

MAP No.

ASSESSMENT REPORT
 N. M. E. A. P.
 CONFIDENTIAL
 OPEN FILE

15.N. 134649


TYPE OF WORK: GEOCHEMISTRY,
 PROSPECTING

105 D 2

REPORT FILED UNDER	SHAKWAK EXPLORATION CO. LTD.	DOCUMENT NO. 091840
DATE PERFORMED	August 15 to August 30, 1985	DATE FILED: May 2, 1986
LOCATION - LAT.	60°03'N	AREA: Montana Mountain
LONG.	134°42'W	
CLAIM NO.	NYAC 1-4	YA82997-YA83000
	NYAC 5-87	YA85201-YA85283
VALUE \$8,700.00		
WORK DONE BY	R.C.R. ROBERTSON	
WORK DONE FOR	SHAKWAK EXPLORATION CO. LTD.	

REMARKS

#7 THISTLE

091840

In 1985, 53 silt samples, 140 soil samples and 8 rock samples were collected and analysed for gold, silver, lead and copper. Few of the samples were anomalous and the best results were 220 ppb Au and 19 ppm Ag from a rock sample.



SHAKWAK EXPLORATION COMPANY LTD.

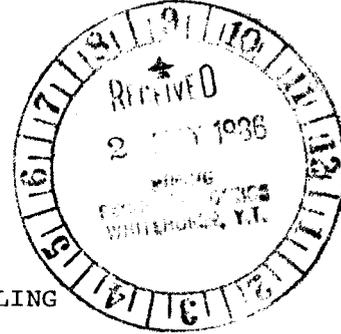


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ASSESSMENT REPORT



PROSPECTING AND GEOCHEMICAL SAMPLING
NYAC 1-87 Mineral Claims
YA82997 - YA83000, YA85201 - YA85283
Montana Mountain Area
NTS 105-D-2
Whitehorse Mining District

Latitude: 60°03' North
Longitude: 134°42' West

091840

By:
RONALD C. R. ROBERTSON, F.G.A.C.

February 1986

091840

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 8,700.00 .

DAEmend

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

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INTRODUCTION

This assessment report describes a preliminary program of prospecting and reconnaissance geochemical sampling carried out between the 15th and 30th of August 1985 in the northeast and southwest portions of the NYAC 1-87 claims.

LOCATION AND ACCESS

The claims cover a large area of mountainous country west of Windy Arm, extending west from the upper part of Montana Creek to Montana Mountain and then south through Mount Matheson to Upper Racine Creek (Wynton Creek), close to the Yukon/British Columbia border. The property is located on NTS map sheet 105-D-2 with approximate geographical co-ordinates 60°03' north and 134°42' west. Property location is shown on Figure 1.

Access to the property from Whitehorse is by paved highway following the Alaska Highway and then the Klondike Highway to Carcross, a distance of 75 km. From Carcross, the northeast corner of the NYAC claims is accessible by a four-wheel-drive trail, a further distance of 15 km. This trail was constructed for access to the Arctic Caribou (Big Thing) mine, north of the NYAC claims, and the upper Pooley Canyon area on the Venus mine property of United Keno Hill Mines, just south of the NYAC claims. A helicopter is necessary for access to other parts of the claim block.

PROPERTY

The NYAC 1-87 claims form part of a contiguous block of 93 claims owned by Shakwak Exploration Company Limited and recorded in the office of the Whitehorse District Mining Recorder under the Yukon Quartz Mining Act:

<u>Claim</u>	<u>Grant Number</u>	<u>Record Date</u>
NYAC 1-4	YA82997-83000	4 September 1984
NYAC 5-87	YA85201-85283	4 September 1984
NYAC 88-93	YA93150-93155	22 August 1985

No work was carried out on the NYAC 88-93 claims after the recording date.

The location of the NYAC claims with respect to topographic features and adjacent mineral claims is shown on Figure 2.

• Tuktoyaktuk

Aklavik

Inuvik

• Old Crow

Fort McPherson



LOCATION MAP

SCALE: 1" = 90 MILES APPROX.



PROPERTY LOCATION
WHEATON RIVER DISTRICT

ALASKA
YUKON

DESMISTER
HIGHWAY

YUKON

NORTHWEST TERRITORIES
YUKON

Eagle

TOP OF THE WORLD HWY
Dawson City

Mayo
Keno
Elsa

Stewart Crossing

Pelly Crossing

to Tok

Beaver Creek

Faro

Carmacks

Ross River

Tungsten

Burwash Landing

ROBERT CAMPBELL
HIGHWAY

Destruction Bay

ALASKA
HIGHWAY
JAMES
WHITEHORSE

NATHAN RANGEL
RD.

