Gulf Minerals Canada Limited
Suite 1400, 110 Yonge Street
Toronto, Ontario
M5C 1T4

REID OVERBURDEN DRILLING PROJECT

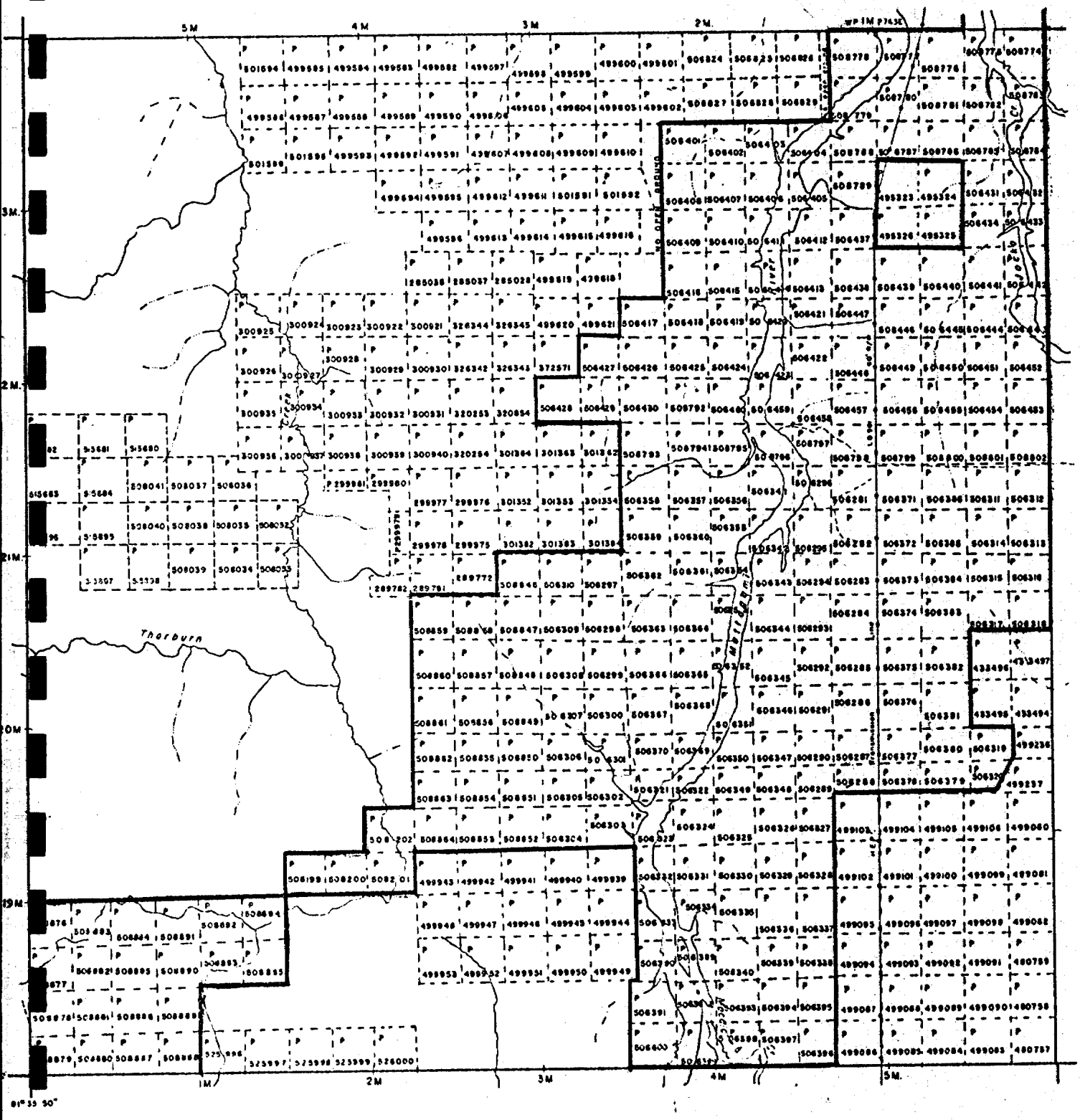
TIMMINS AREA, ONTARIO

(PORCUPINE MINING DIVISION)

Report submitted as assessment work for unpatented mining claims held in Loveland, Thorburn, Reid and Mahaffy Townships, Ontario.

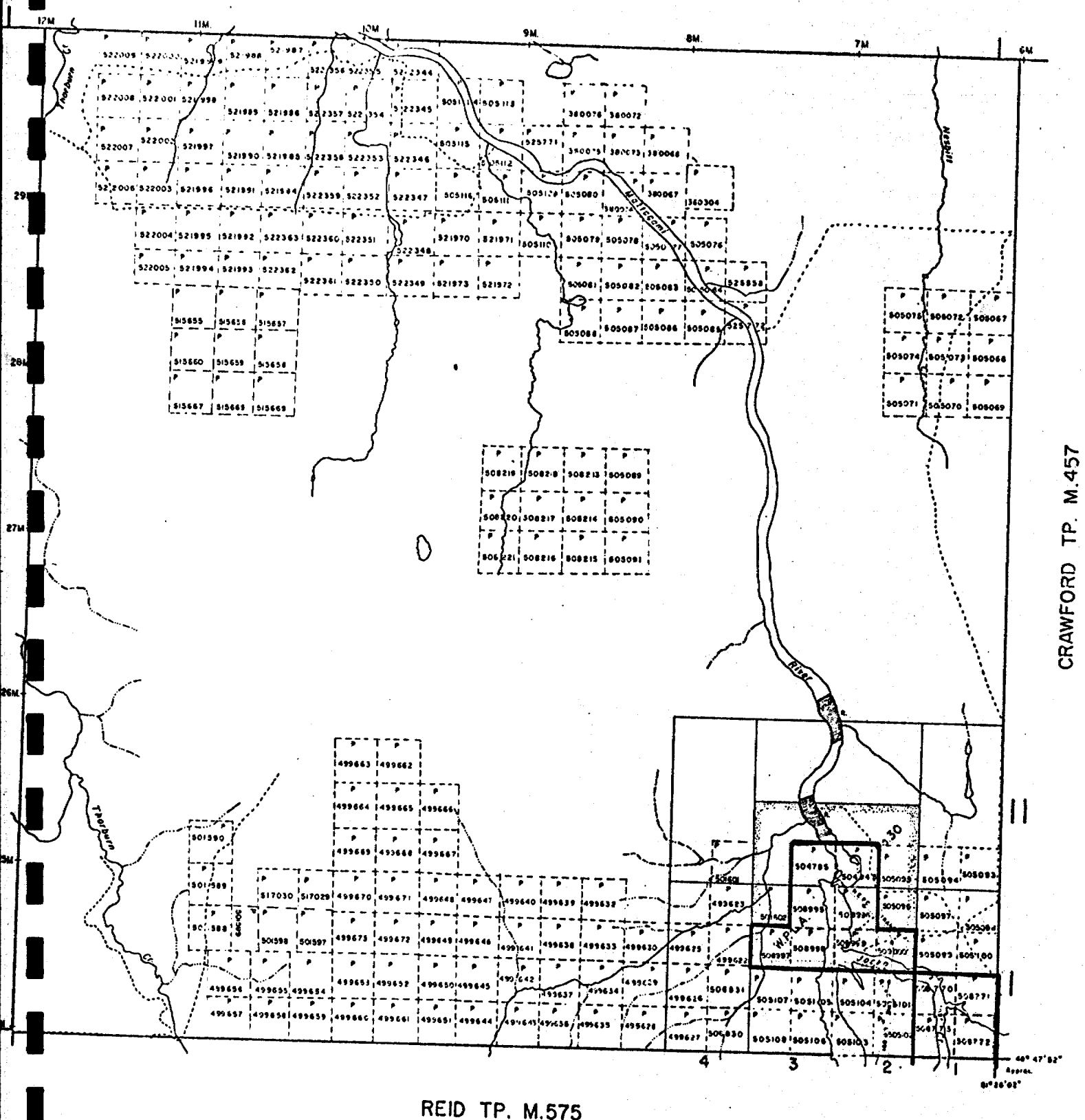
May 3, 1979
John Lake, Geologist

MAHAFFY TWP. - M.540



MACDIARMID TWP. - M.294

Reid Project Claims Held Within Reid Township
(Outlined in Black). Claim Map Issued March 13, 1979.



Reid Project Claims Held Within Mahaffy Township
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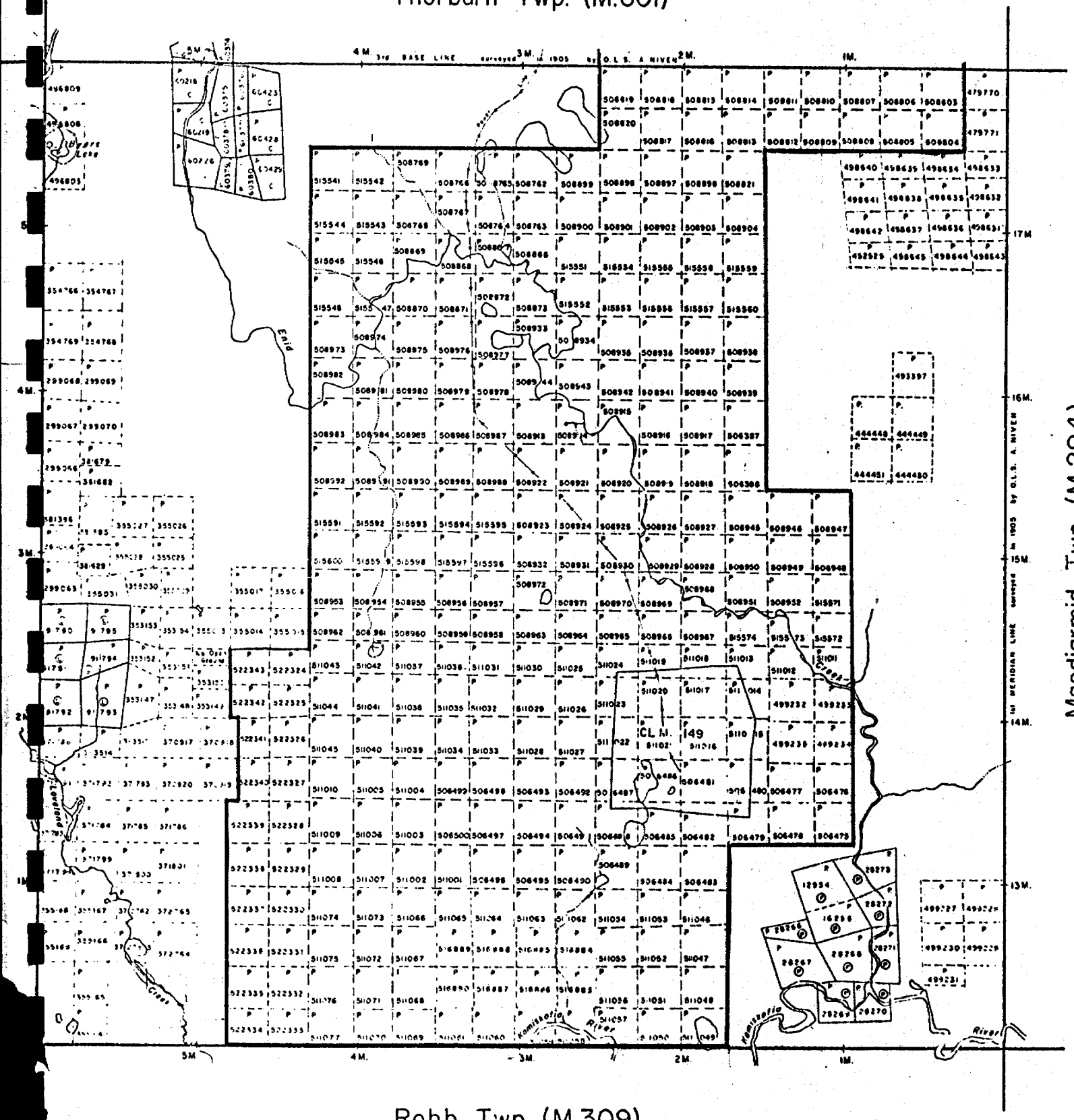


Reid Project Claims Held Within Loveland Township
(Outlined in Black). Claim Map Issued March 13, 1979.

REID OVERBURDEN DRILLING PROJECT
GEOCHEMICAL REPORT OUTLINING RESULTS

INTRODUCTION

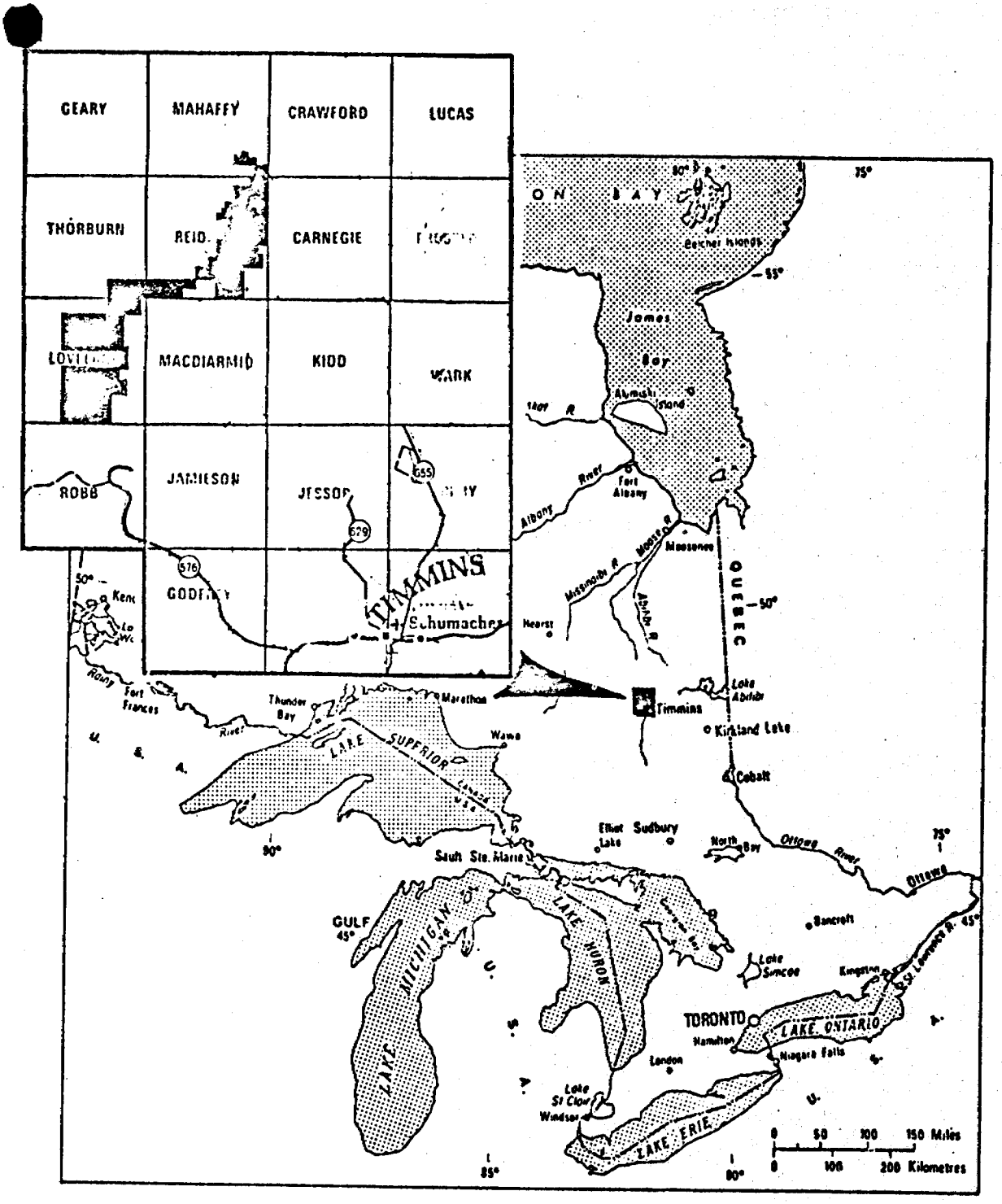
Deep glacial overburden within the Timmins area hinders traditional prospecting techniques. The deep glacial overburden and conductive clays make penetration by geophysical methods difficult. The overburden geochemical sampling of glacial tills and fluvial-deposited materials provide an alternative method to prospecting. Favourable geochemical results may hopefully be traced to their source by further drilling. In this way expensive diamond drilling of barren conductors may be avoided.

The overburden geochemical method was undertaken on a systematic grid superimposed on mining claims within four townships of the Timmins area, Ontario.

LOCATION AND ACCESS

The property is located in Loveland, Thorburn, Reid and Mahaffy Townships, 18 miles (24 km) northwest of the city of Timmins proper. It consists of 587 contiguous claims which extend the full length of Loveland Township; on either side of the Mattagami River in Reid Township and north of Sturgeon Falls in Mahaffy Township (Figure 1).

That portion of the property west of the Mattagami River in Loveland, Thorburn and Reid Townships is accessible via highway 576. The old Mespi Mines road originating immediately north of Kamiskotia Lake in Robb Township provides access to the property in Loveland Township. East of the Mattagami River, access to the property is via highway 655 and the Abitibi Paper Camp 40, all-weather haulage roads.



REID PROJECT AREA OUTLINED

FIGURE 1

The property is held exclusively by Gulf Minerals Canada Limited, Suite 1400, 110 Yonge Street, Toronto, Ontario, M5C 1T4. A list of claims and the dates of recording are tabulated according to township in Appendix .

Linecutting was initiated on November 5, 1978, and concluded on January 20, 1979. Overburden drilling and systematic sampling commenced on January 3, 1979, and was concluded on March 31, 1979.

Previous work on the property is listed in the appendix and includes 42 assessment submissions (Figure 4).

METHOD

The reverse circulation overburden sampling procedure returns a representative sample to surface almost instantaneously after being drilled. Fine clay to medium pebble size material may pass up the tube. The drilling of larger sized clasts is recognized by well-rounded surfaces on broken fragments.

Individual samples were collected over a five foot interval in each drill hole. This interval was increased where sample return was poor as a result of loss of circulation. The glacial till sequences, glaciofluvial silts, sands, gravels and boulders and Precambrian bedrock (to a depth of five feet) were all sampled. The glaciolacustrine clay section was discarded because of its poor qualities as a geochemical indicator of hidden ore minerals.

East-west grid lines were cut at one-half mile intervals over the entire property, and holes were drilled at one-half mile spacings along most lines. Some lines were drilled on a quarter mile spacing between holes

in order to obtain additional information in areas with complex Quaternary stratigraphy. Each drill hole was logged and sampled on site during the drilling procedure by a qualified geologist and assistant. The two drill rigs worked a day shift only on a seven day a week basis. A total of 1,202 samples were collected from 182 drill holes during the program (total includes overburden plus bedrock samples). A five foot interval of Precambrian bedrock was drilled at the base of each hole. This procedure ensured that bedrock was indeed reached and not simply that a large boulder had been drilled. The bedrock chip samples were later examined under binocular microscope and described.

The overburden drilling was conducted by Bradley Brothers Diamond Drilling Company, P.O. Box 485, Timmins, Ontario. The drilling equipment consisted of two Longyear Model 38 drills mounted on mobile flextrac FN-160 Nodwell tracked carriers. Samples drilled by tricone tungsten carbide button bits on dual-tube reverse circulation drill rods were recovered from a cyclone funnel. Each drill was supplied with water by FN-60 flextrac Nodwell tracked carriers. Sample material greater than +10 mesh (>2.00 mm) was seived and retained for later study during the routine drilling procedure.

Samples were prepared for assay by Overburden Drilling Management Limited, 29 Vanson Avenue, Ottawa, Ontario. The heavy mineral portion of each sample was separated using a wet shaker table and later methylene iodide (S.G. = 3.3) heavy liquid settling. The magnetic fraction was removed from the heavy mineral portion.

Bondar-Clegg Company Ltd., 764 Belfast Road, Ottawa, Ontario, performed atomic absorption measurements of hot HNO_3-HCl extracted material on each sample. Only the heavy mineral portion of the sample is analyzed for base metal content. This technique avoids dilution of results by removing the light fraction silicate minerals containing low base metal values. Both the heavy mineral and magnetic fraction quarter splits were retained for inspection and mineral identification.

Bedrock sample base metal content was assayed using X-ray fluorescence by X-Ray Assay Laboratories, 45 Lesmill Road, Don Mills, Ontario. No geochemical assays were undertaken in the field.

The Quaternary overburden samples were analyzed for Cu, Pb, Zn, Ni and Ag; however, the lead assay values were not included in the drill sections data because of anomalous results caused by contamination from lead-rich greases used in the drilling procedure. Silver values were not plotted on a geochemical map because of their uniformly low concentrations, rarely exceeding 1.0 ppm.

Assay values were averaged over the entire footage of each hole. This number gives a true indication of metal concentrations in the overburden. The average metal content of each hole is calculated by multiplying the metal concentration of the sample interval footage. This product is totalled for the entire hole and divided by the total depth to bedrock of the hole. Values obtained are in ppm/foot.

A total of 131.37 miles of line were cut on the project.

GEOLOGY

The Pleistocene geology of the Timmins property has proven to be quite complex. Individual glacial units are frequently not traceable for any distance. Several ice advances are recognized by the stratigraphic succession of glacial tills. The Precambrian bedrock shows a great variation in topography which is not discernible from surface expressions of relief. Pleistocene overburden depth varies from 0 to 224 feet. Glaciofluvial sands and gravels frequently overlie the glacial tills. Occasionally, glaciofluvial sediments lie directly on Precambrian bedrock, indicating erosion of former glacial till cover during interglacial periods. The lithologies of glaciofluvial sediments frequently outline

a complex and distant source area. Many sand and gravel sequences contain grains derived from high grade metamaphic terrains.

Limestone fragments derived from the Paleozoic rocks of the James Bay Lowland commonly compose 20-30% glaciofluvial sands and gravels. Regional surveys (Brown et al, 1967) indicate the general movement of ice direction to be S20°W (Figure 2). A large sinuous esker runs generally north-south through Loveland and Reid Townships. Drilling suggests a considerable thickness for these eskers. Subsequent glacial lake wave action has dispersed much of the esker material laterally over earlier glacial material.

Barlow-Ojibway Lake sediments form a considerable portion of the glacial stratigraphy encountered. The sequence consists of varved clays, silts and fine sands. The upper portion of the sequence is somewhat oxidized, hematized and weathered in comparison to the more deeply buried lake sediments. Most lake sediments show a general increase in grain size down section.

The Cochrane Readvance till sheet overlying the lacustrine sediments is reported to have reached south to our area. However, its presence was not noted in drilling. Fluvial lag deposits of recent age were noted along Enid Creek and others.

RESULTS

The overburden drilling program undertaken within Loveland, Thorburn, Reid and Mahaffy Townships met with limited success. Results failed to outline significant mineral trains derived from glacial scouring of a massive sulphide deposit. No significantly anomalous values encouraging further work were traceable over the half mile grid distance between

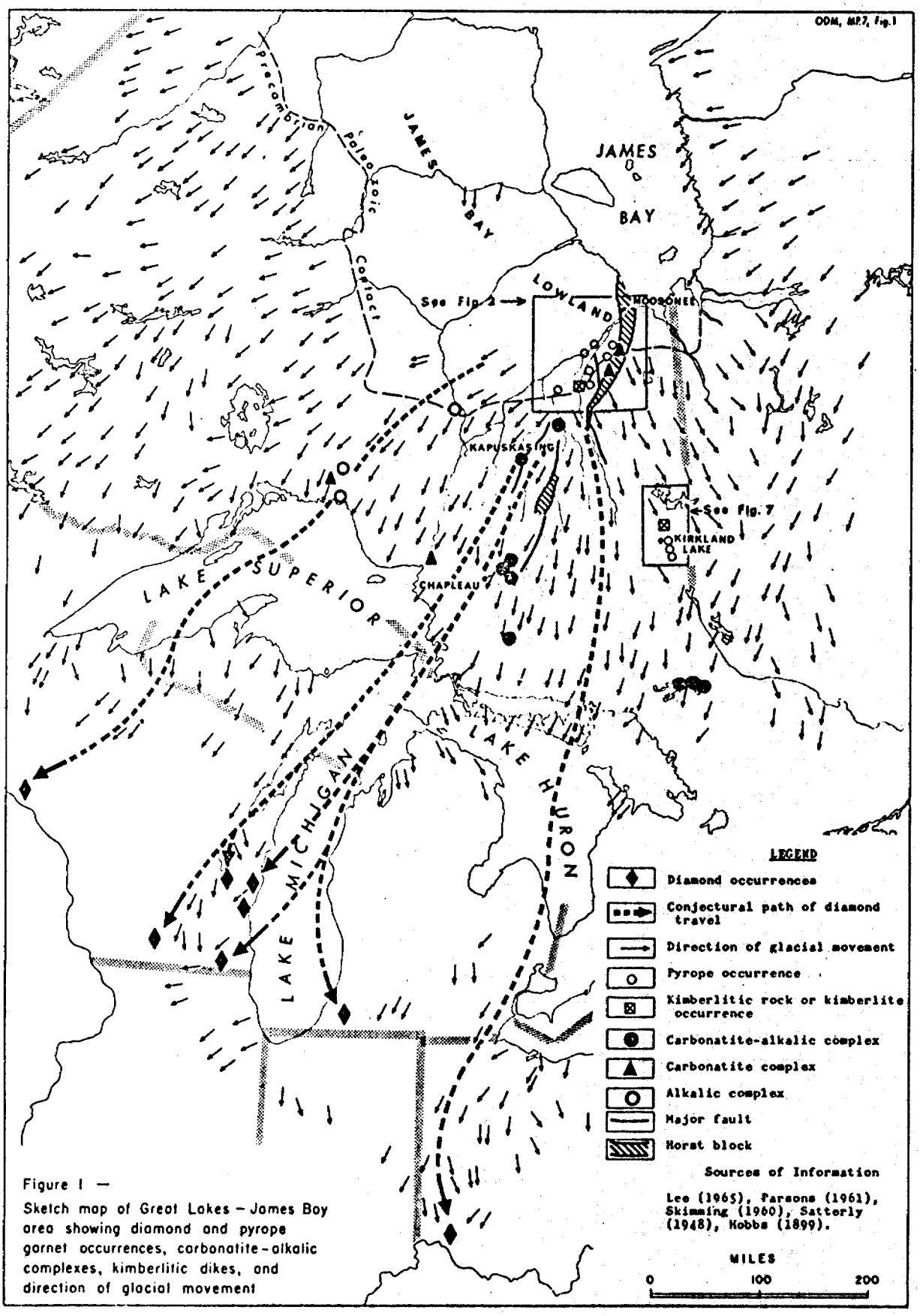


Figure 1 —
Sketch map of Great Lakes – James Bay area showing diamond and pyrope garnet occurrences, carbonatite-alkalic complexes, kimberlitic dikes, and direction of glacial movement

FIGURE 2

(After O.D.M. MP7, Figure 1.)

drill holes. The discouraging overburden results may possibly be explained by the fact that an orebody has not been subjected to glacial erosion, or alternately has already been eroded. No visible gold was recovered during the heavy mineral separation procedure.

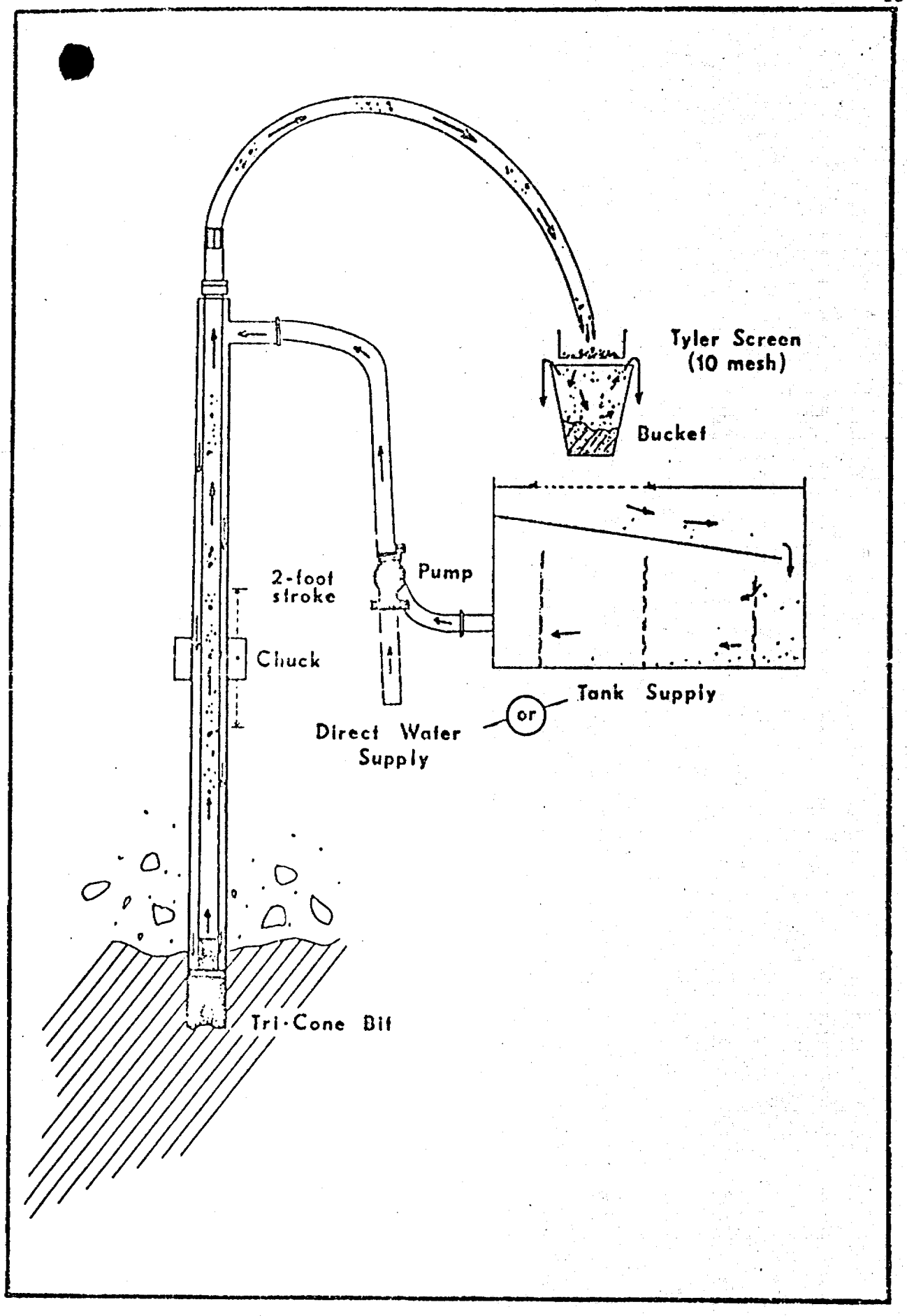
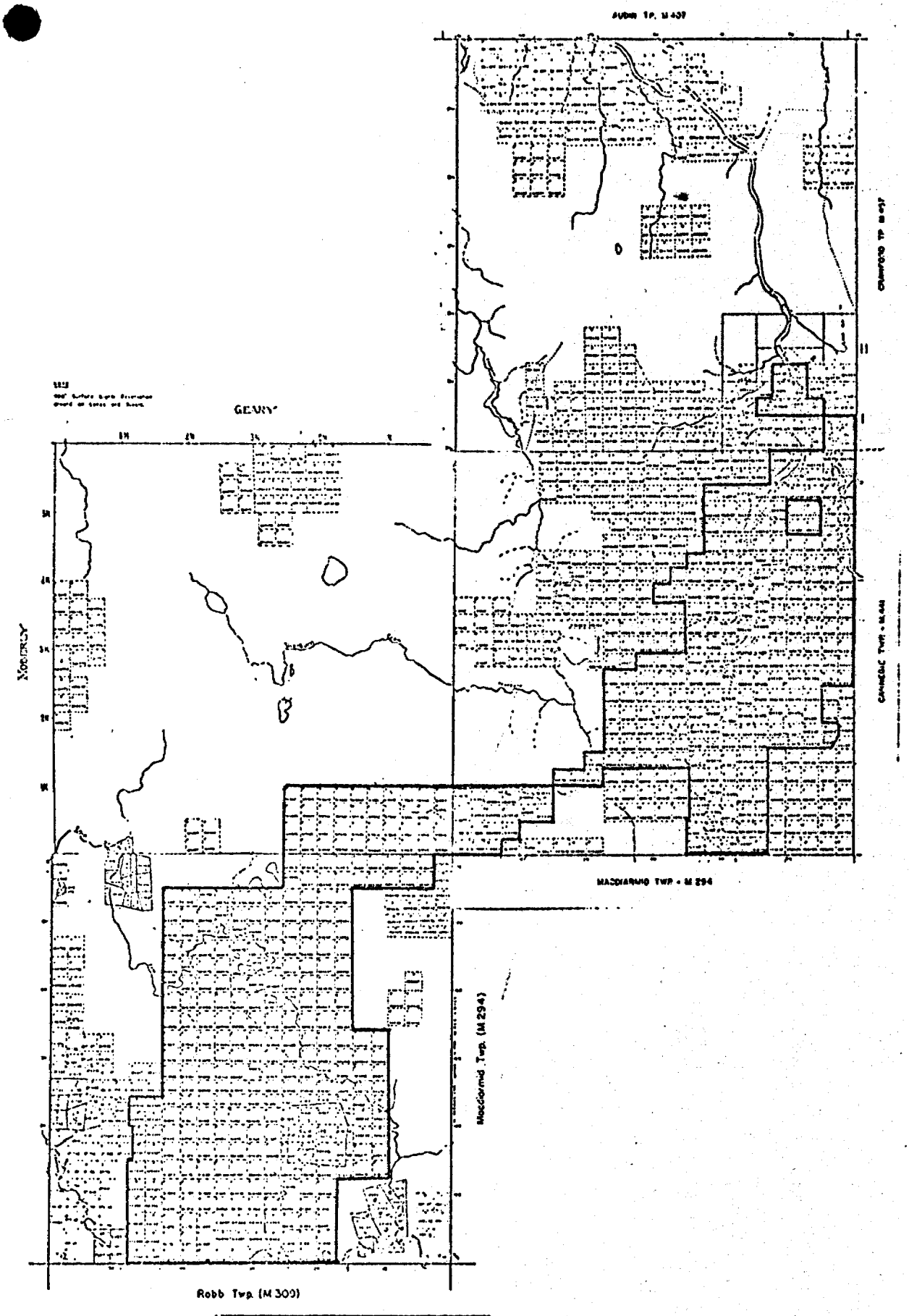
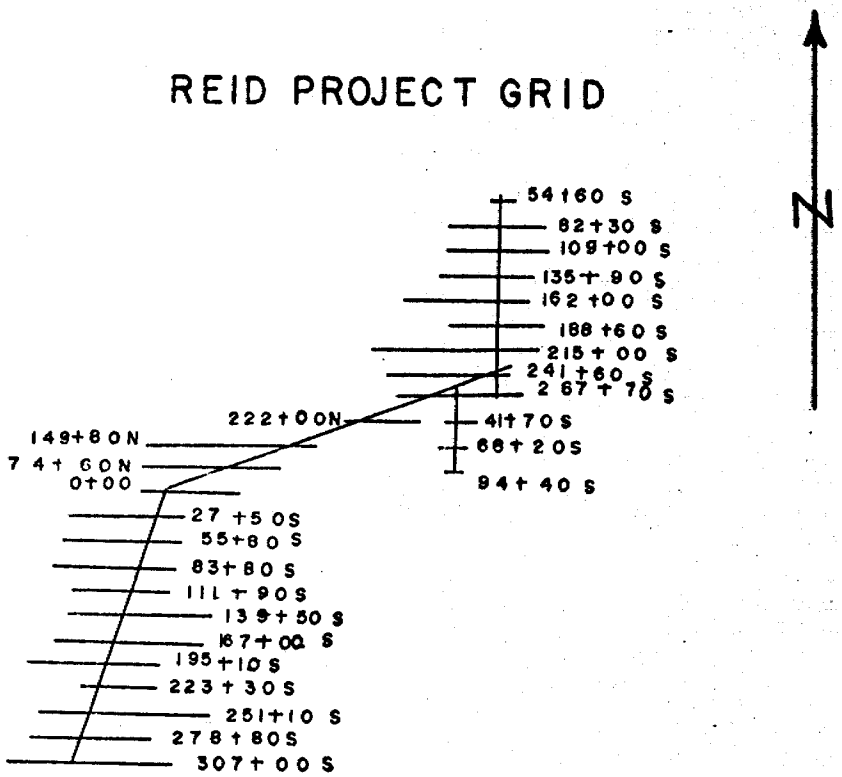


FIGURE 3: Simplified Version of Dual Tube Drilling System



Outline of Reid Project Claim Block
1978-1979

REID PROJECT GRID



GULF MINERALS CANADA LIMITED

REID PROJECT

TIMMINS, ONTARIO

OVERBURDEN DRILL

DRILL LOGS

Vertical Scale: 1 inch equals 10 feet

LEGEND

CLAY
SILT
SAND
PEBBLES
COBBLES
BOULDERS
TILL
BEDROCK

Ontario

GROUND SURVEYS – If more than one

Number of Stations

Station interval

Profile scale

Contour interval

Instrument

Accuracy – Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter

Frequency

Parameters measured

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

Instrument

Method ☐ Time Domain

Parameters – On time

– Off time

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SCHEDULE OF MINING CLAIMS - REID PROJECT.

