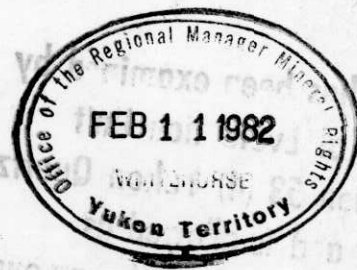


ARCHER, CATHRO

& ASSOCIATES LIMITED

CONSULTING GEOLOGICAL ENGINEERS

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



Box 4127, WHITEHORSE, Y.T. VIA 359 (403) 667-4415

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

NAT JOINT VENTURE
GEOLOGICAL, GEOCHEMICAL AND ^{NO}GEOPHYSICAL REPORT
NOMEN DUBIUM 1-24 CLAIMS
(YA50928-YA50951)



Claim Sheet 105D/3 and 105D/4

Latitude 60°12'N; Longitude 135°30'W

Report by

A.R. Archer, B.A.Sc., P.Eng.

Work done from July 11, 1981 to July 13, 1981

~~090975~~

090975

This report has been examined by
the Geological Legislation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representative work in the amount
of \$ 2,400

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



NAT JOINT VENTURE
GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT
NOMEN DUBIUM 1-24 CLAIMS
(YAS0928-YAS0931)

Claim Sheet 105D\3 and 105D\4

Latitude 60°12'N; Longitude 135°30'W

Report by

A.R. Archer, B.A.Sc., P.Eng.

Work done from July 11, 1981 to July 13, 1981

000000

000000

CHER, CATHRO
THE GEOLOGICAL ENGINEERING

1004 088-2308

1015 - 870 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L3

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MOUNT SKUKUM PROPERTIES

Introduction

In 1980, NAT Joint Venture (Chevron Canada Limited and Armco Mineral Exploration Ltd.) staked the Nomen Dubium 1 to 24 claims, to protect strong geochemical anomalies in gold, silver and arsenic, near Mt. Skukum in the Wheaton River area south of Whitehorse.

In 1981, this property was further explored with prospecting and geochemical sampling in search of specific zones of mineralization. The names of the NAT personnel involved, periods of employment and their addresses are listed in Appendix I.

AGIP Canada Ltd. has staked 331 Kuku claims to the north of NAT's Mt. Skukum properties. Their interest is presumably precious metals.

Property, Location and Access

The Nomen Dubium property consists of twenty-four contiguous claims, recorded in the name of Archer, Cathro & Associates Limited. The claim locations are illustrated on Location Map 1 and they are registered in the Whitehorse Mining District as follows:

<u>Claim Name</u>	<u>Record Numbers</u>	<u>Expiry Date</u>
Nomen Dubium 1-24	YA50928-YA50951	15 April, 1982

The claims are located on the west flank of Mt. Skukum at latitude 60°12' N and 135°30'W, straddling NTS claim sheet 105D/3 and D/4, about 65 km southwest of Whitehorse. Although the area can be reached by a horse trail that follows the Watson River valley, access to the property in 1981 was by helicopter from a roadside camp on the Wheaton River 23 km east.

Previous Work

The Wheaton River district is well-known for vein occurrences of precious metals, sulphosalts and semi-metals (Sb, As, Bi). Four mineral occurrences described in the Archer, Cathro Northern Cordillera Mineral Inventory (NCMI) lie within the Mt. Skukum area of interest, and are plotted on Figure N10B.

The Charleston adit (NCMI 20), which lies just south of the Nomen Dubium claims, explored about 60 m of a quartz vein containing pyrite, minor galena and malachite, and averaged 0.34 oz/ton Au across one metre. The property was discovered prior to 1907, and was explored by adits and trenches until 1954, when it was taken to lease. Yukon Antimony Corp. Ltd. tied the Bud claims on to the south in 1964, which were allowed to lapse.

Mineral occurrence NCMI 22, currently staked as the WH 1 to 8 claims, was originally staked prior to 1922 as Polar Chief, etc. claims. A 12 m adit was driven in 1923, and trenching continued until 1929. A road was built in 1930-31 and another adit (35 m) was driven in 1937. There has been little further work, but Yukon Antimony Corp. Ltd. built a bulldozer trail to the showing in 1965, and after staking in 1973 by El Paso Mining and Milling, the property reverted to prospector W. Kuhn. It was optioned to E. Bergvinson of Vancouver in 1980. Two veins 30 m to 100 m apart cut granodiorite and an andesite roof pendant, and mineralization consists of galena, sphalerite, pyrite, stibnite and arsenopyrite in quartz, with the best samples assaying 0.38 oz/ton Au, 36.4 oz/ton Ag and 1.02% Sb across 1.5 m.

