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105 D 3,6 PROSPECTUS
CONFIDENTIAL X
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MINING DISTRICT: Whitehorse
TYPE OF WORK: Geochemical

REPORT FILED UNDER: Aurum Geological Consultants Inc.

DATE PERFORMED: 6 August-20 August, 1989 DATE FILED: 20 November, 1989

LOCATION: LAT.: 60°16'N AREA: Mt Skukum
LONG.: 134°26'W VALUE \$:

CLAIM NAME & NO.: PLUS 10-65, 101-111 (YB21297-370; YB24034-5)

WORK DONE BY: L. Walton

WORK DONE FOR: Northern Minerals Ltd

DATE TO GOOD STANDING:

REMARKS: Adjoins #229 EARL

A northeast-trending fault cuts Eocene volcanic rocks on the north-northwest side of Mt Skukum. Quartz vein float with calcite-fluorite casts occurs along this main northeast-trending structure. In 1989, 145 soil, 49 rock and 6 silt samples were taken. The highest assay was a sample of quartz-chalcedony vein float which contained 302 ppb Au and 2.0 ppm Ag. Altered quartz-eye rhyolite porphyry contained up to 206 ppb Au.



**1989
GEOCHEMICAL REPORT
on the
PLUS PROPERTY**

Whitehorse Mining District, Yukon

Claims: Plus 10-18 YB21297-21314
Plus 20-39 YB21315-21334
Plus 45-53 YB21339-21347
Plus 58-65 YB21352-21358
Plus 101-111 YB21360-21370
Plus 40, 55 YB24034,24035
Plus 41-44 YB21335-21338
Plus 56, 57 YB21349,21350

Location: 1. 65 km SW of Whitehorse, Yukon
2. NTS 105 D/6 and D/3
3. Latitude: 60° 16'N
Longitude: 134° 26'W

For: Northern Minerals Ltd.
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DATE DUE



October 30, 1989

092768

SUMMARY

The PLUS claims are part of the SAID-THE-WAT-PLUS property which consists of 186 contiguous mineral claims (including 65 fractional claims) located in the Wheaton River area, Yukon Territory. The property is located 50 km southwest of Whitehorse and 6 km north of the past producing Mt. Skukum gold-silver mine (closed 1988). Access to the property is via a 4 wheel drive road or by helicopter.

The claims are underlain by Jurassic to Cretaceous diorite and by Tertiary Mt. Skukum Group rhyolite, dacite and andesite. The volcanics are cut by the northeast trending Main structure and associated splay faults and cross cutting faults. Several zones of epithermal style quartz-chalcedony veining are located on the structures in the neighboring SAID-THE WAT claims. The quartz-chalcedony samples exhibit cockscomb, crustiform, open space, fluorite casts and bladed calcite replacement textures. Drilling, trenching and prospecting has been carried out in previous years, with gold values up to 19 g/t gold across 2 m in a chip sample.

Prospecting, mapping and soil sampling on the PLUS claims in 1989 extended the known area of quartz-chalcedony veining. Quartz-chalcedony float on or near the inferred trace of the Main structure contained up to 302 ppb gold. Although most rock or soil samples contained low gold values, several samples contained anomalous zinc, arsenic and antimony. More exploration is warranted in the vicinity of the Main structure on the PLUS claims. A short flycamp program consisting of grid establishment, soil sampling and geophysical surveys is recommended at a total cost of \$22,000.

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INTRODUCTION

This report was prepared at the request of Mr. E. Stewart of Northern Minerals Ltd. (formerly Pacific Trans-Ocean Resources Ltd.) and describes the exploration carried out on the PLUS claims between August 6 and August 20, 1989. Exploration was carried out under the supervision of Aurum Geological Consultants Inc. and consisted of prospecting, mapping and rock and soil sampling.

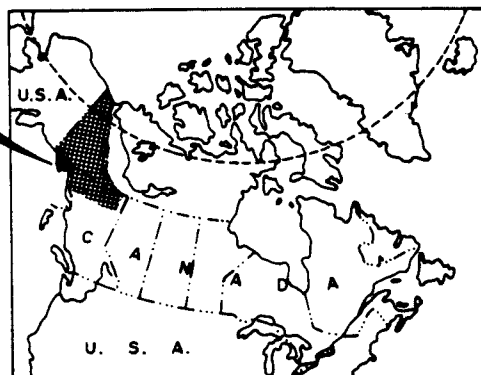
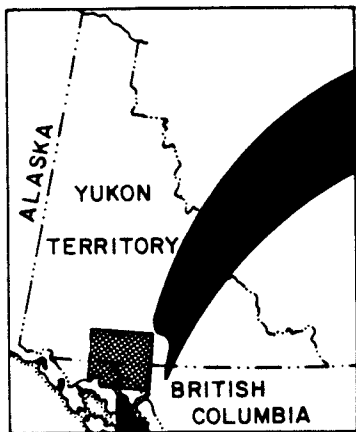
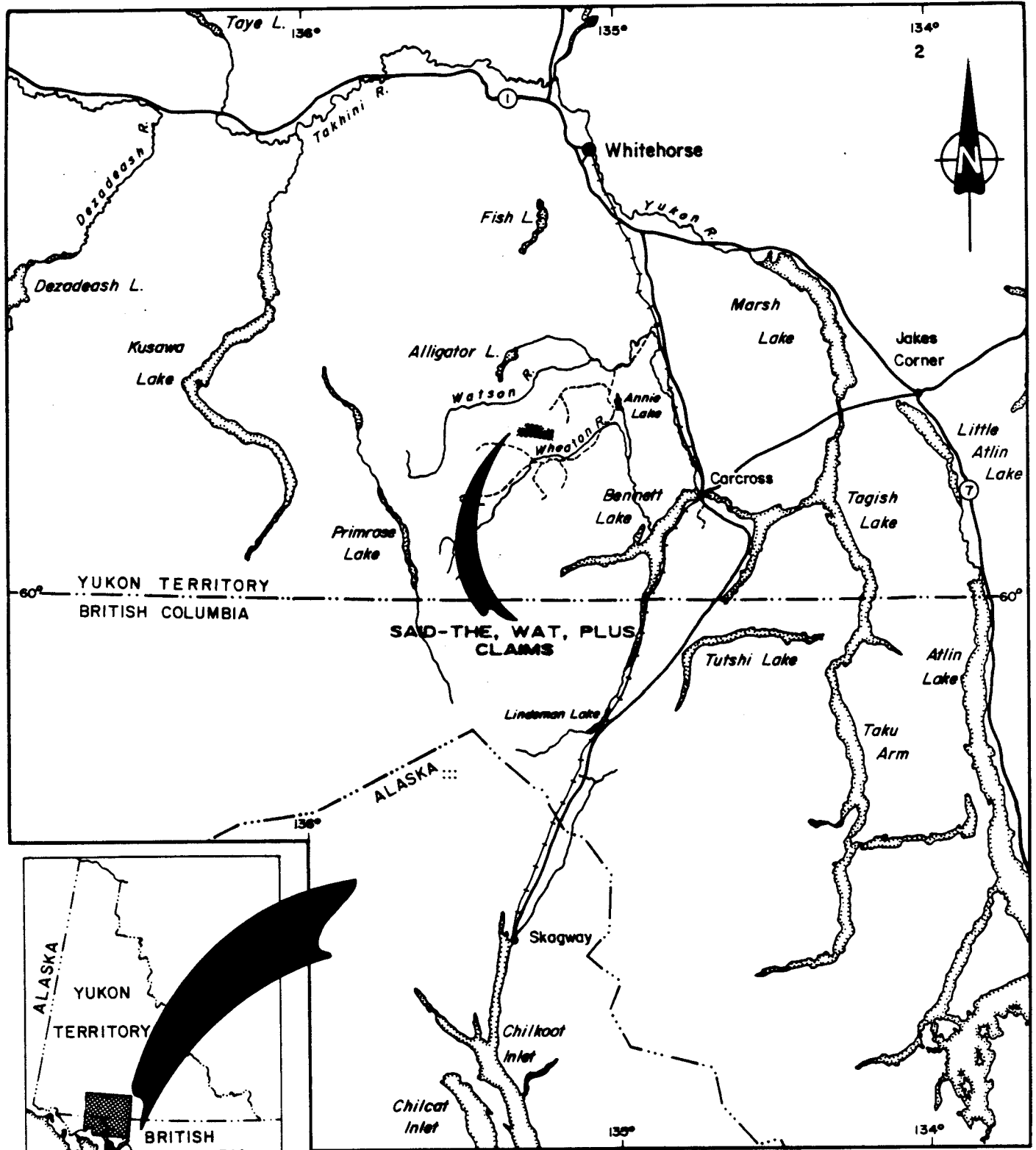
LOCATION AND ACCESS

The SAID-THE-WAT-PLUS property is located approximately 50 km southwest of Whitehorse, Yukon. The property is 6 km north of the Mt. Skukum gold-silver deposit at 60° 16'N latitude and 135° 26'W longitude (Figure 1). The claims are located at the headwaters of Summit and Towle creeks between the Wheaton and Watson Rivers.

Access to the Wheaton River district is via the 40 km long all weather Annie Lake road from the Klondike highway to Omni Resources Inc.'s Skukum Creek property. An 8 km tote road built in 1987, and upgraded in 1988, leads from the Mt. Skukum Gold Corporation millsite up Summit and Towle Creeks through the central part of the SAID-THE claims to the southwest corner of the claim group. A dirt barrier was put across the road after the 1988 field season. Access to the remainder of the property is via helicopter. A Bell 206 helicopter based at the Mt. Skukum mining camp was used for drop offs on the PLUS claims during the 1989 field season.

CLIMATE, TOPOGRAPHY AND VEGETATION

The climate in the Wheaton River area is variable, with warm summers and long, cold winters. Precipitation is light (approximately 40 cm annually), with moderate snowfalls during the winter months. The area is susceptible to periodic strong and gusty winds from moist Pacific systems rising over the Coast Mountains. The exploration season on the property extends from June through to mid September.



NORTHERN MINERALS LTD	
SAID-THE, WAT, PLUS CLAIMS	
LOCATION	
Aurum Geological Consultants Inc.	OCTOBER 1989
Drawn by NH	Scale 1:1,000,000
FIGURE : 1	

Topography of the SAID-THE-WAT-PLUS property is rugged with most of the property consisting of steep cliffs and talus covered slopes. A rock covered plateau occurs on the northeast side of the SAID claims. The northernmost parts of the property are gentle slopes facing the Watson River. Elevations vary between 1450 m (4760') in Summit Creek Pass to 2244 m (7360') on SAID 34. Many of the cirques contain alpine lakes and the north facing cirques contain small glaciers and some permanent snow.

Most of the property is vegetation free with alpine grasses, alders and willows occurring at lower elevations.

