DIAMOND DRILLING REPORT

ON

OWNER OPERMANORTHAIR MINES LTD.

NRM GROUP, NORTHAIR CLAIMS

Vancouver Mining Division

50° ON N 123° ON'W NTS 92J3E

06.4' 06.5'

FILMED

by

J. W. MacLeod, P. Eng.

Vancouver, B.C. October 15, 1986

GEOLOGICAL BRANCH ASSESSMENT REPORT

15,198

TABLE OF CONTENTS

Summary	Page
Introduction	
Property	5
Location & Access	6
General	6
History	
Diamond Drilling	10
Conclusions	11
	MAPS
Location MapPlan of Claims	
Plan of Drill Hole Section of Drill Hole	

APPENDIX I

DRILL HOLE LOG

APPENDIX II

ASSAY CERTIFICATE

APPENDIX III

EXPENDITURE

APPENDIX IV

ENGINEER'S CERTIFICATE

DRILL HOLE 86-1

SUMMARY:

Drill hole 86-1 was drilled to test a VLF-FLM anomaly obtained in a survey carried out by Glen E. White, Geophysical.

The drill hole intersected a highly altered zone from 68.0 to 94.8 metres in the hole and this shear zone is probably the cause of the E. M. anomaly. A 6 metre bullish quartz-carbonate vein is emplaced in the shear zone but no sulfide mineralization is present.

