



42A10SW0079 2.4684 GERMAN

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*note:  
see file 2.4478  
for map showing  
location of drill  
holes.*

Report On  
Overburden Drill Program

Aquarius Project

Macklem, German & Cody Townships, Ontario

March 23, 1982

**RECEIVED**

APR - 2 1982

MINING LANDS SECTION

By

Asarco Exploration Company of Canada Limited

On Behalf Of

Lac D'Amiante du Quebec, Ltee.



42A10SW0079 2.4684 GERMAN

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Drill Hole Location Maps (2)

Drill Logs for Drill Holes AQ-82-1 to AQ-82-29, inclusive

Cost Breakdown by Asarco

Invoice Supported Expenditures:

Bradley Brothers Limited - Holes AQ-82-1 to AQ-82-29 inclusive

List of Claims Submitted for Assessment

Overburden Drill Sections (Plates I & II)

Report On Overburden Drill Program  
Aquarius Project - Macklem, German and Cody Townships

Summary

Thirty reverse circulation overburden holes totalling 3,322 feet were drilled by Bradley Brothers Limited on the claims of Lac D'Amante du Quebec, Ltee. during February, 1982. Four profile lines were drilled in order to prospect for evidence of gold and/or base metal mineralization within basal tills and the upper few feet of bedrock in previously untested areas.

Location and Access

Many of the claims are easily accessible along a gravel road which runs south from Highway 101 at a point 0.6 miles east of the junction of Highway 101 with Highway 67. The easternmost claims are readily accessible from Highway 101 by means of the Gibson Lake gravel road. The westernmost claims (lake claims) are accessible from Highway 101 by means of the gravel road that extends to the Night Hawk Retreat tourist camp and trailer park. Holes AQ-82-1 to AQ-82-5, inclusive are located in the northeast corner of the claim block on either side of the Gibson Lake road. Holes AQ-82-6 to AQ-82-29, inclusive are located on the Northeast Bay of Night Hawk Lake.

Property

The property consists of 131 contiguous claims, numbered as follows:

P512781 to P512832 inclusive  
P528597 & P528598  
P528716 to P528723 inclusive  
P545387 to P545398 inclusive  
P546727  
P546915  
P565355 to P565383 inclusive  
P565407 to P565432 inclusive

Property Continued...

One hundred and seventeen (117) claims lie in the northern and northwestern portions of Macklem Township. Eight claims lie in German Township, immediately north of the German-Macklem Township line and six claims lie in the northeast corner of Cody Township.

Previous Work

Exploration work has been conducted in the general area during several periods of activity dating back to the 1920's and 1930's.

Paradee Amalgamated Mines Limited explored the area during the early 1940's and eventually sank a shaft and did some underground exploration work on the old Aquarius gold prospect which lies approximately one mile south of the German-Macklem boundary and approximately 0.65 miles east of Nighthawk Lake.

In 1959 and 1960 Hollinger Consolidated Gold Mines Limited carried out some geophysical surveys and drilled one hole in the SW $\frac{1}{4}$  of the S $\frac{1}{2}$  of Lot 1, German Township.

In 1969 and 1970 the Canadian Nickel Company carried out geophysical surveys over the N.E. Bay of Nighthawk Lake and over twenty-nine claims to the east of the lake. They drilled four holes to test E.M. conductors.

Asarco staked claims in the area during 1978 and did a considerable amount of geophysical work and overburden drilling during 1979. Anomalous gold values were encountered in overburden and/or bedrock in a few of the drill holes. A diamond drill commenced work on the property during 1980 and immediately encountered significant intersections of gold mineralization in the bedrock. Additional claims were staked and several more diamond drill holes and overburden holes were drilled during the spring and summer of 1980.

Ownership of the claims was transferred from Asarco Exploration Company of Canada Limited to Lac D'Amiante du Quebec Ltee. on July 23, 1981.

An overburden drilling program was completed over two portions of the claim area during 1981.

Previous Work Continued....

An exploration shaft is currently being excavated approximately 0.6 miles south of the German-Macklem boundary and 1.3 miles east of Night Hawk Lake.

February, 1982 Overburden Drill Program

Four fences of holes were drilled in order to search for and evaluate anomaly trains in the overburden which parallel the direction of ice movement. Glacial striae on outcrops in the general area indicate glacial advance along lines trending 150° to 170°.

The overburden drill provided by Bradley Brothers Limited consists of a Longyear 1-38 drill modified for dual-tube reverse circulation drilling. The drill is mounted on skids or on an eighteen ton diesel FN160 Flextrack Nodwell, and has a hydraulic derrick capable of handling twenty feet of rods.

In each hole, continuous sample return was logged and monitored through the complete Pleistocene section, and bedrock chips were collected for several feet into bedrock. Whenever till was identified or suspected, samples of the minus 10 mesh material were collected. These samples would average about fifteen pounds each. A large amount of the plus 10 mesh pebbles and boulder chips was included with each sample to assist in studies of till composition.

Pleistocene Geology

Throughout most of the Aquarius area one or more tills occur at the base of the Pleistocene section. These tills are intercalated with discontinuous bands and lenses of sand and gravel. Total thickness of the till portion of the section ranges from 0 to greater than 140 feet. This is overlain by a poorly defined sand and gravel horizon which ranges in thickness from 0 to 20 feet. This horizon probably resulted from the washing and reworking of the underlying till. The sand and gravel horizon is, in turn, overlain by varved clays and slightly silty clays which were deposited from Glacial Lake Barlow - Ojibway.

Pleistocene Geology Continued....

The normal sequence of tills overlain by lake clays is disrupted by the Frederick House esker in the eastern portion of the Aquarius claim block. None of the overburden holes penetrated the center of the esker but it would appear that the sand and gravel deposits at the core of this feature must exceed 300 feet in thickness. The Frederick House esker trends at about 155°. It is marked by low sand hills, and by chains of kettle lakes with no organized drainages in, or out.

The overburden holes drilled on the Northeast Bay of Night Hawk Lake encountered a well defined sequence of clays and silty clays near surface. These glacial lake sediments are underlain by poorly sorted gravels (reworked till?) and, occasionally by good basal tills. Moderately to highly, anomalous gold values were obtained from heavy mineral concentrates taken from the basal gravels and tills from some of the holes.

The overburden holes drilled in the northeast corner of the claim block encountered lake clays interbedded with silt and sand (re-worked esker material) near surface. No consistent pattern was evident at depth. From west to east:

Hole 1 encountered a good basal till.

Hole 2 encountered four feet of basal gravel.

Hole 3 encountered two tills separated by silt and sand and underlain by a basal gravel.

Holes 4 and 5 encountered two tills, an upper till and a basal till, separated by a unit of clay and a unit of sand and gravel.

Anomalous gold values were recorded for heavy mineral concentrates taken from some of the basal tills and gravels.

Conclusions

Good basal tills were encountered in only 12 out of the 30 overburden holes drilled during February, 1982.

Several holes yielded samples of basal till or basal gravel which proved to carry anomalous gold values in the heavy mineral fraction.

Respectfully submitted,

*Jeff Sample*

Jeff Sample

**BRADLEY  
BROS.  
LIMITED**

February 15, 1982

#### **CONTRACT DIAMOND DRILLING**

Asarco Exploration Co. of Canada Ltd.  
12th Floor - 350 Bay Street  
Toronto, Ontario  
M5H 2S6

HOLE NO.	TO COVER DIAMOND DRILLING FOR			
	FROM	TO	FOOTAGE COMPLETED	
<u>Maclem Township</u>				
	Mobilization -			
AQ-82-1	32 miles		@ \$5.00	\$160 00
2	0'	200'	200'	
3	0'	160'	160'	
4	0'	178'	178'	
5	0'	218'	218'	
	220'	220'		
	Equipment rental -			
	68 hours		@ 218.00	14,824 00
	Down the hole consumables:			
	3 Tricone bits @ \$725.00	-	\$2175.00	
	1 Adaptor 570.00	-	570.00	
	10 bags mud @ 14.50	-	<u>145.00</u>	
			\$2890.00	
	Plus 15%		<u>433.50</u>	3,323 50
	Cost to make ice on lake:			
	60 man hours	@ 22.00	22.00	1,320 00
	60 muskeg hours	@ 35.00	35.00	2,100 00
	16 hours trucking	@ 20.00	20.00	320 00
				\$22,047 50

Paid in full  
March 9/87  
1721047.50  
~~BRADLEY BROS LTD~~

# BRADLEY BROS. LIMITED

February 28, 1982

CONTRACT DIAMOND DRILLING

Asarco Exploration Co. of Canada Limited  
12th Floor - 350 Bay Street,  
Toronto, Ontario M5H 2S5

HOLE NO.

TO COVER DIAMOND DRILLING FOR **Feb. 16 to 26, 1982**

FROM

TO

FOOTAGE COMPLETED

Nighthawk Lake

Move equipment to shop and  
the Nighthawk Lake -

50 miles	@	\$5.00:	\$250 00
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AQ-82-6

7

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21

22

23

24

25

26

27

28

29

0'            110'            110'

0'            130'            130'

0'            110'            110'

0'            106'            106'

0'            102'            102'

0'            119'            119'

0'            116'            116'

0'            120'            120'

0'            70'            70'

0'            104'            104'

0'            119'            119'

0'            138'            138'

0'            49'            49'

0'            64'            64'

0'            25'            25'

0'            96'            96'

0'            119'            119'

0'            105'            105'

0'            84'            84'

0'            100'            100'

0'            84'            84'

0'            116'            116'

0'            77'            77'

0'            50'            50'

Equipment rental -

88 hours

@	218.00	19,184 00
---	--------	-----------

Breakdown -

4 hours

@	178.00	712 00
---	--------	--------

FORWARD

# BRADLEY BROS. LIMITED

February 28, 1982

CONTRACT DIAMOND DRILLING

Asarco Exploration Co. of Canada Limited  
12th Floor - 350 Bay Street,  
Toronto, Ontario M5H 2S6

HOLE NO.	TO COVER DIAMOND DRILLING FOR <b>Feb. 16 to 26, 1982</b>		
	FROM	TO	FOOTAGE COMPLETED
<b>Down the hole consumables -</b>			
5 Tricone bits	@ \$725.00	-	\$3625.00
3 Adapters	570.00	-	1710.00
2 rods	546.00	-	<u>1092.00</u>
			\$6427.00
	Plus 15%		<u>964.05</u>
			\$7,391 05
<b>Cost to make ice on lake - Feb. 16</b>			
8 man hours	@ 22.00		176 00
8 muskeg hours	@ 35.00		280 00
			<u>\$27,993 05</u>

PAID

APPROVED 

DATE March 25/82

CHECK No. 931

TORONTO OFFICE

# ASARCO EXPLORATION CO

48 E 52 S

MATHESON

ROAD  
GERMAN TWP

CODY TWP

MACKLEM TWP.

MAP

TRUE

ROAD

GERMAN TWP

MACKLEM TWP.

