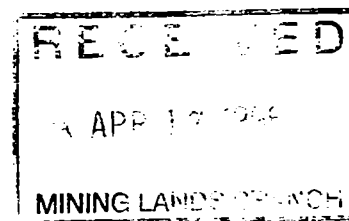




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**PLACER DOME CANADA LIMITED**  
**PROJECT 147 - EAST BAY PROPERTY**  
**REPORT ON A GROUND MAGNETOMETER SURVEY**  
**ON CLAIM KRL1144381**  
**BATEMAN TOWNSHIP, ONTARIO**  
**NTS: 52N/4**

**2.16467**

*Decl. # 2.16466*

**APRIL 1996**

**DARREN O'BRIEN**



52N04NE0062 2 16467 BATEMAN

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## INTRODUCTION

On March 29, 1996, Placer Dome Canada Limited (PDC) performed a detailed ground magnetometer survey over the claim KRL1144381 in the Red Lake Mining Division of Ontario. The single claim is wholly owned by PDC and sits adjacent to PDC's East Bay property. The programme was designed and implemented to expand on the magnetometer survey conducted on the East Bay property in early 1994. In turn, this would assist in defining lithological boundaries as well as structural settings of the area under investigation and tie them into the East Bay property.

## PROPERTY LOCATION AND ACCESS

The single unpatented mining claim reported here is located in Bateman township in the Red Lake Mining Division, District of Kenora, Ontario. Figure 1 illustrates the general location of the property. It is readily accessible by either snowmobile or boat from the towns of Red Lake or Cochenour.

Specifically, the claim KRL1144381 is located on the west shore of East Bay, Red Lake approximately 17 kilometres northeast of the town of Red Lake. Figure 2 outlines the claim location and its relation to the PDC East Bay property.

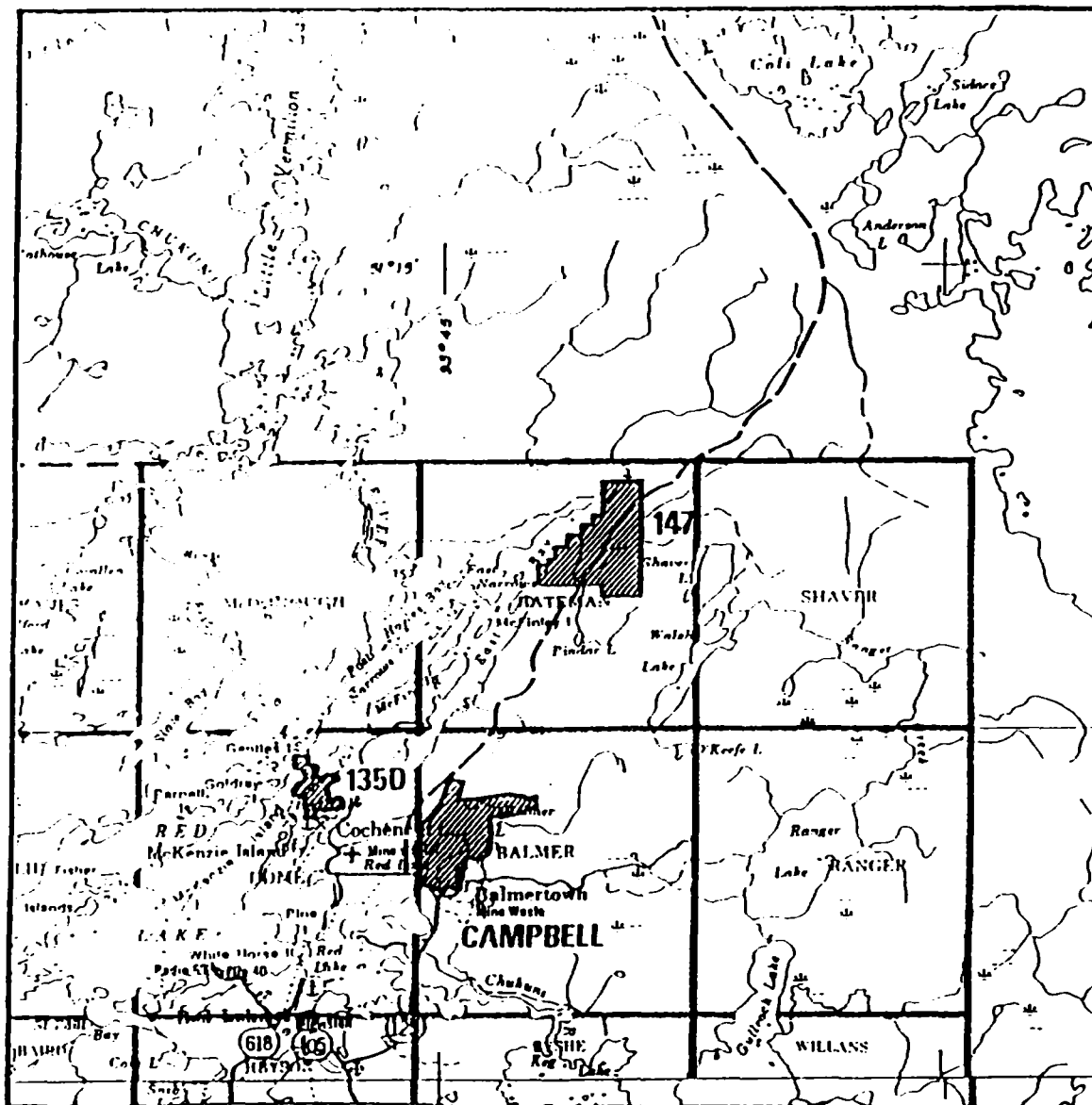
## GRID DESCRIPTION

The grid was prepared during February, 1996 by Vytal Exploration Services of Thunder Bay, Ontario.

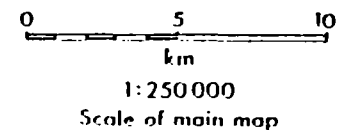
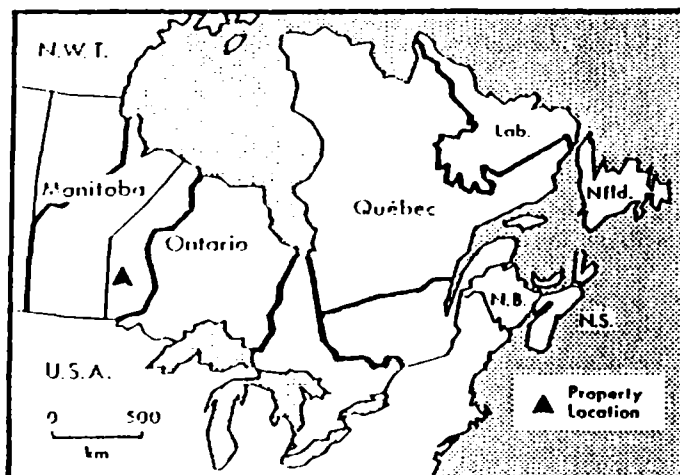
The grid on the single claim has a total of 1.7 line kilometres of grid lines. The grid, prepared in feet, was designed to tie into the pre-established grid of the East Bay property. It consists of tieline 58+00 ft W which has an azimuth of 037° and extends from 3+00 ft S to 19+00 ft S. Four lines perpendicular to the tieline were prepared and spaced at 400 foot intervals. Station intervals along all lines and the tieline were set out at 50 foot separations.


