5787

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

REPORT ON
DIAMOND DRILLING AND FOLLOW-UP GEOCHEMISTRY
ON THE

GIL-LIG-LI-LG CLAIM GROUP

Claim Sheet No. 82E-4W
Lat.: 49°07'
Long: 119°55'

Claims:

Gil 11-12, 19-26:	31131-31132,31139-31146
Lig 1-18:	31103-31120
Li 1-20:	31248-31267
LG 1-3:	1-3(Units 6, 8, 4)

by:
Colin C. Macdonald, B.Sc.

Covering Work Completed During Period
October 7th, 1975 to November 15th, 1975

CONTENTS

SUMMARY

The Gil-Lig-Li-LG claim group is located about seven miles (11 km.) southwest of Keremeos, British Columbia. The property was staked in August and October, 1974, and March, 1975, to more fully investigate the cause and extent of a major copper-molybdenum-tungsten soil geochemical anomaly outlined as part of a previous survey completed in 1974 on claims Gil 1-26. In August, 1975, a geological and geochemical survey was carried out on a grid covering the northern 3/4 of the property by employees of Canadian Occidental Petroleum Ltd. The coincident high points indicated by the soil geochemistry on the 1975 survey were diamond drilled between October 7, 1975, and November 15, 1975, by employees of Interior Diamond Drilling Ltd. Five different drill set-ups were attempted, with 840 ft. (254 m.) of core being recovered from the final three holes only. The first two holes were abandoned due to the thickness, hardness, and high porosity of the cherty talus overburden. Because of this, the last three holes were set up on or very near bedrock, and were drilled to intersect an inferred bed of calc-silicate skarn projected from known outcrops.

The core consisted of interbedded chert and argillite for holes 75-3 and 75-4, cut by frequent quartz-pyrite veins sometimes containing scheelite crystals. Hole 75-3 was drilled to 100 ft. (29 m.),and hole 75-4 to 256 ft. (76 m.) Hole 75-5 consisted of tectonic breccia cut by frequent wide quartz veins, again with scattered scheelite crystals, and was drilled to 484 ft. (148 m.) Molybdenite was much less common than scheelite

and copper mineralization very rare, in all three cored holes

The average metal values for Cu, Mo and W, respectively were Hole 75-3 - 208 ppm, 87 ppm, 323 ppm; Hole 75-4 - 186 ppm, 127 ppm, 190ppm; Hole 75-5 - 171 ppm, 70 ppm, 160 ppm.

In DDH 75-3 the highest values obtained were as follows:

W, 0.23% over 5 ft. from 68-73 ft.

Cu, 700 ppm over 5 ft. from 23-28 ft.

Mo, 180 ppm over 5 ft. from 68-73 ft.

In DDH 75-4 the highest values obtained were as follows:

W, 0.59% over 5 ft. from 215-220 ft.

Cu, 482 ppm over 5 ft. from 95-100 ft.

Mo, 410 ppm over 5 ft. from 190-195 ft.

In DDH 75-5 the highest values obtained were as follows:

W, 0.18% over 5 ft. from 130-135 ft.

Cu, 600 ppm over 5 ft. from 225-230 ft.

Mo, 240 ppm over 5 ft. from 165-170 ft.

Even though the required depth for intersection of the inferred skarn bed was not achieved, the observed vein scheelite mineralization could be an encouraging sign, and at least one deeper hole is recommended to determine whether or not higher-grade skarn exists at depth.

INTRODUCTION

In 1973, the Gil (1-26) claims were staked to investigate the cause of a Cu-Mo anomaly detected during the 1973 Princeton regional stream sediment project. The original staking was carried out in November, 1973, and re-staking was done in August, 1974, all by employees of Canadian Occidental Petroleum Ltd. A major soil anomaly for copper, molybdenum and tungsten was outlined in the northern part of the claim group. To more fully investigate the extent of this anomaly and a tungsten-bearing skarn found late in the 1974 survey, additional ground was acquired to the north. This consisted of claims Lig 1-18, Li 1-20, and LG 1-3. In August, 1975, a geological and geochemical survey was carried out on a 400-foot(122 m.) grid covering the northern 3/4 of the property by employees of Canadian Occidental Petroleum Ltd. This showed the area to be underlain by a tightly folded succession of argillite, chert, greenstone and limestone, which has been thermally metamorphosed to produce areas of scheelite-bearing calc-silicate skarn. A major coincident soil anomaly for Cu, Mo and W was outlined in a northwest-trending band roughly 3800 x 2000 ft. (1159 x 610 m.) Four diamond drill sites were selected using the geological and

geochemical data. This report will describe the results of this diamond drilling carried out in October and November, 1975. The work was done to determine the location, type, and grade of inferred mineralization giving rise to the major coincident anomaly.

LOCATION AND ACCESS

The Gil-Lig-Li-LG claim group is recorded on claim map 82-E/4W in the Osoyoos Mining Division, British Columbia. The property is located about seven miles (11 km.) southwest of Keremeos, and adjoins the western boundary of Indian Range Reserve No. 13 (Fig. 1, 2). It is accessible by road from Indian Range Reserve #13, a distance of about 25 miles (40 km.) from Highway #3.

PREVIOUS WORK

Union Carbide Exploration Ltd. staked claims PA 1-18 on parts of the Gil-Lig-Li-LG property. Information from assessment summaries and communications with the company indicate that Union Carbide were prospecting for tungsten only, and carried out mapping at 1" = 80 ft. (1 cm. - 96 m.) over PA 1-18; detailed mapping at 1" - 50 ft. (1 cm. - 6 m.) over PA 1-6; a limited geochemical survey; and 13 diamond drill holes totalling 839 ft. (251 m.) on PA 1. However, the positions fo the PA claims as determined by the actual claim posts


Ashnola
GREAT NORTHERN
I. R. 9
I. R. 10 B
Old Trail
Similkameen
Bullock Cr.
Barrington Cr.
Gillanders Cr.
Pa Creek
M-1
I. R. 13
5787
FLACER RESERVE
o/c IHB 7-5-68
GOLD
CLOUD
RAIN
WIND
SUN
L.G. 3
3 (3)
L.G. 2
2 (3)
L.G. 1
1 (3)

Figure 1

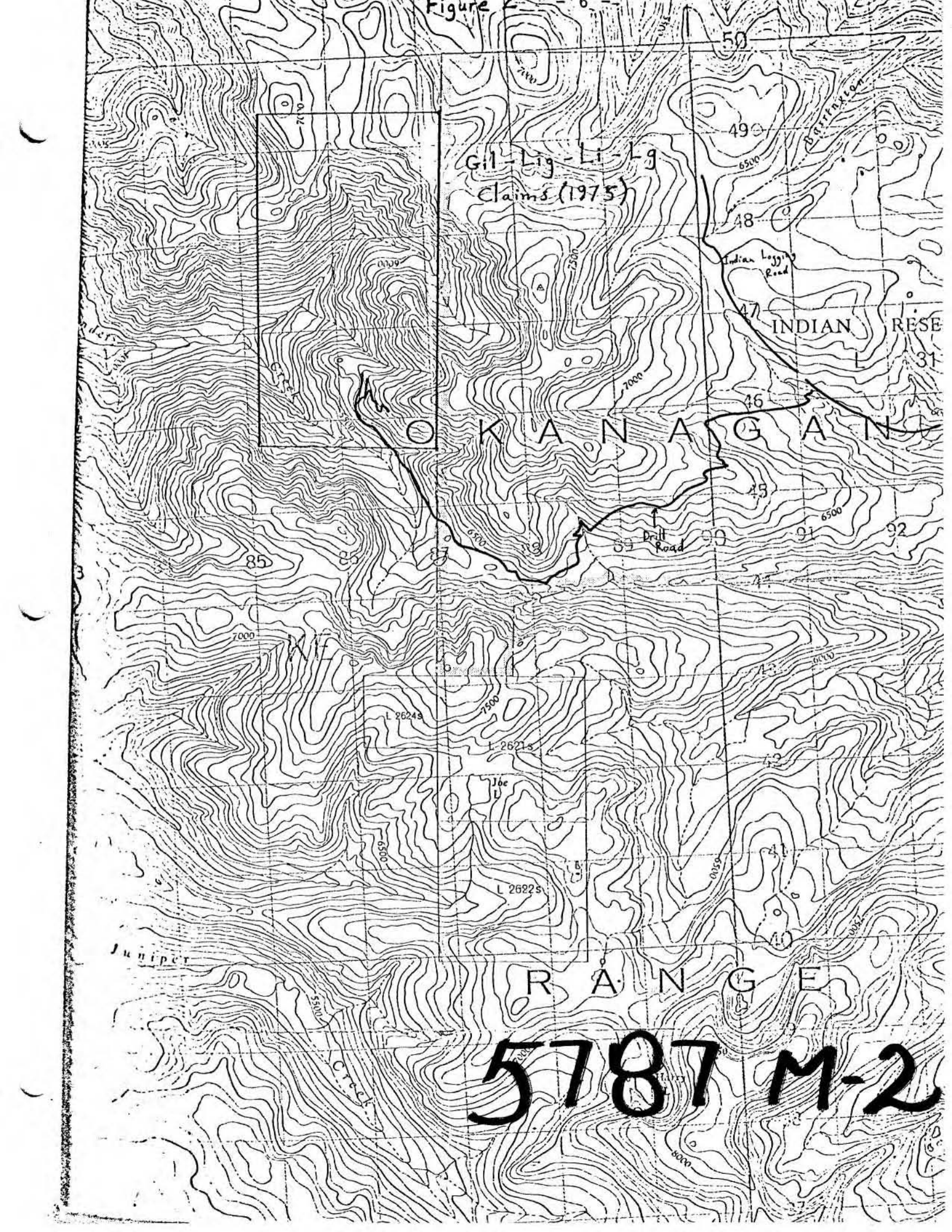


Figure 2
Gil - Lig - Li - Lg
Claims (1975)
Barrington
Indian Logging Road
INDIAN RESE
OKANAGAN
Drill Road
L 2624S
L 2621S
L 2622S
Joe
Juniper
RANGE
Creek
5787 M-2

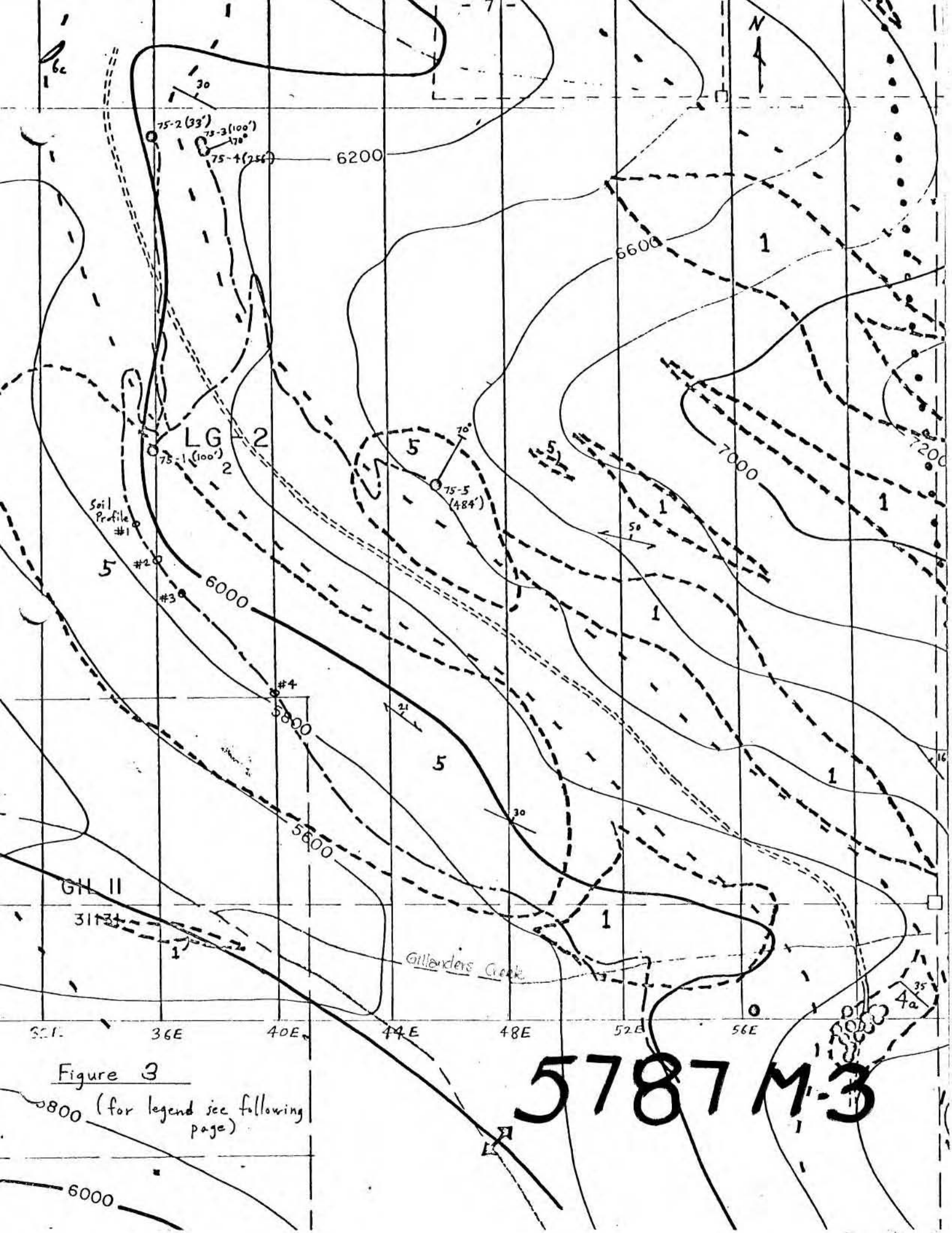


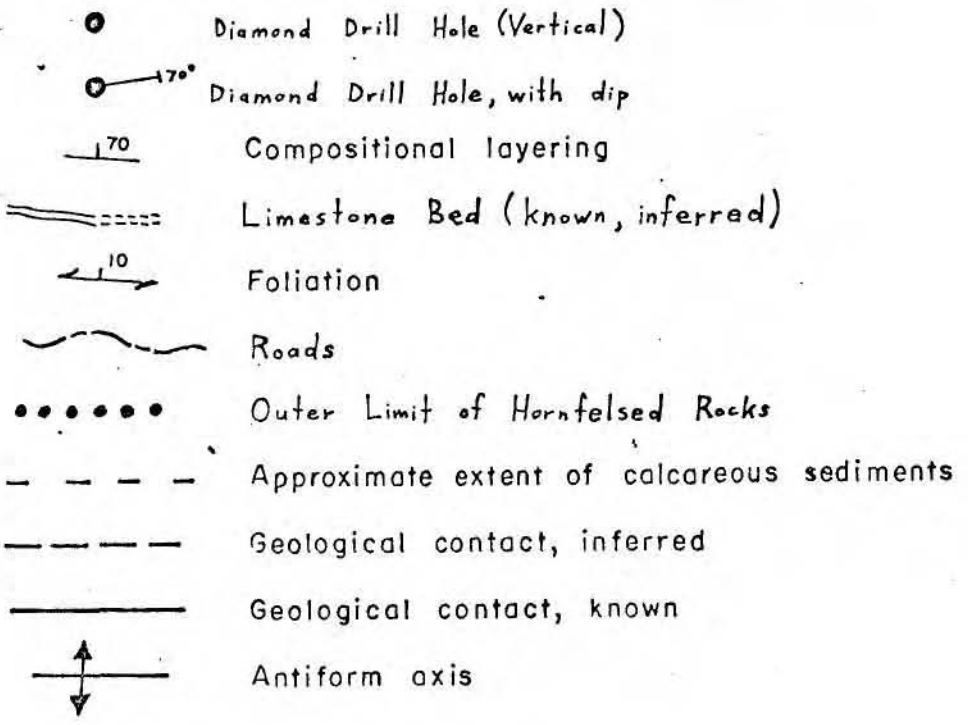
Figure 3

(for legend see following page)