565430

565429

565428

565427

565426

565425

565424

565423

565422

565421

565420

565419

565418

565417

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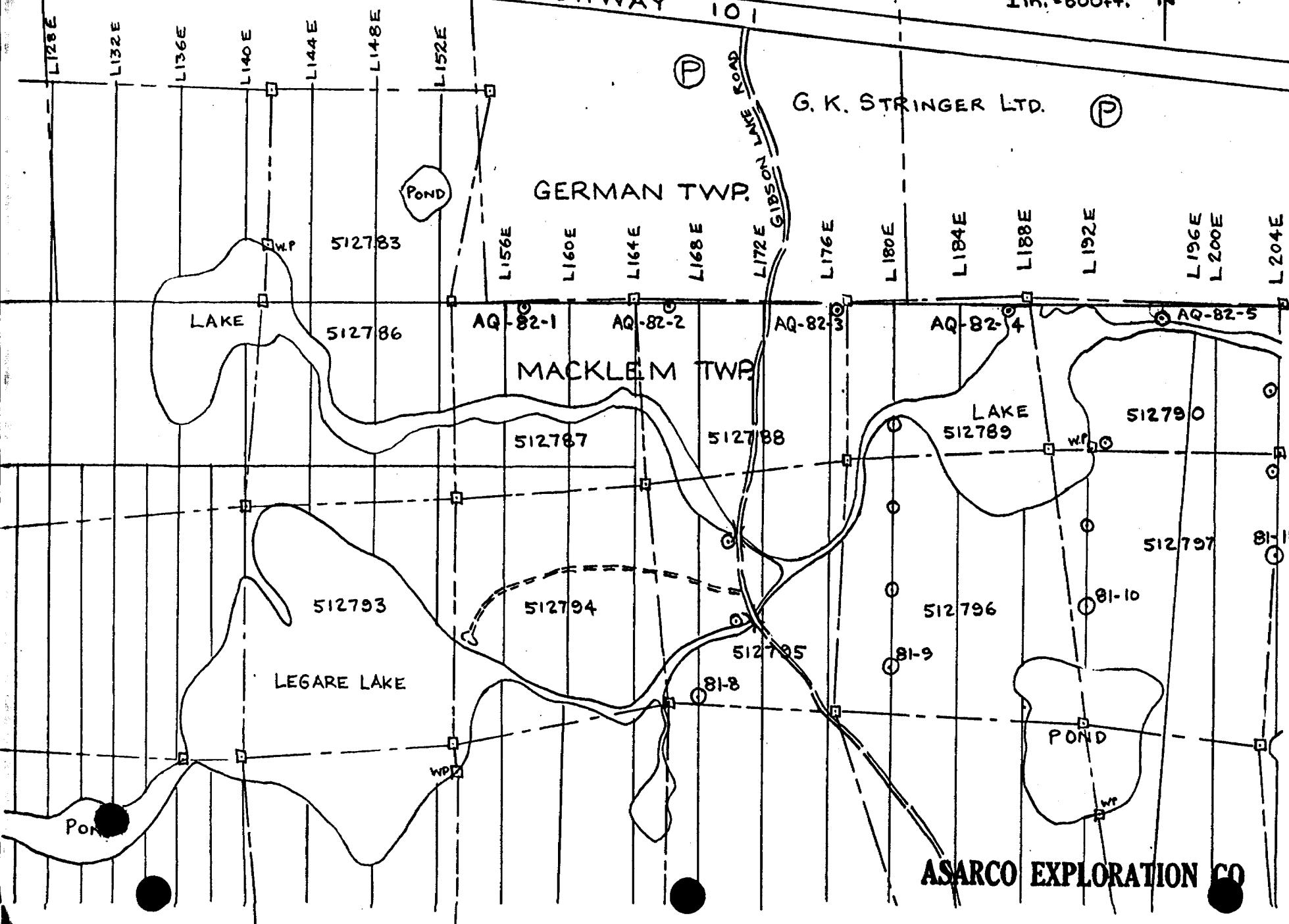
565308

P(S.R.O.)

HIGHWAY 10

**LOCATION MAP**

## RANWORTH EXPLORATION



\* ASARCO CLAIM  
BOUNDARY

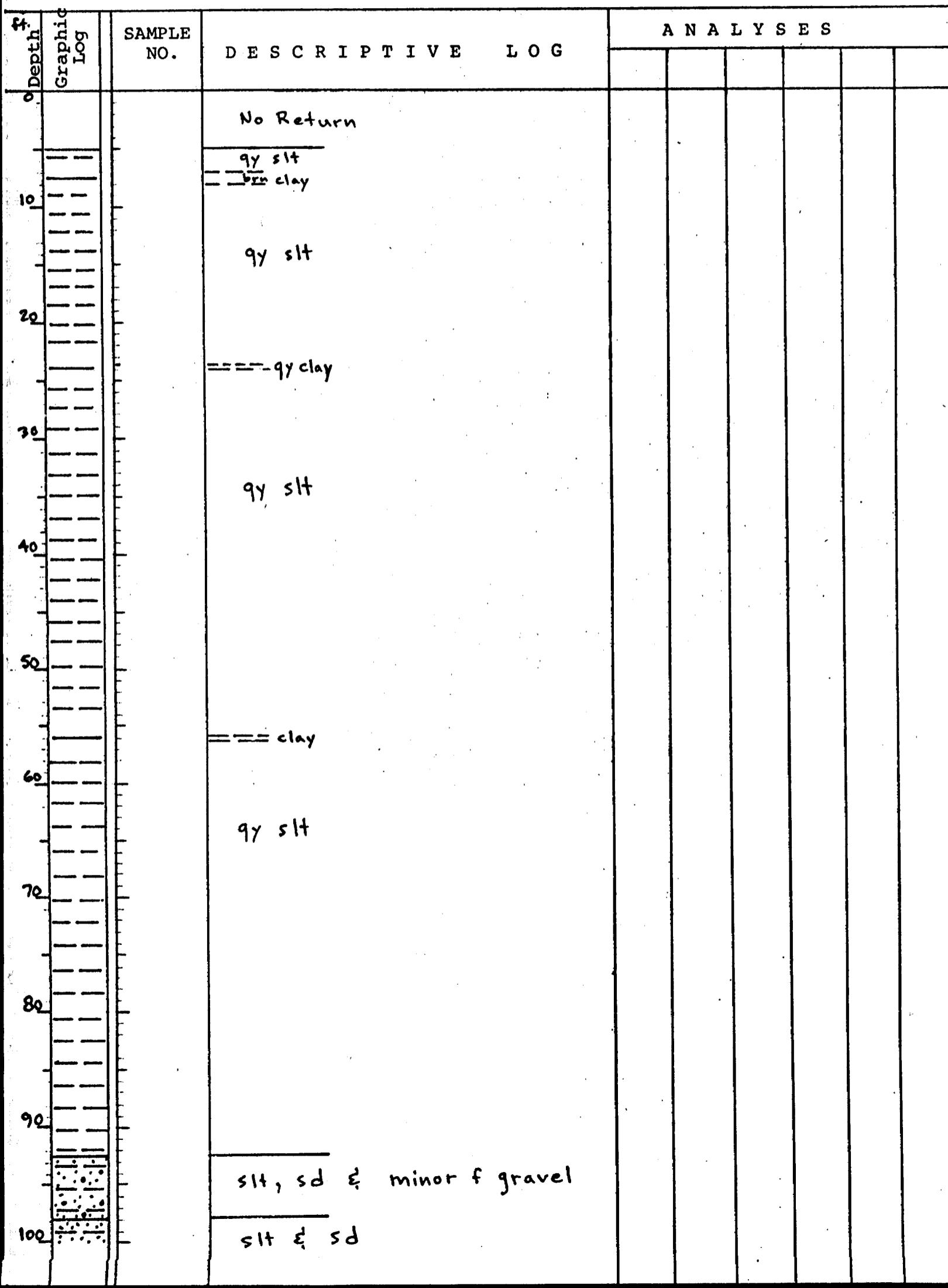
DATE Feb. 3, 1982 HOLE NO. AQ-82-1 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. 157+15E 20 ft. S. of Baseline  
 BIT NO. H 000 305 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 5 HOURS DRILL 12 1/2 OTHER \_\_\_\_\_

ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
0		No Return							
0		Very little return							
0		↓							
0		Silt							
0									
10									
10		gy silt, v minor brn clay							
10		poor return							
10									
20									
20		gy silt, minor sd							
20									
30									
30		gy silt							
30									
40		gy silt interbn dd w mixed silt,							
40		sd & occ pebbles; num f mica flakes							
40									
50									
50		gy to tan colored silt; v loc							
50		minor sd; num f mica flakes							
50									
60									
60		sd & f gravel							
60									
70									
70		gy f sd & silt							
70									
80									
80									
90									
90									
100									
100		sd, silt & f gravel							
100									
100		f sd & silt; loc c sd & occ							
100		f pebbles							

DATE \_\_\_\_\_ HOLE NO. AQ-82-1 GEOLOGIST \_\_\_\_\_  
 DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

ft. Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S				
100								
105								
110			slt, f-c sd & f gravel					
115			qy silt & sd					
120								
125								
130								
135								
140								
145								
150								
155			started using mud @ 150 ft.					
160								
165								
170		1	sd, silt & gravel					
175		2	Till: clay, pebbles, sd, silt					
180		3						
185			v dense clay till					
190			← Boulder					
195		4						
200		5	Bedrock: Talc-Chlorite gouge					
			Foot of Hole @ 200.0 ft.					

DATE Feb. 5, 1982 HOLE NO. AQ-82-2 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. 166+00 F. 5 ft. S. of Baseline  
 BIT NO. H 000 305 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 3 HOURS DRILL 5  $\frac{1}{2}$  OTHER \_\_\_\_\_



DATE \_\_\_\_\_ HOLE NO. AQ-82-2 GEOLOGIST \_\_\_\_\_

DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_

BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_

HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

Depth ft Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S					
100		mainly silt, var f sd						
110								
120		f-c sd, silt, loc occ f pebbles started using mud @ 120 ft.						
130								
140								
150	1	gg clay gravel, some sd						
160	2	Bedrock: grn talc-chl rock ground up to form f gouge; minor py; num frags wh carb in upper part. --- joint or fract? filled w gravel talc-chl gouge; var. wh carb. Foot of Hole @ 160.0 ft.						



DATE \_\_\_\_\_ HOLE NO. AQ-82-3 GEOLOGIST \_\_\_\_\_  
 DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

ft. Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
100		3	Clay till zones of dense clay till w sd but v few pebbles							
110		4	dense clay till, gen few pebbles ‡ only minor sd							
120		5								
130		6	gravelly till w occ cobbles ↳ several frags wh vein qtz & wh carb.							
140		7	mainly silt & f sd ; loc minor clay till material w pebbles							
150		8	clay till w occ - num pebbles							
160			silt & sd							
170		9	gravel, var sd, loc some clay in upper part, occ py cubes ↳ caving badly, rods blocked							
180	Bedrock	10	Bedrock: wh & grn qtz-carb-chl rock; loc abund dissem py (appears to be a qtz-carb altd chl. volcanic rock)							
			Foot of Hole @ 178.0 ft.							

DATE Feb. 8, 1982 HOLE NO. AQ-82-4 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. 187 + 00 E 35 ft. S. of Base Line  
 BIT NO. H 000 306 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 3 HOURS DRILL 6 1/2 OTHER \_\_\_\_\_

ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
0		Some organic debris							
10		No Return							
20		poorly sorted sd							
30		poorly sorted sd & minor clay							
40		qy clay, some sd & silt (possibly caved) poor return							
50		qy silt interbedd w thin bnd qy clay							
60		clay & silt ( $\approx$ 50/50)							
70		bnd of pure clay							
80		silt & clay							
90		↓							
100		silt w only v minor clay							
		clay bnd							
		silt w only v minor clay							



DATE \_\_\_\_\_ HOLE NO. AQ-82-4 GEOLOGIST \_\_\_\_\_  
 DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_  
 \_\_\_\_\_

ft. Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
200		6	Clay Till? wh clay or talc & clay with var. amt sml pebbles, sd & silt.							
		7	Bedrock: wh talc gouge							
210			Foot of Hole @ 208.0 ft.							

DATE Feb 6, 1982 HOLE NO. AQ-82-5 GEOLOGIST Jeff Sample, Bob Dean  
DRILLER Guy Fortin HOLE LOCATION Macklem Twp.  
196+90 E. 80 ft. S. of Base Line  
BIT NO. H 000 306 FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE 6 1/2 HOURS DRILL 6 1/2 OTHER \_\_\_\_\_

Page 2

DATE HOLE NO. AQ-82-5 GEOLOGIST \_\_\_\_\_

**DRILLER** \_\_\_\_\_ **HOLE LOCATION** \_\_\_\_\_

**BIT NO.** \_\_\_\_\_ **FOOTAGE ON BIT** \_\_\_\_\_

HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

Page 3

DATE \_\_\_\_\_ HOLE NO. AQ-82-5 GEOLOGIST \_\_\_\_\_  
DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DATE Feb. 17, 1982 HOLE NO. AQ-82-6 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Cody Twp., Night Hawk Lake Grid  
Baseline 0100 N @ 72+00 W  
 BIT NO. H 000 308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 5 1/2 HOURS DRILL 3 1/2 OTHER \_\_\_\_\_

Ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
0		Slush Ice & Ice Water							
10									
20									
30									
40									
50									
60		1 gy silt qy clay 1 gy silt							
70	1	sd, silt, some f gravel (incl num frags of wh vein gts) boulder - grnish-qy rhylitic tuff gravel							
80	2	Clay Till: abund silt & sd, num f pebbles, rare cobbles							
90	3	↓ increasing amt of c. pebbles & occ-num talc-chl Cobbles							
100	4	← talc-chl boulder. ← boulder of f-mg mafic to UM rock							

Page 2

**DATE**

HOLE NO. AQ-82-6 GEOLOGIST \_\_\_\_\_

**DRILLER** \_\_\_\_\_ **HOLE LOCATION** \_\_\_\_\_

BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_

**HOURS MOVED** \_\_\_\_\_ **HOURS DRILL** \_\_\_\_\_ **OTHER** \_\_\_\_\_

DATE Feb. 18, 1982 HOLE NO. AQ-82-7 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp Night Hawk Lake Grid  
Baseline 0+00 N C 60+00 W  
 BIT NO. H 000308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1 HOURS DRILL 2 1/4 OTHER \_\_\_\_\_

