

MAP NO.: ASSESSMENT REPORT X
105 C 13 PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092484
MINING DISTRICT: WHITEHORSE
TYPE OF WORK: GEOLOGICAL, GEOCHEMICAL

REPORT FILED UNDER: Noranda Exploration Company Limited

DATE PERFORMED: July 25-28, 1987

DATE FILED: June 13, 1988

LOCATION: LAT.: 60°56'N

AREA: Sawtooth Range

LONG.: 133°45'W

VALUE \$: 2,400.00

CLAIM NAME & NO.: SAW 1-6 YA95225-YA95255

WORK DONE BY: M. Trudzik

WORK DONE FOR: Noranda Exploration Company Limited

DATE TO GOOD STANDING:

REMARKS: #25 NW

Soil sampling in 1988 outlined an area of anomalous gold and arsenic values downslope from an extensive area of quartz-carbonate alteration. Soil samples contained up to 50 ppb Au and 760 ppb As. Rock samples from the alteration zone contained up to 170 ppb Au, and 374 ppb As.



092484

M.R. file no.
R.M.M.R. file no.
Date forwarded 13 June 1988

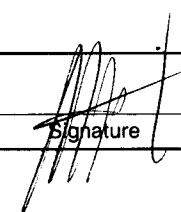
TRANSMITTAL FORM

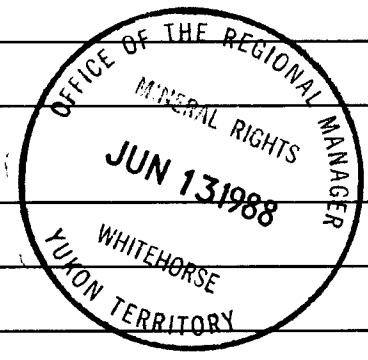
From Mining Recorder at: Whitehorse

To Regional Manager, Mineral Rights at Whitehorse, Y.T.

For action are:

<input type="checkbox"/> NEW APPLICATION FOR PLACER LEASE TO PROSPECT	Name	
<input type="checkbox"/> RENEWAL APPLICATION PLACER LEASE TO PROSPECT	Name	Lease no.
<input type="checkbox"/> AFFIDAVIT OF EXPENDITURE ON PLACER LEASE	Name	Lease no.
<input type="checkbox"/> SECURITY DEPOSIT		
<input type="checkbox"/> FINANCIAL ABILITY		
<input type="checkbox"/> ASSIGNMENT OF PLACER LEASE NO.	From	To
<input type="checkbox"/> GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT.	Owner	
<input type="checkbox"/> DIAMOND DRILL LOGS	Claims	Claim sheet no.
<input checked="" type="checkbox"/> QUARTZ ASSESSMENT REPORT	Claims SAW 1-b YA95225 - YA95255	Claim sheet no.
	Type of report Geological Geoderm	Submitted by Moranda Expl. Co. Ltd.
	Cls. work performed on SAW 1-b	\$ req. for ren. application 2400.00

Signature 



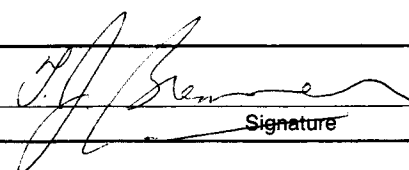
092484

REPLY ACTION

Date returned

Approved for amount required

9 July 88

Signature 

092484

GEOLOGICAL & GEOCHEMICAL REPORT

on the

SAW 1-6 CLAIMS



Whitehorse Mining District

N.T.S. 1050/13

Latitude 60° 56' N

Longitude 133° 45' W

092484

Author: M. Trudzik

Owner: Noranda Exploration Company, Limited
(No Personal Liability)

Date: October, 1987



092484

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 \$ 2400.00.

J. J. Brennan

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

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SUMMARY

The SAW 1-6 claims are located within the Sawtooth Range of the Pelly Mountains. The property occurs in a thin slice of schist, gneiss, amphibolite and diorite of the Paleozoic Big Salmon Complex. The Red Mountain molybdenum prospect in similiar rocks occurs only a few kilometres north of the claims. A large shear zone separating the diorite and amphibolite units straddles the property. This shear zone is associated with extensive quartz-carbonate alteration anomalous in Au, As. A program of detailed soil and rock sampling is recommended.

CHAPTER ONE: INTRODUCTION

1-1: INTRODUCTORY STATEMENT

The SAW 1-6 claims lie 78 kilometres north-east of Whitehorse, Y.T.. The claims were staked in 1986 to cover a GSC silt anomaly (121 ppm As, 85 ppm V, 36 ppb Au). A very brief sampling program was undertaken at this time. In July of 1987 prospecting and sampling were undertaken to further assess the property.