P504785	P515515	P506281
P504845	P515516	P506282
P508770	P515517	P506283
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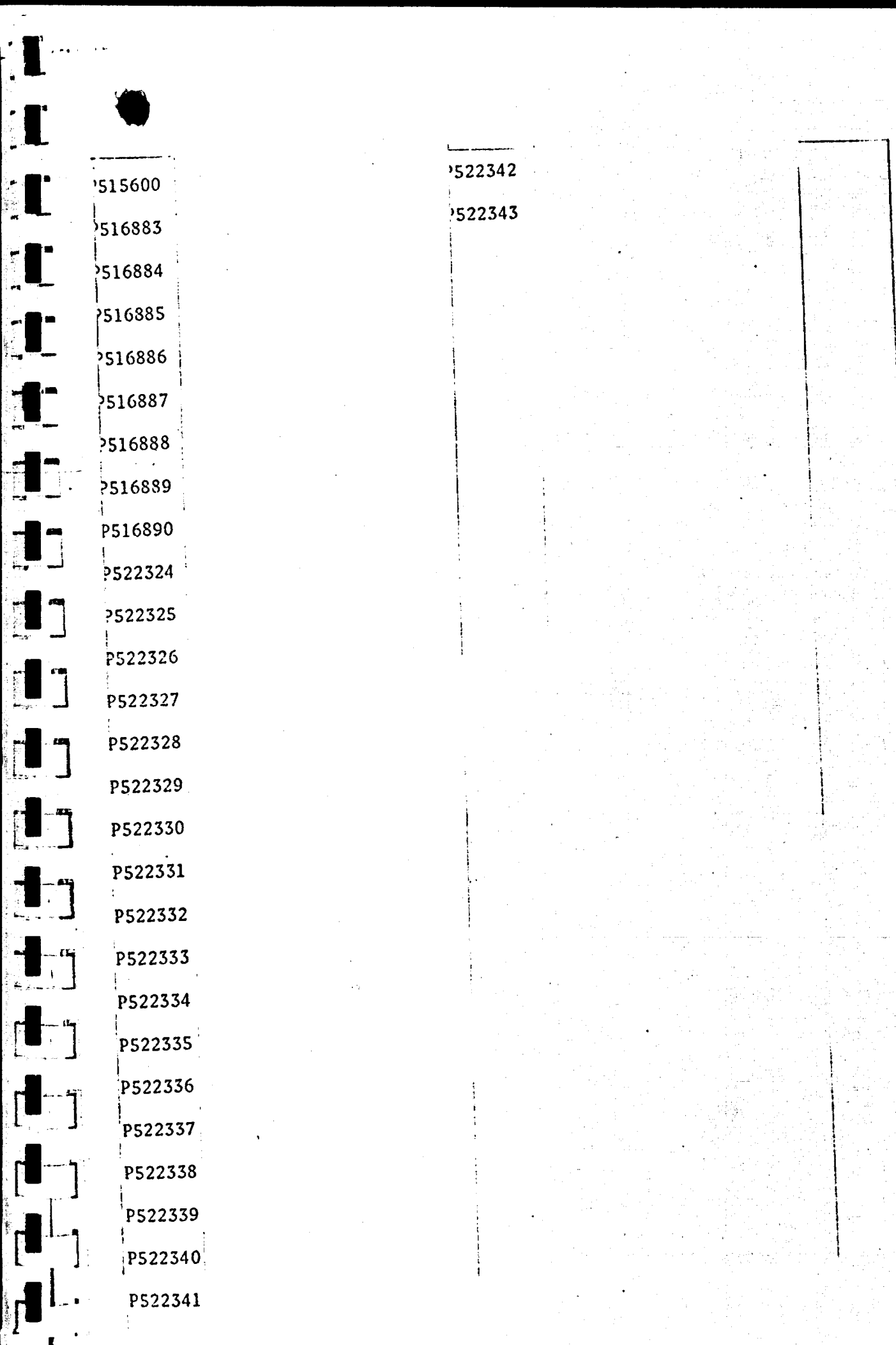
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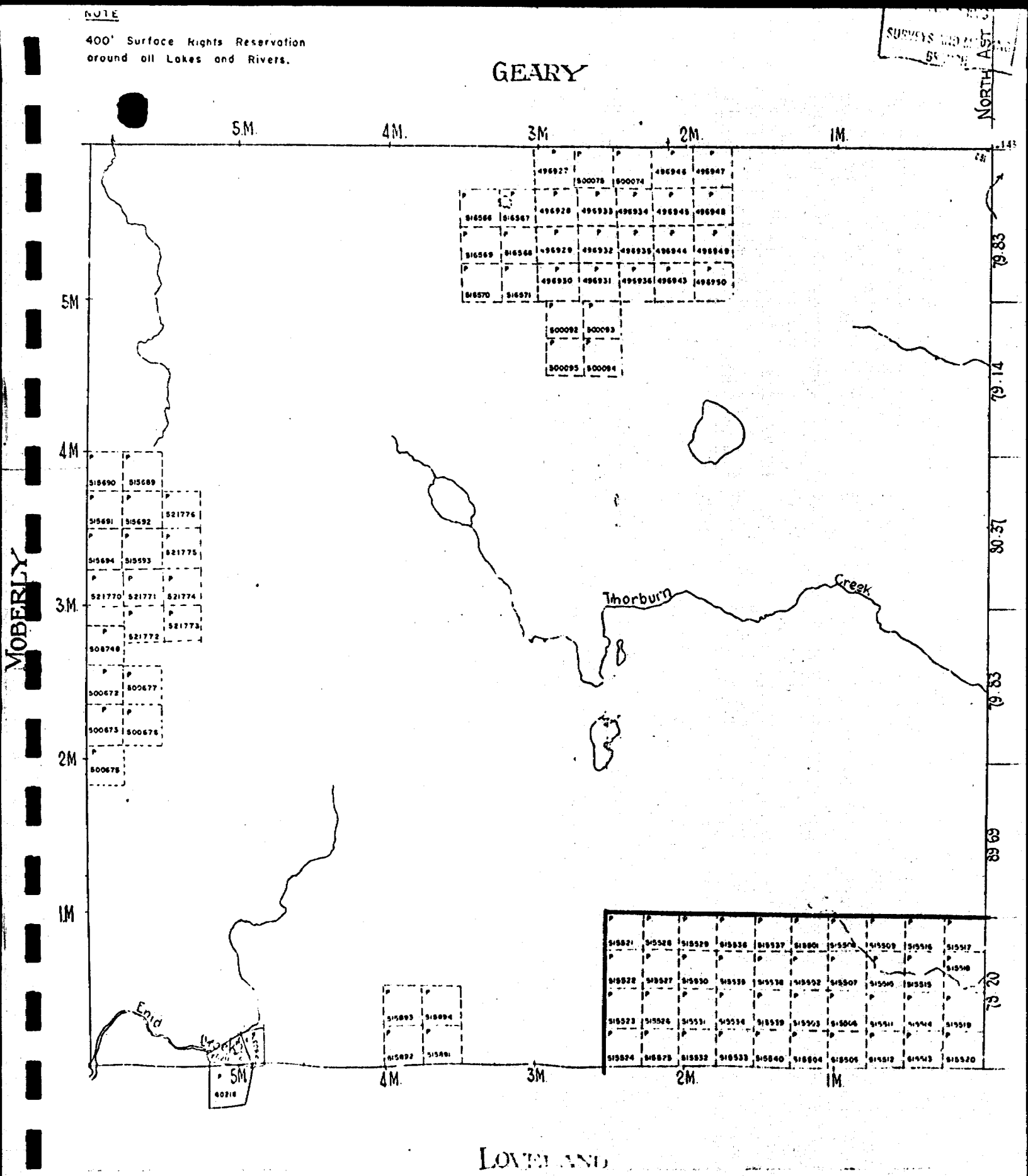


Reid Project Claims Held Within Thorburn Township
(Outlined in Black). Claim Map Issued March 13, 1979.

DATE JAN 5 /79 HOLE No. R-01 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION L-139+50S 1W+90W

BIT No. 68167 FOOTAGE ON BIT 0+35' = 35'

HOURS MOVE _____ HOURS DRILL 12:00 - 1:45, 3:00 - 4:30 OTHER 1:45 - 3:00 MAINTENANCE

4:30 - 5:00 pull rods

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
No Return			0-26' No Return - icing problems and trouble with the compressor	
		01	26'-29' GREY PEBBLY TILL - initially very poor return of brownish clay and pebbles - 50-75% grey gritty clay 25-50% pebbles primarily rhyolite, granites and gneisses	
		02	29'-35' Rhyolite Bedrock - aphanitic, grey to dark greyish red brown - concoidal fracture, appears highly siliceous - minor white alteration possibly feldspar? 35' End of Hole	

DATE Jan 6, 7?/79 HOLE No. K-02 GEOLOGIST KOTILA DRILLER GRANE

HOLE LOCATION -- L-111+90S 16+60W

BIT No. 68167; 68182 FOOTAGE ON BIT 35+92' = 127'; 0+33' = 33+42 cored = 125'

HOURS MOVE ____ HOURS DRILL 9:00 - 5:15 JAN 7 OTHER 2:45 - 4:00 JAN 6

--- Replaced bit at 93' from 12:00 - 2:30

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0	No Return			0 - 16' No Return at 3' minor pebbly gravel 50% granitics 25% metaseds and metavolcanics 25% amphibolites and mafic intrusives	
0			01, +10	16 - 22' Pebbly Gravel 50% granitics 50% metavolcanics and metasediments trace epidote trace brown clay	
0			02, +10	22' - 50' Sandy to Pebbly Gravel very coarse sand to pebbly gravel very well sorted and well rounded grains slight increase in grain size with depth similar composition to above	
0			03		
			04		
10			05, +10		
			06, +10		
			07, +10		
0			08, +10	50' - 98' Pebbly Gravel occasional cobbles gradual and sporadic increase in fragment size with depth 54'-56' Metavolcanic Boulder 56-60' Very poor return	
0			09	60' shut down Jan 6 61.5' - 63.5' Granitic Boulder	
			09, +10	generally variable composition of the gravel 40 - 60% dark volcanics, intrusives and metasediments 20 - 30% light sediments 20 - 40% granitics and gneisses	
20			10, +10	well sorted 2 - 10 mm, average 5 mm very well rounded appears fluvial or coarse deltaic	
			11, +10		
0			12, +10		
			13, +10		
30				92' abundant granitics and gneisses trace garnetiferous amphibolite 10% fossiliferous carbonates 93' - 435' Granitic Boulder	
			14, +10	98' - 118' Pebbly & Cobbly Gravel initially similar concentrations as above gravels	
40					

DATE JAN 6, 7 & 79 HOLE No. R-02 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		15, +10		
		16, +10		
10			110' increase in mafic component 50% amphibolite 30% gneiss 10% carbonate 10% granites	
		17, +10		
		18, +10	118' - 119.5' Rhyolite Boulder grey aphanitic rhyolite, occasionally	
		19		
20		20	feldspar and/or quartz porphyritic minor chloritic alteration	
		21	Shut down 119' JAN 7	
			119.5' - 120' Pebbly Gravel	
			120' - 122.5' Diorite Dyke	
30			medium grained (1 mm) hornblende and white feldspar intrusive	
			122.5' - 123.5' Altered Rhyolite (?) light yellowish green aphanitic altered rock - appears to be a porphyritic rhyolite	
			123.5' - 125' Diorite Dyke similar to above dyke.	
			125' End of Hole	

DATE JAN 8, 9/79 HOLE No. R-03 GEOLOGIST KOTKA DRILLER GAGNE

HOLE LOCATION L-139+50S 41+30W

BIT No. GR174 FOOTAGE ON BIT 0 + 42.5 = 42.5

HOURS MOVE 10:30-3:30 HOURS DRILL 9:45-10:15 / 1:05-1:35 } JAN 9 OTHER 10:15-1:05 WAIT FOR WATER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return			0-10' No Return	
0				10-33' Grey Clay 95-99% brown grey greasy lacustrine clay 1-5% sand with the occasional pebble	
30					
			01	33'-36.5' Pebbly Gravel well sorted and very well rounded fluvial gravel consisting of metavolcanics, metasediments, carbonates, granites and gneisses	
40			02	36.5'-38.5' Granitic Boulder	
			03	38.5'-41.5' Basalt fine grained, up to 0.5mm dark greenish black with minor lighter green epidote alteration cut by one 5mm thick granite dyke strike down dip at 34°	
				41.5'-42.5' Granite medium grained pink to white granitic (dyke?) 25% quartz 10% hornblende and chlorite after hornblende 65% white to pink feldspar	
				42.5' End of Hole	

DATE JAN 10 /79 HOLE No. R-04 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION L-139+50S 67+70W

BIT No. 68174 FOOTAGE ON BIT 42.5' + 66' = 108.5' (4:30 10:30)

HOURS MOVE _____ HOURS DRILL 3:45-4:00 OTHER _____

10.30-1.45 wait for water, 1.45-2:30 fix chuck (BOILES MECHANIC), 2:30-3.45 pull rods because bit frozen, fix compressor

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	No Return		0-4' No Return	
			4'-8' LIGHT BROWN CLAY - greasy lacustrine deposit with less than 1% sand	
10			8'-45' GREY CLAY - with minor white clay - both greasy lacustrine clays with less than 1% sand	
0		No SAMPLES TAKEN		
30			45'-49' Pebbly Gravel - well sorted, very well rounded 40% dark meta volcanics 20% dark gneisses 10% light gneisses 10% granitics 10% meta sediments 10% carbonates	
10		C1	49'-54.5' Pebbly Grey Till 95-100% gritty grey clay up to 5% sand and pebbles similar in appearance to above gravel with possibly more darker fragments 56.5-57' granitic boulder.	
50		C2		
		C3		
0		C3		
		C4	59.5-66' QUARTZ DIORITE appears to be a chloritic tonalite (quartz diorite) with minor pink felsite dyking quartz-white feldspar matrix with 10-20% chloritic alteration minor bleached white alteration "veins"	
70			66' End of Hole	

DATE JAN 11, 12 / 79 HOLE No. R-05 GEOLOGIST KOTLAR DRILLER GAGNE

HOLE LOCATION L-111+90S 69+40W

BIT No. 68174 FOOTAGE ON BIT 108.5' + 96' = 204.5'
11:15 - 12:45 JAN 11

HOURS MOVE _____ HOURS DRILL 9:45 - 10:30 12 OTHER _____

JAN 11 - water carrier arrives at 10:00 with punctured radiator, 12:45 → maintenance

JAN 12 - water carrier punctures rad again, 4" flat tire

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	No return		0 - 2' No Return at 2' minor pebbly gravel ablation till?	
			2' - 11' Light Brown Clay - greasy lacustrine clay	
			11' - 76.5' Grey clay - greasy lacustrine clay < 1% sand and pebbles	
			76.5' - 88' Pebbly Gravel - well sorted, well rounded fluvial deposit 30% black metavolcanics and metasediments 20% green metavole + metareds 10% granitics 20% gneisses 20% carbonates - increase in size with depth	
			88' - 92.5' Pebbly to Cobbly Grey Till - similar composition to above gravel with 10% gritty clay	
			90' shut down JAN 11 maintenance & water carrier	
			92.5' - 93.5' Quartz Diorite Boulder - weathered boulder 60% white feldspar 20% quartz 20% hornblende with minor grey till	
			93.5' - 96' Quartz Diorite - similar to boulder but fresher and finer grained also feldspars have a pink & white colouring - fine sugary quartzofeldspathic matrix with 1-3mm hornblende	
			96' End of Hole	
		01		
		02, +10		
		03, +10		
		04		
		05		

DATE JAN 12, 13/79 HOLE No. R-06 GEOLOGIST KOTIKA DRILLER GAGNE

HOLE LOCATION L-111+90 S 43W

BIT No. 68174 FOOTAGE ON BIT 204.5' + 149 = 353.5

HOURS MOVE 10:30 - 12:45 HOURS DRILL 13:45 - 2:00, 3:00 - 3:30 } JAN 12; 4:15 - 5:00, 8:45 - 9:30 - JAN 13 OTHER 2:00 - 3:00 } WAIT FOR WATER; 3:30 - 4:15

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 4' No Return	
			4' - 8' Light Brown Clay - greasy lacustrine clay grades into grey clay	
0			8' - 56' Grey Clay - greasy lacustrine clay much less than 1% sand	
10				
20				
30				
40				
50				
			56' - 146' Pebbly Grey Till well sorted, well rounded pebbles; fine sandy to gritty clay matrix usually only 1-10% clay occasionally up to 75% clay gradational increase in pebble size with depth - possibly more than one cycle of graded bedding approximate composition 30% mafic metavolcanics and metasediments 20% black & white gneisses 20% granitics 20% carbonates 10% sediments	
60		01		
		02, +10		
70		03, +10		
		04		
80		05, +10		
		06, +10		
90		07, +10		
		08, +10		
100		09, +10		

- continued -

DATE JAN 12, 13 /79 HOLE No. R-06 GEOLOGIST KETOLA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		10, +10	CONTINUED 56'-146' Pebbly Grey Till - usually 1-10% gritty clay and silty to fine sand matrix	
0		11, +10		
		12	110'-111' White Rhyolitic Boulder - 1% chlorite - send for whole rock analysis	
		13, +10		
		14	117'-117.5' Gneissic Boulder	
20		14, +10		
		15, +10		
			128'-129' 75% gritty compacted clay	
30		16, +10		
		17, +10		
		18, +10		
40		19	145' shutdown Jan 12.	
		20		
		21	146'-149' Basalt fine grained, dark green chloritized basalt with minor quartz-carbonate? veins.	
50				
			149' End of Hole	

DATE JAN 13/79 HOLE No. R-07 GEOLOGIST KOTILA DRILLER EAGNE

HOLE LOCATION B3+80 S; 46+20W

BIT No. 68169 FOOTAGE ON BIT 0' to 104' = 104'

HOURS MOVE 9:30 - 12:30 HOURS DRILL 12:30 - 1:00, 3:00 - 3:30, 4:45 - 6:00 OTHER 1:00 - 3:00 WAIT FOR WATER, 3:30 - 4:45

Another flat tire on water carrier

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 4' No Return	
			4' - 12' Light Brown Clay - greasy lacustrine clay	
			12' - 18' Grey clay - greasy lacustrine clay much less than 1% sand	
			18' - 78' No Return at 18' Very fine sand to silt - loss of water to formation with subsequent lack of return - at 78' frozen sample removed from drill rods - sample of location unsure consists of pebbly grey till	
	No Return			
		01	78' - 100' Pebbly Grey Till 60 - 80% gritty grey clay with fine to medium sand matrix pebbles predominately mafic meta volcanics and metasediments abundant carbonates, minor granitics and gneisses	
		02		
		03		
		04		
		05	100' - 104' Basalt medium grained chloritic basalt with minor quartz - feldspathic segregations - appears to be approaching amphibolite grade	
		06	104' End of Hole	

DATE 14 January 1979 HOLE No. R-08 GEOLOGIST J. LAKE DRILLER G. GAGNÉ

HOLE LOCATION L55+80S / 74+20W

BIT No. 69169 FOOTAGE ON BIT 104' + 159' = 263'

HOURS MOVE 7-11:30am HOURS DRILL 11:30 - 4:00pm OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-9' No Return.	
				9'-13' LACUSTRINE CLAY. greasy green-gray	
				13'-80' SILTY CLAY with some mafic grains (60'-80') Slight coarsening of grains.	
			R-8-01	80'-83' Coarse ~~Sandy~~ PEBBLY SAND, Large portion of carbonate and basalt pebbles. Subrounded to 1cm. few quartz pebbles : 70% Basalt, 30% Carbonates, few pyrite and felsic.	
			02		
			03		
			04		

DATE _____ HOLE No. 08 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		05	83'-95' PEBBLY CLAY - with greasy clay balls. Minor pebbles predominantly granite and basalt. Also minor (10%) carbonates. Contains some fine sand. (91'-92') Large portion of mafic volcanic pebbles. (94') Decrease in pebble content.	
0		06		
		07		
		08	95'-96' RHYOLITE BOULDER. - conchoidd fracture.	
0		09	96'-119' Clay - with clay balls and rounded 2 mm. (70%) basalt grains, few rhyolite fragments. (99'-100') Clay without pebbles. (102') Clay with 70% Basalt 30% Carbonate pebbles. (105') abundance of red Syenite pebbles. (106') Clay with 10% basalt pebbles. (109') Clay without pebbles. (116'-119') Clay with basalt pebbles.	
		10		
50		Boulder		
		11		
0				
		12		
		13	119-123½' Pebbly SILT with Granite (60%), chert (5%) and basalt fragments.	
0		14	123'-125' Cobble SAND	
		15	125'-130' PEBBLE-SILT. with 90% basalt, 5% granite pebbles.	
59' - END OF HOLE			130-134' BASALT BOULDER, dark green, fine grained, chloritized	
			134'-140' COBBLE SILT. with 90% basalt, 9% granite, 1% carbonate cobbles.	
			140-145' PEBBLY SAND, 90% basalt, 20% granite. 10% carbonate pebbles.	
			145'-154' PEBBLY SAND 90% basalt, 10% quartz, carbonate pebbles.	
			154'-159' BEDROCK (154'-158') BASALT, chloritized, dark green. (158-159') DACITE-RHYOLITE, pale green, conchoidd fracture.	

DATE 15 JANUARY, 1979 HOLE No. R-09 GEOLOGIST J. LAKE DRILLER G. GAGNÉ

HOLE LOCATION L 83+80S / 72+60W.

BIT No. 6/168 FOOTAGE ON BIT 0+82' = 82'

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DRILLING 12:30 - 1:30 - 3:00 - 4:30

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-6' No Recovery.	
		6'-67' LACUSTRINE CLAY (6-20) CLAY, greasy, gray (20-40') Sporadic Return. locally ~~fine~~ gray sand recovered. (40-60) No Recovery fine lacustrine sand, gray in colour pumped up outside of drill stem.	
		67'-70' COBBLY SAND predominantly granite (90%) with minor rounded grains 5% basalt, 5% carbonate cobbles - coarse sand matrix with quartz.	
		70'-73' PEBBLY GRAVEL. 70% subrounded basalt grains 20% carbonates, 10% felsics coarse sand matrix.	
		73-77' PEBBLY CLAY - with clay balls, contains 5% coarse sand grains. (90% basalt, 10% granite). (75-77') FINE PEBBLY CLAY. hard gray clay (50% basalt, 50% granite).	
		77'-82' BEDROCK - weathered ~~Basalt~~ - dark green, chloritized, calcareous, highly weathered (green clay in part).	
	01		
	02		
	03		
	04		
		END OF HOLE	

DATE 16 JANUARY, 1979 HOLE No. R-10 GEOLOGIST J. LAKE DRILLER G. CAGNE

HOLE LOCATION L 55 + 803 / 47 + 80W.

BIT No. 61168 FOOTAGE ON BIT 82' + 140' = 222

HOURS MOVE _____ HOURS DRILL 10:30 - 2:30 OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-6' No Return.	
		6'-9' Pebbly Sand - largely limestone pebbles.	
		9-55' SAND - medium sand, gray in colour, some clays (greasy)	
		55'-59' VERY COARSE SAND. - rounded grains, gray in colour with large portion of mafic grains.	
		59-63' PEBBLY SAND - rounded pebbles of basalt (33%), granite (33%) and carborates (33%) in coarse sandy matrix. - consistent pebble lithology.	
		63'-66' BOULDER - GRANODIORITE - leucocratic, medium-grained.	
		66'-89' PEBBLY SAND - rounded pebbles of basalt (33%), granite (33%) and carbonates (33%) in coarse sandy matrix - consistent pebble lithology	
		89'-91' BOULDER - PEGMATITE pink with abundant phlogopite mica - soft and highly weathered.	
	01	91'-95' PEBBLY SAND. - contains 60% basalt, 30% granite 10% carbonate pebbles.	
	02	95-96' RHYOLITE BOULDER. - pink, fine-grained, locally chloritized.	
	03	96.5' - 97' BASALT BOULDER.	
	04	97'-130 CLAY - forms clay balls, gritty with minor local 5% coarse sand-to pebble-size basalt grains locally.	
	05		
	06	(119'-121') CLAY - contains 5% pebbles of carbonate (50%) and basalt (50%). (125'-126') CLAY - contains pebbles of basalt.	
	07	130-134' PEBBLY SAND. - contains basalt (50%), granite (40%) and 10% carbonate and chert in a fine sandy matrix - contains some clay at top.	
	08		
	09		

DATE _____ HOLE No. R-10 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		10	134-140' BEDROCK. - BASALT -chloritized, medium-grained dark green. Also contains medium-grained feldspathic white chips with chloritized green specks throughout.	
10		11		
		12		
		13		
0		14		
		15		
30		16		
		17		
0			END OF HOLE.	

DATE 17 JANUARY, 1979 HOLE No. R-11 GEOLOGIST J. LAKE DRILLER G. GAGNÉ

HOLE LOCATION L 307+00S / 105+60E.

BIT No. 68165 FOOTAGE ON BIT 0 + 165' = 165'

HOURS MOVE _____ HOURS DRILL 11:00 - 3:00 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0'-4' No Return.	
			4'-43' LACUSTRINE CLAY AND FINE SAND. - greasy clay, sand increases in content with depth, locally highly micaceous.	
			43'-54' LACUSTRINE SAND brown in colour.	
			54'-74' CLAY (LACUSTRINE) brown, greasy with sand - abundant golden mica flakes.	
			74'-76' COARSE PEBBLY SAND. - subrounded, equigranular with a variety of lithologies.	
			76'-80' No Return.	
			80'-84' SAND	
			84-92' VERY COARSE SAND. - basalt and quartz grains predominate.	
			92'-102 SAND, - coarse, brown.	
			102'-111' GRAVEL - equigranular	
			111'-112' PEBBLY GRAVEL - 70% carbonates	
			112'-114' GRANITE BOULDER.	
			114'-118' PEBBLY SAND - abundance of well-rounded granite and basalt pebbles, 20% carbonate pebbles.	
			118-120' PEBBLY CLAY TILL. - sandy gritty clay containing 33% carbonates, 33% basalt, 33% granite pebbles (5%) - hard drilling.	
		01		
		02	120'-133' CLAY TILL. - gray, gritty, minor fine sand, hard.	
		03	133'-135' PEBBLY SAND - ~~targety~~ felsic volcanic grains and basalt (10%).	
		04		
		05		

DATE _____ HOLE No. R-11 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			07	135'-145' SANDY CLAY TILL -gray, hard, gritty	
			08	145'-146' PEBBLY SAND -contains 80% rounded basalt, 20% felsic volcanic and granite pebbles. in fine sand.	
0			BOULDER		
			09	146-158 PEBBLY CLAY TILL. -abundance of carbonate grains - gritty silt-clay matrix.	
10			10	158-160' COARSE PEBBLY SAND. -contains 95% rounded basalt grains plus 5% granite and carbonate pebbles.	
			11		
20			12	160-165 BASALT BEDROCK. -soft, dark green, chloritized, weathered.	
			13		
10			14		
			15		
0			16		
			17		
0					

DATE _____ HOLE No. R-11 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		07	135'-145' SANDY CLAY TILL - gray, hard, gritty	
		08	145'-146' PEBBLY SAND - contains 80% rounded basalt, 20% felsic volcanic and granite pebbles. in fine sand.	
		BOULDER		
		09	146-158 PEBBLY CLAY TILL. - abundance of carbonate grains - gritty silt-clay matrix.	
		10	158-160' COARSE PEBBLY SAND. - contains 95% rounded basalt grains plus 5% granite and carbonate pebbles.	
		11		
		12	160-165 BASALT BEDROCK. - soft, dark green, chloritized, weathered.	
		13		
		14		
		15		
		16		
		17		
		18		
			165' END OF HOLE	

DATE 18 JANUARY, 1977 HOLE No. R-12 GEOLOGIST J. LAKE. DRILLER G. GAGNÉ.

HOLE LOCATION L 251+10S / 72+60E.

BIT No. 68165 FOOTAGE ON BIT 165' + 106 = 271'

HOURS MOVE 10:30 - 1:00 HOURS DRILL 2:00 - 3:30 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-4' No Return.	
		4-15' PEBBLY SAND	
		15-34' LACUSTRINE CLAY - greasy, soft.	
		34-46' PEBBLY SAND - 33% basalt, 66% carbonates in coarse sand matrix.	
		46-50' COBBLE SAND - contains 90% basalt and 10% chert cobbles in coarse sand.	
		50-65' PEBBLY SAND - contains 90% basalt and 10% carbonates in brown sand - hard drilling.	
		65-68' BASALT BOULDER. - fine-grained, dark green, chloritized, fresh	
	01	68-88' PEBBLY SAND - contains 70% basalt, 30% carbonate pebbles (86-88' - contains basalt cobbles - hard drilling).	
	02		
	03		
	04	88-101' CLAY TILL - gray, gritty, contains minor local fine pebbles of basalt and quartz (5% of sample) also some carbonate - gritty sand in matrix.	
	05		
	06		
	BOULDER		
	07	101-106' DACITE BEDROCK. hard, gray-green, chloritized, conchoidal fracture, cherty appearance	
	08		
	09		
	10		
	11		
	12		
	13		

DATE _____ HOLE No. R-12 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLES	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0			14	106' END OF HOLE.	

DATE 20 JANUARY, 1979 HOLE No. R-13 GEOLOGIST J. LAKE DRILLER G. GAGNÉ

HOLE LOCATION L 251+10S / 46+20E.

BIT No. 68163 FOOTAGE ON BIT 0 + 106' = 106

HOURS MOVE _____ HOURS DRILL 9:00 - 10:00 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-16' No Return	
				16'-74' LACUSTRINE CLAY - greasy clay, gray in colour.	
10				74'-80' PEBBLY SAND. - fine sand with rounded pebbles - 70% basalt, 30% rhyolite carbonate etc	
0				80-84' CLAY TILL. - gray, gritty, contained abundant pebbles for first foot (various lithologies). till contains 3% grains - primarily basalt, with carbonate grains.	
10				84-94' PEBBLY SAND. - contains abundant pebbles of various lithologies.	
0				94-98 PEBBLY CLAY TILL.	
				98-102 PEBBLY SAND. - abundance of basalt pebbles (80%), granite and minor carbonate.	
50				102-106' BEDROCK - ANDESITE fine-grained, soft, green chloritized, fresh Andesite.	
0					
0					
			01		
0			02		
			03		
0			04		
			05		
0					

DATE _____ HOLE No. R-13 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			05 Con't.		
			06.		

DATE 20 JANUARY, 1979 HOLE No. R-14 GEOLOGIST J. LAKE DRILLER G. GAGNÉ.

HOLE LOCATION L 251+10S / 19+80E.

BIT No. 68163 FOOTAGE ON BIT 106' + 37' = 143'

HOURS MOVE _____ HOURS DRILL 11:30-12:30 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-2' No Return.	
				2'-25' LACUSTRINE CLAY brown, grading to gray at 8' gritty - silt and sand	
0				25'-32' PEBBLY SAND - contains equal quantities of basalt, granite and carbonate rounded grains in sand.	
				32'-37' GRANITE - BEDROCK. - gray - pink, medium-grained fresh (may be subvolcanic).	
10			01		
			02		
			37'	END OF HOLE.	

DATE JAN 21/79 HOLE No. R-15 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION L-251+10S 33E

BIT No. 68163 FOOTAGE ON BIT 143'+28' = 171'

HOURS MOVE 7:15-9:15 HOURS DRILL 9:15-11:00 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-2' Organics	
				2'-14' Brown Clay - light to moderately dark brown greasy lacustrine clay	
0					
				14'-20' Grey Clay - light grey greasy lacustrine clay	
0				20'-23' Pebbly Grey Till 10% gritty clay 10% carbonates 10% granitics 10% amphibolite 60% black and green metavolcanics and metasediments	
			01, +10		
			02		
0					
				23'-28' Basalt dark green very fine grained chloritic basalt 26'-28' porphyritic 3mm euhedral white feldspar phenocrysts occasionally zoned.	
				28' End of Hole	

DATE JAN 21/79 HOLE No. R-16 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION L-251+10S 59.+40E

BIT No. 68166 FOOTAGE ON BIT 0+138' = 138'

HOURS MOVE _____ HOURS DRILL 12:15 - 2:30 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	N.R.		0-1' No Return 1'-20' Brown clay light to moderately dark brown greasy lacustrine clay	
20			20'-30' BROWN SILT - silty to very fine brownish sand - predominately quartz	
30			30'-111' GREY SILT - silty to very fine grey sand - predominately quartz - occesional clay rich to thin 100% clay sections	
40				
50				
60				
70				
80				
90				
100				

- CONTINUED -

DATE JAN 21/79 HOLE No. R-16 GEOLOGIST KOTLA DRILLER

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

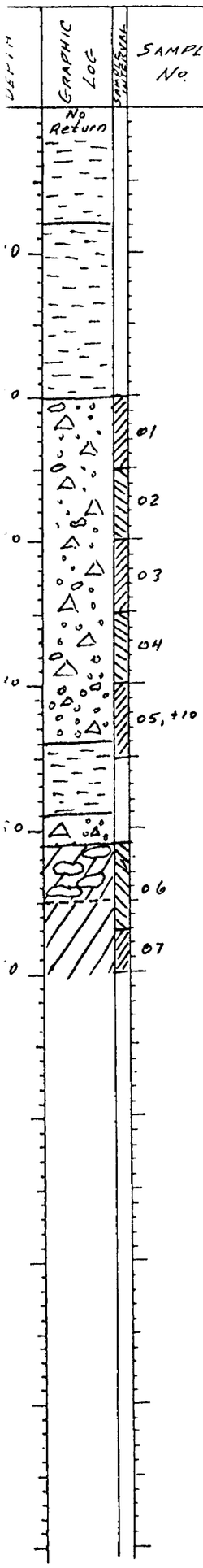
GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			continued	
			30'- 111' GREY SILT	
			111'- 120' GREY TILL	
			• 90% grey silt to fine sand	
			5% pebbles primarily mafic metavolcanics and metasediments	
			5% grey gritty clay	
		01		
		02	120'- 122' Rhyolite Boulder	
			- aphanitic, dark grey	
		03, 110	122'- 128' Sand with Pebbles	
			- 90% medium grained sand	
			- 10% pebbles, predominately dark metavolcanics and metasediments minor carbonates	
		04		
		04	128'- 133' Grey Till	
			80% gritty grey clay	
			20% assorted pebbles	
		05	- metavolcanics, metasediments carbonates, granitics trace jasper	
			131'- 131.5' Andesite Boulder	
			133'- 138' Rhyolite	
			- aphanitic dark reddish brown	
			- rare 3mm white feldspar phenocrysts.	
			138' End of Hole	

DATE JAN 22/79 HOLE No. R-17 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 251+10 S, BASELINE

BIT No. 6B166 FOOTAGE ON BIT 138'+60' = 198'

HOURS MOVE _____ HOURS DRILL 9:15 - 10:45 OTHER _____



DESCRIPTIVE LOG	ANALYSES
0-2' No Return	
2'-8' BROWN CLAY - greasy lacustrine clay	
8'-20' GREY CLAY - greasy lacustrine clay	
20'-44' Pebbly to Cobbly GREY TILL - 20-80% gritty grey clay - local variations to the pebbles and cobbles but generally 40-80% mafic metavolcanics and metasediments 10-40% granitics 10% carbonates 10% gneisses 40'-42' 10% clay 42'-44' 10% grey clay 20% chocolate brown compact gritty clay 20% rhyolite pebbles	
44'-49' Grey Clay greasy lacustrine clay with 1% sand	
49'-51' GREY FILL 95% gritty grey clay 5% pebbles	
51'-55' Oxidized Cobbles and Boulders - extremely oxidized basal till and unconsolidated bedrock - 90% brown and yellow extremely oxidized mafic rock - basalt to diorite ? - one rhyolite cobble observed - minor grey till	
55'-60' OXIDIZED Bedrock - intense brown and yellow oxidation with clay development - possibly a fault zone - Bedrock similar to basalt? cobbles above. - appeared to be a gradational contact	
60' End of Hole	

DATE JAN 22/79 HOLE No. R-18 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 251+10S, 16+20W

BIT No. 68166 FOOTAGE ON BIT 198' + 68' = 266'

HOURS MOVE _____ HOURS DRILL 12:15 - 1:45 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return			0 - 4' No Return	
				4' - 10' GREY CLAY - greasy lacustrine clay	
10				10' - 63' Pebbly GREY TILL	
			01	10' - 30' - 40-60% gritty grey clay of the pebbles 60% mafic metavolcanics 20% granitics 20% carbonates	
0				30' - 60' less than 10% gritty clay 50% mafic metavolcanics and intrusives 20% granitics and gneisses 20% carbonates 10% sediments, metasediments and schists fine to medium sand matrix poor and sporatic return	
			02		
			03		
50					
			04	60' - 63' 60-100% gritty grey clay pebble types more varied minor amount of rhyolite	
0					
			05		
70					
			06		
80					
			07	63' - 68' Rhyolite - aphanitic grey siliceous metavolcanic - trace disseminated pyrite	
			08		
90				65' increase in chlorite alteration to 2%	
				68' End of Hole	

DATE JAN 22/79 HOLE No. R-19 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 251+10S, 33+00W

BIT No. 68166 FOOTAGE ON BIT 266' + 25' = 291'

HOURS MOVE 1:45 - 2:45 HOURS DRILL 2:45 - 4:00 OTHER

DEPTH	GRAPHIC LOG	MATERIAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return			0 - 2' No Return	
				2' - 8' BROWN CLAY	
				- 100% greasy lacustrine clay	
				- 6' - 8' mixed brown and grey clays	
				8' - 13' GREY CLAY	
0				- 100% greasy lacustrine clay	
				13' - 21' Pebbly GREY TILL	
			01	10 - 80% gritty grey clay with quartz silt	
0				of ±2 pebbles	
			02	60% mafic metavolcanic	
				20% granitics and gneisses	
				20% carbonate and sediments	
				21' - 25' BASALT	
				dark blackish green fine grained mafic volcanic with minor lighter green veining and epidotization	
				25' End of Hole	

DATE JAN 23/79 HOLE No. R-20 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 251+10 S, 10+00 E

BIT No. 68179 FOOTAGE ON BIT 0+29' = 29'

HOURS MOVE _____ HOURS DRILL 11:30 - 2:00 OTHER 12:00 - 12:15 WAIT FOR WATER 1:00 - 1:30

TRANSFER WATER TANKS - 15 minutes ; Fix FLAT ON DRILL 1 hour

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
No Return		0 - 4' No Return	
		4' - 8' BROWN CLAY - greasy lacustrine clay	
		8' - 19' GREY CLAY - greasy lacustrine clay 21% sand and pebbles	
		19' - 24' GREY TILL 10% gritty grey clay 90% pebbles of which 60% mafic metavolcanics 20% rhyolite 10% granitics and gneisses 10% carbonate	
	01, +10		
	02	24' - 29' Rhyolite - aphanitic to very fine grained dark green to light greenish grey - unusually chloritic for a rhyolite but very siliceous - possibly grey rhyolite with chloritic sections or mafic veining	
		29' End of Hole	

DATE JAN 24/79 HOLE No. R-21 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 251+10 S, 85+10 E

BIT No. 6B179;108326 FOOTAGE ON BIT 29' + 140' = 169' ; Redrill 140' + 36' = 176'

HOURS MOVE ______ HOURS DRILL 8:30 - 4:45 OTHER ______

pulled rods 4:45 - 6:00

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES					
			01, +10	0 - 137' Sandy to Pebbly Gravel (ESKER) generally fine to coarse sands with variable concentrations of pebbles and minor amounts of cobbles, well sorted and very well rounded						
10			02, +10	predominately light coloured pebbles 50% granitics and gneisses 20% mafic metavolcanics 10% quartz 10% carbonates 10% quartzites and sediments						
20			03, +10	increase in numbers of larger pebbles with depth 26' mafic cobble						
30			04, +10	36'-42' No Return						
40	No Return									
			05, +10							
50			06, +10	53'-56' No Return						
	No Return		06	56'-58' poor return with minor gritty till clay						
60			07, +10	58'-61' predominately medium-coarse sand with 25% pebbles increase in size with depth abundant large pebbles and cobbles from 60'-90'						
70			08, +10							
80			09, +10							
			10, +10							
90				90'-100' few cobbles and large pebbles						
			11, +10							
100										

continued

DATE JAN 24/79 HOLE No. R-21 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		continued	
		0 - 137' Sandy to Pebbly Gravel	
	12, +10	112' - 130' predominately coarse sand, few pebbles sporatic return with minor gritty till clay 112' - 117'	
	13, +10	130' - 137' Pebbly to Cobbly sharp contact, abundant ¼" - 1" pebbles 50% granitics and gneisses 20% mafic intrusives 10% carbonates 10% vein quartz 10% sediments	
	14, +10	137' - 140' No Return - replaced bit	
	15, +10	140' - 169' GREY TILL - 40-80% gritty grey clay - of the pebbles and cobbles 30% mafic metavolcanics 30% granitics and gneisses 25% carbonates 15% rhyolite	
	16	150.5' mafic gneiss cobble	
No Return		155' - 157' 100% pebbly gravel predominately 60% mafic metavolcanics, metasediments + intrusives 25% granitics and gneisses 15% carbonates and sediments	
	17, +10	164.5' - 165' andesite boulder	
	18		
	19		
	20, +10	169' - 171.5' Andesite Boulder - medium grained moderate green metavolcanic with dark and light green sections	
	21		
	22	171.5' - 175' GREY TILL	
	23	90% compacted gritty clay	
	24	175' - 176' Andesite - assumed to be bedrock bit broke	
	25		
		176' End of Hole	

DATE JAN 26/79 HOLE NO. R-22 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 251+10 S, 59+40 W

BIT NO. 108329, 68184 FOOTAGE ON BIT 0+108' = 108', 108' redrill + 4' = 112'

HOURS MOVE _____ HOURS DRILL 9:30 - 11:00, 12:15 - 3:15 OTHER 11:00 - 12:15 WAIT FOR WATER

DEPTH	GRAPHIC LOG	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 4' No Return	
			4' - 34' GREY CLAY - greasy lacustrine clay	
0				
0				
0			34' - 107' GREY TILL - variable gritty grey clay to silt and sand to pebble and cobble ratio - generally 40% of the pebbles 40% mafic metavolcanic sand metasediments 20% mafic gneiss and intrusives 20% granitics, gneisses and quartz 20% carbonates and sediments 34' - 40' trace to 5% clay with medium sand matrix 40' - 49' 60 - 80% clay 49' - 50' 100% greasy lacustrine clay 50' - 60' 40 - 80% gritty clay	
0		01, +10		
		02		
		03		
0		04		
		05		
0		06		
		07	66.5' gneissic cobble 68' - 69' greasy lacustrine clay 70' - 73' cobbly, gravel, no visible clay 70.5 - 71' dionite boulder	
0		08, +10	73' - 80' 80 - 100% gritty clay with thin lacustrine clay sections	
		09		
		10	85' - 90' 10% rhyolite fragments	
0		11, +10		
	No Return		92' - 95' No Return	
		12	95' - 100' 90% gritty clay minor rhyolite trace pyrite.	
20				

- Continued -

DATE JAN 26/79 HOLE No. R-22 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		13, +10	continued 34'-107' GREY TILL - dramatic increase in rhyolite fragments with depth (100'-107')	
		14, +10		
10		15	107'-112' Rhyolite - aphanitic dark grey to fine grained darker green (chloritic) metavolcanic - more chloritic sections have light grey associations with blue quartz phenocrysts - changed bit at 108'	
0			112' End of Hole	

DATE 27 JANUARY, 1979 HOLE No. R-23 GEOLOGIST J. LAKE DRILLER G. GAGNÉ

HOLE LOCATION L 251 + 10S / 46 + 20 W.

