

VICTORIA

87-751-16562

10/88



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) Geochemical	TOTAL COST \$4,616.83
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AUTHOR(S) B.D. Fairbank

SIGNATURE(S)

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED

October 29, 1987

YEAR OF WORK 1986-87

PROPERTY NAME(S)

MARCO, LAC

COMMODITIES PRESENT

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION

Skeena

NTS 103F/9E, 103F/8E

LATITUDE

53°30'24"

LONGITUDE

132°07'36"

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property. Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706), Mineral Lease M 123, Mining or Certified Mining Lease ML 12 (units involved)

MARCO (18 units)

LAC (20 units)

GEOLOGICAL BRANCH ASSESSMENT REPORT

OWNER(S)

(1) Brian D. Fairbank

MAILING ADDRESS

#1201-675 W. Hastings St.

Vancouver, BC V6B 1N2

16,562

OPERATOR(S) (that is, Company paying for the work)

(1) Noramex Minerals Inc.

MAILING ADDRESS

#1201-675 W. Hastings St.

Vancouver, BC V6B 1N2

FILMED

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

The claims are believed to be underlain by Haida and Skonun Formation sediments.

A pronounced fault scarp in the bedrock subcrop crosses the southwest corner of the property.

REFERENCES TO PREVIOUS WORK

LOG NO: 1117	RD.
ACTION: 13 pp.	
FILE NO: 87-751- 109 562	

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SUB-RECORDER RECEIVED	
OCT 29 1987	
M.R. #	\$
VANCOUVER, B.C.	

INTRODUCTION

On November 6, 1986 and September 27-28, 1987, a reconnaissance silt and stream sediment heavy mineral sampling program was carried out by a two-man crew on the Lac and Marco mineral claims, Graham Island, Queen Charlotte Islands, B.C., using Port Clements as a base of operations. The survey was meant to assess heavy mineral and silt sampling methods for discovery of bulk mineable gold deposits within the claim boundaries. Five silt samples were initially obtained in 1986 and follow-up heavy mineral along with normal silt samples were obtained at additional sites in 1987. Both surveys yielded inconclusive, low metal values in stream sediments.

On June 29, 1987 an aerial reconnaissance was made of the property as an aid to mapping Sandspit Fault structures and to access physiographical conditions affecting present and future work programs.

The Blackbear Property is comprised of the MARCO (Record No. 5571) and LAC (Record No. 5572) claims of 18 and 20 units respectively. The claims are registered to B.D. Fairbank and are operated by Noramex Minerals Inc.

LOCATION, ACCESS AND PHYSIOGRAPHY

The Blackbear Property is located on Graham Island, 27km north of Queen Charlotte City and 19km south of Port Clements. It is 4km southeast of the Cinola Gold Deposit of City Resources along the trend of fault structures that may have controlled the movement of mineralizing hydrothermal fluids (Figure 1).

