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Report on

The Port Elmsley Graphite Prospect

Lanark County, Ontario

-by-

Ian G. Park, M.Sc., F.G.A.C.
Consulting Geologist

March 29, 1983

PORT ELMSLEY GRAPHITE PROSPECT

INTRODUCTION

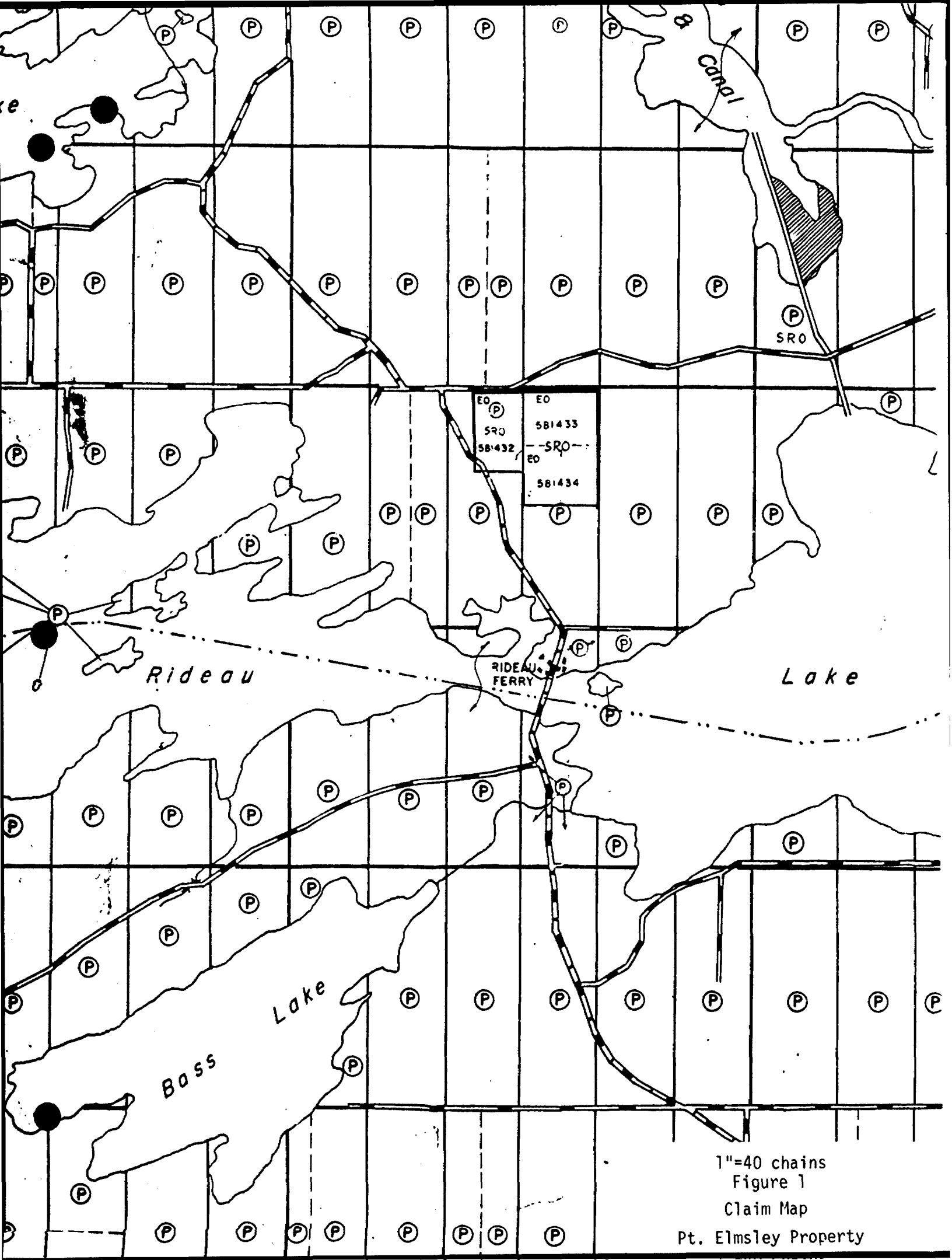
The Port Elmsley property was examined by the author on January 5, 1983 in order to ascertain the probability of defining sufficient reserves of flake graphite to support a mining operation. Sampling of the main zone, examination of the available outcrops, geophysical surveys and a literature review have suggested that although proven reserves cannot be identified with certainty at present, detailed geophysical surveys to supplement the present data and a modest diamond drilling programme are warranted to confirm or deny the potential of the property. All newly acquired data are presented in metric units.

PROPERTY

The property consists of three claims, EO 581432, EO 581433, and EO 581434 covering a total of 164 acres (66 hectares) in the north half of Lot 21 and part of Lot 22, Concession VI, North Elmsley Township, Lanark County, Eastern Ontario Mining Division (Figure 1). The claims were staked on September 5, 1981 and are presently held by R. Ekstrom. The claims are valid until June 30, 1983. However, submission of the geological and geophysical data contained within this report will be sufficient to hold the claims until September 5, 1983. Most of the property is being farmed, the Lot 21 portion by Ken Coutts, and the Lot 22 portion by Murray Coutts. These farmers own the surface rights. Mining claims give the holder absolute rights to engage in exploration, but the consent of the surface rights owners will be necessary before mining operations can commence.

LOCATION, ACCESS AND TOPOGRAPHY

The property is located in south-eastern Ontario, 310 km ENE of Toronto, 70 km SW of Ottawa and 200 km WSW of Montreal. The nearest towns are Perth, 8 km



