

MAP NO:105I/12

ASSESSMENT REPORT: X

DOCUMENT NO: 093254

PROSPECTUS:

MINING DISTRICT: Watson Lake

CONFIDENTIAL: X

TYPE OF WORK:Trenching

OPEN FILE:

REPORT FILED UNDER: NDU Resources Ltd.

DATE PERFORMED:June 2-7, 1994

DATE FILED:March 8, 1995

LATITUDE:62 35

AREA:MacMillan Pass

LONGITUDE:129 45

VALUE:\$17,100

CLAIM NAME AND #:Falcon 1-24,29-38,43-64,79-87,89,113-130,155-166

WORK DONE BY:R.C. Carne

WORK DONE FOR:Archer, Cathro and Associates

DATE TO GOOD STANDING	

REMARKS:Trenching was conducted on anomalies defined by 1991 and 1992 soil surveys. Anomalous zinc and nickel with elevated copper, cadmium, silver, arsenic, and molybdenum were the targets. This is a metal suite characteristic of the Nick polymetallic sedex mineral occurrence in central Yukon. Trenching failed to reach bedrock due to permafrost.

ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

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093254

REPORT ON
HAND TRENCHING
on the
FALCON PROPERTY
for
NDU RESOURCES LTD.

NTS 105I/12

Latitude 62°35'N; Longitude 129°45'W



Work conducted between June 2 and 7, 1994

R.C. Carne, M.Sc., P.Geol.

February, 1995

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SUMMARY AND RECOMMENDATIONS

The Falcon claims cover a large area of anomalous multi-element silt geochemical response centred about calcareous spring deposits (tufa) with elevated metal values. Samples of this material collected by the Geological Survey of Canada (GSC) in 1984 contain up to 18.5% zinc and 0.9% nickel. The exploration target is zinc-nickel rich polymetallic massive sulphide mineralization similar to that found in Lower Devonian shales on the Nick property in central Yukon. The 1994 program of hand trenching over anomalies resulting from 1991 and 1992 grid soil geochemical sampling programs was funded by the property owner, NDU Resources Ltd.

The potential for sedimentary exhalative (sedex) zinc-nickel mineralization is demonstrated by intense multi-element geochemical response in six areas within, or immediately adjacent to, the Falcon claims. The anomalies appear to reflect a source horizon at the recessive Lower Devonian contact between Road River Group and Earn Group sedimentary rocks. This stratigraphic position marks the transition between "starved basin", dominantly calcareous or dolomitic shale and mudstone of the Ordovician to Lower Devonian Road River Group and siliciclastic turbidite and debris flow deposits interlayered with carbonaceous cherty argillites of the Middle Devonian to Mississippian Earn Group.

Four areas of strong silt geochemical response were explored in 1991 and 1992 by grid soil surveys on 50 by 100 or 200 m and 25 by 100 m sample spacing. Zinc values in soils range up to 3.1% and nickel determinations range up to 4920 ppm. Elevated copper (50 to 1105 ppm), cadmium (20 to >100 ppm), silver (1 to 11.4 ppm), arsenic (25 to 405 ppm) and molybdenum (25 to 330 ppm) response coincides with the zinc and nickel anomalies. This suite of metals is

characteristic of the Nick polymetallic sedex mineralization but values for all metals, especially zinc and nickel, are much higher on the Falcon claims and form much more well defined anomalies than results of similar soil geochemical surveys on the Nick property. This suggests that the potential for economic thicknesses of high grade polymetallic massive sulphide mineralization may be higher on the Falcon property.

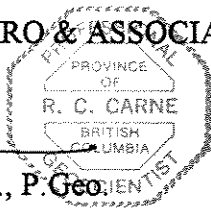
Hand trenching was carried out in June 1994 in four areas of previously defined grid soil geochemical anomalies on the Falcon property. Unfortunately, because of frozen ground, none of the trenches intersected bedrock. Results of analyses of soil samples taken from trench floors confirm that, although concentrations of strongly anomalous values along the favourable Lower Devonian stratigraphic horizon may reflect hydromorphic dispersion through glacial till cover in areas of groundwater outflow, the suite of "Nick-type" metals in soils does not result from surficial enrichment from background levels by organic-rich soils.

The four hand trenches started in 1994 should be deepened as far as possible in July 1995 and additional trench sites should be stripped of vegetation at the same time to allow more rapid thawing of frozen till cover. Soil augers should be used to recover samples as deep as possible beneath trench floors for multi-element ICP analysis. These trenches can be deepened as required with a second visit to the property in September after maximum frost retreat has occurred. A proposed budget for this exploration follows.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

R.C. Carne, M.Sc., P. Geo.



FALCON CLAIMS
PROPOSED 1995 BUDGET

Helicopter - 12 hours @ \$1000/hr, incl. fuel	\$12,000
Labour - R. Carne, 9 days (incl. report prep.) @ \$475/day 3 labourers, 6 days @ \$300/day	9,700
Drafting/Office	2,000
Field Costs - 24 days @ \$70/day	1,700
Assays	1,000
Freight/Travel	1,000
Truck Rental	600
Management	<u>1,100</u>
	\$29,100
	Plus 7% GST <u>2,037</u>
	<u>\$31,137</u>

INTRODUCTION

The Falcon property was staked in March 1990 by NDU Resources Ltd. to cover coincident zinc-nickel geochemical anomalies revealed by multi-element reanalyses of geochemical pulps collected by Archer, Cathro & Associates Limited in 1976 and 1977 during the course of regional exploration. The exploration target is Lower Devonian-aged "Nick-type" zinc-nickel sedex mineralization. Four areas of highly anomalous zinc-nickel response in soils and silts at the largely till-covered Lower Devonian Road River Group-Earn Group contact were defined by 1991 and 1992 reconnaissance geochemical sampling, grid geochemical sampling and geological mapping funded by Falconbridge Limited under an option agreement with NDU Resources. Because no obvious bedrock sources for the anomalies were located Falconbridge attributed the geochemical response to hydromorphic dispersion and organic accumulation of zinc, nickel and associated elements from elevated background levels in the country rock shales into overlying soils.

The 1994 program of hand trenching was wholly funded by NDU Resources and consisted of hand trenching and geochemical sampling in an effort to expose the source of the geochemical anomalies and/or to resolve whether or not the anomalies simply result from organic surficial enrichment rather than discrete mineralized beds in the shale sequence.

The author's Statement of Qualifications is given in Appendix I while a list of personnel who worked on the project appears as Appendix II.

HISTORY

The area was previously staked and explored in 1972-74 by Dynasty Exploration Ltd. (later Cyprus Anvil Mining Corp.) and a number of junior mining companies whose field exploration was directed by Dolmage, Campbell and Associates. The area was restaked and explored by Cominco in 1977-79. Highly anomalous zinc values in silts and soils were defined with grid geochemical sampling, geophysical surveys and limited diamond drilling but no mineralization was found and the geochemical response was attributed to high backgrounds in Road River Group shales. A GSC reconnaissance-scale multi-element stream sediment survey released in 1982 confirmed the anomalies but no further exploration was carried out due to low zinc prices and the effects of economic downturn on the mining industry.

The GSC later carried out follow-up sampling and prospecting in one of the anomalous drainages and discovered a large area of mound-forming tufa carrying secondary zinc mineralization (smithsonite, zincian calcite and hemimorphite). Analyses of this material ranged up to 18.5% zinc and 0.9% nickel. The source was attributed to hydromorphic dispersion from a nearby undiscovered base metal deposit.

The Falcon claims were staked by NDU Resources in March 1990 based on geochemical and geological similarities with the Nick nickel-zinc sedex deposit in north-central Yukon. The 1991-92 exploration programs were funded by Falconbridge Limited under the terms of a June 1991 option agreement with NDU Resources and consisted of geochemical sampling and geological mapping.

The 1994 hand trenching was funded by NDU Resources.

LOCATION AND ACCESS

The Falcon property is located in eastern Yukon, approximately 150 km northeast of the community of Ross River (Figure 1). The property consists of three separate blocks that trend roughly northwest-southeast and are centred at coordinates 62°35'N and 129°45'W on NTS map sheet 105I/12. The claims lie 75 km northwest of the Cantung Highway and 8 km west of the Anniv sedex zinc-lead deposit at Howards Pass. A system of winter roads built from Cantung to Howards Pass to support drilling and underground exploration in the 1970's and early 1980's extends to within 4 km of the Falcon claims. The property covers a number of west-southwesterly trending ridges and valley bottoms in the headwaters region of the Pelly River. Elevations range from 1100 to 1700 m.

The 1994 exploration was carried out from rented accommodation at Macmillan Pass airstrip approximately 75 km northeast of the centre of the claim area. The field work was supported with daily set outs and pickups by a Trans North Air Ltd. contract Bell Jet Ranger 206B helicopter.