PROPERTY

The SAID-THE-WAT-PLUS claim group consists of 186 contiguous mineral claims (including 65 fractional claims) located on 105D/6 and D/3 maps of the Whitehorse Mining District (Figure 2). Fifty-five fractional and 10 complete mineral claims were added during the 1988 season, following a claim survey by Underhill and Underhill of Whitehorse. The surveyed map is given in Figure 2a.

Claim Name	Grant Number	Expiry Dates
SAID 1	YA77877	January 23, 1999
SAID 2-15	YA77878-891	January 28, 1999
SAID 16	YA77892	January 28, 1995
SAID 17-23	YA93024-030	January 28, 1995
SAID 24-35	YA93522-533	September 12, 1999
SAID 1&3 Fr	YA93021, 93023	January 28, 1999
SAID 4 Fr	YA93534	September 12, 1995
THE 1-48	YA77925-972	January 28, 1995
THE 49	YA93036	January 28, 1995
THE 1-5 Fr	YA93031-035	January 28, 1995
THE 6-7 Fr	YA93687-688	January 29, 1991
WAT 1-27	YB07713-739	August 28, 1993
PLUS 10-18	YB21297-314	August 25, 1991*
PLUS 20-39	YB21315-334	August 25, 1991*
PLUS 45-53	YB21339-347	August 25, 1991*
PLUS 58-65	YB21352-358	August 25, 1991*
PLUS 101-111	YB21360-370	August 25, 1991*
PLUS 40, 55	YB24034,035	October 14, 1991*
PLUS 41-44	YB21335-338	August 25, 1990*
PLUS 56, 57	YB21349-350	August 25, 1990*

* subject to approval of 1989 assessment work

The claims are owned by AGIP Resources Ltd. in a 50/50 joint venture with Northern Minerals Ltd. Northern Minerals Ltd. is the operator.

HISTORY

The first recorded mineral exploration in the Wheaton River district occurred in 1893 when Frank Corwin and Thomas Rickman located several claims on Carbon Hill, Chieftain Hill, Idaho Hill and possibly Gold Hill. The men died shortly after without disclosing the location of their claims. Exploration resumed in 1905 with the discovery of silver-gold bearing veins on Montana Mountain and the discovery of free gold and tellurides on Gold Hill in 1906 (Cairnes, 1912). Exploration, development and some mining has continued intermittently since then.

Exploration activity has increased in recent years with the temporary opening of the Venus gold-silver mine by United Keno Hill Mines in 1980-1981 and the discovery of the Mt. Skukum gold deposit in 1981-1983 (164,000 tons at 0.73 oz/ton gold and 0.63 oz/ton silver: Total-Erickson 1985 Annual Report) by AGIP Canada Ltd. Mining of the Mt. Skukum deposit commenced in the spring of 1986 at the rate of 300 tons per day. Mining and milling operations were suspended in August, 1988 due to depletion of ore reserves. Omni Resources' Skukum Creek Au-Ag deposit was discovered in 1985 and production was scheduled to begin in March 1988, but has been suspended. Published proven reserves are 821,000 tons of 0.225 opt gold and 8.96 opt silver (Canadian Mines Handbook, 1988-89).

The SAID and THE claims were staked by AGIP Canada Ltd. in 1983 and optioned to Kerr Addison Mines Ltd. of Vancouver in late 1984. Exploration in 1985 and 1986 consisted of geological mapping, geochemical sampling, some geophysics, staking of additional claims, trenching and blasting and the drilling of 9 short diamond drill holes (BQ) totalling 904.9 m. Kerr Addison dropped their option at the end of 1986. Pacific Trans-Ocean Resources Ltd. optioned the claims in 1987 and carried out a program of geological mapping, geochemical sampling, geophysics, road building, trenching, and drill site preparation. The WAT claims were staked in August 1987. A chip sample collected from the Far SW zone in 1987 contained 19 g/t gold and 24.4 g/t silver over 2 m. Exploration in 1988 consisted of diamond drilling (813.3 m BQ, NQ and HQ in 8 holes), bulldozer trenching, road building, drill pad construction, geochemical sampling, VLF-EM and magnetometer surveying, geological mapping, prospecting, claim surveying and additional claim staking (PLUS claims). Several float quartz vein

samples collected in the Flat and Creek zones during prospecting contained over 1000 ppb gold.

In 1989, Northern Minerals Ltd. carried out the program described in this report.

GEOLOGY

Regional Geology

The SAID-THE-WAT-PLUS property is located on the northeast side of the Tertiary Mt. Skukum volcanic complex, situated near the eastern margin of the Coast Plutonic Complex. The regional geology has been well described by Cairnes (1912), Wheeler (1961) Lambert (1974), and Doherty et al (1988).

The Coast Plutonic Complex consists of Jurassic to Cretaceous foliated and non-foliated granitoid rocks which intrude and underlie low grade metamorphosed sediments and volcanics of the Mesozoic Whitehorse-Nechako Trough and quartzites, schists and gneisses of the late PreCambrian to Early Paleozoic Nisling terrane.

Subaerial rhyolite, dacite and andesite flows and pyroclastics of the Tertiary Skukum Group unconformably overlie all older units in the region. The Skukum Group occurs mainly in two isolated areas; Mt. Skukum and Bennett Lake. These two areas have been interpreted to represent paleovolcanic centers (Lambert, 1974 and Pride, 1985). The SAID-THE-WAT-PLUS property is located at the northeast corner of the Mt. Skukum volcanic complex. Late stage rhyolite, dacite and andesite dykes cut all other rock units in the region.

The regional structural trend is northwest. This is cut by younger Tertiary structures.

Property Geology

The following description of SAID-THE-WAT Property Geology is from Garagan, (1988) and applies to the adjoining PLUS claims.

The SAID-THE-WAT-PLUS property is underlain by Tertiary Skukum rhyolite to dacite tuffs, welded tuffs and flows and andesite tuffs and flows which unconformably overlie Cretaceous granodiorite to diorite. Numerous rhyolite, andesite and dacite dykes cut all units on the property. The volcanics are intruded by a large quartz-feldspar porphyritic alaskite to rhyolite (at margins) plug on the southeast side of the claims. The rhyolite dykes on the property may be

related to this plug. All the units are cut by a northeast trending, southeast dipping (approx 70 degrees) fault (Main structure) which extends for at least 4.5 km. Several north-south and northwest trending faults are associated with this structure.

Cretaceous granodiorite to diorite is exposed adjacent to major faults on the northeast end of the property between lines 26N and 32N and at lower elevations on the northwest side of the claims (Figure 3). A diorite (assumed to be Cretaceous) is also exposed between L37N and 39N and 39N/1 + 50E to 2 + 50E. The granodiorite to diorite contains 10-15% medium grained hornblende in a medium to coarse grained equigranular matrix. Several small outcrops of amphibolite located between L30N and L32N, along the Main structure, may be part of the Nisling terrane and could represent large blocks caught in the fault zone, or large xenoliths within the granodiorite.

The volcanics on most of the property can be divided into a lower rhyolite tuff and bedded tuff package, a middle dacite tuff and epiclastic unit, and an upper andesite flow and tuff package. Dark andesite flows, flow breccias and tuffs underlie the rhyolite on the northeast side of the WAT grid. The volcanics are similar to the upper andesites and those hosting the Mt. Skukum deposit. The lower andesites are not seen on any other part of the claims. This lower andesite is slightly more mafic than the upper andesite and is not as orange weathering.

The lower rhyolite tuff and welded tuff package unconformably overlies the granodiorite and occurs throughout most of the property. This unit consists of a lower purple ash flow tuff and welded tuff package with abundant granodiorite clasts and an upper welded tuff, ash tuff and rhyolite flow and flow breccia lithic lapilli tuff with approximately 30% lapilli to locally block size fragments of rhyolite, welded tuff, lithic lapilli tuff and granodiorite with occasional feldspar and quartz crystal fragments. The granodiorite clasts increase in size and abundance lower in the unit and locally occupy 30% of the rock near the basement. Rocks of this unit occur along the Main structure on the PLUS claims. The lower welded tuff is dark purple and is moderately to densely welded (often glassy) with 5-10% clasts of welded tuff, rhyolite and granodiorite and 1-5% broken feldspar and rare quartz crystals. The welded tuff is interbedded and interfingering with the ash flow tuffs. The upper rhyolite consists of a dark purple to pink welded tuff overlain (?) by a platy rhyolite ash tuff and a series of maroon, grey and tan rhyolite flows and breccias. These units appear to be thickest in the central part of the claims and are very thin to absent in the rest of the property.

The dacite tuff package is a light brown to green and locally dark purple bedded tuff package which forms a very thick unit on the west half of the claims. The tuffs thin rapidly to the east and are absent on the eastern side of the property. They dip 20 to 50 degrees west (usually 20 to 30 degrees) and conformably overlie rhyolite ash flow tuffs and flows in the central part of the claims. It is in fault contact (Glacier Zone fault) with rhyolite ash flow and welded tuffs southwest of the main grid. The unit is comprised of a lower very thin clast dominated (75% clasts) lithic lapilli tuff which is overlain by a very thick package of bedded ash and lapilli tuffs with minor welded tuffs and andesites. The bedded unit contains very well bedded interbeds of fine grained epiclastic sediments which exhibit graded bedding and load textures. This dacite tuff can be found throughout the Mt. Skukum caldera (Pride, 1985).

The dacite tuff package is overlain by an upper unit of dark grey to green weathering orange brown, series of thick andesite and dacite flows and tuffs. These andesites are exposed in fault blocks in the central and eastern parts of the claims. They are massive with some interbedded flow breccias and contain 5 to 15% medium grained feldspar phenocrysts. Massive andesites are often columnar jointed. Some interbedded lapilli and ash tuffs occur in the northeast side of the claims where they overlie the lower rhyolite package. These andesites are similar to those which host the Mt. Skukum gold-silver deposit.

Several northeast to north-south trending light brown platy weathering rhyolite dykes cut all units on the property. The dykes are between 0.5 and 5 m wide and usually dip steeply southeastward. The dykes tend to follow the major fault zones on the property. A few andesite and dacite dykes cut the lower rhyolite and middle dacite package. These dykes are cut by the later faults and may represent feeders to the upper andesite and dacite flows.

A large quartz-feldspar porphyritic alaskite plug intrudes the volcanics on the southeast part of the claims. The margins of the intrusion are very fine grained and are texturally similar to the rhyolite dykes. Many of the rhyolite dykes are probably related to this plug.

All the units on the property are cut by a northeast trending southeast dipping fault (Main structure) which extends for at least 4.5 km through the center of the claims. According to Doherty (pers comm, 1987), the fault extends an

additional 10 km to the northeast. The Main structure consists of 1 to 3 parallel faults with individual fault zones up to 15 m wide. Several north-south and northwest trending splay faults are related to this structure. Many of these associated faults are block faults, possibly related to the emplacement of the large alaskite plug. The Glacier zone faults appear to extend south towards the Cirque and Lake zone structures; which host the Mt. Skukum gold-silver deposit. The relative movement on all the faults is vertical and is highly variable from block to block. Several faults located on the northwest side of the claims are parallel to the Main structure. Many of the faults on the SAID-THE-WAT-PLUS claims host quartz-chalcedony veining and breccia zones.

