84-1065-13342

ASSESSMENT REPORT
ON THE
1984 GEOLOGICAL & GEOCHEMICAL EXPLORATION ACTIVITIES
PHIL 2 CLAIM GROUP

OMINECA MINING DIVISION
NTS: 93N/7

Located approximately 115 km north of Fort St. James,
4 km east of Ahdatay Lake

Latitude: 55°21'N; Longitude: 124°53'W

Owned and Operated by:

Selco Division - BP Resources Canada Limited

R.E. Meyers
Project Geologist
November 1984

BPVR 84-33

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SUMMARY

The results of the geochemical soil sampling survey and preliminary property examination completed in 1983 on the Phil 2 Claim Group (Farmer and Rebagliati, 1983, 1984) delineated two areas anomalous in gold and copper and the occurrence of gold-copper mineralization associated with strongly sheared and altered rocks.

This report outlines follow-up geological mapping, prospecting and rock chip sampling carried out in 1984 to identify potential economically mineralized zones.

In the "Aplite Creek Zone" anomaly, rock sample values up to 1500 ppb Au and 11450 ppm Cu occur in potassic-quartz-carbonate altered and pyritic Takla volcaniclastic rocks discontinuously over 200 metres in length.

Work on the "Hill Top Zone" anomaly was hampered by late snow cover and a lack of bedrock outcrop.

In a third zone, the "Junction Zone", rock chip values up to 255 ppb Au and 895 ppm Cu are associated with quartz-carbonate veining and fault breccia.

A comprehensive program of geophysics accompanied by selected soil sampling, mapping and prspecting is required to establish drill targets.

CONCLUSIONS

1. Detailed mapping indicates that the southeast corner of the Phil 2 claim group is crosscut by an extensive system of faults and shear zones with associated potassic alteration, quartz-carbonate veining, disseminated pyrite and localized occurrences of gold-copper mineralization.

2. The Aplite Creek Zone lies within the most intensely faulted area and present information suggests that this zone offers the best potential for economic mineralization.

3. The Hill Top and Junction Zones are weaker anomalies and should be treated with secondary priority to the Aplite Creek Zone.

4. As much of the remainder of the property is covered by glacial drift, the true extent and potential of the Hill Top geochemical anomaly remains unknown and will require a geophysical survey and more detailed geochemical evaluation.

RECOMMENDATIONS

1. A limited geophysical survey, including IP, EM and magnetometer, should be completed over the Aplite Creek Zone to determine the extent of the mineralized structures and related conductors.

2. The Hill Top Zone anomaly should be resampled (soils) at a maximum spacing of 100 x 50 m. If the results are sufficiently encouraging, a geophysical survey should be completed over the anomaly to the same extent and purpose as recommended for the Aplite Creek Zone.

3. The "Junction Zone" should be re-mapped with limited detailed soil sampling and follow-up conditional on positive results.

4. Additional mapping and prospecting should be carried out in conjunction with the above surveys. It should be emphasized that work cannot be carried out effectively until mid to late summer as much of the property remains partially snow covered and water-saturated during June and early July.

INTRODUCTION

1. Location, Access and Terrain

The Phil 2 Claim Group is located in the Omineca Mining Division (93N/7W) at 124°53'W longitude and 55°21'N latitude, 12 km north of Tchentlo Lake which is approximately 100 km NNW of Fort St. James (Figure 1).

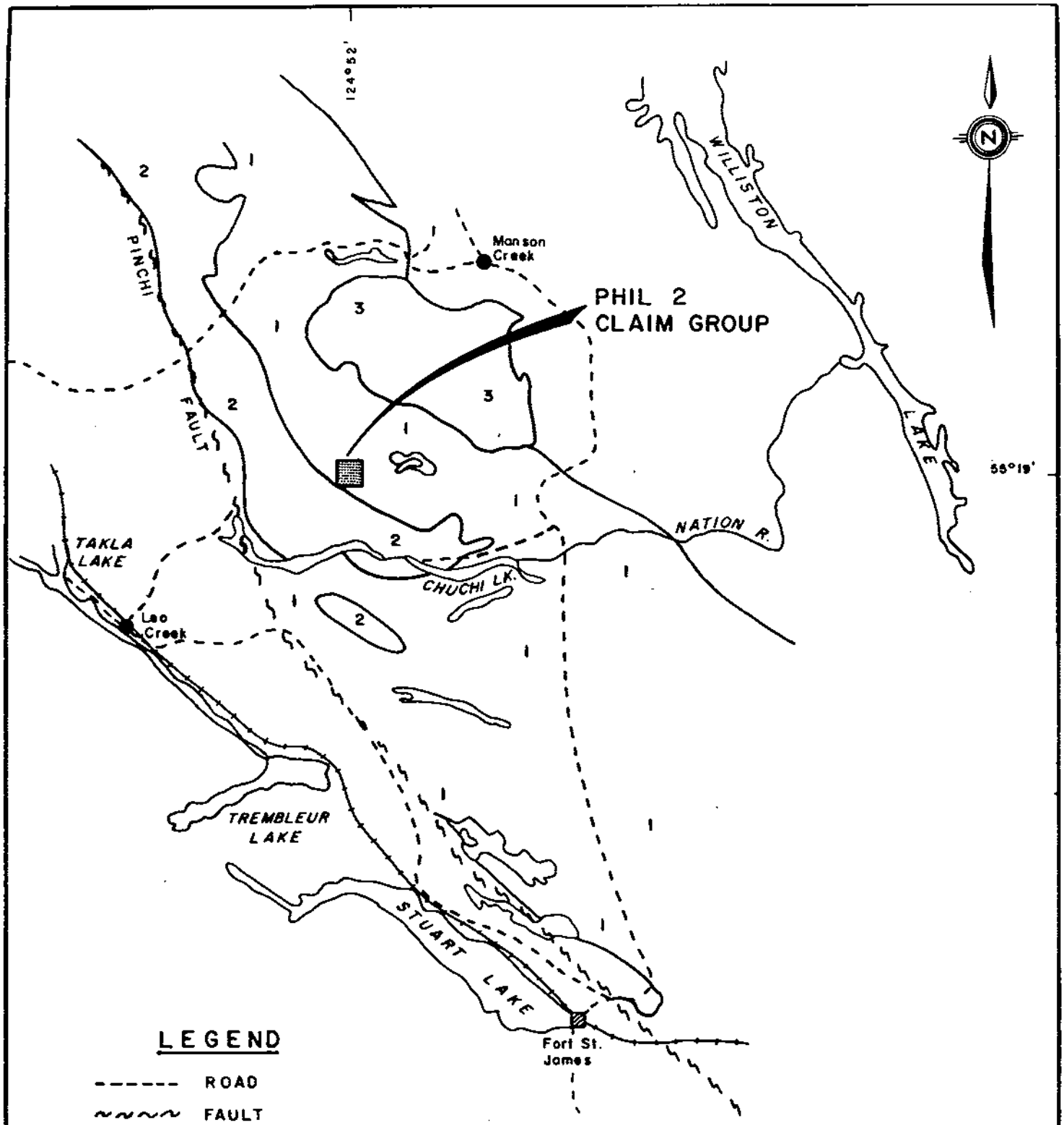
Access to the property is by helicopter from a logged area north of Chuchi Lake at the end of logging roads extending 22 km west of the Manson Creek highway.