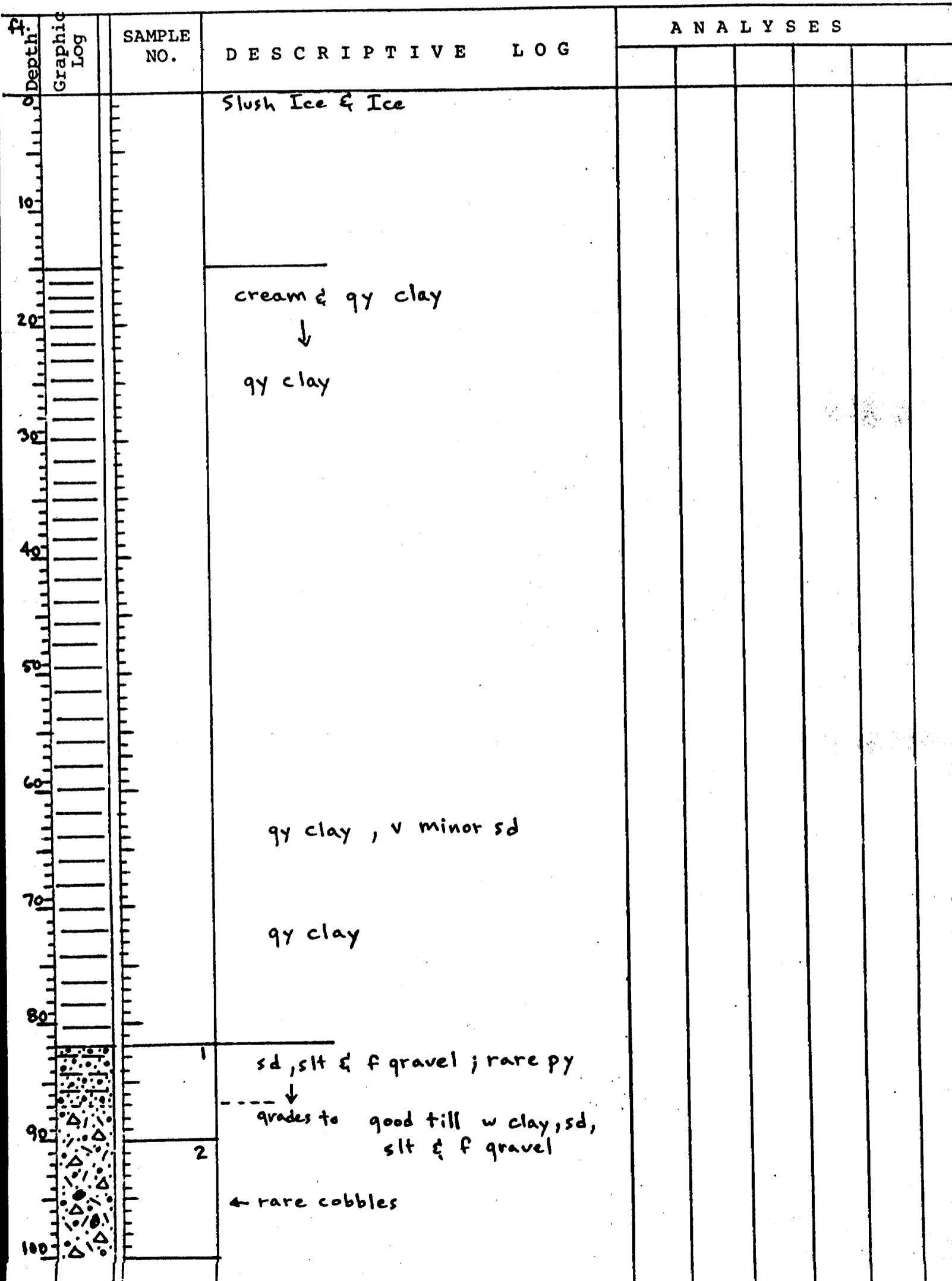
ft Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
0			Ice (& slush ice)							
1			Water							
10										
20										
30										
40										
45			rare sml pebbles in clay							
50			slt w occ clay bnds							
55										
60										
65										
70										
75			qy clay, minor silt & v minor sd							
80			1 qy slt							
85			qy clay							
90			1 qy slt							
95			slt w num clay bnds ; rare sd							
100			clay							
			1 qy slt w lesser amt clay							
			clay							

Page 2

DATE \_\_\_\_\_ HOLE NO. AQ-82-7 GEOLOGIST \_\_\_\_\_  
 DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

ft. Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
100			silt							
			clay							
110			silt & sd							
			clay							
		1	silt w clay bnds							
			silt, sd & some f gravel							
			num frags talc-chl rock							
120		2	Bedrock:							
			grn talc-chl gouge ; v minor							
			wh carb frags ; minor py							
130			Foot of Hole @ 130.0 ft.							

DATE Feb. 18, 1982 HOLE NO. AQ-82-8 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp Night Hawk Lake Grid  
Baseline 0400 N 48+00 W  
 BIT NO. H 000308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_



DATE \_\_\_\_\_ HOLE NO. AQ-82-8 GEOLOGIST \_\_\_\_\_

**DRILLER** \_\_\_\_\_ **HOLE LOCATION** \_\_\_\_\_

**BIT NO.** \_\_\_\_\_ **FOOTAGE ON BIT** \_\_\_\_\_

**HOURS MOVE** \_\_\_\_\_ **HOURS DRILL** \_\_\_\_\_ **OTHER** \_\_\_\_\_

DATE Feb. 18, 1982 HOLE NO. AQ-82-9 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
Base Line 0+00 N 36+00 W  
 BIT NO. H000 308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ | HOURS DRILL \_\_\_\_\_ | OTHER \_\_\_\_\_

ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S					
0		Slush Ice & Ice						
10		Water						
20								
30								
40								
50								
60								
70								
80								
90		↓ qy clay, vv sly silty						
100	1	sd, silt, f gravel (becoming coarser w depth), occ grains py						

Page 2

DATE \_\_\_\_\_ HOLE NO. AQ-82-9 GEOLOGIST \_\_\_\_\_  
DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DATE Feb. 18, 1982 HOLE NO. AQ-82-10 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp Night Hawk Lake Grid  
Baseline 0400 N 24+00 W  
 BIT NO. H 000 308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1 1/2 HOURS DRILL 1 OTHER \_\_\_\_\_

ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
0		Slush Ice & Ice Water							
10		qy clay							
20									
30									
40									
50									
60									
70									
80									
90		1 gravel clay							
		gravel or poor till (poor return- v sm sample)							
100	2	Bedrock: gouge of grn talc-chl rock, minor wh carb veining							

Page 2

DATE \_\_\_\_\_

HOLE NO. AQ-82-10 GEOLOGIST \_\_\_\_\_

DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_

BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_

HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

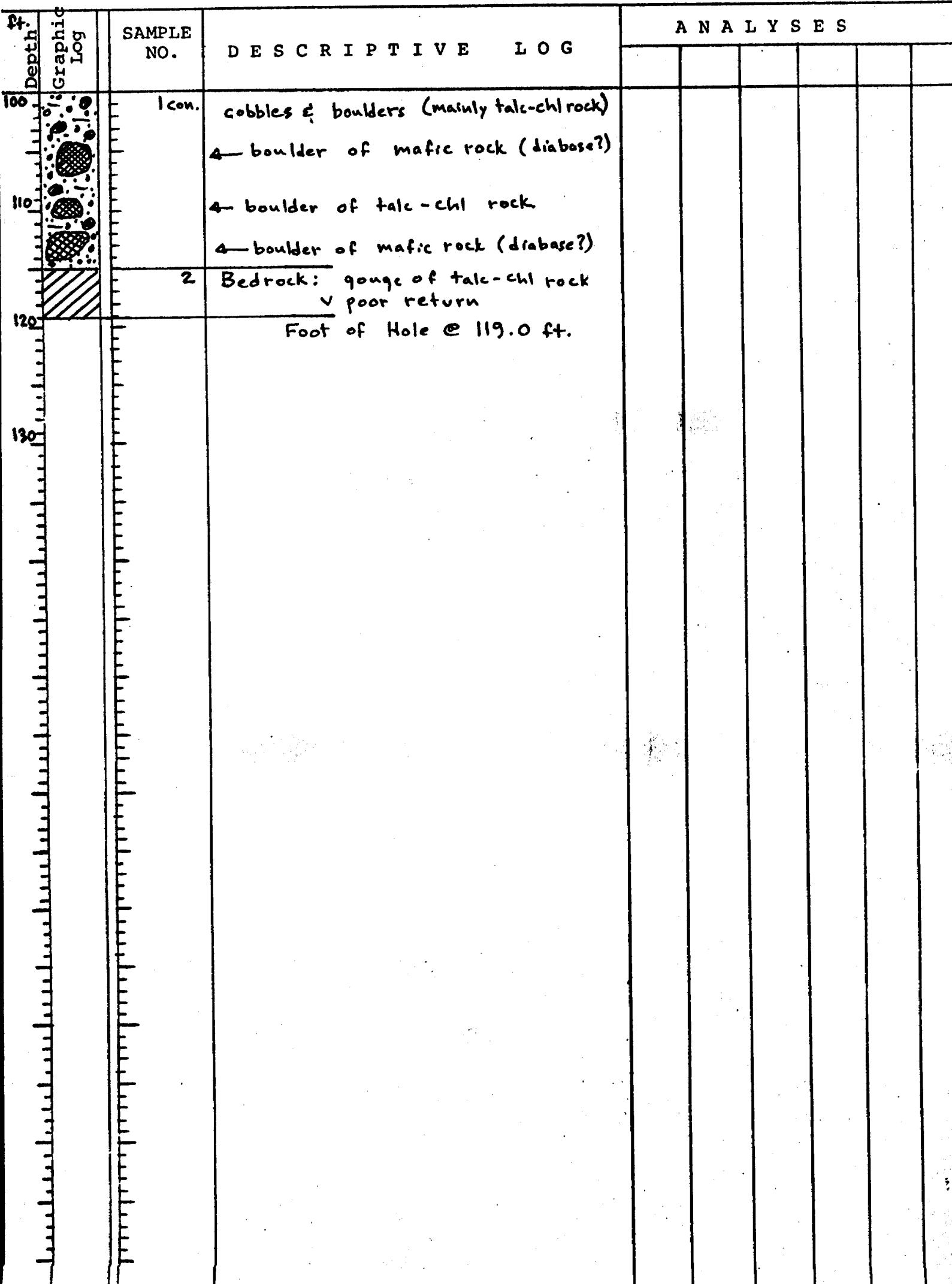
ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S					
104.0		Foot of Hole @ 104.0 ft.						

DATE Feb 19, 1982 HOLE NO. AQ-82-11 GEOLOGIST Jeff Sample, Bob Dean  
DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
Baseline 0+00N @ 12+00W  
BIT NO. H000308 FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE 1 HOURS DRILL 3 OTHER \_\_\_\_\_

Depth ft Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES					
0		Slush Ice & Ice						
10		Water						
20		9y clay						
30								
40								
50								
60								
70								
80								
90								
100	1	silt, sd & f gravel (poor return - much clay washing in)						

Page 2

DATE \_\_\_\_\_ HOLE NO. AQ-82-11 GEOLOGIST \_\_\_\_\_  
 DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_



DATE Feb. 19, 1982 HOLE NO. AQ-82-12 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
26+00 S 12+00 W  
 BIT NO. H000308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1 HOURS DRILL 2 OTHER \_\_\_\_\_

ft. Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
0			Slush Ice & Ice							
10			Water							
20										
30										
40										
50										
60										
70										
80			1 sd, silt & f gravel, minor py; one frag of silic rock w abund f dissem amber Spad?							
			2 sd, silt & f gravel, minor py							
90			3 Poor Till: sd, silt, gravel, a few clay balls & grades to minor py Good Clay-rich Till ← num frags talc-chl rock, some w yellow oxidation stain							
100			4 gravel, minor py							

Page 2

DATE \_\_\_\_\_ HOLE NO. AQ-82-12 GEOLOGIST \_\_\_\_\_  
DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S				
100	5	Till: clay, f gravel, sd, silt, rare lge frags py					
	6	gravel, sd & silt					
110	7	Till: clay, silt, sd, f gravel (108.5-110.0 poor return)					
	8	Bedrock: grn talc-chl rock Foot of Hole @ 116.0 ft.					
120							
130							

DATE Feb. 19, 1982 HOLE NO. AQ-82-13 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
26+00 S 20+00 W  
 BIT NO. H000308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1 HOURS DRILL 1 OTHER \_\_\_\_\_