Halnes Junction

Johnson's Crossing

Carcross

Teslin

Watson Lake

YUKON
BRITISH COLUMBIA

KLIGANE NATIONAL PARK

BRITISH COLUMBIA
ALASKA

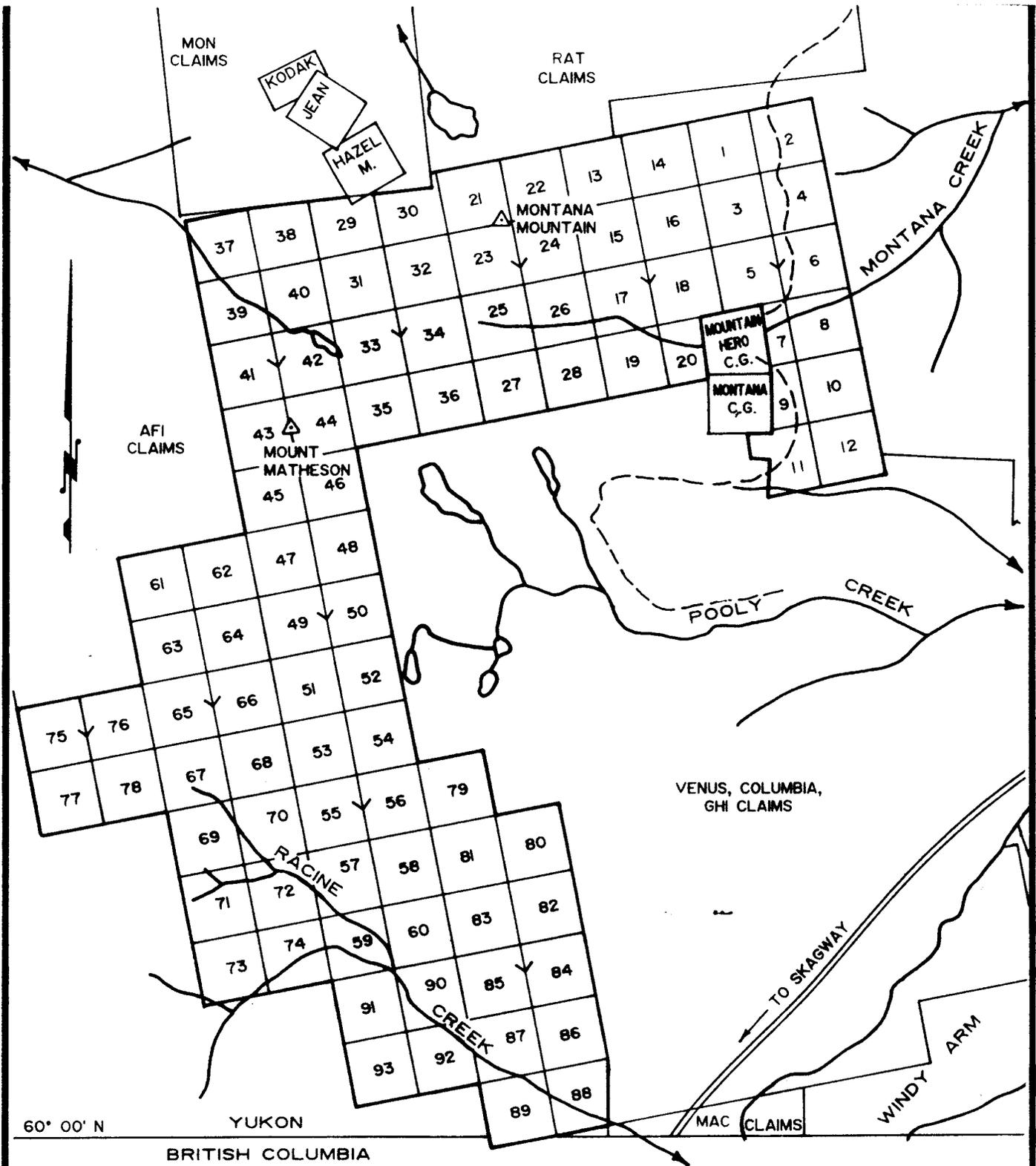
Skagway

Atlin

Halnes

STEWART CASSIAR RD

GULF OF ALASKA

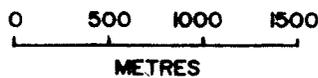


LEGEND

HIGHWAY

4-WHEEL DRIVE TRAIL

SCALE



SHAKWAK EXPLORATION COMPANY LIMITED

**NYAC CLAIMS
MONTANA MOUNTAIN
CLAIM DISTRIBUTION**

PROJECT 109

YUKON

NTS:
105-D-2

TECHNICAL:
RR

DATE:
FEB., 1986

SCALE:
1:40,000

DRAFTING:
INTEGRALICS

FIGURE:
2

PHYSIOGRAPHY, CLIMATE, VEGETATION

The property covers a large area of high ground including Montana Mountain and Mount Matheson and the upper parts of a series of valleys and cirques radiating out from these peaks. Elevations range from 4,000' (1,220 m) at Racine Creek to 7,200' (2,195 m) at the mountain tops. Upper slopes are steep and rocky; lower slopes are gentler and talus-covered. There is very little vegetation except at Racine Creek at the south end of the property.

Climatic conditions are typical of a northern interior climate modified by the influence of the nearby Pacific Ocean. Average annual precipitation is approximately 40 cm. Winters in the area are long, with temperature extremes to -40°C but commonly in the -10° to -20°C range. Summers are pleasant, with temperatures up to 25°C and long hours of daylight during May, June and July. Permanent snowfields are present in several cirques.

REGIONAL GEOLOGY

Montana Mountain occupies a position close to the junction of three tectonic terranes: the Atlin Terrane, the Whitehorse Trough and the Coast Plutonic Complex. Stratified rocks of the first two terranes form a local basement flanking a major volcanic complex of late Cretaceous or early Tertiary age. The youngest phase of this complex is a large body of granitic rock and associated rhyolite porphyry dykes and sills. Quartz veining and associated precious metal mineralization at Montana Mountain show a close spatial relationship to this volcanic and intrusive complex; similar mineralization elsewhere in southern Yukon is related to equivalent volcanic rocks of the Skukum Group and Mount Nansen Group.

An older metavolcanic assemblage of the Atlin Terrane outcrops along the lower eastern slope of Montana Mountain. This unit probably forms part of the Mississippian Nakina formation. Similar basaltic and andesitic metavolcanic rocks, referred to the Upper Triassic Lewes River Group of the Whitehorse Trough, occupy a large area on the west flank of Montana Mountain along the east shore of Bennett Lake. Outcrops of Lower to Middle Jurassic Laberge Group siltstones, argillites, greywackes and conglomerates of the Whitehorse Trough Terrane extend along the east and west boundaries of the Montana Mountain Volcanic Complex.

The volcanic complex consists of flows, tuffs and breccias of intermediate composition (predominantly andesite and dacite) intruded locally by porphyritic andesite plugs and breccia bodies. Pale to orange weathering felsic dykes are present throughout, most prominently as ring dykes around the southern margins of the complex. The north end of the complex is occupied by the large Carcross pluton which intrudes the slightly older volcanic units. The pluton is predominantly quartz monzonite in composition but becomes much more felsic (alaskite and quartz syenite) towards the contact with volcanic rocks of the Montana Mountain Complex. Locally, this contact is occupied by a narrow unit of aplite.

