

LOG NO:	0613	RD.
ACTION:		
FILE NO:		

**GEOLOGICAL AND GEOPHYSICAL REPORT
ON THE BLACK CLAIMS**

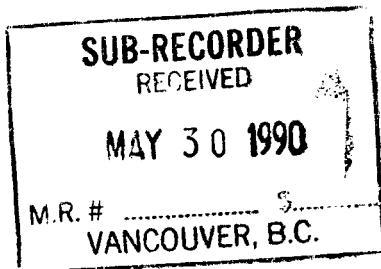
<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Recording Date</u>
Black 1	9601	20	March 23, 1989
Black 2	9602	20	March 23, 1989
Black 3	9603	20	March 23, 1989
Black 4	9604	20	March 23, 1989
Black 5	9605	16	March 23, 1989

Blackwater Mountain Area,
Cariboo Mining Division, British Columbia
N.T.S. Map Area 93G/2W
Latitude 53° 10' N Longitude 122° 50'

by K.V. Campbell, Ph.D., and
R.A. Hillman, P.Eng.

May 20, 1990

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**



20,052

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Location and access	1
1.2	Claim ownership and status	1
1.3	Previous work	4
1.4	1989 work program	4
2	GEOLOGY	4
3	SILT SAMPLING	5
3.1	Procedure and Analytical Technique	5
3.2	Results and Interpretation	5
4	ROCK SAMPLING	6
4.1	Procedure and Analytical Technique	6
4.2	Results and Interpretation	6
5	GEOPHYSICS	6
5.1	Method	7
5.2	Results and Interpretation	7
6	CONCLUSIONS	8
7	RECOMMENDATIONS	9
8	BIBLIOGRAPHY	9
9	ITEMIZED COST STATEMENT	11
10	CERTIFICATES	12

TABLE OF CONTENTS
(continued)

FIGURES

Figure 1	Location map	2
Figure 2	Claim plan	3
Figure 3	Grid and sample locations follows page	5
Figure 4	Geochemical results - Au precedes page	6
Figure 5	Total field magnetics	in pocket

TABLES

Table 1.	Summary of claim particulars	4
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APPENDICES

Appendix I	Analyses Certificates
Appendix II	Total Field Magnetics Data Listing

1 INTRODUCTION

1.1 LOCATION, ACCESS AND TERRAIN

The Black property is located in the Cariboo Mining Division near Blackwater Mountain in central British Columbia, 30km northwest of Quesnel. The property is approximately centered at 51° 10' North latitude, 122° 50' West longitude and is situated within National Topographic Series map sheet 93G/2W (Figure 1).

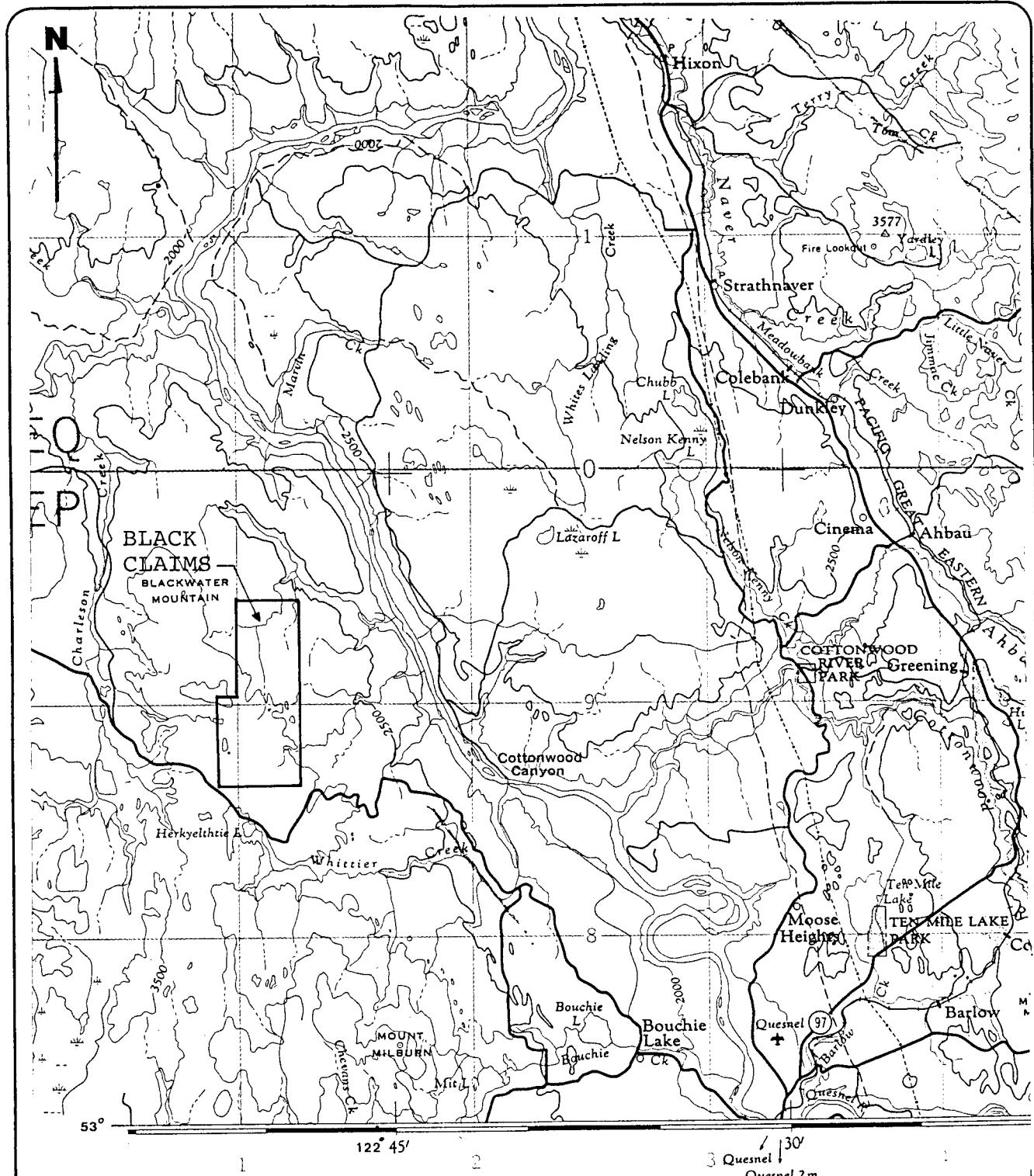
Access to the claims is from Quesnel along the Blackwater Road, an all-weather gravel road in good condition. It is about 26km from Quesnel to the bend in the road nearest the southeast corner of the claims. Recently constructed logging roads extend north off the Blackwater Road across the Black 5 claim.

The claims area has a subdued topography with a relief of no more than 300m (1,000ft). For the most part the creeks are slow moving but Wolf Creek, which runs north through the claims is deeply incised into thick till deposits and bedrock. Rock exposures are scarce but several are found along creeks, on the sides of knolls and on the south-facing slopes of higher hills.

Mapping by Tipper (1970) shows the direction of ice flow was to the north-northwest in this area.

1.2 CLAIM OWNERSHIP AND STATUS

The Black property consists of five modified grid system claims totalling 96 units (Figure 2). Table 1 summarizes the claim particulars. The claims are owned by K.V. Campbell of Vancouver, B.C.



Scale 1:250,000

BLACK CLAIMS
Cariboo Mining Div.
NTS 93G May, 1990
Location Map

FIGURE 1.

