

REPORT ON CAULFIELD RESOURCES INC. OPTION INDUCED POLARIZATION HEMLO PROPERTY THUNDER BAY MINING DIVISION MOLSON LAKE AREA NTS 42-C-12 FOR VULCAN RESOURCES INC.

# RECEIVED

# JUN 3 U 1983

# MINING LANDS SECTION

June 13, 1983

David R. Bell Geological Services Inc. per: Don B. Sutherland, P. Eng. Geophysical Consultant

010



Ø10C

42012NW0132 2.5667 MOLSON LAKE	
SUMMARY	T
INTRODUCTION	1
Purpose of Survey	1
Location and Access	1
Property	2
Previous Work	3
Survey Statistics and Coverage	3
GEOLOGICAL SETTING	4
INSTRUMENTATION AND SURVEY PROCEDURE	4
INTERPRETATION	5
Anomaly 1	5
Anomaly 2	5
Anomaly 3	5
Anomaly 4	5
Anomaly 5	6
Anomaly 6	6
CONCLUSIONS AND RECOMMENDATIONS	6,7
PROPOSED DRILLING SCHEDULE	8
REFERENCES	9
APPENDIX	

INSTRUMENT SPECIFICATIONS - CRONE RECEIVER - PHOENIX TRANSMITTER

MAPS:

Chargeability - Contours	1"	=	200	feet
Resistivity Contours	1"	=	200	feet
Interpretation	1"	-	200	feet

### SUMMARY

An induced polarization survey has outlined three highly chargeable horizons crossing the full width of the 15 claim property. Two of these horizons on the central part of the property are 500 feet apart and have intercalated zones of high chargeability. This double IP trend is interpreted to be caused by graphitic tuffs and parallel pyritic tuffs which may be favourable host rocks for gold mineralization.

A very strong IP anomaly occurs along the southern four claim area that is interpreted to be a sulphide (pyritic) zone similar in physical property character to the Corona and Golden Sceptre pyritic zones in that the zone is highly chargeable with a relatively high resistivity.

A diamond drill program of 6 to 7 holes for 3,400 feet is proposed with 2 geological section holes for an additional 1,350 feet. Total cost of this drilling program would be approximately \$100,00.00 to \$135,000.00. INTRODUCTION Purpose of Survey

An induced polarization survey was run over the southern portion of the Caulfield Resources Ltd. claim option for Vulcan Resources Inc. to cover extensions of horizons outlined by previous VLF-EM and magnetic surveys. Some of these horizons are associated with slightly anomalous gold values in soil samples taken in late November and early December, 1982, L.J. Nelson (1983).

- 1 -

The main purpose of the IP program was to outline disseminated sulphide zones which may be similar to those hosting the gold deposits on the Golden Sceptre, International Corona and Goliath Gold properties to the east.

### Location and Access

The property is located 25 miles east of Marathon, Ontario in the Molson Lake Area claim sheet region, Thunder Bay Mining Division. Access is by helicopter from local charter operators based in Marathon and near White Lake to the east of Manitouwadge Corners. The distance to highway 17 is only 1.5 miles and it would be possible to construct a road to the property. At present a drill road extends from highway 17 through the Interlake property to the east boundary of the Caulfield-Vulcan claims.

# Property

The property consists of 15 unpatented claims as follows:

<u>Claim No.</u>	Recording Date	Work Filed	
393034	August 27, 1981	20 days EM, 20 days Ma	ıg
393035	August 27, 1981	20 days EM, 20 days Ma	ıg
393036	August 27, 1981	20 days EM, 20 days Ma	١g
393037	August 27, 1981	20 days EM, 20 days Ma	١g
393038	August 27, 1981	20 days EM, 20 days Ma	١g
393043	August 27, 1981	20 days EM, 20 days Ma	١g
393044	August 27, 1981	20 days EM, 20 days Ma	١g
393045	August 27, 1981	20 days EM, 20 days Ma	١g
393046	August 27, 1981	20 days EM, 20 days Ma	g
393047	August 27, 1981	20 days EM, 20 days Ma	g
393048	August 27, 1981	20 days EM, 20 days Ma	g
393049	August 27, 1981	20 days EM, 20 days Ma	g
393050	August 27, 1981	20 days EM, 20 days Ma	g
393051	August 27, 1981	20 days EM, 20 days Ma	g
393052	August 27, 1981	20 days EM, 20 days Ma	g

Previous Work

A VLF EM and Magnetic survey was run over the whole property in 1982 and this survey was filed for assessment credit on August 11, 1982. A soil sampling program was done but had not been filed for assessment at the time of writing, L.J. Nelson (1983).

A detailed proton precession magnetometer and VLF EM (Radem) survey was done on the southern four claims in December 1982 to cover a zone that was later found to be a high chargeability anomaly, L.J. Nelson (1983).

Survey Statistics and Coverage

The IP Survey was carried out with 3 men on December 9-12, 1982 and January 21 to 25, 1983 and then on May 9 to 19, 1983 using 4 men.

Lines were run on 400 foot line spacings with readings taken at 100 foot intervals. A total of 453 chargeability readings and 453 resistivity readings were taken for both "n" spacings.

The southern portion of the property was read including claims numbered:

Claims 393043, 393052, 393034 and 393035 were not surveyed.

GEOLOGICAL SETTING

The northern part of the property is underlain by sediments and volcanic tuffs where as the central part has a graphitic tuff horizon with associated pyrrhotite-pyrite mineralization and a parallel mafic volcanic unit. These latter two horizons can be traced in part with the magnetic data as anomalous highs up to 1400 gammas above background. Strong VLF EM conductors are associated with the north and south contacts of the graphitic horizon. Dips of schistosity are 80° north and the strike is north 70° east.

The southern part of the property is predominately intermediate to felsic crystal tuffs with some sedimentary components. The regional geology is described by T. Muir (1982).

### INSTRUMENTATION AND SURVEY PROCEDURE

The survey was carried out using a Crone N IV IP, time domain receiver and a Phoenix IPT-1 transmitter. A dipole-dipole array with an "a" spacing of 100 feet and an "n" spacing of 1 and 2 was used. This gave a theoretical depth of exploration of 100 and 150 feet. Readings were taken every 100 feet for each "n" spacing.

A square wave signal with 2 seconds on - 2 seconds off was transmitted via stainless steel stake electrodes and the voltage readings were made using porous copper sulphate filled electrodes. Three cycles of the transmitted signal were averaged by the receiver to give the chargeability reading. Instrument specifications are given in the Appendix. INTERPRETATION Anomaly 1 and 2

Two parallel chargeable horizons trend parallel to the base line at 10N and 5N and are associated with a magnetic high region and two VLF EM conductors. This zone includes a graphitic tuff horizon to the north and pyritic tuffs plus possible graphite to the south. The low resistivity values on the most northern of the two conductors reflects the graphite zone. This horizon extends to the west off the property to a point where anomalous gold values have been located (.059 oz Au in pyritic tuff). Therefore. units within this overall chargeability anomaly should be tested for gold values.

Anomaly 3

To the north of the IP anomaly at 10N a broad area of chargeabilities in to 10-20 millisecond range is associated with high resistivities and shallow overburden. This high background is probably due to a chargeable bedrock but emphasized by the shallow overburden and therefore is a low priority target.