The claims (Figure 2) enclose a heavily wooded area covered by spruce, jackpine and fir, with elevations ranging from 1100 metres to 1395 metres. Much of the area is poorly drained and in some years retains partial snow cover until early July. Most bedrock outcrops are found in the southeast corner on the Phil 2 claim.

2. Claim Status

	Recording Date	Expiry Date
Phil 2 - 20 Units - No.5743	Sept.1/83	Sept.1/89
Phil 3 - 16 Units - No.5942	Oct.27/83	Oct.27/89
Phil 4 - 16 Units - No.5943	Oct.27/83	Oct.27/89
Phil 5 - 20 Units - No.5944	Oct.27/83	Oct.27/89
Phil 6 - 8 Units - No.5945	Oct.27/83	Oct.27/89
Phil 7 - 12 Units - No.5946	Oct.27/83	Oct.27/89

Total 92 Units



LEGEND

- ROAD
- FAULT
- BCR

3	GERMANSEN BATHOLITH
2	HOGEM BATHOLITH
1	TAKLA GROUP

Scale 1:1,000,000

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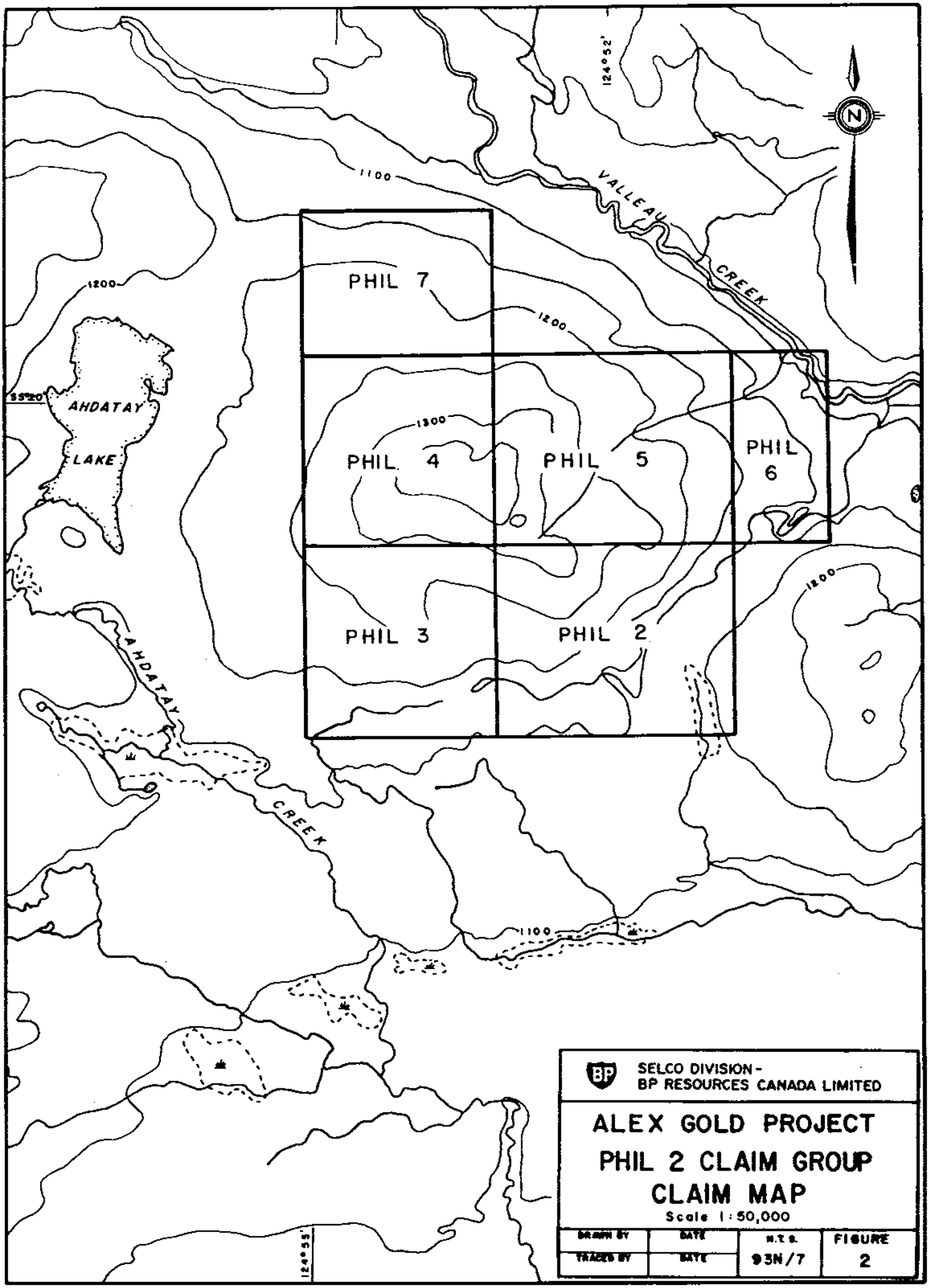
ALEX GOLD PROJECT
PHIL 2 CLAIM GROUP
LOCATION MAP AND REGIONAL GEOLOGY