Quartz veins with pyrite, arsenopyrite, galena, sphalerite and chalcopyrite carry economic amounts of gold and silver mineralization at several places within the volcanic and intrusive rocks of the complex (Venus, Arctic/Big Thing, Peerless, Jean, etc.)

Regional geology is shown on Figure 3 (modified after Roots: 1980, 1982).

Table 1
Table of Formations

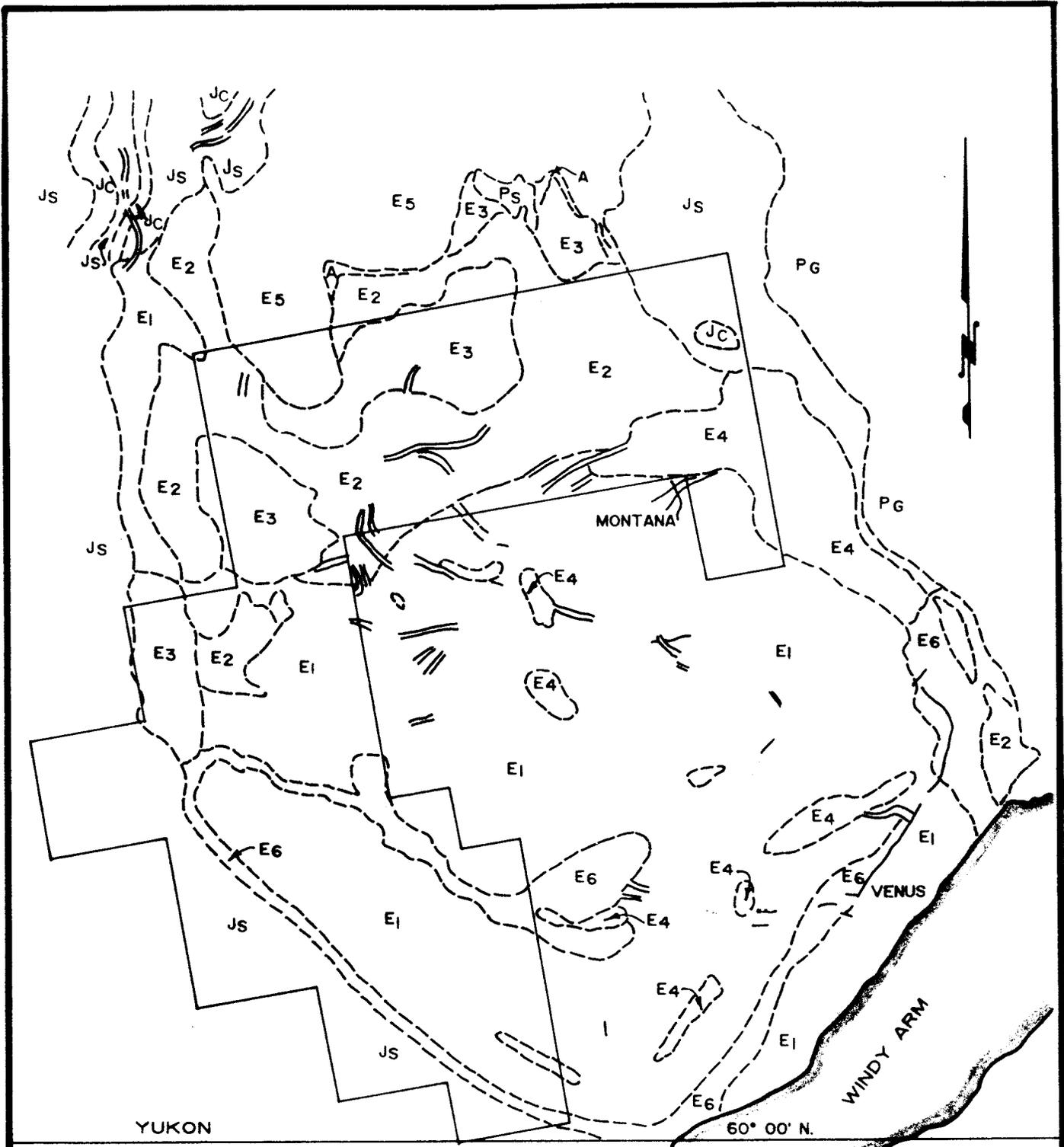
QUATERNARY	Glacial till, glacial and fluvioglacial sands and gravels
LATE CRETACEOUS TO EARLY TERTIARY	Granite and quartz syenite intrusion; rhyolite dykes; andesite, basalt, dacite flows, tuffs, breccias and intrusions
LOWER-MIDDLE JURASSIC LABERGE GROUP	Conglomerate, siltstone, argillite, greywacke
UPPER TRIASSIC LEWES RIVER GROUP	Andesite, basalt, volcanic breccia, limestone
MISSISSIPPIAN-PERMIAN (CACHE CREEK <u>or</u> TAKU GROUPS)	Amphibolite; minor limestone, chert and serpentinitized ultramafic rocks

HISTORY AND PREVIOUS EXPLORATION

The Montana Mountain district has had a sporadic history of exploration, followed by periods of relative inactivity. The region was first explored for gold and silver prior to the discovery of rich placer gold deposits in the Klondike in 1896. This early phase of development, by prospectors from Alaska, located precious metal deposits in the Wheaton River area. Exploration slowed following 1896 when the Klondike Gold Rush lured most miners away, until around 1906-1909 when numerous gold and silver occurrences were located on Montana Mountain and in the Gold Hill/Tally Ho Mountain areas. Between 1909 and 1921 development in the region was active and limited production was obtained from a number of early discoveries including Venus, Montana, Arctic/Big Thing, Tally Ho and others. A 100 tpd concentrator operated from 1907 until 1910 at Venus Mine, treating ore brought by aerial trams from several nearby operations.