Anomaly 4

A weak IP trend occurs at 7 south on line 12 east and extends to 5 south on line 0+00 and is interpreted to reflect a specific rock unit that is more chargeable. This horizon is a low priority target. Anomaly 5

The most interesting IP anomaly geophysically is the very high chargeability trend extending from 16S on line 32E to 11S on 4E. Values up to 90 ms have been obtained suggesting a zone of fine disseminated sulphide. Resistivity values are relatively high suggesting a low graphite content. However a narrow conductive zone may occur on 16E and 20E at 13+50S to 14+15S respectively as suggested by single values in the 700 ohm metre range. Diamond drill holes 4, 5 and 6 on 4E, 16E and 24E are highly recommended to test the IP anomaly.

Anomaly 6

Another IP anomaly may be developing to the south of Anomaly 5 on lines 24E-28E at 19+00S and this should be tested as part of a cross section on 24E.

## CONCLUSIONS AND RECOMMENDATIONS

Three strong IP anomaly trends, Anomalies 1, 2 and 5 have been outlined by the IP survey.

The most northern trend, Anomaly 1, is a graphitic zone whereas Anomaly 2 which is parallel and 500 feet south, is interpreted to be both graphite and pyritic-pyrrhotitic tuffs. A cross section of 3 holes should be drilled to test these units and the chargeable zones between the main anomaly peaks. The strongest IP anomaly, Anomaly 5, occurs on the southern 4 claims on the property and this zone is interpreted to be disseminated pyrite with possible semi-massive pyrite lenses. This horizon is hosted in intermediate volcanic tuffs and possibly associated porphyry zones. Three holes are recommended to test this horizon at wide spacings to determine the possibility of zoneation of gold values.

Anomaly 6 is an imcomplete indication of a strong anomaly near the south boundary of the claims. It is also considered to be a first priority geophysical target and drill hole 6A has been spotted to test it. Its location, near the south boundary, warrants consideration but with prevailing northerly dips the anomalous source may lie entirely within the claims.

Anomalies 3 and 4 are weak responses with low priorities but will be tested by drill holes 7 and 8 which are essentially geological holes.

If any encouragement is obtained in the above program the IP surveying should be extended to cover the western and northern parts of the property.

Respectfully submitted, David R. Bell Geological Services Inc. BXA, M.A. P. Eng. Don B. Sutherland, 🖉 D. B. SUTHERLAND

TABLE 1 Proposed Drilling Schedule

IP ZONE	DDH NO.	COLLAR	AZIMUTH	DIP	LENGTH
1	427-83-1	L16E/12+50N	Grid South	-50°S	500'
1 & 2	427-83-2	L16E/10N	Grid South	-50°S	800'
2	427-83-3	L16E/7N	Grid South	-50°S	550'
5	427-83-4	L4E/9+50S	Grid South	-50°S	450'
5	427-83-5	16E/12S	Grid South	-50°S	600
5	427-83-6	24E/13S	Grid South	-50 <u></u> S	800+
6	427-83-6A	24E/18S	Grid South	-50°S	<u>300</u>
				3	.700 feet

Possible Additional Drilling for Geological Information

4	427-83-7	L12E/2+50S	Grid South	-50°S	850'
3	427-83-8	L32/18N	Grid South	-50°S	500

<u>.</u>

### REFERENCES

- Muir, T.L. (1982) Geology of the Hemlo Area, District of Thunder Bay, O.G.S. Report 217
- Nelson, L.J. (1983) Progress Report on Caulfield Resources Ltd. Soil Geochem Survey Hemlo Property April 22, 1983
- Nelson L.J. (1983) Progress Report on Caulfield Resources Inc. Ground Geophysics (Proton Mag, Radem, IP Survey) Hemlo Property, April 22, 1983

### CERTIFICATE

I, Don Benjamin Sutherland, of the City of Toronto, Province of Ontario, do hereby certify that:

- I am a geophysicist residing at 975 Mount Pleasant Road, Toronto, Ontario.
- I am a graduate of the University of Toronto, with a B.A. Degree (1952) in Physics and Geology and an M.A. Degree (1953) in Physics.
- I am a member of the Canadian Institute of Mining and Metallurgy and the Canadian Exploration Geophysicists Society.
- 4. I am a Professional Geophysicist and Consultant registered in the Province of Ontario.
- 5. I have no direct or indirect interest, nor do I expect to receive any directly or indirectly in the property or securities of Caulfield Resources Incorporated and/or Vulcan Resources Inc.
- The statements made in this respect are based on a study of published geological literature and unpublished private reports.
- 7. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

Timmins, Ontario June 13, 1983

la	Prot		ROFESSA			
Don 1	B. S	D. B	SUTHER	LAND E	, М.А.,	P.Eng.







OFTHE USE ONLY

# **Ministry of Natural Resources**

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

#### TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) <u>Induced</u> F	<u>'olarization &amp; Resistivi</u>	ty
Township or Area <u>Rous</u> Lake	Area	
Claim Holder(s) Caulfield	Resources Inc.	List numerically
107 2 man : C	LL Durance VIP IG	<u>6</u>
Survey Company <u>Rayan Exp</u>	loration_Ltd	TB393036
Author of Report Don B. Su	therland	TB 393037
Address of Author 975 Mount	Pleasant Rd., Toronto	— <u>—</u>
Covering Dates of Survey Dec. 9	-12/82, Jan. 21-25/83 (linecutting to office) Marco 10/83	— <u>1</u> B
Total Miles of Line Cut <u>N.A.</u>		<u>TB</u> <u>393044</u>
		TB
SPECIAL PROVISIONS	DAYS	TB 393046
CREDITS REQUESTED	Geophysical <sup>per claim</sup>	
ENTER 40 days (includes	Electromagnetic	<u></u>
line cutting) for first	Magnetometer	TB
survey.	-Radiometric	TB 393049
ENTER 20 days for each	-Other_IP20	
additional survey using	Geological	TB
same grid.	Geochemical	TB
AIRBORNE CREDITS (Special prov	vision credits do not apply to airborne surveys)	
MagnetometerElectromag	netic Radiometric	
DATE: June 13/83 SIGN	ATURE:	
Res. GeolQual	ifications	
Previous Surveys	CK 05 0	
File No. Type Date	Claim Holder	
		TOTAL CLAIMS;;

