug was subtle. Basalt float to the southeast was grey to green with traces of pyrites and at times brecciation. White quartz with minor calcite veins cut greenish aphanitic basalts and horizonal light green chloritic schists. The Klondike schists (Kluits PPK4) were widespread felsic schists overlying the slates. Very little of Kluits PPK2-phyllites were observed as they lie in the valley bottom. Much sericitic and limonitic alterations associated with the rhyolite plug. Calcareous rich sandstone dikes to 5 metres strike southeast through the felsic schists. Frost polygons are found on ridge tops.

6.0 Mineralization

No obvious base metal showings were discovered. A red weathering mafic rock (R3G817) contained magnetite. Limonite was common in schists and altered rhyolites around the volcanic plug.

Manganese coatings were also evident. A nodule of `wad' was found on the lake shore. A yellow to rusty precipitate formed on the creek draining south of the rhyolite plug above the shale formation (S3G815). Limonitic quartz appeared associated with the slate-schist contact.

7.0 Methodology/Geochem Results

Recce prospecting was employed to reproduce GSC anomalies, consider sources for magnetic anomalies, investigate favourable VMS host lithologies as well as the Cretaceous volcanics.

Prospecting was carried out over six days from July 24 to July 29. Seventeen rock, soil and stream sediment samples were analyzed. Lab analysis was carried out by NAL of Whitehorse using 30 element ICP (by IPL in Vancouver) and fire assay gold.

No rocks were anomalous in gold. R3G88 a grab float sample of siliceous shale schist from the shale, schist, pluton interface had the highest rock values with .9ppm Ag, .13% Pb (no zinc-17ppm), 679 As and 13% Fe. R3G81, a manganese stained limonitic quartz rock associated with the "shale-schist contact" ran 1262 ppm Zn and 12.5 ppm Cd.

The GSC (O.F. #1648) regional stream sediment anomalies were more or less reproduced but not with a single sample. Anomalous multi element samples were taken corresponding to GSC's #3516 (see S3G82, 3 & 11)

The following were the high anomalies:

GSC 3516 90%+	S3G8-2,3 + 11 (Max. values in ppm)
Ag	1.2 (#2)
Cu	130 (#2)
Pb	97 (#2)
Zn	616 (#11)
As 0	47 (#3)
Sb	7 (#3)
Ba	611 (#3)
	63 Au (#3)

CSC 3517 90%+	S3G8-13,14,15
Cu	533 (#15)
Cd	5.4 (#15)
Zn	1854 (#15)
Ba	1268 (#14)
	.6 Ag (#15)
	167 Au (#14)
	176 Pb (#15)

S3G86 sampled a dry ravine draining the rhyolite/shale/schist contact and was anomalous in AG (1.0), Pb (183), As (47). S3G85 which drains the Klondike schist from the north was anomalous in Ag (.7).

8.0 Conclusions and Recommendations

The Wolverine project was successful in determining that anomalous metal values exist in creeks draining favourable lithologies.

During field examination it was felt the shale/slate horizon would be the most favourable horizon for mineralization. This however is not conclusively shown in the results. Sediment samples #3 and 15 drain at or above the shale/schist contact and are anomalous. Elsewhere in the Tintina contacts of different phases of the ~Klondike Schists' seem to host the mineralization. This appears to be the case at the Fettish VMS showing four miles to the

southeast.

Granitic and rhyolitic float were found south of the mapped basalt unit. This may represent the presence of a larger pluton than is expressed on surface now. Wether the anomalies are derived from the intrusive or the Klondike schists is unclear. The high As, Sb and Au values suggest intrusive activity.

As suspected, this area has been prospected several times before. Sometime earlier in the 1993 field season a several kilometre long contour soil line (Cominco ?) which runs along the slate/shale rock package. Because of previous activity without any claim staking it is clear no obvious reason exists for anomalies.

The recommended course of action depends largely on economics. Ideally a large scale souls program with mapping would occur over the area in question. Ground EM and mag programs may help pinpoint areas of interest. The EM may detect graphitic shale horizons and not massive sulphides however. The results of a combined soils, mapping and geophysics program would determine future exploration direction.

As a lone prospector with limited funding and very low base metal prices this would not be my highest priority at present. The geology, anomalies and nearly showing bade well for the areas potential in the long term.

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Tectonic Assemblage Map of the Canadian Cordilleras and adjacent parts of the U.S.A.; Geologic Survey of Canada, Map 1712A, 1:2,000,000.

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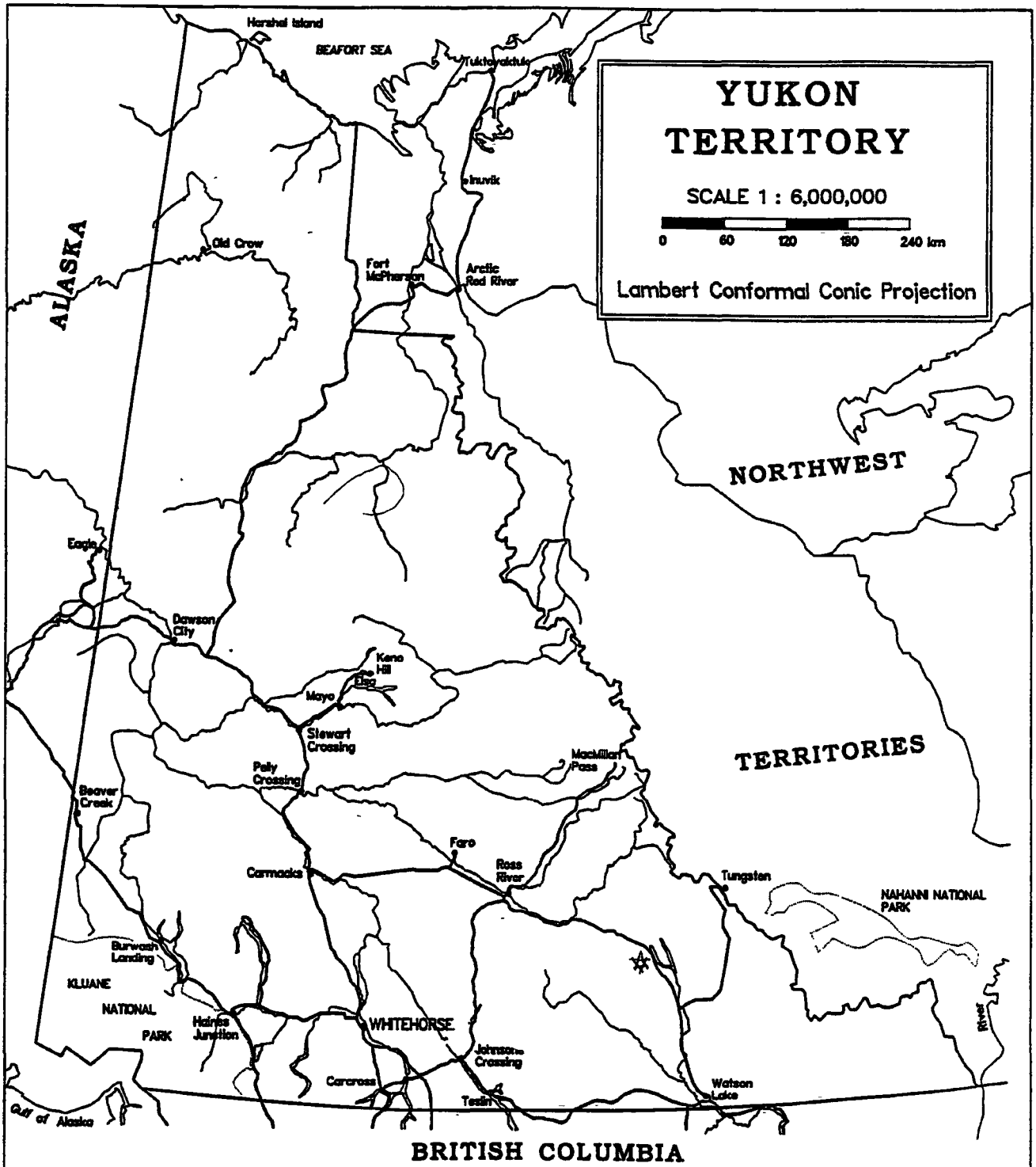
APPENDIX A

LOCATION MAP



LOCATION MAP

WOLVERINE PROJECT

FIGURE 1

APPENDIX B

GEOCHEM RESULTS

Northern Analytical Laboratories ltd.

25-Aug-93date | Assay Certificate | Page1

Ron Berdahl | Wolverine G-8 | WO 00270

Sample	Au ppb
BC-1	12
BC-1	9
2N 10X	364
R3G 81	9
R3G 87	6
R3G 88	16
R3G 89	13
R3G 810	50
R3G 812	6
R3G 817	12
R3D 91	12
R3D 92	12
R3D 93	10
R3D 94	17
R3D 95	16
R3D 98	<5
R3G 7X	58
R3G 710	31
R3G 711	14
R3G 713	5
R3G 714	15
R3G 715	10
R3G 716	11
R3G 719	10
R3G 720	25
S3G 71	<5
S3G 72	10
S3G 73	<5
S3G 74	<5
S3G 75	5
S3G 76	<5
S3G 77	6
S3G 78	<5
D3G 79	7
S3G 712	7
S3G 717	7
S3G 718	8
S3G 721	5
D3D 96	11
D3D 97	19
S3G 82	15
S3G 83	63