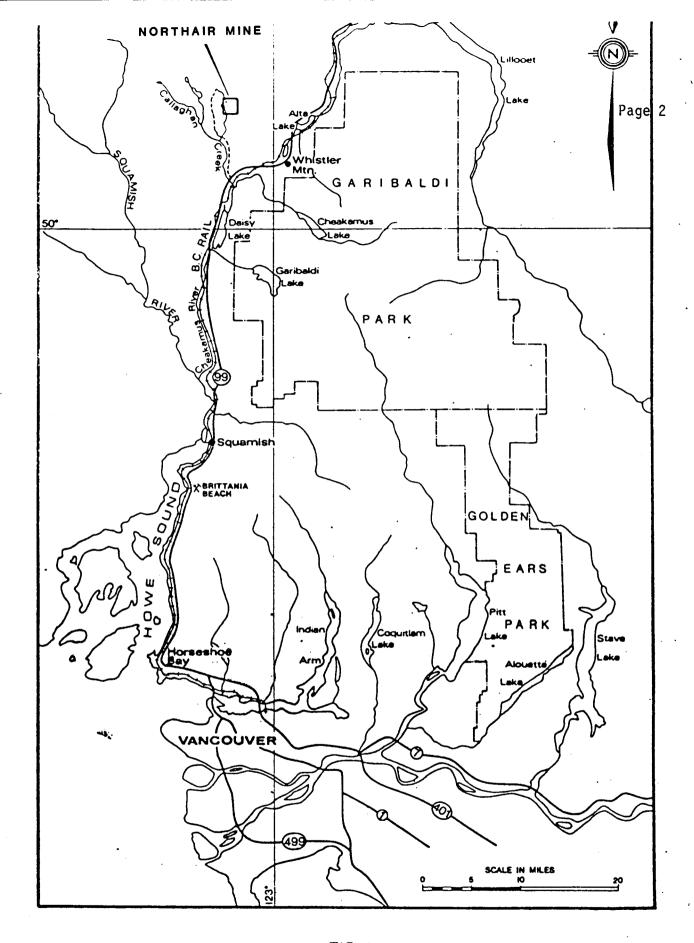


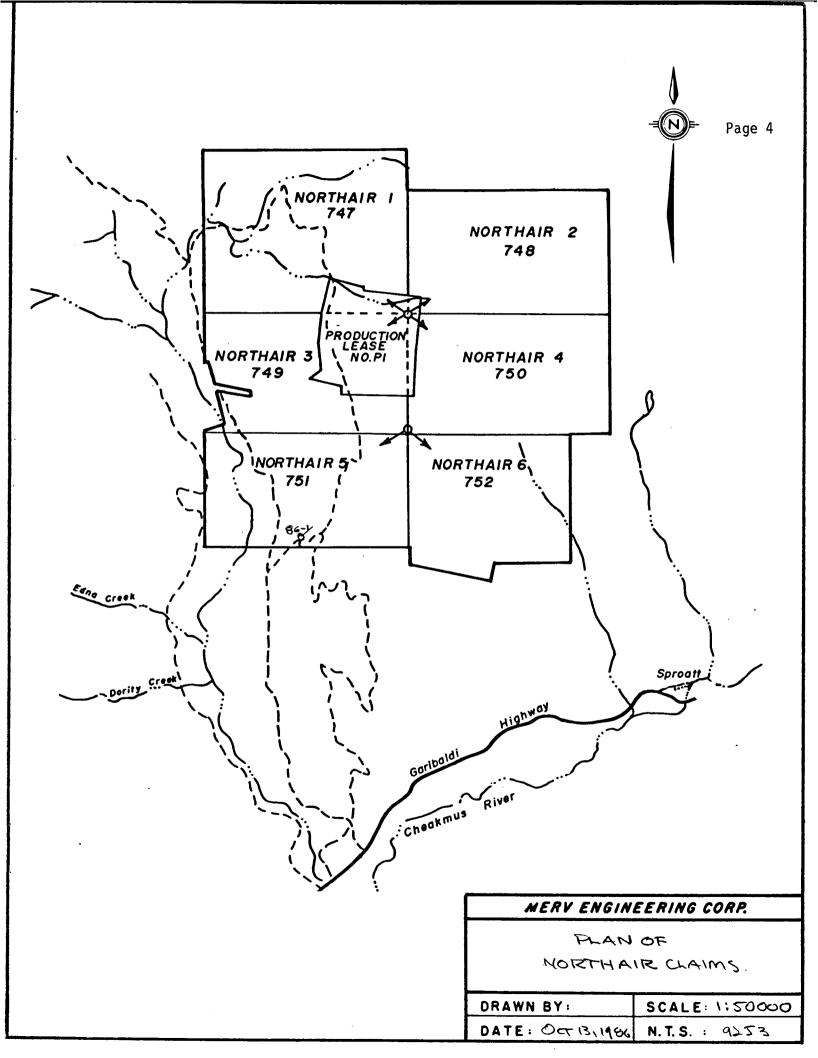
FIG. 1

GENERAL LOCATION MAP

INTRODUCTION: Page 3

All available data regarding the Northair property were reviewed with the object of establishing a exploration target where work could be carried out to qualify for assessment purposes on the ground surrounding the Northair Production Lease No. Pl.

A strong VLF-EM conductor was found to occur close to the south boundary trending northwest, the same direction as the Northair mineral zone, which had not been investigated.



The NRM group consists of the following six grid claims which surround Production Lease No. Pl. $\,$

CLAIM	UNITS	RECORD NO.	ANNIVERSARY
Northair 1	20	747	August 11
Northair 2	15	748	August 11
Northair 3	15	749	August 11
Northair 4	15	750	August 11
Northair 5	15	751	August 11
Northair 6	16	752	August 11

The Northair mine is located 100 km north of Vancouver.

Good gravel road leaves the Squamish-Whistler (99) highway 43 km north of Squamish. It is 5 km north westerly on this road to the Northair road which is 3.5 km to the mine. Diamond drill hole 86-1 is located on a logging road just off the Northair access road.

GENERAL:

The Northair mine produced gold, silver, lead, zinc and copper from en echelon north west trending quartz-carbonate veins hosted by andesite and andesitic agglomerates.