BIT No. 68184 FOOTAGE ON BIT 112 + 63 = 175'

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

9:00 - 10:15 Drill 10:15 - 11:30 Wait for water

11:30 - 12:00 Drill

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0'-2' No Return.	
				2'-11' LACUSTRINE CLAY. - gray, greasy with high silt content.	
0				11'-59.5' PEBBLY SANDY CLAY TILL - contains abundant rounded carbonate pebbles (70%) and basalt (30%) pebbles.	
			01		
0			02	- sand in matrix has high ferromagnesian content. Locally abundant basalt-rich pebble horizons containing minor pink syenite pebbles.	
			03		
			04	32-33' GRANODIORITE BOULDER.	
			05	40-59.5' CLAY TILL with low pebble content. - gray and gritty.	
0			06	59.5 - 63' ANDESITE BEDROCK. - fine-grained, dark green-black, fresh, chloritized	
			07		
0				63' End of Hole.	
			08		
			09		

DATE JAN 30/79 HOLE No. R-27 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+003, 92+40E

BIT No. 53780 FOOTAGE ON BIT 277' + 116' = 393'

HOURS MOVE - 9:15 HOURS DRILL 9:15 - 10:45 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0	No Return			0 - 14' No Return	
0				14' - 24' GREY CLAY - greasy lacustrine clay - 1% pebbles	
0				24' - 31' GREY SILT and CLAY - very well sorted lacustrine silt and clay	
0				31' - 40' GREY CLAY - greasy lacustrine clay - 1% pebbles	
0				40' - 84' GREY SILT and CLAY 90% silt to fine sand 10% clay	
0					
0					

DATE JAN 30/79 HOLE No. R-27 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+00 S, 92+40 E

BIT No. 53780 FOOTAGE ON BIT 277' + 116' = 393'

HOURS MOVE - 9:15 HOURS DRILL 9:15 - 10:45 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 14' No Return	
0			14' - 24' GREY CLAY - greasy lacustrine clay - 1% pebbles	
0			24' - 31' GREY SILT and CLAY - very well sorted lacustrine silt and clay	
0			31' - 40' GREY CLAY - greasy lacustrine clay - 1% pebbles	
0			40' - 84' GREY SILT and CLAY 90% silt to fine sand 10% clay	
0				
0				
0			71' - 79' 1% organics	
0			84' - 88' Pebbly GRAVEL	
0		01	88' - 107' Pebbly GREY TILL 88' - 95' 40-60% gritty clay 95' - 107' 60-90% gritty clay pebbles: 50% mafic gneisses, intrusives, metavolcanics and metasediments 30% granitics and gneisses 20% carbonates and sediments	
0		02		
10		03		

continued

DATE JAN 30 /79 HOLE No. R-27 GEOLOGIST KOTILA DRILLER

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	04		
	05	107' - 111' Cobbly Till - 10-40% clay - cobble composition similar to above pebbly till	
	06		
	07	111' - 116' Rhyolite 111' - 114' aphanitic dark green siliceous rhyolite with minor 1cm wide pink aphanitic felsite dykes, probably of similar chemical composition 114' - 116' ivory coloured aphanitic rhyolite possibly with large quartz phenocrysts or fragmentals (pyroclasts?)	
		116' End of Hole	

DATE JAN 30 '79 HOLE No. R-28 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+005, 66+00E

PIT No. 53092 FOOTAGE ON BIT 0' to 70' = 70'

HOURS MOVE 10:45-12:15 HOURS DRILL 12:15 - 2:45 OTHER 1:00-2:00 WAIT FOR WATER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0 - 4' No Return	
		4' - 12' BROWN CLAY - light brown greasy lacustrine clay	
		12'-20' GREY CLAY - greasy lacustrine clay	
		20'-34' Silt and Clay - silt, fine sands and lacustrine clays	
	01	34'-65' GREY TILL 34'-45' 40-80% grey gritty clay, silt and fine sand - of the pebbles 50% mafics 30% granitics and gneisses 20% carbonates and sediments	
	02	39.5' granitic cobble	
	03	45'-58' cobbly to pebbly till with 20-60% clay and sand	
	03	48'-49' granitic boulder 49.5'-50' andesite boulder	
	04	58'-60' 10% clay 90% pebbles and cobbles	
	05	60'-65' 0-5% clay 95% cobbles and pebbles increase in granitics 50% granitics and gneisses 30% mafics 20% carbonates and sediments	
	06, +10		
	07	65'-70' Rhyolite - aphanitic brick red (oxidized) porphyritic rhyolite with 1-5% anhedral blue quartz phenocrysts (1-2 mm) often encircled by specular hematite. - also 1-2% euhedral white feldspar phenocrysts (2-5 mm) - locally abundant dark green to black mafic mineral in the matrix and slickensided on fractures - chlorite ± amphibole - check for pitchblende. - minor quartz + mafic augens that appear to be aligned with the metamorphic fabric	
		70' End of Hole	

DATE Feb 7/79 HOLE No. R-29 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+00S; 26+40 E

BIT No. 53092 FOOTAGE ON BIT 70' + 36' = 106'

HOURS MOVE ____ HOURS DRILL 10:15 - 11:45 OTHER 11:00-11:15 WAIT FOR WATER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0-2' No Return	
		2-8' BROWN CLAY 100% greasy lacustrine clay	
		8-30' GREY CLAY 100% greasy lacustrine clay	
	01, +10	30-30.5' GREY TILL minor gritty grey till 1-10% 55% mafic metavolcanics, intrusives and metasediments 10% granitics 10% carbonates 25-50% rhyolite, increases with depth colour - green grey	
	02		
	03		
		30.5'-34' PINK RHYOLITE - initially green grey then aphanitic pink with minor chloritic sections	
		34'-35' GREY RHYOLITE - green grey aphanitic rhyolite with minor chloritic sections	
		35'-36' PINK RHYOLITE - with some green grey rhyolite and minor chloritic sections	
		36' End of Hole	

DATE Feb 7/79 HOLE No. R-30 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+00S, 0+00 BASELINE

BIT No. 53092, B52953 FOOTAGE ON BIT 106'+60' = 166', redrill 60'+10' = 70'

HOURS MOVE 11:45 - 1:30 HOURS DRILL 1:30 - 3:15 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0 - 6' ORGANICS	
		6' - 56' GREY CLAY - 100% greasy lacustrine clay - occasional pebble or sand	
		56' - 64' GREY TILL 25% gritty clay 25% pebbles 50% silt and sand of the pebbles 60% mafics 20% carbonates 5% granitics 10% sediments, free quartz	
	01		
	02		
	03	60' changed bit	
		64' - 70' RHYOLITE - siliceous grey green to dark green metavolcanic with concoidal fracture - probably a chloritic rhyolite or dacite - occasional quartz phenocrysts and rare blue quartz - trace blue green coating on fracture surfaces	
		70' End of Hole	

DATE Feb 8/78 HOLE No. R-31 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+00 S, 13+20 W

BIT No. B52953 FOOTAGE ON BIT 70' + 83' = 153'

HOURS MOVE _____ HOURS DRILL 10:00 - 12:00 OTHER 10:30 - 11:15 WAIT FOR WATER

9:00 - 10:00 frozen chuck

DATUM	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0 - 2' ORGANICS 2' - 6' NO RETURN	
	No Return			6' - 55' GREY CLAY 100% greasy lacustrine clay	
0					
0					
0					
0					
0				55' - 77.5' GREY TILL 55' - 70' poor return 10% gritty grey clay 80% sand 10% pebbles of which 60% mafics 20% granitics 20% carbonates	
0					
10			01, 10		
0			02	77.5' - 83' BASALT - very fine grained dark greenish black to dark greenish grey - trace quartz veining - finely disseminated matrix epidote alteration	
0				83' End of Hole	

DATE Feb 8/79 HOLE No. R-32 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+00 S, 26+40 W

BIT No. B52953 FOOTAGE ON BIT 153' + 41' = 194'

HOURS MOVE 12:00 - 2:00 HOURS DRILL 2:00 - 3:15 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0 - 4' ORGANICS	
		4' - 8' LIGHT BROWN CLAY	
		8' - 34' GREY CLAY 100% greasy lacustrine clay	
		34' - 37' GREY TILL - 20% gritty clay - 60% silt and sand - 20% pebbles of which 50% mafic volcanics and intrusives 30% carbonates 20% granitics	
	01, +10		
	02		
		37' - 41' RHYOLITE - dark greenish grey aphanitic rhyolite porphyry - 10% glassy clear to brilliant blue to purple blue phenocrysts appears pleochroic, probably cordierite, possibly quartz - 1% disseminated pyrite trace pyrrhotite, rare chalcopyrite - associated with chlorite blebs and concentrations primarily in the matrix and occasionally within the phenocrysts.	
		41' End of Hole	

DATE Feb 9/79 HOLE No. R-33 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 307+005, 37+00 W

BIT No. B52953 FOOTAGE ON BIT 194' + 108' = 302'

HOURS MOVE ____ HOURS DRILL 10:15 - 2:00 OTHER ____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0 - 6' BROWN CLAY - 100% lacustrine clay	
		6' - 36' GREY CLAY - 100% greasy lacustrine clay trace to 1% sand with depth	
		36' - 100' GREY TILL 25% gritty clay 50% sand 25% pebbles and cobbles of the pebbles 50% mafics 10% granitics 20% carbonates 20% sediments and metasediments 45' - 50' minor metasediment cobbles 45' - 100' 0 - 20% rhyolite, usually 5 - 10% especially of the pebble size 50' - 55' predominately mafic metavolcanic cobbles and pebbles 57' - 69' 95 - 100% compacted gritty clay 69' - 75' predominately pebbly gravel with 10% clay 25 - 50% sand 75' - 85' predominately cobbly gravel with minor pebbly gravel still with 50% sand and clay 85' - 100' 80 - 100% clay with sand	

- Continued -

DATE Feb 9/79 HOLE No. R-33 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0		13	100' - 103' Chlorite Schist - associated with minor till - possibly a boulder - very soft, altered and schistose - primarily chlorite - associated quartz and carbonate (?)	
		14		
0			103' - 108' RHYOLITE - aphanitic dark grey to green grey - concoidal fracture	
			108' End of Hole	

DATE Feb 10, 11/79 HOLE No. R-34 GEOLOGIST KOTILA + ROBINSON DRILLER GAGNE

HOLE LOCATION 167+00S, 66+00E

BIT No. B53781 FOOTAGE ON BIT 0+ : 11:45 - 12:15

HOURS MOVE 7:00 - 11:45 HOURS DRILL 2:30 - 4:45 OTHER 12:15 - 2:30 WAIT FOR WATER

DEPTH IN	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-6' Organics - sporatic return	
10			6'-78' FINE SAND 90% very fine to fine sand predominately quartz greyish colour up to 10% grey lacustrine clay gradual increase in grain size with depth	
0				
30				
0			40'-78' poor return	
0				
0				
10				
20			78'-1' Sand with few pebbles 95% very fine to coarse sand with generally coarser fractions at greater depth 5% pebbles generally 60% black and green matic metavolcanics and metasediments 30% carbonates 20% granitics 80'-90' very poor return at 100' 2% lacustrine clay	
0		01		
00				

DATE Feb 10, 11/79 HOLE No. R-34 GEOLOGIST KOTILA + ROBINSON DRILLER

HOLE LOCATION L-167+00S 66E

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	02	continued 78' - 112' SAND with pebbles 100-110' very poor return 110-112' 5% lacustrine clay	
	03, +10	112' - 165' SAND with Pebbles and Cobbles 95% well sorted sand 5% pebbles and cobbles 30% black mafic metavolcanics intrusives and metasediments 20% green and light coloured sediments and metasediments 20% gneisses 20% carbonates 10% granitics with local variations in sand/pebble/cobble ratio as well as composition concentrations	
	04, +10		
	05, +10	133.5' - 134' metavolcanic boulder 136' - 136.5' granitic boulder	
	06, +10		
	07, +10		
	08, +10	150' - 152' 5% lacustrine clay	
	09, +10		
	10	160' - 162' 2% lacustrine clay	
	11	165' - GREY TILL 60-80% grey gritty clay which includes sand 20% pebbles 50% mafics 30% carbonates 20% granitics and gneisses 167' - 168' granitic boulder 175' - 176' calc-silicate boulder 179' - 179.5' granitic boulder	
	12		
	13		
	14		
	15		
	16	190' Shut down Feb 10	

DATE Feb 10, 11 1979 HOLE No. R-34 GEOLOGIST KOTILA + ROBINSON DRILLER GAGNE

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL Feb. 11 10:00 - 1:00 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0		17 and +10		
		18, +10	209.5 Boulders of granite and basalt, some chert in clay.	
		19	211 Andesite Green to gray, medium grained massive. Barren	
0			216 END OF HOLE.	

DATE Feb. 11, 1979 HOLE No. R-35 GEOLOGIST ROBINSON DRILLER GAGNE

HOLE LOCATION L167+00S 85+00 E

BIT No. 53782 FOOTAGE ON BIT 0+85

HOURS MOVE 1-3:00 HOURS DRILL 3:00 - 4:30 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
NR		0-2 No Return	
		2-10 Brown lacustrine clay greasy.	
		10-78.5 Gray lacustrine clay greasy.	
	01 and #10	78.5-79 Basalt with epidote. Fine to medium grained massive, dark green with light green epidote.	
	02		
	03		
	04		
		79-81 Epidote or altered rhyolite green & hard.	
		81-82.4 Basalt black, massive, med. grained	
		82.4-83 Epidote?	
		83-85 Basalt as 81-82.4.	
		85 END OF HOLE.	

DATE Feb 12/79 HOLE No. R-36 GEOLOGIST KOTHA DRILLER GAGNE

HOLE LOCATION 139+50 S, 37+50 E

BIT No. B 53786 FOOTAGE ON BIT 0 + 118' = 118'

HOURS MOVE ______ HOURS DRILL 9:30 - 12:30 OTHER ______

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0 - 2 No Return	
	01, +10	2' - 7' Pebbly Gravel well sorted angular pebbles 50% granitics, gneisses 30% mafics 20% carbonates	
	02, +10	7' - 20' Brown Till sporatic to no return 80% brown gritty clay with sand 20% pebbles 18.5' - 19' white to grey aphanitic rhyolite boulder (sampled as 02, +10)	
	03 04, +10	20' - 40' Grey Till gradational contact with brown till probably extent of the oxidation sporatic return with better sample return with depth 80% gritty clay with sand 20% pebbles 60% mafics 10% granitics 15% carbonates 5% rhyolite (local) 10% quartz and gneisses	
	05, +10	40' - 45' Pebbly to Cobbly Gravel 80% sand 20% pebbles 20% granitics 20% gneisses 25% carbonates 10% rhyolite 25% mafics	
	06	45' - 48' Grey Till 80% gritty clay with sand 20% pebbles	
	07, +10	48' - 60' Pebbly Gravel 60% sand with thin local clay rich layers 20% pebbles with minor cobbles 55% mafics 10% granitics 10% gneisses 20% carbonates 5% rhyolite	
	08 09 09	60' - 80' Grey Till 60% gritty clay with sand 20% pebbles, similar composition to above 77.5' - 78.5' granitic boulder	
	10 11	80' - 100' Sand and Clay 80 - 85' clay increase from 5% to 20% and becomes typical greasy lacustrine clay usually mixed with 75 - 90% fine to medium grained sand rare pebbles	

- continued -

DATE Feb 12/79 HOLE No. R-36 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	12	100' - 112.5' Pebbly to Cobbly Gravel	
		102.5' - 104' basalt boulder	
	12	85% very fine to medium sand	
		10% pebbles and cobbles	
10		trace to 5% clay	
	13	112.5' - 118' Andesite	
	14	fine grained light to moderately dark green andesite or lightly coloured basalt	
		abundant 1mm wide white veining - possibly quartzofeldspathic dykelets	
0		118' End of Hole	

DATE Feb 12, 13/79 HOLE NO. R-37 GEOLOGIST KOTILA + ROBINSON DRILLER GAGNÉ

HOLE LOCATION 139+50 S, 641+40 E

BIT No. B53786 FOOTAGE ON BIT 118' + 227' = 345'

HOURS MOVE 12:30-1:45 HOURS DRILL 1:45-5:15 Feb 12, 9:00-10:20 Feb 13 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE NO	DESCRIPTIVE LOG	ANALYSES
	No Return			0-4' No Return	
				4'-64' Grey Clay	
				100% greasy grey lacustrine clay	
				no samples taken	
				64'-108' Clay and Silt	
				25% greasy grey lacustrine clay	
				75% silt and very fine sand	
				no samples taken	

- continued -

DATE Feb 12, 13/79 HOLE No. R-37 GEOLOGIST KOLLA r ROBINSON DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		continued	
		64'-108' Clay and silt	
		108'-116' Pebbly Gravel	
		minor cobbles	
		medium to coarse sand matrix	
		of the pebbles	
		20% mafics	
		20% granitics	
		30% gneisses	
		20% carbonates	
		10% sediments	
		at 116' banded pyrite (25%)	
		in siliceous metavolcanic	
		pebble	
		116'-221.5' Grey Till	
		local variation in the gritty	
		clay content - trace to 25%	
		usually only 10%	
		pebble and cobble fragments usually	
		up to 10%	
		remainder very fine to medium	
		grained sand	
		116'-118' 10% gritty clay	
		25% pebbles and cobbles	
		of the pebbles	
		45% mafics	
		20% gneisses	
		10% granitics	
		20% carbonates	
		5% rhyolites	
		118'-140' 25-10% gritty clay	
		20-40% pebbles	
		50% mafics	
		20% gneisses	
		20% granitics	
		10% carbonates	
		140'-160' 10-25% clay	
		160-167 trace clay	
		167-206 10-25% clay	
		10% pebbles	
		65-80% sand	

- continued -

DATE Feb 12, 13/79 HOLE No. R-37 GEOLOGIST KETUN + ROBINSON DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
				continued	
				116'-221.5' Grey Till	
				206'-212'	
				80-100% greasy clay with up to 20% sand	
210				212'-220'	
				65% sand	
				25% clay	
				10% pebbles and cobbles almost entirely basalt	
				220' Shut down Feb 12	
220				220-221.5' 80% clay, silt and sand with mafic pebbles	
			17		
			NO sample taken		
			18		
			19		
			20		
				221.5'-227 BASALT	
230				massive, fine to medium grained	
				dark green to black	
				minor calcite	
				227' End of Hole	

DATE Feb. 13, 1979 HOLE No. R-38 GEOLOGIST ROBINSON DRILLER GAGNE.

HOLE LOCATION L139+50S 90+70E

BIT No. 53788 FOOTAGE ON BIT 0+113 - 113

HOURS MOVE 10:00 - 12:00 HOURS DRILL 12 - 3:30 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
NR		0-2 No return 2-4 Brown lacustrine clay with top soil. 4-50 Gray lacustrine clay greasy.	
		50-55 Only water returned.	
		55-65 Gray lacustrine clay with a few small sand grains and mafic pebbles.	
		65- Gray lacustrine clay, greasy.	
		92 Small granite boulder 96-99 A few sand grains occur within the clay.	

DATE Feb. 13, 1979. HOLE No. R-38 cont'd GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	01	108-109 Till 90% basalt boulders and pebbles. A few carbonate and quartz pebbles occur throughout.	
	02	109-113 Basalt- diabase Massive, gray-green fine to medium grained.	
		113 END OF HOLE.	

DATE Feb. 14, 1979 HOLE No. R-39 GEOLOGIST Solenyka DRILLER Gagne

HOLE LOCATION L 111+90 S 35+20 E

BIT No. 53788 FOOTAGE ON BIT 221'

HOURS MOVE 3:00 - 4:45 HOURS DRILL 9:00 - 3:00 OTHER 10:00 - 11:30 wait for water

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
Org. Mat.		0-2 Organic Material	
		2-14 Light brown clay Some organic material & pebbles near top	
		14-17 Gray clay	
		17-20 Gray clay with pebbles and fine sand	
	01	20-30 F-m. sand with pebbles, (mafic volc., granites)	
	02	30-43 Gravel Pebbles of basalt, limestone, granite, gabbro	
	03	43-54 F-m. sand with pebbles, (limestone, basalt, granite)	
N.R		No Return 54-57	
	04 +10	57-65 F-m sand with pebbles granite, limestone, basalt, diorite, rhyolite	
		65-78 Till Pebbles within a silty clay (20-30%) granite, basalt, limestone	
	05		
	06	78-88 Till Gray clay with 20% pebbles, (basalt, granite limestone	
	07		
		88-91 Till Basalt boulders within clay	
	08	91-105 Till Gray silty clay with boulders of granite, basalt & rhyolite especially at 99.0 Basalt boulder 102.0 "	

DATE Feb. 19, 1979 HOLE No. R-39 cont'd GEOLOGIST Solonyka DRILLER

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0		09		
		10 B.R	105–107 Basalt f.g. dark green 107–108 "Lighter green, amygdaloidal, altered Hole stopped at 108' due to worn-out bit.	

DATE Feb 15,16 1979 HOLE No. R40 GEOLOGIST Solonyka DRILLER Gagne

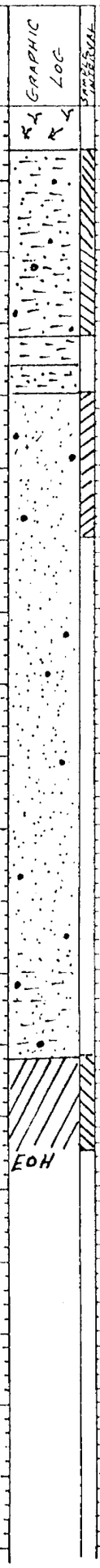
HOLE LOCATION L 27+50 S 24+40 W

BIT No. 53791 FOOTAGE ON BIT 0 - 72.5 Bit worn out

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Breakdowns 7 hrs to fix EN60 axel (Feb16)

5 hrs axel on EN60 Broken (Feb15)



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	0-3 Organics	
	3-16 Sandy, few pebbles, clay	
01		
	16-18 Clay - light brown	
	18-20 Sandy clay	
	20-66 fine sand, minor pebbles	
02		
	59-66 sandy clay, minor pebbles	
	66-72.5 Gabbro - fine grained	
	BEDROCK - patches of epidote	
	67.5 - Narrow seam - loss of recovery	
03		
	72.5 END of Hole	

DATE Feb 17 1979 HOLE No. R41 GEOLOGIST SMITH DRILLER Gagne

HOLE LOCATION 27+50 S 2+00 E

BIT No. 53759 FOOTAGE ON BIT 0-63 BIT WORN OUT

HOURS MOVE ____ HOURS DRILL 0730 - 1630 OTHER ____

Rods pulled at 40' due to clogging

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
?		0-53 No Return - mostly clay	
?			
?			
?			
?			
?		53-58 pebbly medium gr sand	
	01	58-63 BEDROCK - gabbro - dark green to black - fine gr.	
EOH	02	63 END OF HOLE	

DATE Feb 18 1979 HOLE No. R42 GEOLOGIST SMITH DRILLER Gagne

HOLE LOCATION 27+50 S 28+40 E

BIT No. 53810 FOOTAGE ON BIT 40-127

HOURS MOVE ____ HOURS DRILL 0730 - 1700 OTHER ____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-8 No Return 8-76 Clay - grey, greasy - slightly silty 10-12 quite hard	
		01 01 +10	76-81 5% clay 10% silt 15% gravel 70% sand fine to med. pebbles med. gr. sand 70% quartz 30% mafics carbonate, diorite, basalt, chert and other mafics	
		02	81-87 Bedrock - granite or granodiorite - med. to coarse gr. - pinkish	
	EOH		87 END OF HOLE	

DATE Feb 18 1979 HOLE No. R43 GEOLOGIST SMITH DRILLER Gagne

HOLE LOCATION L-0+00 26+40 W

BIT No. 53810 FOOTAGE ON BIT 121 - 194

HOURS MOVE ____ HOURS DRILL 0730 - 1700 OTHER ____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
NR		0-4 No Return 4-61 60% fine sand 40% silt	
		61-61.5 (15%) pebbly sand	
EOH	01	61.5-67 BEDROCK - gabbro - dark grey - fine gr. - reddish phenocrysts	
		67 End of Hole	

DATE Feb 18 1979 HOLE No. R44 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L-0+00 0+00 BL

BIT No. 53810 FOOTAGE ON BIT 194 - 347 END OF BIT

HOURS MOVE HOURS DRILL 0730 - 1700 OTHER

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
NR			0-6 No Return 6 - 108 Clay - grey, greasy - siltly to sandy in places 70 becomes sandier 76 No sand or silt 86 sandy silty clay	

DATE Feb 18 1979 HOLE No. R 44 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
		108 - 116 silt and very fine sand	
		116 - 132 5-15% pebbles 10-30% silt in med. gr. sand. med. to coarse pebbles minor cobbles basalt, andesite, carbonate, granite	
	01 01 +10		
	02 02 +10		
	03 03 +10	132 - 137 Till coarse pebbles to clay minor cobbles mostly sand	
	04 04 +10	137 - 141 Till silt + clay rich with pebbles mafics, diorite, basalt % pebbles decrease towards 141	
	05	141 - 147.5 Boulder Till boulders in sandy to silty clay 141-142 Diorite boulder 142-142.5 clay - sandy to silty 142.5-143 Diorite boulder 145 - 146 Basalt boulder	
EOH	06	147.5 - 153 BEDROCK - Granite - first 3' weathered greyish -150.5 pink to reddish - medium gr.	
		153 END OF Hole	

DATE Feb 19 1979 HOLE No. R45 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L-0+00 26+40 E

BIT No. 53792 FOOTAGE ON BIT 0-64 New

HOURS MOVE _____ HOURS DRILL 0730 - 1800 OTHER _____

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
NR			0-2 No Return	
			2-6 Humus + tan brown clay	
			6-51 Clay - grey, greasy slightly silty	
			51-60 10% silt + clay 30% pebbles basalt, diorite, granite etc. 60% sand coarse to med. gr. chalcopyrite + pyrite in gabbro pebble	
		01		
		01+10		
		02	60-64 BEDROCK gabbro - dark grey - quartz feldspar veins with po, py + cpy disseminated sulfides throughout	
EOH			64 END OF Hole	

DATE Feb 19 1979 HOLE No. R46 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L-0400 79+20 E

BIT No. 53809 FOOTAGE ON BIT 0-90 New

HOURS MOVE ____ HOURS DRILL 0730 - 1800 OTHER ____

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG
NR		0-2 No Return
		2-8 Clay - tan brown, sandy
		8-40 Clay - grey, greasy - slightly sand to silty
		40-42 pebbly sand minor silt major basalt, mafics, granite minor carbonate
	01	42-85 Till 40% clay 10-30% sand 10-30% pebbles 20-30% silt
		54-56 (coarse) sand + (fine) pebbles in med gr. sand
	02	58-59 (coarse) pebbles (med) sand minor cobbles
		61 6" Basalt cobble
		63 60-70% clay minor pebbles sand and silt
	03	
		85-90 Andesite or Andesitic Basalt BEDROCK - light green - medium gr. - abundant very fine gr disseminated sulfides and fine sulfide veinlets.
	04	
EOH		90 END OF HOLE

ANALYSES

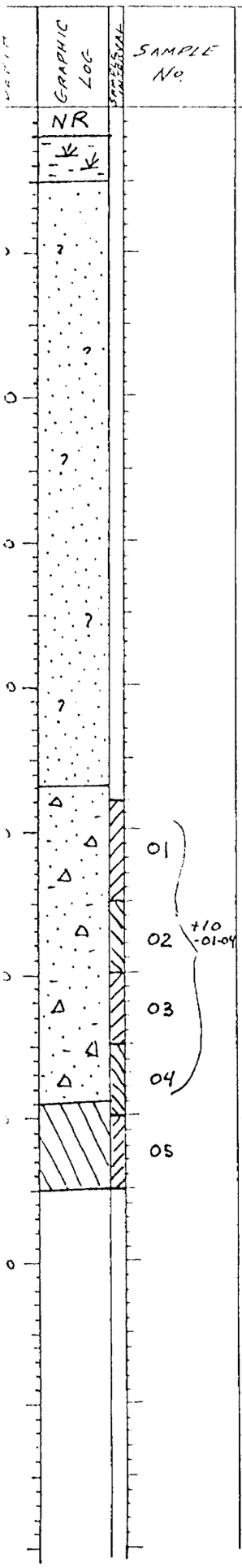
DATE Feb. 20, 1979 HOLE No. R-47 GEOLOGIST ROBINSON DRILLER GAGNE

HOLE LOCATION L 0+00 13+20W

BIT No. 53809 FOOTAGE ON BIT

HOURS MOVE 7^00 - 9^00 HOURS DRILL 9^30 - 9^30, 10^00 - 10^45 OTHER

9^30 - 10 wait for water



DESCRIPTIVE LOG	ANALYSES
0-2 No Return	
2-5 Organic and gray clay, greasy.	
5-47 No Returns. Fine silt-sand returned outside of the drill stem.	
47-69 Till. Pebbles of gabbro with some sulphides, rhyolite, basalt mixed with clay.	
69-75 Granite. Pink, medium grained massive	
75 END OF HOLE	

DATE Feb 20 1979 HOLE No. R-78 GEOLOGIST Robinson DRILLER Gagne

HOLE LOCATION L 0+00 13+20 E

BIT No. 53809 FOOTAGE ON BIT 165 - 238

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-2 No Return	
			2-6 Organics	
			6-56 CLAY - grey greasy lacustrine	
10				
20				
30				
40				
50			56-73 Pebbly Sand - minor silt + cobbles Sulfides in andesites gabbro, diorite, basalt, carbonates granite	
60		01	61-62 Sand - med. gr.	
		01+10		
		02		
70		02+10	73-78 BEDROCK - granite veins in andesite coarse to med gr. granite	
		03	78 END OF HOLE	
	EOH			
80				

DATE Feb 20 1979 HOLE No. R-49 GEOLOGIST SMITH DRILLER GAGNE

HOLE LOCATION 60+00 37+00E

BIT No. 53809 FOOTAGE ON BIT 238-318 Bit worn out

HOURS MOVE HOURS DRILL OTHER

Outcrop at 39+50 E - andesite, sample taken

Hole stopped at 80' due to lack of rods

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
NR		0-2 No Return	
		2-6 Organics	
		6-12 Clay - Tan brown, greasy	
		12-78 clay - grey greasy - slightly sandy to silty	
		74 - Becomes slightly pebbly	
		78-80 BEDROCK - fine gr. Andesite - greenish	
EOH	01	80 END OF HOLE	

DATE Feb 20 1979 HOLE No. R50 GEOLOGIST SMITH DRILLER GAGNE

HOLE LOCATION L 0+00 66+00E

BIT No. 57422 FOOTAGE ON BIT 0-33 New Bit

HOURS MOVE HOURS DRILL OTHER

Bit 57429 No good because threads stripped

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
NR		0-2 No Return	
		2-6 organics	
		6-10 Clay - tan brown, greasy	
		10-25 Clay - grey, greasy - slightly sandy to silty	
		25-28 fine to med. gr pebbly sand basalt, andesite, caronate, diorite	
		28-33 BEDROCK - Andesite - fine gr. - greenish	
		33 END OF HOLE	
	01		
EOH	02		

DATE 21 FEBRUARY 1979 HOLE No. R-51 GEOLOGIST J. LAKE DRILLER G. CAGNÉ

HOLE LOCATION 1-167 + 00S / 26 + 40E.

BIT No. 57422 FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

9:00 - 9:30 Drill 9:30 - 11:00 Wait for Water 11:00 - 11:50 Drill

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	01	0-2' No Return. - coarse sandy gravel - sample oxidized (hematized) - sample came up outside of drill stem.	
		2'-7' VOLCANIC ANDESITE - BEDROCK Fine-grained, gray-green, fresh,	
		7' End of Hole.	

DATE 21 FEBRUARY, 1977 HOLE No. R-52 GEOLOGIST J. LAKE DRILLER G. GAGNÉ

HOLE LOCATION BL+00 / 170+00S

BIT No. 72424 FOOTAGE ON BIT

HOURS MOVE HOURS DRILL 12:00 - 2:30. OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-10' No Return.	
		10'-32' FINE SAND - brown with abundant magnetite content.	
	01	32-39' PEBBLY SAND. - contains 70% basalt, 30% granite and micaceous gneiss fragments in fine sand matrix.	
	02	39 - 49.5' SANDY TILL - gray in colour with balls of till recovered - contains 70% basalt, 30% granite, carbonate and minor chert pebbles.	
	03	49.5 - 51' GRANODIORITE BOULDER.	
	04	51 - 74' SANDY TILL, gray in colour with balls of till recovered - contains 70% basalt 30% granite, carbonate and minor chert pebbles.	
	05	62-65' Pebbly and Cobbly Sandy Till - contains abundant granite and basalt pebbles.	
	06	74'-85' PEBBLY SAND - contains predominantly rounded less than 1cm. basalt, carbonate, granite pebbles in a medium sand matrix.	
	07	85'-88' GRANODIORITE BOULDER. white, equigranular, quartz-rich.	
	08	88-92' BOULDERS - various compositions including granite, basalt.	
	09	92-96' RHYOLITE BOULDER - cherty, black.	
	10	96'-101 SILTY TILL - gray, fine, gritty, silty till with a few basalt fragments.	
	11		
	12		
	13		
	14		
	15		

DATE 21 FEBRUARY 1979 HOLE No. R-52 GEOLOGIST J. LAKE DRILLER G. CAGNÉ

HOLE LOCATION BL 0+00 / 170+00S

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
		101' - 111' TILL - poor recovery over 101' - 105'.	
	16	111 - 114' GRANITE BOULDER - pink in colour.	
		114 - 117' PEBBLY SAND - composed predominantly of basalt pebbles with sandy matrix.	
	17		
	18.	117' - 120 RHYOLITE BEDROCK. black green, conchoidal fracture cherty rhyolite.	
		120' END OF HOLE. - chuck not grabbing since bit worn out.	

DATE 22 FEBRUARY, 1979 HOLE No. R-53 GEOLOGIST J. LAKE. DRILLER G. GAGNÉ.

HOLE LOCATION L-167+00S / 26+40W.

BIT No. 57426 FOOTAGE ON BIT 0.

HOURS MOVE ____ HOURS DRILL ____ OTHER ____

8:00-9:00 Maintenance - repair chuck 9:00-10:30 Drill.

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-2' No Return	
	01	2-20' SAND & PEBBLES - gritty farms and balls. - contains well-rounded basalt and granite pebbles to 5mm - contains minor carbonate - hard and compact unit.	
	02	20'-34' SILTY CLAY (LACUSTRINE). - fine silty gray clay	
		34'-40' PEBBLY SAND - contains wide variety of pebble lithologies with brown balls of sand matrix - largely cherty - pink and white rhyolite grains.	
	03	40-45' RHYOLITE - BEDROCK - pink, conchoidal fracture, cherty rhyolite	
	04	45' END OF HOLE	

DATE 22-24 FEB/71 HOLE No. R-54 GEOLOGIST J. LAKE DRILLER E. GAGNÉ

HOLE LOCATION L-139+50S / 1+70W

BIT No. 57426 FOOTAGE ON BIT 45-167' WORN OUT.
57427 - 0

HOURS MOVE ____ HOURS DRILL 12:00-1:15 OTHER ____

1:15-2:00 WAIT FOR WATER 2:00-3:00 DRIVL 3:00-3:30 WAIT FOR WATER.

3:30-3:45 DRILL - NO RETURN OVER 80-88' RODS PULLED AT 11.2'

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-2' No RETURN.	
		2-56' COARSE SAND AND GRAVEL. -high portion of mafic minerals. -high portion (80%) of granite pebbles, well rounded, transported great distance - 20% basalt and few carbonate and quartz pebbles.	
		56-58' GRANODIORITE BOULDER. -white, coarse-grained.	
		58-80' PEBBLY COARSE SAND. 70-75'-abundant granodiorite and granite boulders. 78-79' GRANITE BOULDER- fine-grained, subvolcanic boulder.	
	01	79-80' Abundant (90%) white quartz-rich granodiorite pebbles.	
	02	80-96' POOR RETURN.	
	03	96-98' ANDESITIC BASALT BOULDER. very fine-grained, chloritized.	
	04	98-120' COARSE SANDY GRAVEL. -contains diorite, andesite basalt, metasediment and granite. 104-104.5 Large granite cobble. 102-120' Mostly granite.	
	05		
	06	120-135 COARSE TO FINE SAND AND FINE PEBBLES	
	07	135-140' BOULDERS - sandy gravel matrix.	
	08	135-136' Diorite boulder. 136-137' Basalt boulder.	
	09	140-163' PEBBLY GRAVEL -large portion of basalt and granodiorite pebbles - high magnetite content in sand matrix - contains 20% carbonate -well-rounded grains.	
	10		
	11	158' - 5 (+3) sulphide grains -pyrite plus few basalt fault gouge grains.	
N.R.		159-160' BASALT BOULDER. - fine-grained, black, chloritized soft rock (hard drilling).	
	12	160-163' PEBBLY GRAVEL as above	
		163' Bit broken - abandoned hole. END OF HOLE	

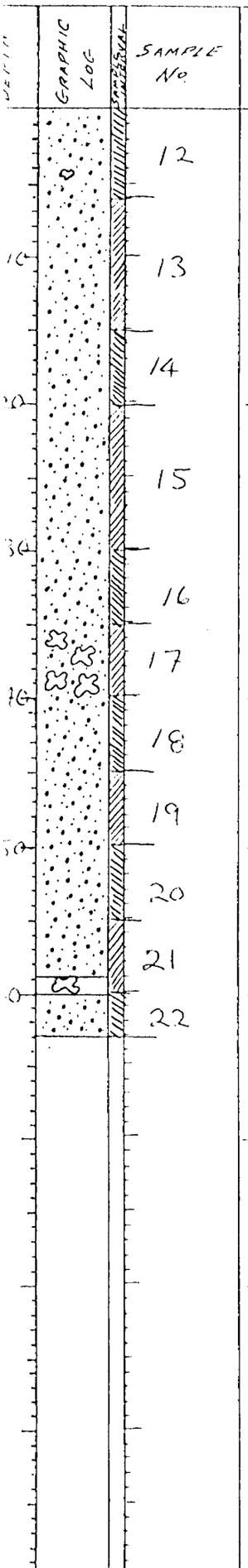
DATE _____ HOLE No. R-54 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

FEB 24, 1979 9:00-10:50 DRILL



DESCRIPTIVE LOG

ANALYSES

DATE 24 FEBRUARY, 1972 HOLE No. 2-55 GEOLOGIST J. LAKE DRILLER CHONÉ

HOLE LOCATION 4+39+50 S / 28+10W.

BIT No. 283492 FOOTAGE ON BIT 0

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

11:00 - 2:00 pm DRILL

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
N.R.		0-18' NO RETURN. 18'-46' LACUSTRINE SILTY CLAY. -gray colour - coarser at top - fining downwards - came up as clay balls near base. 46-51' RHYOLITE BEDROCK. -dark to light green, hard brittle with conchoidal fracture. 51' END OF HOLE.	
	01		

DATE Feb 25 1979 HOLE No. R-56 GEOLOGIST Smith DRILLER GAGNE

HOLE LOCATION L-149+80 N Base Line N

BIT No. 12834B FOOTAGE ON BIT 0-100 New bit

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-4 Organics	
		4-8 Clay - Tan brown, silty	
		8-38 Clay - grey, greasy, gritty - slightly sandy to silty	
		38-46 Sandy gravel - fine to med gr. sand - 70% mafics 10% carbonate 20% other	
		46-48 Gritty clay	
	01	48-58 Clay - extremely hard - minor silt - very minor sand	
		58-60 Till Cobbly clay - sandy to silty Rhyolite and Basalt cobbles to pebbles	
	02 02+10	60-86 Till pebbly clay with sand + silt - mafics and carbonates - minor rhyolites	
	03 03+10		
		74-75 minor pebbles - sandy silty clay	
		75-76 pebbly sandy silty clay - basalts	
	04	80 - sand content increases	
		81-83 Sandy Gravel - mafics + diorite med gr. sand	
	05 05+10	86-94 Sand - quartz rich med gr. + sandy gravel	
		88-91 Clay - grey, hard, greasy - minor sand + silt	
	06	94-100 BEDROCK ANDESITE or BASALT - very chloritic	
	07	100 END OF HOLE	

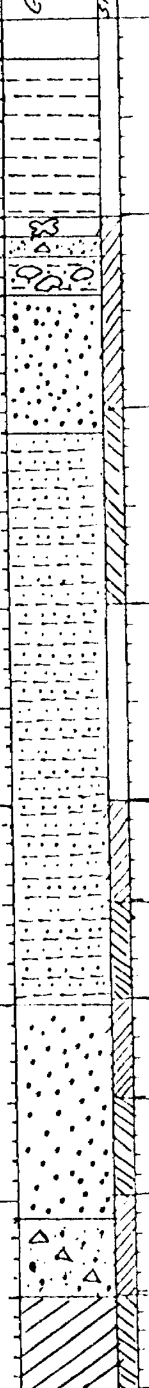
DATE FEBRUARY 25, 1981 HOLE No. R-57 GEOLOGIST 25th SMITH / 26th J. LAKE DRILLER [illegible]

HOLE LOCATION 2149+[illegible]N / 35+00E

BIT No. 128348 FOOTAGE ON BIT 100'

HOURS MOVE ____ HOURS DRILL ____ OTHER ____

FEBRUARY 26, 1981 [illegible] Drill (J. LAKE)

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES					
			0-2' ORGANICS						
			2-10 CLAY - tan brown, greasy & gritty						
			10-11' BASALT BOULDER.						
			11-12' TILL - sandy, silty, pebbly clay - basalt + granules						
		01	12-14' clayey → sandy cobbles granite & basalt						
			14-21' PEBBLY SAND - variety of pebbles						
		02	21-50 CLAY TILL(?) - minor sand silt and pebbles.						
			26' No Pebbles 31' little sand or silt. Stopped at 40' for day.						
			50-61' SANDY GRAVEL. - contains 80% rounded carbonate grains, 20% basalt, few rounded quartz grains in brown sandy matrix. Contains increasing clay content to gravel ratio going down sequence.						
		03							
		04							
		05	61-65' PEBBLY SILTY TILL						
		06	65'-70' BEDROCK - BASALT. - highly weathered, green, chloritized volcanic basalt. Rock is highly sheared and weathered						
		07							
		08	70' End of Hole.						