New fringe staking to the west of the WH claims appeared in 1980 as the Mike 1 to 8 and Jon 1 to 6 groups, apparently to cover a Yukon Group roof pendant on

andesite in an area where NCM I occurrence 21 describes a stibnite occurrence found prior to 1940. Canadian Superior Exploration Limited staked this ground in 1975, and explored with sampling and mapping before allowing the claims to lapse.

The fourth occurrence (NCMI 23) is a group of four Raca claims covering copper-silver mineralization associated with granitic breccia at a contact between granodiorite and volcanics.

Physiography and Glaciation

Topography near Mt. Skukum is typified by high relief, deeply incised, youthful, glacially-scoured valleys, and rugged glacially-sculpted alpine terrain. Elevations rise to 2000 m, with an average of 1200 m of relief. South-facing slopes are smooth and moderately steep, terminating in sharp ridges whereas north slopes are characterized by closely-spaced cirques, some of which are occupied by glaciers.

Pleistocene glaciation reached elevations of some 2000 m in this region, covering all but the highest peaks. Deglaciation is recorded by U-shaped valleys, often filled with thick glacial deposits and lateral moraines, and by alpine moraines and terraces.

Soil development ranges from poor to almost non-existent. Post-glacial drainage has incised deep cuts into the plateau and these cuts and the valley walls provide excellent cross-sections of the geology. Most hillsides are covered in talus or felsenmeer, however, making observations of outcrop difficult or impossible. Solifluction is rapid through a combination of frost action and fast spring run-off produced by a heavy snowfall. Snow conditions preclude exploration until about late June. Much of the area is unvegetated.

Geology and Mineralization

The Mt. Skukum area lies within the Coast Plutonic Complex, which is mainly comprised of mid-Cretaceous to Tertiary crystalline rocks. These cut and contain pendants of metamorphic rocks of the Yukon Group. Lower Tertiary pyroclastic and flow rocks of the Skukum Group unconformably overlie the Yukon Group and granitic rocks, and Tertiary rhyolite porphyry forms a ring dyke and other isolated bodies. The Skukum Group outcrops in two main areas. The more southerly area comprises the Eocene Bennett Lake Cauldron Complex (see GSC Bulletin 227), and the northerly group lies within the Mt. Skukum area of interest and may itself be a result of caldera formation. The existence of calderas in this latter area are suggested by: the presence of Skukum Group rocks, the occurrence of rhyolite porphyry peripheral to them; roughly circular patterns suggested by drainage and topography, along with perpendicular drainages that could represent radial fracturing; and the proximity to the Bennett Lake complex.

The Yukon Group rocks (PPsbq and associated carbonate PPc) are the oldest in the region, probably of early Paleozoic age, and are predominantly quartzites and quartz-feldspar-mica schists and gneisses, distributed in a northwesterly-trending belt. Quartzites are light to dark grey, fine-grained rocks that are laminated to thick bedded. Schists are dark to light silvery grey (rusty brown weathering) quartz and muscovite rocks with minor chlorite, feldspar, magnetite, hematite and zircon. Gneisses are generally light to dark grey, fine to medium grained quartz-feldspar-biotite rocks with accessory apatite, sphene, zircon and epidote. Internal structure and composition of the metamorphic rocks suggest that they were derived from quartz-rich sediments.

The Yukon Group is intruded by a mid-Cretaceous(?) coarse grained equigranular biotite-hornblende granodiorite to quartz monzonite (Tgd). It occurs in the southwest corner of the Mt. Skukum area, and several smaller bodies occur northeast of Mt. Skukum. This rock differs from the Cretaceous granodiorite in its texture and content of inclusions.

The Skukum Group overlies these rocks with angular unconformity, and consists of two phases, including rhyolite and trachyte breccias, flows and tuffs (eTva) and andesite to basalt tuffs, flows and breccias (eTvb, although boundaries between the two are often difficult to distinguish. These volcanics are cut by stocks, plugs and dykes of rusty-weathering quartz and feldspar porphyry (Trp) with an aphanitic rhyolite (rarely andesite) matrix, which forms the prominent ring dyke around the Bennett Lake Caldera. Lambert's bulletin (GSC:B227) describes all of these rocks in considerable detail. Recent studies by DIAND suggest that the Skukum Group is identical to the Mt. Nansen Group of the Carmacks area.

