

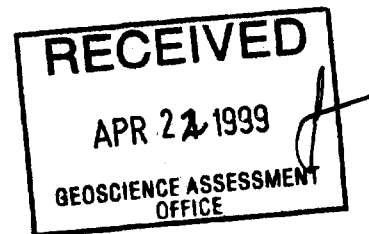


42A06NW2015 2.19443 OGDEN

010

REPORT OF WORK
OGDEN TOWNSHIP PROJECT
ECHO BAY MINES LTD. / BERLAND RESOURCES
JOINT VENTURE
Ground Magnetism Survey

2.19443



Paul Degagne
Project Geologist

April 6, 1999
Timmins, Ontario

Summary



42A06NW2015 2.19443 OGDEN

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Echo Bay Mines Ltd. of Timmins Ontario awarded a contract to Geosurv Canada Inc., of South Porcupine, Ontario to do work on their Ogden Township Project. This report summarizes line cutting and ground magnetics surveys completed on 35 of 36 contiguous claims located approximately 6 km south of the Timmins, Ontario in Ogden Township.

A total of 61.76 line kilometers of grid were surveyed. The results of the survey were successful in delineating altered stratigraphy, which may be favorable for gold mineralization.

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1.0 Introduction

The Ogden Township Project consists of 14 unpatented mining claims (23 units) and 28 patented claims located 6 km south-southwest of the city of Timmins in Ogden and Deloro Townships. The claims straddle the Destor-Porcupine Fault Zone and are situated immediately south of the former Desantis mine and west of the Naybob mine. Together, these mines produced a total of 85,000 ounces of gold.

The project is a joint venture between Echo Bay Mines Ltd. and Berland Resources. Under the terms of the agreement, Berland can earn a 50% share of Echo Bay's interest in the property by making an initial \$25,000 payment and funding exploration expenditures of \$800,000 over three years.

The project incorporates a main block of contiguous claims consisting of 19 patented claims under option from Thomas Ogden Gold Mines Ltd. and the Thomas Ogden Estate; 9 patented claims under option from International Falcon Resources Inc.; a single unpatented mining claim (2 units) under option from Mr. I. Lajeunesse of Timmins; and seven unpatented mining claims staked by Echo Bay in 1997 and 1998. In addition, four isolated blocks of claims, located north of the main block in Ogden Township and east of the main block in Deloro Township, are included in the Ogden Project. These blocks are made up of four unpatented claims staked by Echo Bay in 1997 and 1998, and two unpatented claims purchased from East-West Resources in 1998.

Historically, only a limited amount of exploration has taken place on the property. The most significant mineralization occurs on the Thomas Ogden Gold Mines patents where a 1939 drill program intersected anomalous gold values (3.9 g/t Au over 3.35m in hole #4; 5.7 g/t Au over 2.4m in hole #8; and 1.3 gpt Au over 31.1m including 3.1 g/t over 2.7m in Hole #10) within a zone of highly altered mafic and ultramafic volcanics, feldspar +/- quartz porphyry, and felsite dykes. This zone is situated 3 km to the west and along strike from the Naybob Mine, which produced 50,731 ounces of gold intermittently from 1932 to 1964.

Echo Bay began work on the property in late 1997 and, with the exception of linecutting and a magnetometer survey completed on claims 1213116 and 1205822, all work has been confined to the main block of contiguous claims.

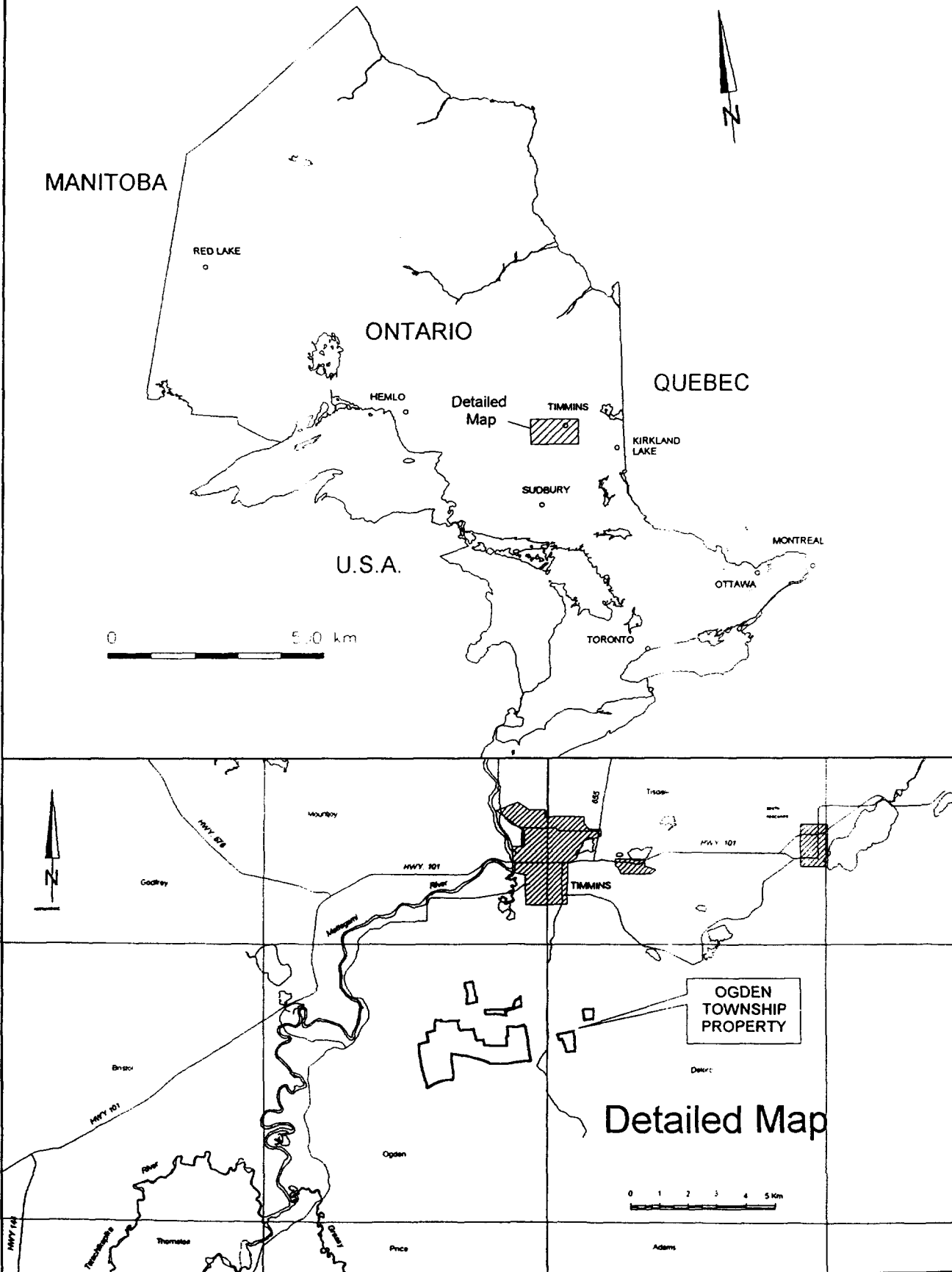
This report describes the linecutting and magnetometer survey completed on the main block of claims, (excluding claim 1203911), between October, 1997 and July, 1998. A separate report describes the magnetometer survey completed on claim 1203911.

