



42A14SW0006 2.8467 LUCAS

KIDD CREEK MINES LTD.
REPORT ON REVERSE CIRCULATION
OVERBURDEN DRILLING
IN
LUCAS TOWNSHIP

N.T.S.: 42-A-14

- CLAIMS: P-796552 to P-796555 inclusive ✓
- P-805677 to P-805684 inclusive ✓
- P-826991 to P-826994 inclusive ✓
- P-831695 to P-831700 inclusive }
P-833609 to P-833615 inclusive }

SEPTEMBER, 1985

PORCUPINE MINING DIVISION
RECEIVED
SEP 24 1985

BRIAN HART
Brian Hart

RECEIVED

SEP 25 1985

MINING LANDS SECTION



42A14SW0006 2.8467 LUCAS

010C

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SUMMARY OF COSTS

The work took place in four claim groups:

CLAIM GROUP 1: Claims P-805677 to P-805684 inclusive

Total footage drilled	1554 feet
Total cost of drilling holes QT85-89 to QT85-101 inclusive (as per 44.52% of Bradley's June 1 to June 15, 1985 invoice)	\$11749.00
Broken down as follows:	
Regular hours: 50.5x\$178.00/hr ...	\$8989.00
Tricone bits: 4 @ \$600.00 + 15% ..	\$2760.00
Cost per foot	\$7.56/foot
Total days claimed for Claim Group 1 ...	783.27 days

CLAIM GROUP 2 Claims P-796552 to P-796553 inclusive

Total footage drilled	360.50 feet
Total cost of drilling holes	
QT85-134, QT85-135, QT85-139, QT85-140,	
QT85-142 to QT85-145 inclusive	
(as per 22.13% of Bradley's July 15, 1985	
invoice)	\$5697.00
Broken down as follows:	
Regular hours: 16.5x\$178.00/hr ...	\$2937.00
Tricone bits: 4 @ \$600.00 + 15% ..	\$2760.00
Cost per foot	\$15.80/foot
Total days claimed for Claim Group 2 ...	379.8 days

CLAIM GROUP 3: Claims P-826991 to P-826994 inclusive

The work covers two invoice periods

June 17 to June 27 invoice period:

Total footage drilled	176 feet
Total cost of drilling holes QT85-111, QT85-122, and QT85-122A (as per 19.70% of Bradley's June 27, 1985 invoice)	\$4451.00

Broken down as follows:

Regular hours: 9.5x\$178.00/hr	\$1691.00
Tricone bits: 4 @ \$600.00 + 15% ..	\$2760.00

Cost per foot	\$25.28/foot
Days claimed	296.73 days

July 1 to July 15 invoice period:

Total footage drilled	556 feet
Total cost of drilling holes QT85-123 to QT85-127 (as per 23.68% of Bradley's July 15, 1985 invoice)	\$6097.00

Broken down as follows:

Regular hours:	26.5x\$178.00/hr ...	\$4717.00
Tricone bits:	2 @ \$600.00 + 15% ..	\$1380.00
Cost per foot		\$10.97/foot
Days claimed		406.46 days
Days claimed for both invoice periods		
for Claim Group 3		703.19 days

CLAIM GROUP 4: Claims P-833609 to P-833615 inclusive
P-831695 to P-831700 inclusive

The work covers two invoice periods

July 1 to July 15, 1985 invoice period:

Total footage drilled	623 feet
Total cost of drilling holes QT85-146 to QT85-150 (as per 20.57% of July 1 to July 15, 1985 invoice)	\$5296.00
Broken down as follows:	
Regular hours: 22x\$178.00/hr	\$3916.00
Tricone bits: 2 @ \$600.00 + 15% ..	\$1380.00
Cost per foot	\$8.50/foot
Days claimed	353.07 days

July 16 to July 31, 1985 invoice period:

Total footage drilled	1334 feet
Total cost of drilling holes QT85-151 to QT85-159 (as per 42.42% of Bradley's July 15 to July 31, 1985 invoice)	\$10,770.00

Broken down as follows:

Regular hours:	45x\$178.00/hr	.....	\$8010.00
Tricone bits:	4 @ \$600.00 + 15%	..	\$2760.00
Cost per foot	.....		\$8.07/foot
Days claimed @ \$15.00/day	.....		718 days
Total days claimed for both invoice			
periods for Claim Group 4	.....		1017.07 days

SAMPLE COLLECTION, SAMPLE PREPARATION AND
ANALYTICAL METHODOLOGY

Introduction

Overburden drilling within four claim groups in Lucas Township (Figure 1) took place from June 6 to July 25, 1985. Bradley Brothers Ltd. were contracted to do the drilling. Invoices of drilling costs and expenses paid are provided in the appendices.

Reverse circulation drill holes QT85-89 to QT85-101 (inclusive), QT85-111, QT85-122 to QT85-127 (inclusive), QT85-134, QT85-135, QT85-139, QT85-140 and QT85-142 to QT85-159 (Figure 2) are being submitted in application for assessment work credits to claims P-796552 to P-796555, P-805677 to P-805684, P-826991 to P-826994, P-831695 to P-831700 and P-833609 to P-833615.

Sample Collection

A Nodwell-mounted Longyear "38" reverse circulation drill rig, belonging to Bradley Brothers Ltd., was employed to obtain samples of overburden and bedrock. A 6.7 cm tricone bit with tungsten carbide buttons is used to cut through the overburden and bedrock. Sample materials are obtained by pumping water, sometimes with compressed air, down the outer tube of the dual tube rods to the

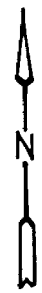
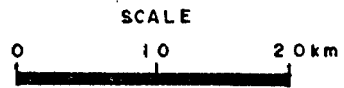
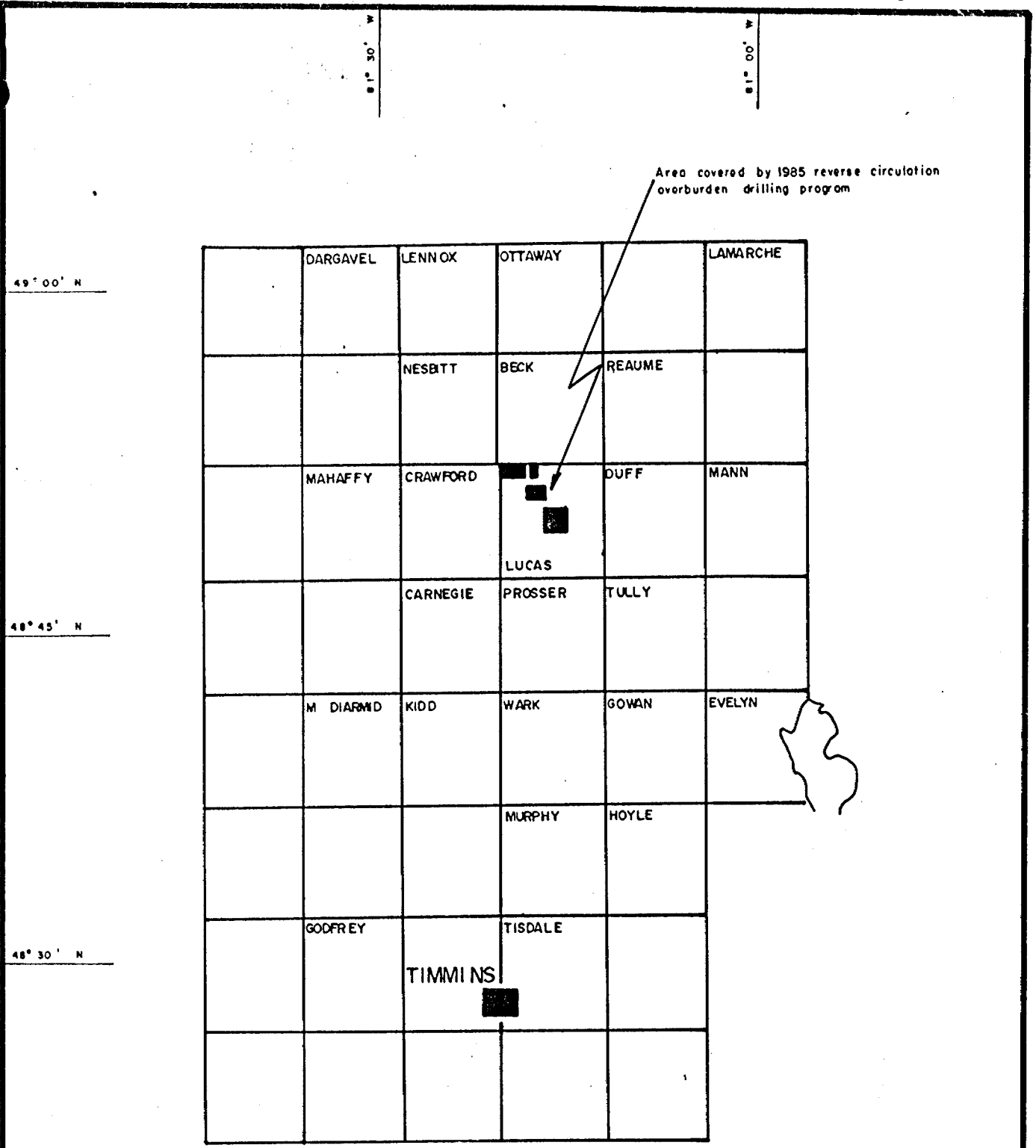
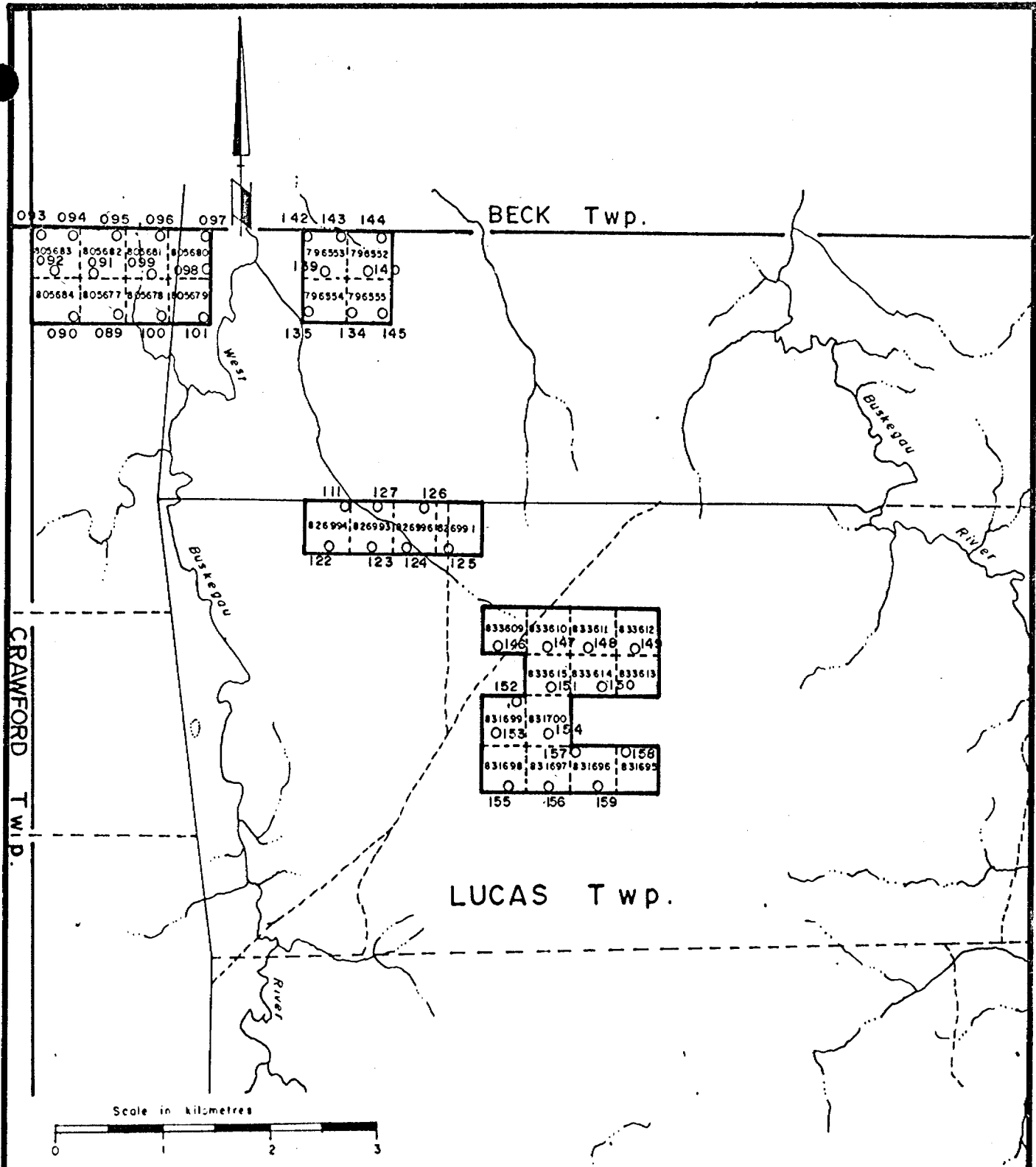


Figure 1

KIDD CREEK MINES LTD.		
Exploration Division	Timmins, ONTARIO	
LUCAS - TULLY GOLD LUCAS Twp.		
PROPERTY and 1985 OVERBURDEN DRILL PROGRAM LOCATION		
SCALE:	Date: BH	
Drawn: DEL	Project N ^o : 18	Date: 13/09/85



KIDD CREEK MINES LTD.
 Exploration Division Timmins, ONTARIO

LUCAS - TULLY GOLD
 LUCAS Twp.

**REVERSE CIRCULATION
 DRILL HOLE
 LOCATION MAP**

SCALE 1 : 50,000	Date: ESB, BH
Drawn : DEL	Project NO : 18
	Date : 13 / 09 / 85

LEGEND

- ACCESS BUSH ROAD
- 833610 CLAIM NUMBER
- 147 ○ REVERSE CIRCULATION OVERBURDEN HOLE (QT 85 -)

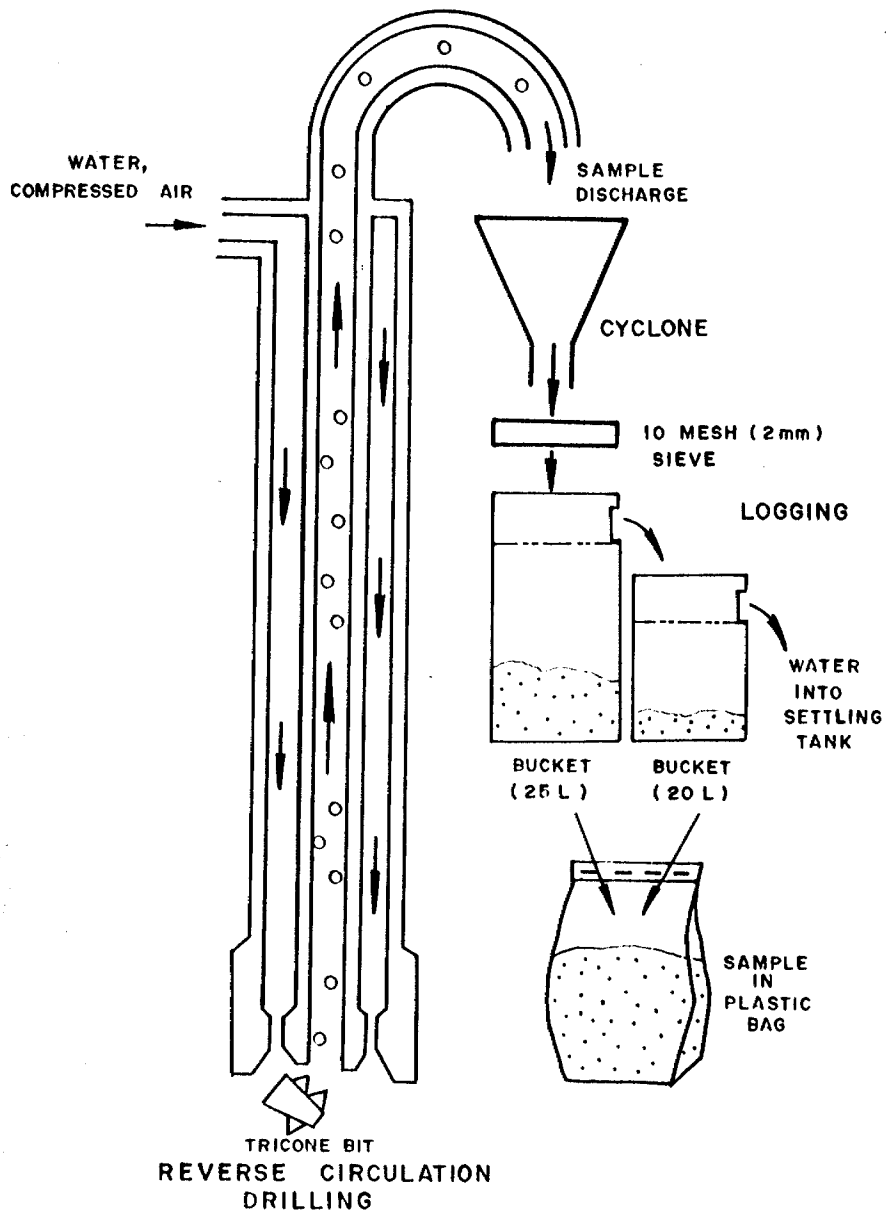
Figure 2

bit/sediment interface where the water and cuttings of overburden or bedrock are flushed up the inner tube to surface (Figure 3). On surface, the sample slurry was discharged into a cyclone to reduce the water pressure before emptying into a 25 L bucket. A second 20 L bucket receives the overflow from the first bucket, thereby preventing undue loss of fine materials. The overburden sample is allowed to settle in the bucket prior to decanting and bagging. All material in the 25 L bucket is included in the sample. Overflow from the second bucket is emptied into a settling tank, and the water is reused in the drilling.

The overburden is described and logged by the Quaternary geologists as it flows from the cyclone into the first bucket. A 2 mm (10 mesh) sieve is inserted between the cyclone and bucket to obtain material for examination (Figure 3). When sampling, every effort is made to avoid mixing different genetic types of overburden. Accordingly, the interval sampled is controlled by the thickness of the overburden units. Within an overburden type, the maximum sample interval taken is generally no greater than 2 metres (6 to 7 ft). This usually provides about 5 kg of bulk sample and, in most instances, ensures sufficient heavy minerals for geochemical analysis. The bedrock sample consists of rock chips which are collected directly from the 2 mm screen and bagged. Usually 1.5 metres of bedrock are drilled to

REVERSE CIRCULATION DRILLING & HEAVY MINERAL CONCENTRATE PREPARATION TECHNIQUES USED BY KIDD CREEK MINES LTD.