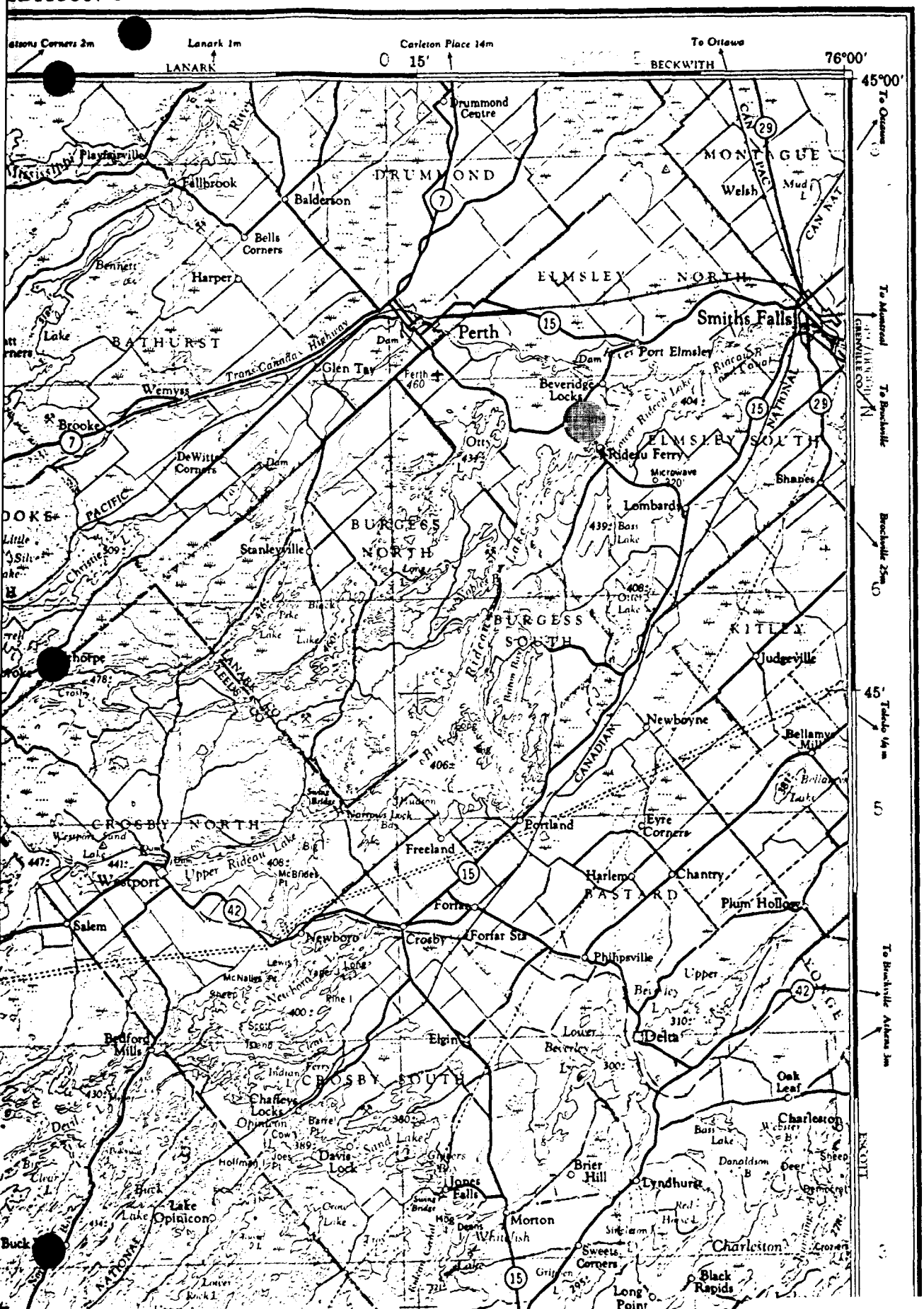
1"=40 chains
Figure 1
Claim Map
Pt. Elmsley Property

to the NW and Smiths Falls, 12 km to the east. Both towns are served by main highways and rail lines. Smiths Falls is a major railway junction for both Canadian Pacific and Canadian National Railways (Figure 2). The property is accessible by paved country roads. The road from Rideau Ferry to Port Elmsley forms the north boundary of the property. A high tension power line crosses the property along the Perth to Rideau Ferry road, and there is a transformer station 100 metres from the property boundary. The present use of the land is mixed arable and pasture farming with scattered patches of bush. A small creek runs across the property and will provide sufficient water for drilling and mining operations. The terrain is generally flat with elevations varying less than a few metres over the property and in the surrounding area.

HISTORY AND PREVIOUS WORK

The property is the site of the first producing graphite mine in Ontario. It was initially worked from 1870 to 1875 by the International Mining Company of New York. In 1893 it was examined and drilled by the National Graphite Co. The drilling served to prove up the graphite deposit, but no mining was carried out. In 1901, further drilling was carried out by R.A. Pyne, and in 1902 mining was commenced by Rinaldo McConnell. Production ceased from 1903 to 1908 but the mine was operated from 1908 to 1911 by the Globe Refining Co., and from 1915 to 1919 by the Globe Graphite Mining and Refining Co. Milling was carried out in the village of Port Elmsley. The property has been idle since 1919. Geological studies on the property were undertaken by Wilson of the Geological Survey of Canada in 1917 and the data were reviewed by Spence (1920) and by A.M. Bell of the Mineral Resource Sector of the Government in 1942. Figure 3 after Hewitt (1965) illustrates the graphite deposit on the property and the location of additional trenches and diamond drill holes to 1919. At the main

Military users, refer to this map as:	SERIES
Référence de cette carte pour usage militaire:	MAP
	EDITION



CONVERSION SCALE FOR ELEVATIONS
ÉCHELLE DE CONVERSION DES ÉLÉVATIONS

Metres 30 20 10 0
Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000 Feet
1000 Metres

TEN THOUSAND M
UNIVERSAL TRANSVERSE MER
ZONE 18

Figure 2
Location Map NTS 31C
Scale 1:250,000

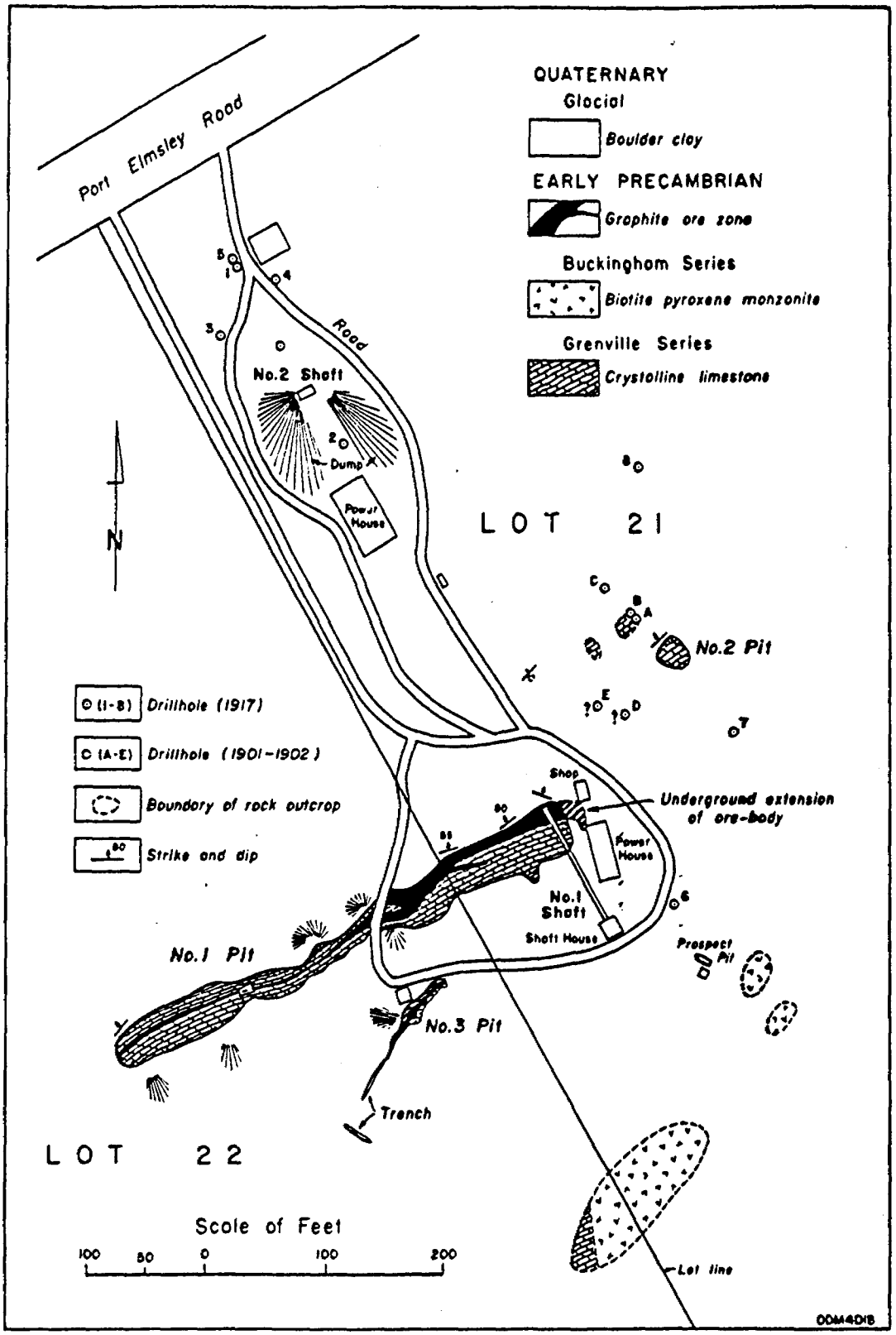


Figure 3. Globe Graphite mine, North Elmsley township, Lanark county. (Courtesy of Geological Survey of Canada).