DRAWN BY	DATE	N.T.S.	FIGURE
TRACED BY J.S.	DATE DEC. 1983.	93N	1



SELCO DIVISION -
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ALEX GOLD PROJECT
PHIL 2 CLAIM GROUP
CLAIM MAP

Scale 1:50,000

DRAWN BY	DATE	N.T.S.	FIGURE
TRACED BY	DATE	93N/7	2

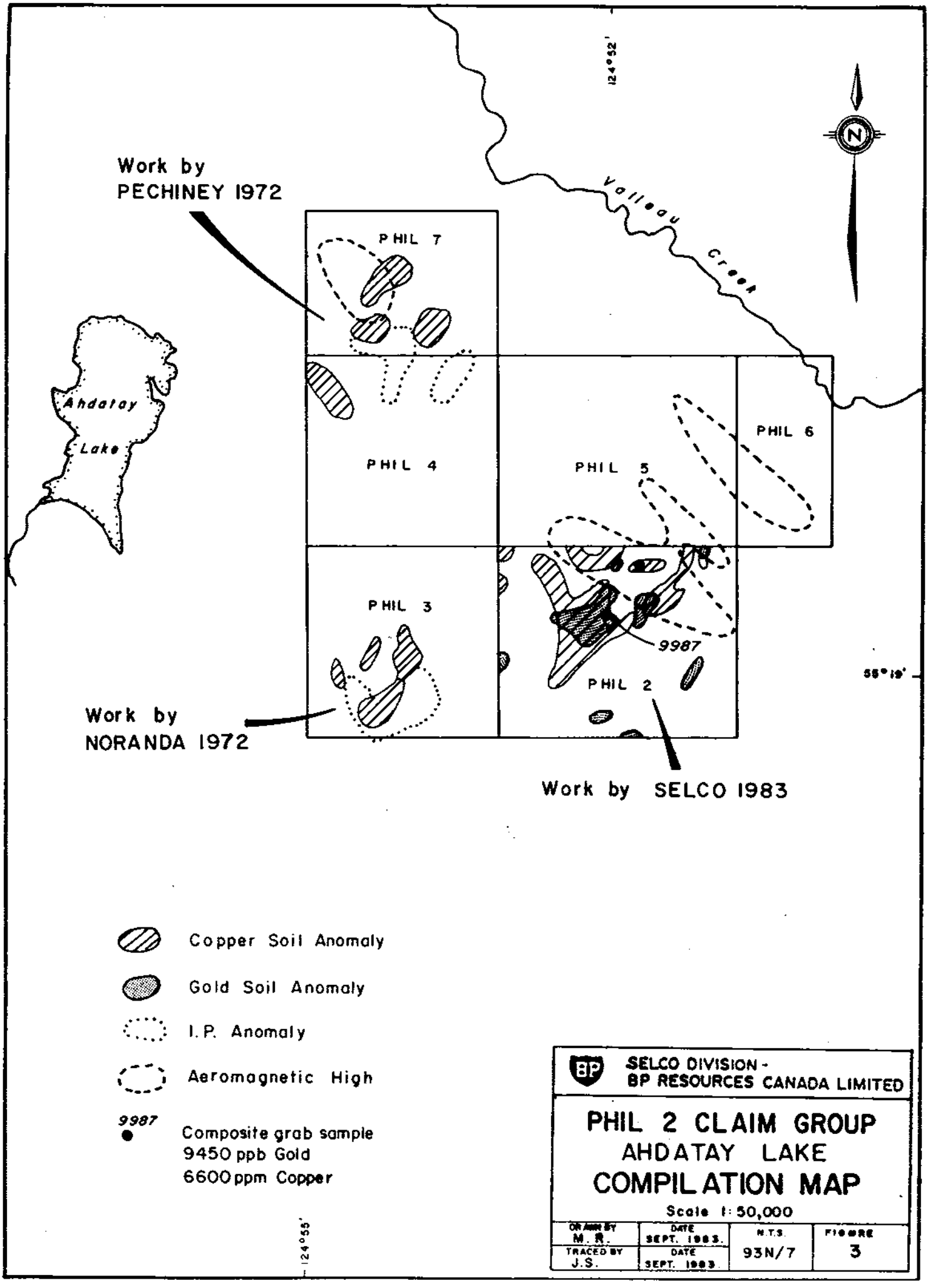
PREVIOUS WORK

The claim area has been mapped by the Geological Survey of Canada (Armstrong, 1949) and by the British Columbia Department of Mines (Garnett, 1978). Additional work was carried out by industry in the early 1970's during which time portions of the Phil 2 Claim Group were held by several companies searching for copper-molybdenum porphyry deposits.

The Phil 2 Claim Group was held by the Luc Syndicate in 1970 and by Chalico Silver Mines in 1972. Noranda and Pechiney Development also held ground in 1970-72 which is now contained within the claim group (Figure 3). These companies directed their efforts towards porphyry copper and copper-molybdenum deposits. Exploration included geological mapping, soil survey and IP; Pechiney diamond drilled four holes totalling 230 metres. The bulk of the pre-1980 work was completed before the price of gold began to rise above $35.00 per ounce and as a consequence, sampling was neither routine nor systematic for gold.

1984 EXPLORATION ACTIVITIES

Exploration activities consisted of detailed geological mapping at 1:5 000, rock chip sampling in areas of geochemically anomalous soils and wherever alteration and mineralization



SELCO DIVISION -
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PHIL 2 CLAIM GROUP
AHDATAY LAKE
COMPILATION MAP

Scale 1:50,000

DRAWN BY	DATE	N.T.S.	FIGURE
M.R.	SEPT. 1983.	93N/7	3
TRACED BY J.S.	DATE SEPT. 1983.		

encouraged further work. The 1984 program was carried out in response to the results of property-wide geochemical sampling and preliminary property examinations made in 1983 (Figure 4).