# GEOPHYSICAL TECHNICAL DATA

Station interval1C Profile scale Contour intervalChar Instrument Accuracy - Scale con Diurnal correction me Base Station check-in Base Station location Coil configuration Coil separation Accuracy Method: Frequency Parameters measured Scale constant Scale constant Scale constant Base station value and Elevation accuracy Instrument Base station value and Elevation accuracy Instrument Parameters — On time  Parameters — On time 	0 geability 10 mil stant thod interval (hours) and value Fixed transmitter	Line s	pacing esistivity1 	400 feet 1,000, 2,000, 0,000 ohm met: 	-5,1 res 
Profile scale	geability 10 mil stant thod interval (hours) and value Fixed transmitter	Liseconds. Ro Shoot back (specify V.L.F. station	esistivity 1  k  In lin n)	1,000, 2,000, 0,000 ohm met:	-5, I res
Contour intervalChar Instrument Accuracy - Scale con Diurnal correction me Base Station check-in Base Station location  Coil configuration Coil separation Accuracy Method: Frequency Parameters measured Instrument Scale constant Scale constant Base station value and Elevation accuracy Instrument Base station value and Elevation accuracy Instrument Base station value and Elevation accuracy Instrument Corrections made Base station value and Elevation accuracy Instrument Corrections made Distrument Instrument Instrument Instrument Off time	geability 10 mil stant thod interval (hours) and value Fixed transmitter	LisecondsRo DisecondsRo Shoot back (specify V.L.F. station	esistivity 1	1,000, 2,000, 0,000 ohm met:	-5, res 
Instrument	stant thod interval (hours) and value   Fixed transmitter	Shoot back (specify V.L.F. station	1  k □ In lin n)	.0,000 ohm met:	res 
Instrument         Accuracy – Scale con         Diurnal correction me         Base Station check-in         Base Station location         Coil configuration         Coil configuration         Coil separation         Accuracy         Method:         Frequency         Parameters measured         Instrument         Scale constant         Corrections made         Base station value and         Elevation accuracy         Instrument         Parameters —         Discretions made         Discretion accuracy         Instrument	stant thod interval (hours) and value    Fixed transmitter	Shoot back (specify V.L.F. station	k 🗔 In lin	ne 🗆 Paralle	el line
Accuracy – Scale con Diurnal correction me Base Station check-in Base Station location 	stant thod interval (hours) and value    Fixed transmitter	Shoot back (specify V.L.F. station	k 🗔 In lin	ne 🗆 Paralle	el line
Diurnal correction me Base Station check-in Base Station location Diurnal correction me Base Station location Diurnal correction Coil configuration Coil separation Accuracy Method: Frequency Parameters measured Instrument Corrections made Base station value and Elevation accuracy Instrument <u>Crone</u> Method Im Time Do Parameters – On time - Off time	thod interval (hours) and value     Fixed transmitter	Shoot back (specify V.L.F. station	k 🗍 In lìn n)	ne 🗆 Paralle	el line
<ul> <li>Base Station check-in Base Station location</li> <li>Instrument</li> <li>Coil configuration</li> <li>Coil separation</li> <li>Accuracy</li> <li>Method:</li> <li>Frequency</li> <li>Parameters measured.</li> <li>Instrument</li> <li>Scale constant</li> <li>Base station value and</li> <li>Base station value and</li> <li>Elevation accuracy</li> <li>Instrument</li> <li>Base station value and</li> <li>Elevation accuracy</li> <li>Instrument</li> <li>Crone Method Image: Time Do Parameters - On time</li> </ul>	interval (hours) and value	Shoot back (specify V.L.F. station	k 🗔 In line	ne 🗆 Paralle	:] line
Base Station location  Instrument Coil configuration Coil separation Accuracy Method: Frequency Parameters measured Instrument Scale constant Corrections made Base station value and Elevation accuracy Instrument Crone Method Instrument O Crone Crone Crone Method Instrument O Crone Crone O Crone Crone O Crone Crone O Crone Crone Crone Crone O Crone Croe	and value	Shoot back (specify V.L.F. station	k 🗔 In lin	ne 🗆 Paralle	el line
Instrument	Fixed transmitter	Shoot back (specify V.L.F. station	k 🗔 In lin	ne 🗆 Paralle	el line
Older   Instrument   Coil configuration   Coil separation   Accuracy   Accuracy   Method:   Frequency   Parameters measured   Instrument   Scale constant   Scale constant   Corrections made   Base station value and   Elevation accuracy   Instrument   Crone   Method   Mathod   Elevation accuracy   Instrument   Crone   Method   Elevation accuracy   Off time	Fixed transmitter	Shoot back (specify V.L.F. station	k 🗔 In lìn	ne 🗆 Paralle	el line
Old Instrument         Coil configuration         Coil separation         Accuracy         Method:         Frequency         Parameters measured.         Instrument         Scale constant         Corrections made         Base station value and         Elevation accuracy         Instrument         Parameters — On time         Output         Output         Corrections made         Description accuracy	Fixed transmitter	Shoot back (specify V.L.F. station	k 🗔 In lin n)	ne 🗆 Paralle	el line
Coil configuration Coil separation Accuracy Method: Frequency Parameters measured Instrument Scale constant Corrections made Base station value and  Elevation accuracy InstrumentCrone Method Image Time Do Parameters - On time  Off time	Fixed transmitter	Shoot back (specify V.L.F. station	k 🗌 In line	ne 🗆 Paralle	el line
Coil separation Accuracy Method: Frequency Parameters measured Instrument Scale constant Corrections made Base station value and  Base station value and  Elevation accuracy InstrumentCrone Method IN Time Do Parameters - On time  Off time	Fixed transmitter	Shoot back (specify V.L.F. station	k 🗔 In line	ne 🗆 Paralle	el line
Accuracy Method: Frequency Parameters measured Parameters measured Instrument Base station value and Elevation accuracy InstrumentCrone Method Image Time Do Parameters - On time Off time	Fixed transmitter	Shoot back (specify V.L.F. station	k 🗔 In lin	e 🗆 Paralle	el lino
Method: Frequency Parameters measured_ Instrument Scale constant Corrections made Base station value and Elevation accuracy InstrumentCrone Method Image Time Do Parameters - On time Off time	Fixed transmitter	(specify V.L.F. station	k 🗔 In line	e 🗆 Paralle	el lino
Frequency Parameters measured_ Instrument Scale constant Corrections made Base station value and Elevation accuracy InstrumentCrone Method Image Time Do Parameters - On time Off time		(specify V.L.F. station	n)	<u></u>	
Parameters measured Instrument Scale constant Corrections made Base station value and Elevation accuracy InstrumentCrone <u>Method</u> I Time Do Parameters - On time Off time			••,		
Instrument Scale constant Corrections made Base station value and Elevation accuracy InstrumentCrone Method IN Time Do Parameters - On time Off time				•	
Instrument Scale constant Corrections made Base station value and Elevation accuracy InstrumentCrone Method IN Time Do Parameters - On time Off time					
Scale constant Corrections made Base station value and Elevation accuracy InstrumentCrone Method IM Time Do Parameters - On time Off time					
Corrections made Base station value and Elevation accuracy InstrumentCrone Method Image Time Do Parameters - On time Off time		·			
Base station value and Elevation accuracy InstrumentCrone Method I Time Do Parameters - On time Off time					
Base station value and Elevation accuracy InstrumentCrone Method I Time Do Parameters - On time Off time		· · · · · · · · · · · · · · · · · · ·			
Elevation accuracy Instrument <u>Crone</u> <u>Method</u> X Time Do Parameters – On time – Off time	location				
Elevation accuracy Instrument <u>Crone</u> <u>Method</u> X Time Do Parameters – On time – Off time				<u></u>	
Instrument <u>Crone</u> <u>Method</u> I Time Do Parameters – On time – Off time	<u></u>				
Instrument <u>Crone</u> <u>Method</u> I Time Do Parameters – On time – Off time					
Method X Time Do Parameters – On time – Off time	N IV IP Receiver	, Phoenix IPI	<u>-1 Transmit</u>	tter	
Parameters – On time	omain		] Frequency Don	main	
– Off time	_2_seconds		Frequency		
	_2_seconds		Range	,	
– Delay ti	ne 0.45 seconds				
– Integrat	on time <u>0.45-90.0</u>	M; 0.90-1.35N	T		
Power 1 KVA m	otor generator				
Electrode array di	pole-dipole		<u></u>		

- Reliable: Backed by twenty years experience in the design and worldwide operation of induced polarization and resistivity equipment
- Versatile: Can be used for resistivity, variable frequency IP, time domain IP or phase angle IP measurements
- Stable: Excellent current regulation
- Lightweight, portable
- Wide selection of power sources
- Low cost



