



COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 105H/6

May 1980

DIAMOND DRILLING REPORT ON THE  
BARB 12 MINERAL CLAIM  
FRANCIS LAKE AREA, WATSON LAKE M.D.

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LATITUDE: 61°27'

LONGITUDE: 129°25'

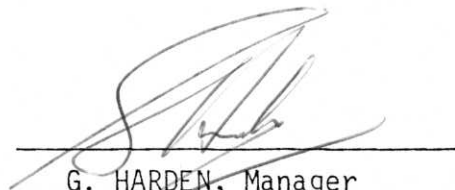
WORK PERFORMED

APRIL 1-7, 1980



Report by: A.B. MAWER

Approved for  
Release by:



G. HARDEN, Manager  
Exploration, Western District

~~090935~~  
~~090868~~

090935



Indian and  
Northern Affairs

Affaires indiennes  
et du Nord



P. O. Box 269  
Watson Lake, Yukon  
YOA 1C0

13 June, 1980

Your file    *Voire référence*

Our file    *Notre référence*

REGIONAL DIRECTOR RESOURCES

Attention: Supervising Mining  
Recorder

RESTRICTED

Enclosed for your files is Diamond Drill Report submitted by Cominco Ltd.  
for assessment on the BARB mineral claims. One hole was drilled to a  
depth of 216.4 m.

Drill Core is being stored on the property (Barb 9).

Yours truly,

V. W. Johanson  
Mining Recorder  
Watson Lake Mining District

PLM  
Encl  
cc: Regional Geologist

090985

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT  
13 MAY 1980

STATEMENT OF QUALIFICATIONS

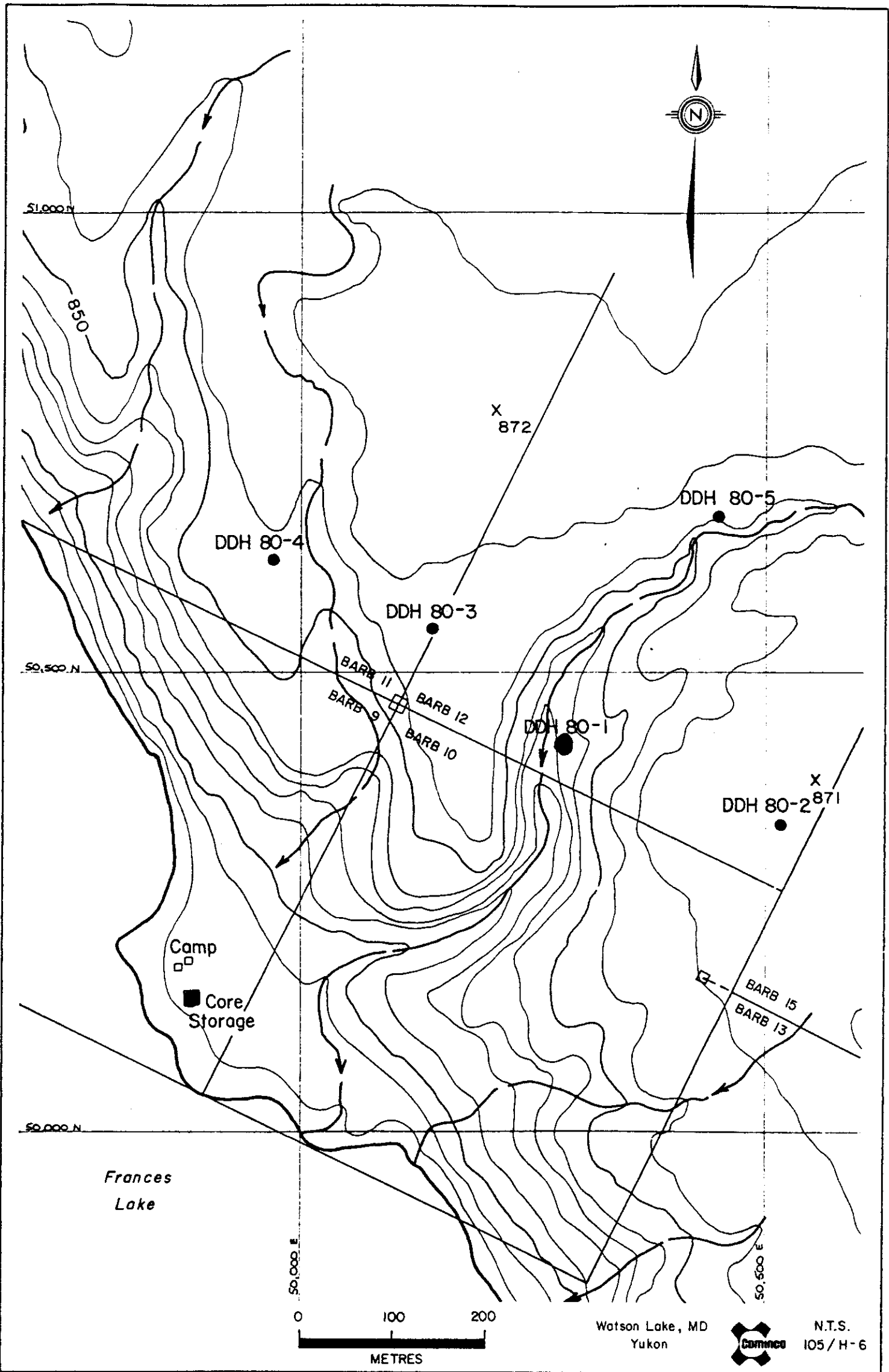
I, D.W. Heddle, Assistant Manager, for Cominco Ltd., Exploration, Western District of 409 Granville Street, Vancouver, British Columbia, hereby declare that Mr. A.B. Mawer has supervised the field work and written the assessment report for the diamond drill hole 80-1 of the Barb Group property, Watson Lake Mining Division, Yukon Territory.