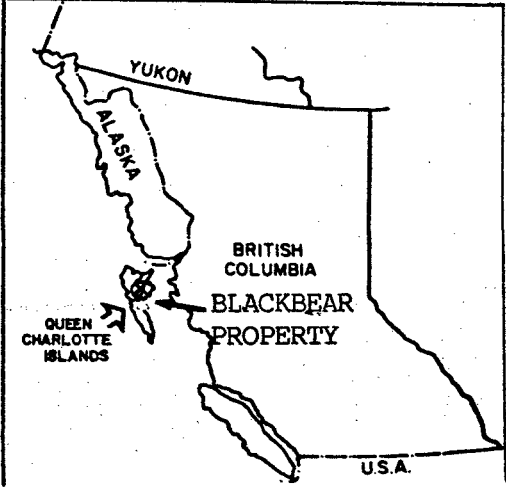
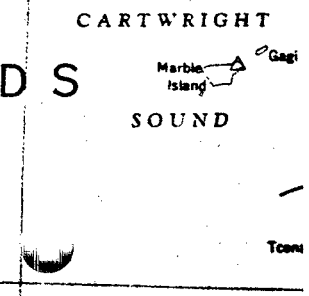
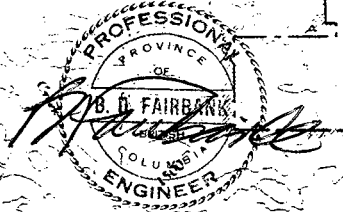
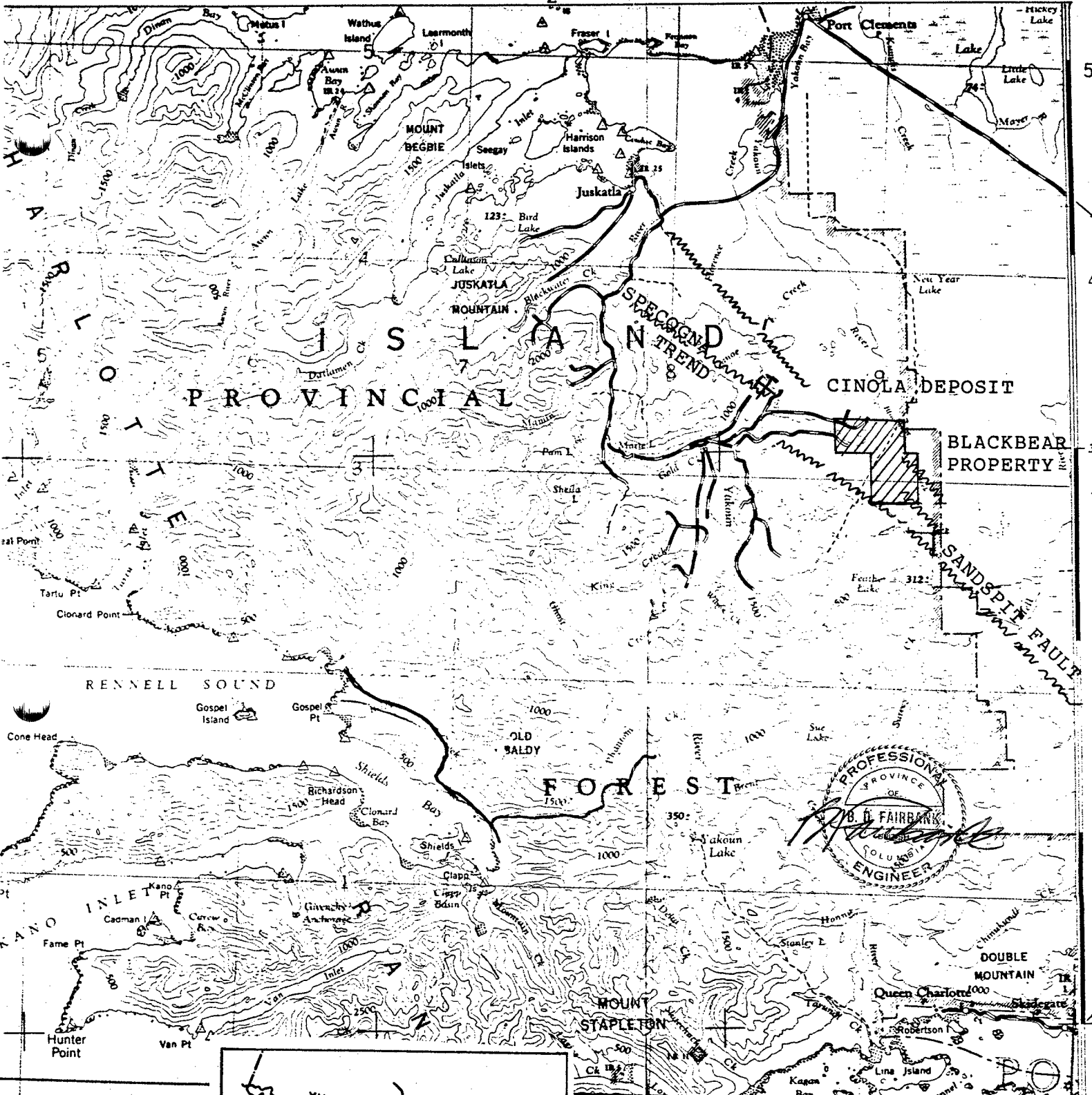
Access is by secondary all weather dirt road from Port Clements maintained by MacMillan Bloedel.

Topography is of very low relief with elevations ranging between 200 and 400 feet ASL. Bedrock exposure is non-existent. The claims are poorly drained, marshy and thickly forested by pine and stunted deciduous trees.

GENERAL GEOLOGY

Regional geology, after Sutherland-Brown (1968) is shown in Figure 2.

The region of the claims is underlain by four main stratigraphic formations; from oldest to youngest these are the Yakoun, Haida, Masset and Skonun formations. The Jurassic Yakoun Fm. (JY) is made up of porphyritic andesite agglomerate and flows, lapilli tuff, volcanic sandstone and conglomerate, and tuffaceous shale. Cretaceous Haida Fm. (KHA) is predominantly sandstone, shale and siltstone.



