DIAMOND DRILLING

TOWNSHIP: SOTHMAN

REPORT NO: 36

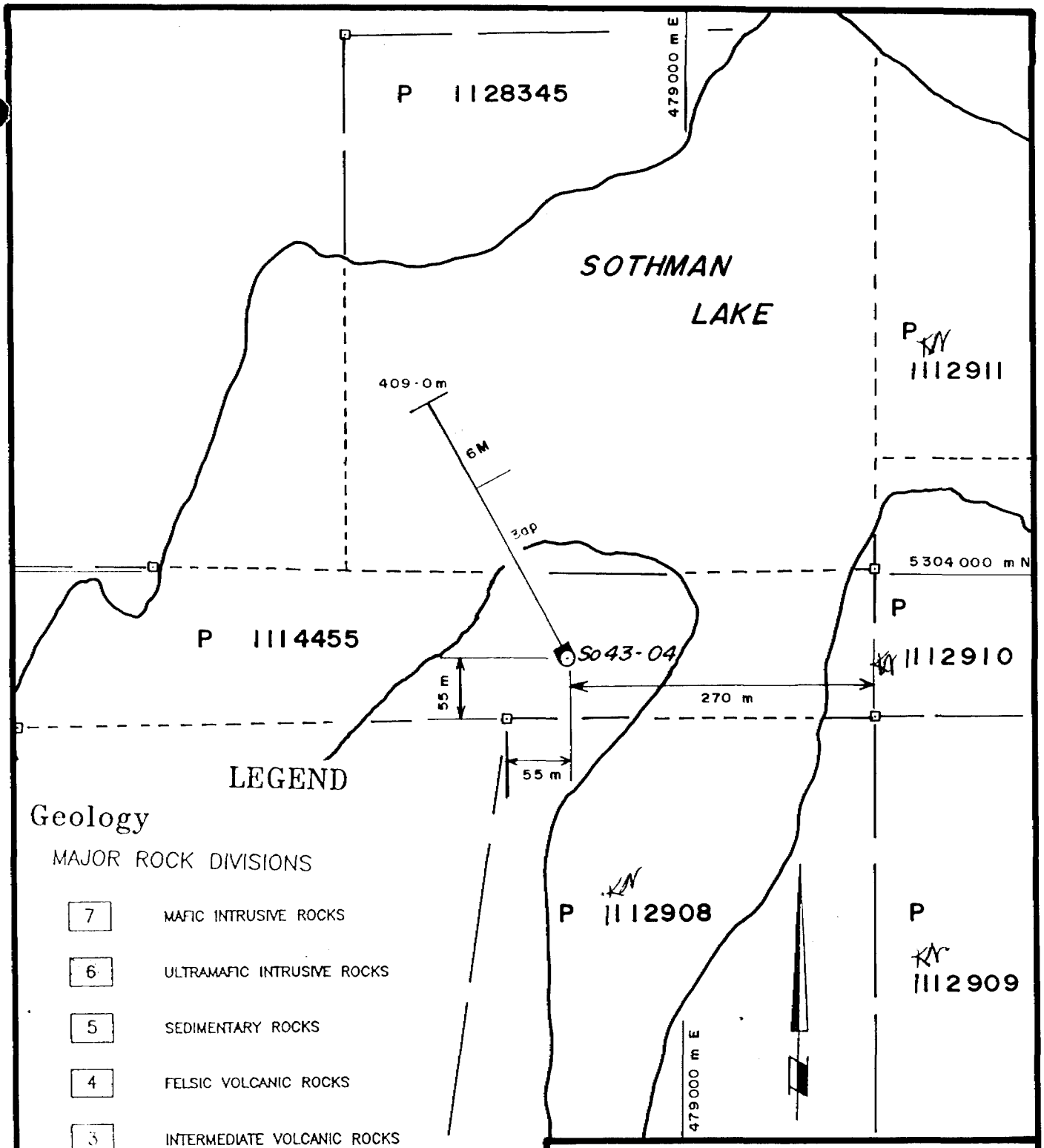
WORK PERFORMED FOR: Falconbridge Limited

RECORDED HOLDER: SAME AS ABOVE [x]

: OTHER [ ]

CLAIM NO.	HOLE NO.	FOOTAGE	DATE	NOTE
1114455/112 8345	SO-43-04	407.0m	Jan/91	(1)
1113192/1171944	SO-64-01	516.60m	Feb/91	(1)
112919/1043628	SO-44-02	317.0m	Feb/91	(1)
1113007/1113008	SO-32-01	419.0m	Jan-Feb/91	(1)

NOTES: (1) #W9160.00207, filed Sept/91



LEGEND

Geology

MAJOR ROCK DIVISIONS

7	MAFIC INTRUSIVE ROCKS
6	ULTRAMAFIC INTRUSIVE ROCKS
5	SEDIMENTARY ROCKS
4	FELSIC VOLCANIC ROCKS
3	INTERMEDIATE VOLCANIC ROCKS
2	MAFIC VOLCANIC ROCKS
1	ULTRAMAFIC VOLCANIC ROCKS

TEXTURAL/GEOCHEMICAL MODIFIERS

a	Fine Grained
bx	Breccia
f	Primary Fragmentals
g	Graphitic/Argillaceous
m	Massive
p	Pillowed
s	Sulphides, Exhalites
t	Pyroclastic
J	Pyroxenite

FALCONBRIDGE LIMITED

Exploration Division — Timmins, ONTARIO

SOTHMAN 43

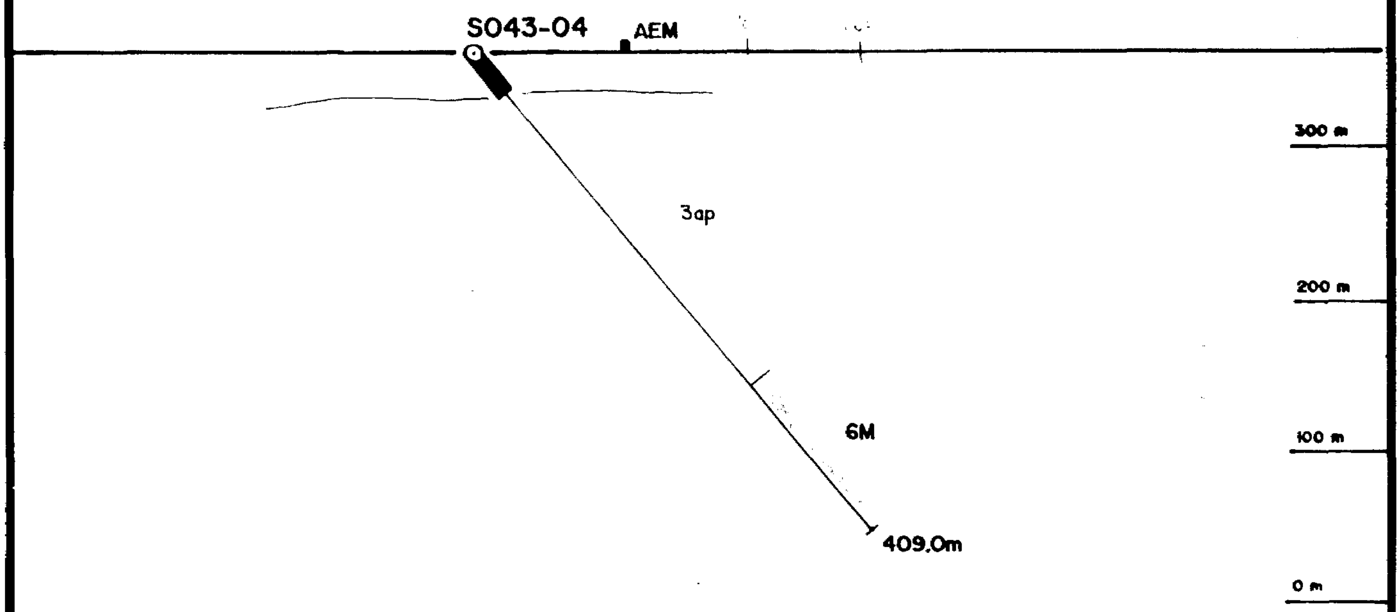
SOTHMAN Twp.

PORCUPINE MINING DIVISION

DIAMOND DRILL PLAN

So43-04

SCALE: 1 5000		Data: Woytiuk
Drawn: d e l	Project N°: 8188	Date: 01/05/91



LEGEND - NICKEL GROUP

MAJOR ROCK DIVISIONS

10	DIABASE
9	FELSIC INTRUSIVE ROCKS
8	INTERMEDIATE INTRUSIVE ROCKS
7	MAFIC INTRUSIVE ROCKS
6	ULTRAMAFIC INTRUSIVE ROCKS
5	SEDIMENTARY ROCKS
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TEXTURAL/CHEMICAL MODIFIERS

A	fine grained/aphanitic	T	gabbroic texture
B	medium grained	U	pyroxene spinifex
Br	breccia	V	olivine spinifex
C	coarse grained	W	skeletal/crescumulate
D	serpentinized	X	adcumulate
E	carbonatized	Y	mesocumulate
F	talc-carbonatized	Z	orthocumulate
G	graphitic		
H	tholeiitic		
I	komatiitic basalt		920
J	pyroxenitic komatiite		920
K	mesh textured		
L	peridotitic komatiite		936
M	dunitic komatiite		932
N	massive		
O	ocellitic		
P	pillowed		
Q	porphyritic		
R	polysutured		
S	sulphides/oxides		

FALCONBRIDGE LIMITED

Exploration Division — Timmins, ONTARIO

HALLIDAY DOME PROJECT

SOTHMAN 43
SOTHMAN TWP

SECTION FOR

S043-04

LOOKING WEST

SCALE: 1 : 5 000		Data: Davis
Drawn: del	Project N° : 8188	Date: 11/04/90

HOLE NUMBER: SO43-04

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 13-May-1991
IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: 8188
PROJECT NUMBER: 008188
CLAIM NUMBER: [illegible]
LOCATION: SOTHMAN TWP

PLOTTING COORDS GRID: UTM
NORTH: 5303925.00N
EAST: 478900.00E
ELEV: 360.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 407.00m
START DEPTH: 0.00m
FINAL DEPTH: 407.00m

COLLAR ASTRONOMIC AZIMUTH: 330° 0' 0"

GRID ASTRONOMIC AZIMUTH: 330° 0' 0"

DATE STARTED: January 11, 1991
DATE COMPLETED: January 20, 1991
DATE LOGGED: January 19, 1991

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: YES
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: NOREX
CASING: 33.5m left in ground
CORE STORAGE: METSITE

PURPOSE: Test AEM + MAG anomaly. Hole blocked 250m, plastic pipe in hole.

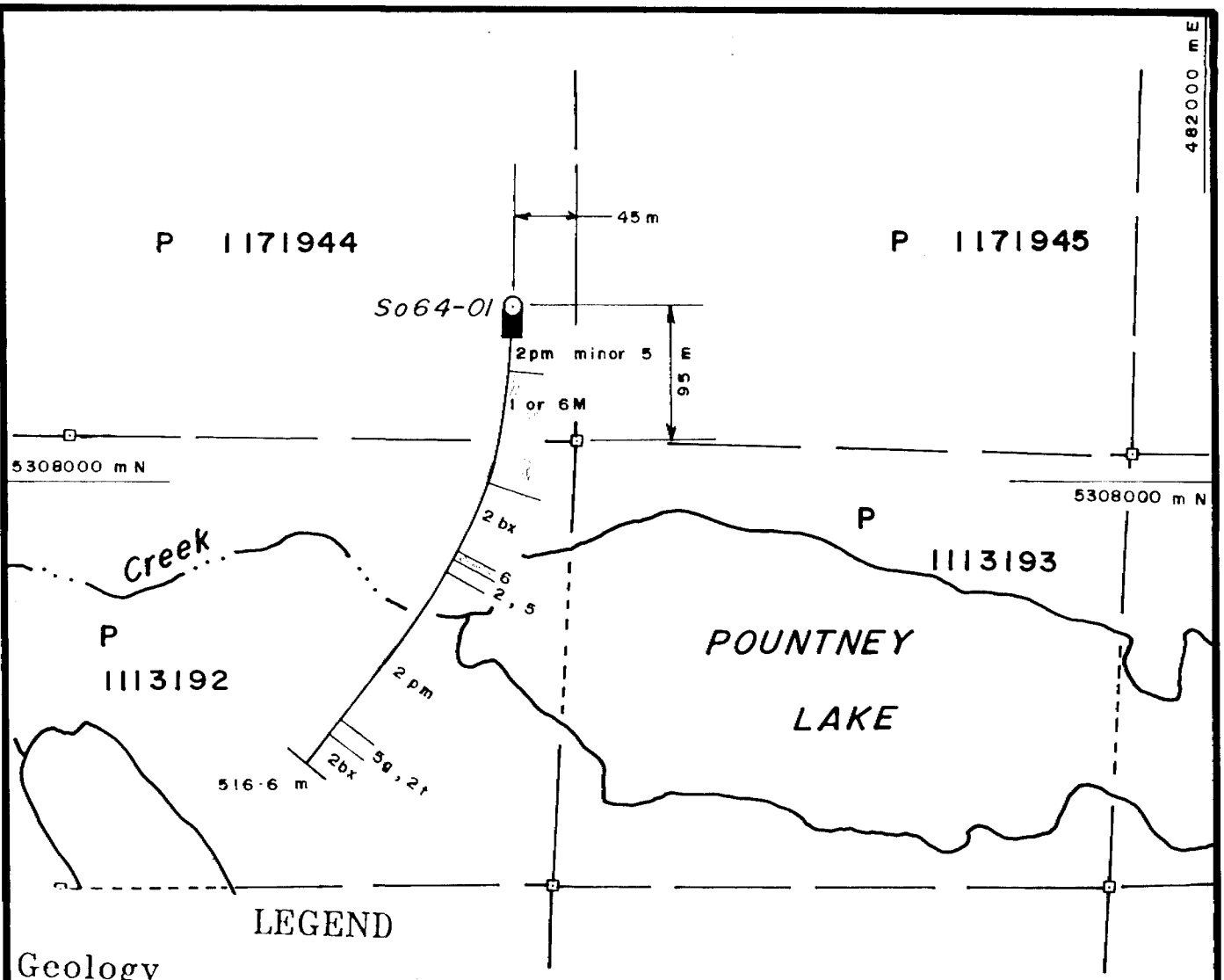
DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.00	328° 0'	-52° 0'	SING.SHOT	OK	
120.00	332° 0'	-53° 0'	SING.SHOT	OK	
180.00	332° 0'	-51°30'	SING.SHOT	OK	
240.00	332° 0'	-50° 0'	SING.SHOT	OK	
300.00	337° 0'	-46° 0'	SING.SHOT	OK	
360.00	329° 0'	-46° 0'	SING.SHOT	OK	

