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P.O. Box 566
WHITEHORSE, YUKON TERRITORY
"LAND OF THE MIDNIGHT SUN"

GEOCHEMICAL SURVEY

RENO 1-32 CLAIM GROUP

CLAIM SHEETS 105-H-2 AND 105-H-7

FRANCES LAKE AREA

128°38' W.Long.; 61°15' N.Lat.

WATSON LAKE MINING DIVISION

YUKON TERRITORY

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $~~3610.00~~ 1564.38

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act

Commissioner of Yukon Territory

JUNE 3-14, 1970

for

NEBCO OILS LTD. - CALGARY, ALBERTA

by

R.G. HILKER, P.ENG.
CONSULTING GEOLOGIST
WHITEHORSE, YUKON TERRITORY

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INTRODUCTION

The following report describes and interprets geological and geochemical investigations on the Reno 1-32 Claim Group, between June 3 and June 14, 1970, and is submitted to the Watson Lake Mining Recorder's Office for the purpose of assessment work on these claims. The claim group is situated near Mount Billings, in the Frances Lake area. The work was conducted under the supervision of R.G. Hilker, P.Eng., Consulting Geologist.

It is requested that the information contained in this report remain confidential.

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LOCATION AND ACCESS

The Reno 1-32 Claim Group is located in the Frances Lake area, Yukon Territory, and approximately 125 miles north-easterly from Watson Lake. The claims are roughly situated midway between Mount Billings and the Cantung Road, at 128°38' west longitude and 61°15' north latitude, and are located on Claim Sheets 105-H-2 and 105-H-7.

Access to the property is by helicopter from Watson Lake, where the base of Frontier Helicopters is located. Road access is also available, by the Campbell Highway north from Watson Lake to Mile 67 and then north-east on the Cantung Road (Nahanni Range Road) to Mile 47. From this point, a winter road has been constructed west off the highway for a distance of 11½ miles to the Monarch Metal Mines property. During the past year, this road has been extended as a rough tractor-trail which passes along the valley floor west through the Reno 1-32 Claim Group. The total distance from the highway to the claim group is approximately 15 miles.

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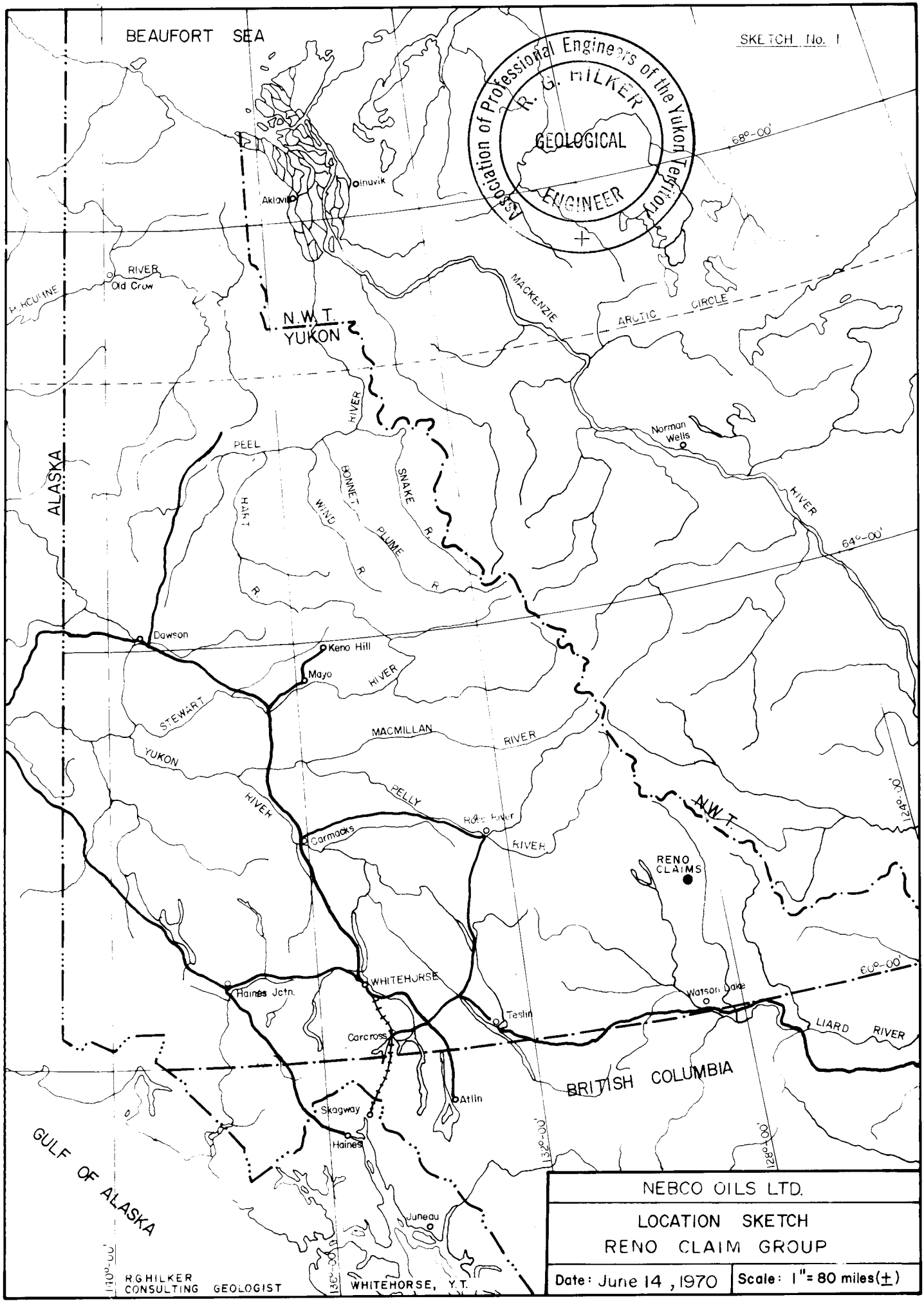

NEBCO OILS LTD.

LOCATION SKETCH
RENO CLAIM GROUP

Date: June 14, 1970 | Scale: 1" = 80 miles(±)

CLAIMS

The following lists the 32 Yukon Quartz Minerals Claims with their grant numbers, owner and anniversary date:

Name	Grant No.	Owner	Anniversary Date
Reno 1-32	Y27585-Y27616	Nebco Oils Ltd.	June 14/70

Although the claims have not been searched at the Watson Lake Mining Recorder's Office, the above information is accurate to the best of the writer's knowledge. The claim group is located on Claim Sheets 105-H-2 and 105-H-7, in the Watson Lake Mining District, Yukon Territory.

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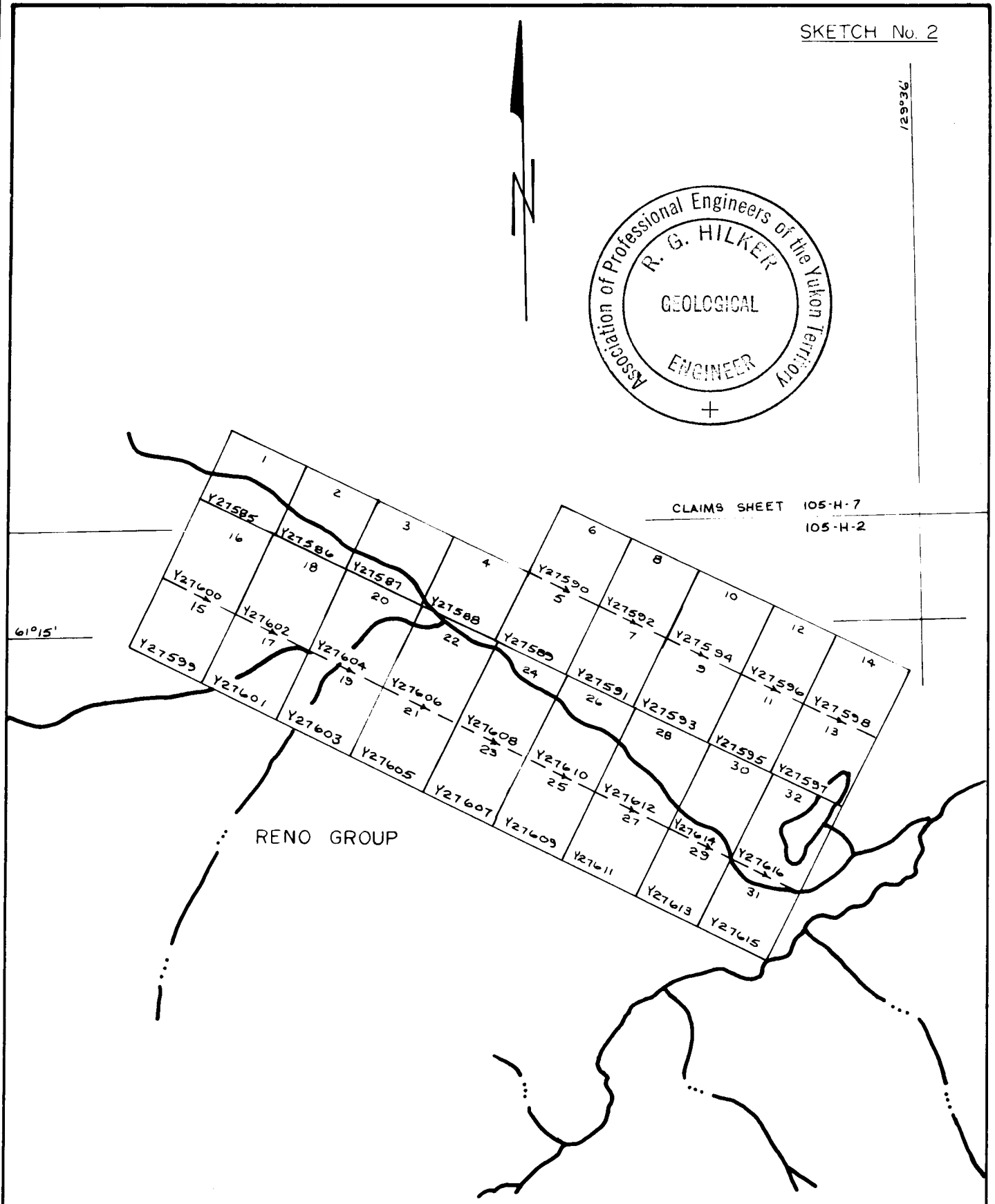
SKETCH No. 2



R.G. HILKER
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

NEBCO OILS LTD.	
LOCATION SKETCH RENO CLAIMS SHEET 105-H-2	
DATE: June 14, 1970	SCALE: 1" = 1/2 mi.