FIGURE 2
BLACK CLAIMS
Cariboo Mining Div.
Claim Plan
NTS 93G/2W
May, 1990

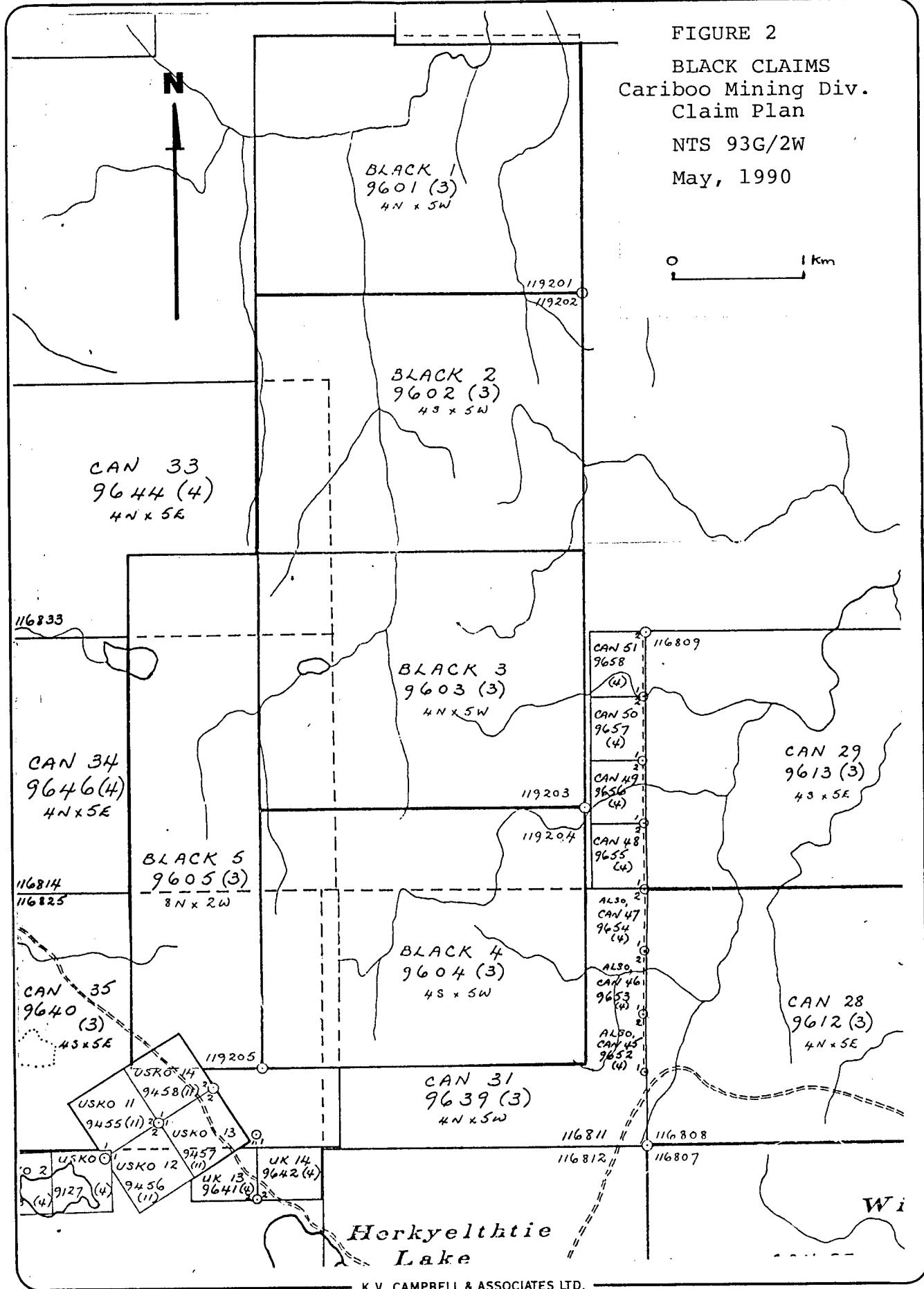


Table 1. Summary of Claim Particulars

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Recording Date</u>
Black 1	9601	20	March 23, 1989
Black 2	9602	20	March 23, 1989
Black 3	9603	20	March 23, 1989
Black 4	9604	20	March 23, 1989
Black 5	9605	16	March 23, 1989

1.3 Previous work

No previous work is recorded on the claims.

1.4 1989/90 Work Program

Work was conducted during the periods May 6th to 10th and May 21, 1989 and March 6th to 10th, 1990. The spring 1989 program included silt sampling, prospecting and rock sampling and geological traverses. A total of 26 silt samples and 5 rock samples have been analyzed. In 1990 two grids were established with a total base and tie-line length of 7,450m. The total length of grid lines established was 18km. Twenty-five line kilometers of ground magnetometer survey were performed by Frontier Geosciences Inc. of Vancouver, B.C.

2 GEOLOGY

On a regional scale the property lies within the Cache Creek terrane of the Intermontane Tectonic Belt.

The bedrock geology of the claims area has not been mapped in detail. The most recent mapping by Struik et al (1990) shows the claims area to be underlain by rocks of the Pennsylvanian and/or Permian Cache Creek Group; dark gray ribbon chert,

argillite, greenstone, minor limestone and serpentinite.

3 SILT SAMPLING

3.1 Procedure and Analytical Technique

Conventional silt sampling procedures were followed; a 4x6" Kraft paper bag being filled with active sediment at each station.

Analyses were performed by Eco-Tech Laboratories Ltd. of Kamloops, B.C. Samples were dried, sieved to minus-80 mesh and subjected to a 30 element ICP (inductively coupled argon plasma) analytical technique after digestion for one hour at 95°C in aqua regia. Gold analysis was by hot aqua regia leach on a 10gm sample followed by analysis by atomic absorption.

3.2 Results and Interpretation

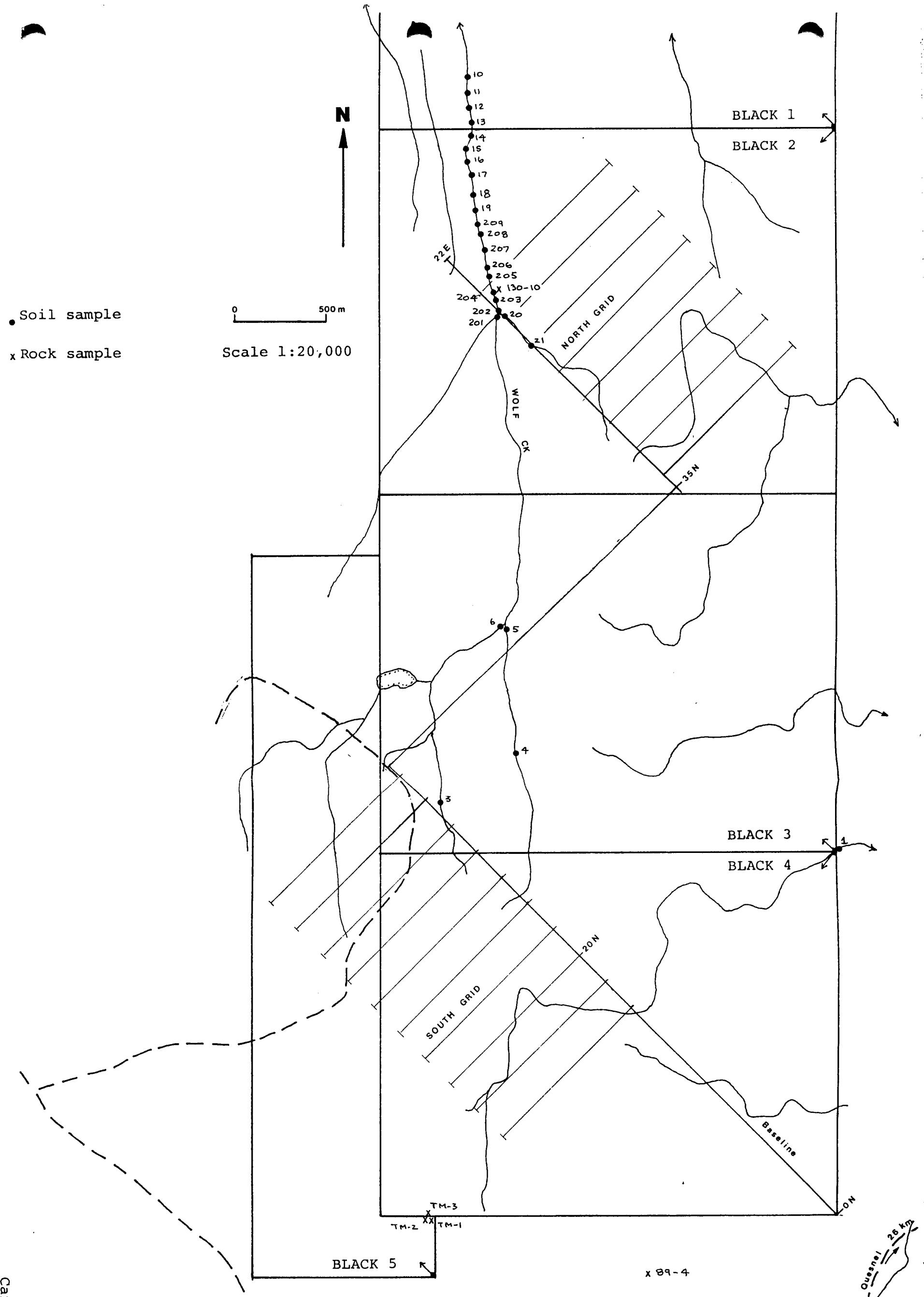
The analytical results for the silt samples are included in Appendix I. Sample locations are shown in Figure 3 and values for gold are shown in Figure 4.

