5992

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

GEOLOGY AND GEOCHEMISTRY OF THE WEL CLAIMS

WEL

Claim Sheet No. 92 H/7W
Lat.: 49°23'
Long: 120°53'

92 H/7W

Claims: WEL 21-32
Similkameen Mining Division
British Columbia

by:
Colin C. Macdonald, B.Sc.(Eng.)

Covering Work Completed During the Period
August 12 to August 22, 1976

CONTENTS

SUMMARY

The Wel claim group is located 18 miles (29 km) west of Princeton, B.C., enclosing Wells Lake. The property was staked in November, 1973 (Wel 1-20), August, 1974 (Wel 1-30), and August, 1975 (Wel 31-32) to investigate the cause of a stream silt anomaly detected during the 1973 Princeton regional program. A previous survey in 1974 completed geological mapping and magnetometer survey of Wel 1-20 and geochemical coverage of Wel 1-30. As part of this 1976 survey, geological mapping was carried out over Wel 21-32 and geochemical coverage completed over Wel 31-32.

The dominant rock type underlying all the Wel claims is a foliated granodiorite, with end members ranging from a biotite metasediment to a coarse-grained unfoliated granodiorite. Dykes and segregations of pegmatites, aplites and microgranites are common, often with pyrite. Numerous vein systems align with and cross-cut all rock types, with quartz veins being the most common. These sometimes contain various combinations of chlorite, epidote, pyrite, chalcopyrite, molybdenite and magnetite.

Soil geochemistry outlined two major coincident anomalies, and two contour trends which probably reflect fracture control of vein sets. However, the anomalies are not sufficiently better than those from the 1974 survey which are known to be due to uneconomic vein mineralization, so no further work is recommended.

INTRODUCTION

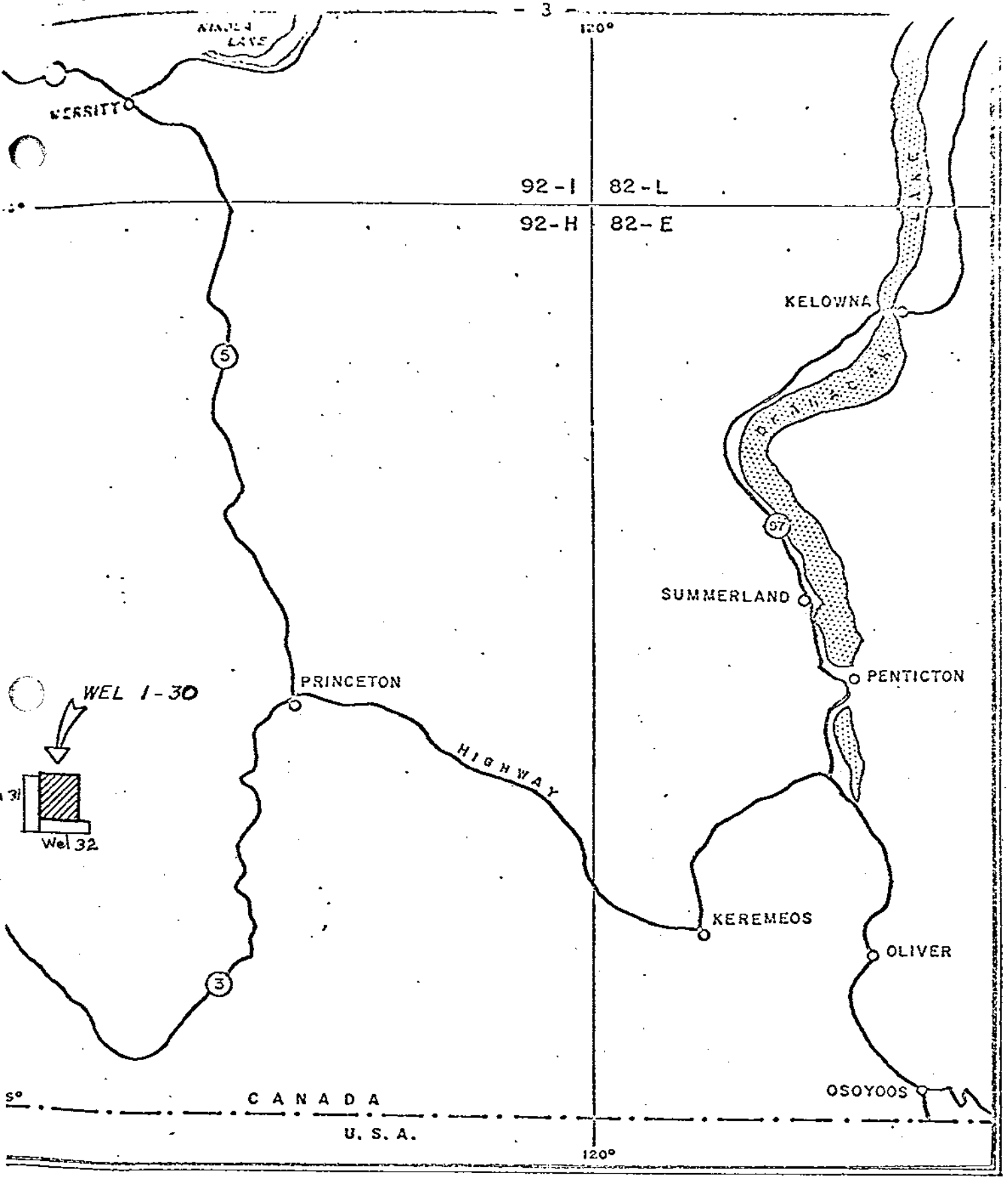
The Wel (1-20) claims were staked as a result of a regional stream sampling program completed during the summer of 1973. In August, 1974, an additional 10 claims were staked adjoining the original claims to the south, making a total of 30 Wel claims. In August, 1975, two 12-unit claims were staked to the west and south of Wel (1-30), to determine the extent of the geochemical soil anomaly detected in 1974.