Several gossans occur in the Mt. Skukum area. The most prominent derived from the normal weathering of the Trp unit, but others are pyritiferous. Gossanous-looking quartz-carbonate alteration was noted in one location. Breccia with fragments to 10 cm occurs in isolated patches.

The 1981 prospecting on the Nomen Dubium claims found that quartz veining is more abundant than previously realized, and is probably responsible for the 1980 geochemical anomalies in gold, silver and arsenic. A prominent quartz vein on a ridge near the southeast margin of the claims returned strongly anomalous values in gold and silver (discussed below), and rusty quartz veins and dykes up to 3 m wide were found in outcrop near the densest cluster of gold anomalies

on these claims. An occurrence of galena was found at this latter location, where a one-metre wide, lime-yellow to rusty, porous patch of quartz veining contains up to 50% disseminated sulphides, including galena and possibly tetrahedrite and arsenopyrite. No mineralization except pyrite was seen elsewhere on the claims.

Geochemistry

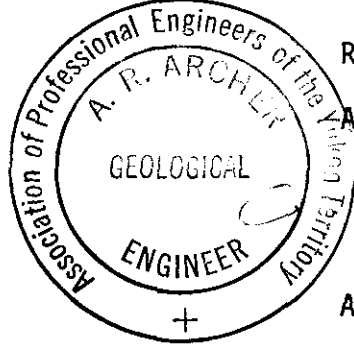
Results of the 1980 and 1981 geochemical sampling are illustrated on Figure N10A. One hundred and forty samples collected from the Nomen Dubium claims in 1981 were analyzed at Chemex Labs Ltd., North Vancouver, B.C. and the analytical techniques used are described in Appendix II. Existing anomalies have been better defined but no new targets are indicated. Gold anomalies of 1640 and 794 ppb were returned from the quartz vein on the ridge mentioned above, and 776 and 666 ppb from quartz veins near the galena occurrence, with anomalies of 685, 440 and 402 ppb and less from other locations on the Nomen Dubium claims.

Silver anomalies greater than 100, 17.6 and 6.4 ppm from the quartz veins on the ridge on Nomen Dubium were returned in 1981, but response elsewhere was poor.

Arsenic shows the strongest geochemical pattern, with most of the Nomen Dubium samples returning anomalous values in excess of 50 ppm. This anomalous arsenic response extends well beyond the boundaries of the Nomen Dubium claims, and may have instigated the AGIP staking.

Discussion

The 1981 work clearly indicates that most of the anomalous geochemical response is derived from weakly mineralized quartz veins with no economic potential. No further work is recommended on the Nomen Dubium claims.



Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED,

R. O.

A.R. Archer, B.A.Sc., P.Eng.

/jm

APPENDIX I

PERSONNEL

PERSONNEL

<u>Name</u>	<u>Address</u>	<u>Work Period</u>
E. Onasick	3 - 2859 West Broadway Ave., Vancouver, B.C.	11 - 12 July , 1981
H. Oiyе	107 - 1730 Chesterfield St., North Vancouver, B.C.	11 July, 1981
J. Robertson	2421 Royal Ave., Saskatoon, Sask.	11 - 12 July, 1981
B. Jenkins	General Delivery, Shoal Lake, Man.	11, 13 July, 1981

APPENDIX II

ANALYTICAL TECHNIQUES

ANALYTICAL TECHNIQUES

Analysis techniques used in 1981 included geochemical and fire assay methods, the latter used mainly for rock specimens with visible mineralization. After screening to -35 mesh and pulverizing to -80 mesh for silts and soils, or crushing and screening to -80 mesh for rocks, samples were analyzed for gold by the "combo" method, silver and lead by nitric-perchloric extraction followed by Atomic Absorption, and arsenic by the hydride vapour technique. The combo method for gold is concentration by fire assay followed by measurement with either Neutron Activation Analysis (1 ppb detection) or Atomic Absorption (5 ppb detection). Most of NAT's 1981 analysis used the more sensitive detection limit.