Mr. Mawer, Senior Geologist, has been working for Cominco Ltd. in mineral exploration for the past 25 years.

I consider him to be a competent geologist who is well qualified to perform work described in this assessment work report.



D.W. HEDDLE, P.Eng.  
Assistant Manager  
Exploration, Western District



Watson Lake, MD  
Yukon

N.T.S.  
105/H-6

Drawn by:		Traced by: SAW	
Revised by	Date	Revised by	Date

## BARB GROUP DDH LOCATION MAP

Scale: 1: 5000

Date: May 1980

Plate:



## Drill Hole Record



Property	BARB	District	WATSON LAKE, M.D.	Hole No.	80-1
Commenced	April 1, 1980	Location	East Arm Francis Lake	Tests at	Hor. Comp. 37.6 m
Completed	April 7, 1980	Core Size	NQ	Corr. Dip	Vert. Comp. 213.11 m
Co-ordinates	10+40E 11+85S	True Brg.	180°AZ	Logged by	D. Kuran
Objective	Matt Zone	% Recov.	75	Date	April 8, 1980

Claim

BARB 12

T Brg.

180°

Collar Dip

-80

Elev.

823.4 m

Length

216.4 m

Hole No.

80-1

Sheet

1

From	To	Description	Sample No.	Length	Analysis
0	6	Overburden			
6	110.2	Grey phyllite Light to medium grey, locally green grey; fine to very fine grain with silty laminae in sections, 1-3 mm thick, usually carrying fine pyrite or pyrrhotite. Foliation varies from intense to faint in more siliceous massive sections unit contains several .5-2 mm mud seams or gouge zones; fine sub-euhedral pyrite .05-1 mm as common. Unit also contains several quartz-siderite seams with minor chlorite and associated pyrite/pyrrhotite.			
6.0-6.7		Fine grain, medium grey, with light colored silty laminae at 50° to core which are barely rolled into augen or boudin like blebs. Trace fine pyrite blebs along foliation parallel to bedding.			
6.7-6.8		Quartz seam, minor chlorite and pyrite.			
9.0-15.9		Ground core/gouge			
18.3-18.9		Well laminated, siliceous laminae, 1-2 mm thick at 40° to core, well developed foliation, slightly wavy at 75° to core.			
19.0-22.5		very finely laminated, .2 mm thick at 80° to core, contain fine pyrite foliation parallel to core.			
22.5-22.6		Mud/gouge			
23.1		5 cm quartz + chlorite band			
24.3-26.7		Light colored silty bands 2 mm thick at 80° to core are pinched swelled, trace pyrrhotite.			
27.2-28.4		Ground core			
30.2-31.1		Gouge			
31.3-34.4		Fine massive, foliation 5°-18° to core.			