This report will describe the geology of the claim group and the results obtained from a geochemical soil survey completed by Canadian Occidental Petroleum Ltd., Minerals Division, holder of the claims. The work was done to determine the cause and extent of the major molybdenum and copper anomaly detected by the previous survey.

LOCATION AND ACCESS

The Wel claim group is recorded on claim map 92 H/7W in the Similkameen Mining Division. The claim group is located about 18 miles (29 km) at a bearing of 250°T from Princeton, B.C., encompassing Wells Lake and the area to the north.

Access is via a Forestry access road suitable for four-wheel-drive vehicles only. This road is accessible either from the Whipsaw Creek logging road, which originates on Hwy. 3, 7.5 miles (12 km) south of Princeton, or from



CANADIAN OCCIDENTAL PETROLEUM LTD
MINERALS DIVISION

#5992

LOCATION OF WEL CLAIMS

Fig. 1

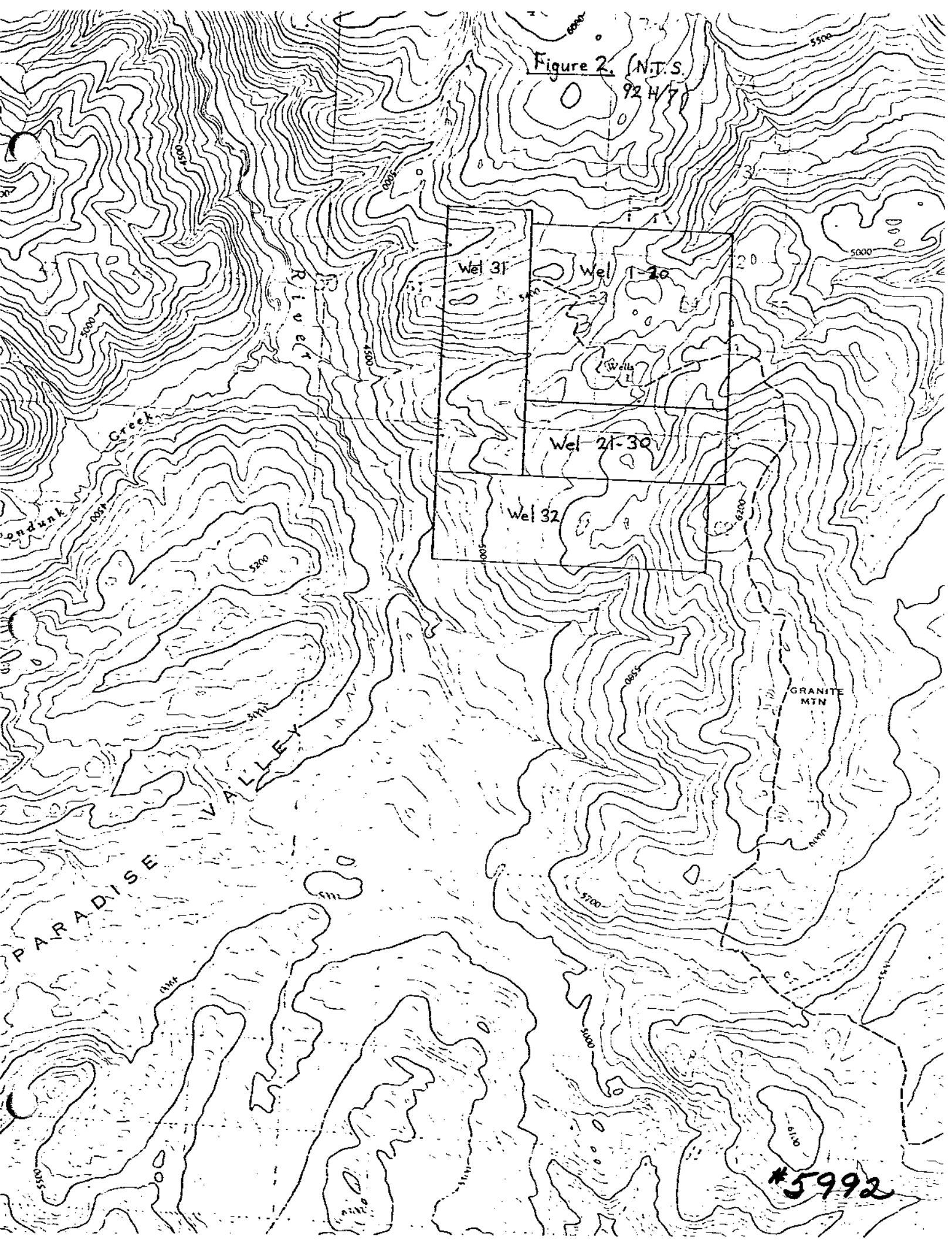


Figure 2. (N.T.S. 92 H/7)
Wel 31
Wel 1-20
Wel 21-30
Wel 32
Wells
Creek
River
PARADISE VALLEY
GRANITE MTN
#5992

Coalmont on the Tulameen River, via good logging road to Lodestone Lake, and from there to Wells Lake by the four-wheel-drive road.