ARCHER, CATHRO
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CONSULTING GEOLOGICAL ENGINEERS

Box 4127, WHITEHORSE, Y.T. VIA 359 667-4415

STANDARD BUILDING, VANCOUVER, B.C. 688-2568

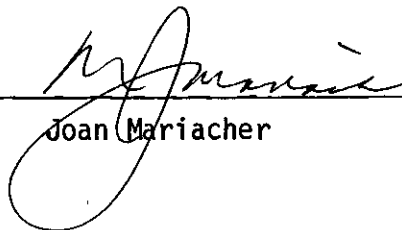


1016 STANDARD BUILDING
510 WEST HASTINGS STREET
VANCOUVER, B. C.
V6B 1L8

AFFIDAVIT

I, Joan Mariacher, of Vancouver, B.C. make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Nomen Dubium 1 - 24 mineral claims on Claim Sheet 105D/4 is accurate.


Joan Mariacher

Sworn before me at Vancouver, B.C.
this 7 day of
January, 1982


Notary, Yukon Territory

090975

Statement of Expenditures
Geochemical Analysis and Report Preparation
Nomen Dubium 1 - 24 Claims
January 6, 1982

Management

Archer, Cathro & Associates (1981) Limited \$ 250.00

Labour

H. Oiyе - 5 days report and map preparation
September-December 1981 at \$162/day 810.00

Expenses

Chemex Labs Ltd., analysis of 129 samples for
Au, Ag, As and Pb at \$10.40 each 1,341.00

Total \$2,401.00

Project - NAT JOINT VENTURE
 Date -- SEPT. 30, 1971

MANAGEMENT			Total	
Sept.		A	2,350.	
LABOUR				
Supervisory				
M. P. Phillips - prepare and file 1/4/yr. report, Nent & Wit assignment, 13 1/2 days @ \$250			3,375.0	
Field				
E. ONASICK - SEPT 1-20 AT 290/mo		5900.00	L	
H. DIVE - SEPT 1-30 AT 2100/mo		2100.00		
L. LINDINGER - SEPT 1-3, 14-30 - 20 DAYS AT 2100/mo + CB 356.00		1756.00		
J. ROBERTSON - SEPT 1-9 AT 1600/mo		480.00		
D. GOLDBECK - SEPT 1-7 AT 1500/mo		350.00		
G. JENKINS - SEPT 1-9 AT 1400/mo		372.00		
K. WYLLIE - SEPT 1-7 AT 1600/mo		374.00		
M. JOVANOVIC - SEPT 1-4 AT 1250/mo		49.00		
M. TRUDZIK - SEPT 1-2 AT 1800/mo		360.00		
J. DUKE - SEPT 1 AT 1500/mo + CB 104.00		218.00		
K. OPSETMOEN - SEPT 1-5 AT 1450/mo + CB 25.00		223.00		
	plus 10%			5230.00
Casual				4615.00
K. Wyllie - 11 1/2 hrs in Sept @ \$18/hr.		207.00	L	
C. CHAMBERS - SEPT 1, 2, 23 - 3 DAYS AT 140/DAY		420.00		
K. HUCKLEBERRY - SEPT 14, 15 - 2 DAYS AT 140/DAY		280.00		
P. BARTEL - SEPT 14, 15, 16 - 3 DAYS AT 140/DAY		360.00	B 1227.	
EXPENSES				
Accounting Sept.		400.00	C3	
Expediting				
Room & Board in Whse JOVANOVIC-1, ONASICK-3, DIVE-3, LINDINGER-5, ROBERTSON-1, JENKINS-1, WYLLIE-2, OPSETMOEN-2, CHAMBERS-2, HUCKLEBERRY-1				
total 23 days at \$35/day		805.00	DV	
Field equipment from AC stock				
Xerox copies, 7011 copies at .45/copy		503.75	C1	
Radio rental Sept 1-3 @ \$250/mo		25.00	D1	
Rental AC truck at \$ /mo. plus (to) kms at /km				
Petty cash 2,80 C2 + 12.00 D3 + 17.60 D1 + 6,21 C2		38.61	C2-9.01 D1-17.60 D3-11.00	
Telephone 1.30 +		1.30	C2	
Blueprinting, 57 sq. ft. Ozalid at 30¢/ft plus 4,0 sq. ft. Dilar at \$2.50 /ft.		25.30	C1	
Drafting, 7.2 hrs at \$18 /hr.		126.00	C1	
Use of AC computer for 7 1/2 hrs to enter all 1968 survey data for Lilypond ch. Monte Carlo, crew charges		50.00	D1	
M. Trudzik, travel		530.00	D2	
Wilson Office		5.70	D3	
Wilson Office		16.50	C2	
Chowder Labs		12.00	D3	
Whse. Station		23.93	C2	
Northern Outdoors		16.90	D1	
Whitehorse ESSU		19.75	D4	
Urban Schrage, travel cost		92.00	D4	
Shoppers Drug		18.00	D1	
Can. Freightways		62.05	D3	
Rec. General, meals		36.10	C2	
Rec. General, file access, Lilypond 33-100, Nent 7-14		1910.00	F	
W. Pan, diesel (Aug bill)		352.00	K 5069.79	
			77766.81	
Credit advance to AC on Oct 2/81		20,000.00	70,000.00	
Total			576689	