Certified by

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph. (403) 668-4968 Fax (403) 668-4890

iPL
INTERNATIONAL PLASMA LABORATORY LTD

Wilverine G-8

CERTIFICATE OF ANALYSIS
iPL 93H2409

2036 Columbia Street
Vancouver, B C
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

Client: Northern Analytical Laboratories iPL: 93H2409 Out: Aug 25, 1993 Page 1 of 2 Section 1 of 1
Project: 00270 52 Pulp In: Aug 24, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
2N - 10X	P	8.4	326	66	94	32	<	<	21	<	<	<	14	59	60	6	121	48	115	<	14	6	1	<	0.92	0.02	17.14	0.07	0.24	0.04	0.03
BC - 1	P	<	106	11	21	10	<	<	15	<	<	<	9	15	52	<	56	58	63	8	19	4	2	0.01	1.44	0.14	3.37	1.00	0.14	0.06	0.11
BC - 2	P	<	19	47	4	20	<	<	107	<	3	<	23	36	505	14	245	996	651	9	27	8	1	0.01	0.28	0.04	23.32	0.01	0.06	0.02	<
C3G - 1222	P	1.3	18	11	158	21	<	<	13	<	<	<	34	20	73	201	39	393	535	68	18	3	2	0.48	0.62	0.54	10.61	0.33	0.06	0.02	0.19
D3D - 96	P	<	10	12	115	<	<	<	6	<	<	<	16	42	175	7	71	61	470	8	26	3	3	0.17	1.31	0.48	2.26	0.83	0.07	0.03	0.04
D3D - 97	P	4.9	188	45	355	48	9	<	78	<	2	<	22	121	66	11	109	240	219	14	183	25	6	0.76	0.55	0.23	13.87	0.32	0.69	0.06	0.14
D3G - 79	P	<	178	31	127	<	<	<	23	<	<	<	9	8	190	<	18	23	411	26	4	3	3	0.09	1.75	0.01	7.50	1.02	0.76	0.03	0.03
D3G - 718	P	<	17	12	122	<	<	<	7	<	<	<	12	19	95	<	12	16	888	47	8	6	4	0.01	0.72	0.10	2.95	0.24	0.17	0.02	0.02
D3G - 816	P	1.9	92	34	185	18	<	<	12	<	<	0.7	7	32	738	5	21	52	199	16	75	1	2	0.01	1.06	0.17	2.56	0.27	0.07	0.02	0.17
R3D - 91	P	<	72	25	115	<	<	<	20	<	<	<	30	57	115	5	195	314	596	13	19	23	20	0.48	1.78	0.85	4.64	2.17	0.13	0.05	0.10
R3D - 92	P	<	65	7	75	<	34	<	10	<	<	<	35	85	70	<	32	187	1688	<	88	1	28	<	0.48	5.83	7.16	7.75	0.03	0.02	0.01
R3D - 93	P	1.2	42	89	113	39	5	3	5	<	<	1.0	18	19	1.6%	<	117	11	298	2	32	2	3	<	1.41	0.14	1.34	0.10	0.13	0.02	0.01
R3D - 94	P	<	34	10	406	47	<	<	6	<	<	6.2	14	14	1.3%	<	137	8	75	2	19	1	2	<	0.85	0.11	1.36	0.17	0.12	0.03	0.01
R3D - 95	P	<	52	13	53	<	<	3	8	<	2	0.2	9	19	650	5	127	42	245	8	67	3	5	0.11	0.79	4.03	1.66	0.90	0.12	0.03	0.03
R3D - 98	P	<	80	21	64	<	13	<	11	<	<	<	51	219	290	<	762	108	781	6	24	23	33	1.2%	3.11	1.13	8.65	2.28	0.26	0.02	0.03
R3G - 7X	P	35.0	3.0%	3605	15958	17	<	<	123	<	65	36.5	19	26	22	87	109	10	895	3	101	2	<	<	0.12	2.36	10.89	0.02	0.01	0.01	<
R3G - 81	P	<	69	13	1262	30	<	<	12	<	<	12.5	19	128	621	7	97	29	7470	2	42	5	3	<	0.23	0.12	4.94	0.03	0.05	0.02	0.01
R3G - 87	P	<	4	21	5	5	<	<	6	<	<	<	2	3	96	<	69	5	38	19	9	28	<	<	0.21	0.02	1.42	0.01	0.25	0.03	0.01
R3G - 88	P	0.9	83	1335	17	679	<	<	32	<	<	<	6	7	94	<	111	142	34	3	66	7	1	0.03	0.10	<	13.12	<	0.62	0.02	0.12
R3G - 89	P	0.6	59	24	116	230	7	<	13	<	<	<	9	32	136	<	75	50	70	<	14	3	1	<	1.58	0.03	10.50	0.01	0.22	0.03	0.06
R3G - 710	P	0.5	563	9	8	9	<	<	14	<	50	<	82	65	8	53	108	7	73	14	7	2	1	0.02	0.30	0.27	9.40	0.24	0.01	0.02	0.10
R3G - 711	P	<	170	33	95	<	<	<	5	<	<	0.3	5	4	31	6	57	11	1053	14	95	4	1	0.05	0.80	4.09	2.03	0.06	0.01	0.03	0.04
R3G - 713	P	<	148	18	26	<	<	<	18	<	3	<	15	10	81	6	61	15	1636	9	328	3	3	0.06	2.12	3.49	4.09	0.43	0.10	0.16	0.06
R3G - 714	P	0.4	653	6	17	12	<	<	10	<	<	<	30	13	8	<	53	10	767	<	16	1	<	0.01	0.53	2.17	6.56	0.11	<	0.02	0.02
R3G - 715	P	0.7	945	8	13	<	<	<	10	<	<	<	44	15	3	<	55	17	1318	<	7	1	<	0.02	1.04	2.49	7.54	0.12	<	0.02	0.02
R3G - 716	P	0.3	444	12	28	<	<	<	10	<	<	<	29	15	23	7	50	16	1075	5	52	2	1	0.10	0.93	2.96	6.14	0.29	0.01	0.05	0.04
R3G - 719	P	0.6	128	36	58	17	<	<	6	<	<	<	5	14	21	<	124	5	66	7	2	4	1	<	0.18	0.03	1.80	0.02	0.06	0.01	0.01
R3G - 720	P	<	29	16	66	<	<	<	11	<	<	<	5	24	303	<	178	69	187	6	7	3	3	0.06	0.87	0.05	2.93	0.17	0.38	0.03	0.01
R3G - 810	P	<	46	19	32	372	<	<	12	<	<	<	26	195	111	<	206	24	1741	3	172	3	5	<	0.72	7.54	6.10	3.76	0.10	0.02	0.08
R3G - 812	P	<	14	5	16	25	<	<	9	<	<	<	16	26	155	<	63	15	2072	10	94	1	3	<	0.23	7.83	5.30	1.90	0.04	0.02	0.04
R3G - 817	P	<	<	8	30	<	7	<	11	<	<	<	93	0.2%	13	<	311	9	807	<	1	<	3	<	0.08	0.08	4.41	23%	<	0.01	<
S3G - 71	P	<	59	22	134	<	<	<	7	<	<	<	20	51	253	<	58	78	886	20	22	1	6	0.17	1.73	0.74	4.05	1.50	0.66	0.03	0.23
S3G - 72	P	<	40	19	82	<	<	<	8	<	<	<	22	43	261	<	73	96	537	24	19	1	6	0.19	1.87	0.67	3.87	1.51	0.72	0.03	0.19
S3G - 73	P	<	31	17	77	10	<	<	9	<	<	<	20	35	408	11	54	72	4136	19	26	1	5	0.14	1.35	0.93	5.50	1.09	0.46	0.03	0.28
S3G - 74	P	<	70	22	155	<	<	<	10	<	<	<	24	62	268	7	67	89	1113	21	22	1	7	0.21	2.01	0.63	4.79	1.77	0.82	0.03	0.18
S3G - 75	P	<	74	21	156	<	<	<	9	<	<	<	23	58	277	6	66	90	1054	22	22	1	7	0.21	2.03	0.59	4.79	1.74	0.84	0.03	0.16
S3G - 76	P	<	40	14	93	<	<	3	8	<	<	<	20	30	367	5	48	82	2095	18	25	1	6	0.17	1.57	0.85	4.49	1.22	0.67	0.03	0.27
S3G - 77	P	<	138	34	224	<	<	<	12	<	<	<	21	96	231	5	69	46	773	25	16	2	5	0.10	1.48	0.37	4.84	1.68	0.51	0.03	0.10
S3G - 78	P	<	309	45	316	<	<	<	16	<	<	<	23	24	230	8	28	37	947	39	9	2	5	0.10	1.81	0.22	5.56	1.18	0.71	0.03	0.05
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

--=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

Northern Analytical Laboratories ltd.

25-Aug-93date | Assay Certificate | Page2

Ron Berdahl | Wolverine G-8 | WO 00270

Sample	Au ppb
S3G 84	7
S3G 85	13
S3G 86	30
S3G 811	13
S3G 813	10
S3G 814	167
S3G 815	13
S3G 816	17
S3G 1221	7
S3G 1222	11

Certified by

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

INTERNATIONAL PLASMA LABORATORY LTD

2036 Columbia Street
Vancouver, B C
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

CERTIFICATE OF ANALYSIS
iPL 93H2409

Wolverine

Client: Northern Analytical Laboratories iPL: 93H2409 Out: Aug 25, 1993 Page 2 of 2 Section 1 of 1
Project: 00270 52 Pulp In: Aug 24, 1993 Certified BC Assayer: David Chiu