VEGETATION

The property is located below timber line in an unlogged area, at an elevation of approximately 5300 feet (1616 m). At lower elevations the bush is mature but fairly thick, with abundant alder undergrowth. Pine and spruce, with some balsam fir, predominate. At high elevations timber is slightly stunted and the bush more open.

WORK COMPLETED

Line Cutting

Some line cutting was completed on Wel 31, where the bush was thicker.

Geological Mapping

Wel 21-30 - Colin C. Macdonald	(Aug. 12-20, 1976) -	9 days
Wel 31-32 - Allen A. Seaman	(Aug. 18-20, 1976) -	3 days
Wel 31-32 - Richard M. Nodder	(Aug. 18-20, 1976) -	3 days
Wel 31-32 - Steve A. McIntyre	(Aug. 18-20, 1976) -	3 days

Geochemical Survey

Dr. C.F. Gleeson, Consulting Geochemist

Wel 21-30 - Colin C. Macdonald (Aug. 21-22, 1976) - 2 days

Wel 31-32 - Allen A. Seaman (Aug. 12-17, 1976) - 6 days

Wel 31-32 - Richard M. Nodder (Aug. 12-17, 1976) - 6 days

Wel 31-32 - Steve A. McIntyre (Aug. 12-17, 1976) - 6 days

Total soil samples - 250

Total rock chip samples - 20

Hence, 270 samples were taken for a total of 540 determinations.

Names and Addresses of Personnel

Colin C. Macdonald - Canadian Occidental Petroleum Ltd.
801-161 Eglinton Ave. E.,
Toronto, Ontario M4P 1J5

Steve A. McIntyre - "

Richard M. Nodder - "

Allen A. Seaman - "

PHYSIOGRAPHY

The Wel group is located about 8 miles northeast of the Hozameen Range of the Cascade Mountains. However, the claim area is generally one of low relief with an elevation of between 4800 and 5700 feet above sea level. Slopes are usually gentle, steepening at the major creek valleys.

Drainage is poor on the property, with numerous ponds and muskegs. Glacial deposits are extensive, particularly in the northeast area, and appear to be of local origin.

GEOLOGY

Introduction

The Wel claim group is located in the Coast Intrusions, specifically the Eagle granodiorites of the Nelson Plutonics, of Upper Jurassic age.

General Geology

The 1974 survey, covering Wel 1-20, showed the dominant rock type to be a foliated biotite granodiorite, which has end members ranging from a biotite metasediment to an unfoliated coarse-grained granodiorite. Dykes and segregations of quartz-K-spar-muscovite-pegmatites, aplites, and microgranites are common, often occurring with pyrite. Numerous vein systems align with and cross-cut all rock types, with quartz veins being the most common. These sometimes contain various combinations of chlorite, epidote, pyrite, chalcopyrite, magnetite and molybdenite. This same suite of rocks extends to Wel 21-30 and 31-32.

Description of Rock Units

A - Metasediments: These rocks are well-layered, with layering from .5 mm to 1 cm in thickness. Biotite is generally the main mineral, composing up to 100% of some layers. These metasediments are usually dark coloured, fine-grained, and granular to well-foliated.

The most common metasediment is a biotite-quartz-plagioclase rock, thought to originate from a greywacke. End members found on Wel 1-20 include a very quartz-rich rock with plagioclase and biotite, thought to have originated from a dirty sandstone, a biotite-plagioclase-quartz-pyrite

rock with an anaerobic mud origin and a quartz-plagioclase-biotite±hornblende, epidote, carbonate rock originally a calcic sediment. The original sedimentary sequence, therefore, is a set of greywackes, muddy sandstone, calcic sandstones, anaerobic muds and andesitic tuffs resulting from an environment of fluctuating water levels and rates of material supply of detrital clastic sediments and eroded volcanic sediments.

B - Metasedimentary Gneiss Complex: These rocks are intermediate in texture between the metasediments and the granodiorites and grade into each other. The dominant mineral is biotite with quartz, hornblende, plagioclase, garnet and epidote. The grain size is medium and the mafic minerals are well-aligned. These gneisses were most common in the northwest part of the Wel (1-20) claims, and seem to continue to be common in the north half of Wel 32.

This gneiss complex is the result of metamorphism, partial melting and remobilization of the metasediments. These gneisses, due to their easily visible mineral layering, often show minor folds or ptygmatic folds in the pegmatite.

C - Foliated Granodiorite: This is the most abundant rock type on the property. The foliation is usually a mineral layering of the mafic minerals, especially biotite. This unit pre-dates the dominant foliation, so is pre-second fold event, probably having crystallized contemporaneously with the first folds, or even earlier. The most common rock in this assemblage is a biotite granodiorite, medium-coarse grained, with plagioclase crystals up to .7 cm in length, often surrounded by anhedral quartz. Foliated biotite-hornblende

granodiorite is found less frequently.

D - Late Differentiates: This group includes both fine and coarse-grained plagioclse-K-feldspar-muscovite rocks. Pegmatites, aplites and granitic dykes lie in discrete veins and as indiscrete masses, yet all are pre-penetrative deformation. Some exposures of leucocratic monzonite-granodiorite occurs with or without muscovite and pyrite. This rock can be very similar to the more common biotite granodiorite, however, foliation is absent.

E - Vein Systems: The most common veins are quartz veins. They range from 1 mm to 80 feet (25 m). These veins have as accessory minerals any combination of K-feldspar, chlorite, epidote, pyrite, magnetite, chalcopyrite, and molybdenite. Epidote veins are common as fracture fillings, usually less than 1 mm, often with slickensides. The veins post-date all major rock types, and no veins appear to be sheared or folded, therefore, represent a post-"gneiss complex" Cu-Mo-Py hydrothermal system.