A period of dormancy ensued from the early 1920's (when gold discoveries in Alaska again drew many prospectors away) until the 1960's when development was renewed at several previously explored deposits. Concentrating plants were operated briefly during the late 1960's/early 1970's at the Arctic Gold and Silver (Big Thing) and Venus Mines. However, high operating costs coupled with low precious metal prices led to termination of these projects.

Additional exploration and development at the Venus Mine was conducted by United Keno Hill Mines Ltd. between 1980 and 1984. A new 100 tpd mill was



BRITISH COLUMBIA

60° 00' N.

LEGEND

- PRINCIPAL VEINS
- EOCENE (SIKUKUM GROUP)**
- A** APLITE DYKES, CONTACT AREAS
- E1** ANDESITE - DACITE FLOWS
- E2** INTRUSION BRECCIAS
- E3** ANDESITE DOMES
- LOWER - MIDDLE JURASSIC**
- Js** SILTSTONE, GREYWACKE
- PENNSYLVANIAN - PERMIAN**
- Pg** GREENSTONE
- E4** LAYERED BRECCIAS
- E5** "ALASKITE GRANITE"
- E6** FELSIC DYKES
- Jc** CONGLOMERATE
- Ps** SERPENTINIZED GABBRO

GEOLOGY MODIFIED AFTER ROOTS, (1980, 1982)

SHAKWAK EXPLORATION COMPANY LIMITED		
NYAC CLAIMS MONTANA MOUNTAIN REGIONAL GEOLOGY		
PROJECT 109		YUKON
NTS. 105-D-2	TECHNICAL: RR	DATE: FEB., 1986
SCALE: 1:46,000	DRAFTING: M/2/86/105	FIGURE: 3

erected, but not used, by United Keno Hill Mines Ltd. for Venus during 1981.

Underground development work during 1984 by United Keno Hill Mines at Venus Mine expanded the known mineralized zones and indicated considerable additional ore potential in the main structure.

Proven ore remaining in the main Arctic Mine is indicated to be approximately 10,000 tons grading 0.26 oz gold per ton and 9.0 oz silver per ton. Additional inferred ore potential exists in the various ore structures on the Arctic Mine property.

During 1984-85, exploration was carried out at both the Jean and Arctic/Caribou properties.

There are no known mineral showings or old workings within the area covered by the NYAC claims. The northeast corner of the property surrounds the Montana and Mountain Hero claims (United Keno Hill Mines) which cover the original 1899 discovery in the Montana Mountain district. The Montana vein strikes north and was explored underground between 1905 and 1912 (Roots, 1982). Additional underground exploration was carried out in 1967.

PROPERTY GEOLOGY

No systematic geological mapping has yet been conducted on the NYAC claims. Many details of the geology are included in two recent unpublished reports by Roots (1980, 1982).

The NYAC property was acquired because of the presence of significant structures and geological environments on the property with similarities to those at the Venus and Mount Skukum deposits.

The northeastern sector of the claim block covers the lapsed "Commander" and "Mountain Lion" crown grants and therefore includes the possible extension of the north-striking Montana vein. Detailed geology of this area is shown in Figure 22 of Roots (1980).

The south and west sectors of the property cover two large bodies of rhyolite ring dykes, presumably following major ring fractures (Figure 3). On the southeast side of the Montana Mountain complex, the 1.5 km long Venus vein is clearly controlled by one of these dykes and ring fractures.

Large areas of the NYAC claims show the same geological relationships that are present in the "Main Cirque" area around the Mount Skukum deposit. Massive andesite plug domes (e.g. Mount Skukum, Montana Mountain, Mount Matheson) are surrounded by coarse andesitic intrusion breccia. Farther out are thick sequences of intermediate flows and pyroclastics intruded by late felsic dykes (rhyolite or quartz-latite). These relationships are evident in Figure 3 (from Roots: 1980, 1982) and in maps of the Mount Skukum complex (e.g. Pride, 1985).

1985 EXPLORATION

Reconnaissance level prospecting and geochemical sampling were carried out in two areas of the NYAC Property between August 15th and 30th, 1985.

In the southwest sector of the claim block, a three-man crew conducted detailed silt sampling of the Racine Creek drainage system from a helicopter-supported camp. In addition, prospecting and soil sampling focussed on areas of the two felsic ring dykes.

A total of 53 silt samples, 140 soil samples and eight rock samples were collected (Figure 4). Analytical methods and results are listed in Appendix I. In the upper reaches of streams, no silt samples were collected because of the intermittent flow and large contributions of material from adjacent talus slopes; instead, bank samples or break-of-slope soil samples were collected. Most soil samples were collected along reconnaissance contour traverses below areas of rhyolite ring-dyke outcrop. Sample spacing was quite variable because of outcrops and coarse talus.

None of the silt samples were anomalous. Most soil samples showed no anomalous values. A series of three soil samples over a 150 metre interval on the uppermost traverse line (in NYAC claims 53 and 54) gave anomalous silver values (3.0 to 3.9 ppm silver). Other samples further west on the same line gave slightly anomalous values of 50 ppb gold and 2.7 ppm silver. Just downslope from the silver anomaly and farther east, a rock grab sample not associated with obvious quartz veining gave values of 220 ppb gold and 19.0 ppm silver (with a relatively low lead value of 115 ppm).

In the northern sector of the property, a camp was established adjacent to the four-wheel-drive access trail. Prospecting and sampling concentrated on the area of the lapsed "Commander" crown grant and the upper reaches of the Montana Creek drainage system. Even in late August, parts of this area were covered by extensive snowfields. No silt samples were collected in this area because of the lack of active stream sediment. Instead, a series of soil samples were collected from adjacent banks or the nearby break-in-slope. No truly anomalous soil samples were located in this area; sample intervals were quite erratic because of coarse rock talus and snow patches. No significant veining or mineralization was discovered in the area of the old "Commander" claim. Extensive vein quartz float was discovered in a small topographic basin just to the north. This material contains pyrite and rusty, limonitic gouge and shows a cockscomb texture. Float was traced to the base of a large snowbank; it seems likely that a large quartz vein is present beneath the snow. One rock sample collected above the snowbank contained 4200 ppb lead but no anomalous silver or gold values.