FIELD



LABORATORY

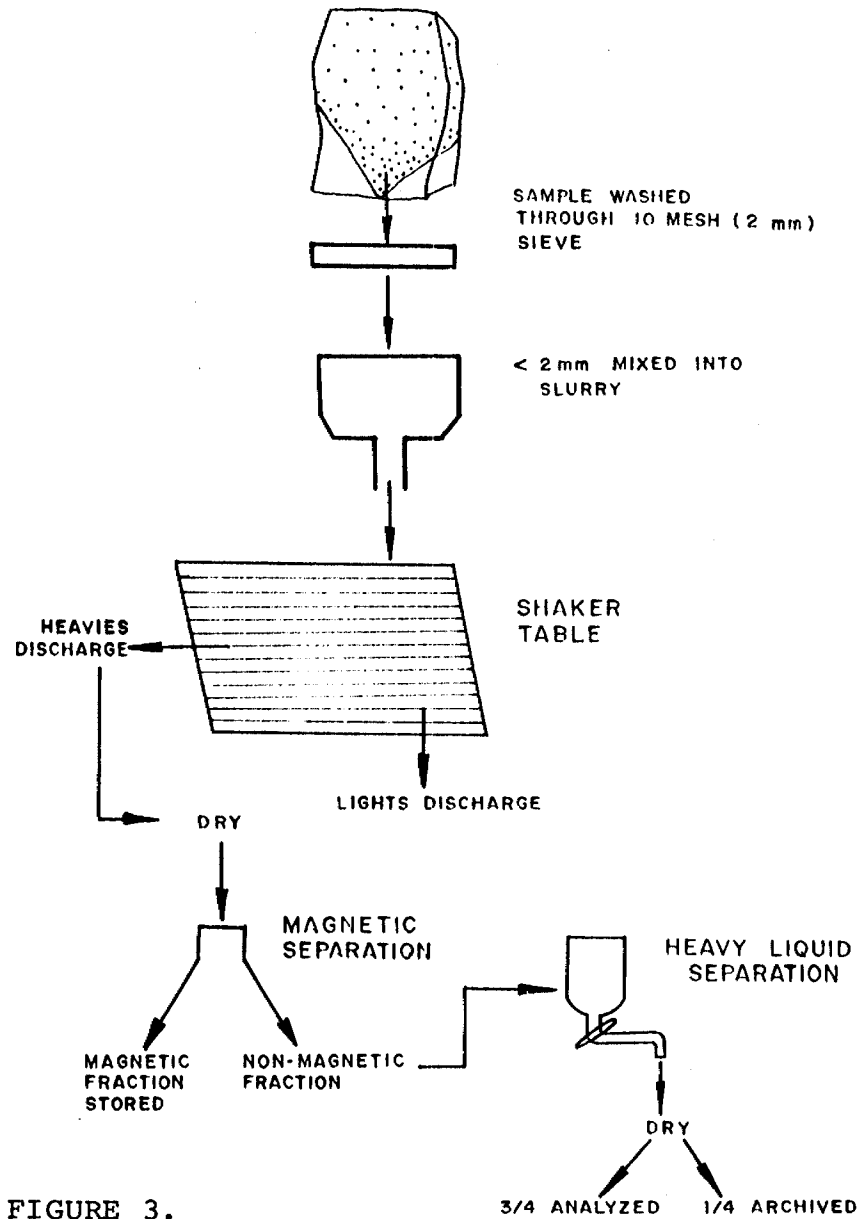


FIGURE 3.

reduce the probability of stopping the hole in a boulder. In the course of the sampling, boulders are cut from the overburden samples because they may enhance or dilute trace metal levels in the overburden sample. Boulder chips $>2\text{mm}$ may be sampled separately. Lacustrine and marine clays are not sampled because of their lack of usefulness in mineral exploration.

The sample interval is recorded as a depth measurement at the top and bottom of the sample. Depth is determined by counting the number of 10 or 20 foot drill rods as they are added to the rod string, and by noting the amount that the upper most rod has penetrated the overburden.

Sample Preparation

Heavy mineral concentrates (HMC) are prepared from the overburden samples in the laboratory at the Exploration Division office in Timmins (Figure 3). All samples are washed through a 2 mm (10 mesh) sieve to remove all material coarser than 2 mm. The <2 mm materials are transferred to an elevated holding tank, thoroughly stirred by a mixer into a slurry, and released onto the sloped shaker table below. The heavier materials are separated from the lighter materials by agitation on the shaker table. The tabled heavies are dried, and the magnetic fraction removed, using a plunger magnet, and stored. The non-magnetic fraction is further

concentrated using a heavy liquid (methylene iodide, S.G. 3.3) separation technique. Occasionally small heavy mineral concentrate samples are combined, if consecutive and from the same sediment type, to ensure sufficient material for analysis.

Analytical Methodology:

The heavy mineral concentrates are routinely analyzed for Au and 21 other elements at Nuclear Activation Services Ltd. in Hamilton. Further routine analysis for Cu, Pb, Zn, Ni, and Ag are done at X-Ray Assay Laboratories Ltd. in Toronto.

Gold is determined by non-destructive, direct irradiation neutron activation on a the entire unground heavy mineral concentrate. The lower detection limit for Au using this method is 5 ppb.

After analysis for Au, 1/4 to 1/2 split of the original heavy mineral concentrate is ground to -200 mesh (75 um) for destructive geochemical analysis. The remaining 3/4 to 1/2 split is retained in the Timmins exploration office and archived. From the -200 mesh material a 0.25 gm split is digested using 2 mL of concentrated nitric acid in a test tube which was placed for one half hour in a water bath at 90°C. Then 1 mL of concentrated hydrochloric acid is added and the digestion continued for another 2 1/2 hours. The

test tubes are shaken at regular intervals during the digestion. Sample solutions are made up to volume with a lithium buffer solution and run on a simultaneous direct-current plasma emission spectrometer (DCP) for Cu, Zn, Pb, Ni and Ag. The lower detection limits for Cu, Zn, Pb, Ni and Ag are 0.5, 0.5, 2.0, 1.0 and 0.5 ppm respectively. Any remaining sample pulps are returned to the Exploration Division office in Timmins and stored.

DECLARATION

I, Brian Robert Hart, certify that I have graduated with an Honours Bachelor of Science degree in geology from the University of Western Ontario in 1982. Prior to graduation, I had been active in the field of geology temporarily employed by Shell Canada Resources Ltd. and the University of Western Ontario. I am presently on a leave of absence from a graduate program at the University of Western Ontario. I am currently employed by Kidd Creek Mines Ltd.

Brian Hart

BRIAN ROBERT HART

APPENDIX 1

BRADLEY BROTHER'S INVOICES

BRADLEY BROS. LIMITED

June 15, 1985

CONTRACT DIAMOND DRILLING

Kidd Creek Mines Limited
P.O. Box 1140
Timmins, Ontario P4N 7J4

HOLE No.	TO COVER DIAMOND DRILLING FOR June 1 to 15, 1985				
	FROM	TO	FOOTAGE COMPLETED		
84	20'	72'	52'		
85	0'	90'	90'		
86	0'	66'	66'		
87	0'	120'	120'		
87A	0'	130'	130'		
88	0'	26'	26'		
89	0'	107'	107'	} claim group #1 P-805677 to P-805684 <u>B.H.</u>	
90	0'	55'	55'		
91	0'	159'	159'		
92	0'	131'	131'		
93	0'	107'	107'		
94	0'	149'	149'		
95	0'	139'	139'		
96	0'	160'	160'		
97	0'	50'	50'		
98	0'	92'	92'		
99	0'	200'	200'		
100	0'	42'	42'		
101	0'	165'	165'		
102	0'	152'	152'		
103	0'	20'	20'		
Operating hours 109 hours				@ \$178.00	\$19,402 00 ✓
Walking time. 4 hours X 3 men X \$24.00					288 00 ✓
Down time June 14 6 hours X 3 men X \$24.00					432 00 ✓
FORWARD					

BRADLEY BROS. LIMITED

June 15, 1985

CONTRACT DIAMOND DRILLING

Kidd Creek Mines Limited
P.O. Box 1140
Timmins, Ontario P4N 7J4

HOLE No.	TO COVER DIAMOND DRILLING FOR June 1 to 15, 1985			
	FROM	TO	FOOTAGE COMPLETED	
	Down the hole consumables			
	8 Tricone bits @ \$600.00 - \$4800.00 ✓			
	Plus 15% <u>720.00</u>			5,520 00 ✓
	Float rental			
	June 3rd			
	14 miles X \$5.00			375 00
	75 miles x \$5.00 = <u>\$375.00</u>			745 00
	O.K. ; PAUL SMITH, JUNE 28/85			\$26,387 00
	Please charge :			
	\$1712.00 to project # 968			
	+ \$24675 - 24,305.00 to project # 18			
	<u>26,387.00</u> - 26,017.00			
	Brian Hart			
	JUNE 28/85			
	claim group 1 } 44.5% X			26387 00
				= <u>11,749 00</u>
	Brian Hart			

BRADLEY EPOS. LIMITED

June 30, 1985

CONTRACT DIAMOND DRILLING

Kidd Creek Mines Limited
P.O. Box 1140
Timmins, Ontario

HOLE No.	TO COVER DIAMOND DRILLING FOR				
	FROM	TO	FOOTAGE COMPLETED		
<u>Credit Note</u>					
	Invoice June 15 - \$26,387.00				
	charged	-	149 miles		
	should read	-	74 "		
	credit		75 miles	@ \$5.00	\$375 00 CR
	Invoice June 15 - \$22,027.40				
	charged	-	51 miles		
	should read	-	26 "		
	credit		25 miles	@ 5.00	125 00 CR
					<u>\$500 00 CR</u>
<p>please <u>credit</u> Project 18 : 375.00 Project 904 : 125.00 \$ 500.00</p> <p>J Alcock 8 July 1985</p>					

BRADLEY BROS. LIMITED

June 30, 1985

CONTRACT DIAMOND DRILLING

Kidd Creek Mines Limited
P.O. Box 1140
Timmins, Ontario P4N 7J4

HOLE No.	TO COVER DIAMOND DRILLING FOR June 17 to 27, 1985				
	FROM	TO	FOOTAGE COMPLETED		
104	0'	113'	113'		
105	0'	77'	77'		
106	0'	136'	136'		
107	0'	158'	158'		
108	0'	39'	39'		
109	0'	69'	69'		
110	0'	95'	95'		
(111	0'	86'	86'	} claim group #3 P- 826991 to P- 826994 B.H.	
112	0'	85'	85'		
113	0'	28'	28'		
114	0'	73'	73'		
115	0'	56'	56'		
116	0'	85'	85'		
117	0'	138'	138'		
118	0'	85'	85'		
119	0'	105'	105'		
120	0'	148'	148'		
121	0'	116'	116'		
(122	0'	57'	57'		
122A	0'	48'	48'		
Operating hours 90 hours				@ \$178.00	\$16,020 00
Down the hole consumables					
8 Tricone bits @ \$600.00				- \$4800.00	
2 Adaptors @ 456.00				- 912.00	
				<u>5712.00</u>	
Plus 15%				<u>856.80</u>	
					6,568 80
					<u>\$22,588 80</u>
					Claim group 3 - 19.70% x 22,588 80
					= 4451 00

**BRADLEY
BROS.
LIMITED**

Please Charge to

July 15, 1985

PROJECT # 18
LUCAS-TULLY GOLD

Brian Hart

CONTRACT DIAMOND DRILLING

July 24/85

Kidd Creek Mines Limited
P.O. Box 1140
Timmins, Ontario

HOLE No.	TO COVER DIAMOND DRILLING FOR		July 1 to 15, 1985		
	FROM	TO	FOOTAGE COMPLETED		
claim group number ↓ #3 {	122A 48'	53'	5'		
	123 0'	13'	13'		
	124 0'	107'	107'		
	125 0'	155'	155'		
	126 0'	118'	118'		
	127 0'	163'	163'		
	128 0'	99'	99'		
	129 0'	167'	167'		
	130 0'	92'	92'		
	131 0'	71'	71'		
	132 0'	46'	46'		
	133 0'	58'	58'		
#2 {	134 0'	72'	72'		
	135 0'	70'	70'		
	136 0'	54'	54'		
	137 0'	96'	96'		
	138 0'	64'	64'		
#2 {	139 0'	52'	52'		
	140 0'	158'	158'		
	141 0'	86'	86'		
#2 {	142 0'	23'	23'		
	143 0'	122'	122'		
	144 0'	78'	78'		
#2 {	145 0'	34'	34'		
	146 0'	140'	140'		
#4 {	147 0'	96'	96'		
	148 0'	135'	135'		
	149 0'	69'	69'		
	150 0'	160'	160'		
				claim group 2 - 22.13% x	25,746 40
					= 5,597 00
				claim group 3 - 23.68% x Brian Hart.	25,746 40
					= 6,097 00
				claim group 4 - 20.57% x	25,746 40
				claim #4	= 5,296 00
	Operating hours:				
	106 hours ✓	@	\$178.00		\$18,868 00 ✓
	Downtime:				
	2 hours x 3 men x \$24.00 ✓				144 00 ✓
	Down the hole consumables:				
	9 Tricone bits @ \$600.00	-	\$5400.00 ✓		
	1 Adaptor		456.00 ✓		
			\$5856.00 ✓		
	Plus 15%		878.40 ✓		
					6,734 40 ✓
					<u>\$25,746.40</u> ✓

BRADLEY BROS. LIMITED

July 31, 1985

CONTRACT DIAMOND DRILLING

Kidd Creek Mines Limited
P.O. Box 1140
Timmins, Ontario

Charge to Project #18
d. Woods
Aug 13/85

HOLE No.	TO COVER DIAMOND DRILLING FOR July 16 to 31, 1985				
	FROM	TO	FOOTAGE COMPLETED		
150	160'	162'	2'	Chim #4	
151	0'	62'	62'		
152	0'	106'	106'		
153	0'	83'	83'		
154	0'	182'	182'		
155	0'	124'	124'		
156	0'	176'	176'		
157	0'	260'	260'		
158	0'	99'	99'		
159	0'	242'	242'		
160	0'	42'	42'		
161	0'	60'	60'		
162	0'	35'	35'		
163	0'	101'	101'		
164	0'	111'	111'		
165	0'	59'	59'		
166	0'	87'	87'		
167	0'	117'	117'		
168	0'	118'	118'		
169	0'	96'	96'		
170	0'	90'	90'		
171	0'	100'	100'		
172	0'	124'	124'		
173	0'	85'	85'		
Operating hours 103 hours				@ \$178.00	\$18,334 00
Downtime 11 hours X 3 men X \$24.00					792 00
Walking time 3 hours X 3 men X \$24.00					216 00
FORWARD					

APPENDIX 2

KIDD CREEK CHEQUES
TO
BRADLEY BROTHERS LTD.

40-8000022000

P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

C 04110

Cheque Number
1A-003133

Date	Invoice Number	Batch	Voucher	Gross Amount	Discount	Net Amount
5/24/85	BRADLEY	00044	22215	29,178.91	.00	29,178.91
6/15/85	BRADLEY	07001	22607	26,397.00	.00	26,397.00
6/15/85	BRADLEY	07001	22653	22,027.40	.00	22,027.40
totals				76,593.31	.00	76,593.31

*Cheque covering June 1
to June 15/85 invoice period
B.H.*

Please detach before depositing

totals

P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

Date
07/17/85

Cheque Number
1A-003133

THE TORONTO-DOMINION BANK
TORONTO-DOMINION CENTRE BRANCH
55 KING STREET WEST & BAY STREET 10202-004
TORONTO, ONTARIO M5K 1A2

Amount

\$76,593.31

40-8000022000

BRADLEY CRIS. LIMITED
P.O. BOX 2067
NORANDA, PQ

J9X 5A9

NOT NEGOTIABLE

Authorized Signature

NOT NEGOTIABLE

Authorized Signature

DESCRIPTION	AMOUNT	TOTAL
...	18.40	1,343.00
...	14.10	225.00
...	10.40	1,635.00
...	280.00	280.00
...	10.40	1,089.00
...	225.00	225.00
...	18.40	1,114.00
...	280.00	280.00
...	18.40	1,114.00
...	280.00	280.00

Kidd Creek Mines Ltd.

P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

C 04325

Cheque Number
1A-003341

4J-8000C22000

Date	Invoice Number	Batch	Voucher	Gross Amount	Discount	Net Amount	
6/30/85	BRADLEY	07013	22864	22,588.20	.00	22,588.80	
6/30/85	BRADLEY	07013	22867	500.00-	.00	500.00-	
6/30/85	BRADLEY	07038	33230	19,748.70	.00	19,748.70	
6/30/85	BRADLEY	07038	33238	315.00-	.00	315.00-	
Please detach before depositing				totals	41,522.50	.00	41,522.50

*Cheque covering June 17
to June 27/85 invoice period
B.H.*



Kidd Creek Mines Ltd.
P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

Date

07/31/85

Cheque Number
1A-003341

THE TORONTO-DOMINION BANK
TORONTO - DOMINION CENTRE BRANCH
66 KING STREET WEST & BAY STREET 10202-004
TORONTO, ONTARIO M5X 1A2

Amount

41,522.50

4J-8000C22000

BRADLEY BROS. LIMITED
P.O. BOX 2367
NCRANEA PQ

J9X 5A9

NOT NEGOTIABLE

Authorized Signature

NOT NEGOTIABLE

Authorized Signature

Operating hours
90 hours

@ \$178.00

\$16,020 00

Down the hole consumables

8 Tricone bits @ \$600.00 - \$4800.00

2 Adaptors @ 456.00 - 912.00

5712.00

Plus 15%

856.80

6,568 80

\$22,588 80

Charge to Project #18

18-24 = 22,588.80

E. Woods

July 5/85

40-8000022000

Kidd Creek Mine

P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

C 04500

Cheque Number
1A-003512

Date	Invoice Number	Batch	Voucher	Gross Amount	Discount	Net Amount
07/15/89	BRADLEY	07053	00038	25,746.40	.00	25,746.40
07/15/89	BRADLEY	07076	03693	24,182.80	.00	24,182.80
totals				49,929.20	.00	49,929.20

cheque for July 1 to July 15 invoice period B.T.O.