1-2: LOCATION & ACCESS (See Figure 1)

The property (NTS 105C/13, Lat: $60^{\circ}56'N$, Long. $133^{\circ}45'W$) lies 78 kilometres north-east of Whitehorse, between Rosy Lake and Red Mountain Creek. Access is via helicopter from Whitehorse. An old cat road joining the Red Mountain prospect with the South Canal Road passes within 2 km. of the claims.

1-3: TOPOGRAPHY & VEGETATION

The claims lie within the Sawtooth Range of the Pelly Mountains. This area is characterized by sharp ridges with wide U-shaped valleys. Peak elevation in the region averages 2,000 metres. The property covers a north facing slope of a northeast trending ridge. Elevation ranges from a high of 1,700 metres in the south to 1,400 metres in the north.

The claims lie above tree line, near the limit of scrub brush and stunted spruce bushes. This grades to alpine and subalpine vegetation and talus covered slopes at higher elevations. A good supply of water flows through the creek that bisects the claims.

1-4: CLAIM DEFINITION (See Figure 2)

The SAW 1-6 claims (YA95225-95230) were staked on July 23, 1986 and recorded on July 24, 1986. With the acceptance of this report the claims will be in good standing until July 24, 1992.

1-5: HISTORY

No recorded instances of work have been found for the area covered by these claims. Amoco's Red Mountain molybdenum prospect is 5 km. north of the property. Several smaller molybdenum showings have been discovered peripheral to the main Red Mountain showing.

1-6: 1986 WORK PROGRAM

On July 25 - 28, 1987 two Noranda personnel, Murrell Trudzik and Gordon MacKay, returned to the claim group to further assess the property. At this time 9 rock, 75 soil, 3 silt and 1 heavy mineral sample were collected. The rock units along the southern portion of the property were mapped. The northern portion was not examined due to the lack of rock exposure and availability of time. A brief reconnaissance of the surrounding terrain was also undertaken.