Structural Geology

Foliation on the property was very consistently within a few degrees of 338°T with dip usually from 65° to 85°. This trend was found to continue onto Wel 31 and 32. Vein systems most commonly trend near 060° dipping steeply to the south or vertical, cutting the foliation at approximately right angles. A physiographic trend of about 345° is represented by ridges and valleys corresponding with the

foliation. Two creeks, in particular in the southwest corner of the property, appear to have a fault trellis drainage pattern.

Metamorphism

Metamorphism has played a major role in the formation of the various rock units on the Wel property. The metasediments are the result of partial metamorphism of greywackes, muddy sandstones, calcic sandstones and anaerobic muds with interlayers of andesitic tuff. A period of orogenesis and metamorphism followed causing recrystallization, increased grain size, development of foliation, differentiation and development of segregation felsic elements resulting in the gneiss complex. The mineral assemblage of quartz, biotite, hornblende, garnet and epidote indicates a mid-amphibolite metamorphic facies, perhaps 500-600^{o}C at 5 kilobars. Further remobilization of this complex formed the granodiorite. Late-stage differentiates are thought to be too silica and potassic-rich to be straight differentiates, so the influence of a separate magma is suspected.

Alteration

The most widespread type of alteration on the Wel claims is chloritization of the biotite in all rock types. In some rocks the biotite has been altered to chlorite producing a chlorite granodiorite. Epidote is present to a much smaller degree in some areas. Kaolinization of the feldspar occurs in K-feldspar-rich rocks, with K-feldspar

fracture selvages. Carbonate and magnetite are often accessory minerals, sometimes present in veins and fractures. Malachite is usually associated with chalcopyrite, often on joints and fractures. Limonite is very widespread and occurs as a very reddish stain with biotite or as solid goethite replacing pyrite in veins or disseminations.

ECONOMIC GEOLOGY

General Statement

Economic interest in the Wel (1-20) claim group was concentrated in the southwest part of the property, where the copper and molybdenum occurrences are found. Even though outcrop is scarce on Wel 21-30 and 32, molybdenite was found in small amounts with quartz. Major trenches in the north part of Wel 31 have exposed a large but irregular quartz-molybdenite vein (Plan 1).

Mineralization

Pyrite is the most common sulphide, occurring most often as cubes in quartz veins and as disseminations in the more mafic metasediments. It is replaced to varying degrees by limonite and goethite. Chalcopyrite has a similar mode of occurrence, but is much less frequent, being found in two locations only, one of these the Ash Group trenches. Molybdenite was found in quartz in two small outcrops on Wel 21-30, and also in the trenching of the large quartz veins on the Ash claims. These latter veins were irregular masses up to 80 feet (24 m) in width, containing up to

3% molybdenite as fine disseminations. Chalcopyrite at this large quartz vein seems to be restricted to the host rock adjacent to the vein walls.

Summary of Geology and Mineralization

The most abundant rock on the property is a foliated biotite granodiorite with end members ranging from a biotite metasediment to unfoliated coarse-grained granodiorite. Late stage differentiates include pegmatites, aplites, micro-granites and monzonites. Numerous vein systems align with and cross-cut all rock types and are thought to include a post "gneiss complex" Cu-Mo-Py hydrothermal system. The associated economic minerals are found in all areas of the Wel 21-32 claims, with molybdenite, chalcopyrite, and pyrite occurring largely as scattered grains in quartz veins.

SOIL GEOCHEMISTRY

Introduction

The Wel property lies in an area of considerable glacial action. Glacial deposits are extensive but appear to be of local origin. Soil horizons are generally well developed, with A_o, A_1, A_2 and B horizons usually being distinguishable.

Sampling Procedures

The claims Wel 31 and 32 were sampled at 400-foot (122 m) stations on pace-and-compass lines spaced 800 (244 m) feet apart. B horizons were sampled, due to the results of the soil profiles taken in the 1974 survey (Plan 2). All

soil samples were placed in special heavy duty high wet-strength Kraft envelopes, semi-dried in the field and sent to Chemex Labs Ltd. in Vancouver for analysis for Cu and Mo.

Laboratory Procedures

The samples are dried and sieved to minus eighty mesh. 0.5 grains of this fraction 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.

Standard Samples

To check the reproducibility and quality of the analytical work, a total of 5 control samples were placed into the sequence of soil samples with every 35 samples. These control samples were prepared by sieving to -80 mesh a bulk sample of stream sediment from McBride Creek, near the Ashnola River. Analytical results and statistics for these standards are given in Table 1 below.

Table 1

Standard Sample - Statistics

No.	ppm Cu	% diff.	ppm Mo	% diff. from Mean
2813	116	2.0	1	0
2845	120	1.3	1	0
2919	116	2.0	1	0
17940	124	4.7	1	0
17960	116	2.0	1	0
Means	118.4	2.4	1	0

The above results indicate that the analyses for the levels tested in the control sample fall within the acceptable limits of precision for the geochemical techniques used.

Statistical Treatment of Results

To determine Mean and Anomalous levels, the geochemical values obtained from the laboratory (Appendix I) were grouped into fixed ranges. Histograms were drawn to show the total number of values within each group (Figures 3 and 4). Values higher than those in the main normal population are defined as anomalous. The threshold level was estimated from the frequency distributions, and any value above the threshold but below the anomalous level is defined as probably anomalous.

Contour levels used in Plans 3 and 4 were those of the 1974 survey, so that the two areas are directly comparable.