FIGURE 1
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

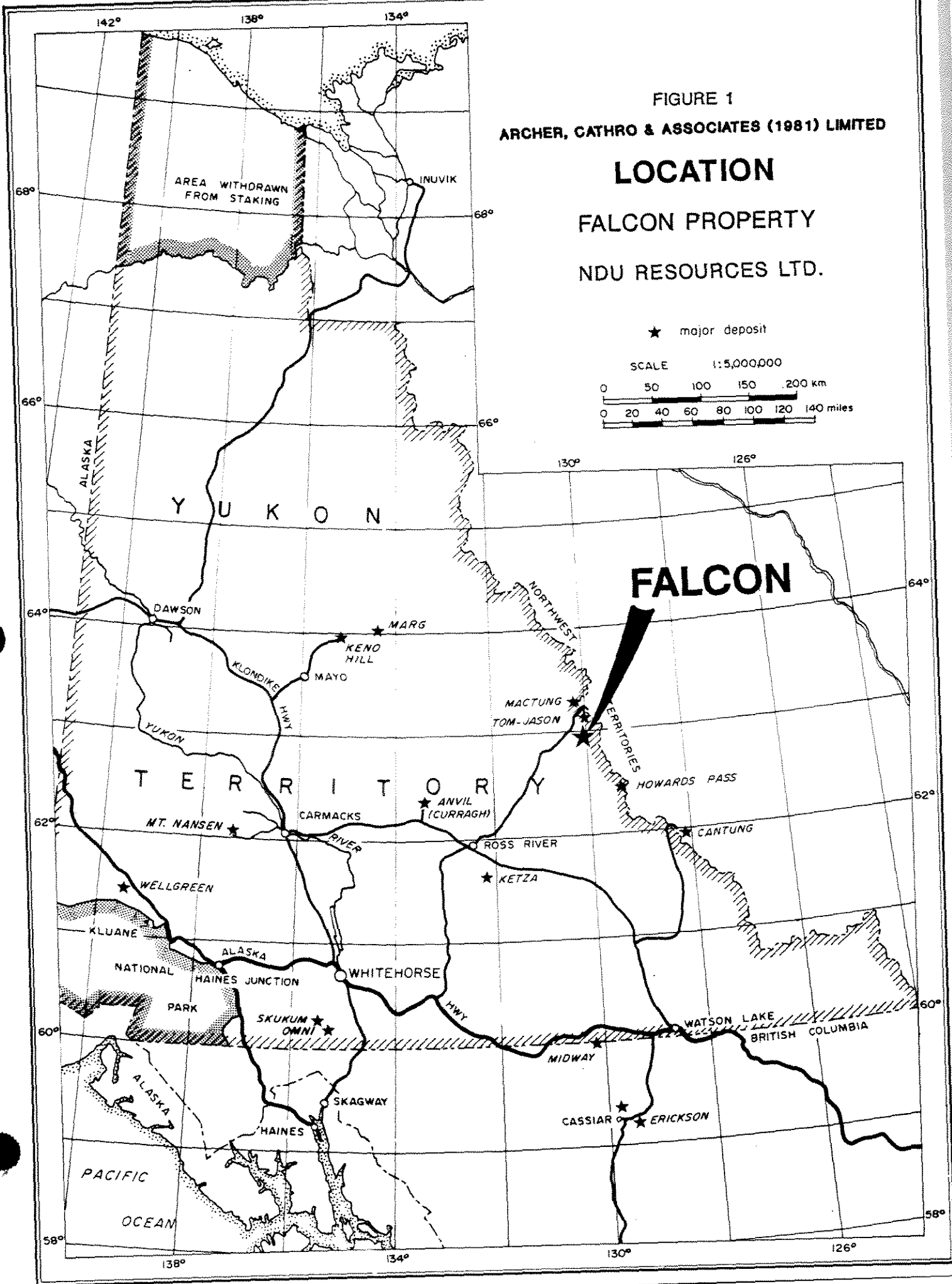
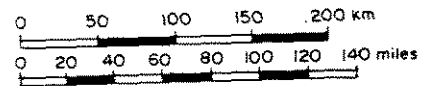
LOCATION

FALCON PROPERTY

NDU RESOURCES LTD.

★ major deposit

SCALE 1:5,000,000



CLAIM STATUS

The property consists of 92 claims (Figure 2) as described below.

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
Falcon 1-24	YB16746-YB16769	March 20, 1996
29-38	YB16774-YB16783	March 20, 1996
43-64	YB16788-YB16809	March 20, 1996
79-87	YB16824-YB16832	March 20, 1996
89	YB16834	March 20, 1996
113-130	YB16858-YB16875	September 20, 1996
155-166	YB34094-YB34105	September 20, 1997

The expiry date listed assumes acceptance of this report for assessment credit. All claims are recorded in the Watson Lake Mining District in the name of Archer, Cathro & Associates (1981) Limited.

GEOLOGY

The Falcon claims lie along the east side of Selwyn Basin. Stratigraphy in the area is broken into two sequences. The Ordovician to Lower Devonian Road River Group comprises a variably calcareous or dolomitic starved basin shale, mudstone and chert assemblage. The overlying Middle Devonian to Mississippian Earn Group consists of fine-grained siliceous argillite interlayered and interfingered with fine- to coarse-grained siliciclastic rocks deposited as turbidites and debris flows. Geology of the property is detailed in reports describing results of 1991 and 1992 exploration.

The Road River Group hosts the 500+ million tonne Howards Pass zinc-lead sedex deposits located 8 to 20 km southeast of the Falcon claims. The Tom and Jason barite-hosted lead-zinc-silver sedex deposits occur in Upper Devonian Earn Group siliceous argillites at Macmillan Pass, 80 km to the north.

Structural geology of the Falcon claims area is relatively simple, consisting of open and upright to slightly overturned folds. While most measured bedding attitudes are relatively steep, the associated folds have relatively small amplitudes and the overall effect is one of relatively flat-lying to broadly-folded stratigraphy. Normal faults strike northeasterly paralleling regional structural trends.

Road River Group lithologies are generally recessive and exposures of the unit are relatively rare. The lowest part of the section on the property consists of non-siliceous, grey weathering black fissile shale with thin dolomitic siltstone "pinstripes" spaced at 3 to 8 mm intervals. This sequence is probably correlative with Early Silurian rocks which host the nearby Howards Pass sedex mineralization.

TABLE I
TABLE OF FORMATIONS

UPPER DEVONIAN TO MISSISSIPPIAN:

UPPER EARN GROUP

brown weathering silty shale and siltstone (distal turbidites)

brown weathering silty sandstone and shale (proximal turbidites)

MIDDLE TO UPPER DEVONIAN:

LOWER EARN GROUP

silvery-grey weathering siliceous black shale and cherty argillite

dark grey to black weathering chert granule siltstone, pebbly mudstone
and fine-grained conglomerate (debris flows and turbidites)

dark grey laminated barite

black chert, cherty argillite

grey to rusty-grey weathering silty shale

ORDOVICIAN TO LOWER DEVONIAN:

ROAD RIVER GROUP

brown weathering silty mudstone with scattered orange weathering ferroan
dolomite and/or grey weathering limestone intervals

very carbonaceous cherty argillite and thin-bedded black chert

very soft fissile black shale, commonly graptolitic

orange-brown weathering dolomitic siltstone to silty mudstone

non-siliceous, grey weathering black shale with thin dolomitic siltstone
"pinstripes"

An orange-brown weathering, thick- to massive-bedded, laminated to bioturbated dolomitic siltstone and silty mudstone unit forms the most reliable marker unit within the Road River assemblage. This is correlative with a distinctive unit variously known throughout Selwyn Basin as the "flaggy mudstone", "chippy mudstone" and "Silurian siltstone".

Very soft, recessive, fissile black shale is exposed only in creek cuts and steep side hills. Graptolites are often present where bedding plane partings dominate over cleavage. These fossils, in addition to rarely seen trilobite carapace fragments, define an Upper Silurian to Lower Devonian age for the assemblage.

A resistant thin-bedded black chert and carbonaceous, cherty argillite sequence overlies the fossiliferous shale unit. These rocks typically display a high degree of internal structural complexity, probably due to abrupt changes in ductility between the chert and argillite members.

The uppermost member of the Road River Group is a brown weathering, dark grey silty mudstone sequence with scattered orange weathering ferroan dolomite and/or grey weathering limestone intervals.

The Middle to Upper Devonian Lower Earn Group consists of variably fine- to coarse-grained siliciclastic rocks. Internal stratigraphy is well defined because these lithologies are resistant and occur at relatively high structural levels on well exposed ridge crests. The lowest member of the Earn Group consists of grey to rusty-grey weathering silty black shale in apparent conformable contact with underlying Road River lithologies. This is overlain by, and interbedded with, 5 to 150 m thick, resistant, medium- to thick-bedded black chert and cherty argillite sequences.

Dark grey, laminated, bedded barite occurs in two locations in the northwest part of the property. The barite appears to be lensoidal in shape with maximum thickness of about 30 m over strike lengths up to 150 m. The barite is probably correlative with baritic lead-zinc-silver sedex deposits at Macmillan Pass.

The bulk of the Lower Earn Group consists of medium-bedded dark grey to black weathering chert granule siltstone and fine-grained conglomerate debris flows with intervals of black cherty argillite and silvery-grey weathering siliceous black shale and chert.

The Upper Devonian to Mississippian Upper Earn Group consists of brown weathering silty sandstone and shale deposited as proximal turbidites and brown weathering silty shale and siltstone deposited as distal turbidites.

No intrusive rocks have yet been discovered on the Falcon property.

GEOCHEMISTRY AND RESULTS OF 1994 PROGRAM

Geochemistry of the Falcon claims and the immediately surrounding area is documented in detail in reports describing 1991 and 1992 exploration results. Geochemical and geological data are summarized at 1:20,000 scale on Figure 2 while sketch maps of trenches are given in Appendix III.

Volume of material excavated from the trenches is tabulated below.