PREVIOUS WORK

The Reno 1-32 Claim Group was staked and recorded in the late spring of 1968, under the control of Mr. J.C. Turner of Watson Lake. Subsequently, the claims were transferred to Nebco Oils Ltd., and between June 6 and June 14, 1969, work was carried out on the claim group by R.G. Hilker Limited for the purpose of assessment work. The work included locating and tagging claim posts, recutting, chaining and flagging existing claim lines and three new cross lines, and a reconnaissance geochemical soil sampling survey using these lines.

The results of the geochemical survey indicated three anomalous zones, one of which, Zone "A", was recommended for further, more detailed, investigation.

The work and its interpretation has been described in a report submitted on June 14, 1969, by R.G. Hilker, P.Eng., Consulting Geologist.

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SCOPE OF PRESENT WORK

In order to more fully evaluate the Zone "A" anomaly in the northwest corner of the claim group, a 10-mile line-grid was laid out for more detailed geochemical investigation.

G.G. Carlson, Geologist, and L. Boucher, Linecutter, both employees of R.G. Hilker Limited, departed from Whitehorse for Watson Lake by truck on June 3rd, 1970. On the morning of June 4, the truck was stored in the B.C.-Yukon Airways Hangar at Watson Lake Airport and a Bell Jet Ranger helicopter from Frontier Helicopters Ltd. transported both men and equipment to the campsite, which was located on the north edge of the main valley within the Reno 4 claim.

The linecutting grid consists of a base line 6400 feet long and bearing 115° and 17 crosslines each bearing 205° and running south from the base line for 2800 feet. Crossline separation is 400 feet, and stations are located by pickets and flagging or simply flagging every 100 feet on all lines. Cutting was begun on the morning of June 5, commencing with the base line and originating at Post No. 1, Reno #1. This line roughly follows the location line of the Reno 1, 2, 3 and 4 claims, and was carefully cut, using pickets for back sights, and with a minimum width of 2 feet, for accurate survey control. The crosslines were cut using compass bearings and generally without pickets due to the low-growing vegetation on the valley floor.

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Geochemical soil sampling and chaining were carried out directly behind the cutting. Samples were taken at every station on the baseline and crosslines, using a prospector's mattock to penetrate the soil. Where adequate sample material was not available, silt samples were taken if a creek flowed near by. Due to large areas of swamp and frozen ground, some samples were taken up to 50 feet from the original station location, or they were not taken at all. The completion of linecutting, chaining and sampling required eight full days. On the ninth day, 3 test pits were dug utilizing cuts along the tractor-trail for the purpose of determining the soil characteristics and various trace metal concentrations in the upper soil horizons.

On the final day, a traverse was run through the outcrop zone in the grid area, and preliminary geological mapping was carried out to determine the types of rocks and structures occurring within the claim group.

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EMPLOYEES

The following is a list of employees of R.G. Hilker Limited and the dates of work on the Reno project for Nebco Oils Ltd.:

Name	Occupation	Dates of Employment (inclusive)
R.G. Hilker, P.Eng.	Consulting Geologist	May 23-June 14/70
G.G. Carlson	Geologist	June 2-June 14/70
L. Boucher	Linecutter	June 3-June 14/70
Miss M. Metcalfe	Draftsman	June 8-June 14/70

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GENERAL GEOLOGY

The geology of the Frances Lake map sheet has been briefly described on the G.S.C. Preliminary Map 6-1966 which is plotted at a scale of 1" = 4 miles and from which the following information is taken.

The oldest rocks in the area, Unit 2, are Cambrian or older in age, consisting of gneiss, schist, minor marble and skarn and numerous small granitic bodies. Here they lie in a north-south belt, just off the west edge of the property.

Unit 2 is unconformably overlain by Unit 14, which has been mapped as the principal rock type in the area of the claim group and to the north, south and east. The unit is composed of sediments which have undergone a low grade of metamorphism and now consist mainly of biotite hornfels, quartzite, argillite, marble, minor slate, silty limestone and greywacke.

Subsequently, both of these units have been intruded by a granitic body, Unit 15, which is Cretaceous in age. These rocks completely envelope the metasediments in the area of the claim group, and are composed of biotite-quartz monzonite, granodiorite, minor diorite and gneiss.

The basic regional structural trend is northwesterly, although there are many local variations resulting from the granitic intrusions.

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Lead, zinc, copper and silver mineralization occur throughout the map area within both Units 2 and 14. Two showings in particular, one to the southwest and one to the northeast of the Reno claims, occur in the same continuous body of sediments. The mineralization is in the form of fine to medium-grained disseminated sphalerite and galena, with interspersed blebs of pyrrhotite and minor chalcopyrite and bornite. This mineralization occurs in calcareous metasediments which have been altered with the mineralization process and now have a mottled appearance caused mainly by the metallic minerals in a relatively fine-grained matrix.

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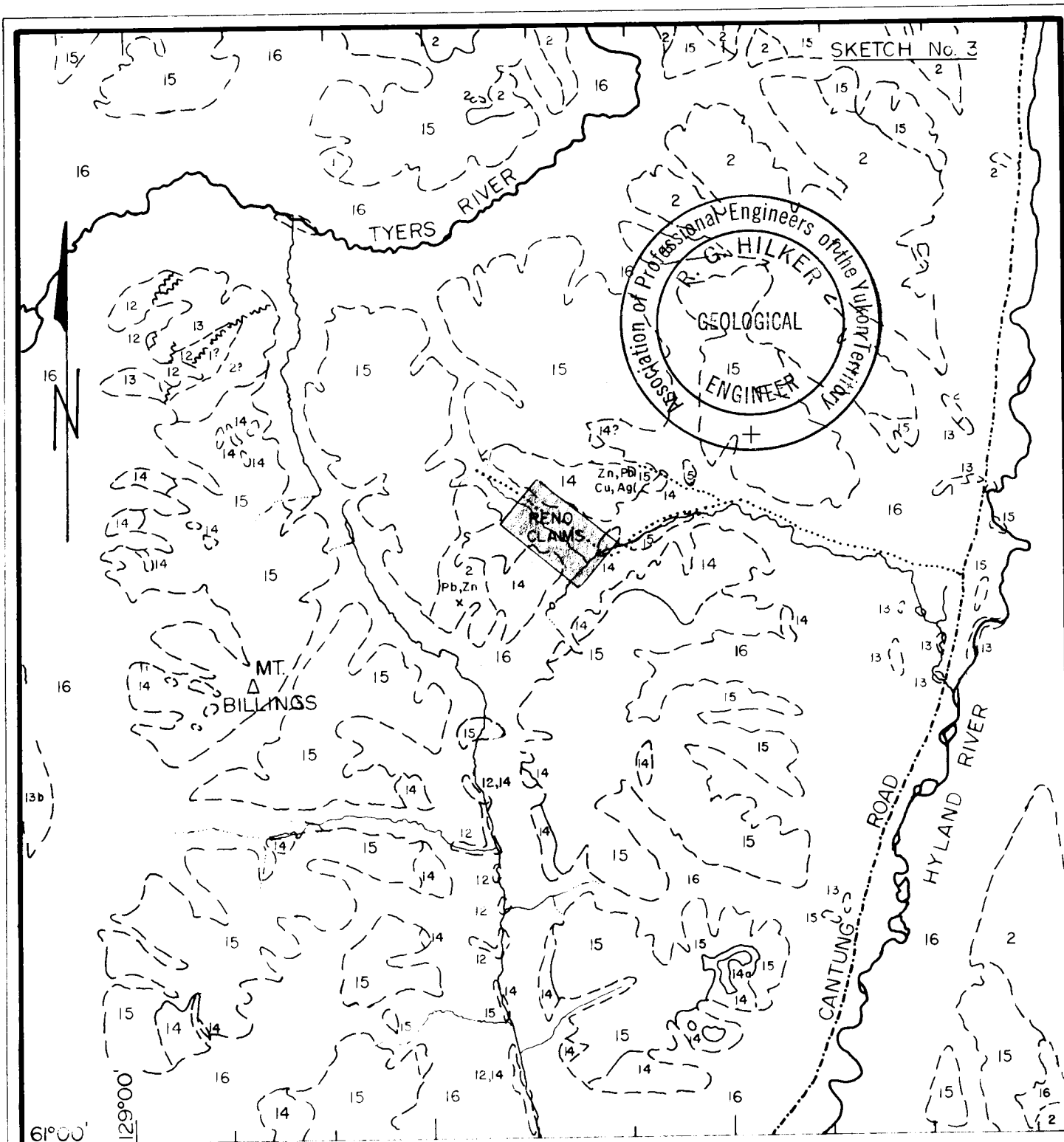
SKETCH No. 3



GEOLOGICAL LEGEND

CENOZOIC

QUATERNARY

16 Unconsolidated glacial and alluvial deposits

MESOZOIC

CRETACEOUS

15 Biotite-quartz monzonite, granodiorite, minor diorite and gneiss

PALAEOZOIC

DEVONIAN AND (?) MISSISSIPPIAN

14 Metamorphic – hornfels, quartzite, marble, limestone and greywacke

13 Shale, chert, quartzite, greywacke, conglomerate

SILURIAN AND DEVONIAN(?)