REGIONAL GEOLOGY

The Phil 2 Claim Group lies within the Upper Triassic Takla Group, which is part of the Quesnel Trough, a NW-trending Early Mesozoic volcanic-sedimentary assemblage lying between the Omineca geanticline on the east and the Pinchi geanticline on the west (Tipper, et al 1979). The assemblage has been folded about NW-trending axes and intruded by the Jura-Cretaceous Omineca intrusions, principally the Hogem Batholith. The volcanic rocks are predominantly of alkaline affinity and the younger intrusions contain quartz-rich and quartz-poor members ranging from granite and syenite to diorite, gabbro and pyroxenite.

PROPERTY GEOLOGY

The Takla volcanic rocks on the Phil 2 claims (Figure 5) consist primarily of greenschist metamorphosed andesitic to basaltic volcaniclastic rocks with less abundant interlayered flows of augite porphyry and augite-feldspar porphyry. The sequence is intruded by several large NE-trending aplite dykes and by narrower augite porphyry, augite-hornblende porphyry, dioritic

feldspar porphyry and pyroxenite dykes. The SW corner of the property is crosscut by granitic and monzodioritic intrusives, presumed to be off-shoots of the Hogem Batholith. Secondary hornblende and biotite are widespread, but somewhat sporadic in the volcanic sequence. Hornblende is generally porphyroblastic, fine to medium grained, in amounts of up to 5%, while biotite is usually fine grained (5-10%) and in places imparts a reflective sheen to the rock. Both minerals are believed to result from a hornfelsing event related to the local felsic intrusives described below.

1. Volcanic Rocks

The volcanic stratigraphy on the property is loosely sub-divided into three lithologic units, which include crystal tuff, lapilli tuff and augite porphyry flows.

Crystal tuff (Unit 1) is very weakly bedded and poorly graded, with only a weak suggestion of crystal alignment. Plagioclase, augite and hornblende crystals (<1.0 mm->4.0 mm) are usually broken or rounded and occur in a matrix of fine grained chloritized ash. Finer grained ash tuff consists of a heterogeneous mixture of volcanic fragments (<2.0 mm) with minor scattered crystal fragments. Contacts

between tuff layers are at best, gradational and weakly graded laminated tuff was observed in only three locations (Figure 4).

Lapilli tuff (Unit 2) is generally characterized by >5% lithic fragments (lapilli) which may be angular or rounded from 2.0 mm to 6.4 cm in a typically ashy crystal tuff matrix. Notably, some fragments are strongly epidotized, but occur in a predominantly chloritic matrix.

Augite porphyry flows (Unit 3) on the property typically comprise less than 10% of the volcanic sequence and contain 5-25% augite phenocrysts (altered to hornblende and chlorite) in a fine grained (aphanitic) chloritic matrix. Compositionally they are basaltic andesites. Phenocrysts range from about 2 mm to >0.5 cm, but average 3-4 mm. Some plagioclase and hornblende porphyritic sections are present, but are neither widespread nor occur in any particular abundance.

2. Intrusive Rocks

Intrusive rocks occur in two distinct categories on the Phil 2 claims. The earliest type are subvolcanic dykes and

sills (Unit 4) which average 2-3 m in width and are closely similar in composition and metamorphic grade to the volcanic sequence in which they occur. They include medium to coarse grained augite ± hornblende porphyry, hornblende-feldspar porphyry (diorite) and augite-rich pyroxenite dykes. Dyke rocks are distinguished by their coarse granularity and sharp crosscutting relationships with the stratigraphy. They probably acted as feeder dykes to the Takla volcanic stratigraphy.

The later type of intrusives are felsic to intermediate in composition and include aplite and granite to quartz monzonite. Aplite dykes (Unit 5) are the most prominent intrusives observed on the property. They range in width from about 2 m to 20 m and are generally NE-trending (070°). They are very fine grained, pinkish-white weathering, consisting mainly of K-feldspar, minor epidote and little or no visible quartz. They are commonly well-fractured, but were also observed to crosscut and apparently post-date a well developed shear zone in the volcanic rocks (Figure 4). Granite and quartz-monzonite dykes (Unit 6) crosscut altered

volcanic rocks in the SW part of the property and average <1 m in width. They were observed in an abandoned pile of drill core produced in the early 1970's. In all likelihood the felsic dykes are offshoots of the Jura-Cretaceous Hogem Batholith.

The Hogem Batholith (Unit 7) which is projected to crosscut the SW corner of the claims (Armstrong, 1965) was observed only in float and possible frost-heaved outcrop on the southwestern part of the property. Compositions range from granite to monzodiorite and include both quartz-rich and quartz-poor varieties.

3. Structure

The structural geology of the SE part of the claim group is apparently more complex than other areas. The volcanic sequence trends NNW (275°-320°) with apparent dips from W45° to NE60° and is transected by a system of crosscutting faults and fracture zones oriented north, northeast and northwest. In most instances the faults are reflected by deep creek valleys and linear depressions which crisscross the area. No major offsets were observed due to glacial cover, but several shear zones are associated with strong potassic alteration, quartz-carbonate veining and disseminated sulphides.

ALTERATION AND MINERALIZATION

Alteration and mineralization on the Phil 2 group are associated primarily with faults and shear zones and to a lesser extent with intrusives. At the main showing in the Aplite Creek Zone near 89+00N, 109+00E, the strongest fracture direction is 110°. Disseminated pyrite (5-8%), chalcopyrite (1-4%) and minor malachite and azurite are associated with strong potassic (K-spar) and quartz-carbonate alteration. The rocks here are intensely fractured, sheared and locally chloritized.

Of 25 rock samples taken, within and along structure from the Aplite Creek Zone showing (Figure 6), several returned gold values in excess of 100 ppb (highest 1500 ppb) and copper values up to 11450 ppm. The samples are distributed northeast and southwest of the showing and although not all returned high values, more than half are anomalous in gold. Collectively they suggest the potential for a mineralized zone more than 200 metres in length.

Several other samples collected north and west of the Aplite Creek Zone also returned significant gold values (821011 - 80 ppb, 82109 - 430 ppb, 823044 - 310 ppb). Most values are

associated with localized zones of chlorite, epidote and calcite alteration as well as minor K-spar.