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
S3G - 82	P	1.2	130	97	460	45	<	<	9	<	<	7.6	10	61	610	6	16	31	866	15	97	1	1	0.01	0.84	0.42	2.56	0.27	0.09	0.02	0.15
S3G - 83	P	1.0	102	67	414	47	7	<	11	<	<	5.3	15	68	611	5	22	42	1230	18	80	1	2	0.01	0.82	0.33	3.34	0.36	0.08	0.02	0.16
S3G - 84	P	0.2	63	21	186	6	<	<	5	<	<	0.7	13	47	514	4	52	45	890	13	65	2	3	0.03	1.34	1.35	2.51	0.77	0.08	0.02	0.12
S3G - 85	P	0.7	65	36	192	7	<	<	5	<	<	0.2	11	39	749	4	30	34	503	33	51	2	3	0.02	1.67	0.58	2.24	0.53	0.11	0.03	0.12
S3G - 86	P	1.0	51	183	184	47	<	<	10	<	<	<	4	17	348	4	9	21	108	17	78	<	<	0.01	0.49	0.05	3.64	0.09	0.19	0.03	0.19
S3G - 712	P	<	55	22	116	4	<	4	7	<	<	<	17	59	545	4	81	87	571	16	22	<	6	0.15	1.99	0.51	2.91	1.37	0.45	0.03	0.14
S3G - 717	P	<	54	16	94	4	<	<	8	<	<	<	31	56	480	4	81	120	625	21	35	1	7	0.22	2.25	1.08	4.71	1.82	0.96	0.03	0.30
S3G - 721	P	<	71	43	336	4	<	<	11	<	<	<	24	34	208	8	63	69	1318	41	20	4	7	0.18	2.37	0.65	5.35	1.86	0.63	0.02	0.15
S3G - 811	P	0.3	44	28	616	25	<	3	9	<	<	6.1	13	84	599	6	23	29	874	14	110	1	1	0.02	0.54	0.48	2.63	0.39	0.04	0.02	0.16
S3G - 813	P	0.1	64	62	458	14	<	<	12	<	<	2.3	14	48	1150	5	19	35	1183	13	45	<	1	0.03	0.87	0.31	3.51	0.40	0.04	0.02	0.12
S3G - 814	P	0.2	103	92	945	15	<	<	13	<	<	5.2	14	84	1268	9	21	36	1377	16	49	1	1	0.02	1.13	0.39	4.20	0.39	0.06	0.02	0.15
S3G - 815	P	0.6	533	176	1841	19	<	<	16	<	<	5.4	64	85	400	10	31	26	5941	22	23	4	5	0.01	3.90	0.17	8.45	0.29	0.06	0.02	0.11
S3G - 1221	P	<	27	13	101	7	<	<	7	<	<	<	17	30	249	10	38	72	461	13	36	1	4	0.18	1.82	0.56	3.46	0.97	0.32	0.04	0.11
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	99.99	99.99	99.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

--=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

APPENDIX C

PROPERTY MAP


N
NTS 105G8-9
WOLVERINE PROJECT
YMIP # 93-055
RS Berdahl
1:30,000
1 KTqfp porphoritic rhyolite
2 PPK4 'Klondike schists' blastomylonite
3 PPK2 'Klondike schist' black phyllite
4 uDM black siliceous slate
5 CPAV basalts et al
GSC stream sed location w/ anomolous metals
Magnetic Anomoly
sample _3G8_ R-rock, D-soil, S-sediment
geol after Templeman Kluit 1977 + Berdahl field notes
THIS MAP IS ISSUED AS A PRELIMINARY GUIDE FOR WHICH THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT WILL ACCEPT NO RESPONSIBILITY FOR ANY ERRORS, INACCURACIES OR OMISSIONS WHATSOEVER.
03 DEC 93
17 SEPT 93
16 SEPT 93
03 AUGUST 93
28 AUG 92
23 JULY 92
08 JAN 92
22 JULY 91
12 JULY 91
24 JAN, 91
8 NOV. 90
29 MAR. 90
19 SEPT. 89
7 JULY 89
30 AUG 88
29 AUG 88
10 AUG 88
21 June 88
11 Feb. 72
11 July 56
WHITEHORSE
105G9
105G8
61° 30'
130° 30'
130° 00'
Winter Road
QTZ CARB veins thru 'basalt'
Little outcrop
S3G84
S3G85
S3G82
R3G81
S3G83
S3G811
R3G810
S3G86
R3G88
R3G89
R3G87
R3G817
D3G816
S3G815
S3G814
R3G812
R3G813
3517
Ba Zn Cu Cd
3514
3516
3449
3448
3447
No outcrop
shales
frost polygons
siliceous slate
CHARLIE
WOLVERINE LAKE
FOOT
Fetish VMS
R-15
R-16
4000
4500
5000
5500
6000

"Rite in the Rain"
ALL-WEATHER WRITING PAPER ®

Name R.S. Bardoll

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Address Whitehorse, YT Canada Y1A 5L5

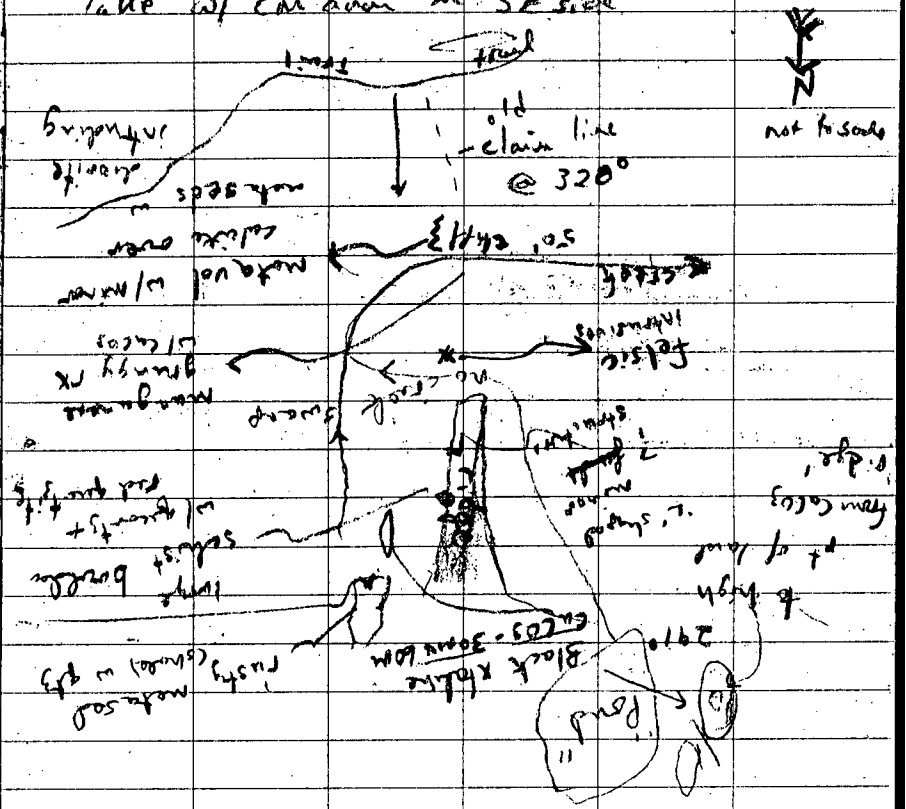
Phone

Project PAP93

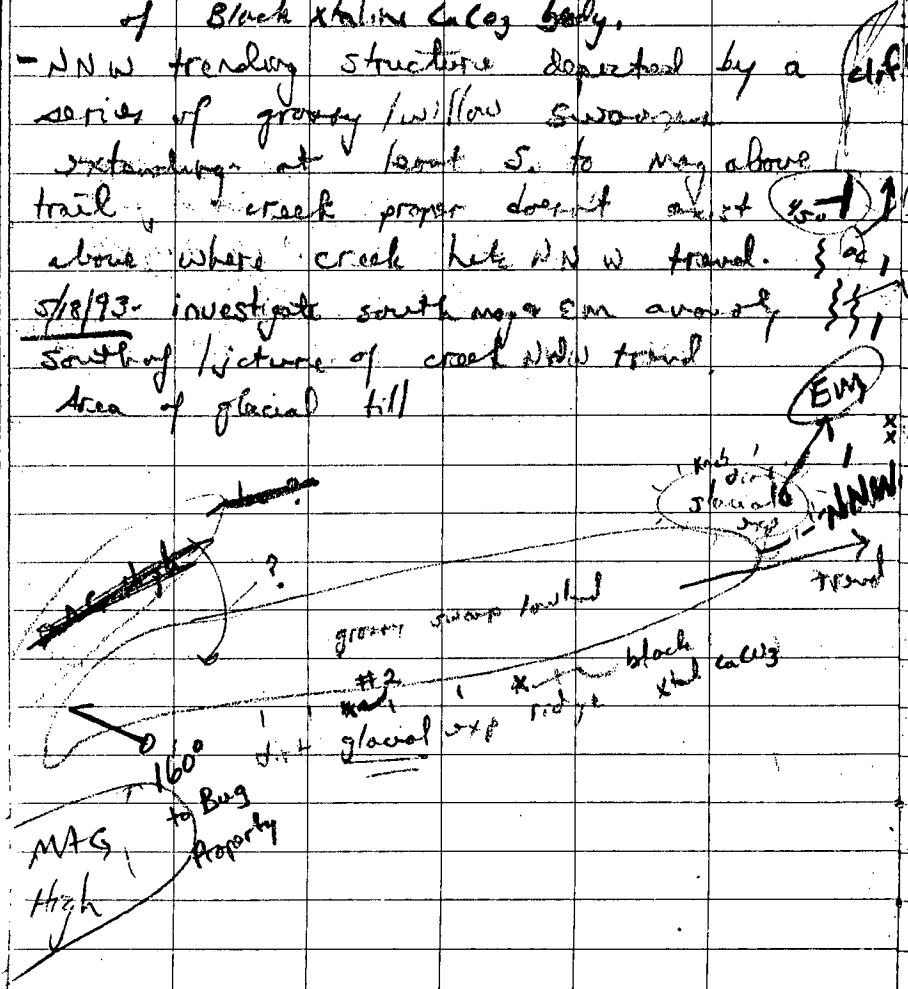
1993 ~~MCM~~ YMIP 093-055

Caribou, North, Wolverine, Swan

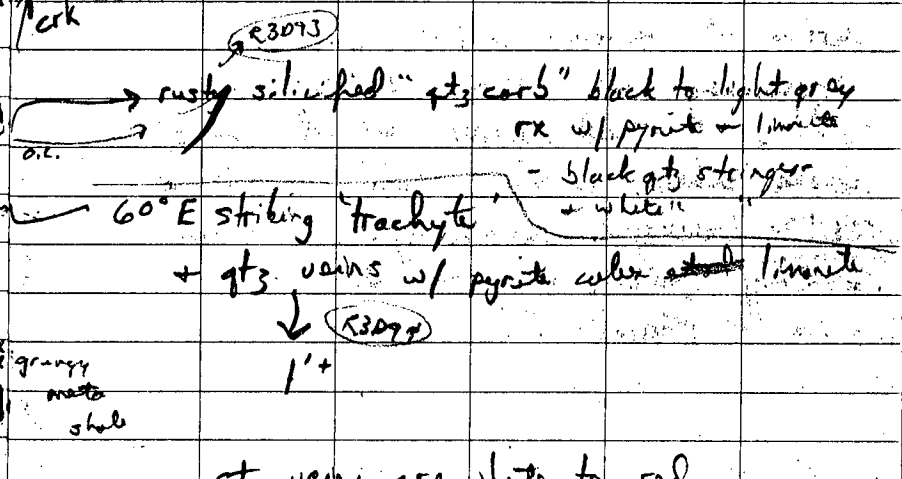
MAY 12, 93 - McClintock traverse N-S geophysical lineament consisting of mag (W-S) & EM anomalies to lake w/ camp on SE side