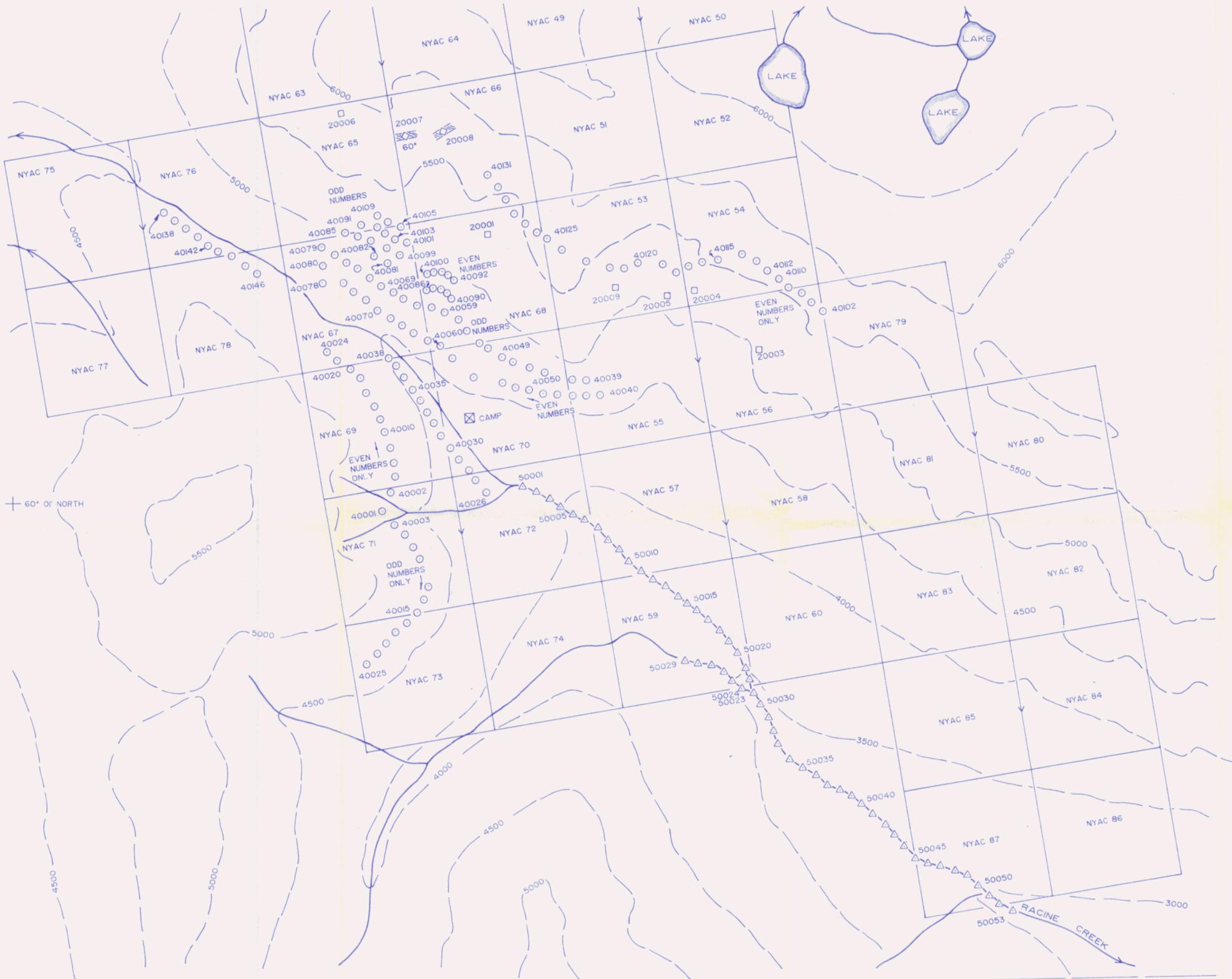
DISCUSSION

Only a limited reconnaissance scale exploration program was conducted in 1985; in places, sampling was limited by extensive snowfields which are unlikely to be present in years of normal snowfall. The area of quartz veining inferred to occur just north of the old "Commander" crown grant is probably snow-free in late summer of most years. Much more extensive and detailed prospecting is warranted in other parts of this north sector of the NYAC claims.

In the south block, much of the potentially significant geological environment remains untested. Detailed prospecting and sampling are warranted around the silver soil anomaly and anomalous rock sample in NYAC 53 and 54 claims. The Racine Creek drainage should be resampled using pan concentrates. Arsenic is likely to be the best pathfinder element for gold mineralization in the Montana Mountain camp (based on knowledge of the mineralization in many of the known veins) and should be analyzed in all samples in future.

REFERENCES

- Morrison, G. W., 1979: Metallogenic Map, Whitehorse, Yukon. Open File EGS 1979-6, Northern Affairs, Whitehorse.
- Pride, M. J., 1985: Preliminary Geological Map of Mount Skukum Volcanic Complex. Exploration and Geological Services Division, Northern Affairs, Whitehorse.
- Roots, C. F., 1980: General Geology of the Montana Mountain Area, South Central Yukon. Unpublished report (81 pp), Exploration and Geological Services Division, Northern Affairs, Whitehorse.
- Roots, C. F., 1982: Geology of the Montana Mountain Area, Yukon. Unpublished M.Sc. Thesis (127 pp), Carleton University, Ottawa.
- Wheeler, J. O., 1961: Whitehorse Map Area, Yukon Territory. Geological Survey of Canada Memoir 312 (156 pp).