Please detach before depositing

P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

Date
08/14/89

Cheque Number
1A-003512

THE TORONTO-DOMINION BANK
TORONTO-DOMINION CENTRE BRANCH
85 KING STREET WEST & BAY STREET 10202-004
TORONTO, ONTARIO M5K 1A2

Amount
\$49,929.20

40-8000022000

BRADLEY BROS. LIMITED
P.O. BOX 2367
NGRANDA PQ

the order of

J9X 5A9

NOT NEGOTIABLE

Authorized Signature

NOT NEGOTIABLE

Authorized Signature

142	0'	86'	86'
143	0'	23'	23'
144	0'	122'	122'
145	0'	78'	78'
146	0'	34'	34'
147	0'	140'	140'
148	0'	96'	96'
149	0'	135'	135'
150	0'	69'	69'
	0'	160'	160'

Operating hours:
106 hours ✓

@ \$178.00

\$18,868 00 ✓

Downtime:
2 hours x 3 men x \$24.00 ✓

144 00 ✓

Down the hole consumables:
9 Tricone bits @ \$600.00 ✓
1 Adaptor ✓

\$5400.00 ✓
456.00 ✓
\$5856.00 ✓
878.40 ✓

Plus 15%

6,734 40 ✓

\$25,216 40 ✓

J0022000

Kidd Creek Mines

P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

C 04748

Cheque Number
1A-003755

Date	Invoice Number	Batch	Voucher	Gross Amount	Discount	Net Amount
7/31/85	BRADLEY	08026	44122	25,386.40	.00	25,386.40
7/31/85	BRADLEY	08026	44123	29,330.60	.00	29,330.60
totals <input type="checkbox"/>				54,717.20	.00	54,717.20

*Cheque for July 16
to July 31 /85
invoice period
B.H.*

Please detach before depositing



Kidd Creek Mines

P.O. Box 175, Suite 5000
Commerce Court West
Toronto, Ontario M5L 1E7

Date

08/28/85

Cheque Number

1A-003755

THE TORONTO-DOMINION BANK
TORONTO - DOMINION CENTRE BRANCH
65 KING STREET WEST & BAY STREET 10202-004
TORONTO, ONTARIO M5K 1A2

Amount



\$54,717.20

40-8000022000

by the clerk
BRADLEY GRCS. LIMITED
P.C. BOX 2367
NORANDA PQ

J9X 5A9

~~NOT NEGOTIABLE~~

Authorized Signature

~~NOT NEGOTIABLE~~

Authorized Signature

APPENDIX 3

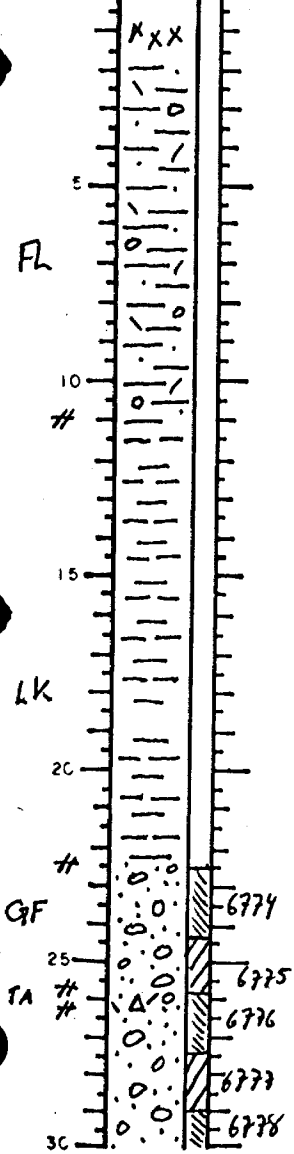
OVERBURDEN DRILL LOGS

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB6701
 MOVE to HOLE _____
 DRILL 11:15 -
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO QTBS-089 LOCATION LUCAS
 DATE JUNE 6 1985 GEOLOGIST HART DRILLER P. FOURNEL
 DEPTH of HOLE 32.6 m DEPTH of OVERBURDEN 31.2 m ELEVATION _____ (MSL)


DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	KXX			0 - 0.8 m: No RETURN
				0.8 - 1.5 m: ORGANICS
				1.5 - 11.0 m: FLUVIOLACUSTRINE - brown, minor grey; low compaction; gritty; high clay, low silt; occasional clast - mostly exotics
				11.0 - 22.8 m: LACUSTRINE - grey/brown; very low compaction; very minor grit, occasional dropstone after 12.8 m: (varved?), rhythmites; alternating layers of grey/brown high clay, with brown high silts 22.0 - 22.5 m: high silt, low clay
				22.5 - 25.8 m: GLACIOFLUVIAL - medium (medium to fine sand), medium (medium to coarse) gravel; locally high fine sand; cobbly; 70% dark pebbles at 25.1 m: dark cobbles at 25.9 m: granite(?) cobbles
			6774	
			6775	25.8 - 26.2 m: ABLATION TILL - grey; low sand; high silt; 40% clasts
			6776	
			6777	
			6778	26.2 - 31.2 m: GLACIOFLUVIAL - medium (medium) sand; medium (medium to coarse) gravel; cobbly; 60% dark pebbles; well rounded



REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE No QT85-089 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE No	DESCRIPTIVE LOG	S N
				<p>27.0-30.6 m: high (fine) sand, low (course) gravel; cobbly; large variety of pebbles</p> <p>31.0-31.2 m: very high (fine) sand, very low gravel; < 5% pebbles</p> <p>31.2-32.6 m: BEDROCK - small angular green/grey chips; locally weathered; small quartz veinlets</p> <p>32.6m (107ft) E.O.H.</p> <p style="font-size: 1.5em; font-family: cursive;">Brian Hart</p>	
5					
10					
15					
20					
25					
30					

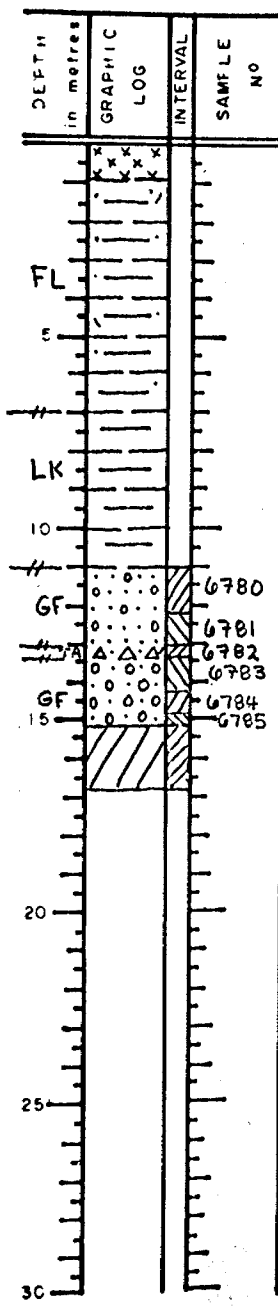
vs 6777
BR

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB670
 MOVE TO HOLE _____
 DRILL 9:10-1
 MECHANICAL D _____
 DRILLING PROB _____
 OTHER New b

HOLE NO QT85-090 LOCATION LUCAS
 DATE JUNE 7 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 16.8 m (55') DEPTH of OVERBURDEN 15.2 m (50') ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG	S N
0-0.9				Organics	
0.9-7.0				FLUVIOLACUSTRINE 0.9-3.6 m: Light tan-brown; high clay (minor silt); gritty (mostly paleozoics and dark mafics); non-compact 2.4-3.6 m: Medium gray 3.6-7.0 m: Medium gray; high clay, low silt; less grit (~1%); less compact	
7.0-11.0				LACUSTRINE 7.0-8.5 m: Light medium gray; high clay; no grit; very non-compact 8.5-11.0 m: Definite rythmites (varves?); dark gray high clay layers alternating with light brown-gray silt layers	
11.0-13.1				GLACIOFLUVIAL High (fine) sand, low (fine to medium, 60% dark) gravel; some rounded pebbles	
13.1-13.4				ABLATION TILL Gray; moderate compaction; high sand, low silt; ~60% clasts (wide variety of lithologies)	
13.4-15.2				GLACIOFLUVIAL Medium (medium) sand, Medium to high (coarse, 60% dark) gravel; locally very high gravel, very low sand 14.9-15.1 m: cobbly gravel, numerous sulphides 15.0-15.1 m: pine green boulder? (sampled)	



REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB67
 MOVE to HOLE _____
 DRILL 9:10
 MECHANICAL _____
 DRILLING PRO _____
 OTHER New

HOLE No QT85-090 LOCATION LUCAS
 DATE JUNE 7 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 16.8m (55') DEPTH of OVERBURDEN 15.2m (50') ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL SAMPLE NO	DESCRIPTIVE LOG
			<p>15.2 m : BEDROCK Green, medium hard</p> <p>16.8 m : E.O.H.</p> <p><i>Brian Hart</i></p>

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO QT85-091 LOCATION LUCAS
 DATE JUNE 7 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 48.5m (159') DEPTH of OVERBURDEN 46.9m (154') ELEVATION _____ (MSL)

BIT NO CB67
 MOVE to HOLE _____
 DRILL 11:45
 MECHANICAL _____
 DRILLING PR _____
 OTHER 4:15

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	X X X X X			0-0.6 m : Organics
	FL			0.6-6.7 m : FLUVIOLACUSTRINE Tan-brown; high clay, low silt; gritty; non-compact 2.4-3.0 m : Grey-brown 3.0-6.7 m : Medium grey; less grit; less compact 4.3-6.7 m : Becomes progressively finer
	LK			6.7-14.0 m : LACUSTRINE Medium gray; high clay; no grit (occasional dropstone); very non-compact 11.0-14.0 m : Varved
	TU		6786	
15	. . . . .		6787	14.0-14.3 m : TILL (UNDEFINED) Gray-brown; moderate compaction; medium to high silt, medium clay, very low sand; 20% clasts
	GF		6788	
	. . . . .		6789	
	. . . . .		6790	
20	. . . . .		N.S.	14.3-26.5 m : GLACIOFLUVIAL Medium to high (fine to medium) sand, medium (medium, 75-80% dark) gravel
	. . . . .		6791	
	. . . . .		6792	
	. . . . .		6793	19.5-26.2 m : cobbly gravel
	. . . . .		N.S.	19.7-19.8 m : granite boulder
	. . . . .		6794	22.2-22.9 m : white/black granite boulder
25	. . . . .		6795	22.9-26.2 m : sulphides
	. . . . .		N.S.	25.9-26.2 m : white granite boulder
	. . . . .		6796	
	TA		6797	
	. . . . .		6798	
	. . . . .		6799	
30	. . . . .		

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB670
 MOVE TO HOLE _____
 DRILL 11:45
 MECHANICAL _____
 DRILLING PRO _____
 OTHER 4:15-

H No QT85-091 LOCATION LUCAS
 DATE JUNE 7 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 485m (159') DEPTH of OVERBURDEN 469m (154') ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
0	0		6799	
0	0		6800	26.5 - 27.4 m: ABLATION TILL
0	0		6801	Gray; low compaction; high sand; 65% clasts (predominantly granitic)
0	0		6802 CR	
0	0		6803	
35	0		6804	27.4 - 35.4 m: GLACIOFLUVIAL
35	0		6805	High to medium (medium to coarse) sand, medium (coarse, 70% dark) gravel; occasional silt balls
35	0		6806	30.5 - 35.1 m: Very high (fine) sand
35	0		6807	
35	0		6808	
35	0		6809	
35	0		6810	
35	0		6811	
40	0		6812	35.4 - 36.0 m: TILL (UNDEFINED)
40	0		6813	Medium to dark gray; high silt; 10-15% clasts
40	0		6814	note: poor observation of sediment
40	0		6815	
45	0		6816	36.0 - 36.3 m: GLACIOFLUVIAL
45	0		6817	Medium sand, medium gravel
45	0		6817	
0				36.3 - 41.8 m: MELT-OUT TILL
0				Gray; moderate compaction; high clay, medium silt; 5-10% clasts (predominantly dark mafics and granitics)
0				36.6 - 37.5 m: high compaction, < 1% clasts
0				37.5 - 38.7 m: high silt, very low sand; lower compaction; predominantly small, dark, angular clasts
0				38.7 - 39.6 m: light brown, 30% clasts
0				39.6 - 40.2 m: GF ; low (fine) sand, medium (coarse, 50% dark, 40% paleozoics) gravel; stratified
0				40.2 - 41.8 m: high silt, low sand, 60% clasts (90% dark)

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PROC _____
 OTHER _____

HOLE No QT85-091 LOCATION LUCAS
 DATE JUNE 7 19 85 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE No	DESCRIPTIVE LOG
<div style="text-align: center;"> </div>				<p>41.8- 43.9 m : GLACIOFLUVIAL Medium (medium) sand, medium (coarse, 70% dark) gravel 42.4- 42.7 m : Mafic boulder</p> <p>43.9- 46.0 m : MELT-OUT TILL Dark gray; low compaction; high silt, low sand; <5% clasts (predominantly dark mafics & pink granitics), small angular clasts 46.0- 46.3 m : Green boulder</p> <p>46.3- 46.9 m : LODGEMENT TILL Dark gray; high compaction; high silt; low sand; 5-10% clasts (100% black-green clasts)</p> <p>46.9 m : BEDROCK Dark green-black, soft</p> <p>48.5 m : E.O.H.</p> <p style="text-align: center; font-family: cursive; font-size: 1.2em;">Brian Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB670

MOVE. to HOLE. _____

DRILL 8:55

MECHANICAL _____

DRILLING PRO _____

OTHER _____

Hole No QT85-092 LOCATION LUCAS
 DATE JUNE 8 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 39.9m (131'0") DEPTH of OVERBURDEN 38.3m (125'5") ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	X X X X X			0-1.3 m : Organics
LK				1.3-3.0 m : LACUSTRINE Medium gray; high clay; very non-compact; no grit
E				3.0-7.6 m : FLUVIOLACUSTRINE Light brown-gray; high clay, low to medium silt; gritty (<5%), mainly dark, some paleozoics; non-compact
L				5.2-7.6 m : Gray; minor silt; less grit (<1%)
10				
LK				7.6-16.5 m : LACUSTRINE Gray-brown; high clay; very non-compact; no grit
15				11.3-16.5 m : very high clay 15.2-16.5 m : Blue-gray
#				
TA	Δ Δ Δ Δ Δ		6818	16.5-18.9 m : ABLATION TILL Gray-brown; very low compaction; very high sand, minor silt; ~60% clasts (variable lithologies)
#			6819	
#			6820	
20	o o o o o		6821	
GF	o o o o o		6822	18.9-26.8 m : GLACIOFLUVIAL High (coarse) sand, low to medium (medium to coarse, 65% light) gravel; occasional till balls
25	o o o o o		6823	@ 19.8 m : becomes very cobbly
#			6824	20.1-21.0 m : 65% dark
TM	Δ Δ Δ Δ Δ		6825	22.5-24.4 m : no return
GF	o o o o o		6826	24.4-26.8 m : Medium (fine) sand, medium (medium, 60% dark) gravel, coarse stratification
TM	Δ Δ Δ Δ Δ		6827	25.8-26.8 m : 80% dark
GF	o o o o o		6828	
30	o o o o o		6829	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO QT85-092 LOCATION LUCAS
 DATE JUNE 8 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 39.9m (131.0') DEPTH of OVERBURDEN 38.3 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">30</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">5</div> </div>				<p>35.7-36.9 m: GLACIOFLUVIAL Medium (fine) sand, Medium (medium, 80% dark) gravel</p> <p>36.9-38.3 m: LODGEMENT TILL Grey to grey-green; high compaction; high silt, low to medium sand; 3-10% clasts (90% green) 37.5-37.8 m: black boulder</p> <p>38.3 m: BEDROCK Black with rusty discoloration, very soft 38.3-38.6 m: extensively weathered, green to orange-yellow weathered bedrock (clay)</p> <p>39.9 m: E.O.H.</p> <p style="text-align: center; font-size: 1.5em; font-family: cursive;"><i>Brian Hart</i></p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB670

MOVE to HOLE

DRILL 12:20

MECHANICAL

DRILLING PRO

OTHER NEW

No QT85-093 LOCATION LUCAS
 DATE JUNE 8 1985 GEOLOGIST WOODS DRILLER FOURNEL

DEPTH of HOLE 32.6m (107') DEPTH of OVERBURDEN 29.3m ELEVATION _____ (MSL)

DEPTH in meters	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	x x x			0-1.3 m : No return
				1.3-1.8 m : Organics
	s FL			1.8-8.5 m : FLUVIOLACUSTRINE Medium gray; very low compaction; high clay; minor grit (<1%, paleozoic and mafic)
	// 10 LK			8.5-12.2 m : LACUSTRINE Gray; very non-compact; high clay; no grit
	// GF		6837	12.2-14.6 m : GLACIOFLUVIAL Medium to high (fine) sand, Medium to low (medium, 60-70% dark) gravel
	TA 15		6838	
	GF		6839	14.6-15.2 m : ABLATION TILL Gray; low compaction; high sand, low silt; 65-75% clasts (60% dark), occasional matrix coated clast
	//		6840	
	//		6841	
	20 TM		6842	15.2-18.3 m : GLACIOFLUVIAL Medium (fine) sand, medium (medium, 70% dark) gravel, occasional till ball and coated clast
	//		6843	
	// GF		6844	18.3-23.5 m : MELTOUT TILL Gray; moderate compaction; medium sand, medium silt; 10-15% clasts (subangular-angular, variable lithologies and sizes) 18.3-18.9 m : predominantly green volcanics
	25 TM		Ns	
	//		6845	
	GF		6846	
	30		6847	

REVERSE CIRCULATION DRILL HOLE LOG

 BIT NO CB0

MOVE to HOLE _____

 HOLE NO QT85-093 LOCATION LUCAS

DRILL _____

 DATE JUNE 8 1985 GEOLOGIST WOODS DRILLER FOURNEL

MECHANICAL _____

 DEPTH of HOLE 32.6 m DEPTH of OVERBURDEN 29.3 m ELEVATION _____ (MSL)

DRILLING PR _____

OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">30</div> <div style="margin-bottom: 10px;">40</div> <div style="margin-bottom: 10px;">45</div> <div style="margin-bottom: 10px;">50</div> <div style="margin-bottom: 10px;">55</div> <div style="margin-bottom: 10px;">60</div> </div>		23.5 - 24.4 m 24.4 - 25.9 m 25.9 - 29.3 m 29.3 m 30.5 - 31.1 m 31.1 - 31.4 m 31.4 - 32.3 m 32.3 - 32.6 m	NO	<p>23.5 - 24.4 m: GLACIOFLUVIAL High (fine) sand Very poor return</p> <p>24.4 - 25.9 m: MELTOUT TILL Grey; low to moderate compaction; high silt, low clay, very low sand; < 3% clasts, very small clasts Poor return</p> <p>25.9 - 29.3 m: GLACIOFLUVIAL Low (fine) sand, high (coarse, 95% dark) gravel 25.9 - 26.2 m: purple boulder 28.3 - 29.3 m: cobbly</p> <p>29.3 m: BEDROCK Dark green-black to rusty-green, very soft 29.3 - 30.5 m: quite weathered, foreign bits (quartz, granite, paleozoic)</p> <p>30.5 - 31.1 m: green-black 31.1 - 31.4 m: rusty-green; some orange weathered bedrock 31.4 - 32.3 m: green-black 32.3 - 32.6 m: rusty-green</p> <p>32.6 m E.O.H.</p> <p style="text-align: right; font-size: 1.5em;"><i>Bruce Hart</i></p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB6

HOLE NO QT85-094 LOCATION LUCAS

MOVE to HOLE

DATE JUNE 8, 10 1985 GEOLOGIST WOODS DRILLER FOURNEL

DRILL 3:35

MECHANICAL

DEPTH of HOLE 45.1 m (148') DEPTH of OVERBURDEN 43.3 m ELEVATION _____ (MSL)

DRILLING PR

OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	x x x x			0-1.8 m: Organics
	x x x x			1.8-8.5 m: FLUVIOLACUSTRINE Tan brown; non-compact; high silt, low clay; gritty (<1%)
5				2.7-6.7 m: Gray-brown
FL				5.5-8.5 m: High clay, low silt
10				6.7-8.5 m: Light medium gray
				8.5-17.7 m: LACUSTRINE Medium gray; very non-compact; high clay; no grit
				17.7-24.4 m: GLACIOFLUVIAL Medium to high (fine) sand, medium (coarse, cobbly, 70% dark) gravel
LK				19.5-20.1 m: medium sand occasional till balls
20	o o o o		6848	
	o o o o		6849	24.4-25.6 m: ABLATION TILL Gray; very low compaction; high sand
GF	o o o o		6850	
	o o o o		6851 cr	
	o o o o		6852	25.6-28.7 m: GLACIOFLUVIAL
25	o o o o		6853	25.6-27.4 m: very high (fine) sand, very low (medium) gravel
TA	o o o o		6854	
	o o o o		6855	27.4-28.7 m: medium (medium) sand, medium (coarse, 95% dark) gravel
GF	o o o o		6856	
30	o o o o		6857	

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No QT85-094 LOCATION LUCAS
 DATE JUNE 8, 10 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 45.1 m DEPTH of OVERBURDEN 43.3 m ELEVATION _____ (MSL)

BIT No CB67
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> 5 10 15 20 25 30 </div>				<p>43.3 m: BEDROCK Green; soft; locally weathered (green-brown 'clay')</p> <p>45.1 m : E.O.H.</p> <p style="font-size: 2em; font-family: cursive; text-align: center;">Break Point</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO. CB670

HOLE NO. QT85-095 LOCATION LUCAS

MOVE to HOLE

DATE JUNE 10 1985 GEOLOGIST WOODS DRILLER FOURNEL

DRILL 11:15

MECHANICAL

DEPTH of HOLE 42.4 m (139') DEPTH of OVERBURDEN 40.8 m (134') ELEVATION _____ (MSL)

DRILLING PR

OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	X X X X X			0-1.3 m: Organics
FL	/			1.3-5.8 m: FLUVIOLACUSTRINE Light brown; non-compact; high clay, low to medium silt; gritty
E	/			3.0-4.9 m: Gray-brown
#	/			4.9-5.8 m: Medium gray
LK	/			
10	/			5.8-11.0 m: LACUSTRINE Light medium gray; very non-compact; high clay
#	.		6867	10.1-11.0 m: blue-gray
	.		6868 CR	
	.		6869	
15	.		6870	11.0-20.1 m: GLACIOFLUVIAL High (fine-medium-coarse) sand, low (fine to medium, 70% dark) gravel; crudely stratified; occasional till ball
GF	.		6871	16.5-20.1 m: high (coarse, cobbly, 85% dark) gravel, low (fine) sand
	.		6872	
20	.			
LK	/		N.S.	20.1-22.5 m: LACUSTRINE Dark gray; moderate compaction; very high clay
#	.		6873	21.6-21.9 m: dark grey-brown
GF	.		6874	21.9-22.2 m: brown
TM	.		6875	22.2-22.5 m: varved; light gray clay layers alternating with dark brown silt layers
25	.		6876	
TL	.		6877	
#	.		6878	
TM	.		6879	
30	.			