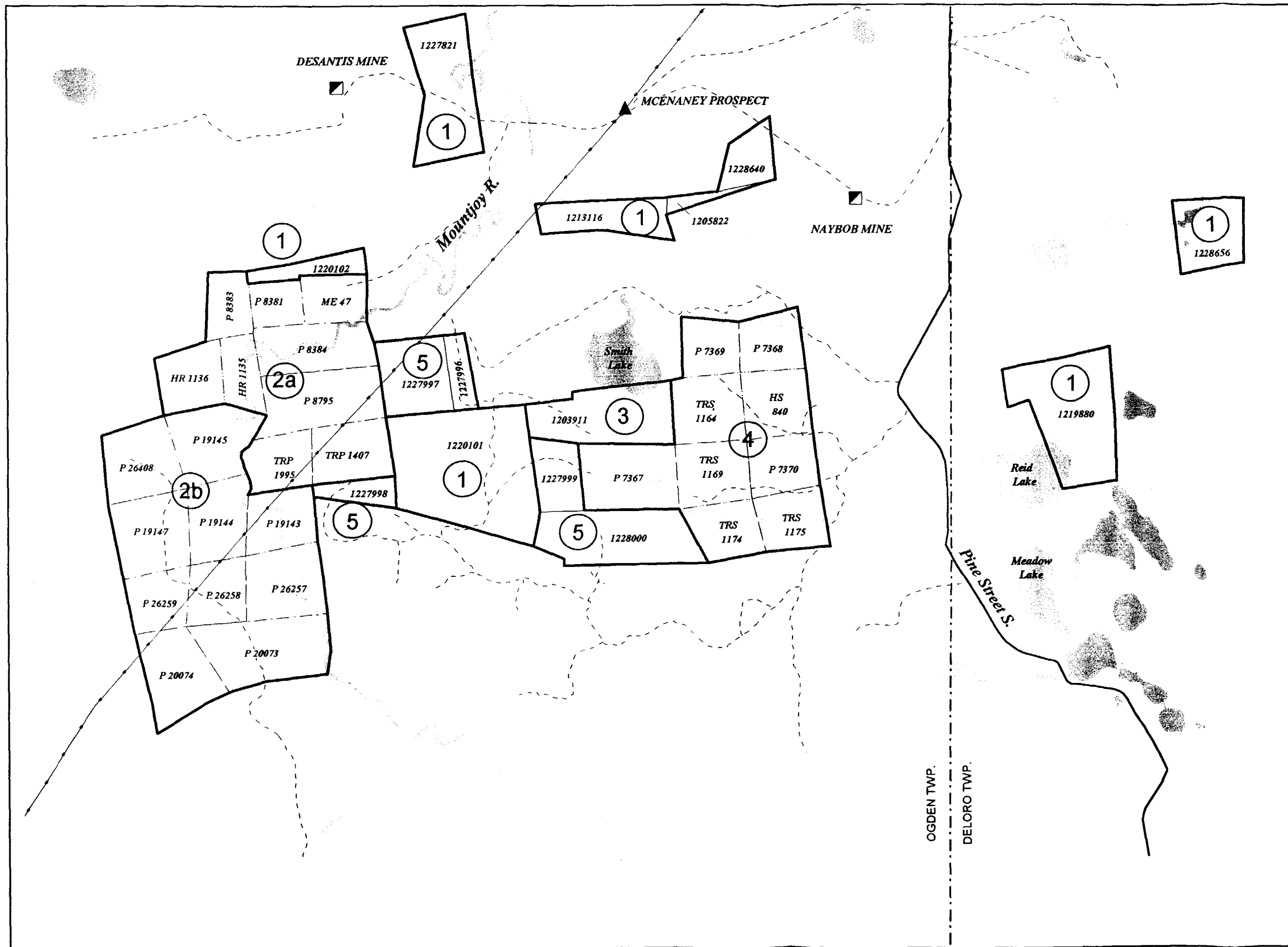
2.0 Location and Access (figure 1)

The Ogden Township Project is located 6 km south-southwest of the city of Timmins, Ontario in Ogden and Deloro Townships.

Access to the property is via a bush road, which intersects Pine Street South approximately 6 km south of Timmins. The center of the property is located 5 km west along this road. The two

Figure 1: Ogden Township Project
Property Location Map





LEGEND

- Claim Options**
- ① 100% Echo Bay Mines Ltd.
 - ②a Thomas Ogden Gold Mines
 - ②b Thomas Estate
 - ③ Lajeunesse Option
 - ④ International Falcon Resources Ltd.
 - ⑤ new claims (acquired June, 1998)
- property outline
 - - - claim line
 ▣ past producing gold mine (<1,000,000 ounces)
 — major road
 - - - secondary road / trail
 — transmission line
 lake
 river / stream



0 0.25 0.5
 Kilometers
 Scale: 1:25,000

ECHO BAY MINES LTD.

**OGDEN TOWNSHIP PROJECT
 CLAIM DISPOSITION**

Figure 2

claim units located in Deloro Township can be accessed by a bush road that branches east off of Pine Street South approximately 5 km south of Timmins. The two small claim blocks located north of the main block can be accessed via the Kennilworth / Desantis access road.

