

**THE SUTTON-HANSON CLAIMS****GENERAL**

Eighteen contiguous claims are located in Holmes Township. Located along a logging road two kilometres north of highway 66, between Matachewan and Kirkland Lake, the claims are easily accessed. A branch of the logging road was pushed through the centre of the block and the forest clear cut during the summer of 1989. Lake access to the eastern portion of the block is easily attainable via ~200' (~60 metre) portage. The claims are as follows:

NE $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 12 Con I	1048454	NW $\frac{1}{4}$ -S $\frac{1}{2}$	Lot 11 Con II	1048461
SE $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 12 Con I	1048459	SW $\frac{1}{4}$ -S $\frac{1}{2}$	Lot 11 Con II	1047209
NE $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 11 Con I	1048456	SE $\frac{1}{4}$ -S $\frac{1}{2}$	Lot 11 Con II	1047208
NW $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 11 Con I	1048455	SW $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 11 Con II	1111077
SW $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 11 Con I	1048458	SE $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 11 Con II	1111076
SE $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 11 Con I	1048457	NW $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 10 Con II	1048464
SW $\frac{1}{4}$ -S $\frac{1}{2}$	Lot 10 Con II	1047198	SW $\frac{1}{4}$ -N $\frac{1}{2}$	Lot 10 Con II	1048463
NW $\frac{1}{4}$ -S $\frac{1}{2}$	Lot 11 Con II	1048460	NW $\frac{1}{4}$ -S $\frac{1}{2}$	Lot 12 Con I	1112092

Location: Holmes Twp.; Larder Lake Mining Division

Co-Owners: Michael Sutton K21854  
Tim Hanson K21859

Prospecting Targets: Au & Associated Ag, Molybdenum, Copper in addition to these claims, two claims that follow, also contiguous are held under lease 1/3-1/3-1/3 by Michael Sutton, Tim Hanson, and prospector Ivan Jack Dea of Timmins:

NW $\frac{1}{4}$ -N $\frac{1}{2}$  Con 12 Lot I 750778  
SW $\frac{1}{4}$ -N $\frac{1}{2}$  Con 12 Lot I 641611

Claims adjoining to the East and Northeast are held under patent by Len Cunningham of Kirkland Lake, who has optioned them to Pamourex. Results of some of their drilling in the summer of 1989 in Holmes Twp. including 0.3oz over 22' were published in the Northern Miner on Dec. 25 (Vol 75, #42 - see ILLUSTRATION A)

The claims adjoining the claims on the South are held by Roger Dufresne of Kirkland Lake who has, it is our understanding, optioned them to Queenston. They carried out extensive stripping on cherty silicified veining along a showing.

OP91-670

## GEOLOGY

The Cairo syenitic stock and its contacts with the surrounding volcanic rocks and sedimentary inlayer (both of which are located on our block (see Map #2), have been the focus of exploration for some seventy years due to two factors. First, numerous showings and occurrences are dotted throughout the area, usually associated with chalcopryrite, galena, pyrite, and molybdenum with assays up to 2.2oz Au. and 3.9oz Ag. The second reason substantiates the first. The Galer Lake fault is a major E-W striking structure that transects the Southern contact of the stock with the volcanic, eventually cutting through the stock itself. Our claim block encompasses this locally wide zone and its parallel conductive horizons. The fault itself was uncovered at site 1 (on maps 3 and 4) by Sylva. The shearing through Galer Lake is described by a report in 1957 as "nearly massive sulphides which were observed in the Talcose Schist in the form of Pyrite" along with pervasive carbonitization. The Galer Lake fault was felt by both Moore (1966) and Lovell (1967) to be the Western Extension of the Larder Lake tectonic movement (see map #1). This has been substantiated by W. Powell of Queens' University who did a structural study during the summer of 1989 and subsequently outlined his results at the Dec. 1989 Government Geological Forum in Toronto (G.S.C.?). His map (map #8) shows the Larder Lake break passing through our claims—the Galer Lake Fault.

O.G.S.

The Cairo Stock is porphyritic but country rocks on the contact of the stock are granitized and often altered to a pink, aphanitic texture "over widths of 30'" (Sylva). This is very difficult to distinguish from the rhyolite volcanic present along the South and East. Indeed, a large outcrop along Tully Lake (at site #5), which is full of silicified pyritic zones, was mapped under the Government Survey (map #2) as syenite, wacke, and rhyolite (and coloured in as syenite), while in fact most likely it is rhyolite. Similarly there is dispute over whether the outcrop in which the Larder Lake break is exposed (site #1) is sheared syenite or rhyolite.

Mapping during the summers of 1988 and 1989 have further delineated the Geology, as found on the compilation (map #9). Besides the quite ordinary pink to red syenite with 30% mafics and grain size in the 0.01 - 0.04 metre range found in the Western portion of the claims and to the North, a porphyritic syenite with grain size up to 3cm that is red and 40 - 50% mafic, was found to be present just North of the Larder break. The contact between this and the rhyolite/sheared syenite unit could not be unearthed but the strike appears to roughly parallel the fault and the absence of alternation might point to it being an intrusive unit.

The most promising horizons for gold appear to be:

- 1) The Larder Lake break and parallel structures especially if these coincide with #2 or #3.
- 2) Trachyte-Due to its porosity evidently.
- 3) Rhyolite and its contacts with syenite and sediments.

Veining is ubiquitous as either quartz or cherty silicified zones. All veining (Quartz, Pyrite, Silicification etc.), Fractures and foliation dips approximately 65-90° North and strikes 50-95° East-Northeast. Specifically there are two sets of silicification (with Associated Au); one at 60° strike and 60-70° dip and the other at 83° with a subvertical dip.

Alteration at the various sites includes Pyrite, Chalcopyrite, Galena, Molybdenum, Sericite, Chlorite, Quartz-Ankerite Veining, Quartz Veins and Group Veinlets, Silicification, Hematization, Fluorite, Tourmaline, and Cherty Veining.

#### GEOPHYSICS

Several conductors cross through the claims. Falconbridge, Texas Gulf, Rio Tinto, and Sylva Explorations carried out VLF-EM Surveys on different and overlapping portions of the Holmes claim block. Sylva also carried out self potential, Magnetometer, and Geochemical Surveys on "The Group of Seven: (see maps #4, 5, & 6) claims. Several important conductors were realized in the Sylva Surveys which are shown on map #5 as A, B, C, & D.

One of the strongest conductors (A) more or less follows the centre of the fault which is observable using VLF and Magnetic signature (and visually by a 50'-15 metre valley). At its strongest point, on high ground at site 2 (on maps 5&6), it correlates with a self-potential peak. This persistent anomaly has with it 3 coincident Geochemical responses of 20ppm heavy metals in organic soil. Elsewhere, unfortunately, the conductor is usually heavily overburdened. Another anomaly was delineated in the Lake and east of it (see C on map 5). "Weak but very distinctive QP Max/min Anomalies coincide with the SP Survey" which "registered some interesting readings". This also coincides with three Geochemical heavy metals responses. A North-South fault transects this conductor in the Lake. "It would appear" that this fault is "mineralized as well at the junction of the aforementioned conductor since the VLF field strength climbed to over 250%". "The SP correlation in this area rules out the possibility of it being due to Lake Sediments. Also in the high temperature environment of the Syenite stock it is probably a sulphide occurrence".

## OBJECTIVES

A WINKIE DIAMOND DRILL WAS USED TO DELINEATE PREVIOUSLY FOUND GOLD ZONES WHICH HAD YIELDED ENCOURAGING ANDOMALOUS ASSAYS OVER VERY EXTREMELY LARGE WIDTHS. SEVERAL TARGETS WERE NARROWER HIGHER GRADE ZONES. THE TARGETS WERE AS FOLLOWS (WITH DRILL HOLES ACTUALLY DRILLED):

#1) THE GALER LAKE FAULT (KIRKLAND LAKE MAIN BREAK EXTENSION) WAS TO BE DRILLED ALONG A SYENITE-ANDESITE (RHYOLITE) CONTACT WHERE A MAGNETIC LOW SIGNATURE WAS PREVIOUSLY DELINEATED. A CHERTY SILICA VEIN ASSAYING  $21.0\text{g/ton}$  EXISTS 250' EAST. (DRILL HOLE H1-91)

#2) THE "SITE #7" LOW GRADE 400' WIDE ZONE OF CHERTY VEINS & INTENSE ALTERATION LOCATED ALONG THE "BASELINE" WAS TO BE PROBED. STRIPPING AND PREVIOUS DRILLING IN 1989 FOUND NUMEROUS ZONES/VEINS. THESE ASSAYED UP TO  $5.62\text{g/tonne}$  WITH ANOTHER AREA ASSAYING  $1.0\text{g/tonne}$  OVER 6.5 MET. ( $0.0302/21'$ ). (DRILL HOLES H2-91, H3-91, H4-91)