In the "Junction Zone", 800 metres northeast of the Aplite Creek Zone, near 93+00Nm, 117+50E, three samples associated with NE-trending faults and quartz-carbonate veins returned values from 70 ppb to 255 ppb (samples 822017, 822020, 822022). Similar chlorite-calcite-epidote alteration is associated here as described above, in other areas.

REFERENCES

Armstrong, J.E.; (1949) Fort St. James Map Area, Cassiar and Coast Districts, British Columbia. GSC Memoir 252, 210 pp.

Farmer, R. and Rebagliati, C.M.; (1983) Summary of Geological and Geochemistry, Phil 2 Claim Block, Alex Gold Project. 17 pp.

Farmer, R. and Rebagliati, C.M.; (1984) Supplemental Soil Geochemical Report, Phil 2 Claim Group, Alex Gold Project. 8 pp.

Garnett, J.A.; (1978) Geology and Mineral Occurrences of the Southern Hogem Batholith. B.C. Department of Mines and Petroleum Resources, Bull. 70, 75 pp.

Tipper, H.W.; et al (1979) Map 1424A, Geological Atlas of the Parsnip River Area. 1:1 000 000.

ASSESSMENT REPORTS

Luc Syndicate (1970) Luc Claims
Assessment Report No. 2450

Noranda (1972) Sooner Claims
Assessment Report No. 3962

Pechiney Development Ltd. (1972) Inn Claims
Assessment Report No. 4430

(1973) Assessment Report No. 4653

(1974) Assessment Report Nos. 5148, 5212

APPENDIX 1

Geochemical Preparation and Analytical Procedures

GEOCHEMICAL PREPARATION
AND
ANALYTICAL PROCEDURES

1. Geochemical samples (soils, silts) are dried at 80°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.

2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% $HClO_4$ and concentrated HNO_3. Digestion time = 2 hours.

3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.

4. Detection limits using Techtron A.A.5 atomic absorption unit.

	Copper	- 1 ppm
	Molybdenum	- 1 ppm
	Zinc	- 1 ppm
*	Silver	- 0.2 ppm
*	Lead	- 1 ppm
*	Nickel	- 1 ppm
*	Chromium	- 5 ppm
*	Cobalt	- 1 ppm
	Manganese	- 5 ppm
	Iron	- 2 ppm

* Ag, Pb, Co & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

PPM Antimony:

A 1.0 gm sample digested with conc. HCl in hot water bath. The iron is reduced to Fe^{+2} state and the Sb complexed with I^-. The complex is extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption 0.2 ppm $\pm$ 0.2

Detection limit: 0.2 ppm

PPM Arsenic:

A 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with $NaBH_4$ and the arsenic content determined using flameless atomic absorption.

Detection limit: 1 ppm

PPB Gold:

5 gm samples ashed @ 800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% HCl^-, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.

Detection limit: 10 ppb

PPM Uranium

1.0 gms sample is digested with $HClO_4$ - HNO_3 acid for approximately 2 hours. An aliquot extracted with MIBK after the addition of $Al(NO_3)_3$ - TPAN solution and analyzed via conventional fluormetric procedure.

Detection limit: 0.5 ppm

PPM Tungsten:

0.50 gm sample is fused with potassium bisulfate and leached with hydrochloric acid. The reduced form of tungsten is complexed with toluene 3,4 dithiol and extracted into an organic phase. The resulting color is visually compared to similarly prepared standards.

Detection limit: 2 ppm W

PPM Tin:

1.00 gm of sample is sintered with ammonium iodide. The resulting tin iodide is leached with a dilute HCL - ascorbic acid solution. The TOPO complex is then extracted with MIBK and analyzed via A.A.

Detection limit: 1 ppm Sn

PPB Mercury:

The sample is digested with nitric acid plus a small amount of hydrochloric acid. Following digestion the resulting clear solution is transferred to a reaction flask connected to a closed system absorption cell. Stannous sulfate is rapidly added to reduce mercury to its elemental state. The mercury is then flushed out of the reaction vessel into the absorption cell where it is measured by cold vapour atomic absorption methods with a Varian Spectrophotometer. The absorbance of samples is compared with the absorbance of freshly - prepared mercury standard solutions carried through the same procedure. The detection limit of this method is 5 ppb.

Oz/Ton Ag, Au FIRE ASSAY METHOD

Silver and gold analyses are done by standard fire assay techniques. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay.

0.5 assay ton sub samples are fused in litharge, carbonate and silicious fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The combined Ag & Au is weighed on a microbalance, parted, annealed and again weighed as Au. The difference in the two weighing is Ag.

5 ppb detection limit

CCRMP standards provided by the Department of Energy, Mines and Resources are analyzed along with each group of fourty samples for quality control. Fire assay standards are used less frequently because of the large quantity of pulp required for the analysis.

PPM BISMUTH

A 2.0 gram sample is digested with perchloric and nitric acid to strong fumes (2 hrs). The solution cooled and additional hydrochloric acid added. After the addition of KI and the reduction of iron the solution is extracted with MIBK-aliquot 336 and analyzed via standard AA procedure correcting for background absorption.

APPENDIX 2

List of Analytical Data

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 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.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
SAMPLE TYPE: ROCK CHIPS AU# ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUNE 29 1984 DATE REPORT MAILED: July 5/84 ASSAYER: A. Toye. DEAN TOYE. CERTIFIED B.C. ASSAYER