In Account With

Project - NAT JOINT VENTURE

Date -- NOVEMBER 30, 1981

		Total
MANAGEMENT		
<i>November</i>	2250.00	2250.00
LABOUR		
Supervisory M.P. PHILLIPS - 54 HRS AT 31.25/HR - CORE LOGGING + MAPPING		1687.50
Field E. DNASICK - NOVEMBER 1-30 AT 2900/MO	2900.00	
H. OIYE - NOVEMBER 1-30 AT 2100/MO	2100.00	
L. LINDINGER - 3/4 NOVEMBER AT 2100/MO	1575.00	
J. DUKE - NOVEMBER 9-17 AT 100/DAY	800.00	7375.00
Casual	plus 50 %	3687.50
EXPENSES		
Accounting <i>November</i>	400.00	
Drafting, 48 hrs. at \$18 /hr.	864.00	
Xerox copies, 222 copies at 25¢ /copy	55.50	
Petty cash 8.50 + 1.52	10.02	
Telephone		
<i>Shoppers Drug</i>	1.59	
<i>Harwood's Office Supply</i>	2.45	
<i>Williams & Mackie</i>	10.92	
<i>Vanal</i>	2.45	
M. Phillips expense etc ^{2.89 CV} 3.80 CV 26.72 CV	33.41	
M. Phillips expense etc CV	6.87	
computer pages printed, 214 @ 50¢ ea	107.00	
		1494.21
		16,494.4
CREDIT		
ICB Canadian Program - return	2.30	2.30
Total		16,491.91



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

*** INVOICE ***

To : ARCHER CATHRO & ASSOC. LTD.
BOX 4127
WHITEHORSE, Y.T.
Y1A 3S9

Invoice # : I8112388
Date : 14-AUG-81
P.O. # : NONE
Project NAT 81

Invoice for analytical work reported on certificate(s) A8112388-001 to -005

Quantity	Analysed for code	description	unit price	amount
182	004 - Pb	ppm		
	006 - Ag	ppm		
	013 - AS	ppm		
	101 - AU-NAA	ppb	11.50	2093.00

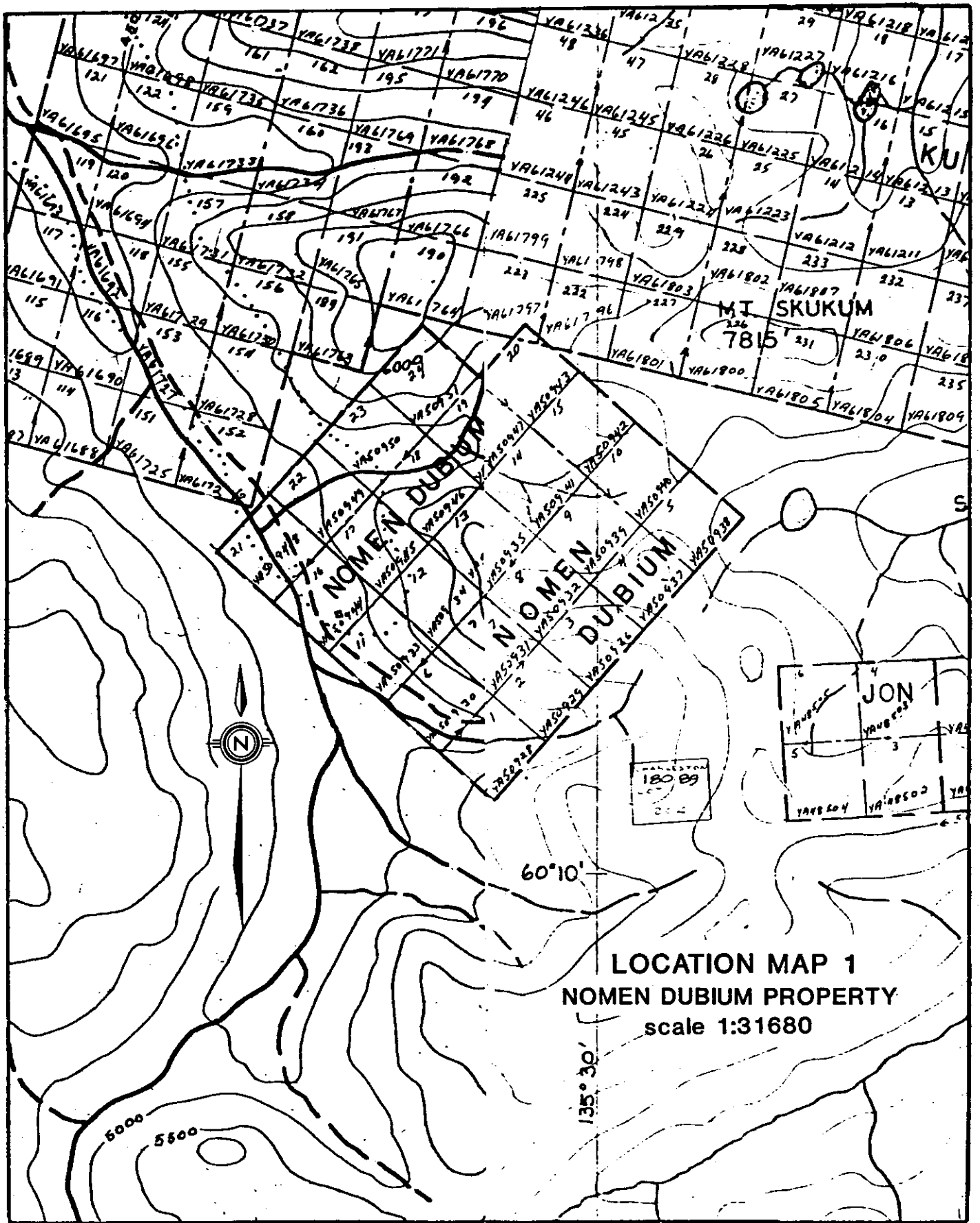
Sample preparation and other charges :