#3) THE ZONE ON THE SEPARATION LAKE ROAD WHICH ASSAYS  $30.30\text{g/tonne}$  OVER 0.2 METRES (CLAIM #641611)

#4) THE ZONE OF GALENA, PYRITE, CHALCOPYRITE & CHLORITE ON CLAIM #641611 DISCOVERED IN 1990 WHICH ASSAYS  $2.6\text{g/tonne}$  OVER 1.2 METRES AND  $8.84\text{g/tonne}$  OVER 0.5 METRES. (DRILL HOLE H5-91)

#5) THE BEST TARGET DELINEATED IN 1990 DURING THE I.P. SURVEY ON A CLIFF EDGE REPRESENTING THE GALER LAKE FAULT ALONG THE SYENITE/ANDESITE (RHYOLITE) CONTACT ON THE EASTERNMOST EDGE OF THE CLAIM BLOCK (CLAIM #1048457). THIS WOULD REQUIRE A 200' HOLE (100' CLIFF + DEEP OVERBURDEN BELOW)

## FINAL RESULTS

A NUMBER OF UNEXPECTED PROBLEMS CONTINUED TO REDUCE THE TOTAL FOOTAGE DRILLED. SEVERAL PRIMARY TARGETS WERE NOT DRILLED AND A COUPLE OF HOLES HAD TO BE ABANDONED BECAUSE OF TARGETED LENGTH. SOME OF THE PROBLEMS FACED WERE AS FOLLOWS:

#1) LACK OF RAINFALL LEVEL OF WATER HOLES THAT HAD EXISTED FOR MANY YEARS. THIS NECESSITATED THE ACQUISITION OF ANIMAL WATERPUMP, HAD TO REACH 1000' AND PUT A BURLIN ON THE PUMP (WATER PUMPING COME WITH DISTANCE MADE FOR FREQUENT STOPPAGES TO ALLOW LAPPED HOLES). TWO PRIMARY TARGETS (#3 & #5) COULD NOT BE DRILLED AT ALL BECAUSE OF H<sub>2</sub>O.

#2) WE HAD INFLATED EXPECTATIONS. ONLY EXPERIENCED WINKIE DRILLERS CAN AVERAGE 40' PER DAY (AND THEN ONLY IN GOOD GROUND). THOUGH MY HELPER HAS EXPERIENCE ON OTHER DRILLS, A MANUAL WINKIE IS QUITE DIFFERENT. PULLING ROLLS OF MORE THAN 120' WOULD BE VERY DIFFICULT - TIME CONSUMING.

#3) POOR GROUND & HARD GROUND CONTINUED TO CAUSE A LOSS OF H<sub>2</sub>O IN EVERY HOLE DUE TO FAULTS, CRACKS, AND EXCESSIVE PULLING OF ROLLS DUE TO BLOCKING, BRUSH, CORALS, ETC. EXCESSIVE WEAR ON BITS, CORE BITTERS, BITTICH CHANGES ALL CAUSED BY THE LOSS OF WATER. EXCESSIVE PROBLEMS OCCURRED.

#4) MECHANICAL BREAKDOWNS AND THOSE LISTED IN #5) CONTINUED WITH MORE COSTLY MALFUNCTIONS. TWO WINKIE ENGINES SEIZED, AND THE THIRD HAD THE PISTON COUPLING FATIGUE & SEIZURE. WE SWITCHED FROM THE 16:1 GAS/OIL MIXTURE RECOMMENDED TO OIL ONLY. THE FIRST SEIZURE. THE SECOND SEIZURE WAS DUE TO A DEFECTIVE PISTON PIN.

THE FINAL RESULTS ARE AS FOLLOWS:

HOLE H1-91) THE HOLE HAD TO BE ABANDONED CLOSE BUT SHORT OF THE GALEX LAKE FAULT TRAJECTORY, THE FINAL 3' WERE BADLY GROUND DUE TO EXTREMELY BLOOPY AND ALTERED CORE. A BIT HEAD SNAPPED OFF AT THE END OF THE HOLE. A SERIES OF SYENITE DYKES (APHANITIC) SPLIT UP THE LOCALLY SHEARED ANDESITE. A CHERTY DARK GREY SILICA VEIN WITH 10% FINELY DISSEMINATED  $Fe_2O_3$  BESIDE FRACTURES CARRYING 2-3%  $Fe_2O_3$  + CHALCOPHYRITE ASSAYED 0.02 OZ Au + 1/2% Cu OVER 1.8'. SEVERAL QUARTZ VEINS IN THE ANDESITE WERE BARREN. ONE VUGGY AREA OF ANDESITE (1.2') WITH WHITE CARBONATE VEINS CARRYING 10-15% CHALCOPHYRITE ASSAYED 0.82% Cu. WATER HAD TO BE BROUGHT IN 1000' AWAY UPHILL TO HERE.

HOLE H2-91) THE DEEPEST OF THE HOLES, THIS TOO HAD TO BE ABANDONED WHEN WE LOST OUR H<sub>2</sub>O DUE TO EXCESSIVE FAULTING. THE SYENITE WAS EXTREMELY ALTERED FROM 20.6' ON AND HAD A TRACHYTIC TEXTURE. THE CHERTY VEINING SOUGHT AFTER (AS IN HOLE 89-4 PREVIOUSLY DRILLED) WAS REALIZED. THE PRESENCE OF ABUNDANT PYRITE THROUGHOUT THE ALTERED ZONES (20.6'-93.7') LEAD TO ANOMALOUS ASSAYS THROUGHOUT. SOME OF THE BETTER SEGMENTS WERE: 0.029 OZ / 8.8' (c 30.3'-37.1'), 0.04 OZ / 8.4' (c 53.0'-61.4') INCLUDING 0.054 OZ / 4.2' OR 0.071 OZ / 1.7', AND 0.027 OZ / 5.1' (c 82.4'-87.5'). THE 0.071 OZ / 1.7' IS THE SAME ZONE AS THE 0.053 OZ / 3.6' (1.8g / 1.1m) IN HOLE 89-4 36' EAST.

HOLE H3-91) CHERTY SILICA VEINS WITH ABUNDANT BRECCIA FRAGMENTS & PYRITE DID NOT RUN AS WELL AS THEY DID ON SURFACE. ONE RAN 0.015 / 4.6' AND THE OTHER 0.007 / 4.1'. THIS HOLE CREATED MOST OF THE CHAIN LINK PROBLEMS DUE TO LOSS OF H<sub>2</sub>O ALMOST IMMEDIATELY AND CAVING OF HOLE. FAULTING WAS VERY STRONG.

HOLE H4-91) A CHLORITIC BRECCIA ZONE CARRYING 5-8% PYRITE ALONG WITH GREY CHERTY VEINING ASSAYED 0.0202 / 1.9' (c 12.2'-14.1'). A STRONG VEIN OF WHITE QUARTZ + GREY CHERTY SILICA WITH 5-8%  $\text{FeS}_2$  AND 2% CHALCOPYRITE ASSAYED 0.00202 Au + 0.08% Cu OVER 4.9' (c 39.0'-43.9'). ANOTHER SIMILAR VEIN c 54.2'-58.4' CARRIED 5-7%  $\text{FeS}_2$  + 7-10% FINE DISSEMINATED AND BLED CHALCOPYRITE. A 2.0' SECTION ASSAYS 0.65% Cu AND A ZONE c 48.7'-60.4' ASSAYS 0.02102 Au OVER 11.7'. ONE LAST SECTION OF CHERTY + QUARTZ-ANKERITE VEIN ASSAYED 0.00902 / 6.7' (c 60.4'-67.1'). AGAIN WATER WAS LOST, A BIT WAS WORN OUT, AND THE HOLE WAS CAVING; THUS THE HOLE WAS ABANDONED.

HOLE H5-91) THIS HOLE NEVER REACHED ITS TARGET AS THE PISTON COUPLING SNAPPED + FLEW THROUGH THE SIDE OF THE ENGINE HOUSING. DIRTY FUEL PLUS FREEZING OF WATER LINES AND BREAKING CHAIN LINKS CREATED PROBLEMS.