The majority of samples were collected in the relatively higher energy stream environment of Wolf Creek, in the northern half of the Black 2 claim. Gold and other metal values are low. The highest values, 25 and 35ppb Au, were collected near an outcrop of silicified chert (Sample 130-10) that carried 111ppb Au.

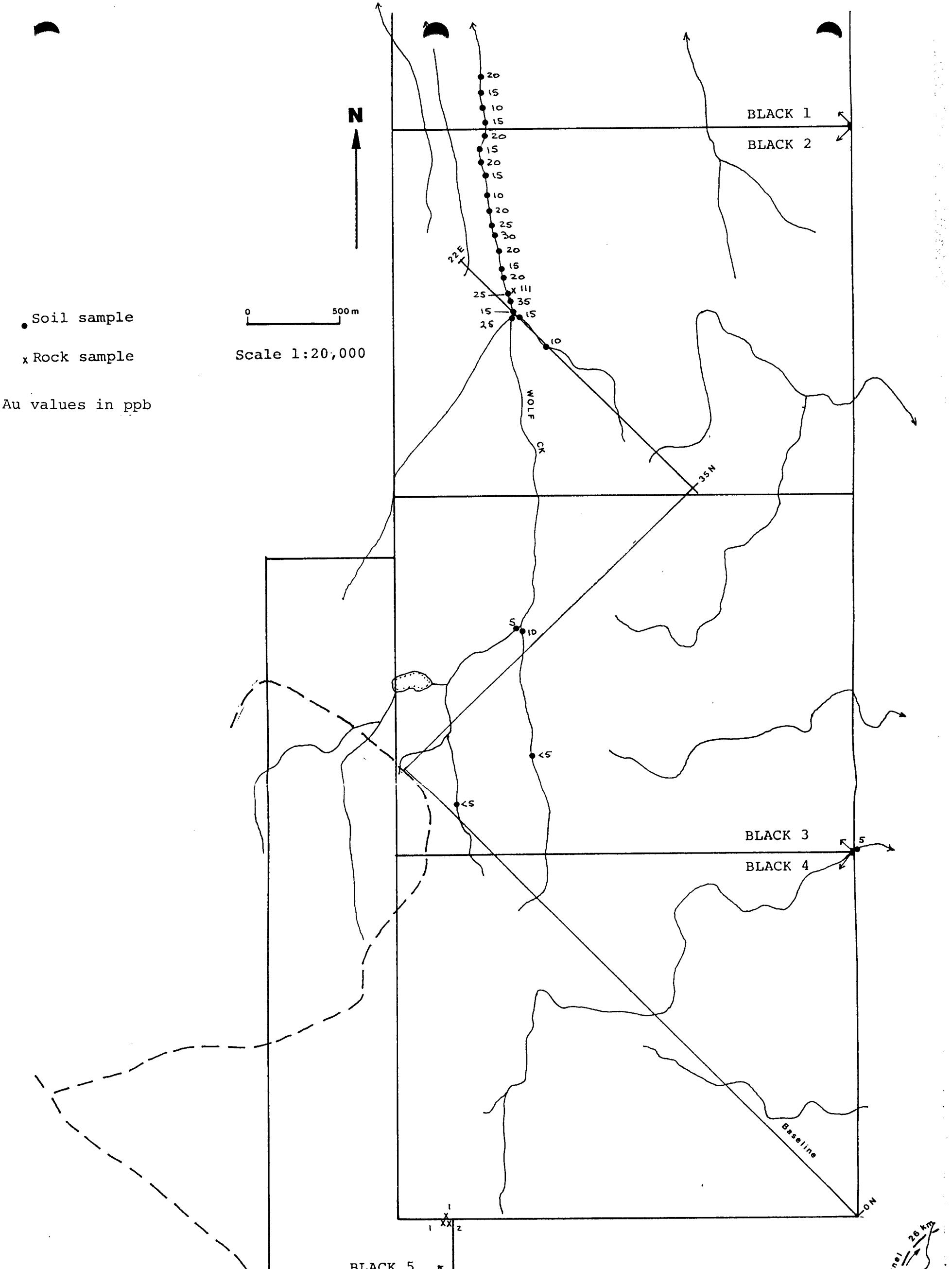
Silt samples with anomalous values of other elements are:

Nos. 3 - 3.2ppm Ag, 15ppm Mo, 493ppm Ni

202 - 1.6ppm Ag, 12ppm Mo



BLACK CLAIMS
Cariboo Mining Division, B.C.
93G/2W
GRID AND SAMPLE LOCATIONS



BLACK CLAIMS
 Cariboo Mining Division, B.C.
 93G/2W
 GEOCHEMICAL RESULTS - Au

4 ROCK SAMPLING

4.1 Procedure and Analytical Technique

In the course of the silt sampling, prospecting and geological traverses several rock samples were collected. A few of these were analyzed.

Brief sample descriptions are given in Appendix II. One rock samples was analyzed by Eco-Tech Laboratories Ltd. in Kamloops and four samples were analyzed by Acme Analytical Laboratories Ltd. in Vancouver, B.C. Samples were ground to minus-100 mesh and subjected to the same digestion and analytical techniques as were the silt samples.

4.2 Results and Interpretation

The analytical results for the rock samples are given in Appendix I. Sample locations are shown in Figure 3 and results for gold are shown in Figure 4.

Samples TM-1,2 and 3 were of dark, silicified chert with fine disseminated pyrite. These reported nothing of interest. Sample 89-4 was of green, andesitic volcaniclastic with a few grains of fine chalcopyrite. This assayed 792ppm Cu but carried no other significant values. Sample 130-10, from outcrops of silicified chert along Wolf Creek, carried 111ppb Au.

5 GEOPHYSICS

The magnetometer survey was performed by Frontier Geosciences Inc. of North Vancouver, B.C. between March 10 and March 15,

1990.

5.1 Method

The magnetometer survey utilized two Geometrics G-816 recording proton precession magnetometers. One of the these was used as a base station to record diurnal variations during the survey interval. These data, together with the field data obtained by the roving magnetometer, were downloaded to a field computer for processing and plotting.

The synchronization of the field to base station magnetometer was preserved to within one second. Diurnal variation was normal, with no magnetics storms occurring in the survey interval. Precautions of thorough operator demagnetization and preservation of a constant facing direction were observed to maintain data quality.

The survey was conducted on two grids, located in Figure 3. A total of 18 line km of grid were surveyed, in addition to 7.4 line km of base and tie lines.

The data was processed to remove diurnal variation and plotted in stacked profile form on Figure 5. Listings of the data are included in Appendix II.