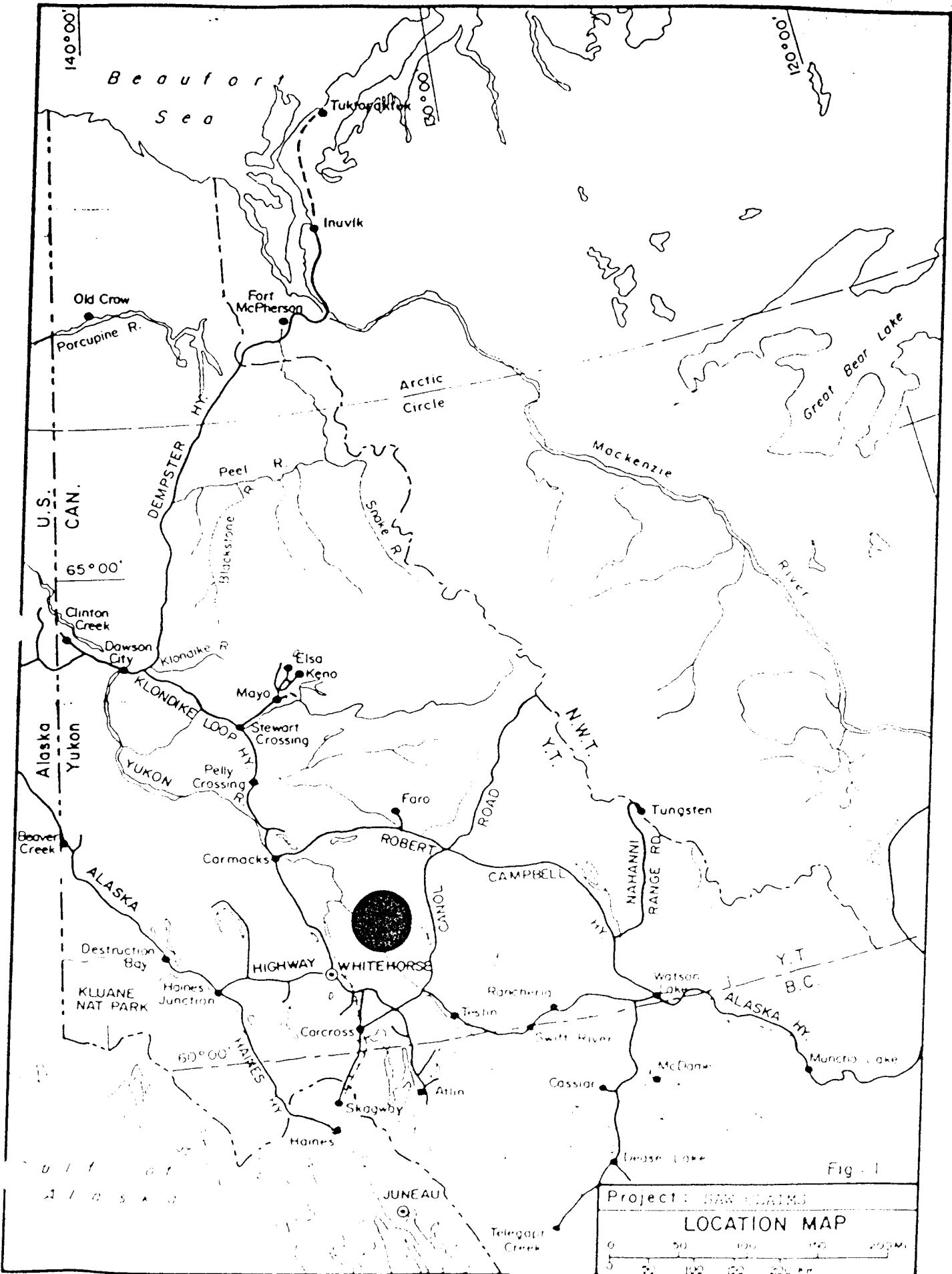


Fig. 1

Project: BAR PLAINS
LOCATION MAP
 0 50 100 150 200 KM
 0 50 100 150 200 MI

CHAPTER TWO: GEOLOGY

2-1: REGIONAL GEOLOGY

The SAW claims lie within a narrow slice of the Yukon Cataclastic Terrain between the Whitehorse Trough and the Cassiar Platform. The Teslin Suture Zone a large northwest trending structural feature separates Paleozoic Cassiar Platform rocks from mesozoic Whitehorse Trough Terrain.

2-2: PROPERTY GEOLOGY

The property is underlain by two main units; an amphibolite related to the Big Salmon Complex and a diorite which may either be of Cretaceous age or more probably related to the Paleozoic Big Salmon Complex. The contact between these two units is a north-east trending shear zone. Felsic, sheared, and well foliated rocks of probable rhyolitic composition occur along the contact. Several other north-east trending shears are located within the individual units.

A large zone of quartz-carbonate alteration underlies the property, over a width of up to 25 metres and several hundred metres in length. Alteration varies from pervasively silicified to nearly purely carbonate. Many of the altered rocks contain up to 10% pyrite + arsenopyrite. The orientation of the quartz-carbonate zones as well as the sheared and altered nature of the rocks within suggest a strong relationship with the shear structures.

TABLE 1

TABLE OF FORMATIONS

QUATERNARY

Selkirk Group:

- basalt, andesite

TERTIARY

Carmacks Group:

- andesite, basalt, conglomerate, sandstone.

Mount Nansen Group:

- acid-intermediate tuff, breccia

JURASSIC & CRETACEOUS

Dezadeash Group:

- argillite, greywacke, volcanic rocks

TANTALUS FM:

- conglomerate, siltstone, arkose, coal

JURASSIC

Laberde Group:

- greywacke, arkose, conglomerate

UPPER TRIASSIC

Lewes River Group:

- limestone

MESOZOIC (undivided)

- quartz monzonite, granodiorite, foliated granodiorite

PALEOZOIC (undivided)Pelly Gneiss:

- foliated to greissic granodiorite

CARBONIFEROUS & PERMIANBig Salmon Metamorphic Complex:

~~schist, gneiss~~

HADRYNIAN & CAMBRIAN

- schist, gneiss, quartzite

CHAPTER THREE: GEOCHEMISTRY

3-1: PROCEDURE

Nine rock grab samples were collected as well as 3 soils from the north-facing slope dominating the property. Additionally, 2 soil lines were established on opposite sides of the creek which bisects the property. 72 soil samples were taken along the bases of the two slopes at 50m intervals. During the soiling, 3 silt samples were collected from 2 creeks at the lower end of the property. One heavy pan concentrate sample was taken from the upper end of the main creek.

Soil, silt and pan concentrate samples were sent to Noranda's Vancouver Lab for preparation and analysis. Rock samples were analysed by Rossbacher Laboratory Ltd., Burnaby, B.C.. All samples were analysed using standard geochemical methods for Cu, Pb, Zn, Ag, Au, As, and Sb.