3.0 Property Status (figure 2)

The Ogden Township Project is made up of the following: 11 unpatented mining claims staked by Echo Bay Mines Ltd. between June 1997 and June 1998; two unpatented mining claims purchased from East-West Resources in September, 1998; a single unpatented mining claim (2 units) optioned from Mr. I. Lajeunesse of Timmins, Ontario; 9 patented claims optioned from International Falcon Resources Inc.; and 19 patented claims under optioned from Thomas Ogden Gold Mines Ltd. and the Thomas Ogden Estate. Summaries of the individual option agreements are listed in Appendix I, the location of individual claims are shown in figure 2.

Berland Resources Limited of Thunder Bay, Ontario completed the terms for an option agreement with Echo Bay Mines Ltd. on January 13, 1998. Under the agreement, Berland Resources can earn a 50% working interest in the property by making a cash payment totaling \$25,000 and incurring exploration costs of \$800,000 over a three year period. Echo Bay Mines Ltd. remains operator of the property.

All claims, which are listed below, are located in Ogden and Deloro Townships in the Porcupine Mining Division, District of Cochrane.

2.19443

ECHO BAY MINES LTD.

Claim No.	Units	Township	Recording Date
1220101	4	Ogden	June 19, 1997
1220102	1	Ogden	June 26, 1997
1219880	3	Deloro	July 07, 1997
1228656	1	Deloro	Oct. 10, 1997
1205822	1	Ogden	Sep. 16, 1996 (purchased from East-West Resources)
1213116	2	Ogden	Sep. 16, 1996 (purchased from East-West Resources)

Claim No.	Units	Township	Recording Date
1227821	2	Ogden	April 28, 1998
1228640	1	Ogden	March 5, 1998
1227996	1	Ogden	June 23, 1998
1227997	1	Ogden	June 23, 1998
1227998	1	Ogden	June 23, 1998
1227999	1	Ogden	June 23, 1998
1228000	3	Ogden	June 23, 1998

LAJEUNESSE OPTION (option date: Nov. 17, 1997)

Claim No.	Units	Township	Recording Date
1203911	2	Ogden	May 25, 1996

INTERNATIONAL FALCON OPTION (option date: Nov. 10, 1997)

Parcel No	Patent No.	Claim No.
2123 SEC	2344 Temiskaming	HS 840
1834 SND	760 Sudbury North Division	TRS 1164
1835 SND	761 Sudbury North Division	TRS 1169
1599 SEC	1512 Temiskaming	TRS 1174
1600 SEC	1514 Temiskaming	TRS 1175
2803 SEC	3798 Temiskaming	P 7367
259 SEC	6143 Temiskaming	P 7368
260 SEC	6144 Temiskaming	P 7369
261 SEC	6145 Temiskaming	P 7370

THOMAS OGDEN GOLD MINING PROPERTY OPTION (option date: Dec. 1, 1997)

Parcel No	Patent No.	Claim No.
5681 SEC	2289 Cochrane	HR 1135,36
4952 SEC	2012 Cochrane	P 8383
221 SEC	6059 Temiskaming	TRP 1995
4123 SEC	923 Cochrane	P 8795
222 SEC	6060 Temiskaming	TRP 1407
4953 SEC	2013 Cochrane	P 8384
6199 SEC	2011 Cochrane	P 8381
	2288 Cochrane	ME 47

THOMAS ESTATE (option date: Dec. 1, 1997)

Parcel No	Patent No.	Claim No.
9875 SEC	4742 Cochrane	P 26408
9878 SEC	4748 Cochrane	P 19145
9871 SEC	4738 Cochrane	P 19143
9872 SEC	4739 Cochrane	P 20073
9873 SEC	4740 Cochrane	P 26257

9874 SEC	4741 Cochrane	P 26258
9877 SEC	4747 Cochrane	P 19144
9879 SEC	4749 Cochrane	P 19147
9880 SEC	4750 Cochrane	P 20074
9881 SEC	4751 Cochrane	P 26259

4.0 Personnel

The linecutting and magnetometer survey was contracted out to Geoserve Canada Inc., of South Porcupine, Ontario, under the supervision of Paul Degagne of Echo Bay Mines Ltd. (Timmins exploration office).

5.0 Previous Work

Ogden Township was first staked and prospected shortly after the discovery of gold in the Timmins area in 1909. Significant gold production from nearby mines dates to the 1930's when the Buffalo-Ankerite and Delnite mines were brought into production.

The first detailed government geology map was produced by Hurst (1938). Previous to this, area mapping and showing examinations had been performed by Burrows (1912) and Hawley (1926). Open file Report 5012 by Carlson (1967) gives a detailed description of the geology and various mining properties in Ogden, Deloro and Shaw Townships.

Within one kilometer of the main Ogden claim block, three properties (Naybob, DeSantis and McEnaney) have had underground development and two of these (Naybob and Desantis) have had a limited production of gold.

Historical work on the individual options that make up the Ogden Township Project are described below:

Thomas Ogden Gold Mines / Thomas Estate

The property is first described by Hawley (1926) who noted an outcrop north of the Mountjoy River on claims 8381 and ME 47 in a government report. The first record of exploration is in reports by D.K. Burke of Sylvanite Gold Mines Ltd. and W.A. Jones of Hollinger Mines Ltd. in 1937. This and other known work on the property is listed below:

- 1937. Thomas Ogden Gold Mining Company is incorporated. A report dated 1937 refers to trenches and gold-bearing veins on claims 8381 and ME 47.
- 1938-39. Eleven diamond drills completed but logs for only 7 holes (ddh 4 and 6-11) can be located. combined meterage for the seven known holes totals 1,984m.
- 1981. Kidd Creek Mines Ltd. drilled three BQ diameter holes totaling 928.4m on the same zone.

International Falcon Resources Option

The earliest records for the claims are by Hawley (1926) when the claims were held by Harry Owen. Hawley describes pits sunk in pyrite-bearing green carbonate rocks and porphyry dikes as well as pits sunk on a 1 to 3 feet wide quartz vein. He also reports three short holes drilled on the green carbonate horizon but the location and results of this drilling have not been found. There is no recorded work from the late 1920's until 1972. Work from 1972 to present is described below:

- 1972. Property examinations and sampling of old trenches by C.W. Archibald for Goshawk Mines Ltd.
- 1974. Further sampling by Goshawk. Chip samples of 0.16 opt Au over five feet and 0.88 opt Au over 3.5 feet were reported from a trench located in the southwest corner of claim 1175.
- 1975. Seven claims were staked on to the original block, lines were cut and a magnetometer survey completed. four holes totaling 1,910 feet were completed on the property.
- 1980. Report by Jowsey who recommended mapping, stripping and sampling to be followed up by diamond drilling.
- 1984. The property was mapped and a V.L.F. survey completed. Trenching was carried out on claim 1175. Report by Frostad who reviewed the property and undertook sampling, primarily of iron formation units. No significant results were obtained.
- 1987. Report by Wilson in which he recommends International Falcon option the property in response to an unsolicited offer.