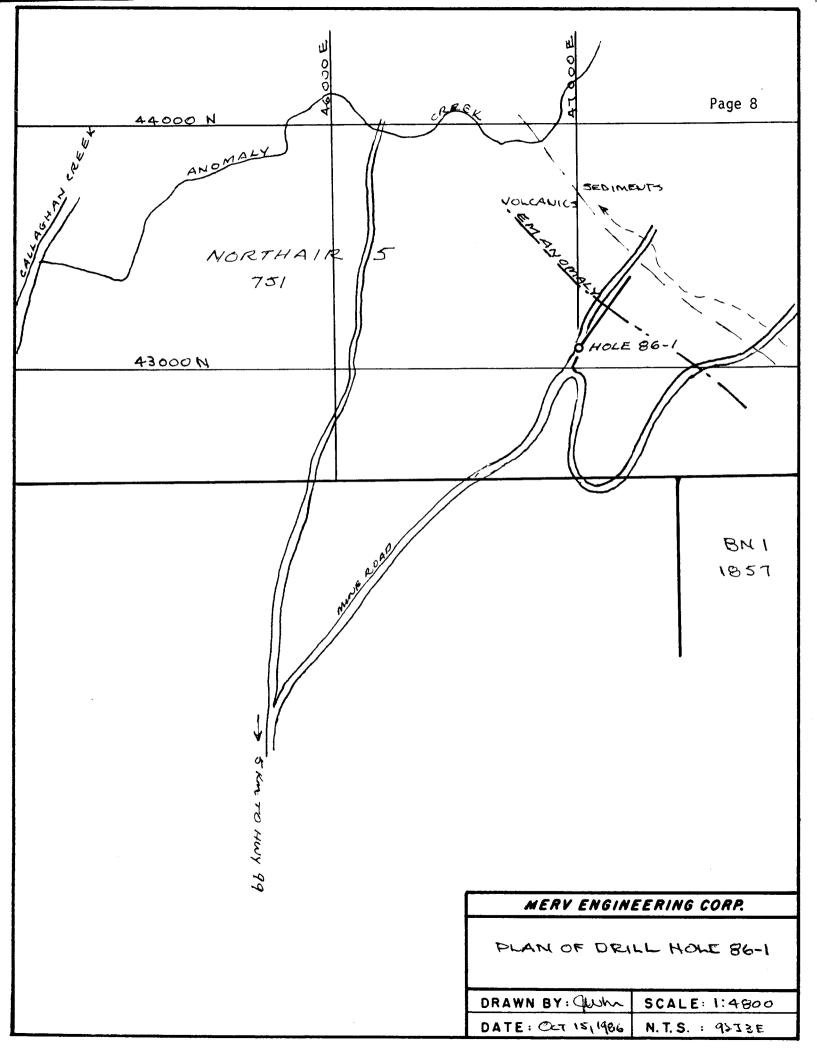
Stream silt geochemistry lead to the discovery and the area of mineralization is delimited by soil geochemistry.