3-2: RESULTS (See Figure 3)

Of the 72 soil-line samples taken, 6 were anomalous in Au (30-40 ppb), 5 of these being in sequence (L-10-N, 500-700 E). Arsenic levels in samples taken from this section of the line were also quite elevated. The Au and As levels are not surprising since these sample locations lie directly downslope from anomalous rock samples.

Two of the 9 rock samples taken on the property were anomalous in Au and As with up to 170 ppb Au and 374 ppm As. These were taken near the southern corner of the claim group from an area of extensive quartz-carbonate alteration. Two soil samples (P24760, 62) taken within the alteration zone were also anomalous in Au and As with up to 50 ppb Au and 760 ppm As. Other elements in the soils and rocks were only background in values. The three silt samples and single pan concentrate sample taken on the property did not produce anomalous results.

CONCLUSIONS & RECOMMENDATION

Results obtained from rock and soil sampling of the SAW claim group have been quite encouraging. Anomalous Au and As values appear to be connected with extensive quartz-carbonate alteration found in the southern part of the property. Further rock sampling to determine the extent of Au mineralization is recommended. Also recommended is the establishment of a soil grid over the quartz-carbonate alteration zone.

Respectfully submitted by

Murrell Trudzik

Murrell Trudzik
Geologist

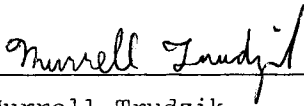
REFERENCES

- D.I.A.N.D. 1981. Yukon Geology & Exploration, 1979-80; D.I.A.N.D.
Geology Section Publication, 364 pp.
- Mulligan, R., 1963. Geology of the Teslin Map-Area, Y.T. (105C);
GSC Mem. 326.

STATEMENT OF QUALIFICATIONS

I Murrell Trudzik, residing at Box 93, Mayerthorpe, Alberta do hereby certify that:

1. I have been an employee of Noranda Exploration Company Limited (NPL) in Whitehorse since June, 1987.
2. I am a graduate of the University of Alberta with a B. Sc. (Special) in Geology.
3. I am a member of the Canadian Institute of Mining and Metallurgy and the Geological Association of Canada.
4. I conducted work on the SAW Claims during July, 1987.



Murrell Trudzik
Geologist

STATEMENT OF COSTS

PROJECT: SAW Claims

Wages (Field):

8 mandays @ \$90/day	\$ 720.00
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Food & Accomodation:

8 mandays @ \$25/day	200.00
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Transportation:

Helicopter (Whitehorse-property) 1.9hr. @ \$500/hr.	950.00
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Helicopter Fuel	145.25
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Rental (Truck)	50.00
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Analysis:

75 soil, 3 silt, & 1 heavy mineral sample	
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(Cu, Pb, Zn, Ag, Au, As, Sb) at \$12/sample X (79)	948.00
--	--------

9 rock samples at \$15/sample	135.00
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Report Preparation:

Author 1 day @ \$80/day	80.00
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Typing 2 hrs. @ \$12/hr.	24.00
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Drafting 1 day @ 150/day	150.00
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TOTAL	\$3402.25
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APPENDIX 1
Rock Description

N.T.S. 105 C/13

PROPERTY SAW

DATE July 22, 1987

ROCK SAMPLE REPORT

PROJECT 312

SAMPLE NO	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G	A	G	A	G	A	G	A	G	A	SAMPLED BY
					Ag	As	Sb	Au ppb							
24751	N. Side of creek 100m up from Post 2 saw 1&2 quartz veins (2cm) in magnetite rich Amphibolite. Epidote stringers in the qtz.		Float	.5m											
24752	S. side of Creek Altered intrusive pervasive epidote alteration of mafic minerals. Hematite, clay alteration at felds reacts with dilute HCl		Float												
24753	Pervasive qtz. carbonate alteration in qtz. calcite veins up to 4 cm. 5-10% Py.	5-10%	Float	.5m	1.4	374	2	170							
24754	Qtz. carb. altered clastic flow		Float												
24756	Brecciated Mafic Volc. rounded (south ridge) 5-10% Py.	5%	Float												
24757	Pervasive qtz. carb. alteration of brecciated volc. minor Py.	<1	Float		.6	550	2	100							
24758	Pervasive qtz. carb. in siliceous zone containing 5-10% Py.	5-10	Float		.4	346	2	60							
24759	Same as 58		Float	1m	.6	1880	2	640							
24761	Sulfides associated in qtz. carb. vein in fine grained mafic int.	2-5	Subcrop												
24762	Specular hematite in pervasive qtz. carb. alt.	2	Subcrop												
24764	Same as 63 - fragmental	2	O/C												