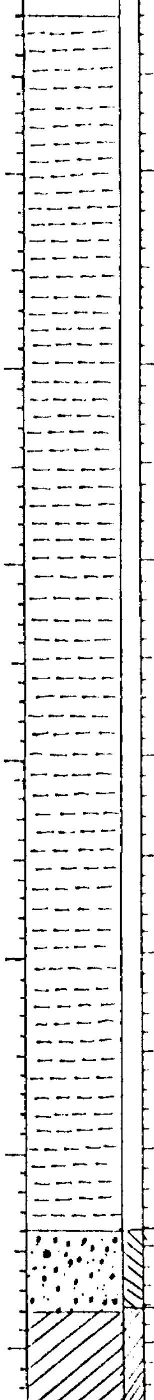
DATE 3 FEBRUARY 1991 HOLE No. R-58 GEOLOGIST J. LAKE DRILLER G. GAGNÉ

HOLE LOCATION L-233+01N / 5100W

BIT No. 178348 FOOTAGE ON BIT 170

HOURS MOVE ______ HOURS DRILL ______ OTHER ______

12:00 - 1:00 pm Drill

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES					
		01 02	0-2' No Return 2-64' LACUSTRINE CLAY. -brown, fine-grained, greasy lacustrine clay. 64-68' COARSE SAND AND GRAVEL. 68-73' RHYOLITE - BEDROCK. - fine-grained, sheared, pale white, both fresh and altered (sheared weathered) fragments returning. Appears to be highly sericitized, Rock weathers a white colour - (kaolinitic in appearance and texture. 73 End of Hole						

DATE 2 FEBRUARY, 1971 HOLE No. R-59 GEOLOGIST J. LAKE DRILLER G. CAGNÉ

HOLE LOCATION L 232+00N / 21 + 40E.

BIT No. 128348 FOOTAGE ON BIT 243

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

1 30 - 2 45 Drill

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0 - 2' No Return	
		2 - 64' LACUSTRINE CLAY brown, greasy.	
		64 - 74 SANDY GRAVEL. - contains abundant <1 cm. rounded basalt (70%), granite (15%) and carbonates (15%) in coarse sand matrix.	
		74 - 78' BASALT - BEDROCK. - fine-grained, dark green, altered, chloritized, sheared volcanic basalt -	
		78' END OF HOLE.	
	01		
	02		
	03		

DATE Feb 26 1979 HOLE No. R60 GEOLOGIST SMITH 27th LAKE 26th DRILLER GAGNE

HOLE LOCATION L-222+00 N 47+80 E

BIT No. 12 8348 FOOTAGE ON BIT 321-435 Bit worn out.

HOURS MOVE ____ HOURS DRILL ____ OTHER ____

26th hole stopped at 92' at 16:45

27th started to drill at 10:30

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0 - 6 Brown Organics	
		6-86 CLAY - grey, greasy, Lacustrine	
		86-95 Pebbly sand. - 60% basalt 20% granite 10% carbonate coarse sand	
	01		
		95-96 Boulder - Basalt	
	02	96-102 Sandy gravel 60% fine to coarse sand 40% fine to medium pebbles.	
	03		

DATE Feb 27 1979 HOLE No. R60 GEOLOGIST Smith DRILLER _____

HOLE LOCATION L222+00 N 47+80 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			102-103 Boulder - Granodiorite	
		04	103-105 Sandy gravel	
		05	105-109 fine pebbly sandy to silty clay	
		05+10	- increasing clay + silt towards 108	
10			- sulfides in basalt pebbles	
		06	109-114 BEDROCK Altered Basalt or Andesite	
	EOH		114 END OF HOLE	
20				

DATE Feb 27 1979 HOLE No. R61 GEOLOGIST SMITH DRILLER GAGNE

HOLE LOCATION L 222+00 N 74+20 E

BIT No. 68170 FOOTAGE ON BIT 0-138 New Bit

HOURS MOVE ____ HOURS DRILL ____ OTHER ____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0				0-13 Silty Clay – tan brown	
				13-17 silt + fine sand	
				17-90 Clay – grey, greasy, silty	
10					
20					
30					
40					
50					
60					
70					
80					
90			01	90-131 gravelly sand - 30% mafics 30% granite 20% metamorphics - coarse to fine pebbles + sand	
100			02		

DATE Feb 27 1979 HOLE No. R61 GEOLOGIST Smith DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	03 03+10	104' Sulfides in basalt	
	04	112 – minor clay	
	05	117-119 silt + fine sand	
		124-125 sulfides in matics	
	06 06+10	127-131 large cobbles of diorite + basalt are present	
	07	131-133 fine sand + silt	
	08	133-138 BEDROCK – altered basalt or Andesite – fine gr, light greenish	
EOH		138 END OF HOLE	

DATE Feb 28 '79 HOLE No. R-62 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 267+60 S, 125+40 W

BIT No. 6 B 170 FOOTAGE ON BIT + 112' =

HOURS MOVE HOURS DRILL 9:30 - 11:15 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0 - 12' No Return	
		12' - 95' Grey Clay 100% greasy lacustrine clay rare pebble	
		90' - 95' 1-5% sand and pebbles	
		95' - 107.5' Pebbly Gravel	
01, +10			

- continued -

DATE Feb 28/79 HOLE No. R-62 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	02, +10 03, +10	continued 95'-107.5' **Pebbly Gravel** - well sorted, rounded, poor to fair sphericity 75% medium to coarse sand 25% pebbles 20% granitics 20% gneisses 20% carbonates 40% green and black mafic metavolcanics, intrusives and metasediments 107-107.5' moderate increase in pebble size	
		107.5'-112' **Andesite** - moderate green colour - fine grained - 1% pyrite ± pyrrhotite - common pale greenish white to grey veining 1-5 mm wide (calcite ± epidote) - 110'-112' occasional quartz vein 1-5 mm wide	
		112' End of Hole	

DATE Feb 28/79 HOLE No. R-63 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 267+60 S, 99+00 W

BIT No. B57423 FOOTAGE ON BIT 0 + 135' = 135'

HOURS MOVE 11:15-12:15 HOURS DRILL 12:45 - 4:45 OTHER 12:15 - 12:45 WAIT FOR WATER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 5' No Return	
			5' - 98' Grey Clay 100% greasy lacustrine clay grey and grey brown colour rare pebbles	
		01, +10	98' - 104' Pebbly Gravel	

DATE Feb 28/79 HOLE No. R-63 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	02, +10	continued 98-104' Pebbly Gravel 80% fine to coarse sand 20% pebbles 50% black and green mafic metavolcanic, intrusive and metasediment 30% granitics, gneisses 20% carbonates, sediments	
	03		
	04	104'-131.5' Grey Till 95% clay, silt, sand up to 5% pebbles	
	05		
	06		
	07		
	08		
	09	131.5'-135' Basalt - Diabase coarse grained 1-2 mm dark greenish basalt	
		135' End of Hole	

DATE MARCH 2/79 HOLE No. R-64 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 2671605, 72160W

BIT No. 18432 FOOTAGE ON BIT 01 56' = 56'

HOURS MOVE 11:00 - 12:00 HOURS DRILL 1:30 - 2:45 OTHER

8:00 - 11:00 fix NODWELL'S BACKAXLE ; 12:00 - 1:30 WAIT FOR WATER

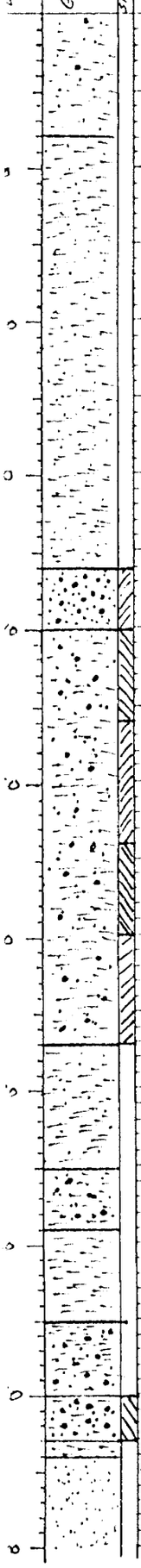
DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return			0-2' No Return	
				2'-14' Brown Clay 100% greasy lacustrine clay	
10					
				14'-50' Grey Clay 100% greasy lacustrine clay	
20					
30					
40					
50			01, 10	50'-51' Pebbly Gravel 50% medium - coarse sand 30% rounded pebbles 60% mafics 20% granitics 10% gneisses 10% carbonate	
			02	51'-56' Basalt dark green fine grained basalt with intense epidote - quartz calcite? alteration veins rare red "granitic" veins locally 1-2% pyrite associated with the unaltered basalt minor pyrite associated with quartz veins	
60				56' End of Hole	

DATE March 3, 1979 HOLE No. R65 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L241 +60 S 118+80 W

BIT No. 18434 FOOTAGE ON BIT 0-153 New bit

HOURS MOVE _____ HOURS DRILL 900 -1600 OTHER _____



SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	0-8 Clay - tan brown, slightly silty to pebbly	
	8-36 Clay - grey, greasy, slightly silty	
	36-40 Pebbly Sand - fine to med pebbles - mostly mafics + carbonates - fine to med quartz rich sand	
01		
	40-67 Pebbly to sandy silty clay 45' pebble content < 10% 46'-47' becomes > 20% pebbles	
02		
03		
04		
	67-75 Clay - hard, slightly silty	
05	75-79 pebbly to sandy silty clay	
	79-85 Clay - grey, hard.	
	85-90 Pebbly to sandy silty clay variety of pebbles 87' few pebble and sand	
06	90-93 Silty to clayey sandy gravel 60% mafics 30% granitics 10% other	
	93-94 Clay - grey, greasy	
	94-100 Silt	

DATE March 3 1979 HOLE No. R65 GEOLOGIST Smith DRILLER _____

HOLE LOCATION L241+60S 118+80 W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				101 – clay seam	
				108–113 medium gr. pebbly sand mostly carbonates + gneisses	
2			07	113–118 Cobbles + pebbles in sand matrix basalt, limestone, granite	
			08	118–126 Till pebbly to sandy silty clay variety of pebble types	
10			09	126–150 Cobble till cobble to boulders in sandy silty clay 126–129 Boulder – diorite 130–150 few boulders 144 Rhyolite pebbles	
0			10	150–153 BEDROCK – Andesite with quartz veinings – fine gr. – pale green – disseminated chalcopyrite	
			11	153 EOH	
0			12 12+10		
			13		
0			14		
	EOH				
2					

DATE March 4, 5/78 HOLE No. R-66 GEOLOGIST MacIntosh + KOTILA DRILLER GAGNE

HOLE LOCATION L-241+605, 92+80W

BIT No. 18434 FOOTAGE ON BIT 153' + 190' = 343' + 178' redrill

HOURS MOVE _____ HOURS DRILL 11:00 - 4:30 4½" / 8:00 - 8:30, 2:00 - 3:00 3 5/8" OTHER _____

TECH 5 - 8:30 - 2:00 shutdown due to lack of rods

TECH 4 - 1:45 - 2:00 need rods

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return			0 - 5' No Return	
			5' - 130' Clay - grey greasy lacustrine clay - little grit	
			- continued -	

DATE March 4, 5/79 HOLE No. R-66 GEOLOGIST MacIntosh + KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. 18436 FOOTAGE ON BIT 0 + 10' = 10' + 190' redrill

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

PAGE 2

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				continued	
				5'-130' Clay	
10					
20				130'-133' Pebbly Till matrix clay 80% and fine sand 15% with 5% pebbles	
30			01		
				133'-149' Clay - grey - hard, compact - dry	
40					
				149'-164' Till mostly clay and sand matrix ±10% pebbles, varies odd cobbles sand increases with depth	
50			02		
60			03	164'-170' Pebbly Till matrix sand and clay pebbles - granitics, carbonates and mafics odd cobbles	
			04	170'-180' Pebbly Till coarse pebbles matrix fine sand and clay some cobbles 178' pulled rods redrilled 160' shutdown March 4 178'-180' sample discarded due to probable contamination	
70			05, +10		
			06, +10		
180			N.S.		
	No Return			180'-190' No Return pulled rods. changed bit	
				190'-191.5' Sand 98% fine to coarse sand 2% pebbles	
190			07, +10	191.5'-194' Cobbly Gravel abundant large pebbles and cobbles 191.5-193 70% basalt, gabbro ± 1% pyrite 10% granitics 10% gneisses 10% carbonates 193'-194' 60% pale brown rhyolite 30% basalt, gabbro 10% other	
			08		
200				194'-200' BASALT - dark green, medium grained sheared chloritic basalt	

200' EOH

DATE March 5,6/79 HOLE No. R-67 GEOLOGIST KOTIA DRILLER GAGNE

HOLE LOCATION 241+005, 66+00 W

BIT No. 18436 FOOTAGE ON BIT

HOURS MOVE 3:00-3:45 HOURS DRILL 3:45 - 4:30 OTHER

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return			0-4' No Return	
			4'-12' Brown Clay greasy lacustrine clay	
			12'-86' Grey Clay greasy lacustrine clay Up to 1% sand and small pebbles	
			86'-92' Pebbly Gravel 75% sand 25% pebbles 10% rhyolite 20% granitics 20% gneisses 10% carbonate 40% mafics	
			92'-95' Cobbly Gravel 50% sand 25% pebbles 25% cobbles similar composition as pebbly gravel	
		01, +10	95'-100' Pebbly Gravel similar to above pebbly gravel 100' shut down March 5	
		02, +10		
		03, +10		

- continued

DATE March 5, 6/79 HOLE No. R-67 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL 7:40 - 8:40 6" OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		04 +10	100'-108' Pebbly to Cobbly Gravel 40% mafics 20% granitics 20% gneisses 10% carbonate 10% other, including occasional rhyolite	
		05, +10		
10		06, +10	108'-119' Pebbly to Cobbly Till similar to above gravel but with 1% clay	
		07, +10		
20		08	119'-124' ~~BASALT~~ diabase - medium grained dark green with local intense epidote alteration - minor rhyolite (felsite?) and "granitic" veining - 1% disseminated pyrite throughout	
30			124' End of Hole	

DATE March 6 '79 HOLE No. R-68 GEOLOGIST KOZLA DRILLER GAGNE

HOLE LOCATION ≈ 197 S 1800 feet N of R-153 58+08W

BIT No. 18436; 108311 FOOTAGE ON BIT 124' + 31' = 155'; Redrill 31'

HOURS MOVE 8:40 - 10:15 HOURS DRILL 10:15 - 11:15 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return			0-2' No Return	
				2'-16' Brown Clay - greasy lacustrine clay - gradational contact	
10					
				16'-23' Grey Clay greasy lacustrine clay mixed grey and brown occasional pebble up to 1% sand	
20					
			01, +10	23'-27.5' Pebbly Gravel 75% medium to very coarse sand 25% pebbles 30-60% granitics 10-20% gneisses 10% carbonate 20-40% mafics	
	No Return				
30			N3 02		
				27.5'-30' No Return	
				30'-30.5' Pebbly Gravel similar to above gravel	
				30.5'-31' Rhyolite - aphanitic - very hard - pale green mottled with darker green	
				31' bit broke pulled rods, changed bit redrilled to 30.5' would not drill deeper hole abandoned	
				31' End of Hole	

DATE MARCH 6/79 HOLE No. R-69 GEOLOGIST KOTIKA DRILLER GAGNE

HOLE LOCATION 162+00 S, 100+35 W

PIT No. 108311 FOOTAGE ON BIT 01 132' = 132' + redrill 31'

HOURS MOVE 11:15 - 12:15 HOURS DRILL 12:15 - 2:15 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
NR		0 - 1 No Return 1' - 8' Organics	
		8' - 113.5' Lacustrine Clay 8' - 12' brownish grey colour 12' - 113.5' grey colour - 1% sand with the occasional pebbles	

- continued -

DATE MARCH 6 '79 HOLE No. R-69 GEOLOGIST KOTIKA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		Continued B - 113.5' Lacustrine Clay	
10		113.5' - 115.5' Clay and silt 50% clay 45% silt 5% sand 1% pebbles	
		115.5' - 127.5' pebbly gravel 75% medium sand 25% pebbles 30% granitics 20% gneisses 10% carbonates up to 5% rhyolite 35% mafics	
0	01, +10		
	02, +10		
NR	02	123-124' No Return	
	03, +10		
	04	127.5' - 132' Andesite - fine grained - light green - abundant quartz and quartz-ankerite veins	
		132' End of Hole	

DATE MARCH 6/7/79 HOLE No. R-70 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 1627005, 73795W

BIT No. 10831 FOOTAGE ON BIT 132' + 114' = 246'

HOURS MOVE 2:15 - 2:45 HOURS DRILL 2:45 - 4:30 MARCH 6 / 8:00 - 8:45 MARCH 7 OTHER

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return			0 - 4' No Return	
			4' - 14' Brown Clay - greasy lacustrine clay - gradational contact	
			14' - 53' Grey Clay - greasy lacustrine clay	
		01,+10	53' - 90' Pebbly Gravel 75% medium to coarse sand 25% pebbles 20% granitics 20% gneisses 10% carbonate 10% grey and beige rhyolites 40% mafics	
		02,+10		
		03,+10	70' - 90' increase in mafics 60% mafics 20% granitics 10% carbonate 5% rhyolite 5% gneisses	
		04,+10		
		05,+10		
		06,+10		
		07,+10		
		08,+10		
		09	90' - 109' Grey Till - compacted, hard clay gritty clay - 10% pebbles	
		10	98' Shut down March 6	

— Continued —

DATE March 6, 7/79 HOLE No. R-70 GEOLOGIST Kotila DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				continued 90-109 Grey Till	
			10		
10			11	109'-114' Andesite - pale to moderate green - chloritized and foliated - minor quartz and quartz epidote veining - trace to ½% pyrite - possibly a sheared tuff	
0				114' End of Hole	

DATE Mar 7/79 HOLE No. R-71 GEOLOGIST JM DRILLER Dwayne

HOLE LOCATION L 133+90 S 60+60 W

BIT No. 18403 FOOTAGE ON BIT 0-91

HOURS MOVE 8:45-9:45 HOURS DRILL 9:45-12:15 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-2 No Return	
				2-19.5 Clay	
			N.S.	- 2'-10' Brown	
				10-19.5 Grey	
				- greasy	
				- very little gr.t	
				19.5-21 Boulder - Biotite Granite	
			N.S	- pink, fine grained	
				≈ 10% Biotite	
				21-31 Clay	
				- blue grey, greasy	
			01	- few pebbles	
			-10	31-49 Sand	
				- fine sand + silt	
			02	- few small pebbles	
			-10	49-50 Boulder Granitic	
				- green, fine grained	
				- biotite + chlorite	
			03	50-58 Pebbly Gravel	
			+10 -10	- matrix sand + fine sand	
				- 40% Mafics	
				20% Granitics	
			04	15% Carbonates	
			-10	15% Quartz	
				10% Rhyolite + Metamorphics	
			05	58-83 Clay Till	
			+10 -10	- matrix clay, sand	
				- few cobbles	
				- some pebbly zones	
			06	83 Bedrock Rhyolite	
			-10	- light green, fine-medium grained	
				- altered	
			07	- 86 - visible sulfides	
				- chalcopyrite	
			08	- pyrite	
				- minor qtz veining	

EOH 91'

DATE Mar 7/79 HOLE No. R-72 GEOLOGIST JPM DRILLER Gagne

HOLE LOCATION L 109 S 67 1/40 W

BIT No. 18403 FOOTAGE ON BIT 91-249

HOURS MOVE 12:15-13:00 HOURS DRILL 13:00-16:30 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-2 No Return	
				2-30 Clay	
				-2-10 brown	
				10-30 grey	
				- greasy	
			N.S.	- little grit	
				30-45 Pebbly Till	
			01 +10 -10	- matrix sand, clay + silt	
				- coarse pebbles	
			02 +10 -10		
			03 -10	45-89 Clay Till	
				- few pebbles	
			N.S.	- 50-52 several cobbles	
			04 -10	- 50% clay 40% sand 5-10% pebbles	
			05 -10	- 60-89 - mostly clay + sand - odd pebble + cobble	
			06 -10		
			07 -10	89-105 Pebbly Till	
				- matrix sand, fine sand	
				- some cobbles	
				- coarse pebbles	
			08 +10 -10		

DATE Mar 7/79 HOLE No. B-72 GEOLOGIST JM DRILLER Cagne

HOLE LOCATION L109S 67+40W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Page 2.

VEIN	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
		09 +10 -10	105 - 106 Boulder Granitic pink green - fine grained - biotite	
0		10 +10 -10	106 - 140 Pebbly Gravel - matrix sand, fine sand - coarse pebbles - 40% Mafics 20% Granitics 20% Meta volcanics + meta sed. 20% Qtz, carbonates + seds.	
10		11 +10 -10		
		12 +10 -10		
30		13 +10 -10		
40		14 -10	140 - 150 Sand - coarse sand, sand - fine sand, silt - very few small pebbles	
50		15	150 - 155 Pebbly Gravel - same as 106-140	
		16		
60			155 - 158 Bed rock Altered Rhyolite - meta volcanic - green, fine grained - foliated with phyrritite along foliation - some disseminated pyrite	
70			EOH 158' - rods jamming	

DATE MARCH 8/79 HOLE No. R-73 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 82+30S, 52+60W

BIT No. 18398 FOOTAGE ON BIT 0+98' = 98'

HOURS MOVE 7:30 - 9:15 HOURS DRILL 10:15 - 12:00 OTHER _____

9:15 - 10:15 fix WATER PUMP

VERT.	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0-2' No Return	
			2'-12' Brown clay - 100% greasy lacustrine clay - gradational colour change to grey	
			12'-44' Grey Clay - 100% greasy lacustrine clay	
			44'-73' Pebbly Gravel 75% sand 25% pebbles 60% mafics 10% granitics 10% gneisses 10% carbonates 10% rhyolite 50.5-51.5' basaltic cobbles 55'-73' decrease in number of pebbles & 5% increase in sand.	
		01,+10		
		02,+10		
		03,+10		
		04,+10		
		05,+10		
		06,+10	73'-91' Grey Till 1-10% gritty grey brown clay 10% pebbles 80% sand	
		07,+10		
		08,+10	80'-91' 10-25% gritty clay 5-10% pebbles remainder sand	
		09,+10		
		NS	91'-98' Rhyolite - sheared sericitic slightly chloritic rhyolite, possibly tuffaceous - 91'-92' 1-2% rusted out pyrite?	
		10		
		11		
			98' End of Hole	

DATE MARCH 8/79 HOLE No. R-74 GEOLOGIST KOTICA DRILLER GAGNE

HOLE LOCATION BZY 30 S, 27+20 W

BIT No. 18398; 108314 FOOTAGE ON BIT 98'+64' = 162'; 0+12' = 12' +64' redrill

HOURS MOVE 12:00 - 1:30 HOURS DRILL 1:30 - 4:00 OTHER

VERT.	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0-4' No Return	
			4'-15' Lacustrine clay 4'-14' yellow and brown clay 14'-15' grey and brown clay	
0			15'-19.5' Pebbly Gravel 75% brownish sand 25% pebbles 30% granitics 10% gneisses 10% carbonates 5-10% rhyolite 40% mafics	
0		01,+10 02,+10	19.5'-25' Brown Till 10% gritty brown clay 80% brown sand 10% pebbles, similar composition to above gravel	
30		03,+10	25'-41' Pebbly Gravel very well sorted rounded pebbles usually 2 1/4" - appears fluvial rare cobbles 60% medium-coarse sand 40% pebbles 50% granitics 20% carbonates 30% mafics virtually no rhyolite	
0		04,+10 05,+10	41'-42.5' Quartz-Feldspar Boulder	
		05	42.5'-71' Brown Till 90% darker brown to grey brown gritty clay to clay rich sand upto 10% pebbles	
50		06	55'-64' increase in cobbles	
		07		
0		08	64' pulled rods, changed bit 64'-71' only trace to 5% clay, predominately sand	
		09,+10		
0		10,+10 11 12	71'-73' Basalt - dark green, chloritic basalt - minor epidote - minor thin quartz veining	
			73'-75.5' Quartz Vein 1% chloritic blebs with associated trace pyrite	
50			75.5'-76' Basalt similar to above, slightly darker colour more abundant quartz veining	
			76' End of Hole	

DATE March 9, 1979 HOLE No. R75 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION 135+90S 54+20W

BIT No. 18407 FOOTAGE ON BIT 0-144 New bit

HOURS MOVE _____ HOURS DRILL 0830-1800 OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-7 Organics	
		7-63 Clay - grey, greasy, silty	
		63-65 Pebbly Sand - med. gr. Sand - mafics + granitics	
	01	65-66 Boulder - Basalt	
		66-68 Pebbly Sand	
	02	68-72 fine Sand - minor sand and pebbles	
		72-80 Pebbly Sand - med. gr. pebbles in fine to coarse sand. - mafics, diorite, granite, meta-sediments	
	03		
		80-90 Pebbly Sand - slightly clayey	
	04		
	04+10		
		90-92 Sandy to silty clay - slightly pebbly	
		92-95 Silty Clay - grey, hard	
		95-98 Sandy to silty clay - a few fine gr. pebbles	
		98-114 Pebbly Sand - med gr. pebbles - basalt, limestone, granite, gneisses	
	05		

DATE March 9, 1979 HOLE NO. R75 (cont'd) GEOLOGIST Smith DRILLER _____

HOLE LOCATION 139+90S 54+70W

BIT NO. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES
	05		
	06	114-116 Silt and fine sand - poor return	
		116-124 Coarse pebbly sand and silt - mafics, diorite, altered granitics	
	07	124-136 Sandy silty clay - minor pebbles	
	08	136-138 Silty clay - hard	
	09	138-141 pebbly sand - minor clay - med. to coarse pebbles in med. gr. sand.	
		141-141.5 pebbly sandy silty clay	
EOH	10	141.5-144 BEDROCK - ~~Basalt~~ diabase - very fine gr. - green - disseminated sulfides	
		144 End of Hole	

DATE Mar 10/79 HOLE No. R-76 GEOLOGIST JM DRILLER Gagne

HOLE LOCATION L 223+20S 69+30E

BIT No. 18396 FOOTAGE ON BIT 0-82

HOURS MOVE _____ HOURS DRILL 10:45 - 14:30 OTHER _____

GRAPHIC LOG	STRATA	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-10 No Return	
		01 -10	10-49 Clay Till	
		02 -10	- 60% clay 20% sand, silt 20% pebbles	
			- 10-15 brown clay 15-49 grey clay	
		03 -10	- 20-30' pebbly zone	
			- 30-31' Boulder Altered Basalt	
			- 31-46 several cobbles	
		04 -10		
		05 -10	49-55 Pebbly Till - matrix clay, sand - clay is yellowish grey - pebbles stained	
		06 +10 -10	55-57 Boulder Altered Basalt	
		07 +10 -10	57-78 Pebbly Gravel - weathered & stained yellow-red - matrix sand & coarse sand - 65-70' sand only - some silt - 74-76 Boulder Metavolcanics - minor pyrite - 76-78 pebbles more coarse	
		08 -10		
		09 +10 -10	78-80 Clay - grey, dry, hard - little grit	
		10 +10 -10		
		N.S.		
		11	80- Bedrock Andesite - Dacite - green grey - fine grained - qtz veining & carbonate - epidote eyes	

DATE Mar 10, 11/79 HOLE No. R-77 GEOLOGIST JM/KOTILA DRILLER Gagne

HOLE LOCATION L 223 + 20 S 56 + 10 E

BIT No. 18397 FOOTAGE ON BIT 0-

HOURS MOVE 14:30 - 15:00 HOURS DRILL 15:00 - 16:45 OTHER

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-12 No Return	
		12-36 Sand - medium + fine sand + silt - odd clay zone	
	01 -10		
	02 -10		
	03 -10	36-50 Clay + Sand Till - 40% brown clay 60% sand, fine sand, silt - reworked clay	
	04 -10		
	05 +10 -10	50-70 - Pebbly Gravel - matrix sand, silt - some clay zones	
	06 +10 -10		
	07 +10 -10	70-92 Pebbly Till - matrix sand, clay, silt - few cobbles	
	08 +10 -10		
	09 +10 -10		
	10 -10	92-110 Clay Till - grey greasy clay - hard + dry - little grit	

continued

DATE MARCH 10, 11/79 HOLE No. R-77 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL 8:00 - 9:00 OTHER _____

GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	Ns	110'-123' Pebbly Till 50% hard compact gritty grey clay 30-40% silt, sand 10-20% pebbles 120' shutdown March 10	
	11	123'-125.5' clay 80% hard compact greasy grey clay 20% sand	
	N.S.	125.5'-127' Granitic Boulder 127' Thin Clay Unit	
		127'-132' ~~Gabbro~~ Diabase - fine to medium grained gabbro - 1% disseminated pyrite	
		132' End of Hole	

DATE MARCH 11, 79 HOLE NO. R-78 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION L-2231 20S, 42+90E

PIT NO. 18401 FOOTAGE ON BIT 0 + 81' = 81'

HOURS MOVE 9:00-10:00 HOURS DRILL 10:00-12:00 OTHER

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES
			0-10' Brown clay - greasy lacustrine clay	
		01	10'-45' Sand 95% medium to very coarse sand up to 5% pebbles predominately quartz sand with granitics, mafics and carbonates	
		02	at 25' inches thick greasy brown clay	
		03		
		04	45'-70' Pebbly Gravel 75% medium to coarse sand 25% pebbles 50% granitics, gneisses, quartz 40% mafics 10% carbonates increase in pebble size with depth	
		05, +10	50' approaching cobble size 50.5'-60' sporatic return	
		06, +10	60'-70' up to 10% rhyolite pebbles with 50-60% mafics 30-40% granitics 10-20% carbonates	
		07, +10	70'-77.5' Pebbly Till initially cobbly to pebbly till 75-90% gritty clay and sand	
		08,	10-25% pebbles and cobbles 60% mafics 30% granitics 10% carbonates	
		09	77.5'-81' Chloritic Rhyolite - very hard, siliceous aphanitic grey to green - rare quartz phenocrysts - locally abundant chlorite often in swirls and bands	
			81' bit breaks	
			81' End of Hole	

DATE MARCH 11/79 HOLE NO. R-79 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION L-223+30S, 29+70E

BIT NO. 18435 FOOTAGE ON BIT 0+140' = 140'

HOURS MOVE 12:00-1:15 HOURS DRILL 1:45-3:00 OTHER _____

1:15 - 1:45 fix WATER PUMP

DEPTH	GRAPHIC LOG	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES
10	No Return		0-20' No Return	
20			20'-81' Grey Clay - greasy lacustrine clay - 1% sand	
30			81'-118' Silt and Sand 100% silt and very fine sand	
40			at 93' inches thick grey clay	
50				
60				
70				
80				
90				
100				

- continued -

DATE MARCH 11/79 HOLE No. R-79 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				continued 81'-118' silt and sand	
10					
				118'-137' Pebbly Gravel 75% sand 25% pebbles 50% mafics 40% granitics 10% carbonates	
20			01, +10		
30				130'-137' rhyolite fragments	
			02, +10		
				137'-140' Rhyolite - aphanitic, beige coloured - very hard, siliceous - 10% chlorite locally	
40			03		
				140' End of Hole	

DATE March 12 1976 HOLE No. R80 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L-223+20S 16+50E

BIT No. 18435 FOOTAGE ON BIT 140-200

HOURS MOVE _____ HOURS DRILL 0730 - 1400 OTHER _____

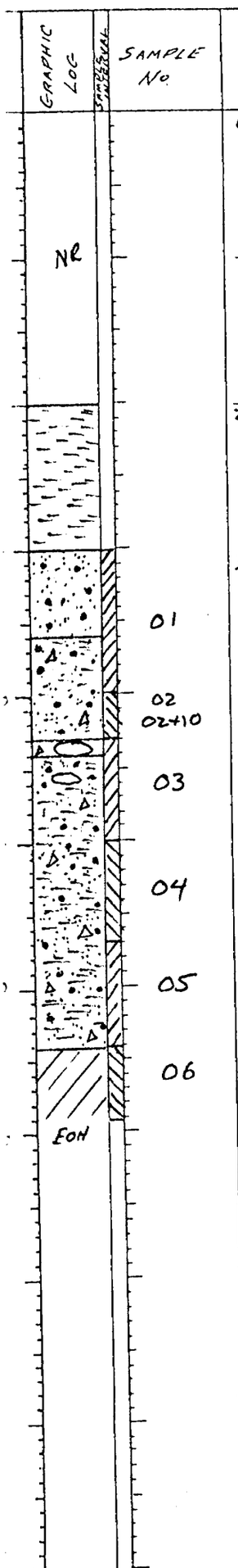
DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR			0-2 No Return 2-5 Clay - tan, greasy 5-35 Clay - grey, greasy	
0					
0					
				31 - Clay - slightly silty	
				35-55 Silt + Clay	
0					
				55-56 Pebbly Sand - minor silt + clay - med. gr. sand, med gr pebbles - mafics + carbonates - minor granite, diorite, + metamorphics	
			01		
			02		
0	EOH			56-60 Bedrock Rhyolite -greenish grey -aphanitic	
				60 - End of Hole	

DATE March 12/79 HOLE No. R81 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L-22+20 S 3+30 E

BIT No. 18435 FOOTAGE ON BIT 200-269

HOURS MOVE _____ HOURS DRILL 0730 - 1400 OTHER _____



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	0-20 No Return	
	20-30 Clay - grey, very greasy	
	36-64 Till	
	30-36 Pebbly sand and silt mafics and carbonates	
01	36-43 Pebbly sandy to silty clay	
	40-43 minor clay	
02	43-44 Boulder - altered diorite?	
02+10	44-64 Pebbly sandy silty clay mostly mafics and gneisses minor granite and carbonate	
03	45-45.5 Boulder - quartz-biotite gneiss - abundant graphite	
04		
05	64-69 Bedrock - Rhyolite - greenish grey - aphanitic - highly altered - minor unaltered patches	
06		
	69 - End of Hole	

DATE March 12/79 HOLE NO. RB2 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L-2234.20 S 9+90 W

BIT NO. 18435 FOOTAGE ON BIT 269-288 bit worn out

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

18441 New bit (moved hole and redrilled)

+ Sub

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES
				0-2 organics 2-4 clay 4-15 SiH	
1				15-64 Till 15-24 Pebbly sand minor silt + clay - mafics, carbonates, diorite	
0			01		
				24-32 Sandy to silty clay - minor pebbles	
			02		
2				32-45 Pebbly sand - minor silt and clay - variety of pebble types	
			03		
3				43-45 Pebbly Sand	
			04	45-64 Pebbly sandy to silty clay - variety of pebble types	
0				48-49 Pebbly sand 58 minor cobbles	
			05		
3		N S		64-70 Bedrock - Rhyolite - minor alteration - aphanitic	
			06	- reddish to reddish grey	
3	EOH				

DATE Mar 13/14/79 HOLE No. R-83 GEOLOGIST JMM DRILLER Dagne

HOLE LOCATION L 278 +80 S 56+00 W

BIT No. 18441 FOOTAGE ON BIT 70-141

HOURS MOVE _____ HOURS DRILL 9 hrs 30 min. OTHER _____

Bit No. 18440 0-47-61' 4.75 hours wait for water

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-32 Clay - 0-10' brown 10-32' grey - greasy - ~~very~~ little grit	
		32-55 Pebbly Till - matrix - sand, silt, clay - clay increases with depth	
	01 +10 -10		
	02 -10	55-57 Boulder Gabbro - green black - medium grained - minor pyrite	
	03 -10	57-69 Clay Till - matrix - clay, sand, silt - ≤ 10% pebbles	
	04 -10		
	05 +10 -10	69-127 Pebbly Till - matrix clay silt fine sand - some pebbles ≤ 40% - odd cobble - clay rich + clay deficient zones - 75-76 Boulder Granite	
	06		
	07		

DATE Mar 13-14/79 HOLE No. R-83 GEOLOGIST [illegible] DRILLER Gagne

HOLE LOCATION L 278+80 S 56+00W

BIT No. ______ FOOTAGE ON BIT ______

HOURS MOVE ______ HOURS DRILL ______ OTHER ______

page 2

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES					
		08							
		09							
		10	127-132 Bedrock - Rhyolite - altered siliceous - aphanitic - intense dark green						
		11	- chloritized - chlorite also on shear planes - 10% blue qtz phenocrysts - local white feldspar phenocrysts - 129-132 minor qtz veining EOH 132'						

DATE MARCH 14, 15/79 HOLE No. R-84 GEOLOGIST KOTILA + MacINTOSH DRILLER GAGNE

HOLE LOCATION 278+805, 29+60W

BIT No. 18440; 18439 FOOTAGE ON BIT 56+11 = 67'; 0+12' = 12' + 11' Redrill

HOURS MOVE 1:00-2:00 HOURS DRILL 2:00-3:00 OTHER

3:00-4:45 wait for water

Note: This log is a complete record from the two separate drillings

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0-2' No Return	
		2'-9' Clay dark hematitic red, yellow and beige coloured clays	
	01	9'-9.5' Pebbly Gravel	
		9.5'-11' Rhyolite - aphanitic, siliceous green intensely chloritic rhyolite - up to 10% blue quartz phenocrysts - locally abundant euhedral white feldspar phenocrysts	
		11' End of Hole.	
		Note: initial drilling of 0-11' resulted in 0-9.5' of No Return 9.5'-11' of Bedrock broke the bit, moved 5' and redrilled resulting in 0-12' total of which 2'-9.5' overburden and 0-2 and 9.5'-12' of No Return	

DATE March 15, 1979 HOLE No. R85 GEOLOGIST Smith DRILLER Cagne

HOLE LOCATION 278+80 S 3+30 W

BIT No. 18439 FOOTAGE ON BIT 12-72 Bit lost down hole

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Lost down hole 4 rod's, 1 sub, 1 Bit

18438 New Bit

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-8 No Return	
		8-40 Clay - grey, greasy	
	01	40-45 Till/ Pebbly sand - minor silt + clay - matics, carbonate, diorite minor granitics	
EOH	02	45-47 Bedrock - Rhyolite - altered, aphantic - pinkish to grey	
		47- End of hole - due to worn Bit	

DATE Mar 17/79 HOLE No. R-86 GEOLOGIST JM DRILLER Gagne

HOLE LOCATION L 54+60S 19+90 E

BIT No. 18 407 FOOTAGE ON BIT +158

HOURS MOVE _____ HOURS DRILL 11:45 - 16:15 OTHER _____

DEPTH	GRAPHIC LOG	CASING	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-2 No Return	
				2-81 Clay	
				-2-10 brown	
				10-81 grey	
				- greasy	
				- little grit	
				-25' no grit	
				extremely greasy	
				-32' hand full of pebbles	
			N.S.		
				81-96 Pebbly Gravel	
			01 +10 -10	- matrix - fine sand + silt	
				- pebbles - carbonates	
				- granitics	
				- mafics	
			02 +10 -10	96-151 Till	
				- matrix - clay, silt, sand	
				- 25% pebbles	
			03 -10		

DATE Mar 17/79 HOLE No. R-86 GEOLOGIST JFM DRILLER Gagne

HOLE LOCATION L 54 +60 S 19+90E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Page 2