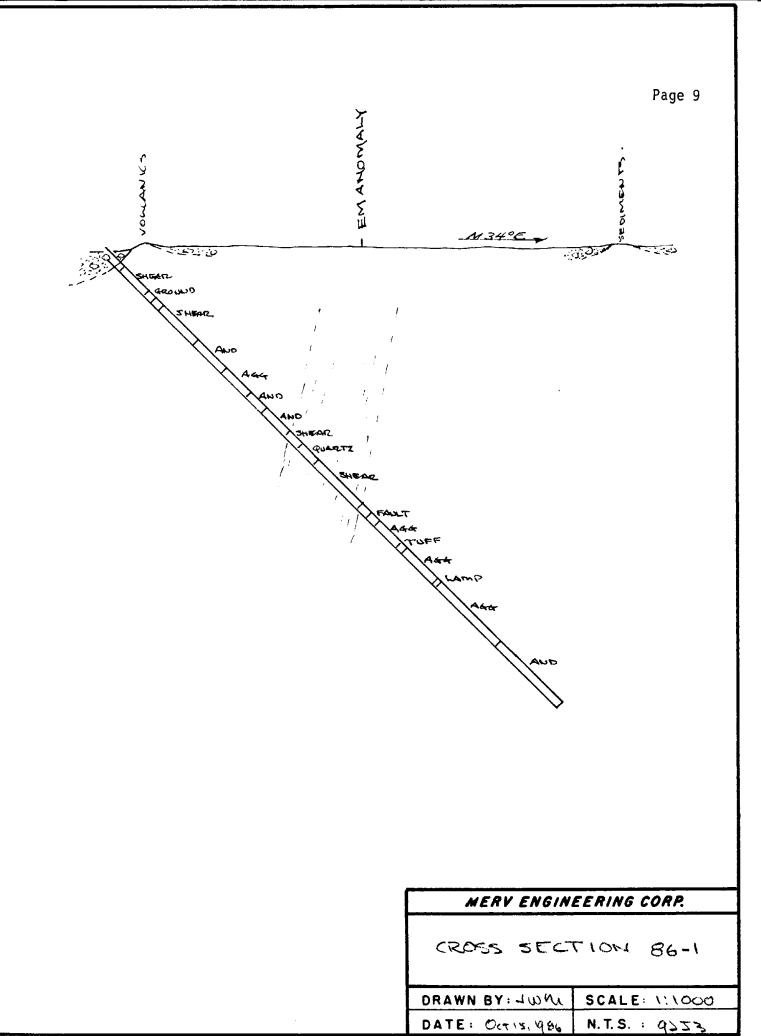
The overall sulfide content is about 5 to 6% so that geophysical response over the known veins is vague.

The anomaly proposed for testing by diamond drilling was much stronger than that over the mined veins so it was speculated that the sulfide content might be higher.

The History of the property is summarized below:

- 1969 mineral discovery by Warshaw ski and Manifold
- 1970 optioned to McIntyre soil survey
- 1972 optioned to Northair diamond drilling, U/G exploration, geochemistry
- 1976 milling started
- 1982 milling suspended
- 1981-82 detailed mapping by R. Wares
- 1983 detailed review by Ash and Taylor
- 1985 mapping by JM Dawson





Between July 28 and August 2, F. Boisvenu Diamond Drilling Ltd. completed hole 86-1 to a depth of 166.8 metres.

The hole cut the anticipated sequence of ardesites and andesitic agglomerate. A one metre section of finely banded tuff was cut at a flow contact. A one metre lamprophyre dike, common to the area, was also intersected.

A very strong shear zone was cut from 68.0 to 94.8 metres. The shears varies from chlorite schist to tan, schist to mud and gouge. It is occupied from 72.6 to 78.6, a 6 metre section, mainly by bullish quartz with carbonate (siderite) sections.

No sulfide mineral was found in the core.

The E. M. anomaly can be explained by the strong shear zone cut in the hole, unfortunately not by sulfides as anticipated.

Respectfully submitted

Page 11

J. W. MacLeod, P. Eng.

Vancouver, B.C.

October 15, 1986

APPENDIX I

DRILL HOLE LOG

F	PROPERTY .,.	NORTHAIR	MINES LTD	HOLE No	o86-1
	DIP TEST	ole			
Footage 0	Reading	Corrected 45	Hole NoSheet No	4/000	Total Depth
-152m		- lost -	SectionJuly 28, 1986 Date Begun	Dep	Claim Northair 5
			Date Finished August 2, 1986	Elev. Collor747m	Core Size N.Q.

res DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	AL	Aq.	Cu	
CASING					<u>.</u>	
AGGLOMERATE - andesitic, medium grained green, vague						
fragments.				,		
SHEAR ZONE - chloritic, andesite, sheared at low angle						<u> </u>
to core					ļ	ļ
14.18 - 14.48 - qtz carb. in schist	70108	0.3	·Ir	0.04	<u> </u>	ļ
					<u> </u>	ļ
GROUND CORE					<u> </u>	<u> </u>
SHEAR ZONE - largely replaced by fine grained dark			· · · · · · · · · · · · · · · · · · ·		ļ	
green dike and bull quartz (25%)	·					
17.1 - 17.4 qtz and calcite	70109	0.3	Tr.	-0.01		
19.2 - 19.6 15% qtz., contorted schist	70110	0.3	Tr.	0.03		
SHEAR ZONE - chloritie schist, 15° to 20° to core,						
gradational ct. at 33.5, bull qtz., veins						
up to 0.3m						
·						
	CASING AGGLOMERATE - andesitic, medium grained green, vague fragments. SHEAR ZONE - chloritic, andesite, sheared at low angle to core 14.18 - 14.48 - qtz carb. in schist GROUND CORE SHEAR ZONE - largely replaced by fine grained dark green dike and bull quartz (25%) 17.1 - 17.4 qtz and calcite 19.2 - 19.6 15% qtz., contorted schist SHEAR ZONE - chloritie schist, 15° to 20° to core, gradational ct. at 33.5, bull qtz., veins	AGGLOMERATE - andesitic, medium grained green, vague fragments. SHEAR ZONE - chloritic, andesite, sheared at low angle to core 14.18 - 14.48 - qtz carb. in schist GROUND CORE SHEAR ZONE - largely replaced by fine grained dark green dike and bull quartz (25%) 17.1 - 17.4 qtz and calcite 70109 19.2 - 19.6 15% qtz., contorted schist 70110 SHEAR ZONE - chloritie schist, 15° to 20° to core, yradational ct. at 33.5, bull qtz., veins	TESS DESCRIPTION SAMPLE No. OF SAMPLE CASING AGGLOMERATE - andesitic, medium grained green, vague fragments. SHEAR ZONE - chloritic, andesite, sheared at low angle to core 14.18 - 14.48 - qtz carb. in schist 70108 0.3 GROUND CORE SHEAR ZONE - largely replaced by fine grained dark green dike and bull quartz (25%) 17.1 - 17.4 qtz and calcite 70109 0.3 19.2 - 19.6 15% qtz., contorted schist 70110 0.3 SHEAR ZONE - chloritie schist, 15° to 20° to core, gradational ct. at 33.5, bull qtz., veins	TES DESCRIPTION SAMPLE No. OF SAMPLE AND CASING AGGLOMERATE - andesitic, medium grained green, vague fragments. SHEAR ZONE - chloritic, andesite, sheared at low angle to core 14.18 - 14.48 - qtz carb. in schist 70108 0.3 Tr. GROUND CORE SHEAR ZONE - largely replaced by fine grained dark green dike and bull quartz (25%) 17.1 - 17.4 qtz and calcite 70109 0.3 Tr. 19.2 - 19.6 15% qtz., contorted schist 70110 0.3 Tr. SHEAR ZONE - chloritie schist, 15° to 20° to core, gradational ct. at 33.5, bull qtz., veins	CASING AGGLOMERATE - andesitic, medium grained green, vague fragments. SHEAR ZONE - chloritic, andesite, sheared at low angle to core 14.18 - 14.48 - qtz carb. in schist GROUND CORE SHEAR ZONE - largely replaced by fine grained dark green dike and bull quartz (25%) 17.1 - 17.4 qtz and calcite 70109 0.3 Tr0.01 19.2 - 19.6 15% qtz., contorted schist 70110 0.3 Tr. 0.03 SHEAR ZONE - chloritie schist, 15° to 20° to core, yradational ct. at 33.5, bull qtz., veins	Tes DESCRIPTION SAMPLE No. OF SAMPLE A.S. Aq. Cu CASING AGGLOMERATE - andesitic, medium grained green, vague fragments. SHEAR ZONE - chloritic, andesite, sheared at low angle to core 14.18 - 14.48 - qtz carb. in schist GROUND CORE SHEAR ZONE - largely replaced by fine grained dark green dike and bull quartz (25%) 17.1 - 17.4 qtz and calcite 70109 19.2 - 19.6 15% qtz., contorted schist 70110 SHEAR ZONE - chloritie schist, 15° to 20° to core, gradational ct. at 33.5, bull qtz., veins