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 33.50	OVERBURDEN «|ob|»					-PEM collar Loop only. -no PEM anomaly. -plastic piping in hole.
33.50 TO 284.12	INTER-MEDIATE VOLCANICS «3ap»	-light to medium grey-green colour. -aphanitic to very fine grained. -pillowed to massive flows. -pillow selvages marked by zones of fragmented flow material and more extensive chloritization. -2-15% amygdules filled by quartz and chlorite ranging in size from <1.0mm to >20mm. -several cooling fractures filled by quartz and calcite. -speckled nature of some sections due to alteration. -more extensive zones of fragmental may represent flow tops. -1-2% grey-pink mineral with local concentrations. -62.45-71.76m: -development of grey-pink coloured mineral or minerals, primarily in selvages but becomes pervasive. -represents 1-15% of the unit with shapes similar to plagioclase crystals. -77.08-78.71m: -light pink colour hematite stained flow. -78.68-81.15m: -flow contains banding at 20° to the core axis. -86.61-98.16m: -large quartz filled amygdules up to 4cm in length with many smaller quartz filled amygdules representing up to 1% of the unit. -98.30-99.20m: -quartz filled fractures at 30° to the core axis. -118.30-118.45m: -flow banding at 40° to the core axis. -179.75-180.30m: -light grey colour, aphanitic possible flow top. -calcite fracture filling associated with chlorite. -233.50-284.12m: -unit becomes aphanitic in nature. -281.0-284.12m: -serpentine, talc and calcite found as fracture filling veins and veinlets.		-weak to moderate chlorite alteration with strong chlorite alteration of pillow selvages. -very weak to moderate silicification. -minor epidote alteration along fractures. -occasionally very thin veins with hematite staining. -moderate alteration producing grey-pink mineral. -moderate hematite alteration.	-<0.1% disseminated Py in pillow selvages.	-AEM anomaly not explained. -MAG anomaly explained by dunite. -possibly approaching in hole PEM anomaly at end of hole (250.0m).

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
284.12 TO 407.00	DUNITE «1M»	-sharp upper contact at 30° to the core axis. -light green and black coloured. -fine grained to medium grained. -massive. -several crosscutting, calcite and serpentine veins. -moderately magnetic. -284.12-286.85m: -instense calcite, serpentine and talc veining near contact. -veins are at all orientations to the core axis. -abundant magnetite veinlets roughly at 35° to core axis. -310.6-310.86m: -smaller shear 90° to core axis. -slightly polysutured but mostly massive adcumulate dunite. -333.70-334.43m: -strong shearing 15° to core axis. -335.30-335.94m: highly fractured zone, abundant serpentine and magnetite stringers. -340.50-341.40m: -strong shearing with calcite stringers. Shearing 20° to core axis. -stringers of magnetite and calcite stringers. More pervasive in downhole direction. -366.75-368.08m: -shear, core is close to being an unconsolidated much, abundant magnetite and calcite stringers and blebs. -398.75-401.52m: -talc - Fe/Ca carbonate alteration, very strong, all relict textures are overprinted by alteration. Contacts of alteration are sharp, suggesting structural contacts. -402.0-407.0m: abundant calcium-carbonate filled fractures.		-strong serpentine alteration with development of magnetite blebs and veins. -strong serpentine alteration with magnetite stringers and blebs. -highly serpentinized. -Fe/Ca Talc carbonate alteration. -highly sesrpentinized.		
407.00 TO 407.00	E.O.H.					



Geology

MAJOR ROCK DIVISIONS

7	MAFIC INTRUSIVE ROCKS
6	ULTRAMAFIC INTRUSIVE ROCKS
5	SEDIMENTARY ROCKS
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TEXTURAL/GEOCHEMICAL MODIFIERS

a	Fine Grained
bx	Breccia
f	Primary Fragmentals
g	Graphitic/Argillaceous
m	Massive
p	Pillowed
s	Sulphides, Exhalites
t	Pyroclastic
J	Pyroxenite

482000 mE

FALCONBRIDGE LIMITED

Exploration Division — Timmins, ONTARIO

SOTHMAN 64

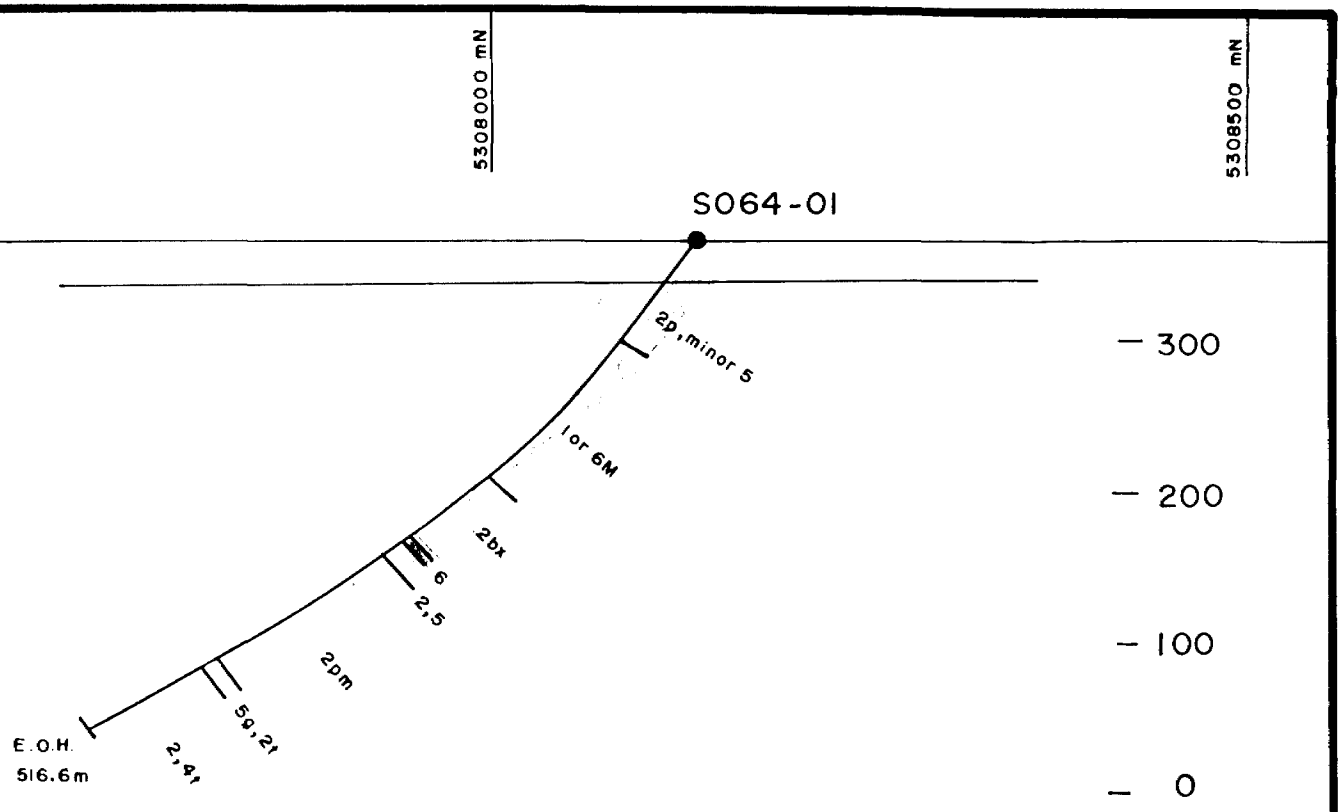
SOTHMAN Twp.

PORCUPINE MINING DIVISION

DIAMOND DRILL PLAN

So64-01

SCALE: 1 5000		Data: Woytiuk
Drawn: d e l	Project N°: 8188	Date: 01/05/91



LEGEND

MAJOR ROCK DIVISION

10	DIABASE
9	FELSIC INTRUSIVE ROCKS
8	INTERMEDIATE INTRUSIVE ROCKS
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TEXTURAL/GEOCHEMICAL MODIFIERS

a	Fine Grained
b	Medium Grained
bx	Breccia
c	Coarse Grained
d	Quartz–Feldspar Phyric
e	Amygdaloidal/Vesicular
f	Primary Fragmentals
g	Graphitic/Argillaceous
h	Tholeiitic
i	Alkalic
j	Calc–Alkalic
k	Komatiitic
l	Flows
m	Massive
n	Variolitic/Spherilitic
p	Pillowed
q	Quartz Phyric
r	Oxide Iron Formation
s	Sulphides, Exhalites
t	Pyroclastic
u	High Mg
v	High Fe
w	High Al
x	Andesite
y	Icelandite
z	text

FALCONBRIDGE LIMITED

Exploration Division — Timmins, ONTARIO

SOTHMAN 64

SOTHMAN TOWNSHIP

PORCUPINE MINING DIVISION

DIAMOND DRILL SECTION

LOOKING WEST

S064-01

SCALE: 1:5,000		Data: KW
Drawn: JC	Project N°: 8188	Date: 23/05/91

HOLE NUMBER: S064-01

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 16-May-1991
IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: 8188
PROJECT NUMBER: 008188
CLAIM NUMBER:
LOCATION: SOTHMAN TWP

PLOTTING COORDS GRID: UTM
NORTH: 5308125.00N
EAST: 481480.00E
ELEV: 365.00

ALTERNATE COORDS GRID: LINE
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 516.60m
START DEPTH: 0.00m
FINAL DEPTH: 516.60m

COLLAR ASTRONOMIC AZIMUTH: 180° 0' 0"

GRID ASTRONOMIC AZIMUTH: 180° 0' 0"

DATE STARTED: February 18, 1991
DATE COMPLETED: February 25, 1991
DATE LOGGED: February 26, 1991

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: YES
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR:
CASING:
CORE STORAGE:

PURPOSE: Test Mag + EM anomaly (PEM blocked 70m).

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.00	182° 0'	-52° 0'	SING.SHOT	OK	
120.00	189° 0'	-52° 0'	SING.SHOT	OK	
180.00	188° 0'	-52° 0'	SING.SHOT	OK	
240.00	205° 0'	-49° 0'	SING.SHOT	OK	
300.00	206° 0'	-47° 0'	SING.SHOT	OK	
360.00	211° 0'	-44° 0'	SING.SHOT	OK	
420.00	212° 0'	-40° 0'	SING.SHOT	OK	