NORAMEX MINERALS INC.		
LOCATION KEY		
BLACK BEAR PROPERTY		
Date: Oct '87	Scale: 1:250,000	Figure: 1
FAIRBANK ENGINEERING LTD.		

Masset Fm. (TM) basalt flows and breccias, rhyolitic ash flows and minor dacite of Tertiary age cover older units in the northern half of the Cinola Camp area. The youngest unit, the Skonun Fm. (TS) hosting the Cinola Deposit is primarily sand, mudstone, sandstone, conglomerate and lignite of Tertiary age, occurring east of the Sandspit Fault Zone on the down-dropped side.

The Sandspit Fault Zone cuts diagonally across the Cinola Gold Camp at about N30 W. The main fault passes immediately east of the Cinola Deposit. Overall the eastern block has been dropped many thousands of feet relative to the west; latest movement indicated by scarplets apparently has east block up. Lateral movement is unknown but probably considerable. The Sandspit Fault has been active since the Cretaceous as indicated by the Sandspit plutons localized along the zone. Strands of the fault related to movement along the zone cut all rock types present in the Cinola area.

The Cinola Deposit is a large, low-grade, epithermal gold deposit (28 million tons of 0.061 opt gold mineable reserves, Northern Miner, July 6, 1987) within silicified sediments of the Skonun Formation. The upward migration of mineralizing fluids was controlled by a fault passing west of the deposit which trends northwest and dips east. The structure is a splay of the main Sandspit Fault. Other factors which influenced the localization of gold were the high permeability of suitable host rocks (Skonun sediments) adjacent to the fault.

In the Cinola Camp, important gold controls are 1) the existence of young faults and 2) the occurrence of permeability host units adjacent to fault conduits. Structures associated with the Sandspit Fault System are primary targets.

Sandspit related structures trending N30248W are known to traverse the Blackbear Property.

Regional seismic work by Procan (Profile 7; AR 10933) shows a pronounced step in the bedrock surface, marking a recent locus of movement on the Sandspit Fault, crossing the southwest corner of the property. This fault is marked by a change in topography from flat on the east to low hills rising to the west. Several parallel fault structures east of the main fault step, are projected through the property based on topographic lineaments. An inflection in the overall zone occurs at Hoodoo Creek on the property, which would result in local zones of increased permeability associated with strike slip fault movement.

Outcrop is non-existent within the claim boundaries, however, Haida shales and sediments occur in the upland area to the west. Haida and Skonun Formation sediments are believed to be extensive under the overburden cover on the Blackbear Property.

GEOCHEMISTRY

Silt and stream sediment samples were collected from active stream channels generally at locations above stream junctions. In the case of heavy mineral sediment samples, a titanium screen and pan, specifically designed for the purpose, were used to reduce gravel and sediment down to -80 mesh size sample material. Up to 10 kilograms of sediment was obtained by shovel and sieved to obtain approximately 500 gram samples for analysis. Silt and heavy mineral samples were placed in high wet-strength, kraft paper bags, air dried and shipped to Min-En Labs Ltd. of North Vancouver, B.C. for analysis. Min-En's analytical procedures are described in Appendix A.

Because of the dense bush and flat terrain, navigation on the ground is difficult. Samples were located by topofil chain and compass traverses.

RESULTS AND CONCLUSIONS

Silt and heavy mineral analytical results are presented in plan on Figure 3 and are tabulated in Appendix B.

Metal and heavy mineral concentrations are uniformly low. It is interpreted that stream sediments may not reflect underlying bedrock metallic bodies because of the deep overburden known to exist east of the major fault line shown on Figure 3. Further stream sampling should be attempted upstream from present coverage closer to the fault line. Overburden drilling may be the only method possible for obtaining meaningful samples for geochemical analysis.

The property is well located relative to the Cinola Deposit based on interpreted lithology and structure.

Geophysical surveys followed by drilling will be necessary to fully evaluate the property's gold potential.

REFERENCES

Geo-Physi-Con Ltd., 1982: "Depth to Bedrock Investigation Using Refraction Seismic, Queen Charlotte Islands Property, Graham Island, B.C." for Procan Exploration Company. Assessment Report No. 10933.

Geophysical Series Aeromagnetic Map 9479G (103F/8) GSC - EMR, 1987.

Geophysical Series Aeromagnetic Map 9470G (103F/9) GSC - EMR, 1987.

Northern Miner, July 6, 1987, p.24, City Resources (Canada) Limited.