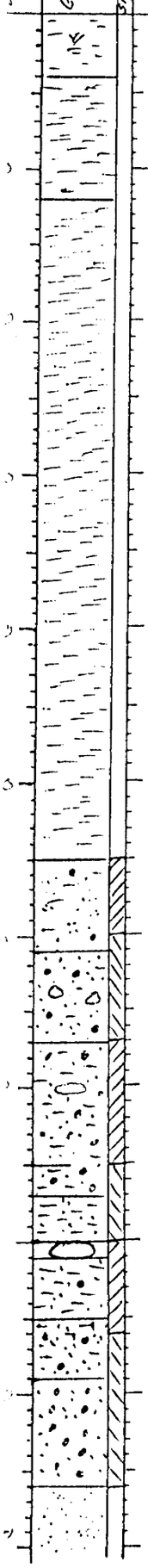
GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	03 -10		
	04 -10	-108-108.5 Boulder - Diorite - coarse grained	
	05 -10	-115-117 Boulder - Andesite - highly altered	
	06 -10		
	07 -10		
	08 -10	-146.5-147 Boulder - Andesite - chloritized	
	09 +10 -10	151-154 Pebbly Gravel - matrix fine sand + sand	
	10	154 Bedrock - Andesite - green - fine grained - altered - chloritized - qtz + carbonate veining - minor sulfides - staining on foliation planes	
		EOH 158'	

DATE March 18 1979 HOLE No. R87 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION 109+10S 44+80E

BIT No. 18407 FOOTAGE ON BIT 158 - 286 (Bit worn out)

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	0-4 Clay + Humus	
	4-12 Clay - tan brown, greasy	
	12-55 Clay - grey, greasy, soft	
	55-61 Slightly pebbly, clayey silty sand - matics, granitics	
01		
	61-67 pebbly to cobbly gravel - minor clay 20% med gr sand matrix - granitics, matics, metasediments, carbonates	
02		
	67-77 Pebbly Till 20% pebbles 40% sand + silt 40% clay	
03	70 6" basalt boulder	
	75 - becomes less sandy + more pebbly (30%)	
04	77-80 Sandy silty clay	
	80-81 Boulder - Andesite?	
05	81-85 Sandy to silty clay - hard, a few pebbles	
	85-89 pebbly sandy silt - 10% clay - mostly matic pebbles	
06	89-96 pebbly sand - carbonates + matics	
	96-102 Silt	

DATE March 18 1979 HOLE No. L87 GEOLOGIST _____ DRILLER _____

HOLE LOCATION 109+10S 44+80E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				102-125 Silty clay 124 - pebbly clay	
10					
20				125-126 BEDROCK - Basalt - chloritized, epidotized? - dark green - very fine gr.	
			08		
30					

DATE March 19 1979 HOLE No. L88 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION 109+10S 18E00E

BIT No. 18443 FOOTAGE ON BIT 0-92 (New bit)

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-10 Clay - tan, sandy	
		10-70 Clay - grey, greasy	
	01 01+10	70-76 - med gr. sand + fine gravel - mafics, diorite, granite, rhyolite	
	02, +10	76-77 - Sandy Gravel - similar to above	
		77-79 - Boulder - diorite	
	03	79-87 Sandy Gravel - pebbles + cobbles - med to coarse sand - generally fine gravel	
	04	87-92 BEDROCK - Rhyolite - light green-grey - aphanitic	
	05		

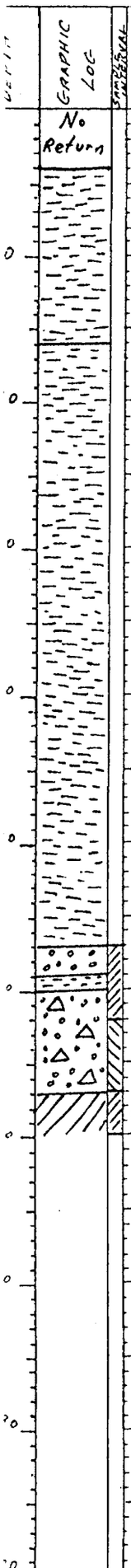
DATE MARCH 19/79 HOLE No. R-89 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 109+10S, 7+95W

BIT No. 18443; 18449 FOOTAGE ON BIT 92'+69'+161'; 0+70'=70'

HOURS MOVE 8:15-8:30 HOURS DRILL 11:00-3:00 OTHER

8:30-9:30 WAIT FOR WATER AND MECHANIC, 9:30-11:00 fix chuck



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	0-4' No Return	
	4'-16' Brown Clay - greasy lacustrine clay - light brown colour gradual change to grey brown to grey colour	
	16'-57' Grey Clay - greasy lacustrine clay	
	57'-59' Pebbly Gravel - sand matrix 40% mafics, 40% granitics, 20% carbonates } pebbles	
	59'-60' Clay - hard compact greasy (only slightly gritty) grey lacustrine clay - up to 10% sand	
	60'-67' Grey Till trace to 25% clay trace to 25% pebbles 40% mafic 40% granitics 20% carbonate remainder medium coarse sand occasional cobble	
	67'-70' Rhyolite initial hole had 75% sand and small pebble contamination from 67'-69', bit broken redrilled hole at 7+90W sample 03 pale greyish green rhyolite with rare quartz phenocrysts and up to 5% white feldspar phenocrysts - initially inches thick dark brown weathered surface	
	70' End of Hole	

DATE Mar 20/79 HOLE No. R-90 GEOLOGIST GPM DRILLER Gagne

HOLE LOCATION L 135 +90S 15+80W

BIT No. 18+49 FOOTAGE ON BIT 70' - 187'

HOURS MOVE _____ HOURS DRILL 8:45 - 12:15 OTHER _____

___ blown hydraulic hose 15 minutes; pull + redrill ½ hr

Bit No 18+48 0 - 13' +113' redrill

METRIC	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-66 Clay - 0-10 brown - 10-66 grey - greasy - minor grit - few pebbles - 30' very little grit	
				66-68 Coarse Pebbly Till - matrix sand, silt, clay	
			01 +10 -10	68-71 Clay Till - matrix, clay, silt, sand - 10% pebbles	
			02 +10 -10		
			03 +10 -10	71-100 Pebbly Till - matrix - clay, silt, sand - pebbles - carbonates - granitics - metamorphics - mafics - some cobbles	
			04 -10		

DATE Mar 20/79 HOLE No. R-90 GEOLOGIST JAM DRILLER Gagne

HOLE LOCATION L135+90S 15+80W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Page 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		05 -10	-100-102 Boulder Granite - altered	
0		06 +10 -10	102-111 Clay Till - matrix - clay, silt, sand - <15% pebbles	
10		07 +10 -10	111-126 Pebbly Gravel - matrix - sand, fine sand - 115-116 Boulder Granite - altered	
		08	126 Bedrock Rhyolite-Dacite - light green - fine grained - some chlorite - foliated	
			EOH 130'	

DATE Mar 20/79 HOLE No. R-91 GEOLOGIST JJM DRILLER Gagne

HOLE LOCATION L135+90S 35+60E

BIT No. 18450 FOOTAGE ON BIT 0-143

HOURS MOVE 12:15-13:15 HOURS DRILL 13:15-17:30 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0			N.S.	0-38 Clay - 0-12 - brown 12-38 - grey - greasy - minor grit - odd pebble	
50				38-51 Pebbly Till - matrix sand, silt, clay - large pebbles	
100				51-57 Clay Till - 40% clay - 30% sand 30% silt - few pebbles	
			01 +10 -10	57-58 Clay - hard, dry - grey	
150			02 -10	58-59 Boulder - blue-purpleish white - siliceous - some sulfides	
			N.S. 03		
			04 -10	59-66 Clay Till - same as 51'-57'	
			N.S	66-70 Clay - brownish grey - very hard & dry	
200			05 +10 -10	70-80 Pebbly Gravel - matrix sand, ~~sand~~ fine sand - 60% carbonate - 20% granitics 20% mafics	
			06		
			07	80-129 Clay Till - matrix clay sand silt - pebbles >10% <50% - few cobbles	

DATE Mar 20 / 79 HOLE No. R-91 GEOLOGIST JM DRILLER Gagne

HOLE LOCATION L 135 + 90 S 35 + 60 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			08 -10		
			09 -10		
			10 -10		
			11 +10 -10	129-138 - Coarse Pebbly Gravel - matrix sand, fine sand - 75% mafics - some rhyolite - some massive pyrite ± 1" cubes	
			12		
				138 - Bedrock Rhyolite - light green - fine grained - slightly altered - some qtz phenocrysts - qtz veins with dark green coloration	
				EOH 143	

DATE MARCH 21/79 HOLE No. R-92 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 135+90S, 10+60E

BIT No. 18450 FOOTAGE ON BIT 143'+110' = 253'

HOURS MOVE _____ HOURS DRILL 8:45 - 2:45 OTHER _____

WAIT FOR WATER 9:30 - 12:45, 1:45 - 2:15

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0-2' No Return 2'-8' Brown clay - greasy lacustrine clay	
		8'-91' Grey Clay - greasy lacustrine clay - occasional pebble	
		91'-97' Pebbly Gravel - great quantity of sample - 60% medium to coarse sand 40% pebbles, subrounded non-spherical 50-60% mafics 20-30% granitics, gneisses 20% carbonates trace bright green rhyolite	
	01,+10 02,+10 03	97'-105' Grey Till	

- continued -

DATE MARCH 21/79 HOLE No. R-92 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		03	97'-105' Grey Till initially 10% gritty clay then quickly changes to 90% clay with only 10% pebbles	
		04	105'-110' Andesite - fine grained moderately green colour - appears tuffaceous in texture - trace quartz ? - calcite vein	
			110' End of Hole	

DATE MARCH 21/79 HOLE No. R-93 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 188+605, 26+00 W

BIT No. 18450 FOOTAGE ON BIT 253' + 116' = 379'

HOURS MOVE 2:45-3:45 HOURS DRILL 3:45 - 5:15 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0			0 - 17' Brown clay - greasy, compact, binding lacustrine clay	
20			17' - 111' Grey clay - greasy lacustrine clay	
0				
10				
0				
0				
0				
20				
0				
20				

- continued -

DATE MARCH 21/79 HOLE No. R-93 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			continued 17' - 111' Grey Clay	
			111' - 113' Pebbly Gravel 60% medium-coarse sand 40% pebbles 50-60% mafics 20-30% granitics, gneisses 10-20% carbonates	
		01, +10		
		02	113' - 116' Andesite - moderate green - fine grained - hard to drill - appears tuffaceous - bit broke.	
			116' End of Hole	

DATE March 22 /79 HOLE No. R-94 GEOLOGIST Smith DRILLER Gagne

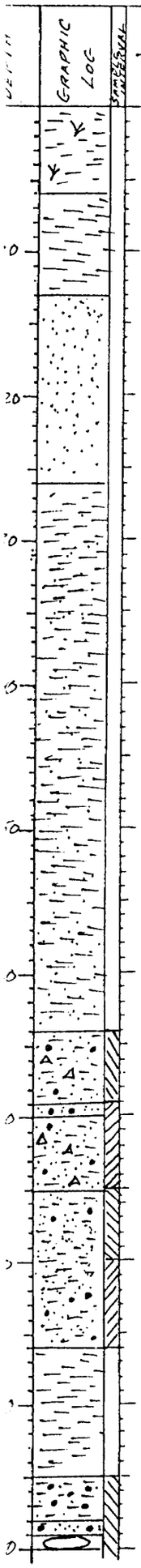
HOLE LOCATION 188+60S 1W

BIT No. 50701 FOOTAGE ON BIT 0-166 Bit worn out

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Down time 15 min for water pump

1:45 for replacement of chuck



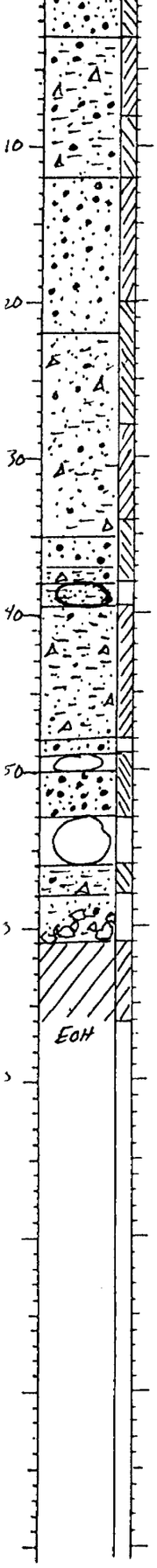
SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	0-6 Clay + Organics	
	6-13 Clay, grey, greasy	
	13-26 fine sand + silt	
	26-64 Clay - grey, greasy, silty	
	64-69 pebbly clay till 10% pebbles - variety of types 30% sand 30% silt 30% clay - greenish	
01	69-70 pebbly sand - mafics + carbonates	
02	70-75 pebbly clay till - similar to above till - except less clay + more sand	
03	75-86 clay till - sandy silty clay - 5-20% pebbles	
	77-79 15% clay	
04	86-95 clay - grey, greasy, hard	
	95-98 Pebbly clay - minor sand	
	98-99 pebbly sand	
05	99-100 Boulder - gneiss	

DATE _____ HOLE No. R-94 _____ GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
05	100-103 pebbly sand	
	103-112 pebbly clay till	
06		
07, +10		
	112-122 pebbly sand - coarse to vmed. pebbles - med sand	
08, +10		
	122-135 pebbly sand + silt till - 5-20% clay - variety of pebbles	
09		
10	135-137 pebbly sand	
	137-138 clay till - fine pebbles, & sandy	
11	138-139.5 Boulder - altered granite	
	139.5-148 Till - 5% pebbles 20% sand 20% silt 55% clay	
12		
	148-149 pebbly sand	
	149-150 Boulder - Basaltic	
13	150-153 pebbly gravel - med gr sand matrix	
	153-156 Boulder - andesite	
	156-158 Till similar to 139-148	
14	158-161 Rubbly on top of Bedrock	
	161-166 BEDROCK Basalt - highly weathered and altered - fine grained - iron staining	
15		
	166 END OF HOLE	

DATE Mar 23, 79 HOLE No. R-95 GEOLOGIST JPM DRILLER Gagne

HOLE LOCATION L 188+605 52+80E

BIT No. 50701 FOOTAGE ON BIT 166-261

HOURS MOVE _____ HOURS DRILL 8:45-16:15 OTHER _____

2 hour wait for water

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-48 Clay - 0-10 - brown - 10-18 - grey - greasy - little grit - odd pebble	
		48-49 Pebbly Till - matrix sand, clay, silt - 50% pebbles	
	N.S	49-58 Clay - brownish, grey - hard, dry - little grit	
	N.S	58-78 Sand - sand + fine sand - few pebbles	
	01 -10	78-95 Clay Till - matrix - clay, fine sand - < 20% pebbles	
	02 -10	95-97 Gravel - Pebbly - matrix sand, fine sand	
		97-99 Pebbly Till - matrix sand, silt, clay - 60% pebbles	
	03	99-100 Boulder Dacite - light green - highly fractured - fractures filled with chlorite - some sulfides	

DATE Mar 23 HOLE No. R-95 GEOLOGIST JPM DRILLER Dagne

HOLE LOCATION L188 +60S 52+80 S

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

page 2

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			04 -10	100-120 Clay Till - matrix clay, silt, sand - few pebbles - some cobbles	
0			05 -10	-102'-103' Boulder Granitic -110-111 Boulder Diorite	
10			06 +10 -10	120-130 Pebbly Till -matrix - sand, fine sand clay - pebbles - carbonates mafics granitics, rhyolites	
30			07 +10 -10	130-145 Pebbly Gravel - matrix - sand, silt - some clay rich zones - few cobbles	
0			08 +10 -10	- pebbles, mafics carbonates, diorites granitics, rhyolites meta sed + vols	
0			N.S	145-156 Clay - blueish grey - hard + dry	
			09 +10 -10	156-166 Pebbly Till -matrix sand, clay - some clay zones	
0			10 -10		
			11 +10 -10	166-191 Pebbly Gravel - matrix sand, fine sand - pebbles meta morphic + altered	
0			12 +10 -10	- 182-183 Boulder Diorite - 186-187 Boulder Andesite	
			13 +10 -10	191 Bedrock Dacite - greenish white - medium grained - chloritized + altered	
0			14 +10	EOH 195'	
			15		

DATE MARCH 24/79 HOLE No. R-96 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 188+60S, 26+50E

BIT No. 28456 FOOTAGE ON BIT 0+130' = 130'

HOURS MOVE _____ HOURS DRILL 12:00-2:30 OTHER _____

MAINTENANCE 9:00-12:00, frozen pumps and hoses

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0-18' No Return - frozen conditions	
		18'-113' Grey Clay - greasy grey lacustrine clay - trace sand	
		40-60' very poor return	
		— continued —	

DATE MARCH 24/29 HOLE No. R-96 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

GRAPHIC LOG	STRATIGRAPHIC	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			continued	
			18' - 113' Grey Clay	
			113' - 117.5' Pebbly Gravel	
			75% sand	
			25% pebbles	
			50% mafics	
			10% carbonates	
			10% granitics	
		01, +10	30% gneisses	
			117.5' - 125' Pebbly to Cobbly to Bouldery Grey Till	
		02	50-75% sand	
		N.S.	10-25% gritty clay	
			10-25% pebbles, cobbles - larger cobbles and boulders generally basalt	
		03	120' - 128' - basaltic boulder	
			125' - 130' Basalt	
			- yellow green to dark green	
			- medium to coarse grained	
			- similar to above boulders	
			130' End of Hole	

DATE March 28 HOLE No. R97 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L241+60S 39+60W

BIT No. 38469 FOOTAGE ON BIT 0-90

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

830 - 1200 water carrier would not start

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		0-14 Clay - tan, greasy, sandy to silty	
		14-66 Clay - grey, greasy, silty	
		66-68 Pebbly (10%) - sand (medium gr.) mostly basalt and carbonate	
	01	68-69 Boulder - Basalt	
		69-70 Clay + grey, greasy	
	02	70-75 Pebbly sand - 20-30% pebbles, - med grained sand, - variety of pebble types	
	03	75-76 Boulder - Rhyolite	
	04, +10	76-86 Pebbly Gravel - sandy to silty - a few basalt cobbles - mafics, granite, sediments metamorphics, carbonates	
	05, +10		
	06	86-90 BEDROCK - Basalt - green, medium grain - chloritized - minor carbonate veins	
EOH		90' END OF HOLE	

DATE Mar 27 '79 HOLE No. R-98 GEOLOGIST JFM DRILLER Gagne

HOLE LOCATION L 241 +60 S 13+20W

BIT No. 3 8468 FOOTAGE ON BIT 0-11

HOURS MOVE 9:45-11:45 HOURS DRILL 11:45-13:15 OTHER _____

15 minute wait for water

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		01	0-5.5 Clay - brown - greasy - little grit	
			5.5 Bedrock - Rhyolite - highly fractured - pinkish-greenish white - fine grained - some fracture surfaces stained (Fe) - possible flowbanding - 1% phenocrysts	
			EOH 11'	

DATE Mar 27/79 HOLE No. R-99 GEOLOGIST JJM DRILLER Gagne

HOLE LOCATION L 241 + 60 S 13 + 20 E

BIT No. 38468 FOOTAGE ON BIT 11 - 49

HOURS MOVE 13:15 - 14:00 HOURS DRILL 14:00 - 16:15 OTHER

1 hr wait for water

GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-8 Clay - 0-6' brown - 6'-8' grey - greasy - minor grit	
		01 +10 -10	8-10 Clay - grey - hard + dry - little grit	
		N.S.	10-18 Gravel - Pebbly - matrix sand + fine sand - coarse pebbles - carbonates mafics granitics metamorphics	
		02 +10 -10		
		03 +10 -10		
		04	18-21 Pebbly Till - matrix clay + sand - 50% pebbles	
			21-34 Pebbly Gravel - matrix sand - coarse pebbles - similar to 10'-18'	
			34 Bedrock Rhyolite - light green - greyish white - fine grained - highly siliceous - few qtz phenocrysts	
			EOH 38'	

DATE March 28, 79 HOLE No. R-100 GEOLOGIST DESROCHES DRILLER GAGNE

HOLE LOCATION L267 + 705 , 6+60E

BIT No. 2.8455 FOOTAGE ON BIT 0 + 82

HOURS MOVE _____ HOURS DRILL 0920 - 1330 OTHER _____

GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
No Return		0'-2' No Return	
		2'-9' Clay -brown, lacustrine	
	01	9'-11' Grey till -minor medium-sized pebbles (5%)	
	02	11'-11.5' -sandy pebbly seam -fine to medium sand	
	03	11.5'-17' pebbly till - medium-sized pebbles	
		17'-18' Boulder - dark green basalt - minor pyrite - chloritized	
	04	18'-26' Grey till - gritty, minor small pebbles - 10% hard clay balls	
	N.S.	26'-27' Boulder - garnetiferous amphibolite	
	05	27'-36' Grey till - gritty, minor pebbles - 10% hard, gritty clay balls (½ - 1 ind. dia.)	
	06 +10	36'-45' Pebbly, sandy gravel 40% pebbles - 50% mafics - 20% carbonates - 30% others (gneisses, granites) -medium - coarse grained sand	
	07		
	N.S.		
		45'-49' Grey till -gritty	
		49'-69' Clay -hard, compact, grey, lacustrine	
		- (57-60') -gritty clay seam - minor medium-sized pebbles - 1-5% sand (medium)	
	08 +10	69'-77' Pebbly, sandy gravel - 20% pebbles - 30% carbonates - 50% mafics - 20% others (granite, gneisses) - 80% medium - coarse grained sand	
	09		
	10		
		77'-82' Bedrock -altered rhyolite -strongly sericitic - minor cubic pyrite - white - light green colour (top 6" and last inch medium to dark - brown) - fractures?	
		82'- EOH	

DATE Jan 6,7 1979 HOLE No. R101 GEOLOGIST SMITH DRILLER BRADLE

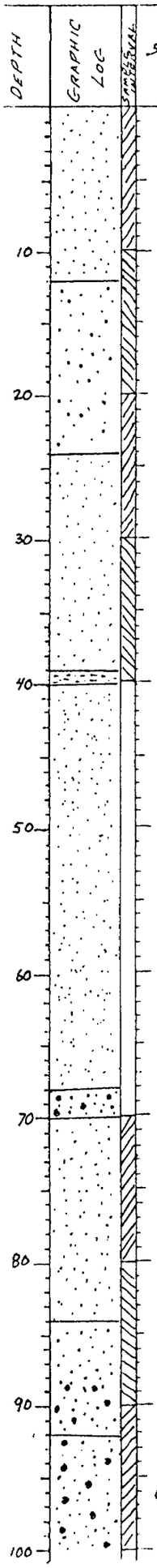
HOLE LOCATION 139+50S 11+50E

BIT No. 68180 FOOTAGE ON BIT 0-149

HOURS MOVE 0800-1230 HOURS DRILL 1230-1730 OTHER

Dawn time 0800 to 1230 - move + set up

1430 to 1630 - failure of chuck



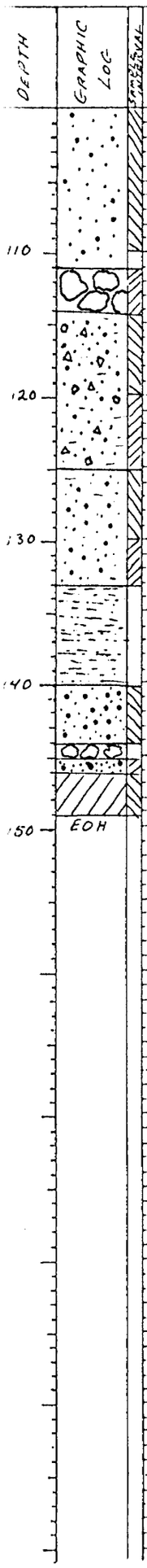
DESCRIPTIVE LOG	ANALYSES
0-12 80% quarty 20% feldspar, amphibole, micas fine grain sand	
12-24 med to coarse sand 60% quarty 40% amphiboles + feldspar	
24-39 fine to very fine sand 80% quarty 10% amphiboles 10% feldspar + others	
- becomes silty to clayey towards bottom and increases in quarty	
39-40 light grey brown clay - quite sticky	
40-68 fine to med grain sand 60→80% quarty 20→40% amphiboles, feldspar + others generally well interbedded.	
68→70 pebbly sand silty matrix 50% Rhyolitic pebbles 50% quarty and unknowns	
70-84 fine to med grain sand 80% quarty 15% mafics 5% other	
84-92 med to coarse sand 50% quarty 50% mafics + others	
87' becomes coarse sand to fine gravel 30% quarty - mostly matrix 70% mafics and carbontates	
92-100 - fine gravel - quarty sand matrix - mafic granitic, and metased imentry pebbles	

DATE Jan 6,7 1979 HOLE No. R101 GEOLOGIST SMITH DRILLER BRADLE

HOLE LOCATION 139+95 S 11+50E

BIT No. 68180 FOOTAGE ON BIT 0-149

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	100-112 coarse sand matrix and fine gravel	
08	112-114 Rhyolite or diorite boulders - dark green with white spotting (feldspar?) - fine sand matrix (alteration?)	
	114-125 coarse sand and fine gravel Some mafic cobbles clay and silt matrix TILL	
09		
10		
	125-133 TILL mostly carbonate pebbles, some mafic - silt to clay matrix	
11		
12		
	133-140 Varved clay? grey colour alternating hard and soft layers	
13		
	140-144 - pebbly sand 80% rhyolite and carbonate pebbles 15% granite 5% diorite becomes granite rich towards 144 also quarty diorite, quarty garnet granulites	
14		
15	144-145 Rhyolite or diorite - grey mottled white	
16	145-146 very coarse sand Rhyolite and carbonate pebbles	
	146-149 Bedrock diabase Diorite - fine gr. dark green - chloritic alteration white mottling	

DATE Jan 8 1979 HOLE No. R102 GEOLOGIST SMITH DRILLER BRADLE

HOLE LOCATION 16700 S 3960 E

BIT No. 68 - 176 FOOTAGE ON BIT 0 - 140

HOURS MOVE 0800 - 1100 HOURS DRILL 1100 - 1630 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		05	98 - 105 - Silt and clay matrix - granite, Rhyolite, diorite, carbonate pebbles - some cobble size granite 105 - 109 - Clay - grey	
110		06	109 - 136 Pebbly Sandy Silt Rhyolite, diorite, and metasediments 112 and 116 Clay seam - silt to clay matrix, minor pebbles 119 Limestone Cobbles	
120		07	120 - 125 Rhyolites, diorite, granite	
		08	129 Clay Seam	
130		09	136 - 140 BEDROCK dark green diorite quite soft - slimes on drilling	
		10		
		11		
140	EOH			

DATE Jan 8 1979 HOLE No. R102 GEOLOGIST SMITH DRILLER BRADLEY

HOLE LOCATION 16700 S 3960 E

BIT No. 68 - 176 FOOTAGE ON BIT New bit 0 - 140'

HOURS MOVE 0800 - 1100 HOURS DRILL 1100 - 1630 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0			0-30 fine to med grain well sorted sand 60 → 80% quartz 10% carbonates 10% mafics 10% other (amphiboles feldspar etc)	
10		01		
20		02		
30			30-36 Clay - slightly silty, sticky - brown - slight grey tinge	
40			36-91 Silty clay to clay rich silt interlayered grey and grey brown	
50			50' very sticky greyish clay	
60				
70				
80			86 Clay matrix Coarse silt	
90			91-97 - coarse sand with the occasional pebble - Rhyolite, granite, diorite, minor carbonate	
100		03	97-98 - Same as 91-97 except that the matrix is clay	
		04	98-105 pebbly, sandy, silt	

DATE Jan 12. 179 HOLE No. R103 GEOLOGIST SMITH DRILLER Don

HOLE LOCATION 16700S 1320 E

BIT No. 68-178 FOOTAGE ON BIT 140-238 (Bit Worn out)

HOURS MOVE 0800-0900 HOURS DRILL 0900-1400 OTHER

Breakdown time 25 min Hydraulic hose

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-4 No Return	
		01	4-37 Pebbly Sand average gr. size 1mm matic, carbonate + metasedimentry pebbles mainly quartz matrix	
10			10-20 Slightly silty	
		02		
20			20-30 carbonate, diorite, granodiorite rhyolite, basalt, granite and metasedimentry pebbles	
		03		
30			37-39 - Coarse sand + silt minor pebbles	
		04	39-40 Pebbly sandy silt	
40			40-45 No Return	
	NR		45-49 Pebbly Sand to Gravel Rhyolite, quartzdiorite, granite minor carbonate amd metasediments	
		05		
50			49-61 - No Return Probably Gravel	
	NR			
60			61-94 Very Coarse Sand occasional pebble mostly quartz, matics + granite pebbles	
		06		
70			75-85 Slightly less coarse with med. gr. sand matrix	
		07		
80			85-93 Pebbles > 2cm med. gr. matrix matics, limestone + granites	
		08	93-94 Coarse sand, fine to medgr. matrix	
90			94-95 Pebbles, cobbles of Rhyolite + diorite	
		09		
		10	95-98 BEDROCK Grey Aphanitic Rhyolite	
		11		
100	EOH			

DATE Jan 13/79 HOLE No. R104 GEOLOGIST SMITH DRILLER Don

HOLE LOCATION 16700S 1320 W

BIT No. 68-173 FOOTAGE ON BIT 0 - 106 (New Bit)

HOURS MOVE 0800 - 1130 HOURS DRILL 1130 - 1645 OTHER Breakdowns

① EN60 Threw track 3.5 hrs ② EN60 Water pump not working 1.1 hrs

③ Muskeg ran out of fuel + would not restart 1.25 Hrs

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-4 No Return	
			4-7 Pebbly Sandy Silt	
		01	7-11 Boulder diorite or quarty diorite	
10			11-21 11-13 Pebbly Sandy Silt	
		02	13-17 Sandy Silt	
			17-21 Cobbly pebbly sand carbonates, metaseds minor Rhyolite + mafics	
20			21 Sand Clay seam	
		03	21-25 Till granite, + metased. boulders + cobbles minor mafics	
		04	25-32 Till cobbles	
30			32 Clay seam	
			32-40.5 Till pebbly sand with silt matrix mostly mafics + granites	
		05		
40			40.5-51 Clay grey + sticky	
50			51-71 very fine to coarse sand with a wide variety of pebble types	
		06 (+10)		
60		07		
		08		
70			71-99 light grey brown clay occasional hard layers also sometimes silty	
80			90-99 - becomes silt rich	
90			99-102 Angular pebbles or fragments diorite, rhyolite minor granite med to coarse sand matrix some silt	
100		09		

DATE Jan 13 / 79 HOLE No. R104 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		09	102 - 106 BEDROCK	
		10	Rhyolite, dark green, aphanitic extremely hard.	
			Possibly diorite (white mottling)	
	EOH			
110				

DATE Jan 14/78 HOLE No. R105 GEOLOGIST SMITH DRILLER Don

HOLE LOCATION 16700S 4620 W

BIT No. 68-173 FOOTAGE ON BIT 106 - 209' (Bit worn out)

HOURS MOVE 1000 - 1130 HOURS DRILL 1130 - 1630 OTHER

--- Break downs ① Muskeg tried to start again 2.5 hrs

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-21 No Return	
10	NR		21-26 Grey Silty to Sandy Clay	
20			26-42 Pebbly sand (coarse) carbonates, mafics, quartzites major granites, metasediments minor occasional section of med gr sand.	
		01 (+10)		
30			42-67 Clay greenish grey slimey relatively hard	
		02 (+10)	48 becomes silty	
			51 becomes sandy	
40			60 becomes mostly sandy 1mm layers which break apart easily	
50				
60			67-70 Pebbly sand carbonates, mafics, quarty + metaseds.	
		03 (+3)	70-82 - Coarse sand with cobbles of Rhyolite, basalt, carbonate matrix - quarty, mafics + granite	
70			82-90 Pebbly sand to cobbly sandy silt variety of pebbles - mostly diorite Rhyolite, + metaseds	
		04 (+10)		
80			90-92 med gr. sand, few pebbles	
		05 (+10)	92-96 - Boulders quarty diorite med gr. quarty, feldspar + amphiboles?	
90		06 (+10)	96-100 No Return Gravel	
		07		
100	NR			

DATE Jan 14 /78 HOLE No. R105 GEOLOGIST SMITH DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	EOH	08(-3)	100-103 BEDROCK Rhyolite	
110				

DATE Jan 15-18, 1974 HOLE No. R-106 GEOLOGIST 0-40 Smith 40-67 Robinson DRILLER _____

HOLE LOCATION L 167+00S 66+00W

BIT No. 0-40 68172; 40-67 68173 FOOTAGE ON BIT NEW

HOURS MOVE 12⁰⁰ - 14⁰⁰ HOURS DRILL 15th 15:30 - 16:00, 18th 11:00 - 12:30, 12:30 - 1:45, 2:45 - 3:15 OTHER _____

15th 8⁰⁰ - 12⁰⁰ Breakdowns

18th 8⁰⁰ - 11⁰⁰ Pump would'nt work.

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-46 No Return	
10				
20				
30				
40				
50		01 and +10	46-50 Cobbles: Angular to rounded fragments of granitic rock, mafic volcanics and some carbonate pieces. Practically no sandy or silty material.	
60		02		
		03	50-51 Cobbles: as 46-50 with a sandy-fine silty well sorted matrix.	
		N.1		
70		04	51-59 Cobbles: Angular fragments of granitic rock minor volcanic (mafic) fragments Fines consist of ground up granitic material.	
80			59-67 Granite-Granodiorite Angular fragments of bedrock.	
			67- END OF HOLE.	
90				
100				

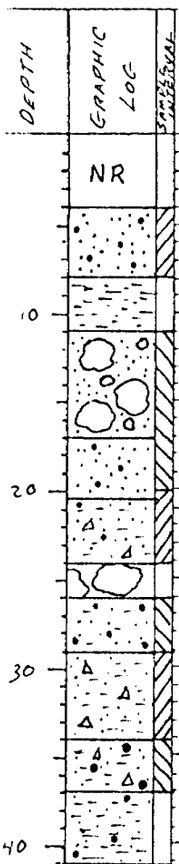
DATE Jan 19/79 HOLE No. R107 GEOLOGIST SMITH DRILLER Bradley

HOLE LOCATION 195+10S 87+60W (approx)

BIT No. 68-181 FOOTAGE ON BIT New Bit 0-43' (Bit worn out)

HOURS MOVE _____ HOURS DRILL 1300-1630 OTHER Travel 2hrs

Breakdown 5 hrs



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	0-4 No Return	
	4-8 Pebbly sand - small pebbles - wide variety of types - med to coarse sand	
01	8-11 Clay - tan brown - slimey	
	11-17 Boulders or cobbles (diorite, quartz + limestone) med to fine sand matrix	
	17-20.5 70% quartz sand - med grained 30% small mafic pebbles	
02	20.5-24 Till grey-green clay matrix silty to sandy to pebbly diorite or basalt, limestone + metaseds.	
	24-26 Boulder quartz diorite or granite	
03	26-29 Till sandy matrix - minor clay pebbles - quartz diorite, quartz rich metaseds + minor mafics	
04	29-34 Till - clay + sand matrix - pebbles: granite, mafics, rhyolite + metaseds;	
05	31- No clay, amygdaloidal basalt pebbles	
06	34-37 Till - clay + sand matrix - large pebbles (to 4cm) quartz diorite, mafics + metaseds	
	37-41 Silty clay - grey green - minor pebbles	
07	39 - pebbles more abundant mostly mafics + granites	
	41-43 Bedrock quartz diorite or granodiorite	
	43 EOH	

DATE Jan 20/79 HOLE No. R108 GEOLOGIST SMITH DRILLER BRADLEY

HOLE LOCATION 195+10 S 64+20W

BIT No. 68-178 FOOTAGE ON BIT New bit 0-117

HOURS MOVE 0800-0900 HOURS DRILL 0900-1630 OTHER Travel 2hrs

Breakdowns 4hrs - waited for water because transmission was leaking on mustag

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-7 No Return 7-37 Clay - grey - very slippery - slightly silty	
10			37-44 Pebbly sandy silt - minor cobbles a wide variety of pebbles mafics, granites minor quartzites + limestone 44-50 Till pebbly sandy silty clay mafic + carbonate pebbles	
20			50-65 Till Pebbly sand, minor silt+clay Some cobbles - mafics, granites + carbonates 54 clay matrix 57 fewer cobbles	
30			65-82 Sandy clay fine gr. sand minor small pebbles (mafics) minor silt + cobbles	
40		01		
		02		
50			82-96 Cobbly pebbly sand - mostly mafics + granites - fine to med gr. sand.	
		03		
60		04	96 - Clay seam 96-98 Pebbly sand - minor silt. mostly mafics, some granites 98-99 Sand - fine to med grained quartz minor silt + small pebbles	
70				
80		05		
90		06		
		07		
		08		
100	NR			

DATE Jan 20 /79 HOLE No. R108 GEOLOGIST SMITH DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			99-113 No Return	
	NR		113-117 Bed Rock granite or granodiorite	
110				
	EOH	09		

DATE Jan 22/79 HOLE No. R109 GEOLOGIST SMITH DRILLER BRADLEY

HOLE LOCATION 195+10 S 37+80 W

BIT No. 68-177 FOOTAGE ON BIT 0-103 New Bit

HOURS MOVE — HOURS DRILL 1100-1630 OTHER

Rod were pulled - due to worn bit (68-178) and damaged rods (2)

DEPTH	GRAPHIC LOG	CASING	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR			0-6 No Return 6-23 Pebbly silty sandy Clay - small sections which are sand or pebble rich - diorite, granite, basalt, andesite	
10			01	23-27 Boulder Till - basalt or andesite matrix - grey clay sandy to silty 27-36 - Pebbly clay with fine sand. 29 - Sand - fine to med. gr. 30 clay - tan grey No pebbles 35 - a few pebbles or cobbles (basalts + granites)	
20			02	36-41 Pebble Till fine to med gr. sand + clay basalt, rhyolite, granite, diorite andesite, carbonates metasediments 41-45 - sandy clay a few basalt pebbles 45-45.5 extremely hard silty clay 45.5-46 granodiorite cobbles, small matic pebbles	
30					
40			03	46-55 Pebbly sandy silty clay limestone + matic fragments 48 Silty clay - grey	
50			04	55-57 Boulder Till - basalt	
60			05 06	57-61 Pebbly sand to pebbly clay Till Rhyolite, andesite basalt + minor limestone	
70			07	61-66 pebbly fine to med grained sand 66-67 fine to med grained sand	
80			08	67-96 very coarse sand + gravel	
90			09	96-99 Till pebbly sandy clayey silt mostly matics, some rhyolite 98 visible pentlandite or pyrrhotite	
			10		
100			11		

DATE Jan 22/79 HOLE No. R109 GEOLOGIST Smith DRILLER _____

HOLE LOCATION 195+10S 37+80W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	EOH	11	99-103 Bedrock basalt - dark green - aphanitic - fine grain visible feldspar	

DATE 23 JANUARY 1979 HOLE No. R-110 GEOLOGIST J. LAKE DRILLER D. JODOUIN

HOLE LOCATION L 195+10S / 51+00W.

BIT No. 68175 FOOTAGE ON BIT 0

HOURS MOVE _____ HOURS DRILL 10:30 - 12:30 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-8' No Return.	
			8'-10' LACUSTRINE CLAY	
10		01	10'-20' CLAY TILL - gray, greasy with abundant rounded basalt pebbles, minor carbonate - 1 foot pebbly till seam containing abundant pink syenite pebbles.	
		02		
20			20-41' SAND - poor return - comes up outside of drill stem - little sample recovery.	
			41-49' PEBBLY SAND - contains well rounded pebbles largely pebbles of carbonate (70%) with minor basalt (<30%)	
30				
			49-54' DIORITE - BEDROCK. - medium-grained, soft, dark green-black, fresh, quite feldspathic - rock may represent a sub-volcanic shallow intrusive	
40		03		
		04		
			54' END OF HOLE.	
50		05		

DATE 23 JANUARY, 1979 HOLE No. R-111 GEOLOGIST J. LAKE. DRILLER D. JODOIN

HOLE LOCATION L195+10S / 77+40W.