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO. CB6

HOLE NO. QT85-095 LOCATION LUCAS
 DATE JUNE 10 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH OF HOLE 42.4 m DEPTH OF OVERBURDEN 40.8 m ELEVATION _____ (MSL)

MOVE TO HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING P _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
TL	▲▲▲▲		6879	
	▲▲▲▲		6880	
#	▲▲▲▲		6881	22.5-23.5 m: GLACIOFLUVIAL
	●●●●		6882	High (coarse, cobbly, 50% dark, 50% paleozoics and pink granites) gravel, low (coarse) sand
3E	●●●●		6883	
	●●●●		6884	23.5-24.7 m: MELTOUT TILL
GF	●●●●		6885	Light gray-green; moderate compaction; high silt, low sand; < 5% clasts (very small, dominantly dark mafics and paleozoics)
	●●●●		6886	24.1-24.7 m: 20% clasts
40	●●●●		6887	
#	▨▨▨▨			24.7-26.5 m: LODGEMENT TILL
	▨▨▨▨			Gray; high compaction; high silt, medium clay; < 3% clasts
15	▨▨▨▨			24.7-25.3 m: mafic and granitic clasts
	▨▨▨▨			25.3-26.2 m: predominantly green clasts, some paleozoics
	▨▨▨▨			26.2-26.5 m: dark boulder
20	▨▨▨▨			26.5-28.8 m: MELTOUT TILL
	▨▨▨▨			Gray; low to moderate compaction; medium silt, medium (fine) sand; ~5% clasts (small, angular, mafic, granitic, few paleozoics)
25	▨▨▨▨			28.0-28.7 m: less sorted
	▨▨▨▨			higher clast content
30	▨▨▨▨			28.7-28.8 m: green boulder

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB67
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE No QT85-095 LOCATION LUCAS
 DATE JUNE 10 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 42.4 m DEPTH of OVERBURDEN 40.8 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
				<p>28.8- 32.0 m: LODGEMENT TILL Gray; high compaction; medium to high silt, medium sand; very gritty, ~3% clasts (85% dark mafics, few granitics), lots of cobbles 31.1- 32.0 m: 20% clasts (green)</p> <p>32.0- 40.8 m: GLACIOFLUVIAL Medium to high (fine to medium) sand, low to medium (coarse, cobbly, 95% dark mafics and green, 5% red granite) gravel 34.7- 35.7 m: 80% dark</p> <p>40.8 m: BEDROCK Green, medium hard</p> <p>42.4 m: E.O.H.</p> <p style="text-align: center; font-size: 1.5em;"><i>Bruce Hart</i></p>

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO. QT 85-C96 LOCATION LUCAS
 DATE JUNE 10/11 1985 GEOLOGIST WOODS/HART DRILLER R. FOURNEL
 DEPTH of HOLE 48.8 m (160. ft) DEPTH of OVERBURDEN 47.3 m ELEVATION _____ (MSL)

BIT NO. C362
 MOVE to HOLE _____
 DRILL 3:35
 MECHANICAL _____
 DRILLING PF _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	XXX			0 - 0.6 m: ORGANICS
FL				0.6 - 5.8 m: FLUVIOLACUSTRINE - tan brown; uncompact; high clay, medium silt (<10%) 2.7-5.5m: grey/brown 5.5-5.8m: light grey; low compaction; high silt, low clay; very minor grit
LF#			6888	
			(6889 ca)	
GF			6890	5.8 - 6.4 m: LACUSTRINE - medium grey; uncompact; high clay; no grit
			6891	
#			6892	6.4 - 11.6 m: GLACIOFLUVIAL - crudely stratified; medium (fine) sand, medium (coarse) gravel, 75% dark 7.3-7.6m: very high (fine) sand; low gravel
TA			6893	
			6894	
GF#			6895	11.6 - 18.1 m: ABLATION TILL - light brown (buff); low compaction; high sand, medium silt, 55% clasts
TA			6896	12.2-12.3 m: Sand layer
			6897	12.3-12.6 m: white/black cobbles
GF			NS	16.5-17.1 m: 75% clasts
			6898	17.1 - 17.7 m: wood and clay layer (?)
			6899	
25			6900	18.1 - 18.6 m: GLACIOFLUVIAL - medium (fine to medium) sand, medium (medium to coarse) gravel; 70% dark pebbles
TM			6901	
			6902	
30			6903	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

HOLE NO QT85-096 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
#	△		6904	18.6 - 19.7 m: ABLATION TILL - grey/brown; moderate to low compaction; high silt, medium sand; 20% clasts - 40% dark
TU	△		6905	
#	△		6906	
LK	—		NS (6907 cm)	19.7 - 21.9 m: GLACIOFLUVIAL - low (coarse) sand, high (medium to coarse) gravel; cobbly; 50-60% dark; well rounded; locally very high (coarse) sand at 20.7 m: cobbly 21.6 - 21.9 m: grey/black boulder
#	○		6908	
GF	○		6909	21.9 - 30.3 m: MELTOUT TILL - grey/brown; moderate to low compaction; medium to high sand; medium to low silt; 20-40% clasts (variable) - 50% dark. 23.2 - 23.8 m: high sand, low silt 24.1 - 24.2 m: Cobbly, limestone and granite cobbles 24.7 - 25.1 m: Very high sand, low silt 26.5 - 30.3 m: high silt, low sand; moderate compaction; < 20% clasts - 60% dark at 28.7 m: cobbly
40	○			
#	—		NS	
FL	△		6910	30.3 - 34.6 m: WATERLAIN TILL - Variable; grey/(green); moderate compaction; high silt, medium to low sand; < 5% clasts 33.2 - 33.8 m; green/grey; high clay
45	△			
#	△			
TL	△			
20				
25				
30				

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO. QT 85-096 LOCATION _____
 DATE _____ 19__ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>34.6 - 37.2 m: LACUSTRINE - grey/brown ; high silt, medium to high clay, low sand ; < 1% clasts</p> <p>35.0 - 37.2 m: Very hard ; green/grey ; high clay, medium to high silt.</p> <p>37.2 - 41.1 m: GLACIOFLUVIAL - very high (fine) sand ; < 1% clasts</p> <p>41.1 - 45.4 m: FLUVIOLACUSTRINE - grey / brown / (green) ; moderate to low compaction ; high clay, medium to low silt, locally high sand (fine) < 1% clasts</p> <p>41.0 - 43.0 m: grey / brown ; very high clay</p> <p>43.0 - 43.1 m: high (fine) sand</p> <p>43.1 - 43.3 m: grey / brown ; high silt</p> <p>43.3 - 43.9 m: grey / green ; high clay, medium to low silt</p> <p>43.9 - 45.9 m: (grey) / brown ; high silt, medium clay</p> <p>45.4 - 47.3 m: LODGEMENT TILL - grey / green ; high compaction, medium to high sand, medium to low silt ; 40-80% clasts - 80% dark</p> <p>45.4 - 46.2 m: grey / green ; high sand, low silt</p> <p>46.2 - 46.8 m: grey / brown ; medium sand, medium silt after 46.8 m: 80% light green / grey chips</p> <p>47.3 - 48.8 m: BEDROCK - small angular ; light green / gray chips, locally weathered</p> <p>48.8 m (160.0 ft) E.O.H.</p>

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO 020B
 MOVE to HOLE
 DRILL 12:00
 MECHANICAL
 DRILLING PR
 OTHER 11:50

HOLE NO QT85-097 LOCATION LUCAS
 DATE JUNE 11 1985 GEOLOGIST HART DRILLER R. FOURNEL
 DEPTH of HOLE 15.2 m DEPTH of OVERBURDEN 13.3 m ELEVATION _____ (MSL)
 (50.0 ft)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
				0-1.3m: No RETURN
				1.3-5.8m: FLUVIOLACUSTRINE 1.3-3.0m: Tan/brown; gritty; high clay, low silt; low compaction 3.0-5.8m: grey/brown; gritty; high clay, low compaction, occasional dropstone
				5.8-11.6m: LACUSTRINE 5.8-7.2m: grey/brown; uncompact; high clay, medium to low silt, no grit. 7.2-10.7m: rythmites; grey high clay alternating with brown high silt laminae; uncompact 10.7-11.6m: rythmites contd.; clay laminae blue/green
				11.6-12.8m: GLACIOFLUVIAL 11.6-12.0m: medium (medium to coarse) sand, medium (medium to coarse) gravel; 40% dark; 15% Carbonate 12.0-12.6m: high sand, medium to low gravel
				12.8-13.1m: TILL UNDEFINED - grey/brown; medium sand, medium silt; 50% clasts
				13.1-13.3m: GLACIOFLUVIAL - high sand, medium to low gravel; 40-50% dark
				13.3-15.2m: BEDROCK - light green/grey chips; small quartz virelets
				15.2 m (50.0 ft) E.O.H.

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No QT85-098 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

BIT No _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">5</div> <div style="margin-bottom: 5px;">10</div> <div style="margin-bottom: 5px;">15</div> <div style="margin-bottom: 5px;">20</div> <div style="margin-bottom: 5px;">25</div> <div style="margin-bottom: 5px;">30</div> </div>			<p>26.0 - 28.0 m: BEDROCK - light grey/brown ; finely laminated (wacke?) trace pyrite ; weathered zones - grey/brown silty gritty zones with grey/brown chips</p> <p>28.0 m (92.0 ft) E.O.H.</p> <p style="font-size: 1.2em; font-family: cursive;">Brian Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO. QT85-099 LOCATION LUCAS
 DATE JUNE 11, 12 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 60.7 m DEPTH of OVERBURDEN 59.0 m ELEVATION _____ (MSL)

BIT NO. USED
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
GF			N.S.	
			6937	
			6938	18.9-19.8 m: LODGEMENT TILL
TM	▲ ▲ ▲ ▲		6939	Medium gray; high compaction; medium to high silt, medium to low sand; ~60% clasts (small, angular, 95% dark)
			6940	19.5-19.8 m: clasts predominantly granitic
35	○ ○ ○ ○		6941	
			6942	19.8-27.7 m: WATERLAIN TILL
GF	○ ○ ○ ○		6943	19.8-20.7 m: Dark gray; high compaction; high silt, medium clay; gritty
40	○ ○ ○ ○		6944	20.7-21.9 m: Brown gray; moderate to high compaction; high silt, low clay; 15% rotted clasts (brownish-red)
			6945	21.3-21.9 m: Wood in sieve
			6946	21.9-23.8 m: Lacustrine unit
45	○ ○ ○ ○		6947	Very dark chocolate brown; moderate compaction; medium sand, medium silt
			6948	23.2-23.8 m: high silt
			6949	23.8-24.4 m: Dark brown; high compaction; high silt; <1% clasts (rotted); wood chips
50	○ ○ ○ ○		6950	
			6951	24.4-25.3 m: Lacustrine unit
			6952	Light gray (with some blue-gray clay); low compaction; very high silt, low clay
55	○ ○ ○ ○		6953	25.3-25.6 m: Bouldery unit
			NS 6954 CR	50% mafic clasts, 50% paleozoic
			6955	25.6-27.7 m: Lacustrine unit
			NS 6956	Blue gray clay, light brown silt; moderate to low compaction
60	▨ ▨ ▨ ▨			26.8-27.4 m: few till balls, pebbles

REVERSE CIRCULATION DRILL HOLE LOG

BIT No. Used
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE No. QT85-099 LOCATION LUCAS
 DATE JUNE 11, 12 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 60.7 m DEPTH of OVERBURDEN 59.0 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE No	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>27.7-29.3 m: ABLATION TILL Light gray; very low compaction; very high sand, low silt; < 1% clasts 29.0-29.3 m: green boulder</p> <p>29.3-31.4 m: GLACIOFLUVIAL Medium (medium to coarse) sand, medium (coarse, 70% dark) gravel 29.9-30.2 m: granite boulder 30.2-30.5 m: mafic boulder</p> <p>31.4-32.9 m: MELTOUT TILL Light gray; moderate to high compaction; high silt; 10-15% clasts (small, angular, mafic and pink granitic) 32.3-32.6 m: larger clast size 32.6-32.9 m: dominantly mafic clasts</p> <p>32.9-59.0 m: GLACIOFLUVIAL Medium (fine) sand, medium (medium to coarse, 60% dark) gravel, commonly 55% till balls 34.7-43.9 m: very high (fine) sand 39.3-42.1 m: coarse sand 51.2-58.8 m: sulphide bearing clasts common 55.8-56.1 m: green boulder 57.6-57.9 m: gray boulder 58.2-58.4 m: green boulder 58.5-58.7 m: paleozoic boulder 58.8-59.6 m: granite boulder</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO. USED
 MOVE TO HOLE
 DRILL 10:00
 MECHANICAL
 DRILLING PRO
 OTHER

HOLE NO. QT85-100 LOCATION LUCAS
 DATE JUNE 13 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH OF HOLE 12.8m (42') DEPTH OF OVERBURDEN 11.3m (37') ELEVATION _____ (MSL)

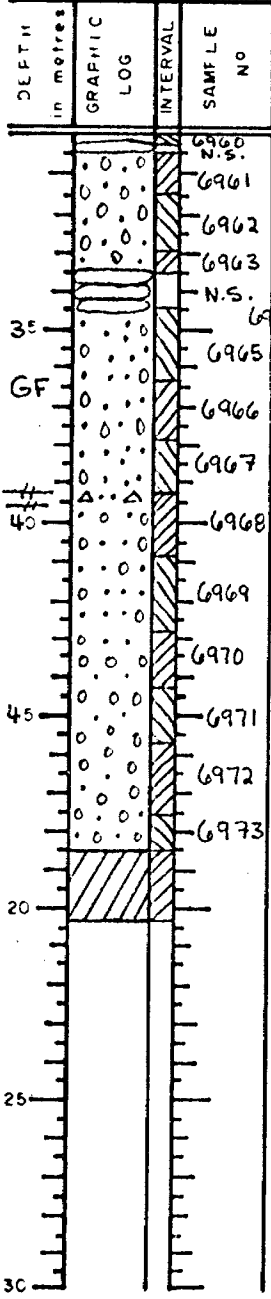
DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	x x x x			0-0.6 m: No return
FL	/ / / / /			0.6-1.3 m: Organics
LK	/ / / / /			1.3-5.8 m: FLUVIDLACUSTRINE Tan brown; non-compact; high silt, medium clay; gritty
GF	o o o o o		6957	2.1-5.8 m: gray-brown
	o o o o o		6958	4.0-5.8 m: medium (fine-medium-coarse) sand
	/ / / / /			5.8-7.9 m: LACUSTRINE Gray; very non-compact; high clay; no grit 6.7-7.9 m: rythmic (blue gray clay layers alternating with brown silt layers)
	/ / / / /			7.9-11.3 m: GLACIOFLUVIAL Medium (fine to medium) sand, medium (medium, 80% dark) gravel; locally high sand, low gravel 10.4-11.3 m: coarse, cobbly gravel
	/ / / / /			11.3 m: BEDROCK Gray-black, fine grained, hard
				12.8 m: E.O.H.

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B653
 MOVE TO HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO QT85-101 LOCATION LUCAS
 DATE JUNE 13 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 50.3m DEPTH of OVERBURDEN 48.5m ELEVATION _____ (MSL)



DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
0.0	0.0		6960	
0.0	0.0		6961	
0.0	0.0		6962	
0.0	0.0		6963	
0.0	0.0		N.S.	
3.7	3.7	34.4 - 39.3 m	6944 CR	very high (fine) sand, low (coarse, 60% dark) gravel
3.7	3.7	35.7 - 39.3 m		85% dark; lots of boulders (predominantly granitic)
3.7	3.7	39.3 - 39.5 m		Ablation Till
3.7	3.7		6965	
3.7	3.7		6966	Gray, moderate compaction; high sand, low silt; 60% clasts (90% dark, small, angular)
3.7	3.7		6967	
3.7	3.7		6968	
3.7	3.7		6969	
3.7	3.7		6970	
3.7	3.7		6971	
3.7	3.7		6972	
3.7	3.7		6973	
48.5	48.5	48.5 m		BEDROCK Gray, very soft
48.5	48.5	48.5 - 48.8 m		Weathered (white-yellow-blue muck)
50.3	50.3	50.3 m		E.O.H.

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO. QT 85-111 LOCATION LUCAS
 DATE JUNE 20 1985 GEOLOGIST HART DRILLER R. FOURNEL
 DEPTH of HOLE 20.1m DEPTH of OVERBURDEN 18.6m ELEVATION _____ (MSL)
 (66.0ft.) (61.0ft.)