## Drill Hole Record



Property	BARB	District	Hole No.
Commenced		Location	Tests at
Completed		Core Size	Hor. Comp.
Co-ordinates			Vert. Comp.
Objective			Logged by
			Date

Claim

BARB 12

T Brg.

Collar Dip

Elev.

Length

Hole No. Sheet

Feet From	Metre To	Description	Sample No.	Length	Analysis
34.5		Dark grey beds, 25° to core with 1-1.5% fine pyrite, foliation at 20°.			
34.5-38.5		Fine grain, grey, poor bedding, foliation 20° to core, fine pyrite parallel to foliation few elongate blebs of pyrrhotite.			
39.5-44.5		Mud/gouge.			
44.5-44.8		Very fine grain, .5 mm laminations 15° to core, 2% fine pyrite.			
44.8-46.3		- Mud/gouge			
46.3-47.5		Well foliated, darker grey, beds resistant to foliation. pinched and swelled at 30° to core, trace chalcopyrite in thicker laminations.			
48.0-48.9		Darker beds, .2-1cm. very fine grain at 15° to core rock dark grey-green.			
48.9-56.9		Mud/gouge			
57.9-59.6		Fine grain, well foliated, pale green laminations at 70° to core.			
61.5063.2		Faint color banding at 80° to core, strong foliation at 40° to core.			
63.3		7 cm quartz stringer, minor chlorite with .5% pyrrhotite.			
63.3-70.1		Gouge			
79.5		5 cm shatter zone healed by quartz and pale siderite, talc and sericite developed adjacent to this.			
79.5-80.5		Massive, dark grey green, well developed crenulated foliation.			
80.5-81.0		Quartz seam, minor chlorite and pyrrhotite.			
82.4		7 cm quartz-chlorite seam with adjacent talc development.			
85.4-85.9		Slightly coarser grained, foliation at 70° to core.			
85.9-86.0		Barren quartz seam			
86.0-87.1		Fine grained, pinched silty beds, 1-2 mm thick at 80° to core, foliations at 60°.			

## Drill Hole Record



Property	BARB	District	Hole No.	80-1
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Claim  
BARB 12

T Brg.

Collar Dip

Elev.

Length

Hole No.  
80-1Sheet  
2

Footage		Description	Sample No.	Length	Analysis		
From	To						
88.0	91.3	Fine-medium grained, well foliated, terminating siliceous bands parallel to foliation at 80° to core.					
91.3	91.4	Quartz seam, minor chlorite and pyrrhotite.					
91.4	92.9	Well foliated, dark grey very fine grain 2 mm beds at 55° to core cross cut by foliation at 60° to core.					
92.9	93.7	Gouge					
93.7	96.0	Strong foliation at 90°, beds at 50°.					
97.1	97.6	Slightly shattered quartz seam, chlorite healed. 1-2% pyrrhotite and trace galena associated with chlorite.					
97.6	101	Massive, foliation at 75° to core.					
101	103.6	Finer grained light grey siliceous beds, 1-2 mm thick, locally roiled thicker at 85° to core, foliation at 30° to core.					
103.6	110.2	More massive, dark grey green, foliation at 35° to core.					
110.2	117.0	Dark grey green phyllite. Fairly massive, contains a few 3-10 cm paler green fine grain layers, maybe thin ash layers of intermediate composition.					
110.2	110.3	Light green layer at 48° to core, foliation at 30° to core.					
117.0	145.6	Medium grey green finely laminated phyllite. Fine grained, fine laminations, .2-.5 mm thick, roughly parallel to foliation contact gradational. Unit gets darker towards base, contains rare irregular pale green chlorite-quartz stringers.					

