



42C12NE0058 42C12NE0056 BROTHERS

010

DIAMOND DRILLING

Township: BROTHERS (WHITE LK SPT)

Report No: # 15

WORK PERFORMED FOR: LAC MINERALS LTD.

RECORDED HOLDER: SAME AS ABOVE [x]

: OTHER []

<u>CLAIM NO.</u>	<u>HOLE NO.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
542591	M12-7	200.25 m	Mar/86	(1)
542591	M12-8	163.68 m	Mar/86	(1)
542589	M12-6	73.76 m	Mar/86	(1)
TOTAL	3 DH	437.69 m		

NOTES:

LAC MINERALS LTD.

LEGEND FOR GEOLOGICAL ENCODING FORM

FLAGS: used for highlighting information and specific horizons

KEY HORIZONS:

K001 visible top of mineralized zone synonomous with ore zone
K002 visible bottom of mineralized zone synonomous with ore zone
H001 top of mineralized zone within hanging wall rocks
H002 bottom of mineralized zone within hanging wall rocks
F001 top of mineralized zone within footwall rocks
F002 bottom of mineralized zone within footwall rocks

*NOTE: other mineralized zones within hanging wall or footwall rocks are designated as H003, H004, F003, F004, etc. with uneven numbers representing the top of the mineralized zone and even numbers representing the bottom.

ADDITIONAL INFORMATION:

VG visible gold
SAM sample taken
STR structural remark
MAG magnetic zone

GEOLOGICAL DATA ENTRIES

FROM - TO: defines the interval over which a particular rock type or characteristic occurs

REC%: % recovery of core

MIX %: % of a subunit or a modified unit within a primary rock unit

ROCK: indicates rock type

ROCK TYPE ABBREVIATIONS

BREC	Breccia	LAMP	Lamprophyre
CADI	Carbonate Diopside Unit	LOST	Lost Core
CASG	Casing	MFIN	Mafic Intrusive
CHER	Chert	MFSH	Mafic Schist
DIAB	Diabase Dyke	MFVL	Mafic Volcanic
FLIN	Felsic Intrusive	MSSH	Muscovite Schist
FLVL	Felsic Volcanic	PEGM	Pegmatite
FPFV	Felsic Volcanic Rock with Feldspar Crystals as dominant fragment type	PELT	Pelite (grains predominantly 1/16 mm - not visible to the naked eye)
FXPP	Feldspar Porphyry	QEFV	Felsic volcanic rock with quartz-eyes as dominant frag- ment type
GFSC	Graphite Schist	QZVN	Quartz Vein
GOUG	Gouge	SAND	Sandstone (grains 1/16 mm to 2 mm)
INAS	Intermediate Ashflow	SCHS	Schist
ININ	Intermediate Intrusive		
INVL	Intermediate Volcanic		
IRFM	Iron Formation		

ROCK TYPES CHARACTERISTIC OF MAIN ORE BODY:

BART	Barite Rock
MSSH	Muscovite Schist
SASH	Stibnite/Realgar bearing Muscovite Schist
SIRX	Siliceous Rock

ET: Entry Type: Categorizes rock types using abbreviations U,M,S

U - Main Rock Type - forms majority of a specified interval

M - modification of main rock type over specified interval (all data is identical to the description of the main rock type except where specified).

S - sub-rock type contained entirely within a main rock type (eg. a FXPP within PELT)

T: average thickness in metres of a sub-rock type or of bedding or banding in the main rock type

R-F MINERALS: indicates the main rock-forming minerals of the specified rock type

MINERAL ABBREVIATIONS

METALLIC MINERALS

As Arsenopyrite
Au Gold
Bo Bornite
Cp Chalcopyrite
Hm Hematite
Mg Magnetite
Mo Molybdenite
Or Orpiment
Pb Galena
Po Pyrrhotite
Py Pyrite
Rg Realgar
Sb Stibnite
Sp Sphalerite

NON-METALLIC MINERALS

Ac Actinolite
Ap Apatite
Ax Amphibole
Ba Barite
Bi Biotite
Cb Carbonate
Cd Chloritoid
Cl Chlorite
Di Diopside
Ep Epidote
Ft Fluorite
Fx Feldspar (composition unspecified)
Ga Garnet
Gr Graphite
Ka Kaolinite
Ky Kyanite
Ms Sericite
Mu Muscovite
Oe Ocellacherite
Pl Plagioclase
Px Pyroxene
Qz Quartz
St Staurolite
To Tourmaline
Tr Tremolite