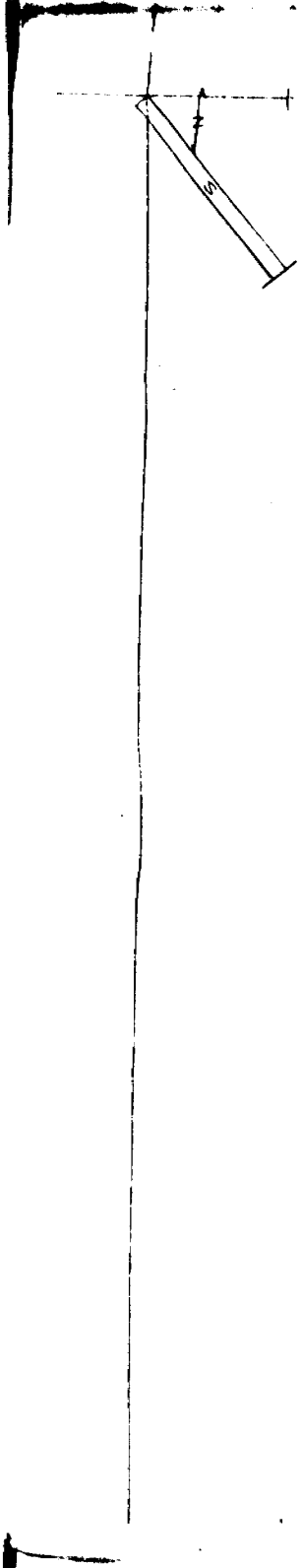
## CONCLUSIONS & RECOMMENDATIONS

VISUALLY, THE CORE FROM THE "SITE #7" ZONES APPEARS RICH IN PYRITE WITH THE ALTERATION AND VEINS VERY STRONG. THE CONTINUATION OF 0.03-0.08 OZ/TON ASSAYS OVER RECENT WIDTHS PROVIDES PROMISE OF LATERAL OR DEEPER INCREASES IN GRADE. THE INCREDIBLE WIDTH OF THE OVERALL ZONE HERE (400') AND ITS OVERLAYING I.P. AND MAGNETIC SIGNATURES ADD TO THE REQUIREMENT FOR FURTHER DRILLING. THE PRESENCE OF COPPER IN SOME AMOUNTS IS ANOTHER TARGET.

THE TARGETS #3, #4, AND #5 SHOULD BE DRILLED AS WELL IN SEARCH OF HIGHER GRADE VEINING. THE GALEX LAKE FAULT MUST BE INTERSECTED AS IT IS THE MOST LIKELY FOCUS FOR MINERALIZATION.

A TUGGER PLUS TRIPOD SET-UP WILL BE SETUP IN 1992 TO FACILITATE THE DRILLING OF DEEPER HOLES AND THE QUICKER RETRIEVAL OF RODS IN GENERAL (AN OTHERWISE VERY SLOW PROCESS ESPECIALLY IN POOR GROUND CONDITIONS - E.G. MANY RETRIEVALS FOR INCHES OF CORE).





115.71 (-50°)  
7.44 METERS

S - 39 EN 17 E  
47 - SHEAR PLANE, 1:217

CLAMP # 671611

SCALE 1:250

5M      5M  
-----  
10M (32.8')

TRUE NORTH



SCALE: 1" = 200'

750778

CLEARCUT

TREELINE

TRENCH

H 5-91

DIP -50° 360° AZIMUTH

ABANDONED

1048454

LOGGING  
ROAD

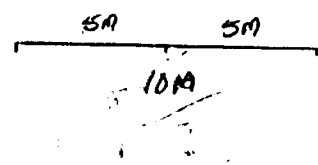
ROAD

1048459

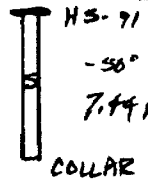
641611

TRUE  
NORTH  
↑

SCALE 1:250



CHALCOPYRITE  
PYRITE  
GALENA  
8.6810MS  
1.2 METRES

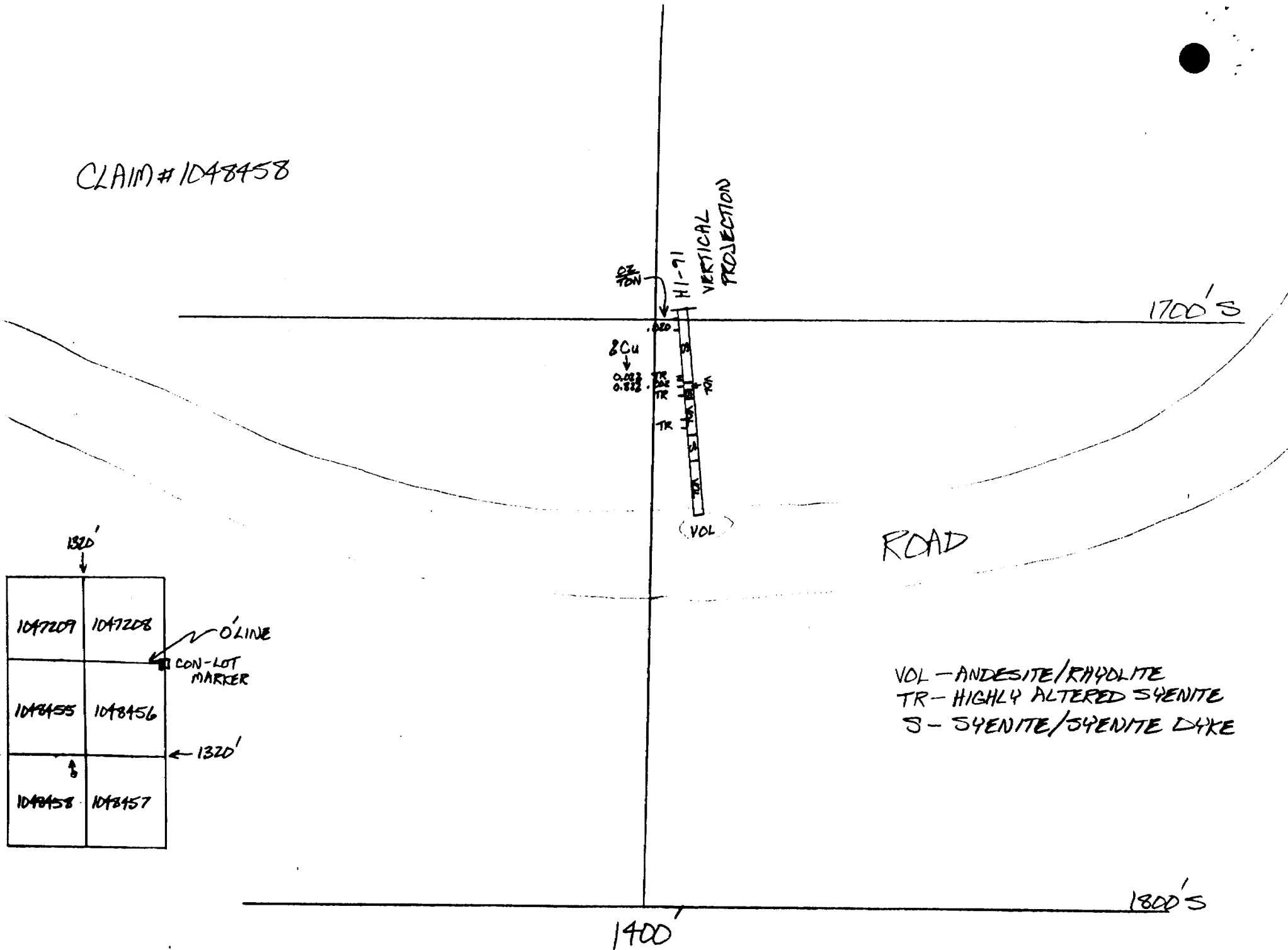


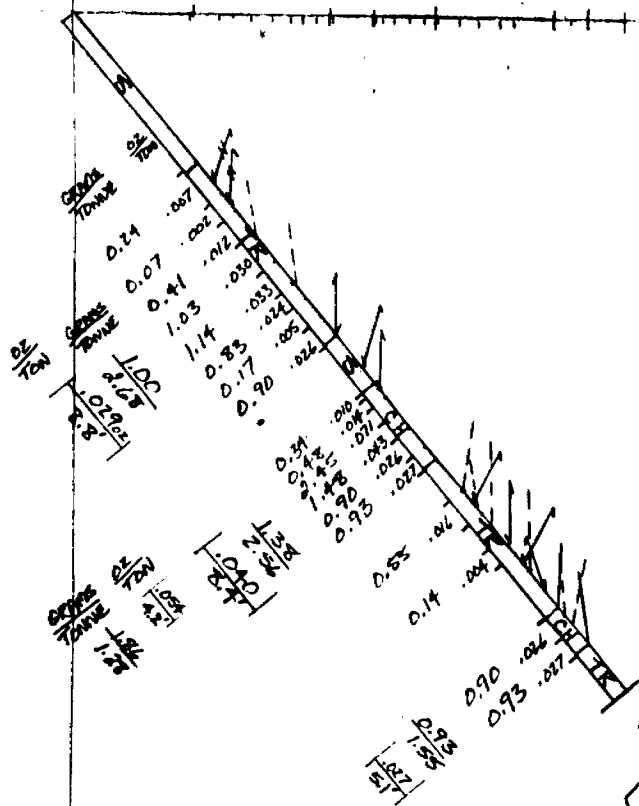
-50°  
7.44 METRES - VERTICAL  
PROJECTION