12 Dolomite and quartzite

PROTEROZOIC

CAMBRIAN AND/OR EARLIER

2 Gneiss & schist, quartzite, marble & skarn

After G.S.C. Preliminary Map 6-1966

R.G. HILKER

CONSULTING GEOLOGIST

WHITEHORSE, Y.T.

NEBCO OILS LTD.

REGIONAL GEOLOGY
RENO CLAIMS

DATE: June 14, 1970 | SCALE: 1" = 1/2 mi.

TABLE OF FORMATIONS

CENOZOIC

Quaternary

16 Unconsolidated glacial and alluvial deposits.

MESOZOIC

Cretaceous

15 Biotite-quartz monzonite, granodiorite, minor diorite and gneiss.

PALAEOZOIC

Devonian and (?) Mississippian

14 Metamorphic-hornfels, quartzite, marble, limestone and greywacke.

13 Shale, chert, quartzite, greywacke, conglomerate.

Silurian and Devonian (?)

12 Dolomite and quartzite.

PROTEROZOIC

Cambrian and/or Earlier

2 Gneiss and schist, quartzite marble and skarn.

(After Roots, et al., G.S.C. Preliminary Map 6-1966)

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LOCAL GEOLOGY

The Reno 1-32 Claim Group lies for the most part on a broad valley floor and gently-sloping lower valley sides where bedrock is masked by unconsolidated glacial and alluvial deposits. However, one fairly extensive outcrop zone occurs on the Reno 1, 2, 16, 18 and 20 claims at the northwest end of the claim group. The rocks here are mainly shale to slate, with minor calcareous zones. Boulders of granitic rocks, gneiss, and impure marble, are abundant in this area, although none of these rock types was observed in place.

The shale and slate members exhibit minor to extreme rust on cleavage faces, although small traces of pyrite and pyrrhotite were observed in only one specimen. Quartz veins are evident throughout the area and are quite variable in width and continuity. They are generally barren, except for minor visible pyrite and altered inclusions of country rock.

Structurally, the rocks are quite complex. Some of the slates show up to five planes of weakness, two of these being prominent cleavages, one possibly the original bedding plane, plus less prominent fracture planes. Some slippage has occurred along the fracture zones accompanied by minor folding. All of these features, however, appear to be of minor importance with respect to the local stratigraphy.

The geology of this area, as it was mapped on the preliminary traverse, has been shown on the Geology, Drainage

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and Grid System Map (Plan 1 - pocket). The rock types encountered are most likely correlated with Unit 14 from the G.S.C. Map, with the contact between units 2 and 14 a short distance to the southwest.

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GEOCHEMICAL REPORT

INTRODUCTION

Soil sampling surveys, using lead as the pathfinder element, have proven to be the most effective primary exploration tool for lead-zinc deposits in the Yukon. The results of the 1969 reconnaissance survey over the Reno 1-32 claim group have indicated that anomalous lead concentrations do occur in the soils of this area. One anomalous area in particular, Zone "A" in the northwest corner of the claim group, indicated good potential and was thus the target for this investigation.

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SAMPLING TECHNIQUE

Sample stations were located every 100 feet along the base line and crosslines for the entire 10.2 miles of the grid. Where possible, a sample was collected at each station. The sampling was done with a prospector's mattock and the sample material was collected in a pre-numbered Kraft paper sample bag. The sample hole was dug as deeply as possible, although this was often hindered by a large number of boulders in the surface soils and frozen soil conditions, especially on north-facing slopes. No sample was taken at several stations because of either snow and extremely frozen soil, or swamps with little but organic materials, or simply boulders, near surface. In the latter case, if a stream or creek was available, a silt sample was collected.

At each station, notes were taken on the slope and direction of slope of the sample station area, local vegetation and the colour, composition and water content of the sample material plus any further information of possible pertinence to the sample site.

In addition to the above sampling, three geochemical test pits were dug utilizing blade cuts by the tractor in the construction of the tractor trail. Each different soil horizon was sampled in each pit from surface to a depth of 30 to 40 inches. Careful notes were taken for each of these samples.

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SOILS, VEGETATION AND DRAINAGE

The effective interpretation of the results of any geochemical soil sampling survey depends entirely on a careful study of all factors which may affect in any manner the secondary dispersion of trace metals within the soils. In this study, the physical aspects of the survey area are available for observation, while some of the more subtle aspects, such as soil chemistry, have not been measured and are only open to speculation, with the exception of a few pH measurements carried out in the office.

The Reno 1-32 Claim Group is centred on a broad, flat valley floor, with each side of the group overlapping onto the relatively gentle rise towards steep mountain slopes. The survey area is located in the northwest corner of the claim group, and although it is still centred in the main valley, the valley floor here begins to narrow and rise somewhat more rapidly.

The main river, plus its two main tributaries (see Plan 1 - pocket) are typical fast-flowing, braided mountain streams. However, the remaining drainage is extremely irregular. On the lower slopes of the valley walls, an abundance of very small creeks flow through shallow valleys, often passing through small ponds and flat swampy areas or disappearing completely into boulders below the upper soils. These eventually flow into small collector streams which

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flow irregularly down the valley parallel to the main creek, again passing through several areas of swamp. Groundwater flow down the valley sides is expected to be quite free through the loose sand and gravel overburden.

The vegetation in the area is fairly uniform, with basically two different environments. The valley sides are fairly heavily timbered with young spruce averaging 30 to 50 feet in height. Undergrowth, consisting mainly of buckbrush, may be quite thick, especially in sparsely timbered areas. Moss and lichen with small clumps of grass, covers the ground except in swampy or highly saturated areas where the grass is prevalent. On steeper slopes, mainly on the south valley wall at the west end, the timber is much thicker and more stunted.

The valley floor is quite thickly overgrown with buckbrush. The lack of conifers here is probably because of the saturated soils. Moss and grass equally cover the ground, with moss predominant in the dry higher areas and grass in the highly saturated depressions. Other forms of vegetation include alders and willows in wet areas, although both of these are quite minor.

All soils in the area, regardless of their location, appear to be derived from the same origin, with only minor variations caused by differing environments since deposition. Basically, the soils are composed of medium to coarse sand,

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gravel and small boulders which have been roughly sorted. Since the area has undergone glaciation, a glacio-fluvial origin is suggested by the incomplete sorting and the fact that gravel and boulders are sub-rounded to rounded. Larger boulders which occur in the uppersoil horizons are probably glacial erratics. On the valley sides, much of the finer sand and silt fractions have been removed by water, especially in the small valleys cutting the hillside. This often leaves a near surface horizon of boulders with no matrix, and only a thin humus layer on top. Solifluction has also been active here, slowly pushing the soils down the valley sides. On the valley floor, the main creek has produced some erosion, but deposition of alluvial sand and silt on flood plains and in old river channels is more dominant.

The actual soil profile for the area is described below under "Test Pits".

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INTERPRETATION OF SURVEY

A. Test Pits

Three test pits -- R.T.P. 1, R.T.P. 2 and R.T.P. 3 -- were sampled within the grid area. The locations were restricted to the north valley wall where the tractor-trail intersected it, but reasonably typical soil conditions were encountered.

R.T.P. 1 (3+95E; 1+00S) was chosen to coincide as closely as possible with the anomalous Zone "A" from previous work. The actual profile shows, for this area, an exceptionally thick A horizon (leached clay and sand with high organic and silica contents) which grades gradually into a poorly defined B horizon (zone of accumulation by precipitation of materials suspended or dissolved in percolating groundwaters) which in turn grades irregularly into the C horizon (unaltered parent material derived from weathering).

R.T.P. 2 (9+00E; 2+50S) was chosen because the soils here exhibit a high iron oxide content, a condition common to many of the sample sites. The profile here, except for the difference mentioned above, and a thinner A horizon, is similar to that of R.T.P. 1.

R.T.P. 3 (30+00E: 9+00S) was chosen as the profile most typical of the entire area. The soil surface is covered by a 5" layer of moss, lichen, small clumps of grass and partially decomposed organic material. Other vegetation consists of relatively thick buckbrush with sparse conifers.

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The A soil horizon is a 5" layer of grey to grey-brown sand and clay with a fairly low humus content, which grades into the lower B and C horizons. The latter two are indistinguishable, and consist of irregularly alternating layers of sand and sandy gravelwith generally minor fine silt and clay fractions. The colour is mainly yellow-brown to brown, with reddish tinged layers, especially near the surface.