TYPIFYING MATERIAL: material(s) (with percentage) which typify specified rock type

ABBREVIATIONS

ASH Ash
AXB Amphibole Bands
FP Feldspar Phenocrysts
LAP Lapilli-size fragments
QE Quartz Eyes

COL: shade and colour of rock

SHADE AND COLOUR ABBREVIATIONS

1 Darkest	4 Medium Dark	7 Light
2 Very Dark	5 Medium	8 Pale
3 Dark	6 Medium Light	9 Palest
A Grey	P Purple	U Umber
B Blue	R Red	W White
G Green	SP Salt and Pepper	Y Yellow
N Black	T Tan	\$ Suffix "ish"

GRN SIZE: grain size of rock described using the size scale

ABBREVIATIONS

FF - average size of fine fraction
CF - average size of coarse fraction
C - coarse fraction
MP - maximum particle size

SIZE SCALE

SYMBOL	PARTICLE DIAMETER RANGE (mm)	EQUIVALENT GRAIN SIZE	
		SEDIMENT	VOLCANOCLASTICS
0	< .004 mm	clay size	
1	.004-.016	fine silt	fine ash
2	.016-.06	medium-coarse silt	
3	.06-.25	fine sand	
4	.25-1	medium-coarse sand	coarse ash
5	1-4	grit/granule	
6	4-16	small pebble	small lapilli
7	16-64	medium-large pebble	large lapilli
8	64-250	cobbles	cobble-size blocks
9	250-1000	small-medium boulder	boulder size blocks
x	> 1000	large boulder	extra large blocks

CST MOR: clast morphology

ABBREVIATIONS

- SR - sorting; described using degree of sorting scale
RN - roundness; described using degree of roundness scale
SP - sphericity; described using sphericity scale
O - open or matrix supported
C - closed or clast supported

DEGREE OF SORTING

- | | | |
|---------------------------|----------------------------|-------------------------|
| 1 Extremely Poorly Sorted | 4 Moderately Poorly Sorted | 7 Well Sorted |
| 2 Very Poorly Sorted | 5 Moderately Sorted | 8 Very Well Sorted |
| 3 Poorly Sorted | 6 Moderately Well Sorted | 9 Extremely Well Sorted |

DEGREE OF ROUNDNESS

- | | | |
|---------------------|----------------------|---------------------|
| 1 Extremely Angular | 4 Moderately Angular | 7 Rounded |
| 2 Very Angular | 5 Intermediate | 8 Very Rounded |
| 3 Angular | 6 Moderately Rounded | 9 Extremely Rounded |

SPHERICITY

- | | | |
|-----------------|---------------|----------------------|
| 0 Nil | 4 Fairly Low | 8 Extremely High |
| 1 Extremely Low | 5 Moderate | 9 Exceptionally High |
| 2 Very Low | 6 Fairly High | |
| | 7 Very High | |

TEXTURES:

TEXTURAL ABBREVIATIONS

BD	Bedded	BN	Banded	BR	Brecciated
CL	Cleavage	EQ	Equigranular	FL	Flow Structures
FO	Foliated	GB	Graded Bedding	LM	Laminated
MS	Massive	MY	Mylonitic	PP	Porphyritic
SC	Schistose	SS	Soft Sediment	XB	Cross Bedding

XLMP: crystal or phenocryst morphology

ABBREVIATIONS

- XL - phenocryst type (eg. FP)
- M - mode of occurrence
 - E Euhedral Crystals
 - S Subhedral Crystals
 - A Anhedral Crystals
- P - maximum particle size (use size scale)

FC: fracture count; defined as the average number of fractures in 1 m of core for specified rock type

CO: competence scale; rock competency described using a scale from 1 to 5 with 1 being the most competent and 5 being the least competent

S1DP S2DP: Description and dip angle of 2 structural features in a unit. Dip is measured from a plane perpendicular to the core axis (core normal angle).

STRUCTURAL ABBREVIATIONS

BD Banding
BN Banding
CL Cleavage
CT Contact
DY Dyke
FO Foliation
FT Fault
GO Gouge
LM Lamination
LN Lineation
QV Quartz Vein
SC Schistosity
SP Slip
VN Vein (General)

MINERALOGY: Observed minerals described by mode of occurrence and percentage of the total rock.