Variable Frequency, Time Doma

and Phase IP Transmitter

Specifications		•	
Power Sources	<ul> <li>Internal DC power module containing 8</li> <li>45V dry cell batteries, or internal AC</li> </ul>		DC POWER MODULE (BPS-1)
	3 KVA motor generator.	Output Voltage	: 8 x 45V dry cell batteries (Evereody 482,
Ammeter Ranges	: 30 mA, 100 mA, 300 mA, 1A, 3A and 10A full scale.		Mollory 202 or equivalent) are switched in series or parallel to provide output voltag of 90V, 180V, and 360V.
Motor Display	: A meter function switch selects the display of current level, regulation status, input frequency, output voltage, control battery voltage or line voltage.	Output Power	Recommended maximum output power is 30 watts. Absolute maximum output pow is 100 watts.
Current Regulation	: The change in output current is less than 0.2% for a 10% change in input voltage or electrode impedance.	Battery Life	Normal field operation, with low output pow results in an overage battery life expectancy one month. Operation with the absolute
Output Waveform	: Either DC, single frequency, two frequencies simultaneously, or time domain (50% duty		maximum output power results in much show battery life.
. · ·	cycle). Frequencies of 0.078, 0.156, 0.313, 1.25, 2.5, and 5.0 Hz are standard, whereas 0.062, 0.125, 0.25, 1.0, 2.0, and 4.0 Hz are optionally available. The simultaneous transmission mode has 0.313 and 5.0 Hz as standard, whereas 0.156 and 2.5 Hz are	Control Supply	4 x 6V lantern batteries (Everebdy 409, Mall 908 or equivolent) connected in series/para ore used to provide the 40 to 70 mA required the control circultry. Average battery life expectancy is six months,
Frequency Stability	option <b>ol.</b> : <u>+</u> 1% from -40° to +60°C is standard. A precision time base is optionally available	Operating Temperature	: 0°C 10 + 60°C.
	for coherent detection and phase IP measurements.	1	AC POWER MODULE (AC-3)
Protection	: Current is turned off automatically if it	Output Voltage	: 0V,75V, 150V, 300V, 600V and 1200V.
	exceeds 150 % tuil scale or is less than 5 % full scale.	Output Power	: Moximum continuous output power is 3 kg
Case	: Non-conductive, high impact resistant plastic.	1	mis requires me skyx motor generator.
Dimensions	: 20 × 40 × 55 cm (9 × 16 × 22 inches).	Input Power	: 350 to 1000 Hz, 60V (45V to 78V) 3 phase is standard, 120V (90V to 156V) and/or single
Weight	14 kg (31 lb) with DC power module.	Course of the	phase may be link selected inside the module
Standard Accessories	Pack frame, manual, At least one of the two	Current Regulation	: Achieved by feedback to the alternator of the motor generator unit.
	possible power modules is required. The AC	Operating Temperature	: 40°C 10 + 60°C.
	external IKVA, 2KVA or 3KVA motor generators and a connecting cable.	Thermal Protection	: Thermostat turns off at 65°C and turns back a

÷



# PHOENIX GEOPHYSICS LIMITED

Geophysical Consulting and Contracting, Instrument Manufacture, Sale and Lease.

200 Yorkland Blvd. Willowdale, Ont., Canada, M2J 1R6. Tel: (416) 493-6350 1424 - 355 Burrard St. Vancouver, B.C., Canada, V6C 2GB Tel: (604) 684-2285 2430 N. Huachuca Dr., Tucson, Arizona, U.S.A. 85705. Tel: (602) 884-8542 Head Office:

# CRONE GEOPHYSICAL COMPANY

NEWMONT TYPE N-IV I.P. RECEIVER

DIMENSIONS: 8" x 4.3" x 12.3" (20 cm x 11 cm x 31 cm) WEIGHT: 10 lbs., 4.5 kg. (including batteries) POWER SUPPLY: 5 standard "D" cells, 1.5 volts each, 60 MA drain, 1 of 9 volt standard cell for S.P. MEASUREMENTS: Primary Voltage Vp - .0005 - 60 volts, accuracy ± 5%. Chargeability "M & N" - Both samples of the decay curve "M" and "N" are taken for 3 current cycles then are automatically averaged, adjusted to the 33<sup>M</sup><sub>1</sub> standard and stored. Measuring cycles both using a 2.0 second off, 2.0 second on current period are:

> NORMAL: .45' sec. delay; '.45 - .90 sec "M"; .90 - 1.35 sec "N"; ".35 switch": .35 sec. delay; .35 - .70 sec "M"; .70 - 1.05 sec. "N".

SELF POTENTIAL - Range O - 1 volt digital, calibrated readout. Range O - 2 volts uncalibrated. Automatic buckout switched in after manual adjustment.

Ministry of Rep	ort of Work	LAN	Bef				
Alatural (Geo	ophysical, Geological, chemical and Expend	itures)	2.56				000
Proj	oot \$407	#.	203 The Minin	42012NW0132 2.	5667 MULSON	In the "Expend. Days Do not use shaded areas be	GOO Cr." columns
Type of Survey(s)	<u>ecc #427 -</u>				Township	or Area	$(\Delta 2)$
Induced Polari	zation					Prospector's Licence No.	
Caulfield Reso	urces Inc.		0			T1239	
<u>Box 1250</u> , Timm	ins, Ontario	P4N	Servic 7J5	es inc.	0.2		
Survey Company Rayan Explorat	ion Ltd.			09 12 Day   Mo.]	y (frem & to) 82  Yr.   Day	Mo.   Yr.   N/A	ne Cut
Name and Address of Author (c Don C Suther1	of Geo-Technical report)	t Pla	acont P	and Toro	nto On	taria	
redits Requested per Each	Claim in Columns at r	right	Mining C	Claims Traversed	(List in num	erical sequence)	
pecial Provisions	Geophysical	Days per Claim	Prefix	Vining Claim Number	Expend, Days Cr.	Mining Claim Prefix Number	Expend Days Cr
For first survey:	- Electromagnetic		ТВ	393036			
includes line cutting)	- Magnetometer			393037			
For each additional survey:	- Radiometric			393038			
using the same grid:	- Other IP	20		393044			
Enter 20 days (10) each	Geological			393045			
	Geochemical			393045			
Man Days	Geophysical	Days per		303040		A standard from the second s	
Complete reverse side	- Electromagnetic	Claim		303047	-		
and enter total(s) here	- Magnetometer			2020/0			
	- Badiometric			202050			
	- Other			393050			
	Geological			393051			
	Geological						
Airborne Credits	Geochemical	Days per					
		Claim					
Note: Special provisions credits do not apply	Electromagnetic				_		
to Airborne Service.	L'ELA ED						
	Radiometric						
ype of Work Performed	er stoppinges	J	1				
MINING L	ANDS SECTION				<u></u>		
erformed on Claim(s)				1 per	K K		
				2000			
alculation of Expenditure Day	s Credits			J JY	n		
Total Expenditures	Day	s Credits		г			
\$	÷ 15 =					Total number of mining claims covered by this	11
nstructions Total Dave Credits may be as	portioned at the claim t	older's				report of work.	
choice. Enter number of days in columns at right.	s credits per claim selecti	ed	Total Day	For Office Use s Cr. Date Recorde	Only a	Mining Recorder	
			Recorded	July 11	/83	Audres M. y	James
	corded Holder or Agent (	Signature)	220	) Date Approve	d as Hecorded	Branch Director	
ertification Verifying Repo	rt of Work	und					,
I hereby certify that I have a or witnessed same during and	personal and intimate ki f/or after its completion	nowledge of and the ann	f the facts set nexed report is	forth in the Report strue.	t of Work anne	xed hereto, having performe	d the work
R.A. Markov P.	0. Box 1250.	Timmi	ns. On	tario P41	N 7.15		1
				Date Certified	1083	Cartified by (Signature)	. [
<u></u>				Jury o	, 1203	1 ck . M. Man	N.