Lajeunesse Option

The only report of work on the property is from a report submitted by Amax Minerals Exploration in 1981. The report describes geological mapping over a large area including the Lajeunesse property. No outcrop was reported on the claim.

Echo Bay Claims

The majority of the recorded work on the Echo Bay's staked claims were completed on the main claim block connecting the International Falcon and Thomas Ogden patents. Recent work includes:

- 1939. On claim 1228640 (located north of the main claim block) McEnaney Gold Mines drilled two holes and intersected ultramafic volcanics, graphitic argillite and porphyry. No assays were recorded.
- 1981. Geological mapping by Amax. Four old trenches were noted in the southwest part of claim 1220101.
- 1985. On claim 1220102, Noranda Exploration drilled two reverse circulation drill holes to bedrock. No assay or bedrock data was given.

- 1986-87. Ground magnetometer and VLF-Em surveys were completed by Noranda Mines on claim 1220101 and 1220102 as part of a larger package of 11 claims. Mapping was completed on claim 1220102. No outcrop was located.
- 1988-89. Noranda Exploration completed VLF-EM and magnetometer surveys on claim 1226640. The property was also mapped but no outcrop was found.
- 1994. Bianchi Quarries Inc. stripped and excavated a small quarry on a highly altered green carbonate zone on claim 1220101. Large slabs were cut and sent to Italy for evaluation as decorative stone. Four short holes totaling 117m were drilled at this time. There is no record of these holes being assayed for gold.

6.0 Line Cutting and Magnetics Surveys

6.1 Linecutting

Prior to the commencement of geophysical surveying, grid lines were cut at 100m spaced intervals across all claims on the main claim block. Initially a small grid totaling 6.0 km was cut in October, 1997, west from station 10000E / 20000N to cover claim 1220101. As the Lajeunesse and International Falcon Resources agreements were consummated in November, 1997, the grid was extended east to cover these claims. In December, 1997, the grid was extended west of claim 1220101 to cover the Thomas Ogden Gold Mines and Thomas Estate patents as well as claim 1220102. In the immediate area of the Thomas Ogden Zone, 50m spaced in-fill lines were cut to provide better control for mapping and for identifying geophysical trends. The grid was extended again in June, 1998 when five additional claims were staked and added to the main block. This final phase was completed on July 16, 1998.

A total of 66.73 km including 61.76 km of north-south trending wing lines, a 4.97 km of east-west trending baseline and tie-lines are covered by this report. The breakdown of coverage for the individual option / claim groups is as follows: 11.985 km on Echo Bay staked claims; 14.77 km on the International Falcon patents; and 39.975 km on the Thomas Ogden Gold Mines / Thomas Estate patents.

6.2 Total Field Magnetics Survey

Between October 31, 1997 and July 16, a total of 61.76 kilometers of magnetic surveying was completed on the Ogden property. The survey was completed in stages as various agreements were consummated and claims staked.

6.2.1 Procedure

The total field magnetic surveying was completed using the Gem Systems Gem-19 magnetometers with readings collected at 12.5m intervals on all lines. A Gem-19 base station magnetometer was employed to correct for diurnal variations in the earth's magnetic field. The magnetic base station was located on the grid area in the same position for the duration of the survey. A description of the geophysical instrumentation is summarized in appendix IV.

Data collected during the survey has been plotted at a scale of 1:5000 (see maps 2 and 3 in pocket). The magnetic data have been posted and contoured as per Echo Bay specifications to maintain consistency with previous surveys in the area.

6.2.2 Results

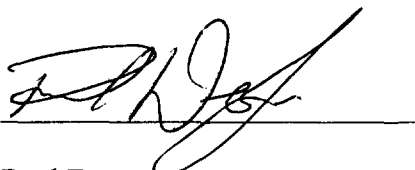
Total magnetic field readings in the survey area range from approximately 55137 nT to 67471 nT, with the majority of readings between 57800 nT and 58800 nT.

The dominant magnetic trend within the grid is northeast-southwest at azimuth 070°, within a quiescent magnetic background. The low and moderately variable magnetic background may reflect portions of the property where overburden is thicker. The most prominent magnetic anomalies are a series of strongly magnetic linear magnetic highs trending NE-SW, which range up to 8000 nT above the background magnetic field. These anomalies are located in the southeast portion of the International Falcon patents as well as in the south central portion of the Thomas Ogden patents. These anomalies are interpreted to reflect oxide iron formations within mafic volcanic rocks of enhanced iron content.

A low magnetic response north of baseline 20000 on the International Falcon option is also significant as it correlates directly with the mapped altered green carbonate zone (see geology map 1). A similar depleted magnetic response is also observed over the mapped green carbonate zone just south of BL 20000N between lines 9400E and 9800E. The presence of these magnetic depletions often express zones of hydrothermal alteration. Any portion of the property which exhibits this type of magnetic signature should be investigated for this possibility.

Another distinctive magnetic signature can be observed on the Thomas Ogden patents. This narrow linear magnetic signature trends in a north-south direction between lines 8300E and 8750E. This anomaly is interpreted to reflect a Proterozoic diabase dyke, which are common throughout the Abitibi. The northeast-southwest trending linear magnetic high located in the northern portion of the Thomas Ogden patents may also reflect a diabase dyke or sill.

Respectfully Submitted



Paul Degagne
Echo Bay Mines Ltd.

April 6, 1999

2.19443

7.0 EQUIPMENT SPECIFICATIONS AND THEORY

9.0 GEM Systems Advanced Magnetometers GSM-19

V 4.0

GEM Systems Inc
52 West Beaver Creek Road, Unit 14
Richmond Hill, Ontario
Canada, L4B-1L9

Phone; (905) 764- 8008
Fax ; (905) 764- 9329

9.2.1 Instrument Description

The sensor is a dual coil type designed to reduce noise and improve gradient tolerance. The coils are electrostatically shielded and contain a proton rich liquid in a pyrex bottle, which also acts as an RF resonator.

The sensor cable is coaxial, typically RG-58/U, up to 100m long.