MODE OF OCCURENCE ABBREVIATIONS

A Anhedra! Crystals	T Tarnish or Stain
B Blebs	V Vein
C Envelopes or Coatings	W Webs
D Disseminated	Y Amygdaloidal or Spherulitic
E Euhedral Crystals	Z Selvage
I Eyes, Augen	# Breccia Filling
J Interstitial	< Micro Vein
K Stockwork	\$ Sheeting
L Laminated	1 Amount Disseminated < Amount in Veins
N Nodules	2 Amount Disseminated = Amount in Veins
O Spots	3 Amount Disseminated > Amount in Veins
P Pervasive	
Q Patches	
R Rosettes	
S Subhedral Crystals	

CERTIFICATE OF QUALIFICATIONS

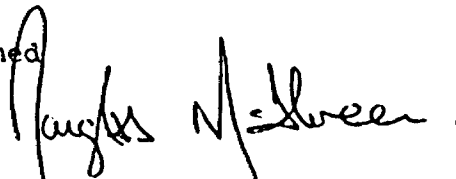
I, Douglas Glen McIlveen, of Kirkland Lake Ontario, do hereby certify that:

I have a Bachelor of Science Degree in Geology from McMaster University.

I have been employed as a geologist by Lac Minerals Ltd. Exploration Division since May 1983.

I supervised the drilling on the White River Property and logged the following drill holes: M-12-6, M-12-7, M-12-8, J-16-1, and J-16-2.

Signed

A handwritten signature in black ink, reading "Douglas Glen McIlveen". The signature is written in a cursive style with a large initial 'D' and 'M'.

Douglas Glen McIlveen
Geologist



Toronto Office
Suite 485,
146 Front Street West
Toronto, Ontario
M5J 2L7
(416) 598-2538