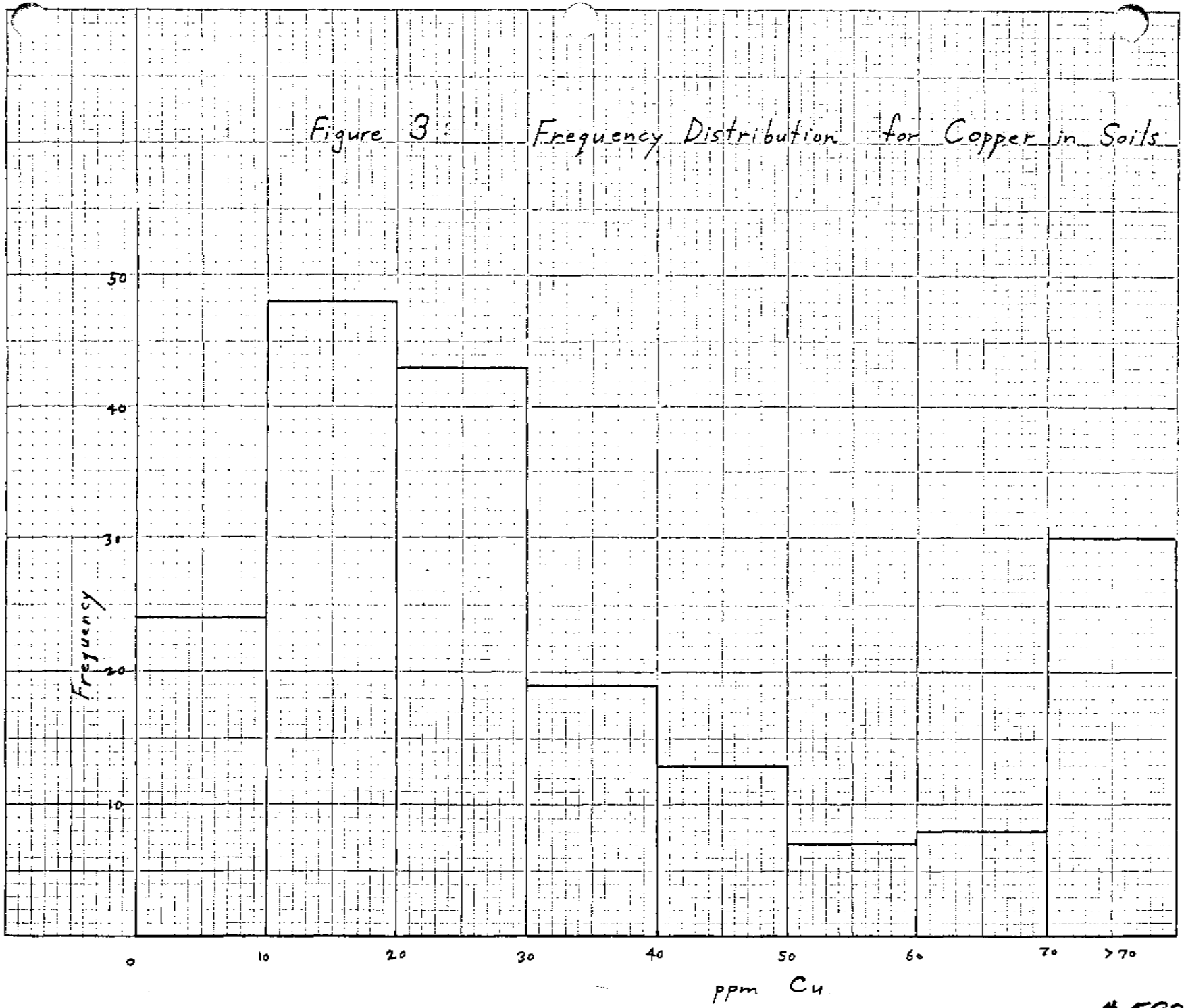
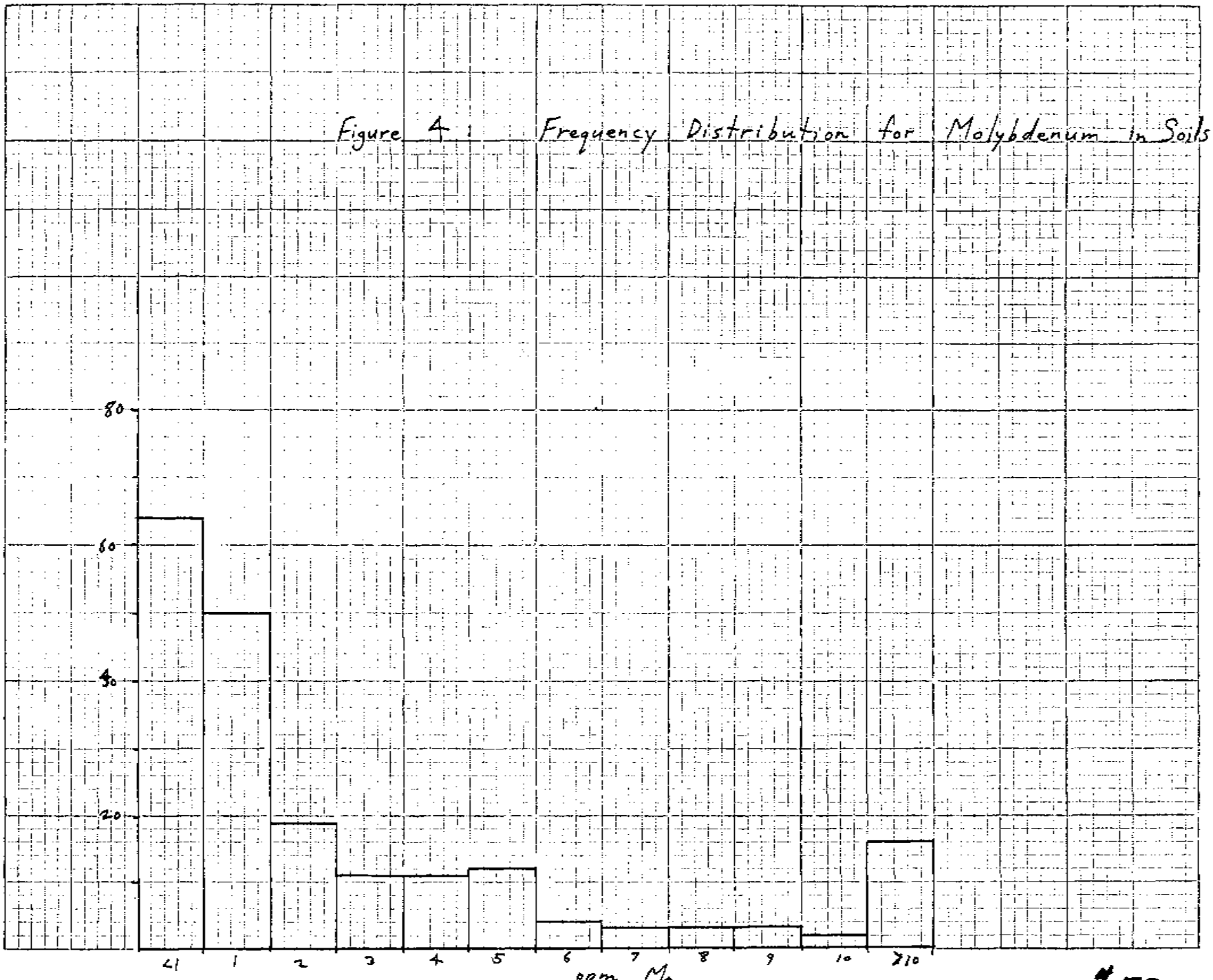