## GEOLOGY

The report area lies within the Red Lake greenstone belt located in the western portion of the Uchi Subprovince of the Archean Superior Province. The belt contains two major sequences: (1) lower tholeiitic-komatiitic sequence, Cycle 1, and (2) upper calc-alkalic sequence, Cycle 2. The tholeiitic-komatiitic sequence is the older of the two and is comprised mainly of tholeiitic basalts and basaltic komatiitics, with minor interbeds of clastic and chemical sediments. The younger and more calc-alkalic sequence is typified by a higher percentage of dacitic to rhyolitic pyroclastics,



**PDC Eastern Canada**



 <b>PLACER DOME CANADA LIMITED</b>	
<b>East Bay Bateman Twp. W. Ontario/SE Manitoba</b>	
N.T.S. No.	52N/4
Date	APRIL 1996
<b>PROJECT 147</b>	

**FIGURE 1: Location Map of East Bay Property, Project 147.**

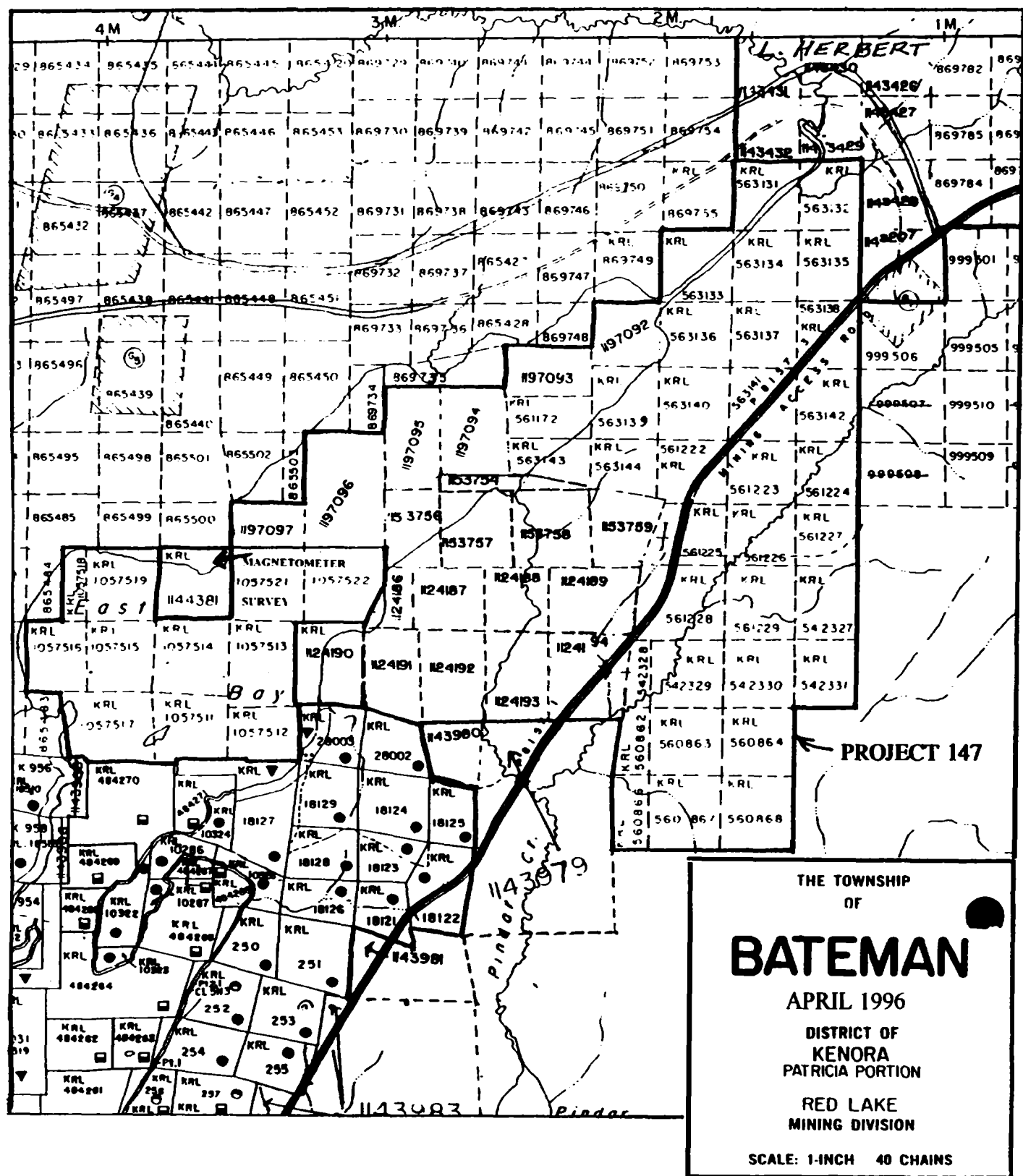


FIGURE 2: Claim Map of East Bay Property, Project 147

interbedded with minor flows and sediments. Approximately 95% of the gold occurrences within the belt are found in the lower sequence (T. Twomey, 1994). In addition, the majority of the gold deposits are located within or adjacent to major deformation zones.

Claim KRL1144381 is located within the prospective lower sequence and lies adjacent to the East Bay Deformation Zone (EBDZ). The report area is believed to underlain by the East Bay Serpentinite (EBS) which strikes parallel to the EBDZ at 040°.

## GROUND MAGNETOMETER SURVEY

### i) Survey Instrumentation and Description

During the survey over claim KRL1144381 an Overhauser magnetometer, model GSM-19, was used in both the mobile and base modes. The GSM-19 magnetometer has a resolution of 0.01 nanoteslas and sensitivity of 0.02 nanoteslas. Further instrument specifications are contained in Appendix A.

Total field magnetic measurements in the mobile mode were observed over the claim grid at 50 foot intervals along the tieline and crosslines. During the survey, a base station magnetometer was cycled at 10 second intervals in order to monitor and record the diurnal fluctuations to the earth's magnetic field. These base station observations were used to correct the mobile magnetometer measurements for diurnal magnetic drift.

Personnel involved in the survey are listed in Appendix B.

### ii) Data Storage and Presentation

All magnetic observations along with their ground co-ordinates have been stored digitally under the file 1144381.MAG and listed in Appendix C of this report.

The results of the survey are presented in plan as posting and contour presentations at 1:4800 scale (1"=400'). The data has been contoured at a basic contour interval of 100 nanoteslas.

### iii) Discussion of Results

The ground magnetic survey results show that a linear magnetic high parallels the tieline at approximately 040° across claim KRL1144381. This linear magnetic high could either coincide with the EBS which is known to underlie the waters of East Bay or with sulphide facies iron formation which have been intersected in drill holes on the western shore of East Bay. The break in the magnetic high at approximately 14+00S/59+00W could possibly be a fault zone cross-cutting the highly magnetic unit or talcose alteration of the serpentinite with a depletion of magnetite if the lineament represents the EBS.

## **SUMMARY AND RECOMMENDATIONS**

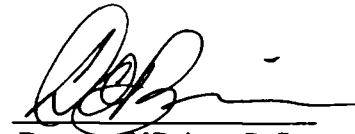
The ground magnetometer survey over claim KRL1144381 has assisted in mapping the main geological units of the area as well as expand on the ground magnetometer survey conducted on the PDC East Bay property which sits adjacent to the northeast. It is recommended that this initial programme be followed by a geological interpretation of the area to better evaluate the magnetic lineation in order to determine if it is a viable drill target.

## CERTIFICATE OF QUALIFICATIONS

### I HEREBY STATE THAT:

1. I currently reside at #6 Scotia Apartments, Balmertown, Ontario.
2. I am employed as a Geologist with the Exploration Department of Placer Dome Canada Limited, in Balmertown, Ontario.
3. I possess a Bachelor of Science degree in Geology from the University of Alberta, Edmonton, Alberta where I graduated in 1993, and have practiced in my profession since then.
4. This report is based upon published and unpublished sources of information, and field work conducted during 1996.
5. To the best of my knowledge, all of the information contained with this report is factual and true.
6. At no time, have I received or expect to receive any interest, directly or indirectly in the property.

Dated at Cochenour, Ontario, Canada this 4<sup>th</sup> day of April, 1996.

  
Darren O'Brien, B.Sc.