The irregular nature of the profile is caused by two main factors. Firstly, the original deposition was from a glacial environment, with almost simultaneous reworking by the glacial meltwater, which tends to flow very inconsistently, especially near the retreating glacial lobe. Finally, solifluction, combined with frost heaving and mud flows, have buried possibly several older soil surfaces, especially on lower slopes, while deposition during flooding conditions has had the same effect on the main valley floor. In the latter case, erosion has also taken place.

Analysis for lead, zinc and copper was carried out for all samples collected from the test pits. The general trend indicates a low concentration of all metals in the upper A horizon, a sharp increase in the upper B horizon, and from here, a gradual increase towards bedrock. Lead and zinc are both quite high in all three profiles, while copper shows very little responseexcept in one lower horizon in R.T.P. 3.

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The variations in metal concentration from one horizon to the next correlate quite well for the metals analyzed, and generally the less highly oxidized horizons (yellowish-brown as opposed to red-brown) are more metal-rich. This agrees with the fact that all three metals are mobile in an oxidizing environment while they are precipitated in a less oxidizing environment. One major exception to this occurs in the lower A or upper B horizon of R.T.P. 3. Here the Pb concentration is anomalously high, in light reddish-brown gravelly sand with minor humus content. This anomalous value is unexplained except that it may be either due to some form of contamination or to a statistical anomaly.

Subsequent to the analysis for trace metals, pH determinations have been carried out on the sieved portion of the test pit samples. Results show, as expected, quite acidic surface soil horizons, with increasing pH to a less acid environment with depth. There is a rough correlation between pH and metal concentration. This is explained by the fact that all three metals -- Pb, Zn and Cu -- are chemically mobile in an acid environment, and they are rapidly precipitated as soil pH increases.

The test pit survey demonstrates the extreme importance of sampling procedure. The metal profiles are typical of those where secondary dispersion is carried out mainly by mechanical means. That is, below the organic and humus layers,

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each metal shows an increase in concentration with depth. As explained above, this feature has been altered somewhat by local chemical effects, namely, the oxidation potential (Eh) and relative acidity (pH) of the soil horizon being sampled.

In sampling, it is obvious that one must penetrate the upper grey, black and reddish-brown soil layers in order to obtain a sample of brown to yellow-brown sand or sand and gravel. Aside from this, the same horizon should be sampled at each site as nearly as possible.

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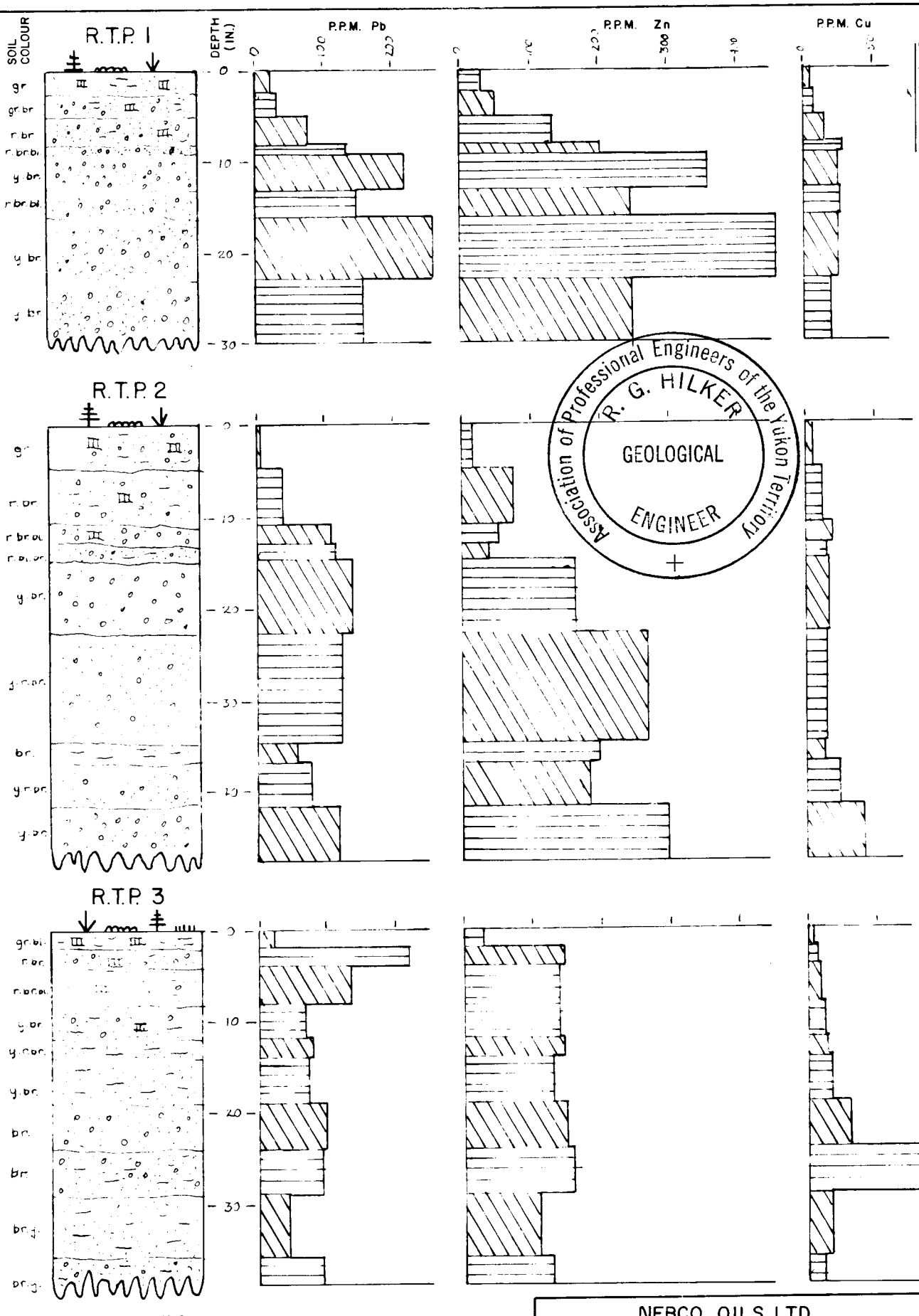
SKETCH NO. 4



LEGEND

Conifers	Clay	gr.	Grey
Undergrowth	Sand	br.	Brown
Moss	Gravel	bl.	Black
Grass	Humus	r.	Red
		y.	Yellow

NEBCO OILS LTD.

TEST PIT PROFILES

DATE: June 14, 1970 SCALES: Hor 1" = 200 ppm
Vert: 2" = 30'

B. GRID SURVEY

All samples collected from grid stations were analyzed for total lead concentration in the Barringer Research Limited laboratory in Whitehorse. The analytical method consists of hot digestion in $HClO_4$ of 0.2 grams of dried and sieved sample and dilution with water. The resulting solution is run on a Techtron Four Atomic Absorption Unit to give relative metal concentration, which is then converted to actual concentration of the metal. A few pH determinations were carried out on the sieved portion of the sample after analysis to give some idea of the relation of soil acidity to the lead anomalies.

In order to facilitate the interpretation of the large number of values, basic statistics were carried out. The formulas and symbols used and the values obtained are listed below:

n = number of values $\qquad s^2$ = variance

$\bar{x}$ = arithmetic mean $\qquad s$ = standard deviation

ξp.p.m. = sum of all values (p.p.m. = parts per million, by weight, of metal in sample)

$$\bar{x} = \xi p.p.m./n$$

$$s^2 = (\xi(p.p.m. - \bar{x})^2)/(n-1) = (n\xi p.p.m.^2 - (\xi p.p.m.)^2)/(n(n-1))$$ (for computation)

$$s = \sqrt{s^2}$$

$n = 436 \qquad \bar{x} = 49.54\ (50) \qquad s = 36.43\ (36)$

In addition to this, a standard histogram has been plotted using 10 class intervals, each of 20 p.p.m. Pb, with

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a range from 0 to 200. The distribution here approximates the typical log normal shape which is expected in a statistically "well-behaved" sample. Thus, it is acceptable to apply the above statistical values to the interpretation of the survey.

According to theory and to past experience, it may be stated with confidence that values greater than $\bar{x}$ + 1s, or 86 p.p.m. Pb, are possibly anomalous, and values greater than $\bar{x}$ + 2s, or 122 p.p.m. Pb, are probably anomalous. The map with the p.p.m. Pb values (see Plan 2 - pocket) has been manually contoured using $\bar{x}$ - 1s, $\bar{x}$, $\bar{x}$ +1s, $\bar{x}$ + 2s and $\bar{x}$ + 3s as the major contour values.

The grid area is dominated by one major anomaly which has several values greater than $\bar{x}$ + 2s and a few greater than $\bar{x}$ + 3s. This anomaly, Zone "D", reflects mainly drainage from north of the claim group. The anomaly is restricted to the valley floor of the creek which flows into the main creek from the north and then to the main valley floor below the intersection of these two creeks. Most of the anomalous sample material is sandy and of probably alluvial origin. The lower portions of this anomaly, north of the main creek and east of L28+00E, are probably caused by deeper groundwater flow from the north valley slope which surfaces at the edge of the valley floor. Anomalous values are not as prominent in silty samples from surface water north of here. Thus, the mineralization reflected by this anomaly may be any distance up slope from the edge of the valley floor, or it may occur within the valley.