SELCO PROJECT # 540 FILE # 84-1339 PAGE 1

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU# PPB
821011	2	47	1	44	.3	2	5	296	2.38	7	2	ND	2	171	1	2	2	60	1.25	.16	3	1	.57	27	.19	4	1.42	.03	.19	2	80
821012	3	31	4	34	.1	15	14	537	4.63	8	2	ND	2	126	2	2	2	108	.72	.11	2	13	1.39	100	.27	3	2.94	.03	1.15	2	5
821013	10	275	1	56	.2	20	22	537	5.64	9	2	ND	2	91	2	2	2	122	.70	.13	2	19	2.05	343	.28	3	3.05	.04	.95	2	20
821014	6	1039	5	32	2.3	4	16	476	7.35	11	2	ND	2	52	2	2	2	149	.72	.19	6	1	1.60	71	.22	2	2.26	.04	.15	2	60
821015	2	792	10	49	2.2	21	20	1164	3.33	5	6	ND	2	149	2	2	2	101	6.30	.17	2	57	1.73	111	.10	2	2.43	.02	.93	2	25
821016	2	16	12	13	.4	4	21	91	11.92	2	2	ND	2	4	1	2	2	19	.09	.02	2	10	.04	19	.01	2	.08	.01	.08	48	1500
821017	2	18	15	43	.1	8	28	387	23.81	4	2	ND	2	2	1	2	2	30	.04	.04	2	12	.56	15	.01	2	.54	.01	.05	42	30
821018	5	51	11	30	.3	10	8	433	8.19	20	2	ND	2	110	1	2	3	91	.74	.12	2	15	1.10	54	.20	12	1.54	.04	.28	2	10
821019	3	115	8	48	3.2	4	15	821	8.19	8	2	ND	2	65	1	2	3	129	1.08	.19	2	3	1.33	22	.20	3	2.54	.15	.31	5	430
821020	2	47	3	25	.2	3	14	522	1.96	3	2	ND	2	12	1	2	2	15	.24	.11	6	1	.26	111	.01	5	.75	.05	.13	2	5
821021	2	98	14	75	.2	5	18	757	5.41	7	2	ND	2	58	1	2	2	136	.92	.20	2	3	1.27	57	.23	3	2.35	.10	.25	2	5
821025	2	127	6	67	.6	4	10	1302	2.25	2	16	ND	2	241	1	2	2	45	12.61	.05	2	2	.76	8	.05	3	1.00	.91	.64	71	5
821026	2	182	12	115	.7	11	19	1424	4.22	9	12	ND	2	107	2	2	16	96	6.84	.10	2	6	1.66	23	.15	2	2.27	.03	.21	2	5
821027	2	82	9	56	.3	9	13	1121	3.24	9	9	ND	2	95	1	2	5	100	5.32	.11	2	15	1.45	44	.13	3	1.59	.04	.15	4	5
821028	2	127	2	53	.5	6	16	1092	4.01	10	10	ND	2	117	2	2	5	98	4.85	.11	2	6	1.20	39	.03	4	1.81	.02	.20	2	5
821029	99	358	21	93	1.3	10	24	904	4.87	6	9	ND	4	93	2	2	10	108	1.94	.15	4	21	1.38	36	.17	4	1.85	.05	.14	2	5
821509	2	444	6	14	1.4	4	16	551	13.15	15	2	ND	2	21	1	2	6	54	1.19	.07	2	12	.25	19	.14	3	.22	.02	.29	2	470
821510	3	97	8	64	.2	8	16	923	3.94	6	2	ND	2	66	2	2	2	113	2.12	.13	2	12	1.45	25	.16	3	1.96	.08	.22	3	5
821511	1	155	3	13	.4	1	3	991	.80	3	11	ND	2	399	1	2	2	15	18.88	.02	2	3	.28	374	.01	3	.34	.01	.03	2	5
RE 821024	3	107	14	76	.3	4	18	740	5.26	9	2	ND	2	58	2	2	2	135	.97	.20	2	1	1.29	61	.24	2	2.49	.11	.27	3	5
821512	5	116	5	42	.1	7	16	804	4.22	5	2	ND	2	44	1	2	2	114	1.20	.17	3	10	1.32	33	.22	3	2.02	.07	.18	2	5
821513	238	184	10	99	.4	14	16	985	4.61	14	4	ND	2	88	2	2	11	112	3.52	.14	2	18	1.33	39	.17	3	1.87	.05	.41	13	5
821514	38	11	11	19	.1	1	1	170	.58	2	41	ND	25	9	1	2	2	5	.12	.01	9	2	.05	6	.01	3	.20	.04	.08	2	5
821515	1	4	2	20	.2	926	51	492	3.30	93	2	ND	2	6	2	24	2	9	.26	.01	2	209	9.75	2	.01	10	.07	.01	.01	2	5
822008	16	19	6	50	.2	10	5	401	7.99	9	2	ND	2	7	2	2	2	45	.17	.08	4	2	.43	190	.01	2	.86	.01	.29	10	45
822009	2	4	6	49	.8	10	10	2395	3.70	14	31	ND	2	75	2	4	9	13	9.78	.04	2	15	1.44	58	.02	3	1.40	.01	.01	2	15
822010	12	37	6	46	.1	14	12	767	4.16	9	2	ND	2	71	2	2	2	133	1.40	.11	2	19	1.96	512	.23	4	2.97	.04	1.15	2	10
822011	2	95	6	52	.2	7	15	613	5.28	9	2	ND	2	90	2	2	2	143	1.27	.16	2	8	1.92	250	.19	5	2.73	.02	.60	2	25
822012	2	34	4	49	.1	11	20	849	4.34	9	2	ND	2	99	2	2	2	140	1.20	.15	2	9	1.97	143	.20	4	2.69	.03	.45	2	5
822013	1	22	7	55	.1	13	22	1127	6.20	8	2	ND	2	58	3	2	4	177	2.02	.17	2	31	2.20	109	.14	2	2.92	.02	.30	2	5
822014	1	16	3	53	.1	17	16	732	4.08	7	2	ND	2	81	2	2	2	138	1.29	.12	2	30	2.04	180	.22	3	2.48	.03	.62	2	5
822015	4	197	7	51	.3	27	26	876	5.87	8	2	ND	2	74	2	2	5	162	2.02	.13	2	53	2.51	39	.19	4	3.24	.02	.08	2	5
822016	1	57	3	56	.2	7	19	922	4.68	11	2	ND	2	79	2	2	3	182	2.37	.17	2	14	1.77	145	.19	2	2.90	.03	1.40	2	5
822017	3	895	7	78	2.2	9	25	1390	5.71	12	2	ND	2	79	3	2	4	154	2.11	.14	2	4	2.17	133	.21	2	3.11	.03	.78	2	130
822018	1	72	2	62	.1	12	11	693	2.60	5	2	ND	2	51	1	2	2	97	.69	.08	2	20	1.13	356	.10	5	1.76	.05	.63	2	5
822019	1	53	1	30	.1	4	9	450	2.75	8	2	ND	2	72	1	2	2	95	1.49	.19	2	6	.90	47	.22	7	1.62	.08	.50	2	5
822020	2	249	3	89	.8	4	17	958	5.21	5	2	ND	2	58	2	2	2	166	1.55	.14	2	4	1.82	122	.14	6	2.72	.04	.57	2	70
STD A-1	2	31	39	125	.3	36	13	1050	2.79	10	2	ND	2	37	2	2	2	56	.62	.09	7	54	.765	263	.09	8	2.05	.02	.19	2	-
STD A-1/AU 0.5	2	30	40	138	.3	38	13	1061	2.81	9	2	ND	2	37	2	2	2	57	.62	.10	7	65	.64	258	.09	8	2.07	.02	.19	2	500