<u>Trench</u>	<u>Claim</u>	<u>Length (m)</u>	<u>Width (m)</u>	<u>Depth (m)</u>	<u>Volume (m³)</u>
A	Falcon 85	60	2	0.6	72
B	Falcon 14	193	2	0.6	232
D	Falcon 163	129	2	0.6	155
E	Falcon 115	60	2	0.6	72

The trenches were excavated to a depth of approximately 60 cm. Frozen ground was encountered in all trenches and most are probably underlain by permafrost. The trenches were excavated to about 2 m width to allow permafrost retreat to occur. Complete results of multi-element analyses of the 48 soil and trench soil samples collected from the Falcon property in 1994 appear as Appendix IV.

The 1994 soil samples were analyzed at Chemex Labs Ltd., North Vancouver, B.C. They were collected in pre-numbered kraft paper bags, dried and sieved to minus 80 mesh before analysis for thirty-two elements using induced coupled plasma (ICP) determination on nitric acid-aqua regia digestions of two gram sample splits. Grid soil samples were taken from the "C" horizon where possible from the floors of the 60 cm deep trenches. Control was established by Hip Chain and compass from previous sample sites. Sample sites were marked by orange flagging labelled with the sample number.

Anomalous zinc and nickel geochemical values reflect a source horizon at the Lower Devonian contact between the Road River and Earn Groups. This is a relatively recessive stratigraphic interval and no mineralization has yet been discovered to explain the high metal response. In addition to anomalous zinc and nickel response, the horizon is reflected by elevated silver (1 to 11.4 ppm), arsenic (25 to 405 ppm), copper (50 to 1105 ppm), cadmium (20 to >100 ppm) and molybdenum (25 to 330 ppm) values in overlying soils. This suite of metals is characteristic of polymetallic sedex mineralization comprising the Lower Devonian Nick deposit in central Yukon. Lead values are uniformly low (less than 30 ppm) suggesting that conventional barite-lead-zinc sedex mineralization is not present.

Seven distinct areas of anomalous multi-element geochemical response occur within the area of, or immediately adjacent to, the Falcon claim blocks. These areas are identified on Figure 2 and described below.

Area A

The Falcon claims were originally staked to cover an area of anomalous geochemical response centred about metalliferous calcareous spring deposits (tufa). Samples of this material collected by the GSC in 1984 returned values which range up to 18.5% zinc and 0.9% nickel. Zinc-bearing materials include smithsonite, zincian calcite and hemimorphite.

Soil sampling in Grid 1 was carried out in 1991 over the area of metalliferous tufa to define the source of metal response (see 1991 report for details). Anomalous zinc (1000 to >10,000 ppm) and nickel values (75 to 4920 ppm) occur in soil samples taken along or downslope of the Lower Devonian Road River Group-Earn Group contact for a 1 km distance along

both sides of a northwest-trending syncline. Soil samples taken from the immediate area of the metalliferous tufa do not carry elevated metal values. The tufa was probably deposited from spring waters and the contained metals were likely derived from till-covered upslope mineralized areas outlined by anomalous soil geochemistry. The anomalies extend off the grid to the southeast. Analyses of silt samples taken from creeks draining the northeast limb of the syncline outline a further 2 km potential strike length extension to the southeast. Total area of uneroded potential mineralization, if continuous across the keel of the syncline below Earn Group cover rock, could exceed one square kilometre.

Trench A was excavated across the projected Road River-Earn Group contact where soil samples collected in 1991 returned values of >10,000 ppm zinc and 1420 ppm nickel. Soil samples collected from the floor of the trench in 1994 returned order of magnitude lower values with a maximum response of 1045 ppm zinc and 143 ppm nickel at the same location as the most anomalous 1991 sample quoted above. In addition three of four 1994 samples returned moderate to highly anomalous values of silver (up to 3.6 ppm) and copper (up to 520 ppm).

Area B

Anomalous multi-element geochemical response occurs on both limbs of a faulted anticline southeast of Area A. Drainages carrying metal values in silts greater than 10,000 ppm zinc and up to 571 ppm nickel outline at least an 1800 m strike length of anomalous Lower Devonian stratigraphy on the northeast limb. Grid soil sampling in 1992 returned intermittent zinc-nickel anomalies downslope of the contact. On one of these grid lines, five consecutive soil samples

representing a length of 100 m returned values greater than 1% zinc (12,000 to 31,00 ppm) and 1000 ppm nickel (1440 to 2610 ppm). Trench B was excavated to expose both the projected Lower Devonian Earn Group-Road River Group contact and the coincident upslope edge of the anomaly. Because of frozen ground the average depth of the trench was limited to about 60 cm. A maximum value of greater than 10,000 ppm zinc and 565 ppm nickel was returned from the sample taken at the lower end of the trench about 70 m downslope of the extrapolated location of the favourable horizon.

Area C

A large area of moderately to strongly anomalous zinc response (up to 14,400 ppm) in silts was outlined by 1972-74 exploration west of the south-central part of the Falcon claims. This area is not represented by the 1990-91 data base and multi-element geochemical values are not available. No trenching was carried out here in 1994. Sufficient mapping has not been carried out to indicate whether or not potential mineralization relates to the Lower Devonian contact or to another stratigraphic setting.

Area D

The strongest geochemical response in the property area occurs at the extreme northeast end of the current property where a silt sample taken at the mouth of a 1 km long creek in 1977 and reanalyzed in 1990 returned values of 8500 ppm zinc and 3380 ppm nickel. Grid soil sampling (Grid 2) of the drainage basin was carried out in 1991 to define a source area for the silt geochemical anomaly. Results are documented in the 1991 report.

Anomalous zinc (1000 to >10,000 ppm) and nickel values (75 to 1100 ppm) were returned from Grid 2 samples in two heavily vegetated and till-covered areas that correspond to the extrapolated Lower Devonian Road River Group-Earn Group contact along both limbs of a northwest-trending anticline. A 500 m strike length of anomalous stratigraphy is outlined on the northeast limb while a 200 m long anomaly occurs along the southwest limb. Both anomalies are open to extension by additional sampling along strike.

Trench D was excavated to test the anomaly along the southwest limb. Analyses of samples taken from the floor of the 60 cm deep trench confirm the grid soil anomalies and the threshold between background and anomalous areas occurs at the extrapolated position of the favourable Lower Devonian horizon. Maximum values in the trench of 4190 ppm zinc and 729 ppm nickel are from samples taken at the downslope end. In addition the samples taken downslope of the target horizon contain highly anomalous values of silver (1.4 to 2.0 ppm), cobalt (113 to 166 ppm), copper (204 to 248 ppm), iron (9.78 to 11.55%) and manganese (4340 to 6350 ppm).

Area E

Reconnaissance-scale silt sampling along the northwest side of the Falcon claim area has outlined a potentially mineralized strike length of 4 km along the Lower Devonian contact. Anomalous silt sample values range from 3800 to 5500 ppm zinc and 313 to 396 ppm nickel. This area was investigated by detailed grid soil geochemical sampling in 1992. Scattered strongly anomalous zinc-nickel soil response occurs in valley bottoms that cross the favourable Lower Devonian horizon.

Trench E was excavated to expose the projected trace of the target unit but because of frozen ground no bedrock was encountered. As in other areas of the property that were tested by trenching, glacial till samples from the trench floor had values similar to nearby soil samples.

Area F

A single anomalous creek drains the Lower Devonian contact on the northeast edge of the property. The silt sample taken approximately 400 m downstream of the favourable stratigraphic interval returned values of 7570 ppm zinc and 425 ppm nickel. Background zinc and nickel values in silt samples collected from nearby creeks indicate that the potentially mineralized strike length is less than 700 m.