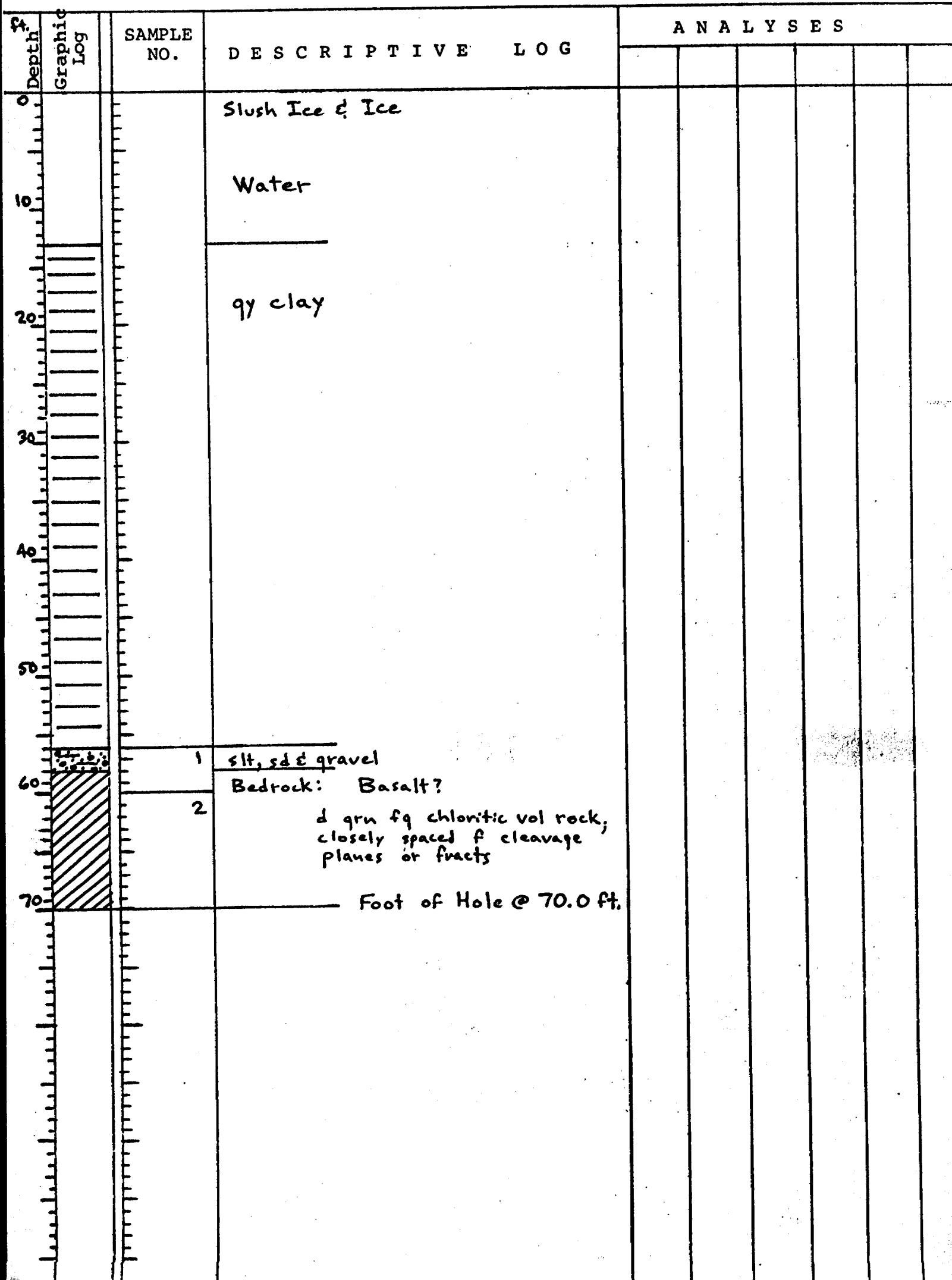
ft. 0 10 20 30 40 50 60 70 80 90 100	Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
			Slush Ice & Ice							
			Water							
			— — — — 9y clay							
			— — — — grnish-qy. clay mixed w oily organic? material							
			— — — — 9y clay							
			clay w minor f gravel							
			9y clay							
			— — — — minor f gravel							
			9y clay							

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DATE \_\_\_\_\_ HOLE NO. AQ-82-13 GEOLOGIST \_\_\_\_\_  
DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_  
\_\_\_\_\_

ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
100		9y clay							
110									
115									
118	1	silt, sd & f gravel (vnum talc-chl frags)							
120	2	Bedrock: grn talc-chl rock							
		Foot of Hole @ 120.0 ft.							

DATE Feb. 19, 1982 HOLE NO. AQ-82-14 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp Night Hawk Lake Grid  
26+00S 36+00W  
 BIT NO. H000308 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1/2 HOURS DRILL 1 OTHER \_\_\_\_\_



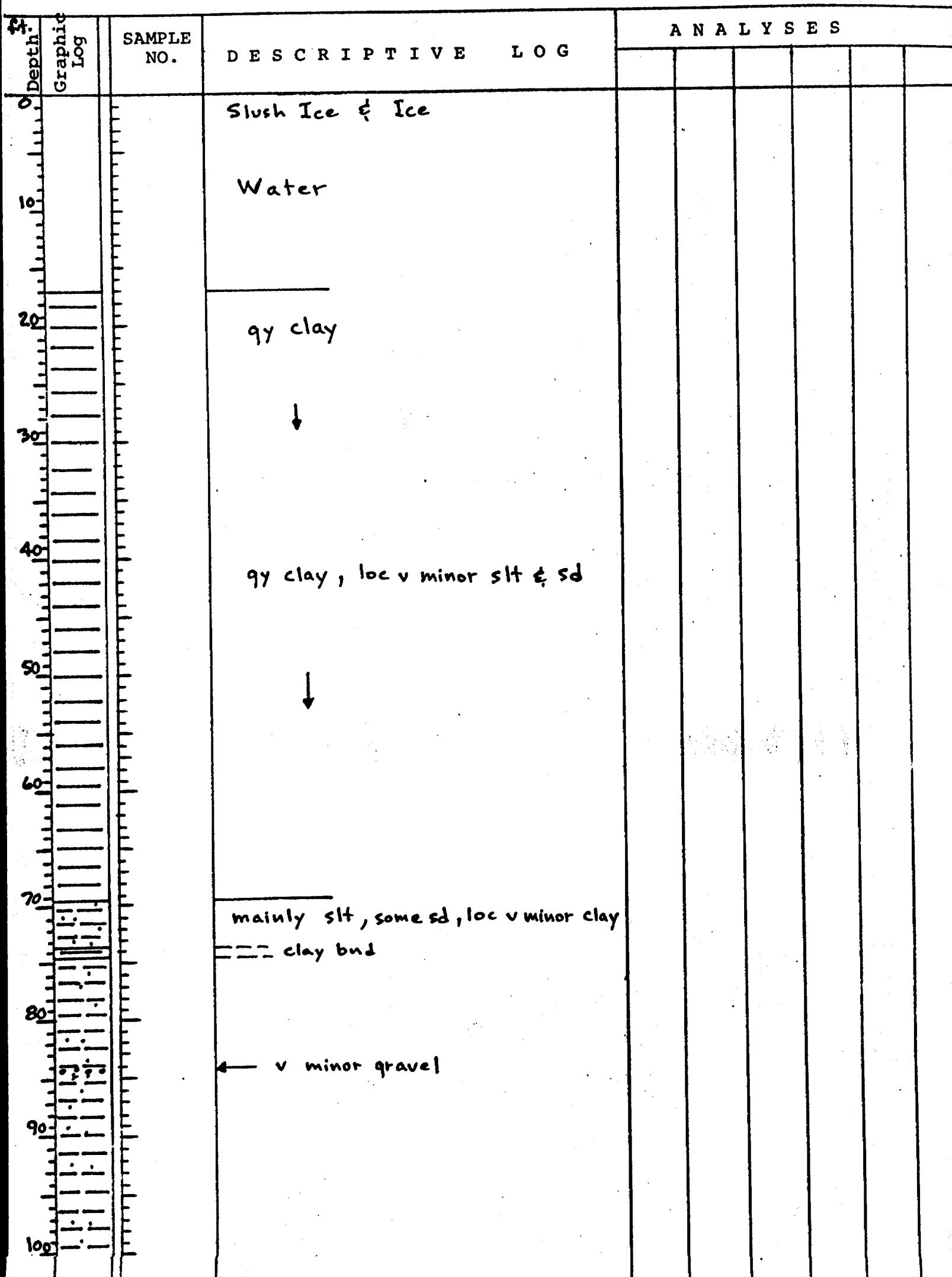
DATE Feb. 20, 1982 HOLE NO. AQ-82-15 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
26+00 S 48+00 W  
 BIT NO. H 000 304 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1 HOURS DRILL 2 OTHER \_\_\_\_\_

f. ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S						
0		Slush Ice & Ice							
10		Water							
20									
30									
40									
50									
60									
70									
80									
90									
100	1	qy clay, minor sd & rare pebbles qy clay qy clay, v minor silt & sd  clt, sd & gravel boulders of d grn vol rock plus occ pebbles ↓ grades to mainly gravel							
	2	Till: clay, silt, sd, pebbles							

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DATE \_\_\_\_\_ HOLE NO. AQ-82-15 GEOLOGIST \_\_\_\_\_  
DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DATE Feb. 20, 1982 HOLE NO. AQ-82-16 GEOLOGIST Jeff Sample, Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
26+00 S 60+00 W  
 BIT NO. H000304 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1 HOURS DRILL 1 OTHER \_\_\_\_\_



DATE \_\_\_\_\_ HOLE NO. AQ-82-16 GEOLOGIST \_\_\_\_\_  
 DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

ft. Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E     L O G	A N A L Y S E S						
100			← thin clay band							
110		1	Sd w minor f gravel ↓ Sd, gravel, cobbles & sml boulders							
120	Bedrock	2	Bedrock: d grn, chloritic rock (mafic or UM? vol); fractd or cleaved  Foot of Hole @ 119.0 ft.							

DATE Feb. 20, 1982 HOLE NO. AQ-82-17 GEOLOGIST Jeff Sample, Bob Dean  
DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
BIT NO. H000304 FOOTAGE ON BIT 26+00 S 44+00 E  
HOURS MOVE 1 1/2 HOURS DRILL 1 1/2 OTHER

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DATE \_\_\_\_\_ HOLE NO. AQ-82-17 GEOLOGIST \_\_\_\_\_  
 DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

ft. Depth	Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S					
100			clay						
			silt & var. clay						
110									
120									
			rare silt pebbles						
			---> clay band						
			qy clay						
130		1	← granite boulder gravel 4→ rhyolite boulder w var fuchsite stain boulders & gravel; 1% py						
		2	Bedrock: gouge of grn falc-chl. rock						
140			Foot of Hole @ 138.0 ft.						

DATE Feb. 22, 1982 HOLE NO. AQ-82-18 GEOLOGIST Bob Dean  
 DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
26+00S 36+00E  
 BIT NO. H000304 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE 1 HOURS DRILL 1 OTHER \_\_\_\_\_

ft. Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S					
0		Slush Ice & Ice Water						
10		9y clay ↓ silty clay						
20		No Return						
30								
40		36-40 ft. Slow drilling - no return - boulder? or bedrock? 38-40 ft. Rods jamming lost 1 rod, adapter & tricone bit in hole Foot of Hole @ 40.0 ft.						

DATE Feb. 22, 1982 HOLE NO. AQ-82-18A GEOLOGIST Bob Dean  
DRILLER Guy Fortin HOLE LOCATION Macklem Twp. Night Hawk Lake Grid  
26+00S 35+85E  
BIT NO. J000 386 FOOTAGE ON BIT \_\_\_\_\_  
HOURS MOVE \_\_\_\_\_ HOURS DRILL 2 1/2 OTHER \_\_\_\_\_  
Winch broke on tractor - lost 4 hrs moving to next hole.

Depth ft. Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES					
0		Slush Ice & Ice Water						
5		9y clay						
10		Silty clay						
15								
20		silt & sd						
25								
30								
35								
40	1	sandy gravel poor return 40-42 ft.						
45	2	Bedrock: chloritic, silic. intrusive? rock.						
50		Foot of Hole @ 49.0 ft.						

DATE FEB 23, 1982 HOLE NO. AQ-82-19 GEOLOGIST R. S. GRAYDRILLER GUY FORTIN HOLE LOCATION L 24E, 26 SBIT NO. 000386 FOOTAGE ON BITHOURS MOVE 1 HR. HOURS DRILL 1 HR 5 MIN OTHER  
920 AM - 1025 AM

Depth	Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES					
0			ICE 18"						
1			WATER						
10			BROWN AND GREY CLAY						
20			GREY CLAY						
30			SILTY CLAY						
40		1	GREY CLAY, MINOR SILT TO NO SILT.						
50		2	LAYER OF COARSE SAND (VB GRAINS) AT CONTACT. SAND, SILTY SAND.						
60		3	GRAVEL; PEBBLES OF BASIC VOLCANIC AND PORPHYRY, RARE GRANITE AND QUARTZ PEBBLES. BOULDER: GREY PORPHYRY (QTZ-FELDS. PORPHYRY) CLAY TILL; BASIC VOLCANIC COBBLES, CLAY BALLS, SOME GRANITE, QUARTZ, 3% PALEOZOIC LIMESTONE. AT 57'; 6" PORPHYRY BOULDER.						
		4	BEDROCK; GREY PORPHYRY; m. to coarse grained quartz-feldspar with some chlorite, fine white mica. 62' rusty weathered; 63' narrow glossy gneiss vein END OF HOLE 64'						

DATE FEB 23, 1982 HOLE NO. AQ-82-2D GEOLOGIST R. S. GRAY

DRILLER GUY FORTIN HOLE LOCATION L12E, 26 S.