122



Geotechnical Report Approval

rces

July 20/83

File 2.5667

Mining Lands Co	mments		
			· · · / · · · · · · · · · · · · · · · ·
••••••••••••••••••••••••••••••••••••••			
Comments	Mr. Barlow.		
Approved	Wish to see again with corrections	Date 10, 7, 10,	Signature
To: Geology - Ex	xpenditures	ng11 - / 83	10 m
Comments			· · · · · · · · · · · · · · · · · · ·
			<u>.</u>
	· · · · · · · · · · · · · · · · · · ·		
			· · · · · · · · · · · · · · · · · · ·
···			
			······································
Approved	Wish to see again with corrections	Date	Signature
To: Geochemistr	у	·······	
Comments			
		17	
		-L, $U$ , $-$	
	an an an 17 mar an an an an an an Arlan an An Ann an Annaich ann an		
Approved	Wish to see again with corrections	Date	Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380) 1983 07 18

2.5667

Mrs. Audrey Hayes Mining Recorder Ministry of Natural Resources P.O. Box 5000 Thunder Bay, Ontario P7C 5G6

Dear Sir:

We have received reports and maps for a Geophysical (Induced Polarization) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims TB 393036 et al in the Area of Rous Lake.

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

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-1380

A. Barr:mc

- cc: Caulfield Resources Inc. Suite 1520 609 Granville Street Vancouver, B.C. V7Y 165
- cc: Mr. Don B. Sutherland 975 Mount Pleasant Road Toronto, Ontario M5P 2L8

2.5667

203

1983 11 01

2.5667

Mrs. Audrey Hayes Mining Recorder Ministry of Natural Resources P.O. Box 5000 Thunder Bay, Ontario P7C 5G6

Dear Madam:

RE: Geophysical (Induced Polarization) Survey on Mining Claims TB 393036 et al in the area of Moison Lake

The Geophysical (Induced Polarization) survey assessment work credits as listed with my Notice of Intent dated October 12, 1983 have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Totonto, Ontario N7A 1W3 Phone: 416/965-1380

D. Kinvig:sc

cc: Caulfield Resources Inc Vancouver, B.C.

cc: Mr. Don B. Sutherland Toronto, Ontario

cc: Resident Geologist Thunder Bay, Ontario



Besources Work Credits

Jate				
	1983	10	12	

File 2.5667 Mining Recorder's Report of Work No. 203

Recorded Holder CAULFIELD RESOURCES INCORPORATED								
Township or Area MOLSON LAKE A	REA		·····					
Type of survey and number of Assessment days credil per claim	Mining Claims Assessed							
Geophysical								
Electromagnetic	daγs							
Magnetometer	days	TB 3	393038 393046	to 50	inclusive			
Radiometric	days					,		
Induced polarization 20	days							
Other	daγ <b>s</b>							
Section 77 (19) See "Mining Claims Assessed"	' column							
Geological	daγ <b>s</b>							
Geochemical	davs							
Man days 🗋 🛛 Airl	borne							
Special provision 🔀 Gr	ound 🗶		•					
X Credits have been reduced because coverage of claims.	of partial							
Credits have been reduced because of to work dates and figures of applicant.	corrections							
Special credits under section 77 (16) for the	following m	ining claims		·····				
10 days Induced Polari	zation			5 day	s Induced Polarization			
TB 393045 393051		,			TB 393036 - 37 393044			
No credits have been allowed for the followi	ng mining cl	aims						
not sufficiently covered by the survey		Insufficient tec	hnical data	filed				

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77 (19) — 60: 828 (83/6)



Ministry of Natural Resources

Your file: 203

Our file: 2.5667

October 12, 1983

Mrs.Audrey Hayes Mining Recorder Ministry of Natural Resources P.O. Box 5000 Thunder Bay, Ontario P7C 5G6 Dear Madam:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

the second s

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3 Phone: 416/965-1316 D. Kinvig:sc

### Encls:

- cc: Caulfield Resources Inc Suite 1520 609 Granville, Street Vancouver, B.C. V7Y 165
- cc: Mr. Don B. Sutherland 975 Mount Pleasant Road 845 Toronto, Ont M5P 2L8