G = GEOCHEM A = ASSAY

N.T.S. _____

PROPERTY _____

DATE _____

ROCK SAMPLE REPORT

PROJECT _____

SAMPLE NO	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G	A	G	A	G	A	G	A	G	A	G	A	SAMPLED BY
					Ag	As	Sb	Au	Pb								
R24765	Amphibotite? mafic int. brecciated by a stockwork intrusion. Felsic.		O/C														
R24766	Coarse pyrite crystals up to 1.5cm in Mafic volc.	5	O/C														
R24767	Amphibotite in silica alteration zone, zone contains 5-15% sulphides (pyrite)	5-15	Subcrop														
R24768	Alteration of diorite intrusive stringers of pyrite.	5	Float	.5													
R24769	Pervasive silica alteration 2cm qtz. veins 2% chlorite 5% pyrite	5	Float		4.2	2040	38	830									
R24770	Same as 69 arsenic stain	10	Float		1.4	7400	238	3200									
R24771	Same as 70 Brecciated arsenopyrite & pyrite	5	Float		2.0	2000	52	400									
R25098	qtz-carb. alt. (50-50), Hgy, clastic & bedded appearance on with surface, orange with blocky ~5% Py, minor malachite stain	5			2.2	930	2	290	260								
25100	Carbonate altered rock, lt. brown, very calcareous; 2-3mm cct veins packed in rusty matrix, sheared appearance, rusty wth, blocky R25090-R22026 taken along qtz.-carbalt zone running diagonally along mountain side																
22028	Qtz. carb. alt., lt. gy. structureless, mainly carboante rusty wth, blocky																
22029	Siliceous alt. Rock, lt. gy., no carb., Py. diss. along seams, rusty, limanitic wth.																

G = GEOCHEM A = ASSAY

N.T.S. _____

PROPERTY _____

DATE _____

ROCK SAMPLE REPORT

PROJECT _____

SAMPLE NO	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G	A	G	A	G	A	G	A	G	A	SAMPLED BY
					Ag	As	Sb	Au	Pb						
25089	Felsic tuff, matrix is white, soft, sl. porous, aphanitic ~20-30% subhedral pheno- crysts of Qtz., fsp, micas (biotite) O/C ~10m wide striking straight up mountain, monzonite (diorite) on either side														
25090	Qtz-carb altered rock, highly siliceous, gy. brown 5-10% Py in 1-2mm globules, dark red- brn wth, blocky, talus	5-10			.6	302	4	60							
25092	Qtz-carb alt. rock, mainly cct, gy-wh, large Qtz. & cct-crystal-filled vugs, no sulfides visible, red-orange wth, blacky, proximal talus				.6	640	12	320							
25094	Qtz-carb alt. rock. lt. gy, calcareous, no sulfides bright orange wth, blocky				.4	610	2	60							
25095	Amphibolite? f.g. mainly tlb & plag 5-10% py, dk gy, sl. magnetic, rusty wth, talus	5-10													
25096	Qtz. vein in country rock (diorite) Qtz. is white, semitransparent, ~2cm wide, red hem stain, minor epidote, chlorite														
22031	Qtz-carb alt. has appearance of congl/breccia pebble-cobble sized Qtz (gy. f.g.) in light orange carbonate matrix minor py in matrix														

G = GEOCHEM A = ASSAY

APPENDIX 2

Results

SAMPLE
No.