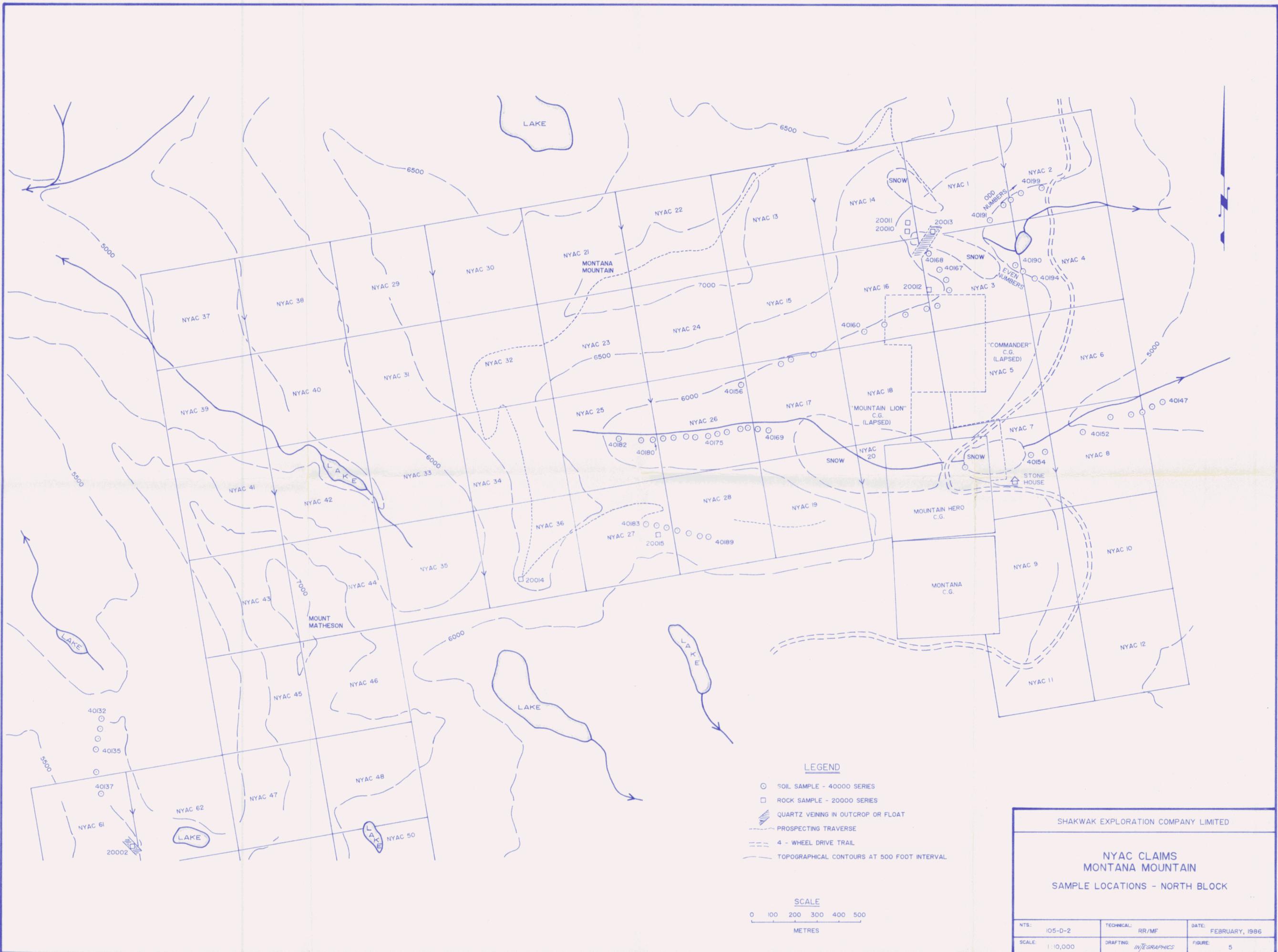
- LEGEND**
- △ SILT SAMPLE - 50000 SERIES
 - SOIL SAMPLE - 40000 SERIES
 - ROCK SAMPLE - 20000 SERIES
 - ▨ QUARTZ VEINING IN OUTCROP OR FLOAT
 - - - - - TOPOGRAPHICAL CONTOURS, 500 FOOT INTERVAL



134° 45' WEST
60° 00' NORTH

YUKON
BRITISH COLUMBIA

SHAKWAK EXPLORATION COMPANY LIMITED		
NYAC CLAIMS MONTANA MOUNTAIN		
SAMPLE LOCATIONS - SOUTH BLOCK		
NTS:	TECHNICAL:	DATE:
105-D-2	RR/MF	FEBRUARY, 1986
SCALE:	DRAFTING:	FIGURE:
1:10,000	INTEGRAPHICS	4



SHAKWAK EXPLORATION COMPANY LIMITED

**NYAC CLAIMS
MONTANA MOUNTAIN**

SAMPLE LOCATIONS - NORTH BLOCK

NTS: 105-D-2	TECHNICAL: RR/MF	DATE: FEBRUARY, 1986
SCALE: 1:10,000	DRAFTING: INTEGRA	FIGURE: 5

APPENDIX I
ANALYTICAL METHODS

Stream sediment (silt) samples and soil samples (in this area, the fine fraction of talus rather than true soil samples) were analyzed by Bondar-Clegg and Co. Ltd. in North Vancouver using the -80 mesh fraction after screening. Copper, lead and silver were analyzed by standard atomic absorption methods after digestion of a 0.5 g sample in nitric and hydrochloric acids.

For gold analyses, a 10 g sample is preconcentrated using the normal fire assay method to produce a dore bead. The bead is dissolved in nitric acid and aqua regia and the solution analyzed by atomic absorption spectrophotometry.

Rock samples are crushed and pulverized. Copper, lead and silver are analyzed as described above. Gold is analyzed by the same technique used for silt and soil samples but a 30 g sample is used.