R3091 - near 20° striking 30° Dip @ 100
rusty shale - sericite meta shale
Rock is grungy meta sed at
black xtaline $CaCO_3$ contact (no
$CaCO_3$ included.) 50m north
of Black xtaline $CaCO_3$ body.
- NNW trending structure depicted by a
series of grassy / willow swamps
extending at least S. to my above
trail, creek proper doesn't exist
above where creek hits NNW trend.
5/18/93 - investigate south mag + EM anomaly
South of picture of creek NNW trend
Area of glacial till



R3092 - qtz carb ft w/ minor <1% sulfids
very fine grain w/ qtz stringers, dissem
black + 'pale' limonite float



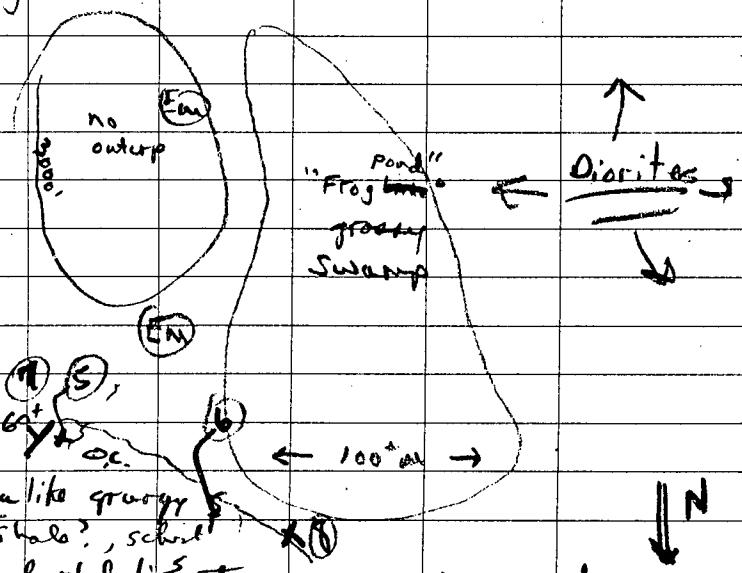
qtz veins are white to red

R3093 - limonite + pyrite/chlorite in "brecciated"
silicified "qtz carb"
R3094 - qtz veins w/ pyrite limo -

5/19 - investigate mag high @ 5/18 + EM anom north to "frog" pond. Lupine out, marsh Lake, nearly out, mosquitoes out in force.

No outcrop on mag high - glacial cover 20-50+ feet deep (to bottom of drainage) - holes in till, glacial on drainage frozen @ ~6"

EM anomalies north of mag - (see map) in swampy drainage at about same elevation as bottom lake drainage from pond not surface drainage - but a series of 'non connected' swampy to dry willow low areas trending NNW



breccia like grungy matrix shale?, schist w/ block xtal limestone - some minor rust

outcrop strike NE? dips steeply to S.E.

minor NE dips (faults?) cut o.c.

R3095 - rusty surface brecciated into sediment from outcrop above - w/ black $CaCO_3$ limestone diorite contact may account for EM anomaly.

D3096 - soil from NE fault just N of EM(?) - 8" - red dirt w/ broken clasts over 8" tan green silt (glacial?) sample 5°/50 min (450)

D3097 - soil from SE dipping shale adj to R3095 above w/ rusty layers to 1cm+

R3098 - limonitic grungy meta sed in apparent south dipping - [redacted] 50° rock

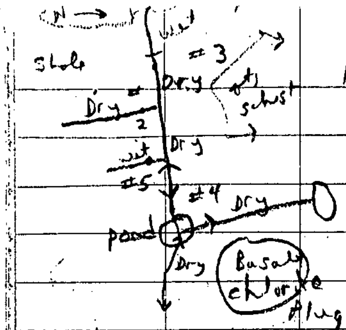
7/24 - VMS hunt wolverine et al area; chopper in w/ INCO's Jim Morin - walk thru geology on Wyo showing + bedded barite showing; set Wyo Pb Zn in show related to mafic intrusive - competent rx in otherwise very strong tectonic setting - sericite halo (narrow) - samples taken of all rock types around showing; Barite is bedded not vein generated - with sericite (narrow rhyolite) shale; geochem #'s potential for sedex target - need shale to run; topo line at bottom of gossan #1 - not mine, not his, Cominco has been in Finlayson camp for two months.

Possibly dropped because of #'s (low) - interest because of competent basalt "lungers" w/ veining around them - wall rock carried gold;

Very interesting ferricrete/gossanous creek - cirque of creek south of money creek NW of waters crk lake, + ferricrete outcrop on valley bottom at money valley exit from Wyo showing/ barite showing drainage

lots of caribou ... SE ... [illegible] to 15
in groups - snow + ridge tops
@ lake 1½ miles north of wolverine
1 very large caribou bull on 'wolverine' [illegible]
- Geol map @ lake, only east ridge [illegible]
- rx are black shales - almost graphitic
w/ possible hydrogranite on surface - white
qtz sweats - shale predominate into first
left limit drainage & to tree line -
Orange multi directional sheared qtz etc
on right limit of above mentioned left limit
creek (a hours @ 20° 270° etc, apparently
strikes NW; hazy - fire in NWT?
same rock in outcrop (traced 100m+) is
bleached white w/ qtz blades, apparently
this unit underlies NW strike SE steeply dipping
"qtz schist (mylonite?) + probably represents
some shale/schist contact features.
R3G81 - a manganese stained qtz / limonite rx
from above unit ("at" actual orange qtz - schist contact)
check to see if this could account for GSC H's;
S3G82 - strm sed of l limit creek - marginal
no water + braided - little fines
S3G83 - strm sed of GSC ___ no water
few fines - water starts flowing 300m
or so down from fork -
25th July - investigate 'CPan' plug NNW of camp.

rocks on ridge are mainly felsic saturated
schists - mylonite - 20% gray to black - strike
North + dip E (80°) @ 30° - conform
to mapped 'blastomylonite Klondike schist
- Indian cabin just north of speed lake on W end of wolverine
pilot may have problems w/ my lake - water depth questionable.
Ridge toward basalt plug has quartzite headed as
above - also basalt + granite float.
The basalt is grey to green, metal[illegible] (trace)
+ possibly brecciated, glacial flow
must have been SE.; granite is felsic
w/ large flakes of muscovite, tan color weathers to
white - origin? - [illegible] + $m^2 \times 1'$ +;
white veins run thru basalt plud [illegible] +
one at plug bottom, northerly. White veins are
qtz w/ calcite (minor) from 1' to 1" wide they are
associated with a grungy manganese
greenish "basalt" aphanite + cut "thru" +
contact horizontal layers of light green
chloritic schists. No good example of
basalt really seen ?; extreme knob up
the [illegible]; drainage pattern not
conducive to good strm sed sampling
small ponds take water from multiple
sources (with no apparent outlet) + go
under ground - many swampy areas w/
hvy organics S3G84 strm sed
just SW of 'basalt' plug on S3G83 / [illegible]



6" deep

lineament between plug + LAKE
is dry - flt of ~~interest~~
granite (very red) +
two pieces of
chert pebble breccia

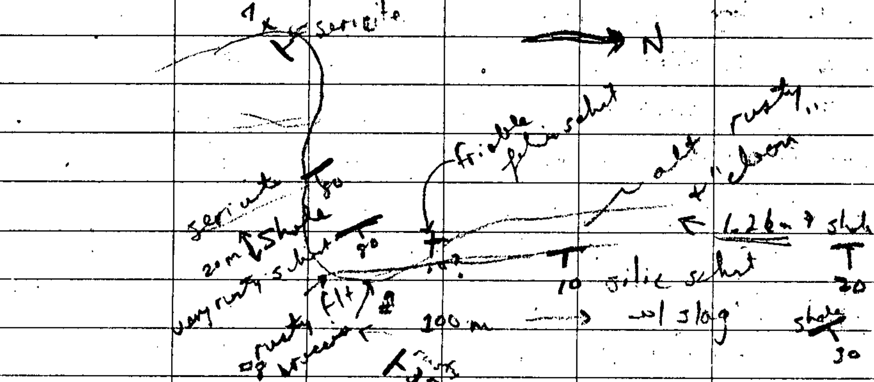
S3G85 - 2nd left limit trib - all very fine
much organic - trickle

July 26 - investigate qtz feld porphyry intrusion
South east of camp.; Entire
country covered w/ moss + birch brush
- fir + spruce. little outcrop/flt below
ridge crests; Along base of ridge
calcareous shales (phyllite?) minor
"qtz feldspar porphyry" (north 1km of outcrop)
much saturated rock. Very little flt.