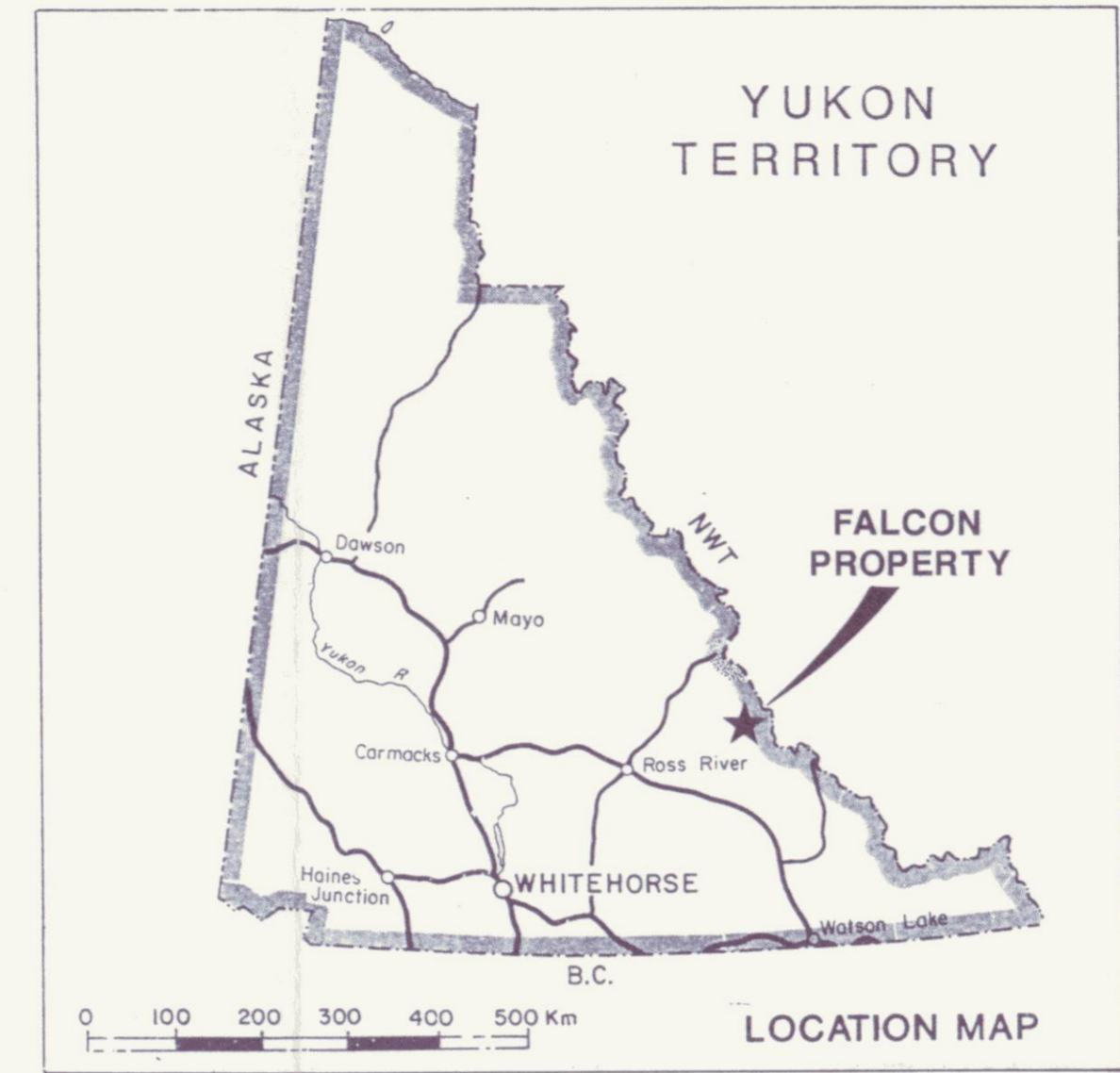
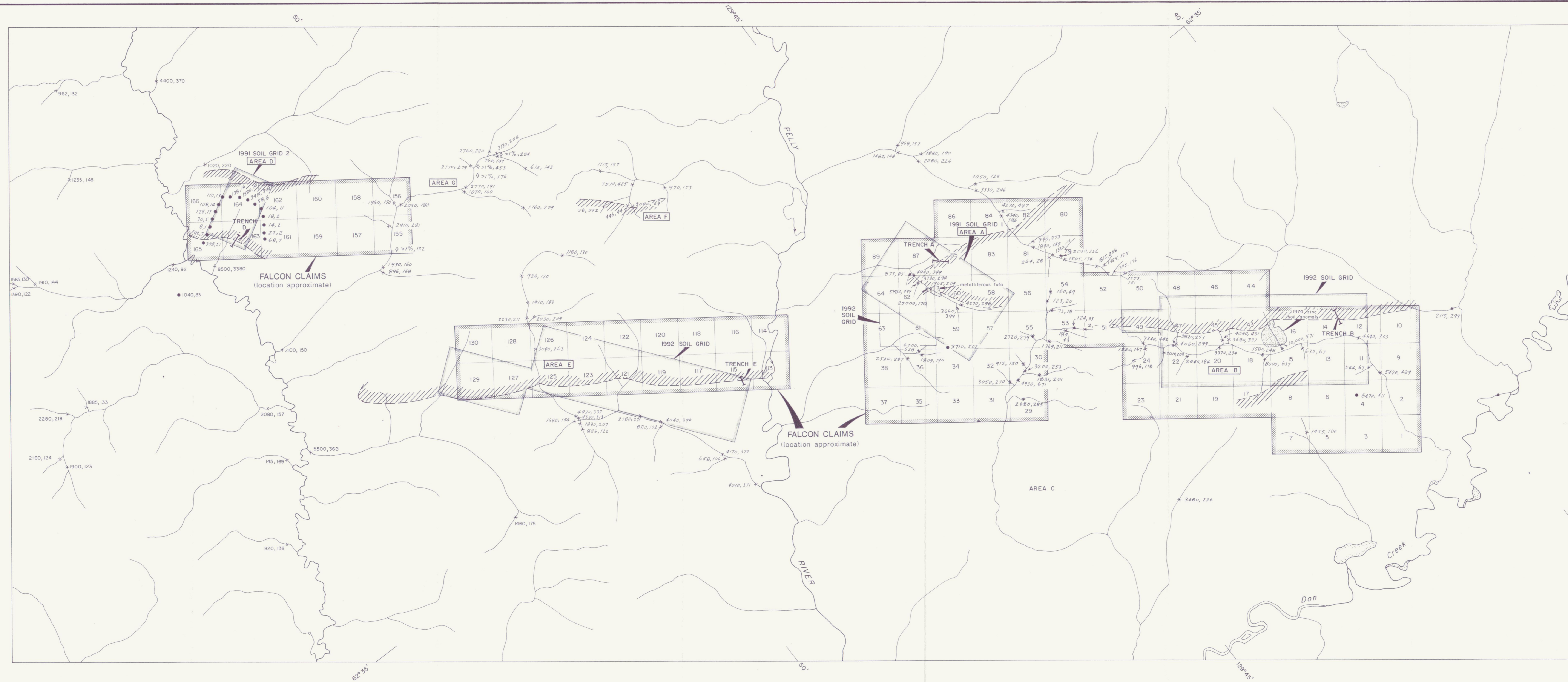
Area G

Four tufa occurrences were sampled along the length of a creek that largely drains Road River Group stratigraphy along the northwest edge of the property and in adjacent unstaked ground. Samples of this material returned metal values ranging from 1.28 to 2.03% zinc and 122 to 483 ppm nickel with background levels of silver, arsenic, copper, cadmium and molybdenum. The tufa occurs along the creek banks as flat-lying deposits of secondary carbonate minerals that are largely overgrown by vegetation or covered by colluvium. In the downstream example a 5 to 8 m thick tufa deposit has been cut through by the creek forming a steep-sided canyon. Silt samples from the drainage returned background values for zinc and nickel and this, in conjunction with the physical setting of the secondary carbonate, suggests that metalliferous tufa is not presently precipitating from the creek waters in this location. Tufa formation may have

been a short-lived post glacial phenomenon. Stream waters were then probably more acidic than now as freshly exposed pyrite in Earn Group shales in the drainage headwaters oxidized rapidly. The ability to carry zinc in solution, and presumably other metals as well, would be enhanced until neutralization occurred by mixing with alkaline groundwater draining the dolomitic and calcareous Road River Group. Because the tufa is only enriched in zinc, the source is probably not the Lower Devonian zinc-nickel sedex mineralization targeted elsewhere on the property.

Results of multi-element geochemical sampling carried out in the Falcon claims area in 1990, 1991 and 1992 taken in conjunction with results of similar programs carried out elsewhere in Selwyn Basin for polymetallic sedex deposits, have refined an exploration approach for this relatively new and poorly understood type of mineralization. Reconnaissance-scale geochemical silt sampling is the most effective method of outlining potential areas of interest. Anomalous drainage basins should be further explored by detailed silt sampling and property-scale geological mapping to provide a framework for grid soil geochemical surveys. Because the suite of metals contained in Nick-type sedex mineralization is organophile and also has relatively high mobility in most Selwyn Basin surficial environments, extensive downstream/downslope hydromorphic dispersion is often present and some degree of surficial enrichment in organic soils may occur. In spite of this, the geochemical contrast between regional background values and anomalous areas on the Falcon property is abrupt. The grid soil geochemical anomalies have abrupt lateral margins and the upslope limits are distinct so that targets for follow-up exploration by trenching or diamond drilling can be relatively well defined by close-spaced soil geochemical sampling carried out in conjunction with detailed geological mapping. Hand trenching in June 1994 was not

successful in exposing bedrock sources of anomalous soil geochemical response because of frozen ground. Results of analyses of soil samples taken from trench floors confirm that, although individual concentrations of anomalous values along the favourable Lower Devonian stratigraphic horizon may effect hydromorphic dispersion through glacial till cover in areas of groundwater outflow, the suite of Nick-type metals in the soils does not result from surficial enrichment from background levels by organic-rich soils. In fact, if this were the case, stream sediment samples collected downstream of the soil geochemical anomalies would not carry the very high metal concentrations that they are observed to have. The source of the metals is most likely to be a Lower Devonian massive sulphide horizon of the Nick-type and the program of hand trenching to evaluate geochemical anomalies that was initiated in 1994 should be continued.



- SYMBOLS**
- * GSC silt sample (1981, 1984)
 - x IJV/NR silt sample (1976, 1977, 1991)
 - IJV/NR soil sample (1976, 1977, 1991)
 - ◊ tufa sample (1991)
 - 1369, 211 * zinc, nickel (ppm)
 - ▨ trace of potentially mineralized horizon with hachure on down-dip side of contact
 - ▩ Falcon claim block boundary

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Figure 2
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
COMPILATION MAP
FALCON CLAIMS
FALCONBRIDGE LIMITED
NDU RESOURCES LTD.