## REFERENCES

**PIRIE, J. & GRANT, A., 1978**

Bateman Township, District of Kenora (Patricia Portion); Ontario Geological Survey, Prelim. Map P.1569-A, Geological Ser., Scale: 1:12000 or 1 inch to 1000 feet. Geology 1977.

**TWOMEY, T.J., 1994**

Report on 1994 Diamond Drilling for Placer Dome Inc., Project 147, Bateman Township, Ontario.

**WILSON, M.C., 1994**

Report on a Ground Magnetometer Survey for Placer Dome Canada Limited; Todd, Dome & McDonough Townships, Ontario.

**APPENDIX A**

**SURVEY INSTRUMENT SPECIFICATION**

**GEM SYSTEMS GSM-19 MAGNETOMETER**

# GSM-19 Magnetometer / VLF System

The GSM-19 is a state-of-the-art magnetometer / VLF system that delivers both the quality of data and the extensive capabilities required to perform a broad spectrum of applications. Whether the application calls for detailed ground surveys, high-resolution marine surveys, or remotely controlled magnetic observatory measurements, you can count on the GSM-19 system to meet your goals.

The GSM-19 can be configured as either an Overhauser effect proton precession magnetometer or a conventional proton unit.

GEM's advanced Overhauser version employs continuous radiofrequency polarization and special sensors to maximize the signal-to-noise ratio. Instrument sensitivity (0.05 gamma), resolution (0.01 gamma) and absolute accuracy (0.2 gamma) set new performance standards. Moreover omnidirectional sensors ensure a high quality of data even in low magnetic latitudes.

You can also take advantage of versatile options that reduce field costs and increase survey productivity. And the lightweight Overhauser unit is easy to transport and operate in the field (console with rechargeable batteries weighs only 2.1 kilograms).

The modular design of the GSM-19 Overhauser magnetometer ensures that the system can be upgraded as workloads change. You can select from a number of building blocks, including:

- Simultaneous gradiometer.
- Continuous profiling "Walking" magnetometer / gradiometer.
- Very fast sampling (up to 5 readings per second) magnetometer/gradiometer.
- Omnidirectional VLF.
- Shallow or deep marine operation.
- Remote control for observatory and airborne base station applications.

If your application does not yet require the extended capabilities or the cost benefits of an Overhauser unit, a conventional GSM-19 unit is available. This dedicated proton magnetometer can be equipped with gradiometer or VLF options, and is upgradable to an Overhauser magnetometer.

The Overhauser and conventional magnetometers share many powerful features:

- Easy to learn interactive menu.
- Streamlined grid coordinate system with "end of line" quick change capability.
- 128 kilobyte basic memory, expandable to 2 Megabytes.
- Programmable RS-232 high-speed data transfer (to 19.2 kilobaud).
- 50 and 60 Hz filters, user selectable.
- Automatic tuning and base station synchronization.

Type of Magnetometer		Building Blocks (Upgrade Options)							
		Gradiometer	"Walking" Mag	"Walking" Grad	Hip-Chain Mag	Hip Chain Grad	VLF	Shallow Marine	Remote Control
Conventional Proton		✓					✓		✓
Overhauser Proton	Total Field	✓	✓	✓	✓	✓	✓	✓	✓
	"Walking"			✓	✓	✓	✓	✓	✓
	Hip-Chain		✓	✓		✓	✓	✓	

^ Proton Total Field system may be upgraded to an Overhauser system, which allows further upgrade to "Walking" and Hip Chain models.

# GSM-19 Overhauser System

## A Full Range of Building Blocks

### Simultaneous Gradiometer

Many mining, environmental, and archaeological applications call for high-sensitivity gradiometer surveys. The GSM-19 meets these needs in several ways. For example, simultaneous measurement of the magnetic field at both sensors eliminates diurnal magnetic effects. And Overhauser proton precession improves data accuracy and precision. The net result is a true gradient reading that resolves even weak anomalies (less than 0.25 gamma).

### Omnidirectional VLF

With GEM's omnidirectional VLF option, up to three stations of VLF data can be acquired without orienting. Moreover, the operator is able to record both magnetic and VLF data with a single stroke on the keypad.

A 12-bit A/D converter has also been incorporated in the VLF instrumentation to enhance resolution of near-surface electromagnetic conductors.

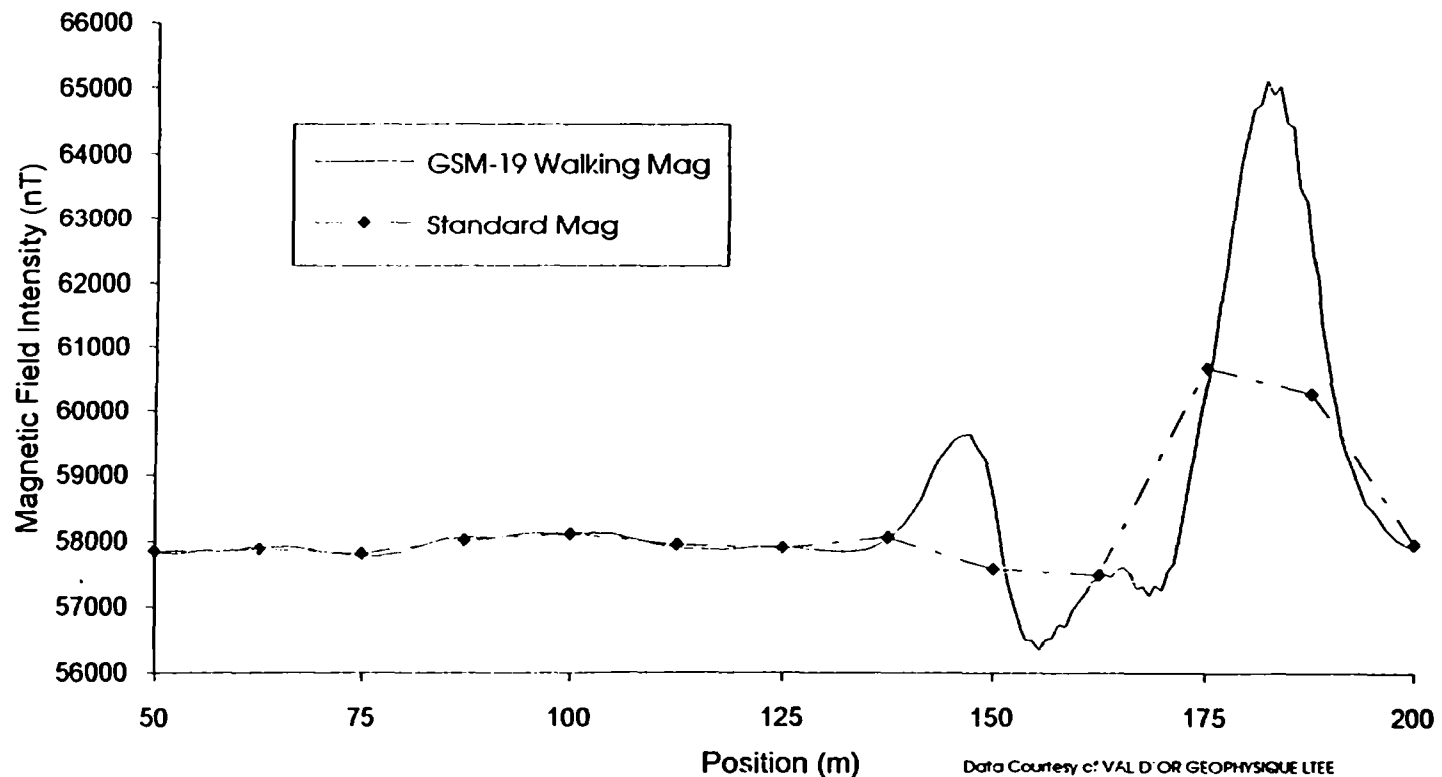
### "Walking" Magnetometer / Gradiometer