showing (No. 1 Pit) a graphite body was exposed for a distance of 440 feet. A shaft at the east end of the pit commenced at an angle of 55^{o} and steepened to vertical following the ore near the crest of an anticline. Bell reports that the shaft appears to terminate at a depth of about 170 feet below surface. However, data published by Wilson and Spence suggests that the shaft reached a depth of 250 feet. Part of the discrepancy would appear to arise from the use of inaccurate scales on the technical drawings. Four levels were apparently established at 100, 150, 200 and 250 feet. Spence states that development on the 100, 150 and 200 foot levels proceeded in both directions from the shaft for a distance of about 200 feet along the orebody while the development on the 250 foot level was being carried out in an easterly direction towards the crest of the anticline.

Four hundred feet north of the main pit, a second shaft was sunk to a depth of 106 feet. From this shaft, two drifts were run 40 feet towards the north at depths of 50 and 100 feet.

Between 1893 and 1917, 27 diamond and one churn drill hole were reported but only the results for the holes numbered by Spence (1920) are available. Hole #5 intersected 16.5 feet of approximately 7% graphite from 91 to 109 feet, and is the probable reason for the sinking of the no.2 shaft. This graphite intersection does not appear to have any lateral or vertical extent. Hole #6 intersected 3 feet of 6% graphite from 29 to 32 feet. No graphite was reported from other holes.

Based on the plan of underground workings and descriptions of development Bell (1942) suggests that it is unlikely that over 20,000 tons of graphite ore were mined. Spence (1920) quotes the average graphite content of the ore milled from 1915 to 1918 as 8%.

GEOLOGY

The property is located near the southeastern edge of an inlier of Grenville Province rocks of Precambrian age (Figure 4) which is generally surrounded by flat-lying sandstones of the Nepean formation of Ordovician age. However, the southern and eastern parts of the property appear to be covered by a thin veneer of this sandstone. The following descriptions are based on studies by Wilson (1917) and by Bowdidge (1983, pers.comm.).

The crystalline rocks seen on the property (Figure 5) consist of marbles, quartzo-felspathic gneisses (meta-arkose) and pyroxenites which belong to the Grenville series and granites of Precambrian age.

The marble is a coarse, equigranular, generally well banded crystalline limestone. Mapping by Wilson (1961) indicates that marble is the predominant rock type in the region.

The quartzo-felspathic gneiss is a pinkish, fine-grained, poorly banded rock. It is interbedded with marble in pit 3 and pit 2.

The pyroxenite is a green to black, medium-grained rock in which diopside or augite predominate. It occurs at several localities around the former mine workings, and in the vicinity of the granite outcrops to the south.

LEGEND

To accompany Figure 4

PALÆOZOIC

ORDOVICIAN

LOWER ORDOVICIAN

BEEKMANTOWN (15,16)

16 — *OXFORD FORMATION: dolomitic limestone*

15 — *MARCH FORMATION: interbedded sandstone and dolomite*

ORDOVICIAN (?)

LOWER ORDOVICIAN OR EARLIER

14 — *NEPEAN FORMATION: sandstone, some conglomerate*

PRECAMBRIAN

12, 13 — **12.** *Pegmatite, lamprophyre*
13. *Meta - diabase*

11 — *Granite*

8 — **8.** *Syenite, quartz syenite*
9. *Diorite*
10. *Pyroxenite syenite*

Diorite; minor anorthosite; undifferentiated granite

6 — *Migmatitic rocks:* **6a**, *limestone - migmatite;* **6b**, *paragneiss - migmatite;* **6c**, *amphibolite - migmatite;* **6d**, *syenite - migmatite*

GRENVILLE SERIES (1–5)

4, 5 — **4.** *Amphibolite; undifferentiated granite*
5. *Hornblende rock*

3 — *Mainly biotite-garnet gneiss, with interbedded quartzite; minor biotite gneiss, biotite-feldspar gneiss, and biotite-hornblende gneiss; granitized sedimentary gneiss*

Quartzite; minor sedimentary gneiss

Crystalline limestone and dolomite; some garnet gneiss; metamorphic pyroxenite

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A — *Conglomerate; post-Grenville series, but possibly pre-Palaeozoic*

Figure 4
Geological Map 1"=1 mile
Pt. Elmsley Property

The granite is pink, even-grained, and locally weakly foliated. It is found in only one outcrop, south of the mine.

The regional strike of formations is NNE with a moderate to steep south-easterly dip. In the vicinity of the old mine dips and strikes are disturbed by a fold, whose importance in relation to the mineralisation is discussed below. The fold is an anticline which lunges to the NNE at about 30^0. The axial zone and part of the northwest limb are exposed in the main pit, but the south-east limb is not well exposed. It is not known whether there is a complementary syncline present.

MINERALISATION

The flake graphite zone developed in the No. 1 pit and the underground workings will be referred to as the main zone. For much of the length of this pit the zone is narrow, of low to moderate grade and consists of disseminations of graphite flakes in marble.

Bell (1942) provides a clear description of surface mineralisation, particularly in the No. 1 pit, much of which is not exposed at the present time due to heavy soil infilling. Graphite would appear to be associated principally with silicated zones in the marble (mapped as pyroxenite). He states that the graphite zones are lensey in character with bulges forming two main lenses. The east lens has a length of 250 ft. and an average width of about 7.5 ft. The greatest exposed width was 10 feet, ignoring the thick intersection on the crest of the anticline. To the west the zone narrows to around 4 feet for a distance of 70 feet, and then bulges out to 8 feet, for a further distance of 90 feet. It is reported to pinch out near the west end of the pit but Bell suggests that other ore lenses on the strike are possible. Within the pit

the average dip of the graphite zones is 55^{0} to the north and the strike is roughly ENE. At the extreme east end of the No. 1 pit, the graphitic zones and enclosing marble units turn abruptly to the south forming an anticline which pitches steeply to the northeast. Bell, however, suggests a pitch of about 30^{0} in the same direction. Measurements of geological dips by Bowdidge (pers.comm.) at the crest of the anticline also suggest a pitch of about 30^{0} to the northeast. At the crest of this fold the graphite zone reached a thickness of 40 feet. This zone near the surface is comprised of a series of three rich graphite bands separated by graphitic marble. The graphite content of the rich zones runs as high as 20% and that of the intervening marble averages from 3-5%. Wilson (1917) states that at the time of his investigation, the shaft extended to a depth of 250 ft. where the graphite zone consisted of two zones of high grade ore, 1 and 2 feet in width, separated by 15 feet of limestone grading 4.5% C (the average is 7.1% C over 18 ft. if the high grade zones averaged 20%) Wilson also notes that "the flake is of good quality and fair average size . In addition to the ordinary more or less equi-dimensional flake, small bodies of so-called 'needle flake' are met with. The latter consists of lath-shaped individuals whose length may be 5 or 6 times the width. Such material however, breaks down readily on milling, into particles of the ordinary flake form".