Sutherland-Brown, A., 1968: "Geology of the Queen Charlotte Islands, British Columbia", BCDMPR Bull. No. 54.

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2

ANALYTICAL PROCEDURE REPORT FOR ASSESSMENT
WORK - 26 ELEMENT ICP

Ag, Al, As, B, Bi, Ca, Cd, Co, Cu, Fe, K, Mg, Mn, Mo,
Na, Ni, P, Pb, Sb, Sr, Th, U, V, Zn

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HNO₃ and HClO₄ mixture.

After cooling samples are diluted to standard volume. The solutions are analysed by Computer operated Jarrell Ash 9000ICP. Inductively coupled Plasma Analyser. Reports are formatted by routing computer dotline print out.

*MIN-EN Laboratories Ltd.**Specialists in Mineral Environments*Corner 15th Street and Bewicke
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2ASSESSMENT REPORT FOR:HEAVY MINERAL SAMPLING AND CONCENTRATIONS:

A large sample is collected from stream sediments or soils big enough to yield a minimum of 0.5 kg of the desired minus fraction. After sieving through any of the sieve mesh sizes they are adapted for the survey. After sieving the samples, the minus fraction is grinded to -80 mesh.

Then 0.4 kg of sample is weighed into a suitable centrifuge containers. The prepared concentrations of liquids are added to obtain a 3.1 specific gravity flotation.

The heavy fractions are then washed cleaned and dried. After drying the samples they are separated. The sink float Heavy Minerals are separated into Magnetic and Non Magnetic fractions and both fractions are weighed. The percent of the Magnetic and non Magnetic fractions are calculated and reported with the analytical data.

The analysis are than carried out in the ususal analytical manner by I.C.P. or A.A. method.

(VALUES IN FPM)	AG	AS	CU	PB	S3	ZN	AU-PPB	HG-PPB	HM%
33 976	.6	9	9	19	1	48	5	25	4.90
33 977	.3	1	4	11	1	23	2	55	6.32
33 981	1.0	5	9	18	2	36	7	30	1.92
33 983	1.7	13	11	19	3	44	3	25	4.36
33 985	1.1	1	6	13	2	28	5	20	5.34

(APPENDIX A)

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PFB
33 978	.9	3	22	21	2	111	12
33 975	1.5	16	23	27	5	128	4
33 977	.6	12	15	18	3	107	3
33 980	.4	10	11	13	2	81	9
33 982	.3	8	14	11	1	85	4
33 984	.7	11	19	17	3	103	6
33 986	.5	10	12	12	3	83	4

(APPENDIX A)

APPENDIX B

STATEMENT OF COSTS

Personnel

J. Robinson, November 6, 1986	\$ 235.00
P. Jette, November 6, 1986	200.00
B. Fairbank, June 29, 1987	422.00
C. Paterson, August 31, 1987	12.50
C. Paterson, September 2 - 17, 1987	318.75
A. Pratt, September 11*,27,28,30*, 1987	534.00
J. Jackson, September 11I,27,28,30*,1987	<u>534.00</u>

* one-half day for travel time

\$ 2,256.25

Rentals

Heavy mineral sampling equipment (Sept. 27,28, 1987 @ \$5/day)	10.00	10.00
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Disbursements

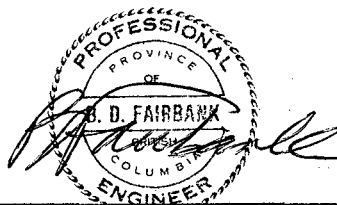
Room and Board (June 29, 1987)	154.79
Transportation (June 29, 1987)	27.30
Airfare (prorated, June 1987)	256.40
Helicopter, June 29, 1987 (.5hr @ \$495/hr + \$67 fuel)	281.00
Min-En Laboratories Ltd.	344.55
Airfare (Sept. 11,30) \$395.60x 2	791.20
Room and Board (2 days @ \$59.40/day)	118.80
Report and reproduction	<u>376.54</u>
	<u>2,350.58</u>

\$4,616.83

CERTIFICATE OF AUTHOR

I, Brian D. Fairbank, hereby certify that:

1. My residence address is 320 East Windsor Road, North Vancouver, B.C. V7N 1K1.
2. I am a consulting geologist and principal in the firm of Fairbank Engineering Ltd. with offices at #1201-675 West Hastings Street, Vancouver, B.C. V6B 1N2.
3. I hold a B.A.Sc. in Geological Engineering from the University of British Columbia and have been practicing my profession continuously since graduation in 1973.
4. I am a member of the Association of Professional Engineers (Geological) of the Province of British Columbia.
5. I have examined the Blackbear Property personally and directly supervised the field work on the property.