BIT No. 68175 FOOTAGE ON BIT 60'

HOURS MOVE _____ HOURS DRILL 1:30 - 3:30 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		01	0-3' No Return. 3-8' GRANODIORITE - BEDROCK, - coarse-grained, white, fresh, equigranular, leucocratic.	
10			8' - END OF HOLE	

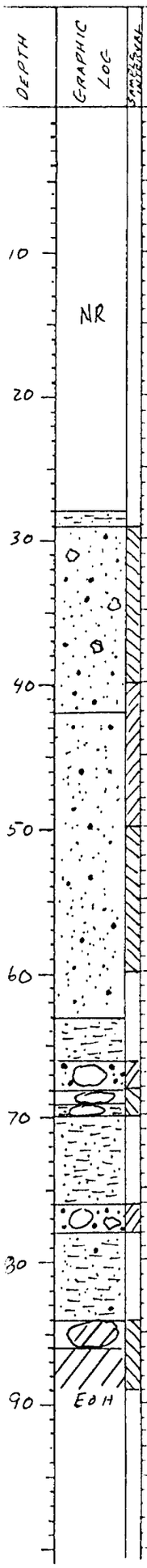
DATE Jan 23 /79 HOLE No. R112 GEOLOGIST Smith DRILLER Jodouin

HOLE LOCATION 195 +10S 25+60 W

BIT No. 68175 FOOTAGE ON BIT 68 - 142 Bit worn out

HOURS MOVE _____ HOURS DRILL 830- 1630 OTHER _____

--- 108328 New Bit at 74'



DESCRIPTIVE LOG	ANALYSES
0-28 No Return	
28-29 Silty clay	
29-42 cobbly pebbly silty-med to fine gr sand. Rhyolite, basalt, carbonate, quartz diorite	
35 sand becomes coarse	
38-39 sandy to silty clay	
42-63 pebbly sand (fine to very coarse) basalt, carbonate, diorite, granite moderately well sorted	
61 clay seam.	
63-66 sandy silty light grey clay	
66-68 pebbly gravel + boulders basalt, granite diorite	
68-69 granodiorite boulder	
69-70 Boulder Till (basalt) clay matrix	
70-76 sandy to silty clay	
76-78 basalt boulder or cobbles, pebbly carbonate matrix	
78-84 sandy silty clay minor pebbles. grey colour,	
80 pebbles more abundant	
84-86 Diorite boulder	
86-89 BEDROCK Diorite	

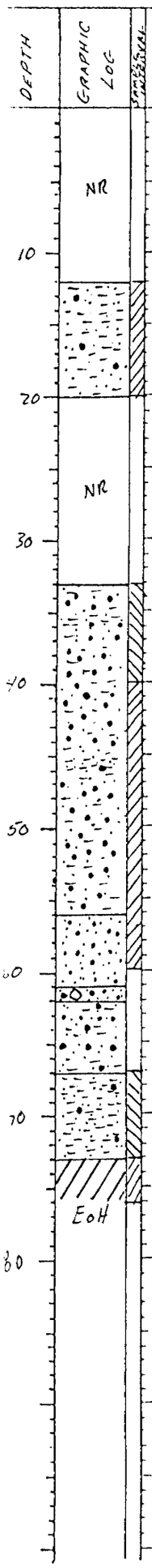
DATE Jan 24 /79 HOLE No. R113 GEOLOGIST SMITH DRILLER Jodouin

HOLE LOCATION R195 + 10 S 11 + 40 W

BIT No. 108327 FOOTAGE ON BIT 0-76 (Bit worn out!

HOURS MOVE B-930 HOURS DRILL 930 - 1530 OTHER

2 hrs maintainance



DESCRIPTIVE LOG	ANALYSES
0-12 No Return	
12-20 Sandy pebbly silty clay grey, hard.	
20-33 No Return	
33-56 silty sandy clayey gravel 36-37 sandy pebbly silty clay 45-46 - pebbly sandy silty clay	
56-61 pebbly fine to med gr. sand, minor silt basalt, carbonate, diorite minor Rhyolite, quartzite	
61-62 cobbley pebbley sand (granodiorite, basalt) 62-67 pebbly sandy clay 63 fine gr pebbles + sand. 65 - coarse pebbles (basalt!	
67-73 pebbly (minor) sandy clay	
73-76 BEDROCK Rhyolite or Basalt.	

DATE Jan 25/79 HOLE No. R114 GEOLOGIST SMITH DRILLER Joaquin

HOLE LOCATION 195+10 S B.L.

BIT No. 53737 FOOTAGE ON BIT 0 - 123.5 ~~New~~ Bit worn out

HOURS MOVE ____ HOURS DRILL ____ OTHER ____

--- Bit 53773 was used to 116' then pulled because it was worn out.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-10 No Return 10-12 grey to brown sandy silty clay	
10			12-36 silty clay	
20				
30			36-37 fine pebbly sand 37-48 pebbly sandy silty clay → sandy silty pebbles.	
40			48 clay seam 48-76 sandy silty pebbley clay major diorite + basalt minor carbonate + meta sediments	
		01		
50			55 - clay poor	
		02		
60			60-70 pebbly sand minor silt	
		03		
70			76 clay seam 76-94 pebbly sandy silty clay major basalt/diorite, rhyolite minor carbonate, quartz.	
		04		
80			84-86 becomes clay rich	
		05		
90			94-97 granite cobbles + coarse pebbles 97-105 fine sand and clay 98 pebbley sandy silt minor clay	
		06		
100		07		

DATE Jan 25/79 HOLE No. R114 GEOLOGIST SMITH DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		07	105-112 Clay, silty matrix 112 clay seam 112-118 silty sand, minor pebbles	
110		08	118-119 Boulder - granodiorite	
			119-123.5 BEDROCK Rhyolite dark green aphanitic	
120		09	123.5 End of Hole	
	EoH	10		
130				

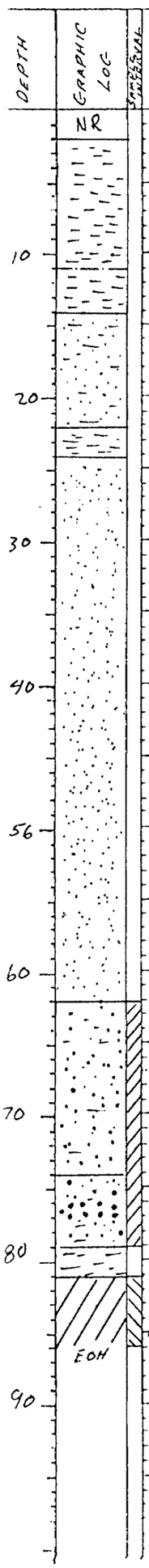
DATE Jan 26-27 HOLE No. R115 GEOLOGIST SMITH DRILLER JODOUIN

HOLE LOCATION 195+10S 15+00E

BIT No. 53773 FOOTAGE ON BIT 116'-198' Bit worn out

HOURS MOVE — HOURS DRILL — OTHER —

--- Bit was replaced 53772 New Bit



DESCRIPTIVE LOG	ANALYSES
0-2 No Return	
2-12 tan brown greasy clay	
12-14 grey brown greasy clay	
14-22 fine sandy silt, minor tan clay	
22-24 grey greasy clay	
24-62 very fine sand to silt	
62-74 fine pebbles to coarse + med gr. sand minor clay and silt	
74-79 pebbly silty sandy clay	
↑ basalt, carbonate, minor granite + diorite	
76-78 pebbles only	
79-81 grey slippery clay	
81-86 BEDROCK Rhyolite	
86 End of Hole	

DATE Jan 27 HOLE No. R116 GEOLOGIST SMITH DRILLER Jaoquin

HOLE LOCATION 195+10S 28+20E

BIT No. 537752 FOOTAGE ON BIT 86-180

HOURS MOVE _____ HOURS DRILL 800 - 1630 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
10			0-5 No Return 5-7 Sandy silty grey clay 7-10 grey slippery clay	
			10-14 tan brown greasy clay	
20			14-79.5 very fine sand + silt an occasional clay rich section	
30				
40				
50				
60				
70			79.5-80 clay seam	
80		01	80-89 pebbly silty sand major basalt + granite minor chert, diorite, carbonates 87 silty sand 88 pebbly sand	
90	EOH	02	89-94 BEDROCK Rhyolite 94 End of Hole	
100				

DATE Jan 28 '79 HOLE No. R117 GEOLOGIST SMITH DRILLER Jadowin

HOLE LOCATION 195+10 S 41+40E

BIT No. 53772 FOOTAGE ON BIT 180 - 263 Bit worn out

HOURS MOVE — HOURS DRILL 800 - 1200 OTHER

Travel 1.5

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-2 No Return	
		01	2-8 Oxadized pebbly sand	
			8-10 Sandy becoming pebbly silty clay	
10			10-14 silty brown grey clay	
			14-16 slightly silty grey clay	
			16-18 greasy grey clay	
			18-78 very fine sand to silt, occasionally clayey	
20			20-21 tan brown greasy clay	
30				
40				
50				
60				
70			78 - clay seam	
			78-79 Till pebbly sandy clay	
			79-82 BEDROCK Andesite	
		02	minor pyrrhotite or pentlandite	
80		03	82 End of Hole Chalcopyrite	
	EOH			
90				

DATE Jan 29 / 79 HOLE No. R11B GEOLOGIST SMITH DRILLER Jodouin

HOLE LOCATION 195 + 10S 54 + 60E

BIT No. 53741 FOOTAGE ON BIT 0-25 new bit

HOURS MOVE 8:00 - 9:00 HOURS DRILL 9:00 - 15:30 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-20 No Return, no circulation Sands, silts + gravels	
10					
20				20-25 Bed Rock Andesite greem, med to fine gr	
	EOH		01	25 End of Hole	
30					

DATE Jan 30 '79 HOLE No. R119 GEOLOGIST SMITH DRILLER Jadouin

HOLE LOCATION 307+00S 79+20E

BIT No. 53747 FOOTAGE ON BIT 0-53 New Bit

HOURS MOVE 0800-1030 HOURS DRILL 1030-1630 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR.		0-2 No Return	
			2-12 Tan Brown Clay -greasy	
10			12-25 Grey clay -greasy -slightly Silty	
20			25-32 Silt -minor clay	
30			32-48 pebbly sand to pebbly clay grading to sandy +silty clay 45 pebbly sandy silty clay	
40			48-53 BEDROCK granite or diorite	
50	EOH	01		
60				

DATE Jan 31 /79 HOLE No. R120 GEOLOGIST SMITH DRILLER Jadouin

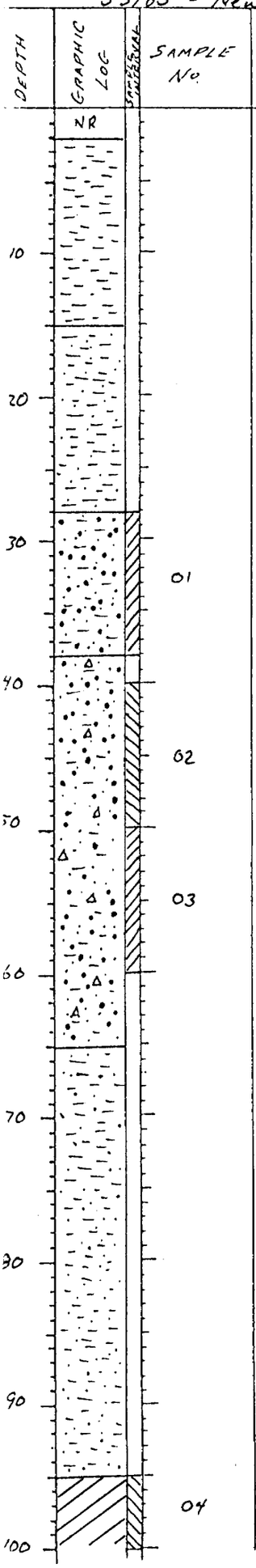
HOLE LOCATION 307+00S 52+80 E

BIT No. 53747 FOOTAGE ON BIT 51-91 Bit worn out at 91'

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

53091 New Bit - destroyed by fragments of 53747

53785 - New Bit started new hole 0-100' bit worn out



DESCRIPTIVE LOG	ANALYSES
0-2 No Return	
2-15 clay + grey, greasy	
15-28 silty clay - grey	
28-38 silty sandy clayey gravel	
TILL 38-65 Sandy gravel to pebbly sandy silt + clay granite, basalt, andesite, limestone diorite + metasediments	
50-52 few pebbles	
65-95 Sandy silty clay	
95-100 BEDROCK Rhyolite - reddish	

DATE Feb 7 /79 HOLE No. R121 GEOLOGIST Smith DRILLER Jodouin

HOLE LOCATION 307+00S 39+60E

BIT No. 53783 FOOTAGE ON BIT 0-72 New Bit

HOURS MOVE _____ HOURS DRILL 0900 - 1200 OTHER _____

1230 - 1330 - down time to replace radiator on compressor

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-2 No Return	
			2-42 Tan brown clay - organics to 4'	
			- slippery	
			- becomes grey at 8'	
10				
20				
30				
40			42-48 clay - slightly silty	
			48-57 clayey silt	
50			57-67 pebbly sand minor silt + clay	
			fine to med. gr. sand	
			diorite, granites, basalt, limestone	
			+ andesite	
		01		
60			67-72 Bedrock Rhyolite	
		02	reddish	
			Porphyritic	
70		03	70' Becomes greyish	

DATE Feb 7 /79 HOLE No. R122 GEOLOGIST Smith DRILLER Jadouin

HOLE LOCATION 307+00S 13+20E

BIT No. 53783 FOOTAGE ON BIT 72-108 Bit worn out

HOURS MOVE _____ HOURS DRILL 1330-1600 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-2 No Return 2-8 clay - tan Brown, greasy 8-18 clay- grey, greasy	
10			18-30 Silt - minor clay	
20				
30		01	30-31 pebbly sand - coarse → med gr sand - diorite, rhyolite, Basalt	
	EoH	02	31-36 BED Rock Rhyolite dark grey 35' light grey with yellow staining - quartz phenocrysts porphyritic	
40			36 End of Hole	

DATE Feb 10, 11 1977 HOLE No. R126 GEOLOGIST SMITH DRILLER Jadouin

HOLE LOCATION 83+80S 19+60W

BIT No. 53742 FOOTAGE ON BIT 263-394

HOURS MOVE ____ HOURS DRILL 845-1230 OTHER ____

1230 - Shut down for day - seal on hydraulic pump worn out No Replacement

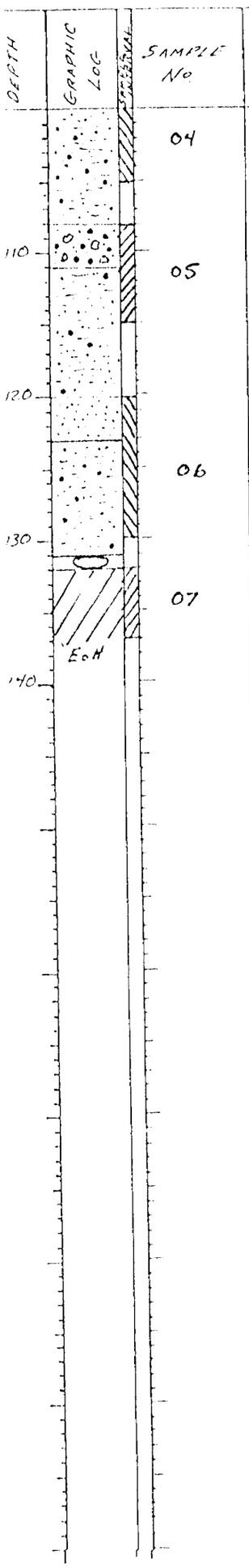
DEPTH	GRAPHIC LOG	STRATIGRAPHY	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR			0-4 No Return 4-8 Clay + tan + humus 8-12 medium grain sand	
10				12-56 clay - grey, greasy	
20					
30					
40					
50				56-57 Sandy clay 57-58 sand-med. to coarse grained 58-96 silt + fine sand - occasional fine pebble beds a few coarse andesite pebbles	
60				65 6" fine gravel + coarse sand 67-68 fine to med gr sand + silt	
70					
80					
90				96-99.5 TILL Pebbly sandy silt and/or clay basalt, andesite, carbonate	
			01		
			02		

DATE Feb 8 1979 HOLE No. R123 GEOLOGIST Smith DRILLER

HOLE LOCATION 55+80 S 21+40 W

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER



SAMPLE No	DESCRIPTIVE LOG
04	98-108 (fine) pebbly clay - sandy to silty mostly basalt, granites, carbonates, meta sediments
	108-111 Coarse pebble to fine cobbles - sand matrix basalt, andesite, granodiorite, limestone, meta sediments
05	111-120 pebbly sandy silty clay
	115-116 silty clay seam
	120-123 silt and fine gr sand
06	123-131 pebbly sandy silty clay - greenish grey colour
	131-132 Boulder - granodiorite
07	132-137 Bedrock diorite fine to med gr. quarty, whitish feldspar, chlorite
	137 End of Hole.

ANALYSES

DATE Feb. 9, 1979 HOLE No. R-124 GEOLOGIST ROBINSON DRILLER

HOLE LOCATION L 55+80 S 5+00 E

BIT No. 53742 FOOTAGE ON BIT 137+11 = 148

HOURS MOVE HOURS DRILL 11:45 - 3:30 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-2 No Return	
		01	2-6 Reddish brown clay with a few mafic pebbles and some fine silt.	
	Poor Return			
10		02	6-8 DIORITE Return was along outside of the drill stem.	
			8-11 DIORITE Gray-black, medium grained, white feldspars visible.	
			11 END OF HOLE	

DATE Feb 10 HOLE No. R125 GEOLOGIST SMITH DRILLER Jodouin

HOLE LOCATION 55 + 80 S 31 + 40 E

BIT No. 53742 FOOTAGE ON BIT 148-263

HOURS MOVE HOURS DRILL 845 - 1645 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	NR		0-2 No Return 2-40 clay - grey, greasy - silty in places	
40			40-67 interbedded sands and silty clay 60-70% clay 47-48' med gr. sand, minor silt	
60			67-107 fine sand and silt	
70				
80				
90				
100				

DATE Feb 10 HOLE No. R125 GEOLOGIST SMITH DRILLER

HOLE LOCATION 55+80 S 31+40 E

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			107 - 110 TILL - well compacted fine gr. pebbles, sand + minor clay matrix mostly andesite & basalt.	
		01		
110		02	110 - 115 BEDROCK - basalt - fine grained dark green	
	EoH			
120				

DATE Feb 10, 11 1977 HOLE No. R126 GEOLOGIST SMITH DRILLER Jadouin

HOLE LOCATION 83+80S 19+80W

BIT No. 53742 FOOTAGE ON BIT 263-394

HOURS MOVE HOURS DRILL 845-1230 OTHER

1230 - Shut down for day - seal on hydraulic pump worn out No Replacement

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-4 No Return 4-8 Clay + tan + humus 8-12 medium grain sand	
10			12-56 clay - grey, greasy	
30				
40				
50			56-57 Sandy clay 57-58 sand-med. to coarse grained 58-96 silt + fine sand a few coarse andesite pebbles - occasional fine pebble beds	
60			65 6" fine gravel + coarse sand 67-68 fine to med gr sand + silt	
70				
80				
90			96-99.5 Till Pebbly sandy silt and/or clay basalt, andesite, carbonate	
	A	01		
	A	02		

DATE Feb 10, 11 1979 HOLE No. R126 GEOLOGIST SMITH DRILLER

HOLE LOCATION 834 60 S 1916 W

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	STRATA	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			02	99.5 - 126 < 15% pebbles - basalts, granites 20-30% sand 30% silt 40% clay 108 - 109 - few pebbles	
110				116 ½' pebbles or cobbles - granodiorite	
120				126 - 131 BEDROCK - Basalt - dark green - fine grained - Graphic granite veins quartz + white feldspar /albite?)	
			03		
130				131 END of Hole	
140					

DATE Feb 12, '79 HOLE No. R127 GEOLOGIST Smith DRILLER Joaquin

HOLE LOCATION 83+80S 6+60E

BIT No. 53742 FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

Breakdown 4hrs - hydraulic pump, change cleats on FN160

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-18 No Return	
10	NR		18-20 Clay - grey, greasy	
20			20-24 Sand - medium gr.; well sorted	
			24-32 Sandy clay - 20% sand	
30			32-64 silt, fine sand	
40				
50				
60			64-78 sandy gravel - fine to coarse pebbles - med. gr. sand basalt, andesite, limestone, diorite, granite metasediments	
		01		
70		02	70 - pebble size decreases percent of metased and diorite increases	
			75 - percentage of pebbles decreases	
			76-77 Boulder - granite or granodiorite	
80		03, 03+10	77-85 Sandy gravel - med. to coarse pebbles diorite, andesite, basalt, rhyolite limestone, granite	
		04	Visible SULFIDES in basalt.	
		05	85-92 Pebbly silty clayey sand basalt, diorite, quartz diorite, metaseds.	
90			88-91 few pebbly - sandy to silty clay	
			90 - epidotized granite pebbles	
		06 Boulder	92-96 Boulder Till - basalt - basalt pebble matrix	
			96-96.5 Sandy silty gravel	
		07	96.5-97.5 Boulder Till - granite ... Till 92 - 102	
100			97.5 - 102 - a few cobbles - coarse pebble to sand matrix	

DATE Feb 12 /79 HOLE No. R127 GEOLOGIST Smith DRILLER Jodouin

HOLE LOCATION R3+80S 6+60E

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0			102 - 103 Boulder - granitic	
		08 Boulder	103 - 142 Sandy gravel - fine to med. pebbles	
			136 pebbles + cobbles with sand	
		09		
110				
		10		
120				
		11		
130				
		12		
140			142 - 148 BED ROCK - dark green fine gr	
			- Basalt	
		13	- quartz feldspar veins	
			148 END of Hole	
150	EOH			

DATE Feb 13 /79 HOLE No. R12B GEOLOGIST Smith DRILLER Jadouin

HOLE LOCATION 83+80S 33+00E

BIT No. 53787 FOOTAGE ON BIT 0-157 - Bit lost down hole

HOURS MOVE HOURS DRILL 0730 - 1900 OTHER Rods pulled at 157

2-10' rods lost in hole, plus bit and sub

New bit #?

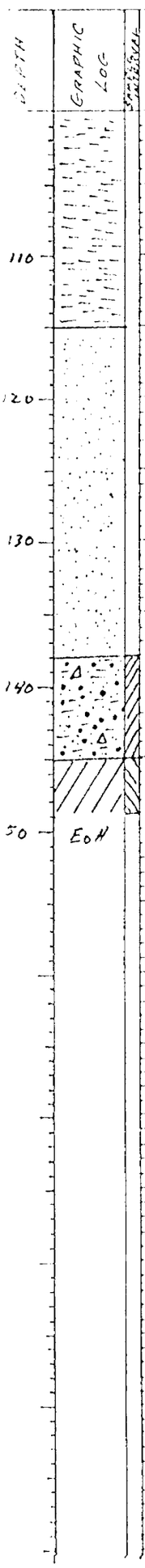
DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	NR		0-4 No Return 4-87 Clay - grey, greasy - silty in spots	
10				
20				
40				
50				
60				
70				
80				
90			82-84 Silt and fine sand 87-92 silt and clay, minor fine sand	
100			92-115 Clay - grey, greasy - minor silt	
110				

DATE Feb 13 /79 HOLE NO. R128 GEOLOGIST Smith DRILLER Jodoin

HOLE LOCATION 83+80 S 33+00 E

BIT NO. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER



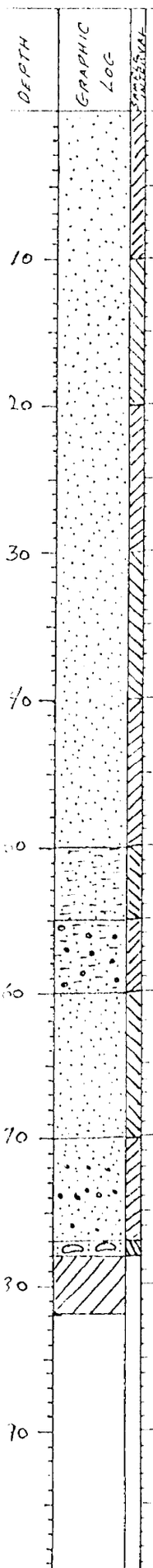
SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	115-138 - silt minor fine sand	
	138-145 Till - sandy silty clayey gravel - fine to med pebbles - mafics, diorite, granite, limestone also sandy silty gravel + gravely sandy silt	
01		
	145-149 BEDROCK - Andesitic basalt	
02		

DATE Feb. 14, 1979 HOLE No. R-129 GEOLOGIST ROBINSON DRILLER JORDAN

HOLE LOCATION L 27+50S 50+80W

BIT No. B52952 FOOTAGE ON BIT 145+82 = 227

HOURS MOVE ____ HOURS DRILL 10:00 - 2:15 OTHER ____



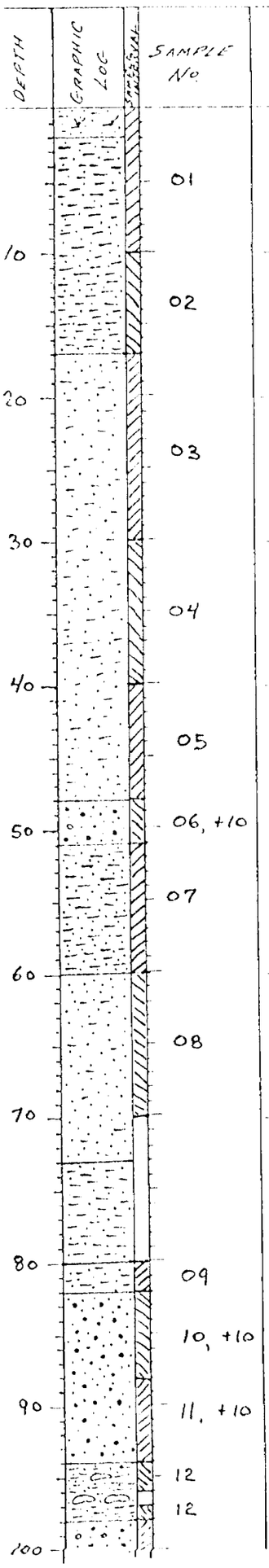
SAMPLE No	DESCRIPTIVE LOG	ANALYSES
01	0-50 Fine sand Well sorted fine quartz sand. A few small pebbles of granite, and feldspar are present locally.	
02		
03		
04		
05		
06	50-55 Minor clay mixed with fine sand	
07 +10 only	55-60 Pebbles of granite, rhyolite quartz, carbonate occur in a fine quartz sand with some clay. Poor Return	
08	60-70 Fine sand as 0-50	
09	70-77 Fine well sorted quartz sand with a few thin pebbly seams.	
10, +10	77-78 Rhyolite and basalt boulders	
11	78-82 Gabbro Black to greenish, medium to coarse grained, massive.	
	82 END OF HOLE.	

DATE Feb. 14, 1979 HOLE No. R-130 GEOLOGIST ROBINSON DRILLER JODOUIN

HOLE LOCATION L27+50S - 77+20W

BIT No. 53784 FOOTAGE ON BIT 0+134 = 134

HOURS MOVE 2:00 - 3:30 HOURS DRILL 3:30 - 5:30 OTHER



SAMPLE No.	DESCRIPTIVE LOG
01	0-4 Humus, organic material with some brown clay and fine sand.
	4-17 Brownish red clay with some fine sand.
02	
03	17-48 Fine well sorted quartz sand with minor gray clay. Up to ½% py specks occur throughout.
04	
05	
06, +10	48-51 Gravel pebbles of granite, rhyolite in fine sand.
07	51-60 Gray lacustrine clay with fine sand and pyrite
08	60-73 Fine sand with a minor amount of clay. well sorted quartz sand
	73-80 Gray lacustrine clay with minor sand.
09	80-82 Fine sand with some clay.
10, +10	82-94 Gravel, pebbles of granites, basalt, diorite, gabbro, rhyolite.
11, +10	
12	94-98 Gray lacustrine clay minor sand 4" granite cobble at 95'
12	96-97 Basalt boulder 98-109 as 82-94 - Gravel

ANALYSES

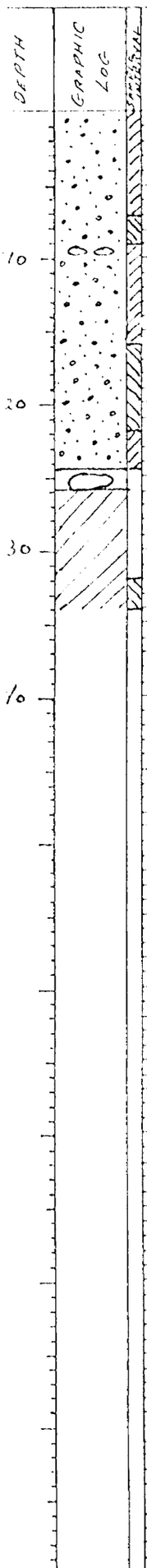
Stopped at 100' on Feb. 14.

DATE Feb. 14, 1979 HOLE No. R-130 GEOLOGIST ROBINSON DRILLER

HOLE LOCATION

BIT No. 53784 FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	98-109 Gravel	
13, +10		
14		
	109-110 Boulders of granite + gabbro.	
15, +10	110 - 124.5 Gravel as 82-94.	
16		
17		
	124.5 - 125.8 Boulder of granite	
	125.8 - 134 Gabbro	
	125.8 - 127.5 The rock was ground up into a green-blue clay.	
18	127.5 - 132 A lot of sand was falling into hole and returning with the gabbro chips.	
	132 - 134 Gabbro green-black, massive, medium grained.	
	134 END OF HOLE.	

DATE Feb 15/79 HOLE No. R-131 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 27+50S 103+60W

BIT No. 53784 FOOTAGE ON BIT 134 - 181

HOURS MOVE ____ HOURS DRILL 12:45 - 13:30 OTHER ____

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
0			0 - 35 Clay - grey + brown - greasy - no grit	
10				
30		01 +10-10	35-41 Pebbly Till - subround to angular pebbles - matrix mainly med sand some clay	
40		02	41 - Bedrock Gabbro - massive - med. grained - green black	
50			EOH 47'	

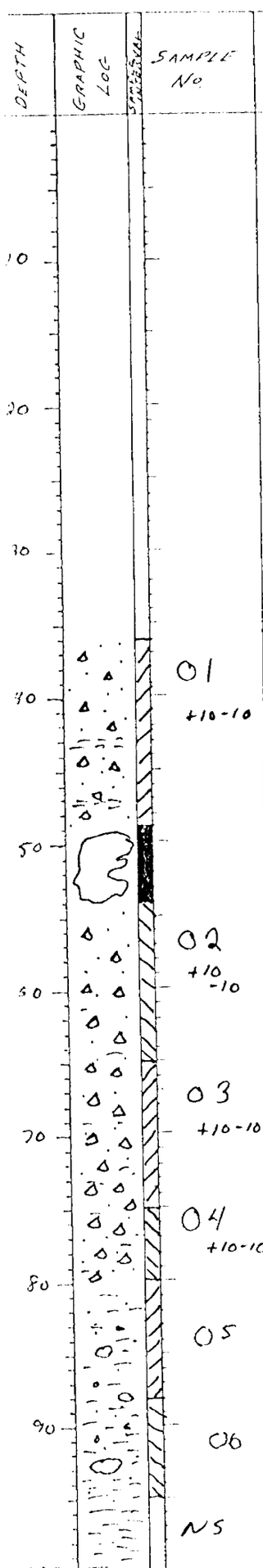
DATE Feb 15 79 HOLE NO. R-132 GEOLOGIST JJM DRILLER Don

HOLE LOCATION L 55+80 S 100+00 W

BIT No. 537 84 FOOTAGE ON BIT 181 - 301

HOURS MOVE 13:30 - 14:15 HOURS DRILL 14:15 - 17:15 OTHER

1/2 shut down, waiting For water



DESCRIPTIVE LOG

0 - 36 No Return
- probably clay

36 - 49 Pebbly Till
- matrix fine sand
- some clay zones

49 - 54 Boulder Gabbro
- green black
- med grained
- minor sulfides (pyrite)

54 - 80 Pebbly Till
- matrix fine sand
- minor clay

80 - 95 Clay
- some sand
- few pebbles
- odd boulders

95 - 100 Clay
- grey
- greasy
- very little grit

ANALYSES

cont'd

DATE Feb 15/79 HOLE No. R-132 GEOLOGIST JFM DRILLER Ron

HOLE LOCATION

BIT No. 128351 FOOTAGE ON BIT 0-12

HOURS MOVE HOURS DRILL OTHER

2hr delay pulling rods to change bit & unclog rods (twice)

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		07 +10-10	100-120 Pebbly Till - matrix sand - minor clay in zones	
110		08 +10-10	120-127 No Return clogged bit	
120		N.S.	127-132 Bedrock Gabbro - green black med grained - mostly ground to clay	
130		09	EOH 132'	
140				
150				

DATE Feb 16/79 HOLE No. R-133 GEOLOGIST Jfm DRILLER Don

HOLE LOCATION L 83+805 97+00W

BIT No. 128351 FOOTAGE ON BIT 12 - 119

HOURS MOVE ____ HOURS DRILL 10:30 - 14:30 OTHER ____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0 - 8 No Return	
			8 - 25 Clay - mostly grey, some brown - very greasy - no grit	
10				
20				
			25 - 60 No Return - some till ≈ 50'	
		NS		
30				
40				
50				
60				
		01	60 - 69 Clay - mostly clay 80% - grey + gritty - few pebbles	
70				
		02 +10 -10	69 - 102 Pebbly Till - matrix 20% clay - sand + silt	
80				
		03 +10 -10		
90				
		04	- 90 - 100 Clay increases to ≈ 50%	
100				

cont'd

DATE Feb 16/79 HOLE No. R-133 GEOLOGIST Jm DRILLER Don

HOLE LOCATION L 83 +80S 97100W

BIT No. 128351 FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

part II

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
0	D. D.	05 +10-10	102 Bed rock Gabbro - dark green - fined grained - ground to a blue-green clay EOH 107'	
		06		
110				
120				

DATE Feb. 18, 1979 HOLE No. R-134 GEOLOGIST ROBINSON DRILLER JODOUIN

HOLE LOCATION L74+80N 87+40W

BIT No. 128349 FOOTAGE ON BIT 0 to 89 = 89

HOURS MOVE 7-10 HOURS DRILL 1^{45} - 5^{30} OTHER

8^{30}-9^{30} change tire 10-1 water carrier wouldn't start

DEPTH	GRAPHIC LOG	STRUCTURE	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR			0-2 No Return 2-6 Gray lacustrine clay 6-38	
10					
20	NR				
30					
40				38-70 Gray lacustrine clay greasy. locally a minor amount of grit is present.	
50					
60					
			01 +10only	67-68 Gabbro boulder	
70				70-87 Gravel and Till pebbles of granite, basalt, rhyolite, diorite and fine sand. The occasional section has clay.	
			02, +10		
			03, +10		
80			04		
			05		
			06		
90				87-89.5 Granite Pale green, very hard medium grained, massive 1½ hr to drill 5 inches. 89.5 END OF HOLE	

DATE Feb 19/79 HOLE No. R-135 GEOLOGIST JJm DRILLER Don

HOLE LOCATION L 74+80N 61W

BIT No. 53790 FOOTAGE ON BIT 0-60

HOURS MOVE _____ HOURS DRILL 10:00 - 11:30 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-8 No Return	
			8-54 Clay - grey + greasy - very little grit - few pebbles	
10				
20				
30		N.S.		
40				
50			54-56 Pebbly Till - matrix clay + sand	
		01 4/10-10		
		02		
60			56-60 Bedrock Rhyolite Porphyry - grey-green - fine grained - phenocrysts ≤ 2 mm - concoidal fracture - highly epidotized - partial replacement of some phenocryst near surface	
70			EOH 60'	
80				
90				
100				

DATE Feb 19/79 HOLE No. R-136 GEOLOGIST Jim DRILLER Don

HOLE LOCATION L 74+80 N 34+65 W

BIT No. 53790 FOOTAGE ON BIT 60-114

HOURS MOVE 11:30-12:00 HOURS DRILL 12:00-13:00 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-5 No Return	
			5-41 Clay - grey, greasy - very little grit	
10				
20				
30				
40				
		01 +1°/10	41-48 Pebbly Till - matrix silt + sand - some clay - minor pyrite in pebbles + sand	
50		02		
			48 Bedrock Schistose Rhyolite - low grade metamorphism - grey green - some foliation - no mineralization	
60			EOH 54'	

DATE Feb 19/79 HOLE No. R-137 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 74+80 N 8+25 W

BIT No. 53790 FOOTAGE ON BIT 114 - 167

HOURS MOVE 13:00 - 13:45 HOURS DRILL 13:45 - 15:15 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-5 No Return	
			5-30 Clay	
			- 5-15' brown	
			- 15-30' grey	
			- greasy	
			- very little grit	
30		01 +10 -10	30-46 Pebbly Till	
		NS	- coarse pebbles	
			- matrix clay, fine sand	
40		02 +10 -10		
			46-48 Boulders + pebbles	
			Granite, minor clay	
50		03	48 Bedrock Granite	
			- altered near surface	
			- minor epidote	
			- fine-medium grained	
			- pink + green	
			- andesite stringers	
			EOH 53'	
70				

DATE Feb 20/79 HOLE No. R-138 GEOLOGIST Jim DRILLER Don

HOLE LOCATION L 74+80N 18+55E

BIT No. 53790 FOOTAGE ON BIT 167 - 292

HOURS MOVE ..... HOURS DRILL 8:45 - 11:15 OTHER .....

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-14 No Return	
10			14-100 Clay - grey, greasy - very little grit - minor layers of brown clay	
30		NS		
50		NS		
70		N.S.		
90				
100				

Cont'd

DATE Feb 20 79 HOLE No. R-138 GEOLOGIST JJm DRILLER Don

HOLE LOCATION L 74+80 N 18+55 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		01 +10 -10	100-120 Pebbly Till - sandy, clay matrix - some sulfides	
110		02 -10	-110-120 clay 75% sand 15% pebbly 10%	
120		03	120 Bedrock Granite - highly altered near surface - pink, fine grained - pyrite, possible magnetite	
			EOH 125'	

DATE Feb 20/79 HOLE No. R-139 GEOLOGIST Jtm DRILLER Don

HOLE LOCATION L74+80N 5+35E

BIT No. 53790 FOOTAGE ON BIT 292 - 368

HOURS MOVE 11:15 - 12:15 HOURS DRILL 12:15 - 14:30 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-7 No Return	
			7-36 Clay - grey, greasy - little grit + pebbles	
10		N.S		
20		N.S		
30			36-71 Pebbly Till - matrix sand + clay - +#1 clay 75%	
40		01 +10 -10		
		02 -10		
50		03 -10		
			-60' clay ≈ 50% fine sand 30% pebbles 20%	
60		04 -10		
70		05	71 Bedrock Granite - grades green to pink - fine grained - altered at surface - pyrite cubes ≤ 2mm - no pyrite in unaltered pink area.	
80			EOH 76'	

DATE Feb 20, 21/79 HOLE No. R-140 GEOLOGIST MacIntosh + KOTILA DRILLER JODOUIN

HOLE LOCATION 74+80N, 31+75E

BIT No. 53790 FOOTAGE ON BIT 368' + 206' = 574'

HOURS MOVE 14:30 - 15:15 HOURS DRILL 15:15 - 17:00 Feb 20; 8:30 - 1:30 Feb 21 OTHER

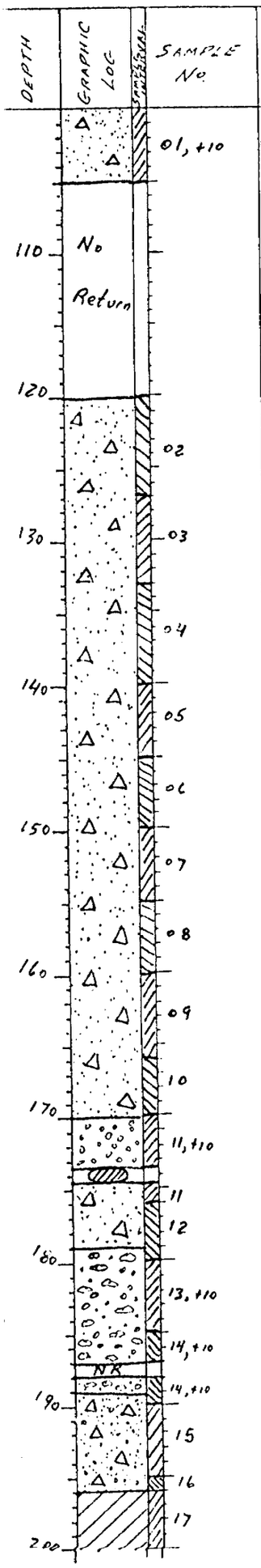
DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 10' No Return	
10			10' - 99' Grey Clay - grey greasy locustrine clay some grit, sand and pebbles	
20				
30				
40				
50				
60				
70				
80				
90				
100			99' - 170' Pebbly Till	

DATE Feb 20, 21/79 HOLE No. R-140 GEOLOGIST MacIntosh KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



DESCRIPTIVE LOG

ANALYSES

continued

79'-170' Pebbly Till
- clay, silt, sand matrix
- minor pebbles with trace pyrite

105'-120' No Return

120'-139' 95% clay, silt, sand
5% pebbles - mafics, granitics carbonates, quartz

139'-140' a few large granitic pebbles

140'-170' 50% basalt, gabbro, andesite and amphibolite
30% granitics, gneisses, pegmatites
20% carbonates
trace to minor quartz and sediments

157' predominately large gabbro and garnetiferous mafic gneisses pebbles

170'-173.5 Pebbly Gravel
10% pebbles
90% silt and sand with only trace clay

173.5-174.5 Basalt Boulder
very fine grained black to very dark green black basalt - minor epidote alteration

174.5-179 Pebbly Till
5% pebbles
95% clay, silt, sand
177.5 red granite cobble

179'-189 Cobbly Gravel
179'-180' minor clay rich till
abundant gabbroic and granitic cobbles
180'-189' 90% fine to coarse sand
10% pebbles and cobbles of which 50% basalt and gabbro
20-40% granitics, 10-30% carbonates
minor amounts of massive pyrite and banded pyrite in mafics
187-188 No Return.