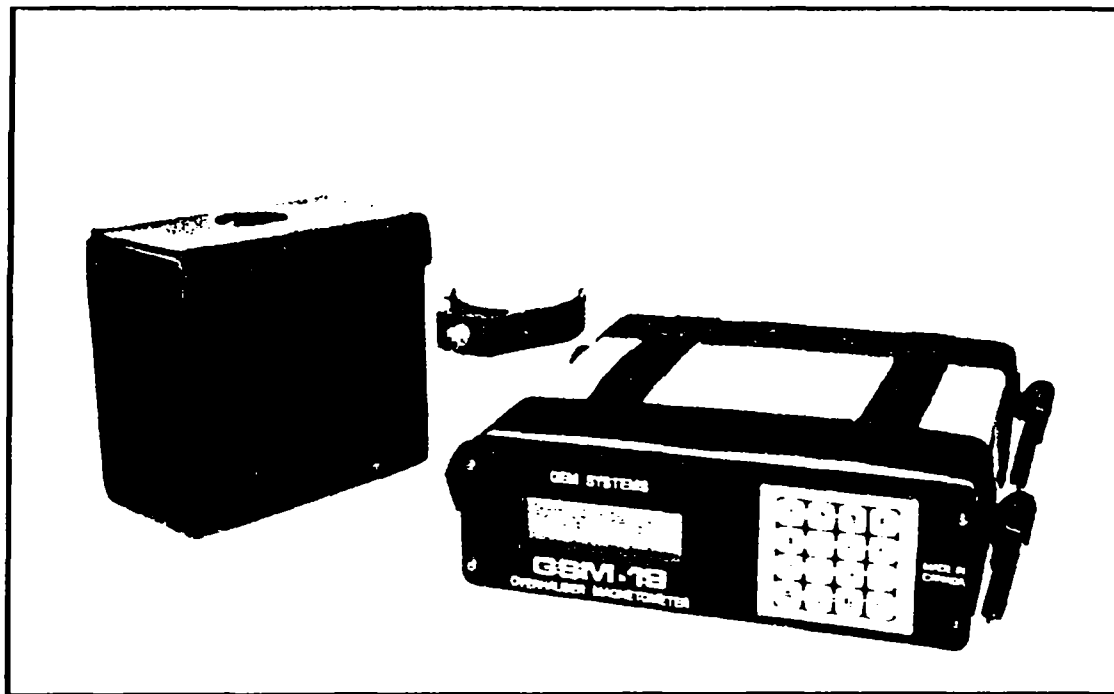
GEM's unique "Walking" option enables acquisition of nearly continuous data on survey lines. Similar to an airborne survey in principle, data is recorded at discrete time intervals (up to 2 readings per second) as the instrument travels along the line. At each major survey picket (fiducial), the operator touches a designated key. The "Walking Mag" automatically assigns a linearly interpolated coordinate to all intervening readings.

A main benefit of the "Walking" option is that the high sample density improves definition of geologic structures. And because the operator can record data on a near-continuous basis, the "Walking Mag" increases survey efficiency and minimizes field expenditures -- especially for highly detailed ground-based surveys.

As shown below, near-continuous measurements increase definition. Results from the GSM-19 "Walking Mag" (273 readings over 150 m with 2 sec. cycle time) were compared with results from a standard magnetometer (13 readings over 150 m).

## Near-Continuous Surveys Improve Definition of Magnetic Anomalies





GSM-19 console with magnetic and VLF sensors

### **Fast Sampling Magnetometer / Gradiometer**

The GSM-19 fast sampling option allows you to collect data at rates as high as 5 readings per second. Fast sampling provides the high spatial resolution needed in tiled marine, or vehicle-borne surveys, and in anomalous magnetic terrains.

This fast sampling capability is also used in the Hip Chain magnetometer/gradiometer -- developed primarily for environmental and archaeological applications.

The Hip Chain system minimizes the need for pickets and reduces line preparation costs. Operators simply affix a cord at one end of the survey line, attach the Hip Chain to the waist, and walk along the line. Readings are triggered automatically as the cord unwinds.

### **Remote Control Operation**

Targeted to observatory, marine, and airborne base station applications, this option allows users to set parameters and initiate measurements from a computer terminal using standard RS-232 commands.

A real-time transmission capability is provided so that data quality can be monitored while marine or vehicle-borne surveys are in progress.

In order to ensure that the GSM-19 is fully compatible with existing marine or airborne data acquisition systems, GEM has included one and two-channel analog output capabilities.

### **Shallow and Deep Marine**

GEM has developed two marine versions of the GSM-19 Overhauser magnetometer to meet the highly specialized requirements of petroleum explorationists. The maximum depth for the shallow unit is 100 metres, and deep marine units are routinely operated at depths exceeding 400 metres.

With a shallow marine unit, a sealed fish houses an Overhauser sensor. Signals are transferred via a tow cable to a console where they are counted into magnetic field data, and stored in memory, or transmitted via ASCII serial output.

An important advantage of the shallow marine unit is its low power consumption. A standard 12 or 24 Volt battery is sufficient to run the magnetometer for days at a rate of two readings per second.

The deep marine fish houses both an Overhauser sensor, and microprocessor-based electronics. Complete measurement is performed within the fish, and data are sent digitally through a tow cable that also supplies power.

The main benefits of the deep marine unit include high resolution (signals up to 0.01 gamma resolution can be acquired using a sensor of only 0.2 litre volume), virtually unlimited cable length, ease of operation, and reliability. Temperature and pressure sensors can also be provided.

# Specifications

## *Performance*

	<i>Overhauser</i>	<i>Proton</i>
<i>Resolution:</i>	0.01 nT	0.01 nT
<i>Relative Sensitivity:</i>	0.02 nT	0.2 nT
<i>Absolute Accuracy:</i>	0.2 nT	1 nT
<i>Range:</i>	20,000 to 120,000 nT	20,000 to 120,000 nT
<i>Gradient Tolerance:</i>	Over 10,000 nT/m	Over 7,000 nT/m

## *Operating Modes*

<i>Manual:</i>	Coordinates, time, date and reading stored automatically at min. 3 second interval.
<i>Base Station:</i>	Time, date and reading stored at 3 to 60 second interval (higher speeds available).
<i>"Walking":</i>	Time, date and reading stored at coordinates of fiducial with 1 or 2 sec. cycle time.
<i>Hip Chain:</i>	Equidistant coordinates, time, date and reading stored automatically. Distance interval of readings is programmable.
<i>Remote Control:</i>	Optional remote control using RS-232 interface.
<i>Input/Output:</i>	RS-232 or analog (optional) output using 6 pin weatherproof connector.

## *Operating Parameters*

<i>Power Consumption:</i>	Only 2 Ws per reading for Overhauser, and 12 Ws per reading for Proton magnetometer. Will operate continuously for 45 hours on standby.
<i>Power Source:</i>	12V 1.9 Ah sealed lead acid battery standard, other batteries available.
<i>Operating Temperature:</i>	-40°C to +60°C.

## *Storage Capacity*

<i>Manual Operation:</i>	8,000 readings standard, 131,000 optional. With 3 VLF stations 3,100 standard, 58,000 optional.
<i>Base Station:</i>	43,000 readings standard, 700,000 optional (580 hour or 24 day uninterrupted operation with 3 sec. interval).
<i>Gradiometer:</i>	6,800 readings standard, 110,000 optional. With 3 VLF stations 2,900 standard, 46,000 optional.

## *Omnidirectional VLF*

<i>Performance Parameters:</i>	Resolution 0.5% and range to +/- 200% of total field. Frequency 15 to 30 kHz.
<i>Measured Parameters:</i>	Vertical in-phase & out-of-phase, 2 horizontal components, coordinates, date, and time.
<i>Features:</i>	Up to 3 stations measured automatically, in-field data review, displays station field strength continuously, and tilt correction for up to +/- 10° tilts.
<i>Dimensions and Weight:</i>	93 x 143 x 150 mm and weighs only 1.0 kg.