5.2 Results and Interpretation

The survey grids were located to test two areas of high magnetic activity observed in an airborne magnetics survey. The survey data confirmed the general location and character of the magnetic anomalies observed in the airborne data.

The coverage of the south grid showed the presence of a general increasing gradient to the southwest in agreement

with the airborne survey coverage. This broad magnetic high is interpreted to be associated with a magnetite rich serpentinite body, the centre of which is located somewhat to the southwest of the survey grid. Locally present on the flanks of this magnetic high are shallow, very strong magnetics highs, originating in locally enhanced magnetite concentrations possibly within outliers from the main serpentinite body. The locations of interpreted magnetic source bodies for the principle anomalies are indicated in plan on Figure 5.

The system of magnetic highs observed on the north grid is well correlated with the airborne indicated anomaly. The amplitude of these magnetic highs is not as great as those observed on the south grid, reaching maximums of 1000 nT.

6 CONCLUSIONS

The Black claims are underlain by Cache Creek Group volcanic and metasedimentary rocks; argillites, limestone, cherts and basalts. In addition, a northwest trending belt of serpentinite crosses the south portion of the claims, in the neighbourhood of the south grid.

Limited geochemical silt sampling showed slight increase of gold near outcrops of silicified chert on Wolf Creek.

The geophysical survey showed the presence of two magnetic anomalies; one on the south grid, near outcrops of serpentinite on the logging road immediately west of the Black 5 claim, and the other on the Black 2 claim. The latter anomaly is in the vicinity of two silt samples and one rock sample that carried anomalous gold values.

7 RECOMMENDATIONS

A program of mapping and prospecting of the few rock exposures on the claims, particularly on the Black 2 claim, is recommended. Further magnetometer surveying is recommended on the north grid to give definition of the magnetic anomaly there.

8 BIBLIOGRAPHY

Bevier, M.L., 1983; Regional stratigraphy and age of Chilcotin Group basalts, south-central British Columbia, Canadian Journal of Earth Sciences, v.20, pp.515-524.

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Mathews, W.H., 1989; Neogene Chilcotin basalts in south-central British Columbia: geology, ages, and geomorphic history, Canadian Journal of Earth Sciences, v.26, pp.969-982.

Struik, L.C., Fuller, E.A. and Lynch, T.E., 1990; Geology of Prince George (East Half) Map Area (93G/E), Descriptive Notes and Fossil List, Geological Survey of Canada, Open File 2172.

Tipper, H.W., 1961; Geology - Prince George, Cariboo District, British Columbia, Geological Survey of Canada, Map 49-1960.

Tipper, H.W., 1971; Glacial geomorphology and pleistocene history of central British Columbia, Geological Survey of Canada, Bulletin 196.

Wheeler, J.O., Brookfield, A.J., Gabrielse, H., Monger, J.W.H., and Woodsworth, G.J., 1988; Terrane Map of the

Canadian Cordillera, Geological Survey of Canada, Open File
1894.

9 ITEMIZED COST STATEMENTSalaries and Fees:

K.V. Campbell, geologist; 11 days @ \$150/day ...	\$ 1,650.00
C.I. Ditson, geologist; 10 days @ \$150/day	\$ 1,500.00
T.H. Mackenzie; prospector; 5 days @ \$100/day ..	\$ 500.00

Disbursements:

4x4 rental; 11 days @ \$55/day	\$ 605.00
4012 km @ \$0.15/km	\$ 601.80
Air photos	\$ 35.66
Photocopies	\$ 27.86
Meals, groceries	\$ 214.21
Accommodation	\$
181.44	
Fuel	\$ 220.77
Assays	\$ 469.75
Expendable materials	\$ 50.00

Contractor:

Frontier Geosciences Inc.	\$ 9,709.94
Total	\$15,766.43

10 CERTIFICATES

I, KENNETH VINCENT CAMPBELL, resident of Vancouver, Province of British Columbia, hereby certify as follows:

- 1) I am a Consulting Geologist with an office at #4 - 84 Lonsdale Ave., North Vancouver, British Columbia.
- 2) I graduated with a degree of Bachelor of Science, Honours Geology, from the University of British Columbia in 1966, a degree of Master of Science, Geology, from the University of Washington in 1969, and a degree of Doctor of Philosophy, Geology, from the University of Washington in 1971.
- 3) I have practised my profession for 23 years. I am a Fellow of the Geological Association of Canada (F0078).
- 4) This report, dated May 20, 1990, is based on my field work on the Black claims between May 6th, 1989 and March 15th, 1990.

Dated at Vancouver, Province of British Columbia,
this 20th day of May, 1990.

Kenneth V. Campbell
K.V. Campbell, Ph.D., F.G.A.C.
Geologist

Frontier Geosciences Inc.

Suite 7, 84 Lonsdale Ave., North Vancouver, B.C. Canada V7M 2E6

(604) 987-3037

13

10 CERTIFICATES (continued)

I, RUSSELL ALEXANDER HILLMAN, resident of Vancouver, Province of British Columbia, hereby certify as follows:

- 1) I am a Consulting Geophysicist with an office at #7 - 84 Lonsdale Ave., North Vancouver, British Columbia.
- 2) I graduated with a degree of Bachelor of Science, Geophysics, from the University of British Columbia in 1969.
- 3) I have practised my profession for 17 years. I am a Professional Engineer in the Province of British Columbia.
- 4) I am a member of good standing with the European Society of Exploration Geophysicists.
- 5) I supervised and interpreted the results of the magnetometer survey of the Black claims described in this report. The field work was performed between March 10 and March 15, 1990.

Dated at Vancouver, Province of British Columbia,
this 20th day of May, 1990.

Russell A. Hillman

Russell A. Hillman, P.Eng.
Geophysicist

APPENDIX I
Analyses Certificate

ECO-TECH LABORATORIES LTD.

JUNE 5, 1989

10041 EAST TRANS CANADA HWY.
 KAMLOOPS, B.C. V2C 2J3
 PHONE - 604-573-5700
 FAX - 604-573-4557

VALUES IN PPM UNLESS OTHERWISE REPORTED

PLACER DOME INC. - ETK89-260 A

401 - 1450 PEARSON PLACE
 KAMLOOPS, B.C.
 V1S 1J9

K.V. Campbell & Assoc. Ltd.
 #4 - 84 Lonsdale Avenue,
 North Vancouver, B.C.
 V7M 2E6 985-4588

PROJECT: GENERAL 1E

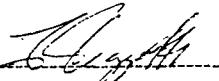
1 ROCK SAMPLE RECEIVED MAY 29, 1989

ETK#	DESCRIPTIONS	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	Tl(%)	U	V	W	Y	ZN
260 A-	1 CV130-89-4	.4	1.85	10	4	45	<5	.96	1	16	77	792	3.21	.07	<10	1.44	677	5	.09	5	560	6	10	<20	202	.20	10	38	<10	20	165

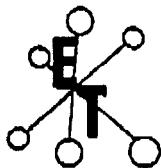
NOTE: < = LESS THAN

CC: ROB PEASE
 FAX: PLACER, KAMLOOPS

SC89/PLACER1



ECO-TECH LABORATORIES LTD.
 FRANK J. PEZZOTTI
 B.C. CERTIFIED ASSAYER

**ECO-TECH LABORATORIES LTD.**ASSAYING • ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4667

K.V. Campbell
#8 - 84 Lonsdale Ave
North Vancouver, B.C.
V7M 2E6

MAY 31, 1989

CERTIFICATE OF ANALYSIS ETK 89-260

Placer Dome Inc.
401, 1450 Pearson Place
KAMLOOPS, B.C.
V1S 1J9

K.V. Campbell & Assoc. Ltd.
#4 - 84 Lonsdale Avenue,
North Vancouver, B.C.
V7M 2E6 985-4588

=====

DATE RECEIVED:	MAY 29, 1989	REJECTS:	STORE
PROJECT:	GENERAL - 1E	PULPS:	STORE
NUMBER SAMPLES:	1		
TYPE SAMPLES:	ROCK		

=====

ET#	Description	AU (ppb)
260 - 1	CV130-89-4	10

Frank J. Pezzotti
ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

F A X
SC89/PLACER1

BB RP Doc.
→ file →

ECO-TECH LABORATORIES LTD.