The Main structure and associated splays trend east-northeast and continue east off the PLUS claims. A north-south trending structure cuts the Main structure in the center of the PLUS claim block. Several additional northeast and north-south trending faults are associated with the Main structure on the PLUS claims.

MINERALIZATION AND ALTERATION

Mineralization at most of the zones on the SAID-THE-WAT property has been described in Garagan (1987) and Garagan (1988). Quartz vein float material found on the WAT claims is described below (modified from Garagan, 1988). Similar material was found on the PLUS claims (see Exploration).

Quartz vein float material with fluorite cast and calcite replacement textures similar to that found in the Central and Northeast zone is found along the Main structure and secondary splay structures on the WAT and PLUS claims. The Main structure trends 065° to 070° and is exposed on the WAT claims as areas of bleached, clay-rich soil and local quartz vein float. Subcrop and talus of gossanous tuff with attendant quartz vein float parallels the Main structure. Quartz vein float material was found in a gully on the PLUS claims along the Main structure or an associated splay. No clay alteration was noted.

1989 EXPLORATION

Introduction

Exploration on the PLUS claims in 1989 consisted of geological mapping, prospecting, and rock, soil and silt sampling. All exploration was carried out on the PLUS claims and the east end of the WAT claims, with emphasis placed on prospecting the Main structure and associated splays. The 1:10,000 geology map produced by Garagan (1987, 1988) was used as a base map.

Soil sample locations are marked with pink flagging tape. Rock sample locations are marked with orange flagging tape. Four soil grids were established on the PLUS and WAT claims.

A total of 155 soil samples, 49 rock samples and 6 silt samples were collected during the 1989 field season. All samples were analysed for gold, silver, copper, lead, zinc, arsenic and antimony. Analyses were carried out by Northern Analytical Laboratories Ltd. of Whitehorse, Yukon. Analytical methods, results and rock sample descriptions are given in Appendix A and the sample locations and results are plotted in Figures 3, 4, and 5.

Rock Geochemistry

Rock sample locations and gold and silver results are plotted in Figure 3.

Several quartz-chalcedony vein float and outcrop samples were collected along a 5 m gully along the interpreted Main structure or associated splay. The samples exhibit crustiform and cockade textures and contain angular volcanic breccia fragments. No clay rich soil was noted. A sample of quartz chalcedony vein float (9820009) contained 302 ppb gold and 2.0 ppm silver. This is the highest gold value found in any rock sample during the 1989 program on the property. Narrow veins (less than 6 cm wide) were found on the sides of the gully.

Altered quartz eye rhyolite porphyry samples (#9812012 - 9812014) contain up to 206 ppb gold. A hematite stained and clay altered rock (9812017) collected from a fault contained 167 ppb gold.

A gossan in Towle Creek stream bed was sampled. The gossan is 100 m east of the PLUS claim block, and consists of rusty weathering rhyolite tuff containing disseminated pyrite. Samples from the gossan (#9816002 - 9816005) contain up to 257 ppb gold.

A rusty weathering silicified and pyritized altered tuff(?) was found on the north slope of F.S. peak, 200 m south of the Main structure. The rock contains up to 10% fine grained pyrite and trace amounts of very fine grained arsenopyrite. Gold and silver values were low in chip and grab rock samples collected from this zone, but arsenic values are up to 620 ppm.

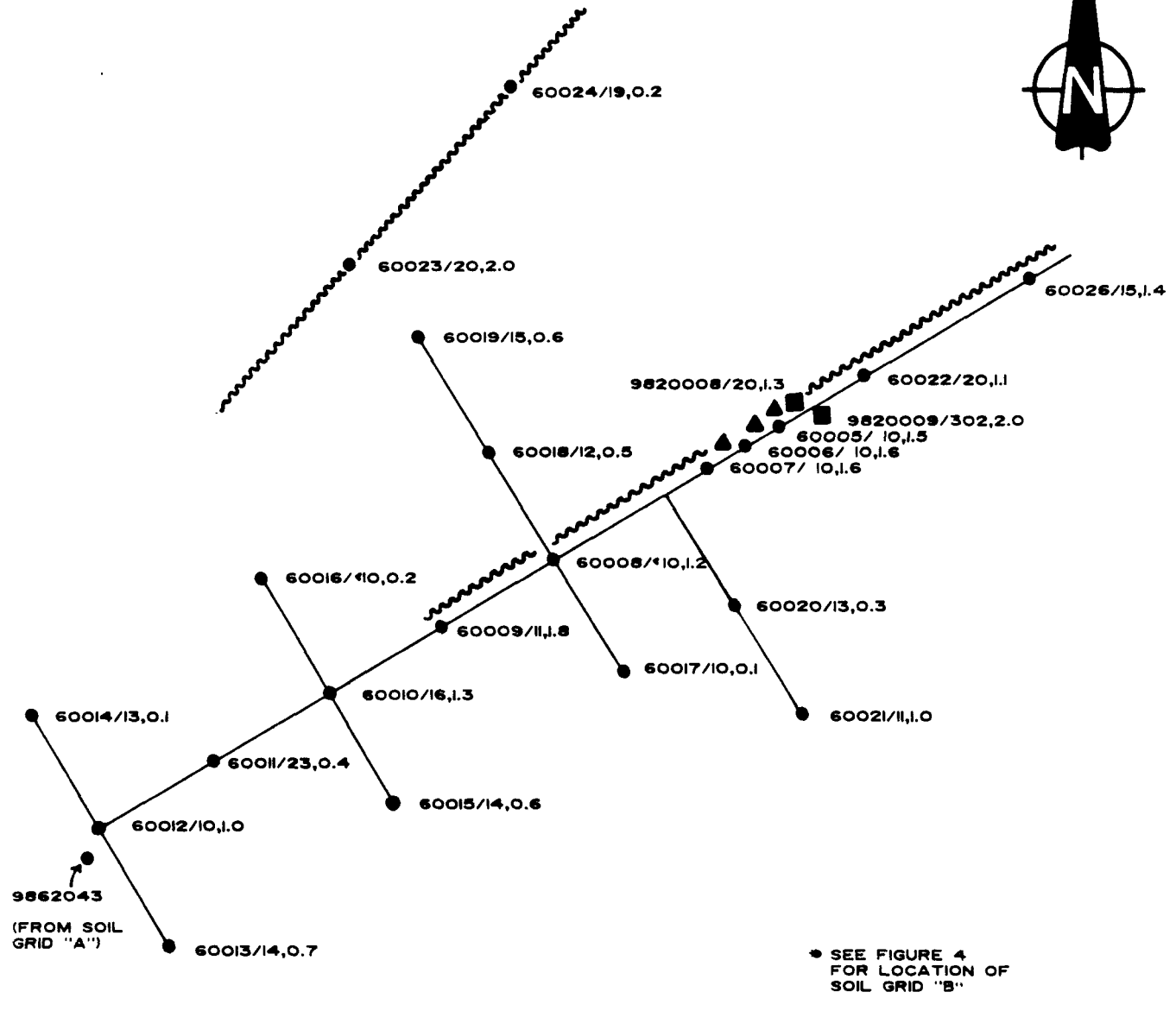
Soil and Silt Geochemistry

Soil grids A, C and D and reconnaissance soil and silt locations and sample results are plotted on Figure 4. Soil Grid B location and sample results are plotted on Figure 5. Sample intervals vary from 5 m to 25 m along cross lines 10 m to 25 m apart. Soil samples consisted of medium brown to gray B horizon soil from less than .25 m depth.

Soil grid A is situated on the PLUS-WAT claim boundary. Soil samples #9862004 to 9862048 were collected. All soil samples contained less than 50 ppb gold with the exception of sample #9862037 which contained 447 ppb gold. The highest silver value was in #9862017, which contained 5.7 ppm. Five soil samples from this grid contained over >300 ppm arsenic, six samples contained >200 ppm zinc and eight samples contained >100 ppm antimony.

Soil grid B is situated over quart-chalcedony vein float found near the inferred trace of the Main structure. Soil samples #9860005 to #9860026 were collected and contain less than 25 ppb gold and less than 2.0 ppm silver. A float sample collected on soil grid B contained 302 ppb gold (see above), but nearby soil samples contained low gold values.

Soil grid C is situated on the WAT claims slightly west of Soil grid A. Soil samples #9865001 to #9865028 were collected and contain less than 30 ppb gold and less than 2.5 ppm silver.