S3G86 - drainage sample of intrusion
- no water with overgrown 1' wide
creek bed (moss bottom) rocks consist
of limonitic qtz sericite schist.
Hoping plug is sericite alt w/ ~~[illegible]~~
implications a not sericite hab. ?
Barite Cu #1 drain other side of intrusion
(see govt map); Grid below Kqfp outcrop
one line - 1yr+ coming up ridge face

reads " 1800m 217692 " on Texas tape -
could be same as @ Wyo showing
line runs ~10° - soil survey

R3G87 - sericite, yellow stained, dip NW 30°
w/ veinlets + disseminated metal - felsic rx
juxtaposed below a porphoritic (feldspar) schist
(more mafic); a heavily saturated fine grained
schist w/ diss limonite is also in the
area - unknown relationships - seems most
rx is old feldspar porphyry - the more
felsic is orange/yellow stained in surface



1 cow moose w/o calf @ valley bottom

R3G88 - grab flt limonite breccia from siliceous shale schist

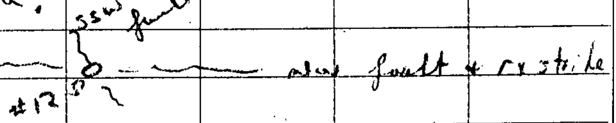
R3G89 - hydrothermal alt schists - limonite/pyritic
rx @ 2yr old flag (near Texas tape) "Tax 206 + 207"
rusty below zone 10 vert m - S-SE dip 35° NE
some "peacock" stain - brilliant color on
hay rust fractures
Slag like material is assoc with the adj

(Recross grid @ 400 m (1200N) + 21/16/11 - E stone)
Hoy manganese at schist shale contact + on schist
siliceous shale has limonite also; The mafic
false siliceous rich schist downwards the
ridge tops; at the far end, over the magnetic
mag high, the same rock persists, a
30 meter SW trending fault cuts the ridge
just east of the Ba Cu etc rich (see GSC #)
"creek"; a 310° (crosscutting) calcium rich
sandstone is found here (5m wide?)
and can be traced 200m ± S.E. (toward
fittish vein); NW structure is apparent
elsewhere on the ridge top. Samples of
'pencil colors', slag etc taken - no #'s.
Above camp on the NW end of ridge several
100's of feet of very finely laminated shale
beds dipping 20-30°, striking N to NW are found
- minor qtz is interbedded. Alt. white(?) + shale layers
persist in mid to lower strata (30° dip NW strike) -
very beautiful sections of shale. - no metals but
some brecciation in layers + float.
JULY 27 - investigate mag high west of small
lake (camp) + north end of wolverine lake
outcrop appears to be minimal to non
existent as does real drainages
at least on small lake side - hope
to find shale / chert pebbles or

Klondike schist contact is where the
reason for magnetic anomaly.
2 wolf 50m from camp - foot length, standard hammerhead
width - 7/8 hammer head length - other smaller
shabby looking - not afraid - black to grey; 2 min encounter?
- flt - south end of lake - 1/4 way up ridge - g ?
limonite grey schist; a flt on top 1'
granitic round; @ 260° to charlie claims pk
& 114° to ridge top above Kgfp outcrop (yesterday)
a limonitic outcrop of silicified "chlorite" schist
weathers to calcareous nature - test content
of limonite / qtz to see what it has come thru
(if hydrothermal) - little else one can do
other than gillion soil lines. → R39810;
~200m NW is flt shale or siliceous shale
/ schist - coating on flt suggests shale
is rock in area; cross wolverine
creek along magnetic strike + then
back to camp - again nothing out of
ordinary - 99.9% buckbrush swamp - very
little rock - even flt - length of ridge
may represent something geol underneath
(ridge drops abruptly then relatively smooth
angle north to wolverine creek; Kelly Banks
claim has new cabin at confluence of wolverine
lake, left limit; S39811 - stream sand
probably nearer where govt took sample
3516. - fines of shale.

July 28, upon examin of lake it is improbable that a beaver would land here - quite shallow - lots of grabes thru out, no direct drainage into creek. move camp (w/ buckfoot) 1.5 miles to wilverd lake w/ flagging arrow pointing that direction - hopefully pilot will eventually clue in. examine low ridge between lake + "intrusive" and collect sample of stream to attempt to replicate GSC # 3517 (Ba Zn Cu Cd); The afore mentioned shale layer consistently lies below the qtz schist layer (onto top) for a good 3km at roughly 4500' - about the same as jetted was showing moved southeast; have yet to see chert pebble conglo; one lake shore magnetite nodules + very rounded serpentinite rock - along with regular schist granitic (from?) etc. R3G812 desperation sample of limonite qtz vein in schist at fault - fault has broken schist plane of NW striking dip toward lake, 10° SW; hopeful that hydrothermal activity will have traveled thru or along underlying base metal mineralization ???

Sample @ 1102" to elapse down ph ... to exposed bedrock on ridge top - just NW (along ridge) of Kqfp intrusion.



S3G813 - strm sed (dry) @ GSC # 3517 - GSC # from near mouth - this would have included drainage of swampy WNW trending 'fault' - this lies near the base of the exposed shale layer + may thus be important; #13 was in shale
S3G814 - strm sed on same creek 200 m above in trickle of water - schist on bottom - sample from root layer below this (grass roots etc)
S3G815 - strm sed on same creek hopefully above shale layer to determine if shales responsible for anomalous #'s
~~O3G~~ creek has yellow scum + rust mmm; O3G816 - dirt sample on 'drainage' thru shale layer - I believe the shale is where it is at
R3G817 - previous geologist leaves a few rocks on exposure shale ridge #17 red weathering rind on mafic, magnetic rx - could be my aroonder - see what it is
July 29 - investigate ridge just

east of new crimps - like its
counterparts to the north + west
expect very little outcrop. Attempt
to flag down aircraft for lift
to Finlayson Lk; on the
shale layer I recommend that we
run soil lines at the base (+
probably at the upper shale/schist
contact - esp after glossy rust in last
creek - say 50 m spacing for entire
length of 'Geologist' Ridge. All
swamps surrounding ridge have
rusty bottoms - even along Wolverine
Lake northern edge - maybe biologic
- maybe not.

Aug 2 - VMS extension of North Lake showing; OBJECT
In 1988 along the mid largest North Lake slope
found pyritic flt (massive) No doubt
a great amount of exploration has occurred
around this immediate area - nonetheless
the float, if not glacially derived, may have
originated from either the canyon draining
into the upper east side of North Lake
or even the small cirque directly NW
of the N.L. showing which opens onto the
lower end of N Lake. Claim posts are
everywhere - running E-W for at least 10
claim lengths - esp on southerly side of North
Lake - there are cut [illegible] posts -
very heavy green [illegible] + corroded (?) over 6000' ft
[illegible] - I would guess early sixties as
North Lake was a 1960s discovery. Granular flt
Small, rounded, + larger (m^3) boulders are found
on either side of N. Lake/Pass along the
bottom (below treeline) biotite schists
are rarely found @ tree line with
moderately dipping northerly schist comprising
ridge tops - In places chloritic schists
overlie slopes of 'quartz schist'. Quartzite is
intermixed thru out west side of lake.
Same (at pass etc) location for orange qtz
veins, flt exist - but no metals. White
qtz veins + flt to m^2 in size is
scattered thru out - outcrop - except for ridge
tops etc is not good, but frost boil
polygons etc expose rx (schist predominant)
thru out west side. 8 caribou, 2 moose

Aug 3 - locate North Lake showing - day late + a
dollar short - staked as PAK 1-20 July 19, 93
(no direction) M. BARNES; had asked Morin about
North Lake (MR) VMS being unstaked - felt Fyre Lake
was best of three + still marginal at best - North Lake
needed extension in major way. The most interesting

aspect of showing is its plainess - not at all something one would get worked up about - consisting of limonitic rx in horizontal layers of quartzite / biotite schist. The SE facing part of the cirque is much more imposing w/ lots of orange stained rx + talus yet, to my knowledge contains Ø; Ore in the basin there is a significant increase in the amount of biotite schist. The showing lies conformably between this schist + quartz. (see memo - 1979-80 YEG). Lots of blueberry on southerly facing slopes above tree line - hot; footwall rock are very black biotite schist + rusty quartzite; ore is massive sulfide w/ very dark rusty, peacock stain contains pyrrhotite and/or disseminated chalcopyrite - bornite - gives peacock alt throughout in some specimens; other rock is limonite w/ disseminated silvery metal; The chlorite schists are very dark green + less abundant than biotite + quartzite, a white - almost granite (biotite) rx is abundant - but believe it is following biotite (white) schist - this may become a gneiss on the SE talus gossan - also there, is dirty limestone - no sulphide found but some rxs on cliff very rusty; Rx along the south facing cirque face range from

quartzite to rhyolite (?) to sericite (?) - heavily foliated quartzite strikes NW; the others (with interbedded $CaCO_3$ (dirty)) dips moderately westerly (20°) - 2 bull caribou; Below near treeline is an outcrop of aphanitic green to light green sugary rx (volcanic?) this is just NW (300 m) of last claim posts.

<u>Aug 4</u> - investigate lake shore for float of ore; at 'Sorrell's beach' (see map) 9"x4"x4" piece of massive pink garnet w/ minor qtz + light green mineral; @ same location biotite schist (found all along local in lesser amounts) w/ rusty peacock stain as in 'AK' ore. - (to 2'x 1') + slab 2m x 1m x ? - qtz also;

Most rock - or good portion is not well xncld - this may be due to the sulfide (70% of rx) habit of weathering + not distance of transport; [illegible] / hillside [illegible]: major slope is heavily covered in buck brush, willow + swamps - fair bit of rust in many swampy drainages - along with 'oily patches' - may be - probably due to organic decay + not mineral(?). Will not take samples of 'stain' soils: for above reason but will collect them near [illegible] in slope @ later date. Near north end of ridge, east of

lake (below mafic body - see geol map) little
evidence of mafics - however minor
serpentine (?) as in outcrop yesterday
on beach itself, at major stream
draining in from east - no strm sed - will
take it further up tomorrow. North end
of lake jungle - ran down same side of
lake on bush break trails for second camp at
pyrrhotite 'ore'.