## *Dimensions and Weights*

<i>Dimensions:</i>	<ul style="list-style-type: none"><li>• Console 223 x 69 x 240 mm.</li><li>• Sensor 170 x 71 mm diameter cylinder.</li></ul>
<i>Weight:</i>	<ul style="list-style-type: none"><li>• Console 2.1 kg.</li><li>• Sensor and staff assembly 2.0 kg.</li></ul>
<i>Standard Package:</i>	<ul style="list-style-type: none"><li>• Console with batteries, harness, charger, and case.</li><li>• Sensor with cable, connector and staff.</li></ul>

## GSM-19 Advanced Features

An instrument's effectiveness is measured by its ability to handle highly specialized user demands. With the GSM-19, these requirements can be met through a number of advanced features.

### Compatible With Different Magnetometers

To protect our customers' investments in purchased equipment, GEM has adopted an Open Systems approach. The lightweight Overhauser magnetometer can be used as a field unit in combination with another manufacturer's base station.

### Memory Expandable to 2 Megabytes

A GSM-19 field magnetometer can store up to 8,000 readings with 128 kb memory, and 131,000 readings with 2 Mb. A base station will store, respectively, between 43,000 and 700,000 readings. A "Walking" magnetometer will store 21,000 readings with 128 kb memory, and 340,000 with extended memory.

### Automatic Tuning

Tuning is automatic in all modes of operation with initial reset. An override option is also provided for manual and remote modes. Tuning steps are 1,000 gammas wide.

### Adaptability to High Gradients

In standard instruments, a gradient in the magnetic field across the sensor volume can shorten the decay time of the proton precession signal. However, the GSM-19 monitors the signal decay, and calculates the optimal time interval for measurement. Warning messages appear on the display when the measuring interval becomes too short.

### Alphanumeric Display and Keyboard

The GSM-19 has a comfortable 4 x 20 character alphanumeric display and a 16 key keypad with tactile feedback. Operation is menu driven, and simple enough for a beginner to operate with confidence. The keypad enables operators to enter fully worded comments with no limit in the length of text.

## Overhauser Proton Precession

With Overhauser proton precession, an electron-rich fluid (containing free radicals) is added to a standard hydrogen-rich fluid. This mixture increases the polarization by a factor of 5000 in comparison with standard liquids. And in contrast to conventional proton precession methods, Overhauser proton precession uses a radiofrequency (RF) magnetic field -- and requires only a fraction of a Watt of RF power, rather than a high-power direct current field.

Overhauser magnetic systems therefore maximize resolution and minimize power consumption. Another advantage is that polarization and measurement can occur simultaneously. GEM has used this capability to develop its "Walking" magnetometer / gradiometer and Fast Sampling options.

## GEM Systems Inc.

With more than a decade of research and development incorporated into the GSM-19 Overhauser and proton precession magnetometers, GEM Systems is committed to providing its customers with state-of-the-art instrumentation.

In addition to offering the GSM-19, GEM also designs and builds solar-powered proton magnetometers for land-based applications, and optically pumped potassium magnetometers for airborne and other applications.

## GEM Systems Inc.

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*terraplus*

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Telephone: (416) 764-5505  
Fax: (416) 764-9329

**APPENDIX B**

**SURVEY PERSONNEL**



The following personnel were responsible for the data acquisition and presentation of the magnetometer survey:

Tracey Campbell, Geophysicist

Data Processing & Presentation

Darren O'Brien, Geologist

Data Collection & Presentation

**APPENDIX C**

**SURVEY DATA IN RAW  
AND REDUCED FORMAT**

LINE	STATION	RAW DATA	REDUCED
{feet}	{feet}	{nTesla}	{nTesla}
1600S	005400W	59383.71	57765.76
1600S	005450W	59373.11	57754.94
1600S	005500W	59363.50	57745.13
1600S	005550W	59367.70	57749.28
1600S	005600W	59381.18	57762.86
1600S	005650W	59415.06	57796.55
1600S	005700W	59438.69	57819.84
1600S	005750W	59486.35	57867.49
1600S	005800W	59574.39	57955.53
1600S	005850W	59669.92	58050.95
1600S	005900W	59742.73	58123.53
1600S	005950W	59860.64	58241.63
1600S	006000W	59884.43	58265.37
1200S	006250W	59459.48	57839.23
1200S	006200W	59477.09	57856.85
1200S	006150W	59499.27	57879.44
1200S	006100W	59520.90	57901.00
1200S	006050W	59556.72	57936.42
1200S	006000W	59639.85	58019.35
1200S	005950W	59758.89	58138.67
1200S	005900W	59855.66	58235.05
1200S	005850W	59860.34	58239.83
1200S	005800W	59794.90	58174.17
1200S	005750W	59691.29	58070.59
1200S	005700W	59591.69	57970.90
1200S	005650W	59522.37	57901.82
1200S	005600W	59477.17	57857.00
1200S	005550W	59440.49	57820.38
1200S	005500W	59424.04	57804.09
1200S	005450W	59414.76	57794.56
1200S	005400W	59410.57	57790.48
1200S	005350W	59409.34	57788.82
1200S	005300W	59404.15	57783.34
1200S	005250W	59396.11	57774.95
1200S	005200W	59406.01	57784.88

LINE	STATION	RAW DATA	REDUCED
{feet}	{feet}	{nTesla}	{nTesla}
1200S	005150W	59420.64	57799.45
1200S	005100W	59425.80	57804.78
1200S	005050W	59328.34	57707.55
1200S	005000W	59305.95	57685.18
1200S	004950W	59460.70	57839.97
1200S	004900W	59452.76	57832.22
1200S	004850W	59446.20	57825.52
1200S	004800W	59459.47	57838.69
0800S	005050W	59455.28	57833.95
0800S	005100W	59447.48	57825.94
0800S	005150W	59436.01	57814.38
0800S	005200W	59416.14	57794.76
0800S	005250W	59410.76	57789.34
0800S	005300W	59416.54	57795.13
0800S	005350W	59420.98	57799.60
0800S	005400W	59432.69	57811.14
0800S	005450W	59440.16	57818.59
0800S	005500W	59439.15	57817.53
0800S	005550W	59555.58	57933.57
0800S	005600W	59662.44	58040.06
0800S	005650W	59854.18	58231.42
0800S	005700W	60081.05	58458.10
0800S	005750W	60180.54	58557.41
0800S	005800W	60182.07	58558.86
0800S	005850W	60038.25	58414.90
0800S	005900W	59861.02	58237.90
0800S	005950W	59739.21	58116.25
0800S	006000W	59650.78	58027.77
0800S	006050W	59595.01	57971.82
0800S	006100W	59559.70	57936.56
0800S	006150W	59543.43	57920.01
0800S	006200W	59522.07	57898.58
0800S	006250W	59521.54	57897.86
0800S	006300W	59525.31	57901.91
0800S	006350W	59595.17	57972.37
0800S	006400W	59657.84	58034.97