LEGEND

- 9820008/20,1.3 Au (ppb) / Ag (ppm) ROCK GRAB SAMPLE
- 60005/ 10,1.5 Au (ppb) / Ag (ppm) SOIL SAMPLE (ALL SAMPLES BEGIN WITH 98...UNLESS OTHERWISE INDICATED)
- ▲▲▲ QUARTZ CHALCIDONY VEIN FLOAT
- ~~~~~ FAULT

NORTHERN MINERALS LTD	
PLUS CLAIMS	
SOIL GRID "B"	
ALPINE GEOLOGICAL CONSULTANTS INC	
OCTOBER 1989	
NTS: 1050/6	Drawn by: LW / LK
SCALE: 1:500	FIGURE : 5

Soil grid D is situated on the PLUS claims on a north facing slope north of the Main structure. Soil samples #9862049 to #9862067 were collected and contain less than 20 ppb gold and less than 1.5 ppb silver. Arsenic values were up to 200 ppm and antimony values up to 160 ppm.

Sample #9862074 from the north boundary of the PLUS claims contained 240 ppb gold and 1.3 ppm silver. The remaining reconnaissance soil samples contained background metal values

CONCLUSIONS AND RECOMMENDATIONS

The SAID-THE-WAT-PLUS property is underlain by Tertiary Skukum Group subaerial rhyolite to dacite tuffs, welded tuffs and flows, and andesite tuffs and flows. A large rhyolite plug and related dykes intrude the volcanics throughout the claims. Jurassic to Cretaceous diorite occurs in the north part of the PLUS claims and is separated from the younger volcanics by faults. The diorite may belong to a much older suite of Paleozoic rocks (Hart, pers. comm.). The volcanic rocks are cut by a northeast trending, southeast dipping (approx. 70 degrees) fault which extends for at least 4.5 km. Several north-south and northeast trending splay faults are associated with this Main structure. The Main structure and associated splay faults cross the center of the PLUS claims and are bisected by a north-south trending fault in the center of the claims. Mineralization in the Main structure consists of quartz veins and quartz cemented breccias exhibiting cockscomb, crustiform, open space, fluorite casts, sinter and bladed calcite replacement textures; all typical of the upper levels in an epithermal vein system.

The PLUS claims are lower in elevation than the SAID-THE-WAT claims. It was hoped that any quartz-chalcedony float found along the Main structure or associated splay faults would represent a deeper seated epithermal system containing higher precious metal values than had been found previously. Quartz chalcedony float was found on the PLUS claims in a narrow gully along the projected extension of the Main structure. A float sample of the quartz vein material contained 302 ppb gold, which is the highest gold value of any rock sample collected on the PLUS claims. The float samples come from a 5 m wide talus filled gully with narrow quartz-chalcedony stringers on the side.

Several gossanous rhyolites were sampled. Rock samples from a gossan 100 m east of the PLUS claims contained up to 257 ppb gold. A rusty weathering gossan in tuff (?) containing disseminated fine grained arsenopyrite was discovered 200 m south of the Main structure. Rock samples from this zone contained low gold values, but up to 620 ppm arsenic.

Preliminary prospecting and sampling has been done on the PLUS claims. Although gold values were disappointing, there are several anomalous values of arsenic, antimony and zinc in the hundreds of ppb's. Quartz-chalcedony float and outcrop similar to that found on the SAID-THE-WAT claims and containing up to 302 ppb gold was found on or near the trace of the Main structure. No clay alteration was found.

The results warrant a short followup program to further evaluate the area of the Main structure on the PLUS claims. The following program and budget is recommended.

1. Establish a 500 m x 400 m grid in the area between Soil Grid A and Soil Grid D.
2. Soil sampling, mapping and VLF-EM and magnetometer surveys over the grid.
3. Follow-up soil sampling and geophysical results with hand trenching to find clay alteration zones

Geology	\$ 6,000
Geochemistry	5,000
Geophysics	2,000
Helicopter (3 hrs @ \$700/hr)	2,100
Camp Costs	500
Field Supplies	500
Rentals	200
Travel	500
Report Writing	3,000
Assessment Fees	100
Freight and Postage	100
Subtotal	20,000
Contingency (10%)	<u>2,000</u>
Total Estimated Budget:	\$ 22,000

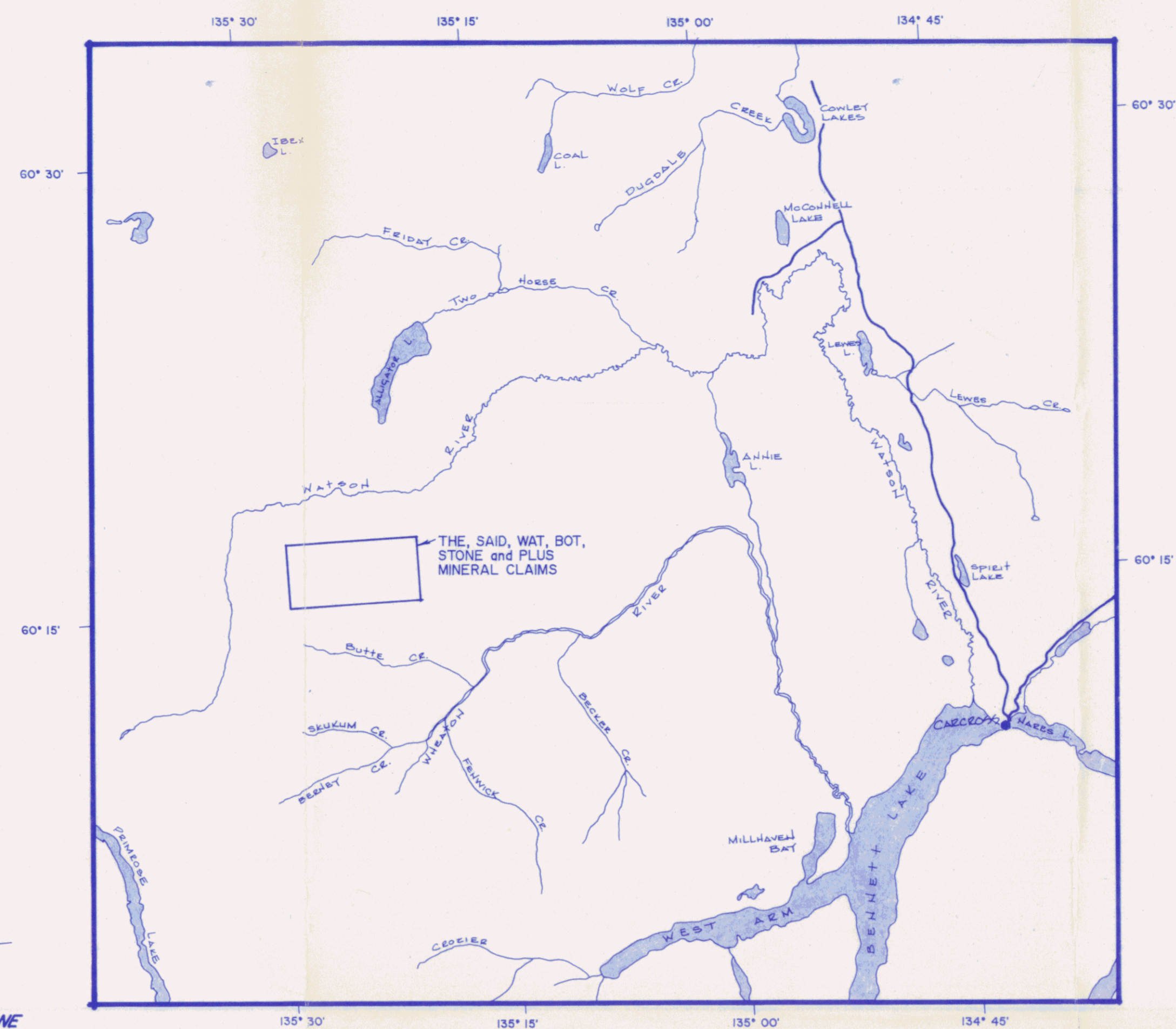
Respectively submitted,
Aurum Geological Consultants Inc.

Lori Walton

Lori Walton, M.Sc.

REFERENCES

- Cairnes, D.D., 1912: Wheaton District, Yukon Territory, G.S.C. Memoir 31.
- Doherty, R.A., Hart, C.J.R., Hunt, J. and Wegenast, J.,: 1988, Geology of Fenwick Creek Map Area (105 D/3), Open-File Report 1988-2, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs, Canada, 1:50,000 scale map.
- Garagan, T., 1987: 1987 Exploration Activities on the SAID-THE-WAT Claims, Whitehorse Mining District. Report for Pacific Trans-Ocean Resources Ltd. by Aurum Geological Consultants Inc.
- Garagan, T. 1988: Report on the 1989 Exploration Activities on SAID-THE Claims. Report for Pacific Trans-Ocean Resources Ltd. by Aurum Geological Consultants Inc.
- Lambert, M.B., 1974: The Bennett Lake Cauldron Subsidence Complex, British Columbia and Yukon Territory, G.S.C. Bulletin 227.
- Pride, M.G., 1985: Preliminary Geological Map of the Mt. Skukum Volcanic Complex, 105D/2,3,4,5. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs, Canada, open file, 1:25,000 scale map.
- Wheeler, J.O., 1961: Whitehorse Map Area, Yukon Territory, 105D., G.S.C. Memoir 312.



FIELD NOTES OF
LOCATION LINE SURVEY OF
THE 7 to 10, 15 to 20, 25 to 30, 33 to 40, 43 to 48
SAID 3 to 8, 11 to 16, 20 to 23
WAT 1 to 8
BOT 15 to 24, 35 to 51
STONE 11 to 14, 27 to 28, 41 to 42, 55 to 56
PLUS 101 to 111 MINERAL CLAIMS

and
THE 1 to 4, 6 to 7
SAID 1 to 2, 4
PLUS 10 to 18, 20 to 65 FRACTIONAL CLAIMS

LATITUDE 60° 16', LONGITUDE 135° (APPROX.)
WHITEHORSE MINING DISTRICT
YUKON TERRITORY
SCALE 1 : 10,000
092768 207 105 036

SUPPLEMENTARY FIELD NOTES IN BOOK FORM LISTING LOCATION POST DETAILS AND TIES ARE RECORDED AS F.B. _____ IN THE CANADA LANDS SURVEY RECORDS.
THIS SURVEY WAS EXECUTED DURING THE PERIOD OF JULY 22ND, 1988 TO OCTOBER 13TH, 1988 BY F. BRUCE UNDERHILL, C.L.S.
for
ALURUM GEOLOGICAL CONSULTANTS LTD.

LEGEND
Bearings are astronomic derived from stated bearing 117° 45' 50" for the line between Fd. C.L.S. 77 2360, 1988 and Fd. C.L.S. 77 2371, 1983 as shown on Field Notes 69350 CLS and according to those field notes are referred to the meridian of 135° West Longitude.
Distances are expressed in metres and decimals thereof.
CLS posts placed in the course of this survey are marked with an identifying number and year of survey.
CLS 77 Posts Found Shown Thus ● Fd. 2360, 1988
CLS 77 Posts Placed Shown Thus ● Fd. 2360, 1988
Control Stations Found Shown Thus ● Fd. 2360, 1988
Control Stations Placed Shown Thus ● Fd. 2360, 1988
Location Posts Only Found Shown Thus □
Traverse Lines and Station Shown Thus ———

I, F.B. Underhill, of the City of Whitehorse, Canada Lands Surveyor, make oath and say that I have in my own proper person, according to law and the instructions of the Surveyor General of Canada, Landy, faithfully and correctly executed the survey shown by these field notes, and I certify that I have found no trace or indication and have no knowledge or information of any such claim except as follows: NONE

Sworn before me at Whitehorse, Yukon this _____ day of _____ 1988

A Notary Public in and for the Yukon Territory

CERTIFICATE : Sec. 96 YOMA