SCALE 1:20,000
0 500 1000 1500 Metres
0 1/4 1/2 1 Mile

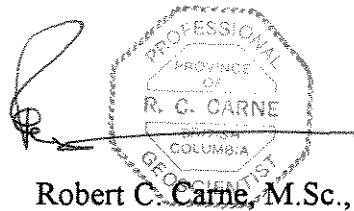
DWG 1

APPENDIX I
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Robert C. Carne, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Burnaby, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1974 with a B.Sc. and in 1979 with an M.Sc. majoring in Geological Sciences.
2. I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (registration number 19868).
3. From 1974 to present, I have been actively engaged as a geologist in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981 became a partner of Archer, Cathro & Associates (1981) Limited.
4. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.



Robert C. Carne, M.Sc., P. Geo.

APPENDIX II

LIST OF FIELD PERSONNEL

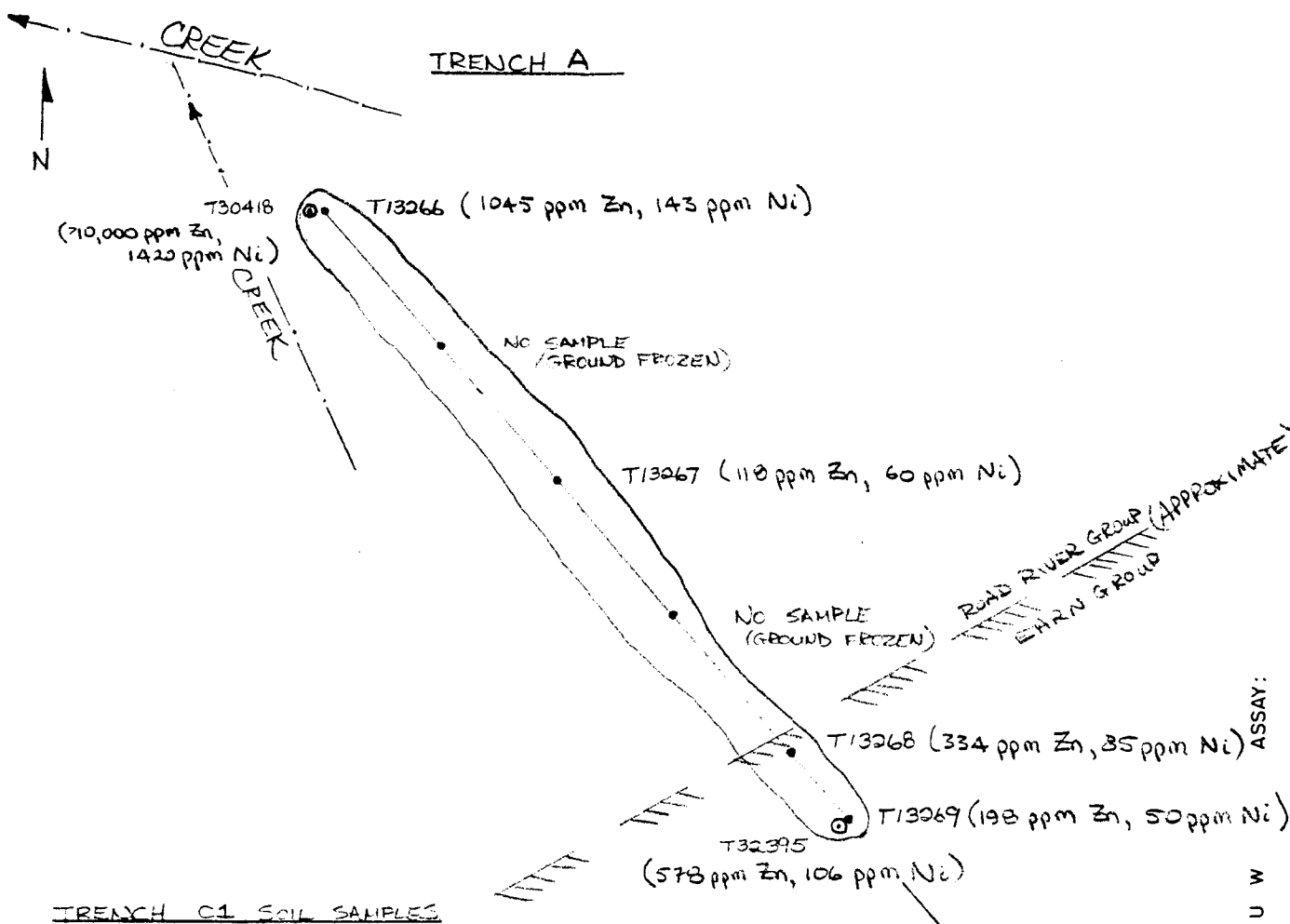
LIST OF FIELD PERSONNEL

<u>Name</u>	<u>Position</u>	<u>Period</u>
M. Dittrick	Geologist	June 2 to 6
J. Richmond	Labourer	June 2 to 4
K. Sax	Geologist	June 2 to 6
S. Kenway	Labourer	June 2 to 6

APPENDIX III
TRENCH MAPS

Project FALCON-A	NTS 105-I/12	Scale 1:1000	Page 1 of 1	Traverse TRENCH A
Sampler M.DITTRICK	Location, Target (words) TRENCH C1 EXTENDS FROM PREVIOUS SAMPLE #'S T30418 to T32395 @ AN AZM OF 140°; photo no. TRENCH		Sample Nos T13266-T13269	
Date JUNE 5/94			Cert. Nos	

ATTITUDES (100/40 N)
 SANDSTONE SILTSTONE
 CONGLOMERATE
 VOLCANIC
 SPECIMEN SITE A, B, ...; DO NOT WRITE ON OTHER SIDE OR USE COLOURS
 CHERT
 WATER
 PAN
 ROCK
 SILT X SOIL
 LIMESTONE DOLOMITE
 INTRUSIVE
 GOSSAN, MINERALS
 DON'T FORGET COURSES, DRAINAGE, TRAILS, WORKINGS, TRENCHES, SAMPLE SITES, LAT/LONG, SAMPLE SITES, WORKINGS, TRAILS, GOSSANS, OBSERVED GEOLOGY: DEFINED --- INFERRED - - - ASSUMED.....



- TRENCH C1 SOIL SAMPLES**
- T13266 - DK GREY CLAY WITH FINE SHALE FRAGMENTS
 - T13267 -
 - T13268 - MOSTLY DK GREY SHALE - NO CLAY
 - T13269 - MOSTLY DK GREY TO GREEN GREY SHALE W/ ORGANIC MATERIAL

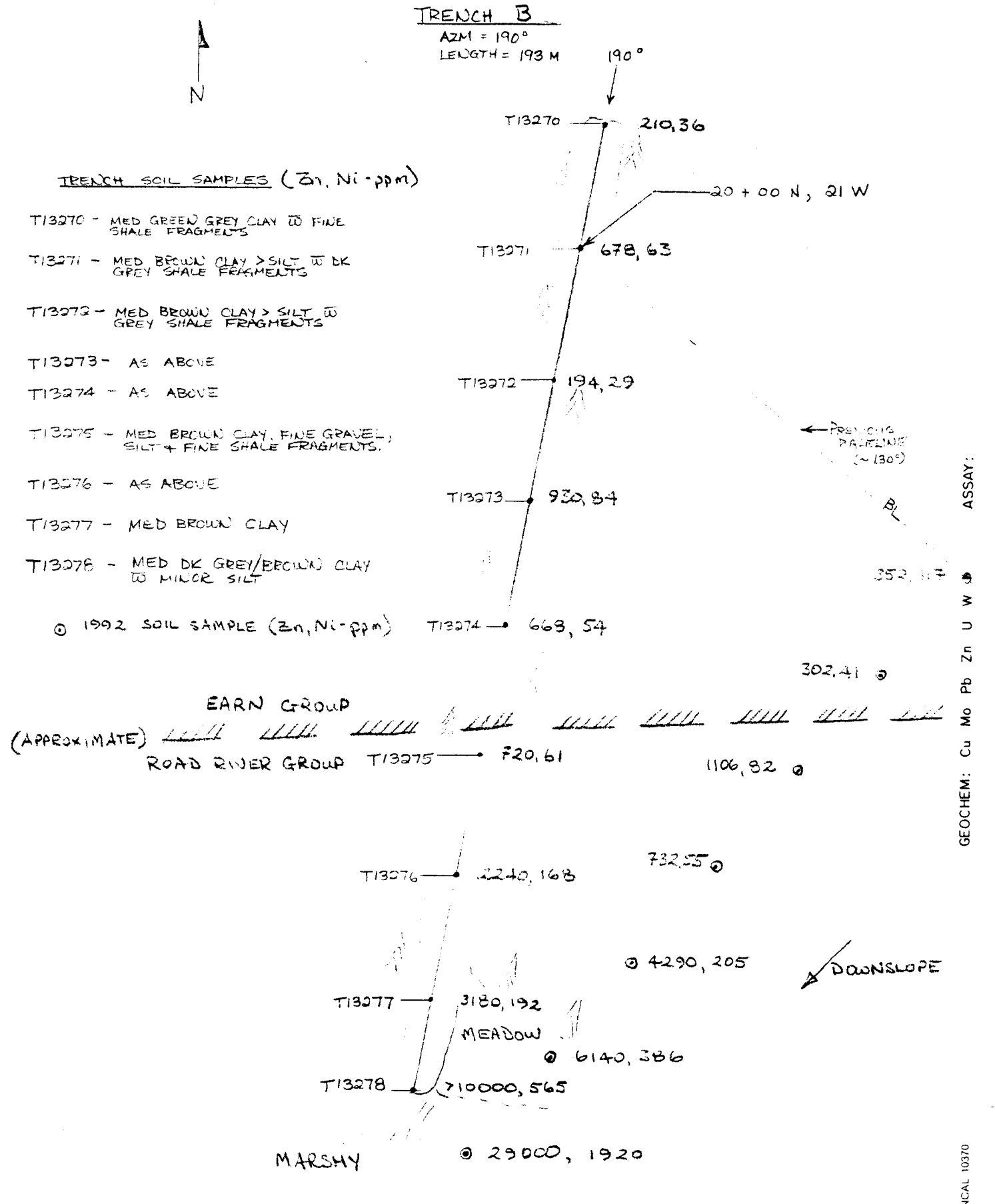
© 1991 SOIL SAMPLES

* GROUND WAS FROZEN ∴ SOME SAMPLES COULD NOT BE TAKEN. SAMPLES THAT WERE TAKEN CONSISTED DOMINANTLY OF SHALE WITH MINOR TO NIL CLAY + MINOR ORGANICS. A 1-2 CM WIDE BEIGE VOLCANIC ASH? LAYER WAS OBSERVED IN ALL SAMPLE HOLES WITHIN THE ORGANIC LAYER.