LINE	STATION	RAW DATA	REDUCED
{feet}	{feet}	{nTesla}	{nTesla}
0800S	006450W	59678.74	58055.04
0400S	005350W	59556.21	57932.37
0400S	005400W	59627.44	58002.77
0400S	005450W	59486.04	57861.08
0400S	005500W	59447.75	57822.99
0400S	005550W	59474.06	57849.44
0400S	005600W	59623.24	57998.89
0400S	005650W	60014.13	58389.05
0400S	005700W	60037.68	58413.84
0400S	005750W	59807.15	58182.30
0400S	005800W	59766.22	58141.70
0400S	005850W	59741.65	58116.82
0400S	005900W	59686.81	58062.08
0400S	005950W	59585.66	57961.06
0400S	006000W	59526.30	57901.31
0300S	005800W	59669.60	58042.21
0350S	005800W	59731.99	58104.54
0400S	005800W	59774.18	58146.23
0450S	005800W	59815.42	58187.39
0500S	005800W	59953.55	58325.30
0550S	005800W	60088.40	58460.64
0600S	005800W	60196.73	58569.38
0650S	005800W	60274.54	58648.11
0700S	005800W	60305.95	58679.61
0750S	005800W	60246.23	58620.03
0800S	005800W	60191.00	58565.16
0850S	005800W	60097.25	58471.79
0900S	005800W	60014.35	58388.58
0950S	005800W	59972.32	58346.12
1000S	005800W	59917.65	58291.49
1050S	005800W	59874.61	58248.17
1100S	005800W	59846.47	58220.00
1150S	005800W	59818.40	58192.52
1200S	005800W	59796.30	58170.13
1250S	005800W	59784.38	58159.17
1300S	005800W	59766.91	58142.33

LINE	STATION	RAW DATA	REDUCED
{feet}	{feet}	{nTesla}	{nTesla}
1350S	005800W	59749.33	58124.91
1400S	005800W	59730.03	58105.91
1450S	005800W	59704.26	58079.93
1500S	005800W	59664.08	58039.59
1550S	005800W	59618.37	57993.09
1600S	005800W	59576.87	57951.71
1650S	005800W	59555.86	57929.96
1700S	005800W	59515.54	57889.79
1750S	005800W	59489.95	57863.15
1800S	005800W	59462.57	57836.24
1850S	005800W	59431.72	57805.17
1900S	005800W	59423.08	57796.91



# Report of Work Conducted After Recording Claim

## Mining Act

Transaction Number  
**W 9620.00011**

Personal information collected on this form is obtained under the authority of the Mining Act. This collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.



52N04NE0062 2 16467 BATEMAN

900

- Instructions:**
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.

**2-18-96**

Recorded Holder(s) <b>PLACER DENIE CANADA LIMITED</b>		Client No. <b>300210</b>
Address <b>SUITE 3201, 130 HUELHINE STREET WEST, P.O. BOX 43, TERCIA, ON N1S4 3P5</b>		Telephone No. <b>(416) 363-4962</b>
Mining Division <b>RED LAKE</b>	Township/Area <b>BATEMAN</b>	M or G Plan No. <b>G-3741</b>
Dates Work Performed From: <b>MARCH 1, 1996</b>		To: <b>APRIL 4, 1996</b>

**Work Performed (Check One Work Group Only)**

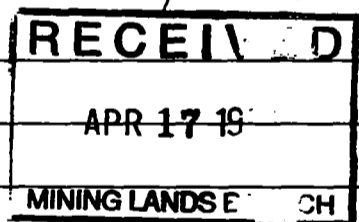
Work Group	Type
<input checked="" type="checkbox"/> Geotechnical Survey	<b>LINECUTTING, GEOPHYSICS</b>
<input type="checkbox"/> Physical Work, Including Drilling	
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	

Total Assessment Work Claimed on the Attached Statement of Costs \$ ~~909.00~~ **824.00 (24)**

**Note:** The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

**Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)**

Name	Address
<b>DARREN C'BRIEN</b>	<b>#6 SUCIA APARTMENTS, BALMERTON, ON</b>
	<b>REV 100</b>



(attach a schedule if necessary)

**Certification of Beneficial Interest \* See Note No. 1 on reverse side**

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.

Date: **April 4/96** Recorded Holder or Agent (Signature): *[Signature]*

**Certification of Work Report**

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

Name and Address of Person Certifying: **STUART J. DEVELL, 212 HANMILL ROAD, BOX 499, RED LAKE, ON P0V 2R0**

Telephone No.: **305-222-2000** Date: **April 4/96** Certified By (Signature): *[Signature]*

**For Office Use Only**

Total Value Cr. Recorded <b>824</b>	Date Recorded <b>April 4, 1996</b>	Mining Recorder	<b>RECEIVED</b> RED LAKE MINING DIV. <b>APR 4 1996</b> AM 7,8,9,10,11,12,1,2,3,4,5,6 PM
	Deemed Approval Date <b>July 4, 1996</b>	Date Approved	
	Date Notice for Amendments Sent		

Statement of Costs  
for Assessment Credit

État des coûts aux fins  
du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

W9620 00011

2.16467

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	\$450	
	Field Supervision Supervision sur le terrain		\$450
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type CONSULTING	\$374	
			\$374
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
<b>RECEIVED</b>			
APR 17 1996			
<b>MINING LANDS BRANCH</b>			
<b>Total Direct Costs Total des coûts directs</b>			\$824

2. Indirect Costs/Coûts indirects

\*\* Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work.  
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation			
<b>Sub Total of Indirect Costs Total partiel des coûts indirects</b>			
<b>Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)</b>			
<b>Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)</b>		<b>Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)</b>	\$824

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

I hereby certify:  
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Geologist I am authorized  
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :  
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé  
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

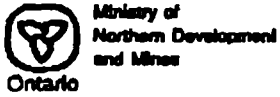
Signature	Date
<i>[Signature]</i>	<i>[Date]</i>



Lands

2.16467

APR -10' 96 (WED) 06:47 MINING-RECORDER--RL TEL:807 727 3553 P. 002



Report of Work Conducted After Recording Claim Mining Act

Transaction Number W 9620.00011

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 150 Cedar Street, Sudbury, Ontario, P2E 6A6, telephone (705) 670-7284.

- Instructions: - Please type or print and submit in duplicate. - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder. - A separate copy of this form must be completed for each Work Group. - Technical reports and maps must accompany this form in duplicate. - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder: PLACER DOME CANADA LIMITED
Address: SUITE 3201, 130 ADELAIDE STREET WEST, P.O. Box 43, TORONTO ON M5H 2P5
Mining Division: RED LAKE
Classification: BATEMAN
Class No.: 300210
Telephone No.: (416) 363-4962
M or P of Min Act: G-3741
Date Work Performed: From MARCH 1, 1996 to APRIL 1, 1996

Work Performed (Check One Work Group Only)

Table with columns: Work Group, Type. Includes checkboxes for Geotechnical Survey, Physical Work, Rehabilitation, Other Authorized Work, Assays, Assignment from Reserve. Includes a 'RECEIVED' stamp dated APR 17 1996 and MINING LANDS BRANCH.

Total Assessment Work Claimed on the Attached Statement of Costs \$ 824.00 SW

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorder holder cannot verify expenditures claimed in the statement of costs within 90 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Table with columns: Name, Address. Entry: DARREN O'BRIEN, #6 SCOTIA APARTMENTS, BALMERTOWN, ON, POB 100

(attach a schedule if necessary)

Certification of Beneficial Interest - See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder. Date: April 4/96

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this work report, having performed the work or witnessed same during and/or after its completion and returned report is true. Name and Address of Person Qualifying: STUART W. DEVEAU, 212 HAMMILL ROAD, BOX 1991, RED LAKE, ON P0V 2M0. Date: April 4/96

For Office Use Only

Table for office use with columns: Total Value of Assessment, Date Recorded, Date Approved, Date Approved. Includes a 'RECEIVED' stamp dated APR 17 1996 and MINING LANDS BRANCH.

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (705) 670-5853  
Fax: (705) 670-5863

June 25, 1996

Our File: 2.16467  
Transaction #: W9620.00011

Mining Recorder  
Ministry of Northern Development & Mines  
Ontario Government Building  
227 Howey Street, Box 324  
Red Lake, Ontario  
POV 2M0

Dear Mr Rivett:

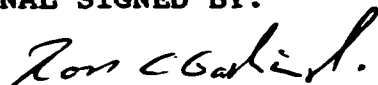
**SUBJECT: APPROVAL OF ASSESSMENT WORK CREDIT ON MINING LAND,  
CLAIM KRL.1144381 BATEMAN TOWNSHIP**

Assessment work credit has been approved as outlined on the Declaration of Assessment Work Form accompanying this submission. The credit has been approved under Section 14, Geophysics (MAG) of the Assessment Work Regulation.