I hereby certify that I have carefully examined the ground included in the mineral claims shown herein surveyed by me, and have otherwise made all reasonable investigations in my power to ascertain if there was any other existing claim conflicting therewith, and I certify that I have found no trace or indication and have no knowledge or information of any such claim except as follows: NONE



LEGEND

LITHOLOGIES	
TERTIARY	
7	rhyolite porphyry to alkali*
6	rhyolite, dacite dykes maybe related to unit 7
5	andesite dykes
4	andesite flows, tuffs, dacite flows
3	dacite & rhyolite tuffs, bedded ash & lapilli tuffs, clast dominated ash flows, epiclastic sediments
2	rhyolitic lithic lapilli tuff, welded tuff
JURASSIC to CRETACEOUS	
1	granodiorite, diorite, quartz monzonite, lo-fine grained diorite dyke

	geological contact (defined, approximate, assumed)
	fault
	bedding, vein, dyke (inclined)
	jointing (inclined)
	quartz vein float outside main structure
	limit of geological mapping
	access road
	claim boundary
	bleached clay rich soil

SYMBOLS

	elevation contour - 10m interval
	lake, creek
	1987 rock sample-float, sample number/ Au in ppb, Ag in ppm
	1987 rock sample-outcrop, sample number/ Au in ppb, Ag in ppm
	1988 rock sample-float, sample number/ Au (ppb), Ag (ppm), As (ppm), Sb (ppm), Cu (ppm), Pb (ppm), Zn (ppm) unless otherwise indicated
	1988 rock sample-outcrop, sample number/ Au (ppb), Ag (ppm), As (ppm), Sb (ppm), Cu (ppm), Pb (ppm), Zn (ppm) unless otherwise indicated
	1986 rock sample-float
	UTM coordinates

ABBREVIATIONS

VNC	quartz-calcite vein material
VNQ	quartz vein material
py	pyrrhotite
py	pyrite
fl	fluorite
mag	magnetite

NOTE: - SAID, THE, WAT & PLUS internal fractions included in the claim boundary, surveyed by Underhill & Underhill of Whitehorse, September 1988.
- However claim boundary relative to this topography map is approximate.

	1989 rock sample-float, sample number / Au (ppb), Ag (ppm), all sample numbers begin with 98...
	1989 rock sample-outcrop, sample number / Au (ppb), Ag (ppm), all sample numbers begin with 98...
	gossan

100m 0 100 200 300 400 500 600 700m

SCALE IN METRES

092768 207

NORTHERN MINERALS LTD

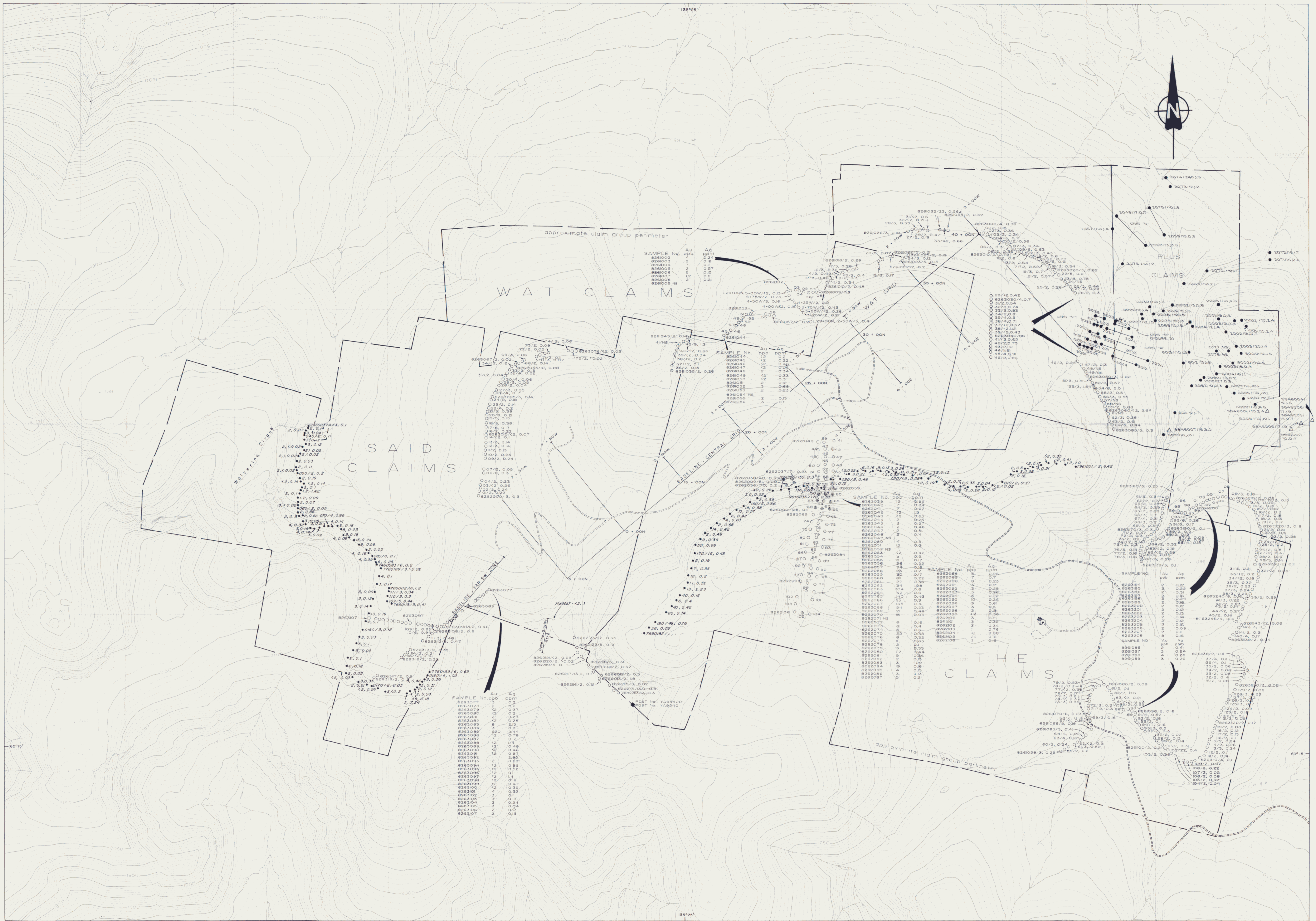
SAID-THE, WAT & PLUS CLAIMS
WHITEHORSE MINING DISTRICT

1987, 1988 & 1989

GEOLOGY and ROCK GEOCHEMISTRY

Aurum Geological Consultants Inc. OCTOBER 1989
NTS 105 D / 386 DRAWN BY TAG/PJM SCALE 1:10,000 FIGURE 3

*unit 7 contact modified after Kerr Addison, 1986



LEGEND

● 961036/170, 0.35 talus fine sample location / Au in ppb, Ag in ppm (1987)

— access tote road

— claim boundary

— lake, creek

— elevation contour - 10m interval

— UTM coordinates

○ 826217/13.0, 0.1 1988 soil sample location, sample number / Au ppb, Ag ppm

⊕ 1988 soil sample which contains greater than 20ppb Au or 1.0 ppm Ag

● 2002/15.0, 7 1989 soil sample (all sample numbers begin with 986...)

△ 986001/16.2, 4 1989 stream silt sample Au (ppb)/Ag (ppm)

NOTE: - Grid is approximately located relative to topography

- Claim boundary relative to this topography map is approximate, however claims are accurate, based on Underhill & Underhill claim survey, September, 1988



100m 0 100 200 300 400 500 600 700m

SCALE IN METRES

206

NORTHERN MINERALS LTD
 SAID-THE, WAT & PLUS CLAIMS
 WHITEHORSE MINING DISTRICT
 1987, 1988 **092768**
 Au - Ag TALUS FINES
 SOIL GEOCHEMISTRY

APPENDIX A

**Analytical Methods
Analytical Results
Rock Sample Descriptions**

SAMPLE PREPARATION

Soils

Incoming soils are sorted, counted and logged. The soils are placed in an oven devoted to geochem and dried at 150 F.

When soils are dry, they are sieved through an 80 mesh screen. If 20g of -80 # soil is not obtained, the +80 # is then sieved through a 40 # sieve and placed in a separate bag. The reject is stored in its original bag.

Rocks

Incoming rocks are sorted, counted and logged. Rocks are first crushed through a jaw crusher set at 3/8" gap and then crushed through a 1/8" gap.

The crushed sample is split using a Jones Riffle until a 250g sample is obtained. The reject is placed in its original bag and stored.

The sample is then dried at 150 F and pulverized to -150 # using a ring pulverizer.

ATOMIC ABSORPTION ANALYSIS

Geochem Digestion [Trace Level Analysis]

0.500g of sample is weighed into a 16 x 150 mm test tube. 2 mls of 1:1 Nitric Acid is added and the test tube is placed in a hot water bath for 20 minutes. 3 ml of HCl is added and the sample is heated for 40 minutes. When digestion is completed, the sample is cooled in a cold water bath. The test tube is then bulked to 10 mls using a reference, stirred and allowed to settle. The sample is now ready to run on the A.A.

For ICP the sample is digested in one step using 5 mls of 3 parts HCl, 1 Part Nitric Acid and 2 parts water.

Assay Digestion [Ore Level Analysis]

1.000g of sample is weighed into a class A 100 ml volumetric flask. 5 mls of Nitric Acid is added and the flask is placed on a 400 F hot plate until the red fumes indicating reaction subside. 20 mls of water* and 10 mls of HCL are added and placed on the hot plate for 5 minutes. The flask is then bulked to the neck with water and brought to a boil. The flask is then cooled, bulked to the mark, shaken and allowed to settle prior to running on the A.A.

* Some elements require special treatment. For example, Sb requires 20 mls 10% Tartaric acid.

TRACE LEVEL GOLD FIRE ASSAY

15g of sample is mixed with a suitable flux in a 30g crucible, inquarted with 2 mg Ag and fused at 1900 F. The contents of the crucible is poured into a mold and allowed to cool. The slag is broken off and discarded. The lead button is then pounded into a cube.

The lead button is placed into a bone ash cupel which has been preheated to 1800 F. When the lead is completely molten, the temperature is dropped to 1750 F. The dampers are opened to allow air inside the furnace. When cupelation is complete, the cupel is taken out and allowed to cool.

The silver-gold prill is picked out of the cupel and dropped into a 16 x 150 mm test tube. 2 mls of 1:1 Nitric Acid is added and the test tube is heated to dissolve the silver. 3 mls of HCl is then added to dissolve the gold. The test tube is made up to 10 mls using a reference, mixed and run on the A.A.

September 1, 1989

Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

Work Order # 29027

File # 29027d

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
27+75 9862519 50+75	20	1.1	64	<1	160	70	<10
27+75 9862520 50+75	17	1.3	58	1	164	10	20
PLUS 9846007 PLUS 16	16	3.0	35	44	255	140	30
PLUS 9866010 G.Y. Fault	10	<0.1	30	45	451	130	<10
9866011	12	1.7	29	65	410	40	10
9866012	15	1.9	48	27	110	80	50
9866013	<10	1.5	57	7	129	80	20
9866014	12	1.4	41	1	64	10	10
9860022	16	1.0	29	73	229	60	30
9860023 Main	20	2.0	20	30	101	50	<10
PLUS 9860024 struct.	19	0.2	21	31	110	80	20
9860025	17	0.8	78	128	340	60	30
9860026 Soil	15	1.4	26	87	326	10	40
9860027 Grid	12	1.5	29	45	354	70	10
9860028 "B"	<10	1.5	24	47	136	70	30
9860029	18	1.9	119	142	535	20	30
9860030	<10	1.3	32	48	178	110	10
9860031	15	1.3	62	120	376	<10	<10
9860032	13	0.8	58	78	434	40	20



Earl
Soil Grid

September 2, 1989

Pacific Trans-Ocean Resources Ltd.
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 Edmonton, Alberta
 T5J 3P4

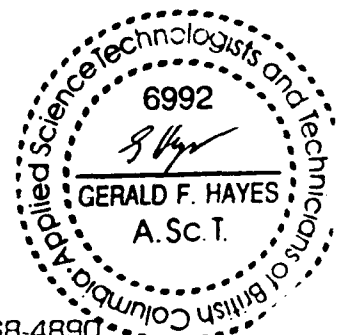
ASSAY CERTIFICATE FOR SAMPLES PROVIDED

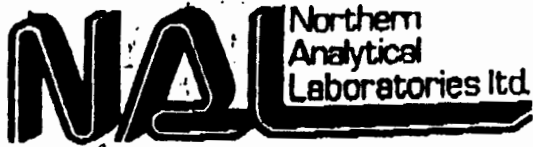
WORK ORDER # 29107A