BIT NO R2000
 MOVE to HOLE _____
 DRILL 11'S
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	XXXX			0 - 0.9 m: No RETURN
Lk	---			0.9 - 1.4 m: Swamp MATERIAL
GF	○ ○ ○ ○		7056	1.4 - 4.6 m: LACUSTRINE grey/brown; uncompact; high clay; gritty; occasional dropstone
GF	○ ○ ○ ○		NS	
TW	△ △ △ △		7057	4.6 - 5.7 m: GLACIOFLUVIAL crudely stratified; medium (coarse to medium) sand, medium (medium to fine) gravel; 40% dark; pebbles well rounded; cobbly
TW	△ △ △ △		7058	
Lk	---		NS	5.5 - 5.7 m: green/black, mafic, boulder
GF	○ ○ ○ ○		7059	
TW	△ △ △ △		NS	5.7 - 10.2 m: WATERLAIN TILL brown locally grey; moderate to high compaction; medium to high silt, low clay; 10-20% clasts; gritty; occasional thin sand interbed
LK	○ ○ ○ ○		7060	
GF	○ ○ ○ ○		7061	5.7 - 5.9 m: medium (fine) sand, medium silt; gradational to GF above
GF	○ ○ ○ ○		7062	5.9 - 7.3 m: < 1% clasts; very high compaction
20	BR			10.2 - 13.1 m: LACUSTRINE Very finely laminated; dark brown and light tan brown layers; high compaction; high clay; some grit; darker layers thicker after 11.7m; clay becomes slightly blue
25				
30				

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

HOLE No QTBS-111 LOCATION LUCAS
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE No	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>13.1 - 13.4m: GLACIOFLUVIAL fine to coarse sand; few pebbles; organics</p> <p>13.4 - 14.5m: WATERLAIN TILL (Landsment?) brown; high silt; gritty, < 20%; occasional clast</p> <p>14.5 - 15.1m: LACUSTRINE grey; high compaction; high clay</p> <p>15.1 - 18.6m: GLACIOFLUVIAL 15.1 - 17.7m: Very high (fine) sand; < 10% pebbles occasional blue/grey gritty silt balls 17.7 - 18.6m: crudely stratified; low to high (medium to coarse) sand, medium to high (coarse) gravel; 60-70% dark; cobbly</p> <p>18.6 - 20.1m: BEDROCK small angular grey/black chips</p> <p style="text-align: center; font-size: 1.2em;">Brian Kent</p>

REVERSE CIRCULATION DRILL HOLE LOG

CB670

BIT NO B00008

MOVE to HOLE

DRILL LO: C

MECHANICAL

DRILLING PR

OTHER V. h

HOLE No QTBS-122A LOCATION Lucas

DATE June 27 1985 GEOLOGIST HART DRILLER FOURNEL

DEPTH of HOLE 17.5m (57.5ft) DEPTH of OVERBURDEN 16.7m (54.5ft) ELEVATION _____ (MSL)

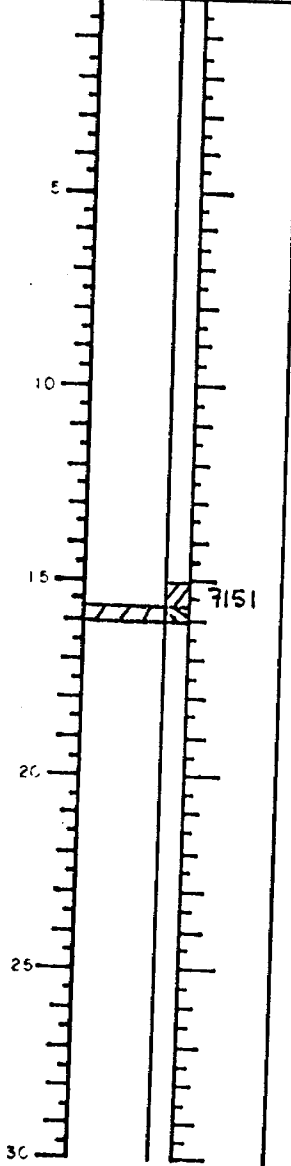
DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">#</div> <div style="margin-bottom: 10px;">FL</div> <div style="margin-bottom: 10px;">#</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">LK</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">#</div> <div style="margin-bottom: 10px;">GF</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>		<p>970</p> <p>7149</p> <p>7150</p>	<p>0-2.1m: Swamp material</p> <p>2.1-5.2m: FLUVIOLACUSTRINE grey brown; uncompact; gritty (<20%), high clay occasional dropstone</p> <p>5.2-15.4m: LACUSTRINE 5.2-11.6m: grey brown; uncompact; high clay, no grt 11.6-14.9m: ry thmites: grey brown high clay, alternating with brown high silt, medium to low clay 14.9-15.4m: grey high clay</p> <p>15.4-16.7m: GLACIOFLUVIAL medium to high (medium to coarse) sand, medium to low (medium) gravel; stratified with high sand layers; 30-40% dark 15.7-15.8m: white/black granitic boulder</p> <p>16.7-17.5 m: BEDROCK grey/white angular chips</p> <p>17.5m (57.5) E.O. H</p> <p style="font-size: 1.5em; font-family: cursive;">Brian Hart</p>	

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No AT85-122B LOCATION LUCAS (10ft west of 122A)
 DATE JUNE 22; July 2 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 16.0m DEPTH of OVERBURDEN 15.7m ELEVATION _____ (MSL)

BIT No CR6
 MOVE to HO _____
 DRILL July
 MECHANICAL _____
 DRILLING _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
--------------------	----------------	----------	--------------	-----------------



15.7-16.0 m: BED ROCK
 grey angular chips with quartz; some weathered
 surfaces

16.0 m (52.5 ft) F.O.H

Bruce Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB674

HOLE NO QT85-123 LOCATION LUCAS
 DATE July 2 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 4.0m DEPTH of OVERBURDEN 2.1m ELEVATION _____ (MSL)

MOVE to HOLE _____
 DRILL 9:55
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">#</div> <div style="margin-bottom: 5px;">LK</div> <div style="margin-bottom: 5px;">Tm#</div> <div style="margin-bottom: 5px;">5m</div> <div style="margin-bottom: 5px;">7152</div> <div style="margin-bottom: 5px;">E</div> <div style="margin-bottom: 5px;">10</div> <div style="margin-bottom: 5px;">15</div> <div style="margin-bottom: 5px;">20</div> <div style="margin-bottom: 5px;">25</div> <div style="margin-bottom: 5px;">30</div> </div>		<p>0-0.6m: SWAMP MATERIAL</p> <p>0.6-1.9m: LACUSTRINE tan brown; oxidized; high clay, gritty; some pebbles 1.7-1.8m: black, fine grained, boulder</p> <p>1.9-2.1m: MELTOUT TILL light grey beige; medium sand, medium silt; moderate compaction; cobbly</p> <p>2.1-4.0m: BEDROCK 2.1-2.9m: grey black finegrained chips 2.9-4.0m: grey/green, locally weathered chips with quartz veinlets</p> <p>4.0m: (13.0 ft) E.O.H.</p> <p style="text-align: center; font-family: cursive; font-size: 1.2em;">Brian Hart</p>		

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO QTBS-124 LOCATION LUCAS
 DATE July 2 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 32.6(m) DEPTH of OVERBURDEN 30.6m ELEVATION _____ (MSL)
 (107.0 f \pm)

BIT NO B2000
 MOVE to HOLE _____
 DRILL 12:55
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
#	---			0-1.1m: Swamp
Lk	---		7153 E	
#	△		7154	1.1-3.5m: LACUSTRINE
#	△		7155	brown grey; uncompact; gritty, high clay; occasional drop-stone
	○		7156	
	△		7157	3.5-5.3m: ABLATION TILL
	△		7158	grey, slightly brown; moderate to low compaction; medium silt, medium sand; 30% clasts, <40% dark; cobbly-granitic
10	○		7159	
Tm	△		7160	5.3-15.4m: MELTOUT TILL
	○		NS	grey (brown); moderate to high compaction (locally high) medium to low (fine) sand, medium to high silt; 25% clasts 40% dark, lots of carbonates and granitics, clasts small; local silt rich horizons
15	○			
Lk	---			15.4-20.3m: LACUSTRINE
	---			15.4-16.5m: grey brown; high compaction; gritty, high clay; local grey/white high silt laminations
20	---		7161	16.5-17.5m: rhythmites: grey brown, medium silt, high clay alternating with green grey (white) high clay
	---			17.5-20.3m: grey brown high silt with occasional high sand or high clay laminae
25	○		7162	
Gf	○		7163	
	○		7164	
30	○		7165	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE No QT85-124 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">30</div> <div style="margin-bottom: 10px;">35</div> <div style="margin-bottom: 10px;">40</div> <div style="margin-bottom: 10px;">45</div> <div style="margin-bottom: 10px;">50</div> <div style="margin-bottom: 10px;">55</div> <div style="margin-bottom: 10px;">60</div> <div style="margin-bottom: 10px;">65</div> <div style="margin-bottom: 10px;">70</div> <div style="margin-bottom: 10px;">75</div> <div style="margin-bottom: 10px;">80</div> <div style="margin-bottom: 10px;">85</div> <div style="margin-bottom: 10px;">90</div> <div style="margin-bottom: 10px;">95</div> <div style="margin-bottom: 10px;">100</div> <div style="margin-bottom: 10px;">105</div> <div style="margin-bottom: 10px;">110</div> <div style="margin-bottom: 10px;">115</div> <div style="margin-bottom: 10px;">120</div> <div style="margin-bottom: 10px;">125</div> <div style="margin-bottom: 10px;">130</div> </div>		<p>P.O. 20.3 - 28.0</p> <p>28.0 - 30.2</p> <p>30.6 - 32.6</p>	<p>7166</p> <p>7168</p>	<p>20.3 - 30.6 m: GLACIOFLUVIAL</p> <p>20.3 - 28.0 m: high fine sand, low silt</p> <p>28.0 - 30.2 m: stratified: very high sand with medium (coarse) sand, medium (medium to coarse) gravel; 40% dark</p> <p>29.9 - 30.2 m: white black granitoid boulder</p> <p>30.2 - 30.6 m: coarse gravel/sand with 15-20% grey fill balls</p> <p>30.6 - 32.6 m: BEDROCK small, white/brown, fine grained, locally black angular chips</p> <p>32.6 m E.O.H (107.0 ft)</p> <p style="font-size: 1.5em; font-family: cursive;">Brian Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B2000

MOVE TO HOLE

DRILL 2nd

MECHANICAL

DRILLING PR

OTHER

HOLE NO QTBS-125 LOCATION LUCAS
 DATE July 2, 3 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 47.2 m (155.0 ft.) DEPTH of OVERBURDEN 45.4 ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
#	---			0-0.9m: No return / SWAMP
Lk	---			0.9- 4.1 m: LACUSTRINE grey brown; uncompact; minor gnt, high clay occasional dropstone
TM	Δ 0.1 0.0		7167	
#	---			4.1 - 5.3m: MELTOUT TILL grey (brown); moderate compaction; medium to high sand, medium to low silt; 20% clasts < 30% dark
Lk	---		NS	
10	---			5.3- 13.6 m: LACUSTRINE pythmites: grey brown; moderate compaction high clay alternating with brown medium silt, medium clay
#	○		7168	
15	○		7169	11.3-12.5 m: brown high clay 12.5-13.6 m: grey high clay, minor gnt
GF	○		7170	
20	○		7171 NS	13.6-21.8m: GLACIOFLUVIAL medium to high (coarse to medium) sand, medium to low (medium to fine) gravel; crudely stratified; 30% dark; pebbles well rounded; coarsens down to medium (medium) sand, medium (coarse) gravel
#	Δ		7172	
TA	Δ		7173	21.2-21.8m: < 5% grey till balls
#	○		7175	
25	○		7167	21.8-23.2m: ABLATION TILL grey, moderate to low compaction; medium to low silt medium to high sand; 50-60% clasts, 60% dark
GF	○		7177	
#	○		7178	
TA	Δ		7179	
30	○			

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No QT85-125 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

BIT No _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PF _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
TM 30 #				
			7180	
			7181	
			7182	
35			7183	
			7184	
			7185	
GF			7186	
			7187	
40			7189	
			7190	
			7191	
			7192	
45			7193	
50				
55				
60				

23.2 - 28.0 m: GLACIOFLUVIAL

23.2 - 25.0 m: medium sand, medium gravel; 60-70% dark, cobbly; occasional grey till ball
 at 28.1 m: 40-50% grey till balls (debris flow?)
 25.0 - 28.0 m: high fine sand, low gravel

28.0 - 29.9 m: ABLATION TILL

grey; high sand, low silt; low compaction; 60% clasts 70% dark; intermixed with medium sand, medium gravel horizons

29.9 - 30.8 m: MELT OUT TILL

grey; moderate to high compaction; medium to low sand, medium to high silt; 25-40% clasts, >50% dark

30.8 - 45.4 m: GLACIOFLUVIAL

30.8 - 32.6 m: medium to high sand, low gravel 60-70% dark; occasional till ball, <15%

32.6 - 45.4 m: medium (coarse) sand; medium coarse; crudely to well stratified >60% dark; pebbles well rounded

34.1 - 36.6 m: very coarse sand mixed with fine laminated clays

after 42.1 m: material becomes quite cobbly
 at 44.5 m: green cobbles with sulfides

45.4 - 47.2 m: BEDROCK

green black chips, locally weathered to tan brown
 47.2 m (155 ft) E.O.H.

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT No B0000
 MOVE TO HOLE _____
 DRILL 3:50-
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE No QT85-126 LOCATION LUCAS
 DATE JULY 3, 4 1985 GEOLOGIST HART/WOODS DRILLER FOURNEL
 DEPTH of HOLE 36.0 m (118'0") DEPTH of OVERBURDEN 34.4 m (113'0") ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	x x x x			0-0.9 m: No return
				0.9-1.3 m: Swamp material
	△ △ △		7195	1.3-4.4 m: LACUSTRINE Tan brown, oxidized; non-compact; high clay; gritty, occasional dropstone 3.8-4.4 m: gray-brown
	△ △ △		7197	
	△ △ △		7196	
	△ △ △		7198	
	△ △ △		7199	4.4-10.4 m: MELTOUT TILL Gray-brown; moderate to high compaction; high silt, medium to low (fine) sand; 10% clasts (30% dark, cobbly) 4.6-4.7 m: dark black/gray cobble with some sulphides - clasts are small, predominantly light and dark granitics, matrix coated, well rounded - occasional thin (<0.05 m) silty horizons, no grit, no clasts 8.4-10.4 m: moderate compaction; medium to high (fine) sand, medium to low silt; 10-15% clasts (<30% dark)
	△ △ △		7200	
	△ △ △		7201	
	△ △ △		N.S.	
	△ △ △		7202	10.4-11.4 m: GLACIOFLUVIAL High (fine) sand, medium to low (medium to fine, cobbly) gravel
	△ △ △		7203	
	△ △ △		7204	
	△ △ △		7205	
	△ △ △		N.S.	
	△ △ △		7206	
	△ △ △		7207	
	△ △ △		7208	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B000
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE No QT85-126 LOCATION LUCAS
 DATE JULY 3, 4 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 36.0 m DEPTH of OVERBURDEN 34.4 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
35		7208 7209 7210 7211		<p>11.4 - 15.2 m: ABLATION TILL Moderate compaction; very high (fine) sand, very low silt; 40-60% clasts (< 40% dark, rounded to angular, lots of granitics)</p> <p>15.2 - 18.3 m: LACUSTRINE Dark gray, local variations to brown; non-compact; high clay; no grit, occasional dropstone (predominantly granitic) 17.4 - 18.0 m: gray-blue; minor grit 18.0 - 18.3 m: rhythmites, gray-blue high clay layers alternating with medium brown, medium clay, medium silt layers</p> <p>18.3 - 19.5 m: GLACIOFLUVIAL High to medium (fine) sand, medium (fine to medium, 60-70% dark) gravel 18.7 - 18.9 m: pink granite cobble 19.0 - 19.2 m: 85% dark 19.2 - 19.5 m: gray boulder</p> <p>19.5 - 21.3 m: MELTOUT TILL Gray; moderate to high compaction; high silt, low sand; 60% clasts (90% dark, predominantly dark green) 20.1 - 21.3 m: medium silt, medium sand; 90% dark gray clasts, many coated 20.3 - 20.4 m: mafic boulder 20.7 - 20.9 m: mafic boulder</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B0000
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO QT85-126 LOCATION LUCAS
 DATE JULY 3, 4 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 36.0 m DEPTH of OVERBURDEN 34.4 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="text-align: center;">5</div> <div style="text-align: center;">10</div> <div style="text-align: center;">15</div> <div style="text-align: center;">20</div> <div style="text-align: center;">25</div> <div style="text-align: center;">30</div>				<p>21.3-22.9 m: LODGEMENT TILL Light green-gray; high to moderate compaction; high silt, low sand; 40% clasts (95% dark - 90% dark green) @ 22.5 m: becomes cobbly (lots of granitics)</p> <p>22.9-24.4 m: WATERLAIN TILL Gray; moderate compaction; high silt, low sand; 10% clasts (5% dark) 24.2-24.4 m: high sand, low silt</p> <p>24.4-26.2 m: ABLATION TILL Light gray; low compaction; high sand, low silt 24.4-25.0 m: black/white granite boulder</p> <p>26.2-34.4 m: GLACIOFLUVIAL High (medium to coarse, 85% dark) gravel, low (coarse) sand 29.0-29.3 m: high (fine) sand 30.5-31.7 m: high (fine) sand, very low (coarse) gravel 33.5-34.4 m: high (fine) sand, very low (coarse) gravel</p> <p>34.4 m: BEDROCK Medium grey green / light gray; soft</p> <p>36.0 m: E. O. H. (118.0 ft.)</p>

Brown Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B0000

HOLE NO QT85-127 LOCATION LUCAS
 DATE July 4, 5 1985 GEOLOGIST WOODS DRILLER FOURNEL

MOVE to HOLE

DRILL 11:55

MECHANICAL

DRILLING PR

OTHER

DEPTH of HOLE 49.7m (163.0') DEPTH of OVERBURDEN 48.2m (158') ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	X X X X X X X X			0-0.6 m: No return
LK	A.A.A.A.A.A.A.A		N.S. 7212	0.6-1.3 m: Organics
E				1.3-3.0 m: LACUSTRINE Tan-brown; non-compact; high clay; minor grit 1.5-2.4 m: gray-brown to gray 2.4-3.0 m: black/white granite boulder
10			N.S.	
LK				3.0-3.6 m: ABLATION TILL Brown-gray; moderate-low compaction; high sand, low silt; 5-15% clasts (40% dark, 60% granitic) 3.5-3.6 m: gray boulder
15				
TM	A.A.A.A.A.A.A.A		7213	3.6-18.9 m: LACUSTRINE Gray-brown to gray; moderate to high compaction; high clay, low silt; no grit
20	A.A.A.A.A.A.A.A		7214	3.6-4.3 m: medium clay, medium silt
GF	O.O.O.O.O.O.O.O		7215	6.7-7.3 m: low compaction
25	O.O.O.O.O.O.O.O		7216	17.7-18.9 m: dark brown
TA	A.A.A.A.A.A.A.A		N.S. 7217 CR	18.9-20.1 m: MELTOUT TILL Gray; high compaction; medium clay, medium silt, low sand; < 1% clasts
TM	A.A.A.A.A.A.A.A		N.S. 7218	
TM	A.A.A.A.A.A.A.A		N.S. 7219	
TM	A.A.A.A.A.A.A.A		N.S. 7219	
TL	A.A.A.A.A.A.A.A		7220	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B000
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

HOLE No QT85-127 LOCATION LUCAS
 DATE JULY 4, 5 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 49.7 m DEPTH of OVERBURDEN 48.2 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
TL	▲		7220	
GF	▲		7221	
	▲		7222	20.1-25.6 m: GLACIOFLUVIAL
TM	▲		N.S.	High (very fine) sand, low to medium (medium, 30% dark) gravel; low return
	▲		7223	
35 TM	▲		7224	22.5-23.2 m: medium (fine) sand, medium (medium to fine) gravel
	○		7225	23.2-25.0 m: very high (medium-coarse) sand
	○		7226	25.0-25.3 m: granite boulder
40	○		7227	25.6-27.0 m: ABLATION TILL
GF	○		N.S.	Gray; moderate compaction; high sand; 40% clasts (50% dark, numerous exotics, subangular to angular)
	○		7227	
	○		N.S.	
	○		7227	
	○		7228	26.8-27.0 m: pink granite boulder (in sample 7218)
45	○		7229	27.0-29.1 m: MELTOUT TILL
	○			Medium gray; moderate to high compaction; medium silt, medium sand; 20% clasts (80% dark, 20% pink granite)
	○			27.4-27.7 m: red granite boulder
	○			27.7-27.9 m: mafic boulder
	○			27.9-28.0 m: pink granite boulder
	○			28.3-28.5 m: pink granite boulder
	○			28.8-29.1 m: dark green/white boulder
0	○			29.1-30.5 m: LODGEMENT TILL
	○			Light to medium gray; high compaction; medium to high sand, medium to low silt; 20% clasts (95% dark, subangular to angular, matrix coated); pyrite cubes

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No QT85-127 LOCATION LUCAS
 DATE JULY 4, 5 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 49.7 m DEPTH of OVERBURDEN 48.2 m ELEVATION _____ (MSL)

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>30.5-30.9 m: GLACIOFLUVIAL High to medium (fine to medium) sand, low to medium (medium) gravel 30.8-30.9 m: mafic boulder</p> <p>30.9-34.3 m: MELTOUT TILL Light blue-gray; high compaction; very high (medium) sand, low silt; < 1% clasts, very gritty 32.3-32.6 m: green boulder 32.6-34.3 m: 60% clasts (95% dark)</p> <p>34.3-35.7 m: MELTOUT TILL Light medium gray; moderate compaction; high (fine to medium) sand; 85% clasts (95% dark, generally green or black, some paleozoics and granitoids, some coated)</p> <p>35.7-48.2 m: GLACIOFLUVIAL Medium (fine to medium) sand, medium (coarse, 95% dark) gravel -occasional gray, high sand, low silt till ball 40.8-41.0 m: gray boulder 42.1-42.2 m: green boulder</p> <p>48.2 m: BEDROCK Medium green / light green; soft</p> <p>49.7 m: E.O.H. (163.0 ft)</p>

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO. QT85-134 LOCATION LUCAS
 DATE July 9 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 22.1 m DEPTH of OVERBURDEN 2.06 ELEVATION _____ (MSL)

BIT No B0000
 MOVE to HOLE _____
 DRILL 10:3
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
#	#			0 - 0.6 m: Swamp
Lk	#			0.6 - 6.7 m: LACUSTRINE
e	#			0.6 - 2.3 m: brown; oxidized; uncompact; high clay, slightly gritty
#	#		7265	2.3 - 4.8 m: grey brown; moderate to high compaction; high clay, no grit
10	#			4.8 - 4.9 m: gritty; medium silt, medium clay; 10% clasts
FL	#		7266	4.9 - 6.7 m: medium sand, medium silt, gritty
GF	#		7267	6.7 - 18.8 m: FLUVIO/LACUSTRINE (GLACIOFLUVIAL)
15	#		7268	6.7 - 10.4 m: Very high fine sand, low silt; <1% clasts; partially lithified
#	#		7269	10.4 - 10.8 m: gritty, medium to low sand, medium to high silt
#	#		7270	10.8 - 14.2 m: high fine sand, low silt
#	#		7271	14.2 - 18.8 m: high sand layers intermixed with high silts
20	#			18.8 - 20.3 m: UNDEFINED TILL
#	#			grey; moderate to high compaction; medium silt, medium sand; 10% clasts, 20-40% dark
25	#			20.3 - 20.6 m: GLACIOFLUVIAL
#	#			Coarse: medium (coarse) sand, medium (medium to coarse) gravel, cobbly, 70-80% dark, 50% green chips
30	#			20.6 - 22.1 m: BEDROCK
	#			green/white, medium to fine grain chips with quartz
	#			22.1 m (72.5 ft) E.O.H.