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A second, minor anomaly occurs roughly coincident with Zone "A" from previous work. This anomaly lacks importance for two main reasons. In the present survey, the anomaly is supported by only one "probably anomalous" value which was obtained from a relatively deep sample horizon. Secondly, the high metal concentrations encountered in the 1969 survey are from samples taken either from the flat valley floor or from areas of concentrated drainage from the north.

A third and final anomaly, Zone "E", occurs at the base of the north-facing south valley slope on L4+00E at 19+00S. This is an isolated but extremely high value which is unfortunately surrounded by several stations where no sample was available during the survey. It is, however, supported by a second high value from the 1969 survey near L0+00E at 20+00S. This anomaly is very similar to the large Zone "D" anomaly, as it occurs at the base of the slope where groundwater and small creeks converge on a relatively flat area. The pH determinations on grid samples indicated a low pH, and thus a high lead mobility, in the sample material taken from the valley sides. However, the environment on the valley floor becomes basic enough that the lead in solution in run-off from the slope is precipitated. This anomaly is very restricted in size compared to that on the north slope because of the much more regular drainage here on the valley floor, the poorer sampling conditions, and also because it may represent only the tail end of a large anomaly to the west. Thus, it would appear that bedrock mineralization

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occurs upslope and to the west of the anomaly.

Five samples from the vicinity of this anomaly were analyzed for silver by Barringer laboratories to determine if the anomaly could be further defined, and although the lead and silver values show rough correlation, they are not sufficiently high to provide useful information. The sample numbers, lead concentrations and silver concentrations, are listed below:

Sample Number	p.p.m. Pb	p.p.m. Ag
30	70	0.2
33	235	0.3
40	45	0.2
59	41	0.4
61	29	0.2

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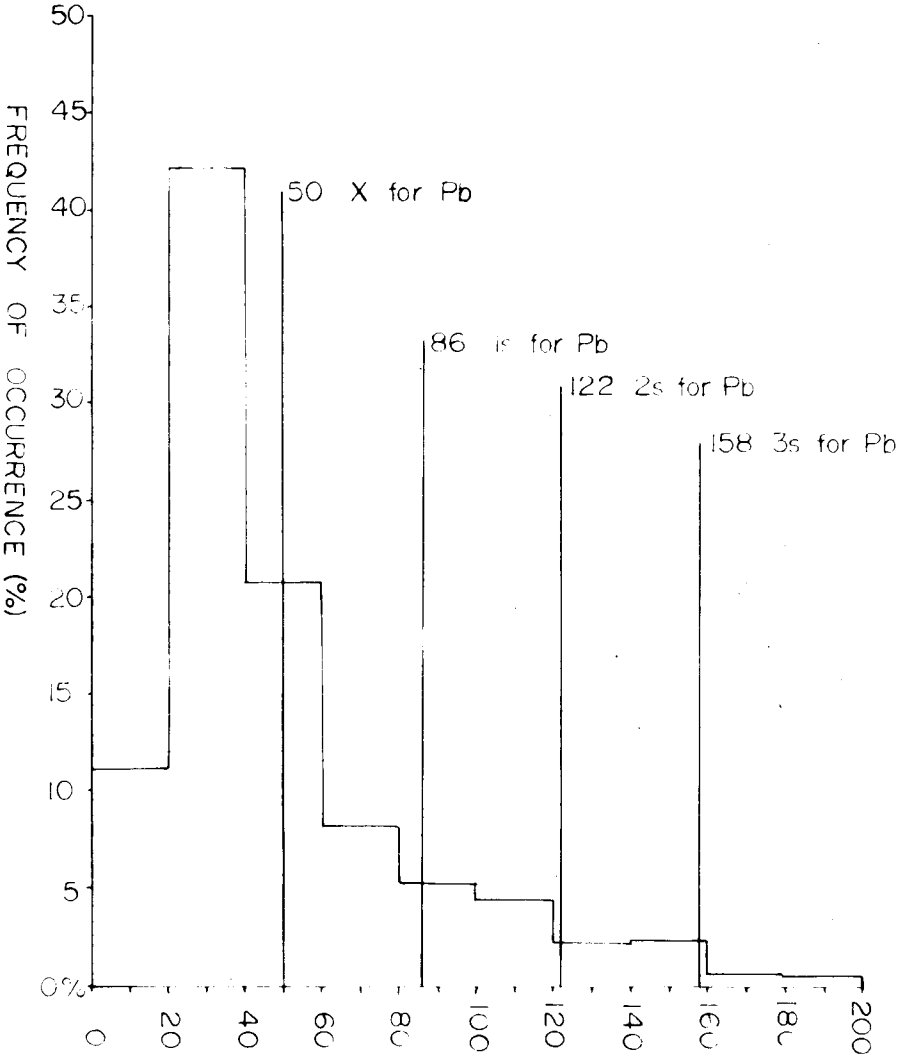
HISTOGRAM OF LEAD P.P.M. FREQUENCY



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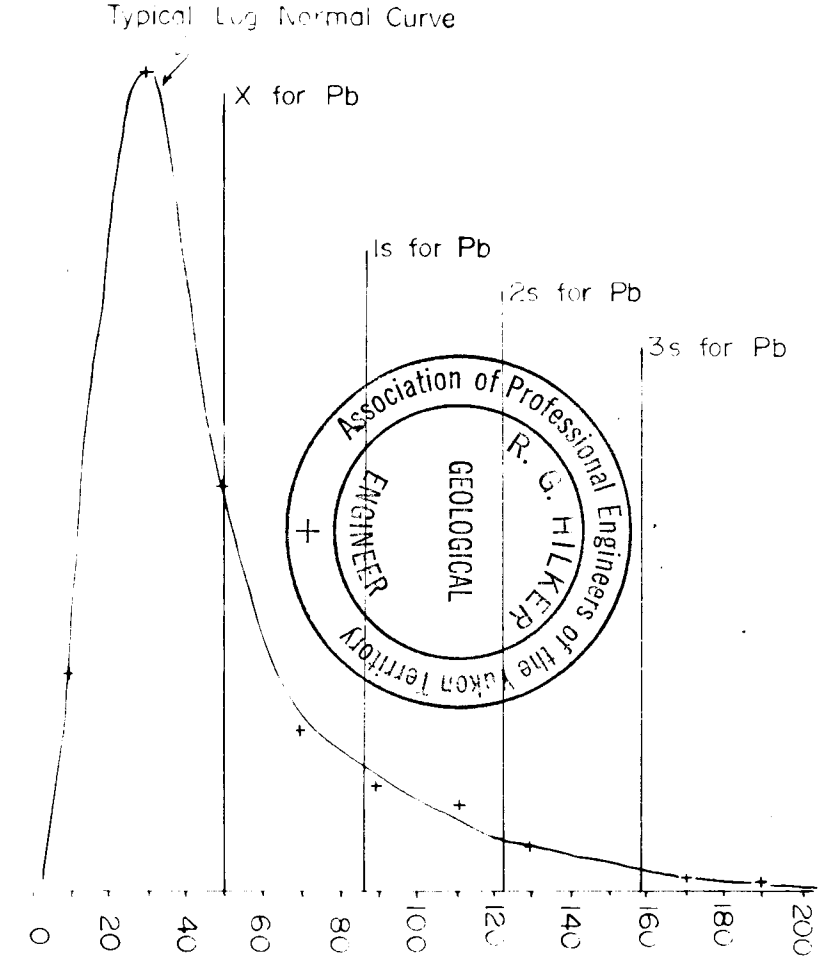

R.G. HILKER
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

Association of Professional Engineers of the Yukon Territory
R. G. HILKER
GEOLOGICAL
ENGINEER

NEBCO OILS LTD.	
HISTOGRAM OF LEAD PPM. FREQUENCY	
DATE: June 14, 1970	SCALE: As shown

CONCLUSIONS

Three geochemical lead anomalies have been defined within the 1970 grid area, which is located on the Reno 1, 2, 3, 4, 16, 18, 20 and 22 claims. Although a substantial portion of the anomalous lead values of Zone "D" appear to be the result of the dispersion of lead from a source above and to the north of the claim group, the possibility of a lead-zinc occurrence within the northern edge of the Reno 1-32 Claim Group is still quite high.

The Zone "E" anomaly reflects possible lead-zinc mineralization which quite probably lies outside of the existing claim boundary and on as yet unstaked ground.

From the present study, the behavior of lead in the soils indicates that two distinct stages are necessary in a geochemical exploration program in this area. The first step is reconnaissance in nature and involves sampling both soils and silts along the base of the valley walls. A simple field test using dithizone to determine anomalous cold extractable lead-zinc in the sample material would be extremely useful at this stage. This phase may be considered completed within the present grid area, but it should be applied to both the north and south sides of the valley to fully outline the length of Zones "A" and "E", and also to check the "B" and "C" anomalies, from the 1969 survey, which lie to the east of the grid.

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The second stage is a more detailed investigation, and an essential follow-up to stage one. This consists of soil sampling every 100 feet on 400-foot spaced lines up the slope and at right angles to the direction of the valley. This sampling must be carried out as deeply as possible to obtain a close reflection of bedrock conditions. This would entail a minimum sample depth of two feet, with the same soil horizon being sampled from one station to the next. This stage of sampling should be applied to the areas upslope from Zones "A", "D" and "E" and any other zones delineated by stage one.