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
822021	1	3	2	34	.1	6	7	537	2.19	5	2	ND	2	59	1	2	2	51	.57	.08	2	7	.93	158	.09	3	1.75	.01	.76	2	5
822022	2	37	1	94	.1	5	18	946	5.27	8	2	ND	2	84	3	2	2	149	1.99	.14	2	1	2.13	265	.19	3	3.18	.04	1.26	2	5
822023	3	178	1	24	.5	11	7	1475	1.57	5	13	ND	2	520	1	2	4	36	10.28	.04	2	35	.77	40	.03	2	1.02	.01	.11	2	15
822024	1	6	2	27	.1	4	9	430	2.44	9	4	ND	2	45	1	2	2	54	1.17	.08	6	5	.81	45	.06	2	1.41	.03	.64	2	25
RE 823036	1	106	2	34	.1	1	3	363	3.92	9	2	ND	2	13	1	2	2	26	.26	.09	5	1	.36	209	.01	7	.81	.02	.19	2	5
STD A-1	1	31	38	184	.3	36	13	998	2.76	8	2	ND	2	37	2	2	2	55	.61	.10	7	63	.62	252	.09	7	2.03	.02	.19	2	-
822025	1	7	1	29	.2	7	4	520	.88	3	16	ND	2	188	1	2	5	15	13.01	.03	2	11	.35	23	.02	2	.64	.02	.23	2	255
822026	2	193	4	56	.3	24	21	814	4.51	7	2	ND	2	97	2	2	2	135	2.29	.22	2	95	2.03	59	.17	2	2.59	.02	1.04	2	5
822027	1	117	1	52	.3	13	18	1378	4.09	6	2	ND	2	408	2	2	2	123	4.42	.15	2	42	1.58	14	.12	3	2.09	.01	.29	2	5
822028	1	105	1	31	.2	1	3	345	3.74	6	2	ND	2	13	1	2	2	24	.25	.09	5	1	.34	202	.01	5	.78	.02	.18	2	5
823037	1	342	4	15	.6	2	7	380	4.22	19	2	ND	2	12	1	2	2	21	.28	.08	5	1	.15	319	.01	4	.51	.01	.19	4	55
823038	2	11452	9	1	7.8	5	24	1191	5.34	7	9	ND	2	15	1	2	2	14	.93	.03	4	1	.23	62	.01	5	.51	.01	.19	2	510
823039	1	1173	2	11	4.2	1	6	224	4.51	2	2	ND	2	7	1	2	2	27	.10	.08	5	1	.22	275	.01	3	.57	.01	.16	2	555
823040	1	120	2	15	.3	2	4	305	4.09	2	2	ND	2	8	1	2	2	34	.14	.08	4	2	.45	279	.01	4	.87	.02	.14	2	5
823041	6	108	1	38	.4	3	14	280	5.26	7	3	ND	2	8	1	2	2	20	.12	.08	5	1	.41	131	.01	5	1.03	.01	.35	2	85
823042	2	90	3	30	.1	10	10	482	2.94	7	2	ND	2	187	1	3	2	75	1.78	.09	2	23	1.21	114	.15	8	1.96	.02	.23	2	5
823043	2	88	8	38	.1	12	12	585	4.48	7	6	ND	2	106	2	3	2	112	1.53	.14	2	29	1.64	123	.15	5	2.57	.02	.47	2	5
823044	8	1585	4	29	.5	9	22	519	6.21	2	2	ND	2	31	4	4	2	155	1.42	.19	2	8	2.21	38	.01	3	3.22	.02	.09	2	310
STD A-1/AU 0.5	2	30	40	184	.3	36	13	1008	2.79	10	2	ND	2	37	2	2	2	56	.62	.10	7	64	.63	255	.09	8	2.05	.02	.19	2	490

APPENDIX 3

Statement of Costs

STATEMENT OF COSTS
PHIL-2 GROUP ASSESSMENT REPORT

ANALYTICAL COSTS

52 Rock Samples @$14.10/sample	$ 733.20	
Computer Processing @$2.00/sample	104.00	
Shipping charges and materials	150.00	
		$987.20

LABOUR - (June 10th - June 26th, 1984)

Project Geologist -17 days -@ $141.13/day	$2,399.21	
Geologist - 7 days @ $103.77/day	726.39	
Geologist - 17 days @ $89.24/day	1,517.08	
Geological Assistant -7 days @ $68.78/day	481.46	
Field Assistant -17 days @ $65.63/day	1,115.71	
Field Assistant -17 days @ $55.17/day	937.89	
Supervisory Visit -4 days @ $200.00/day	800.00	
		$7,977.74

CAMP COSTS
(Includes Equipment, Room & Board, Pilot)

7 men @ $50/day/man x 7 days	$2,450.00	
4 men @ $50/day/man x 10 days	2,000.00	
		$4,450.00

HELICOPTER CHARTER

15.5 Hours @ $450./hour (includes fuel)	$6,975.00

TRUCK RENTALS

2 trucks @ $975/month x 55%	$1,072.50

TRAVEL AND ACCOMMODATION

Mobilization Costs (labour included)	$1,860.26	
Meals and Accommodation	785.00	
		$2,645.26

REPORT PREPARATION

Project Geologist -10 days @ $141.13/day	$1,411.30	
Drafting -26 hours @ $17/hour	442.00	
Orthophoto Preparation	6,465.00	
		$8,318.30

TOTAL COSTS	$32,426.00

APPENDIX 4

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

R.E. MEYERS

B.Sc. (Hons) Geology 1974 - Carleton University, Ottawa

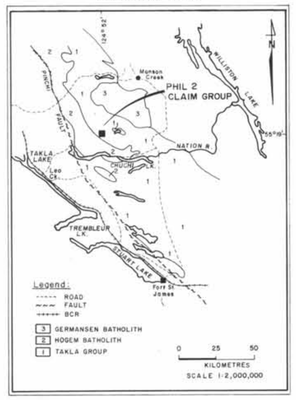
M.Sc. Economic Geology 1980 - McGill University, Montreal

Associate Member of the Geological Association of Canada (1974)

Member of the Canadian Institute of Mining and Metallurgy

I have practised my profession continuously since graduation in 1974, as a Mine Geologist (1974-1977); in Economic Geology research (1977-1979); and in mineral exploration (1979-present).