BIT NO. 000385 FOOTAGE ON BIT

HOURS MOVE 1 HR 15 MIN HOURS DRILL 1 HR 32 MIN OTHER

1140AM - 112PM  
START DELAYED BY BROKEN WINCH ON NODWELL

Depth Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES					
0		ICE > 24"						
10		WATER						
20	1	BROWN AND GREY CLAY GRADES TO GREY CLAY GRAVEL; MOSTLY BASIC VOLCANIC PEBBLES SOME CLAY BALLS NEAR START. TRACE LS SOME GRANITE AND QTZ, PY RARE						
	2	BEDROCK: GREY PORPHYRY; NO VEINING OR SULFIDES. PALE GREY QTZ + FELD + CHLOR VERY HARD. SLOW DRILLING (BUT NOT SILICED)						
		END OF HOLE 25 1/2' (BROKEN ROD DUE TO EXCESS PRESSURE IN ATTEMPT TO SPEED UP THE CUTTING RATE)						

DATE FEB 22, 1982 HOLE NO. AQ-82-21 GEOLOGIST R S GRAY  
 DRILLER GUY FORTIN HOLE LOCATION LO, 265  
 BIT NO. 1000327 FOOTAGE ON BIT 0'  
 HOURS MOVE 38 minutes HOURS DRILL 3 HRS 35 MIN OTHER  
 START 1:50 PM  
 FINISH 5:25 PM

Depth Graphit Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES					
0		ICE 28"						
1		WATER						
10								
20								
30								
40								
50		WEIGHT OF RODS IS SUFFICIENT TO PUSH DRILL STEM THRU CLAY WITHOUT DRILLING.						
60								
70	1	GREY CLAY						
80	2	GREY CLAY						
90	3	GRAVEL OR GRAVELLY TILL; PEBBLES ARE MOSTLY BASIC VOLCANIC, MUCH QTZ. PALEOZOIC LS NOTED; PY AND FUCHSITE NOTED BOULDER OF INTERMEDIATE VOLCANIC. PALE GREY-GREEN, SCHISTOSE, 1% PY GRAVEL; 80% BASIC VOLCANIC PEBBLES. ALSO GRANITE, QTZ+PY, TALC-CHLORITE. TRACES OF ULTRAMAFIC AND LIMESTONE GRAVEL, AS ABOVE; 1% CUBE PY						
96	4	BEDROCK: TALC- CHLORITE; SOFT CHLORITIC ROCK; CHIPS DISINTIGRATE TO GREY MUD WITH SMALL BLACK REMNANTS; TRACE PY. $\frac{1}{2}$ " VEIN QUARTZ BETWEEN 95-96' END OF HOLE 96'						

DATE FEB 24, 1982 HOLE NO. AQ-82-22 GEOLOGIST R. S. GRAY

DRILLER GUY FORTIN HOLE LOCATION L 36E, BL.

BIT NO. 000327 FOOTAGE ON BIT \_\_\_\_\_

HOURS MOVE 1 HR 30 MIN HOURS DRILL 2 HRS. OTHER  
8:30AM - 11:30AM

Depth	Graphic Log	Sample No.	Descriptive Log	Analyses						
0			ICE >24°							
10			WATER							
20			CLAY; Gray to brown clay, grading to grey clay by 15'							
30			becoming slightly silty							
40			SILT, some clay							
50			CLAY, minor silt							
60			SILTY CLAY; more silt than clay							
70			SILT; some 1' clay bands.							
80			GREY CLAY, minor silt							
90			SILT							
100			THIN SAND HORIZON SILT with some clay bands							
			CLAY and SILTY CLAY							
			(continued on page 2)							

DATE FEB 24HOLE NO. AQ-82-22 GEOLOGIST R. S. GRAY

DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_

BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_

HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S					
100		SILT COARSE SAND, GRAVEL; pink Grand Vb. pebbles, some jasper, limestone, vein qts. CLAY TILL; 90% indurated sandy clay balls, 10% pebbles. Pebbles mostly chloritic volcanics, some limestone. Below 106, some larger cobbles (to 4") begin to appear.						
110	01							
110	02							
110	03	TALC - CHLORITE; Soft talcose rock; no sulfides observed.						
120		END OF HOLE 119'						

DATE FEB 24 1982 HOLE NO. AQ-82-23 GEOLOGIST R. S. GRAY

DRILLER GUY FORTIN HOLE LOCATION L 24 E. BL

BIT NO. 000327 FOOTAGE ON BIT

HOURS MOVE 55 MIN HOURS DRILL 3HR 35 MIN OTHER  
12:25 PM - 4:00 PM

Depth Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES			
0		ICE 30" WATER				
10		BROWN CLAY				
20						
30						
40		SILTY CLAY				
50		GREY CLAY				
55		SILTY CLAY				
60	1	SAND AND GRAVEL; pebbles are basic volcanic, granite, syenite, quartz, limestone, grey porphyry, some K-f py, some argillite. At 59' 4" bldr porph + py. At 63' 4" bldr rhyolite. Past 63', syenite and pink granite pebbles dominate.				
65	2	Fewer pebbles, finer sand.				
70	3	GRAVEL; green syenite cobbles, quartz-tourmaline cobble.				
75	4	CLAY TILL; Indurated sandy clay balls with 5% to 25% pebbles. Most common pebbles are chloritic volcanics, granite, syenite and limestone. At 74' 4" bldr pink granite. At 81' 3" Paleozoic limestone				
80	5					
85	6					
90	7	At 92' 3" talcose volcanic boulder				
100	8					
		(Continued on Page 2)				

PAGE 2

DATE FEB 24 1982 HOLE NO. AQ-B2-23 GEOLOGIST R. S. GRAY

DRILLER \_\_\_\_\_ HOLE LOCATION \_\_\_\_\_

BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_

HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

Depth ft	Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES					
100		8	CLAY TILL. ULTRAMAFIC; Serpentine-chlorite, no talc.						
110		9							
120			END OF HOLE 105'						

DATE FEB 25 1982 HOLE NO. AQ-B2-24 GEOLOGIST R. S. GRAYDRILLER GUY FORTIN HOLE LOCATION L 12E. B.L.BIT NO. 000303 FOOTAGE ON BIT NEW BITHOURS MOVE \_\_\_\_\_ HOURS DRILL 2 HRS. OTHER  
8:50 AM 10:50 AM.

Depth Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES
0		ICE > 24"	
10		WATER	
15		BROWN AND GREY CLAY	
20		GREY CLAY	
25		SILTY CLAY	
30		GREY CLAY	
35		SILT AND SILTY CLAY	
40		GREY CLAY	
50			
55			
60	1	Slightly sandy clay 6" SAND AND GRAVEL CLAY TILL; Indurated sandy clay balls plus small pebbles; pebbles are ultramafic volcanic, pink granite, grey porphyry, quartz	
65	2	From 68', a few $\frac{1}{8}$ " - $\frac{1}{4}$ " py cubes appear At 69', 2" chloritic volcanic bldr.	
70	3	CLAY-RICH, with less sand, fewer pebbles; Some bands up to 4" are nearly pure clay. Pebbles are ultramafic volc., Paleozoic ls, trace of jasper	
75	4	SANDY CLAY TILL, with clay-rich zones	
80	5	ULTRAMAFIC; Serpentine-chlorite with some talc. (Very soft, but drill brings up chips rather than ground-up mud)	
85		END OF HOLE 84'	
90			
100			

DATE FEB 25 1982 HOLE NO. AQ-82-25 GEOLOGIST R.S.GRAY  
 DRILLER GUY FORTIN HOLE LOCATION L.O. BL.  
 BIT NO. 000303 FOOTAGE ON BIT 84'  
 HOURS MOVE 1 HR 15 MIN. HOURS DRILL 1 HR. OTHER  
12:05 PM - 1:05 PM

Depth Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES					
0		ICE > 24° WATER.						
10		GREY CLAY; Very soft clay (Drill rods run down the hole from their own weight without drilling)						
20								
30								
40								
50		SILTY CLAY						
60		SILT.						
70		Some fine sand begins to appear. There is almost no clay						
80		GREY CLAY						
90		SILT						
100	1	Sandy silt in last foot						
	2	BEDROCK: TALC-CHLORITE with minor white carbonate veining.						
		END OF HOLE 100'						

DATE FEB 25 1982 HOLE NO. AQ-82-26 GEOLOGIST R. S. GRAY  
DRILLER GUY FORTIN HOLE LOCATION L 24 E, 22 N  
BIT NO. 000389 FOOTAGE ON BIT Change to new bit at 55'; Bit 303 has 239'  
000303  
HOURS MOVE 1 HR 5 MIN HOURS DRILL 3 HR 30 MIN OTHER (MOVE WAS 1.5 MILES)  
2:10 PM - 5:40 PM

Depth Graphic Log	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES
0		ICE > 24" WATER < 12"	
10		SILT with some clay (Very poor sample return.)	
20			
30			
35		Sandy silt	
40	1	THIN PEBBLE LAYER SAND, with minor fine gravel CLAY TILL; Indurated sandy clay balls with 5 to 10% small pebbles.	
45	2	CLAY, not gritty, no pebbles. CLAY TILL; Indurated sandy clay balls with 10% small pebbles.	
50	3	GRAVEL; In order of abundance, pebbles are chloritic volcanics (Ultramafic), Paleozoic limestone, Porphyry, quartz, jasper + py, pink granite, dacite, flint. Poor return (only 5 to 10% of sample volume)	
60	4	NO RETURN (Probably gravel)	
65	5	GRAVEL, minor sand.	
70	5	GRAVEL, somewhat sandier; Pebbles are chloritic volcanics (U.M.), intermediate volcanics, gabbro, argillite, limestone, pink granite, vein quartz, rare pyrite	
74	6	At 74', 6" bdr, talc chlorite	
76	6	From 76, some clay balls; possible gravelly till.	
80	7		
82	8	BEDROCK; Talc-chlorite with minor quartz veining; 1/2 cube pyrite	
85		END OF HOLE 84'	
90			
100			

DATE FEB 26 1982 HOLE NO. AQ-82-27 GEOLOGIST R.S. GRAY

DRILLER GUY FORTIN HOLE LOCATION L12 E. 22 N

BIT NO. 000389 FOOTAGE ON BIT 29'

HOURS MOVE 55 MIN HOURS DRILL 4 HR 35 MIN OTHER  
8:55 AM 1:30 PM

Depth Graphic Log	SAMPLE NO.	D E S C R I P T I V E   L O G	A N A L Y S E S				
0		ICE 18" TO 24" WATER SILTY CLAY					
10		SILT; Virtually no clay					
20							
30		CLAY SILT CLAY SILT, some fine sand.					
40	1	GRAVEL CLAY TILL; 80% indurated sandy clay balls, 20% pebbles of chloritic volcanics, vein quartz, limestone, pink granite, epidote, white carbonate					
50	2	SANDY CLAY TILL, few pebbles. Indurated; comes up as clay balls. Pebbles are chlor. volcanics, limestone					
60	3	CLAY TILL with lots of pebbles CLAY TILL, 25% pebbles. CLAY; Indurated gritty clay; no pebbles. Some grey-black streaks of organic (?) matter					
70	4						
70	5	NO RETURN POOR RETURN: Artesian water flow(?) NO RETURN					
80	6	Boulder of schistose siliceous rhyolite, followed by 6" granite boulder					
70	7	PEBBLE TILL; 65% pebbles and cobbles, 35% clay balls. Pebbles are serpentine, diabase, slate, chloritic volcanic, slate, limestone, qtz-sericite, quartzite, vein qtz. At 71', 8" komatiite bldr.					
80	8	GRAVELLY TILL, pebbles 10% limestone, 5% vein qtz. Clay balls vary from 25% to 60% of total sample.					
90	9						
100	10	Increase in ultramafic pebbles, decrease in limestone and metasediments					
100	11						
100	12	At 97.5', 6" Syenite cobble					
		(Continued on page 2)					