5787 M-3

LEGEND

SYMBOLS



ROCK UNITS

1. Chert, with some argillite interbeds
2a. Argillite, with some chert interbeds
2b. Sandstone
2c. Conglomerate
3a. Greenstone flows
3b. Greenstone pyroclastics
4a. Calc-silicate skarn with argillite interbeds
4b. Limestone
5. Tectonic breccia
6a. Quartz porphyry
6b. Quartz-feldspar porphyry
6c. Feldspar porphyry
6e. Felsite
6f. Microdiorite

indicate that the drilling was in fact done on PA 5. The Union Carbide claims cover most of the obvious skarn observed on the property. This area was also staked for Kennco (Western) Exploration by R. Stevenson in 1960; no records of any work carried out by Kennco have been located.

WORK COMPLETED

Bulldozing

The road from the Indian Range Reserve #13 logging road at Mile 16 to the drill site (about 10 miles) as well as the drill sites themselves, were prepared by George Thompson of Oliver, British Columbia, using a Caterpillar D-7 bulldozer. Total operating hours spent were 280 hours.

Diamond Drilling

A total of 840 feet (254 m.) of wireline BQ diamond drilling was completed by Interior Diamond Drilling Ltd. between October 7th and November 15th, 1975. The equipment used was a truck-mounted B.B.S. 2 with a hydraulic head, powered by a Ford 17A diesel. Geological supervision was by C.C. Macdonald, of Canadian Occidental Petroleum Ltd. All drill sites and roads to drill sites were constructed by George Thompson of Oliver, B.C., using a Caterpillar D-7.

Five different drill setups were attempted, but only the last three produced core. Holes Gil 75-1 and 75-2 were abandoned at 100 ft. (30 m.) and 33 ft. (10 m.) respectively because of very difficult drilling conditions due to the hard, angular talus overlying bedrock, and a lack of drill fluid

circulation.

The last three holes, 75-3, 75-4, and 75-5, were drilled to depths of 100, 256 and 434 ft. (29, 76, 148 m.) respectively. Once again, drilling conditions were difficult, due to the hardness of the rock itself and its fractured occurrence, with frequent cavities and shear zones, resulting in poor circulation. These factors limited drilling to an average of 39.6 ft/day (12 m./day) (for cored holes only), despite 24-hour shifts. Water was pumped from Gillander's Creek, a distance of at least 2500 ft. (762 m.) for all holes. Despite dual water heaters installed in the lines, freeze-ups did occur, further slowing the drilling progress.

Logging and Sampling

The core was split and logged by C.C. Macdonald, using the facilities at Canadian Occidental Petroleum's warehouse at 171 Estabrook Ave., Penticton, B.C. Five-foot (1.5 m.) sections of split core were sampled, except where extremely poor recovery necessitated longer sections to obtain sufficient sample material. The samples were sent by Greyhound express to Chemex Labs Ltd. in Vancouver for analysis for Cu, Mo and W.

Geochemical Analysis

The rock samples are crushed and pulverized to -200 mesh. 0.5 grams of this material is digested in 5 ml. of a 3:2 mixture of 70% $HClO_4$ and concentrated HNO_3, for 2.5 hours at 200°C. The final volume is adjusted to 25 ml. with demineralized water. This solution is then analysed for Cu and Mo using a Tectron Mk. V-VI atomic absorption spectrometer. For tungsten, a 5 gram sample of pulverized sample is fused with pyrosulphate flux in a furnace. This fused material is leached with HCl,

and complexed witha zinc dithol reagent. Analysis is done colourimetrically on a spectrophotometer.

REGIONAL GEOLOGY

This area was mapped regionally by Bostock[1], of the Geological Survey of Canada. The property is shown to be underlain by Triassic or older rocks of the Old Tom and Shoemaker Formations. Further mapping, at 1" = 400 feet, was carried out by J. Schindler (1974) and C.C. Macdonald, J.R. Hill, J.C. Harrison and R.H. Wallis in 1975, as part of surveys completed by Canadian Occidental Petroleum Ltd. The claims were found to be underlain by a tightly folded succession of interbedded argillite, chert, greenstone and limestone. The rocks trend east-west to northwest and lie on the limbs of a north-plunging, reclined, closed fold, which itself has been folded around an antiform axis running roughtly coincident with Gillanders Creek. The regional metamorphic grade is upper greenschist-lower amphibolite; but superimposed on this is a thermal metamorphism related to an inferred intrusive at depth. This contact metamorphism has resulted in a hornfels texture in the rocks, best shown by the argillite and the limestone, which has recrystallized into a calc-silicate skarn. Felsic dykes of various compositions, presumably related to the intrusion, are also present. A tectonic breccia, composed of fragments of chert, argillite, and intrusive rock in an argillaceous matrix, may be either stratigraphically or structurally controlled, as it occurs in a wide zone crudely

[1]Bostock,H.S. - G.S.C. Map 341A,1940

parallel to the regional foliation.

Copper and molybdenum mineralization is relatively rare, with most molybdenite found in talus fragments associated with quartz veins and/or dykes. Tungsten is found as scheelite in the skarn, with one outcrop sample from one of the three calcareous horizons found assaying at 5.18% WO_3. This particular horizon is inferred to strike northwest over an area with no outcrop, dipping moderately northeast and would therefore account for the major coincident anomaly. As the most promising bed, it was also therefore the target for the drilling described in this report.

DRILLING RESULTS

A brief summary of the results of each drill hole is given in the following sectipn:

Hole Gil 75-1. This hole was collared at Line 36E/12S, drilled vertically to determine the cause of a major coincident anomaly for Cu, Mo and W. Although the hole was only a few metres away from outcrop, 100 feet (30 m.) of casing was run without a sign of bedrock. Since further drilling would have risked serious equipment damage due to the tight, blocky and hard overburden conditions, the hole was abandoned at 100 feet (30 m.).

Hole Gil 75-2. This hole was collared at Line 36E/1S, drilled vertically to determine the cause of another coincident anomaly lying at the base of a cliff at B.L./38E. However, this anomaly was in very coarse, angular cherty talus, with no outcropping bedrock, so that drilling was even more difficult than with hole 75-1. Mud was used unsuccessfully in trying to

gain some circulation, as was cement, Kwik-Seal and other materials, but the angular talus would not hold any of these due to its high porosity. This resulted in extremely slow drilling and a high frequency of bit, casing shoe, and casing rod failure. Hence this hole was also abandoned at 33 feet (10 m.).

Hole Gil 75-3. This hole was collared in bedrock at Line 37+70E/1+50S, drilled vertically to determine the presence of mineralization giving rise to the coincident anomaly unsuccessfully drilled in Hole75-2. This location is about half-way up a fairly steep cliff, and the fracturing visible on the side of the cliff extended to depth far enough to make drilling difficult, and kept recovery low (68.9%). At 100 feet (29 m.), a cavity was reached which prevented further drilling, so the hole was abandoned. The core consisted of interbedded argillite and chert, with the chert occasionally being brecciated enough to be classed as a tectonic breccia. The interbeds of either major lithology varied widely in thickness, from less than one cm. to over 10 feet (3 m.). Measured compositional layering averaged 55^{o} L.C.A., which, since the hole is vertical, should correspond to a 55^{o} NE dip.

Pyrite was abundant throughout the hole, most often in argillaceous beds; either disseminated or aasociated with quartz veins. Hematitic and/or limonitic alteration of the pyrite is fairly common throughout the hole. The quartz veins, which range from <0.5 mm. to 3 cm. in this hole, tend to be concentrated in clusters roughly 10-15 feet (3-4.6) apart.

Five occurrences of scheelite were observed in the core fairly evenly distributed along the 100 feet (29 m.), with this mineral usually being associated either with quartz-pyrite veins or with the small calc-silicate skarn lenses. These were also randomly scattered through the core, with the first at 13 feet (4 m.) and the last skarn at 94 feet (28 m.). Molybdenite was found in seven locations, again fairly evenly scattered through the core, and always as a very fine-grained dusting on hairline fractures. Copper mineralization was limited to a few specks of malachite associated with a calc-silicate lens at 93.5 feet (28 m.).

Geochemically, the analytical values for Mo and W correspond fairly well with the observed mineralization, showing a general increase in Mo towards the middle of the hole, and erratic highs for W. The highest values for Cu, Mo and W were 700 ppm, 180 ppm, and 2500 ppm respectively. This high tungsten sample later was assayed to .23% WO_3. Copper showed its highest value at a shallow depth; 23-28 feet (7-8.5 m.), but the rest of the values were considerably lower (Plan 1). The average values for Cu, Mo and W were 208 ppm, 87 ppm, and 323 ppm respectively. Above average footages were obtained as follows: Cu - 0-28, 43-48, 58-63, 68-73; Mo - 48-63, 68-73, 83-87; W - 23-28, 53-58, 68-73.

Hole Gil 75-4. This hole was collared in the same location as was Hole 75-3, at L37+70E/1+50S, but was drilled 070°T at 70° dip, in order to avoid the surficial zone of fracturing encountered in Hole 75-3. To a great extent this succeeded as the hole was drilled to 256 feet (76 m.), and recovery was up to 92.4%. The core consisted of widely varying interbeds of chert and argillite, with occasional short brecciated sections and two areas of calc-silicate lenses (34 feet, 96 feet (10, 29 m.)).

Measured compositional layering averaged 57°L.C.A., but was not consistent in the core, suggesting some undulations in the layering.

Quartz veins were more abundant than in hole 75-3, most being associated with pyrite, and ranging from hairline to 5 cm. Pyrite is also abundant throughout the core as anhedral disseminations, largely in the argillaceous beds. Scheelite is also more abundant than in hole 75-3, largely as euhedral crystals averaging 1 mm. scattered very sparsely in the larger (>3 mm.) quartz-pyrite veins. It is also found associated with both areas of calc-silicate lenses, and more rarely as single isolated crystals in argillite. Molybdenite is rare up to 170 feet (52 m.), but at this depth starts to become more common as a fine-grained outer vein wall coating on the larger quartz veins. The only signs of copper mineralization were a few specks of chalcopyrite with pyrite at 22.4 feet (6.8 m.), and minor malachite in epidote-quartz veins at 50.7 feet (15 m.).

The geochemical profiles (Plan 2) show an erratic copper distribution, with one of the high points corresponding to the only observation of chalcopyrite, and another peak being associated with the largest of the two calc-silicate lens occurrences. Except for these peaks, however, the copper values are generally not exceptional for this rock type. Molybdenum shows fairly high values for any rock, with a high of 410 ppm in the section containing the most obvious molybdenite (190-195 ft. (58-59.5m.)). The increase in occurrences of the molybdenite

past 170 feet (52 m.) is not as apparent in the geochemical profiles as it seemed in the rock; there being enough erratic peaks up to 170 feet (52 m.) to even out the distribution. The high values of tungsten (Plan 2) correspond very well with the scheelite occurrences, with a high of >2250 ppm, later assayed to .59% WO_3.

The average values for Cu, Mo and W were 186 ppm, 127 ppm, and 190 ppm, respectively. Above-average footages were obtained as follows: Cu - 20-45, 75-80, 85-90, 95-110, 170-175, 195-220, 230-240; Mo - 40-45, 60-70, 75-85, 95-100, 105-110, 115-120, 135-150, 160-165, 170-180, 190-195, 215-220; W - 25-30, 45-50, 75-80, 95-100, 105-110, 140-145, 165-175, 190-195, 215-220.

Hole Gil 75-5. This hole was collared at L45+70E/13+30S, drilled 030°T at 70° dip. The purpose was to investigate the cause of a major coincident Cu-Mo W anomaly, and if possible to penetrate the inferred zone of calc-silicate skarn striking northwest and dipping moderately northeast. In order to do this, the hole had to be on the order of 600 feet (183 m.) long,but due to a sandy pocket at 494 feet (148 m.), drilling stopped here. The drill rig was set up as close as possible to bedrock, so overburden was only 10 feet (3 m.) deep.