cc: Mr. G.H. Ferguson Mining & Lands Commissioner Toronto, Ontario FILE



Ministry of Natural Resources Notice of Intent for Technical Reports

October 12, 1983

2.5667

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

2.5667 J.P. <u>I.P.</u> 3/4 393047 TB- 393036 2 34 48 1 37 49 393038 3/4 V4 50 393044 1/2 K 393051 45 393046 Ø.K.

•

# WABIKOBA LAKE G-620

48°45 <u>'</u>	36°00' TB TB TB TB T	8   TB   TB   TB	TB 1. TB 1. TB 1. TB 3 1 TB	ТВ ТВ ТВ ТВ ТВ	636604 	658803 4 B) T8 T8 T8 658456 658457 1 178 //7463	9 674638 674637	ТВ ТТВ ТТВ ТТВ ТТВ ТТВ ТТВ		
	65292(3) 652930 652918 652 5	13 1652908 1652903 16 54161 1654162	18 TB TB TB TB	5916 76 393019 393018 393009 62 TB TB TB TB TB TB	2789 657401 657402 657405 6 TB TB TB TB	58603  658 454  65  8455  B TB   1658607 67 4 3 2 0	TB TB C3 B302 636 263 636	284 638285 609192 609193 469369 44 78 78 78 78 78 78 78 78 78 78 78 78 78 7	69372 656712 656711 E 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	μ         65232         9         652337         5         6         5         2         3         4         6         5         2         3         4         6         5         2         3         4         6         5         2         3         4         6         5         2         3         4         6         5         2         3         4         6         5         2         3         4         6         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         2         3         4         5         3         4         5         3         4         5         3         4         5         3         3         4         5         3         4         5         3         4         5         3 <th< th=""></th<>
	TB TB TB 65292 2652919 6529 652931 65292 2652919 6529	HE 1652902 HE 1652902 HE 1652909 HE 1652909 HE 1652902 HE 1650563 HE 1652902 HE 165	169/8425 698451 598445 698447 591680	591677 393020 393017 3930 10 622	790 657404 657405 657406 61 TB 178 1 TB	63710 B TB TB TB TB TB	5 658565 658564 T8 658563	Cr. 638286 TB Gaby TB TB TB TB TB TB		δ         β         65233 / 0         65233 / 0           Δ         Λ         65233 / 0         1           N         N         1         1           N         N         1         1           N         N         65233 / 0         1
	652920 652921 652920 652 65303 0 652932 652921 652920 6572	911 650562 698462	69/8429 698452 698446 59168 591679 TB/TB TB TB TB	Б91678   393021   3930 16   393011   651	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6637 20 658559 658560 658 561 B TB TB TB	658562 638300 638289 638	290 638 291 609 201 609 202 609203 60 TB 78 TB TB TB TB T	09204 <sup>1</sup> 609205 609206 609207 60 В СТВ ТВ ТВ ТВ ТВ 1 94 1 1 1 197 61	n m n f f f f f f f f f f f f f f f f f
	T8 6 TB' T9 T9 T9 19 6 76884 698443 698423 6667	18 18 18 18 18 153 668425 698726 6505 1 698461	698430 698453 591864 392994 393003	393004 393022 393015 39301 2 655	870  655871  655872   00   1870  78   78   78   78   78   78   78	TB TB TB TB	658555 658554638299 638294 638 	293 638292 609208 609209 609210 60 TB 1 TB TB TB TT TB 1 TB TB TT 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	09211 609212 609213 609214 609214	0 10 0 15 15 2 3 4 0 6 5 2 3 4 7 632354 0 0 78 78 78 78 78 78 78 78 78 78 78
	10 18 18 18 18 18 18 18 18 18 18 18 18 18	752 698424 698427 650560 698460	0 602431 393039 591865 392995 393002	393006 393023 393014 3930 13 649	665709 778 665709 778 788 78700 778 788 78700 778 788 78700 778 788 78		638298 638296 638	296 18 18 18 18 18 18 18 18 18 18	09218 609219 609220 6092 21 m m m B TB TB TB TB TB 28 0 609227 092 28 0	δ         μ         4M           m         m         652333         652341         652346         652355           m         TB         TB         TB         TB         TB         TB           S         TB         TB         TB         TB         TB         TB           S
	652 892 9844 1 698424 676892 6867 TB TB TB TB TB TB	751 1393024 393033 3950 34 393052	393043 393040 1891 866 392996 398001 TB TB TB TB TB TB	393006 649981 649980 649977 649 TB- TB TB TB TB TB	975 649970 658579 658 578 TB TB TB TB	663714 663717 10 TB TB TB	658552         658553         6585573         6585733         6585733         6585	858971 658 570 609 222 609 223 609 224 66 178 78 78 78 78 78 78 77 658 410 1 8412 6 609 229 609 230 609 231 6	09225 160 9226 00 178 0	674503 674504 76 76 78 8 T8
	652 891 6984 40 698420 676881 656 TB TB TB C, TB TS TB	750 393025 393035 393081 178 TB TB TB TB	393044 393041 5918 67 392997 393000 TB TB TB TB TB TB	393007 649962 6499 79 649978 649 TB TB TB TB TB TB	974 649971 669580 658581 TB TB TB TB TT	663715 18 18 13 658414 663716 99550 778 7 TB TB TB TB	658415 15 TB	TB TB TB TB TB TB TB TB	B TB	TB T
14 Alexandre	698459 630557 676880 856747 656 TB TB TB TB	746 393026 393031 393036 393990 TB TB TB TB TB TB	193045 393042 591868 392998 392999	393008 615111 615)112 615113 6499 TB TB TB TB TB TB	73 649972 658453 658602 65 TB TB TB TB TB	55864 655862 655860 T8 1 TB T8 T8 658421	TB TB ITB ITB TB 658420 6566 21 656 418 6566 21 65	6620 656619 656618 656617 609245 6	B TB TB TB 509249 0 0 609247 09246 509248 7 609246 509248 7 509248 7 609248 7 609248 7 609248 7 609248 7 609248 7 609248 7 609248 7 609248 7 609249 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	674521 674523 674523 674524 6745457 674523
	650550 C 676879 656742 622 TB TB TB TB TB TB	393027 393030 393037 390045 787 TB TB TB TB	9 3930 6 701734 701735 701736 4701737 JB TB TB TB TB TB	TB TB TB 1615126 615127 6151	16 615117 615118 615119 65 TB TB TB T 28 615129 615130 614750	55865 [655863 [655861 ] P	558 428	TB T	609250 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	674527 10 T6 3M TB TB, TB A 1 d er 674528 674529 (674550
	676878 650549 676878 656749 1622 698.457 6776978 656749 1622 678 PROJECTED TB TB TB TB TB TB TB	782 393028 39302 9 393038 39 304	1393047 18 701733 701732 701686 701738 TB TB TB TB TB TB	701760 70175 9 TB TB TB TB TB TB 615125 615124 615 TB TB 178 TB	178 TB TB 54	658430		6610 656609 656607 648801		n 18 n 675724 675723
	TB TB TB TB TB TB TB	T54 674 968 674 967 77017 02 70 770	613738 613739 701668 701787 3 701706 613738 613739 613739	TB TB TB TB TB TB TB	1877 674378 674879 685981 5 	I645896 I645894 I608409		TB TB 648802	$\begin{array}{c} 4 \\ 4 \\ 8807 \\ + \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	W TB TB 0 6 75727 675728
	698455 167330 9 675308 6117 52 698455 167330 9 675308 6117 52 1674 TB TB TB TB TB TB	755 673912 673911 701704	TB TB TB	701691 687196 674 872 674875 67	4876 685984 685983 685982 4 TB TB TB TB	645173 645172 645172 645172		16660, 346603	В ТВ	тв тв п 675730 675730
() 	6 8 7 6 3 6 356 374 656368 68 7604 68 7 TB TB TB TB TB TB TB TB	7603 673908 673907 65 6362 65 636 TB TB TB TB TB	701684 701683 701682 TB TB TB	TO 1681 687195 674 869 674 870 67	4871 685985 6885986 685987 6 TTB TTB TTB TTB TTB	H3970 613972 645171 110 1608 13970 613972 645171 110 1608 13970 78 78 78 78 78 78 78 78 78 78 78 78 78	4 08 386633 366875 3866316 TR	178 178 188661 648701 645708 64 8804 6	48805 648812 648813 608490 61	178 178 2 M T8 TB 675734 676-846 676847
	687657 674 343 656369 887605 68 TB TB TB TB JM TB JB	7606 6739.0 673909 65636365636 	4 673905 535838 JJJJJ 3204 3 TB TB TB TB TB TB TB	012 32156 673886 573889 673890 / 67	58921 650397 65688 6 (673893)650397 TB	14189 1614190 614191 656742 TB TB TB TB TB	6630 386632 5 M. 386634 386651 386651 386651 43 78 TB TB 653859	B6650 B00 TB	TB TB (76835 676836 576837 6 608493 608494 576837 6	TB T
6	68761 656370 687608 687 TB TB TB TB TB TB TB	07 673914 673913 656366 65636 7 67391 TB TB TB	5 673906 533839 53 3836 3. 54 3 TB TB TB TB TB TB TT TT	05: 32155 32157 673838 5/38 1646504 B TB	98 75 55689 656 690 G	656693 3 86628 TB T8 Kenet TB TB T8 Kenet TB	TB TB TB TB TB TB	TB C C C C C C C C C C C C C C C C C C C	TB T	5574 675578 1675381 1676841
G	687612 656373 636371 687609 9336-2 9339-9 66 TB TB TB 2438576	7610 673915 656349 6562 67 67498	7 674986 674989 74887 671869 674388	TB Angus I -B -E TB	6 550%2 654945	14766 TB TB TB TB TB TB 656354	653858 653850 653864 6538	Loke 5 676 15 178 178 178 178 178 178 178 1676828 1676828 1676828 1608	965 608966 608967 608968 608969	H