Figure 3: Frequency Distribution for Copper in Soils
GRAPH 1/10"
50
40
30
20
10
Frequency
0
10
20
30
40
50
60
70
>70
ppm Cu

#5992

Figure 4 : Frequency Distribution for Molybdenum in Soils



GRAPH 1/10"

#5992

SUMMARY AND DISCUSSION OF ANOMALIES

The contouring of soil values on the Wel 31-32 claims outlined several anomalies, which will be outlined here in order of importance, for copper and molybdenum.

Copper Anomalies

Anomaly A

Location: Wel 32, L24E/0-32S

Trend of Anomaly: N-S (extends off claims), widening towards south.

Range of Values, Cu: 72-562 ppm

Dimensions of Anomaly: at least 2800 x 1000 ft.(854 x 305 m), open to east and south.

Coincident Anomalies for Elements, relationships to geology,etc.

Coincident with Mo Anomaly A, wbich also extends off the claim. Little or no outcrop in this area, so geological relationships unknown.

Intensity of Anomaly: High

Cause of the Anomaly: Anomaly seems to be well-defined, with two major trends showing up in the contouring. These trends are N-S ($000^{o}T$) and $250^{o}T$. These may be related to some later stress system which accompanied the post-gneiss complex hydrothermal event, or it may be an indication of the distribution of mineralization in the gneiss complex itself.

Recommendations: This anomaly, though the most interesting copper anomaly of this survey, nevertheless has levels well below those of the best anomalies outlined in 1974, which are known to be caused by sparse vein mineralization. Hence, no further work is recommended.

Anomaly B

Location: Wel 31, L48N/54W

Trend of Anomaly: N-S

Range of Values, Cu: 74-161

Dimensions of Anomaly: 300 x 1000 ft. (91.5 x 305 m)

Coincident Anomalies for Elements, Relationships to Geology,etc.

Coincident with Anomaly B for molybdenum, which is considerably larger. Also is flanked by two chalcopyrite-molybdenite occurrences in large quartz segregations.

Intensity of Anomaly: Low

Cause of Anomaly: Possibly due to a N-S trending zone of low-grade Cu-Mo mineralization in quartz veins. This zone could have rich but erratic large quartz veins at its edges as was found in two areas, but these rich veins are not extensive enough to result in any soil anomaly, as was shown by the survey completed around the Ash group quartz vein.

Recommendations: No further work is recommended.

Molybdenum Anomalies:

Anomaly A

Location: L24,32E/0-32S, Wel 32

Trend of Anomaly: N-S, extending out of claims.

Range of Values, Mo: 8-70 ppm

Dimensions of Anomaly: At least 1000 x 3000 ft. (305 x 915 m), open to East and S.

Coincident Anomalies for Elements, Relationships to Geology,etc.

Coincident with Anomaly A for copper. Relationship with geology unknown due to extensive glacial cover.

Intensity of Anomaly: Moderate-High

Cause of Anomaly: As in Anomaly A for copper, a dominant N-S trend with a secondary 250^{o}T trend is evident from the contours. This seems likely to be fracture-controlled, possibly related to a post-gneiss complex but pre or syn-hydrothermal event stress system. One of these trends, the 250^{o}T trend, has also been found in quartz veins on Wel 1-20.

Recommendations: This anomaly has size and the coincident Cu anomaly in its favour, but the levels found are not appreciably better than some of the 1974 anomalies. With so little exposure, an I.P. survey would be the next step to define a mineralized area of rock, along with more detailed geochemical coverage.