Cu

Zn

Pb*

Ag

As

Sb

PPB 8707-120
Au Pg. 2 of 2

SAMPLE No.	Cu	Zn	Pb*	Ag	As	Sb	PPB Au
50 10N-100E SOIL	32	76	2	0.2	380	10	10
51 150	30	84	2	0.2	280	6	10
52 200	34	90	2	0.4	220	6	10
53 250	30	96	2	0.4	240	8	10
54 300	68	74	4	0.2	46	2	10
55 350	48	72	6	0.2	82	2	10
56 400	38	84	6	0.4	190	2	10
57 450	18	90	4	0.4	230	6	10
58 500	20	84	8	0.4	320	8	10
59 550	20	66	14	0.2	160	4	10
60 600	24	80	12	0.4	76	6	10
61 650	22	62	4	0.4	200	6	10
62 700	46	120	14	0.8	280	6	10
63 750	30	90	8	0.2	80	2	10
64 800	38	100	12	0.6	100	2	10
65 850	36	92	12	0.2	40	4	10
66 900	34	82	2	0.2	8	2	10
67 950	28	84	2	0.2	2	1	10
68 1000	78	70	1	0.2	6	1	10
69 1050	84	80	1	0.2	34	2	10
70 1100	52	54	1	0.2	1	1	10
71 1150	110	92	1	0.2	62	4	10
72 1200	120	80	1	0.2	14	2	10
73 1250	120	88	1	0.2	84	6	10
74 1300	94	70	1	0.2	1	1	10
75 1350	150	74	1	0.2	4	1	10
76 1400	100	68	1	0.2	6	1	10
77 1450	120	76	1	0.2	22	1	10
78 1500	96	76	1	0.2	56	4	10
79 1550	80	76	1	0.2	12	2	10
80 1600	96	74	1	0.2	30	1	10
81 1650	150	80	1	0.2	80	1	10
82 1700	180	110	1	0.2	100	4	10
83 1750	210	82	1	0.2	90	6	10
84 1800	70	56	1	0.2	1	2	10
85 1850	42	68	1	0.2	36	1	10
86 10N-1900E SOIL	78	78	1	0.2	28	1	10

T.	SAMPLE No.	SAMPLE wt. (g)	PPB Au	Cu	Zn	Pb	Ag
6	PAN	10.4	10	14	42	1	0.2

B. Pan cont. entire sample used for Au determination.
*Cu, Zn, Pb, Ag values were obtained from Aqua Regia sol'n.

Legend

- 1 Amphibolite
Fine to coarse grained, predominately hornblende. Some magnetite. Cut by a stockwork of very fine grained white veins, up to 10cm. in width. Irregular patches of Qtz - carb alteration.
- 2 Diorite
Variable grain size and qtz content. Locally qtz carb or silica altered. Near fault zone is sheared with epidote, hematite and clay alterations.
- 3 Rhyolite (?)
Appear only in fault zone, locally foliated with tight folds.
- Quartz - Carbonate alteration

Symbols

- Geological contact
- Fault
- ROI234 x Rock sample location & no.