LOCATION MAP



PHIL 7
LCP
PHIL 4
PHIL 5
PHIL 4
PHIL 5
LCP
PHIL 3
PHIL 2
PHIL 6
LCP
PROJECTED CONTACT
APLITE CREEK ZONE
JUNCTION ZONE

LEGEND:

INTRUSIONS

7	HOGEM BATHOLITH; Monzodiorite, Granodiorite (Jura - Cretaceous)
6	GRANITE - QUARTZ MONZONITE
5	APLITE

TAKLA GROUP (Upper Triassic)

4	DIORITE, FELDSPAR PORPHYRY, PYROXNITE (Dykes, Sills)
3	AUGITE PORPHYRY (Dykes, Flows)
2	LAPILLI TUFF, CRYSTAL - LAPILLI TUFF
1	CRYSTAL TUFF; CRYSTAL - ASH TUFF

GEOLOGIC SYMBOLS:

- 66 BEDDING, ATTITUDE
- OUTCROP
- FAULT, SHEAR ZONE
- DYKE
- CONTACT, PROJECTED, ASSUMED
- BRECCIA

ABBREVIATIONS:

QCv	QUARTZ - CARBONATE VEIN
Py	PYRITE
Cp	CHALCOPYRITE
Mal	MALACHITE
Chl	CHLORITE
Qtz	QUARTZ
Mgt	MAGNETITE
Ksp	K-FELDSPAR

20 ppb Au

100 ppm Cu

0 100 200 300 400 500 600
METRES

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,342

SELCO DIVISION -
BP RESOURCES CANADA LIMITED

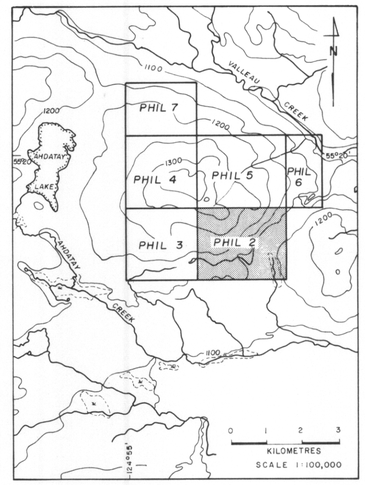
PHIL 2 CLAIMS
GEOLOGY AND GEOCHEMICAL ANOMALIES

SCALE	1:10,000	DRAWN BY: R.M.	FIG. 4
DATE	NOV' 1984	DRAFTED BY: E.B.W.	
N.T.S.	93N/7	PROJ. 10130	REPORT

PHIL 4 PHIL 5 LCP PHIL 3 PHIL 2

PHIL 6 LCP

LOCATION MAP



LEGEND:

INTRUSIONS

5	APLITE

TAKLA GROUP (Upper Triassic)

4	DIORITE, FELDSPAR PORPHYRY, PYROXENITE (Dykes, Sills)
3	AUGITE PORPHYRY (Dykes, Flows)
2	LAPILLI TUFF; CRYSTAL – LAPILLI TUFF
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GEOLOGIC SYMBOLS:

- 66 BEDDING, ATTITUDE
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ABBREVIATIONS:

QCv	QUARTZ – CARBONATE VEIN
Py	PYRITE
Cp	CHALCOPYRITE
Mal	MALACHITE
Chl	CHLORITE
Qtz	QUARTZ
Mgt	MAGNETITE
Ksp	K – FELDSPAR

0 100 200 300 METRES

JUNCTION ZONE

1984 CAMP SITE

APLITE ZONE

SHEAR ZONE

gossan py, cp, chl carb, ksp, qz

gossan py, cp, mal, qz mgt, ksp, qv, chl

Orientation of tuff layers

Pond

CREEK

BASE LINE

SELCO DIVISION – BP RESOURCES CANADA LIMITED

PHIL 2 CLAIMS

GEOLOGY

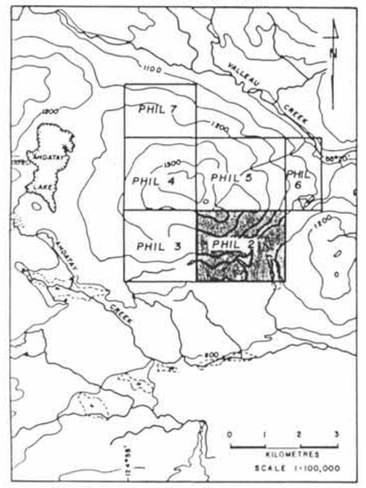
SE CORNER

SCALE 1:5,000		DRAWN BY: R. M.	FIG. 5
DATE NOV. 1984		DRAFTED BY: E. B. W.	
N.T.S. 93N/7	PROJ. 10130	REPORT	

PHIL 4 PHIL 5
LCP
PHIL 3 PHIL 2

PHIL 6
LCP

LOCATION MAP



LEGEND:

•821015 Sample location number (Refer to Appendix 2)

0 100 200 300
METRES

13,342

SELCO DIVISION -
BP RESOURCES CANADA LIMITED

PHIL 2 CLAIMS

ROCK CHIP SAMPLE LOCATIONS

SCALE 1:5,000	DRAWN BY: R.M.	FIG. 6
DATE NOV. 1984	DRAFTED BY: E.B.W.	
N.T.S. 93N/7	PROJ. 10130	REPORT