Anomaly B

Location: Centred at Wel 31, L48N/54W

Trend of Anomaly: N-S

Range of Values, Mo: 4-26

Dimensions of Anomaly: 3000 x 800 ft. (915 x 244 m)

Coincident Anomalies for Elements, Relationships to Geology,etc.

Coincident with Anomaly B for copper, which was smaller. As mentioned for that anomaly, this area corresponds well with observed Cu-Mo mineralization in large quartz veins, although the highest area did not have obvious mineralization.

Intensity of Anomaly: Moderate.

Cause of Anomaly: Probably due to a fracture-controlled zone of low-grade Cu-Mo mineralziation associated with quartz veins.

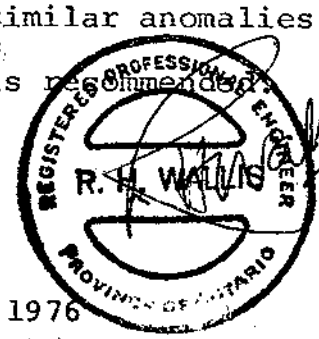
Recommendations: Except for the rich but small quartz veins, this area shows no signs of being significantly better than other anomalies in Wel 1-30. Hence no further work is recommended.

CONCLUSIONS

The most abundant rock on the property is a foliated granodiorite with end members ranging from a biotite meta-sediment to unfoliated coarse-grained granodiorite. Late-stage differentiates include aplites, pgematites, microgranite and monzonites. Numerous vein systems align with and cross-cut all rock types, and are thought to include a post "gneiss complex" Cu-Mo-Py hydrothermal system. The associated economic minerals were found largely in the southwest corner of Wel 1-20. These were found to continue south at least through Wel 21-30, and very likely through Wel 32. Even though the main 1974 anomalies coincided with the mineralized southwest corner, the major coincident anomalies outlined as part of this survey were found in the extreme north of Wel 31 and the extreme east of Wel 32, the latter anomaly being about 3000 x 1000 ft. (915 x 305 m) and open to the south and east. This Anomaly A stands out as the major new anomaly detected, but overall levels are no higher than those of the 1974 survey's anomalies.

RECOMMENDATIONS

Since no indication is given that the anomalies detected in this survey are the result of mineralization better than that resulting in similar anomalies elsewhere on the property, no further work is recommended.



Respectfully submitted

Colin C. Macdonald, B.Sc.(Eng.)

TORONTO
September 21, 1976

APPENDIX I

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

CHEMEX LABS LTD.

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 38210

INVOICE NO. 17878

RECEIVED Aug. 20/76

ANALYSED Aug. 23/76

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

"WEL"

ATTN: P.E. Nicholls cc: C. MacDonald

SAMPLE NO. :	PPM Copper	PPM Molybdenum
2800	20	1
2801	68	1
2802	8	<1
2803	30	<1
2804	114	6
2805	131	5
2806	161	5
2807	94	6
2808	58	3
2809	22	1
2810	52	4
2811	36	3
2812	7	1
2813	116	1
2814	74	5
2815	14	1
2816	48	5
2817	16	<1
2818	3	<1
2819	48	2
2820	20	1
2821	14	<1
2822	10	<1
2823	54	5
2824	42	8
2825	1	4
2826	56	4
2827	94	5
2828	38	2
2829	20	<1
2930	34	1
2831	30	2
2832	24	<1
2833	50	<1
2834	30	<1
2835	40	2
2836	64	3
2837	46	2
2838	68	5
2839	20	2
STD.	104	8

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

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AREA CODE: 604

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 38211

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

INVOICE NO. 17878

RECEIVED vAugust 20/76

ATTN: P. E. Nicholls cc: C. MacDonald

ANALYSED August 23/76

SAMPLE NO. :	PPM Copper	PPM Molybdenum
2840	21	2
2841	34	3
2842	110	12
2843	24	26
2844	18	3
2845	120	1
2846	20	1
2847	12	<1
2848	18	1
2849	22	<1
2850	14	<1
2851	16	1
2852	13	1
2853	20	1
2854	22	<1
2855	28	<1
2856	21	1
2857	76	3
2858	16	1
2859	20	5
2860	30	7
2861	16	<1
2862	16	1
2863	34	4
2864	6	<1
2865	24	1
2866	4	5
2867	3	<1
2868	10	1
2869	21	2
2870	24	9
2871	12	4
2872	1	<1
2873	20	2
2874	66	4
2875	30	2
2876	21	1
2877	13	<1
2878	8	1
2879	18	1
STD.	104	8

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Ridle

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 38212

INVOICE NO. 17878

RECEIVED Aug. 20/76

ANALYSED Aug. 23/76

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

ATTN: P. E. Nicholls cc: C. MacDonald

SAMPLE NO. :	PPM Copper	PPM Molybdenum
2880	12	1
2881	22	1
2900	235	14
2901	241	17
2902	255	14
2903	108	9
2904	110	19
2905	18	1
2906	41	9
2907	72	13
2908	44	14
2909	6	1
2910	14	<1
2911	66	12
2912	38	2
2913	33	<1
2914	14	<1
2915	22	1
2916	21	<1
2917	50	<1
2918	84	2
2919	116	1
2920	51	1
2921	48	1
2922	33	2
2923	44	5
2924	6	4
2925	14	1
2926	16	<1
2927	18	<1
2928	26	2
2929	8	1
2930	16	1
2931	7	<1
2932	10	<1
2933	8	<1
2934	8	<1
2935	7	<1
2936	26	1
2937	8	<1
STD.	104	9

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

CHEMEX LABS LTD.