Aug 5 - investigate creek w/ anomalous Cu
draining into lake from east; at elevation
below major ultramafic outcrop. can see
gossan across lake in only 'memorable'
creek coming into lake from east.
gossan on south facing of 'cirque'
just opposite pass - hadn't even realized
it was (cirque) was there. A second orange
gossan is just west of the
upper end of the lake, like PAK, it
appears to be associated w/ horizontal
layers. A dark (biotite schist?) forms the
footwall below a white (quartzite?? band)
& whitish quartzite? seems to be above
the rusty zone though obscured by
alpine vegetation. - creek does not
drain into lake.

S3671 - strm sed main creek above first RL trib
creek 10' x 6"

S3672 - 1st RL trib - dry - drains mini cirque,
~~one garnet skarn rx, rusty biotite w/ porricrate,~~
one limonite green rx w/ garnet - skarn, minor ultramafic;
at confluence of trib - very rusty, creek draining
willow swamp ← S3673

some granitic in main & trib creeks! S3674 - strm
sed from 2nd RL trib - 1m wide - 9" 'rusty'
coating on bottom, runs thru willow (100%
more [illegible]) which, like @ 3 above drains
rusty swamp; S3675 - same strm further
up #4 is part of confluent braided;
strm - #5 - strm - 2m wide - still rusty coating
on bottom - drains main cirque - 7700' [illegible]
S3676 - RL of creek of #5 - ~~[illegible]~~ rusty trickle
from ~~[illegible]~~ gully which to ridge top;
Other prospects on creek - eg broken rocks
rusty [illegible] on crk bottom just above
#6; #7 at next "RL trib" - main crk or
no actual drainage - compare w/ #1 etc.
- rx are (magnetite - no jade) granite, schist,
S3678 - strm sed - left limit trib
draining red/yellow gossan -
D3679 - sed from red/yellow contact
gossan - rusty biotite schist.
qtz/schist dip 30° N, gran under? +
schists & qtz horizontal,

[illegible] s[illegible] of [illegible] granite - felsic,

Aug 6 - Descriptions of RRS gossan zone:

Gossan seems to be @ "granite / biotite / quartzite interface; the actual granite rx is a very felsic 'qtz porphyry' w/ limonite stain disseminated thru out; a biotite schist gneiss is often confused as a granite intrusion; The ultra mafic complex which crowns the 7,700' ft pk to the immediate east has significant amount of magnetite - enough that the entire rxs are quite magnetic, some 'veins' of a much lighter green rx are not magnetic but found thru out unborne; The rusty biotite schists have some metals - pyrite? & possibly chalcopyrite on x-cutting fractures to the texture; Quartz (orange stained) are often assoc w/ the biotite in sweat, larger or 'veins' (discontinuous) metal is 'often' assoc w/ the interface; On the main creek draining the 7700' peak garnet / diopside skarn, gray smoky qtz and occasional disseminated sulphide qtz assoc w/ (limonite) biotite?; schists are the predominate rx; R3G720 - metaliferous biotite schists [illegible] purpose of this sample is to determine if the small amount of metal alone is enough to accumulate gossan - R sample will be compared with soil sample #9 from previous page. Uncertain what the

assoc of smoky qtz is w/ white qtz [illegible]; R3G710

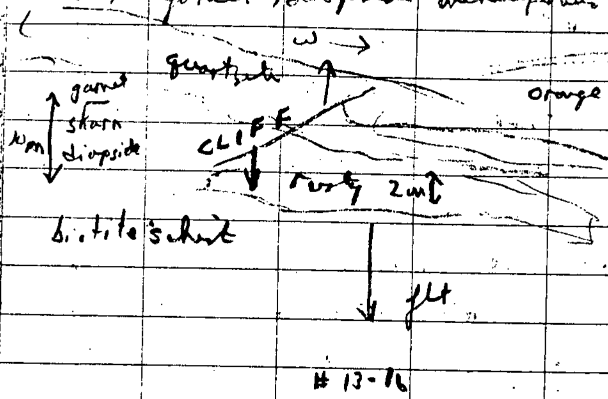
Aug 7 - find notable "massive sulfide" rusty rx in stone (see map) - not 'peacock color' but very rusty w/ large percentage to 50% metals; location suggests outcrop between biotite schist/um if gravity is predominate mover - more likely, given proximity to river, float is water moved ??

Investigate gossan on north east end of Lake - 4 hull [illegible], from distance gossan appears to conform to PSK model w/ dark formation (biotite) below color & white band (quartzite) above; gossan doesn't have drainage cirque is multi layered mostly horizontal except on southerly facing and dips moderately to the east (20°);

A crystalline limestone body outcrops just south of the muddy lake seems to dip N slightly - weathered; clean biotite schists predominate north facing face - red garnet diopside skarn is found thru out cirque - R3G711 - non metaliferous skarn rx, large amount of smokey qtz in biotite, diopside, quartzite & blending into white qtz; Rock around float (#10) & here are similar - mylonite biotite schist w/ qtz lenses ([illegible] blastomylonite?), lots of diopside + limestone along entire cliff face - limestone at times seems brecciated w/ diop. other dirty limestone, qtz, qtzite, etc;

S3G712 - stm sed draining mid cirque - thru biotite, quartzite, non metallic skarn, etc

R3G713 - limonitic, non metaliferous skarn from the southerly facing face - flt - R3G714 - very rusty garnet/diopside metaliferous flt 10-20% sulfides magnetite



flt originates from 30 ft+ garnet diopside skarn - w/ rustier stuff from smaller zone (above) juxtapose biotite schist.

R3G715 - very fine grained, 20% metal, magnetic skarn R3G716 - same - trying to find another #10 - #10 is non magnetic, w/ qt, veins - no green diopside? - ?

Aug 8, investigate ridge between PAK claims + CPAU - ultramafics outcrops - 2 bull caribou - ultramafics are found across the ridge as dirty to orange yellow weathering boulders in siliceous schists, minor rusty biotite schist

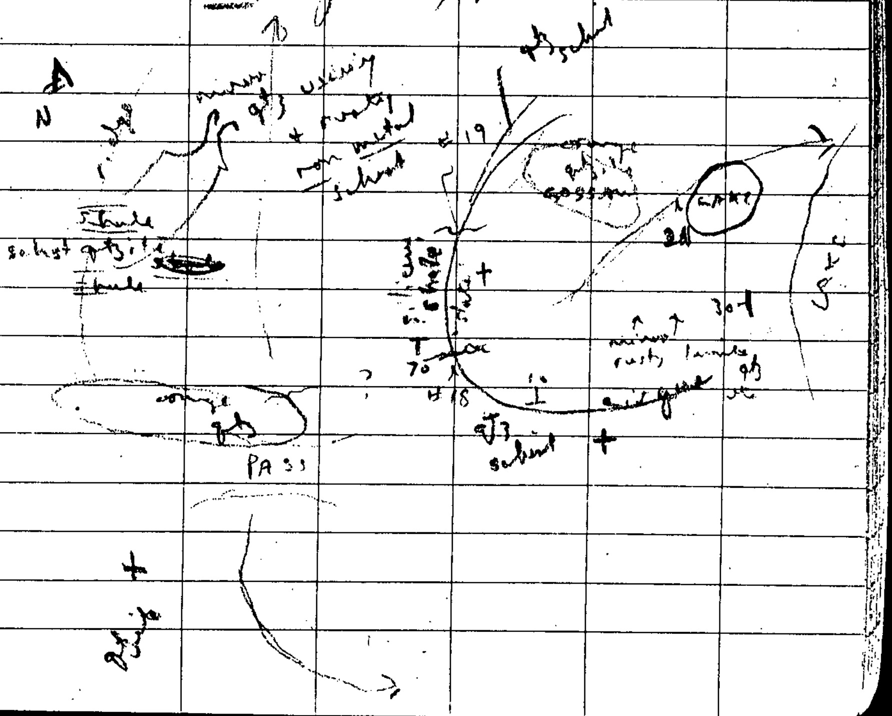
S3G717 - stream sed off mid ridge drainage no outcrop of gossanous - PAK type rocks

The ultramafics are not host to asbestos, jadeite, nephrite etc. - 5 chip, and 30° rocks that probably outcrop to the PAK showing, other ultramafic outcrops can be seen to the south of "bell" lake - between here and East Grove lake (to south) - at upper elevation - or in the 7200' pk.

Aug 9 - investigate gossan ½ way up lake on west side, As expected float in lower bench between lake and topography has granitic boulders mostly in float and flt, ridge crest of northerly striking, dipping (30°) consisting of varied quartz, schist, migmatitic rock. The consistency of these rock types and more strikingly the consistency of the horizontal (roughly) layers on all sides of north lake (10 miles eg) - it is all set out on a N-S grid with 0- and north dips of E-W striking rocks - layers from gossan north adjacent to "PAK" showing then to gossan conversed gradually. 3' north to the north shows bedding, conformably, changes in between an intrusion, is somewhat less conforming, as in forming large ridge - fault - 10 m wide w/ orange yellowish lying / quartzite.