The entire hole consisted of the tectonic breccia unit, with angular fragments of chert, quartz, and occasionally argillite and intrusive rocks in a matrix of argillite. Most of the fragments were small enough to be contained in the core, from 1 mm. to 5 cm., but much larger fragments could also be inferred from their intersections with the core. Quartz veins

are again abundant, though not always associated with pyrite as in holes 75-3 and 75-4. However, there is much more volume percent quartz in this hole, due to their extremely large size in places. A section from 97 feet to 215 feet (30-66 m.) contains the largest concentration of veins over 6" (15 cm.), some up to 2.5 feet (.8 m.) in width. For the first time intersections of dyke material were noted, a microgranite dyke at 149 feet (45 m.), and a feldspar porphyry dyke at 163.5 feet (50 m.), both unmineralized.

Pyrite is present throughout most of the core, but most notably in a section from 185.5 to 215 ft. (57-66 m.)

This section, still within the quartz vein-rich section, has pyrite as very fractured euhedral crystals up to 6 cm. long. Only two occurrences of molybdenite were seen, at 354.8 and 390.7 feet (108 and 119 m.), and no copper mineralization was noted. Scheelite though present in the same assocaitions and amounts as it was in hole 75-4, is not as evenly distributed over the core length. There is very little scheelite before 185 feet (56 m.), a slight concentration of scheelite-bearing quartz veins from 185-335 feet (56-102 m.), and very little scheelite from 335-484 feet (102-148 cm.).

The geochemical profiles (Plan 3) show this observed scheelite cut-off, but indicates that the scheelite concentration starts sooner, at 90 feet (27 m.), with the highest value at 1800 ppm W. This provides a total of 245 feet (75 m.) of higher-than-average tungsten mineralization. Molybdenum shows a similar distribution, with the highest values in the middle of

the core, from 140 to 225 feet (43-69 m.). The actual values, however, all fall short of the highest values obtained from hole 75-4, with the highest value being 240 ppm Mo. Copper shows a fairly erratic pattern, with the highest value at 600 ppm Cu, but it shows the same cut-off in values in the last hundred feet of core as do Mo and W.

Average values for Cu, Mo and W were 171 ppm, 70 ppm, and 160 ppm respectively. Above-average footages were obtained as follows: Cu - 35-40, 45-50, 70-75, 90-100, 175-230, 235-285, 315-325, 335-340, 350-380, 400-405; Mo - 40-45, 50-65, 70-75, 90-100, 110-120, 140-185, 190-195, 200-225, 245-250, 275-280, 315-320,330-355, 360-380; W - 35-45, 55-60, 90-100, 110-125, 130-160, 175-190, 19-5-200, 220-225, 240-245, 285-295, 315-320.

CONCLUSIONS

Due to the difficult drilling conditions encountered, and the fact that the topography necessitated drilling down-dip to the inferred calc-silicate target bed, the required depth based on projections of known outcrops was not achieved. With this in mind, the results of the completed diamond drill program are nevertheless encouraging. Tungsten, and to a much lesser extent molybdenum mineralization was discovered associated primarily with quartz-pyrite veins of varying widths, in all three holes from which bedrock core was obtained, holes Gil 75-3, 75-4, and 75-5. It is possible that this vein-related mineralization represents a hydrothermal system associated

with the same inferred intrusion causing the thermal metamorphism, or perhaps it is related to the skarn itself with the quartz being a by-product of the metamorphic reactions involved. This latter interpretation would mean that the abundance of quartz veins is a rough indicator of the proximity of the skarn bed.

RECOMMENDATIONS

It is recommended that the claims be retained by filing the completed assessment work. To confirm the presence of a calc-silicate bed, an attempt should be made to drill through the bed's inferred position, either by the use of special drilling techniques enabling longer holes tobe drilled, or by drilling more perpendicularly to the dip by starting from the north side of the ridge.

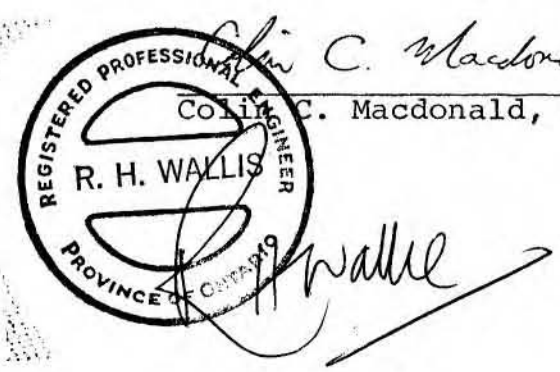
Respectfully submitted,

Colin C. Macdonald

Colin C. Macdonald, B.Sc.

January 16, 1976

TORONTO



APPENDIX I

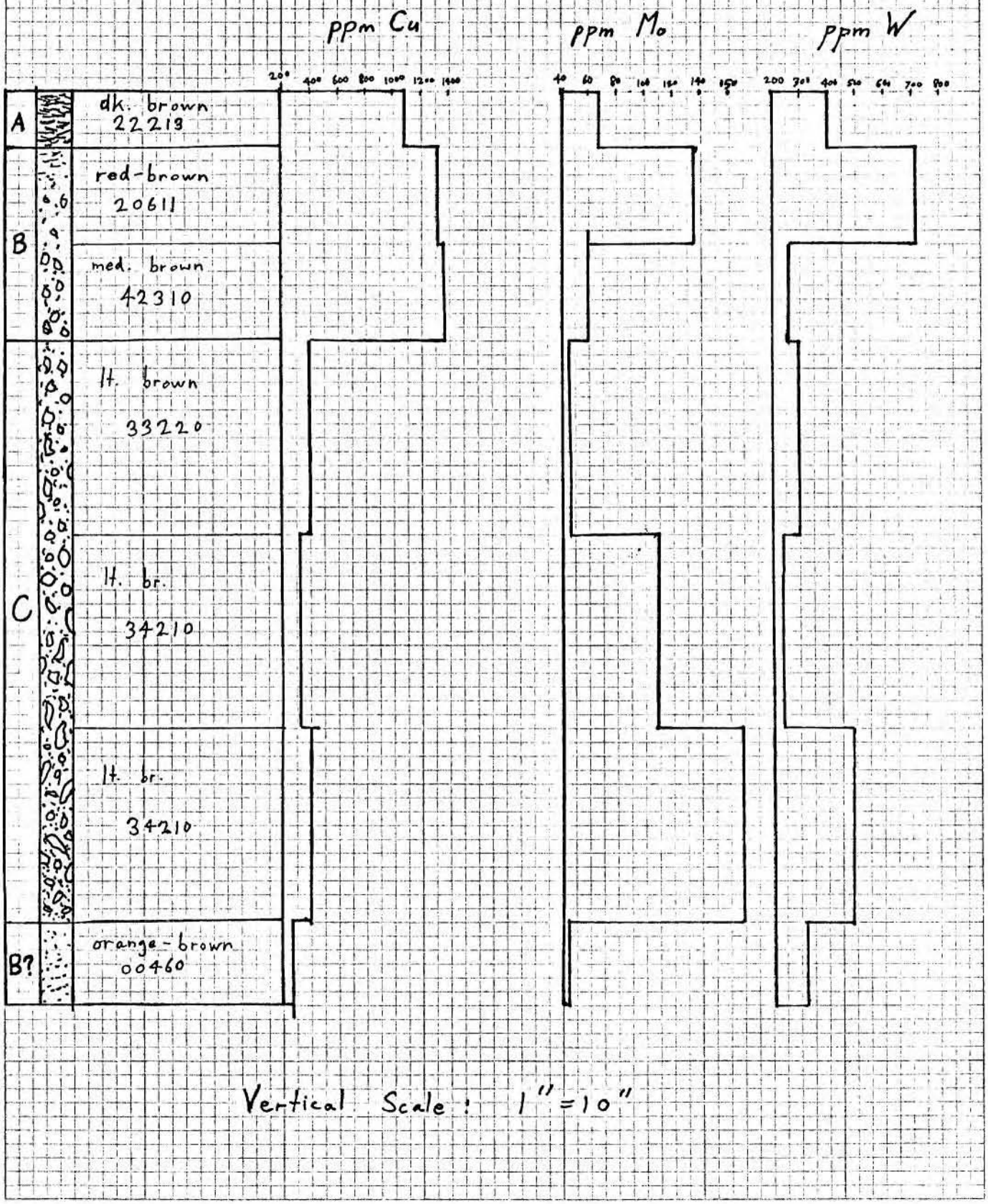
Geochemical Follow-Up

Between October 13 and 17, 1975, a small geochemical follow-up survey was carried out on the Gil-Lig-Li-LG claims. First, the picket lines sampled near the occurrence of skarn drilled by Union Carbide (at L80E.31S) were extended roughly 800 feet (244 m.) by pace and compass, and simultaneously soil sampled, using the B-horizons. This was to re-check the metal levels in this area of known mineralziation, which was previously only slightly higher than average. As shown in Figure 8, the results of this sampling show a definite anomaly centred at about L60E/31S, with a high value of 1400 ppm W, using the anoamlous levels established during the 1975 survey.

Also, four soil profiles were sampled from road cuts made during construction of the main drill road. These were chosen to verify major anomalies outlined during the 1975 survey, and to determine the metal distribution with depth. Locations are shown on Figure 3, and the completed profiles on Figures 4-7. These show a definite tendency towards a bi-modal distribution, with metals concentrated in both B and lower C horizons. This is not consistent, however, as some profiles show only one level of concentration. This could be due to the mechanically-derived nature of these soils, since all profiles were on steep slopes. Successive talus-slides could conceivably result in re-adjustments of the soil horizon development and this observed multi-level concentration of metals.

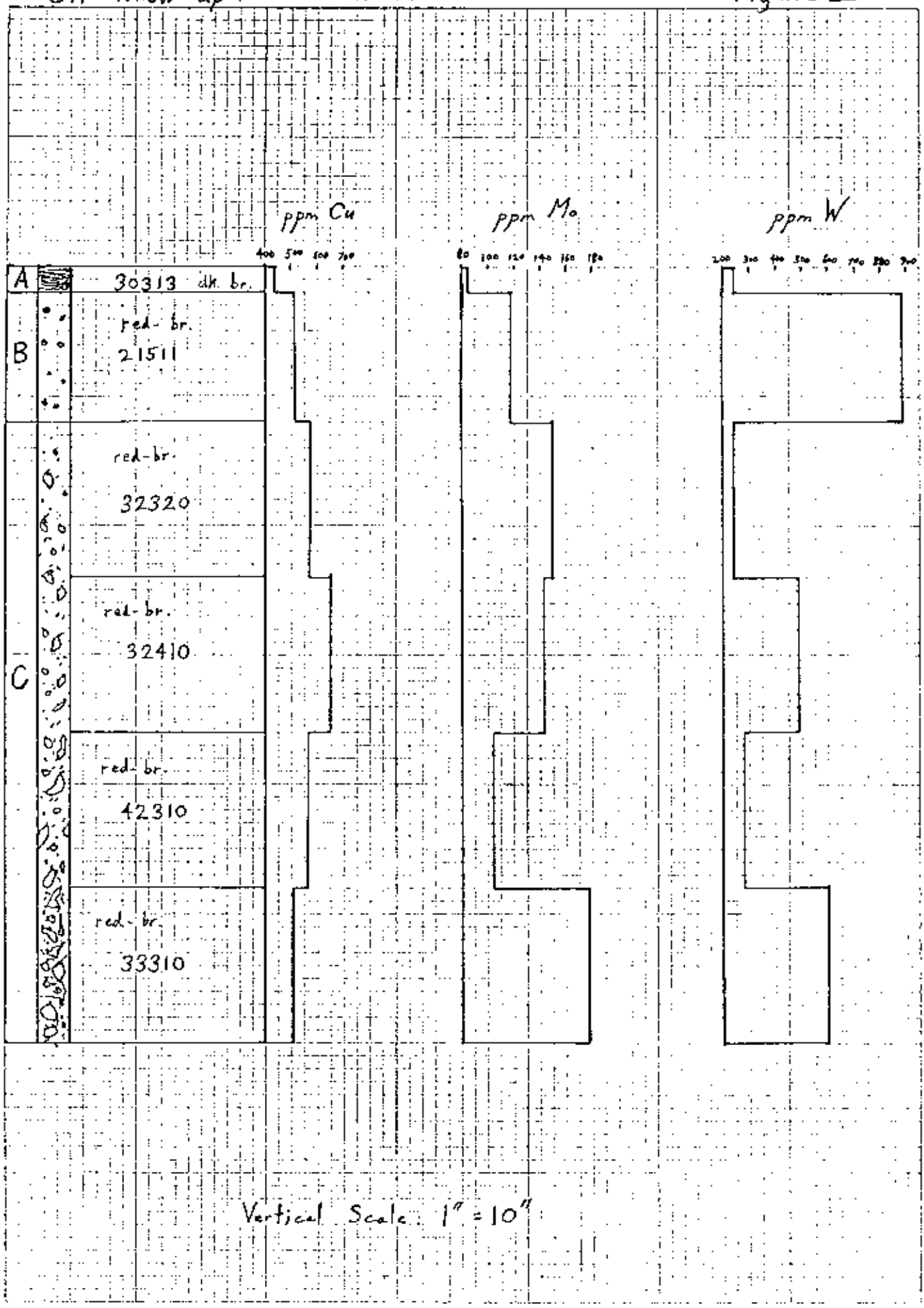
Gil follow-up: Soil Profile #1 Figure 4

(soil description follows standard soil-stream card notation)