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO QT85-135 LOCATION LUCAS
 DATE July 8 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 21.3m DEPTH of OVERBURDEN 19.7m ELEVATION _____ (MSL)

BIT No B0000
 MOVE to HOLE _____
 DRILL 1:15 - _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">#</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">GF</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>		<p>0 - 11.9 m: No return - Swamp</p> <p>11.9 - 19.7 m: GLACIOFLUVIAL</p> <p>11.9 - 15.1 m: high fine sand intermixed with high silt and/or high silt layers; <10% clasts</p> <p>15.1 - 19.7 m: crudely stratified: high fine sand with medium (coarse) sand, medium (coarse) gravel; 50-70% dark; cobbly; pebbles well rounded</p> <p>at 16.3 m: grey silt balls</p> <p>19.0 - 19.5 m: Very high fine sand</p> <p>19.7 - 21.3 m: BEDROCK Small angular green white chips with qtz inlets</p> <p>21.3 m (70.0 ft) E.O.H.</p>	<p>7272</p> <p>7273</p> <p>7274</p> <p>7275</p>	<p style="font-size: 2em; font-family: cursive;">Brian Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B000
 MOVE to HOLE
 DRILL 12:
 MECHANICAL
 DRILLING PR
 OTHER

HOLE No QT85-139 LOCATION LUCAS
 DATE JULY 10 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 16.0 m (52.5') DEPTH of OVERBURDEN 14.0 m (46.0') ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	X			0-0.6 m: No return
	X			0.6-1.3 m: Organics
	X			1.3-6.7 m: FLUVIOLACUSTRINE Light beige; non-compact; high silt, low clay; gritty
	X			3.6-6.7 m: gray-brown; high clay; occasional dropstone
	X			6.7-11.0 m: LACUSTRINE Gray; non-compact; very high clay; no grit
	X			9.7-11.0 m: rhythmites, blue gray high clay layers alternating with light brown high silt layers
	X			11.0-14.0 m: GLACIOFLUVIAL Very high (coarse) sand
	X			12.8-14.0 m: medium to high (coarse, cobbly, 85% dark) gravel, medium to low (coarse) sand
	X			14.0 m: BEDROCK Light gray-green / medium gray-green, some minute pyrite grains
	X			16.0 m: E.O.H. (52.5 m)

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B0000
 MOVE to HOLE
 DRILL 1:40
 MECHANICAL
 DRILLING PRO
 OTHER

HOLE NO QT85-140 LOCATION LUCAS
 DATE JULY 10, 11 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 46.3m (152.5') DEPTH of OVERBURDEN 46.3m (152') ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
FL	X X X			0-0.6 m: Organics
TA	Δ Δ Δ		7288 N.S.	0.6-2.4 m: FLUVIOLACUSTRINE Tan brown; non-compact; high clay; gritty
TM	Δ Δ Δ		7289 7290 CR	2.4-5.5 m: ABLATION TILL Gray-brown; low compaction; high sand; 15-20% clasts (50% dark, subrounded to angular)
	Δ Δ Δ		7291	4.0-4.3 m: mafic boulder 4.3-5.5 m: 70-80% clasts
	Δ Δ Δ		7292	
LK			N.S.	5.5-13.7 m: MELT-OUT TILL Medium gray; moderate compaction; high silt, low sand; 5-10% clasts (60% dark, numerous granitic cobbles)
FL	Δ Δ Δ			8.8-13.7 m: medium to high sand, medium to low silt
TA	Δ Δ Δ		7293	9.1-13.7 m: 60% clasts (50% dark, small, angular)
	Δ Δ Δ		7294	13.1-13.7 m: becomes very cobbly
GF	○ ○ ○		N.S.	
	○ ○ ○		7295	13.7-16.1 m: LACUSTRINE Medium gray; high compaction; high clay, low silt; no grit
	○ ○ ○		7296	
30	○ ○ ○			

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B000
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

HOLE No QT85-140 LOCATION LUCAS
 DATE JULY 10, 11 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 48.3 m DEPTH of OVERBURDEN 46.3 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL SAMPLE NO	DESCRIPTIVE LOG
0.0		7296	
16.1 - 18.3	GF	7297	FLUVIOLACUSTRINE Gray; moderate compaction; medium silt, medium sand; very gritty
17.4 - 18.3		7298	high (fine) sand
18.3 - 19.5	TM	7299	ABLATION TILL
		7300	Gray; very low compaction; medium to high sand, medium to low silt
19.5 - 35.7	GF	7301	GLACIOFLUVIAL
		7302	Medium (fine) sand, medium (coarse, cobbly, 40% dark)
22.5 - 22.9			mafic boulder
35.7 - 36.9	TM	7303	MELT-OUT TILL
		7304	Light gray; moderate compaction; high silt, low sand; 5-10% clasts
36.9 - 46.0			GLACIOFLUVIAL
			Very high (coarse, cobbly, 60% dark) gravel
37.2 - 37.5			dark green boulder
37.6 - 37.8			few green-gray high silt till balls
38.1 - 38.4			dark green boulder
38.7 - 38.9			dark green boulder
42.7 - 46.0			very high (fine) sand

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B0000

HOLE NO QT85-140 LOCATION LUCAS
 DATE JULY 10, 11 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 48.3 m DEPTH of OVERBURDEN 46.3 m ELEVATION _____ (MSL)

MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>46.0-46.3 m: LODGEMENT TILL Blue-green; high compaction; high clay; < 1% clasts (dark, graphic)</p> <p>46.3 m: BEDROCK Dark steel gray, shiny (graphitic); quartz/ carbonate veining; very sulphide-rich @ 46.9 m: weathered zone @ 47.5 m: thin quartz /carbonate vein 47.9-48.3 m: dark green/olive green/rusty brown; soft; schistose; quartz /carbonate rich</p> <p>48.3 m: E.O.H. (158.5 ft)</p> <p style="text-align: center; font-size: 1.2em;"><i>Brian Hart</i></p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B0000
 MOVE to HOLE _____
 DRILL 11:50
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

HOLE NO QT85-142 LOCATION LUCAS
 DATE JULY 11 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	X X X			0-0.6 m: No return
FL				
GF	0.0		7313	0.6-0.9 m: Organics
E				0.9-3.6 m: FLUVIOLACUSTRINE Tan-brown; non-compact; high clay; gritty 1.8-3.6 m: gray-brown
10				3.6-4.4 m: GLACIOFLUVIAL Medium (fine) sand, medium (coarse, cobbly, 70% dark) gravel; numerous granitic cobbles 4.0-4.1 m: white/pink granitic boulder 4.3-4.4 m: 95% dark green
15				4.4 m: BEDROCK Dark green/light green to grey at depth; medium hard
20				7.0 m: E.O.H. (23.0 ft.)
25				<i>Brian Hunt</i>
30				

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B000

HOLE NO QT85-143 LOCATION LUCAS

MOVE to HOLE

DATE JULY 11 1985 GEOLOGIST WOODS DRILLER FOURNEL

DRILL 1:05

MECHANICAL

DEPTH of HOLE 37.2m (122'0") DEPTH of OVERBURDEN 35.7m (117') ELEVATION _____ (MSL)

DRILLING PR

OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
				0-1.8 m: No return
				1.8-2.4 m: Organics
				2.4-8.8 m: FLUVIOLACUSTRINE Gray; non-compact; medium clay, medium silt; gritty
				7.9-8.8 m: occasional dropstone
				8.8-17.1 m: LACUSTRINE Gray to gray-brown; non-compact; high clay; no grit
				11.6-16.5 m: rythmites, green-blue high clay layers alternating with grey-brown medium silt, medium clay
				16.5-17.1 m: sand seam
#	GF	0.0	7314	17.1-18.0 m: GLACIOFLUVIAL Medium (fine) sand, medium (coarse, very cobbly, 60% dark, numerous paleozoics, granitics) gravel
#	TA	0.0	7315	
#	TA	0.0	7316	17.5-18.0 m: 80-90% dark
#	TM	0.0		
#	LK	0.0	N.S.	18.0-19.8 m: ABLATION TILL Gray-brown; low compaction; high to medium sand, low to medium silt; < 5% clasts (predominantly granitic)
#	LK	0.0		
#	TA	0.0	7317	
#	TA	0.0		
#	GF	0.0	7318	
#	GF	0.0		
#	GF	0.0	7319	
#	GF	0.0		
30				

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B000

HOLE No QT85-143 LOCATION LUCAS
 DATE JULY 11 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 37.2 m DEPTH of OVERBURDEN 35.7 m ELEVATION _____ (MSL)

MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
0.0	0.0		7319	
0.0	0.0		7320	
0.0	0.0		7321	
0.0	0.0		N.S.	
0.0	0.0		7321	
0.0	0.0		7322	
19.8	GF	19.8 - 21.9 m		MELT-OUT TILL Gray to dark brown; moderate compaction; medium silt, medium (fine) sand; 10% clasts (granitic and mafic) 19.8 - 20.0 m: dark chocolate brown; medium clay, medium silt band
21.9		21.9 - 24.4 m		LACUSTRINE Gray/white; non-compact; high silt 24.1 - 24.4 m: steel gray; high clay
24.4		24.4 - 26.2 m		ABLATION TILL Light gray; low compaction; high to medium sand, low to medium silt; 40-60% clasts (50-70% clasts)
26.2		26.2 - 35.7 m		GLACIOFLUVIAL Medium (fine to medium) sand, medium (medium, 75% dark) gravel 31.1 - 35.7 m: very coarse, cobbly gravel 33.5 - 34.1 m: black/white granitic boulder
35.7		35.7 m		BEDROCK Gray; soft
37.2		37.2 m		E.O.H. (122.0 ft.)

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO. QT85-144 LOCATION LUCAS
 DATE July 11/12 1985 GEOLOGIST WOODS/HART DRILLER FOURNEL
 DEPTH of HOLE 23.8m DEPTH of OVERBURDEN 22.0m ELEVATION _____ (MSL)

BIT NO B200
 MOVE to HOLE _____
 DRILL 3:50 _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
#	X X			0 - 0.6 m : Swamp Material
FL				
#			NS	0.6 - 3.0 m : FLUVIOLACUSTRINE
E			7323	tan brown ; uncompact ; gritty ; high clay
				2.4 - 3.0 m : grey brown ; occasional dropstone
Tm			7324	
			7325	3.0 - 8.2 m : MELTOUT TILL
#				green grey ; moderate compaction ; medium to high
TA			7326	(fine) sand , low to medium silt ; 5-40% clasts ,
10				70% dark
#			7327	3.0-3.5 m : white/black granitic boulder
TM				3.8 - 4.0 m : mafic boulder
#				6.7 - 7.6 m : sand/gravel horizon
Lk			NS	7.6 - 8.2 m : high clay horizon
15			7328	
#			7329	8.2 - 11.6 m : ABLATION TILL
				grey brown ; low compaction ; high sand ; 40% clasts ,
GF			7330	50% dark
20			7331	
			7332	11.6 - 12.5 m : MELTOUT TILL
				grey ; moderate to low compaction ; medium silt ,
				low sand ; 30% clasts , 90% dark ; intermixed clay
				and silt layers
25				
				12.5 - 15.2 m : LACUSTRINE
				uncompact ; no grit
				12.5 - 12.8 m : brown ; high silt
				12.8 - 13.4 m : grey ; high clay
30				13.4 - 15.2 m : chocolate brown ; high clay

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No GT85-144 LOCATION _____
 DATE _____ 19__ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

BIT No _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
5 10 15 20 25 30				<p>15.2 - 22.0 m: GLACIOFLUVIAL</p> <p>15.2 - 16.1 m: low (medium) sand, high (fine-medium) gravel, 80% dark</p> <p>16.1 - 20.1 m: very crudely stratified; very high (cvs) sand, low (coarse) gravel; 40-50%; pebbles well rounded</p> <p>20.1 - 22.0 m: medium to high (coarse) gravel, low (coarse) sand; cobbly</p> <p>22.0 - 23.8 m: BEDROCK green/black, finely laminated, micaceous, chips</p> <p>23.2 - 23.3 m: quartz vein</p> <p>23.8 m (78.0 ft) E.O.H.</p> <p style="font-size: 2em; font-family: cursive; margin-left: 100px;">Break thru</p>

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No. QT 85-145 LOCATION LUCAS
 DATE July 12 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 10.4 m DEPTH of OVERBURDEN 8.4 m ELEVATION _____ (MSL)

BIT No. R2222
 MOVE to HOLE _____
 DRILL 9:30
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

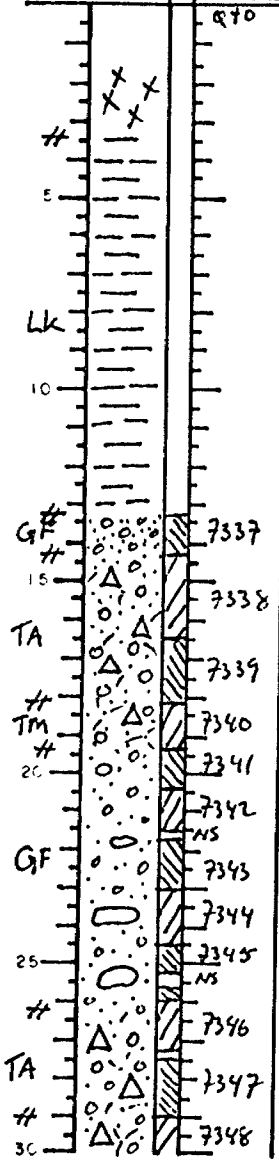
DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
			QTO	0 - 0.4 m: No return
Lk	---			
Tm	Δ		7333	0.4 - 1.7 m: LACUSTRINE
Lk	---		NS	tan brown; high clay; uncompact
Tm	Δ		7334	1.7 - 2.9 m: MELTOUT TILL
Lk	---		NS	grey brown; moderate compaction; medium to high silt, medium to low (fine) sand; 5% clasts mostly light (granitics)
Tm	Δ		7335	
10				2.9 - 4.6 m: LACUSTRINE
				2.9 - 3.5 m: grey brown; high silt, low clay, v. low sand
				3.5 - 3.7 m: chocolate brown; high clay; organics
				3.7 - 4.6 m: grey brown; moderate compaction; high clay, low silt, minor grit; very few clasts
15				4.6 - 6.1 m: MELTOUT TILL
				grey; moderate compaction; medium sand, medium silt; 10-25% clasts, < 40% dark
				5.5 - 5.8 m: high silt, low sand
20				6.1 - 7.2 m: LACUSTRINE
				grey; low compaction; medium to low silt, medium to high clay; no grit, no clasts
25				7.2 - 8.4 m: MELTOUT TILL
				grey; moderate compaction; low sand, medium to high silt; < 5% clasts, < 30% dark
30				

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO. 3000
 MOVE TO HOLE
 DRILL 12:15
 MECHANICAL
 DRILLING PR
 OTHER _____

WELL NO. QT85-146 LOCATION LUCAS
 DATE July 12 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 42.7 m DEPTH of OVERBURDEN m ELEVATION _____ (MSL)
190 ft

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
			RTD	
0				0 - 3.3m: No Return
3.3				3.3 - 13.3m: LACUSTRINE
7.9				3.3 - 7.9m: grey brown; gritty; high clay; uncompact; occasional clast
10.1				7.9 - 10.1m: grey; uncompact; no grit; hi clay
13.3				10.1 - 13.3m: rythmites: brown high silt, alternating with grey brown high clay
13.3				13.3 - 14.3m: GLACIOFLUVIAL
				medium (fine) sand, medium (fine to medium) gravel, 40% dark
14.3				14.3 - 18.1m: ABLATION TILL
				grey brown; low compaction; high sand, low silt; 50-60% clasts; cobbly
15.7				15.7m: - granitic cobble
17.2				17.2 - 17.4m: medium sand, medium silt
17.5				17.5 - 17.7m: sand and gravel seam
18.1				18.1 - 19.3m: MELTOUT TILL (L?)
				grey brown; moderate compaction; medium sand, medium silt, <20% clasts 50% dark
18.7				18.7 - 19.3m: 40-50% clasts
19.3				19.3 - 26.1m: GLACIOFLUVIAL
				stratified: medium (medium to fine) sand, medium (medium) gravel to very high fine sand; 40-50% dark; cobbly



REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE TO HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE No QTBS-146 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
30			<u>7350</u>	
Tm			7350	21.8 - 21.9 m: black / grey / white boulder
			7351	at 23.2 m: green mafic cobble
Gt#			7352	23.6 - 23.9 m: granitic cobble
Tm#			7353	25.3 - 25.6 m: light green grey boulder
			7354	26.1 - 29.0 m: ABLATION TILL
TL			7355	coarse: grey; moderate to low compaction; high sand low silt; 40-50% clasts, 60% dark
40			7356	24.2 - 24.4 m: green boulder
				28.0 - 29.0 m: sand / gravel horizon
				29.0 - 33.5 m: MELTOUT TILL
45				grey; moderate to high compaction; medium sand, medium silt; 30-50% clasts (variable) < 40% dark; local seams of high sand, low gravel
				29.3 - 29.7 m: high silt, low sand; high compaction
				at 30.9 m: light lime green cobble
				31.5 - 33.5 m: 40-60% clasts; > 50% dark
20				33.5 - 34.7 m: GLACIOFLUVIAL
				medium to low (coarse) sand, medium to high (coarse to medium) gravel; 60% dark; cobbly
				34.6 - 34.7 m: 10% grey till balls
25				34.7 - 35.4 m: MELTOUT TILL
				grey white; moderate compaction; medium sand medium silt, (locally high sand, low silt) cobbly
30				