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 23.16	CASING «¡ob¦»					
23.16 TO 37.60	MASSIVE MAFIC VOLCANIC «2am»	-fine grain. -pale grey-green colour. -massive. -weak foliation at 70° to core axis. -5-7% white to grey quartz ± carbonate veins and veinlets, contorted vary from 3mm to 1cm wide. -<1%, mm x mm size white carbonate amygdules (up to 3mm x 2mm size). -carbonate strongly fizzes with HCl acid.		-weak spotty bleaching and silicification. -weak epidote alteration in fractures, locally spotty ie 35.6-36.0m (pale yellow-green colour). -commonly pale pink-yellow feldspar ? in quartz veins. -weak fracture controlled chlorite occurs adjacent to quartz carbonate veins.	-overall 1-2% pyrite disseminated and in blebs but locally 5% pyrite in carbonate veinlets ie 22.9-30.0m -80% contorted quartz carbonate veins with 3-5% pyrite 28.0-28.1m -quartz carbonate vein at 20° to core axis 1-3% pyrite 32.9-33.0 -15% contorted quartz carbonate veins with 5-7% disseminated pyrite in veinlets/10cm. -minor chlorite adjacent to vein. -35.6-35.7m -5% contorted quartz carbonate vein - 5-7% pyrite with trace chalcopyrite.	
37.60 TO 40.20	CONGLO-MERATE «5»	-sharp contact at 37.6m is at 70° to core axis. -sedimentary conglomerate. -pale grey. -no visible bedding. -weak foliation at 55° to core axis. -1-2% quartz carbonate veinlets often at 50° to core axis. -some clasts are weakly elongated parallel to foliation. -matrix is pale grey and is medium to coarse grain (greywacke size) ie 1mm x 1mm; quartz feldspathic up to 40% of matrix (may be intermediate in composition). -5% clasts vary in size from 6cm x 7cm to 3cm x 5mm. -composition of which are i) mafic volcanic ? (dark grey), ii) tonalite or felsic intrusive (pink to white). -mafic clasts are elongate. -felsic intrusive clasts are subrounded.		-weak pervasive carbonate alteration (fizzes with HCl).	-2-5% disseminated pyrite and in blebs and cubes.	
40.20 TO 67.10	PILLOWED AND MASSIVE MAFIC VOLCANIC	-sharp contact at 40.2m is at 40° to core axis. -see description as per 23.16-37.6m. -locally 5mm wide selvages are visible ie at 40.5m (not definite). -higher concentration of amygdules 1-5% content			-overall: 1-5% pyrite. -prominent quartz carbonate veins occur: 57.4m: 2 blebs of chalcopyrite 1mm x 1mm,	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	«2amp»	and larger in size up to 1cm x 5mm size and locally chlorite infilling amygdules ie at 54.0m. -locally insitu brecciation occurs adjacent to veins.			62.4-62.5m -10% pyrite finely disseminated in quartz carbonate vein.	
67.10 TO 184.50	DUNITE «1 or 6M»	-sharp contact at 75° to core axis at 67.10m. -67.10-67.30m -20-30% contorted white quartz carbonate veining in black fine grain matrix chlorite (not sure if this rock is ultramafic or mafic) - could be shear zone in mafic volcanics. -very soft. ┤67.8-68.6├«|S2 60°|»		-67.10-72.7m pervasive bleaching giving core grey colour. -67.8-68.6m -strong fracture controlled chlorite and serpentine ? pale green.	-67.10-67.8m -5-20% pyrite, pyrrhotite disseminated and blebs in 5-15% white quartz carbonate vein including 67.4-67.5m. -10% pale red staining sphalerite ? or hematite/10cm. -67.8-68.6: overall 6-10% sulphides in 15-30% white quartz carbonate blebs and veins, 1-3% chalcopyrite in blebs and disseminated and 3-5% pyrite.	-not conductive with ohm metre.
		-68.6-70.0m -is this real ultramafic contact? -fine grain dark grey colour. -more massive - weak foliation at 70° to core axis. -68.7-68.8m -polysuturing? ┤70.0-71.2├«|FAI|» FAULT -lost 90cm of core. -7-11cm wide zone of fault gouge - pale green serpentine.		«Sr» serpentine	-68.6-70.0m: overall 5-7% pyrite disseminated and blebs. -no visible pyrrhotite. -68.6-69.0m -trace chalcopyrite. -69.4-69.5m -white quartz-carbonate vein at 70° to core axis. -sharp contact at 70° to core axis is at 69.4m. -1% pyrite in vein. -green.	-68.6-70.0m -broken core. -70.0-71.0m -lost 90cm core badly broken core-gouge.
		-72.1-72.7m -pale grey colour. -fine to medium grain dunite - olivine grains touching each other - weakly magnetic. -72.7-116.0m -fine to medium grain. -pale green colour. -moderately magnetic. -5-7% white quartz ± carbonate veinlets contorted. -can see black 5-10% magnetite crystals. -at 116.0m onward pale grey-green more grey than green. ┤122.0-123.5├«|S2 45°|» -moderate foliation at 45° to core axis and broken core. -131.0-165.7m -apple green colour. -165.7-184.5m -pale grey-green colour. -minor bleaching pale grey around fractures ? almost looks like pillow selvage only local feature.		-fracture controlled serpentine. -strong pervasive serpentine and fracture controlled alteration.	-70.0-76.5m -<1% pyrite very finely disseminated (can only see with hand lense). -76.5-114.5m -average 3-5% locally 5-7% very finely disseminated sulphide, pyrite ? (can only see with hand lenses). -144.5-165.7m -<1% very fine pyrite ? sulphides (only visible with hand lense) locally 1-3%. ┤167.3-167.4├«10% py» -10cm zone of 10% disseminated sulphide. -165.5-184.5m -1-3% fine disseminated	-122.0-123.5m -broken core. -123.5-130.0m -weakly broken core. -155.0-157.0m -broken core.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		┤182.0-182.3├«┤FAI├» -broken core and gouge. -FAULT.			sulphides pyrite ? in dunite only visible with hand lense. -some larger quartz ± carbonate veins occur with 1-3%, 3mm x 5mm size blebs of pyrite ± pyrrhotite (sulphides are concentrated in veins) 174.7-175.0m 175.4-175.7m. -178.1-178.2m -7% pyrite in carbonate veins. -178.2-179.0m -up to 20% contorted white quartz carbonate veins. -183.5-184.5m -20% carbonate veins, veinlets at 35° to core axis and folded.	-182.0-182.5m -broken core.
184.50 TO 240.90	MAFIC VOLCANIC BRECCIA AND VOLCANIC-LASTIC «2t,2bx»	-contorted contact at 184.5m but sharp. -184.3-185.3m -pale grey. -185.3- m -pale grey-green, locally pale yellow-green. -weak foliation at 60° to core axis. -1-2% quartz amygdules vary in size 1cm x 2cm to 2cm x 0.5cm. -5-15% mafic clasts, subrounded to subangular vary in size from 3cm x 6m to 1mm x 2mm. -locally up to 50% fragments/5cm. -fragments vary in composition i) pale grey quartz ? (5%), ii) mafic volcanic -fine grain aphyric (90%), iii) pale yellow-green-grey - epidote altered ? mafic volcanic ? not sure what composition this is ? (1-2%). -fine matrix. -locally see concentric cooling cracks.		-184.5-185.3m -strong pervasive silicification/baking pale grey adjacent to contact and veins. -spotty strong silicification and epidote alteration. -weakly spotty to pervasive carbonate alteration. «Si»«Ep»	-184.7-184.8m -white quartz carbonate vein at 75° to core axis. -up to 15% green chlorite and epidote in vein. -1-2% pyrite disseminated in vein. -184.8-185.3m -30% contorted quartz carbonate veins causing insitu brecciation of host rock. -overall less than 1% pyrite.	
		-193.0-207.0m -generally decrease in fragment size downhole - looks more volcaniclastic - average fragment size 1mm x 2mm. -202.0-202.05m -fracture controlled graphite. -moderate conductivity/5cm. -207.0- m -larger fragment size - no visible contact - no visible bedding just increase in fragment size. -up to 6cm x 2cm size and average size 3mm x 3mm. -up to 1-3% graphite clasts (black). ┤227.8-228.7├«2m» Massive Mafic Volcanic		┤195.0-197.0├«g» -strong silicification highlighting fragments. -weak fracture controlled black graphite and sericite. -weak spotty epidote sericite. -240.5-240.9m -strong pervasive silicification adjacent to contact.	-193.0-240.9m -average 1-3% sulphide (pyrite and pyrrhotite) clasts average size (locally 5%/10cm) 5mm x 2mm up to 1cm x 2cm 1-3% disseminated pyrite. -note 195.0-197.0m sericite in fractures almost looks like brown sericite. -239.0-240.9m -2-5% pyrite disseminated. -240.8-240.9m -5% quartz carbonate blebs and veins.	┤202.0-202.05├«mod. conduct./5cm»

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-sharp contacts at 227.8m at 50° to core axis and 228.7m at 40° to core axis. -228.7-231.0m -mafic volcaniclastic average clast size 3mm x 1mm. {231.0-231.8}«2m» Massive Mafic Volcanic. -231.8-238.5m -mafic volcaniclastic. -238.5-240.9m -more massive mafics.				
240.90 TO 243.90	DUNITE ? SHEARED ULTRAMAFIC «1 or 6M»	-sharp contact at 240.9m is at 90° to core axis. -dark grey colour. -25% quartz ± carbonate veins. -strong foliation at 60° to core axis «{S2 60°}» -carbonate strongly fizzes with HCl acid. {243.8-243.9}«{FAI}» -minor gouge fault.		«Sr» -strong serpentine and carbonate in veins and pervasive serpentine.	-7-10% disseminated pyrite and in blebs and cubes - in host rock and in carbonate veins. -243.6-243.8m -50% white quartz carbonate vein at 80° to core axis and serpentine and chlorite in vein.	
243.90 TO 268.00	SHEARED MAFIC VOLCANICS AND SEDIMENTS «2,5»	{243.9-244.5}«2bx» Mafic Breccia. -fault breccia? -chlorite and quartz carbonate causing insitu breccia of host rock. -244.5-244.7m -strongly sheared silicified mafic volcanics or siliceous sediments. -banding 1mm to 2mm wide or bedding at 60° to core axis alternating yellow sericite and pale grey siliceous bands. -bands are folded. «{S2 60°}» -244.7-245.0m -more massive zone. -245.0-268.0m -fine grain strongly foliated mafic volcanics. -foliation varies from 10° to 15° and is folded and locally shows domal features. -locally contains 1-3% graphite clasts and up to 5% mafic volcanic clasts. -locally looks like a sediment. -pale grey-green bands alternating with yellow-green sericite and carbonate (white) bands. {246.5-246.6}«5» -argillite. -black - dark grey. -2mm to 5mm beds are contorted and folded. -3% mafic volcanic clasts. -sharp contact at 246.5m is at 30° to core axis. -2-3% quartz carbonate blebs and veins. {261.2-261.22}«{FAI},60°»		{243.9-245.0}«Si»«Ch» -strong spotty silicification and fracture controlled sericite (bright yellow-green). {245.0-268.0}«g» -weak fracture controlled graphite. -weakly conductive along fracture planes (1mm wide to 3mm). -weak pervasive carbonate alteration (strongly fizzes with HCl acid). {261.0-265.0}«Se» -strong fracture controlled to pervasive sericite.	-243.9-244.7m -5% white quartz carbonate veins and blebs and chlorite causing insitu brecciation. -5-7% pyrite disseminated and in blebs. -244.7m-onward -2-3% pyrite in blebs and disseminated and in carbonate blebs -5-25%, mm wide to 1cm wide carbonate veins parallel to foliation. -246.6-247.0m -40% white quartz carbonate blebs and veins contorted - graphite in matrix and causing insitu brecciation of mafic host rock 2-3% pyrite. -266.9-267.3m -pale grey-white quartz	{245.0-268.0}«wk. conduct./23m» ONLY along fracture planes.