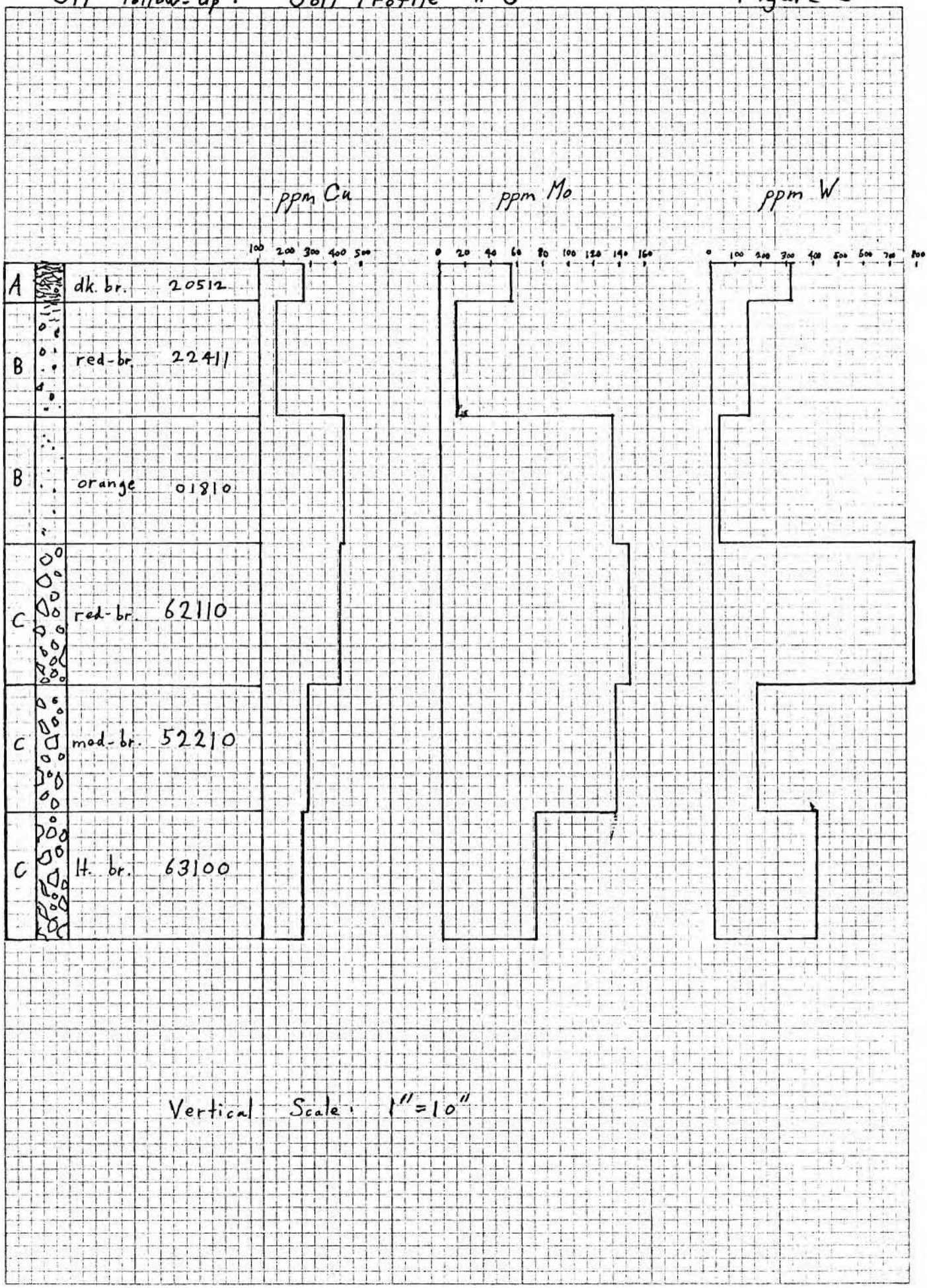


Vertical Scale: 1" = 10"

Gil follow-up: Soil Profile #2 Figure 5

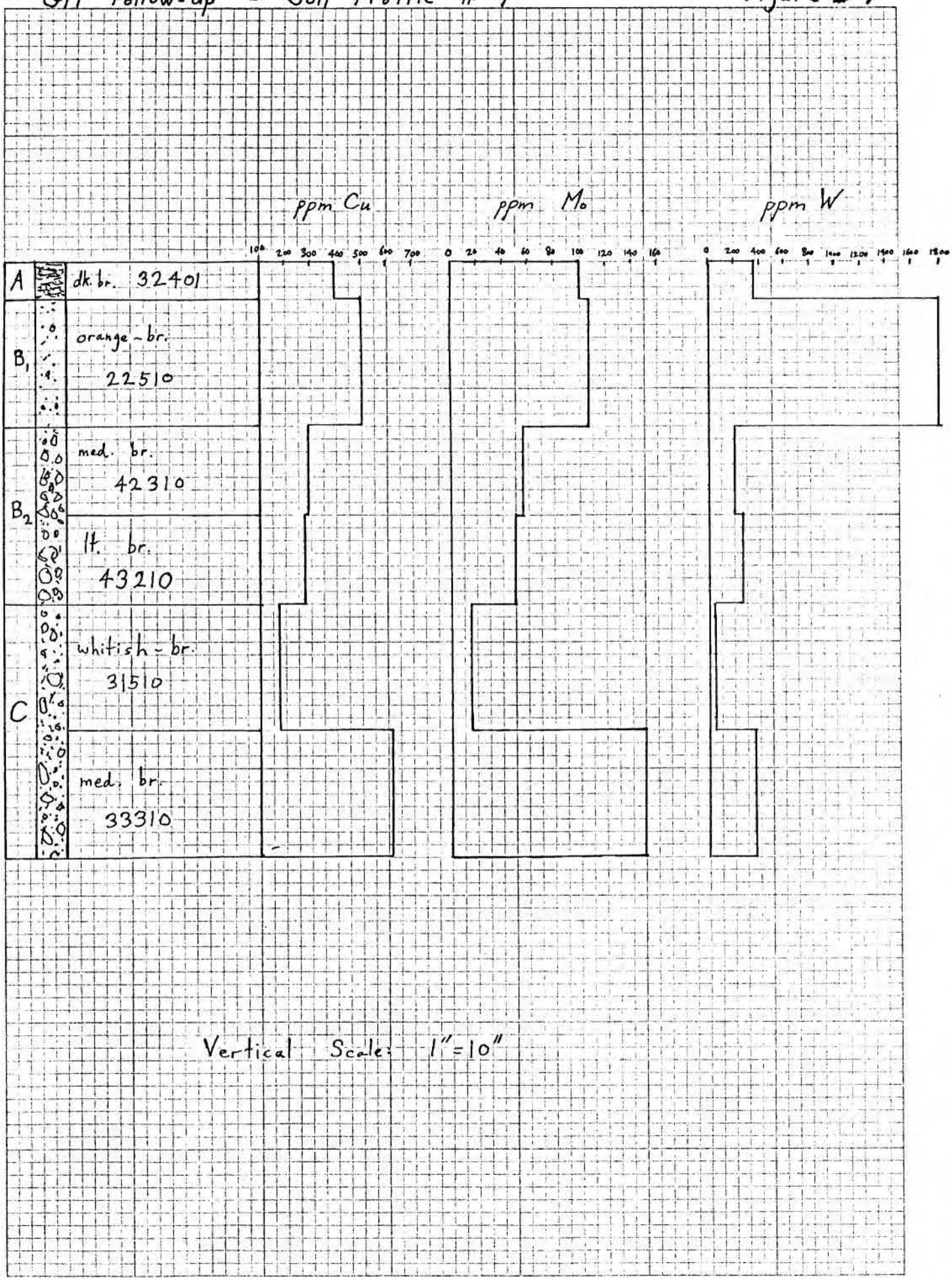


Gil follow-up: Soil Profile # 3 Figure 6



Gil follow-up - Soil Profile # 4

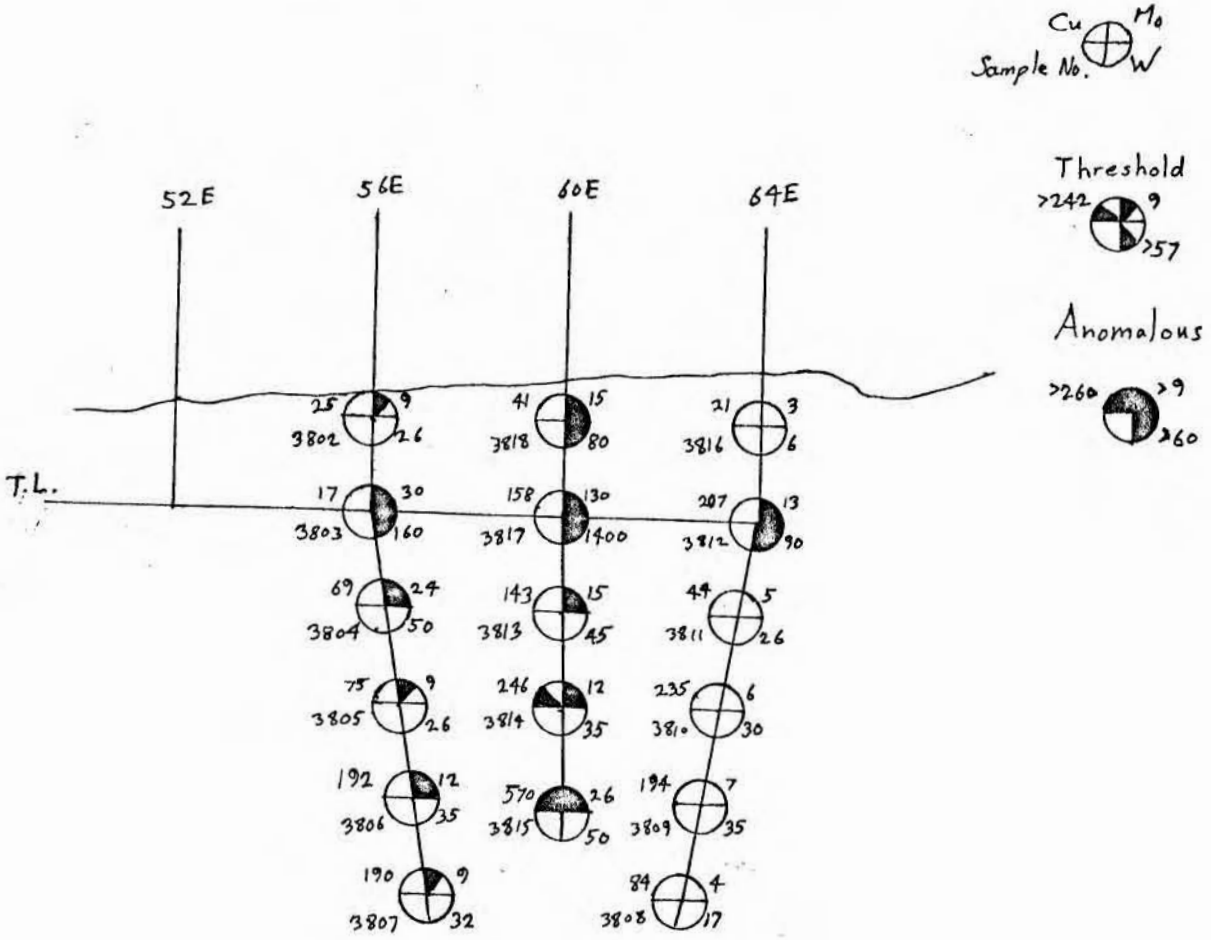
Figure #7



Gil-

Continuation of 3 Soil Lines over U.C. skarn

Figure 8



APPENDIX II

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION
DIAMOND DRILL RECORD

LOCATION L36E/12S DIRECTION - DIP 90° HOLE No. 75-1

LOGGED BY C.C.Macdonald CASING 0-100' SHEET No. 1

STARTED Oct. 14, 1975 CORE SIZE BQ CORRECTED TESTS

FINISHED Oct. 17, 1975

PROPERTY GIL

FROM	TO		DESCRIPTION
0	100'		Angular talus and overburden, composed of chert and tectonic breccia. No sign of approaching bedrock, and drilling casing becoming extremely difficult at this depth, so hole abandoned on October 17, 1975. Problem was mainly lack of circulation, and hardness of talus, so that by the time the casing had reached the required depth, the shoe was ruined, requiring a complete casing pull.

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION L36E/1S DIRECTION - DIP HOLE No. 75-2

LOGGED BY C.C. Macdonald CASING 0-33' SHEET No. 1

STARTED Oct. 18, 1975 CORE SIZE BQ CORRECTED TESTS

FINISHED Oct. 21, 1975

PROPERTY GIL

FROM	TO		DESCRIPTION
0	33'		Extremely hard and angular cherty talus, very porous, hence no drill fluid circulation. Drillers tried mud, cement, kwik-Seal, etc. but to no avail, as even at 20' the casing would barely turn in the hole. Drilling becoming exceedingly slow and destructive to equipment, so hole abandoned on October 21, 1975.

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

DIAMOND DRILL RECORD

L37+50E/1+50S

LOCATION _____ DIRECTION _____ DIP 90° HOLE No. 75-3

LOGGED BY C.C.Macdonald CASING _____ SHEET No. 1

STARTED Oct., 1975 CORE SIZE BQ CORRECTED TESTS _____

FINISHED _____

PROPERTY GIL(68.9% recovery)

FROM	TO	sampled interval	Cu	Mo	W	DESCRIPTION
0	23'	0-23'	321	29	45	Poor core recovery due to highly fractured ground (16%). Dark grey-green argillite with interbedded chert, sometimes deformed to tectonic breccia (Footages estimated from full 23 ft. length) ~4' - thin chert interbeds by by 2 mm. quartz-carbonate vein, 40° LCA, with isolated blebs of Py at the vein walls. ~5' - core piece includes a small fragment of quartz-molybdenite-hematite vein. 5-12' - tectonic breccia, disseminated Py as small (<1 mm.) blebs and cubes, and in fractures. 12-15' - fine-grained conglomerate (Unit 2C), with quartz pebbles up to 3 mm. in a fine-grained, dark matrix. Also small calc-silicate lenses. One zoned lens at 14' contains a grey metallic mineral at its core (not Moly). 15' - Py associated with quartz veins trending 25° and 55° LCA.
23'	27.8	23-28'	700	72	1100	Dark green, heterogeneous-looking argillite, cut by frequent quartz-pyrite veins at 20-30° LCA. 25.4 - 1 mm. speck of scheelite in quartz-pyrite vein. 27.1 - small lens of chert, pyrite, and a soft, black mineral forming the matrix (sphalerite?).