Several sampleswere taken by the author in the main zone at the positions noted on Figure 5. As noted previously most of the zone is now inaccessible due to flooding or heavy infilling of soil. Both PEG1 and PEG2 samples were located within the high grade zone and serve to confirm both the presence of graphite and the grade suggested by Wilson (roughly 20%).

Graphite was also reported in Pit No. 3 and this occurrence was examined briefly by the author. One sample assayed 4.04%. It is not clear what the relationship between the mineralisation in this zone and that found in the main zone might be, though it may represent a portion of the south limb of the main anticline.

GEOPHYSICAL SURVEYS

In an attempt to resolve some of the structural complexities of the main graphite zone, to determine if the zone has any obvious strike extensions and to establish whether other hidden graphite zones might be located on this property VLF EM-16 and partial horizontal loop electromagnetic surveys were undertaken on 50 ft. grid lines. The EM-16 instrument utilised the transmitter at Annapolis, Maryland (NSS, 21.4 khz) while the frequencies used for the horizontal loop survey were 444 hz and 1777 hz. The main portion of the surveys were conducted by C.R. Bowdidge and D. Dmitrovic, but three lines of the VLF survey were undertaken by the author.

Figures 6 and 7 illustrate the results of the EM-16 surveys. The in-phase data are relatively noisy and this is attributed to the fact that the transmitter azimuth of NSS was 360^{o} or about 45^{o} to the strike of the known geological units. Electromagnetic coupling to any conductive units would obviously be poor and secondary fields generated would be weak. Nevertheless 7 conductors were outlined. Almost all are of the inflection point variety with weak quadrature associations in the same sense as the in-phase inflection. Poor conduction is indicated, which may not be surprising considering the nature of the flake mineralisation.

Conductors 1 and 2 may conceivably be related in an S-fold pattern with the main graphite zone reflecting the central limb. Further VLF profiles to the west are necessary to clarify this situation. Zones 3 and 4 may be related in a similar S-pattern though the VLF response for Zone 4 is considerably diminished. Zones 5 and 7 show generally larger in-phase amplitudes and may reflect units of generally more conductive graphite which may or may not be related to potential grade. Zone 7 shows a particularly large amplitude on Line 50E with peak to peak amplitude of 35%. Zone 6, which extends from 350S to 0 shows a very weakened response with the best signature being outlined on Lines 150E and 200E.

Due to the low conduction of the graphite horizons, minimal horizontal loop responses were obtained, and only clearly on the 1777 hz data. Near the main zone, wide multiple graphite horizons separated by less than the coil spacing of the system have produced complicated multiple peaked quadrature responses with minimal in-phase correspondence. A probable interpretive scheme is noted on Figure 8 which in part corroborates the VLF interpretation for Zones 1 and 2. A weak conductive unit was also confirmed at the location of Conductor 4, and the edge of a wide conductive zone was noted near Zone 7. The 444 hz data is illustrated on Figure 9 while raw data for both frequencies are shown on Figures 10 and 11.

Magnetic data was only partly completed with the proliferation of magnetic refuse in the mine working negating the interpretation. The remainder of the data are inconclusive (Fig.12) with little or no magnetic effects apparent. The survey should be completed on the east side of the property, while the old data on the west side being reacquired with the new base level.

CONCLUSIONS AND RECOMMENDATIONS

A graphite zone of modest dimensions which has only been partly examined by underground workings to 250 feet, has been confirmed on the North Elmsley property. To the north and south of the main zone two VLF electromagnetic conductors may reflect the extensions of the known graphite horizon, the zones being interconnected in an S-fold pattern. Alternatively the conductors may reflect parallel horizons to the north and south. Horizontal loop surveys corroborate the fold hypothesis to some extent and also confirm that graphitic material remains in the vicinity of the old shaft and workings near 50E. If the three zones are in fact interconnected a continuous strike length of about 500 metres could be confirmed.

Near the old shaft and workings, the author has recommended two diamond drill holes (Figure 5) to test the downdip extension of the graphite zone at the 200 ft. (60m) level on sections 50E and 0. The holes will also serve to confirm the presence of graphite associated with conductive Zone 1, provided that the Zone is not synclinal and does not dip to the south. A third hold on section 50W will also test Zone 1 but will also intersect the main zone where it has not been previously drilled. Holes 4 and 5 will possibly determine whether Zone 2 constitutes the southern limb of the S-fold or whether it is another parallel trending individual graphitic unit. Hole 6 is recommended to test the southerly dipping mineralisation outlined in Pit No.3 In addition a total of 5 reconnaissance holes have also been recommended to test the other conductors on the property for their potential graphite content, though these holes may in some cases be respotted on the basis of new geophysical data.

VLF surveys are recommended on 50m lines with 12.5m stations on the remainder of the property to examine for extensions of the observed mineralised zones,

to outline new conductors, and to point out more structural complexities if they exist. In addition, a single VLF survey line at 90 to the present grid, extending from 250E to 100W through the nose of the anticline of the main zone and through the nose of the anticline for Conductors 3 and 4, is recommended in the hopes that further corroboration of the fold hypothesis will be evident. Further horizontal loop surveys are not recommended in future due to the low level of responses. In addition, due to the apparent lack of obvious sulfides within units on the property, SP surveys should be conducted on all lines to upgrade or downgrade apparent VLF conductors. If structural complexities begin to complicate the drilling picture, then applied potential or mise-a-la-masse surveys could be undertaken to correlate between graphitic zones. Magnetic surveys are recommended as noted in the text, in case other graphitic units are directly or indirectly associated with susceptible horizons.

Don G. Park

ESTIMATED PROGRAMME COSTS

Geophysical Surveys			
Linecutting	4.73 km @ $120/km	567.60	
VLF Surveys	6.67 km @ $ 60/km	400.20	
SP Surveys	11.62 km @ $ 90/km	1,045.80	
Mag Surveys	11.62 km @ $ 60/km	697.20	
		2710.80	2710.80
Diamond Drilling			
Main Zone 6 Holes	440m BQ @ $49/m	$21560.00	
5 Reconnaissance	200m	9800.00	
		$31360	31360.00
Support Costs			
1 Consultant 1 mo.		10500.00	
Assistant		3750.00	
Expenses Rm/Board/Travel $60/day/man		3600.00	
Assays $200 @ $16		3200.00	
Grade-Specification Tests		2000.00	
Vehicle Rental		1500.00	
		24550.00	
Contingencies	10%	2455.00	
		27005.00	27005.00
Total Estimated Costs			$61075.80

CERTIFICATE

I, Ian Gregory Park of the City of Toronto, Ontario do hereby certify that;

1) My address is 84 Simpson Avenue, Toronto, and my occupation is that of a Professional Geophysicist, and Geologist
2) I am a Graduate of the University of Toronto, 1969, with the degree of Bachelor of Science in Geology and I am a Graduate of Dalhousie University with the degree of Master of Science, 1971 in Geology.
3) I have been practising my profession since 1971.
4) I am a Fellow of the Geological Association of Canada and a Member of the Society of Exploration Geophysicists.
5) I have no interest, either directly or indirectly in the properties described in this report nor do I expect to receive any such interest.
6) The accompanying report is based on a personal examination in the field of the property as well as an extensive literature review.