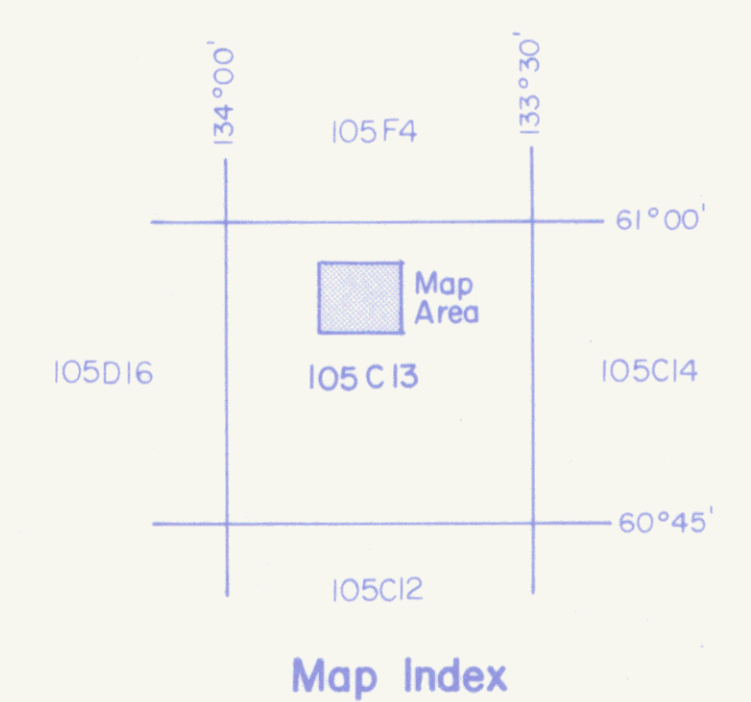
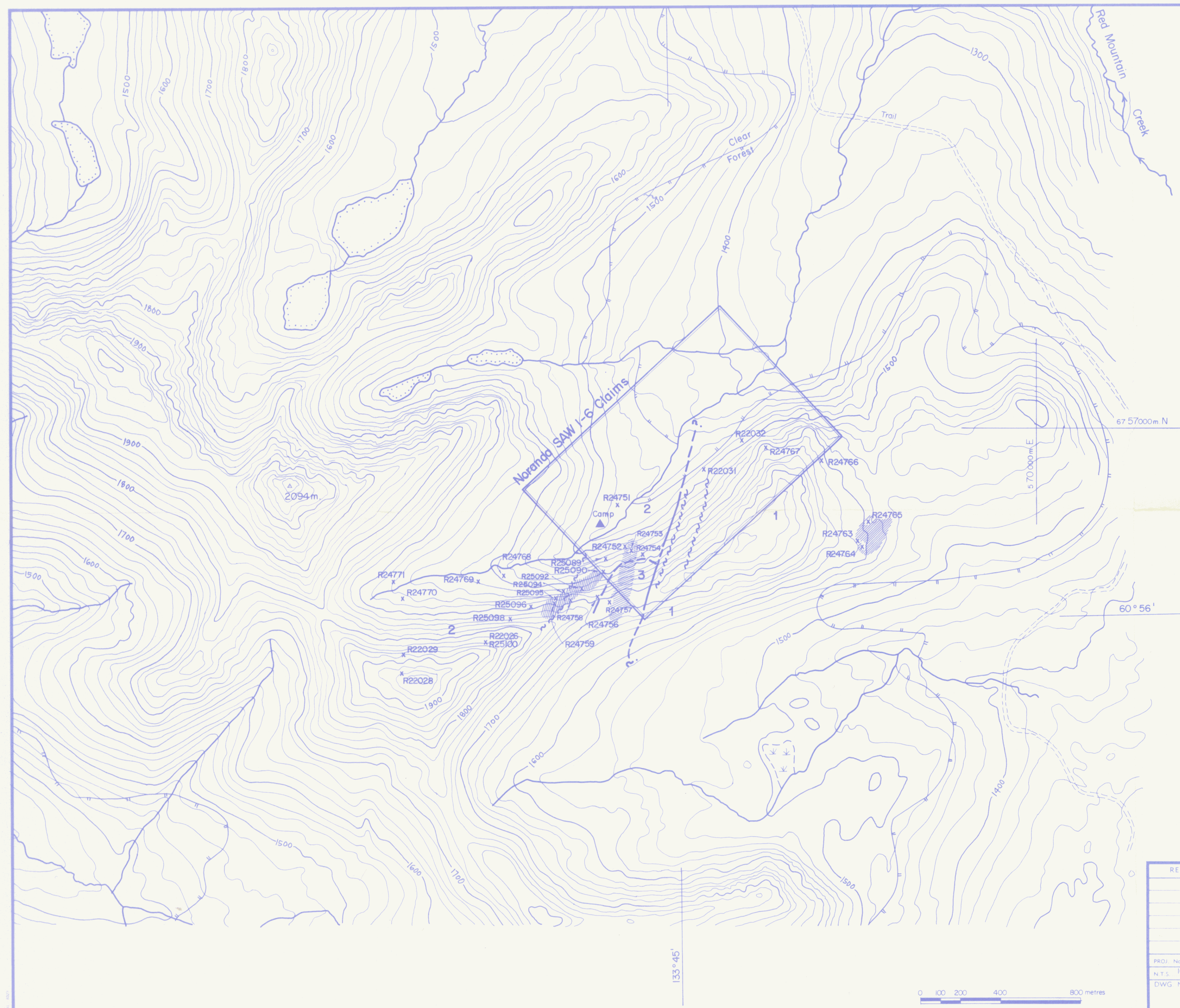
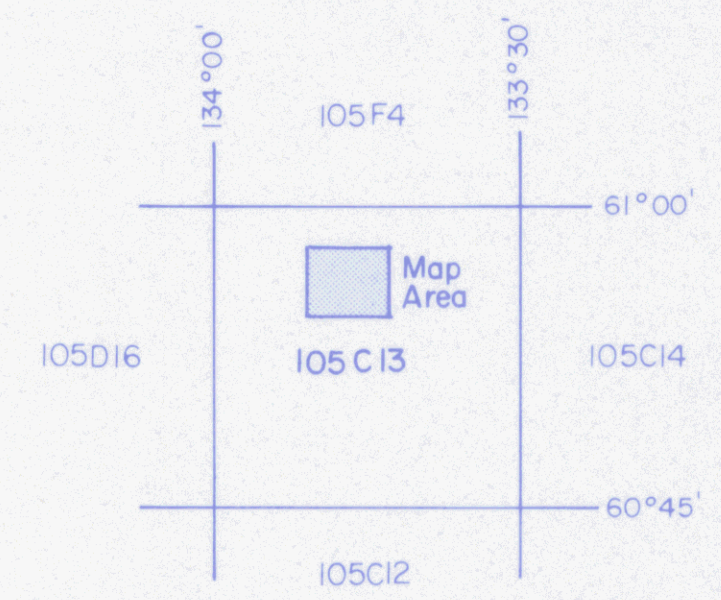
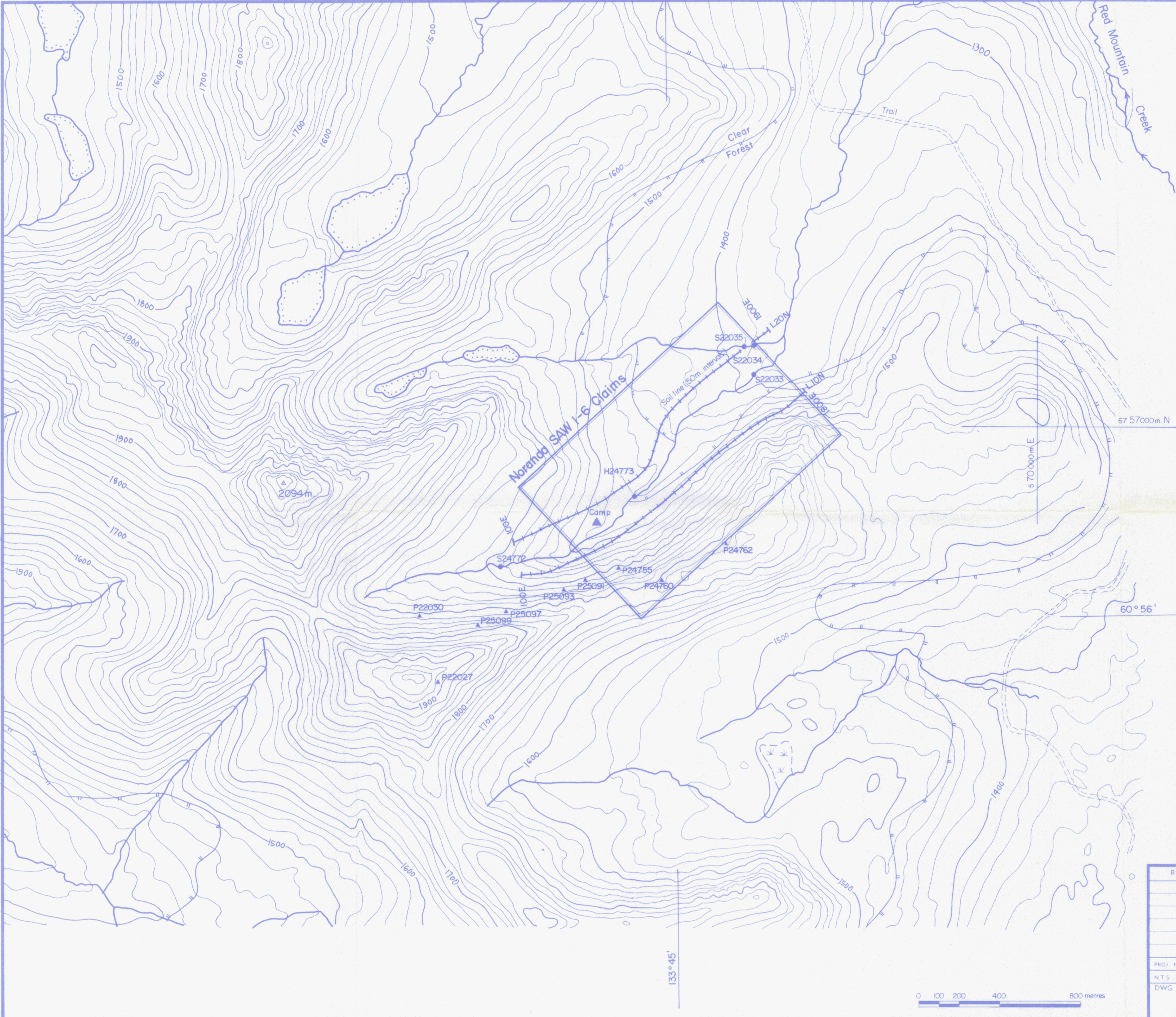


Fig.:

REVISED	SAW Claims		791
Geology (Rock Sample Location)			
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N.T.S. 105 C 13	DRAWN BY: AI	SCALE: 1:10,000	
DWG. No.	NORANDA EXPLORATION Whitehorse		
OFFICE:			



Map Index

092484

Fig.:

REVISED	SAW Claims		190
	Geochemistry		
PRJ. No. 12	SURVEY BY: GM	DATE: SEP 87	
N.T.S. 105 C 13	DRAWN BY: AI	SCALE: 1:10,000	
DWG. No.	NORANDA EXPLORATION		
	OFFICE: Whitehorse		



MANICAL 8302