The staff is made of strong aluminum tubing sections. This construction allows for a selection of sensor elevations above the ground during surveys. For best precision the full staff length should be used. Recommended sensor separation in gradiometer mode is one staff section, although two or three section separations are sometimes used for maximum sensitivity.

The console contains all the electronic circuitry. It has a sixteen key keyboard, a 4x20 character alphanumeric display, and sensor and power input/ output connectors. The keyboard also serves as an ON-OFF switch.

The power input/output connector also serves as a RS232 input/output and optionally as analog output and contact closure triggering input.

The keyboard front panel, and connectors are sealed (can operate under rainy conditions)

The charger has two levels of charging, full and trickle, switching automatically from one to another. Input is normally 110V 50/60Hz. Optionally, 12V DC can be provided.

The all-metal housing of the console guarantees excellent EM protection.

9.2.2 Instrument Specifications

Resolution 0.01 nT, magnetic field and gradient
Accuracy 0.20 nT over operating range
Range 20,000 to 120,000 nT automatic tuning, requiring initial setup
Gradient Tolerance over 10,000 nT/m
Operating Interval 3 seconds minimum, faster optional. Reading initiated from keyboard, external trigger, or carriage return via RS-232
Input/Output 6 pin weatherproof connectors
Power Requirements 12V, 200mA peak, 30mA standby, 300mA peak with Gradiometer
Power Source Internal 12V, 1.9Ah sealed lead-acid battery standard, external source optional.
Battery Charger Input; 110/ 220VAC, 50/60Hz and/or 12VDC
Output; 12V dual level charging
Operating Ranges Temperatures; -40°C to +60°C
Battery Voltages; 10.0 V min to 15.0V max
Humidity; up to 90% relative, non condensing
Storage Temperature -50°C to +65°C
Dimensions Console; 223 X 69 X 240 cm
Sensor Staff; 4 x 450mm sections
Sensor; 170 x 71 mm diameter
Weight; Console 2.1Kg Staff 0.9Kg Sensors; 1.1Kg

Magnetic Survey

9.2.3 Theory;

The magnetic method is based on measuring alteration in the shape and magnitude of the earth's naturally occurring magnetic field caused by changes in the magnetization of the rocks in the earth. These changes in magnetization are due mainly to the presence of the magnetic minerals, of which the most common is magnetite, and to a lesser extent ilmenite, pyrrhotite, and some less common minerals. Magnetic anomalies in the earth's field are caused by changes in two types of magnetization; (1) Induced, caused by the magnetic field being altered and enhanced by increases in the magnetic susceptibility of the rocks, which is a function of the concentration of the magnetic minerals. (2) Remanent magnetism is independent of the earth's magnetic field, and is the permanent magnetization of the magnetic particles (magnetite, etc..) in the rocks. This is created when these particles orient themselves parallel to the ambient field when cooling. This magnetization may not be in the same direction as the present earth's field, due to changes in the orientation of the rock or the field. The unit of measurement (variations in intensity) is commonly known as the Gamma which is equivalent to the nanotesla (nT).

9.3.4 Method;

The magnetometer, GSM-19 with an Overhauser sensor measures the Total Magnetic Field (TFM) perpendicular to the earth's field (horizontal position in the polar region). The unit has no moving parts, produces an absolute and relatively high resolution measurement of the field and displays the measurement on a digital lighted display and is recorded (to memory). Initially, the tuning of the instrument should agree with the nominal value of the magnetic field for each particular area. The Overhauser procession magnetometer collected the data with a 0.2 nanoTesla accuracy. The operator read each and every line at a 12.5 m interval with the sensor attached to the top of three (56cm) aluminum tubing sections. The readings were corrected for changes in the earth's magnetic field (diurnal drift) with a similar GSM-19 magnetometer, >>base station<< which automatically read and stored the readings at every 30 seconds. The data from both units was then downloaded to PC and base corrected values were computed.



Ontario

Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)

W9960.00176

Assessment Files Research Imaging



42A06NW2015 2.19443 OGDEN

900

Subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this assessment work and correspond with the mining land holder. Questions about this form should be directed to the Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario.

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240. - Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

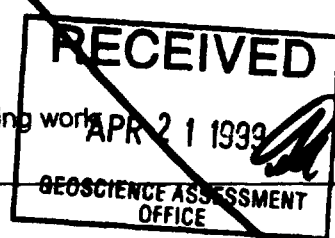
Form for recorded holder(s) with fields for Name, Address, Client Number, Telephone Number, and Fax Number. Includes handwritten entry for Echo Bay Mines Ltd.

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) [checked] Physical: drilling stripping, trenching and associated assays [unchecked] Rehabilitation [unchecked]

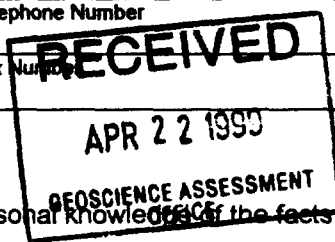
Form for work type and dates. Includes fields for Work Type (Geophysics), Dates Work Performed (31/10/97 to 16/7/98), Township/Area (Ogden Twp.), and Mining Division (Red Pine).

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.



3. Person or companies who prepared the technical report (Attach a list if necessary)

Form for person or companies who prepared the technical report with fields for Name, Address, Telephone Number, and Fax Number. Includes handwritten entry for Paul DeGagne.



4. Certification by Recorded Holder or Agent

I, Paul DeGagne, do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Form for certification with fields for Signature of Recorded Holder or Agent, Date (April 16/99), Agent's Address, Telephone Number, and Fax Number.

5. **Work to be recorded and distributed.** Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

WPA 60.00176

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 1220101	4	2138.80	3200	0	0
2 1220102	1	236.80	800	0	0
3 1227996	1	244.20	244.20	0	0
4 1227997	1	585.55	400	0	185.55
5 1227998	1	229.40	229.40	0	0
6 1227999	1	405.15	400	0	5.15
7 1228000	3	529.10	529.10	0	0
2000094 7369	11.1 Ha	453.25	0	0	453.25
6000295 7368	13.2 Ha	617.90	0	0	617.90
2000096 TRS 1164	16.2 Ha	708.00	0	0	708.00
297 HS 840	16.3 Ha	701.45	0	0	701.45
298 7367	22.8 Ha	838.05	0	0	838.05
299 TRS 1169	16.1 Ha	643.80	0	0	643.80
300 7370	14.4 Ha	418.10	0	0	418.10
3015 TRS 1174	13.6 Ha	610.50	0	0	610.50
Column Totals	see Attached list.				