**The approval date is June 25, 1996.**

If you have any questions regarding this correspondence, please contact Lucille Jerome at (705) 670-5858.

Yours sincerely,  
ORIGINAL SIGNED BY:



Ron C. Gashinski  
Senior Manager, Mining Lands Section  
Mines and Minerals Division

LBJ/cc

cc: Resident Geologist  
Red Lake, Ontario

✓ Assessment Files Library  
Sudbury, Ontario

# THE TOWNSHIP OF OF BATEMAN

DISTRICT OF  
KENORA  
PATRICIA PORTION

RED LAKE  
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

### DISPOSITION OF CROWN LANDS

- PATENT, SURFACE AND MINING RIGHTS ----- ●
- " , SURFACE RIGHTS ONLY ----- ○
- " , MINING RIGHTS ONLY ----- ◐
- LEASE, SURFACE AND MINING RIGHTS ----- ■
- " , SURFACE RIGHTS ONLY ----- □
- " , MINING RIGHTS ONLY ----- ▣
- LICENCE OF OCCUPATION ----- ▼
- ROADS -----
- IMPROVED ROADS -----
- KING'S HIGHWAYS -----
- RAILWAYS -----
- POWER LINES -----
- MARSH OR MUSKEG -----
- MINES -----
- CANCELLED -----

### NOTES

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

RED LAKE MINING DIVISION  
FEB 23 1996  
RED LAKE, ONTARIO

RECEIVED  
APR 17 1996  
MINING LANDS BRANCH

- ① MTC PIT No. 1E-13
- ② MTC PIT No. 1E-11
- ③ MTC PIT No. 1E-12
- ④ QUARRY PERMIT
- ⑤ MNR GRAVEL RESERVE 1E10
- ⑥ MNR GRAVEL RESERVE 1E11