PLACER DOME INC. - ETK89-259 A

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
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JUNE 5, 1989

401 - 1450 PEARSON PLACE
KAMLOOPS, B.C.
V1S 1J9

K.V. Campbell & Assoc. Ltd.
#4 - 84 Lonsdale Avenue,
North Vancouver, B.C.
V7M 2E6 985-4588

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: GENERAL 1E
26 SOIL SAMPLES RECEIVED MAY 29, 1989

ETK#	DESCRIPTIONS	AG AL(%)	AS	B	BA	BI CA(%)	CO	CO	CR	CU FE(%)	K(%)	LA MG(%)	MN	MO NA(%)	NI	P	PB	SB	SN	SR TI(%)	U	V	W	Y	ZN
259 A- 1	S130 1	.8 1.96	15	<2	155	<5 .71	2	26	109	83 3.43	.10	10 .91	1598	4 .04	182 890	12	10 <20	47 .05	10 58	<10	20	173			
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259 A- 4	S130 5	.8 2.19	10	<2	200	<5 .89	2	25	98	52 4.74	.08	10 .95	2430	2 .04	143 2100	10	20 <20	62 .03	10 56	<10	19	153			
259 A- 5	S130 6	1.4 2.09	10	<2	260	<5 1.20	2	53	127	72 4.30	.08	10 1.21	6520	6 .04	251 2020	10	5 <20	90 .03	20 75	<10	23	164			
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259 A- 7	S130 11	.6 1.63	15	<2	145	<5 .65	3	24	67	66 3.55	.07	10 .68	1338	6 .04	105 1050	8	5 <20	55 .05	10 73	<10	16	223			
259 A- 8	S130 12	.2 1.35	10	<2	125	<5 .55	3	23	62	67 3.53	.07	10 .59	1060	6 .04	81 980	10	5 <20	50 .06	10 79	<10	12	177			
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259 A- 10	S130 14	.8 1.68	10	<2	145	<5 .66	4	23	74	65 3.64	.08	10 .65	1285	6 .04	103 1100	8	5 <20	62 .05	10 68	<10	17	219			
259 A- 11	S130 15	.2 .92	10	<2	85	<5 .31	2	26	37	45 2.91	.06	10 .43	1198	5 .04	72 770	8	5 <20	33 .03	10 45	<10	9	187			
259 A- 12	S130 16	.4 1.19	5	<2	115	<5 .41	3	29	42	47 3.49	.06	10 .46	1575	8 .04	92 860	6	5 <20	46 .04	<10 53	<10	10	206			
259 A- 13	S130 17	.8 1.64	10	<2	140	<5 .72	3	25	70	61 3.60	.08	10 .69	1444	6 .04	112 1050	8	10 <20	61 .05	10 65	<10	16	221			
259 A- 14	S130 18	.4 1.07	5	<2	100	<5 .31	2	24	35	39 3.07	.06	10 .42	1271	7 .04	77 720	8	5 <20	33 .04	20 50	<10	9	190			
259 A- 15	S130 19	.6 1.77	10	<2	155	<5 .71	4	25	70	68 3.66	.08	10 .68	1006	3 .04	111 1120	10	10 <20	64 .06	<10 63	<10	17	222			
259 A- 16	S130 20	.6 1.00	5	<2	110	<5 .34	2	7	24	25 1.34	.05	10 .36	299	3 .04	33 450	4	5 <20	29 .02	20 25	<10	7	56			
259 A- 17	S130 21	1.4 .89	5	<2	135	<5 .79	4	5	23	74 .72	.04	<10 .22	90	2 .03	75 970	6	5 <20	53 <.01	<10 12	<10	16	62			
259 A- 18	S130 201	1.0 2.11	15	<2	170	<5 .72	5	35	87	98 4.41	.09	20 .71	2149	6 .04	148 1270	10	15 <20	67 .03	10 70	<10	23	309			
259 A- 19	S130 202	1.6 1.84	15	<2	200	<5 .74	5	44	55	63 4.15	.07	10 .52	2066	12 .04	79 1540	14	5 <20	59 .02	<10 69	<10	15	128			
259 A- 20	S130 203	1.0 2.07	15	<2	170	<5 .69	4	34	85	82 4.07	.09	10 .72	1715	9 .04	137 1250	10	15 <20	64 .03	10 67	<10	20	278			
259 A- 21	S130 204	1.2 1.71	10	2	150	<5 .69	5	33	76	72 3.99	.08	10 .73	1825	8 .04	135 1080	16	10 <20	58 .04	10 66	<10	18	330			
259 A- 22	S130 205	1.0 1.68	10	2	135	<5 .67	3	26	64	64 3.27	.08	10 .72	1023	7 .03	111 990	10	10 <20	64 .04	10 55	<10	16	268			
259 A- 23	S130 206	1.0 1.58	10	<2	135	<5 .63	4	28	66	60 3.54	.08	10 .63	1424	5 .04	107 960	10	10 <20	53 .04	<10 62	<10	15	261			
259 A- 24	S130 207	1.2 1.72	15	2	170	<5 .76	5	28	69	66 3.68	.08	10 .70	1985	6 .04	121 1100	10	15 <20	69 .04	10 62	<10	17	292			
259 A- 25	S130 208	1.0 1.71	10	2	150	<5 .75	6	27	67	63 3.41	.09	10 .70	1687	5 .04	119 1150	8	10 <20	66 .05	10 63	<10	17	304			
259 A- 26	S130 209	.8 1.61	10	<2	140	<5 .64	4	28	66	54 3.34	.08	10 .64	1559	4 .04	105 990	8	10 <20	56 .06	10 61	<10	15	242			

NOTE: < = LESS THAN

CC: ROB
FAX: KAMLOOPS


 ECO-TECH LABORATORIES LTD.
 FRANK J. PEZZOTTI
 B.C. CERTIFIED ASSAYER

Appendix II, Total Field Magnetics Data Listing
 North East HH MM SS rec Raw cor Final

Page 8

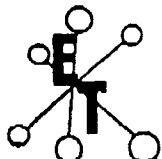
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2000	-100	15	20	12	246	573301	-129	573172		
2000	-50	15	22	4	247	573489	-129	573360		
2000	0	15	24	1	248	573794	-133	573661		

Line 1800N

1800	0	10	48	54	382	573774	-67	573707		
1800	-50	10	50	35	383	573455	-68	573387		
1800	-100	10	52	22	384	573013	-65	572948		
1800	-150	10	53	53	385	572928	-64	572864		
1800	-200	10	56	1	386	571688	-63	571625		
1800	-250	10	57	51	387	572441	-65	572376		
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1800	-350	11	1	44	389	571952	-61	571891		
1800	-400	11	4	11	390	571748	-63	571685		
1800	-450	11	6	57	391	571223	-62	571161		
1800	-500	11	9	6	392	570309	-63	570246		
1800	-550	11	11	23	393	569986	-60	569926		
1800	-600	11	13	52	394	569493	-59	569434		
1800	-650	11	16	6	395	568031	-59	567972		
1800	-700	11	18	52	396	564306	-59	564247		
1800	-750	11	21	51	397	580840	-58	580782		
1800	-800	11	24	12	398	607044	-57	606987		
1800	-850	11	26	5	399	589309	-55	589254		
1800	-900	11	29	0	400	582339	-56	582283		
1800	-950	11	31	3	401	578376	-57	578319		
1800	-1000	11	32	59	402	576693	-55	576638		