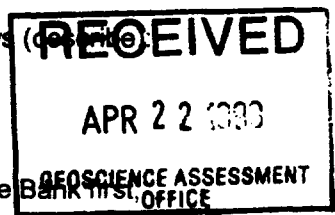
I, Paul Degagne, do hereby certify that the above work credits are eligible under (Print Full Name) subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing Date April 16/99.

6. **Instructions for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

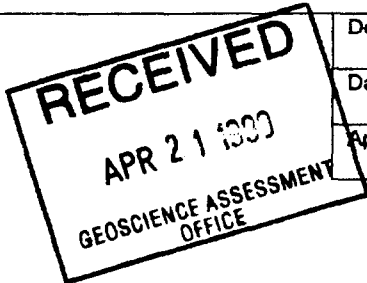
- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows



Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		



2.19443

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

May 31, 1999

ECHO BAY MINES LTD.
310-17TH STREET
SUITE 4050
DENVER, COLORADO
802-02 USA

Telephone: (888) 415-9846
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.19443

Status

Subject: Transaction Number(s): W9960.00176 Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Bruce Gates by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.19443

Date Correspondence Sent: May 31, 1999

Assessor: Bruce Gates

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9960.00176	1220101	OGDEN	Deemed Approval	May 31, 1999

Section:

14 Geophysical MAG

Correspondence to:

Resident Geologist
South Porcupine, ON

Recorded Holder(s) and/or Agent(s):

Paul DeGagne
TIMMINS, ON, CAN

Assessment Files Library
Sudbury, ON

ECHO BAY MINES LTD.
DENVER, COLORADO

MAP SYMBOLOLOGY

Aerial Cableway	Pipeline
Boundary	Railroad
International	Single Track
District, Township	Double Track
Indian Reserve	Abandoned
Approximate	Artesian
Lot, Concession	Road
Approximate	Highway, County
Park Boundary	Township
Bridge	Access (road of doubtful
Road, Railroad	maintenance of
Building	significance of
Chimney	Trail, Bush Road
Cliff, Pit, Pile	(broken lines)
Contours	Rapids
Interpolated	Double line river
Approximate	with multiple rapids
Depression	Reservoir
Control Points	River, Stream, Canal
Horizontal	Approximate
Vertical	direction of flow
Culvert	Rock
Falls	Spillway
Double line river	Spillway
Fence, Hedge, Wall	Spot Elevation
Feature Outline	(base elevation) 300.0
Flooded Land	Tower
Lock	Transmission Line
Marsh or Swamp	Poles
Mast	Pylon
Mine Head Frame	Tunnel
Outcrop	Utility Poles
	Wharf, Dock, Pier
	Wooded Area

REFERENCES
 L.O. 6613 "BOOMING GROUNDS" COVERS THE WESTERLY HALF OF THE BED OF THE MATTAGAMI RIVER FLOWING THROUGH THE TOWNSHIP FILE: 73543

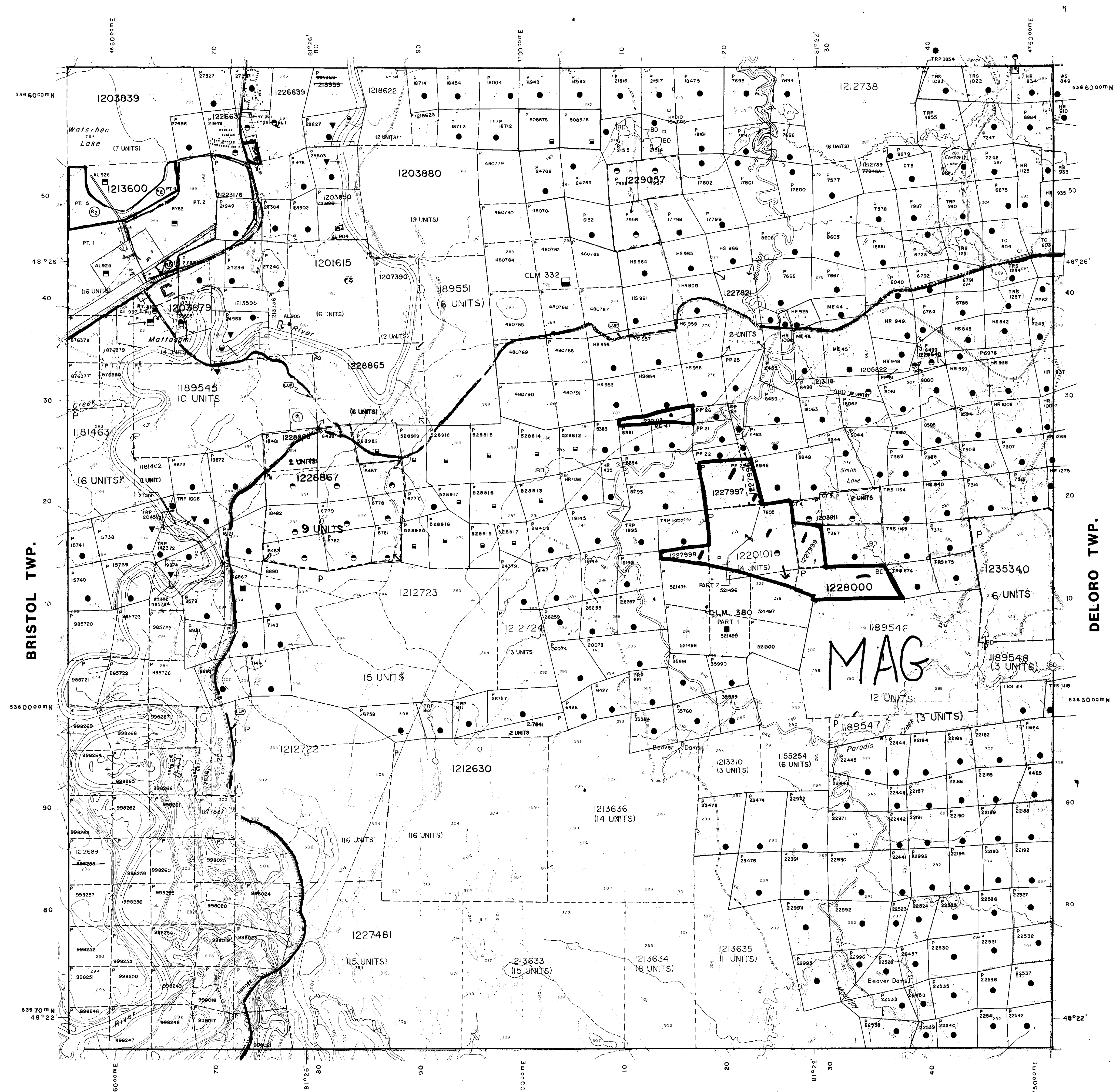
AREAS WITHDRAWN FROM DISPOSITION

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

Date	Order No.	Date	Disposition	File
NRW	51779, 211179	S.R.O.		
JP	APPLICATION PENDING UNDER PUBLIC LANDS ACT NOTICE RECEIVED 93-MAR-30 (SNOWMOBILE TRAIL)			
AG	AGGREGATE PF-RM			
CP	APPLICATION PENDING UNDER PUBLIC LANDS ACT SEP. 09/95			

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

200
 4236962315 2.38443 OGDEN



HIGHWAY AND ROUTE No.