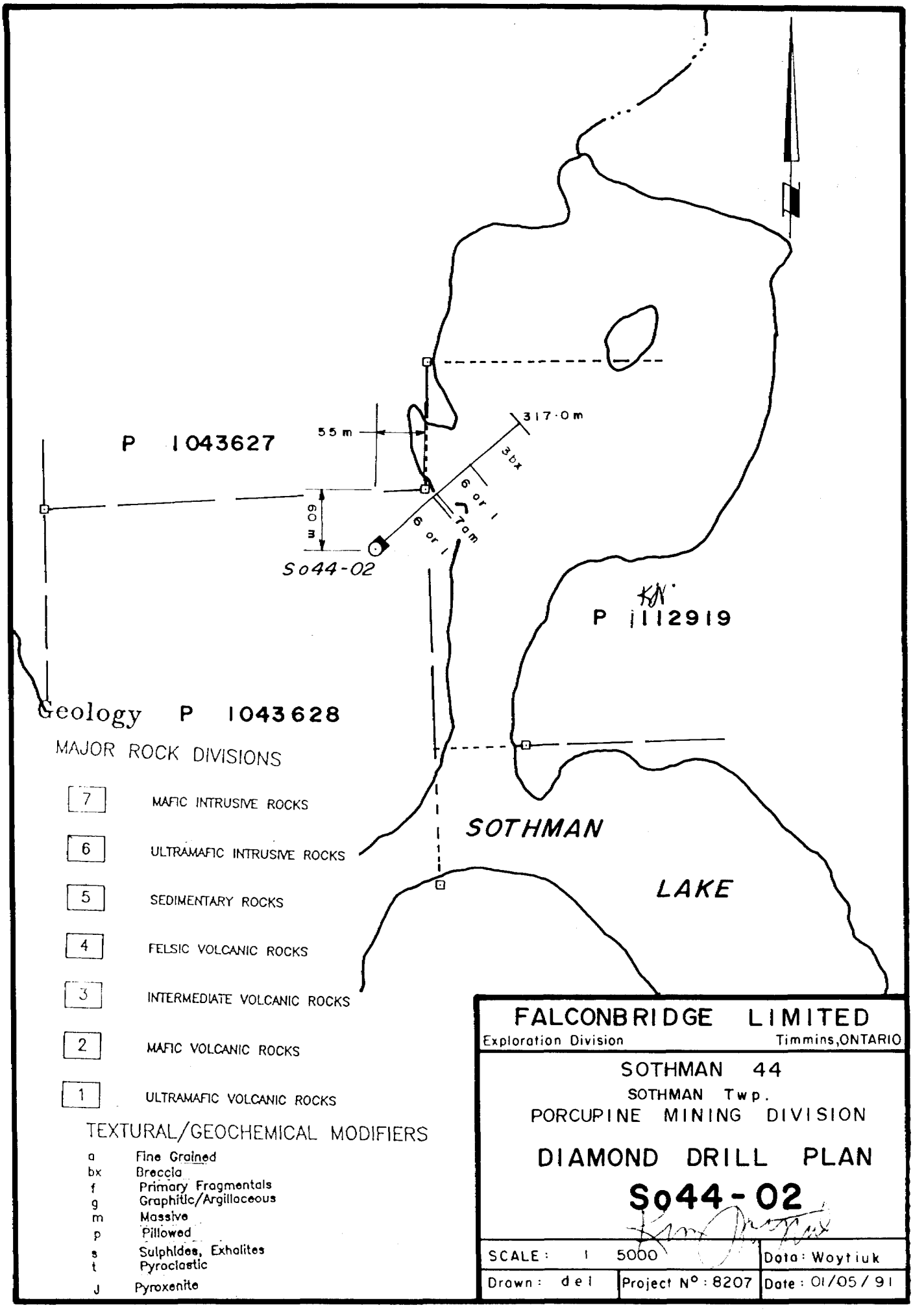
FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		FAULT, 2cm fault gouge, 60° foliation adjacent to gouge.			carbonate vein. -5% disseminated pyrite. -contact at 267.3m is at 45° to core axis. -minor graphite in fractures.	
268.00 TO 393.90	PILLOWED AND MASSIVE MAFIC VOLCANIC «2p,m»	-sharp contorted contact at 268.0-273.0m. -no longer sheared. -pale grey-green fine grain. 273.0-288.0«Ch,50°» -weak to moderate foliation at 50° to core axis. -1cm wide not definite pillow selvages ? dark grey (chloritic) every 1-3m. -1-5% white leucoxenes in selvages. -1-5% quartz ± carbonate veins and veinlets often parallel to foliation - carbonate veins strongly fizz with HCl acid. -locally concentric cooling cracks ie at 295.5m. -288.0- m -2-5% carbonate, quartz and chlorite amygdules average size 2mm x 2mm. -begin to see definite pillow selvages. -locally see massive flows - 1m long ie 291.0-292.8m - or could be more massive part of pillowed zone and pillow breccia (30-40cm wide) 292.8-293.10m cannot tell tops. -at 364.0m -amygdules up to 3cm x 2cm size with epidote altered rims. -at 375.0m -becoming more massive visible pillow selvage at 385.5m.		«Ep»«Ch» -pale spotty bleaching. -288.0m onward -weak fracture controlled chlorite and infilling amygdules. -303.0- m -weak epidote alteration in quartz veins or centred on selvages.	-overall 1-3% disseminated pyrite and in blebs. -locally up to 5% pyrite in quartz carbonate veins. -268.9-269.0m -white quartz carbonate vein contorted. -288.0- m -overall 1-2% pyrite. -362.3-362.4m -fracture controlled pale red-brown carbonate ? or hematite - not sure if this is sphalerite (no red streak).	
393.90 TO 397.30	ARGILLITE AND MAFIC VOLCANIC-LASTIC «5,2t»	-393.9-393.95m -dark grey argillite. -fine grain, beds are 3mm wide. -beds are folded and contorted. -393.95-394.0m -massive mafic volcanic. -394.0-394.3m -mafic volcaniclastic. -pale grey. -fine grain matrix. -20% clasts - average size 1mm x 1mm. -no visible bedding. -maximum clast size 3mm x 2mm. -possible fining uphole. -3% of clasts are graphite. -can't tell composition of other clasts mafic volcanic?		-weak fracture controlled carbonate.	-less than 1% pyrite.	-possible fining uphole ? tops to north.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-394.3-394.5m -mafic volcaniclastic. -fine matrix. -394.5-397.5m -several different units of mafic volcaniclastic. -locally graphite clasts are 2cm x 1cm. -1-2% quartz ± carbonate amygdules. -locally fine bands or beds black (graphite?) at 60° to core axis.		┤394.5-397.5├«g» (not conductive with Ohm metre).		
397.30 TO 406.60	PILLOWED MAFIC VOLCANIC «2p»	-fine grain. -see description as per 268.0-393.9m.				
406.60 TO 406.90	ALTERED MAFIC VOLCANICS OR ULTRAMAFICS «2m or 1m?»	-sharp contact at 406.6m is contorted. -pale green colour. -massive, fine grain. -very weakly magnetic. -5% contorted carbonate veins. -dunite ? or altered mafic volcanics.			-1-2% fine pyrite.	
406.90 TO 410.80	GRAPHITIC ARGILLITE AND MAFIC VOLCANIC-LASTICS «5g,2t»	-406.9-407.0m -argillite. -407.0-407.2m -massive mafic volcanic. -407.2-407.25m -argillite. -407.25-407.3m -massive mafic volcanic. -407.3-410.8m -argillite and graphitic argillite. ┤407.3-408.4├«┤S0 90°├» -argillite and graphitic argillite. -1mm to 5mm beds at 90° to core axis is contorted. -at 407.3-407.33m -weakly conductive/3cm. -408.33-408.40m - weakly conductive/7cm. -408.4-408.5m -mafic volcanic. -408.5-408.6 -argillite. -mm wide beds at 90° to core axis. -408.6-410.3m -mafic ash tuff? -fine grain, dark grey. -weak foliation at 50° to core axis or sheared massive mafic volcanic. ┤408.6-410.3├«┤S2 50°├» -410.3-410.8m -black-grey argillite. -bedding is at 85° to core axis and is also folded.			-1-2% pyrite. -410.0-410.1m -quartz carbonate vein at 90° to core axis.	┤407.3-407.33├«wk conduct./3cm» ┤408.33-408.4├«wd conduct./7cm»

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
410.80 TO 413.00	MAFIC ASH TUFF «2t»	-pale grey to green. -no visible bedding. -410.8-412.0m -can see fining of fragments uphole. -50% fine average fragment size (1mm x 1mm). -412.0-413.0m -fragments average size is 2mm x 2mm and up to 4cm x 3cm. -fragments are majority mafic volcanic 5% white quartz ± carbonate amygdules. -graphite and argillite clasts. -fragments are subrounded to subangular. -fine mafic matrix. -weak foliation at 50° to core axis.			-413.0- m -1-3% pyrrhotite pyrite clasts.	-fining of fragments uphole possible tops to north.
413.00 TO 497.20	MAFIC BRECCIA «2bx»	-413.0-415.0m -average fragment size is 5mm x 5mm size. -415.0- m -average fragment size is 1cm x 1cm and up to 6cm x 5cm. -at 426.0m -begin to see concentric cooling cracks. -at 415.0m -no contact, just see no more argillite and graphite in clasts only mafic volcanic clasts. -see pillow selvages and up to 1cm x 1cm size amygdules - often infilled with sulphides and (quartz ± carbonate amygdules). -463.0-463.5m -looks variolitic with white felsic cores ? and mafic matrix in subrounded clasts of pillows? -may be just silicification. -1-5% white feldspar phenocrysts. -463.0-478.0m -average fragment size is 3mm x 2mm. -possible contact at 463.0m? -478.0-497.2m -increase in fragment size. -up to 3cm x 3cm in size. -average size 3mm x 2mm. -increase in amygdules up to 10% amygdules locally.		-415.0- m -weak spotty bleaching centred on mafic clasts. «Ep»«Si» -minor epidote in fractures and silicification (spider web texture). 463.0-497.2«Se» -weak sericite in fractures and same alteration as 415.0-463.0m.	-413.0-463.0m -1-3% pyrrhotite and pyrite clasts are up to 2cm x 2cm size. -often pyrrhotite cores and pyrite rims to sulphide clasts. -pyrrhotite and pyrite are also disseminated and infills selvages. -at 436.5m -trace chalcopyrite in pyrrhotite clasts. -425.0-425.1m -7cm x 6cm pyrrhotite clast. -locally ie. 442.0-445.0m -up to 5% very fine pyrite in matrix of rock. -456.2-456.5m -3cm x 3cm (pyrrhotite clasts) contorted clasts/10cm. -457.4-457.5m -2cm x 1cm pyrrhotite clast. -463.0-485.0m -<1% pyrrhotite ± pyrite clasts over 1-3% disseminated pyrite and pyrrhotite and in blebs. -locally 5% pyrite/5cm intervals and pyrite in cubes. -485.0-497.2m -1-3% sulphide clasts up to 3cm x 3cm size.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
497.20 TO 508.40	MAFIC TUFF AND SEDIMENT «2t,5»	-497.2-498.8m -argillite - minor mafic ash. -sharp contact at 497.2m is at 65° to core axis. -bedding is at 55° to 40° to core axis. «|SO 55°|» -beds vary from 1mm to 1cm wide. -colour - dark grey to black. -fine grain. -locally intercalated fine mafic ash ? (pale grey colour) 1cm wide beds. -minor graphite along mm wide beds. -498.8-499.7m -mafic ash tuff. -498.8-499.0m -fine matrix. -pale grey-green. -massive. -fine grain. -clasts are 1mm x 1mm to 1mm x 2mm size. -fines uphole. -fragment size at 498.5-498.8m are 1mm x 1mm. -499.7-500.4m -pale grey argillite and mafic ash. -bedding at 50° to core axis. -see description as per 497.2-498.8m. -500.4-500.7m -fine grain mafic ash or mafic ash tuff. -500.6-500.7m -20% white carbonate veins. -500.7-502.0m -argillite. -see description as per 497.2-498.8m. -502.0-502.2m -massive mafic volcanic or mafic ash. -502.2-506.0m -argillite and minor fine mafic ash. -bedding is folded and varies from 0° to 30° to core axis. -506.0-507.8m -mafic ash. -massive, pale grey-green. -fine grain ash matrix with 20%, 1mm x 1mm size fragments up to 5mm x 3mm size. |507.8-507.9|«cherty, 5 or 4t» -pale grey - very siliceous cherty sediment or felsic ash tuff. -mm wide beds at 40° to core axis. -507.9-508.4m -argillite and mafic ash - beds at 30° to core axis. |507.9-508.4|«|SO 30°|»		|498.8-499.7|«Cb» -weak pervasive carbonate alteration (fizzes with HCl acid).	-1-3% contorted white 3mm wide carbonate veins and veinlets. -overall 1-2% pyrite.	-possible fining uphole tops to north.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
508.40 TO 510.50	FELSIC ASH TUFF? «4t»	-508.4-510.5m -sharp contact at 508.4m is at 40° to core axis. -pale grey colour. -very siliceous. -fine matrix. -possible contact at 510.5m - not definite - gradual.		-not sure if this could be silicified mafic?	-508.4-510.5m -1-2% pyrite and pyrrhotite fragments 3mm x 1mm in size.	
510.50 TO 513.40	PILLOWED MAFIC VOLCANIC? «2p»	-pale green. -fine grain. -possible 1cm wide pillow selvages at 510.5m. -511.4-516.6m -massive. -510.5-513.4m -pale green colour.			-2-3% pyrite and pyrrhotite in veinlets and disseminated. -510.7m -one 3mm x 3mm bleb of chalcopyrite in a pyrrhotite fragment.	
513.40 TO 516.60	FELSIC? ASH TUFF «4t»	-513.4-516.6m -pale grey, fine grain. -siliceous. -felsic ash tuff?? {513.8-513.9}«{SO 40°}» -fine ash tuff ? - dark grey - bedded at 40° to core axis.				
516.60 TO 516.60	E.O.H.					



Geology P 1043628

MAJOR ROCK DIVISIONS

7	MAFIC INTRUSIVE ROCKS
6	ULTRAMAFIC INTRUSIVE ROCKS
5	SEDIMENTARY ROCKS
4	FELSIC VOLCANIC ROCKS
3	INTERMEDIATE VOLCANIC ROCKS
2	MAFIC VOLCANIC ROCKS
1	ULTRAMAFIC VOLCANIC ROCKS

TEXTURAL/GEOCHEMICAL MODIFIERS

a	Fine Grained
bx	Breccia
f	Primary Fragmentals
g	Graphitic/Argilloceous
m	Massive
p	Pillowed
s	Sulphides, Exhalites
t	Pyroclastic
J	Pyroxenite