Dated this 16th day of March, 1983 at Toronto, Ontario

Ian G. Park

L.M.B.

Ministry of Natural Resources
Ontario

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

(N. Elmsley)

The M

31C16NE0001 2.5699 ELMSLEY

900

Type of Survey(s): MAGNETIC	Township or Area: N. ELMSLEY
Claim Holder(s): ROBERT EKSTROM	Prospector's Licence No.: A 41078
Address: 1 ROLPH RD., TORONTO, ONT. M4G 3M3	
Survey Company: BOWDIDGE & ASSOCIATES LTD.	Date of Survey (from & to): 01 Day 06 Mo. 83 Yr. to 07 Day 12 Mo. 82 Yr.
Total Miles of line Cut: 4.8	
Name and Address of Author (of Geo-Technical report): IAN G. PARK, 84 SIMPSON AVE., TORONTO ONT M4K 1A2	

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
JUL 22 1983
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
EO	581432	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

MINING RECORDS OFFICE - TORONTO
RECEIVED
JUL 21 1983
12 1 2 3 4 5 6 7 8 9 10 11 PM

Checked out.
D.K.
please sign

Number of mining claims covered by this report of work: 1

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only		
Total Days Cr. Recorded: 20	Date Recorded: July 22 1983	Mining Recorder: D. Lalonde
	Date Approved as Recorded: Sept 10/83	Branch Director:

Date	Recorded Holder or Agent (Signature)
21 JULY 83	

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: COLIN R. BOWDIDGE, 118 MAPLE AVE. TORONTO, ONT. M4X 1E6

Date Certified	Certified by (Signature)
21 JULY 83	

L.H.B.

FILE # EO 581432

Ministry of Natural Resources — Ontario

Report of Work #83-23 (N. Elmsley Twp H-88)
(Geophysical, Geological, Geochemical and Expenditures)

The Mining Act 2.5699

Instructions – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): VLF-ELECTROMAGNETIC, HORIZ. LOOP E.M., GEOLOGICAL	Township or Area: N. ELMSLEY
Claim Holder(s): ROBERT EKSTROM	Prospector's Licence No.: 141078
Address: 1 ROLPH RD., TORONTO ONT M4G 3H3	
Survey Company: BOWDIDGE & ASSOCIATES LTD.	Date of Survey (from & to): 01 07 82 / 07 12 82 (Day Mo. Yr. / Day Mo. Yr.)
Name and Address of Author (of Geo-Technical report): IAN G. PARK, 24 SIMPSON AVE., TORONTO ONT. M4K1A2	Total Miles of line Cut: 4.8

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical – VLF Electromagnetic	40
	Geophysical – Magnetometer	
	Geophysical – Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical – H.L.E.M. Other	20
	Geological	20
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	Geophysical – Electromagnetic	
	Geophysical – Magnetometer	
	Geophysical – Radiometric	
	Geophysical – Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
JUL 22 1983
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
EO	581432				
	581433				
	581434				

MINING RECORDS OFFICE - TORONTO
RECEIVED
JUL 21 1983
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

see report statement

Total number of mining claims covered by this report of work: 3

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits
Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
240	July 22 1983	D. Lallemore
	Date Approved as Recorded	Date Disapproved

Date	Recorded Holder or Agent (Signature)
21 JULY 83	C.R.B.

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying
COLIN R. BOWDIDGE, 113 AMELIA ST., TORONTO ONT. M4X 1E4

Date Certified	Certified by (Signature)
21 JULY 83	C.R.B.

Ontario

Ministry of Natural Resources

File _____

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) HORIZONTAL LOOP, VLF-EM-16, GEOLOGY
Township or Area NORTH ELMSLEY TWP, LANARK CTY
Claim Holder(s) R. EKSTROM

Survey Company BOWDIDGE & ASSOC. LTD.
Author of Report IAN G. PARK
Address of Author 84 SIMPSON AVE, TORONTO
Covering Dates of Survey SEPT 82 / APRIL 83 (linecutting to office)
Total ~~Miles~~ Kilometres of Line Cut 7.3 km

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	–Electromagnetic	40
	–Magnetometer	
	–Radiometric	
ENTER 20 days for each additional survey using same grid.	–Other Electromagnetic	20
	Geological	20
	Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____ (enter days per claim)

DATE: _____ SIGNATURE: _____ Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
EO	581432
	581433
	581434

RECEIVED
JUN 14 1983
MINING LANDS SECTION

RECEIVED
JUL 21 1983
MINING LANDS SECTION

TOTAL CLAIMS 3

If space insufficient, attach list

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval 12.5 m Line spacing 50 m

Profile scale _____

Contour interval _____

MAGNETIC

Instrument Geometrics G-816 Proton Precession Magnetometer

Accuracy – Scale constant ±1γ Total field.

Diurnal correction method Base line looping N/A

Base Station check-in interval (hours) N/A

Base Station location and value See all base line values.

~~Number of Readings~~ (219)

ELECTROMAGNETIC

Instrument(s) Hunz Loop MaxMin II apex, VLF EM-16

Coil configuration Horizontal loop, N/A

Coil separation 100 m, Infinite

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency 444 hz / 1777 hz VLF 21.4 kHz NSS

(specify V.L.F. station)

Parameters measured In-Phase/Quad Quadrature/Quad.

Readings #/L (178) VLF (410)

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken_____

Total Number of Samples_____

Type of Sample_____
(Nature of Material)

Average Sample Weight_____

Method of Collection_____

Soil Horizon Sampled_____

Horizon Development_____

Sample Depth_____

Terrain_____

Drainage Development_____

Estimated Range of Overburden Thickness_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis_____

General_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others_____

Field Analysis (_____tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Field Laboratory Analysis

No. (_____tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Commercial Laboratory (_____tests)

Name of Laboratory_____

Extraction Method_____

Analytical Method_____

Reagents Used_____

General_____

Ontario

Ministry of Natural Resources

File _____

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) Magnetic
Township or Area North Clysley Twp., Lanark Cty
Claim Holder(s) R. Ekstrom

Survey Company Boreal Exper. Ltd
Author of Report Carl G Park
Address of Author 64 Simpson Ave, Toronto
Covering Dates of Survey Sept 82 / April/May 1983
(linecutting to office)
Total ~~Miles~~ Km of Line Cut 7.3 Km

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	–Electromagnetic	
	–Magnetometer	20
	–Radiometric	
ENTER 20 days for each additional survey using same grid.	–Other	
	Geological	
	Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: _____ SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
EO	581432

RECEIVED
JUN 17 1983
MINING LANDS SECTION

RECEIVED
JUL 21 1983
MINING LANDS SECTION

TOTAL CLAIMS _____

If space insufficient, attach list

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings 219

Station interval 12.5m Line spacing 50m

Profile scale _____

Contour interval _____

MAGNETIC

Instrument Geometrics G-816 Total Field Proton Precession Magnetometer

Accuracy – Scale constant ± 10 γ

Diurnal correction method Base line repetition

Base Station check-in interval (hours) ½ hour

Base Station location and value N/A all base line values

No of Rds (219)

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

2.5699

1984 10 10

Your File: 83-23
Our File: 2.5699

Mining Recorder
Whitney Block, Room 2548
99 Wellesley Street West
Queen;s Park
Toronto, Ontario
M7A 1W3

Dear Madam:

RE: Notice of Intent dated September 14, 1984
Geophysical (Electromagnetic and VLF)
and Geological Survey on Mining Claims EO 581432
et al in the Township of North Elmsley

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

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

Yours sincerely,

Lgd.