1	PROPE	RTY				HOLE	No			
Footage	DIP TEST Angle age Reading Corrected		Angle Angle Reading Corrected Hole No		earingev. Collar		Logged By			
DEPTH			DESCRIPTION		SAMPLE No.	WIDTH OF SAMPLE	ALL	Aq.	W03	
33.5 -	44.5	ANDESITE -	light grey, weakly sheared						·	
44.5 -	53.0	AGGLOMERATE	- dark, fine grained, irreg. qtz stringers 15%,	carb.				`		
			49.7 - 50.0 25% qtz carb.		70111	0.3	Tr.	-0.01		
		respondente de la companya de la co	50.0 - 50.3 40% qtz carb.		70112	0.3	Tr.	0.02		
53.0 -	59.1	ANDESITE -	medium grained, weakly sheared 45°to	core						·
59.1 -	68.0		grey, eplidote veinlets, contacts at 50, may be instrusive	45°and						
68.0 -	72.6	SHEAR ZONE	- buff altered schist							
			71.6 - 71.9 qtz carb. in schist		70113	0.3	Tr.	-0.01		
72.6 -	78.6	QUARTZ VEIN	- mainly bull quartz, last 1.5m much							
····			siderite		· · · · · · · · · · · · · · · · · · ·					
			77.7 - 78.0 brown siderite		70114	0.3	Tr	-0.01		

	PROP	RTY				HOLE	No			
	DIP	TEST	· · · · · · · · · · · · · · · · · · ·							
Footage		Angle eading Corrected	Hole NoSheet No. 3 SectionDate BegunDate Finished	Dep	r. Collar		Logg Clai	ol Depth ged By me Size		
DEPTH			DESCRIPTION		SAMPLE No.	WIDTH OF SAMPLE	AL	Aq.	Cu	
78.6	- 94.8	SHEAR ZONE	- tan coloured, foliated 60° to core	much						
			mud and gouge but good recovery	, macri						
			79.5 79.8 tan coloured schist		70115		Tr.	-0.01 `		
										
94.8 -	97.2	ANDESITE -	porphyritie flow, white fledspar, 0	.6cm			·			
			x ls							
97.2 -	101.	β FAULT? – bι	ull qtz. and fine grained green dike	filling						
		sł	neared and gouged porphyry							
101.8	- 109	7 AGGLOMERATE	E - porphyritic				·			
109.7	- 111	0 TUFF - dark	, fine grained banded at 60 to core						ļ	
111.0	- 122	9 AGGLOMERATE	- grey, few porphyritic bands	•			~ <u> </u>			
										

	PROPE	RTY					HOLE	No		******	
	DIP 1		ngle								
Footage	Re	eading	Corrected	Hole NoSheet No4	Lat			Tota	l Depth		****
				Section)					
				Date Begun.	•	ring			-	••••••	
				Date Finished		. Collar				-	
DEPTH				DESCRIPTION		SAMPLE No.	WIDTH OF SAMPLE	AL	Aq.	Cu	
122.9	- 123	.8 L	AMP DIKE -	fine grained dark brown							
123.8	- 145	4 A	GGLOMERATE	- fragments up to 5cm, porphyritic	hands		-		,		
			<u> </u>		Danas		-				·
145	166.	B A	NDESITE - g	rey, medium grained, increasing				·			
				orphyritic bands from 152 to end							
				47 - shear with qtz		70116	0.15	Tr.	01		
			1	50 - shear with gtz							
				52 - 3m shear; 50 to core							
	166.	3 E	nd of Hole								
NOTE:		Т	he core for	this hole is stored at the mine si	te.						
											