CLAIM # 641611

S - UNALTERED SYENITE

CLAIM # 1048458

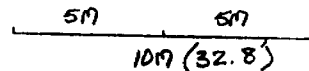




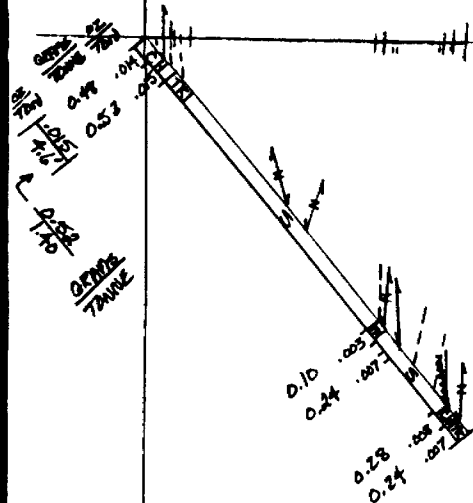
- S - SYENITE
- TR - HIGHLY ALTERED SYENITE; TRACHYTIC TEXTURE
- CH - CHERTY SILICIOUS VEINING
- ↔ SHEAR PLANE, SLIP
- ← VEINING
- FOLIATION
- CONTACT
- ~~~~ FAULT

H2-91 - 50°  
 28.56 METRES  
 (93.7')

SCALE 1:250



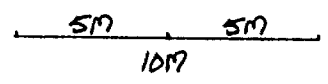
CLAIM # 1047209



H3-91 (50°)  
 16.64 METRES  
 (54.6')

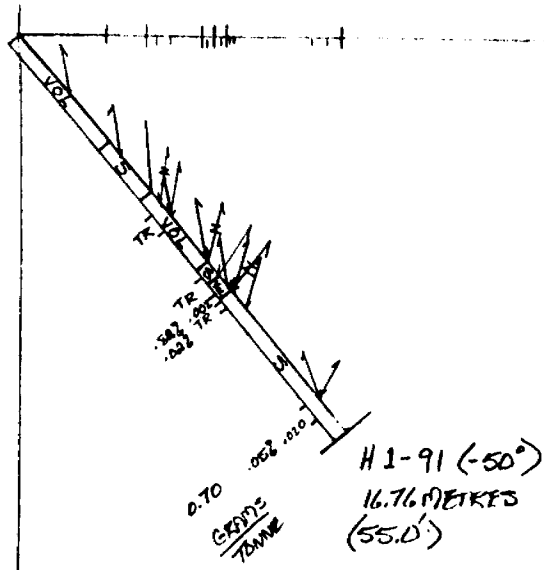
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- TR - HIGHLY ALTERED SYENITE; TRACHYTIC TEXTURE
- CH - CHERTY SILICIOUS VEINING
- ↗ SHEAR PLANE, SLIP
- ↖ VEINING
- FOLIATION
- CONTACT
- ||||| FAULT

SCALE 1:250



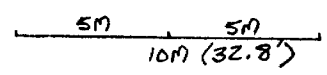
CLAIM # 1047209





- VOL - VOLCANICS - ANDESITE
- S - SYENITE
- ↔ - SHEAR PLANE, SLIP
- ↔ - VEINING
- FOLIATION
- CONTACT
- ~~~~ FAULT

SCALE 1:250



CLAIM # 1048456







**Diamond Drilling Log** **Journal de forage au diamant**

> USING METRIC FEET & METRES UNDERNEATH  
 > NO OVERLAP (OUTCROP)  
 > AQ CORE (1 3/8")

Complete this form and related sketch in duplicate.  
 Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page  
 Remplir ces cases à chaque page

Hole No. Forage n°: H1-91  
 Page No. Page n°: 1

Drilling Company Compagnie de forage <b>MICHAEL SUTTON</b>		Collar Elevation Élévation du collier <b>0'</b>	Bearing of hole from true North/Position du forage par rapport au nord vrai <b>353°</b>	Total Footage Avancement total du forage <b>55.0'</b>	Dip of Hole at Inclinaison du forage au Collar/collier <b>-50°</b>	Address/Location where core stored Adresse/endroit où la carotte est stockée <b>MICHAEL-W SUTTON BOX 534 (CRYSTAL LAKE) KIRKLAND LAKE ONTARIO P2N 3J5</b>	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière <b>1048456</b>
Date Hole Started Date de commencement du forage <b>28/07/91</b>	Date Completed Date d'achèvement <b>14/09/91</b>	Date Logged Date d'inscription au journal <b>13/11/91</b>	Logged by Inscrit par <b>MICHAEL SUTTON</b>			Location (Twp, Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude) <b>LARDER LAKE MINING DIV. HOLMES TWP</b>	Property Name Nom de la propriété	
Exploration Co., Owner or Options Compagnie d'exploration, propriétaire ou titulaire d'option <b>MICHAEL SUTTON</b>		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature) 					

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/angle des caractéristiques placées	Core Specimen Footage / Longueur en pieds des échantillons placés	Year Sample No. N° d'échantillon de prospecteur	Sample Footage/Avanceur de prélèvement de l'échantillon (en pieds) From/De To/À	Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques
0.0	14.9 4.54	ANDESITE	medium grain - grayish aphanitic andesite volcanic unit in well fractured with hairline chlorite + carb. fracture filling homogeneous except for 1/8" milk white carb veins (1/2) @ 17°; weakly - non carbonated; weakly magnetic; fairly competent; rare chloroparite c8.0 - 1/8" specular hematite - chlorite vein with milk white discontinuous quartz @ 30° with red brown hematite alteration 1/8" either side						
14.9	21.8 4.54 6.64	SYENITE DYKE	brick red aphanitic hematized syenite dyke (felsic) with 15-20% chlorite veining at various angles. Locally psuedotachylite especially @ contacts; gradational contact @ 14.9; 3/2" milk white carbonate veins @ 30° @ 5°; generally broken core; chlorite @ 18° c14.5-14.8 - broken core - no structure visible c15.7-16.1 - " " " " " c17.0-17.2 - " " " " " c17.2-18.3 - ground core (lost core)						

0204 (03/91) \*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
 † Additional credit available. See Assessment Work Regulation.  
 \*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.  
 † Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.  
 Note: Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.



Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Location (Twp, Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)	Property Name Nom de la propriété
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI					
Exploration Co., Owner or Options Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI					
				FL/PI					

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Face Feature Angle/angle des caractéristiques planes	Core Specimen Footage L/Longueur en pieds des carottes prélevées	Year Sample No. N° d'échantillon du prospecteur	Sample Footage/Issue de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques
From/De	To/À						From/De	To/À		
			c21.8 - sharp natural contact with pyrite. Barrois fragments. e 36°							
21.8 6.64	31.5 9.60	ANDESITE	-medium green-greyish aphanitic andesite volcanic unit; highly carbonated; with 10% white carbonate veins. e 28° Good foliation along this + chlorite fracture dipping e 28°; weakly non magnetic. c21.8-23.0 - broken core along 28° chlorite fracture. c23.3 - yellow, limonite coated slip (with weak slickensides) c47°							
			c24.4-25.3 - 40% milk white, buffish quartz veins e 50° (24.4-25.0) + e 28° (25.0-25.3); no sulphides; veins are 1/16" - 3/4"			4864	23.8	26.0	2.2	Nil
			c27.3-27.7 - broken core - no structure noted. c30.8 - 1/4" - 3/4" carb + specular hematite (60%) vein e 30° is extremely magnetic (magnetite)				7.25	7.92	0.67	
			c31.5 - 1/8" milk white carb - chl slip e 54°							



Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

**Diamond Drilling Log** **Journal de forage au diamant**

Complete this form and related sketch in duplicate. REMPLIR en deux exemplaires la présente formule et le croquis annexé

Fill in on every page. Remplir ces cases à chaque page

Hole No. Forage n° #1-9103  
Page No. Page n° 3

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI	Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)			
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI				
				FL/PI			Property Name Nom de la propriété	

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/angle des caractéristiques placées	Core System Footage / Longueur en place des carottes placées	Year Sample No. N° d'échantillon du prospecteur	Sample Footage/Avancement de prélèvement de l'échantillon (en pieds) From/De To/A	Sample Length Longueur de l'échantillon	Assays † / Analyses minéralurgiques Au (2) Ag (2) Cu (2)			
31.5 9.60	33.4 10.18	SYENITE DYKE	-aphanitic, silicious, red-brown to pale grey, syenite dyke with somewhat conchoidal fracture; no sulphides; same as previous dyke but less of the brick red (hematization?); 8% chlorite, fractured; strongly magnetic; non carbonated c 33.2 - 1/8" - 1/4" milk white lullish quartz vein; no sulphides c 33.4 - 1/4" discontinuous quartz vein c 73° along undulatory contact - no structure noted			4865	32.5 9.91	34.7 10.58	2.2 0.67	Nil		
33.4 10.18	35.5 10.82	ANDESITE	-same as 21.8-31.5' c 33.4-33.5 - fragments of lullish white quartz in chloritic, carbonitic zone; no sulphides; med. magnetic; non carbonated c 34.7-35.5 - 10-15% chalcoprite in blebs (up to 3/4") and in white calc veins (1/16"-1/8") c 28-30° with some wavy shearing having taken place; ground core c 35.0 c 35.5 - 1/8" chlorite slip c 78° c contact			4866	34.7 10.58	35.7 10.88	1.2 0.37	.002	.02	.82
35.5 10.82	55.0 16.76	SYENITE DYKE	-brick red-brown to pale-dark grey; aphanitic; brick red coloration along fractures; non carbonated;									

0204 (03/91)

\*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.  
† Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.  
Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.



Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)	Property Name Nom de la propriété
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI					
Exploration Co., Owner or Options Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI					
				FL/PI					

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/Angle des caractéristiques placées	Core Section Footage / Longueur en pieds des carottes prélevées	Year Sample No. N° d'échantillon de prospecteur	Sample Footage/Élévation de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques		
From/De	To/À						From/De	To/À		Ag	Gr	Cul
			weakly - moderately magnetic; extremely broken up core - non competent; ground core locally: 5% hematite - 1/8" milk white carb veins; generally 1% coarse disseminated FeS <sub>2</sub> ; 10-15% chlorite fracture filling @ 28°; locally specular hematite vein @ 56°			4867	35.7	36.7	1.0	Nil	.01	.02
			c 35.8 - 1/2" - 3/4" milk white - greyish quartz vein @ 56° along 1/8" chlorite slip - no sulphide; preceded by 1" ground & broken core.				10.88	11.19	0.30			
			c 37.7 - chlorite + carb fracture filling @ 56°			4868	50.3	52.1	1.8	.02	.01	.05
			c 50.2 - 51.0 - 2-3% fine FeS <sub>2</sub> + chalcopyrite along carb + chlorite fracture @ 19° & 68°				15.33	15.88	0.55			
			c 51.1 - 52.9 - dark grey cherty silica flooding with 10% specular hematite + 10% fine & coarse disseminated & blebs FeS <sub>2</sub> ; broken core (a. post core) c 51.7 - 52.4 half of which is cherty & sulphide-rich									
			c 52.9 - 55.0 - 2% coarse fine disse FeS <sub>2</sub> ; chloritic barrois with subangular black red garnet fragments									
			c 55.0 - broken core; post. bit; stopped hole									

\*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

**Diamond Drilling Log** **Journal de forage au diamant**

> USING METRIC FEET (2 METRES UNDERNEATH)  
 > NO OVERBURDEN EXCEEDED 2'  
 > AQ CORE (1 3/4")

Complete this form and related sketch in duplicate.  
 Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page  
 Remplir ces cases à chaque page

Hole No. Forage n°	Page No. Page n°
HZ-91	01
Claim No. N° de concession minière	1047209

Drilling Company Compagnie de forage MICHAEL SUTTON		Collar Elevation Élévation du collier 0'	Bearing of hole from true North/Position du forage par rapport au nord vrai 171°	Total Footage Avancement total du forage 93.7'	Dip of Hole at Inclinaison du forage au Collar/collier -50°	Address/Location where core stored Adresse/endroit où la carotte est stockée MICHAEL W SUTTON BOX 534 (CRYSTAL LAKE) KIRKLAND LAKE ONTARIO P2N 3J5	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière 1047209
Date Hole Started Date de commencement du forage 16/09/91	Date Completed Date d'achèvement 27/09/91	Date Logged Date d'inscription au journal 10/12/91	Logged by Inscrit par MICHAEL SUTTON		F/L/P	Location (Twp, Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude) LARDER LAKE MINING DIV. HOLMES TWP.		
Exploration Co., Owner or Options Compagnie d'exploration, propriétaire ou titulaire d'option MICHAEL SUTTON		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature) Michael Sutton		F/L/P			
					F/L/P			
					F/L/P			
						Property Name Nom de la propriété		

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle/Hauteur des caractéristiques planes	Core Specimen Footage / Longueur en pieds des échantillons prélevés	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Épaisseur de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques
From/De	To/À						From/De	To/À		
0.0	20.6	SYENITE	30% dark grey hornblende, quartz, and K-spar matrix; 10% dark grey schistose mafic fragments are powdered; 10% white-pink up to 1/4" subhedral-cuboidal weakly hematitic feldspar crystals are elongate with trachytic texture; locally chlorite dykelets up to 3" wide; 5% chlorite alteration; rare 1/8" dull white quartz & quartz-ankerite veins with no sulphides @ 40°; feldspar, dykes & mafic fragments all @ 48° @ 5.9-7.3' - medium grey-pinkish K-spar matrix holds hornblende + chlorite; quartz dyke @ 61' with sharp natural contacts							
20.6	44.4	ALTERED	- bleached pale grey chloritic, siliceous, granitic with 5-7% coarse, fine disseminated FeS <sub>2</sub> ;			4875	20.4	25.0	4.6	.007
6.28	13.53	SYENITE	40% white-pink feldspar, 10% quartz, ankerite & 15% dark grey cherty & greyish-white quartz veinings; K-spar fragments in veins; alteration & veining @ 31'				6.22	7.62	1.40	

0204 (03/91)

\* For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
 \* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.  
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**Diamond Journal de Drilling forage au Log forage au diamant**

Complete this form and related sketch in duplicate. REMPLIR en deux exemplaires la présente formule et le croquis annexé

Fill in on every page. REMPLIR ces cases à chaque page

Hole No. Forage n° HZ-91  
Page No. Page n° 02

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI	Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)			
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI				
				FL/PI			Property Name Nom de la propriété	

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Features Angle/Angle des caractéristiques planes	Core Spots Footage / Longueur en pieds des carottes minérales	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Niveau de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques	
From/De	To/À						From/De	To/À		Au (oz/ton)	
			c20.9-22.2 - broken core - no structure noted								
			c23.3-24.1 - broken core - 1/8" chlorite slip, e 58° @ 23.3								
			c25.8-26.4 - greenish fine-grained - aphanitic highly chloritic; highly carbonated non-magnetic			4876	7.62	8.29	0.67	.002	
						4877	8.29	9.24	0.94	.012	
			c26.0 - 1/8" chlorite slip, e 43° with slickensides			4878	9.24	10.36	1.13	.030	
			c35.0-39.0 - blocky quartz & quartz-ankerite veining			4879	10.36	11.75	0.88	.033	
			c43.8 - 1/4" - 1/2" dull white carb vein e 40°			4880	11.75	11.92	0.47	.024	
						4881	11.92	12.83	0.91	.005	
44.4	50.8	SHENITE	- same as 0.0-20.6; strongly carbonated and strongly magnetic; Fe <sub>2</sub> O <sub>3</sub> dyp. e 67° with natural contact			4882	12.83	13.56	0.73	.026	
13.53	15.48		c48.8 - 1/8" - 1/4" dull white carb vein e 55°								
50.8	61.3	CHERTY	- pale grey bleached quartzite with 30% pinkish white feldspar in chloritic siliceous matrix; 70% pale grey cherty veining; breccia fragments are common; @ 72° fine coarse disseminated FeS <sub>2</sub> ; highly carbonated - non magnetic; alteration & veining e 41°			4883	13.56	15.48	0.24	.010	
15.48	18.68	VENING				4884	15.48	16.15	0.43	.014	
						4885	16.15	16.67	0.52	.071	
						4886	16.67	17.43	0.76	.043	
						4887	17.43	18.28	0.79	.026	
						4888	18.28	18.71	0.49	.027	
			c51.7-52.4 - pale grey cherty vein e 41° with 10% fine FeS <sub>2</sub>								

\* For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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**Diamond Drilling Log**  
Journal de forage au diamant

Complete this form and related sketch in duplicate.  
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Hole No. Forage n°: **H2-91**  
Page No. Page n°: **03**

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	R/J/P			Location (Twp. Lot. Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)	Property Name Nom de la propriété
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	R/J/P				
				R/J/P				