FALCONBRIDGE LIMITED

Exploration Division — Timmins, ONTARIO

SOTHMAN 44

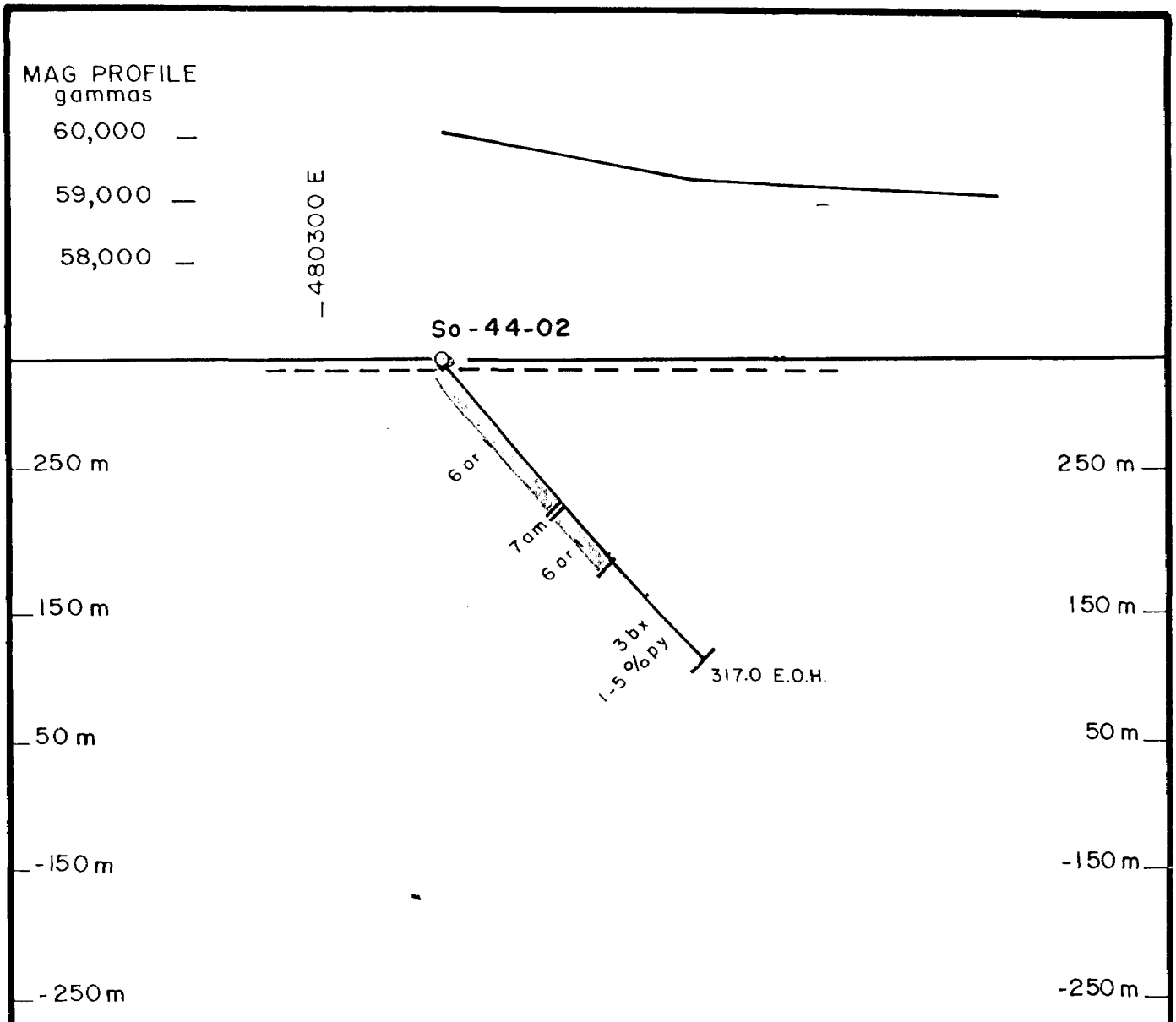
SOTHMAN Twp.

PORCUPINE MINING DIVISION

DIAMOND DRILL PLAN

S044-02

SCALE: 1 5000		Data: Woytiuk
Drawn: del	Project N°: 8207	Date: 01/05/91



LEGEND

7 Mafic intrusive
6 Ultramafic intrusive
3 Intemediate volcanic
1 Ultramafic volcanic
bx secondary fragmental
a fine grain
m massive

FALCONBRIDGE LIMITED
Exploration Division — Timmins, ONTARIO

SOTHMAN Twp.

SECTION So 44-02

LOOKING NORTHWEST (Az 050°)

SCALE : 1:5,000		Data : K. Woytiuk
Drawn : JC	Project N° : 8207	Date : 01/03/91

HOLE NUMBER: S044-02

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 27-May-1991
IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: 8207
PROJECT NUMBER: 008207
CLAIM NUMBER: [illegible]
LOCATION: SOTHMAN TWP

PLOTTING COORDS GRID: UTM
NORTH: 5304000.00N
EAST: 480400.00E
ELEV: 350.50

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 317.00m
START DEPTH: 0.00m
FINAL DEPTH: 317.00m

COLLAR ASTRONOMIC AZIMUTH: 50° 0' 0"

GRID ASTRONOMIC AZIMUTH: 100° 0' 0"

DATE STARTED: February 3, 1991
DATE COMPLETED: February 15, 1991
DATE LOGGED: February 16, 1991

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: NOREX
CASING:
CORE STORAGE:

PURPOSE: To test an HLEM anomaly + Mag anomaly.

DIRECTIONAL DATA:

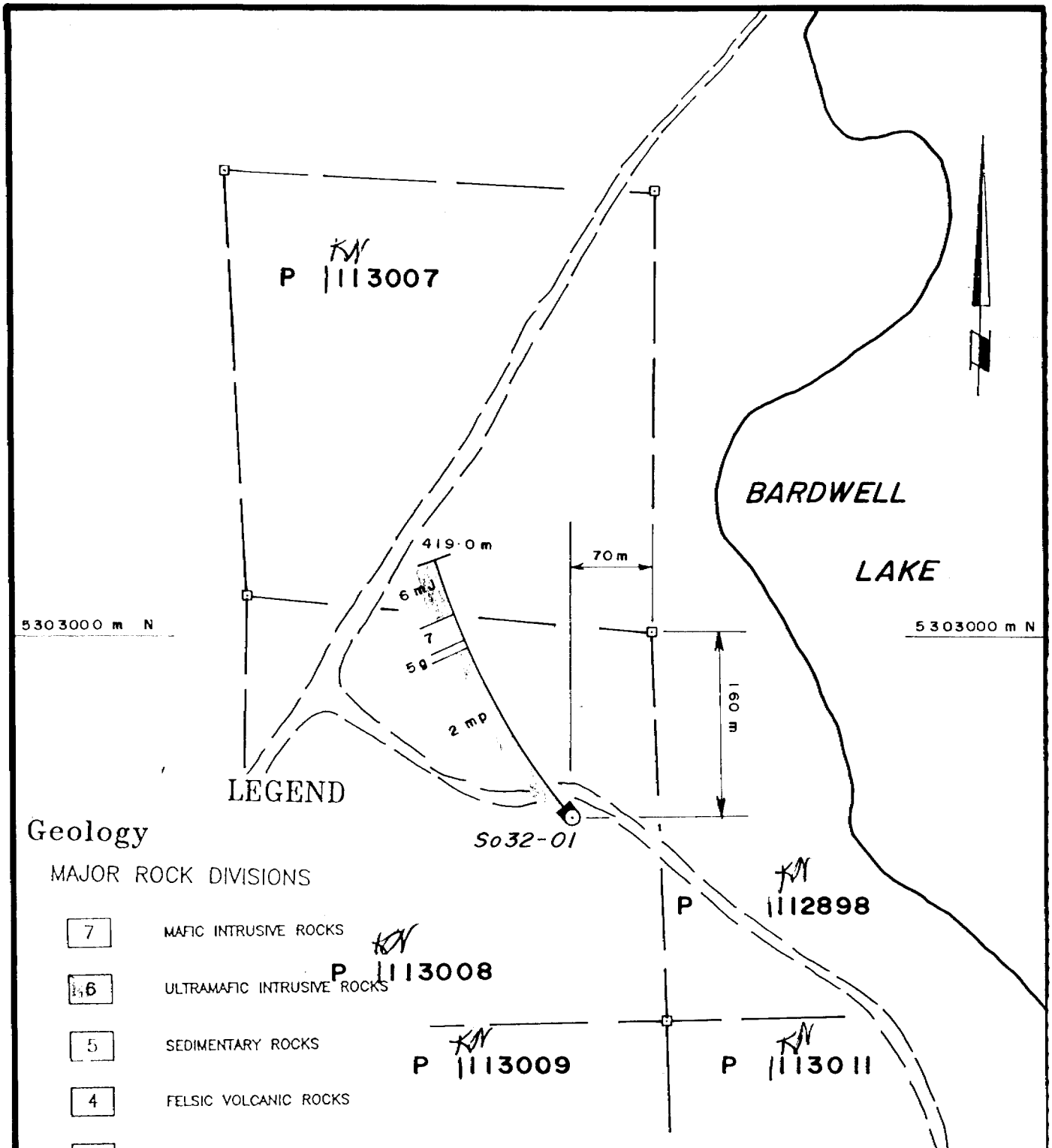
Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.00	-	-50° 0'	ACID		Bad test 300° Azimuth
180.00	-	-49° 0'	ACID		Bad test? 54° AZ
120.00	42° 0'	-49° 0'	SING.SHOT		
240.00	45° 0'	-48° 0'	SING.SHOT		

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.00	CASING «|ob|»					
6.00 TO 141.90	DUNITE «1 or 6D»	-massive. -fine to medium grain (only locally coarse grain). -pale green serpentine in fractures and dark grey colour of rock. -adcumulate? -moderately magnetic. {17.0-17.4}«|FAI|» Fault gouge - badly broken core. {28.3-28.7}«|FAI|» Fault gouge broken core. -47.0-59.0m medium to coarse grain. -locally blue-green and pale red serpentine in fractures. -at 111.5m -fault gouge {111.5-111.5}«|FAI|» -at 112.0m -fault gouge {112.0-112.0}«|FAI|» -at 114.7m -fault gouge {114.7-114.7}«|FAI|»		«Sr» -locally spotty rodingite alteration gives rock speckled look. -strong fracture controlled and controlled and pervasive serpentine. -10.0-11.0m -strong rodingite alteration spotty to pervasive (hard to scratch with knife) pale cream yellow-green. -14.0-14.8m strong rodingite alteration. -32.1-32.8m pale cream, fine grain pervasive rodingite alteration - sharp contacts at 60° to core axis at 32.1m and 32.8m. -rodingite alteration occurs: 42.0-42.3m, 43.8-44.1m. -63.0-64.0m contact at 64.0m is sharp and at 60° to core axis - pale grey colour, fine grain (not as creamy as above zones). -at 83.0m starting to increase in amount of serpentine veins (ie 15%) and pervasive nature of serpentine and rock is becoming more bright green in colour. -rodingite alteration occurs: 126.0-127.0m, 133.1-133.2m, 141.0-141.9m.	-nil.	-14.8-23.0m blocky ground.
141.90 TO 145.00	MAFIC DIKE «2am»	-contact at 141.9m is at 75° to core axis. -not sure if this is altered ultramafic or mafic rock. -pale grey, fine grain, massive. -weak pervasive bleaching? -at 142.0m -2cm wide black serpentine? vein contorted at 45° to core axis. -1-2% quartz carbonate veinlets (1mm-5mm wide) contorted orientations.		-sharp contacts with mafic dike: 142.2-142.4m -rodingite alteration? 143.1-143.6m -rodingite alteration?	-nil.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
145.00 TO 206.90	DUNITE «1 or 6D»	-contorted contact is sharp at 145.0m and roughly at 65° to core axis. -1-5% serpentine veinlets. -see description as per 6.0-141.9m. -161.1-179.1m -colour is more greyish and less green. -1-5% carbonate veins vary from 45° to core axis to parallel to core axis to contorted. ┤187.9-193.6├«3bx or 2bx??» Intermediate breccia (andesite composition?). -almost rookes like an intensely silicified and bleached pillow breccia - pale green-beige. -5% (6cm x 6xm size) to (1cm x 1cm size) subrounded pseudofragments? with 2% quartz amygdules? grey in finer grain matrix. -193.6-206.9m -dunite. ┤206.8-206.8├«┤FAI├» Fault.		«Sr» -fracture controlled rodingite alteration occurs: 145.0-145.5m, 158.9-159.6m, 159.9-161.1m. -sharp contact at 159.9m at 65° to core axis and at 161.1m contorted. -179.1-181.9m -rodingite alteration? or change in lithology? -creamy white to pale green colour. -very siliceous. -fine grain. -colour changes 179.1-182.9m -cream pervasive rodingite. -181.9-187.9m -pale green colour. -187.9-193.6m -beige-green colour. ┤187.9-193.6├«Si» -not sure if this is rodingite alteration or a change in rock type? -very siliceous, looks almost cherty.	-nil. -200.0-205.5m -<0.1% very fine disseminated pyrite (can only see with hand lense). -205.5-205.9m -1-3% very fine disseminated pyrite? (can only see with hand lense). -205.9-206.9m -<0.1% fine pyrite?	-145.0-153.0m -locally weakly to moderately broken rock. -177.0m -broken core. -195.5-195.8m broken core. take split AL02989 -205.5-205.6m -took sample for polished section to identify sulphides. -at 206.8m -5mm of gouge weakly broken core.
206.90 TO 317.00	INTER-MEDIATE BRECCIA «3bx»	-sharp contact at 206.9m is contorted. -fine grain. -pale grey-green colour. -1-5% (average) locally up to 15%, mm wide contorted white carbonate ± quartz veinlets strongly fizzes with HCl acid. -commonly veinlets cause insitu brecciation of host rock. -1-5% (mm x mm size) grey quartz subrounded amygdules (locally carbonate filled) (up to 1cm x 1cm size). -varies from 5-10% subrounded to subangular clasts in a hyaloclastitic matrix. -clast size vary from 2cm x 4cm to 5mm x 5mm		«Si» -206.9-207.2m -strong pervasive silicification (white-cream colour) adjacent to contact with dunite. -weak pervasive bleaching/silicification (rock is very hard to scratch with knife and looks very siliceous). -locally weak fracture controlled sericite/epidote? yellow-green colour up to 1cm wide (not sure if these could be pillow selvages?).	┤220.5-265.0├«1-7% py» -overall less than 1% disseminated and blebs of pyrite, locally in carbonate veinlets. -locally 1-5% disseminated pyrite (very fine grain). -220.5-265.0m -up to 7% pyrite, average 5% pyrite. ┤232.7-243.6├«tr. sph, cpy» -at 232.7-233.0m -1% pale red sphalerite in carbonate veins.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		(average size is 1cm x 1cm). -237.5-242.5m -more massive zone. -247.8-248.3m -1cm-3cm wide quartz carbonate vein at 10° to core axis with 1-5% pyrite in vein. ┤242.5-265.0├«┤S2 45°├» -242.5-265.0m -up to 25% clasts and weak foliation varies from 10° to 45° to core axis. -265.0-on -not foliated, this is a really hard unit to describe. -265.0-300.0m -colour is pale grey and looks more like a rhyolite breccia. -vitreous looking. ┤300.0-317.0├«3pbx» -300.0-317.0m -pillowed intermediate volcanic. -possible pillow selvages occur at 308.7-309.0m (1cm wide). -carbonate and quartz filled amygdules up to 10% up to 1cm x 1cm in size.		┤251.0-260.0├«Se» -spotty to fracture controlled sericite alteration, increasing in intensity. -265.0-317.0m -spotty and fracture controlled epidote?	-232.8m -1 bleb of silver galena 5mm x 5mm in a carbonate. -242.5-243.6m -overall less than 1% pale red sphalerite in mm wide carbonate veinlets and disseminated. -less than 1% chalcopyrite (locally in blebs). -up to 10% pyrite/30cm intervals - very fine grain. -265.0-300.0m -1-5% pyrite - very fine grain. -300.0-317.0m -1-2% fine disseminated pyrite.	
317.00 TO 317.00	E.O.H.					