DATE Feb 20, 21/79 HOLE No. R-140 GEOLOGIST MacIntosh + KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
200			18	189' - 196' Pebbly Till 90-95% clay, silt, sand 5-10% pebbles	
			19	196' - 206' Quartz vein in Basalt	
210				196' - 203' massive milky white vein quartz, easily fractured trace to 5% sheared chloritic mafic metavolcanic or intrusive	
				203' - 205' considerable increase in sheared chloritic and saussauritized basalt with only 10-25% quartz and calcite	
				205 - 206 80% quartz vein	
				206' End of Hole	

DATE Feb 21, 22 / 79 HOLE No. R-141 GEOLOGIST KOTILA DRILLER JODOUIN

HOLE LOCATION 741 80 N, 44 + 95 E

BIT No. B 55674 FOOTAGE ON BIT 0 + 164' = 164'

HOURS MOVE 1:30 - 2:45 HOURS DRILL 9:00 - 3:30 Feb 22 2:45 - 5:15 Feb 21 OTHER ½ hr breakdown

--- Wait for water 9:45 - 11:30, 12:15 - 1:30, 2:30 - 3:00

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0 - 79' Grey clay - 100 % greasy grey clay	
10				
20				
30				
40				
50				
60				
70				
80		01, 110	79' - 89' Pebbly Gravel 75 % fine to coarse sand 25 % pebbles 50 % mafic metavolcanics and intrusives with trace to 5 % pyrite 30 % granitics and gneisses 20 % carbonates	
90		02	89' - 164' Grey Till 95 - 99 % clay, silt, sand matrix 1 - 5 % pebbles	
		03		
100				

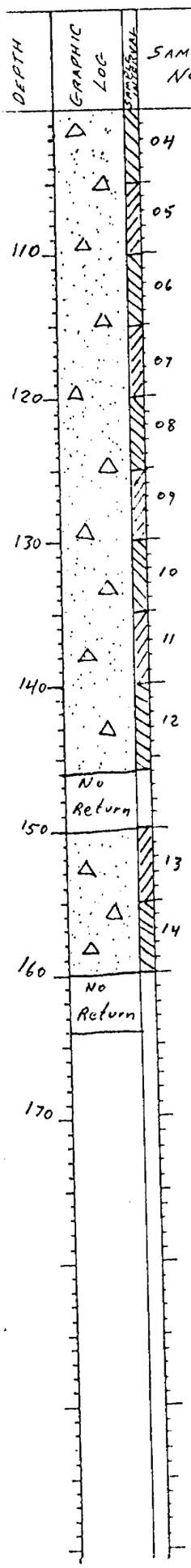
- continued -

DATE Feb 21, 22/79 HOLE No. R-141 GEOLOGIST Kotila DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



DESCRIPTIVE LOG

ANALYSES

continued
89' - 164' Grey Till
95 - 99% clay, silt, sand
1 - 5% pebbles

123' andesite cobble

140' Shutdown Feb 21
141' - 146 sporatic return

146 - 150 only clear water return

150 - 160 sporatic return

160 - 164 clear water return

164' End of Hole
- hole abandoned due to ground conditions

DATE Feb 23, 24, 25 HOLE No. R-142 GEOLOGIST DAM DRILLER Don

HOLE LOCATION L74+80N 58+15 E

BIT No. 55674 FOOTAGE ON BIT 164 - 262*

HOURS MOVE _____ HOURS DRILL 26** OTHER _____

* Bit No 128356 drill footage 13' redrill footage 158'

" " 57428 " " 75' " " 585'

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-3 No Return	
				3-79 Clay - grey, greasy - minor brown clay - very little grit	
10					
20					
30					
40					
50					
60					
70					
80			01 -10	79 - Till - matrix mostly clay - minor fine clay - few cobbles - chert + basalt - some pebbly zones	
90			02 -10		
100			N.S.	98-104 No Return	

Cont'd

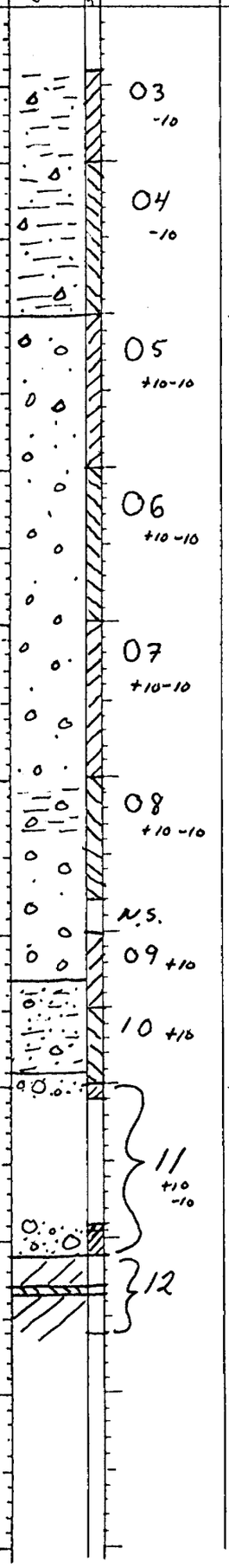
DATE _____ HOLE No. R-142 GEOLOGIST JAM DRILLER Don

HOLE LOCATION L 74 +80 N 58 +15 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

** Wait for water 9 hr, pull rod + redrilling 3 hr 15 min



DESCRIPTIVE LOG	ANALYSES
104-120 Till - mainly hard clay - some pebbles - fine sand -114 clay decrease	
120-163 Coarse Pebbly Gravel - contaminate till with clay + sands washed out -150-153 clay rich zone - 50% Black green mafics, meta volc, meta seds 20% Granitics 20% Carbonates 10% Qtz, seds, etc	
163-169 Poor Return - clay, silt, clay 95% - pebbles 5%	
169-171 Pebbly-Cobbly Gravel 179-181 - 70% Basalt 10% Granitics } 40% Total 10% Gneiss 10% Carbonate - sand 60% total	
-171-179 No Return	
181 Bedrock - Basalt - green, altered - medium grained - soft, turns to blue green to lime green clay 183-183.5 Qtz vein - white - minor chlorite	
EOH 186'	

DATE Feb 26/27/79 HOLE No. R-143 GEOLOGIST KOTILA + MacIntosh DRILLER JODOUIN

HOLE LOCATION 74+80 N, 71+35 E

BIT No. 57428 FOOTAGE ON BIT

HOURS MOVE 8:00-9:45 HOURS DRILL 9:45-5:15 (26 hr) / 9:30-12:45 (27 hr) OTHER

3 hr total/ wait for water

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-5' Organics	
			5'-12' Brown Clay - light brown lacustrine clay	
10			12'-77' Grey Clay - grey greasy lacustrine clay	
20				
30				
40				
50				
60			77'-81' Pebbly Gravel well sorted, subrounded 70% fine to coarse sand 30% pebbles 30% black mafics 20% green mafics 20% granitics 20% carbonates 10% gneisses	
70			81'-87' Cobbly to Pebbly Gravel 81'-87' sporatic return 70% medium-coarse sand 20% pebbles 10% cobbles similar composition as above	
80		01, +10		
		02, +10		
		03		
90			87'-121' Grey Till 87'-90' trace to 5% clay 80% silt to fine sand 10% pebbles 5% cobbles similar composition with traces of rhyolite tuff observed 89.5'-90' gneissic cobble 90'-96' No Return - rods pulled	
			No Return	
		OH		
100				

- continued -

DATE Feb 26, 27/79 HOLE No. R-143 GEOLOGIST Kotila + MacIntosh DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			continued	
		05	87'-121' Grey Till	
			97'-105' 95% clay, silt and sand 5% pebbles rare cobbles	
		06,+10	105'-110' 10% pebbles rare cobbles	
110	No Return		110' shut down Feb 26	
			110'-111' No Return	
			111'-112' Basalt Boulder	
		07	112'-121' mostly clay and sand some pebbles odd cobble	
120			121'-131' Coarse Pebbly Gravel	
			fine sand matrix with a little clay	
		08,+10	abundant pebbles and cobbles	
			70% mafics	
130		09,+10	10% diorite	
			10% granities	
			10% quartz and carbonate	
			at 130' mafics decrease to 40%	
			131'-136' ~~Gabbro~~?	
140			dark green diabase	
			medium grained	
			some orange stained	
			feldspars, mostly in veinlets	
			136' End of Hole	

DATE Feb. 27/79 HOLE No. R-1441 GEOLOGIST JJm DRILLER Dm

HOLE LOCATION L 149N 151+80W

BIT No. 57428 FOOTAGE ON BIT

HOURS MOVE 12:15-14:45 HOURS DRILL 14:45-15:45 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-10 No Return	
10			10-49 Clay - grey, greasy - little grit	
20				
30				
40				
50		01 +10-10 02	49-52 Pebbly Gravel - matrix fine sand, sand - pebbles - mafics - granitics - chert - carbonates	
60			52 Bedrock - ~~Gabbro~~ diabase - green, black - fine - medium grained - abundant disseminated pyrite - veins of epidote ≤ 5mm - veins of red-orange feldspathic material	
70				
80			EOH 57'	
90				
100				

DATE Feb 28/79 HOLE No. R-145 GEOLOGIST JJm DRILLER Don

HOLE LOCATION L 149+80N 125+40W

BIT No. 125356 FOOTAGE ON BIT 13+55:68 redrill 158

HOURS MOVE 15:45-16:30 HOURS DRILL 8:30-9:30 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-5 No Return	
			5-39 Clay - grey, greasy - very little grit	
10				
20				
30				
40			39-50 Pebbly Till - matrix clay, sand - pebbles - granitics - S.O.S. carbonates - mafics	
		01 +10 -10		
50		02	50 Bedrock Rhyolite? - greenish-white - fine grained - chloritized - brown spots, possible iron carbonate - minor metamorphism	
60				
			EOH 55'	
70				
80				

DATE Feb 28/79 HOLE No. R-146 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 149+80N 99+00 W

BIT No. 128356 FOOTAGE ON BIT 68+56-124' redrill 158

HOURS MOVE 9:30-10:15 HOURS DRILL 10:15-12:30 OTHER _____

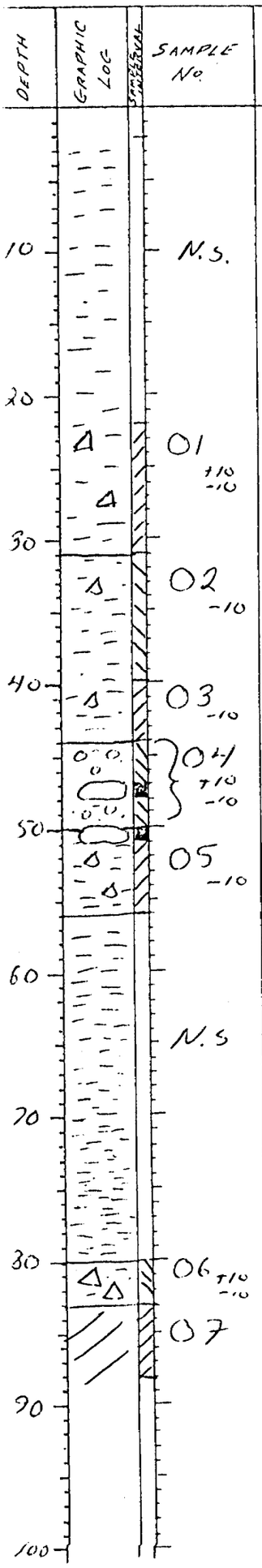
DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-2 No Return	
				2-21 Clay	
				- grey, greasy	
10				- little grit	
				- very minor brown clay	
20				21-40 Till	
				- matrix clay, fine sand	
				- ≥ 60% clay	
			01 +10 -10	- some pebbles	
30				- 32-33 Boulder Gabbro	
			02 +10 -10		
40			N.S.	40-44 Clay	
			03 +10 -10	- blue-green to brown grey	
				- dry + hard	
				- greasy when wet	
50			04	- no grit	
			05	44-50 Coarse Pebbly Gravel	
				- matrix - sand, minor clay	
60				- 75% Mafics	
				- 15% Meta sed + volcanics	
				- 10% Qtz + carbonates	
				- sulfides - in some	
70				50-52.5 Bedrock Rhyolite	
				- dark green	
				- highly altered	
				- siliceous	
80				- abundant pyrite	
				52.5-56 Bedrock Felsic	
				- medium-dark green-grey	
				- siliceous	
				- very minor pyrite	
				EOH 56'	

DATE Feb 28/79 (Mar 1) HOLE No. R-147 GEOLOGIST JAM DRILLER Don redrill 158

HOLE LOCATION L 149 +80 N 72+50 W

BIT No. 128356 FOOTAGE ON BIT 124+88 - 212'

HOURS MOVE 12:30 - 13:15 HOURS DRILL 13:15 - 17:00 / 8:15 - 9:30 OTHER ½ hr to replace water pump



DESCRIPTIVE LOG	ANALYSES
0-2 No Return	
2-22 - Clay - grey, greasy - little grit N.S.	
22-31 Pebbly Till - matrix clay, fine sand	
31-44 Till - 85% grey clay 10% fine sand 5% pebbles	
44-50 Pebbly Gravel - matrix sand, clay - granitics meta sed + meta vols carbonates chert - 47-48 Boulder - biotite schist - 50-51 Boulder, granite	
51-56 Till - 85% clay, 10% sand 5% pebbles N.S	
56-80 Clay - grey + brown grey - hard + dry - greasy when wet - no grit	
80-83 Cobbly Till - matrix clay, fine sand - cobbles granitics + felsics	
83-88 Bedrock Felsic metavolcanic - light green - fine grained - no sulfides - chloritized + altered	

EOH 88'

DATE Mar 1/79 HOLE No. R-148 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 149 + 80 N 51 + 80 W

BIT No. 128355 FOOTAGE ON BIT 0-62

HOURS MOVE 9:30-10:30 HOURS DRILL 10:30-12:15 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-5 No Return	
				5-46 Clay - grey, greasy - very little grit	
10					
20					
30					
40				46-57 Pebbly Gravel - coarse pebbles - matrix sand, coarse sand - 40% Mafics 40% Meta sedst Meta vols 10% Granitics 10% qtz + carbonates	
50			01 +10 -10		
			02 +10 -10		
			03 +10 -10		
			04		
60				57 Bedrock - Altered Basalt - green, fine grained - highly altered + sheared - chlorite on shear surfaces - veins of carbonate - minor epidote - weathered brown on some surfaces	
70					

DATE Mar 1, 2, 3/72 HOLE NO. R-149 GEOLOGIST JPM, Kotila DRILLER Don

HOLE LOCATION L 149 + 80 N 19 + 80 W

BIT No. 128355 FOOTAGE ON BIT 62 + 156 = 218 redrill 171

HOURS MOVE 12.15 - 12.45 HOURS DRILL 12 hrs 45 min OTHER _____

Redrilling 2 hours

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0 - 50 No Return - probably clay	
10				
20				
30				
40				
50	Δ –	01 +10 -10	50-60 Pebbly Till - matrix clay, fine sd. - pebbles, carbonates, qtz, mafics, granitics - seds - 55-60 poor return	
60		N.S.	60-70 No Return	
			70-80 Till - 75% Clay 20% sand 5% pebbles	
70		02 -10		
			80-83 Clay - grey - hard + dry	
80		N.S		
		N.S	83-88 No Return	
			88-109 Clay - blue-grey to brown grey - hard + dry	
90		N.S.		
100				

contid

DATE Mar. 1, 2, 3, HOLE No. R-149 GEOLOGIST JFM, BK DRILLER Ron

HOLE LOCATION L 149 + 80 N 19+80W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

pg 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		N.S.	109-124 Cobbly Till - matrix sand, f sd, clay - pebbles + cobbles	
110		03 +10 -10	40% Meta-vols + sed 30% Mafics 20% Granitics 10% Carbonates + seds	
		04 +10 -10		
120		05 +10 -10	-110-111 No Return	
		06 -10	124-151 Till - 80-90% clay	
130		07 -10	- 5-10% sand silt - ~5% pebbles	
		08 -10	-127'-128 Boulder Gabbro - dark green black - veins of carbonate + epidote	
140		N.S	-128 some pebbles have malacite	
150		09	129-130 Boulder Gabbro	
			151 Bedrock Basalt - dark - moderate green - fine grained, sheared - minor carbonate along shear surfaces	
160			-153-156 very poor return	
170			EOH 156'	
180				

DATE March 3/79 HOLE No. R-150 GEOLOGIST KOTILA DRILLER JODOUIN

HOLE LOCATION 215+00S, 137+30W

BIT No. B57425 FOOTAGE ON BIT 0+90' = 90'

HOURS MOVE 10:30-2:15 HOURS DRILL 2:15-5:45 OTHER ----

---- 3:15-4:00 WAIT FOR WATER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-40' No Return - ease of drilling suggests lacustrine clay	
10	No Return				
20					
30					
40				40'-75' Grey Clay 100% greasy lacustrine clay	
50					
60					
70					
	No Return			75'-80' No Return	
80			N.S.	80'-86' Sand 100% very fine to coarse sand predominately quartz sample probably contaminated therefore discarded	
	No Return			86'-87.5' No Return	
90			01	86'-87' Granitic Boulder ? a few small chips recovered	
				87.5'-90' Basalt medium grained sheared chloritic basalt moderate to dark green	
				90' End of Hole	

DATE March 3, 1979 HOLE No. R151 GEOLOGIST Smith DRILLER Jaoquin

HOLE LOCATION 215+00 S 110+88 W

BIT No. 57425 FOOTAGE ON BIT 90' - 204'

HOURS MOVE _____ HOURS DRILL 0900 - 1500 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		0-12 No Return 12-35 Clay - grey, greasy to sticky	
16				
20				
30			35-108 No Return Clay ?	
40	?			
50				
	?			
60	NR			
70				
	?			
80				
	?			
90				
100				

DATE March 2, 1979 HOLE No. R151 GEOLOGIST Smith DRILLER Jadouin

HOLE LOCATION 215+00S 110+88W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR		108-114 Bedrock - ~~Gabbro or altered basalt~~ - disseminated pyrite · diabase	
110		01	114 EOH	
120				

DATE Mar 4+5 HOLE No. R-152 GEOLOGIST Smith+Jim DRILLER Don

HOLE LOCATION L 215 S 84+88 W

BIT No. 57425 FOOTAGE ON BIT 204+198-402 Redrill 157'

HOURS MOVE _____ HOURS DRILL 11 hrs. OTHER _____

Pull rod + redrill 1 hour, Wait for more rod 3 hours

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-10 No Return	
10			10-50 Clay - grey, greasy - silty & slightly sandy	
20				
		N.S.		
30				
40				
50			50-80 No Return	
		N.R.		
60				
70				
80			80-137 Very Limited Return - clay, grey, greasy - very little grit	
		N.S.		
90				
100				

DATE Mar 4+5 HOLE No. R-152 GEOLOGIST Smith + Jm DRILLER Don

HOLE LOCATION L215 S 84+88 W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

pg 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
110		N.S		
120				
130		N.S.		
140		01 +10 -10	137-157 - Sand - fine - medium grained - some coarse sand - few small pebbles - poor return	
150				
160		02 -10	157-198 Silt, very fine sand - no clay - very few small pebbles - poor return	
170		03 -10	EoH 198' Hole Abandoned - rods jamming bad	
180		04 -10		
190		05 -10		
200				

DATE March 6, 79 HOLE No. R153 GEOLOGIST SMITH DRILLER Jadowin

HOLE LOCATION 215 S 58 + 08 W

BIT No. 57425 FOOTAGE ON BIT 402 - 419 Bit worn out

HOURS MOVE _____ HOURS DRILL 10:00 - 16:30 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-2 Organics	
			2-12 Clay - tan brown, silty to sandy	
10			12-17 Bedrock - Andesitic basalt - fine grained - green - disseminated pyrite	
		01		
20			17 EOH diabase	

DATE March 6, 1979 HOLE No. R154 GEOLOGIST Smith DRILLER Jodoin

HOLE LOCATION L162 +305, 47+52 W

BIT No. 108310 FOOTAGE ON BIT 0-110 New bit

HOURS MOVE _____ HOURS DRILL 1000 - 1630 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-4 Organics	
			4-12 Clay - tan brown, silty	
10			12-35 Clay - grey, greasy, slightly silty	
20				
30			35-68 fine silt - poor return	
40				
50				
60			68-80 Sandy Gravel - fine gr. sand. - med gr. pebbles diorite, mafics, gneisses minor carbonate	
70		01	75' - 10% granite pebbles	
			76-77 - Diorite Boulder	
		02	77 - mostly diorite + granite, minor mafics	
			79-80 - silt and fine sand	
80		03	80-85 Till 5% pebbly, 25% sandy, 30% silty, 40% clay mostly basalt + diorite pebbles	
		04	85-99 Sandy Gravel mafics, diorite, granite, carbonate	
90		05	87-88 Boulder - granite	
		05+10	91 - quarty - chalcocite veining	
			94-95 minor silt	
		Not Sampled		
100				

DATE March 6, 1979 HOLE No. R154 GEOLOGIST Smith DRILLER _____

HOLE LOCATION L162S 47+52W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		06	99-105 Till - pebbly sandy to silty clay	
			105-110 Bedrock - Andesitic tuff - fine grained - green	
		07		
110			110 EOH	

1

DATE March 7,8/79 HOLE No. R155 GEOLOGIST 7th Smith 8th SAM DRILLER Joaquin

HOLE LOCATION L135 +90S 42+20W

BIT No. 10831O FOOTAGE ON BIT 110-225 Bit worn out

HOURS MOVE _____ HOURS DRILL 0800-1600 OTHER _____

18402 New bit 0-153 | 8th 8:00-10:00 15 min wait for water

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-2 No Return	
			2-12 Clay - tan, greasy - slightly silty	
10			12-43 Clay - grey, greasy - slightly silty to sandy	
20		N.S.		
30				
40			43-62 Sand - minor pebbles + clay	
		01	- 50' - pebbles > 30% - basalt, andesite granite, diorite	
50		02	- 57' - pebble size increases to medium	
		03	- > 50% pebbles	
60		04	- 60' gabbro + carbonate pebbes present	
			62-84 Pebbly Till - matrix silt, clay sand	
70		05	- pebbles - granite basalt	
		06	- 66 increase in clay	
80			- 74-75 Boulder - Gabbro	
			84-112 No Return	
90	?	N.S.		
100	?			

DATE Mar 7,8/74 HOLE No. R-155 GEOLOGIST Smith DRILLER Don

HOLE LOCATION L135 1905 42+20W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
110			112 - 116 Sandy Gravel	
		07		
120			116 - sandy, silty, clay - extremely hard - minor pebbles.	
		08		
130			130 - 153 Very little Return	
		09		
140				
150			153 Bedrock - Rhyolite - meta volcanic - pale green - fine grained - altered + chloritized - very minor pyrite	
		10		
160				
170			EOH 156'	
180				
190				
200				

DATE Mar 8/79 HOLE No. R-156 GEOLOGIST JTM DRILLER Don

HOLE LOCATION L 109+10S 41+40 W

BIT No. 18 4 5/8 FOOTAGE ON BIT 0-102'

HOURS MOVE 10-11:15 HOURS DRILL 11:15-13:15 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-24 No Return	
10				
20			24-30 Clay - grey, greasy - little grit	
30		N.S		
		01 +10 -10	30-45 Pebbly Gravel - matrix sand + fine sand - 40% Mafics 30% Granitics 20% Meta volcanics + meta sediments 10% Qtz + carbonates	
40		N.S		
		02 +10 -10		
		03 -10	- 40-42 Clay, grey, dry hard, little grit	
50			45-70 Clay Till - matrix clay, sand, silt - 50% Clay 35% sand, silt 10% pebbles 5% Cobbles	
		04 -10		
60		05 -10		
70			70-89 Sand - fine sand + silt - no pebbles	
		06 -10		
			89-97 - Pebbly Gravel - 50% sand silt 50% pebbles	
80		07 -10		
			97 Bedrock Rhyolite - amber yellow - brown - fine grained - sheared - sericitized - qtz phenocrysts	
90		08 +10 -10		
		09	EOH 102'	
100				

DATE March 13/79 HOLE No. R157 GEOLOGIST Smith DRILLER Jadoui

HOLE LOCATION 307+00S 49+25W

BIT No. 18405 FOOTAGE ON BIT 102 - 151

HOURS MOVE _____ HOURS DRILL 0700 - 1700 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-6 ORGANICS	
			6-43 Clay - grey, very greasy, soft	
10				
20				
30				
40			43-45 No Return	
	NR		45-49 BEDROCK - Andesite or Altered Basalt - greyish, aphanitic	
		81	45-47 disseminated to banded pyrrhotite	
50	EOH		49 End of Hole	

DATE Mar 14/78 HOLE No. R-158 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 278+80 S 49+60 E

BIT No. 18442 FOOTAGE ON BIT 0-130

HOURS MOVE _____ HOURS DRILL 10:30-15:45 OTHER _____

2½ hours waiting for water

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
10		N.S	0-30 Clay - 0-12' brown 12-30' grey - greasy - very little grit	
20			30-124 No Return	
30				
40	?			
50				
60	?			
70				
80	?			
90				
100	?			

DATE Mar 14/78 HOLE No. R-158 GEOLOGIST JMM DRILLER Ron

HOLE LOCATION L278+80S 49+10E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

pg 2

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	P.			124' Bed rock – Rhyolite - green, altered - medium grained - possible altered phenocrysts - very minor pyrite	
110			N.S		
	P.				
120				EOH 130'	
			01		
130					

DATE MARCH 15/79 HOLE No. R-159 GEOLOGIST KOTILA DRILLER JODOUIN

HOLE LOCATION 278+80 S, 75+90 E

BIT No. 18442 FOOTAGE ON BIT 130' + 74' = 204'

HOURS MOVE 7:30 - 9:45 HOURS DRILL 9:45 - 11:00 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-15' Very Sporatic Return - trace brown clay	
10				
			15'-70' Sand 100% very fine to medium grained brown sand very well sorted predominately quartz	
20				
30				
40				
50				
60				
70		01	70'-74' Rhyolite - dark greyish green colour - aphanitic, concoidal fracture - occasional quartz phenocrysts - abundant chlorite in the matrix - bit broke	
80			74' End of Hole	

DATE MARCH 15/79 HOLE No. R-160 GEOLOGIST KOTILA DRILLER JODOUIN

HOLE LOCATION 278+805; 23+10E

BIT No. 18437 FOOTAGE ON BIT 0+37': 37'

HOURS MOVE 11:00-12:30 HOURS DRILL 12:30 - 1:30 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 4' No Return	
			4' - 12' Brown Clay - greasy lacustrine clay	
10			12' - 30' Grey Clay - greasy lacustrine clay	
20			30' - 32' Pebbly Till 90 % sand with 10 % clay 10 % pebbles 50 % mafics 30 % granitics 20 % carbonates	
30		01		
		02	32' - 37' Rhyolite 32' - 34' aphanitic dark green chloritic rhyolite 34' - 37' aphanitic grey rhyolite with chloritic sections especially on shear planes	
40			37' End of Hole	

DATE MARCH 17/79 HOLE No. R-161 GEOLOGIST KOTIKA DRILLER JODOUIN

HOLE LOCATION 54+60 S, 61+00 W

BIT No. 18404 FOOTAGE ON BIT 0+83' = 83'

HOURS MOVE MARCH 16th/79 HOURS DRILL 11:15 - 2:15 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 4' No Return	
			4' - 12' Brown Clay - greasy lacustrine clay	
10			12' - 72' Grey Clay - greasy lacustrine clay	
20				
30				
40				
50				
60				
70	No Return		72' - 78' No Return 72' - 75.5' probably clay 75.5' - 76' probably gravel 76' - 78' possibly compact gravel or till or bedrock	
80		01	78' - 83' Basalt - very sporatic return - very small sample - dark greenish black fine grained basalt - trace to 1/8% pyrite	
90			83' End of Hole	

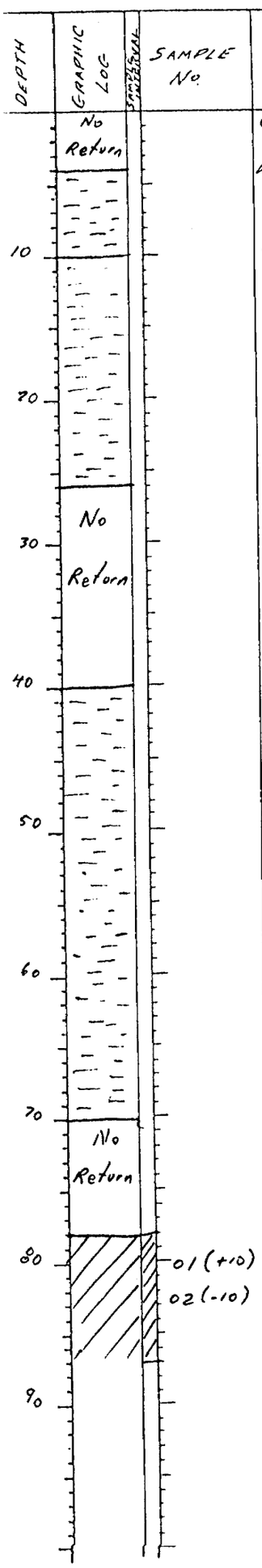
DATE March 17/79 HOLE No. R-162 GEOLOGIST KOTILA DRILLER JODOUIN

HOLE LOCATION 82+30 S, 0+00

BIT No. 18404 FOOTAGE ON BIT 83' + 87' = 170'

HOURS MOVE 2:15 - 3:15 HOURS DRILL 3:15 - 5:45 OTHER ---

--- wait for water 4:15 - 4:30



DESCRIPTIVE LOG

0 - 4' No Return

4' - 10' Brown clay

10' - 70' Grey Clay

26-40' No Return
probably clay

70' - 78' No Return
70'-77' probably gravel or till
77'-78' probably bedrock

78' - 87' Rhyolite.
- very sporatic return
- very small samples
01 is +10 size
02 is -10 size
- aphanitic light grey to pale green rhyolite
- abundant up to 10% pyritic sections - appears banded.
- calcite vein at 87'

87' End of Hole

ANALYSES

DATE Mar 18/79 HOLE No. R-163 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 82 +30S 45 +80E

BIT No. 18404 FOOTAGE ON BIT 170 – 275'

HOURS MOVE _____ HOURS DRILL 9:30 - 11:45 OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-4 No Return	
			4-12 Brown Clay	
10		N.S.	12-22 Grey Clay - greasy - little grit - odd pebble	
20			22-40 Very Little Return	
30				
40			40-89 No Return	
50				
60				
70				
80			88-89 Boulder - no return	
			89-92 Sand - fine sand + silt - few pebbles	
90		N.S.		
		01	92 Bedrock - Andesite - green - fine grained - altered + chloritized - carbonate veining	
		N.S.		
100				

DATE Mar 18/ 79 HOLE No. R-163 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 82+30S 45+80E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

page 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
100		N.S. 01	EOH 105'	
110				
120				

DATE Mar 18-20 79 HOLE No. R-164 GEOLOGIST Jim Kotila Smith DRILLER Don

HOLE LOCATION L 82 + 30 S 26 + 20 E

BIT No. 18400 FOOTAGE ON BIT 0-160

HOURS MOVE 11:45-12:30 HOURS DRILL 13 hours OTHER

--new bit 108309 0-30 + 160 redrill 2 3/4 hr shutdown fix chuck

redrill 8:30 - 4:30

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-2 No Return	
			2-85 Clay	
			-2-10 brown	
10			10-85 grey	
			- greasy	
			- little grit, odd pebble	
20				
30				
40		N.S		
50				
60				
70				
80			85-100 Poor Return	
90		N.S	100-113 No Return	
100				

DATE Mar 18-20/79 HOLE No. R-164 GEOLOGIST MYKYS DRILLER Don

HOLE LOCATION L 82+30 S 26+20 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

pg 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			113-114 Boulder - Mafic	
			114-115 Clay Till	
110			115-116 Boulder - Altered Dacite	
			116-120 Clay Till - matrix clay, sand, silt - ∠ 25% pebbles	
120		01 -10		
			120-136 (Redrill) Clay Till - sandy to silty clay - ∠ 10% pebbles	
130				
			136-137 Pebbly Gravel - pebbles 40% quartz 10% carbonate 50% Dacite	
140				
			137-160 No Return - minor fine sand + silt	
150				
			160-182 Silt + ~~Clay~~ Clay	
			182-185 Clay - grey, greasy	
160				
			185-187 Pebbly Sand - poor return	
170				
		02 -10	187 Bedrock Rhyolite - light greenish - very hard - 189' 4mm wide qtz-calcite - sphalerite vein - sample 03-10 04-10	
180				
		03		
		04		
190			EOH 190'	
200				

DATE MARCH 20/79 HOLE No. R-165 GEOLOGIST KOTILA DRILLER JODOUIN

HOLE LOCATION 162+30S, 21+10W

BIT No. 28453 FOOTAGE ON BIT 0 to 85'

HOURS MOVE 11:30-1:00 HOURS DRILL 1:00 - 4:45 OTHER 1:45 - 3:00 WAIT FOR WATER

9:30 - 11:30 fix chuck

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 2' No Return	
			2' - 12' Brown Clay - greasy lacustrine clay	
10			12' - 76' Grey clay - greasy lacustrine clay	
20				
30				
40				
50				
60				
70			76' - 83' No Return 76-78' probably clay 78-80' slightly harder than clay 81' very sporatic return of pebble till	
80	No Return	01	83' - 85' Andesite green colour, fine to medium grained - minor calcite veining - very hard - silicified ? - bit broke.	
90			85' End of Hole	

DATE Mar 21/79 HOLE No. R-166 GEOLOGIST jpm DRILLER Ron

HOLE LOCATION L162+30S 5+20E

BIT No. 18 4/5 1 FOOTAGE ON BIT 0-140

HOURS MOVE _____ HOURS DRILL 9:00 - 13:15 OTHER _____

15 minutes work on muskie 3/4 hour wait for water

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				0-74 Clay - 0-14 brown 14-74 grey - greasy - little grit - odd pebble	
10					
20					
30					
40					
50					
60				74-78 No Return	
70				78-80 Poor Return - clay Till - clay, fine sand - few pebbles	
	?		NS		
80			N.S.		
			01 -10	80-90 Poor Return - sand, fine sand silt - several pebbles	
90			02 -10	90-120 Poor Return - Clay Till - matrix sand, clay, silt - < 20% pebbles	
100					

DATE Mar 21/99 HOLE No. R-166 GEOLOGIST JM DRILLER Don

HOLE LOCATION L162+36S 5+20E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

page 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		03 -10	120 -136 Very Poor Return - Clay Till	
110		04 -10		
120		05 -10		
130				
140		06	136 Bedrock - Andesite - green, fine grained - highly altered - chloritized - nearly schistose	
150			EOH 140'	

DATE May 21/79 HOLE No. R-167 GEOLOGIST JM DRILLER Don

HOLE LOCATION L162 +30 S 31+60 E

BIT No. 28454 FOOTAGE ON BIT 0-120'

HOURS MOVE 13:15-14:00 HOURS DRILL 14:00-16:30 OTHER _____

15 minute wait for water

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-48 Clay - 0-12 brown 12-48 grey - greasy - odd pebbles - little grit	
10				
20				
30				
40				
			48-53 Pebbly Gravel - matrix - sand, fine sand - 35% Granitic 30% Carbonates 20% Mafics 15% Meta volcanics	
50		01 +10 -10		
		02 -10		
			53-60 Clay Till - matrix clay sand silt	
60				
		N.S.	60-80 Very little Return	
70				
			80-100 Sand - fine sand & silt - odd pebble - poor return	
80		03 -10		
90				
100				

DATE Mar 21/79 HOLE No. R-167 GEOLOGIST JPM DRILLER Don

HOLE LOCATION L 162 + 30 S 31 + 60 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

page 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		N.S.	100 - 105 Clay - brownish grey - very dry + hard	
110		N.S.		
			105 - 116 Fine Sand + Silt - poor return	
120		O/L N.S		
			116 Bedrock Dacite - blue-green white - medium grained - some garnets	
130			120' EOH	

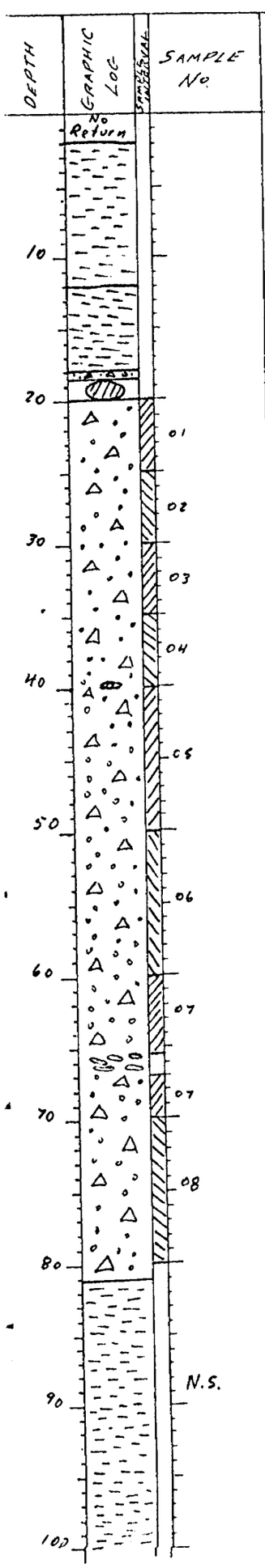
DATE MARCH 22/79 HOLE NO. R-168 GEOLOGIST KOTIKA DRILLER JODOUIN

HOLE LOCATION 2157005, 6+60 W

BIT NO. 28457 FOOTAGE ON BIT 0+144' = 144'

HOURS MOVE 8:30 - 9:30 HOURS DRILL 9:45 - 11:00, 1:45 - 4:45 OTHER ____

Maintenance 9:30 - 9:45, 11:00 - 1:45



DESCRIPTIVE LOG	ANALYSES
0-2' No Return	
2'-12' Brown Clay - greasy lacustrine clay	
12'-18' Grey Clay - greasy lacustrine clay	
18'-18.5' Grey Till 80% gritty grey clay 20% pebbles	
18.5'-20' Pink Granitic Boulder	
20'-81' Grey Till 10% pebbles 90% gritty clay with sand to greasy grey clays	
20'-24' gritty clay	
24'-30' greasy clay	
30'-35' only 10% gritty clay 25% +10 gravel 65% sand	
35'-40' 25% gritty and greasy clay 10% pebbles 65% sand	
39'-39.5' granitic cobble	
40'-81' 10-20% pebbles 10-50% clay rich sand 40-80% sand	
65.5'-66' gneissic cobbles 66'-67' coarsely crystalline actinolite feldspar quartz calc-silicate boulder	
81'-126' Clay - 95-100% compact hard greasy lacustrine clay	

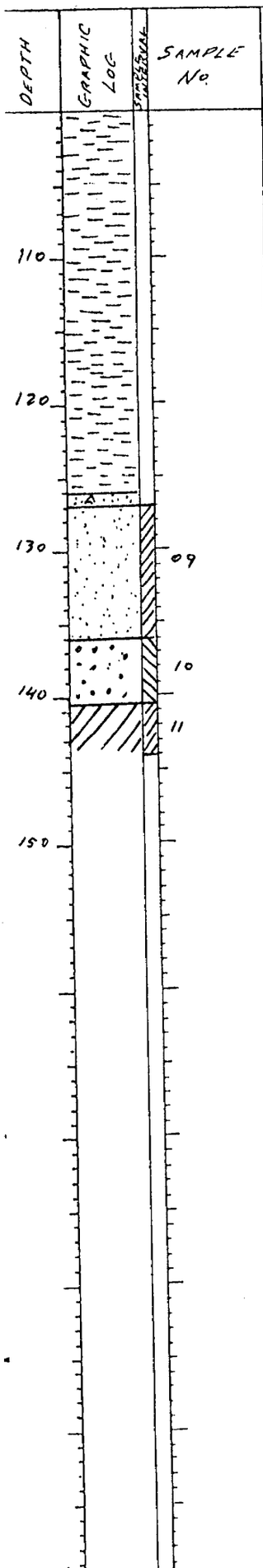
- continued -

DATE MARCH 22, 23/79 HOLE No. R-16B GEOLOGIST KOTIKA + SMITH DRILLER

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER



DESCRIPTIVE LOG

continued

81-126' Clay
- compact lacustrine clay

110' shutdown 22^14

119-119.5' clay with fine pebbles

126'-127' Till ?
- pebbles in clay

127'-136' Sand
- fine sand and silt

136'-140.5' Sandy Gravel
50% medium sand
50% fine to coarse pebbles
80% mafics

140.5'-144' Basalt
- highly chloritized and altered
- dark green, aphanitic
- minor quartz veining
- minor disseminated pyrite
- albitized feldspar veins ?