Geological mapping, both within the claim group and in adjacent areas, is necessary for the successful interpretation of stratigraphy, structural features, metamorphism and local igneous intrusions which would influence in any way bedded skarn-type lead-zinc-copper deposits which may occur in this area.

.../29

RECOMMENDATIONS

Further exploratory work on the Reno 1-32 Claim Group and surrounding area should be carried out in two phases. The first phase would include reconnaissance and detailed geochemical sampling to define targets and also geological mapping to help interpret the nature of the target. Staking should also be conducted to cover westerly extensions of Zones "A" and "E". All sampling should be carried out in middle to late summer to ensure good soil conditions for sampling.

Should the detailed geochemical sampling program produce well-defined anomalies, Phase Two should be implemented. This would include trenching, to expose the bedrock for sampling and detailed geological mapping. Depending on the extent of any lead-zinc mineralization uncovered, a diamond drilling program may be recommended.

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The following expenditures are recommended for the Reno 1-32 Claim Group and the presently unstaked ground west of the Reno claims:

Phase 1:

Geochemical Sampling	
(a) Reconnaissance	$ 600.00
(b) Grid Sampling - 12 linemiles @ $100/linemile	1,200.00
Geochemical Determinations for lead - 875 samples @ $1.50/samples	1,300.00
Claim Staking - 16 claims @ $60/claim	960.00
Geological Mapping	1,500.00
Camp Costs and Supplies	1,000.00
Transportation	1,200.00
Report and Consulting Fees	1,000.00
Sub-Total	8,760.00
Contingencies	850.00
Total	$9,610.00

G.G. Carlson, Geologist
R.G. Hilker Limited
June 14, 1970

R.G. Hilker, P.Eng.
June 14, 1970

.../31

CERTIFICATION

I, ROBERT G. HILKER, of #6 Chalet Crescent, Hillcrest, in the City of Whitehorse, in the Yukon Territory, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist, with an office located at #8 Northern Metallic Building, and postal address P.O. Box 566, in the City of Whitehorse, in the Yukon Territory.

2. THAT I am a graduate of the Michigan Technological University located in Houghton, Michigan, U.S.A., where I obtained a Bachelor of Science degree in Geological Engineering (Exploration Option) in 1962.

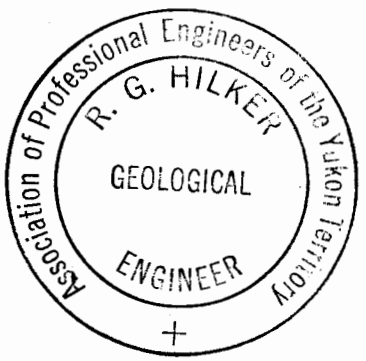
3. THAT I am a registered member in good standing of The Association of Professional Engineers of the Yukon Territory, and am registered with a non-resident's license in The Association of Professional Engineers of the Province of British Columbia.

4. THAT I have practised my profession as an engineer and geologist for the past eight years.

5. THAT I have personally supervised the work program on the Reno 1-32 Claim Group located in the Watson Lake Mining District of the Yukon Territory, during the period June 3rd to June 14th, 1970. Mr. Gerry Carlson, a geologist in my employ, conducted the Reno 1-32 work program and report preparation, and his efforts are hereby acknowledged.

6. THAT I have no direct or indirect interests in any of the mineral claims, or in any of the securities held by Nebco Oil Ltd., nor do I expect to receive any.

DATED this 22nd day of June, A.D. 1970.



R.G. Hilker, P.Eng.

.../32

EXPENDITURES

RENO 1-32 CLAIM GROUP

The following expenditures were incurred on behalf of Nebco Oils Ltd., Calgary, for the Reno 1-32 Claim Group, Watson Lake Mining District, Yukon Territory.

Gasoline - Mic Mac Motors	$12.15	
Gulf Oil	24.10	$ 36.25
Travel Expenses - Gerry Carlson		44.50
Groceries		76.58
Equipment		27.00
Frontier Helicopters - 1:55 hrs	440.80	
1:30 hrs	345.00	785.80
R.G. Hilker Limited:		
Truck Rental - Mobilization and Demobilization for two men	390.00	
10.2 linemiles Geology and Geochemical	1,000.00	
10.2 linemiles of Linecutting	850.00	
Camp Rental	115.00	
Assessment Work Report and Consulting Fees (R.G. Hilker)	700.00	3,055.00
Barringer Research - Geochemical Determinations		539.25
Total Expenditures		$4,564.38

I, R.G. Hilker, P.Eng., of the City of Whitehorse, Yukon Territory, do hereby certify that the above expenditures were incurred on the Reno 1-32 Claim Group for assessment work purposes.

June 14, 1970

R.G. Hilker, P.Eng.

A P P E N D I X

D I A R Y

RENO 1-32 CLAIM GROUP

ASSESSMENT WORK - 1970

G.G. Carlson - Geologist L. Boucher - Linecutter

Tuesday, June 2

- Office preparation, maps, etc.

- Order and pick up camp supplies.

Wednesday, June 3

- Gather remaining supplies and pack crew-cab.

- Pick up Lucien and depart for Watson Lake at noon.

- Arr. Watson Lake 7:00 p.m., contact Frontier Helicopters and leave gear in B.C.-Yukon Airways Hangar.

- Spend night at Belvedere Motel.

Expenses (do not include camp gear):

Groceries	$76.58 ch.
Meat	9.20 ca.
Gasoline	24.10 ch.
Gasoline	7.25 ch.
Hipwaders	27.00 ch.
Lunch	1.60 ca.
Supper	6.55 ca.
Hotel	14.00 ca.

Thursday, June 4

- Leave Watson Lake approx. 8:30 a.m., Pilot: Sid Baird.

- Travel time to site, 55 min., followed route to west due to low ceiling and freezing conditions.

- Heavy overcast, rain and snow at campsite, east of main creek and just above a winter tractor-trail.

- Camp set by 2:00 p.m., too wet for linecutting.

(P.M. - Jet Ranger appears to be working into Max Gp., three trips).

- Late p.m.: walk to Line 0E: 0S - just over 1 mi. from camp; claim line is blazed and flagged - approx. 115° - B.L. brg.

- Bush wet, still steady rain and drizzle and low ceiling.

- Followed winter bulldozer trail back to camp; follows north side of valley floor.

- Geochem. conditions: poor - abundance of swamp and frozen ground; north-facing slopes still snow-covered, remaining area saturated above frost line.

Expenses:

Breakfast	$ 3.65
Helicopter (Ranger)	
1:55 hrs. @ $230.00/hr.	$440.80

Friday, June 5

- A.M., rain and overcast; noon, partial clearing.

- P.M., again overcast with rain and snow; clear by evening and then clouding again.

- Began Base Line; brg. 115°, starting at Post No. 1, Reno 1.

- Base Line cut, chained and sampled to 40+00E.

- Due to slow rate of progress in heavy bush, crosslines will not be as well cut as the B.L., with little cutting through buckbrush on valley floor.

- Basically two types of soil encountered:

  (a) brown-black sand, fairly coarse (B) mainly in small valleys along main slope probably alluvial - some boulders

  (b) boulder till - red-yellow-brown fine sand matrix with some humus - approx. 50-75% sub-rounded boulders - may be very old talus - highly oxidized, iron rich - boulders consist of granite, gabbro slate and possibly impure quartzite-greywacke.

... iii

- All soil covered by a 2-3" light-grey ash layer and a few inches of light-brown to grey highly-leached A. - also 3-5" humus and moss/lichen.

- Apart from previously mentioned soil distinction, the claim group is divided into two main geomorphological (and probably geochemical) regions:

(a) Valley floor: wide, flat zone of saturated alluvial (/glacial?) soil, mainly sand and boulders.

Vegetation: few conifers, mainly buckbrush with grass and moss, many small creeks flow irregularly towards main creek.

(b) Valley walls: may be glacial till or talus, generally medium slope towards mountains, poorly drained at present due to frozen ground.

Vegetation: spruce, generally young, 30-50', and buckbrush; few willows and juniper (?) and moss and grass (poor drainage).

Bedrock appears at one location on bank of main creek (black slate, good cleavage, minor rust on cleavage faces) - may not be too deeply buried in remaining area.

Saturday, June 6

- Completed cutting, chaining and sampling the B.L. plus one crossline, L64+00E, to its full length of 2800 ft.

- Further to soil classification in the area:

(a) Soils of valley floor are generally red-to-yellow-brown sand with some gravel and covered by ash and humus layers. They are wet to very wet due to the poor drainage, and abound in fairly large rounded to sub-rounded boulders, i.e., they are very similar to the "boulder till" of the valley sides, suggesting a glacial origin for both. The only difference in vegetation is the lack of conifers on the valley floor, probably due to the saturated soil.

(b) A second soil type has been encountered along the B.L. on the valley side. This is a grey-to-black silty sand, fairly rich in organic content, and occurs in narrow to wide depressions sloping gently to the main valley. It is overlain by ash and thick humus and underlain by boulders. This is probably a young alluvial soil replacing older soils which have been washed away. It is now being actively eroded and redeposited by several small creeks winding over and through it.

Geochemically, it may reflect a long distance up slope.

Sunday, June 7

- Cut, chained and sampled L60E, L56E, L52E and first 1000' L48E.