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION
DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No. 75-3

LOGGED BY_____ CASING_____ SHEET No. 2

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sampled interval	Cu	Mo	W	DESCRIPTION
27.8	28.5	28-33'	175	48	8	Dark grey chert.
28.5	34	33-38	146	82	35	Dark green argillite, with chert interbeds, hematite on fractures.
34	42.8	38-43	74	70	1	Light to dark grey chert, with argillite interbeds. 36' - fine-grained Molydenite in hairline fracture, and partially disseminated in the chert. 39.2 - Fine grained molybdenite as above.
42.8	48	43-48	419	74	65	Tectonic breccia, with abundant Py largely in the green argillaceous matrix.
		48-53	134	172	30	45.7' - 9 crystals of scheelite exposed on quartz-hematite-pyrite vein.
48	58	53-58	74	112	200	Buff-lightgrey-dark grey chert, with scattered concentrations of quartz-pyrite stringers, usually 30-40° LCA. 51.5 - very fine-grained molybdenite on hairline quartz vein. 54.5 - 2 mm. crystal of scheelite in quartz vein.
58	61.3	53-63	270	138	32	Green argillite, with little veining and very minor pyrite. 60.0 - very fine grained molybdenite on rusty fracture. 60.2 - 2 mm. crystal of scheelite not on any obvious fracture or vein.

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No. 75-3

LOGGED BY_____ CASING_____ SHEET No. 3

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sampled interval	Cu	Mo	W	DESCRIPTION
61.3	67.3	63-68	134	86	85	Grey-white chert, with argillite partings
67.3	68.1					Green argillite, with a few 1" lenses of calc-silicate (primarily epidote)
68.1	75.5	68-73	262	180	>2500	Chert with argillite interbeds.
		73-78	90	39	55	7.0- 4% pyrite disseminated in argillaceous chert, but concentrated around a fracture. Also a few tiny specks of molybdenite and scheelite.
		78-83	92	62	40	71.9 - one thin finger of calc-silicate in chert, containing a scheelite cluster 10 x 12mm
		83-87	92	100	110	
75.5	96.2	78-88				Green argillite, with occasional chert interbeds, and pyrite on quartz-pyrite veins.
		92-96.2	138	36	22	86.0 - very fine disseminated Mo on hematite-quartz fracture, 0^{o} LCA.
						93.5-95.0 - small calc-silicate lenses, with clots of pyrite, and a few specks of malachite
						END OF HOLE.

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION
DIAMOND DRILL RECORD

LOCATION L37+70E/1+50S DIRECTION 070° DIP 70° HOLE No. 75-4

LOGGED BY C.C. Macdonald CASING SHEET No. 1

STARTED ,1975 CORE SIZE CORRECTED TESTS

FINISHED

PROPERTY GIL (92.4% recovery)

FROM	TO	Sampled interval	Cu	Mo	W	DESCRIPTION
0	7'					Argillite with chert interbeds, and occasional small, brecciated chert lenses.
						~2.0' - 4 1 mm. crystals of scheelite within a quartz-pyrite-hematite vein.
		0-15'	68	33	100	
7	19'					White to dark grey chert, with argillite interbeds, and minor Py usually associated with the argillite. Poor recovery (30%) for first 20'.
		15-20	82	24	70	
19	127'					Green-dark grey argillite with occasional chert interbeds.
		20-25	465	38	22	
						21-30' - concentration of quartz-Py veins with various angles, however much Py also in argillite as clots up to 1cm.
		25-30	222	62	380	
						22.4' - a few tiny specks of Cp associated with isolated patches of Py.
						26.5' - 3 mm. wide composite quartz-pyrite-carbonate-scheelite vein, undulating but ~0° LCA.
						29.5' - quartz-limonite-pyrite-scheelite vein, 20° LCA.
		30-35	304	27	130	33.8-34.6' - small calc-silicate lenses in argillite, with scattered scheelite crystals within these lenses.
		35-40	203	54	35	
		40-45	191	172	24	
						49.7 - small concentration of quartz-pyrite-scheelite veins.
		45-50	114	76	292	

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No. 75-4

LOGGED BY_____ CASING_____ SHEET No. 2

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sampled interval	Cu	Mo	W	DESCRIPTION
		50-55	170	38	8	50.7 - narrow epidote-quartz veins show a few specks of malachite
						56.7-57.3 - quartz-pyrite-hematite-scheelite veins, 20-30° LCA
		55-60	144	82	20	58.0- 2 cm. with quartz-carbonate-pyrite vein, but no scheelite-pyrite from this vein tends to tarnish to a brassy-gold.
		60-65	88	290	60	61.8 - 3 cm. lens of brecciated argillite in matrix of quartz and molybdenite, all cut by non-mineralized quartz-Py vein.
		65-70	110	152	80	64.6 - one tiny chip from very fractured ground contains part of a quartz-scheelite vein, with scheelite cluster 1 cm x 1 cm.
						70.8- small chips contain part of a quartz-hematite-pyrite-scheelite vein.
		70-75	152	86	24	
		75-80	235	186	1100	77.2 - 3 mm.-wide quartz-scheelite vein contains several clusters of euhedral scheelite crystals, up to 6 mm x 6 mm.
		80-85	72	210	30	
		85-90	235	122	55	86.8-87.8 - a few tiny specks of scheelite associated with narrow lenses and stringers of calc-silicate.
		90-95	128	120	12	
		95-100	482	200	990	95.7-99.6 - occasional calc-silicate lenses up to 10 cm. thick with scattered scheelite crystals and clots of pyrite within them.
		100-105	405	128	65	

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No. 75-4

LOGGED BY_____ CASING_____ SHEET No. 3

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sampled interval	Cu	Mo	W	DESCRIPTION
		105-110	295	240	250	109.0- quartz-pyrite-scheelite vein, 35°LCA
		110-115	108	66	135	
		115-120	116	172	18	112.0 - quartz-pyrite-scheelite vein, 20°LCA.
127'	142	120-130'	46	86	25	White-dark grey chert, with argillite interbeds.
		130-135	80	86	26	
		135-140	228	158	30	137.1 - quartz-pyrite-scheelite vein, 30°LCA.
142'	250'	140-145'	131	210	250	Largely green to dark grey argillit with interbeds of chert, occasionally brecciated to tectonic breccia
						147.6 - quartz-pyrite-scheelite vein, with only minor specks of scheelite.
		145-150	131	230	85	149.6-151 - Unit 2C conglomerate interbed, with small quartz pebbles up to 2 mm. in a dark grey, silty matrix.
		150-155	118	108	40	
		155-160	120	122	45	
		160-165	124	160	24	
		165-170	138	110	292	170.0 - 1 cm.-wide quartz-scheelite vein, with many 1 mm. crystals of scheelite in pure quartz.
		170-175	392	290	810	172.1 - very fine-grained molybdenite on hairline fracture.
		175-180	86	200	60	173.7 - 2 cm.-wide zoned quartz vein, with epidote and fine-grained molybdenite at the outer vein walls and disseminated a few cm. into the surrounding argillite with some scheelite and much pyrite.
		180-185	128	100	24	
		185-190	186	56	15	

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No. 75-4

LOGGED BY_____ CASING_____ SHEET No. 4

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sampled interval	Cu	Mo	W	DESCRIPTION
		190-195	74	410	180	191.5 and 192.4 - 2 cm.-wide quartz-pyrite veins with abundant fine moly on the vein walls only. Inferred carbonate in vein now leached out.
		195-200	191	42	22	
		200-205	222	58	8	
		205-210	209	98	18	
		210-215	250	38	12	217.6 - 2 cm.-wide quartz-scheelite moly-pyrite vein, with one scheelite crystal 1 x 1 cm., and fine-grained moly smear only on outside vein walls.
		215-220	275	78	>2250	
						220.0 - 1 cm.-wide quartz-carbonate pyrite-scheelite-moly vein.
		220-225	108	70	20	
		225-230	160	32	100	226-250' - very heavily fractured ground, with resulting poor recovery for this section (54%). Presence of clay-rich gouge and slickensides on some joint planes suggests movement.
		230-240	385	130	24	
		240-250	160	250	20	
						END OF HOLE.

CANADIAN OCCIDENTAL PETROLEUM LTD. - 55 -

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION L45+70E/13+30S DIRECTION 030° DIP 70° HOLE No. 75-5

LOGGED BY C.C.Macdonald CASING 0-10' SHEET No. 7

STARTED Nov.5,1975 CORE SIZE BQ CORRECTED TESTS Acid test at 484' = 80°

FINISHED Nov.14,1975

PROPERTY GIL (87.2% recovery)

FROM	TO	sampled interv.	ppm Cu	ppm Mo	ppm W	DESCRIPTION
0	10'					Cased overburden
10	14'					Heavily fractured tectonic breccia, with angular chert fragments in a green-grey argillaceous matrix.
14	22'	0-20'	51	42	35	White - lt. grey chert, with occasional argillite interbeds, heavily fractured to 19'. Recovery on 0-19' only 17%.
22	484'					Tectonic breccia, as above
		20-25	90	52	45	23.8 - small fragment of calc-silicate and carbonate, partially leached out, in tectonic breccia.
		25-30	108	58	30	29.5 - one 3 mm. crystal of scheelite floating in the tectonic
		30-35	112	46	28	breccia.
		35-40	440	40	320	38.2-38.7 - fragments of carbonate-rich rock in tectonic breccia, with most now as leached cavities coated with limonite and jarosite.
		40-45	96	96	400	47.6 - few specks of scheelite near, but not in a quartz vein.
		45-50	175	28	75	
		50-55	54	86	50	
		55-60	54	84	180	61.8 - mini-goade, ~4 cm. diameter,
		60-65	124	88	130	with euhedral quartz coated with
		65-70	76	44	100	limonite
		70-75	275	74	115	72.5 - a few large scheelite crystals near (not in) quartz-pyrite veins.
		75-80	108	68	150	74.0 - this section has abundant intersections of pure quartz, probably representing metamorphosed
		80-85	84	46	110	quartz veins. These now are cut by rusty joints and hairline fractures, which penetrate the surrounding tectonic breccia. Some calc-silicate inclusions present in the quartz, and usually limonite and jarosite, often in tiny vugs.

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No._____

LOGGED BY_____ CASING_____ SHEET No._____

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sample interv.	ppm Cu	ppm Mo	ppm W	DESCRIPTION
		85-90	72	50	70	88.8 - a 5 cm.-thick quartz vein shows miarolitic quartz, coated with jarosite
		90-100	180	88	400	
		100-110	82	50	150	
		110-120	63	84	280	90-122' - heavily fractured tectonic breccia (34% recovery)
		120-125	92	52	630	
		125-130	88	28	100	
		130-135	62	60	1800	
		135-140	100	40	630	
		140-145	126	98	300	148.8-154.5 - fine-grained micro-granite dyke, non-porphyritic,
		150-155	70	136	450	very bleached looking and criss-crossed by many limonitic hairline fractures.
		155-160	134	230	500	
		160-165	52	155	60	163.5-164.5 - slightly bleached and altered feldspar porphyry dyke.
		165=170	168	240	30	
		170-175	175	155	30	
		175-185	295	120	200	177-185 - very heavily fractured ground with some chips recovered being composed of a khaki-colored, very soft, mudcake-like rock, with euhedral pyrite - probably result of extreme alteration near a shear zone.
		185-190	295	50	520	185.5-215' - this section, still in the overall quartz-vein-rich
		190-195	180	195	100	section, has abundant pyrite as euhedral (but very fractured) crystals in the quartz - usually ~1 cm, but observed up to 6 cm.
						Parts of this section are so riddled with quartz as to be a vein breccia - a "tectonic breccia breccia".
						Scheelite crystals are present throughout this section, though still 1%.
		195-200	310	62	500	198.5 - 2 crystals of scheelite floating in the quartz
		200-205	470	175	70	

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No._____

LOGGED BY_____ CASING_____ SHEET No._____

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sampld interv	ppm Cu	Mo	W	DESCRIPTION
		205-210	230	110	150	207.0 - several 1-3 mm. crystals of scheelite in a quartz-carbonate vein. The carbonate is slightly pinkish-white, and is not calcite, since it reacts slowly with HCl.
		210-215	320	210	100	
		215-220	175	94	16	
		220-225	310	140	350	221.6-226.0 - 4 small quartz veins, all having a few scheelite crystals
		225-230	600	56	70	
		230-235	131	64	20	236.0,236.6 - small occurrence of scheelite with quartz..
		235-240	168	25	65	
		240-245	283	52	540	241.5 - a 3 x 2 cm. cluster of scheelite crystals, not in a quartz vein, but in the breccia matrix
		245-250	320	104	70	
		250-255	2-5	38	24	
		255=260	175	50	22	
		260-270	275	56	26	
		270-275	153	40	85	
		275=280	555	88	22	
		280-285	260	58	35	
		285-290	100	64	320	285.9 - one 3 x 2 cm. scheelite crystal forming one half of a quartz lens in the tectonic breccia.
						286.5-292.2 - concentration small quartz veins, three of which have small amounts of scheelite.
		295-300	134	38	24	
		309-305	96	43	20	295.8,302.8, 313.5,324.5
		305-310	148	38	24	small amounts of scheelite in
		310-315	114	46	45	quartz veins.
		315-320	268	92	170	320.0-321.4 - small calc-silicate (epidote) lenses with associated
		320-325	168	56	1250	scheelite.
		325-330	62	46	22	
		330-335	98	80	20	
		335-340	555	70	24	
		340-345	104	68	20	
		345-350	131	78	35	346.0-349.5 - concentration of calc-silicate, as fragments of siliceous epidote-coloured rock in the tectonic breccia.