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/Déclivité des caractéristiques placées	Core Section Footage / Longueur en pieds des sections placées	Year N° d'échantillon de prospecteur	Sample Footage/Notes de prélèvement de l'échantillon (en pieds) From/De To/À	Sample Length Longueur de l'échantillon	Assays † / Analyses minéralurgiques Au (g/t) (ppm)
			c54.7-57.1- pale grey cherty vein with 8% fine disc. FeS <sub>2</sub>						
61.3	82.4	ALTERED	-35% pink-white jaspers with 10% chlorite veining			4889	66.0 69.4	3.4	.01%
18.68	25.12	SPHENITE	6-8% quartz-biotite + grey cherty quartz veining; most @ 30-40° - some individual veins @ 48° & 68°; 5-6% dark grey, rounded, up to 8" matrix monazite; 20% 1/8" dark grey chloritic amphibole schist + hornblende; trachytic texture; highly carbonated + weakly magnetic; locally felsic dykes			4890	72.7 74.9	2.2	.004
			c66.1-66.8- bleached pink jaspers (60%), 10% chlorite, 10% greenish cherty vein + 5-6% fine disc FeS <sub>2</sub> all @ 48°				20.12 21.15	1.04	
			c67.5-74" round quartz vein @ 68° with 10% fine disc FeS <sub>2</sub>				22.16 22.83	0.67	
			c67.3-68.8- same as 66.1-66.8 with 9% biotite vein @ 68.0 @ 30° (3/4"-1")						
			c71.1-71.4- same as 66.1-66.8 but with 20% grey cherty veining + silicification						
			c72.7-94.4- 56% bleached jaspers, 2% fine disc FeS <sub>2</sub> , 5% grey cherty quartz veins @ 14°-14° grey quartz vein @ 40° with 3-4% fine disc FeS <sub>2</sub>						

\* For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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Ministry of  
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**Diamond Journal de  
Drilling forage au  
Log forage au  
diamant**

Complete this form and  
related sketch in duplicate.  
Remplir en deux exemplaires la  
présente formule et le croquis annexé

Fill in on every page  
Remplir ces cases à  
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Hole No. Forage n°  
Page No. Page n°  
H2-91 04

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par		FL/PI	Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)	Property Name Nom de la propriété	
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)		FL/PI			
					FL/PI			
					FL/PI			

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/Angle des caractéristiques placées	Core Section Footage / Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon de prospecteur	Sample Footage/Niveau de pré- lèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays † / Analyses minéralurgiques
From/De	To/À						From/De	To/À		
			e 76.5 - 1/4" milk white carbonate vein e 22°							
			e 79.1 - 79.9 - large 8" mafic dyke with some ground core; one grey cherty quartz vein with 32 coarse diss. FeS <sub>2</sub> e 21°							
82.4	87.3	CHERTY VEIN	- 30% white-pink trachytic textured ls. spar in pale grey cherty vein with 10-20% buff brown amorphous alteration, 1-8% fine coarse disseminated FeS <sub>2</sub> ; alteration + 15% chlorite + sericite + trachytic texture dip e 30°-54°			4891	25.12 82.4	25.85 84.8	0.73 2.4	.026
25.12	26.61					4892	25.85 84.8	26.61 87.5	0.82 2.7	.027
			e 82.4 - natural gradational contact e 43° e 87.3 - " sharp contact e 32°							
87.3	93.7	ALTERED SYENITE	- locally bleached white-pink ls. spar (10%) with 5% chlorite + 3-4% coarse fine diss FeS <sub>2</sub> ; not seriated - strongly magnesian; weakly carbon- ated; generally less altered than 61.3' - 82.4'; overall 15% chlorite altered from brown to pink, 2% coarse FeS <sub>2</sub> , and 20% ls. in dark; bleached e 88.8' - 89.7' with broken core							

0294 (03/91)

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Ministry of Northern Development and Mines

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**Diamond Drilling Log** **Journal de forage au diamant**

> USING METRIC FEET (2 METRES UNDERNEATH)  
 > NO OVERBURDEN BACKHOE 3'  
 > AQ CORE (1 3/8")

Complete this form and related sketch in duplicate.  
 Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page  
 Remplir ces cases à chaque page

Hole No. Forage n°: H3-91  
 Page No. Page n°: 01

Drilling Company Compagnie de forage <b>MICHAEL SUTTON</b>		Collar Elevation Élévation du collier <b>0'</b>	Bearing of hole from true North/Position du forage par rapport au nord vrai <b>358°</b>	Total Footage Avancement total du forage <b>54.6'</b>	Dip of Hole at Inclinaison du forage au Collar/collier <b>-50°</b>	Address/Location where core stored Adresse/endroit où la carotte est stockée <b>MICHAEL W SUTTON BOX 534 (CRYSTAL LAKE) KIRKLAND LAKE ONTARIO P2N 3J5</b>	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière <b>1047209</b>
Date Hole Started Date de commencement du forage <b>30/09/91</b>	Date Completed Date d'achèvement <b>04/10/91</b>	Date Logged Date d'inscription au journal <b>07/12/91</b>	Logged by Inscrit par <b>MICHAEL SUTTON</b>		FL/PI		Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude) <b>LARDER LAKE MINING DIV HOLMES TWP</b>	
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option <b>MICHAEL SUTTON</b>		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature) 		FL/PI			
					FL/PI			

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/Stage des caractéristiques placées	Core Specimen Footage (L) Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Avance- ment de l'échantillon (en pieds) From/De To/À	Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques Au/oz(ton)			
0.0	4.6	CHERTY SILICA	- pale grey cherty siliceous vein with 15% white-pink 1/8" sub-angular, foliolar; locally red pyrite. Brown fragments; 5-6% fine & coarse disseminated FeS <sub>2</sub> ; 5% chlorite veining @ 36°, part of highly altered pyrite @ 1.8'-2.8' @ 1.5-2.8' - broken core, possibly caused by tight horizontal chlorite slip @ 1.5' @ 16' @ 2.8'-14'-1/2" pink carb vein @ 38' @ 4.6 - ground core @ contact			4869	0.0	0.64	2.1	2.1	.014	} .015 4.6
	1.40	VEIN					4870	2.1	1.79	4.6	2.5	
4.6	7.4	ALTERED	- Bleached to pink-pale grey with 40% white-pink 1/8" foliolar crystals; 15% chlorite, 10% quartz-ankerite, & 10% pale grey silicification with 2-3% fine & coarse dis alteration @ 32°									
1.40	2.26	SYENITE										
7.4	39.1	SYENITE	- 30% anhedral 1/8" dark grey quartz hornblende in red-brown K-spar matrix, 10% chlorite; 5% red foliolar dykes (up to 12') commonly with late 1/8" clear to dull white quartz & quartz-ankerite veins @ 3-15°; dykes with matrix on that @ 22-40°; matrix dykes up to 3" long									
2.26	11.92											

0304 (03/91)

\* For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
 \* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.  
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Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par		R/P/I	Location (Twp, Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)	Property Name Nom de la propriété	
Exploration Co., Owner or Options Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)		R/P/I			
					R/P/I			
					R/P/I			

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planer Feature Angle/Angle des caractéristiques planes	Core System Footage / Longueur en pieds des carottes perforées	Your Sample No. N° d'échantillon de prospecteur	Sample Footage/Avance de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques	
From/De	To/À						From/De	To/À		Au (oz/ton)	
			c23.5 - tight 1/8" chp slip e 25° in preceaded by 1" bleached quartzite								
			c26.8 - 1" wavy quartzite due to leaching along horizontal slip e 58°								
			c38.1 - 39.1 - weakly bleached zone with large up to 3/4" elongate feldspar crystals; 3/4" anhedral quartzite c 36.2 in dark grey mafic								
39.1	40.3	ALTERED	- 30% pink-white 1/8" feldspar, 50% pale grey silicification			4871	39.1	40.6	1.5	.003	
11.92	12.28	SYENITE	15% yellowish quartz - amebite veining, 8-12% disseminated FeS2, 30% chlorite veining, 2-4% best of 1" pale grey cherty quartz vein; 50% is all in broken & ground core; alteration c 38°				11.92	12.37	0.46		
			c40.1 - 1/8" chlorite slip e 45° with strong slickensides and the broken core								
40.3	50.9	SYENITE	- same as 7.4 - 39.1 but more fractured with 3% quartz - amebite veining e 49° - 54°								
12.28	15.51		e42.0 - 43.0 - 10% quartz - amebite + cherty grey veining +				12.28	13.11	0.30		
						4872	42.0	43.0	1.0	.007	



Drilling Company Compagnie de forage	Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI			
Exploration Co., Owner or Options Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI			
				FL/PI			
Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)						Property Name Nom de la propriété	