DATE FEB 26 1982 HOLE NO. AQ-82-27 GEOLOGIST R.S. GRAY

**DRILLER** \_\_\_\_\_ **HOLE LOCATION** \_\_\_\_\_

BIT NO. FOOTAGE ON BIT

**HOURS MOVE** \_\_\_\_\_ **HOURS DRILL** \_\_\_\_\_ **OTHER** \_\_\_\_\_

DATE FEB 26 1982 HOLE NO. AQ-82-28 GEOLOGIST R. S. GRAY

DRILLER GUY FORTIN HOLE LOCATION L 0, 22N

BIT NO. 000389 FOOTAGE ON BIT BIT FINISHED; TOTAL 222.5'

HOURS MOVE 47 MIN HOURS DRILL 58 MIN OTHER  
2:17 PM TO 3:15 PM





## Attachment - 1 -

## Claims Submitted for Assessment Credit

<u>Township</u>	<u>Claim No.</u>	<u>Credit/Days</u>
(Project)		
Macklem (Aquarius)	P528597	60/
	P528598	60/
	P528716	20/
	P528717	20/
	P528718	40/
	P528719	40/
	P528720	20/
	P528721	50/
	P528722	60/
	P528723	20/
	P546727	60/
	P546915	60/
	P565355	52
	P565356	40
	P565357	40
	P565358	40
	P565359	40
	P565360	40
	P565361	40
	P565362	40
	P565407	40
	P565408	40
	P565409	40
	P565410	40
	P565411	40
	P565412	40
	P565413	40
	P565414	40
	P565415	40
	P565416	40
	P565417	40
	P565418	40
	P565419	40
	P565420	40
	P565421	40
	P565422	40
	P565423	40
	P565424	40
	P565425	40
	P565432	40
	P565375	20
	P565376	10
	P565377	20
	P565378	10

45

Attachment - 1 -

Page 2

Claims Submitted for Assessment Credit

<u>Township</u>	<u>Claim No.</u>	<u>Credit/Days</u>
Cody (Aquarius)	P565426	40
	P565427	40
	P565428	40
	P565429	40
	P565430	40
	P565431	40
	Total Credit/Days	1,942

## Attachment 9 - 1-



Ministry of  
Natural  
Resources  
Ontario

*Macklem Twp.*  
*& Cady Twp.*  
*\* 506*

P-512827

THE MINING ACT REPORT OF WORK

A separate form is required for each type of work to be recorded.

To the Recorder of..... Porcupine..... Mining Division

I, ... Lac D'Amante du Quebec Ltée..... T.1.131.....  
name of Recorded Holder Prospector's Licence

..... 12th Floor, 350 Bay Street, Toronto, Ontario M5H 2S6.....  
Post Office Address

do hereby report the performance of ..... 1,942..... days of .... Overburden Drilling (Sect. 77(1))  
type of work

not before reported to be applied on the following contiguous claims

Claim No.	Days	Claim No.	Days	Claim No.	Days
.....	.....	.....	.....	.....	.....
.....	.....	See Attachment 1	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

All the work was performed on Mining Claim (s) P51.2827, P51.2830, P51.2828, P52.8597, P52.8598  
(In the case of geological and/or geophysical survey (s) where more than 18 claims are involved attach a schedule)

**READ CAREFULLY: THE FOLLOWING INFORMATION IS REQUIRED BY THE MINING RECORDER.**

**For Manual Work, Stripping or Opening up of Mines, Sinking Shafts or Other Actual Mining Operations** - Names and addresses of the men who performed the work and the dates and hours of their employment.

**For Diamond and other Core Drilling** - Footage, No. and angle of holes and diameter of core. Name and address of owner or operator of drill. Dates when drilling was done. Signed core log and sketch in duplicate.

**For Compressed Air or Other Power Driven or Mechanical Equipment** -

Type of drill or equipment. Names and addresses of men engaged in operating equipment and the dates and hours of their employment.

**For Power Stripping** - Type of equipment. Name and address of owner or operator. Amount expended. Dates on which work was done. Proof of actual cost must be submitted within 30 days of recording.

With each of the above types of work sketches are required to show the location and extent of the work in relation to the nearest claim post. In the case of diamond or other core drilling the sketch must be submitted in duplicate.

**For Geophysical, Geological, Geochemical Surveys and Expenditure Credits** - the name of author of report. Covering dates of survey (linecutting & office). Type of instrument used. Total amount of expenditure. Technical reports, maps, expenditure breakdown, receipts must be filed in duplicate with the Minister within 60 days of recording.

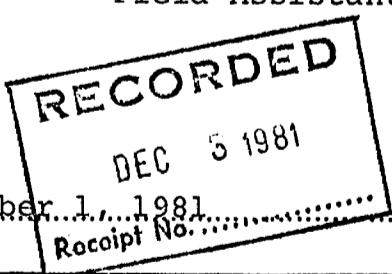
**For Land Survey** - the name and address of Ontario Land surveyor.

**The Required Information is as Follows:** (Attach a list if this space is insufficient)

Overburden Drilling:

Bradley Bros. Limited, Timmins, Ontario  
May 25 - May 28/81 & Aug 18 - Aug 26/81

J. Sample - Author Geologist	Asarco Exploration Co. of Canada Limited
A. Horvath - Field Assistant	12th Floor, 350 Bay Street, Toronto
D. Dance - Field Assistant	Office - Nov 23 - 27, 1981
	3,225 feet in 16 vertical holes of 3 inch diameter
	Total Expenditure - \$29,130.74



Date December 1, 1981

Receipt No. ....

.....  
Signature of Recorded Holder or Agent

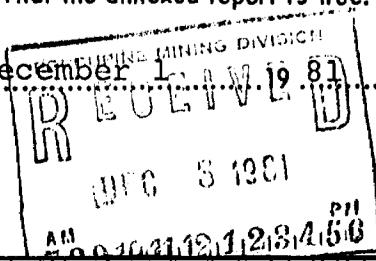
The Mining Act  
Certificate Verifying Report of Work

I, ... R. S. Gray..... Asarco Exploration Co. of Canada Limited  
..... 12th Floor, 350 Bay Street, Toronto, Ontario M5H 2S6.....  
(Post Office Address)

hereby certify:

1. That I have a personal and intimate knowledge of the facts set forth in the report of work annexed here-to, having performed the work or witnessed same during and/or after its completion.
2. That the annexed report is true.

Dated..... December 1, 1981.....



*R. S. Gray*  
Signature

THE PENALTY FOR MAKING A FALSE STATEMENT IN THIS REPORT AND/OR CERTIFICATE IS \$500. OR SIX MONTHS IMPRISONMENT OR BOTH

## Attachment - 1 -

## Claims Submitted for Assessment Credit

<u>Township</u>  (Project)	<u>Claim No.</u>	<u>Credit/Days</u>
Macklem (Aquarius)	P528597	60
	P528598	60
	P528716	20
	P528717	20
	P528718	20
	P528719	20
	P528720	20
	P528721	20
	P528722	20
	P528723	20
	P546727	60
	P546915	40
	P565355	43
	P565356	43
	P565357	43
	P565358	43
	P565359-	43
	P565360	43
	P565361	43
	P565362	43
	P565407	43
	P565408	43
	P565409	43
	P565410	43
	P565411	43
	P565412	43
	P565413	43
	P565414	43
	P565415	43
	P565416	43
	P565417	43
	P565418	43
	P565419	43
	P565420	43
	P565421	43
	P565422	43
	P565423	43
	P565424	43
	P565425	43
	P565432	43
Cody (Aquarius)	P565426	43
	P565427	43
	P565428	43
	P565429	43
	P565430	43
	P565431	43
	<b>Total Credit/Days</b>	<b>1,942</b>

## Attachment - 1 -

## Claims Submitted for Assessment Credit

<u>Township</u>  (Project)	<u>Claim No.</u>	<u>Credit/Days</u>
Macklem (Aquarius)	P528597	60
	P528598	60
	P528716	20
	P528717	20
	P528718	20
	P528719	20
	P528720	20
	P528721	20
	P528722	20
	P528723	20
	P546727	60
	P546915	60
	P565355	43
	P565356	43
	P565357	43
	P565358	43
	P565359	43
	P565360	43
	P565361	43
	P565362	43
	P565407	43
	P565408	43
	P565409	43
	P565410	43
	P565411	43
	P565412	43
	P565413	43
	P565414	43
	P565415	43
	P565416	43
	P565417	43
	P565418	43
	P565419	43
	P565420	43
	P565421	43
	P565422	43
	P565423	43
	P565424	43
	P565425	43
	P565432	43
Cody (Aquarius)	P565426	43
	P565427	43
	P565428	43
	P565429	43
	P565430	43
	P565431	43
	Total Credit/Days	1,942

2.4684

1983 06 23

2.4684

Mr. William L. Good  
Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

RE: Data for Overburden Drilling submitted on Mining Claims  
P512827, P512830, P512828, P528597 and P528598 et al  
in the Township of Macklem

---

The Overburden Drilling assessment work credits as shown  
on the attached statement have been approved as of the  
above date.

Please inform the recorded holder of these mining claims  
and so indicate on your records.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416) 965-1380

R. Pichette: mc

CC: Lac D'Amiate du Quebec Ltee  
Hwy #112  
Black Lake, Quebec  
GON 1AO

CC: Resident Geologist  
Timmins, Ontario



Ministry of  
Natural  
Resources

**Technical Assessment  
Work Credits**

File  
**2.4684**

1983 06 23

Recorded Holder

LAC D'AMIANTE DU QUEBEC LTEE

Township or Area

MACKLEM TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	\$29,130.74 spent on reverse circulation Overburden Drilling on mining claims P512827, P512830, P512828, P528597 and P528598.
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	1942 assessment work days are allowed which may be grouped in accordance with Section 76(6) of the Mining Act R.S.O. 1980.
Induced polarization _____ days	
Section 77(19) <u>see across</u> days	
Section 86(18) _____ days	
Geological _____ days	For mining recorders use: The work assignment for each of the above listed 5 claims is 388 days per claim.
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input type="checkbox"/>	Ground <input checked="" type="checkbox"/>
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 86 (15a) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey

Insufficient technical data filed



Ontario

512827

Ministry of  
Natural  
Resources

Notification of recording  
of assessment work credits

Lands Administration Branch  
Mining Lands Section  
Ministry of Natural Resources  
Room 1617, Whitney Block  
Queen's Park, Toronto  
M7A 1W3

**RECEIVED**

DEC 16 1981

**MINING LANDS SECTION**

Date of recording of work: December 3, 1981.

Recorded holder: Lac D'Amiante du Québec Ltee.  
12th Floor, 350 Bay Street,  
Toronto, Ontario M5H 2S6

Township or Area: MACKLEM TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	See Attached List
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
27/19 Overburden Drilling Section <del>28</del> See Attached List	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input type="checkbox"/>	Ground <input type="checkbox"/>

Notice to recorded holder:

- Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to the Lands Administration Branch with this letter.

*[Signature]*  
Regional Mining Recorder  
Mining Recorder

c.c. Lac D'Amiante du Quebec Ltee.

## Attachment - 1 -

## Claims Submitted for Assessment Credit

<u>Township</u>  (Project)	<u>Claim No.</u>	<u>Credit/Days</u>
Macklem (Aquarius)	✓ P528597	60
	P528598	60
	P528716	20
	P528717	20
	P528718	20
	P528719	20
	P528720	20
	P528721	20
	P528722	20
	P528723	20
	—P546727	60-
	—P546915	60
	✓ P565355	43
	P565356	43
	P565357	43
	P565358	43
	P565359	43
	P565360	43
	P565361	43
	P565362	43
	P565407	43
	P565408	43
	P565409	43
	P565410	43
	P565411	43
	P565412	43
	P565413	43
	P565414	43
	P565415	43
	P565416	43
	P565417	43
	P565418	43
	P565419	43
	P565420	43
	P565421	43
	P565422	43
	P565423	43
	P565424	43
	P565425	43
	P565432	43
Cody (Aquarius)	P565426	43
	P565427	43
	P565428	43
	P565429	43
	P565430	43
	P565431	43
	<b>Total Credit/Days</b>	<b>1,942</b>



2. 4684

## Mining Trends Comments

To: Geophysics

<b>Comments</b>			
<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature

To: Geology - Expenditures

Comments

Arthur  
I believe we have been allowing  
drilling, for off to overdrive,  
(unless there was a hole in  
every claim) & think you could  
make a worth report to be  
done on what is.

## To: Geochemistry

Comments	
<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections
Date	Signature

1982 04 14

2.6684

Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

We have received data for Overburden Drilling submitted under Section 77(19) of the Mining Act R.S.O. 1980 on Mining Claims P 512807 et al in the Townships of Cody and Macklem.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1316

J. Skura/amc

cc: Asarco Exploration Co. of Canada Ltd.  
Toronto, Ontario  
c/o - Lac D'Amiante du Quebec Ltée.