CANADIAN OCCIDENTAL PETROLEUM LTD. - 58 -

MINERALS DIVISION

DIAMOND DRILL RECORD

LOCATION_____ DIRECTION_____ DIP_____ HOLE No._____

LOGGED BY_____ CASING_____ SHEET No._____

STARTED_____ CORE SIZE_____ CORRECTED TESTS_____

FINISHED_____

PROPERTY_____

FROM	TO	sample interv.	ppm Cu	MO	W	DESCRIPTION
		350-355	230	84	15	354.8 - fine-grained Mo in hairline fractures, associated with some deep-red hematite.
		355-360	144	46	18	
		360-370	342	78	70	
		370-380	500	84	24	
		380-390	131	56	45	359-390.5 - extremely fractured ground, with only 24% recovery. Largely tectonic breccia, butwith
		390-395	62	36	55	abundant epidote and epidote-coloured clay-rich gouge material.
						390.4 - two inches of extremely altered and crumbly core are shot through with very fine-grained grey-black Mo.
		395-400	134	30	70	390.4-396.0 - tectonic breccia as
		400-405	190	30	50	above, but this section has a very
		405-410	96	30	45	bleached matrix, now white-yellow
		410-420	513	26	22	instead of the usual green.
		420-425	80	28	18	
		425-430	66	30	24	
		430-435	74	20	24	
		435-440	70	17	8	436.2,472.0 - small (1 mm.) schee-
		440-445	116	52	8	lite crystals associated with
		445-450	141	40	14	quartz veins and segregations.
		450-455	104	12	10	
		455-460	114	40	28	
		460-465	108	28	18	
		465-470	116	28	20	
		470-475	108	28	22	484.0 - End of Hole -Sandy Ground
		475-480	152	46	20	
		480-484	74	46	6	Acid Test = 80°

APPENDIX III

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 36471

TO: Canadian Occidental Petroleum Ltd.,
801 - 161 Eglinton Ave. East
Toronto, Ont.

INVOICE NO. 15864

RECEIVED Nov. 27/75

ATTN: P.E.Nicholls
cc: Colin Mac Donald Project Gil

ANALYSED Dec. 2/75

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Tungsten	Rock Geochem
8601	88	290	60	
8602	110	152	80	
8603	152	66	24	
8604	235	186	1100	
8605	72	210	30	
8606	235	122	55	
8607	128	120	12	
8608	482	200	990	
8609	405	128	65	
8610	295	240	250	
8611	108	66	135	
8612	116	172	18	
8613	46	86	26	
8614	80	86	30	
8615	228	158	280	
8616	131	210	250	
8617	131	230	85	
8618	118	108	40	
8619	120	122	45	
8620	124	160	24	
8621	138	110	292	
8622	392	290	810	
8623	86	200	60	
8624	128	100	24	
8625	186	56	15	
8651	74	410	180	
8652	191	42	22	
8653	222	58	8	
8654	209	98	18	
8976	344	29	45	
8977	700	72	1100	
8978	175	48	8	
8979	146	82	35	
8980	74	70	18	
8981	419	74	65	
8982	134	172	30	
8983	74	112	200	
8984	270	138	32	
8985	134	86	85	
8986	262	180	> 2500	
Std.	72	26	20	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 36472

INVOICE NO. 15864

RECEIVED Nov. 27/75

ANALYSED Dec. 2/75

TO: Canadian Occidental Petroleum Ltd.,
801 - 161 Eglinton Ave. East
Toronto, Ont.

ATTN: P.E.Nicholls C. MacDonald Project Gil

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Tungsten	Rock Geochem
8987	90	39	55	
8988	92	62	40	
8989	92	100	110	
8990	138	36	22	
8991	68	33	100	
8992	82	24	70	
8993	465	38	22	
8994	222	62	380	
38995	304	27	130	
8996	203	54	35	
8997	191	172	24	
8998	114	76	292	
8999	170	38	8	
9000	144	82	20	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604

RECEIVED
DEC 19 1975
J. J. B.

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 36481

INVOICE NO. 15923

RECEIVED Dec. 9/75

ANALYSED Dec. 15/75

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
801 - 161 Eglinton Ave. East
Toronto, Ont.

ATTN:

Gil Project

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Tungsten	Rock Geochem
38016	168	25	65	
38017	283	52	540	
38018	320	104	70	
38019	205	38	24	
38020	175	50	22	
38021	275	56	26	
38022	153	40	85	
38023	555	88	22	
38024	260	58	35	
38025	100	64	320	
38026	118	56	500	
38027	134	38	24	
38028	96	43	70	
38029	148	38	24	
38030	114	46	45	
38031	268	92	170	
38032	168	56	1250	
38033	62	46	22	
38034	98	80	20	
38035	555	70	24	
38036	104	68	20	
38037	131	78	35	
38038	230	84	15	
38039	144	46	18	
38040	342	78	70	
38041	500	84	24	
38042	131	56	45	
38043	62	36	55	
38044	134	30	70	
38045	190	30	50	
38046	96	30	45	
38047	153	26	22	
38048	80	28	18	
38049	66	30	24	
38050	74	20	24	
38076	70	17	8	
38077	116	52	8	
38078	141	40	14	
38079	104	12	10	
38080	114	40	28	
Std.	74	25	18	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: B. A. Beaven

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 36482

INVOICE NO. 15923

RECEIVED Dec. 9/75

ANALYSED Dec. 15/75

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
801 - 161 Eglinton Ave. East
Toronto, Ont.
M4P 1J5

ATTN: Gil Project

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Tungsten	Rock Geochem
38081	108	28	18	
38082	116	28	20	
38083	108	28	22	
38084	152	46	20	
38085	74	46	6	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 36483

INVOICE NO. 15923

RECEIVED Dec. 10/75

ANALYSED Dec, 15/75

TO: Canadian Occidental Petroleum LTD.,
Minerals Div.
801 - 161 Eglinton Ave. East
Toronto, Ont.

ATTN:

Project Gil

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Tungsten	Rock Geochem
8655	250	38	12	
8656	275	78	>2250	
8657	108	70	20	
8658	160	32	100	
8659	385	130	24	
8660	160	250	20	
38001	134	230	500	
38002	52	155	60	
38003	168	240	30	
38004	175	155	30	
38005	295	120	200	
38006	295	50	520	
38007	180	195	100	
38008	310	62	500	
38009	470	175	70	
38010	230	110	450	
38011	320	210	100	
38012	175	94	16	
38013	310	140	350	
38014	600	56	70	
38015	131	64	20	
38051	51	42	35	
38052	90	52	45	
38053	108	58	30	
38054	112	46	28	
38055	440	40	320	
38056	96	96	400	
38057	175	28	75	
38058	54	86	50	
38059	54	84	180	
38060	124	88	130	
38061	76	44	100	
38062	275	74	115	
38063	108	68	150	
38064	84	46	110	
38065	72	50	70	
38066	180	88	400	
38067	82	50	150	
38068	63	84	280	
38069	94	52	630	
Std.	72	24	18	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY:

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 36484

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
801 - 161 Eglinton Ave. East
Toronto, Ont.

INVOICE NO. 15923

RECEIVED Dec. 10/75

ATTN:

ANALYSED Dec. 15/75

Gil Project

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Tungsten	Rock Geochem
38070	88	28	100	
38071	62	60	1800	
38072	100	40	630	
38073	126	98	300	
38074	131	155	300	
38075	70	136	450	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

O

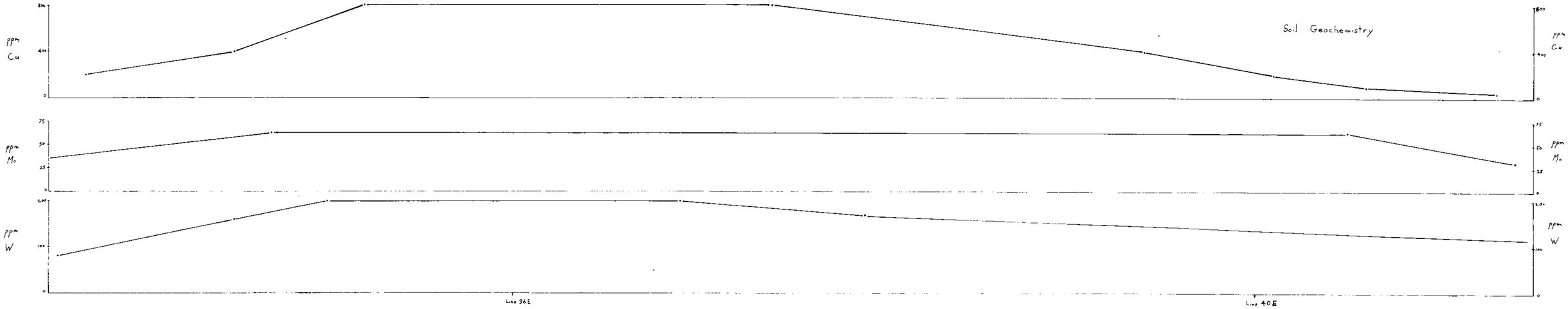
APPENDIX IV

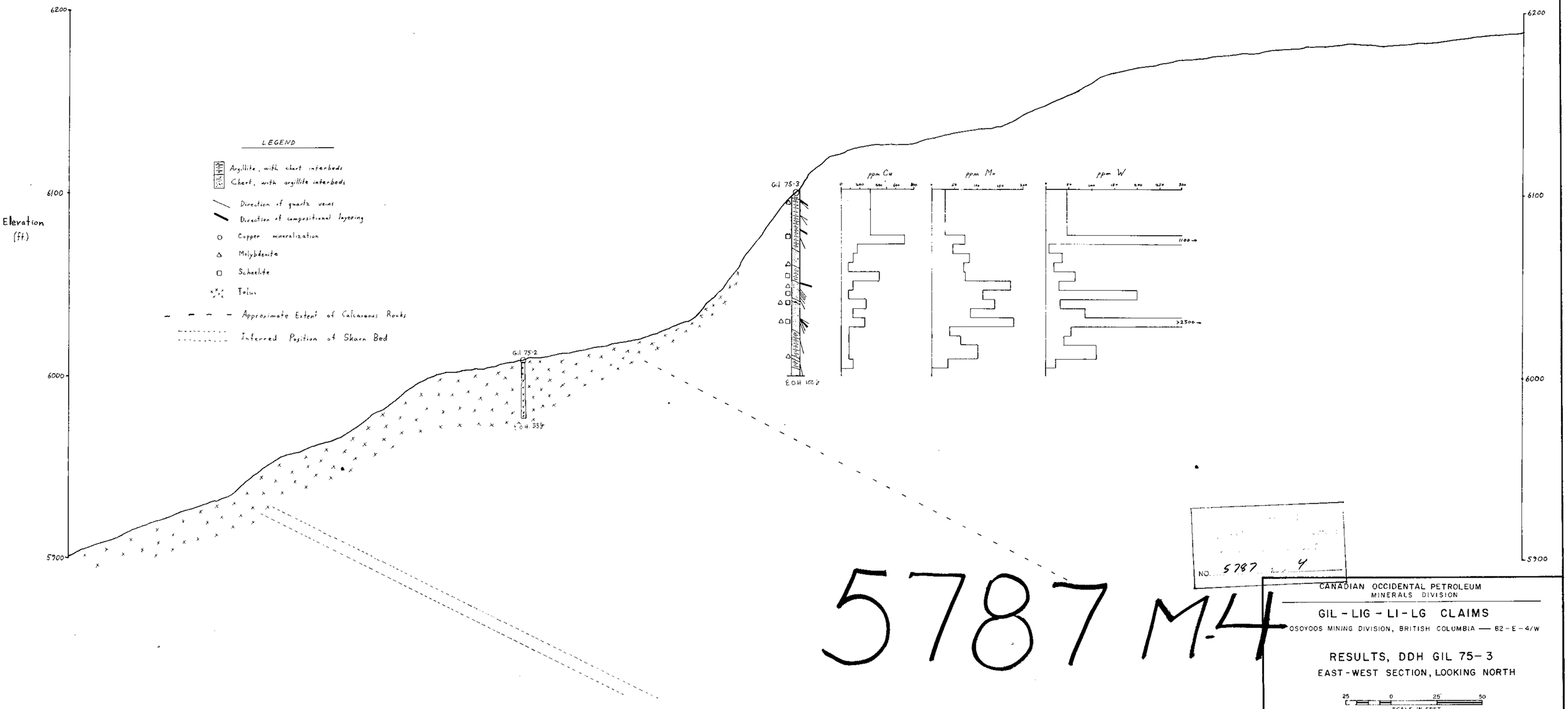
Statement of Expenditures

LG Claims - 82-E-4W

1) Salaries, Oct. 1-Nov. 30, 1975, Jan.12-20,1976 C.C. Macdonald Average cost per man day $30.03		$ 2,072.66
2) Food & Accommodation		1,947.22
3) Transportation		
Motor vehicle usage	$ 290.70	
Helicopter	231.65	522.35
4) Geochemistry - 190 samples, 566 elements analysed		857.00
5) Report preparation - reproduction, draftsman		225.18
6) Diamond Drilling		38,642.12
7) Other costs		
Camp & Equipment costs	1,212.04	
Consultant - C.F.Gleeson - ½day	125.00	
Road building	9,593,75	
Communications	98.64	11,029.43
Total		$55,295.96