Brian D. Fairbank, P.Eng.

October 1, 1987

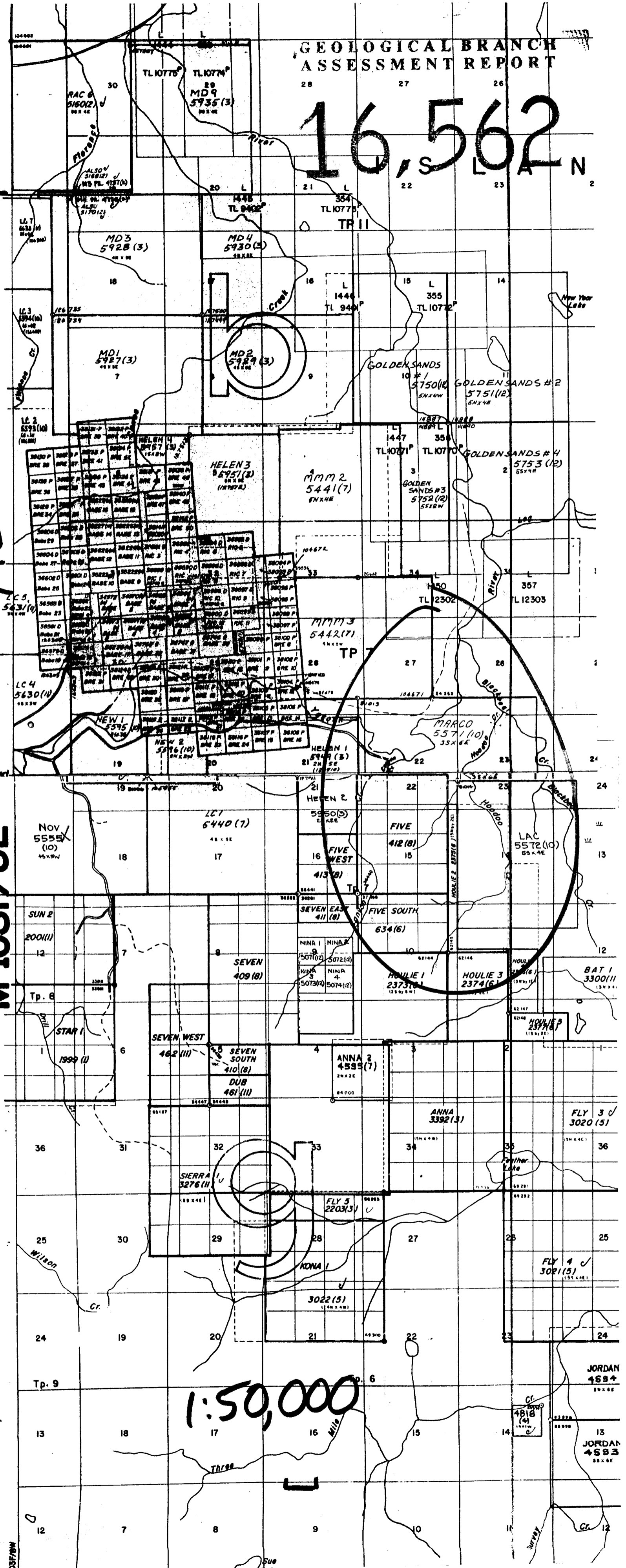
GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,562
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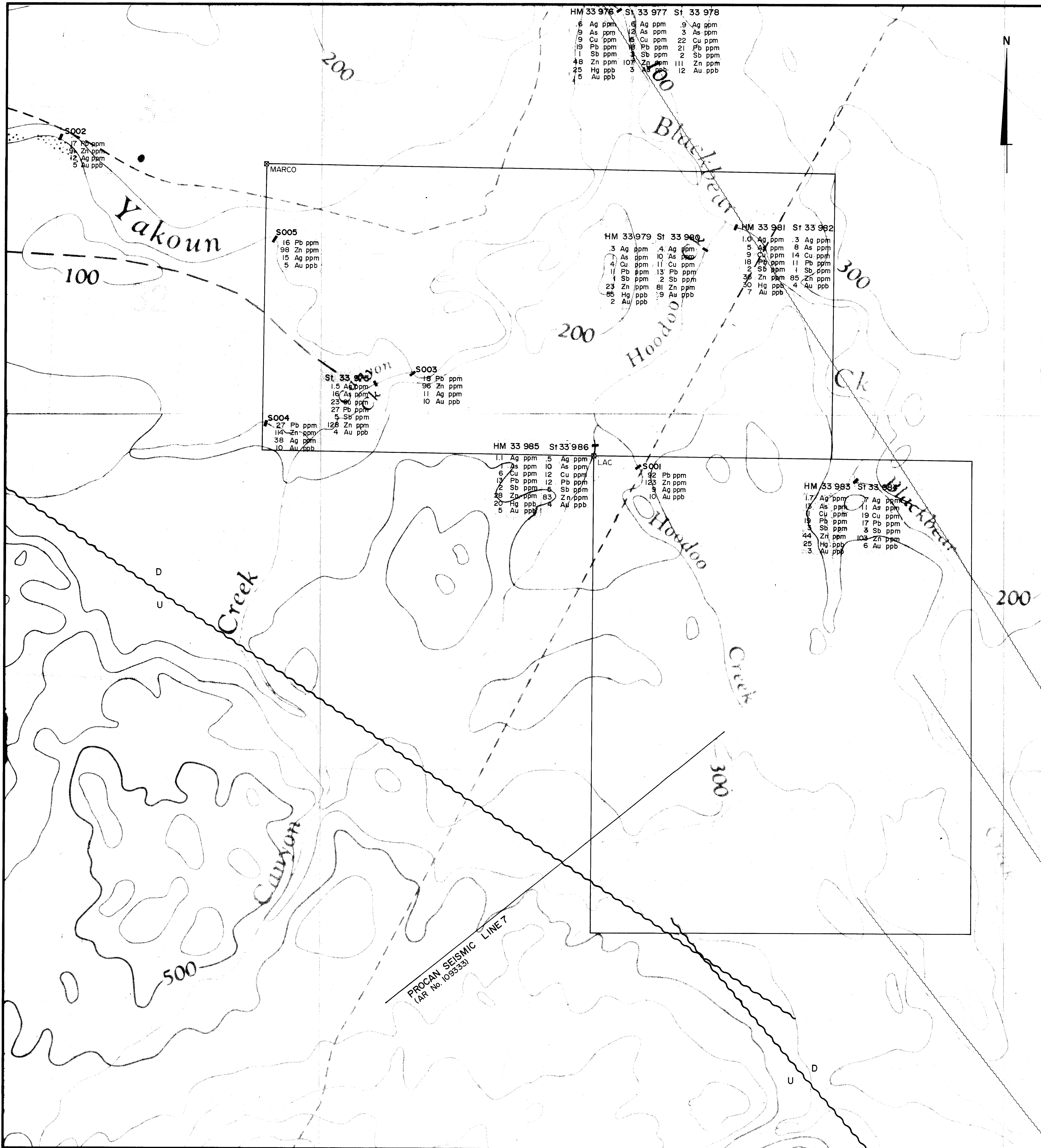
103F/9E