Line 1600N

1600	-1000	11	45	5	403	580438	-52	580386		
1600	-950	11	47	12	404	581013	-53	580960		
1600	-900	11	50	15	405	581767	-52	581715		
1600	-850	11	51	59	406	580738	-51	580687		
1600	-800	11	54	10	407	575555	-51	575504		
1600	-750	11	55	59	408	569891	-48	569843		
1600	-700	11	58	29	409	569338	-46	569292		
1600	-650	12	0	41	410	570020	-46	569974		
1600	-600	12	2	23	411	570165	-44	570121		
1600	-550	12	4	59	412	570852	-43	570809		
1600	-500	12	6	39	413	571101	-44	571057		
1600	-450	12	8	36	414	571430	-44	571386		
1600	-400	12	10	4	415	571833	-41	571792		
1600	-350	12	12	12	416	572605	-40	572565		
1600	-300	12	13	40	417	572785	-40	572745		
1600	-250	12	15	49	418	573006	-41	572965		
1600	-200	12	17	19	419	573537	-41	573496		
1600	-150	12	19	58	420	574114	-36	574078		
1600	-100	12	21	39	421	572869	-35	572834		
1600	-50	12	23	47	422	573679	-33	573646		
1600	0	12	25	53	423	573630	-32	573598		



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-6700 Fax 573-4667

RF

MAY 31, 1989

CERTIFICATE OF ANALYSIS ETK 89-259

Placer Dome Inc.
401, 1450 Pearson Place
KAMLOOPS, B.C.
V1S 1J9

K.V. Campbell & Assoc. Ltd.
#4 - 84 Lonsdale Avenue,
North Vancouver, B.C.
V7M 2F6 985-4588

=====

DATE RECEIVED:	MAY 29, 1989	REJECTS:	N/A
PROJECT:	GENERAL 1E	PULPS:	STUKE
NUMBER SAMPLES:	26		
TYPE SAMPLES:	STREAM SEDIMENT	NOTE :	< = LESS THAN

=====

ET#	Description	AU (ppb)
259 - 1	S130 1	5
259 - 2	S130 3	<5
259 - 3	S130 4	<5
259 - 4	S130 5	10
259 - 5	S130 6	5
259 - 6	S130 10	20
259 - 7	S130 11	15
259 - 8	S130 12	10
259 - 9	S130 13	15
259 - 10	S130 14	20
259 - 11	S130 15	15
259 - 12	S130 16	20
259 - 13	S130 17	15
259 - 14	S130 18	10
259 - 15	S130 19	20
259 - 16	S130 20	15
259 - 17	S130 21	10
259 - 18	S130 201	25
259 - 19	S130 202	15
259 - 20	S130 203	35
259 - 21	S130 204	25
259 - 22	S130 205	20
259 - 23	S130 206	15
259 - 24	S130 207	20
259 - 25	S130 208	30
259 - 26	S130 209	25

Frank J. Pezzotti
ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

ACME ANALYTICAL LABORATORIES LTD.

DATE RECEIVED: JUL 7 1989

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716 DATE REPORT MAILED:

July 12/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY... C. L. D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

K.V. CAMPBELL & ASSOC. LTD. FILE # 89-2010

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
88-130-TM-01	22	7	14	.1	2	2
88-130-TM-02	54	6	60	.1	2	1
88-130-TM-03	51	4	53	.1	2	1

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: JUN 23 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE (604) 253-3158 FAX (604) 253-1716 DATE REPORT MAILED: June 26/89..

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY..... D.TOEY, C.LHONG, J.WANG; CERTIFIED B.C. ASSAYERS

K.V. CAMPBELL & ASSOC. LTD. PROJECT 88-13D FILE # 89-1678

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ba PPM	AU* PPB
CV-130-10	126	3	140	.3	66	111

APPENDIX II
Total Field Magnetics Data Listing

Appendix II, Total Field Magnetics Data Listing
 North East HH MM SS rec Raw cor Final

Page 1

Line 5000N

5000	3200	14	59	16	312	577921	-519	577402			
5000	3150	15	1	8	313	577608	-556	577052			
5000	3100	15	2	50	314	580092	-570	579522			
5000	3050	15	5	1	315	579982	-590	579392			
5000	3000	15	6	21	316	578157	-611	577546			
5000	2950	15	7	59	317	580817	-614	580203			
5000	2900	15	9	40	318	584594	-621	583973			
5000	2850	15	11	27	319	584052	-639	583413			
5000	2800	15	12	56	320	585378	-639	584739			
5000	2750	15	16	33	321	584470	-637	583833			
5000	2700	15	18	39	322	585189	-609	584580			
5000	2650	15	20	38	323	585069	-601	584468			
5000	2600	15	22	10	324	583351	-577	582774			
5000	2550	15	23	59	325	581956	-569	581387			
5000	2500	15	25	27	326	582172	-548	581624			
5000	2450	15	31	18	327	579485	-538	578947			
5000	2400	15	34	48	328	577351	-534	576817			
5000	2350	15	39	39	329	578152	-520	577632			
5000	2300	15	41	10	330	577589	-522	577067			
5000	2250	15	43	19	331	577051	-494	576557			
5000	2200	15	48	1	332	576704	-450	576254			

Line 4800N

4800	2200	14	0	27	291	576399	-686	575713			
4800	2250	14	5	56	292	577041	-769	576272			
4800	2300	14	8	42	293	577198	-784	576414			
4800	2350	14	12	0	294	577544	-781	576763			
4800	2400	14	15	29	295	578252	-711	577541			
4800	2450	14	18	59	296	579489	-639	578850			
4800	2500	14	22	20	297	580827	-548	580279			
4800	2550	14	25	8	298	581948	-519	581429			
4800	2600	14	27	10	299	583443	-526	582917			
4800	2650	14	29	56	300	585289	-481	584808			
4800	2700	14	31	36	301	586396	-443	585953			
4800	2750	14	33	40	302	586866	-424	586442			
4800	2800	14	36	28	303	585926	-402	585524			
4800	2850	14	38	12	304	583961	-433	583528			
4800	2900	14	39	50	305	583609	-442	583167			
4800	2950	14	41	49	306	582655	-457	582198			
4800	3000	14	43	11	307	580582	-468	580114			
4800	3050	14	45	5	308	580868	-474	580394			
4800	3100	14	47	17	309	577492	-483	577009			
4800	3150	14	49	0	310	576819	-483	576336			
4800	3200	14	50	31	311	576779	-481	576298			

Line 4600N

4600	3200	12	14	39	270	577853	-168	577685			
4600	3150	12	18	23	271	577454	-126	577328			
4600	3100	12	20	48	272	577338	-164	577174			
4600	3050	12	23	44	273	578160	-198	577962			

Appendix III, Total Field Magnetics Data Listing
 North East HH MM SS rec Raw cor Final

Page 2

	4600	3000	12	39	32	274	583030	-208	582822
	4600	2950	12	42	58	275	584346	-217	584129
	4600	2900	12	45	15	276	583976	-253	583723
	4600	2850	12	47	46	277	583125	-313	582812
	4600	2800	12	51	21	278	585058	-387	584671
	4600	2750	12	54	13	279	587066	-389	586677
	4600	2700	12	57	3	280	586749	-423	586326
	4600	2650	13	0	11	281	584225	-478	583747
	4600	2600	13	1	51	282	581408	-494	580914
	4600	2550	13	4	29	283	579984	-510	579474
	4600	2500	13	6	53	284	579053	-523	578530
	4600	2450	13	10	22	285	578522	-547	577975
	4600	2400	13	13	14	286	578314	-530	577784
	4600	2350	13	15	46	287	577814	-567	577247
	4600	2300	13	18	34	288	577676	-554	577122
	4600	2250	13	21	50	289	577297	-547	576750
	4600	2200	13	25	17	290	577261	-505	576756