Sample ppb Au ppm Ag ppm Cu ppm Pb ppm Zn - ppm As ppm Sb

plus soil G

9862004	25	2.4	49	91	179	40	10
9862005	19	2.3	82	110	257	160	40
9862006	14	2.6	50	68	147	190	90
9862007	20	1.8	21	59	87	220	180
9862008	22	2.0	47	31	152	110	40
9862009	17	1.9	38	12	112	400	70
9862010	16	2.1	184	47	218	170	<10
9862011	19	2.2	18	25	97	160	40
9862012	21	2.8	18	25	92	70	<10
9862013	26	3.2	16	28	100	60	90
9862014	25	2.8	16	27	76	50	40
9862015	17	3.8	18	31	104	40	70
9862016	30	5.6	13	11	73	120	80
9862017	16	5.7	16	8	106	160	220
9862018	16	0.8	18	32	85	90	90
9862019	22	4.4	18	60	147	90	70
9862020	23	1.5	16	14	99	320	40
9862021	24	1.9	33	23	107	220	110
9862022	19	0.7	23	50	102	<10	30
9862023	16	1.7	20	43	76	40	50
9862024	17	1.5	49	37	164	260	40
9862025	12	1.1	14	27	99	310	80
9862026	19	3.4	15	28	86	330	90
9862027	16	4.1	18	39	80	430	50





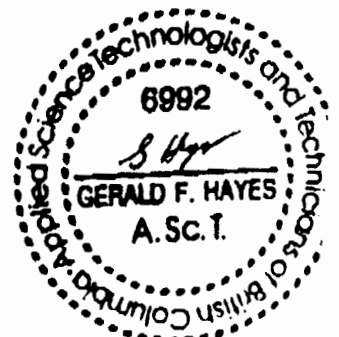
September 6, 1989

Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29107

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9862028	PLUS CLAYS 17	0.9	19	20	174	70	10
9862029	<10	0.8	20	21	141	50	10
9862030	SOIL 28	1.5	16	24	154	130	20
9862031	GRIND <10	1.4	16	20	165	60	10
9862032	"A" 32	2.4	15	23	164	20	10
9862033	39	1.4	13	21	176	110	10
9862034	26	1.9	16	17	130	170	10
9862035	27	1.6	20	43	218	170	30
9862036	25	2.0	17	13	110	140	30
9862037	447	1.2	17	14	132	50	20
9862038	23	0.2	22	58	167	150	20
9862039	17	0.7	25	30	181	140	10
9862040	13	2.1	16	31	247	20	30
9862041	44	0.1	18	23	189	50	20



PLUS SOIL
 GRIND "A"



September 5, 1989

Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29107B

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9862042 PLUS	13	1.4	14	65	120	70	60
9862043 CLAIMS	10	1.4	19	69	122	<10	180
9862044 XIL	10	0.8	21	13	97	<10	30
9862045 GRIN	19	0.7	17	21	116	100	120
9862046 "A"	12	1.2	17	23	151	80	120
9862047	17	1.2	35	58	258	140	170
9862048	17	1.1	21	42	242	<10	110
9862049 PLUS	17	0.7	15	34	122	70	70
9862050 CLAIMS	15	0.9	18	41	111	100	30
9862051 SCIL	16	0.5	14	38	96	130	150
9862052 GRIN	15	0.8	18	42	84	200	<10
9862053	13	0.9	18	52	101	<10	120
9862054 "A"	<1	0.1	16	15	84	50	10
9862055 "D"	31	<0.1	15	<1	68	70	30

Au -- 1AT Fire Assay/AAS
 Metals -- Aqua Regia Digestion/AAS



PLUS SCIL
 GRIN "A"



September 5, 1989

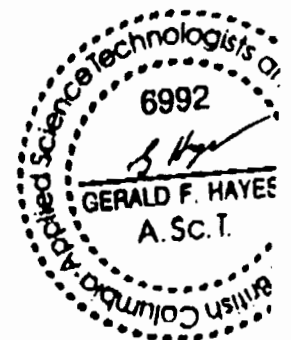
Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29107C

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9862003 <i>ES Peak</i>	20	1.4	10	35	90	<10	10
9862056 <i>PLUC</i>	<10	1.3	15	18	113	<10	10
9862057 <i>SOIL</i>	<10	1.1	16	14	109	50	<10
9862058 <i>GRW</i>	15	0.8	13	30	18	30	10
9862059 <i>"D"</i>	13	0.9	12	9	43	40	<10
9862060	13	0.5	15	4	66	30	10
9862061	18	1.1	16	16	89	<10	10
9862062	12	0.8	14	17	76	20	<10
9862063	17	1.2	15	7	63	40	10
9862064	13	0.7	13	5	71	100	20
9862065	<10	1.4	31	28	112	60	20
9862066	<10	0.5	17	19	79	40	20
9862067	<10	1.4	16	15	80	170	20
9862068	10	1.5	32	22	168	80	20
9862069 <i>PLUS</i>	<10	2.1	21	16	99	20	20
9862070 <i>"D"</i>	<10	1.1	24	23	143	100	20
9862071	14	2.3	23	18	86	140	20
9862072	19	1.7	41	27	105	60	20
9862073 <i>PLUS</i>	12	1.2	24	11	45	80	20
9862074 <i>North</i>	240	1.3	26	18	108	140	30
9862075 <i>slope</i>	<10	0.6	19	22	93	70	20
9862076 <i>SOIL</i>	<10	1.2	21	23	96	70	20
9865001 <i>M.F.</i>	11	1.9	15	32	108	40	20
9865002 <i>SOIL</i>	13	1.4	15	26	115	70	30

Au -- 1AT Fire Assay/AAS
 Metals -- Aqua Regia Digestion/AAS



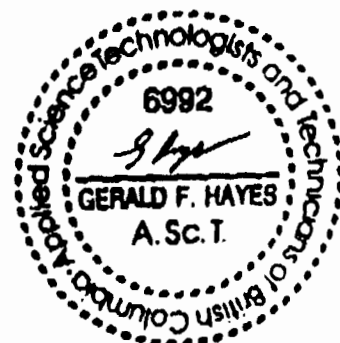
September 6, 1989

Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29107d

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9860001 <i>L.W. F.C.</i>	10	2.4	8	72	55	<10	<10
9860002 <i>Peak</i>	<10	2.4	12	35	91	<10	<10
9860003 <i>Soil</i>	13	2.9	11	20	51	20	<10
9860004 <i>contour</i>	<10	4.3	55	9	43	10	<10
9860005 <i>Plus</i>	<10	1.5	24	142	248	<10	10
9860006 <i>Soil</i>	<10	1.6	23	109	156	<10	10
9860007 <i>GRIP</i>	<10	1.6	20	60	164	40	10
9860008 <i>"B"</i>	<10	1.2	26	27	105	<10	10
9860009	11	1.8	28	67	97	70	<10
9860010 <i>MAIN</i>	16	1.3	23	48	157	10	10
9860011 <i>silica</i>	23	0.4	21	33	79	40	10
9860012	10	1.0	23	41	173	40	<10
9860013	14	0.7	15	24	90	20	10
9860014	13	0.1	17	41	109	30	20
9860015	14	0.6	19	32	73	40	10
9860016	<10	0.2	19	47	77	90	10
9860017	10	0.1	20	20	95	70	10
9860018	12	0.5	18	28	200	<10	10
9860019	15	0.6	22	37	165	10	20
9860020	13	0.3	28	19	129	50	20
9860021	11	1.0	17	28	120	120	10
9860022	20	1.1	22	75	138	10	20
9862001 <i>Plus</i>	19	0.8	8	29	61	<10	10
9862002 <i>T.A. Soil Pit Peak</i>	15	0.7	14	55	120	60	10





September 6, 1989

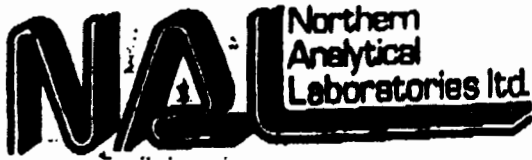
Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29107e

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9810001 <i>Site Zone F.S. Peak</i> 5	1.7		40	2	39	<10	<10
9810003 <i>EARL</i> 24	2.0		9	26	33	80	50
9810004 <i>Plus</i> 11	0.8		1	9	27	70	<10
9810005 <i>Plus</i> 11	1.5		5	<1	51	<10	60
9810006 <i>Plus/WAT</i> 13	1.8		8	17	145	110	100
9810007 <i>Plus/WAT</i> 5	2.4		3	29	31	<10	<10
9810008 <i>EARL</i> 12	1.5		34	18	106	100	30
9810009 <i>EARL</i> 13	2.0		8	7	74	70	140
9812001 <i>F.S. Peak</i> 6	1.2		4	11	62	200	10
9812002 <i>WAT</i> 32	5.1		14	27	14	630	120
9812003 <i>WAT</i> 8	4.7		21	6	30	110	<10
9812004 <i>WAT</i> 6	5.5		16	54	64	150	90
9812005 <i>Plus</i> 13	3.2		9	10	11	160	90
9812006 <i>W. Fault</i> 13	3.6		5	22	100	90	240
9812007 5	2.0		3	10	56	20	30
9812008 10	5.5		1	65	12	60	110
9812009 58	6.3		904	33	77	150	150
9812010 8	3.8		68	15	20	80	140
9812011 9	1.5		55	18	96	230	130
9822001 <i>F.S. Peak</i> 5	2.0		9	7	63	110	20





September 6, 1989

Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29107f

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9822002 ^{N₂YN} _{Gr Float} 34	0.4	4	<1	32	390	<10	
982001 _{LW} 24	1.1	2	26	13	290	<10	
982002 _{F.S.} 25	1.3	20	7	15	40	30	
982003 _{Peak} 13	<0.1	18	<1	13	420	20	
982004 _{Float} 18	1.1	7	<1	7	230	10	
982005 20	0.8	3	<1	22	620	10	
982008 _{CAAL 1913} 19	5.6	21	30	40	180	10	
982007 _{F.S. Peak} 45	0.7	<1	<1	21	100	10	
982008 _{Qtz Chal.} 20	1.3	<1	15	4	<10	10	





September 6, 1989

Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29107h

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9865003 M.F. Soil	<10	1.5	13	11	85	<10	10
9865004 Grid	<10	0.9	39	105	227	<10	10
9865005 WAT	<10	0.2	15	30	138	<10	20
9865006 Claims	<10	1.0	19	27	118	<10	10
9865007	<10	1.6	19	32	166	<10	<10
9865008	<10	1.3	25	49	285	<10	<10
9865009	12	1.9	15	34	141	<10	10
9865010	23	1.3	22	44	206	<10	10
9865011	28	1.1	18	12	84	<10	10
9865012	12	1.1	18	17	107	10	10
9865013	16	1.9	14	12	95	40	10
9865014	<10	1.2	16	21	114	<10	10
9865015	<10	1.1	16	21	88	30	10
9865016	11	1.4	15	14	83	<10	10
9865017	<10	0.6	14	15	96	<10	10
9865018	13	0.3	15	21	108	<10	10
9865019	13	0.6	15	28	94	20	10
9865020	10	0.6	15	14	91	10	10
9865021	12	1.3	19	21	123	10	10
9865022	<10	0.4	14	9	84	<10	<10
9865023	12	0.9	11	5	65	40	20
9865024	16	1.0	14	17	86	60	20
9865025	24	1.2	13	14	86	20	20
9865026	22	0.8	12	10	69	30	20
9865027	18	1.9	14	71	130	100	20
9865028	<10	2.4	15	23	122	60	20



September 5, 1989

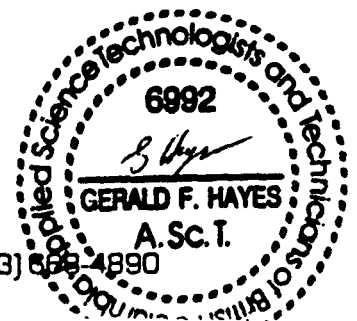
Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER #29126C

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
PLU 9862077 SW	INS	0.4	14	150	82	<10	10
9862078 F.S.	INS	0.9	11	39	119	50	10
9862079 Peak	29	0.6	10	22	132	50	10
9862080	23	0.2	5	12	50	50	10
9862081	27	0.9	9	45	93	70	10
9862082	10	0.3	13	21	77	60	20
INTER 9862320 Nodules	13	0.8	8	59	84	<1	20