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PROC _____
 OTHER _____

HOLE No QT85-146 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>35.4 - 41.1 m: LOGGEMENT TILL grey white; moderate to high compaction; medium to high silt, low sand (grain size variable); cobbly; < 25% clasts, > 50% dark at 36.4 m: light grey green cobble at 37.1 m: granitic cobble 39.2 - 39.3 m: black fine grained boulder 40.5 - 41.1 m: 60 - 70% black fine grained pebbles</p> <p>41.1 - 42.7 m: BED ROCK black, fine grained, angular chips 41.1 - 41.3 m: blue grey, high clay with grey/black chips</p> <p>42.7 m (140.0 ft) E.O.H.</p> <p style="text-align: center; font-size: 1.2em;">Brian Hart</p>

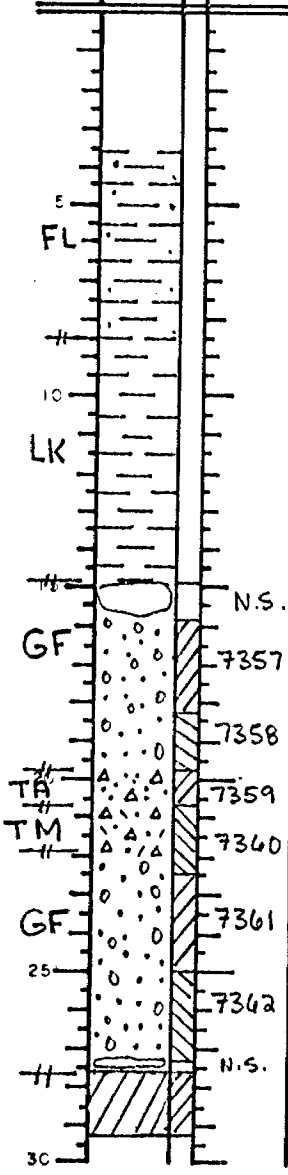
REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B0000

HOLE NO QT85-147 LOCATION LUCAS
 DATE July 13 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 29.3m (96.0') DEPTH of OVERBURDEN 27.7m (91.0') ELEVATION _____ (MSL)

MOVE to HOLE _____
 DRILL 8:40
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL SAMPLE NO	DESCRIPTIVE LOG
0			0-3.6 m: No return
3.6			3.6-8.5 m: FLUVIOLACUSTRINE Gray; non-compact; high clay; gritty
8.5			8.5-14.9 m: LACUSTRINE Brown-gray; non-compact; high clay; no grit 13.4-14.9 m: rythmites, blue high clay layers alternating with brown medium clay, medium silt
14.9			14.9-19.8 m: GLACIOFLUVIAL Medium to high (fine) sand, medium to low (medium to coarse, 75% dark) gravel; 14.9-15.8 m: dark green/white boulder 17.7-19.8 m: cobbly, 95% dark 18.4-19.8 m: medium to coarse sand
19.8			19.8-20.7 m: ABLATION TILL Dark brown; low compaction; high sand, low silt; 15% clasts (dark)
20.7			20.7-21.9 m: MELT-OUT TILL Light gray; moderate compaction; medium sand, medium silt; 30% clasts (90% dark green/black)
21.9			
25			
30			



REVERSE CIRCULATION DRILL HOLE LOG

BIT NO B0000
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO QT85-147 LOCATION LUCAS
 DATE JULY 13 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 29.3 m DEPTH of OVERBURDEN 27.7 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>21.9-27.7 m: GLACIOFLUVIAL Medium to high (fine) sand, medium to low (coarse, cobbly, 80-95% dark) gravel 25.0-27.4 m: occasional till balls 27.4-27.7 m: gray boulder</p> <p>27.7 m: BEDROCK Light green / olive green; soft; quartz / carbonate rich</p> <p>29.3 m: E.O.H. (96.0')</p> <p style="text-align: center; font-size: 1.5em; font-family: cursive;">Brian Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO. A0000
 MOVE TO HOLE
 DRILL 11:00-
 MECHANICAL
 DRILLING PRO
 OTHER _____

HOLE NO. QT85-148 LOCATION LUCAS
 DATE JULY 13, 15 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 41.1 m (135.0') DEPTH of OVERBURDEN 39.6 m (130.0') ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
0-1.8	X X X			No return
1.8-2.1	/			Swamp
2.1-8.5	FL			FLUVIOLACUSTRINE Light gray-brown to brown; non-compact; high clay, low silt; gritty
4.3-8.5	LK			medium gray, high clay
5.5-8.5				occasional dropstone
8.5-11.6	GF		7363	LACUSTRINE Light brown-gray; non-compact; high clay; no grit
11.0-11.6	TA		7364	rythmites, gray-blue high clay layers
	#		7365	alternating with brown medium silt, medium clay layers
	GF		7366	
			7367	
11.6-12.2			N.S.	GLACIOFLUVIAL Medium (fine) sand, medium (medium, 80% dark) gravel
			7368 CR	
			7369	
12.2-15.2			7370	ABLATION TILL Light gray; very low compaction; high sand; 70-80% clasts (60% dark)
			N.S.	
			7370	
	TM		7371	13.7-15.2 m: numerous pink granite clasts
	#		7372	
	GF		7373	
			7374	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO QT85-148 LOCATION LUCAS
 DATE JULY 13, 15 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 41.1 m DEPTH of OVERBURDEN 39.6 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE No	DESCRIPTIVE LOG
0	GF	0.0-0.0	7374	
0.5	GF	0.0-0.5	7375	<p>15.2-24.7 m: GLACIOFLUVIAL High to medium (medium "pea", 85% dark) gravel, low to medium (fine) sand 16.5-17.4 m: coarse, cobbly gravel 18.3-20.7 m: very high coarse, cobbly gravel 18.9-19.2 m: pink granite boulder 21.3-24.1 m: very cobbly, 95% dark 23.2-24.1 m: green/white boulder</p>
1.0	GF	0.5-1.0	7376	
1.5	GF	1.0-1.5	7377	
2.0	GF	1.5-2.0	7378	
2.5	GF	2.0-2.5	7379	
3.0	GF	2.5-3.0		
3.5	GF	3.0-3.5		
4.0	GF	3.5-4.0		
4.5	GF	4.0-4.5		
5.0	GF	4.5-5.0		
5.5		5.0-5.5		<p>24.7-27.4 m: MELT-OUT TILL Medium gray; moderate to low compaction; medium silt, medium sand; 30-40% clasts (75% dark, some coated) 26.5-26.7 m: sand and gravel seam</p>
6.0		5.5-6.0		<p>27.4-31.7 m: GLACIOFLUVIAL High (coarse, cobbly, 95% dark) gravel, low (coarse) sand 28.3-28.7 m: few green till balls 28.7-28.8 m: green cobble</p>
6.5		6.0-6.5		<p>31.7-32.3 m: LODGEMENT TILL Light green; high compaction; medium silt, medium sand; 40% clasts (60% dark)</p>

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO QT85-148

LOCATION LUCAS

DATE JULY 13, 15 1985

GEOLOGIST WOODS

DRILLER FURNEL

DEPTH of HOLE 41.1 m

DEPTH of OVERBURDEN 39.6 m

ELEVATION _____ (MSL)

BIT NO _____
 MOVE to _____
 DRILL _____
 MECHANICA _____
 DRILLING _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL SAMPLE NO	DESCRIPTIVE LOG
		<p>32.3-39.6 m: GLACIOFLUVIAL Very high (fine "pea" 85% dark) gravel</p> <p>39.6 m: BEDROCK Gray/white to light green/white at depth, medium hard</p> <p>41.1 m: E.O.H. (135.0 ft.)</p> <p style="text-align: center; font-size: 2em;"><i>Brian Hart</i></p>	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO A00004
 MOVE TO HOLE _____
 DRILL 10:20
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO QT85-149 LOCATION LUCAS
 DATE July 15 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 21.3m (70'0") DEPTH of OVERBURDEN 19.5m (64'0") ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">X X X X</div> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">FL</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">LK</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">GF</div> <div style="margin-bottom: 10px;">#</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>0-2.4 m: No return</p> <p>2.4-3.0 m: Organics</p> <p>3.0-10.4 m: FLUVIOLACUSTRINE Gray-brown; non-compact; high clay; gritty, occasional dropstone (granitic and mafic) @ 10.4 m: thin gravel seam</p> <p>10.4-17.4 m: LACUSTRINE Gray-brown; non-compact; very high clay; no grit 17.4-17.7 m: rythmites, blue-gray high clay layers alternating with light brown medium clay, medium silt</p> <p>17.7-19.5 m: GLACIOFLUVIAL Medium (fine) sand, medium (medium-coarse, 60% dark) gravel</p> <p>19.5 m: BEDROCK Black/white; fine grained; medium hard to hard</p> <p>21.3 m: E.O.H.</p> <p style="text-align: center; font-family: cursive; font-size: 1.2em;">Brian Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO A000

MOVE TO HOLE

HOLE NO QT85-150 LOCATION LUCAS

DRILL _____

DATE JULY 15, 16 1985 GEOLOGIST WOODS DRILLER FOURNEL

MECHANICAL _____

DEPTH of HOLE 55.5 m DEPTH of OVERBURDEN 53.9 m ELEVATION _____ (MSL)

DRILLING PR _____

OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
33.5	△ △ △		7384	
33.5 - 52.4				GLACIOFLUVIAL Medium (fine to medium) sand, medium (coarse, cobbly, 95% dark) gravel; occasional till ball
36.9 - 37.8	○ ○ ○		7386 CR	very bouldery gravel
37.8	○ ○ ○		7387	@ 37.8 m: very high sand
40.8 - 41.1	○ ○ ○		7388	white granite boulder
41.1 - 50.0	○ ○ ○		7389	very high (fine to medium) sand
51.5 - 51.7	○ ○ ○		7390	black mafic boulder
52.4 - 53.2			N.S.	LODGEMENT TILL Medium to dark olive-green; high compaction; medium sand, medium silt; 25-30% clasts (100% dark gray)
53.2 - 53.9			7392	GLACIOFLUVIAL High (coarse, cobbly, 85-95% dark) gravel, low (very coarse) sand
53.9			N.S.	BEDROCK Light gray/green with quartz; angular; locally weathered
55.5	/ / /		7397	E.O.H. (182.0 ft.)

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REVERSE CIRCULATION DRILL HOLE LOG

HOLE No. QT85-151 LOCATION LUCAS
 DATE July 16 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 18.9m DEPTH of OVERBURDEN 17.2m ELEVATION _____ (MSL)
 (62.0ft)

BIT No. CB67
 MOVE to HOLE _____
 DRILL 9:20
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
			QT0	
	XXXX Δ			0 - 2.7m: No return
				2.7 - 3.3m: Swamp
				3.3 - 4.3m: WATERLAIN TILL grey/brown; moderate compaction; medium to high clay, medium to low silt, minor gnt; < 2% clasts - granitics and carbonates
10				4.3 - 14.3m: LACUSTRINE 4.3 - 11.3m: grey brown; uncompact; high clay, no gnt 11.3 - 14.3m: rhythmites: finely laminated brown medium silt medium clay, alternating with high clay (grey) laminae
15			7398	
	TM		7399	
	GF#			14.3 - 17.1m: MELTOUT TILL 14.3 - 16.6m: grey brown; medium sand, medium silt; 10-15% clasts, 30% dark; moderate compaction 16.6 - 17.1m: grey white; high silt, low sand; 40% clasts
20				17.1 - 17.2m: GLACIOFLUVIAL medium to low sand, medium to high gravel; 40% dark
25				17.2 - 18.9m: BEDROCK light grey/green, finegrained chips with quartz 17.3 - 17.6m: quartz carbonate vein
30				18.9m (62.0ft.) E.O.H.

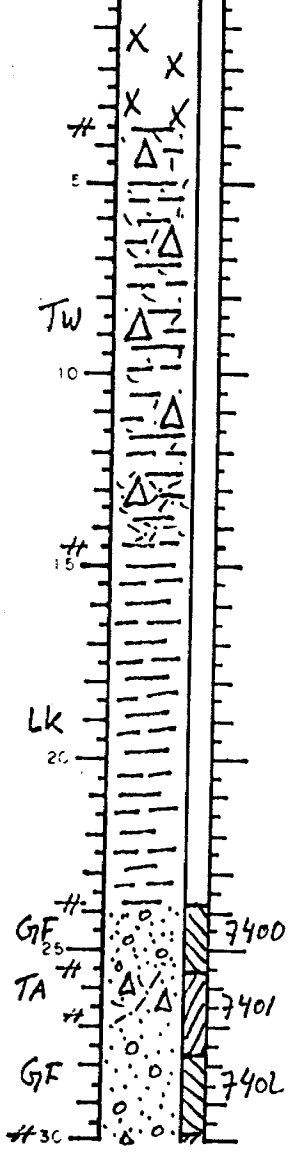
Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO. GT85-152 LOCATION LUCAS
 DATE July 16 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 32.3 m DEPTH of OVERBURDEN 30.3 m ELEVATION _____ (MSL)
 (106.0 ft)

BIT NO. CB63
 MOVE to HOLE _____
 DRILL 11:55
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

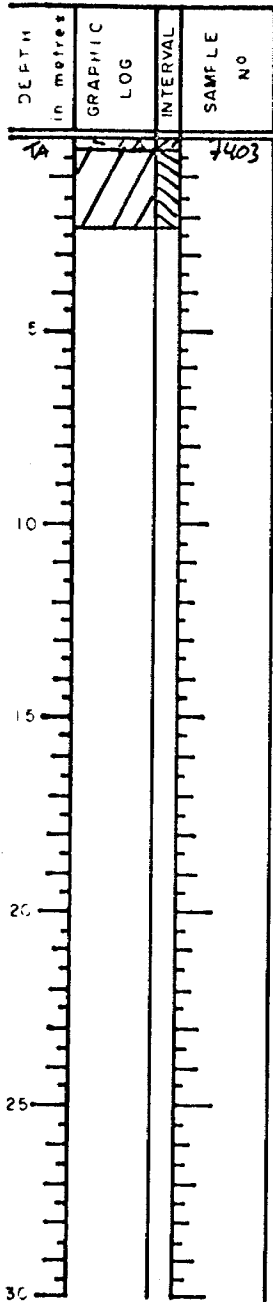
DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	X X			0-3.6m: Swamp
	X X			3.6-14.6m: WATERLAIN TILL brown; moderate compaction; high clay, medium to low silt, gritty; 5-10% very small clasts - wide variety
	△ △			13.4-14.6m: medium to high silt, medium clay, gritty
	△ △			14.6-23.8m: LACUSTRINE
	△ △			14.6-20.6m: grey brown; high clay; uncompact, <1% clasts, no grt
	△ △			20.6-23.5m: rhythmites: brown grey high clay, alternating with light brown medium clay medium silt
	△ △			23.5-23.8m: medium sand, medium silt, lo clay
	△ △			23.8-25.6m: GLACIOFLUVIAL medium to high (medium to fine) sand, medium to low (medium) gravel; <30% clark; well rounded
	△ △			25.6-26.8m: ABLATION TILL grey brown; low compaction; high sand, medium to low silt; 40-50% clasts
	△ △			26.8-29.9m: GLACIOFLUVIAL high (medium to fine) sand, medium to low (fine) gravel
	△ △			29.9-30.3m: ABLATION TILL grey brown, medium sand, medium silt, 30-40% clasts



REVERSE CIRCULATION DRILL HOLE LOG

No. QT85-152 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____



DESCRIPTIVE LOG

30.3- 32.3m: BEDROCK
 light green grey; quartz rich, chips

32.3m (106.0 ft) E.O.H.

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CB620
 MOVE to HOLE
 DRILL 1:50
 MECHANICAL
 DRILLING PR
 OTHER _____

HOLE No QT85-153 LOCATION LUCAS
 DATE July 16 1985 GEOLOGIST HART DRILLER FOURNEL
 DEPTH of HOLE 25.3 m DEPTH of OVERBURDEN 23.7 m ELEVATION _____ (MSL)
83.0 ft

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
				QTO
#	X X X			0 - 1.5 m: No return
TW	△			1.5 - 2.1 m: Swamp
#	△			2.1 - 6.1 m: WATERLAIN TILL brown; moderate compaction; medium to high clay, medium to low silt; gritty; 5% clasts
10	△			5.6 - 6.1 m: no return
LK	—			6.1 - 21.9 m: LACUSTRINE
15	—			6.1 - 12.5 m: brown; high clay; uncompact; local medium to low sand; medium to high silt layers
	—			12.5 - 15.8 m: brown; high clay
	—			15.8 - 21.9 m: rhythmites: grey high clay alternating with brown, medium silt, medium clay; <1% pebbles
20	—			after 20.1 m: dominated by blue grey high clay
#	○			21.9 - 23.7 m: GLACIOFLUVIAL
GF	○		7404	21.9 - 22.4 m: medium to high (medium to fine) sand, medium to low (medium to fine) gravel; 60% dark; cobbly
25	○			22.4 - 23.7 m: high gravel, low sand
	—			23.7 - 25.3 m: BEDROCK
	—			light green, hard, angular chips, with quartz and dark veining
30	—			25.3 m (83.0 ft) E.O.H.