1982 06 16

Cancelled  
2.4841

7.4684

Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

We have received data for assaying submitted under Section 77(19) of the Mining Act R.S.O. 1980 on Mining Claims: P 565407 et al, in the Townships of Cody/Macklem.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1316

J. Skura/amc

cc: Lac D'Amiate du Quebec Ltée.  
Hwy. # 112, Black Lake, Quebec G0N 1A0

cc: Asarco Exploration Co. of Canada Ltd.  
350 Bay Street, Toronto, Ontario M5H 2S6

1983 03 02

check file  
# 4684

cancelled  
2-4841

2-4684

See

Lac D'Amiate du Quebec Ltee  
Hwy #112,  
Black Lake, Quebec  
GON 1AO

Dear Sir:

RE: Data for Overburden Drilling submitted on Mining Claims  
P 565407 et al in the Townships of Cody & Macklem

The above mentioned report was recorded with the Porcupine Mining Recorder on April 7, 1982, under Expenditures for Overburden Drilling. Please, therefore, forward to us, drill logs, in duplicate, covering all holes drilled in the area pertaining to this survey.

Also, please provide a complete report in duplicate, describing the property, location and means of access, survey procedure, results, conclusions and full analytical results.

If I do not hear from you by March 14, 1983 the mining recorder will be directed to cancel the work credits.

For further information please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1380

DW:sc

cc: Mining Recorder  
Timmins, Ontario

# Asarco Exploration

R. S. Gray  
Manager

April 2, 1982

RECEIVED

Mr. F.W. Matthews, Supervisor  
Lands Administration Branch  
Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario M7A 1W3

APR - 2 1982

MINING LANDS . . . . .

Dear Sir,

Please find enclosed duplicate reports on an overburden drilling program carried out in Cody and Macklem Townships (Northeast Bay, Nighthawk Lake) during February 1982 by Asarco Exploration for Lac D'Amiante du Quebec Ltee.

We are reporting 25 holes for a combined expenditure of \$31,733.05 or 2,115 days credit (\$15/man day). From this amount we are claiming 1,640 days credit on 53 contiguous claims.

The report includes a descriptive text, drill logs, location maps and an invoice supported cost breakdown.

We trust all the necessary information to process our application is included.

Yours truly,



R. J. Dean

RJD:mm

Encl.

# Asarco Exploration

R. S. Gray  
Manager

April 1, 1982

Mr. W.L. Good  
Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmis, Ontario  
P4N 2S7

Cody and Macklem Township  
Overburden Drilling

Dear Sir,

Please find enclosed a Mining Act Report of Work upon which we report an overburden drilling program carried out in Cody and Macklem Townships (Northeast Bay, Nighthawk Lake) during February 1982 by Asarco Exploration for Lac D'Amiante du Quebec Ltee.

We are reporting 25 holes for a combined expenditure of \$31,733.05 or 2,115 days credit (\$15/man day). From this amount we are claiming 1,640 days credit on 53 contiguous claims.

This assessment credit is to be distributed unevenly over 53 contiguous claims as shown on Appendix 1 and the accompanying location map. According to our records this submission will fulfill the maximum allowable credit of 60 days for overburden drilling on the 53 claims involved.

Copies of the report, including drill logs, location maps and an invoice supported cost breakdown will be submitted to Queen's Park, Toronto.

Yours truly,



R. J. Dean

RJD:mm

Encl.

512827

Asarco Exploration

R. S. Gray  
Manager

December 17, 1981

Mrs. Jeanine Tremblay  
Acting Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmmins, Ontario  
P4N 2S7

Macklem - Cody Townships  
Overburden Drilling

Dear Mrs. Tremblay,

Please be advised that we are submitting a revised Mining Act Report of Work to replace a previous submission to you dated December 1, 1981. We have received today a Notice of Intent from Queen's Park listing a reduced rate of assessment credits for a technical survey which Asarco submitted in December 1980 for assessment credit. As a result, we now wish to distribute the work credit on overburden drilling completed this year on several claims which are unexpectedly affected by this decision. We are still applying for 1,942 days assessment credit but will now require a revised distribution of credit as shown on Attachment 1.

It is unfortunate that such a prolonged evaluation of our previous work has increased our present workload and your efficiency in recording new credits. We are now re-writing and compiling our drilling report to comply with the revised distribution of assessment credits for an overburden drilling program in 1981. We hope you are able to advise us that this new submission has been duly received and recorded.

Please find enclosed a Mining Act Report of Work form upon which we report an overburden drill program carried out during May and August 1981 in Macklem Township. Also enclosed is a drill hole location map and a list of claims to which we are applying credit. This work was completed by Asarco Exploration Company of Canada Limited on behalf of the owners of the claims, Lac d'Amiate du Quebec Ltee.

Asarco Exploration Co. of Canada Ltd.  
12th Floor, 350 Bay Street  
Toronto, Ontario M5H 2S6  
(416) 368-7993

A subsidiary of  
**ASARCO**

We are reporting 16 overburden holes (3,225 feet) with total expenditure of \$29,130.74 for an assessment credit of 1,942 days distributed unevenly over 50 claims in Macklem and Cody Townships.

Please take note that we are not applying work to four claims within the continuous block of claims upon which the assessment credit has been spread (see Attachment 1). Although some of the work was done on these claims we are using the credit over the remainder of the block as we have previously claimed the maximum allowable credit (60 days) for overburden drilling on these four particular claims. The claims that are being submitted (50) for assessment credit are shown in green on Attachment 1. The four claims within this continuous block (outlined in green) for which credit is not being applied are shown in yellow.

Copies of the reports, including drill logs, location maps and an invoice supported cost breakdown covering this work will be submitted to the Mining Lands Section, Queen's Park Toronto.

Yours truly,



R. J. Dean

RJD:mm

c.c. E.F. Anderson  
Director  
Lands Administration Branch

G.H. Ferguson, Q.C.  
Mining Lands Commissioner  
Queen's Park

**BRADLEY  
BROS.  
LIMITED**

February 15, 1982

CONTRACT DIAMOND DRILLING

Asarco Exploration Co. of Canada Ltd.  
12th Floor - 350 Bay Street  
Toronto, Ontario  
M5H 2S6

HOLE NO.	TO COVER DIAMOND DRILLING FOR			
	FROM	TO	FOOTAGE COMPLETED	
<u>Maclem Township</u>				
AQ-82-1				
2	0'	200'	200'	\$160 00
3	0'	160'	160'	
4	0'	173'	178'	
5	0'	218'	218'	
	0'	220'	220'	
Equipment rental -				
	68 hours		@ 218.00	14,824 00
Down the hole consumables:				
	3 Tricone bits	@ \$725.00 -	\$2175.00	
	1 Adaptor	570.00	570.00	
	10 bags mud	@ 14.50 -	<u>145.00</u>	
			\$2890.00	
		Plus 15%	<u>433.50</u>	3,323 50
Cost to make ice on lake:				
	60 man hours	@ 22.00	22.00	1,320 00
	60 muskeg hours	@ 35.00	35.00	2,100 00
	16 hours trucking	@ 20.00	20.00	320 00
				\$22,047 50
<i>Printed 9/87</i>				
<i>FEB 12 1987</i>				
<i>BRADLEY BROS. LIMITED</i>				

**BRADLEY  
BROS.  
LIMITED**

February 28, 1982

CONTRACT DIAMOND DRILLING

Asarco Exploration Co. of Canada Limited  
12th Floor - 350 Bay Street,  
Toronto, Ontario M5H 2S6

HOLE NO.

TO COVER DIAMOND DRILLING FOR **Feb. 16 to 26, 1982**

FROM

TO

FOOTAGE COMPLETED

Nighthawk Lake

Move equipment to shop and  
the Nighthawk Lake -

50 miles @ \$5.00. \$250 00

AQ-82-6

7	0'	110'	110'
8	0'	130'	130'
9	0'	116'	110'
10	0'	106'	106'
11	0'	102'	102'
12	0'	119'	119'
13	0'	116'	116'
14	0'	120'	120'
15	0'	70'	70'
16	0'	104'	104'
17	0'	119'	119'
18	0'	138'	138'
19	0'	49'	49'
20	0'	64'	64'
21	0'	25'	25'
22	0'	96'	96'
23	0'	119'	119'
24	0'	105'	105'
25	0'	84'	84'
26	0'	100'	100'
27	0'	84'	84'
28	0'	116'	116'
29	0'	77'	77'
	0'	50'	50'

Equipment rental -

88 hours @ .218.00

19,184 00

Breakdown -

4 hours @ 178.00

712 00

FORWARD

# BRADLEY BROS. LIMITED

February 28, 1982

CONTRACT DIAMOND DRILLING

Asarco Exploration Co. of Canada Limited  
12th Floor - 350 Bay Street,  
Toronto, Ontario M5H 2S6

HOLE NO.

TO COVER DIAMOND DRILLING FOR

Feb. 16 to 26, 1982

FROM

TD

FOOTAGE COMPLETED

Down the hole consumables -			
5 Tricone bits @	\$725.00	-	\$3625.00
3 Adapters	570.00	-	1710.00
2 rods	546.00	-	<u>1092.00</u>
			\$6427.00

Plus 15% 964.05

\$7,391 05

Cost to make ice on lake - Feb. 16			
8 man hours	@	22.00	176 00
8 muskeg hours	@	35.00	<u>280 00</u>

\$27,993 05

*Part II Full  
Cheque # 931  
March 29/82  
BRADLEY BROS. LIMITED  
G. J. Lewis*

MATHESON

## GERMAN TWP

CODY TWP

MACKLEM TWP.

100

Road

49k 5

49E

**MATHESON** **ROAD**

**GERMAN TWP**

**CODY TWP**

**MACKLEM TWP.**

12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 0W 31W 30W 29W 28W 27W 26W 25W 24W 23W 22W 21W 20W 19W 18W 17W 16W 15W 14W 13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 0W 31E 30E 29E 28E 27E 26E 25E 24E 23E 22E 21E 20E 19E 18E 17E 16E 15E 14E 13E 12E 11E 10E 9E 8E 7E 6E 5E 4E 3E 2E 1E 0E 31S 30S 29S 28S 27S 26S 25S 24S 23S 22S 21S 20S 19S 18S 17S 16S 15S 14S 13S 12S 11S 10S 9S 8S 7S 6S 5S 4S 3S 2S 1S 0S 31N 30N 29N 28N 27N 26N 25N 24N 23N 22N 21N 20N 19N 18N 17N 16N 15N 14N 13N 12N 11N 10N 9N 8N 7N 6N 5N 4N 3N 2N 1N 0N

565431  
565426  
565425  
565415  
565416  
565413  
565408  
565409  
565412  
565417  
565423  
565428  
565429  
565422  
565418  
565411  
565410  
565412  
565409  
565362  
565359  
565358  
565355  
565421  
565419  
565420

26 ① OVERBURDEN DRILL HOLE

LOCATION MAP  
NORTHEAST BAY SURVEY GRID  
SCALE 1IN. = 1/4 M.

INSULA

535

## NORTHEAST BAY, NIGHTHAWK LAKE

26  
① OVERBURDEN DRILL HOLE

LOCATION MAP  
NORTHEAST BAY SURVEY GRID  
SCALE 1 IN. =  $\frac{1}{4}$  M.

FAST PENINSULA

# CODY

DISTRICT OF  
COCHRANE

PORCUPINE  
MINING DIVISION

SCALE: 1-INCH - 40 CHAINS

### LEGEND

(P)	PATENTED LAND
(C.S.)	CROWN LAND SALE
(L)	LEASES
(Loc.)	LOCATED LAND
(M.R.O.)	LICENSE OF OCCUPATION
(S.R.O.)	MINING RIGHTS ONLY
(L.O.)	SURFACE RIGHTS ONLY
(R.O.)	ROADS
(I.M.R.O.)	IMPROVED ROADS
(K.H.)	KING'S HIGHWAYS
(R.W.)	RAILWAYS
(P.L.)	POWER LINES
(M.M.)	MARSH OR MUSKEG
(M.N.)	MINES
(C.)	CANCELLED

### NOTES

400' surface rights reservation along the shores of all lakes and rivers.

The whole of Moose Island is attached to the Township of Cody. File 23642.

This Township lies within the Municipality of The city of Timmins.

Reserve flooding rights to Ont Hydro to elevation 903.5' T.B.N.O. Railway datum on Night Hawk Lake and that portion of the river between Night Hawk Lake and Frederick House Lake.

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).

Lot No.	File	Date	Disposition
W 53/76	16539	10/9/76	S.R.O.