9862321	17	1.3	17	67	149	10	80
9862322	18	0.6	12	16	112	<10	30
9862323	<10	0.7	18	44	152	40	80
9862324	19	0.6	15	15	140	100	40
9862325	17	1.0	9	5	95	300	40
9862326	19	1.3	18	41	141	<10	90
9862327	44	1.2	12	26	95	<10	70
9862328	25	0.7	15	23	142	120	50
9862329	15	0.7	20	34	149	<10	60
9862330	17	1.6	12	45	88	<10	60
9862331	11	2.0	14	53	116	<10	120
9862332	<10	1.8	17	<1	82	<10	40
9862333	18	1.7	15	24	122	40	50
9862334	20	1.1	11	27	78	20	30
9862335	20	5.7	12	<1	109	110	80
9862336	17	0.3	10	32	73	40	10
9862337	14	0.5	15	54	154	70	50
9862338	14	<0.1	19	24	136	<10	50
9862339	20	0.3	16	12	138	<10	10
9862340	23	0.6	21	50	148	70	20
9862341	21	<0.1	10	41	66	50	50
9862342	20	0.9	14	33	99	150	20
9862343	14	1.8	17	44	68	170	40

Au -- 1AT Fire Assay/AAS
 Metals -- Aqua Regia Digestion/AAS



September 5, 1989

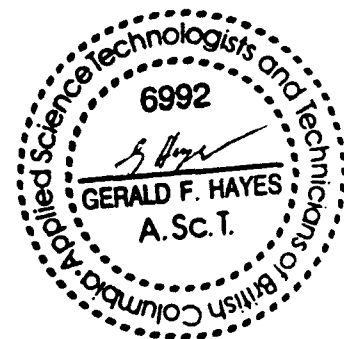
Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29126D

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
<i>plus</i> 9846001 <i>plus Gossan Cr</i>	10	2.4	12	34	87	70	<10
9846002 <i>Gossan Cr</i>	10	0.4	4	37	72	80	<10
9846003 <i>Gossan Cr</i>	15	1.3	5	1	47	260	<10
9846004 <i>Gossan Cr</i>	16	1.6	2	11	41	60	<10
9846005 <i>Gossan</i>	19	0.7	5	1	39	220	<10
9846006 <i>Gossan</i>	17	1.9	7	<1	50	80	<10
9866001 <i>plus</i>	16	1.6	7	8	65	120	10
9866002 <i>soil's</i>	14	0.6	3	<1	53	<10	30
9866003 <i>south</i>	18	0.4	6	45	147	<10	20
9866004 <i>side</i>	18	1.1	8	20	54	80	30
9866005 <i>FS.</i>	13	<0.1	14	55	97	10	10
9866006 <i>Peak</i>	<10	<0.1	12	28	107	90	50
9866007	12	3.7	16	50	95	<10	50
9866008	<10	4.6	19	48	103	<10	100
9866009	<10	<0.1	11	6	75	<10	40
9860500 <i>EARL</i>	47	2.1	51	16	137	30	100
9860501 <i>T-2a</i>	173	2.6	60	88	320	110	20

Au -- 1AT Fire Assay/AAS
 Metals -- Aqua Regia Digestion/AAS



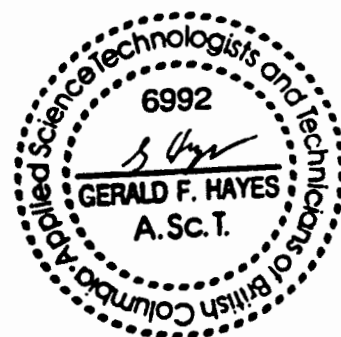
August 29, 1989

Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29127A

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
<i>Plus</i> 9812012 <i>Plus</i> 206		0.9	8	15	51	30	<10
<i>chip</i> 9812013 <i>side</i> 205		2.3	10	18	91	<10	<10
9812014 75		0.5	22	14	19	40	<10
9812015 <i>FS</i> 17		2.1	27	19	44	30	20
9812016 <i>Peak</i> 22		0.7	13	9	79	20	10
<i>fault</i> 9812017 167		1.0	13	17	47	40	20
9812018 <5		0.8	5	7	228	<10	10
9812019 6		0.2	2	9	91	<10	10
9812020 10		0.6	53	11	73	10	10
<i>Plus</i> 9822003 <i>seg 4</i> 39		0.5	3	19	69	10	<10
9822004 <i>Peak</i> 65		0.1	13	18	67	10	<10
<i>Plus</i> 9816001 <i>51 Peak</i> 7		0.8	1	32	38	<10	<10
9816002 12		1.1	1	26	77	90	20
<i>chip</i> 9816003 <i>OFF</i> 1257		1.0	2	25	46	<10	<10
<i>Plus</i> 9816004 <i>MA/R</i> 185		<0.1	1	12	51	70	<10
9816005 <i>gossan</i> 30		1.0	1	7	47	80	<10
<i>Plus</i> 9816006 <i>G.Y.</i> 6		<0.1	10	7	101	50	<10
9816007 <i>Fault</i> 16		0.6	7	6	110	40	<10
9816008 83		0.7	2	8	68	30	<10



August 29, 1989

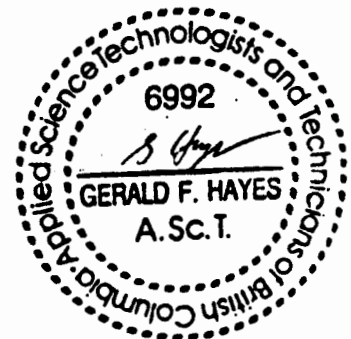
Pacific Trans-Ocean Resources Ltd.
 #1500 - 10250 - 101 St.
 Edmonton, Alberta
 T5J 3P4

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 29127B

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
9816010 <i>plus</i>	254	1.1	9	24	21	140	50
9820009 <i>plus</i>	302	2.0	34	8	69	70	90
9810010 <i>MAIP</i>	62	1.9	2	17	36	<10	110
9810011 <i>Gully</i>	67	2.5	6	28	96	180	70
9810012 <i>S</i>	45	1.2	8	11	18	90	70

*s.l.c.
1/24*



Date: August 7, 1989Project: SkukumArea: PLUS ClaimsPage 1 of 5

Sample No.	Location	Description	Attitude	Width	Analytical Results					
					Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
9820001	Top of F.S. peak @ survey marker	Quartz chalcedony vein with drusy clear white quartz crystals lining vugs. Cockade textures around breccia frags. Minor sericite, trace disseminated pyrite cubes.	float	20x10cm	24	1.1	2	26	13	290
9820002	North slope of F.S. peak 15.m below o/c	Silicified zone in maroon volc. host rock. Can still see remnant clasts in silicified rock. Slightly mottled white-gray texture, extremely fine grained pyrite + asp. Minor sericite, noncalcareous, grades to less altered rock.	float		25	1.3	20	7	15	40
9810002	o/c north slope	Two silicified rusty boulders. Greenish dk gray to gray up to 5% disseminated pyrite. Limonite in 20% of rock.	comp grab	1 meter						
9820003	5m below o/c (9810002)	Silicified & pyritized tuff?? rusty float weathering, light gray.		15x20cm	13	<0.1	18	<1	13	420
9820004	10m downslope	Rusty weathering, yellow powder on weathered surface, assoc with aspy. Fresh surface is fine grained, white to lt. gray, no texture, up to 10% fine grained disseminated pyrite-outer 1cm, fine grained aspy, non calcareous, dk gray small streaks in rock.			16	1.1	7	<1	7	230
9820005	West slope by valley F.S. peak	Weakly foliated, v. rusty weathered float, silicified, 5% disseminated pyrite.	float	25x10cm	20	0.8	3	<1	22	620
9820007	North of Main	Rusty orange weathering flow banded rhyolite dyke with feldspars, very fine grained disseminated pyrite.		talus	46	0.7	<1	<1	21	100
9810004	As above	Orange weathering, sheared rusty o/c, altered rhyolite injected with com texture crystalline quartz veins 1cm wide, Mn coating.	chip	0.5 meters	11	0.3	1	9	27	70
9810005	At junction of	White/gray weathering sheared sper- ulitic rhyolite.	chip	0.5 meters	11	1.5	5	<1	51	<10

Date: August 7, 1989

Project: Skukum

Area: PLUS Claims

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Sample No.	Location	Description	Attitude	Width	Analytical Results					
					Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
9810006	at boundary between WAT & PLUS Claims	Rusty weathering flow banded rhy- olite.	chip	0.3 meters	13	1.8	8	17	145	110
9810007	As above	Light gray green flow banded rhyolite, sheared.	323/79N shear dir.	comp grab 1 meter	5	2.4	3	29	31	<10
980009	Main structure west side PLUS claims	Quartz-chalcedony brecciated vein float with slickensides on one side Limonite filled vugs (10%), minor white clay.		25x15x2cm	302 8b 90	2.0	34	8	69	70
9810010	As above	Subcrop in fault gully, chalcedonic quartz vein with 20% limonite filled streaks & vugs. Volcanic breccia, (angular) frags, cockade quartz texture.			62 8b 110	1.9	2	17	36	<10
9810011	As above	As above			67	2.5	6	28	96	180
9810012	As above	As above			45	1.2	8	11	13	90
9812001	PLUS Claim 6681735N/480690E	Fractured quartz eye rhyolite, dissem pyrite <1%, Mn stain.		0.5 meters	6	1.2	4	11	62	200
9822001	6681910N/480465E	Fragmental rhyolite in frost heave small quartz eyes, very minor dissem py.			5	2.0	9	7	53	110
9812002	WAT Claims 6681240N/479090E	Quartz vein with dissem pyrite (50%)			132	5.1	14	27	14	530
9812003	668220N/479619E	Fractured rusty quartz with minor pyrite (1%), possible quartz vein on rhyolite flow.			8	4.7	21	6	30	110
9812004	668220N/479610E	Quartz vein in granodiorite, minor py.		1x5 meters	6	6.5	16	54	64	150
9812005	PLUS CLAIMS 6682510N/479990E	Vuggy siliceous rx in shear zone, no sulphides, quartz crystals.			13	3.2	9	10	11	160
9812006	6682145N/490150N	Fault zone, rx is massive blk silica rich, calcite fracture fill, clay gouge.	038°/90 fault	1.5 meters wide	13	3.6	6	22	100	90

Date: August 7, 1989

Project: Skukum

Area: PLUS Claims

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Sample No.	Location	Description	Attitude	Width	Analytical Results						
					Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm
9812007	6682125N/480140E	Silica rich zone, fractured with limonite stain, no stockwork.		10m wide zone	5	2.0	3	10	56	20	-