LAC

Lac Minerals Ltd.
Exploration Division

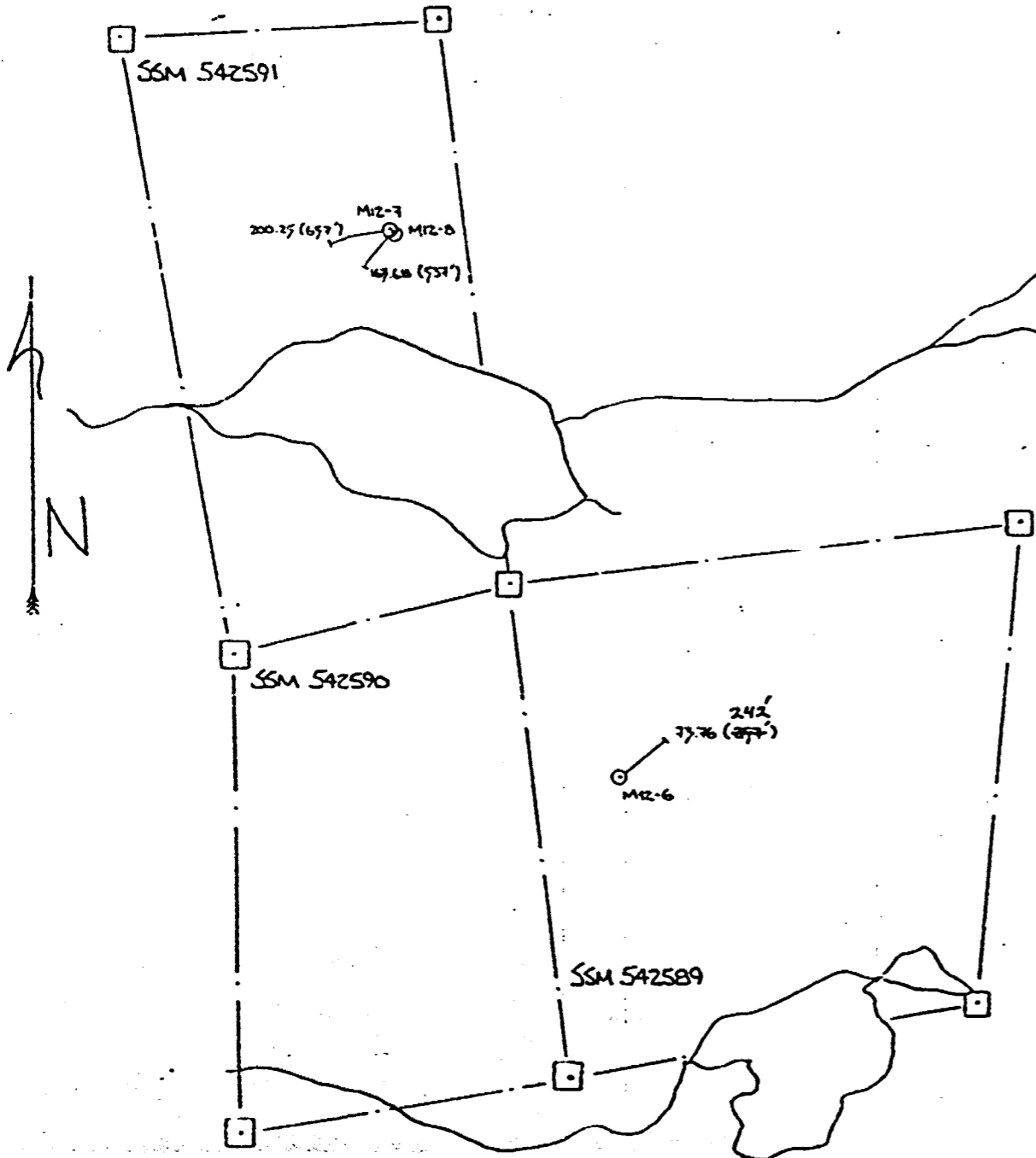
STATEMENT OF QUALIFICATION

I, Robert A. Campbell, hereby certify that:

- 1) I have the following University degrees;
 - a) B.A., Geology, University of California, Santa Barbara, 1978.
 - b) M.Sc., Geology, University of Western Ontario, Ontario, 1985.
- 2) I have practiced my profession since 1978.
- 3) I am employed by/and an authorized agent for LAC Minerals Ltd., 146 Front Street West, Suite 485, Toronto, Ontario, M5J 2L7.

R.A. Campbell.
1986-04-28

R. Anderson Campbell



DRILL PLAN
 DIAMOND DRILL HOLES MIZ-6,
 MIZ-7, MIZ-8.
 MARCH, 1986 DGMc.