ANALYTICAL RESULTS

SOUTH BLOCK (Figure 4)

Silt Samples

<u>Sample #</u>	<u>Cu (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
500001	24	15	0.2	<5
500002	28	9	<0.2	<5
500003	27	14	<0.2	<5
500004	22	11	<0.2	<5
500005	25	7	<0.2	<5
500006	25	9	<0.2	<5
500007	25	8	<0.2	<5
500008	24	7	<0.2	<5
500009	22	10	0.2	<5
500010	22	11	0.2	5
500011	22	8	<0.2	<5
500012	22	6	<0.2	<5
500013	22	12	0.2	<5
500014	25	11	0.2	<5
500015	24	13	<0.2	<5
500016	22	11	<0.2	<5
500017	21	11	<0.2	<5
500018	21	12	<0.2	<5
500019	42	13	<0.2	<5
500020	22	10	0.2	<5
500021	63	18	0.4	20
500022	33	13	0.2	<5
500023	17	6	<0.2	<5
500024	15	12	<0.2	<5
500025	25	9	<0.2	<5
500026	22	11	<0.2	<5
500027	27	8	0.2	<5
500028	23	8	0.2	<5
500029	60	12	<0.2	<5
500030	68	16	0.2	<5
500031	116	40	0.8	25
500032	81	18	0.2	15
500033	66	11	<0.2	<5
500034	65	12	<0.2	<5
500035	71	12	<0.2	5
500036	51	14	0.5	<5
500037	59	12	0.3	<5
500038	55	11	<0.2	<5
500039	33	12	<0.2	<5
500040	58	10	<0.2	<5
500041	56	13	0.2	5
500042	60	14	0.2	10
500043	58	13	0.2	<5
500044	56	11	0.2	<5
500045	54	12	0.2	15

SOUTH BLOCK - Silt Samples (cont'd)

<u>Sample #</u>	<u>Cu (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
500046	59	20	0.3	30
500047	41	9	<0.2	5
500048	56	14	<0.2	<5
500049	66	20	<0.2	5
500050	155	30	0.6	40
500051	49	14	0.2	10
500052	56	14	<0.2	<5
500053	60	30	<0.2	5

Soil Samples

400001	16	21	<0.2	5
400002	25	21	0.2	5
400003	22	25	0.2	<5
400004	24	19	<0.2	<5
400005	20	19	<0.2	<5
400006	18	22	<0.2	20
400007	22	23	<0.2	<5
400008	52	39	0.7	<5
400009	25	27	0.3	<5
400010	19	20	<0.2	<5
400011	20	24	<0.2	<5
400012	21	19	<0.2	<5
400013	18	20	<0.2	<5
400014	35	32	<0.2	<5
400015	31	22	<0.2	<5
400016	27	28	0.2	<5
400017	28	26	<0.2	<5
400018	24	21	<0.2	<5
400019	38	21	<0.2	<5
400020	21	14	<0.2	<5
400021	29	22	<0.2	<5
400022	27	21	<0.2	<5
400023	33	23	<0.2	<5
400024	27	22	<0.2	<5
400025	29	25	<0.2	5
400026	24	18	0.3	<5
400027	24	18	0.3	<5
400028	18	17	<0.2	<5
400029	27	21	0.2	5
400030	23	19	0.2	<5
400031	25	16	<0.2	<5
400032	47	25	0.2	<5
400033	27	22	0.4	15
400034	18	15	<0.2	<5
400035	23	18	<0.2	<5
400036	34	22	0.2	20
400037	26	15	<0.2	<5
400038	25	21	0.3	5
400039	42	52	<0.2	<5
400040	20	27	<0.2	<5

SOUTH BLOCK - Soil Samples (cont'd)

<u>Sample #</u>	<u>Cu (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
400041	24	37	<0.2	<5
400042	23	26	<0.2	<5
400043	29	39	<0.2	<5
400044	15	22	<0.2	<5
400045	18	24	<0.2	<5
400046	21	43	0.2	<5
400047	21	27	<0.2	5
400048	21	39	<0.2	<5
400049	18	30	<0.2	<5
400050	22	29	<0.2	<5
400051	27	23	<0.2	<5
400052	15	14	<0.2	<5
400053	25	32	<0.2	<5
400054	15	19	<0.2	<5
400055	13	17	<0.2	<5
400056	17	26	<0.2	<5
400057	17	28	<0.2	<5
400058	19	17	<0.2	<5
400059	22	25	<0.2	<5
400060	23	20	<0.2	<5
400061	32	20	<0.2	5
400062	20	24	<0.2	<5
400063	26	26	<0.2	<5
400064	23	19	<0.2	5
400065	14	19	<0.2	<5
400066	34	17	<0.2	<5
400067	25	19	<0.2	<5
400068	24	21	<0.2	<5
400069	16	18	<0.2	<5
400070	21	21	<0.2	<5
400071	11	11	<0.2	5
400072	17	17	<0.2	5
400073	15	20	<0.2	<5
400074	22	17	<0.2	<5
400075	16	19	<0.2	5
400076	25	19	0.2	<5
400077	25	20	0.2	<5
400078	20	20	<0.2	<5
400079	18	17	<0.2	<5
400080	19	16	<0.2	<5
400081	23	22	0.2	<5
400082	26	25	0.4	5
400083	10	20	0.2	<5
400084	20	19	<0.2	<5
400085	26	36	0.2	<5
400086	20	19	0.2	<5
400087	16	25	0.2	<5
400088	17	23	0.5	<5
400089	17	27	<0.2	<5
400090	15	21	<0.2	<5
400091	15	25	<0.2	<5
400092	17	19	<0.2	<5

SOUTH BLOCK - Soil Samples (cont'd)

<u>Sample #</u>	<u>Cu (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
400093	16	27	<0.2	<5
400094	17	22	<0.2	<5
400095	16	26	<0.2	<5
400096	27	23	0.6	<5
400097	17	28	<0.2	<5
400098	29	24	1.0	<5
400099	18	30	0.2	<5
400100	25	22	0.2	<5
400101	22	19	0.2	<5
400102	48	38	0.5	10
400103	31	28	0.6	<5
400104	22	16	0.2	10
400105	36	25	0.6	<5
400106	18	14	0.2	5
400107	53	31	0.6	<5
400108	16	15	<0.2	5
400109	45	39	1.0	<5
400110	45	31	0.5	35
400111	27	17	0.6	10
400112	28	17	0.7	<5
400113	32	26	0.5	<5
400114	32	18	1.4	10
400115	27	13	0.2	<5
400116	27	12	<0.2	<5
400117	29	19	0.2	<5
400118	30	19	0.2	<5
400119	36	28	3.9	15
400120	31	25	3.0	10
400121	35	42	3.8	15
400122	27	22	0.3	<5
400123	25	24	1.1	50
400124	27	19	0.3	<5
400125	38	27	0.3	<5
400126	44	31	1.2	<5
400127	25	25	2.7	<5
400128	33	28	1.0	10
400129	34	37	1.5	5
400130	24	22	0.5	<5
400131	27	29	0.9	10
400138	19	16	<0.2	<5
400139	17	16	0.2	<5
400140	21	24	0.3	5
400141	19	23	0.2	<5
400142	23	22	0.4	<5
400143	19	19	0.2	<5
400144	24	22	<0.2	5
400145	20	19	0.4	<5
400146	24	18	1.0	<5