GEOCHEM: Cu Mo Pb Zn U W

Sampler M. DITTRICK	Location, Target (words) TRENCH B1 EXTENDS 25 M NE FROM THE OLD BASELINE AT AN AZM OF 190° FOR A PHOTO NO. DISTANCE OF 193 M.	Sample Nos T13270 - T13278
Date JUNE 6/94		Cert. Nos

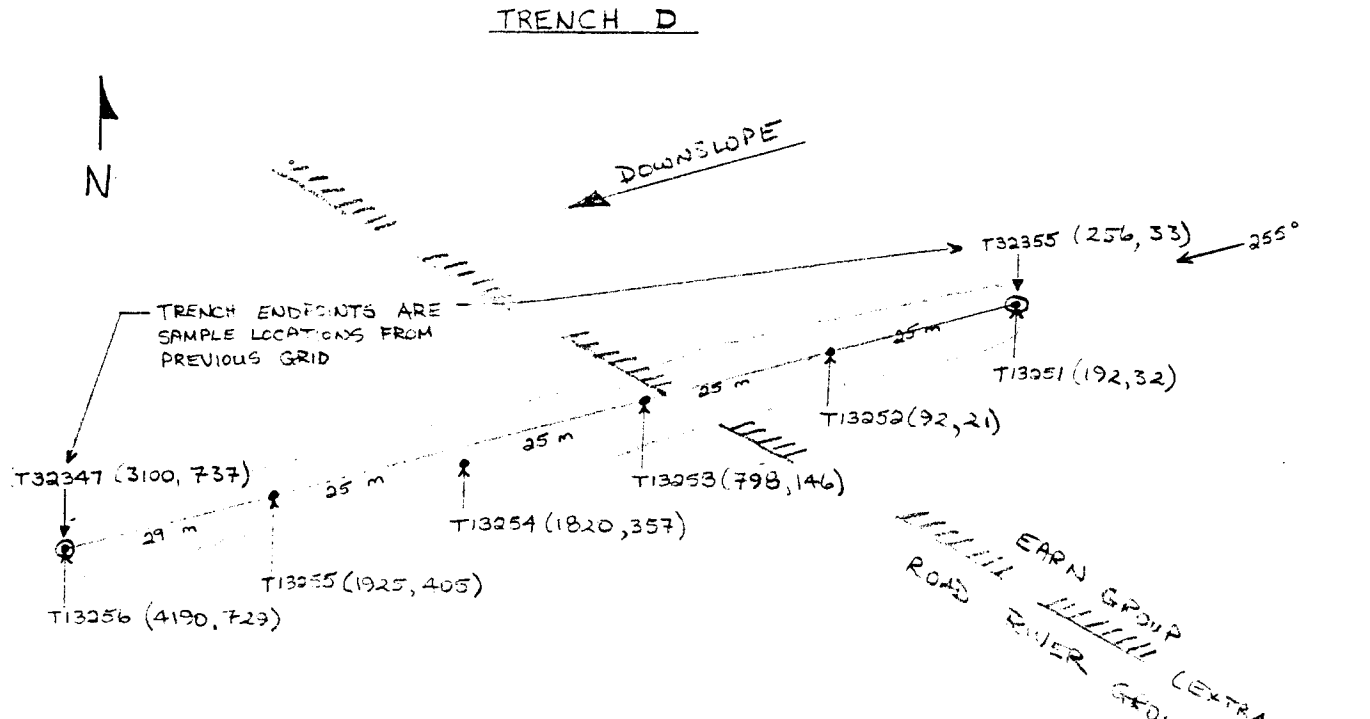
ATTITUDES 100/40 N
 SANDSTONE SILTSTONE
 CONGLOMERATE
 VOLCANIC
 SPECIMEN SITE A, B, ...; DO NOT WRITE ON OTHER SIDE OR USE COLOURS
 CHERT
 SHALE
 LIMESTONE DOLOMITE
 SILT X SOIL
 INTRUSIVE
 GOSSAN, MINERALS
 DON'T FORGET ANTOURS, DRAINAGE, NORTH ARROW, LAT/LONG, SAMPLE SITES, WORKINGS, TRAILS, GOSSANS, OBSERVED GEOLOGY: DEFINED --- INFERRED --- ASSUMED.....



ASSAY: Cu Mo Pb Zn U W

Sampler M. DITTRICK Location, Target (words) Sample Nos T13251 to T13256
 Date JUNE 3/94 TRENCH A1 (GROUP A); EXTENDS FROM OLD SAMPLE #'S T32355 to T32347 @ AZM photo no. OF 255°; TRENCH IS 129 M LONG. Cert. Nos

ATTITUDES 1:100(40 N)
 SANDSTONE SILTSTONE
 CONGLOMERATE
 VOLCANIC
 SPECIMEN SITE A,B,...; DO NOT WRITE ON OTHER SIDE OR USE COLOURS
 CHERT
 SHALE
 LIMESTONE DOLOMITE
 SILT X SOIL • ROCK ■ PAN Δ WATER O
 INTRUSIVE
 GOSSAN, MINERALS
 DON'T FORGET CL...JURS, DRAINAGE, NORTH ARROW, LAT/LONG, SAMPLE SITES, WORKINGS, TRAILS, GOSSANS, OBSERVED GEOLOGY: DEFINED --- INFERRED--- ASSUMED.....



TRENCH A1 SOIL SAMPLES (Zn, Ni ppm)

- T 13251
- T 13252
- T 13253
- T 13254
- T 13255
- T 13256

ALL SAMPLES CONSISTED OF MED BROWN CLAY + MINOR SILT WITH SMALL FRAGMENTS OF DK GREY TO GREEN-GREY SHALE; SAMPLES WERE TAKEN BELOW THE ORGANIC HORIZON.