Line 4400N

4400	2200	11	8	52	249	576606	-36	576570
4400	2250	11	11	10	250	576689	-44	576645
4400	2300	11	12	44	251	577027	-24	577003
4400	2350	11	14	35	252	576934	-24	576910
4400	2400	11	16	20	253	577225	-16	577209
4400	2450	11	18	50	254	577803	-19	577784
4400	2500	11	21	59	255	578052	-39	578013
4400	2550	11	26	11	256	578056	-105	577951
4400	2600	11	29	58	257	579151	-96	579055
4400	2650	11	33	18	258	579444	-105	579339
4400	2700	11	37	34	259	581502	-111	581391
4400	2750	11	40	45	260	582574	-102	582472
4400	2800	11	43	22	261	582874	-157	582717
4400	2850	11	45	47	262	584947	-124	584823
4400	2900	11	47	11	263	592144	-165	591979
4400	2950	11	49	22	264	575368	-142	575226
4400	3000	11	52	1	265	576620	-111	576509
4400	3050	11	55	47	266	577971	-142	577829
4400	3100	11	57	47	267	578274	-158	578116
4400	3150	11	59	49	268	578692	-169	578523
4400	3200	12	1	46	269	579200	-178	579022

Line 4200N

4200	3075	15	52	13	60	579816	-1943	577873
4200	3025	15	54	22	61	579100	-1869	577231
4200	2975	15	57	10	62	579724	-1633	578091
4200	2925	16	4	30	63	579195	-1256	577939
4200	2875	16	6	43	64	579481	-1095	578386
4200	2825	16	8	55	65	579479	-919	578560
4200	2775	16	12	23	66	579679	-1100	578579
4200	2725	16	14	48	67	579094	-981	578113
4200	2675	16	17	11	68	578461	-1004	577457
4200	2625	16	20	49	69	578462	-705	577757

Appendix II, Total Field Magnetics Data Listing

Page 3

North	East	HH	MM	SS	rec	Raw	cor	Final
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4200	2575	16	24	47	70	579200	-587	578613
4200	2525	16	27	44	71	578040	-621	577419
4200	2475	16	30	29	72	578021	-524	577497
4200	2425	16	33	15	73	577480	-499	576981
4200	2375	16	35	11	74	577369	-498	576871
4200	2325	16	37	22	75	577237	-482	576755
4200	2275	16	39	50	76	577043	-460	576583
4200	2225	16	41	18	77	576830	-441	576389
4200	2200	16	22	43	333	576821	-462	576359

Line 4000N

4000	2200	16	26	56	334	577228	-519	576709
4000	2250	14	56	17	40	578221	-2021	576200
4000	2300	14	59	38	41	578900	-2190	576710
4000	2350	15	2	8	42	579084	-2170	576914
4000	2400	15	4	52	43	579193	-2384	576809
4000	2450	15	7	11	44	579133	-2287	576846
4000	2500	15	9	5	45	579474	-2373	577101
4000	2550	15	11	46	46	579223	-2134	577089
4000	2600	15	13	39	47	579330	-2084	577246
4000	2650	15	15	47	48	579483	-2014	577469
4000	2700	15	18	10	49	579802	-1738	578064
4000	2750	15	20	35	50	579735	-1820	577915
4000	2800	15	22	12	51	579905	-1702	578203
4000	2850	15	24	29	52	579582	-1907	577675
4000	2900	15	27	27	53	579535	-1827	577708
4000	2950	15	29	23	54	579329	-1693	577636
4000	3000	15	31	38	55	579781	-1620	578161
4000	3050	15	34	35	56	579508	-1783	577725
4000	3100	15	36	27	57	578949	-1871	577078
4000	3150	15	38	44	58	578677	-1898	576779
4000	3200	15	41	33	59	579939	-2104	577835

Line 3800N

3800	3200	14	1	11	20	577332	-92	577240
3800	3150	14	6	59	21	577495	-99	577396
3800	3100	14	10	28	22	577927	-102	577825
3800	3050	14	14	8	23	577954	-99	577855
3800	3000	14	17	38	24	578662	-100	578562
3800	2950	14	20	22	25	578832	-106	578726
3800	2900	14	25	3	26	578032	-118	577914
3800	2850	14	27	52	27	578181	-134	578047
3800	2800	14	35	16	28	577443	-162	577281
3800	2750	14	39	48	29	577448	-166	577282
3800	2700	14	44	19	30	577432	-159	577273
3800	2650	14	47	58	31	577990	-151	577839
3800	2600	14	54	19	32	577706	-143	577563
3800	2550	14	57	16	33	577438	-136	577302
3800	2500	15	6	46	34	577143	-150	576993
3800	2450	15	10	54	35	576741	-146	576595
3800	2400	15	13	1	36	577066	-147	576919
3800	2350	15	18	32	37	577000	-148	576852

Appendix II, Total Field Magnetics Data Listing
 North East HH MM SS rec Raw cor Final

Page 4

3800	2300	15	21	22	38	576926	-142	576784
3800	2250	15	23	50	39	576599	-143	576456
3800	2200	16	31	48	335	577238	-544	576694

Line 3600N

3600	2200	16	36	28	336	576728	-556	576172
3600	2250	12	40	32	0	577462	-43	577419
3600	2300	12	43	2	1	576986	-53	576933
3600	2350	12	45	18	2	577267	-57	577210
3600	2400	12	47	25	3	576806	-57	576749
3600	2450	12	50	11	4	577265	-58	577207
3600	2500	12	52	26	5	577044	-60	576984
3600	2550	12	55	0	6	577123	-64	577059
3600	2600	12	59	45	7	577187	-68	577119
3600	2650	13	4	27	8	577431	-56	577375
3600	2700	13	7	27	9	577553	-50	577503
3600	2750	13	11	27	10	577650	-52	577598
3600	2800	13	15	52	11	577309	-50	577259
3600	2850	13	18	39	12	578701	-43	578658
3600	2900	13	22	34	13	578611	-34	578577
3600	2950	13	25	28	14	578374	-19	578355
3600	3000	13	29	23	15	578456	-23	578433
3600	3050	13	32	30	16	577655	-29	577626
3600	3100	13	36	14	17	577350	-38	577312
3600	3150	13	40	29	18	577543	-46	577497
3600	3200	13	42	49	19	577436	-49	577387

Line 3400N

3400	0	11	34	18	78	572650	-130	572520
3400	-50	11	36	33	79	573601	-131	573470
3400	-100	11	38	36	80	572858	-133	572725
3400	-150	11	40	48	81	574435	-133	574302
3400	-200	11	43	1	82	571316	-132	571184
3400	-250	11	46	3	83	570957	-130	570827
3400	-300	11	50	49	84	569815	-130	569685
3400	-350	11	56	46	85	572601	-133	572468
3400	-400	11	59	28	86	570551	-133	570418
3400	-450	12	7	45	87	598151	-131	598020
3400	-500	12	11	52	88	575690	-130	575560
3400	-550	12	17	10	89	577338	-128	577210
3400	-600	12	20	27	90	578681	-131	578550
3400	-650	12	24	13	91	581459	-125	581334
3400	-700	12	29	8	92	580359	-123	580236
3400	-750	12	33	52	93	577531	-117	577414
3400	-800	12	38	35	94	609977	-119	609858
3400	-850	12	44	58	95	616449	-122	616327
3400	-900	12	49	24	96	601261	-124	601137
3400	-950	12	53	32	97	588202	-123	588079
3400	-1000	12	57	4	98	603968	-128	603840

Line 3200N

Appendix III, Total Field Magnetics Data Listing

Page 5

North	East	HH	MM	SS	rec	Raw	cor	Final
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3200	-1150	13	18	2	99	617280	-115	617165
3200	-1100	13	21	47	100	599080	-111	598969
3200	-1050	13	23	28	101	598139	-117	598022
3200	-1000	13	25	32	102	612371	-119	612252
3200	-950	13	27	20	103	627298	-121	627177
3200	-900	13	31	53	104	594256	-129	594127
3200	-850	13	33	43	105	585170	-137	585033
3200	-800	13	36	28	106	585486	-143	585343
3200	-750	13	38	31	107	582192	-144	582048
3200	-700	13	40	39	108	581020	-146	580874
3200	-650	13	42	34	109	579731	-142	579589
3200	-600	13	46	30	110	577811	-145	577666
3200	-550	13	53	15	111	575441	-142	575299
3200	-500	13	55	2	112	574384	-135	574249
3200	-450	13	59	21	113	574262	-135	574127
3200	-400	14	1	29	114	573052	-130	572922
3200	-350	14	5	14	115	572286	-124	572162
3200	-300	14	9	43	116	571300	-118	571182
3200	-250	14	21	13	117	572916	-111	572805
3200	-200	14	23	19	118	572691	-103	572588
3200	-150	14	27	32	119	571931	-100	571831
3200	-100	14	38	22	120	572542	-95	572447
3200	-50	14	40	22	121	573458	-95	573363
3200	0	14	43	30	122	573869	-88	573781