SOUTH BLOCK

Rock Samples

<u>Sample #</u>	<u>Cu (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
200001	12	20	0.2	<5
200003	17	20	0.4	5
200004	20	115	19.0	220
200005	16	7	1.2	35
200006	22	5	0.2	<5
200007	5	6	<0.2	10
200008	3	6	0.2	<5
200009	10	7	0.7	40

ANALYTICAL RESULTS

NORTH BLOCK (Figure 5)

Soil Samples

<u>Sample #</u>	<u>Cu (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
400132	41	22	0.4	15
400133	34	20	0.4	<5
400134	27	17	0.2	<5
400135	22	15	0.2	<5
400136	32	27	0.7	5
400137	33	24	0.3	5
400147	17	23	<0.2	<5
400148	19	29	<0.2	<5
400149	19	40	<0.2	<5
400150	27	51	<0.2	<5
400151	22	43	0.3	15
400152	25	49	0.3	<5
400153	26	57	0.2	<5
400154	41	118	0.2	<5
400155	22	29	<0.2	<5
400156	24	21	<0.2	<5
400157	16	29	0.2	20
400158	16	28	<0.2	10
400159	12	23	<0.2	5
400160	14	20	0.2	35

NORTH BLOCK - Soil Samples (cont'd)

<u>Sample #</u>	<u>Cu (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
400161	12	20	0.3	15
400162	16	21	<0.2	10
400163	10	20	<0.2	20
400164	17	29	<0.2	5
400165	12	18	<0.2	<5
400166	10	29	0.3	<5
400167	10	24	0.3	<5
400168	18	16	<0.2	<5
400169	26	38	<0.2	10
400170	24	47	<0.2	<5
400171	23	56	<0.2	<5
400172	34	76	0.4	<5
400173	36	65	0.4	<5
400174	53	72	0.8	5
400175	52	74	0.8	<5
400176	50	86	1.0	<5
400177	50	122	1.0	10
400178	49	128	1.0	<5
400179	34	73	0.6	5
400180	48	84	1.1	5
400181	62	129	1.2	5
400182	50	116	0.4	<5
400183	76	22	0.6	<5
400184	35	23	0.2	15
400185	48	33	0.6	25
400186	26	22	<0.2	<5
400187	25	26	<0.2	<5
400188	31	20	1.2	15
400189	38	19	<0.2	<5
400190	30	23	<0.2	<5
400191	20	17	<0.2	<5
400192	29	16	<0.2	<5
400193	58	59	0.2	10
400194	34	17	<0.2	<5
400195	66	29	0.3	40
400197	56	34	<0.2	10
400199	35	15	<0.2	5

Rock Samples

200002	9	36	1.1	30
200010	360	20	1.0	10
200011	22	4200	0.3	10
200012	4	45	0.2	<5
200013	2	5	0.6	30
200014	6	15	0.2	<5
200015	11	19	<0.2	<5

APPENDIX II
STATEMENT OF EXPENDITURES

15th - 30th August 1985

Labour

R. Robertson: geologist - 3 days @ \$400/day	\$ 1,200.00
M. Fekete: geologist - 14 days @ \$142.50/day	1,995.00
M. Van Veen: field assistant - 10 days @ \$112.50/day	1,125.00
M. Sawatsky: field assistant - 11 days @ \$60/day	660.00
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	\$ 4,980.00

Expediting/Vehicles 550.00

Topographic Base Maps (enlargements) 100.00

Food/Camp Supplies/Field Equipment 700.00

Helicopter

Trans North Air: 6.2 hours 3,410.00

Analytical

Bondar-Clegg & Co. Ltd:

15 rock samples (Au, Ag, Cu, Pb) @ \$15.25	228.75
53 silt samples (Au, Ag, Cu, Pb) @ \$11.65	617.45
197 soil samples (Au, Ag, Cu, Pb) @ \$11.65	2,295.05

Report and Map Preparation 740.00

TOTAL EXPENDITURES

\$13,621.25
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G. MACDONALD AND ASSOCIATES LIMITED
Consulting Professional Geologists

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Whitehorse, Y.T.
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(403) 668-2044

(403) 667-7229

APPENDIX III

STATEMENT OF QUALIFICATIONS

I, **RONALD CHARLES RAMSAY ROBERTSON**, of the City of Whitehorse in the Yukon Territory, HEREBY CERTIFY:

THAT I am a Geologist employed by G. Macdonald and Associates Ltd. AND THAT I caused to be performed, and supervised, the work described in this report;

THAT I obtained a Bachelor of Science degree with First Class Honours in Geology from the University of Aberdeen, Scotland, in 1970 and subsequently carried out graduate studies at McMaster University, Hamilton, Ontario, and at Queen's University, Kingston, Ontario;

THAT I have been engaged in mineral exploration on a full-time and part-time basis for sixteen years, of which eight have been on mineral exploration programs in the Yukon Territory, British Columbia and Alaska;

THAT I am a Fellow of the Geological Association of Canada (number F4858) and a member of the Canadian Institute of Mining and Metallurgy and the Prospectors and Developers Association.

DATED at Whitehorse, Yukon Territory, this 14 day of *March*, 1986.

Ronald C. Robertson

Ronald C. R. Robertson