Soil Geochemistry





NO. 5787 M-4

5787 M-4

CANADIAN OCCIDENTAL PETROLEUM
MINERALS DIVISION

GIL - LIG - LI - LG CLAIMS

OSOYOOS MINING DIVISION, BRITISH COLUMBIA — 82 - E - 4/W

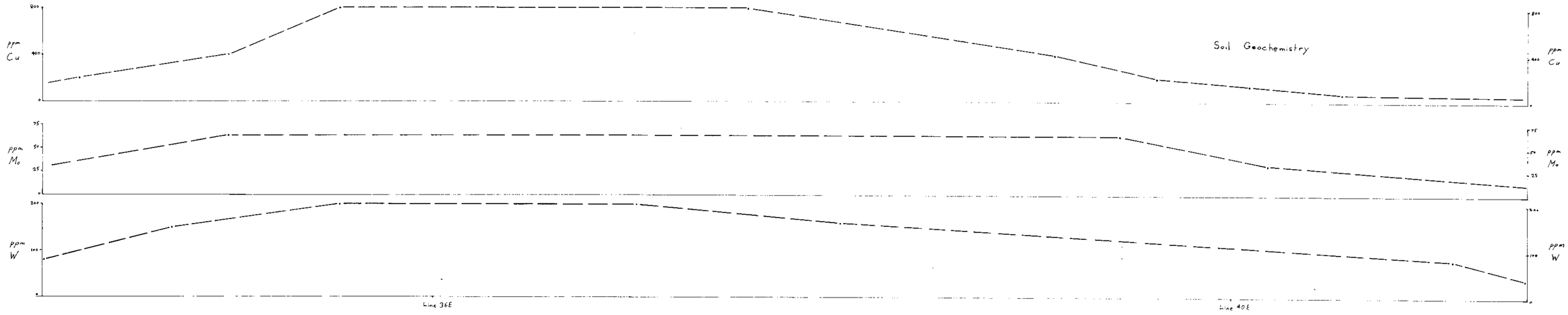
RESULTS, DDH GIL 75-3

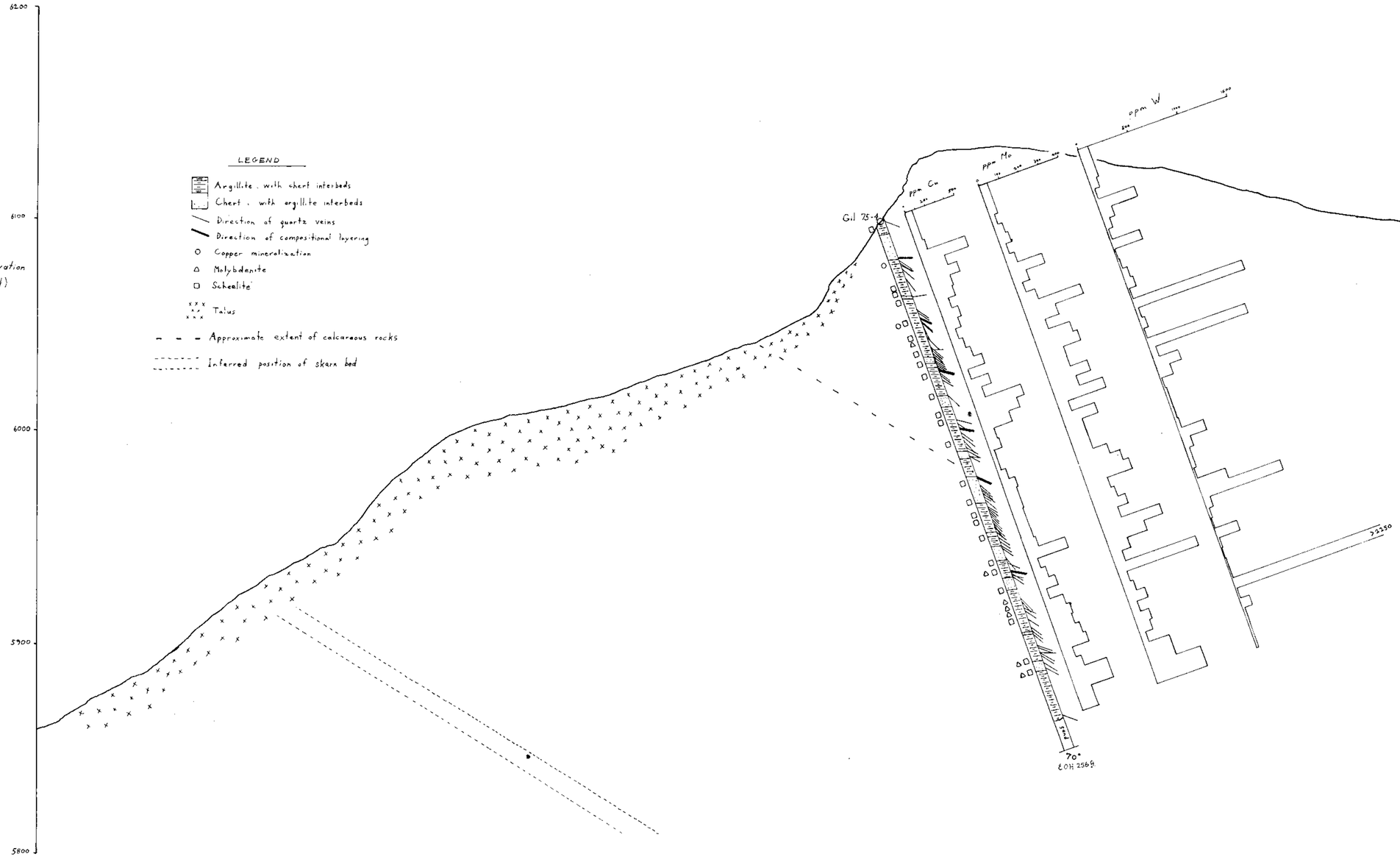
EAST - WEST SECTION, LOOKING NORTH

25 0 25 50
SCALE IN FEET

PLAN 1

Soil Geochemistry





CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

GIL-LIG-LI-LG CLAIMS

OSOYOOS MINING DIVISION, BRITISH COLUMBIA —— 82-E-4/W

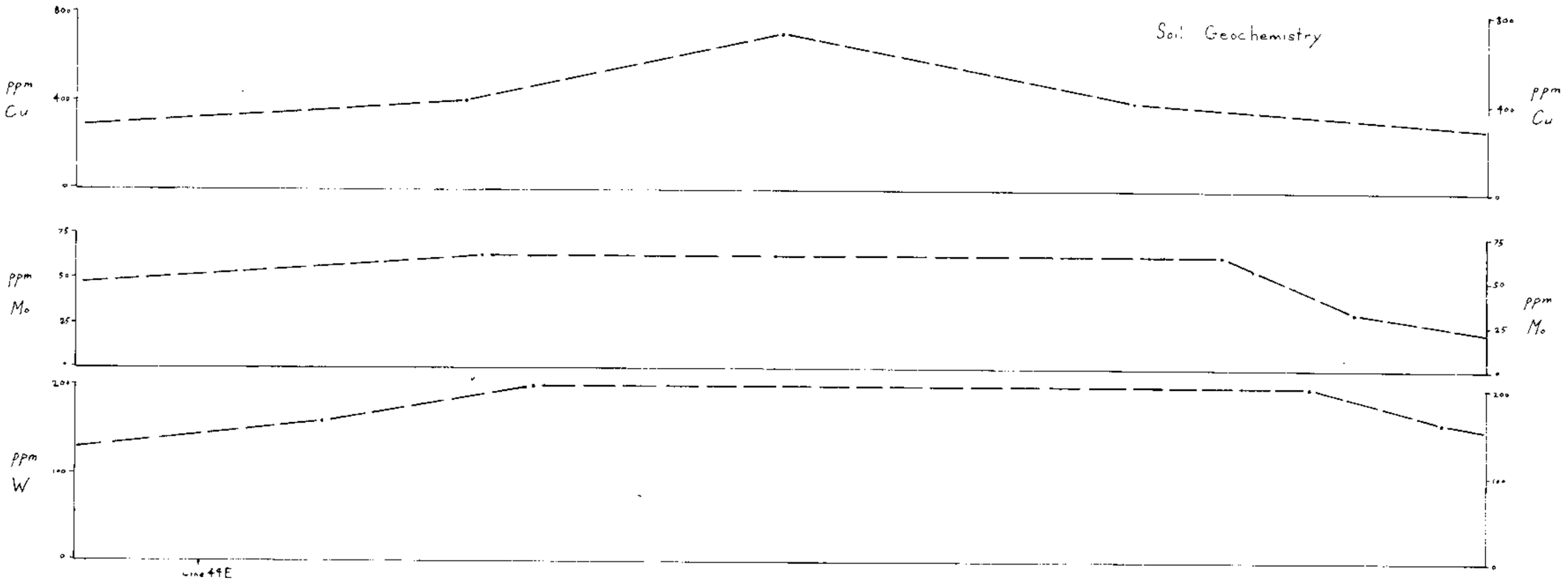
RESULTS, DDH GIL 75-4

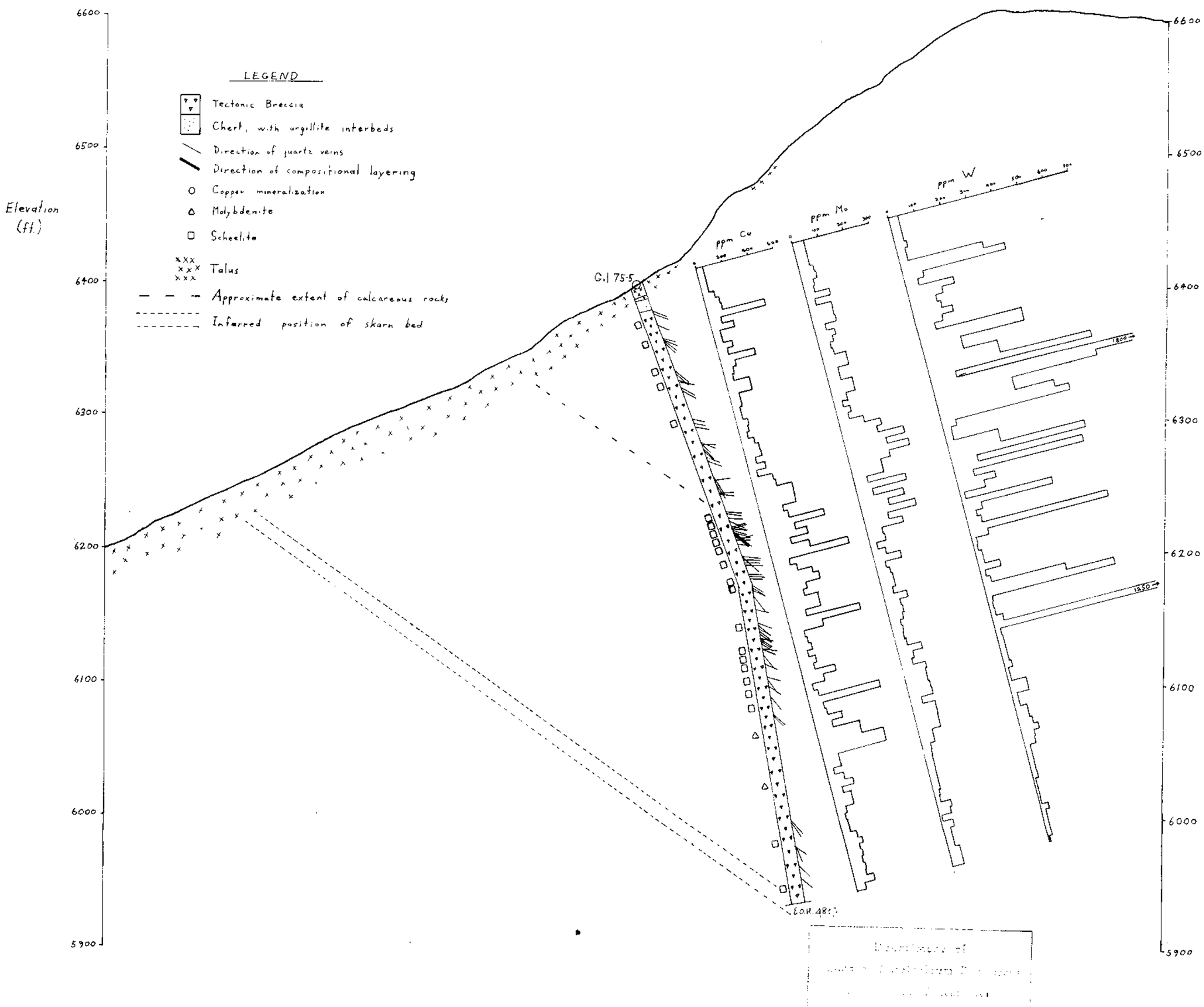
(Section taken along strike of hole, 070°, looking north)