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03F/9W

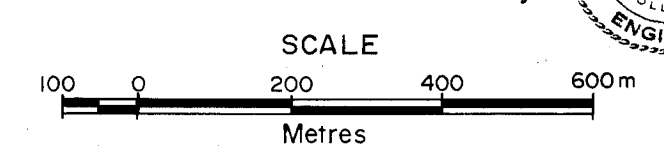
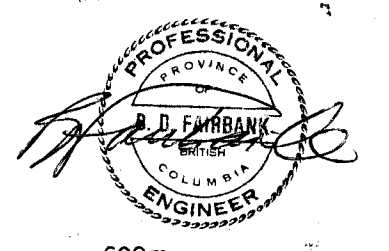


- LEGEND:**
- ☒ LEGAL CORNER POST
 - CLAIM BOUNDARY
 - STREAM SEDIMENT SAMPLE SITE
 - HM HEAVY MINERAL
 - S CONVENTIONAL SILT
 - FAULT
 - TOPOGRAPHIC LINEAR

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,562

To accompany an assessment report entitled "Geochemical/Sedological Survey on the Blackbear Property, Skeena M.D. B.C.; NTS 103 F/849E" Dated October 1, 1987



NORAMEX MINERALS INC.	
REVISED: Oct 87	LAC - MARCO CLAIMS GEOCHEMISTRY
PROJECT No: 130-87	SURVEY BY: R.J.R./A.W.P. DATE: Nov. 1986
DWG. No. 3	DRAWN BY: nkc SCALE: 1:10000
FAIRBANK ENGINEERING LTD.	