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

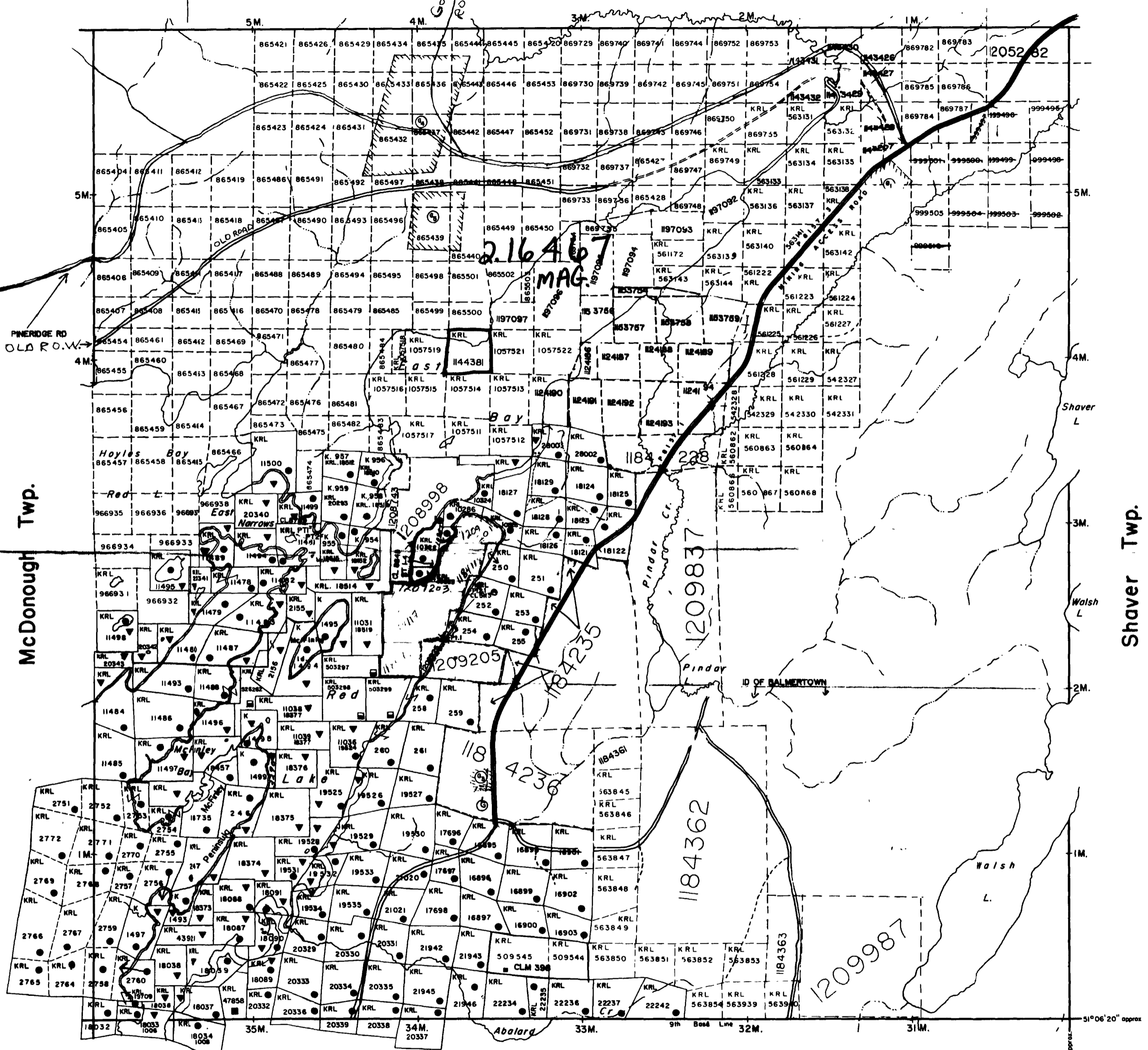
## 2.16467

PLAN NO. G-3741

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

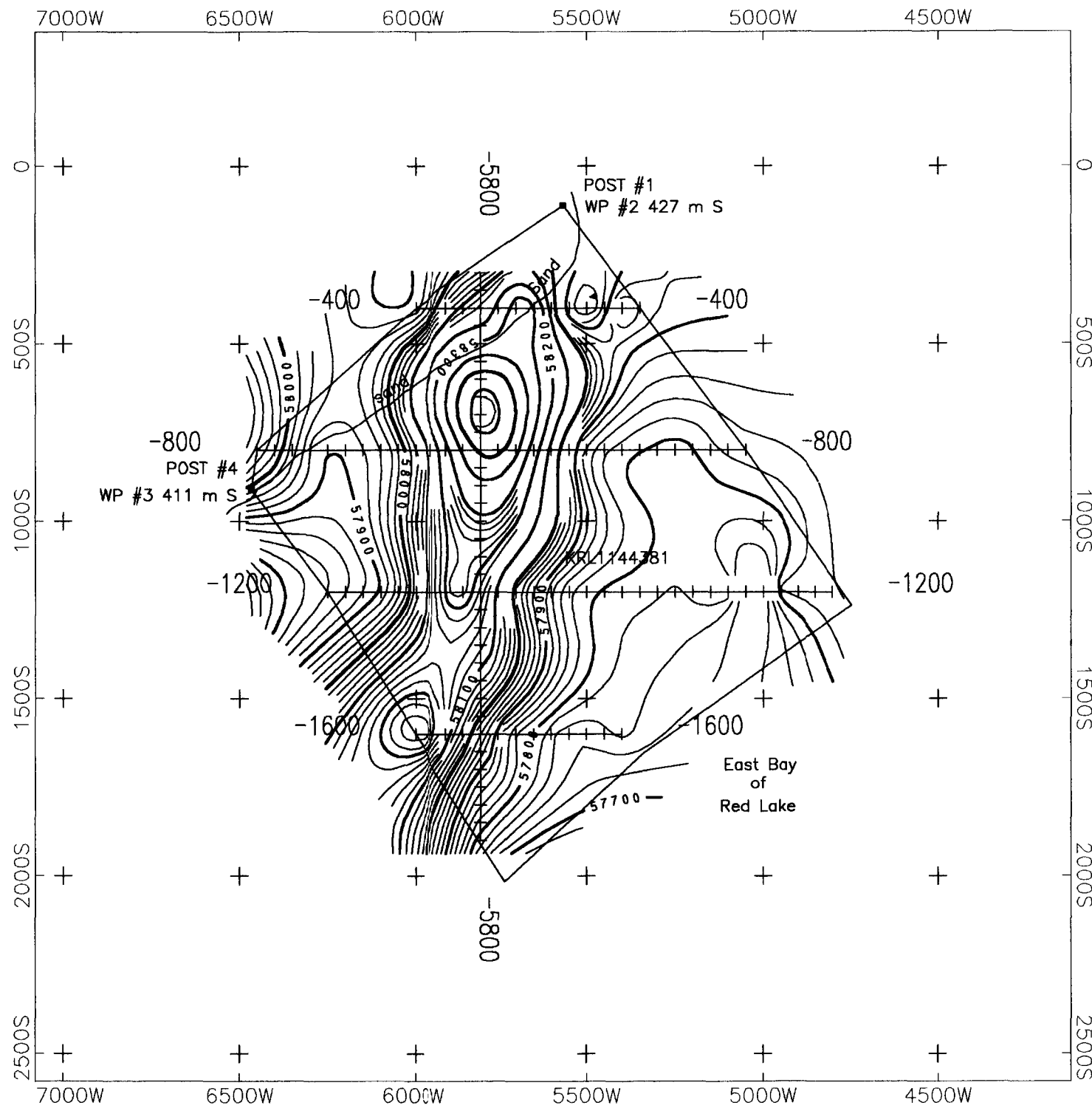
Corallen Lake Area

### Blackbear Lake Area

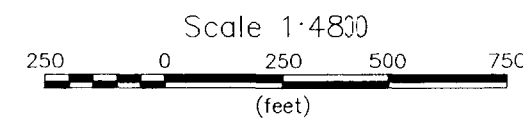
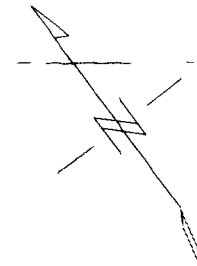


AND MAY BE SUBJECT TO FORESTRY OPERATIONS.  
THE M.N.R. UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT:  
P.O. BOX 5003  
RED LAKE, ONTARIO P0V 2M0  
(807) 727-2253



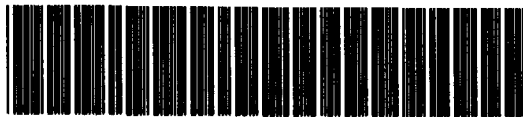


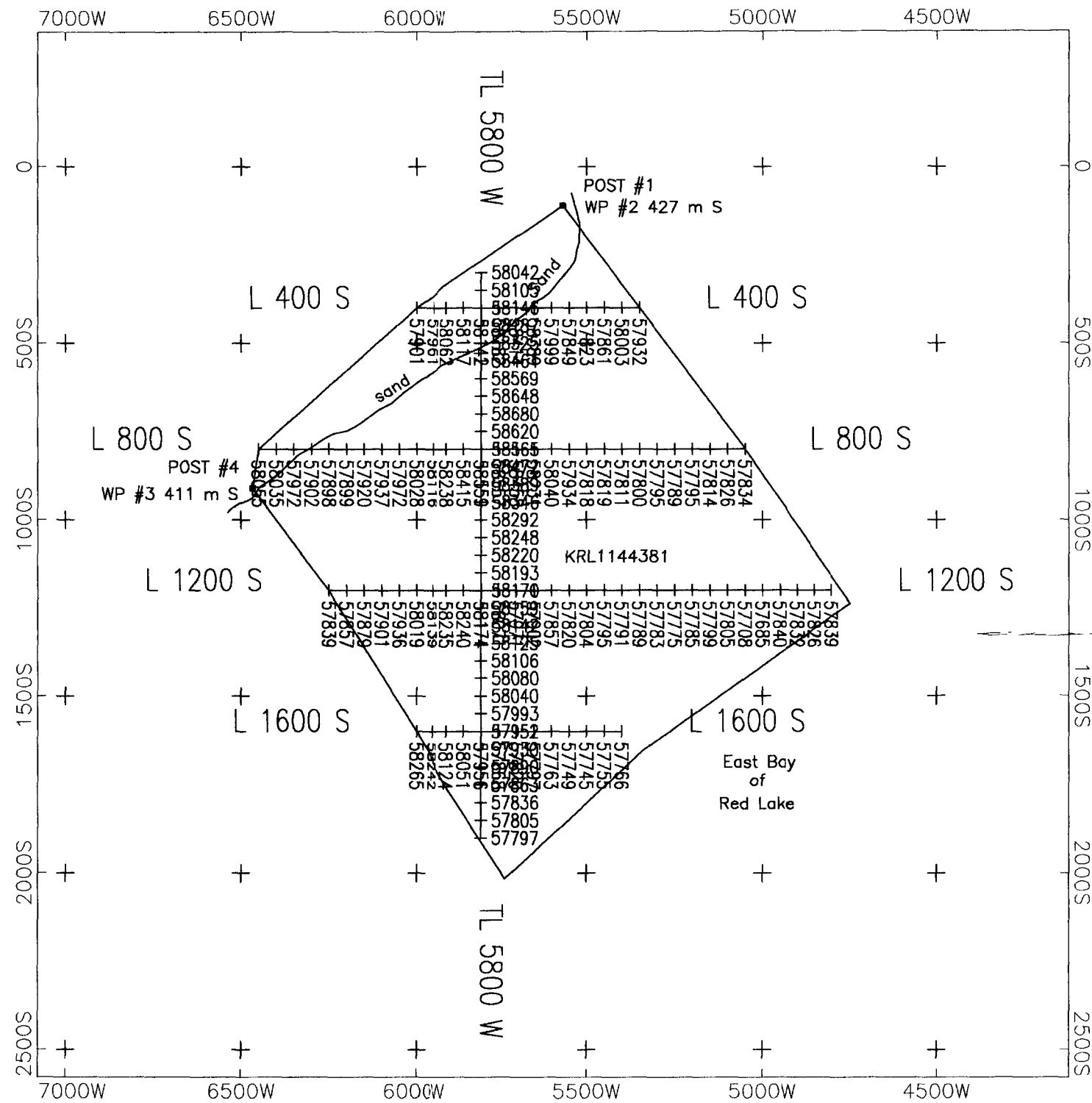
RECEIVED  
 APR 17 1996  
 LANDS BRANCH



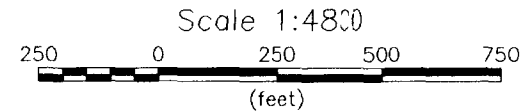
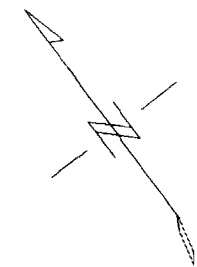
**2.16467**

Placer Dome Canada Limited
East Bay Property Ground Magnetic Survey
Total Field Magnetics Claim # KRL1144381
T. Campbell, April 1, 1996





**RECEIVED**  
 APR 17 1996  
 MINING LANDS BRANCH



**2.16467**

Placer Dome Canada Limited
East Bay Property Ground Magnetic Survey
Total Field Magnetics Claim # KRL1144381
T. Campbell, April 1, 1996