# Drill Hole Record



Property	BARB	District	Hole No.
Commenced		Location	Tests at
Completed		Core Size	Corr. Dip
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim	BARB 12	Collar Dip	Elev.	Length	Hole No.	Sheet
T Brg.					80-1	4

From	To	Description	Sample No.	Length	Analysis				
					Pg	Po	Pb	Zn	As
145.6	148.1	Fine grain, medium green with paler green bands parallel to foliation at 30°.							
148.1	148.2	Silicified breccia zone, .1-.5 cm. sub-euhedral pyrite crystals.							
152.0		2-4 mm. Pale greenish white siliceous band, 5-7% pyrrhotite parallel to foliation at 20°.							
154.0	155.0	Finely laminated, medium green, 1% pyrite, foliation 5-10° to core.							
155.0	159.6	Medium-fine laminations lighter green appears more tuffaceous	157.2 - 159.5	64001	2.3 m	0.010	0.03	0.01	<0.01
159.6	154.7	Quartz seam containing contorted chunks of pyritic phyllite.							
159.7	161.0	Finely laminated, greenish grey, bedding parallel to foliation at 80-90° to core	159.5 - 161.0	64002	1.5 m	<0.002	0.02	0.01	<0.01
161.1		7 cm pyrrhotite band, 90% Po, 10% quartz.	161.0 - 161.5	64003	0.5	<0.002	0.33	0.03	0.5
162.7	162.8	Mineralized quartz seam, contains broken pieces of phyllite containing sulphide,	161.6 - 162.7	64004	1.2	<0.002	0.02	0.01	0.0
		2% liver coloured sphalerite in quartz. .5% galena, .5% chalcopyrite.	162.7 - 163.2	64005	0.5	<0.002	0.36	0.26	0.5
162.0	162.9	Interbedded phyllite and fine sulphides .6-.8 cm thick, 99% Po, Py, trace galena, arsenopyrite.							
163.9		.4 cm pyrite bed	163.2 - 166.7	64006	3.5	0.002	0.02	0.01	0.0
168.2		.7 cm pyrrhotite bed	166.7 - 167.7	64007	1.0	0.003	0.02	40.01	0.0
			167.7 - 169.7	64008	2.0	<0.002	<0.02	40.01	0.0
170.0	180.3	Tuffaceous sediments	169.7 - 170.7	64009	1.0	<0.002	<0.02	40.01	<0.0
		Fine to very fine grained, pale drab green to dark grey green, locally well banded with light green very fine grain beds, contains a 1.5 m section of coarse grained quartz-sericite schist,(crystal tuff), several small sulphide rich beds containing mainly pyrrhotite.							
170.4	170.5	5% pyrrhotite, .2% very fine arsenopyrite.	170.7 - 172.0	64010	1.0	0.05	0.02	40.01	<0.0