~~[illegible]~~, qtz w/ limonite veins etc. thru
qtzite/schist (Klondike). # D3G718 - soil w/in
fault - orange - consistent w/ depth - ~~[illegible]~~
rocks on fault dip 90° to regular.
further along cirque ridge (see map)
black siliceous shale - striking E-W -
an all similar outcrops across canyon
to the west w/ orange 'gooey' gossan -
100 m/of this shale - has cleavage but
siliceous - some points schist or slate
like; on contact w/ quartz schist another
orange soil - E-W fault rock zone - again
reflected across canyon, R3G719 - qtz w/
limonite veinlets, vugs; rock from
#19 to gossan - schist / qtzite -
Gossan consists of orange colored quartzite
w/ no sulphides - no biotite schist accompany-
no [illegible]; - beautiful deep turq. lake hidden in
valley - S3G720 - strm sed from just
above lake - ~~[illegible]~~ lake w/ stells
sediments etc - little outcrop sheltered
taken at same (see map) w/in usual
dipping N-S striking schist) on
south shore of lake same amount of
limonitic qtz / rusty rk. Aug 10 Caribou
all over - some big bulls; see
area across canyon as described

yesterday, some trail as day # - [illegible]
up there [illegible] - beautiful flower beds
- seasonal avalanche - rock flo as expected
schist; qtz body - orange gossan that
is in line w/ (E-W strike) D3G718 is
in places rusty but mostly
only orange qtz - more qtz than
quartzite like gossan yesterday, but no
sulphides or even 'decent' limonite
grades into schists, ridge or [illegible]
- alt bands of shale (slate) - all
siliceous & schists w/ minor qtz accomp.
as in R#19 yesterday,



little [illegible] of interest - caribou - 2 hard [illegible] 13? - cows

Aug. 11 - stake up area between green north of PAK (near lake [illegible]) + ultramafic ~~[illegible]~~ body just south of creek (see map) investigate U.B. for 'jade' potential. fog rain; spotty; walk along 'beach' for more looking for flt. after comparing #10 sample rocks - the flt as stone w/ the skarn sample + rock samples - 1 quarter of #10 is skarn - first contains qtz veins - the disseminated metal resembles our sample of North Lake rock (not the massive [illegible]) ~~[illegible]~~ - will analyze this 'PAK' rock + compare #'s w/ #10 (as well as #'s from skarn - eg #15, 16 et al.). So target float; ultramafic are magnetic ranging from pretty light green rock (?) to black gouge; Any [illegible] w/ black is mildly to pretty strongly magnetic. Stm [illegible] draining ridge - along schist w/ good amount of U.M in a variety of colors on weathered surface pink to rust to orange, S3G720 (used #21 by [illegible] Aug 8) 2 little U. [illegible] [illegible] same as chased out of PAK; ultramafic most outcrop all along ridge at least to point outcrop was found Aug 5 (see map)

but no rock of same unit, + no biotite, rusty qtz etc -; only one plant - wild carrot w/ large tap root w/ aroma - probably poison but interesting smell - artemisia sp? (wormwood??) should [illegible]. ~~[illegible]~~ [illegible] [illegible].

Aug 12 - fog rain - low visibility given the amount of exploration work (surprisingly recent) ~~[illegible]~~ flag at skarn, July 19 claims, sod line at [illegible], etc, I, as suspected, cannot see the gossans across from camp - same as PAK - see Aug 5 notes - [illegible] not have gone over - w/ weather [illegible] + plane due 6 pm. will repair tent + bags and ~~[illegible]~~ [illegible] [illegible] so as to not be [illegible] it [illegible] [illegible], weather stays low w/ occasional lift to 2 miles visibility, though clouds stay over ridge tops (above 4000'!) difficulty relating to [illegible] [illegible] - + [illegible] [illegible] ~~[illegible]~~. - [illegible] [illegible] caribou [illegible] [illegible] - [illegible]. Make a run along ~~[illegible]~~ beach for flt - ; Plane doesn't show * ⟶

Aug 13 - no plane again visibility low. - see [illegible] of [illegible] ridges - 5 miles - rainy, foggy w/ breaks. can't [illegible] [illegible] [illegible] opt - need more of [illegible] - eg regional geologic terranes etc. When next you fly w/ Warren [illegible] - [illegible]

out you can expect to be delayed at least
by one day - I must take this into account
next time here in this area. Which maybe
soon if Cominco has already looked @ w/ (soil/mag
topo) and I have to stake - a 10 c minimum on
my part. Plane on ~5; hauled out of gas - leave Aug 13
Aug 20 - base near the target on Clearwater
105K/6 - fly from R River; Area, as expected
has several roads, bulldozer trenches -
2 drill holes - Hudson Bay did work on
east side of creek - soil, mag etc. Atlas
et al on west (w/ bulldozer) 3 lakes
for potential camps as they are quite
short. Pilot not sure of first lake -
between two sites - a 100'+ high
bluff - not seen on air photo (shadow) or
20 m contours of topo. - very scary -
same w/ lake 2 - Last resort lake -
also w/ an airstrip - "too shallow" - or is
a fourth lake - ~8 miles from intended
site; North McMillan windy + too far at
any rate. Lots of moose trails etc.
Rather than return here go to West Lake for
5 days (?) - no schedule) - again "too
shallow" down on north, West Lake, Ram
stick up a into right leg [illegible] after [illegible]
[illegible]

although emergency after pliers, only pulled 1/2 out
of leg before breaking - there's a barb on stick
- slice leg doesn't resume 1" 'shiny'; camp up
on fresh water -
Aug 21 - vert dip - strike 290° - dark - fine grained
(qtzite schist w/ stringers + pods of qtz -
pods w/ 25% limonite - R3N101, rocks
west of the lake consist of mainly
vertical dipping, orange weathering
shales interbedded with the fine
grained, dark rocks described above;
@ #1 there is a 'thrust' (normal) fault -
rocks on both sides of the structure
are as above - on the west side they
are tilted - dipping toward the S at 30°
or so; the qtz seams occur only w/
the fine grained schist and
limonite nature is common but not
ubiquitous. At the 'creek' (swamp)
draining into small lake near #1 (swampy)
a few rusty cavity - round rocks - one
a flaked qtzite has trace of pyrite.
Other flt rocks include: black crystalline
rock - hard w/ orange rind; several
varieties of quartzite + 'porphyritic' quartzite
w/ qtz 'blebs' or phenocrysts (some w/

disseminated limonite, rock seep SW of
Sweet lake (more flt there) w/ pyrite
xtals + manganese staining in a felsic
siliceous rock; cow + calf moose,

Aug 22 - explore country to west + north.
country consists of forest fire ravaged (10² yrs ago)
thermokarst topography. Every rock
present in the Selwyn Basin is no doubt
represented here as rounded glacially
derived boulders / gravel. Very difficult
terrain for anything - 80% buckbrush
10% aspen / birch 10 willow; coarse grass on
south slopes; spruce [illegible] - one fir tree
Pleasant Creek valley largely intact, burn
around + south of Murray Lake; fire in
passes to Lansing River - 40% remained unburned
Fire to + past Pleasant creek w/ some riparian
habitat, trees to 16" dia intact - lots of grass,
red currants, bear (small) + wolf (large) tracks + lots moose tracks. Loose dog, pencil, + mother?,

S3N102 - stream sed from pleasant creek -
actually the left limit trib (½) approx
1 mile above confluence; variety of rock in
2 m wide, 9" deep stream. one green -
probably argillite - quartzite, some red
weathering shales - cherts etc nothing that
seem clearly vulnerable / mineralization. cover
[illegible] / thermokarst topography back to lake + west - nothing
but glacial rock (no metal) + swamps - birch brush +
[illegible] trace. At small lake (near sample #1) encounter
some vertical dip rocks. Aug 23 - purpose of
trip was to locate 'rumored' copper showing on
end of lake - malachite, azurite - the lay of
the land does not lend itself to reliable outcrop -
any rock seen on north, south or east (+ ½ of west)
side would be glacially derived float from
who knows where; southeast end of lake is
similar - dried creek draining obvious
several hills. fault on 1500 m [illegible]
~~south~~ east of lake consists mostly of shale
- some quartz-veggy w/o much or other mineral -
but 80% shale - gravel around creek -
color w/ usual variety. S3N103 - stream sed of
'cottonwood crk' - several cottonwoods to 2' dia
- end of lake not burned 200 m x 50 m - again
lots of grass, currants, willow. Valley below
pleasant 80% burn. All vistas etc obscured
today by smoke - sick smell of slow burning wood
permeates air - barely see Lansing range - cannot see
[illegible] Range. R3N10X - a very small (silver dollar
size - ~~long~~) rock from ferricrete on candy creek
on 105N10 - assayed w/ last ~~batch~~ batch of rocks.
not noted anywhere; Conclude there is no appreciable

amount of copper mineralization in this area, even if found its source would be difficult to trace given ground conditions, glaciers etc.

Leg has slight infection - difficult to bend knee.

Aug 24 - Bald eagle 'chick' unable to fly on island in middle of lake - apparently nest fell out of tree & bird is being raised on ground - no consolidated rxs on island (any) very yellow tallons on eagles. ½ way down south west side of lake westerly striking vert dip shale/schist intersects lake - nothing of interest south east (very heavy bush brush & except for two 'drainages' - swampy w/ above mentioned rx (sampled @ #1) little outcrop - just northwest & glacial features persist; Probe lake for depth - physiography - use #10 nylon rope & rock (granite?) anchor. probe will determine safe take-off area for plane & extent of glacial features SE along lake. -

If bottom (very eutrophic lake w/ avg 3" ft long; very productive w/ numerous small school of minnows - one 8" grayling seen) can be seen depth <10', depths range from 45' - south of eagle island to 2' - bottom rocky off ashore but - 'murky' @ depth on north end 14' deep w/ ... 'reef' - depth of 3-4' min; 'avg' deep sections >25' (3 readings of 32')

- deep areas broken up by 'reef' - as on land no pattern for depth - thus portable except for very south west edge - all glacial morphology; - 2 moves Aug 25 - wait until 7 pm for plane pick up - - then venture NW - WNW between Lake & ridge (Aug 22). Same; only element seen in a rather common manganese (wad) stain on numerous rxs - the stain is very light & not confined to any particular rx type (i.e. shale or quartzite) seems more random - after flying E-W;

No plane @ lake - leg swelling - under knee cap

minor pus; Aug 26 - plane in - will not attempt landing in clear creek (Solo, LAB claim area) - back to R. River, nurse cuts out sliver; investigate coal seam just out of town while waiting for charter from MacPhee - seam to 10+ dips 35+ southerly - w/ conglomerate hangwall & rusty shale footwall - strike 100's m; fossil leaves (willow) & possibly fish ... w/ some consolidated "shale" layer - fossil found on north side of cut. charter @ 83/hr ~ 2400 total - out of ...; 2 coal samples collected.