DRILL HOLE

M12-8

LAC MINERALS LTD. GEOLOGICAL ENCODING FORM

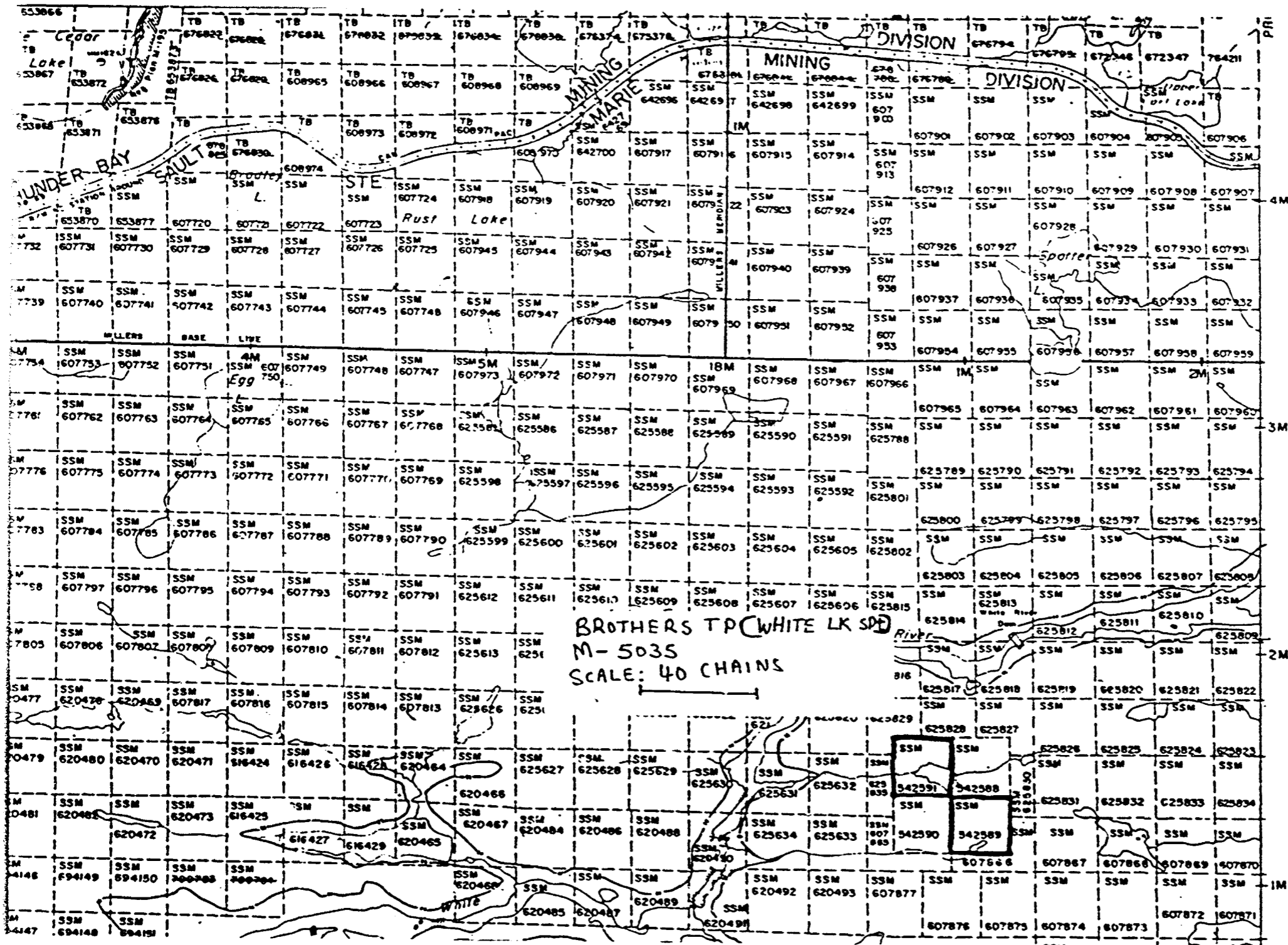
Page 2 of 3

PROJECT

PROPERTY

TARGET

FLAG	FROM	TO	REC%	MIX%	ROCK	ET	T	R-F MINERALS				TYPIFYING MATERIAL				COL	GRN SIZE	CST	MOP	TEXTURES	XLMP	FC	CO	SIDP	S2D
								DY	PO	CP	SP	GN	MO	MG	PR										
					SILICES				OXIDES				CARBONATES				KINGSTSI				SILICATES				
					100	GOUGE	S		CL	CA					IG				BR						
	84.41	84.43																							
R					PELT	U		QZ	BI	FX				PA	ZZ	Z		BN	EM		3	2	BN 44	FOF	
	90.37	111.69			PERVASIVE BLEACHING AROUND QZ MICROVEINS.																				
					25	FXDD	S	.20	FX	QZ	MU	FP30		7A											
	98.08	104.0																							
R					70		M							RA								0	5		
					<tr																				
STR	103.0	111.44			WEAK RED ALTERATION. LOCALLY FRACTURED AND BROKEN CORE.																				
					100		M					GR5		N											
	111.44	111.69			L:20							<10													
					BREC	U		CA	FX	CL	RF50	GR1					1420					8	5		
					D:1			<tr	<tr			V:10													
R	111.69	134.30			ESE BREAK. CLAST COMPOSITION AND SIZE VARIABLE. LOCALLY GOUGE INTERVALS.																				
					70	PEGM	S		FX	QZ												10	5		
	112.65	115.86																							
					60	PELT	S		QZ	FX				RA	ZZ	Z						10	3		
												V:5													
	119.25	122.50																							
					40	FXDD	S		FX	CL		FP40		GR	34	40	5					6	3		
												V:5													
	119.25	122.50			LARGEST INTERVAL OF FXDD FROM 120.13-121.10.																				
R																									
STR	122.90	124.0			INTENSELY FRACTURED ROCK WITH GOUGE.																				



TRAVERSE

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NOTE: MINING

1913

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SCALE: 1

FEET 0 10

METRES 0 200

TOWNSHI

BRO

M.N.R. AD

TERR

MINING

SAULT

LABERGE TWP: G-3174

BROTHERS TPC (WHITE LK SPD)
M-5035
SCALE: 40 CHAINS



42C12NE0058 42C12NE0056 BROTHERS

900

Resources of Work
Ontario

The Mining Act

Type of work to be recorded (see table below).
- For Geo-technical work use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical and Expenditures)".