OTHER ROADS

TRAILS

SURVEYED LINES

TOWNSHIPS, BASE LINES, ETC.

LOTS, MINING CLAIMS, PARCELS, ETC.

UNSURVEYED LINES

LOT LINES

PARCEL BOUNDARY

MINING CLAIMS ETC.

RAILWAY AND RIGHT OF WAY

UTILITY LINES

NON-PERENNIAL STREAM

FLOODING OR FLOODING RIGHTS

SUBDIVISION OR COMPOSITE PLAN

RESERVATIONS

ORIGINAL SURVEY LINE

MARSH OR MUSKEG

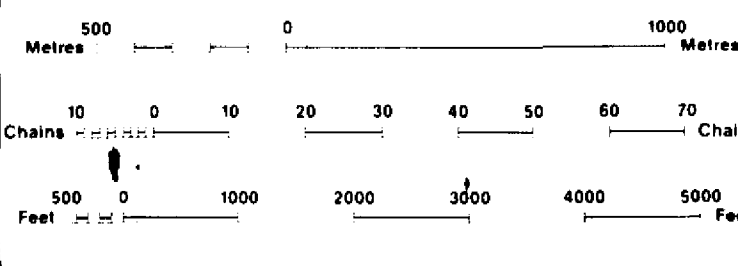
MINES

TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	◑
" SURFACE RIGHTS ONLY	◒
" MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	◔
ORDER-IN-COUNCIL	◕
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.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1



SCALE 1:20 000
 GRID ZONE : 17

NOTES

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED.

JUN 07 1999

THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

TOWNSHIP
OGDEN
 M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
 MINING DIVISION
PORCUPINE
 LAND TITLES / REGISTRY DIVISION
COCHRANE

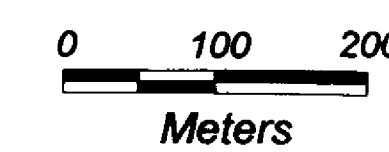
Ministry of Natural Resources
 Land Management Branch
 Ontario

ORIGINAL COMPILATION JULY 1984
 ACTIVATED JULY 2, 1992 BY D.C.
 REVISÉ
 CHECKED BY G.W.

Number
G-3979



RECEIVED
APR 21 1999
SCIENCE ASSESSMENT
DIVISION



Scale: 1:5,000

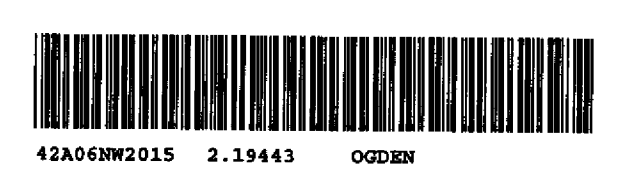
2.19443

ECHO BAY MINES LTD.

OGDEN TOWNSHIP PROJECT
Base Map

Map 1

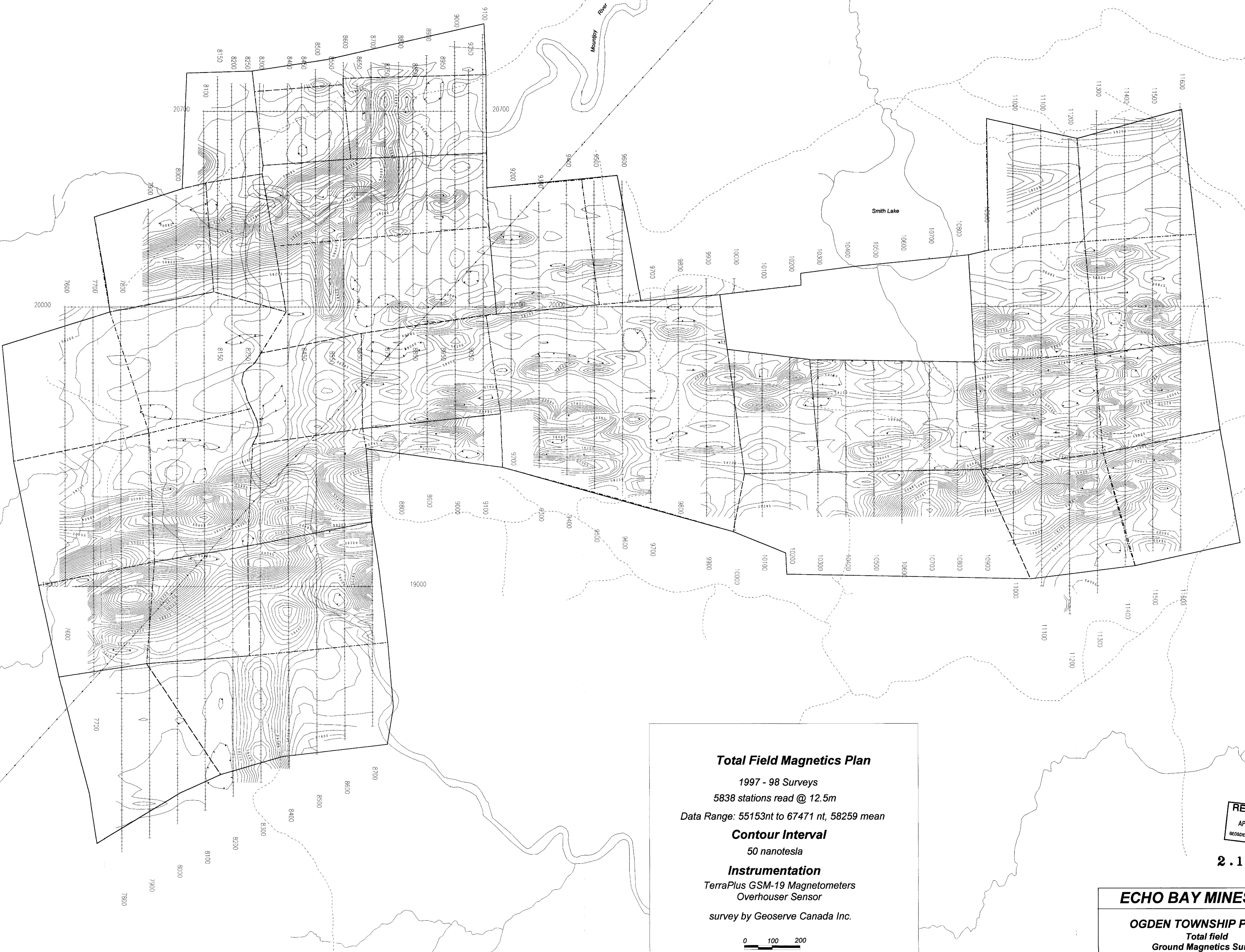
Date: April 6, 1999 Scale: 1:5,000 Drawn By: P.D.