- First 3 cut to 2800' total length.

- L56E runs approx. 200° (avg.) while L52E is approx. 208° (avg.)

- Weather: clear and sunny, clouding over in mid-afternoon with few light showers, clearing again in evening.

- Soils: All samples so far have been associated with abundant boulders, except in main valley where sand (alluvial) may be dominant.

Monday, June 8

- Completed cutting, chaining and sampling remaining part of L48+00E plus all of L44+00E, L40+00E and L36+00E.

- Weather: Partial overcast all day, total overcast in evening.

Tuesday, June 9

- Completed cutting, chaining and sampling all of Lines 32+00E, 28+00E and 24+00E.

- Weather: Overcast all day, mild and slightly humid. P.M., wind increase from E. and showers in mountains to north and east.

Profile: L28+00E - N to S from B.L.

1) N. side of valley, drop 100-150' in 900' to main valley; several small gullies running down through here 90° to main valley, also some flat swampy areas.

2) Main valley - here cut to a width of 200', one small outcrop upstream on N. edge - river cut.

3) S. plateau - relatively flat, gently rolling terrain 50-100' above valley floor; similar soil to N. slope but here relatively thin and studded with outcrops - also several small erratic creeks, ponds and swamps in depressions - on S. side begins gentle rise to S, slope.

... v

Vegetation: sparse conifers, mainly buckbrush, few willows, grass and moss.

4) S. side of valley similar to N. slope but more regular rise and less undergrowth - N. facing: more snow and frozen ground - very poor sampling.

Wednesday, June 10

- Completed cutting, chaining and sampling all of Lines 20+00E, 16+00E and 12+00E.

- Weather: Terrible - heavy and low overcast, steady drizzle from 8:00 a.m. and continuing through evening; bush very wet, bad cutting.

- Plateau: Dotted with small ponds and swamps; outcrop is never far from surface (0-5').

- Supposedly glaciated but little sign here - few patches of "boulder till" in depressions but these could be alluvial in origin.

- In areas of few inches of overburden - a sample may be taken but is generally poor, consisting of some grey A horizon soil, some humus and non-decayed organics, and bits of broken outcrop - mostly this sample is not taken, especially if the ground is frozen. At any rate, it will not be very representative.

- Expect high pH (low Pb, Zn, Cu mobility) in swampy areas here - may not reflect far upslope - best samples at base and lower parts of S. slope, but often snow and frozen ground here - no sample.

- S. slope: Similar to N. slope, but steeper and somewhat less gravel and boulders, not cut by large frequency of small creeks.

- No swampy areas.

- Bedrock depth indeterminate but probably not too great.

Thursday, June 11

- Completed assigned job - cut, chained and sampled Lines 8+00E, 4+00E and 0+00E.

- Weather: Mainly clear with few light showers and snow flurries.

... vi

- Plateau: Main rock type is shale-slate cut by numerous minute calcite veinlets and lesser number small- to medium-sized (approx. 1' width) quartz veins - light to strong rust on cleavage faces - few sulfides (Py,Po) observed so far.

- On Line 0+00E 7+00S numerous boulders of impure marble, some may be in place - also granitic rocks.

- S. Slope: Vegetation - four westerly lines have encountered very thick, stunted spruce growth, i.e., as the slope steepens and elevations increase (slightly) growing conditions less favorable.

Friday, June 12

- Weather: hot, sunny all day.

- Work: Completed 3 test pits along roadcuts, fixed a "chopper pad" at future campsite (L28E, N. of main river), completed marking chainages of river and road and plotting on map.

Test Pits

R.T.P. 1 - Chosen because of its proximity to the original geochemical anomaly "Zone A". Not particularly good profile, fairly thick humus and A over weirdly sorted B & C horizons - distinction between these is difficult.

8 samples taken to 30" depth.

R.T.P. 2 - Chosen because of heavy iron oxide staining throughout the profile, most colored light-yellowish red to dark red-brown. Some horizons well sorted and others not.

9 samples taken to 46" depth.

R.T.P. 3 - Chosen because of the good profile it presented and very typical upper horizons. Some horizons well sorted fine to coarse sand and gravel, others very unsorted.

10 samples taken to 40" depth.

Origin of soils: All of the test pits and other road cuts indicate that, below the organic and humus layers, the soil is composed chiefly of sand and gravel (rounded to sub-rounded) with minor clay and boulders. All larger boulders appear to occur on or within 1-2 feet of surface.

... vii

According to the preliminary G.S.C. geology map, the area has been glaciated at least once, to an elevation of 6200 feet. However, the soils here which have been observed indicate a fluvial origin, as all profiles show at least some degree of sorting and relatively thin bedding (usually less than 1 foot).

This leaves two main alternatives:

A. The glacier at this point was erosional only, with next to no deposition on its retreat. This is very unlikely, if not impossible.

B. The soils are glacio-fluvial, i.e., the glacial till was reworked as it was deposited from the melting ice by the same melt-waters. This is the most reasonable explanation and would explain the relatively irregular nature of the profiles. Later reworking by both rivers and gravity have removed much of the glacial "rock flour" and silt, and have continued to push all fractions down the valley sides and down the valleys.

The thickest accumulations of soil appear to be at the base of the valley walls, especially on the north side of the main valley, and in the lower portion of the main valley where it flattens out.

Saturday, June 13

- Weather: Generally sunny in the a.m., clouding over and a few light showers in the p.m.

- Geology: Traverse along river to west end of property and return.

- Comments: Majority of rocks vary through shale-slate. Slates are lighter grey and often very rusty cleavage.

- Very minor pyrite and possibly pyrrhotite observed on one specimen.

- Shales, grey to black, lustrous sheen on cleavage face but cleavage not as open - not as rusty.

- Also observed some limey siltstone (shale?) with weak cleavage.

- All rocks cut by quartz veins - ½" (mainly) to 1' - may follow cleavage plane or less distinct fracture plane.

... viii

- Boulders of granitic rock (granodiorite-diorite) possible gneiss and/or very impure marble also observed (skarn) in abundance.

- Structure: Very complex and deserves intensive investigation with any follow-up work.

- Outcrop area: Unlikely for mineralization, few minor bands of no outcrop - may be limestone - generall 250' width or less.

Sunday, June 14

- Weather: Partially cloudy, very minor rain.

- Travel, campsite to Watson Lake (Jet Ranger).

- Travel, Watson Lake to Whitehorse, arr. 7:00 p.m.

Expenses:

Ferry Time (Jet Ranger) 1:30 hrs. @ $230.00/hr.	$345.00
Lunch (Watson Lake)	7.00
	$352.00

G.G. Carlson
Geologist
R.G. Hilker Limited
June 14th, 1970

RIVERSIDE GROCERY

BOX 2302 PHONE 667-7712

WHITEHORSE – YUKON

DATE June 3 1970

NAME Bob Hilton

ADDRESS

QUANTITY	DESCRIPTION	AMOUNT	
	Mdse	76	58
	TAX		
REC'D BY	TOTAL	76	58

CLERK	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET'D	PAID OUT	
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QUANTITY	DESCRIPTION	AMOUNT
1	[illegible]	2 [illegible]
	TAX	
	TOTAL	

REC'D BY [illegible]

ITEM | CASH | C.O.D. | CHARGE | ON ACCT | M. RET'D | PAID OUT

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R.C.M.P.

C-691

QUANTITY	DESCRIPTION	AMOUNT
	Repair	4 [illegible]
	TAX	
	TOTAL	4 [illegible]

BY [illegible]

CASH | C.O.D. | CHARGE | ON ACCT | M. RET'D | PAID OUT

PRINTED CANADA 7/1050-69

65[illegible]

M-S.D. 32 (REV. 4-51) ORDER BLANK

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE June 3 1972

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SHIP TO BULK STATION

SHIP VIA

CUST. ORDER NO.

SHIP ON 196

PROV. S.T. LIC. NO.

No. UNITS	DESCRIPTION	PRICE	AMOUNT
48	Regular Gasoline	.502	24 10

NO. OF INV. REQ. 257

TERMS

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CUSTOMER [illegible]

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CHECK NUMBER	ROOM	WAITER	GUESTS	
№ 46155			2	6 55

June 3 1970

$ 14.80

100 DOLLARS

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NAME	
AUTH. OF SALE	ADDRESS
DEPT. NO.	C.O.D. AMOUNT	ACCOUNT NO.

CASH	CHG.	A.P.	S.T.	COD

DEPT.	CLERK	DATE			
QUAN.	CLASS	ITEMS PURCHASED		PRICE	TOTAL

SUB TOTAL
TAX
TOTAL

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2					
3					
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8					
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DATE REQUIRED | HOW SHIP

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INVOICE

	Geochemical Sampling & geology Survey of Reno claim group - 10.2 miles. Geny Carlson - Geologist June 4 - 14th 1970	$ 1000 00

Rediform 7M31

R. G. HILKER
LIMITED

OUR NUMBER 12235
DATE June 15
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INVOICE

	Linecutting 10.2 miles @ $85.00/mile - Lucien Boucher	$ 850 00

INVOICE

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LIMITED

OUR NUMBER 12236
DATE June 15/70
CUSTOMER'S ORDER
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TERMS
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SOLD TO Nebco Oil

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ADDRESS Calgary VIA

	Camp Rental + geochemical sample bags + equipment		# 115 00

Rediform 7M31

INVOICE

R. G. HILKER
LIMITED

OUR NUMBER 12237
DATE June 15/70
CUSTOMER'S ORDER
SALESMAN
TERMS
F. O. B.