## Drill Hole Record



Property	BARB	District	Hole No.	Claim	BARB 12	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
Commenced		Location	Tests at								
Completed		Core Size	Corr. Dip								
Co-ordinates			True Brg.								
Objective			% Recov.								
Footage	Metres	Description	Sample No.	Length	Analysis						
From	To				Ag	Au	Pb	Zn			
170.9		5 cm siliceous zone, Barren	172 - 174.0	64011	2.0	4.002	4.002	0.01	0.01		
171.9-175.0		Fine grain, drab green, possibly felsic ash, poorly laminated at 40° to core, small zones contain 3-4% pyrrhotite.									
175.7-176.2		Gradational contact into a pale greenish white, coarse grained quartz-sericite schist.	174.0 - 176.0	64012	2.0	0.002	0.03	4.01	0.01		
176.2-178.0		Medium grained, well banded, at 85-90° to core at 177.4 - 10 cm sulphide band, 40% Po, 10% py,	176.0 - 177.0	64013	1.0	0.003	0.05	0.05	0.01		
			177.0 - 178.0	64014	1.0	0.003	0.28	0.30	0.01		
178.1		Silicified zone, .2% sphalerite, trace galena.	178.0 - 180.0	64015	2.0	0.026	0.03	0.01	0.01		
179.8		Bedding, at 90° penetrating foliating at 45° to core.									
183.0-216.4		Quartz-sericite schist (Crystal Tuff?)									
		Top of unit is very fine grained and poorly foliated, drab olive green in color, with darker green bands, unit gets gradationally coarser into the pale greenish white schistose rock containing approximately 20% crystals, locally contains up to 1% pyrrhotite/pyrite and a trace of sphalerite. Foliation is crenulated 80-90° to core.									
183.-185.0		Very fine grained, drab green, contains rare blebs of pyrrhotite	180.0 - 182.0	64016	2.0	<0.002	<0.02	0.01	0.01		
185.0-200		Grading into coarser schist with higher crystal content and stronger development of micaceous minerals.	182.0 - 183.0	64017	1.0	<0.002	<0.02	0.01	0.01		
			183.0 - 185.0	64018	2.0	0.002	0.02	0.01	0.01		
200.1		Barren quartz seam.	185.0 - 186.0	64019	1.0	0.003	0.04	0.01	0.01		
200.8-209.7		Pale greenish white, homogenous, very schistose, locally crenulated, 80-90° to core.									
209.7-210.1		White quartz seam, minor chlorite, trace pyrrhotite.									

## Drill Hole Record



Property	BARB	District	Hole No.	Claim BARB 12 T Brg.	Collar Dip	Elev.	Length	Hole No. 80-1 5
Commenced	Location	Tests at	Hor. Comp.					
Completed	Core Size	Corr. Dip	Vert. Comp.					
Co-ordinates	True Brg.	Logged by						
Objective	% Recov.	Date						

From	To	Description	Sample No.	Length m	Analysis					
					Ag	Au	Pb	Zn		
210.1	216.4	Massive quartz sericite schist.								
216.4		END OF HOLE.								
<u>LIST OF SAMPLING</u>										
			FROM	TO						
			157.2	- 159.5	64001	2.3	0.010	0.03	0.01	0.0
			159.5	- 161.0	64002	1.5	<0.002	0.02	0.01	0.0
			161.0	- 161.5	64003	0.5	<0.002	0.33	0.03	0.5
			161.5	- 162.7	64004	1.2	<0.002	0.02	0.01	0.0
			162.7	- 163.2	64005	0.5	<0.002	0.36	0.26	0.4
			163.2	- 166.7	64006	3.5	0.002	0.02	0.01	0.0
			166.7	- 167.7	64007	1.0	0.003	0.02	<0.01	0.0
			167.7	- 169.7	64008	2.0	<0.002	<0.02	<0.01	0.0
			169.7	- 170.7	64009	1.0	<0.002	<0.02	<0.01	0.0
			170.7	- 172.0	64010	1.3	0.015	0.02	<0.01	0.0
			172.0	- 174.0	64011	2.0	<0.002	<0.02	0.01	0.0
			174.0	- 176.0	64012	2.0	<0.002	0.03	<0.01	0.0
			176.0	- 177.0	64013	1.0	0.003	0.05	0.05	0.0
			177.0	- 178.0	64014	1.0	0.003	0.28	0.30	0.2
			178.0	- 180.0	64015	2.0	0.026	0.03	0.01	0.0
			180.0	- 182.0	64016	2.0	<0.002	<0.02	0.01	0.0
			182.0	- 183.0	64017	1.0	<0.002	<0.02	0.01	0.0
			183.0	- 185.0	64018	2.0	0.002	0.02	0.01	0.0
			185.0	- 186.0	64019	1.0	0.003	0.04	0.01	0.0

To: inco Ltd.

REPORT NO. 0 - 342

PAGE No. 1

**BONDAR-CLEGG & COMPANY LTD.**

DATE: April 23, 1980

700 - 409 Granville Street  
Vancouver, B. C. V6C 1T8

Samples submitted: April 16, 1980  
Results completed: April 23, 1980

**CERTIFICATE OF ASSAY**

PROJECT: BARB 312-011WX9A

I hereby certify that the following are the results of assays made by us upon the herein described core samples.