LEGEND

Geology

MAJOR ROCK DIVISIONS

7	MAFIC INTRUSIVE ROCKS
6	ULTRAMAFIC INTRUSIVE ROCKS
5	SEDIMENTARY ROCKS
4	FELSIC VOLCANIC ROCKS
3	INTERMEDIATE VOLCANIC ROCKS
2	MAFIC VOLCANIC ROCKS
1	ULTRAMAFIC VOLCANIC ROCKS

TEXTURAL/GEOCHEMICAL MODIFIERS

a	Fine Grained
bx	Breccia
f	Primary Fragmentals
g	Graphitic/Argillaceous
m	Massive
p	Pillowed
s	Sulphides, Exhalites
t	Pyroclastic
J	Pyroxenite

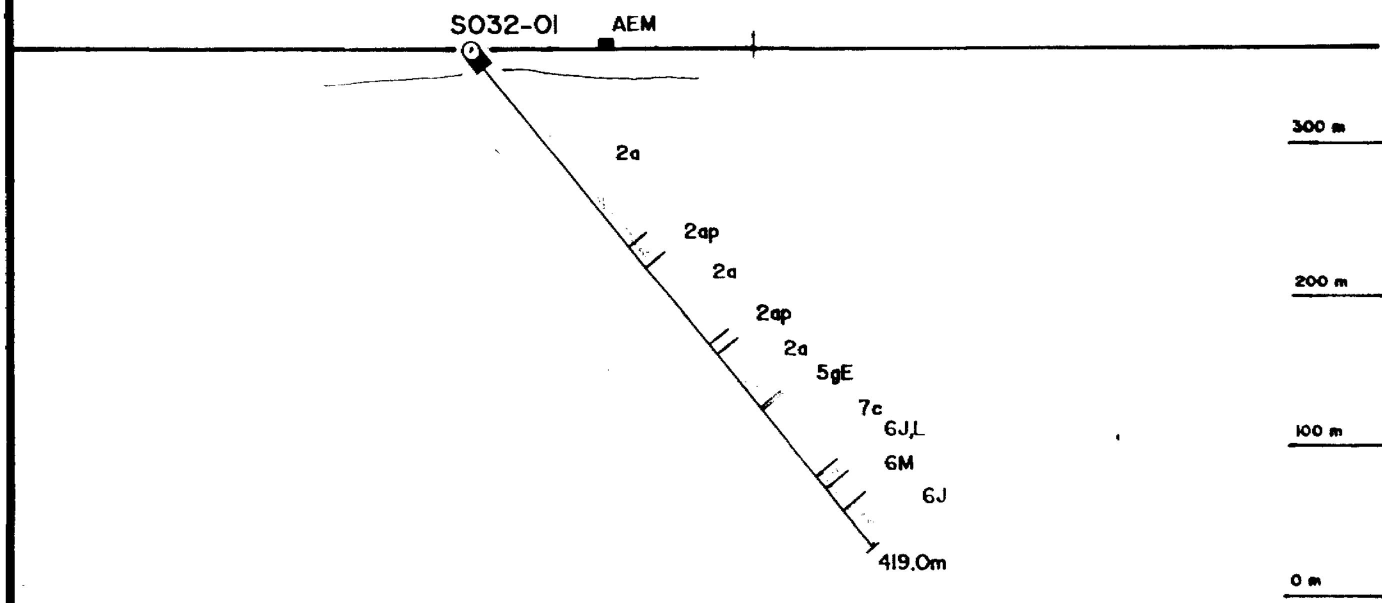
FALCONBRIDGE LIMITED
Exploration Division Timmins, ONTARIO

SOTHMAN 32
SOTHMAN Twp.
PORCUPINE MINING DIVISION

DIAMOND DRILL PLAN

So32-01

SCALE: 1 5000		Data: Waytiuk
Drawn: d e l	Project N°: 8188	Date: 01/05/91



FALCONBRIDGE LIMITED

Exploration Division — Timmins, ONTARIO

HALLIDAY DOME PROJECT

SOTHMAN 32
SOTHMAN TWP

SECTION FOR

S032-01

LOOKING WEST

SCALE : 1 : 5 000		Data : Davis
Drawn : del	Project N° : 8188	Date : 11 / 04 / 90

HOLE NUMBER: SO32-01

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 13-May-1991
IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: 8188
PROJECT NUMBER: 008188
CLAIM NUMBER: [illegible]
LOCATION: SW BARDWELL LAKE

PLOTTING COORDS GRID: UTM
NORTH: 5302850.00N
EAST: 477550.00E
ELEV: 351.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 419.00m
START DEPTH: 0.00m
FINAL DEPTH: 419.00m

COLLAR ASTRONOMIC AZIMUTH: 320° 0' 0"

GRID ASTRONOMIC AZIMUTH: 320° 0' 0"

DATE STARTED: January 21, 1991
DATE COMPLETED: 0, 0
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: YES
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: NOREX
CASING: 12m left in hole.
CORE STORAGE: METSITE

PURPOSE: Plastic pipe in hole.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.00	326° 0'	-51° 0'	SING.SHOT	OK	
120.00	329° 0'	-51°30'	SING.SHOT	OK	
240.00	332° 0'	-51° 0'	SING.SHOT	OK	
300.00	332° 0'	-50°30'	SING.SHOT	OK	

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 12.70	OVERBURDEN «{ob}»					
12.70 TO 165.34	MAFIC VOLCANIC «2a»	-medium to dark grey-green colour. -fine grained to medium grained. -massive texture. -2-10% chlorite grains ranging in size up to 2mm in diameter, possibly amygdules. -speckled texture with chlorite grains. -crosscutting quartz-carbonate, epidote veins up to several centimetres wide associated with Py mineralization. -55.91-56.04m: -quartz-carbonate vein with a purple coloured band possibly fluorite. -71.20-72.13m: -insitu brecciation with clasts of host rock in quartz-carbonate matrix. -84.31-86.89m: -insitu brecciation of host rock by carbonate-quartz veining. -89.90-91.20m: -brecciation of host rock by carbonate-quartz veining.		-moderate chlorite alteration with minor epidote veining and quartz-carbonate veining.	-1.0% to 0.1% disseminated and vein associated Py.	-first 1m core rubbly. -"speckled texture" was recorded in old drill logs.
165.34 TO 182.87	PILLOWED MAFIC VOLCANIC «2ap»	-light grey. -aphanitic to fine grained. -massive with pillow selvages. -some pillow selvages have development of hyaloclastic textures and flow top breccia. -no tops indicators. -minor amounts of amygdules near to selvages. -possibly some blocks of medium grained material within pillowed zone.		-weak chlorite and epidote alteration. -spotty alteration associated with pillow selvages (light brown-grey colour).	-<0.1% disseminated Py.	
182.87 TO 247.64	MAFIC VOLCANIC «2a»	-medium to light grey-green colour. -fine grained to medium grained. -massive texture. -2-10% chlorite grains giving speckled appearance. -crosscutting quartz-carbonate veins.		-very weak silicification of upper contact with moderate chlorite alteration, weak epidote alteration and quartz-carbonate veining.	-0.1% to 1.0% disseminated and vein associated Py.	
247.64 TO 256.66	PILLOWED MAFIC VOLCANICS «2ap»	-light grey to medium grey colour. -aphanitic to very fine grained. -massive textures with pillow selvages. -selvages have hyaloclastic textures and flow top textures. -upper and lower contacts are hazy. -no tops indicators.		-weak chlorite and epidote alteration.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
256.66 TO 302.42	MAFIC VOLCANICS «2a»	-light grey to medium grey-green colour. -fine grained to medium grained. -massive texture. -<1.0% to 5% chlorite grains giving core a speckled texture. -crosscutting quartz-carbonate veins. -275.04-275.24m: -aphanitic flow top breccia with rounded clasts. -becomes finer grained downhole to aphanitic near contact. -302.24-302.42m: -flow top or base breccia with matrix of graphite.		-moderate chlorite alteration.	-<0.1% disseminated Py. -294.0-296.50m: -1-2% fracture controlled Po. -296.50-302.42m: -3-5% blebby Po.	
302.42 TO 303.91	GRAPHITIC SEDIMENTS «5g»	-black colour. -aphanitic. -large veins of carbonate brecciated unit. -clasts of graphite and mafic material within veins. -clasts are all angular to subrounded. -upper and lower contacts hazy due to carbonate veining.		-strong carbonate veining.	-<1.0% Py replacing clasts.	
303.91 TO 361.28	ULTRAMAFIC PLAGIO-CLASE PORPHYRY «1,6cq»	-light grey to medium grey colour. -coarse grained, massive. -several crosscutting quartz-carbonate veins some with pinkish colour. -20-40% plagioclase grains up to 15mm in diameter. -leucoxene present throughout. -several intervals of fine grained massive unit, probably alteration recrystalization. -351.90-352.67m: -dark grey, fine grained alteration zone composed of chlorite and brown-green material.		-weak to moderate chlorite alteration.	-<0.01% fracture associated Po.	
361.28 TO 368.15	PYROXENITIC KOMATIITE «1,6,J»	-medium to dark grey colour. -fine grained to medium grained. -massive texture. -80-90% pyroxenes with intervals of olivine grains. -olivine content increases downhole. -sharp upper contact with gabbroic textured unit. -gradational contact with peridotite.		-moderate to weak serpentine alteration.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-weakly to moderately magnetic. -crosscutting green and white serpentine veins.				
368.15 TO 371.00	PERIDOTITIC KOMATIITE «1,6L»	-dark grey-green colour. -fine grained, massive texture. -80-90% olivine. -olivine content increases downhole. -moderately magnetic. -gradational contact with dunite. -crosscutting serpentine veins.		-strong to moderate serpentine alteration.		
371.00 TO 389.35	DUNITE «1,6M»	-dark green colour. -fine grained, massive texture. ->95% serpentinized olivine. -crosscutting serpentine veins up to 4cm wide. -strongly magnetic. -lower contact marked by rodingite dyke.		-strong serpentine alteration.		
389.35 TO 419.00	PERIDO-TITIC/ PYROXENITIC KOMATIITE «1,6L,J»	-medium grey-green to medium light grey colour. -fine grained to very fine grained. -massive with polysutured textures. -olivine and pyroxene content fluctuates. -weakly magnetic. -serpentine and calcite veins crosscut core axis at all angles. -389.35-389.76m: -light white-green coloured rodingite dyke, aphanitic. -393.50-393.74m: -light grey, aphanitic rodingite dyke. -397.66-398.78m: -insitu brecciation caused by rodingite veinlets and quartz-calcite veinlets. -405.91-408.55m: -very fine grained with original texture washed out by alteration.		-moderate serpentine and chlorite alteration. -389.35-389.76m: -rodingite alteration. -393.50-393.74m: -rodingite alteration. -397.66-398.78m: -partial rodingite alteration. -405.91-408.55m: -moderate silica alteration.	-397.66-398.78m: <0.01% disseminated Py.	
419.00 TO 419.00	E.O.H.					