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/Angle des caractéristiques placées	Core Specimen Footage // Longueur en pieds des carottes placées	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Épaisseur de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques
From/De	To/À						From/De	To/À		
			chlorite veining + white quartz veining + 4% coarse diasp							
			FeS <sub>2</sub> : all @ 36° dip in pink-red Jeldspar dikes							
			c 50.5-50.9 - altered chlorite, major diaspore with 6-8% FeS <sub>2</sub>							
50.9	53.0	CHERTY SILICA	- pale grey cherty silica vein carrying 25% pink, up to 1/4"			4873	15.32 50.5	15.97 52.4	0.58 1.9	.008
15.51	16.15	VEIN	Jeldspar crystals, no chlorite, c 5-6% fine coarse diasp. FeS <sub>2</sub> ; alteration c 36°			4874	15.97 52.4	16.64 54.6	0.67 2.2	.007
			c 50.9 - natural contact c 39°							
			c 51.3 - strong 1/8" impure chlorite + coarse, fruct c 29°; strong schistosity							
			c 53.0 - 1" broken core							
53.0	54.6	ALTERED SYENITE	- progressively less altered quartz: c 53.0-53.5: 70% pink 1/8" Jeldspar crystals in silica matrix with 8% coarse diasp. FeS <sub>2</sub> + 5% chlorite; c 53.5-54.6: 15% 1/16"-1/8" pink Jeldspar in red K-spar matrix with 5% chlorite + 10% 1/4" greenish quartz veins c 12°-135° c 53.7-1/8" chlorite slip c 43° with 10% FeS <sub>2</sub> along it							
	54.6		END OF HOLE - COLLAPSING - LOST WATER; STOPPED							

\*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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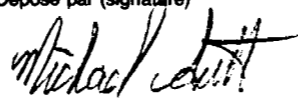
**Diamond Drilling Log** **Journal de forage au diamant**

> USING METRIC FEET (METRES UNDERNEATH)  
 > NO OVERBURDEN DUG 5'  
 > AQ CORE (1 3/8")

Complete this form and related sketch in duplicate.  
 Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page  
 Remplir ces cases à chaque page

Hole No. Forage n°: **44-91**  
 Page No. Page n°: **1**

Drilling Company Compagnie de forage <b>MICHAEL SUTTON</b>		Collar Elevation Élévation du collier <b>0'</b>	Bearing of hole from true North/Position du forage par rapport au nord vrai <b>178°</b>	Total Footage Avancement total du forage <b>73.6'</b>	Dip of Hole at Inclinaison du forage au Collar/collier: <b>-50°</b>	Address/Location where core stored Adresse/endroit où la carotte est stockée  <b>MICHAEL W SUTTON BOX 534 (CRYSTAL LAKE) KIRKLAND LAKE ONTARIO P2N 3J5</b>	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière <b>1047209</b>
Date Hole Started Date de commencement du forage <b>05/10/91</b>	Date Completed Date d'achèvement <b>11/10/91</b>	Date Logged Date d'inscription au journal <b>14/11/91</b>	Logged by Inscrit par <b>MICHAEL SUTTON</b>	FL/PI			Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude) <b>LARDER LAKE MINING DIV. HOLMES TWP</b>	
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option <b>MICHAEL SUTTON</b>		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature) 	FL/PI		Property Name Nom de la propriété <b>SUTTON-HANSON CLAIMS</b>		

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planer Feature Angle/angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Niveau de prélèvement de l'échantillon (en pieds) From/De To/À	Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques
0.0'	39.0'	SYENITE	relatively unaltered; red-purple K-spar, subhedral-subhedral feldspar, are locally bleached to milk white; chloritized, malic (hornblende) 35%; highly carbonated; strongly magnetic; locally 1/2" - 2" red-purple felsic dykelets of quartz etc.; some K-spar crystals up to 1/2"				0.40 1.01 0.61		
	11.89		0.4' - 1" milk white quartz vein @ 46° contains 10-15% chlorite veining @ 10% wgt (dotted); one imp contains bright green mineral - possibly malachite; @ 14" 1/2" chlorite slip @ 46°			4851	1.3 3.3 2.0		Nil
			0.15-17' - 50% dark gray cherty quartz veining 1% fine disseminated FeS2; @ 46°						
			0.28-30' - same as 1.5-17'; @ 32°; core is a 1/4" white quartz vein - 1% fine disseminated FeS2						
			0.38' - 1/4" dark gray cherty vein as above; @ 38°				1.68 2.10 0.43		
			0.55-13' Broken core - @ 47° fine disseminated FeS2 in bleached quartz; 2% malachite. K-spar - hematite along Lincoln features @ 70-75°			4852	5.5 6.9 1.4		.002
			0.63-67' - 30% dark gray cherty vein as above @ 46°						

0204 (03/91)

\* For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
 \* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.  
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**Diamond Drilling Log** **Journal de forage au diamant**

Complete this form and related sketch in duplicate. Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page Remplir ces cases à chaque page

Hole No. Forage n° 4-91  
Page No. Page n° 2

Drilling Company Compagnie de forage	Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI	Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (carton, lot, concession, ou latitude et longitude)	Property Name Nom de la propriété	
Exploration Co., Owner or Options Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI			
				FL/PI			
				FL/PI			

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle/Angle des caractéristiques planes	Core Specimen Footage †/Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Niveau de prélevement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques
From/De	To/À						From/De	To/À		
			ultraphides							
			c6.7'-7.9'-Broken ground core - some limonite + hematite but no structure / ultraphides							
			e9.5'-9.9'-Broken core - nothing significant noted				3.05	3.26	0.21	
			e10.0'-10.7'-Broken ground core; limonite, slip e31°; ground milk white quartz vein at least 3/4" wide with 5% coarse disk FeS <sub>2</sub> ; 10% ch. veining			4853	10.0	10.7	0.7	.004
			e11.5'-12.4'-Broken core - nothing significant until 12.2' where siliceous basic quartz contains 4-5% fine FeS <sub>2</sub>				3.72	4.30	0.58	
			e12.4'-12.5'-chlorite breccia with 15% bleached white 1/8" K-spand; 3-4% fine coarse disk FeS <sub>2</sub>			4854	12.2	14.1	1.9	.020
			e12.5'-13.9'-35-40% medium-pale grey cherty veining / silica flooding, macerating at various angles (possibly 40°) hematite fracture slip e46° e12.5' with vein subparallel here; 5-8% fine disk FeS <sub>2</sub> in chlorite breccia and bleached basic quartzite							
			e17.6'-tight 1/8" chlorite slip e38° with slickensides							
			e18.2'-18.4'-dark grey cherty silica veining e37° as before represents 20% of core							

\* For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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et des Mines

**Diamond Journal de  
Drilling forage au  
Log forage au  
diamant**

Complete this form and  
related sketch in duplicate.  
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Hole No.  
Forage n° **4-91**  
Page No.  
Page n°

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par		FL/PI		Location (Twp. Lot, Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)	
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)		FL/PI		Property Name Nom de la propriété	
					FL/PI			
					FL/PI			
					FL/PI			

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle/Angle des caractéristiques planes	Core Specimen Footage † / Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Niveau de pré- lèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays † / Analyses minéralogiques
From/De	To/À						From/De	To/À		
			e19.7'-20.1'-ground core with dark cherty iron ore e18.2' ore sulphides)							
			e24.0'-1/8" white carbonate vein e11°							
			e26.1'-1/8" chl slip e45° preceded by 1/8" milk white discontinuous quartz vein - no sulphides; followed by 1" broken core							
			e27.7'-iron ore along 65° planar feature							
			e29.0'-1/2" - 3/4" milk white carbonate - pink (ironite?) vein e45°				9.54	10.09	0.55	
			e31.6'-1/4"-1/2" dark grey cherty vein e55° preceded by 2" BC.			4855	31.3	33.1	1.8	.002
			e31.8'-33.2'-bleached milk white K-spar in chert zone with 3% coarse fine dia FeS <sub>2</sub> ; 1/4"-3/4" milk white quartz vein e46° along chl slip e32.0' with 10% chl veins							
			e34.4'-1/8"-1/4" greenish-white quartz vein e40° with 2% fine FeS <sub>2</sub>							
			e36.8'-1/8" greenish-white quartz vein e63° with 10% coarse stringer FeS <sub>2</sub> - in a felsic granite 1" diameter							
			e37.9'-2-1/8" greenish-white quartz vein e41° with 3% coarse dia FeS <sub>2</sub>							
			e38.6'-1/16" chl vein e38° with milk white bleached K-spar all along it							

\*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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**Diamond Drilling Log** **Journal de forage au diamant**

Complete this form and related sketch in duplicate. REMPLIR EN DEUX EXEMPLAIRES LA PRÉSENTE FORMULE ET LE CROQUIS ANNEXÉ