182	203 - -35 mesh sieve + ring	1.50	273.00
-----	-----------------------------	------	--------

TOTAL	\$ 2366.00
Discount (20 %)	\$ 473.20

Please pay this amount ----> \$ 1892.80

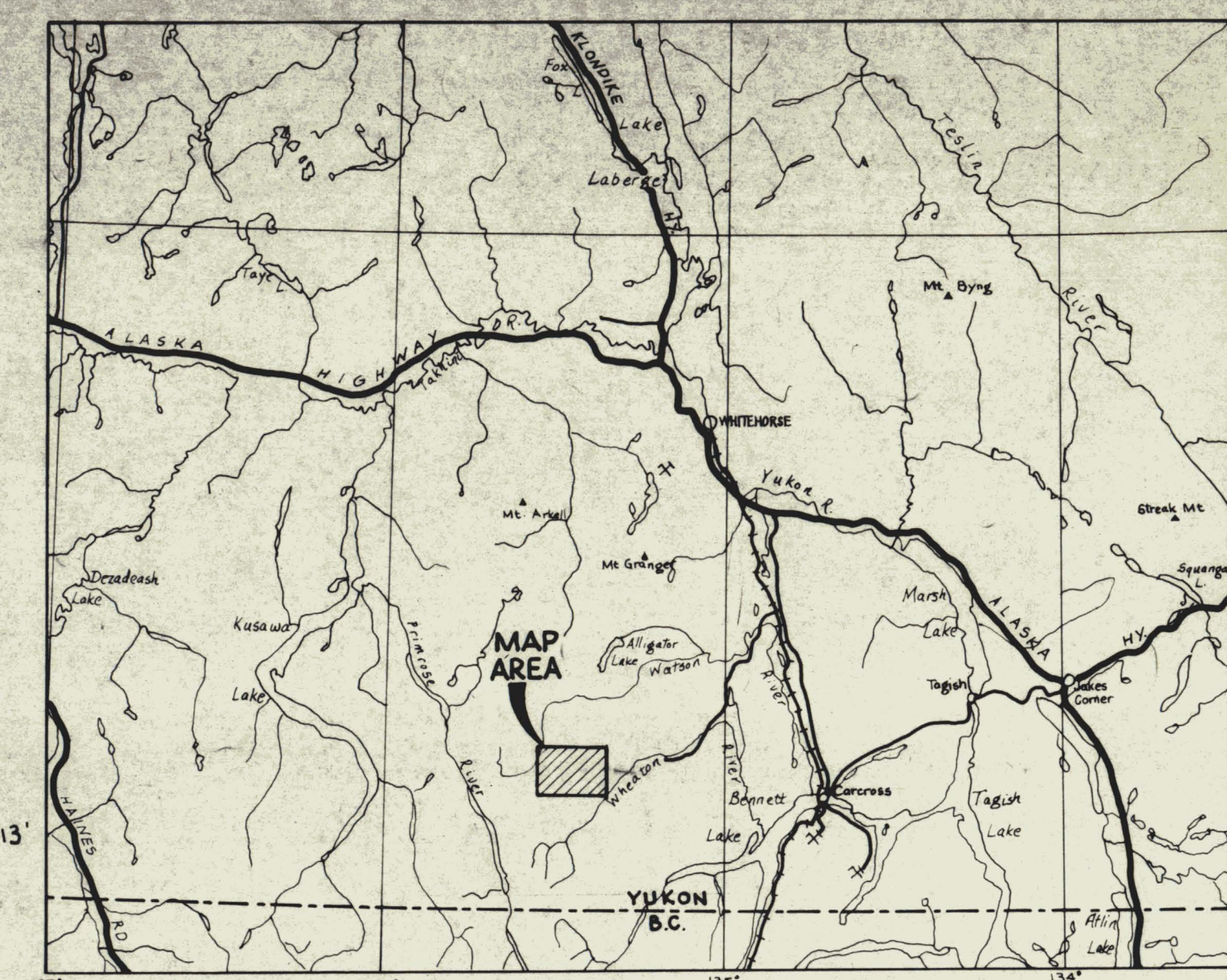
TERMS -- NET 30 DAYS
2.0 % per month (24 % per annum) charged on overdue accounts