Name and Postal Address of Recorded Holder Lac Minerals Limited, 146 Front St. West Suite 485, Toronto, Ont. M5J 2L7	Prospector's Licence No. T664
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Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed 4072.5	Mining Claim			Mining Claim			Mining Claim		
	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.
For Performance of the following work. (Check one only) <input type="checkbox"/> Manual Work <input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work. <input type="checkbox"/> Compressed Air, other Power driven or mechanical equip. <input type="checkbox"/> Power Stripping <input checked="" type="checkbox"/> Diamond or other Core drilling <input type="checkbox"/> Land Survey	SSM	607720	40	SSM	607728	40	SSM	607736	38
		607721	40		607729	40		607737	38
		607722	40		607730	40		607738	38
		607723	40		607731	40		607739	38
		607724	40		607732	40		607740	38
		607725	40		607733	40		607741	19
		607726	40		607734	40		607742	40
		607727	40		607735	40		Continued on attached list	

All the work was performed on Mining Claim(s):
 SSM 607752 (1079) 1753 (455) 607788 (498) 342591 (1194) 542589 (242) 625548 (1056)

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

BROTHERS & LAGERGE JUN
 CHLARIO GEOLOGICAL ENGINEERING
 1100 BROADVIEW AVE. TORONTO ONT. M6H 1R7
 MAY 23 1986

Morissette
 P.O. Box 789
 Haileybury, Ont.
 POJ 1K0

Boyles Brothers Diamond
 Core BQ
 Date From: 01/03/86
 to: 12/04/86

Core is stored at Lac Minerals Ltd's Cedar Lake Camp
 Drill logs and Location sketches Attached

Total credits from recent drilling = 4521
 Total applied credits to SSM Claims = 4072.5
 Total applied credits to TB Claims = 60.0
 = 388.5

Remaining credits to be applied at a later date

SAULT STE. MARIE MINING DIV.
RECEIVED
 MAY 12 1986
 A.M. P.M.
 7 8 9 10 11 12 1 2 3 4 5 6

Date of Report: **May 5, 1986**
 Recorded Holder or Agent (Signature): **R. Anderson Campbell**

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying
**R. A. Campbell 1/6 Lac Minerals Ltd. 146 Front St.
 Toronto, Ont M5J 2L7**

Date Certified: **May 5, 1986**
 Certified by (Signature): **R. Anderson Campbell**

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific Information per type	Other Information (Common to 2 or more types)	Attachments
Manual Work		Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work	Nil		
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing: footage, diameter of core, number and angles of holes.		
Land Survey	Name and address of Ontario land surveyor.	Nil	Nil

file on SSM 607730 25

Prefix	number	work Days Cr	Prefix	number	work Days Cr	Prefix	number	work Days Cr
SSM	607743	40 ✓	SSM	607946	40	SSM	625647	40
	607744	38 ✓		607947	40 ✓		625648	40
	607745	38 ✓		607948	38 ✓		625649	40
	607900	40		607949	40		625650	40
	607901	40		607950	40		625651	40
	607902	40		607951	40		625652	40
	607903	40		607952	40		625653	40
	607904	40		607953	40		625654	40
	607905	40		607954	40		625655	40
	607906	40		607955	40		625656	40
	607907	40		607956	40		625657	40 ✓
	607908	40		607957	40		607883	21
	607909	40		607958	40		607884	21
	607910	40		607959	40 ✓		625703	40 ✓
	607911	40		625825	5 ✓		625666	40 ✓
	607912	40		625619	5 ✓		625702	20
	607913	40		625629	40 ✓		625704	20
	607914	40 ✓		625630	40 ✓		625551	20
	607915	41		616425	40 ✓		625552	20
	607916	41		620473	40 ✓		625553	20
	607917	41		620472	40 ✓		625554	20
	607918	40		620482	40 ✓		625555	20 ✓
	607919	40		620481	40 ✓		625556	40 ✓
	607920	40 ✓		625640	40		642695	20
	607940	34.5		625641	40		642696	20
	607941	40		625642	40		642697	20
	607942	40		625643	40		642698	20
	607943	40		625644	40		642699	20
	607944	40		625645	40		642700	20
	607945	40 ✓		625646	40			