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ANALYSED Aug. 23/76

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

"WEL"

ATTN: P.E. Nicholls cc: C. MacDonald

SAMPLE NO. :	PPM Copper	PPM Molybdenum
2938	74	26
2939	14	23
2940	13	1
2941	21	6
2942	14	10
2943	13	2
2944	22	1
2945	161	13
2946	21	6
2947	22	<1
2948	18	<1
2949	34	<1
17907	20	<1
17908	20	<1
17909	21	<1
17910	28	<1
17911	86	35
17912	26	<1
17913	38	1
17914	64	7
17915	126	4
17916	38	<1
17917	12	<1
17918	22	3
17919	6	<1
17920	82	2
17921	30	<1
17922	8	<1
17923	24	<1
17924	22	<1
17925	30	<1
17926	22	<1
17927	44	1
17928	36	<1
17929	30	<1
17930	10	<1
17931	16	<1
17932	144	4
17933	38	7
17934	38	<1
STD.	100	8

CERTIFIED BY: Hart Richle

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. 38214

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

INVOICE NO. 17878

"WEL"

RECEIVED Aug. 20/76

ATTN: P.E. Nicholls cc: C. MacDonald

ANALYSED Aug. 23/76

SAMPLE NO. :	PPM Copper	PPM Molybdenum
17935	20	<1
17936	48	3
17937	6	1
17938	12	<1
17939	16	1
17940	124	1
17941	28	<1
17942	31	1
17943	48	21
17944	94	8
17945	22	<1
17946	18	<1
17947	144	2
17948	20	3
17949	31	1
17950	34	3
17951	51	1
17952	14	4
17953	22	2
17954	62	1
17955	30	3
17956	20	<1
17957	12	1
17958	21	<1
17959	62	2
17960	116	1
17961	40	1
17962	28	<1
17963	30	1
17964	38	<1
17893	148	5
17894	278	5
17895	175	10
17896	562	70
17897	84	4
17898	82	8
17899	190	20
STD.	102	9

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

CANADIAN OCCIDENTAL PETROLEUM LTD.

STATEMENT OF EXPENDITURES

WEL CLAIMS

1)	Salaries - Aug. 12 to Aug. 20 R.M. Nodder, A.A. Seaman, S. McIntyre M.P. Henrick, C.C. Macdonald 38 man days, 47.97/man day	$ 1,823.00
2)	Geochem. - 270 samples - 540 elements	659.00
3)	Camp costs	451.00
4)	Vehicle usage - 4-wheel drive auto	413.00
5)	Reporting costs	102.00
	Total	$ 3,448.00

WEL 31

WEL 28

WEL 26

WEL 24

WEL 22

WEL 30

WEL 29

WEL 27

WEL 25

WEL 23

WEL 21

WEL 32

Wells

Lake

LCP

claim line actual position

qtz, py, cp, mo

GEOLOGICAL LEGEND

ROCKS

- 1 Foliated granodiorite
- 1a Foliated biotite granodiorite
- 1b Foliated biotite-hornblende granodiorite
- 1c Foliated biotite-muscovite granodiorite
- 2 Leucocratic biotite quartz monzonite
- 3 Leucocratic muscovite granite
- 4 Plagioclase-K-spar-quartz-muscovite ± garnet pegmatite
- 5 Biotite metasediment
- 6a Biotite gneiss
- 6b Biotite-hornblende gneiss
- 6c Biotite-epidote gneiss

MINERALS

- cp Chalcopyrite
- py Pyrite
- qtz Quartz vein
- ep Epidote covered fractures
- mo Molybdenite
- mal Malachite

STRUCTURE

- Foliation
- Fracture
- Vein
- Outcrop

5992 M-1

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

WEL CLAIMS

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA——92—H—7W

Geology

FEET 400 0 400 800 FEET

AUGUST, 1976

PLAN 1

WEL 31

WEL 28 | WEL 26 | WEL 24 | WEL 22 | WEL 30

WEL 29 | WEL 27 | WEL 25 | WEL 23 | WEL 21

WEL 32

LCP

Wells

Lake

N

LEGEND

Metals	Threshold	Anomalous
Cu ⊕ Mo (Sample No.)	+63 ◒ 8	+70 ◓ +8

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5992 MAP #2

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

WEL CLAIMS

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA——92—H—7W

Soil Samples, Locations & Values

FEET 400 0 400 800 FEET

AUGUST, 1976

PLAN 2

WEL 31

WEL 28 WEL 26 WEL 24 WEL 22 WEL 30

WEL 29 WEL 27 WEL 25 WEL 23 WEL 21

WEL 32

LCP

Wells Lake

B

A

X X X
mo;cp

X cp,mo

N

Copper Contours

- 400 ppm
- 200 ppm
- 100 ppm
- 50 ppm
- 25 ppm

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5992 MAP #3

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

WEL CLAIMS

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA——92—H—7W

Contoured Copper Values In Soils

FEET 400 0 400 800 FEET

AUGUST, 1976

PLAN 3

WEL 31

WEL 28

WEL 26

WEL 24

WEL 22

WEL 30

WEL 29

WEL 27

WEL 25

WEL 23

WEL 21

WEL 32

B

A

mo,cp

cp,mo

Wells

Lake

LCP

N

Molybdenum Contours

64 ppm

32 ppm

16 ppm

8 ppm

4 ppm

2 ppm

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5992 MAP # 4

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

WEL CLAIMS

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA——92—H—7W

Contoured Molybdenum Values In Soils

FEET 400 0 400 800 FEET

AUGUST, 1976

PLAN 4