AKE	524241 5242 624276 555 TB TB TB TS TS TS	424 624261 656348 6 36346 656351 TB TB SBM SSM	1 674990 674991 674992 611993 SSM SSM SSM SSM SSM SSM SSM	671890 5500 543600 54 TB TB TB TB TB	2610 254006 555056 6 5 6 T8 TB TB	2 7 3 656272 (C 5027) (6562 T8 TB TB TB TB AB	32 9 626734 B 63 3861 653863 65384	853871 ER STE 6080	TB 178 MIN TB TB TB COB973 R01 101 TB TB COB973 R01 101 TB TB COB973 R01 101 TB TB TB COB97 12 1608 970 64	55M 53M 55M 55M 85M 55M 55M 55M 55M 55M 55M 55
S S	624242 624278 624270 624270 624 TB TB TB TB 4M Hemio	267 C/007 427262 107 C/007 107 C/007	2 1636353 611750 35N 88M SSN 58M	674884 674883 57,32 577526 5775 SM SSM SSM SSM SSM SSM	55067 555665 655 55 M 55 M 55 M 55 M	80 4 856 254 6 56274 856 3 (1) 1656 TB TB TB TB TB TB 178 49 47 855 50 (3)	330 5 78 TB TB TB 15 TB	9 CONTRAINER SSM SSM SSM SSM SSM SSM SSM SSM SSM SS	SSM E SSM SSM SSM SSM F1	33M 33M 33M 33M 39M 39M 39M 39M 39M 39M
D C	524243 RK 853(9) TB TB TB TB TB TB TB TB TB TB	1265 424263 1641809 641806 64160 N 158M 88M 55W 55M	7 541810 541811 641853 841856 64185 SSM \$5W BSN SSM SSM	655694 650855 67474 TSSM SSM SSM SSM	58 674765 674763 674764	SSM SSM 555M 65 8	Striuthers 607 350 607735 734 607733 60773 36 55M 55M 55M 55M	SSM (SSM SSM SSM SSM SSM SSM SSM SSM SSM	727 607726 607725 607948 607944 60	IM SSN SSM SSM SSM SSM 607 607 943 607942 941 5 607940 607939 936
	1624273 624273 624273 624272 62 MILLEA'S E TB L TB 1 2M TB SSM 89M	4255 624264 641806641805 64190 1455 LINE SSM SSM SSM SSM SSM	8 641809 641812 641854 641855 64185 33M 33M4M 85M (SSM SSM	S41859, 541852 674863 6747	2 M SSM SSM 158M SSM	640342 656341 658 440 95M	607736 807737 607738 60773 607736 807737 607738 60773	19 607740 607741 607742 607743 607 SSM 994 994 994	SSN SSM SSM SSM SSM S5 744 60/7748 607746 60794 6 607947 60	M SSM SSM SSM SSM SSM SSM SSM SSM 17948 607949 6079 50 607951 607952 607 953
	6 50 001 T8 TB C 152512 6431431 TB C 156 TB C 1643 TB C 156 TB C 1643 TB C 156 TB C 1643 TB C 155 TB C 1643 TB C 155 TB C 1643 TB C 1643	44 643145 668751 658754 SSM SSM SSM SSM	1558758 1675105 675108 674487 67448 1 33M T SSM SSM SSM SSM SSM	658425 628560 658425 83M ISSM	625561 6285 62 6255 63 6255 64	SSM SSM SSM SSM SSM SSM SSM	7 4 3	607753 607752 607751 SSM 4 55M 55M 55M 607750 60 607750 60 55M 55M 55M	55M	IM SSM SSM 83M SSM S3M S3M 607969 607968 607967 607 966
	18 178 178 3M 668643 668	1471643146 (569752 ) 658753 658751 530	5 674486 67448 55M 55M 55M 55M 55M 55M 55M 55M 55M 55M	658486 658483 9 SSN SSN SSN	548475 5566 52 5566 52 5566 52 5566 52 5500 5500	625566 6255 69 625570 625571 6	625572 607758 607759 607760 80776 1 607758 SSM SSM SSM SSM SSM	51 607762 607763 60776 4 607765 607 - 35N 35M 55M 53M 53M	766  607767 607768  625585   6  85M   35M   55M   55M   6	25567 625598 625 589 625890 625591 625 100 - 100
	650002 4652514 SSM SSM TB ITB ITB 6688647 6680 C 652515 SSM SSM	348 (688849 668850 668610 66861 348 (688849 668850 668610 66861 358 ISSM ISSM ISSM SSM	11 666612 6686613 58868681 584 585 5886 11 584 584 584 58681 585 586	SBM (558487 558481 674484 67 4484 67 4484 558487 558481 558481 5584 558481 558 558 558 558 558 558 558 558 558 5	638120 0 163847 628573 L	825 574 625875 625576 825577 S 3 M 85M 55M 85M	625 607779 607778 607777 6077 578 SSM SSM SSM S8M	76 607776 607774 607773 607772 607	771 607770 607769 625 598 62 5597 6	625596 625594 625593 625692 601
	$\begin{array}{c} 652505 \\ \hline TB \\ \hline - \\ 652506 \\ \hline 652506 \\ \hline \\ 652506 \\ \hline \\ 0 \\ \hline \hline \\ 0 \\ \hline \\ 0 \\ \hline \hline \\ 0 \\ \hline \\ 0 \\ \hline \hline \hline \\ 0 \\ \hline \hline \hline 0 \\ \hline 0 \\ \hline \hline 0 \\ \hline 0 $	652 6686 53 668654 868614 66861 SSM SSM SSM SSM	5 668616 10 10 10 10 10 10 10 10 10 10 10 10 10	658619 650618 134741 SSM 5584178 538 SSM SSM 558737 658	736 658)735 659734 386674 736 658)735 659734 386674 15514 558	386675 625579 625580 625581 6 35M 5.M 5SM 8SM 4	825   607780 60778   607782 6077 882   53M   53M   53M   53M	5 607784 607786 607786 607787 607	788 607769 607790 625599 625600 62 838 888 1004	85 M 55 M
	65250(7) 552516	3.08 66309 666310 668618 55M 55M 55M 55M 55M 55M 55M 55M 55M 55	1668620 668621 668667 58 58 58 58 58 58 58 58 58 58 58 58 58	SSM SSM SSM SSM SSM	8745 658742 658741 658741 658741 658742 658742	656732386676 386677 SSM SSM SSM SSM	525584 607801 607800 607799 6077	8 607797 607796 607795 607794 607	7793 607792 607791 625612 625611	55610 625609 625609 625607 625606 816 816
		313 66 6312 1 168862 SSM SSM SSM SSM	23 668 624 668 825 668 671 68 6686 SSM ISSM SSM ISSM ISSM	4 667450 867451 667452 667453 SSM SSM SSM SSM SSM	66742 6 657427 6682428 658744 55M 55M 55M 55M 55M	658743 658733 386676 588679 3	586660 SSM SSM SSM SSM SSM	05 607806 607807 607808 BR	0 Ti HERS TP 625614 6	25615 625616 625617 SSM SSM 525 525 5615 625616 625617 SSM 525 525 5615 625618 SSM 525 525 5615 625618 SSM 525 525 5615 625618 SSM 525 525 5615 625618 SSM 525 525 5615 525 561
		SSM   SSM   SSM   SSM   SSM   SSM		TP667341 667339 667338 3) SSM SSM ISSM SSM	667 337 ) 667433 (6)67432 667431  SSM		58668 2 55M 53M 53M 53M 55M	607 61 6 1 1620478 p 620 7 469 607817 185M 185M 185M 185M 185M	815 607814 607813 625 625 6 55M 55M 55M 526 625625 6 55M 55M 55M 55M 55M 55M 55M 55M 55M 55M	5M 5SM 5SM 625 621 625 625 625 625 625 625 625 625 625 625
с 1999 — 1997 —		1320	32 1668 633 1668634 600 U79 2 6686 35N 35N 55N 55M	1 1667347 667348 1667350	186(7351 66 7352 86 73531667354 SSM SSN SSM SSM	SSM SSM SSM SSM	SM [694129 1694136 694143] 94128	9 620480 620470 620471 616424 616 SSM SSM SSM SSM SSM	1426 616428 620 SSM 664 620466 625627 6 SSM 764 620466 625627 6 SSM 777 777 7777 7777777777777777777777	SM SSM SSM SSM 85M 25628 625629 625630 625631 625632 836 625632 836 625632 836
		155M 1668877 1668876	536 668637 688838 668639 58M 58M 35M 35M 35M	12 677499 6 35M 1 35M	6688209 (66821 0 668221 6	668222\668279 1868290 668291 66 SM  SSM  SSM  SSM  SSM  SSM  SSM  SSM	68302 55M	1 620482 620472 620473 616426 616	-1080	SM  SSN  SSN  SSM  SSM  SSN  SSN  SSN  S
		879 668880 3 C SS	SM 55M 55M 55M 55M 55M 55M	SSM 55M	668209 208 211 668220 6 SSM SSM SSM S	568223 668280 668289 668292 86 SM SSM SSM SSM SSM	58301 SM SSM SSM SSM 53M 53M 53M 53M 53M	6 694149 694150 709783 709784 709 6 694149 694150 709783 709784 709 8 709784 709784 709784 709784 709784 709784	55M SSM SSM SSM SSM	SN SSN 53N 53N 53N 53N 53N 53N 53N 53N 53N 53
		803 660084 660085	3281 16663321 16775151 1666330 166 62871 1677512 1666330 55M	775071 SSN SSN	66820/7 688212	668224 668281	68300 694132 694140 69414 55M 55M 55M 55M 55M	594148 694151 709794 70 9793 709 SSM 1 SSM SSM 755M 55M	792 5584 795 5584 7097901709789 5584 5584 5584 5584 5584 5584 5584 55	SIM SSM SSM 155M 155M 153M 80987 680988 680989 680990 80987 680988 680989 680990 680991 6809 680991 6809 680990 6809 68
	NOT H	5365	1677513 L	677505 77505	6 68206 668213 668218	668225 668 282 6 6 8 287 66 8 294 66 85M SSM SSM SSM	686336 686336 686337 686337 686337 6863 55M 55M 55M 55M	38 686339 55M 55M 55M	79 6 709797 1709798 709799 709800 6 SSM SSM SSM ISSM ISSN	680 998 680 997 680996 680995 8809994 680 998 680 998 680 997 660998 680 998 6
		and the second s		13	14 668205 16 6 82 14 16682 17 1	668236 668283 6 68 2 8 6 668295	68298 1686347 56863481 2 686346 6863 5M 2 55M 1 55M 55M 155M	45 68 63 44 68 65 43 68 63 42 7098 0 6	709801 709804 709803 709802 6 55M 55M 55M 55M 55M 15	80999681000681001 684002 681003 6814 SM SSM SSM SSM SSM SSM
48°37'30 <u>"</u>	PROJECTED				666820/4 166821 5 668216	66822716 68 284 6 6 8 285 1668296 6	68297 686 349 6863 50 6863 51 16863	2 1686 353 68 6354 6 6 355 7098 07 1709	808 17098091709810 17098111709812 je	81010 [681009 [681 00 8]681007 [681008 [681 1
	59'	58'	57' 56'	55' 54'	53'	52'	51' 50'	49'	48 <sup>'</sup> 47 <sup>'</sup>	46' 85°
m ee e of m Go within DOL O	1999 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	•		Í	HE	RRICK LAKE G	ì <b>-</b>			