SOLD TO Nebco Oil

SHIPPED TO

ADDRESS Calgary VIA

	Mobilization + demobilization of crew - Lucien Boucher + Gerry Carlson June 3 + 14th $35/day 2 days		# 140 00
	Truck Rental 10 days @ $35.00		250 00
			# 390 00

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GEOCHEMICAL LABORATORY REPORT NO. Wo 20A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No.	Pb Total Ppm	Sample No.	Pb Total Ppm
251	26	272	35	292	145
253	25	73	22	93	99
255	16	74	35	94	170
56	36	75	27	95	145
57	34	76	27	96	37
58	29	77	12	97	35
59	37	78	35	98	27
260	34	79	30	99	32
61	80	280	25	300	48
62	95	81	35	301	18
63	27	82	32	302	51
64	29	83	36	303	52
65	26	84	41	304	18
66	115	286	36	305	10
67	105	87	29	306	32
68	95	88	100	308	48
69	100	89	100	309	27
270	95	290	6	312	48
271	25	91	75	313	25

J.H. Reed

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CABLE: BARESEARCH

GEOCHEMICAL LABORATORY REPORT NO. W. 20A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No.	Pb Total Ppm	Sample No.	Pb Total Ppm
015	145	44	68	171	72
18	35	46	50	72	50
19	22	47	42	73	61
20	32	49	78	74	62
21	75	50	78	75	52
22	48	51	32	76	69
24	58	52	32	178	12
25	26	53	22	79	18
27	32	54	30	180	40
28	46	55	40	182	30
29	18	57	48	83	37
30	70	59	41	84	21
33	235	61	29	85	37
34-39	50	64	20	86	32
35	40	68	48	87	99
38	26	69	42	88	40
40	45	168	60	190	27
42	2	169	70	190A	35
43	41	170	63	191	20

Read

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GEOCHEMICAL LABORATORY REPORT NO. W-20-A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No.	Pb Total Ppm	Sample No.	Pb Total Ppm
192	42	215	55		
93	26	16	60		
196 94	32	17	19		
95	15	18	41		
198	50	19	79		
99	42	220	79		
200	40	21	92		
201	26	22	68		
204	46	23	24		
205	32	24	31		
206	37	25	36		
207	15	26	49		
208	29	27	27		
209	80	28	27		
210	35	29	32		
11	37	230	26		
12	40	31	11		
I.S.S. 213	73	32	49		
14	100	33	48		
15					
16					

D. Read

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REXDALE, ONTARIO, CANADA
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GEOCHEMICAL LABORATORY REPORT NO. W-20A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No.	Pb Total Ppm	Sample No.	Pb Total Ppm
130	48	149	30	238	98
31	82	150	31	39	115
32	30	51	84	240	70
33	41	52	48	41	20
34	48	53	32	42	105
35	60	54	52	43	59
36	63	55	15	44	27
37	45	56	35	45	27
38	39	57	100	46	32
39	48	58	36	47	12
140	32	59	63	48	25
41	30	160	27	49	20
42	32	61	35	250	81
43	44	62	56	01	37
44	40	165	51	03	42
45	35	234	76	05	24
46	190	35	22	06	18
47	160	36	48	08	36
48	145	37	69	09	25

Lead

BARRINGER RESEARCH

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REXDALE, ONTARIO, CANADA
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GEOCHEMICAL LABORATORY REPORT NO. Wo 20 A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No.	Pb Total Ppm	Sample No	Pb Total Ppm
10	27	442	25	527	24
11	52	444	26	529	39
14	35	45	35	530	39
420	35	46	29	559	44
21	36	503	37	560	41
425	39	504	35	562	16
26	36	505	31	63	82
428	91	506	51	64	105
29	130	507	32	566	24
430	120	509	62	67	22
31	115	511	145	68	15
32	115	12	50	69	18
33	31	514	51	570	25
34	27	517	42	572	20
35	58	18	44	574	44
36	39	19	54	576	25
37	39	523	26	580	25
38	60	24	60	581	25
41	27	526	35	82	54

D Read

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GEOCHEMICAL LABORATORY REPORT NO. W-20A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No	Pb Total Ppm	Sample No.	Pb Total Ppm
583	37	451	37		
84	45	52	58		
85	24	53	30		
587	42	54	40		
88	26	55	29		
590	25	457	51		
91	120	58	26		
92	60	59	36		
93	18	461	5		
94	12	464	27		
596	115	65	11		
97	40	467	9		
98	32	470	34		
99	84	471	29		
600	37	72	39		
447	70	474	27		
48	45	75	55		
49	52	477	42		
450	52	478	58		

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GEOCHEMICAL LABORATORY REPORT NO. Wo 20A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No.	Pb Total Ppm	Sample No.	Pb Total Ppm
481	20	538	150	319	92
82	35	39	62	20	155
83	100	540	10	21	96
84	180	41	30	22	49
85	27	42	30	23	35
487	30	544	16	24	20
88	44	546	8	25	19
89	27	548	30	26	37
490	32	49	25	27	150
492	49	551	10	28	25
494	79	52	14	29	45
497	16	554	21	330	37
500	10	556	41	332	25
501	19	557	27	333	11
502	30	558	34	34	46
531	41	314	20	35	60
532	130	316	82	36	40
534	180	317	45	37	40
537	125	318	100	338	37

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GEOCHEMICAL LABORATORY REPORT NO. No 20A DATE June 16/70

SAMPLE NO.	Pb Total Ppm	Sample No.	Pb Total Ppm	Sample No.	Pb Total Ppm
339	52	359	41	383	25
340	62	361	51	84	32
342	49	364	44	85	8
43	60	367	46	86	9
44	78	68	31	87	22
45	120	69	100	88	20
46	125	370	60	89	30
47	120	71	30	390	21
48	39	72	145	91	79
49	120	73	22	92	37
350	15	74	95	93	35
51	105	75	115	94	40
52	100	76	150	95	41
53	110	77	125	96	45
54	39	78	125	97	25
55	5	79	110	98	46
56	19	380	40	99	54
57	25	81	27	400	75
58	39	82	5	401	120

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GEOCHEMICAL LABORATORY REPORT NO. Wo 20A DATE June 16/70

	SAMPLE NO.		Pb Total								
			Ppm								
	402		84								
	03		150								
	04		115								
	05		140								
	06		37								
	07		32								
	08		32								
	09		32								
	410		29								
	11		4								
	12		14								
	13		40								
	14		10								
	15		58								
	16		36								
	17		19								
	18		37								

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GEOCHEMICAL LABORATORY REPORT NO. Wo 20A DATE June 15/70

SAMPLE NO.	Cu Total	Pb Total	Zn Total
	Ppm	Ppm	Ppm
R.T.P.1-1	5	27	33
2	7	33	52
3	14	80	135
4	28	135	205
5	25	220	360
6	26	150	245
7	25	260	460
R.T.P.1-8	20	160	250
R.T.P.2-1	4	7	17
2	12	40	79
3	20	110	55
4	16	115	40
5	17	140	165
6	16	125	270
7	14	60	200
8	24	80	185
R.T.P. 2-9	41	120	300
R.T.P.3-1	4	25	29
R.T.P.3-2	8	220	145

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GEOCHEMICAL LABORATORY REPORT NO. Wo 20A DATE June 15/70

SAMPLE NO.	Cu Total Ppm	Pb Total Ppm	Zn Total Ppm
RT.P.3-3	10	135	140
4	12	75	140
5	13	80	145
6	17	75	130
7	30	100	150
8	86	95	160
9	17	43	110
RT.P3-10	11	95	115

D Read

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GEOCHEMICAL LABORATORY REPORT NO. 24-A DATE JUNE 15/70

SAMPLE NO.	KCN Ag
	ppm.
30	.2
33	.3
40	.2
59	.4
61	.2

D Reed

LEGEND

- road
- drainage
- claim outline
- swamp
- gravel
- x outcrop
- o geological station
- s shale and slate
- 45 cleavage direction and dip
- 45 fracture direction and dip
- →10 lineation direction and plunge

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R. G. HILKER
GEOLOGICAL
ENGINEER

R.G. HILKER LTD.
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

NEBCO OILS LTD.	
RENO CLAIMS SHEET 105-H-2 GEOLOGY, DRAINAGE, & GRID SYSTEM	
DATE: June 14, 1970	SCALE: 1" = 400'

ZONE 'A'

BASE LINE

ZONE 'D'

ZONE 'E'

ZONE 'D'

LEGEND

358 Sample Number

41 Pb in soil in parts per million

1/3 Sx (standard deviation) contour value

1 Sx contour value

SPECIAL CONTOUR VALUES

14 less than $\bar{x}$ (mean) - 1Sx

50 $\bar{x}$

86 greater than $\bar{x}$ + 1Sx - possibly anomalous

122 greater than $\bar{x}$ + 2Sx - probably anomalous

158 greater than $\bar{x}$ + 3Sx - probably anomalous

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GEOLOGICAL ENGINEER

R.G. HILKER
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

NEBCO OILS LTD.	
GEOCHEMICAL SURVEY 1970	
RENO GROUP	SHEET 105-H-2
DATE: JUNE 14/70	SCALE: 1" = 200'