### DATE OF ISSUE

NOV 24 1982

Ministry of Natural Resources  
TORONTO

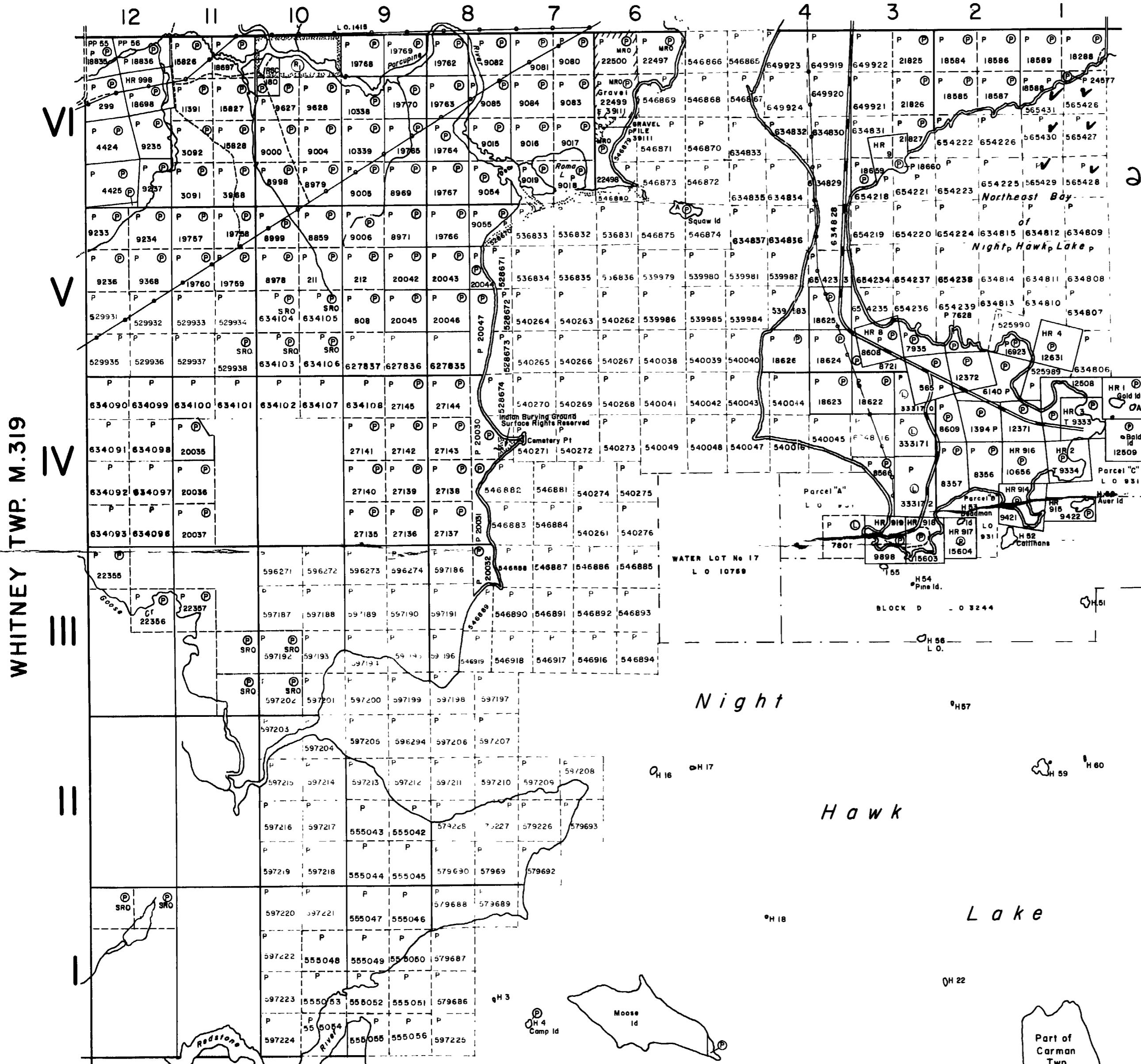
PLAN NO. M.270

ONTARIO

MINISTRY OF NATURAL RESOURCE

SURVEYS AND MAPPING BRANCH

# MATHESON TWP. M.297



# MACKLEM

DISTRICT OF  
COCHRANE

PORCUPINE  
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

### DISPOSITION OF CROWN LANDS

- PATENT, SURFACE AND MINING RIGHTS - - - ●
- " , SURFACE RIGHTS ONLY - - - ○
- " , MINING RIGHTS ONLY - - - ◻
- LEASE, SURFACE AND MINING RIGHTS - - - ■
- " , SURFACE RIGHTS ONLY - - - □
- " , MINING RIGHTS ONLY - - - ▨
- LICENCE OF OCCUPATION - - - ▽

- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED

### NOTES

400' surface rights reservation along the shores of all lakes and rivers

This township lies within the Municipality of the CITY of TIMMINS

Reserve flooding rights on Night Hawk Lake to Ont Hydro to elevation 903.5', T&N.Ry datum.

### SAND and GRAVEL

(①) Gravel File 105381

(④) MTC Pit II21

(⑥) QUARRY PERMIT

### DATE OF ISSUE

NOV 24 1982

Ministry of Natural Resources  
TORONTO

PLAN NO. M.295

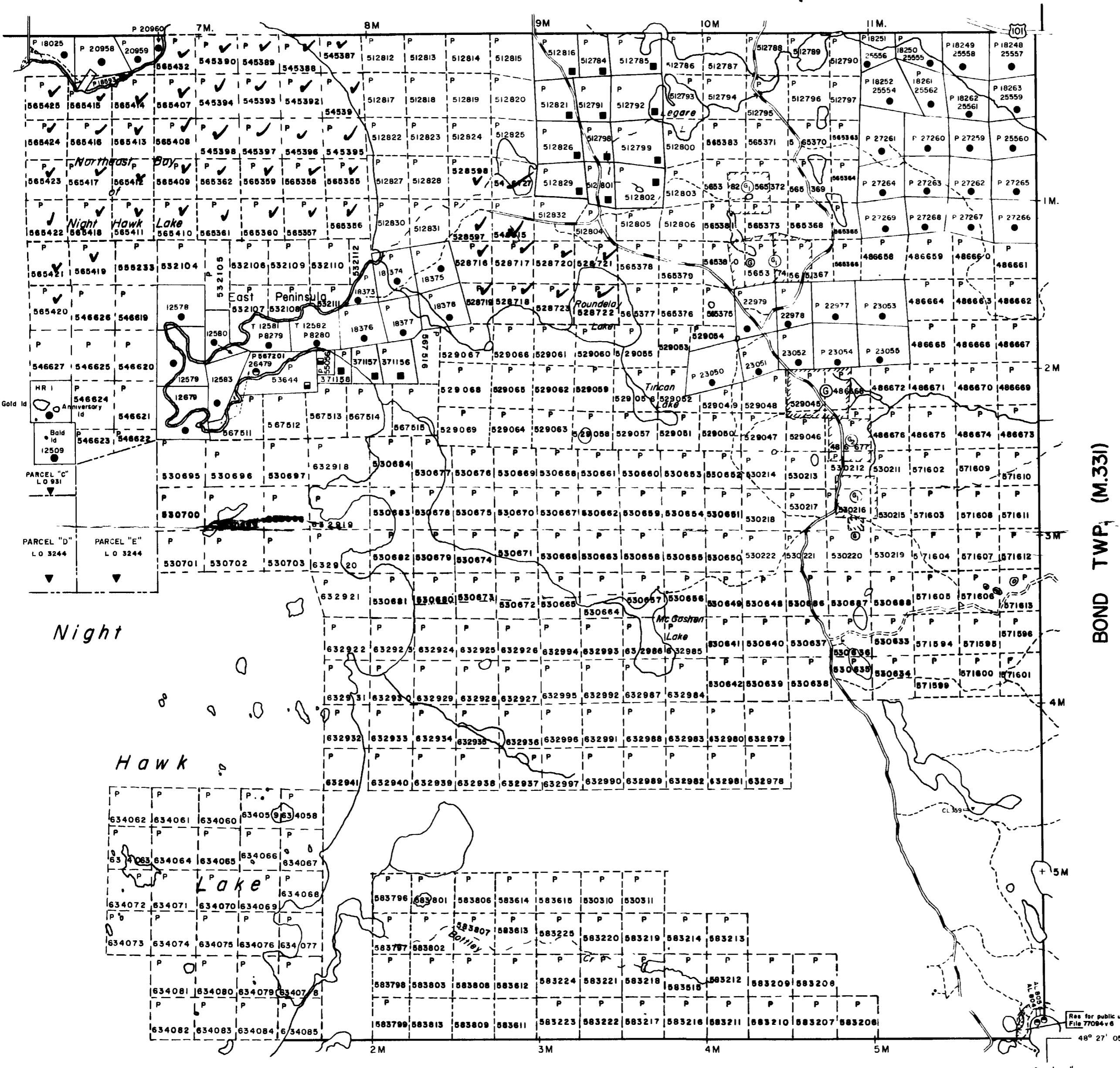
ONTARIO

MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

### GERMAN TWP. (M.283)

2.4684

CODY TWP. (M.270)



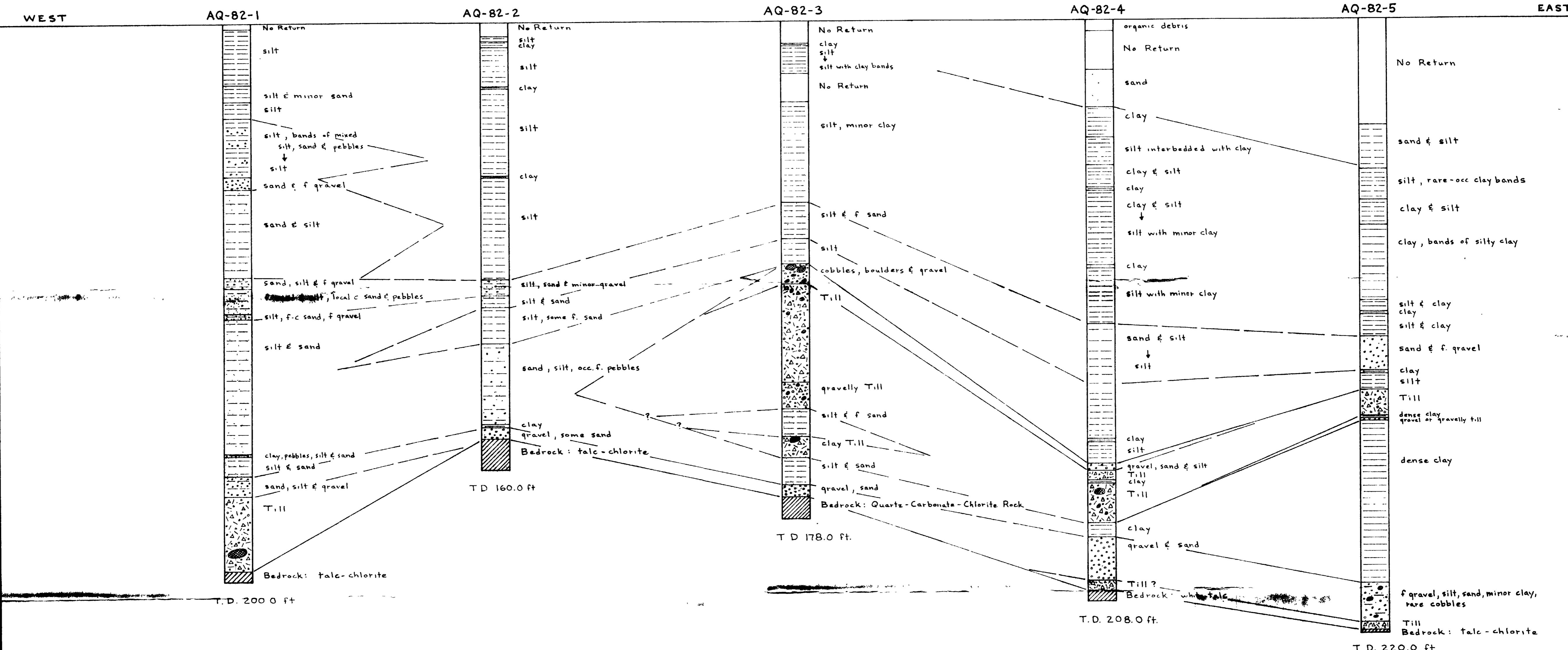
THOMAS TWP. (M.312)



42A105W0078 2.4684 GERMAN

210

PK



Horizontal Scale : 1" to 200'  
 Vertical Scale : 1" to 20'



220

CROSS-SECTION ALONG BASE LINE 0+00

FILE	PROVINCE	DISTRICT	TWP	NTS
ASARCO EXPLORATION COMPANY OF CANADA				
ASARCO				
AQUARIUS PROJECT				
OVERBURDEN DRILL SECTIONS				
HOLES AQ-82-1 to AQ-82-5				
MACKLEM TOWNSHIP, ONTARIO				
SCALE As shown	DRAWN J.J.S.	DATE March 19, 1982	FILE NO 42 A10	

ATTACHMENT PLATE 2