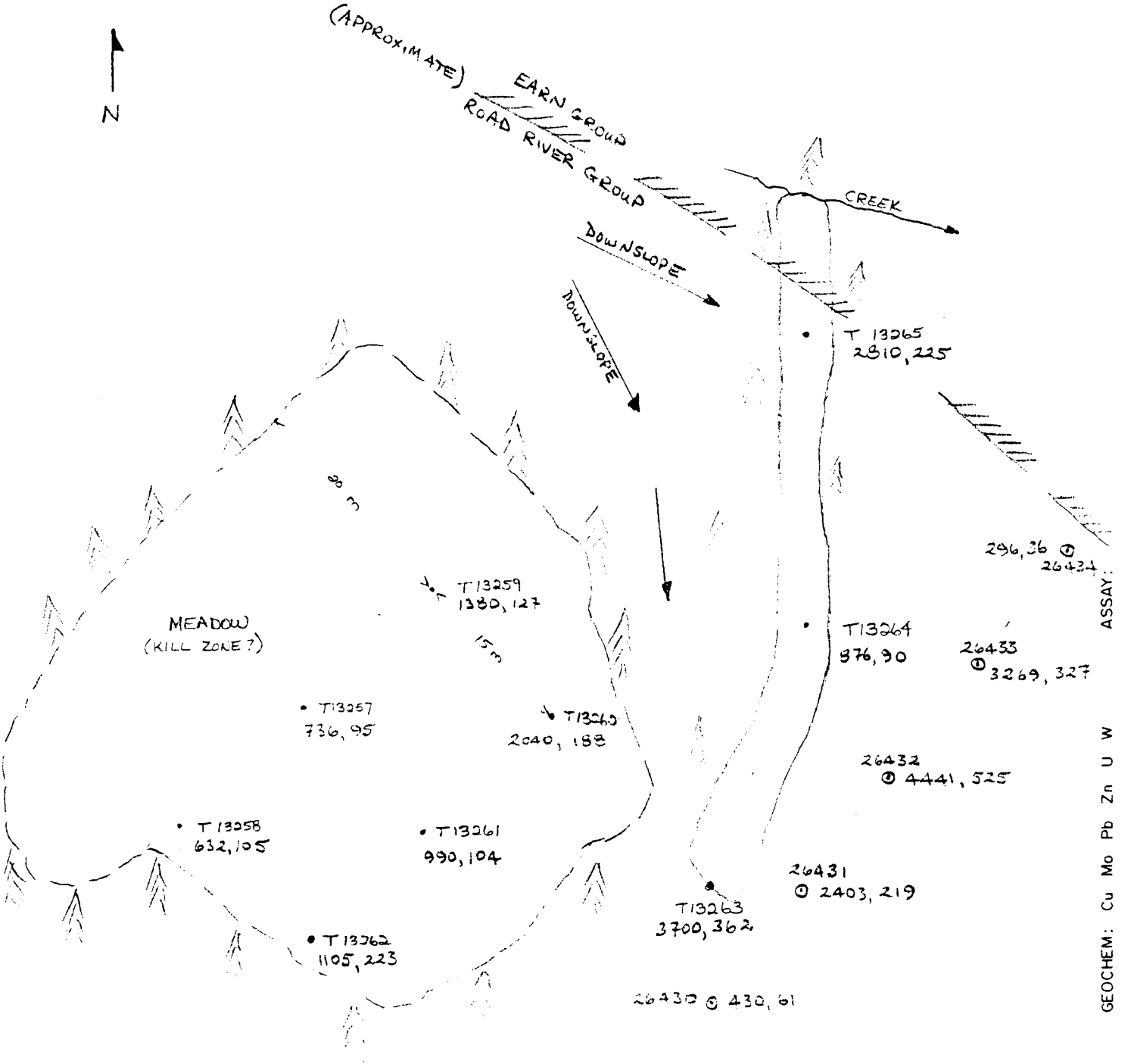
⊙ 1991 SOIL SAMPLE

ASSAY:
 W
 U
 Zn
 Pb
 Mo
 Cu
 GEOCHEM:

Sampler M. DITTECK	Location, Target (words) TRENCH E STARTS ~ 20 m NORTH OF SAMPLE 26430 FROM PREVIOUS GRID; A MEADOW (POSSIBLE KILL ZONE?) WAS ALSO SAMPLED photo no.	Sample Nos T13257 - T13262 MEADOW T13263 - T13265 TRENCH
Date JUNE 4/94		Cert. Nos

ATTITUDES 100/40 N
 SANDSTONE SILTSTONE
 CONGLOMERATE
 VOLCANIC
 SPECIMEN SITE A.B.; DO NOT WRITE ON OTHER SIDE OR USE COLOURS
 CHERT
 WATER
 SHALE
 PAN
 ROCK
 SOIL
 SILT
 X
 INTRUSIVE
 LIMESTONE DOLOMITE
 COSSAN, MINERALS

DON'T FORGET COLOURS, DRAINAGE, NORTH ARROW, LAT/LONG, SAMPLE SITES, WORKING, RAILS, GOSSANS, OBSERVED GEOLOGY: DEFINED --- INFERRED --- ASSUMED...



GEOCHEM: Cu Mo Pb Zn U W

MEADOW SAMPLES (Zn, Ni -ppm)

- T13257
- T13258
- T13259
- T13260
- T13261
- T13262

TRENCH SAMPLES (Zn, Ni -ppm)

- 26429 @ 553, 134
- T13263 - DK BRN-GREY, CLAY >> SILT
- T13264 - MED GRD GREY CLAY w/ SHALEY FRAGE
- T13265 - MED DK GREY CLAY/SILT/SHALE 50:30:20
- 26425 @ 548, 70
- 26430 - 1991 SOIL SAMPLE (Zn, Ni -ppm)

N.S. @

APPENDIX IV
ANALYTICAL CERTIFICATES



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221

Client: ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
 VANCOUVER, BC
 V6B 1L8

Project: NDU-FALCON
 Comments:

Page Number: 1-A
 Total Pages: 1
 Certificate Date: 05-JUL-94
 Invoice No.: I9418998
 P.O. Number:
 Account: F

CERTIFICATE OF ANALYSIS A9418998

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
T13251	201 229	0.4	1.16	6	680	< 0.5	< 2	0.09	< 0.5	7	20	75	1.64	< 10	< 1	0.18	10	0.51	140	8
T13252	201 229	0.6	0.80	6	290	< 0.5	< 2	0.04	0.5	3	13	90	1.08	< 10	< 1	0.13	< 10	0.28	35	2
T13253	201 229	1.4	1.31	6	430	< 0.5	2	0.05	3.0	113	9	248	9.78	< 10	< 1	0.10	< 10	0.19	4340	4
T13254	201 229	1.2	1.16	12	910	< 0.5	2	0.18	3.0	149	13	68	13.80	< 10	< 1	0.12	< 10	0.24	6410	7
T13255	201 229	2.0	1.19	8	970	< 0.5	6	0.47	3.5	166	2	204	11.55	< 10	< 1	0.06	< 10	0.09	6530	3
T13256	201 229	2.2	2.60	< 2	320	< 0.5	< 2	0.82	4.0	300	1	378	12.65	< 10	< 1	0.04	< 10	0.15	8760	3
T13257	201 229	0.8	1.44	22	2430	0.5	< 2	0.56	2.5	11	30	65	2.24	< 10	< 1	0.23	10	0.47	315	8
T13258	201 229	0.8	1.28	18	1960	0.5	< 2	0.51	2.0	9	40	133	1.90	< 10	< 1	0.27	10	0.41	285	10
T13259	201 229	1.0	1.51	22	2480	0.5	< 2	0.68	3.0	11	38	73	2.13	< 10	< 1	0.31	10	0.55	160	9
T13260	201 229	1.4	1.75	30	2370	0.5	< 2	1.20	6.0	21	47	100	2.89	< 10	< 1	0.41	10	0.94	705	20
T13261	201 229	0.8	1.12	16	1590	0.5	< 2	0.60	4.0	26	28	74	2.29	< 10	< 1	0.18	10	0.46	495	8
T13262	201 229	1.6	1.28	10	2480	0.5	< 2	0.72	6.0	8	32	149	2.07	< 10	< 1	0.22	10	0.39	440	6
T13263	201 229	1.8	1.61	26	1460	0.5	< 2	0.97	5.5	17	46	166	2.78	< 10	< 1	0.30	10	0.28	620	19
T13264	201 229	1.2	1.06	22	1370	0.5	< 2	0.63	3.0	4	35	89	2.22	< 10	< 1	0.27	10	0.28	80	17
T13265	201 229	1.8	1.28	22	1300	0.5	< 2	0.83	5.5	3	43	130	2.25	< 10	< 1	0.28	10	0.25	70	19
T13266	201 229	3.6	1.93	72	2630	1.0	< 2	1.38	9.0	6	54	490	2.78	< 10	< 1	0.34	10	0.26	50	37
T13267	201 229	3.6	2.58	20	1070	0.5	< 2	0.15	4.0	< 1	45	520	1.07	< 10	< 1	0.09	< 10	0.04	10	19
T13268	201 229	3.6	1.46	190	830	0.5	< 2	0.41	3.5	2	75	199	2.47	< 10	1	0.23	10	0.11	65	65
T13269	201 229	1.8	0.81	30	730	< 0.5	< 2	1.13	2.5	< 1	19	96	1.30	< 10	< 1	0.15	< 10	0.27	15	21
T13270	201 229	0.6	0.56	12	910	< 0.5	< 2	0.01	< 0.5	< 1	57	34	1.36	< 10	< 1	0.11	10	0.05	20	30
T13271	201 229	0.8	1.49	26	870	0.5	< 2	0.70	0.5	4	41	106	2.83	< 10	< 1	0.20	10	0.18	75	16
T13272	201 229	0.4	0.57	18	660	< 0.5	< 2	0.02	< 0.5	1	33	34	1.49	< 10	< 1	0.11	10	0.05	20	21
T13273	201 229	0.8	1.52	36	1550	1.0	< 2	0.88	2.0	7	47	168	2.73	< 10	< 1	0.35	10	0.31	130	21
T13274	201 229	0.8	0.88	32	1960	0.5	< 2	0.38	2.5	3	61	111	1.90	< 10	< 1	0.17	10	0.12	75	30
T13275	201 229	0.6	0.59	18	1450	< 0.5	< 2	0.41	2.0	1	33	52	1.45	< 10	< 1	0.13	10	0.13	45	18
T13276	201 229	1.4	1.20	48	1900	0.5	< 2	0.41	9.0	7	62	136	2.41	< 10	< 1	0.22	10	0.17	155	27
T13277	201 229	1.2	0.97	22	1790	0.5	< 2	0.43	8.0	2	49	78	1.93	< 10	< 1	0.18	10	0.16	70	24
T13278	201 229	1.2	1.45	60	1460	0.5	< 2	0.68	13.5	12	53	78	2.60	< 10	< 1	0.23	10	0.21	630	28

CERTIFICATION: *Hart Bichler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221

Client: ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
 VANCOUVER, BC
 V6B 1L8

Project: NDU-FALCON
 Comments:

Page Number: 1-B
 Total Pages: 1
 Certificate Date: 05-JUL-94
 Invoice No.: 19418998
 P.O. Number:
 Account: F