Ministry of Northern Development and Mines
Ontario

W

41P14NW0001 36 SOTHMAN

900

Mining Act **Report of Work**

Name and Address of Recorded Holder	Prospector's Licence No.
Falconbridge Limited, 571 Moneta Avenue, P.O. Box 1140, Timmins, ON, P4N 7H9	A21647
	Telephone No. (705)267-1188

Summary of Distribution of Credits and Work Performance

Mining Division	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.
Porcupine									
Township or Area (Porcupine) (LL) (Burrows, Kemp) (Sothman, Halliday, Nursey)		See Attached List							
Total Assessment Credits Claimed 5443.8									
Type of Work Performed (Check one only)									
[ ] Manual Work									
[ ] Shaft Sinking Drifting or other Lateral Work									
[ ] Mechanical equipment									
[ ] Power Stripping other than Manual (maximum credit allowed - 100 days per claim)									
[X] Diamond or other Core drilling									
[ ] Core Specimens									

Dates when work was performed	Total No. of Days Performed	Total No. of Days Claimed	Total No. of Days to be Claimed at a Future Date
From: January 11, 1991 To: February 25, 1991	5444.8 days	4993.8 4997.8	451 dys applied to claim in Larder Lake

All the work was performed on Mining Claim(s): Indicate no. of days performed on each claim. * (See note No. 1 on reverse side)

Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days
P1171944	455.7	P1113192	1239.2	P1043628	416	P112919	624	P113008	1083.9	P113007	290.7
P1114455	432.1	P1128345	903.2								

Required Information eg. type of equipment, Names, Addresses, etc. (See Table on reverse side)
If space below is insufficient, attach schedules with required information and location sketches

A total of 1659.6m of NQ core was received and logged from holes S064-01, S043-04, S044-02, and S032-01 in Sothman Township, Porcupine Mining Division between January 11 and February 25, 1991. This meterage equivalent to 5444.8 days of work lies within claims: (S064-01): P1171944 (138.9m, 455.7 dy) P1113192 (377.7m, 1239.2 dy); (S044-02): P1043628 (126.8m, 416 dy) P112919 (190.2m, 624 dy); (S032-01): P113008 (330.4m, 1083.9 dy) P113007 (88.6m, 290.7 dy); (S043-04): P1114455 (131.7m, 432.1 dy), P1128345 (275.3m or 903.2 dy). The hole was drilled by Norex Drilling Limited, P.O. Box 88, Porcupine, Ontario, P0N 1C0. The machine used on this job was a Boyles Model BB537 with a 12 HH head. Work is being applied to contiguous claims in Burrows and Kemp Townships in the Larder Lake Mining Division.

Certification of Beneficial Interest * (See Note No. 2 on reverse side)

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)

Certification Verifying Report of Work

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

Name and Address of Person Certifying: 571 Moneta Avenue, P.O. Box 1140, Timmins, ON, P4N 7H9

Telephone No.	Date	Certified By (Signature)

For Office Use Only

Work Assignments

ONTARIO GEOLOGICAL SURVEY
GIS - ASSESSMENT FILES
JUL 0 9 1991
RECEIVED

Received Stamp

CLAIM #	TOWNSHIP	DAYS WORKED
P1043624	SOTHMAN	26
P1043625	SOTHMAN	26
P1043626	SOTHMAN	26
P1043627	SOTHMAN	26
P1113628	SOTHMAN	26
P1112988	SOTHMAN	21
P1112989	SOTHMAN	21
P1112990	SOTHMAN	21
P1112991	SOTHMAN	21
P1112992	SOTHMAN	21
P1112993	SOTHMAN	21
P1112994	SOTHMAN	21
P1112996	SOTHMAN	21
P1112997	SOTHMAN	21
P1113006	SOTHMAN	21
P1113007	SOTHMAN	21
P1113008	SOTHMAN	21
P1113009	SOTHMAN	21
P1113010	SOTHMAN	21
P1113011	SOTHMAN	21
P1112898	SOTHMAN	21
P1112901	SOTHMAN	21
P1112902	SOTHMAN	21
P1112903	SOTHMAN	21
P1112904	SOTHMAN	21
P1112906	SOTHMAN	21
P1112911	SOTHMAN	21
P1112912	SOTHMAN	21
P1112916	SOTHMAN	21

P1112919	SOTHMAN	21
P1112921	SOTHMAN	21
P1112922	SOTHMAN	21
P1112925	SOTHMAN	21
P1113192	SOTHMAN	22
P1113193	SOTHMAN	22
P1113194	SOTHMAN	22
P1113195	SOTHMAN	22
P1113197	SOTHMAN	22
P1114453	SOTHMAN	21
P1114454	SOTHMAN	21
P1114455	SOTHMAN	21
P1115082	SOTHMAN	21
P1115083	SOTHMAN	21
P1115084	SOTHMAN	21
P1115085	SOTHMAN	21
P1115086	SOTHMAN	21
P1127015	SOTHMAN	25
P1127016	SOTHMAN	25
P1127017	SOTHMAN	26
P1127018	SOTHMAN	26
P1127019	SOTHMAN	26
P1127020	SOTHMAN	26
P1127021	SOTHMAN	26
P1127022	SOTHMAN	26
P1127023	SOTHMAN	26
P1127024	SOTHMAN	26
P1127025	SOTHMAN	26
P1127026	SOTHMAN	26
P1127027	HALLIDAY	26

P1127063	SOTHMAN	26
P1127064	SOTHMAN	26
P1127065	SOTHMAN	26
P1127066	SOTHMAN	26
P1127067	SOTHMAN	26
P1127068	SOTHMAN	26
P1127069	SOTHMAN	26
P1127070	SOTHMAN	26
P1127071	SOTHMAN	26
P1127072	SOTHMAN	26
P1127073	SOTHMAN	26
P1127074	SOTHMAN	26
P1127094	NURSEY	26
P1127095	NURSEY	26
P1127096	SOTHMAN	26
P1127097	NURSEY	26
P1127098	NURSEY	26
P1127105	NURSEY	26
P1127106	NURSEY	26
P1127107	NURSEY	26
P1127108	NURSEY	26
P1127113	SOTHMAN	26
P1127114	SOTHMAN	26
P1127115	SOTHMAN	26
P1127116	NURSEY	26
P1127117	NURSEY	~~51.8~~ 47.8 K/L
P1127118	NURSEY	66
P1127119	NURSEY	66
P1127120	NURSEY	26
P1127121	NURSEY	66

P1127122	NURSEY	66
P1127123	NURSEY	66
P1127124	NURSEY	66
P1127125	NURSEY	66
P1127126	NURSEY	66
P1127127	NURSEY	66
P1127128	NURSEY	66
P1127129	NURSEY	66
P1127130	SOTHMAN	26
P1127131	SOTHMAN	26
P1127132	SOTHMAN	66
P1127133	SOTHMAN	66
P1127134	SOTHMAN	66
P1127135	SOTHMAN	66
P1127136	SOTHMAN	66
P1127137	SOTHMAN	66
P1127138	SOTHMAN	26
P1127139	SOTHMAN	26
P1127140	SOTHMAN	66
P1114247	HALLIDAY	26
P1128320	SOTHMAN	26
P1128321	SOTHMAN	26
P1128322	SOTHMAN	26
P1128323	SOTHMAN	26
P1128324	SOTHMAN	26
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P1128326	SOTHMAN	26
P1128327	SOTHMAN	26
P1128328	SOTHMAN	26
P1128329	SOTHMAN	26

P1128330	SOTHMAN	26
P1128331	SOTHMAN	26
P1128332	SOTHMAN	26
P1128333	SOTHMAN	26
P1128334	SOTHMAN	26
P1128335	SOTHMAN	26
P1128336	SOTHMAN	26
P1128337	SOTHMAN	26
P1128338	SOTHMAN	26
P1128339	SOTHMAN	26
P1128340	SOTHMAN	26
P1128341	SOTHMAN	26
P1128342	SOTHMAN	26
P1128343	SOTHMAN	66
P1128344	SOTHMAN	66
P1128345	SOTHMAN	66
P1128346	SOTHMAN	26
P1128347	SOTHMAN	66
P1128348	SOTHMAN	26
P1128349	SOTHMAN	26
P1171032	SOTHMAN	20
P1171033	SOTHMAN	20
P1171034	SOTHMAN	20
P1171035	SOTHMAN	20
P1171036	SOTHMAN	20
P1171037	SOTHMAN	20
P1171038	SOTHMAN	20
P1171039	SOTHMAN	20
P1171052	SOTHMAN	20
P1171053	SOTHMAN	20

P1171054	SOTHMAN	20
P1171055	SOTHMAN	20
P1171056	SOTHMAN	20
P1171057	SOTHMAN	20
P1171058	SOTHMAN	20
P1171059	SOTHMAN	20
P1171107	SOTHMAN	20
P1171108	SOTHMAN	20
P1171109	SOTHMAN	20
P1171110	SOTHMAN	20
P1171115	SOTHMAN	20
P1171116	SOTHMAN	20
P1171117	SOTHMAN	20
P1156276	HALLIDAY	20
P1171943	SOTHMAN	20
P1171944	SOTHMAN	20
P1171945	SOTHMAN	20
P1171946	SOTHMAN	60
P1171947	SOTHMAN	60
P1171948	SOTHMAN	20

TOTAL DAYS ~~4997.8~~
4993.8 KW

Ministry of Northern Development and Mines

Ontario

Instructions
- Please type or print.
- For each type of work performed, a separate Report of Work should be completed.
- For Geo-technical work, use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical") and form no. 878 for Expenditures.
- Refer to Sections 76 and 77, the Mining Act for assessment work requirements and the reverse side of this form for table of information.

Mining Act — Report of Work

Name and Address of Recorded Holder	Prospector's Licence No.
Falconbridge Limited, 571 Moneta Avenue, P.O. Box 1140, Timmins, ON, P4N 7H9	A21647
	Telephone No. (705)267-1188

Summary of Distribution of Credits and Work Performance

Mining Division	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.
Larder Lake (LL)		See Attached List							
Township or Area (Porcupine) (Burrows,Kemp) (Sothman,Halliday,Nursey)									
Total Assessment Credits Claimed 451									

Type of Work Performed (Check one only)

- [ ] Manual Work
- [ ] Shaft Sinking Drifting or other Lateral Work
- [ ] Mechanical equipment
- [ ] Power Stripping other than Manual (maximum credit allowed - 100 days per claim)
- [X] Diamond or other Core drilling
- [ ] Core Specimens

Dates when work was performed	Total No. of Days Performed	Total No. of Days Claimed	Total No. of Days to be Claimed at a Future Date
From January 11, 1991 To Febraury 25, 1991	5444.8 days	451	4993.8 dys applied to claims in Porcupine

All the work was performed on Mining Claim(s): Indicate no. of days performed on each claim. * (See note No. 1 on reverse side)

Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days
P1171944	455.7	P1113192	1239.2	P1043628	416	P112919	624	P113008	1083.9	P113007	290.7
P1114455	432.1	P1128345	903.2								

Required Information eg. type of equipment, Names, Addresses, etc. (See Table on reverse side)
If space below is insufficient, attach schedules with required information and location sketches

A total of 1659.6m of NQ core was received and logged from holes SO64-01, SO43-04, SO44-02, and SO32-01 in Sothman Township, Porcupine Mining Division between January 11 and February 25, 1991. This meterage equivalent to 5444.8 days of work lies within claims: (SO64-01): P1171944 (138.9m, 455.7 dy) P1113192 (377.7m, 1239.2 dy); (SO44-02): P1043628 (126.8m, 416 dy) P112919 (190.2m, 624 dy); (SO32-01): P113008 (330.4m, 1083.9 dy) P113007 (88.6m, 290.7 dy); (SO43-04): P1114455 (131.7m, 432.1 dy), P1128345 (275.3m or 903.2 dy). The hole was drilled by Norex Drilling Limited, P.O. Box 88, Porcupine, ON, PON 1CO. The machine used on this job was a Boyles Model BB537 with a 12 HH head. Work is being applied to contiguous claims in Sothman, Halliday, Nursey Townships in the Porcupine Mining Division.