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REVERSE CIRCULATION DRILL HOLE LOG

BIT NO CBG7

HOLE No QT85-154 LOCATION LUCAS
 DATE JULY 19 1985 GEOLOGIST WOODS DRILLER FOURNEL

MOVE to HOLE _____

DRILL _____

MECHANICAL _____

DEPTH of HOLE 55.5 m (182.0') DEPTH of OVERBURDEN 53.6 m (176') ELEVATION _____ (MSL)

DRILLING PRO _____

OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
			7410	
			7411 ^{CR}	
			7412	25.4 - 25.8 m: ABLATION TILL Medium gray; low compaction; high sand, low silt; 15-20% clasts
			7413	
35			7414	25.8 - 48.2 m: GLACIOFLUVIAL Very high (fine) sand, low (medium to coarse, 95% dark) gravel
	GF		7415	
			7416	34.4 - 38.4 m: medium to high (coarse) sand, low to medium (coarse, 95% dark) gravel
40			7417	@ 36.3 m: few till balls
			7418	38.4 - 45.1 m: very high (cobbley, 99% dark) gravel
45			7419	48.2 - 48.8 m: LODGEMENT TILL Green; high compaction; high sand, low silt; 10-15% clasts (90% dark, 10% paleozoics)
			7420	48.8 - 53.6 m: GLACIOFLUVIAL High (coarse, cobbley, 99% dark) gravel, low (medium to coarse) sand
	TL#		7421	
50			N.S.	50.9 - 51.2 m: white / black granitic boulder
	GF		7422	53.3 - 53.6 m: dark green boulder
			N.S.	
55				53.6 m: BEDROCK Rusty brown; very soft (locally weathered to yellow 'muck')
				53.6 - 53.8 m: green
60				55.5 m: E.O.H. (182.0')

Brian Hart

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE TO HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

Hole No QTBS-155 LOCATION LUCAS
 DATE JULY 19, 20 1985 GEOLOGIST WOODS/HART DRILLER FOURNEL
 DEPTH of HOLE 37.8 m DEPTH of OVERBURDEN 35.4 m ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
20	A		7438	<p>16.1-17.7 m: ABLATION TILL Light gray; low compaction; high (fine) sand; 80% clasts (30-40% dark, abundant exotics)</p> <p>17.7-19.5 m: GLACIOFLUVIAL Medium (fine) sand, medium (coarse, cobbly, 60-70% dark) gravel 17.8-18.9 m: pink granite boulder</p> <p>19.5-22.5 m: ABLATION TILL grey; moderate compaction; high sand, low silt; 40-50% clasts, 60% dark; intermixed with high (coarse) sand, low gravel horizons 20.6-20.7 m: granitic boulder 21.3-21.9 m: pink granitic boulder 21.9-22.5 m: sand and gravel horizon</p> <p>22.5-33.1 m: MELT-OUT TILL grey/green; moderate to high compaction; high to medium sand, medium to low silt; 40-70% clasts, variable; 80% dark, dominated by grey/green clasts; very cobbly; matrix sticks to most clasts at 23.9 m: grey/green sulfide rich clast 25.3 m: granitic cobble 27.0 m: grey/black cobble 28.1 m: grey/green/black cobble with sulfides 28.3 m: granitic cobble 28.5 m: grey/black cobble with sulfides</p>
TM	A		7439	
#	A		7440	
TA	A		7441	
35	S		7442	
GF	S			
40				
15				
20				
25				
30				
35				

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PRO _____
 OTHER _____

HOLE NO _____ LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">5</div> <div style="margin-bottom: 5px;">10</div> <div style="margin-bottom: 5px;">15</div> <div style="margin-bottom: 5px;">20</div> <div style="margin-bottom: 5px;">25</div> <div style="margin-bottom: 5px;">30</div> </div>				<p>at 31.2 m: light grey boulder 32.5-33.1 m: medium sand, medium silt; 60-70% clasts >80% dark; high compaction</p> <p>33.1 - 35.4 m: ABLATION TILL (GLACIOFLUVIAL) Coarse: medium to low sand, medium to high (coarse) gravel 15% grey/green till balls; matrix sticks to clasts 33.8-39.0 m: medium to high sand, medium to low silt; 60% clasts, >60% dark cobbly</p> <p>35.4 - 36.3 m: GLACIOFLUVIAL medium to low sand, medium to high gravel (coarse); 80% dark; cobbly; lots of black sulfide rich clasts</p> <p>36.3 - 37.8 m: BEDROCK grey/black, very fine grained, fine laminated, graphitic argillite; quartz veinlets;</p> <p>37.8 m (124 ft) E.O.H.</p> <p style="text-align: center; font-size: 1.5em; font-family: cursive;">Brein Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO QT85-156 LOCATION LUCAS
 DATE July 20/22 1985 GEOLOGIST HART DRILLER R. FOURNEL
 DEPTH of HOLE 53.6 m DEPTH of OVERBURDEN 52.3 m ELEVATION _____ (MSL)

BIT No A200
 MOVE to HOLE _____
 DRILL (20)
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
#	X X X X	QT0		0-1.5m: Swamp
LK	| | | |			1.5-7.0m: LACUSTRINE
#	| | | |			1.5-5.8m: grey/brown; low to moderate compaction; gritty high clay, low silt; occasional very small clasts mostly carbonates and granites
#	| | | |	7443		5.8-7.0m: rythmites; grey brown high clay alternating with light brown high silt, low clay; locally gritty
10	| | | |			7.0-13.7m: WATERLAIN TILL
TW	| | | |			7.0-12.8m: light grey/brown; moderate to low compaction medium to low silt, medium to low sand, mixed with high sand, low silt layers; <5% clasts
#	| | | |	7444		12.8-13.7m: light grey/brown; medium sand medium silt; <10% clasts, mostly light; matrix sticks to clasts
15	| | | |	NS		
GF	| | | |	7445		
#	| | | |	7446		13.7-14.6m: LACUSTRINE
TM	| | | |	7447		rythmites; grey high clay alternating with brown high silt low clay; <1% clasts; moderate to high compaction
#	| | | |	7448		
TL	| | | |	7449		
#	| | | |	7450		14.6-18.6m: GLACIOFLUVIAL
25	| | | |			medium to high (medium to fine) sand, medium to low (medium to fine) gravel; 30-50% dark
GF	| | | |	7451		
#	| | | |	7452		18.6-20.4m: MELT OUT TILL
30	| | | |	NS 7454		grey brown; moderate compaction; medium sand medium silt; 20% clasts, 30-40% dark

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No QT85-156 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

BIT NO _____
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING P _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
30				
TM		7455		20.4-24.1 m: LODGEMENT TILL grey/brown; moderate to high compaction; medium to high silt, medium to low sand; <10% clasts, 30-40% dark; occasional thin sand seam
#		7456		
TL		7457		
3		7458		
LN		NS		24.1-29.0 m: GLACIOFLUVIAL 24.1-25.6 m: Very high fine sand; <18 clasts 25.6-29.0 m: medium to low (medium to coarse) gravel, medium to high (fine to medium) sand; partially stratified with medium sand, medium to coarse (coarse) gravel; coarsening downward; >60% dark after 28.3 m: Very cobbly, coarse gravel
#		7459		
40		7460		
		7461		
GF		7462		29.0-32.3 m: MELT-OUT TILL 29.0-30.2 m: grey; moderate to high compaction; low sand, medium to high silt; 20% clasts, >60% dark, cobbly 29.3-29.6 m: granitic and mafic cobbles 30.2-30.8 m: high sand, low silt; 60% clasts, 50% dark 30.8-32.3 m: grey/white; moderate to high compaction; medium to low sand, medium to high silt; 15-40% clasts, 40-60% dark
45		7463		
		7464		
		7465		
50		7466		32.3-36.3 m: LODGEMENT TILL grey; high compaction; medium to low sand; medium to high silt; 15% clasts, 35-45% dark; cobbly 33.0 m: green/black cobble
TR		7467		
GF		7468		
25				
30				

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No QT85-156 LOCATION _____
 DATE _____ 19__ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

BIT No _____
 MOVE to HOL _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>34.01 - 34.3 m: green cobble 35.7 - 35.8 m: small sand/gravel (fine) horizon at 36.0 m: small sand horizon</p> <p>36.3 - 37.0 m: LACUSTRINE Very high compaction; brown grey high clay; < 10% clasts</p> <p>37.0 - 50.3 m: GLACIOFLUVIAL 37.0 - 46.0 m: high (fine) sand, low (fine) gravel; organics! 46.0 - 50.3 m: stratified; medium sand, medium gravel (both medium to coarse) with high sand low gravel; 70-80% dark; pebbles well rounded</p> <p>50.3 - 50.6 m: UNDEFINED TILL green/grey; high compaction; high sand, low silt; 60-70% green/grey clasts</p> <p>50.6 - 52.3 m: GLACIOFLUVIAL coarse; Very low sand, very high coarse gravel; abundant grey/black sulfide rich clasts; 80-90% dark; locally 10% green till balls</p> <p>52.3 - 53.6 m: BEDROCK grey/black graphitic argillite</p> <p>53.6 m (176.0 ft) E.O.H.</p> <p style="text-align: center; font-size: 1.5em; font-family: cursive;">Brian Hart</p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO _____
 MOVE TO HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

WELL No QT85-157 LOCATION _____
 DATE _____ 19____ GEOLOGIST _____ DRILLER _____
 DEPTH of HOLE _____ DEPTH of OVERBURDEN _____ ELEVATION _____ (MSL)

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
30				
Lk			7482	
35				
Lk			7483	
40			7484	
			7485	
			7486	
			7487	
45			7488	
			7489	
			7490	
50			7491	
			7492	
			7493	
			7494	
55			7495	
			7496	
			7497	
60				

20.6 - 23.5 m: **LACUSTRINE**
 chocolate brown; high compaction; low silt, high clay
 slightly gritty; < 1% clasts

* 21.9 - 22.2 m: organics Sample; clay-slightly reddish

23.5 - 28.5 m: **GLACIOFLUVIAL**
 23.5 - 27.7 m: very high fine sand; < 1% pebbles
 27.7 - 28.5 m: medium sand, medium gravel (both medium to fine); 30% dark; cobbly; pebbles well rounded

28.5 - 32.3 m: **LACUSTRINE**
 grey; high compaction; low silt, high clay; 5-15% clasts, 40-50% dark; grades down to rythmites:
 (at 29.4 m) grey high clay alternating with brown medium silt medium clay; brown laminae thinner; < 1% clasts

32.3 - 33.3 m: **WATERLAIN TILL**
 grey; moderate to high compaction; high clay, medium to low silt, low sand; intermixed with high clay layers; matrix sticks to clasts

33.3 - 37.9 m: **LACUSTRINE**
 33.3 - 36.1 m: rythmites; moderate compaction; grey high clay alternating with grey brown medium silt, medium clay; < 1% clasts

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO A0000

HOLE NO QT05-158 LOCATION LUCAS
 DATE JULY 24 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 30.2 m DEPTH of OVERBURDEN 28.7 m ELEVATION _____ (MSL)
 (99.0 ft.) (94.0 ft.)

MOVE to HOLE _____
 DRILL 10:20
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH IN METERS	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
				0-4.0 m: No return
				4.0-4.6 m: Organics
	x x x x x			4.6-5.5 m: FLUVIOLACUSTRINE Gray; non-compact; high clay; gritty, some dropstones
10				5.5-21.6 m: LACUSTRINE Brown-gray; non-compact; very high clay; no grit
				9.7-12.2 m: no return
15				21.6-23.8 m: GLACIOFLUVIAL High (fine to medium) sand, low (medium, 75% dark) gravel 22.5-23.8 m: coarser
20				23.8-24.4 m: MELT-OUT TILL Gray-brown; moderate compaction; high silt, low sand; 30-50% clasts (70% dark)
	o o o o o		7512	
	o o o o o		7513	
25				24.4-25.6 m: GLACIOFLUVIAL High (fine) sand, low (medium to coarse, 75% dark) gravel
	Δ Δ Δ Δ Δ		7514	
	Δ Δ Δ Δ Δ		7515	
	Δ Δ Δ Δ Δ		N.S. 7516	
30				

REVERSE CIRCULATION DRILL HOLE LOG

HOLE NO QT85-158 LOCATION LUCAS
 DATE JULY 24 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 30.2 m DEPTH of OVERBURDEN 28.7 m ELEVATION _____ (MSL)

BIT NO ADD
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">25</div> <div style="margin-bottom: 10px;">30</div> </div>				<p>25.6-28.7 m: ABLATION TILL Gray; low compaction; high (fine) sand, low silt; 30% clasts (50% dark)</p> <p>27.7-28.0 m: green boulder</p> <p>28.0-28.7 m: light green; very high sand</p> <p>28.7 m: BEDROCK Black/gray; fine grained; medium hard; some quartz / carbonate</p> <p>30.2 m: E.O.H (99.0 ft.)</p> <p style="font-size: 1.5em; margin-top: 20px;"><i>Bruce Hart</i></p>

REVERSE CIRCULATION DRILL HOLE LOG

BIT No AD000

HOLE No QT85-159 LOCATION LUCAS
 DATE JULY 24, 25 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 73.8 m (242.0 ft.) DEPTH of OVERBURDEN 72.1 m (236.5 ft.) ELEVATION _____ (MSL)

MOVE to HOLE _____
 DRILL 12:35
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
				0-3.0 m: No return
	x x x			3.0-3.6 m: Organics
	E FL			3.6-9.1 m: FLUVIOLACUSTRINE Light medium-gray; non-compact; high clay; minor grit
	H 10			9.1-18.0 m: LACUSTRINE Gray; non-compact; high clay; minor grit 16.5-18.0 m: rythmites, blue-gray high clay layers alternating with brown medium clay, medium silt layers
	LK 15			18.0-72.1 m: GLACIOFLUVIAL Medium (fine to medium) sand, medium (medium to coarse, 65% dark) gravel
	H 20		7517	21.3-54.9 m: Very high (coarse) sand, low gravel
	GF		7518	30.5-40.2 m: medium to fine sand
				45.1-48.8 m: fine sand
	25		7519	54.9-72.1 m: High (coarse, cobbly, 95% dark) gravel, very low (coarse) sand; numerous pyrite cubes
			7520	59.1-62.2 m: high (fine) sand
			7521	@68.6 m: becomes very bouldery
	30			71.3-71.6 m: black/white boulder
				71.8-72.1 m: black (diabase?) boulder

REVERSE CIRCULATION DRILL HOLE LOG

HOLE No QT85-159 LOCATION LUCAS
 DATE JULY 24, 25 1985 GEOLOGIST WOODS DRILLER FOURNEL
 DEPTH of HOLE 73.8 m DEPTH of OVERBURDEN 72.1 m ELEVATION _____ (MSL)

BIT No ADDD
 MOVE to HOLE _____
 DRILL _____
 MECHANICAL _____
 DRILLING PR _____
 OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
	•••••	|	7521	
	•••••	|	7522	72.1 m : BEDROCK
	•••••	|	7523	Dark gray-black / light gray; medium hard; fine grained
35	•••••	|	7524	73.8 m : E.O.H. (242.0 ft.)
	•••••	|	7525	<i>Brain Hart.</i>
40	•••••	|	7526	
	•••••	|	7527	
45	•••••	|	7528	
	•••••	|	7529	
50	•••••	|	7530	
	•••••	|	7531	
	•••••	|	7532 CR	
	•••••	|	7533	
55	•••••	|	7534	
	•••••	|	7535	
60	•••••	|	7536	

REVERSE CIRCULATION DRILL HOLE LOG

BIT NO A000

HOLE NO QT85-159 LOCATION LUCAS
 DATE July 24, 25 1985 GEOLOGIST WOODS DRILLER FURNEL
 DEPTH of HOLE 73.8 m DEPTH of OVERBURDEN 72.1 m ELEVATION _____ (MSL)

MOVE to HOLE _____

DRILL _____

MECHANICAL _____

DRILLING PR _____

OTHER _____

DEPTH in metres	GRAPHIC LOG	INTERVAL	SAMPLE NO	DESCRIPTIVE LOG
65	••••• ••••• ••••• ••••• •••••	/ / / / /	7536	
	••••• ••••• ••••• ••••• •••••	/ / / / /	7537	
	••••• ••••• ••••• ••••• •••••	/ / / / /	7538	
	••••• ••••• ••••• ••••• •••••	/ / / / /	7539	
	••••• ••••• ••••• ••••• •••••	/ / / / /	7540	
70	••••• ••••• ••••• ••••• •••••	/ / / / /	7541	
	••••• ••••• ••••• ••••• •••••	/ / / / /	7542	N.S.
	••••• ••••• ••••• ••••• •••••	/ / / / /		N.S.
75	••••• ••••• ••••• ••••• •••••	/ / / / /		
80	••••• ••••• ••••• ••••• •••••	/ / / / /		
85	••••• ••••• ••••• ••••• •••••	/ / / / /		
90	••••• ••••• ••••• ••••• •••••	/ / / / /		



42A14SW0006 2.8467 LUCAS

900

Mining Lands Section

File No 28467

Control Sheet

TYPE OF SURVEY _____ GEOPHYSICAL

_____ GEOLOGICAL

_____ GEOCHEMICAL

EXPENDITURE

MINING LANDS COMMENTS:

L.D.

J. Hurst

Signature of Assessor

Nov 4/85

Date

#333/85
2.8467
Mining Act

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Nov 13 1985

Type of Survey(s): Reverse Circulation Overburden Drilling
Township or Area: Lucas Township
Claim Holder(s): Kidd Creek Mines Ltd.
Prospector's Licence No.: T-1848
Address: 571 Moneta Avenue, P. O. Box 1140, Timmins, Ontario P4N 7H9
Survey Company: Kidd Creek Mines Ltd.
Date of Survey (from & to): 06 06 85 to 25 07 85
Total Miles of line Cut: _____
Name and Address of Author (of Geo-Technical report): Brian Hart, P.O. Box 1140, Timmins, Ontario P4N 7H9

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	796552	60	P	833610	60
	796553	60		833611	60
	796554	60		833612	60
	796555	60		833613	60
	805677	60		833614	60
	805678	60		833615	60
	805679	60			
	805680	60			
	805681	60			
	805682	60			
	805683	60			
	805684	60			
	826991	60			
	826992	60			
	826993	60			
	826994	60			
	831695	60			
	831696	60			
	831697	60			
	831698	60			
	831699	60			
	831700	60			
	833609	60			

RECEIVED
OCT 2 1985
MINING DIVISION
RECEIVED
SEP 24 1985

Expenditures (excludes power stripping)

Type of Work Performed: Overburden Drilling (Sect. 17-19)
Performed on Claim(s): 796552 to 796555; 805677 to 805684; 826991 to 826994; 831695 to 831700; 833609 to 833615
Calculation of Expenditure Days Credits:
Total Expenditures: \$ 44,060.00 ÷ Total Days Credits: 15 = 1740

Total number of mining claims covered by this report of work. 29

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only
Total Days Cr. Recorded: 1740
Date Recorded: Sept 24 1985
Date Approved as Recorded: 1. 85. 11. 08
Mining Recorder: [Signature]
Branch Director: [Signature]

Date: Sept. 23, 1985
Recorded Holder or Agent (Signature): Brian Hart

Certification Verifying Report of Work
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Brian Hart, P. O. Box 1140, 571 Moneta Avenue, Timmins, Ontario P4N 7H9
Date Certified: Sept. 23, 1985
Certified by (Signature): Brian Hart

1985 09 30

File: 2.8467

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

Dear Sir:

We received Data for Overburden Drilling on September 25, 1985 submitted under Section 77(19) of the Mining Act R.S.O. 1980 for Mining Claims P 796552, et al, in Lucas Township.

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

We do not have a copy of the report of work which is normally filed with your office prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

AB/mc

cc: Kidd Creek Mines Ltd
571 Moneta Avenue
P.O. Box 1140
Timmins, Ontario
P4N 7H9
Attention: Brian Hart



Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Mining Act

Type of Survey(s) Reverse Circulation Overburden Drilling		Township or Area Lucas Township
Claim Holder(s) Kidd Creek Mines Ltd.		Prospector's Licence No. T-1848
Address 571 Moneta Avenue, P. O. Box 1140, Timmins, Ontario P4N 7H9		
Survey Company Kidd Creek Mines Ltd.	Date of Survey (from & to) 06 06 85 25 07 85 Day | Mo. | Yr. | Day | Mo. | Yr.	Total Miles of line Cut
Name and Address of Author (of Geo-Technical report) Brian Hart, P.O. Box 1140, Timmins, Ontario P4N 7H9		

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim		Expend. Days Cr.	Prefix	Mining Claim		Expend. Days Cr.
	Number				Number		
P	796552		60	P	833610		60
	796553		60		833611		60
	796554		60		833612		60
	796555		60		833613		60
	805677		60		833614		60
	805678		60		833615		60
	805679		60				
	805680		60				
	805681		60				
	805682		60				
	805683		60				
	805684		60				
	826991		60				
	826992		60				
	826993		60				
	826994		60				
	831695		60				
	831696		60				
	831697		60				
	831698		60				
	831699		60				
	831700		60				
	833609		60				

Expenditures (excludes power stripping)

Type of Work Performed Overburden Drilling
Performed on Claim(s) 796552 to 796555; 805677 to 805684;
826991 to 826994; 831695 to 831700;
833609 to 833615.
Calculation of Expenditure Days Credits
Total Expenditures \$ 44,060.00 ÷ 15 = 1740 Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date Sept. 23, 1985	Recorded Holder or Agent (Signature) <i>Brian Hart</i>
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Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying Brian Hart, P. O. Box 1140, 571 Moneta Avenue, Timmins, Ontario P4N 7H9
--

Date Certified Cont 23 1000	Certified by (Signature) <i>Brian Hart</i>
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Total number of mining claims covered by this report of work. **29**

For Office Use Only			
Total Days Cr. Recorded	Date Recorded	Mining Recorder	
	Date Approved as Recorded	Branch Director	