L D

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

D. Kinvig:mc

cc: Robert Ekstrom
1 Rolph Road
Toronto, Ontario
M4C 3M3

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

cc: Resident Geolggist
Huntsville, Ontario

Encl.

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.5699

Date 1984 09 14

Mining Recorder's Report of Work No. 83-23

Recorded Holder: ROBERT EKSTROM

Township or Area: NORTH ELMSLEY TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	EO 581432 to 34 inclusive
Electromagnetic 14 days	
Magnetometer ____ days	
Radiometric ____ days	
Induced polarization V.L.F. 28 days	
Other ____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 14 days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ Insufficient technical 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:

Ministry of
Natural
Resources

Ontario

Oct. 1/84

1984 09 14

Your File: 83-23
Our File: 2.5699

Mining Recorder
Whitney Block, Room 2548
99 Wellesley Street West
Queen's Park
Toronto, Ontario
M7A 1W3

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. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

R.D. Kinvig: mc

Encls.

cc: Robert Ekstrom
1 Rolph Road
Toronto, Ontario M4C 3M3

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

Ministry of Natural Resources

Ontario

Notice of Intent

for Technical Reports

1984 09 14

2.5699/83/23

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 Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.5699

Mining Lands Comments

You wanted to see this again

☑ To: Geophysics R. Barlow

Comments

☑ Approved ☐ Wish to see again with corrections | Date Aug 31/84 | Signature R. Barlow

☐ To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

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

83-22 & 83-23

2.5699

November 28, 1983

Robert Ekstrom
1 Ralph Road
Toronto, Ontario
M4G 3M3

Dear Sir:

RE: Geophysical (Electromagnetic, Magnetometer and VLF.) and Geological survey submitted on mining claims EO 581432 to 34 inclusive in the Township of North Elmsley

---

Enclosed are the Magnetometer and geological plans, in duplicate, for the above-mentioned survey. Please show the magnetometer survey profiles or contours, have the outcrops designated by colour, and return all of the maps to this office.

For further information, please contact Mr. F.W. Matthews at (416)965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

D. Kinvig:mc

Encl.

cc: Ian G. Park
84 Simpson Avenue
Toronto, Ontario
M4K 1A2

cc: Mining Recorder
Toronto, Ontario

Aug 10/83

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.5699

Mining Lands Comments

- mag not coloured
- geology not coloured

☒ To: Geophysics Mr. Barlow

Comments

- Magnetic maps need Contouring

☐ Approved ☒ ~~Wish to see again with corrections~~ Date Sept 27/83 Signature

☒ To: Geology - Expenditures Mr. Kustra Serv

Comments

If report is returned, please request geology map to be colored. Otherwise OK.

☒ Approved ☐ Wish to see again with corrections Date Sept 7/83 Signature C Kustra

☐ To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections Date Signature

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

1593 (81/10)

E.O. 581432

2.5699

1983 07 26

Mrs. R.M. Charnesky
Mining Recorder
Ministry of Natural Resources
Whitney Block, Room 2548
99 Wellesley Street West
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Madam:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) and Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims EO 581432 et al in the Township of North Elmsley.

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: Mr. Robert Ekstrom
1 Rolph Road
Toronto, Ontario
M4G 3M3

cc: Mr. Ian G. Park
84 Simpson Avenue
Toronto, Ontario
M4K 1A2

2.5699

	V.L.F.	H.E.M.	Geol.	Mon.				
EO.- 581432	3/4	✓	3/4	~✓			PRO-RATE GEOL.	
33	~✓	3/4	~✓				(20x3) ÷ (3+5/4) =	14.11 days
34	1/2	3/4	1/2					
PRO-RATE V.L.F.			PRO-RATE E.M.					
(40x3) ÷ (3+5/4) = 28			(20x3) ÷ (3+5/4) =		13.3 days		D.K.	

Drummond Twp

PERTH

C.P.R.

Tay River

Otty Lake

SRO

Rideau Canal

PORT ELMSLEY

Rideau Lake

RIDEAU FERRY

BRIGGS I.

SAND I.

Bass Lake

LOMBARDY

Otter Lake

Otter Creek

SMITH FALLS

C.N.R.

Montague Twp.

X IX VIII VII VI V IV III II I

30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

Kitley Twp.

THE TOWNSHIP OF

N. & S. ELMSLEY

DISTRICT OF EASTERN ONTARIO

EASTERN ONTARIO MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

NOTES

THIS MAP IS NOT TO BE USED FOR SURVEY PURPOSES.

Flooded Land Shown Thus:

400' Surface rights reservation around all lakes and rivers

PLAN NO.- M.88

MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

To Port Elmsley

Power Line

To Perth

Transformer Station

Power Line

CONCESSION VII.

CONCESSION VI.

0.0

50S

100S

150S

200S

250S

300S

350S

400S

450S

500S

550S

600S

650S

L350W

L300W

L250W

L200W

L150W

L100W

L50W

010

L50E

L100E

L150E

L200E

L250E

L300E

L350E

L400E

EO—5 8 1 4 3 2

EO—5 8 1 4 3 3

EO—5 8 1 4 3 4

DDH 1(-45°)

DDH 2(-45°)

DDH 3(-45°)

DDH 4(-45°)

DDH 5(-45°)

DDH 6

DDH(-45°)

No.2 shaft

No. 1 Pit

No. 2 Pit

No. 3 pit

SHAFT

Barn

Fence

Many slabs of Ss

Ss

mb

px

PEG 1(20.2%C)

PEG 2(26.2%C)

PEG 3(4.4%C)

100' level

150' level

16.5 ft. at 7% graphite (91 - 107.5)

3 ft. at 6% graphite (29-32 ft.)

1

2

3

4

5

6

7

LOT 22

LOT 21

LOT 21

LOT 20

To Rideau Ferry

LEGEND :

- Ss — Sandstone
- Granitic gneiss
- Pyroxenite
- mb — Marble
- Graphite zones
- VLF Conductor
- HLEM Conductor
- Outcrops
- DDH
- Pit (open, filled)
- DDH(-45°) Proposed D.D. Hole