#### TB TBITB TB TB TB 16 74639 674638 674637 7B1 ТВ ТВ 1658456 65845 65 6713 1 TB 83 8302 638 283 638284 638285 6091 92 609195 469369 469372 1657403 658603 658454 65 / 8455 658601674320 674640 674641 // ITE 179 TB TB TB TB C638,301 63 8288 638,287 638286 638288 638286 638286 638286 638288 638286 6382888 638286 6382888 63828686 638286 638286 638286 638286 638286 638286 638286 43 - Leosise leosis release eeses 663721 7TB 657406 66 3710 658568 658567 658566 658565 658564 Te TE Gaby TE TB 658 563 TB | TB | TB 636297 609215 638298<sup>1</sup> 638296 638296 609216[609217 |609218 |609219 |609220 |121 |g

SAND and GRAVEL DATE OF ISSUE D N.T.C. PIT 340 D MT.C. PIT 341 JUL 21 1983 ( M.T.C. PIT \$45 85°45 🚳 м.т.с. РІТ 344 Ministry of Natural Resources 🕑 M.T.C. PIT 346 🔮 M.T.C. PIT 342 TORONTO 🔁 N.T.C. PIT 514 9 M.T.C. PLT 1342 🕒 N.T.C. PIT 347 9 BRAVEL FILE 143647 Areas withdrawn from staking under Section 43 of the Mining Act. (B.S.O. 1970) OrderNo. File Date-Disposition (R) w. 38/81 145647 \$.R.Q. 13/4/#1 (R2) W. 11/82 163606 20/4/82 S.R.O. FLOODING RIGHTS TO CONTOUR ELEVATION 1080' RESERVED TO ONTARIO HYDRO FILE 113986 LEGEND HIGHWAY AND ROUTE NO OTHER ROADS TRAILS SURVEY FOLDNES TOWNSHIPS HASE LINES, ETC. LOTS, MANING, CEAIMS, PARCELS, ETC UNSURVEYED LINES: LOT LINES \_\_\_\_\_ Ш PARCEL BOUNDARY MINING CLAIMS ETC ------RAILWAY AND RIGHT OF WAY -----UTILITY LINES NON PERENNIAL STREAM and a second ш FLOODING OR FLOODING RIGHTS SUBDIVISION OR COMPOSITE PLAN T RESERVATIONS ORIGINAL SHORELINE 3 MARSH.OR\_MUSKEG 1 🗐 💷 🔊 - \*2 MINES Ц., TRAVERSE MONUMENT 0 **DISPOSITION OF CROWN LANDS** Ê ~ TYPE OF DOCUMENT SYMBO ۵. PATENT SURFACE & MINING RIGHTS , SURFACE RIGHTS ONLY..... MINING RIGHTS ONLY LEASE, SURFACE & MINING RIGHTS S MINING RIGHTS ONLY. ICENCE OF OCCUPATION . ORDER IN COUNC RESERVATION CANCELLED SAND & GRAVEL NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE, BY THE PUBLIC LANDS ACT. R.STO. 1970, CHAP. 380, SEC. 63, SUBSEC 1 SCALE: 1 INCH = 40 CHAINS 1000 2000 METRES ÉT KMY 12 KM AREA MOLSON LAKE M.N.R. ADMINISTRATIVE DISTRICT TERRACE BAY/WAWA MINING DIVISION SAULT STE MARIE/THUNDER BAY LAND TITLES / REGISTRY DIVISION THUNDER BAY Ministry of Land (8) Natural Managament Resources Branch Ontario 85<sup>6</sup>45' Date FEBRUARY 1982 Number G-603 486854



- --

2.5667

\_\_\_\_

. ....

. ...

··--

![](_page_29_Figure_0.jpeg)

![](_page_30_Figure_0.jpeg)

-----

-