APPENDIX II

ASSAY CERTIFCATE



VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE 1630 PANDORA ST. VANCOUVER, B.C. V5L 1L6 (604) 251-5656

SAMPLE # Ag oz/st oz/st 70108 .04 (.005 70109 (.01 (.005 70110 .03 (.005 70111 (.01 (.005 70112 .02 (.005 70113 (.01 (.005 70114 (.01 (.005 70115 (.01 (.005 70116 (.01 (.005	REPORT NUMBER: 860379AA	JOB NUMBER: 860379	NORTHAIR MINES LIMITED	PAGE 1 OF
70108 .04 (.005 70109 (.01 (.005 70110 .03 (.005 70111 (.01 (.005 70112 .02 (.005 70113 (.01 (.005 70114 (.01 (.005 70115 (.01 (.005	SAMPLE #	Ар	Au	
70109		oz/st	oz/st	
70109				
70109				
70110 .03 <.005 70111	70108	. 24	<.005	
70111	70109	⟨. Ø1	(.005	
70112 .02 <.005 70113 <.01 <.005 70114 <.01 <.005 70115 <.01 <.005	70110	. Ø3	<.005	
70113 (.01 (.005 70114 (.01 (.005 70115 (.01 (.005	70111	⟨.Ø1	(. ØØ5	
7Ø114	70112	.02	<. ଉପ୍ତ	
7Ø114				
70115 (.01 (.005	70113	(.01	<. 005	
	70114	⟨. Ø1	<. ØØ5	
70116 < .01 < .005	70115	(.01	<. ØØ5	
	70116	⟨. Ø1	(.005	

DETECTION LIMIT
1 Troy oz/short ton = 34.28 ppm

1 opm = 0.0001%

.01

pom = parts per million

(= less than

signed:

新仁

.005

APPENDIX III

EXPENDITURE

F. Boisveno Diamond Drill12,730.98
Core logging & report
\$13,230.98

F. BOISVENU DIAMOND DRILLING LTD.

C/O 200-2695 GRANVILLE STREET VANCOUVER, B.C. V6H 3H4



HOSO1

DATE:

August 26, 1986

TO:

Northair Mines Ltd. 860-625 Howe Street Vancouver, B.C.

V6C 2T6

FOR:

Surface Drilling - BBS 56

Squamish, B.C.

July 28 - August 2, 1986

Drilling Mobilization and Demobilization Moving and Others Materials Acid Test \$ 9,736.60 1,200.00 980.00 760.98 53.40

\$12,730.98

GOODS RECV'D	OK F	OR IENT
PICES &	CHEQ NO.	UĘ
CODE		AMOUNT

Drilling

Hole#	Size	Angle	From	<u>To</u>	Feet	Rate	Amount
86 - 1	NQ	-40 deg.	0	547	547	\$17.80	\$9,736.60

Moving and Others:

<u>Memo</u> :	Man hrs	Drill hrs
Set up Cave in Tear Down Tear Down	8 4 8 8	4 2 4 4
	28	14
28 man hours @ \$24.00 per hour 14 drill hours @ \$22.00 per hour		\$ 672.00 308.00
		\$ 980.00

Materials:

1	- NQ	Bit	\$ 490.00
29	- NQ	Core Boxes @ \$5.00 each	145.00
			635.00
Add:	7%	PST	44.45
			679.45
Add:	12%	overhead charge	81.53
			\$ 760.98
			=

Acid Test

Depth	Charge
547	\$53.40

APPENDIX IV

ENGINEER'S CERTIFCATE

CERTIFICATE

I, James W. MacLeod, of 1220 Arbutus Street, in the City of Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

- 1. That I am a Consulting Engineer, with a business address at Suite 860, 625 Howe Street, in the City of Vancouver, in the Province of British Columbia.
- 2. That I am a graduate of the University of Alberta with a degree of B.Sc. in Mining Engineering.
- 3. That I have actively practiced my profession in mineral exploration since graduation in 1946.
- 4. That I am a registered Professional Engineer in the Province of British Columbia.
- That I have been associated with the Northair mine since optioning the property for McIntyre in 1970 and that I suprised the drilling and logged the core from hole 86-1.

J. W. MacLeod, B.Sc., P. Eng.

DATED at the City of Vancouver, Province of British Columbia, this 15th day of October 1986.