PORT ELMSLEY GRAPHITE MINE

NORTH ELMSLEY TOWNSHIP

LANARK COUNTY, ONTARIO

GEOLOGY

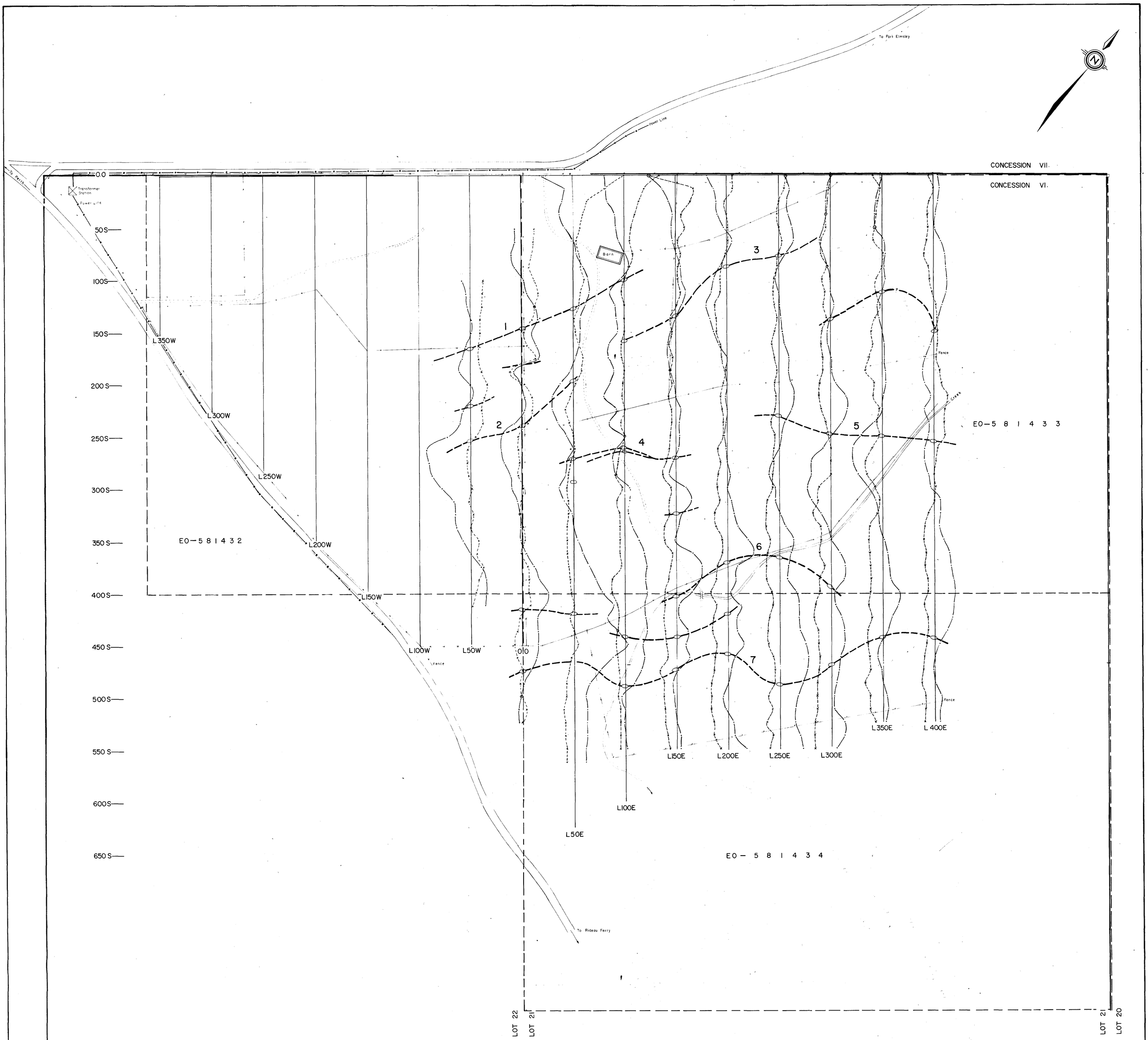
25699

Scale 1 : 1,250 — 50 25 0 25 50 m

SURVEYED BY

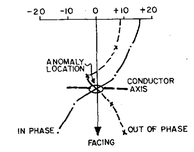
FIG. 5

Jay G Park March 23,



INSTRUMENT	:	GEONICS E.M-16
TRANSMITTER	:	NSS ANNAPOLIS, MD.
FREQUENCY	:	21.40 KHz.
OPERATOR	:	D.DMITROVIC
DATE	:	DEC. 12, 82

SCALE 1Cm = 10%



PORT ELMSLEY GRAPHITE MINE

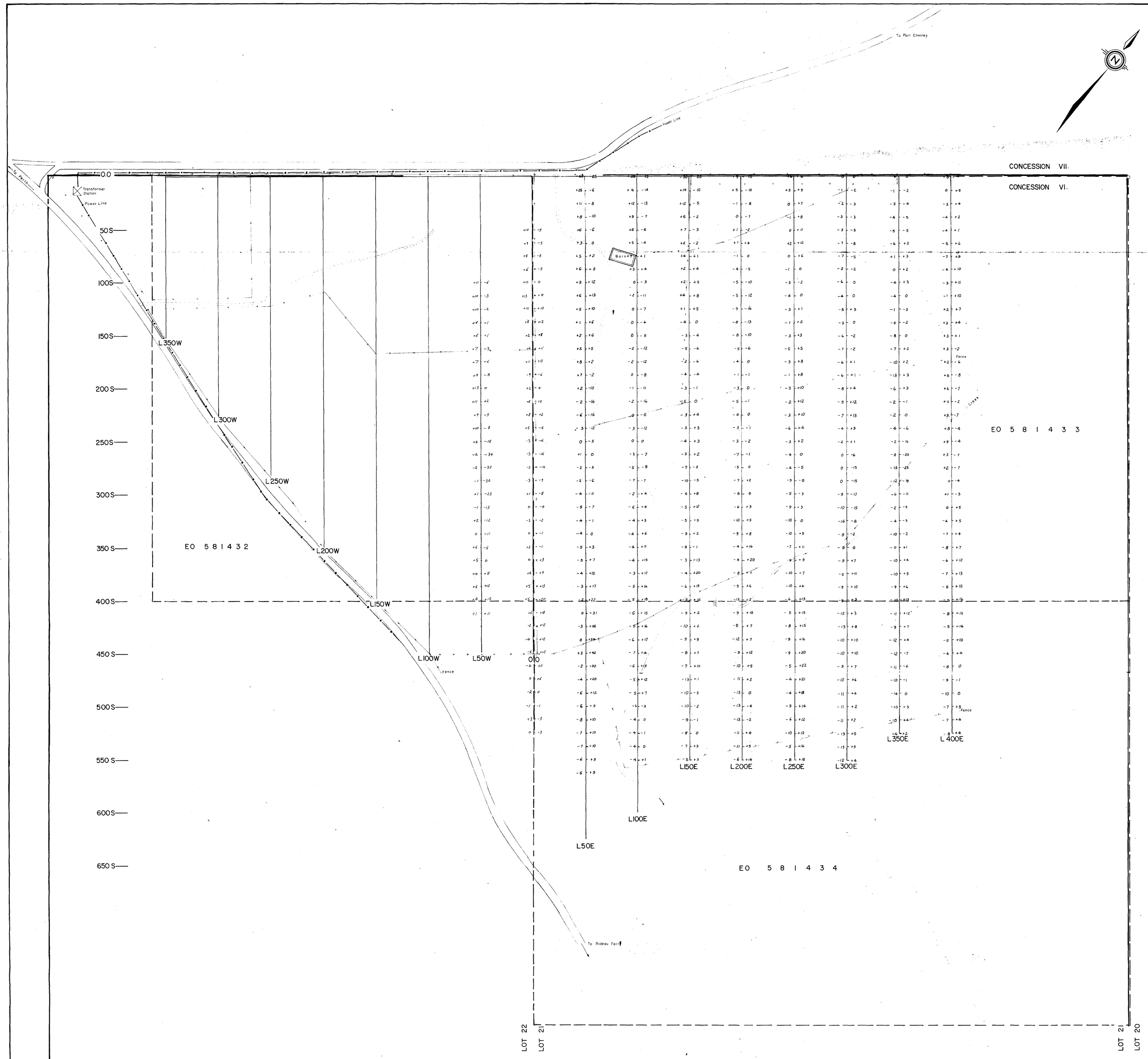
NORTH ELMSLEY TOWNSHIP
LANARK COUNTY, ONTARIO

V.L.F. ELECTROMAGNETIC SURVEY

Scale 1 : 1,250 — 50 25 0 25 50 m.