LOCATION MAP 1
NOMEN DUBIUM PROPERTY
 scale 1:31680

090975

090975

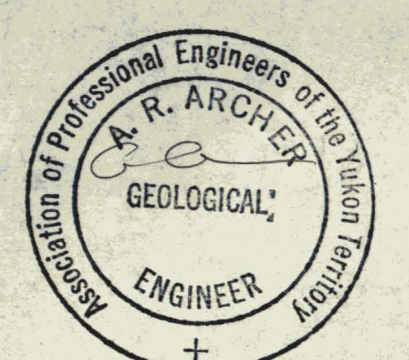


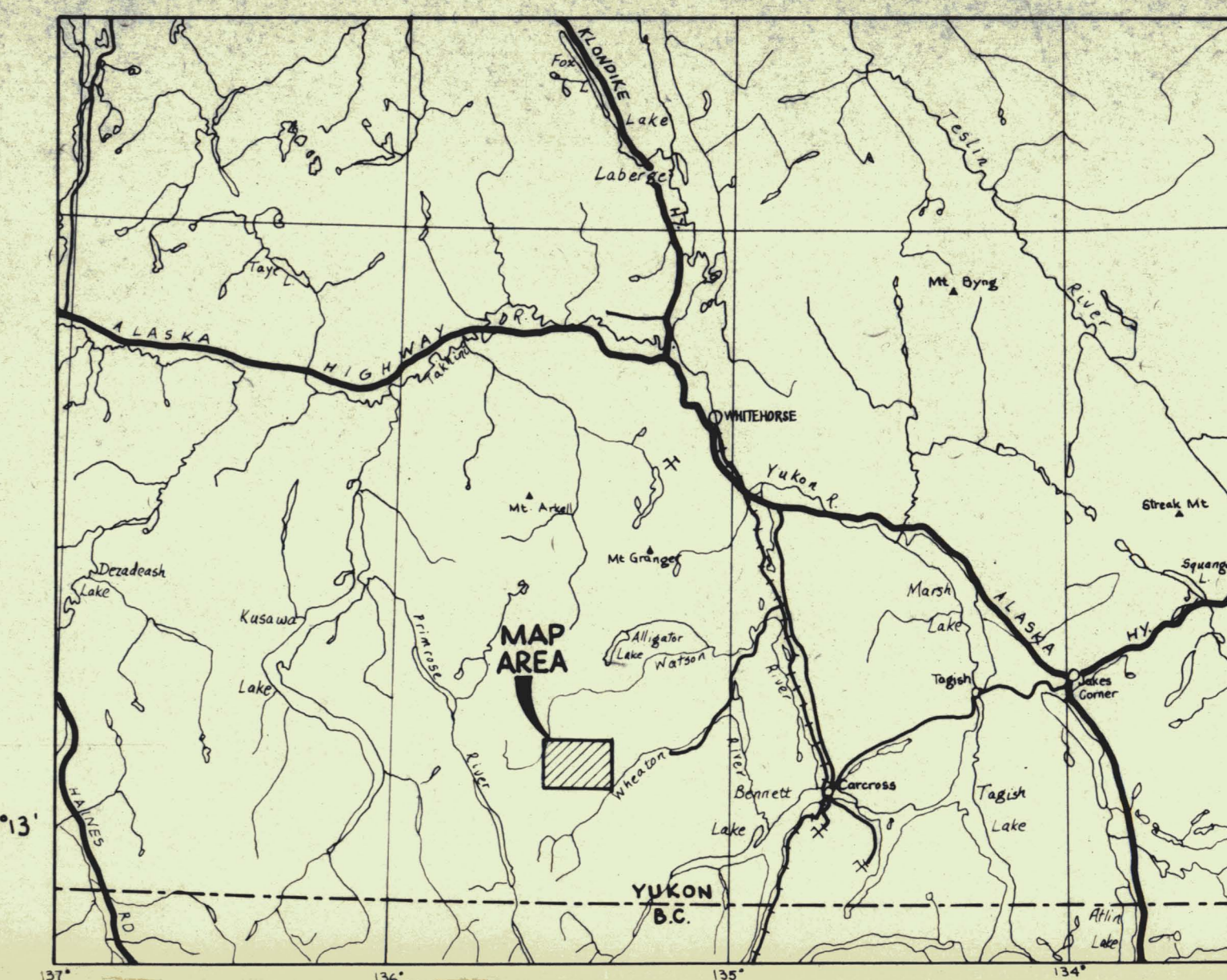
LEGEND

- NAT CLAIM BOUNDARY
- WH, RACA, ETC. CLAIM BOUNDARY
- TOPOGRAPHIC CONTOURS (50 FT INTERVAL)
- TRAIL
- CREEK, LAKE
- ADIT
- SOIL
- SILT
- ROCK
- TRACE
- NOT AVAILABLE

25, 10, 10 GOLD (ppb), ARSENIC (ppm), SILVER x10 (ppm)

FIGURE N10-A (REVISED)
 ARCHER, CATHRO & ASSOCIATES LTD
GEOCHEMISTRY
 MT. SKUKUM AREA
 NAT JOINT VENTURE
 SCALE 1:10,000





- LEGEND**
- NAT CLAIM BOUNDARY
 - WH, RACA, ETC. CLAIM BOUNDARY
 - TOPOGRAPHIC CONTOURS (100 FT INTERVAL)
 - TRAIL
 - CREEK, LAKE
 - ADIT
 - 21 YUKON MINERAL INVENTORY OCCURRENCE

- GEOLOGICAL LEGEND**
- TERTIARY**
- Trp stacks, plugs and dykes quartz and feldspar porphyry with aphanitic rhyolite matrix; some granite porphyry and intermediate plugs and dikes
 - Tgd inhomogeneous, locally gneissic, porphyritic hornblende granodiorite and quartz monzonite; abundant dioritic and metasedimentary inclusions