144' End of Hole

ANALYSES

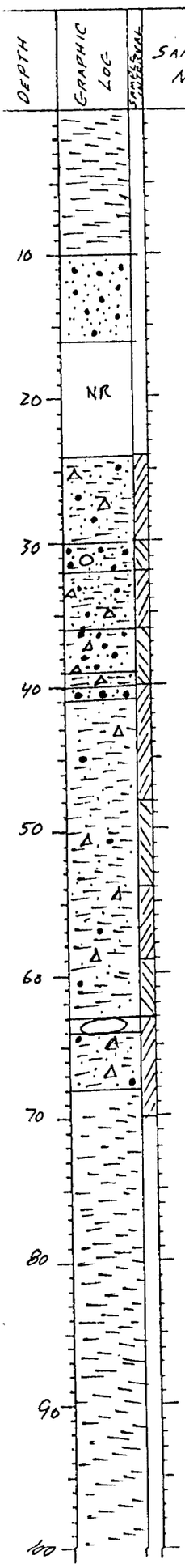
DATE March 23/79 HOLE No. R169 GEOLOGIST Smith DRILLER Jordain

HOLE LOCATION L 215+00S 33+00 W

BIT No. 28457 FOOTAGE ON BIT 144 - 235 Bit worn out

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Hole drilled on creek bed.



DESCRIPTIVE LOG	ANALYSES
0-10 Clay - grey, greasy	
10-16 pebbly sand - probably fluvial 10% pebbles - mafics	
16-24 No Return	
24-30 slightly pebbly sandy silt rclay (clay till) - small pebbles - variety of types	
30-32 pebbly till - clay to sand matrix a few cobbles	
32-36 clay till — similar to 24-30	
36-39 Alternating pebbly till and sandy gravel	
39-40 Clay till	
40-41 pebbly gravel	
41-63 Clay till - grey hard - slightly sandy to silty pebbly	
48-50 >50% sand	
50-63 - becomes clay rich again	
63-64 Boulder — diorite or gneiss	
64-68 Clay till	
68-106 clay - grey, hard	

DATE _____ HOLE No. R169 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
				106-109 Sandy gravel - mostly mafics	
				109-111 Bedrock - Andesite or andesitic basalt - fine gr. - light green - veined with whitish minerals	
			10		
110			11		
	EOH			111 END OF HOLE	
120					

DATE Mar 24 HOLE No. R-170 GEOLOGIST JM DRILLER Blais

HOLE LOCATION L 162 + 30S 33180E

BIT No. 53797 FOOTAGE ON BIT 111 - 281

HOURS MOVE _____ HOURS DRILL 10:15 - 16:45 OTHER _____

1.5 hours wait for water

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-20 No Return	
10			20-40 Clay - greasy, grey - little grit	
20		N.S		
30			40-56 No Return	
40		N.S		
50			56-70 Clay Till - matrix - clay, sand - <10% pebbles	
60		01 -10	70-80 - Sand - sand, fine sand silt - odd pebble	
70		02 -10		
80			80-100 No Return	
90		N.S.		
100				

DATE Mar 24/79 HOLE No. B-170 GEOLOGIST JPM DRILLER Blais

HOLE LOCATION L162+605 33+80E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

pg 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
110		03 -10	100-126 Clay Till - matrix sand, clay, silt - ~25% pebbles	
120		04 -10		
130		05 -10	126-168 Poor to No Return - gravel - pebbly - possible bedrock on angle ≈ 1½' - couldn't get a bite on it	
140			168 Bedrock - Andesite ? - green, fine grained - altered & chloritized - soft	
			EOH 170'	
150				
160				
170		06		
180				

DATE MARCH 26, 27, 28 HOLE No. R-171 GEOLOGIST KOTHA, SMITH MACINTOSH DRILLER JODOUIN

HOLE LOCATION 215+00S, 9+80E

BIT No. 38465; 38466 FOOTAGE ON BIT 0+122' = 122'; 0+28' = 28' + 122' redrill

HOURS MOVE 9:00 - 1:00 HOURS DRILL 1:00 - 4:45 26¼ OTHER

MARCH 25 - No drilling due to storm; March 26 - Late start due to storm

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0 - 4' No Return	
			4' - 8' Brown Clay	
10			8' - 18' Grey Clay - initially 100% greasy lacustrine clay, then 1-5% sand with trace pebbles	
			18' - 31' Till 10% gritty clay 10% pebbles 80% sand	
20		01		
30		N.S.	31' - 38' Clay - hard, com greasy grey lacustrine clay - with minor gritty clay, sand and trace pebbles	
			38' - 42' Pebbly Gravel 75% medium - coarse sand 25% pebbles - sorted, well rounded, sub-spherical 40% carbonates 30% mafics 30% granitics and others	
40		02, +10		
		03, +10		
50			42' inches thick till section	
			42' - 47' Cobbly to Pebbly Gravel - similar composition to above gravel 46' inches thick till section	
		04		
			47' - 78' Till 40% gritty clay with sand 10% pebbles occasional cobbles 54.5' - 55' granitic cobble 70' - 78' thin compact lacustrine clay units	
60		05		
70		06		
			78' - 99.5' Clay - hard compact greasy grey clay - with gritty clay and sandy sections - minor pebbles	
80				
90		N.S.		
			99.5' - 100.5' Pebbly Gravel 75% Sand, 25% pebbles 60% mafics 10% carbonates 30% granitics, gneisses	
100		07		

- continued -

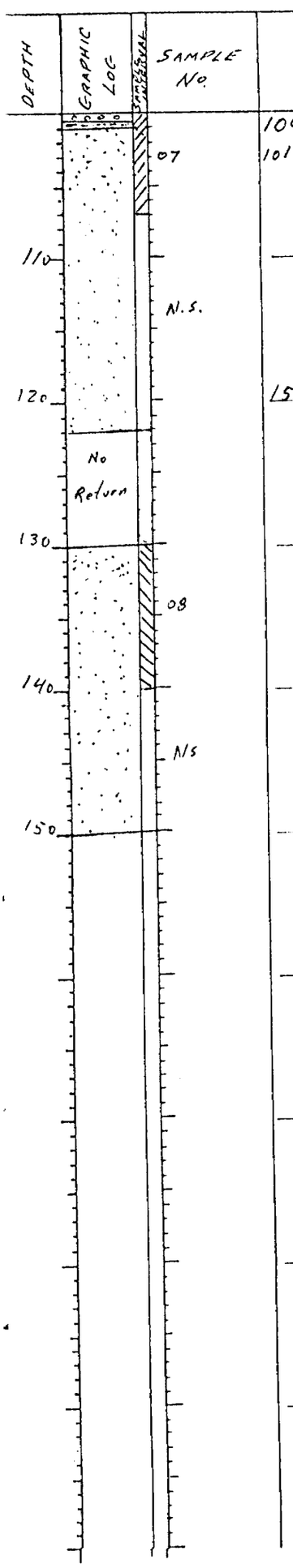
DATE MARCH 26, 27, 28 HOLE No. R-171 GEOLOGIST KOTIKA SMITH MacINTOSH DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

MARCH 27: 8:30 - 10:30 replace pump MARCH 28 do. 9:15 - 12:00



DESCRIPTIVE LOG	ANALYSES
100.5 - 101 clay	
101' - 150' Sand	
- very sporatic return	
- fine to coarse sand predominately medium to coarse grained, well sorted	
- minor small pebbles	
115' shut down March 26	
122' pull rods, replace bit	
130' shut down March 27	
150' End of Hole	
Hole Abandoned	

DATE MARCH 28/79 HOLE No. R-172 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 267+70S, 321+40E

BIT No. 28455 FOOTAGE ON BIT 82'+50' = 132'

HOURS MOVE 1:30-2:20 HOURS DRILL 2:20-4:45 OTHER

DEPTH	GRAPHIC LOG	SAMPLE INTERVAL	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	NR			0-1' No Return 1'-10' Organics - minor brown clay	
10				10'-34' Grey Clay - greasy lacustrine clay - minor sand - trace pebbles	
20					
30				34'-36' Black Blue Amphibolite Boulder	
				36'-46' Grey Till 10% pebbles 90% very clay rich till with sand	
40			01		
			02	46'-50' DACITE - quartz and feldspar porphyritic ≈ 10% each - light grey green colour - very hard - abundant thin quartz veins	
50			03		
				50' End of Hole	

DATE Mar 28/79 HOLE No. R-173 GEOLOGIST Jim + Kotila DRILLER Don

HOLE LOCATION L 215 46E

BIT No. 108335 FOOTAGE ON BIT 0 - 120

HOURS MOVE 12:00 - 13:45 HOURS DRILL 7hour 15min OTHER

2hour wait for water

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-10 Clay - brown - yellow - little grit	
10		01 10-10	10-14 Pebbly Gravel - matrix - sand, fine sand	
		02 -10	- pebbles 60% granitics 20% carbonates 10% Mafics 10% Metamorphics	
20		03 -10		
			14-15 Boulder Altered Granite	
30		04 -10	15-72 Sandy Till - matrix - silt, fine sand clay	
			- 25% pebbles - wavy	
40		05 -10	- clay increases at depth - 62-65 poor return	
50		06 -10		
60		07 -10		
70		08 -10	72-90 Clay - grey - hard + dry	
		N.S.	- poor return	
80				
90		09	90-100 Sand - poor return	
100				

DATE Mar 28-29/79 HOLE No. R-173 GEOLOGIST JM+KS/LA DRILLER Don

HOLE LOCATION L215 S 4/6E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

page 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			100-108 No Return - using Quik-Trol + diesel fuel mixture - minor silt + pebbles	
110			108-109 Boulder - Basalt - medium-coarse grained - dark green	
		10		
120			109-114 No Return - trace of pebbly gravel	
130			114-115 Boulder Granodiorite	
			115 Bedrock Basalt - medium-coarse grained - dark green - weathers rusty - trace pyrite	
140			EOH 120'	

DATE March 29 HOLE No. R174 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L267+70 19+80W

BIT No. 28455 / 18433 FOOTAGE ON BIT 132'-140' / 0'-8'

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-4 clay - Brownish, organics	
			4-7 clay - tan, sandy	
			7-12 BEDROCK - Dacite or altered Rhyolite - weathered.	
10		01	12-16 - quartz veining	
		02	15-16 - fresh	
			16 END OF HOLE	
	EOH			
20				

DATE March 30, 1979 HOLE No. R-175 GEOLOGIST SMITH DRILLER JODOUIN

HOLE LOCATION L94+40 S 28+60 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

--- Not being charged for bit

DEPTH	GRAPHIC LOG	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
			0-9 Clay - tan brown, greasy, sandy	
10			9-22 Clay - grey, greasy	
20			22-74 No Return - Gravel?	
30				
40				
50	NR			
60				
70				
	? - Δ ? . ?		74-80 Poor Return - Clay till and sand	
80		01	80-86 BEDROCK - Basalt or Andesite? - highly altered to chlorite + seppentine - fine to medium grained	
	EOH		86- END OF HOLE	
90				

DATE March 29 HOLE No. R176 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L267+70 46+20W

BIT No. 18433 FOOTAGE ON BIT 8-124

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-8 Clay - tan, Sandy	
			8-90 Clay - grey, greasy, slightly silty	
10				
20				
30				
40				
50				
60				
70				
80				
90		01	90-96 fine to coarse sand + med. to fine gravel variety of pebble types	
			96-98 clay till - slightly pebbly to sandy clay	
100			98-107 Clay - grey, greasy, hard	

DATE _____ HOLE No. R176 Cont'd GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			107-111 pebbly sand - mostly matics	
110		02	111-116 BEDROCK - chloritized Basalt - soft	
		03		
			116 END OF HOLE	
120				

DATE Mar 31/79 HOLE No. R-177 GEOLOGIST Jim DRILLER Don

HOLE LOCATION L 94+40 S 6+50 W

BIT No. 108334 FOOTAGE ON BIT 0-142

HOURS MOVE _____ HOURS DRILL 9:00 - 5:30 OTHER _____

Bit No 18452 0-38' 1.25 hours pull + redr. #1, ½ hour wait for water

DEPTH	GRAPHIC LOG	GEOPHYSICAL	SAMPLE No	DESCRIPTIVE LOG	ANALYSES
				0-110 Clay - 0-10' brown 10-110' grey - greasy - little grit - 20-60 poor return	
10					
20					
			N.S.		
30					
40					
50					
60					
			N.S.		
70					
80					
90					
100					

DATE May 31/79 HOLE No. R-177 GEOLOGIST JM DRILLER Don

HOLE LOCATION L 94 1+40 S 6+50W

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

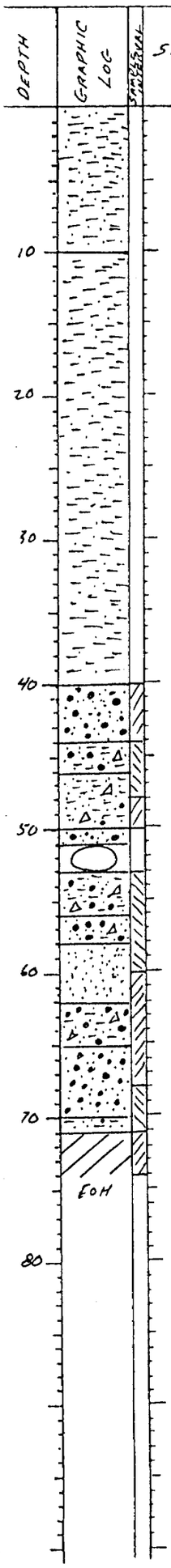
DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
110		N.S.	110 Pebbly Gravel - matrix sand, fine sand - very poor return - 125 - 127 Boulder - Diorite 130 - 130.5 Boulder - Diorite	
120		01 -10		
130		02 -10		
140		N.S	148 - 150 Clay Till	
150		03 -10	150 - 165 Pebbly Sand - matrix sand, fine sand - 25% pebbles - poor return	
160		N.S.	165 Bedrock Andesite - green - fine grained - highly chloritized - stringer of qtz - some pyrite cubes	
170			EOH. 170'	
180				

DATE March 29, 1979 HOLE No. R-178 GEOLOGIST Smith DRILLER Gagne

HOLE LOCATION L41+70S 18+60E

BIT No. 18433 FOOTAGE ON BIT 124-198

HOURS MOVE _____ HOURS DRILL 1245 - 1500 OTHER _____



SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	0-10 clay - tan brown, sandy to silty	
	10-40 clay - grey, greasy, slightly sandy to silty	
01	40-44 (coarse to med.) Pebbly (coarse to fine) Sand - 70% mafics	
02	44-46 Till (20%) Pebbly (40%) Sandy Clay	
03	46-50 Clay Till and Till - minor pebbles - generally sandy silty clay 47-48 Pebbly Till	
NS	50-51 Gravel and Sand	
	51-53 Boulder - Basalt - chloritized	
	53-56 clay Till - ~~sl~~ slightly pebbly, sandy to silty	
04	56-58 Pebbly Till and Pebbly Sand - 70% mafics	
	58-62 Sand - fine grained	
	62-65 Pebbly Clayey Till	
05	65-70 Gravel and Sand - pyrite in basalt pebbles	
06	70-71 Sandy silty clay - minor pebbles	
07	71-74 BEDROCK - Dacite or Andacite - quartz veined - fine grained, light green - iron staining - disseminated pyrite	
	74 END OF HOLE	

DATE MARCH 31 /79 HOLE No. R-179 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 68+20S; 9+25W

BIT No. 108332; 108336 FOOTAGE ON BIT 129'+95' = 224'; 0+35' = 35' + 95' redrill

HOURS MOVE 8:30-9:30 HOURS DRILL 9:30-1:45 OTHER

Maintenance 10:15-11:00 change hose fittings

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0-2' No Return	
			2'-18' Brown Clay - greasy lacustrine clay - rare pebbles	
10				
			18'-37' Grey Clay - gradational colour change - greasy lacustrine clay	
20				
30				
		01	37'-40' Pebbly to Cobbly Gravel 10% gritty to greasy grey clay 65% fine to coarse sand 25% pebbles to cobbles 40% granitics, gneisses 20% carbonates 40% mafics	
40				
			40'-94' Grey Clay - soft, greasy lacustrine clay	
50				
60				
70				
			94'-107' Pebbly Gravel 94-95' very poor return change bit. 50% medium-coarse sand 40% pebbles 10% cobbles and small boulders 30-40% mafics 30-40% granitics 10-20% carbonates 5-20% rhyolites, dacites	
80				
90		02, +10		
100				

- continued -

DATE MARCH 31/79 HOLE No. R-179 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		03, +10		
		04, +10	107'-112' Till 10% gritty clay 20% pebbles and cobbles 70% sand	
110		05, +10		
		06, +10	112'-125.5' Pebbly to Cobbly Gravel initially trace to 5% gritty clay 80-90% sand 10-20% pebbles and cobbles 30-50% matics 30-50% granitics 10% carbonates trace to 20% rhyolite and pyritic dacite	
		07, +10		
120		08, +10		
		09	125.5'-128' Basalt - strongly chloritic and schistose - moderate to dark green - abundant quartzofeldspathic veining - minor quartzofeldspathic - tourmaline - pyrite veining	
		10		
130			128'-130' Rhyolite 128'-129' - strongly sheared light green to light brown altered rhyolite - dacite? 129'-130' fresh, aphanitic light green to white rhyolite 130' quartz - tourmaline vein	
			130' End of Hole	

DATE March 29, 1979 HOLE No. R180 GEOLOGIST Smith MacIntosh DRILLER Gagne

HOLE LOCATION L 41+70S 7180 W

BIT No. 18433 FOOTAGE ON BIT 198 - 292

HOURS MOVE _____ HOURS DRILL ~~200~~ _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-14 Clay - tan brown, sandy	
10			14-30 Clay Grey, greasy, slightly sandy to silty	
20				
30		01	30-37 (60%) Sand, (40%) Gravel - medium sand, medium gr. pebbles - 60% mafics	
			37-37.5 Pebbly clay till	
		NS	37.5-38.5 Boulder - Basalt, weathered	
40		02	38.5-40 Cobble till - mafics & granitics	
			40-41 Sand and Gravel	
		03	41-43 Pebbly till - 60% mafics	
			43-59 Sand and Gravel (50:50) - medium to fine gr. pebbles - minor clay - diminishes downwards	
50		04	50 - pebble size increases (medium to coarse)	
		05	57 - 1' of minor Clay	
			59-60 Boulder - Basalt, pyritic	
60		06	60-65 Pebbly Till 60-70% pebbles matrix of sand, clay and silt	
		07, +10	65-69 Pebbly Gravel - sand matrix - 50% carbonates, 30% mafics 20% granitics	
70			69-80 Clay - grey, hard, minor grit	
		NS		
80		08, +10	80-89 Pebbly Gravel - sand and silt matrix 40% carbonates, 35% mafics, 25% granites	
		09, +10	89-94 BEDROCK - Gabbro - green, fine to medium grained - some epidote - carbonate veins - minor pyrite	
90		10		
	Eoh		94 END OF HOLE	
100				

DATE Mar 30/78 HOLE No. R-181 GEOLOGIST GPM DRILLER Gagn

HOLE LOCATION L 68+20 S 10+60 E

BIT No. 108332 FOOTAGE ON BIT 0-129

HOURS MOVE 13.30-14.15 HOURS DRILL 14.15-16.30 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			0-4' Organics	
			4-84' Clay	
			-4-12' brown	
			-12'-84' grey	
			- greasy	
			- minor grit	
			84-103 Sandy Gravel	
			- matrix sand + fine sand	
			- 10% pebbles	
		01		
		02		

DATE Mar 30/78 HOLE No. R-181 GEOLOGIST JM DRILLER Gough

HOLE LOCATION L 68 + 20 S 10 + 60 E

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

Page 2

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
		03 103-110	103-110 Clay Till - matrix - clay, fine sand, silt - < 5% pebbles	
110		04 110		
		N.S.	110-119 Clay - grey, hard / dry - little grit	
120		N.S.		
		05 119-10	119-121 Clay Till - matrix clay, sand - < 10% pebbles	
130		06		
			121-125 Pebbly Till - matrix sand, clay silt - 60% pebbles	
140			125 Bedrock ~~Gabbro~~ - green black diabase - fine - medium grained - minor pyrite - some epidote	
150			EOH 129'	
160				

DATE MARCH 31/74 HOLE No. R-182 GEOLOGIST KOTILA DRILLER GAGNE

HOLE LOCATION 94+40 S, 11+00 W E

BIT No. 38473 FOOTAGE ON BIT 0+178' = 178'

HOURS MOVE 1:45-2:45 HOURS DRILL 2:45 - 6:15 OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
	No Return		0-6 No Return	
			6'-7' Brown Greasy clay	
10			7'-124' Grey clay - greasy lacustrine clay - minor grit and sand - occasional pebble	
20				
30				
40				
50				
60				
70				
80				
90				
100				

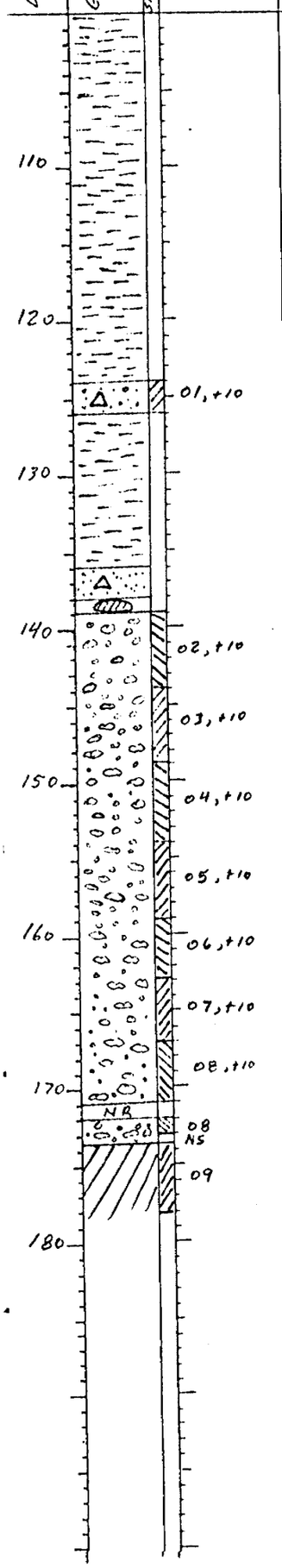
- Continued -

DATE MARCH 31/79 HOLE No. R-182 GEOLOGIST KOTILA DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



DESCRIPTIVE LOG

ANALYSES

continued

7'-124' Grey Clay

124'-126' Till

- increasing clay content with depth

124 - 124.5 1-5% clay
124.5 - 125 5-10% clay
125 - 126 10-80% clay

pebbles decrease from 25% to 5% from 124'-126'

pebbles predominately mafics, with granitics and carbonates, minor rhyolite

126'-136' Clay

- hard compact greasy lacustrine clay, occasional pebbles

136'-138' Till

- very clay rich sand with 5% pebbles

138'-139' Gabbro Boulder

139'-173.5' Cobbly Gravel

70% Sand

30% pebbles and cobble fragments

50% mafic metavolcanics and metasediments
10% gabbro
5% rhyolite
10% carbonate
25% granitics

abundant gabbroic and basaltic cobbles and small boulders

171-172 No Return

173.5'-178' GOSSAN BEDROCK

- intensely weathered basalt? Gabbro?
- easily forms yellow and brown clays
- 177.5' only partially weathered bedrock

178' End of Hole

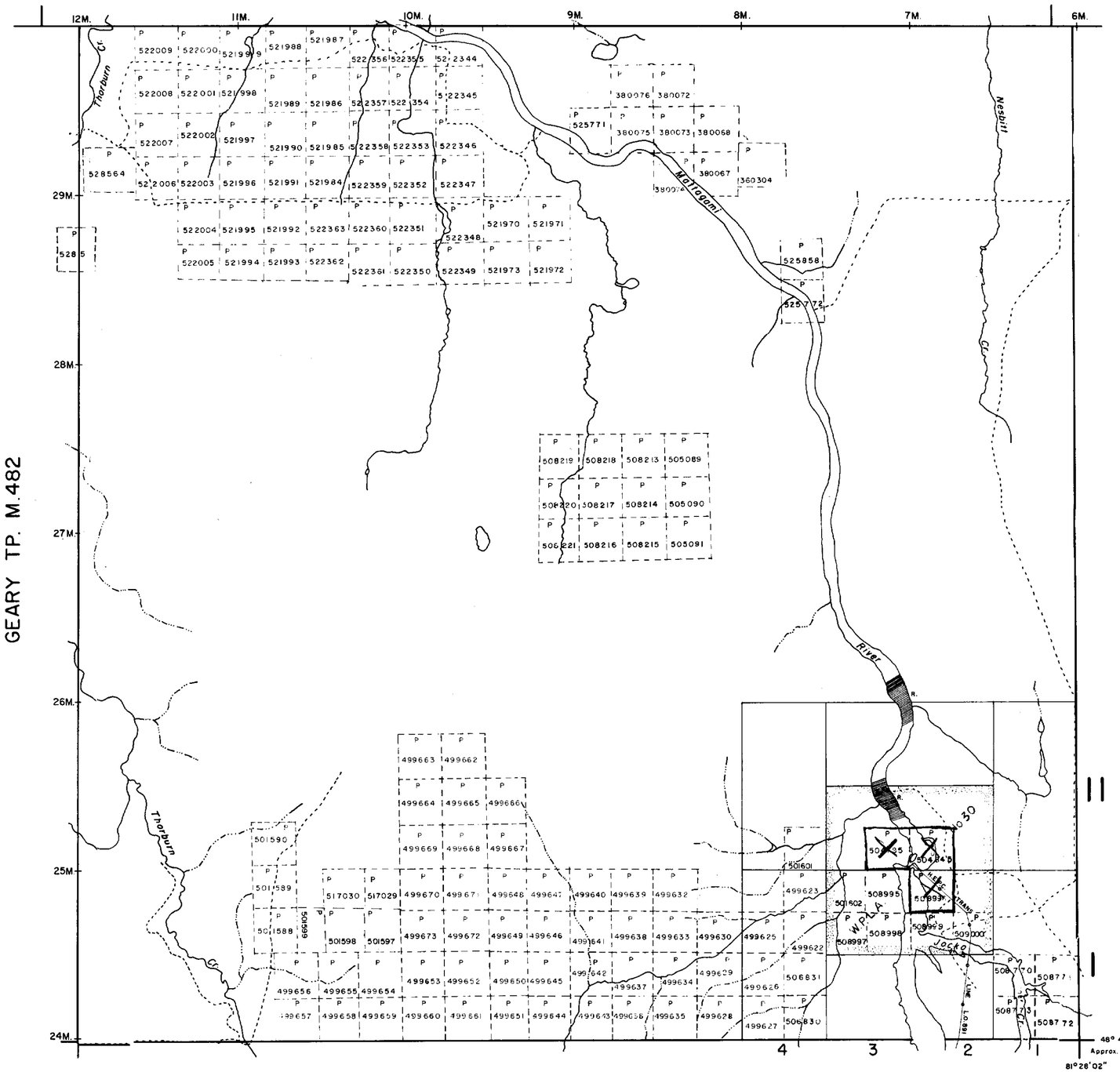
NOTES

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

Subdivision of this township into lots and consessions is partially annalled July 2, 63.

L.O. 7085 - Flooding Rights in lots 1, 2 and 3, Con. I to H.E.P.C.

AUBIN TP. M.407



GEARY TWP. M.482

CRAWFORD TWP. M.457

REID TP. M.575

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT. SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	◒
" MINING RIGHTS ONLY	◒
LEASE. SURFACE & MINING RIGHTS	■
" SURFACE RIGHTS ONLY	■
" MINING RIGHTS ONLY	■
LICENCE OF OCCUPATION	▼
CROWN LAND SALE	C.S.
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊗
SAND & GRAVEL	

SCALE : 1 INCH 40 CHAINS

FEET 0 500 1000 2000 4000 6000 8000

METRES 0 200 400 600 800 1 KM 2 KM

ACRES	HECTARES
40	16

TOWNSHIP 2.2972

MAHAFFY

DISTRICT

COCHRANE

MINING DIVISION

PORCUPINE

Ministry of Natural Resources

Ontario Surveys and Mapping Branch

Date MAY 3, 1973

Whitney Block Queen's Park, Toronto

Plan No. M.540

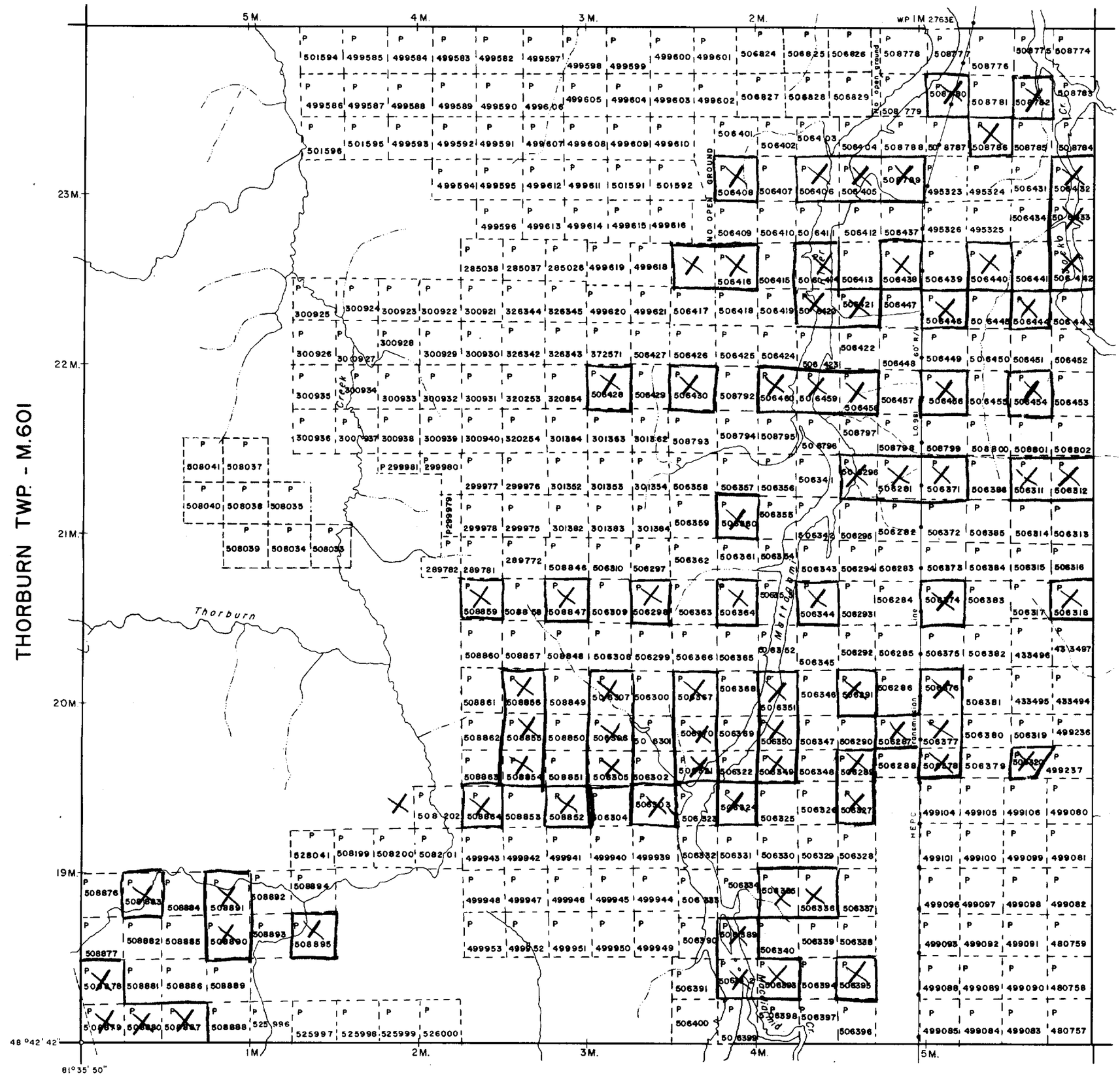
200

MAHAFFY TWP. - M.540

THORBURN TWP. - M.601

CARNEGIE TWP. - M.441

MACDIARMID TWP. - M. 294



THE TOWNSHIP OF

2.2972

REID

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

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

NOTES

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

Subdivision of this twp. into lots and concessions annulled Aug. 19, 1953.

Flooding rights for areas along Mattagami River are reserved to Ontario Hydro. L.O.7085

DATE OF ISSUE
MAY 29 1979
SURVEYS AND MAPPING BRANCH

PLAN NO. M.575

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

105000 N

30000 E

GEARY TWP.

THORBURN TWP.

MAHAFFY TWP.

REID TWP.

CRAWFORD TWP.

CARNEGIE TWP.

N

Jocko Creek

Kidd Creek

Enid Creek

Mattagami River

Kamiskotia River

LOVELAND TWP.

ROBB TWP.

MACDIARMID TWP.

JAMIESON TWP.

30000 N

100000 E

John Lake

2.2972

LEGEND

⊕ R-161 · Overburden hole location and number (prefixed by R)

+V8433 Outcrop sample location and number (prefixed by I,V,M,T)

Claim post and line

522338 Claim number (prefix by P)

Trail

Township boundary

MILES 1 0 1

KILOMETRES 1 0 1

GULF MINERALS CANADA LIMITED

REID PROJECT

DEEP OVERBURDEN HOLE LOCATIONS

ONTARIO

DATE:	SCALE:	DRAWN BY:	PLATE:
03-MAY-79	1 INCH = 1/2 MILE		

42A14SW0185 2.2972 LOVELAND

105000 N
30000 E

GEARY TWP.
THORBURN TWP.

MAHAFFY TWP.
REID TWP.

CRAWFORD TWP.
CARNEGIE TWP.

LOVELAND TWP.
ROBB TWP.

MACDIARMID TWP.
JAMIESON TWP.

30000 N
100000 E

N

LEGEND

34-64,38,42/211 — Overburden hole location and number (prefix by R) – average Cu, Zn, Ni (values in ppm/foot) / depth of overburden

Outline of claims

Township boundary

SAMPLE CALCULATION

$$\overline{Cu} = \frac{\sum_{1}^{n} (\text{Cu ppm} \times \text{sample length})}{\text{depth of overburden}}$$ where n = number of samples

MILES
1 0 1
1 0 1
KILOMETRES

John Lake

2.2972

Gulf Minerals Canada Limited

REID PROJECT

AVERAGE ASSAY VALUES

ONTARIO

DATE:	SCALE:	DRAWN BY:	PLATE:
03-MAY-79	1 INCH = 1/2 MILE		

42A145NE010S 2.2972 LOVELAND

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

2.2972

M.601

THORBURN

PORCUPINE MINING DIVISION

DISTRICT OF COCHRANE

Scale - 40 Chains = 1 Inch

NOTE

400' Surface Rights Reservation around all Lakes and Rivers.

GEARY

NORTH AST.

5M. 4M. 3M 2M. 1M.

1.43

0.51

79.83

79.14

80.37

79.83

69.68

78.20

MOBERLY

REID

Thorburn Creek

Enid Creek

5M 4M 3M 2M 1M

P 500675 P 500074

P 516566 P 516567

P 516569 P 516568

P 516570 P 516571

P 500092 P 500093

P 500095 P 500094

P 515690 P 515689

P 515691 P 515692 P 521776

P 515694 P 515693 P 521775

P 521770 P 521771 P 521774

P 521772 P 521773

P 508748

P 500672 P 500677

P 500673 P 500676

P 500675

P 515521 P 515528 P 515529 P 515536 P 515537 P 515501 P 515508 P 515509 P 515516 P 515517

P 515522 P 515527 P 515530 P 515535 P 515538 P 515502 P 515507 P 515510 P 515515 P 515518

P 515523 P 515526 P 515531 P 515534 P 515539 P 515503 P 515506 P 515511 P 515514 P 515519

P 515524 P 515525 P 515532 P 515533 P 515540 P 515504 P 515505 P 515512 P 515513 P 515520

P 60211 C P 60374 C

P 60218

5M. 4M. 3M. 2M. 1M.

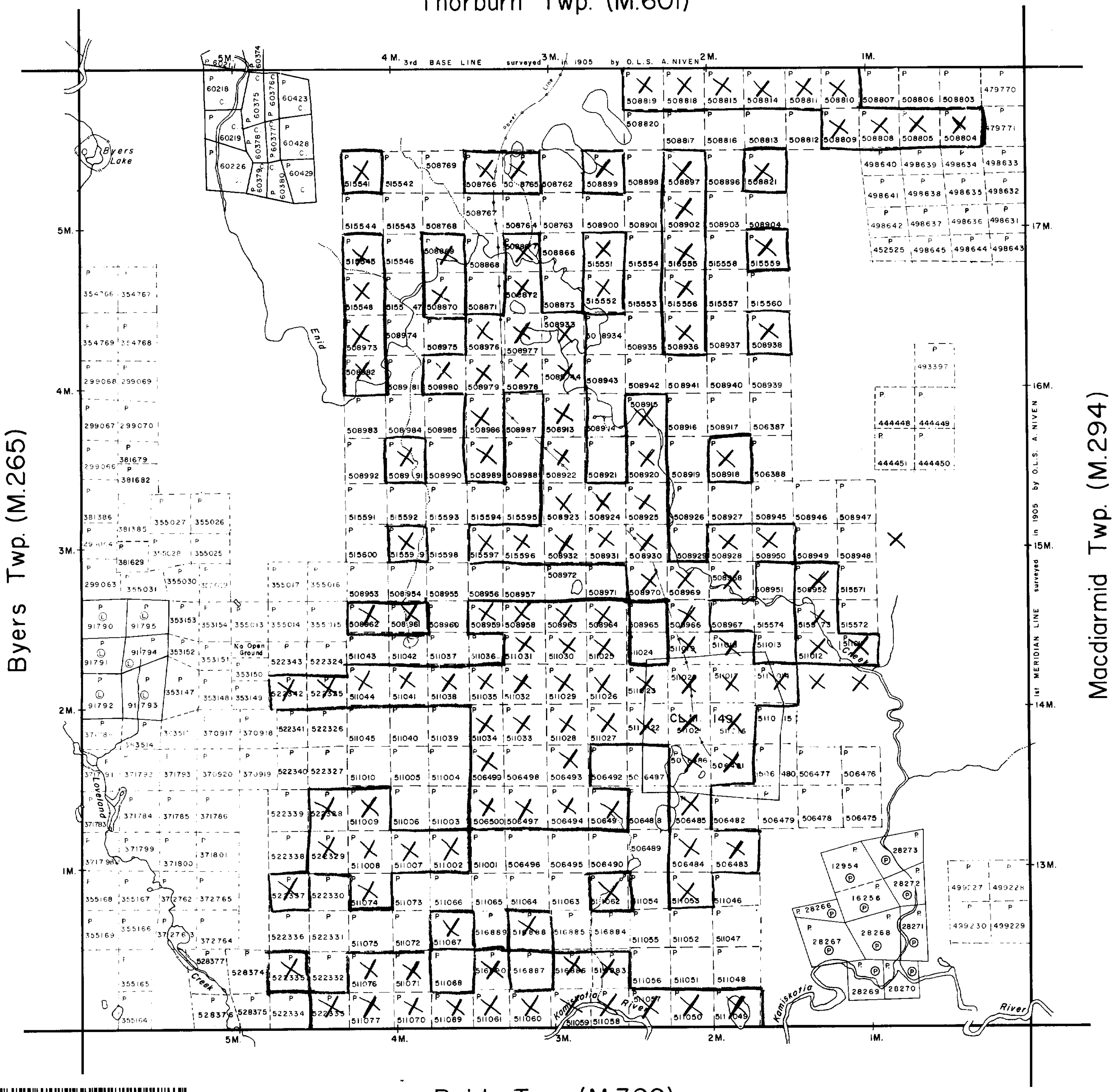
DATE OF ISSUE

MAY 29 1979

SURVEYS AND MAPPING BRANCH

LOVELAND

42A14SW0105 2.2972 LOVELAND



2.2972

THE TOWNSHIP OF

LOVELAND

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

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

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers

This township lies within the Municipality of CITY of TIMMINS.

DATE OF ISSUE
MAY 29 1979
SURVEYS AND MAPPING BRANCH

PLAN NO. M-293

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A14SW0105 2.2972 LOVELAND

250