Certification of Beneficial Interest * (See Note No. 2 on reverse side)

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)

Certification Verifying Report of Work

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

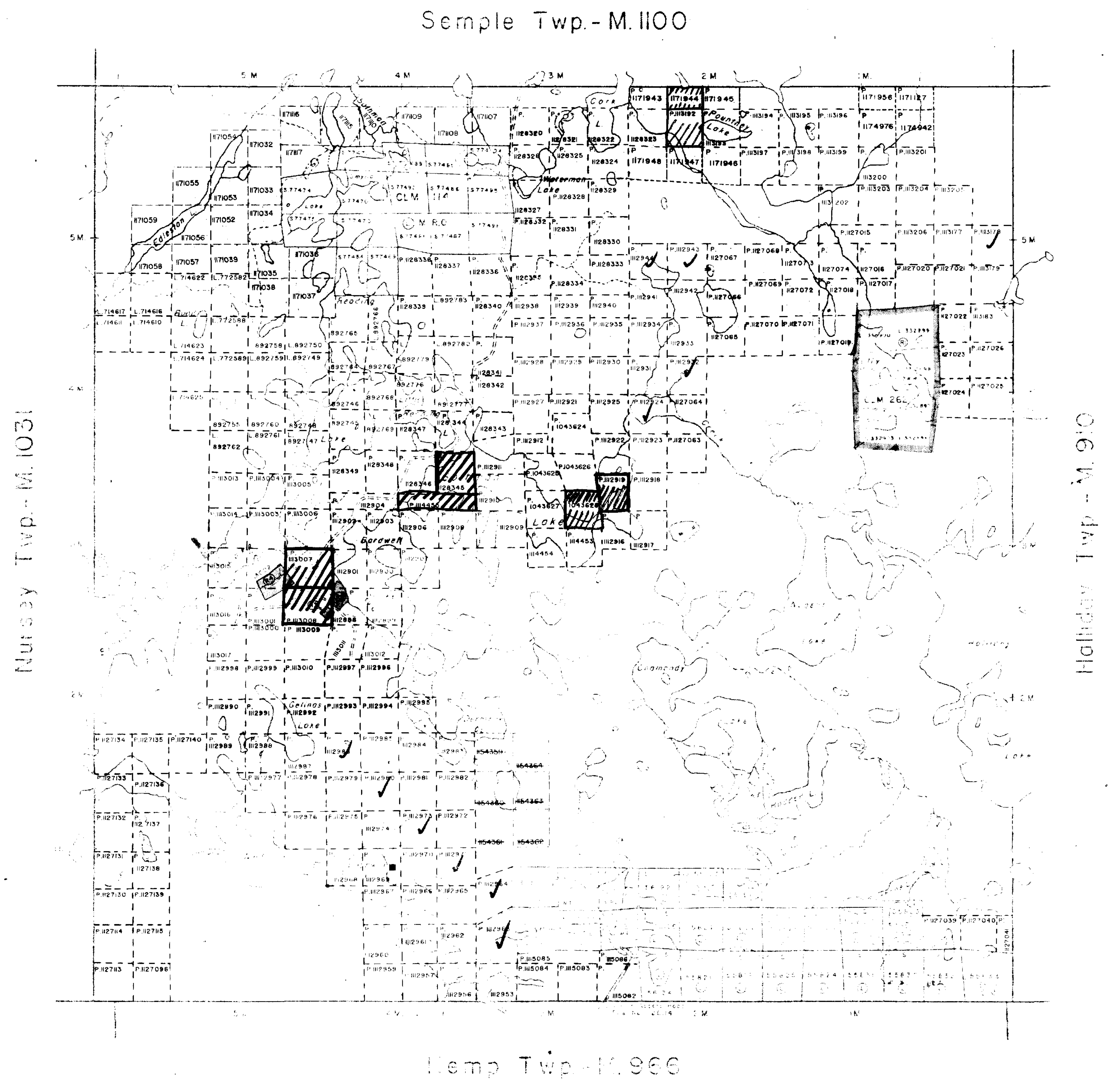
Name and Address of Person Certifying	Telephone No.	Date	Certified By (Signature)
571, Moneta Avenue, P.O. Box 1140, Timmins, ON, P4N 7H9			

For Office Use Only

Work Assignments	Received Stamp

CLAIM #	TOWNSHIP	DAYS WORKED
L1127100	BURROWS	23
L1127101	BURROWS	23
L1127102	BURROWS	23
L1127103	BURROWS	23
L1127104	BURROWS	23
L1127109	BURROWS	23
L1127110	BURROWS	24
L1127111	BURROWS	24
L1127112	BURROWS	23
L1127091	BURROWS	24
L1127092	BURROWS	24
L1127093	BURROWS	24
L1127099	BURROWS	23
L1036131	KEMP	21
L1036132	KEMP	21
L1036133	KEMP	21
L1112948	KEMP	21
L1112949	KEMP	21
L1112950	KEMP	21
L1112951	KEMP	21
	TOTAL DAYS	451

M.1121



THE TOWNSHIP OF SOTHMAN

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND
CROWN LAND SALE
LEASES
LOCATED LAND
LICENSE OF OCCUPATION
MINING RIGHTS ONLY
SURFACE RIGHTS ONLY
ROADS
IMPROVED ROADS
KING'S HIGHWAYS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
MINES
CANCELLED

NOTES

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

Flooding Rights L.O. 7891 File No.1162 vol. 4

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

Order No.	File	Date	Disposition
(R1) W.39/84	CLM 262	22/2/84	M.R.O.
(R2) Waste Disposal Site Buffer Zone			
(R3) W.89/81	188517		S.R.O.
(R4) MNR Gravel Reserve			

■ Trapline Cabin

ACTIVATED APRIL 25, 1990

PLAN NO.-M.1121

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

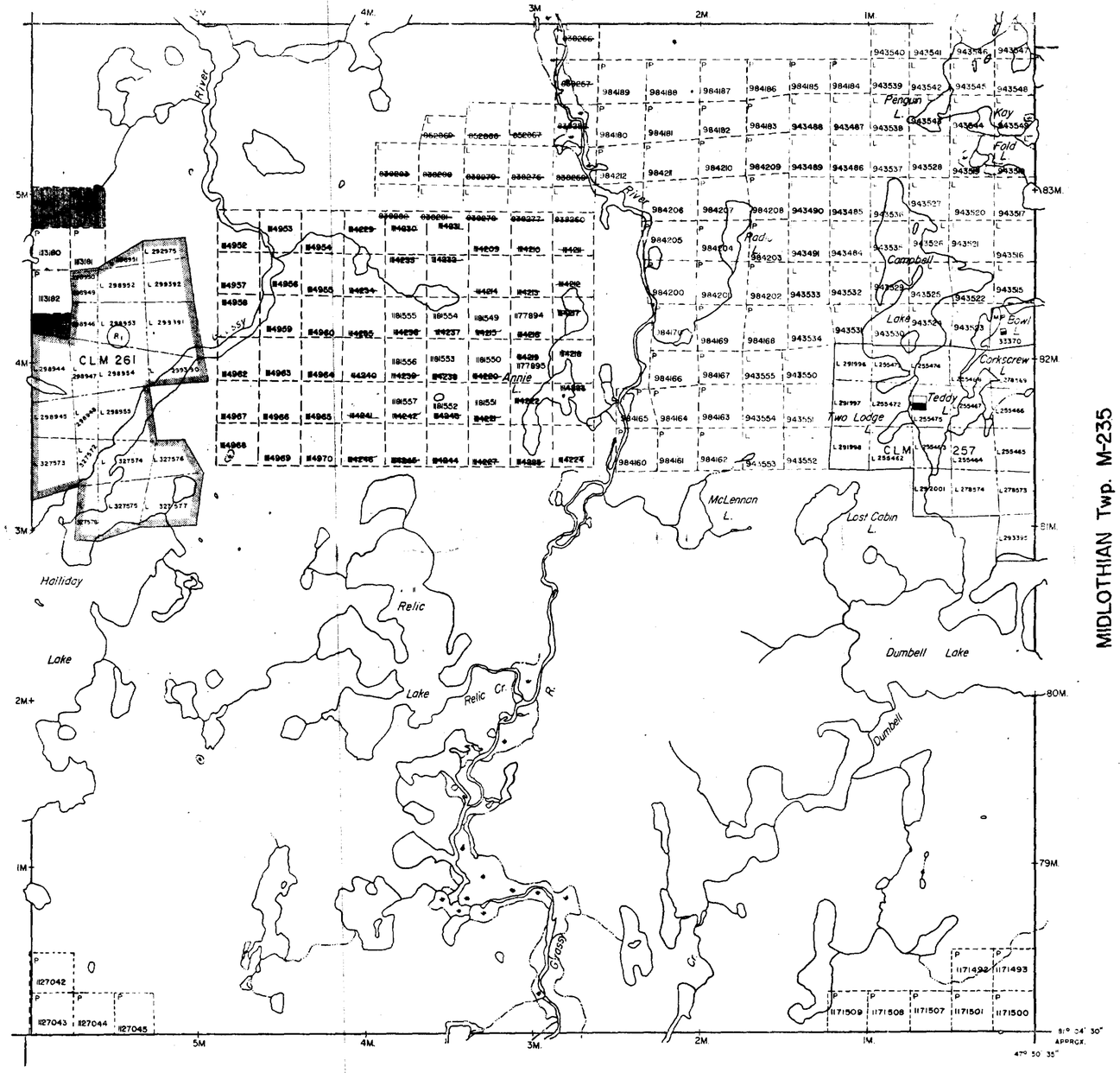
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

SOTHMAN TWP

41P14NW0001 36 SOTHMAN

200

HUTT Twp. M-943



SOTHMAN Twp. M-1121

MIDLOTHIAN Twp. M-235

MOND Twp. M-870

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES. AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

NOTES

...00 surface rights ... of all lakes and rivers.

AREAS WITHDRAWN FROM DISPOSITION.

M.R.O. - MINING RIGHTS ONLY
S.R.O. - SURFACE RIGHTS ONLY
M.+S. - MINING AND SURFACE RIGHTS

DESCRIPTION	ORDER NO.	DATE	DISPOSITION	FILE
P1	NRW46/84	FEB. 22/84	M.R.O.	

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES. AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

DISPOSITION OF CROWN LANDS

PATENT, SURFACE AND MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LEASE, SURFACE AND MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LICENCE OF OCCUPATION
HIGHWAY & ROUTE NO.
ROADS
TRAILS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
MINES

*used only with summer resort locations or when space is limited

TOWNSHIP OF

HALLIDAY

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE : 1 INCH = 40 CHAINS (1/2 MILE)

DR. RWN
DATE FEB 2, 7-
PLAN NO. M-910

Received MAY 1/87 BB CS

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

G-2282

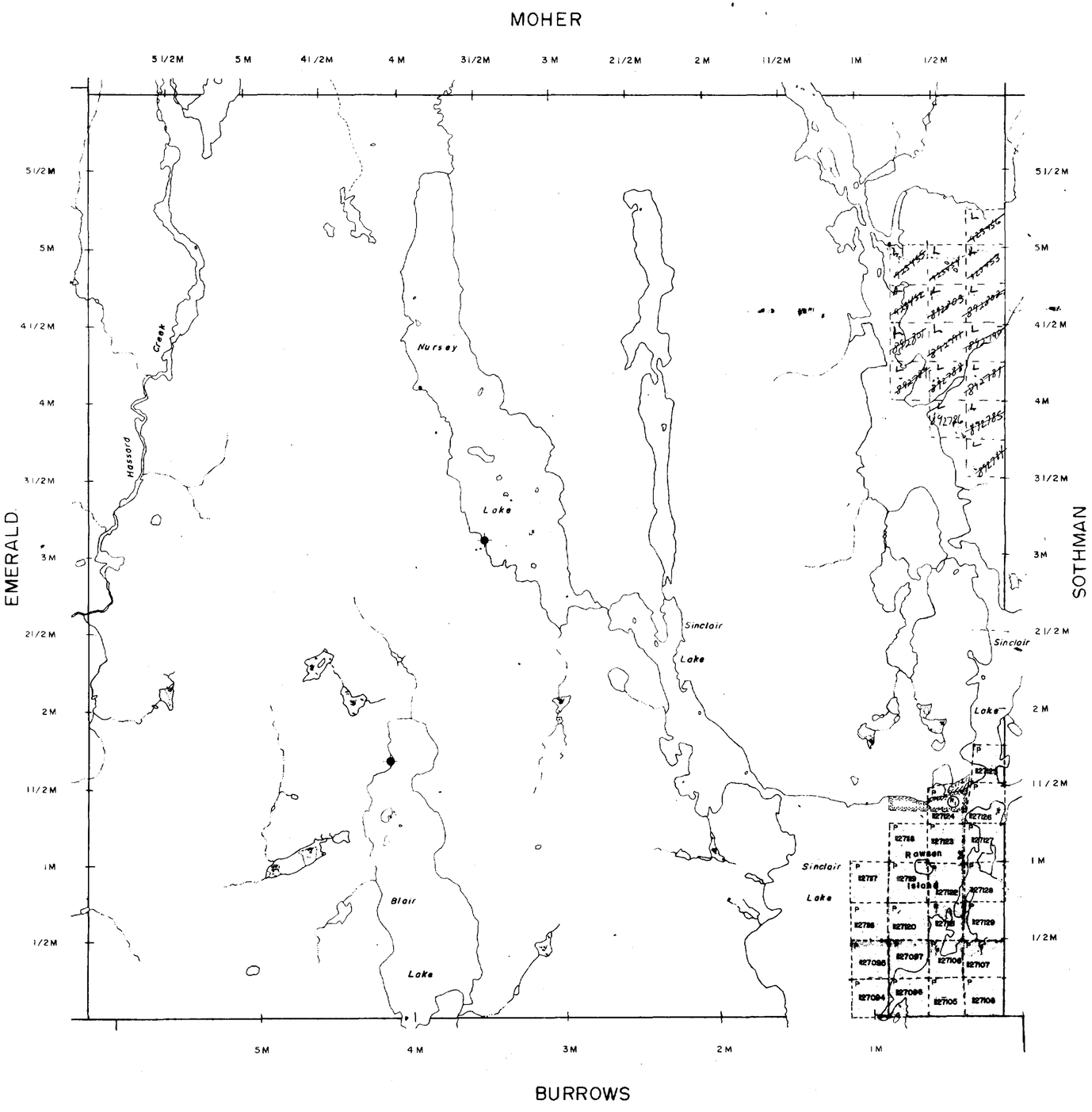
REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

	Description	Order No.	Date	Disposition	File
(M)	M.N.R. Res				77094

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



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 OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT
- REMOTE TOURIST CAMP

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	(R)
CANCELLED	⊗
SAND & GRAVEL	(S)

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET: 0 1000 2000 4000 6000 8000
METRES: 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

NURSEY TWP.

M.N.R. ADMINISTRATIVE DISTRICT
GOGAMA

MINING DIVISION
PORCUPINE

LAND TITLES / REGISTRY DIVISION
SUDBURY

Ontario Ministry of Natural Resources — Land Management Branch

Date: AUGUST 20, 1982

Number: G-2282