 - eTva SKUKUM GROUP: pale grey, green, and white rhyolite and trachyte breccia, tuffs and flows; some felsic plugs and dykes (Trp)
 - eTvb SKUKUM GROUP: purple, green, and white andesite and basalt breccia, tuffs and flows; minor greywacke at base
- CRETACEOUS (?)**
- Kgdm RUBY RANGE BATHOLITH: coarse-grained, equigranular biotite-hornblende granodiorite and quartz monzonite
- PROTEROZOIC and/or PALEOZOIC**
- EPc YUKON GROUP: marble, crystalline limestone; minor graphitic limestone and skarn
 - EPsbq YUKON GROUP: quartz-mica, quartz-chlorite schist and quartzite; minor amphibolite, feldspathic gneiss
- dyke or narrow intrusion (orientation not necessarily representative)
 - gossan, usually pyritiferous
 - breccia
 - qca quartz-carbonate alteration
 - geological contact (observed, assumed)
 - quartz vein

FIGURE N10B
ARCHER, CATHRO & ASSOCIATES (PNS) LTD
GEOLOGY
MT. SKUKUM AREA
NAT JOINT VENTURE
SCALE 1:100,000
0 100 200 300 400 500 600 700 METERS
0 1 2 3 4 5 6 MILES

Professional Engineer
R. ARCHER
GEOLOGICAL
ENGINEER

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090974