CERTIFICATE OF ANALYSIS A9418998

SAMPLE	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
T13251	201 229	< 0.01	32	1030	10	4	1	32	< 0.01	< 10	< 10	155	< 10	192
T13252	201 229	0.02	21	940	6	4	< 1	30	< 0.01	< 10	< 10	95	< 10	92
T13253	201 229	0.01	146	1300	12	4	1	41	< 0.01	< 10	< 10	66	< 10	798
T13254	201 229	< 0.01	357	1250	16	< 2	2	85	< 0.01	< 10	< 10	95	< 10	1820
T13255	201 229	0.02	405	1130	12	4	1	168	0.01	< 10	< 10	28	< 10	1925
T13256	201 229	0.02	729	1410	16	< 2	1	251	0.01	< 10	< 10	24	10	4190
T13257	201 229	0.01	95	2130	8	2	3	83	0.01	< 10	< 10	284	< 10	736
T13258	201 229	< 0.01	105	2290	12	8	3	142	< 0.01	< 10	< 10	321	< 10	632
T13259	201 229	< 0.01	127	2140	8	2	4	95	0.01	< 10	< 10	340	< 10	1380
T13260	201 229	< 0.01	188	2520	22	8	4	130	0.01	< 10	< 10	497	< 10	2040
T13261	201 229	< 0.01	104	2160	10	< 2	3	81	< 0.01	< 10	< 10	256	< 10	990
T13262	201 229	< 0.01	223	2130	8	4	3	142	< 0.01	< 10	< 10	268	< 10	1105
T13263	201 229	0.01	362	2540	14	4	3	153	< 0.01	< 10	< 10	612	< 10	3700
T13264	201 229	< 0.01	90	2150	20	6	3	130	0.01	< 10	< 10	444	< 10	876
T13265	201 229	< 0.01	225	2100	14	4	3	156	0.01	< 10	< 10	612	< 10	2810
T13266	201 229	< 0.01	143	7350	22	18	4	243	0.01	< 10	< 10	898	< 10	1045
T13267	201 229	< 0.01	60	6140	< 2	16	1	67	0.01	< 10	30	599	< 10	118
T13268	201 229	< 0.01	85	4860	14	32	5	212	0.08	< 10	10	1545	< 10	334
T13269	201 229	< 0.01	50	3050	6	20	1	280	0.01	< 10	< 10	350	< 10	198
T13270	201 229	< 0.01	36	520	26	12	1	44	0.03	< 10	< 10	988	< 10	210
T13271	201 229	< 0.01	63	6680	16	< 2	3	171	< 0.01	< 10	< 10	388	< 10	678
T13272	201 229	< 0.01	29	1070	18	6	< 1	39	< 0.01	< 10	< 10	445	< 10	194
T13273	201 229	< 0.01	84	5250	20	6	4	234	0.01	< 10	< 10	516	< 10	930
T13274	201 229	< 0.01	54	2630	24	6	2	101	0.01	< 10	< 10	1040	< 10	668
T13275	201 229	< 0.01	61	2260	16	4	1	88	0.01	< 10	< 10	448	< 10	720
T13276	201 229	< 0.01	168	2940	32	6	3	123	0.01	< 10	< 10	902	< 10	2240
T13277	201 229	< 0.01	192	2170	24	2	2	109	< 0.01	< 10	< 10	670	< 10	3180
T13278	201 229	< 0.01	565	3060	26	8	2	125	< 0.01	< 10	< 10	694	10	>10000

CERTIFICATION:

Hart Buchler

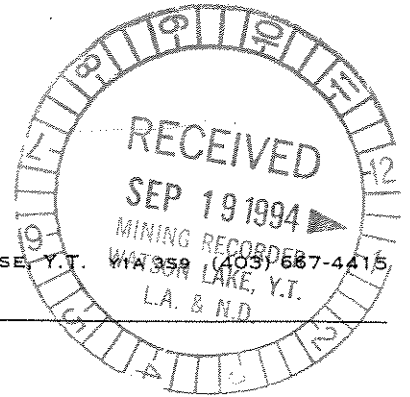
ARCHER, CATHRO

& ASSOCIATES LIMITED

CONSULTING GEOLOGICAL ENGINEERS

VANCOUVER, B.C. (604) 688-2568

Box 4127, WHITEHORSE, Y.T.



1016 - 510 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L8

AFFIDAVIT

I, Joan Mariacher, of Whitehorse, Yukon make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Falcon 1-24, 29-38, 43-64, 79-87 and 89 mineral claims on Claim Sheet 105I/12 is accurate.


Joan Mariacher

Sworn before me at Whitehorse, Yukon

this 18th day of

September, 1994

093254


Notary, Yukon Territory

Statement of Expenditures
 Falcon 1-24, 29-38, 43-64, 79-87 and 89 Mineral Claims
September 18, 1994



Labour

M. Dittrick (geologist) - June 5-7 - 3 days at \$354/day	\$1,136.34	
K. Sax (geologist) - June 5-7 - 3 days at \$354/day	1,136.34	
S. Kenway (field ass't) - June 5-7 - 3 days at \$289/day	927.69	
J. Richmond (field ass't) - June 7 - 1 day at \$281/day	300.67	
R. Carne (geologist) - 14 5/8 hours at \$58.50/hr	<u>915.45</u>	\$ 4,416.49

Expenses

Helicopter - 5.5 hours Bell 206B at \$1000/hr incl. landed fuel	5,885.00	
Chemex Labs - 13 samples at \$8.10	<u>112.67</u>	<u>5,997.67</u>
		<u>\$10,414.16</u>

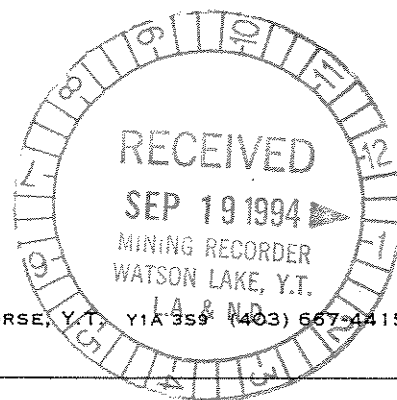
ARCHER, CATHRO

& ASSOCIATES LIMITED

CONSULTING GEOLOGICAL ENGINEERS

VANCOUVER, B.C. (604) 688-2568

BOX 4127, WHITEHORSE, Y.T. Y1A 3S9 (403) 667-4415

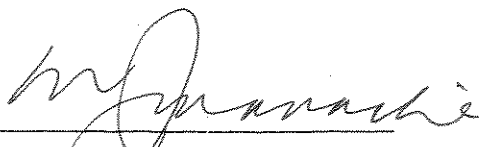


1016 - 510 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L8

AFFIDAVIT

I, Joan Mariacher, of Whitehorse, Yukon make oath and say:

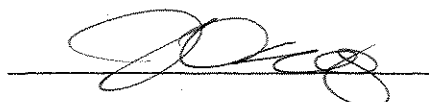
That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Falcon 113-130 mineral claims on Claim Sheet 1051/12 is accurate.



Joan Mariacher

Sworn before me at Whitehorse, Yukon
this 19th day of
September, 1994.

093254



Notary, Yukon Territory

Statement of Expenditures
Falcon 113-130 Mineral Claims (YB16858-YB16875)
September 18, 1994



Labour

M. Dittrick (geologist) - June 4 - 1 day at \$354/day	\$ 378.78	
K. Sax (geologist) - June 4 - 1 day at \$354/day	378.78	
S. Kenway (field ass't) - June 4 - 1 day at \$289/day	309.23	
J. Richmond (field ass't) - June 4 - 1 day at \$281/day	300.67	
R. Carne (geologist) - 3 3/8 hours May, June & August at \$58.50/hr	<u>211.26</u>	\$1,578.72

Expenses

Helicopter - 2 hours Bell 206B at \$1000/hr incl. landed fuel	2,140.00	
Chemex Labs - 8 samples at \$8.10	<u>69.34</u>	<u>2,209.34</u>
		<u>\$3,788.06</u>

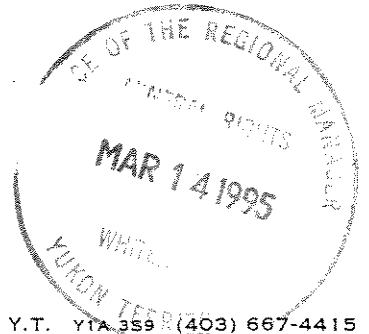
ARCHER, CATHRO & ASSOCIATES LIMITED

CONSULTING GEOLOGICAL ENGINEERS

VANCOUVER, B.C. (604) 688-2568

BOX 4127, WHITEHORSE, Y.T. Y1A 3S9 (403) 667-4415


1016 - 510 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L8



AFFIDAVIT

I, Joan Mariacher, of Whitehorse, Yukon make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Falcon 155-166 mineral claims on Claim Sheet 105I/12 is accurate.


Joan Mariacher

Sworn before me at Whitehorse, Yukon
this 19th day of
September, 1994.

093254




Notary, Yukon Territory

Statement of Expenditures
Falcon 155-166 Mineral Claims (YB34094-YB34105)
September 18, 1994



Labour

M. Dittrick (geologist) - June 3 - 1 day at \$354/day	\$ 378.78	
K. Sax (geologist) - June 3 - 1 day at \$354/day	378.78	
S. Kenway (field Ass't) - June 3 - 1 day at \$289/day	309.23	
J. Richmond (field ass't) - June 3 - 1 day at \$281/day	<u>300.67</u>	\$1,367.46

Expenses

Helicopter - 2.2 hours Bell 206 at \$1000/hr incl. landed fuel	2,354.00	
Chemex Labs - 6 samples at \$8.10	<u>52.00</u>	<u>2,496.00</u>
		<u>\$3,773.46</u>