leg stitched - splints removed

Aug 29 - McClintock - investigate N trending (NW - NE) structures 'between' claim blocks

D3D99 - soil from N-S fault thru diorite - 40' wide - rock in fault (flt to below) are minor epidote on 'shears' or fract in rock, magnetic ultrabasic alt diorite (serpentinite? hbl + veins - w/ manganese stain + 'mafic diorite' w/ minor sulfide (Ts) w/ purple fluorite veinlet. ; soil @ 6" - reddish under 1" ash layer + 3" duff w/ glacial / residual rock @ 240° to pk of Mt Lorne + 199° to pk wt Lansdowne, D3D910.

approx 150 m SE, a second N trending structure - like #9 structure terminates near ridgeline in a persistent NW trending fault; 3 large (to 1m³) quartz carb mariposite boulders (glacial) trending NW from the strong N 10°E structure ('major' posa) - rocks found on west side of canyon - minor metal (pyrite) in one piece of qtz carb also minor mariposite, largest (middle) piece w/ qtz veins to 3/4" - very 'fluid' mix of felsic + mafic characters; 3rd piece near ridge top is very fine grain nearly homogeneous orange w/ strained blebs of mariposite, - little structures

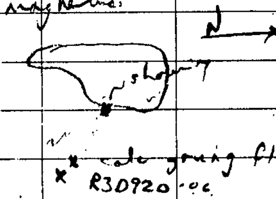
D3D911 - Soil in bottom of canyon at 'posa' (diorite) - soil nearly ash white for over 1½' w/ minor yellow or brown components at depth - very fine silts -

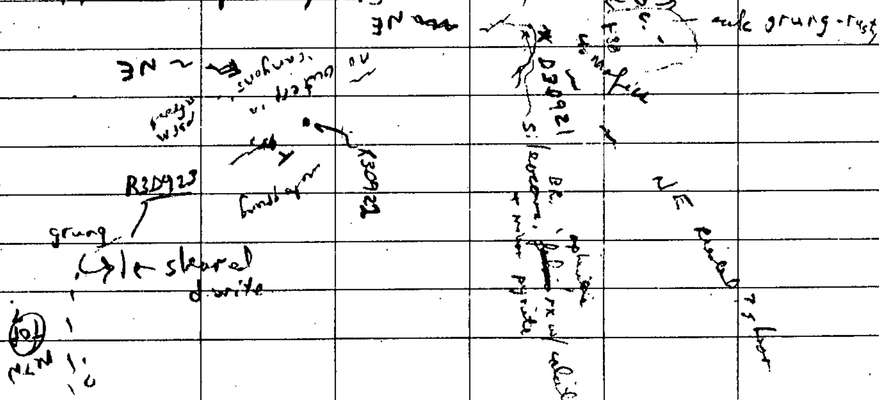
D3D912 - 10 m NW - Soil from B horizon w/ standard ash layer etc

~~Aug 30~~ Sept 15 - see attachment

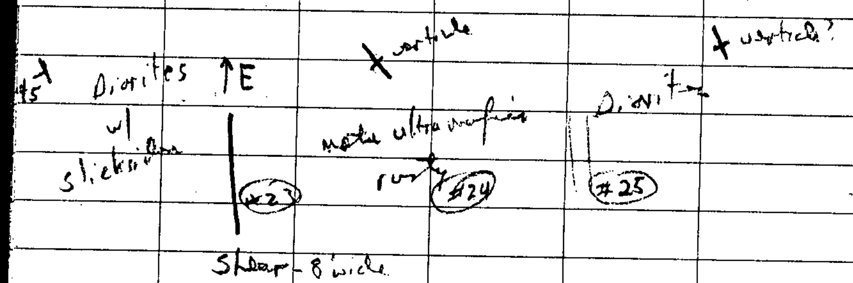
Sept 16 - attempt to follow NW-SE lineament apparent on air photos from trenched showing on ET claims - The strike of the mineralized shear in the trenches is NW; It is hoped more evidence of mineralization is apparent on surface - most fault expression (canyon bottom) are permafrost; directly above (100'?) lake - grungy mafics that are calcareous, a 11' flt nearly is mafic xtline rx, non calc + slightly magnetic.

R3D920 - rusty, large' xtal pyroxenite from sheared bldr (fine grained to porphyritic (full + 'pyroxene'?) phenocrysts), NW trending?





• R3D922 - 'rusty' meta ultramafic - sample of rx
spanning [illegible] w/ NW/SE lineament; 21 label
Soil samples in area are difficult - perm frost/
ground water - attempt to 2½' w/o B horizons.
R3D921 - soil sample from extension of
NE trending [illegible] anomaly 'shear' - soil is
light brown silty w/ no ash layer - [illegible] w/
glacial ~~[illegible]~~ fragments - may not be [illegible]?
R3D923 - pyritic light 'alt diorite' from shear
(east (80°) trending) w/ ultramafic juxtaposed.
pyritic rusty rx over ~ 4'
R3D925 - siliceous / calcic ~~[illegible]~~ w/ minor pyrite
rusty on fractures (flt) → aphanitic grey rx
R3D924 - rusty ultramafic from south of shear



swing south along fault (w/ top breaks up
clear SE trend; - just south southwest of
small lake 2 ~~[illegible]~~ qtz lenses flt - ~~[illegible]~~ 1' w/ much qtz
the second, 1'x 1'x2' w/ much [illegible] - no sulfides.
- mapped syenite [illegible] plug not any syenite
fdr seen.

Sept 17 - continue to investigate south end of
NW trend from trenched [illegible] showing on E.T.
- approach from south. @ creek drainage
area - lineament of mag + ET anomalies
4+' of organics + then permafrost -
need method (backhoe) to get under 8'?
on north side of creek black/grey chert w/
minor quartz veining + minor rust on joints.
flt originally from 25° striking, 20" wide, 80° N dipping
band 2"-6" of 'chert'! - formation [illegible]
toward south on west end. - white qtz
vein (2") crosscuts at low angle, juxtapose
'above' a SE striking (10°) vertical dipping of the same
folding is evident near the 'contact'. 1" ± ~~[illegible]~~ layers of
shale separate ~~[illegible]~~ the chert bands. Minor rust is
found w/ 'hydrothermally' alt qtz veins (¼")
R3D926 - qtz vein w/ limonite + vuggy areas thru
chert. Stumble onto + practically into
occupied bear den - @ 'second' creek ([illegible])
on old 'prefab' etc above line (325°) from trench)
beat hasty retreat west - dug [illegible] soil
@ 3' - no bear tracks, [illegible] follows:
black (color - [illegible]). D3D927 - 3' soil in N-NW [illegible]
trending fault (left lateral?) - 18" humus,
@ 2½ possible thin ash + mineral soil
organic soil to 2½, [illegible] clay - small sample - 2 holes

. Rocks @ 2½-3' attacked by grouse. ?
D3D928 - next draw ~~ea~~ west #27 - organic to
14"; light sand 2-4", organic/clay to
24+; ash near 24" - rock at 2½' w/o
mineral soil - 2 holes - "", 3rd organic to rock @;
sample - light sand / organic from hole bottom. ;
@ crk, 200 m west sample 3+4 - and pre #26
~~#~~ Black chert (20') underl~~ies~~ layer by black
crystalline to fine grained limestone; / marble breccia
flt (slide); D3D929 - soil sample from
EM-Mag across buckbrush meadow -
- green mineral soil @ 3½-4', organic to 12" then
min soil - pebbles @ 2½'; other ~~areas~~ in
meadow permafrost @ 18" - meadow 100 yds wide
- sample from 20 m to east side ~ ½ way thru.
Oct 15 - ✓ out sample discrepancy
eg D3D926 + R3D926 + 27
which were anomalous in Au, Ag, Cu etc
- R3D926 taken @ cliff - no soils there
here - for location ? - @ claim
post tagged Y20284
follow 1st trib ~~east~~ west of cliffs up -
very narrow @ first (like original sample site)
then wide w/ water then narrowing again
but still wider than nearby section.
30-50 m wide when 'levels' out - still
marshy - Sample D3D930 - 2' rocky

soil, wet organic to that point
sample collected between 2½ + 3½' - silty sand.
- Head west but ~~large~~ open area w/
water - follow down, attempts at samples
@ narrow area fail - ~~glacial~~ round flt
interferes w/ auger; - 200 m ?? lower (400 m
SW of #3???) hole at 3' thru organic
+ rock w/ last foot mineral soil (+ rock)
Sample taken from 2-3' has some organic
soil → D3D931 ;
Sample flag # 27 found where
mapped - at narrows of 1st trib
(missed first time up) - marked
D3D927 on flag - Sample
D3D932 taken @ same spot
- one hole sampled again ~ 2 more
- to 3½+ ft → sample w/ organic, clay +
mineral soil ;

6/25 - PAP McClintock - investigate 60's EM anomalies that have been interpreted to be NE trending graphitic shears. Area south & easterly of Crow Horn lakes. @ claim post #11 & 12(+2) approx 30 m toward post #1 - flagging from previous program over outcrop - meta volcanics typical grungy grey green, ~ strike SE from posts. encounter qtz flt w/ mm's wide "graphitic" layers ~ 30% carbonates - intergrowing w/ qtz. Minor NE (30°) trending structure bisects ridge - rx on fringe common black silicic rx w/ qtz veinlets - some red on fracture, some limonite ~ grungy schists (meta seds/volc) no sulphide on my rx / flt encountered, limonite pod striking northeast area w/ sheared meta volcanics off north trending fault along elbow lake 255° to 'elbow' m/k. pod 10+ m, ~ 20 m w/ large nodules of $CaCO_3$ in meta seds. to North along exposure qtz black schist - strike north ~ 20 m N meta sed / volc (?) striking east - dip 45° south