9812008	6682100N/480115E	Fault gouge material, altered feldspar & clays, quartz crystals in vugs, limonite rich, exposed 10x1 meter.	042/90°	1 meter							
9812009	6682190N/480335E	Quartz rich zone, fractured, limonite & malachite stain in narrow breccia zone.		3m wide	302	2.0	34	8	69	70	90
9812010	6682300N/480640E	Quartz feldspar zone, limonite stain very fine grained rx, no stockwork.		3 meters	8	3.8	68	15	20	80	-
9822002	6682365N/480110E	Limonite stain, quartz zone massive quartz, exposed in talus, no stockwork.			34	0.4	4	<1	32	390	-
9812011	6682980N/480055E	Small shear in granodiorite, quartz in chlorite, very minor py. (<1%) limonite stain.	o/c in talus	0.5x20m	9	1.5	55	18	96	330	-
9812012	6681725N/480330E	Limonite stain, quartz eye porphr. (possible altered rhyolite).		3m wide	206	0.9	8	15	51	30	<10
9812013	6681580N/480310E	Fracture zone, rhyolite blue gray with <1% stockwork, pyrite.			205	2.3	10	18	91	<10	<10
9812014	668545N/480250E	¼ of fracture, banded rhyolite with py Fe staining.		2x5 meters	75	0.5	22	14	19	40	<10
9812015	6681540N/480245E	¼ tuffaceous rhyolite, fractured minor (<1%) pyrite.		2 meters	17	2.1	27	19	44	30	20
9822003	6681585N/480325E	Large frost heave & talus blders of quartz rich (rhy-dyke), blue gray quartz with up to 1% stockwork, py (possible chalcopy & arpy) in fracture zones.		2x20 meters	39	0.5	3	19	69	10	<10
9812016	6680970N/479985E	Quartz rich zone in tuff, pyrite, chalcopy, galena? (<1%) zone of Fe stain rock up to 10m wide.	028/75 to 90° E	10 meters	22	0.7	13	9	79	20	10
9822004	6680980N/479990E	Fe stain blebs of quartz with chert clasts, minor py, chalcopy & possibly galena.			65	0.1	13	18	67	10	<10

Date: August 7, 1989

Project: Skukum

Area: WAT & PLUS Claims

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Sample No.	Location	Description	Attitude	Width	Analytical Results						
					Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm
9812017	6690970N/479885E	Fault zone, bright red stain, possible sericite, intense clay alteration (gouge) over 0.5 meters, no visible stockwork.	040°/90°	1.5 meters	167	1.0	13	17	47	40	20
9812018	6691020N/479835E	Fracture zone, fault gouge, calcite red stain, quartz rich host rock, no visible stockwork.			<5	0.8	5	7	228	<10	10
9812019	6681055N/479780E	As above	040/60°W	0.5 meters	6	0.2	2	9	91	<10	10
9812020	PLUS Claims 6681595N/479980E	o/c fractured & sheared rock possible rhyolite or ash, Fe stain, minor pyrite possible galena (<0.5%).		3x10 meters	10	0.6	53	11	73	10	10
9816001	550m SW of F.S. peak, 200m E of NS fault	Very fine grained, highly siliceous dacite dyke, 5m wide, moderate parallel vertical fractures, possible shear zone (25m) with brown weathering talus. Up to 1% pyrite occurring as blebs assoc with brown/black limonitic coating on fractures. Weathered out sulphide casts are present.	070/90°	comp grab 0.3 meters	7	0.8	1	32	38	<10	<10
9816002	750m SE of F.S. peak in Towle Creek	Dusty red weathering rhyolite tuff. Weathered colour comes from fractures & surface of o/c. No visible sulphides.		comp grab 0.3 meters	12	1.1	1	26	77	90	20
9816003	20m downstream of 9816002	Dusty red weathering rhyolite tuff. Small (5cm) shear zone with carbonate material along it. Weathered out pyrite casts present.		comp grab 0.2 meters	257	1.0	2	25	46	<10	<10
9816004	25m downstream of 9816003	Dusty red andesite tuff. Gradational compositional change, dk brown weathered microvein, no visible sulphides, rx more deeply weathered than above sample.		comp grab 0.2 meters	185	<1.1	1	12	51	70	<10
9816005	50m downstream of 9816003	Dusty red weathering andesite tuff. Samples 6002-5 are all from a gossanous o/c.		comp grab 0.2 meters	30	1.0	1.0	7	47	50	<10
9816006	350m S of main structure on west side of NS fault	Slightly rusty weathering shear zone adjacent to the fault. Host rx is rhyolite tuff that shows pitting on the surface.		comp grab 1 meter	6	<1.1	10	7	101	50	<10

Date: August 7, 1989Project: SkukumArea: WAT & PLUS ClaimsPage 5 of 5

Sample No.	Location	Description	Attitude	Width	Analytical Results						
					Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm
9816007	650m S of main structure on W side of NS fault	Slightly rusty weathering of a sheared silicified rhyolite tuff <1% pyrite, galena & sphalerite occurs as dissem & small blebs, alteration 5m wide around shear.	055/90°	comp grab 0.3 meters	15	0.6	7	6	110	40	<10
9816008	as above	Drusy quartz along narrow (5cm) gouge filled shear zone. Wallrx with slickensides & silicification no visible sulphides in quartz. Strike length of altered rx is approx. 100m & continuous across graveyard fault.	055/90°	comp grab 0.25 meters	83	0.7	2	8	68	30	<10
9816009	250m S of main structure, 25m E of NS fault	Moderately rusty weathering of rhyolite tuff, 1 dissem pyrite throughout a 1m wide zone of silicification, alteration follows shear zone.		comp grab 0.2 meters							
9816010	250m N of main structure, 50m W of NS fault	Rusty shear zone containing 3cm of gouge (lt brown) & surrounded by 0.5m wide silicified rhyolite tuff.	070/90°	comp grab 0.2 meters	254	1.1	9	24	21	140	-

APPENDIX B

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, LORI A. WALTON with business address:

Aurum Geological Consultants Inc.
412-675 West Hastings Street
Vancouver, B.C.
V6B 1N2

do hereby certify that:

1. I am a practicing geologist.
2. I hold a Bachelor of Science (Specialization) Degree (1982) from the University of Alberta.
3. I hold a Master of Science Degree (1987) from the University of Alberta.
4. I have been working in the field of mineral exploration since May of 1980.
5. I have no interest in the claims nor do I expect to obtain any.
6. I consent to the use of this report in a company report or statement, provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

DATED at Whitehorse, Yukon, this 16th day of Nov , 1989.



Lori A. Walton, M.Sc.

APPENDIX C

Statement of Costs

STATEMENT OF COSTS - PLUS CLAIMS

1. Labour

R. Hulstein: project supervision, expediting Aug. 19(1/2) 0.5 days @ \$300/day	\$ 150.00
L. Walton: project supervision, geological mapping, geochemical sampling Aug. 7,10(1/2),11,12,19,20 6.5 days @ \$300/day	1,950.00
J. Adair: geochemical sampling, prospecting Aug. 9,10,11,12,18,20 6.0 days @ \$275/day	1,650.00
M. Fingland: geochemical mapping, prospecting Aug. 10(1/2) 0.5 days @ \$225/day	112.50
G. Sutton: geological mapping, prospecting Aug. 18,20 2.0 days @ \$200/day	<u>400.00</u>
Total Labor	\$4,262.50

2. Camp Costs

15.5 mandays @ \$60/manday 930.00

3. Helicopter Charter

Aug. 7: Helidynamics Hughes 500D from Whitehorse	
1.25 hrs @ \$660/hr	825.00
1.25 hrs fuel @ 120 lt/hr x \$0.65	97.50
1.25 hrs oil @ 1 lt/hr x \$2.60	3.25
Aug. 9,10,11,12,18,19,20: Frontier Bell 206 Jet Ranger based at Mt. Skukum mining camp	
4.0 hrs @ \$610/hr	2440.00
4.0 hrs fuel @ 109 lt/hr x \$0.73	318.28
4.0 hrs oil @ 1 lt/hr x \$3/hr	<u>12.00</u>
Total Helicopter	\$3,696.03

4. Geochemistry: Analyses by Northern Analytical
Laboratories Ltd. of Whitehorse,
Yukon

All samples analysed for Au,
Ag, As, Cu, Pb, Zn and Sb

Soil Preparation
153 @ \$1.00 each 153.00

Rock Preparation
45 @ \$3.75 each 168.75

Au,Ag,As,Cu,Pb,Zn,Sb analyses
198 analyses @ \$16.25 each 3,217.50

Total Geochemistry 3,539.25

5. Other

Truck rental
2.0 days @ \$50/day 200.00

Truck fuel 58.15

Office supplies 54.91

Field supplies 150.00

Total Other Costs 463.06

TOTAL ASSESSMENT VALUE: \$12,890.84