MARKED	GOLD		SILVER		Pb	Zn						
	Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
64001	0.010		0.03		0.01	<0.01	<u>11</u> 2.3					
64002	<0.002		0.02		0.01	<0.01	1.5					
64003	<0.002		0.33		0.03	0.58	0.5					
64004	<0.002		0.02		0.01	0.01	1.2					
64005	<0.002		0.36		0.26	0.41	0.5					
64006	0.002		0.02		0.01	0.01	3.5					
64007	0.003		0.02		<0.01	0.01	1.0					
64008	<0.002		<0.02		<0.01	0.01	2.0					
64009	<0.002		<0.02		<0.01	<0.01	1.0					
64010	0.015		0.02		<0.01	<0.01	1.3					
64011	<0.002		<0.02		0.01	<0.01	2.0					
64012	<0.002		0.03		<0.01	<0.01	2.0					
64013	0.003		0.05		0.05	0.05	1.0					
64014	0.003		0.28		0.30	0.29	1.0					
64015	0.026		0.03		0.01	0.02	2.0					
64016	<0.002		<0.02		0.01	0.01	2.0					
64017	<0.002		<0.02		0.01	0.01	1.0					
64018	0.002		0.02		0.01	0.01	2.0					
64019	0.003		0.04		0.01	0.04	1.0					

NOTE:  
Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged.

  
Registered Assayer, Province of British Columbia

To: minco Ltd.

REPORT NO. 20 - 399

PAGE No. 1

BONDAR-CLEGG & COMPANY LTD.

DATE: May 9, 1980

700 - 409 Granville Street  
Vancouver, B.C. V6C 1T8

CERTIFICATE OF ASSAY

Samples submitted: April 30, 1980  
Results completed: May 9, 1980

PROJECT: MAWER

I hereby certify that the following are the results of assays made by us upon the herein described core samples.

MARKED		GOLD		SILVER		Pb	Zn						
		Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<i>Length, m</i>													
<i>1.0</i>	64020	<0.002		0.02		0.01	0.01						
<i>1.2</i>	64021	<0.002		0.02		0.01	0.02						
<i>1.0</i>	64022	<0.002		<0.02		0.01	<0.01						
<i>1.0</i>	64023	<0.002		0.02		<0.01	<0.01						
<i>1.0</i>	64024	<0.002		0.02		<0.01	<0.01						
<i>1.0</i>	64025	<0.002		0.03		<0.01	0.05						
<i>1.0</i>	64026	<0.002		0.02		<0.01	0.04						
<i>1.0</i>	64027	<0.002		0.03		0.01	0.01						
<i>1.0</i>	64028	0.002		0.02		<0.01	0.01						
<i>1.0</i>	64029	0.003		0.05		0.01	<0.01						
<i>0.5</i>	64030	<0.002		0.02		0.01	<0.01						
<i>0.5</i>	64031	0.007		0.05		0.01	<0.01						
<i>1.0</i>	64032	<0.002		<0.02		<0.01	<0.01						
<i>1.0</i>	64033	<0.002		<0.02		<0.01	<0.01						
<i>1.0</i>	64034	<0.002		0.03		<0.01	<0.01						
<i>1.0</i>	64035	<0.002		0.07		<0.01	<0.01						
<i>1.0</i>	64036	<0.002		0.09		<0.01	<0.01						
<i>2.0</i>	64037	<0.002		<0.02		<0.01	<0.01						
<i>1.0</i>	64038	<0.002		0.03		<0.01	0.07						
<i>2.0</i>	64039	<0.002		0.03		<0.01	<0.01						
<i>1.0</i>	64040	0.004		0.03		0.01	0.15						
<i>1.0</i>	64041	<0.002		0.03		0.01	0.06						
<i>1.0</i>	64042	<0.002		0.02		0.01	0.04						
<i>1.0</i>	64043	<0.002		0.02		<0.01	0.01						
<i>1.0</i>	64044	<0.002		0.02		<0.01	0.02						

NOTE:

Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged.