Line 3000N

3000	0	8	31	45	123	573488	-82	573406
3000	-50	8	33	48	124	573268	-82	573186
3000	-100	8	35	47	125	573281	-82	573199
3000	-150	8	38	21	126	573391	-82	573309
3000	-200	8	40	9	127	572534	-82	572452
3000	-250	8	42	14	128	572242	-82	572160
3000	-300	8	45	6	129	572156	-82	572074
3000	-350	8	48	40	130	573115	-82	573033
3000	-400	8	51	12	131	572684	-82	572602
3000	-450	8	53	9	132	572570	-82	572488
3000	-500	8	55	23	133	572384	-82	572302
3000	-550	8	58	49	134	575572	-82	575490
3000	-600	9	1	2	135	574175	-82	574093
3000	-650	9	2	55	136	574490	-82	574408
3000	-700	9	5	1	137	575440	-82	575358
3000	-750	9	7	44	138	578200	-82	578118
3000	-800	9	10	23	139	578495	-82	578413
3000	-850	9	12	14	140	581013	-82	580931
3000	-900	9	14	26	141	582988	-82	582906
3000	-950	9	17	15	142	585267	-82	585185
3000	-1000	9	19	11	143	588644	-82	588562

Line 2800N

2800	-1000	9	30	19	144	590972	-82	590890
2800	-950	9	33	18	145	588881	-82	588799
2800	-900	9	35	9	146	586546	-82	586464

Appendix II, Total Field Magnetics Data Listing

Page 6

North	East	HH	MM	SS	rec	Raw	cor	Final
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2800	-850	9	37	20	147	584470	-82	584388
2800	-800	9	39	23	148	579840	-82	579758
2800	-750	9	42	12	149	576653	-82	576571
2800	-700	9	44	17	150	575347	-82	575265
2800	-650	9	46	22	151	574989	-81	574908
2800	-600	9	48	40	152	572820	-95	572725
2800	-550	9	51	8	153	572766	-90	572676
2800	-500	9	52	48	154	573225	-90	573135
2800	-450	9	55	41	155	571951	-88	571863
2800	-400	9	58	5	156	572146	-86	572060
2800	-350	9	59	54	157	572553	-85	572468
2800	-300	10	2	0	158	573379	-84	573295
2800	-250	10	4	32	159	573818	-85	573733
2800	-200	10	6	31	160	573470	-83	573387
2800	-150	10	8	24	161	572933	-81	572852
2800	-100	10	11	8	162	572943	-80	572863
2800	-50	10	13	22	163	573438	-80	573358
2800	0	10	15	23	164	574054	-81	573973

Line 2600N

2600	0	11	3	22	165	573694	-61	573633
2600	-50	11	6	28	166	573176	-62	573114
2600	-100	11	8	16	167	573274	-60	573214
2600	-150	11	10	15	168	572804	-60	572744
2600	-200	11	12	11	169	572748	-59	572689
2600	-250	11	14	37	170	572440	-58	572382
2600	-300	11	16	54	171	572137	-59	572078
2600	-350	11	19	5	172	572050	-59	571991
2600	-400	11	23	56	173	572466	-56	572410
2600	-450	11	27	51	174	573090	-57	573033
2600	-500	11	30	2	175	571562	-57	571505
2600	-550	11	33	39	176	569519	-57	569462
2600	-600	11	40	1	177	575744	-53	575691
2600	-650	11	42	24	178	575129	-53	575076
2600	-700	11	44	2	179	576269	-51	576218
2600	-750	11	45	43	180	577936	-52	577884
2600	-800	11	47	44	181	579665	-53	579612
2600	-850	11	49	41	182	581867	-53	581814
2600	-900	11	51	55	183	583577	-51	583526
2600	-950	11	53	21	184	584782	-47	584735
2600	-1000	11	54	54	185	585515	-51	585464

Line 2400N

2400	-1000	12	5	50	186	582556	-44	582512
2400	-950	12	8	15	187	581249	-44	581205
2400	-900	12	10	11	188	579556	-41	579515
2400	-850	12	12	18	189	577905	-40	577865
2400	-800	12	14	10	190	576713	-40	576673
2400	-750	12	16	4	191	575963	-38	575925
2400	-700	12	18	35	192	573353	-36	573317
2400	-650	12	20	56	193	573185	-35	573150
2400	-600	12	22	34	194	573086	-36	573050

Appendix III, Total Field Magnetics Data Listing
 North East HH MM SS rec Raw cor Final

Page 7

2400	-550	12	24	30	195	572334	-32	572302	
2400	-500	12	26	28	196	571318	-28	571290	
2400	-450	12	28	30	197	571692	-27	571665	
2400	-400	12	32	18	198	571825	-23	571802	
2400	-350	12	34	48	199	572391	-23	572368	
2400	-300	12	36	53	200	572072	-21	572051	
2400	-250	12	39	14	201	572508	-21	572487	
2400	-200	12	41	25	202	572863	-20	572843	
2400	-150	12	44	1	203	573635	-18	573617	
2400	-100	12	46	9	204	573642	-17	573625	
2400	-50	12	48	2	205	573568	-16	573552	
2400	0	12	49	16	206	573827	-18	573809	

Line 2200N

2200	0	13	25	58	207	573994	-22	573972	
2200	-50	13	27	50	208	573809	-25	573784	
2200	-100	13	29	33	209	572888	-26	572862	
2200	-150	13	31	15	210	572885	-26	572859	
2200	-200	13	34	14	211	572889	-30	572859	
2200	-250	13	36	45	212	572533	-32	572501	
2200	-300	13	38	28	213	572064	-35	572029	
2200	-350	13	41	59	214	572158	-40	572118	
2200	-400	13	43	53	215	571368	-41	571327	
2200	-450	13	46	23	216	571658	-44	571614	
2200	-500	13	48	29	217	570914	-47	570867	
2200	-550	13	51	7	218	569833	-50	569783	
2200	-600	13	54	1	219	571720	-50	571670	
2200	-650	13	57	10	220	572196	-55	572141	
2200	-700	13	59	33	221	573928	-58	573870	
2200	-750	14	1	54	222	575404	-60	575344	
2200	-800	14	4	23	223	577222	-61	577161	
2200	-850	14	7	38	224	577782	-63	577719	
2200	-900	14	13	47	225	582507	-66	582441	
2200	-950	14	16	10	226	584081	-69	584012	
2200	-1000	14	18	11	227	585944	-71	585873	

Line 2000N

2000	-1000	14	35	40	228	583678	-86	583592	
2000	-950	14	38	39	229	587259	-90	587169	
2000	-900	14	40	56	230	582159	-89	582070	
2000	-850	14	43	32	231	583303	-90	583213	
2000	-800	14	46	8	232	583739	-93	583646	
2000	-750	14	48	8	233	579720	-96	579624	
2000	-700	14	51	27	234	576634	-97	576537	
2000	-650	14	55	15	235	568950	-102	568848	
2000	-600	14	57	34	236	566108	-103	566005	
2000	-550	15	0	53	237	569105	-106	568999	
2000	-500	15	3	47	238	570046	-110	569936	
2000	-450	15	5	40	239	571221	-113	571108	
2000	-400	15	7	16	240	571608	-117	571491	
2000	-350	15	9	23	241	571784	-121	571663	
2000	-300	15	11	30	242	572136	-124	572012	