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MEAS



Total Field Magnetics Plan
 1997 - 98 Surveys
 5838 stations read @ 12.5m
 Data Range: 55153nt to 67471 nt, 58259 mean
Contour Interval
 50 nanotesla
Instrumentation
 TerraPlus GSM-19 Magnetometers
 Overhouser Sensor
 survey by Geoserve Canada Inc.

0 100 200
Meters
Scale: 1:5,000

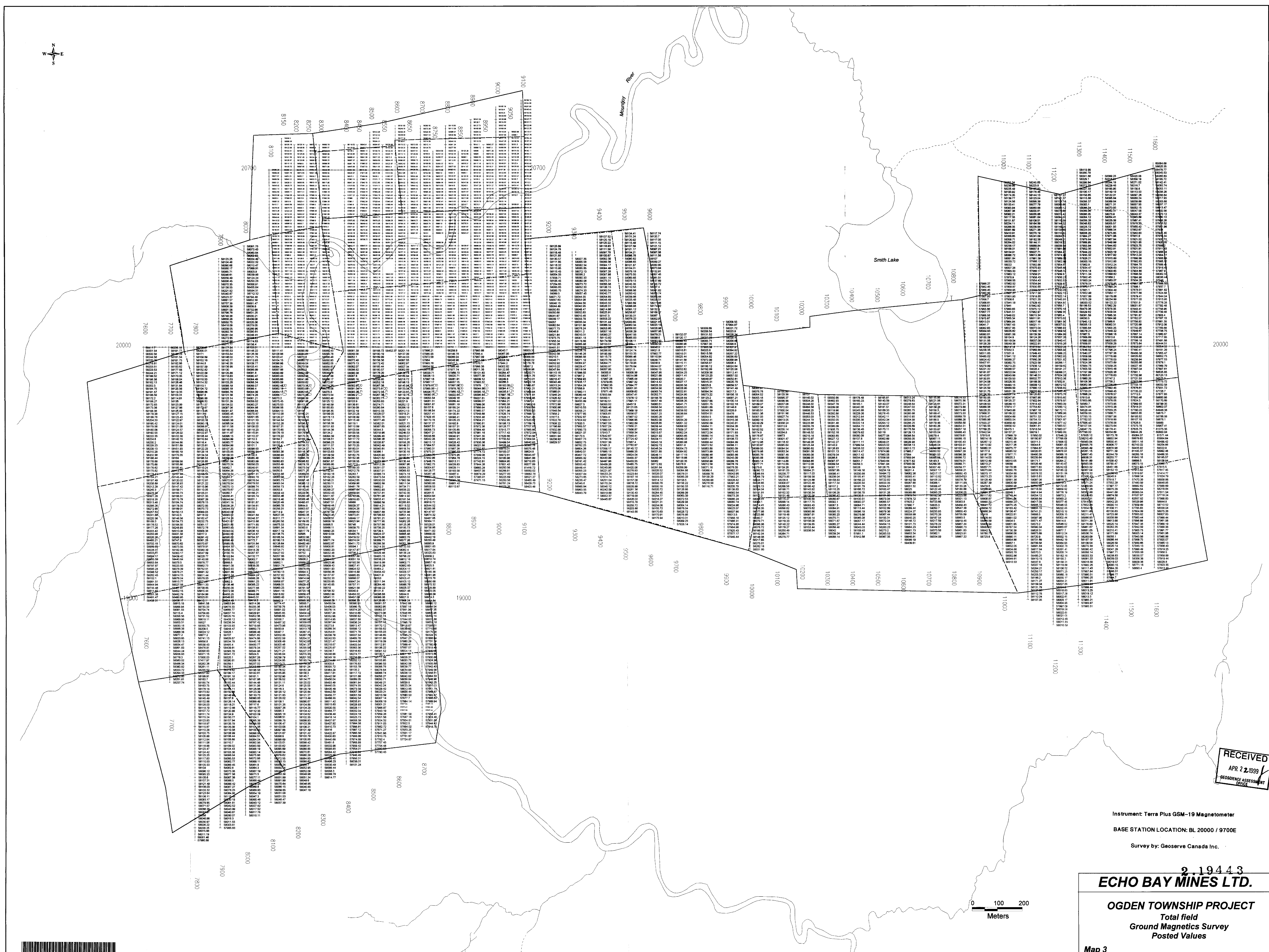
RECEIVED
 APR 22 1999
 GEORADENCE ASSESSMENT
 OFFICE

2.19443

ECHO BAY MINES LTD.
 OGDEN TOWNSHIP PROJECT
 Total field
 Ground Magnetics Survey
 Contour Map
 Map 2

Date: April 6, 1999 Scale: 1:5,000 Drawn By: P.D.





RECEIVED
APR 22 1999
GEOSERVE CANADA INC.

Instrument: Terra Plus GSM-19 Magnetometer

BASE STATION LOCATION: BL 20000 / 9700E

Survey by: Geoserve Canada Inc.

2 19443
ECHO BAY MINES LTD.

OGDEN TOWNSHIP PROJECT
Total field
Ground Magnetics Survey
Posted Values

Map 3

Date: April 6, 1999 Scale: 1:5,000 Drawn By: P.D.



[Handwritten signature]