  
Registered Assayer, Province of British Columbia

To: Cominco Ltd.

PAGE No. 2

BONDAR-CLEGG & COMPANY LTD.

REPORT NO. 20 - 399

DATE: May 9, 1980

CERTIFICATE OF ASSAY

I hereby certify that the following are the results of assays made by us upon the herein described core samples.

MARKED	GOLD		SILVER		Pb	Zn					
	Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<i>Lengths m.</i>											
1.0 64045	<0.002		0.03		0.02	0.29					
1.0 64046	<0.002		0.05		0.02	0.20					
1.0 64047	<0.002		0.04		0.03	0.21					
2.0 64048	<0.002		0.04		0.01	0.07					
2.0 64049	<0.002		0.02		0.01	0.05					

NOTE:  
Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged.

  
Registered Assayer, Province of British Columbia

A B K1

# ARCTIC DIAMOND DRILLING LTD.

184 Industrial Road, Whitehorse, Yukon Y1A 2V1 (403) 667-6434

INVOICE # 2111  
May 05, 1980.

IN ACCOUNT WITH:

Cominco Ltd.,  
2200 - 200 Granville Square  
Vancouver, B.C.  
V6C 2R2

Attention: Bruce Mower

Drilling charges Re: Francis Lake Project - March 23 - April 28, 1980

Mobilization:

Re: Clause 15 of Contract 1/2 x 4140.00 = 2070.00

Moving

Moving inot First Setup

326 Man hours @ \$19.00 per man hour 6194.00 8264.00

Hole # BARB - 80 - 1 - 80' x NQ

0-57= 57 ft @ 24.45 per foot 1393.65

Core Drilling

57 - 710=653 ft @ 24.45 per ft. 15965.85

Use of Mud

12 Man hours @ 19.00 per hour 228.00

6 Machine hrs @ 10.00 per hr. 60.00 288.00 17647.50

Cost of Mud used to follow.

Hole # BARB - 80 - 2- x NQ

Moving

90 man hours @ 19.00 per man hr. 1710.00

Overburden

0-62=62 ft @ 24.45 per ft. 1515.90

Casing in Bedrock

62-120= 58 ft @ 10.00 per foot 580.00

Core Drilling

62 - 910 = 848 ft @ 24.45 per ft. 20733.60

Reaming through Cave & Mud seams

41 Man hrs @ 19.00 per man hr. 779.00  
 14 Machine hours @ 10.00 per hr. 140.00 919.00

Use of Mud

35 Man hours @ 19.00 per man hr. 665.00  
 15 Machine hours @ 10.00 per hr. 150.00 815.00

Cost of Mud used to follow.

Testing

9 Man hours @ 19.00 per hr. 171.00  
 4½ Machine hrs @ 10.00 per hr 45.00 216.00 26489.50

Hole # BARB - 80 - 3 - 80'x NQ

Moving

97 Man hours @ 19.00 per hr. 1843.00

Overburden

0-50 = 50ft @ 24.45 per ft. 1222.50

50-187=137 ft @ Field Cost

141 Man hours @ 19.00 per hr. 2679.00  
 70½ Machine hrs @ 10.00 per hr. 705.00 3384.00

1 NW Casing Shoe #1822 269.00

1 NQ Bit #34914 727.95

1 Tricone 152.85

1149.80

Plus 10 percent 114.98 1264.78 5871.28

Core Drilling

187 - 355 = 168 ft @ 24.45 per ft. 4107.60

Use of Mud

4 Man hours @ 19.00 per hour 76.00  
 2 Machine hours @ 10.00 per hr 20.00 96.00

Cost of Mud to follow.

Testing.

2 Man hours @ 19.00 per hour 38.00  
 1 Machine hr. @ 10.00 per hr 10.00 48.00 11965.88

64366.88

*Ok. A.B. Mawer. May 13 1980*  
*113.130.Wx9A-62,296.88*  
*113.132.Wx9A-2070.00*

*(a) audit will be listed on last billing)*