25 0 25 50
SCALE IN FEET

PLAN 2

Soil Geochemistry





CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

GIL-LIG-LI-LG CLAIMS

OSOYOOS MINING DIVISION, BRITISH COLUMBIA — 82-E-4/W

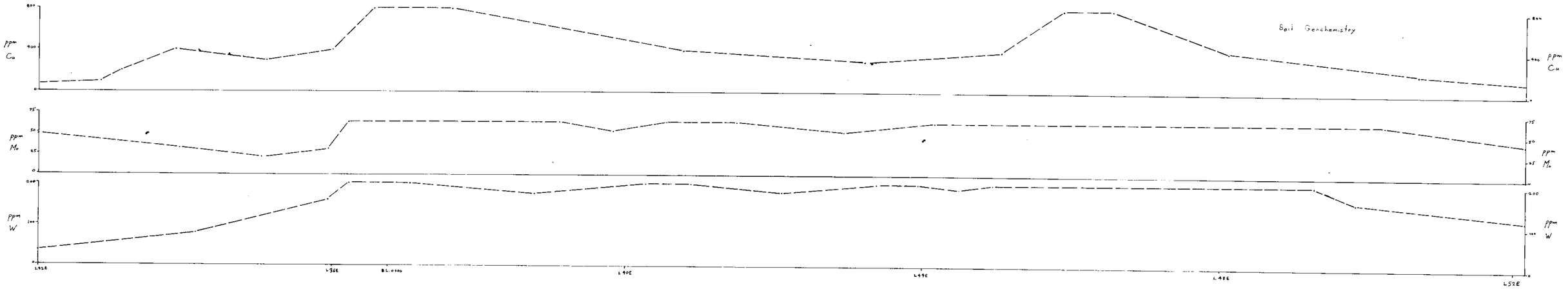
RESULTS, DDH GIL 75-5

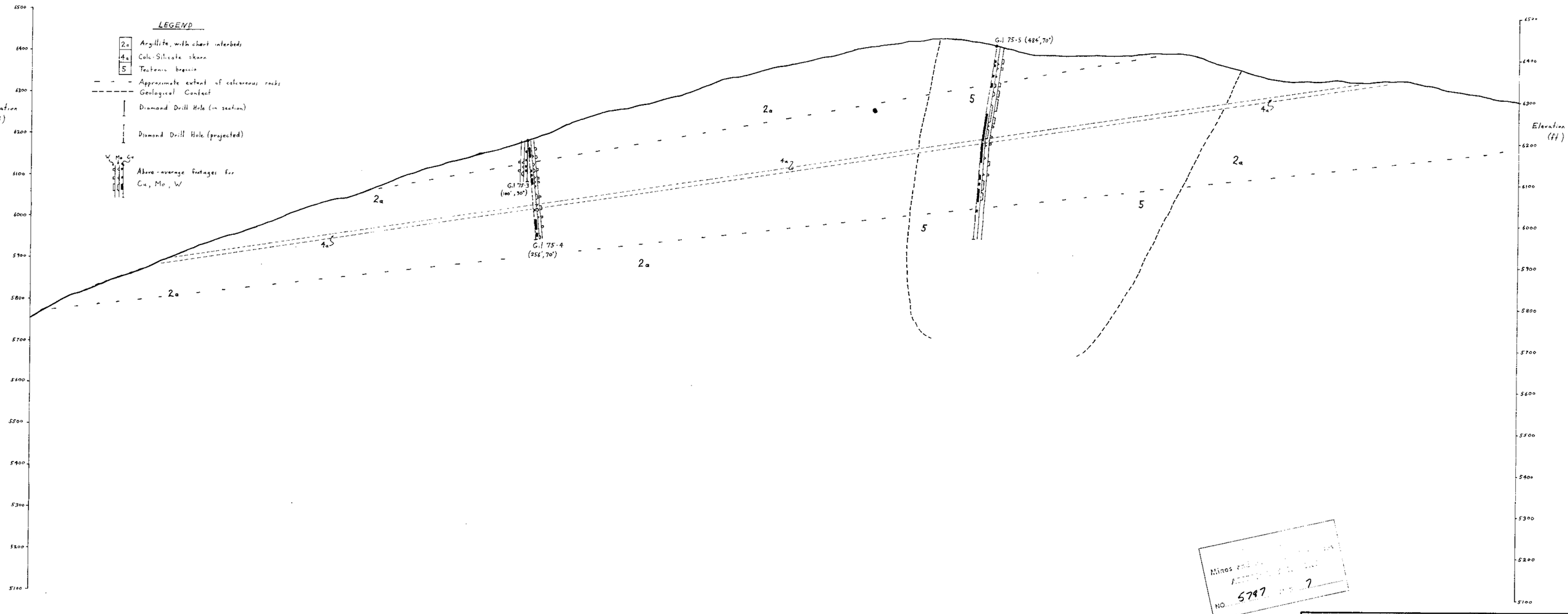
(Section taken along strike of hole, 030° looking NW)

50 0 50 100
SCALE IN FEET

PLAN 3

Soil Geochemistry





CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

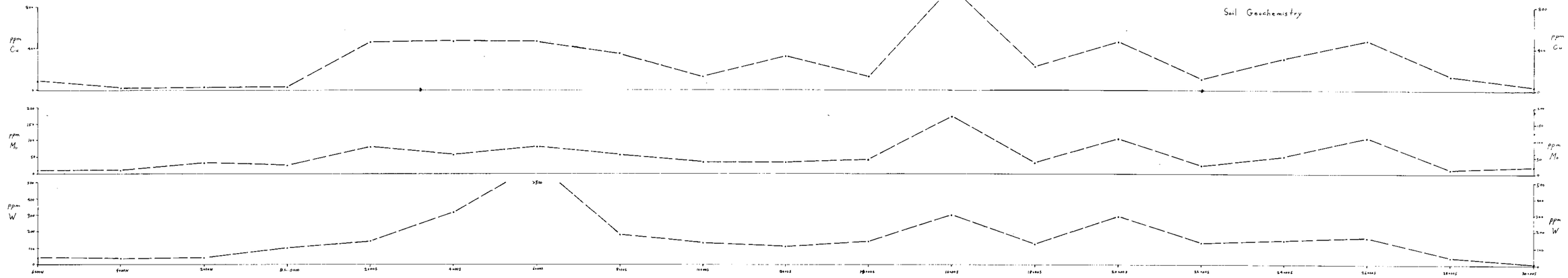
GIL-LIG-LI-LG CLAIMS

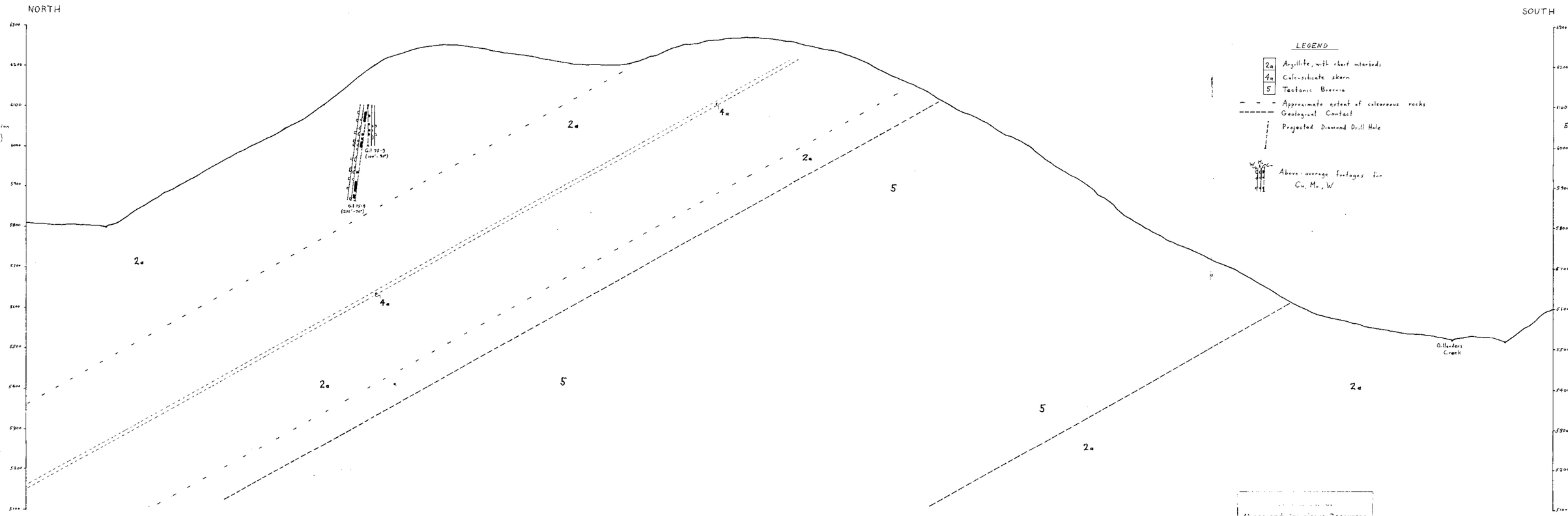
OSOYOOS MINING DIVISION, BRITISH COLUMBIA — 82-E-4/W

SECTION THROUGH DDH GIL 75-3, 75-4, 75-5
(326° T, LOOKING NE)

100 0 100 200
SCALE IN FEET

PLAN 5





CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

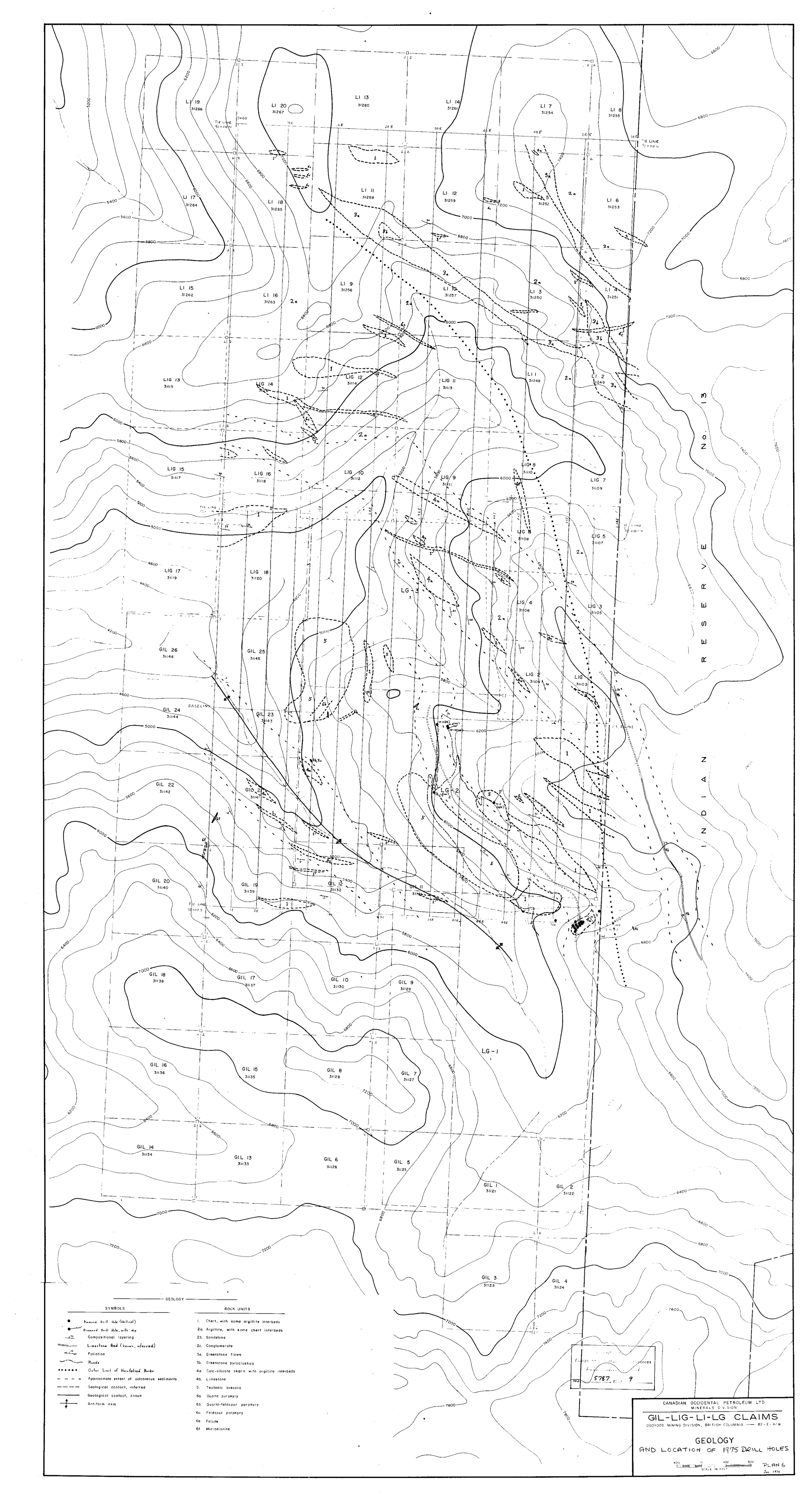
GIL-LIG-LI-LG CLAIMS

OSOYOOS MINING DIVISION, BRITISH COLUMBIA — 82-E-4/W

N-S SECTION ALONG LINE 40E, LOOKING EAST

100 0 100 200
SCALE IN FEET

PLAN 4


LI 19 31266
LI 20 31267
LI 13 31260
LI 14 31261
LI 7 31254
LI 8 31255
LI 17 31264
LI 18 31265
LI 11 31258
LI 12 31259
LI 6 31253
LI 15 31262
LI 16 31263
LI 9 31256
LI 10 31257
LI 3 31250
LI 4 31251
LIG 13 31115
LIG 14 31116
LIG 12 31114
LIG 11 31113
LI 1 31248
LI 2 31249
LIG 15 31117
LIG 16 31118
LIG 10 31112
LIG 9 31111
LIG 8 31110
LIG 7 31109
LIG 17 31119
LIG 18 31120
LIG 5 31107
LIG 4 31106
LIG 3 31105
GIL 26 31146
GIL 25 31145
LIG 2 31104
LIG 1 31103
GIL 24 31144
GIL 23 31143
GIL 22 31142
GIL 21 31141
GIL 20 31140
GIL 19 31139
GIL 12 31132
GIL 11 31131
GIL 18 31138
GIL 17 31137
GIL 10 31130
GIL 9 31129
GIL 16 31136
GIL 15 31135
GIL 8 31128
GIL 7 31127
GIL 14 31134
GIL 13 31133
GIL 6 31126
GIL 5 31125
GIL 1 31121
GIL 2 31122
GIL 3 31123
GIL 4 31124
LG-3
LG-2
LG-1
BASELINE
TIE LINE
INDIAN RESERVE NO. 13
GEOLOGY
SYMBOLS
Diamond drill hole (vertical)
Diamond drill hole, with dip
Compositional layering
Limestone Bed (known, inferred)
Foliation
Roads
Outer limit of Hornfelsed Rocks
Approximate extent of calcareous sediments
Geological contact, inferred
Geological contact, known
Anticlinal axis
ROCK UNITS
1. Chert, with some argillite interbeds
2a. Argillite, with some chert interbeds
2b. Sandstone
2c. Conglomerate
3a. Greenstone flows
3b. Greenstone pyroclastics
4a. Calc-silicate skarn with argillite interbeds
4b. Limestone
5. Tectonic breccia
6a. Quartz porphyry
6b. Quartz-feldspar porphyry
6c. Feldspar porphyry
6e. Felsite
6f. Microdiorite
NO. 5787
CANADIAN OCCIDENTAL PETROLEUM LTD
MINERALS D.V.SION
GIL-LIG-LI-LG CLAIMS
OSOYOOS MINING DIVISION, BRITISH COLUMBIA — 82-E-4W
GEOLOGY
AND LOCATION OF 1975 DRILL HOLES
PLAN 6
Jan. 1976