Fill in on every page. REMPLIR CES CASES À CHAQUE PAGE

Hole No. Forage n°: 4-91  
Page No. Page n°: 4

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/cotlier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI	Location (Twp. Lot. Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)			
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI				
				FL/PI				
						Property Name Nom de la propriété		

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle/Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Niveau de prélèvement de l'échantillon (en pieds) From/De To/À		Sample Length Longueur de l'échantillon	Assays † / Analyses minéralurgiques Au (oz/ton) Ag (oz/ton) Cu (%)		
39.0'	43.1'	CHERTY QUARTZ	-20% bleached hematitic (pink) quartz, barren fragments			4856	11.89	12.74	2.8	.002	.06	.10
11.89	13.14	VEIN	20% greyish white - with white quartz + 50% medium - dark grey cherty silica (blending?) 5-8% coarse dia. FeS <sub>2</sub>			4857	12.74	13.38	2.1	.002	.05	.05
			2-8% fine dia. chalcocite; white calc. vein @ 2' e 39.8' - 41.4'									
			with 10% sulphy-red mineral; moderately carbonated & non magnetic									
			e 39.0' - ground contact possibly e 22°									
			e 41.7' - 1/2" chlorite slip e 38° with 20% coarse dia. FeS <sub>2</sub> along it									
			e 43.1' - 2-1/8" chl. slip 1/2" apart sec. strong & with slickensides; e 38° with 20% fine dia. FeS <sub>2</sub> ; possibly thin nodular brown chert within									
43.1'	54.1'	ALTERED	-weakly - moderately bleached; highly fractured with									
13.14	16.49	SYENITE	6-8% chlorite fracture, dipping e 36° coarse & fine dia. FeS <sub>2</sub> & locally 10-12% locally silicified									
			e 43.7' - 1/4" - 1/2" greyish white quartz vein e 42° with 4-5% fine dia. FeS <sub>2</sub>									
			e 44.0' - 44.6' - silicified & bleached quartzite with 6-8% fine FeS <sub>2</sub>									

\*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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Hole No. Forage n° 4-91  
Page No. Page n° 5

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Collar/cotlier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière	
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI			Location (Twp. Lot. Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)		
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI				Property Name Nom de la propriété	
				FL/PI					

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planer Feature Angle/Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon de prospecteur	Sample Footage/Niveau de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays / Analyses minéralurgiques		
From/De	To/À						From/De	To/À		Pulverization	Agitation	Culture
			48.7'-1" ground core on hematite coated fracture @ 60°									
			48.7'-52.4'-highly siliceous with quartz, hematite + K-spar alterated; 5-12' fine FeS <sub>2</sub> & iron pyrite 10-12'; FeS <sub>2</sub> + chl @ 42° ground core locally throughout; white carbonate veining @ 5° with orange mineral (10% - kyanite?)			4858	48.7	52.4	3.7		.021	
			54.2'-1' chlorite + sericite, sheared zone with 10% coarse fine thin FeS <sub>2</sub> ; @ 38°									
54.2	58.2	CHERTY QUARTZ	pale to medium grey cherty siliceous vein with 10% hematized pink quartz. Bled in fragments (subangular)			4859	54.2	56.2	2.0		.020	.40 .65
16.52	17.74	VEIN	5-7' fine thin FeS <sub>2</sub> & 7-10' fine thin FeS <sub>2</sub> + chalcocite; locally ground & broken down; strongly carbonated & non-magnetic			4860	56.2	58.2	2.0		.025	.09 .08
			54.3'-4' light chlorite @ 38°									
			57.2'-a quartz-vein contact @ 40° is concealed, with parallel FeS <sub>2</sub> veinlets preceding									
			58.2'-quartz-vein contact @ 69° with chl + FeS <sub>2</sub>									
58.2	73.6	ALTERED SYENITE	moderately - weakly bleached quartzite with 1/2"-2" red- brown FeS <sub>2</sub> quartzite dykelets; locally highly			4861	58.4	60.4	2.0		.019	

\*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.  
† Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.  
Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.



**Diamond Drilling Log** **Journal de forage au diamant**

Complete this form and related sketch in duplicate.  
Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page  
Remplir ces cases à chaque page

Hole No. Forage n°: 491  
Page No. Page n°: 6  
Claim No. N° de concession minière

Drilling Company Compagnie de forage		Collar Elevation Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage Avancement total du forage	Dip of Hole at Inclinaison du forage au Collar/collier	Address/Location where core stored Adresse/endroit où la carotte est stockée	Map Reference No. N° de référence sur la carte	Location (Twp. Lot. Con. or Lat. and Long.) Emplacement (canton, lot, concession, ou latitude et longitude)
Date Hole Started Date de commencement du forage	Date Completed Date d'achèvement	Date Logged Date d'inscription au journal	Logged by Inscrit par	FL/PI				
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature)	FL/PI				
				FL/PI				
							Property Name Nom de la propriété	

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. N° d'échantillon du prospecteur	Sample Footage/Niveau de prélèvement de l'échantillon (en pieds)		Sample Length Longueur de l'échantillon	Assays † / Analyses minéralurgiques	
From/De	To/À						From/De	To/À		Pu/oz (TON)	
			chloritized; blue-grey & greyish white cherty silica and quartz-ankerite veins c 58.2'-66.5' (10%) ac 69.0' 69.4', 70.0', 71.6', c 73.5'-73.6'; c 32°-64°; 1/8"-1.0" strongly carbonated.								
			c 58.2'-66.5' - cherty veins + quartz-ankerite veins (10%) along with chlorite veinlets, silicification & weak foliation c 42°; 4-6' coarse + fine size FeS <sub>2</sub> ; non magnetic.			4862	13.41 60.4	19.54 64.1	1.13 3.7		.010
			c 69.7'-70.0' - chlorite breccia c 12.4'-12.5'			4863	14.54 64.1	20.75 67.1	0.91 3.0		.008
			c 66.5'-73.6' - less altered, moderately magnetic								
			END OF HOLE c 73.6' - LOST WATER; COLLAPSING OF HOLE; STOPPED								

\* For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.  
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Ministry of Northern Development and Mines  
Ontario

Ministère du Développement du Nord et des Mines

**Diamond Drilling Log** **Journal de forage au diamant**

> USING METRIC FEET (MÈTRES UNDERNEATH)  
> NO OVERBURDEN  
> AQ CORE (1 3/8")

Complete this form and related sketch in duplicate.  
Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page  
Remplir ces cases à chaque page

Hole No. Forage n°: 15-91  
Page No. Page n°: 01

Drilling Company Compagnie de forage <b>MICHAEL SUTTON</b>		Collar Elevation Élévation du collier 0'	Bearing of hole from true North/Position du forage par rapport au nord vrai 360°	Total Footage Avancement total du forage 24.4'	Dip of Hole at Collar/collier Inclinaison du forage au collier -50°	Address/Location where core stored Adresse/endroit où la carotte est stockée MICHAEL W SUTTON BOX 534 (CRYSTAL LAKE) KIRKLAND LAKE ONTARIO P2N 3J5	Map Reference No. N° de référence sur la carte	Claim No. N° de concession minière 641611
Date Hole Started Date de commencement du forage 12/10/91	Date Completed Date d'achèvement 03/11/91	Date Logged Date d'inscription au journal 07/12/91	Logged by Inscrit par MICHAEL SUTTON	FL/PI	FL/PI		FL/PI	FL/PI
Exploration Co., Owner or Optionee Compagnie d'exploration, propriétaire ou titulaire d'option MICHAEL SUTTON		Date Submitted Date de dépôt	Submitted by (Signature) Déposé par (signature) 	FL/PI	FL/PI	FL/PI	Property Name Nom de la propriété	

Footage/Avancement		Rock Type Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Placer Feature Angle/Degré des caractéristiques placées	Core Section Footage/Longueur en plus des sections jetées	Your Sample No. N° d'échantillon de prospecteur	Sample Footage/Épaisseur de prélèvement de l'échantillon (en pieds)	Sample Length Longueur de l'échantillon	Assays †/Analyses minéralurgiques
From/De	To/À						From/De	To/À	
0	24.4	SYENITE	red-brown unaltered massive homogeneous syenite; moderately-weakly magnetic; weakly carbonated; medium grained with up to 1/8"; largely equigranular red to pink K-spars are anhedral, subhedral; 15% euhedral up to 3/8" x 1/8"; black hornblende; 1/16" hematite & sometimes chlorite fractures, c 30°-45° are common (every 2')						
	7.44								
			c 6.8'-7.4'- Broken core - no structure visible						
			c 9.5'-9.7'- " " " " "						
			c 8.0'-1/16" chlorite slip c 45° with slickensides						
	24.4		- engine piston arm broke						

\*For features such as foliation, bedding, schistosity, measured from the long axis of the core.  
\*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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