SURVEYED BY D.DMITROVIC — FIG. 6

Larry G. Park March 22/83



INSTRUMENT	: GEONICS E.M – 16
TRANSMITTER	: NSS ANNAPOLIS, MD.
FREQUENCY	: 21.40 KHz
OPERATOR	: D.DMITROVIC
DATE	: DEC 12, 82

FACING SOUTH

OUT OF PHASE | IN PHASE

-10 +7

-9 +5

+4 -8

PORT ELMSLEY GRAPHITE MINE

NORTH ELMSLEY TOWNSHIP

LANARK COUNTY, ONTARIO

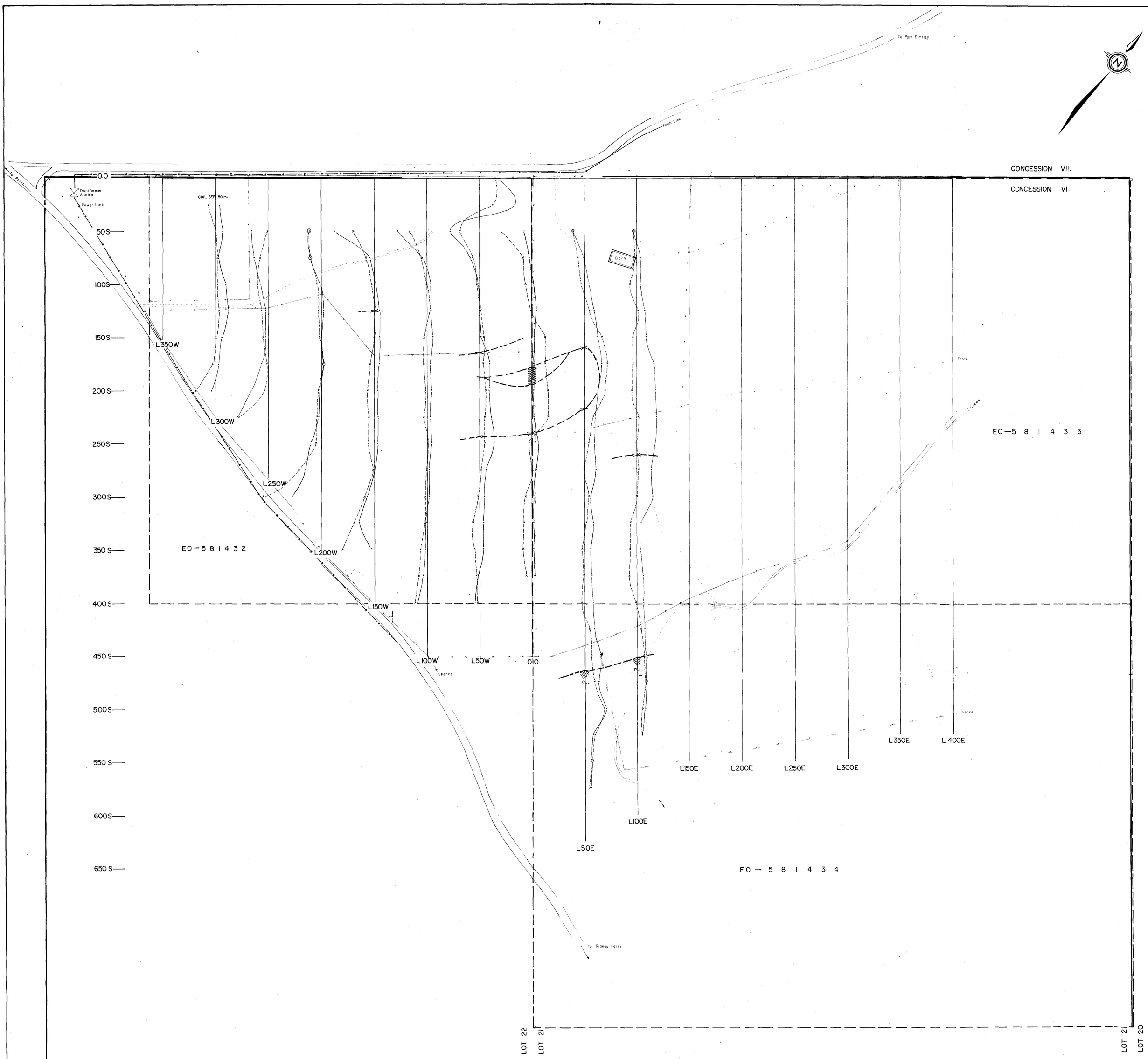
V.L.F. ELECTROMAGNETIC SURVEY

Scale 1 : 1,250 50 25 0 25 50 m.

SURVEYED BY D. DMITROVIC FIG. 7

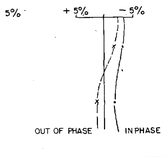
Geo G Peck March 29/83

230



LEGEND

INSTRUMENT	MAXMIN II.
COIL SEPARATION	100 m.
OPERATOR	D. DMITROVIC
DATE	DEC. 12, 82
PROFILE SCALE	1Cm = 5%



PORT ELMSLEY GRAPHITE MINE

NORTH ELMSLEY TOWNSHIP
LANARK COUNTY, ONTARIO

HORIZONTAL LOOP E.M. SURVEY
FREQUENCY 1777 Hz.

Scale 1 : 1,250 — 50 25 0 25 50 m.

SURVEYED BY D. DMITROVIC — FIG. 8

Gary G. Peck March 29/83

To Port Elmsley

Power Line

CONCESSION VII.

CONCESSION VI.

To Perth

0.0

Transformer Station

Power Line

GOIL SEP 50m.

50S

100S

150S

L350W

200S

L300W

250S

L250W

300S

350S

EO—5 8 1 4 3 2

L200W

400S

L150W

450S

L100W

L50W

0|0

Fence

Barn

Fence

Creek

EO—5 8 1 4 3 3

500S

550S

600S

650S

L50E

L100E

L150E

L200E

L250E

L300E

L350E

L 400E

Fence

EO — 5 8 1 4 3 4

To Rideau Ferry

LOT 22

LOT 21

LOT 21

LOT 20

LEGEND :

INSTRUMENT	MAXMIN II.
COIL SEPARATION	100 m.
OPERATOR	D. DMITROVIC
DATE	DEC. 12, 82
PROFILE SCALE	1Cm. = 5%

+5% −5%

OUT OF PHASE IN PHASE

PORT ELMSLEY GRAPHITE MINE

NORTH ELMSLEY TOWNSHIP

LANARK COUNTY, ONTARIO

HORIZONTAL LOOP E.M. SURVEY

FREQUECY 444 Hz.

Scale 1 : 1,250 50 25 0 25 50 m.

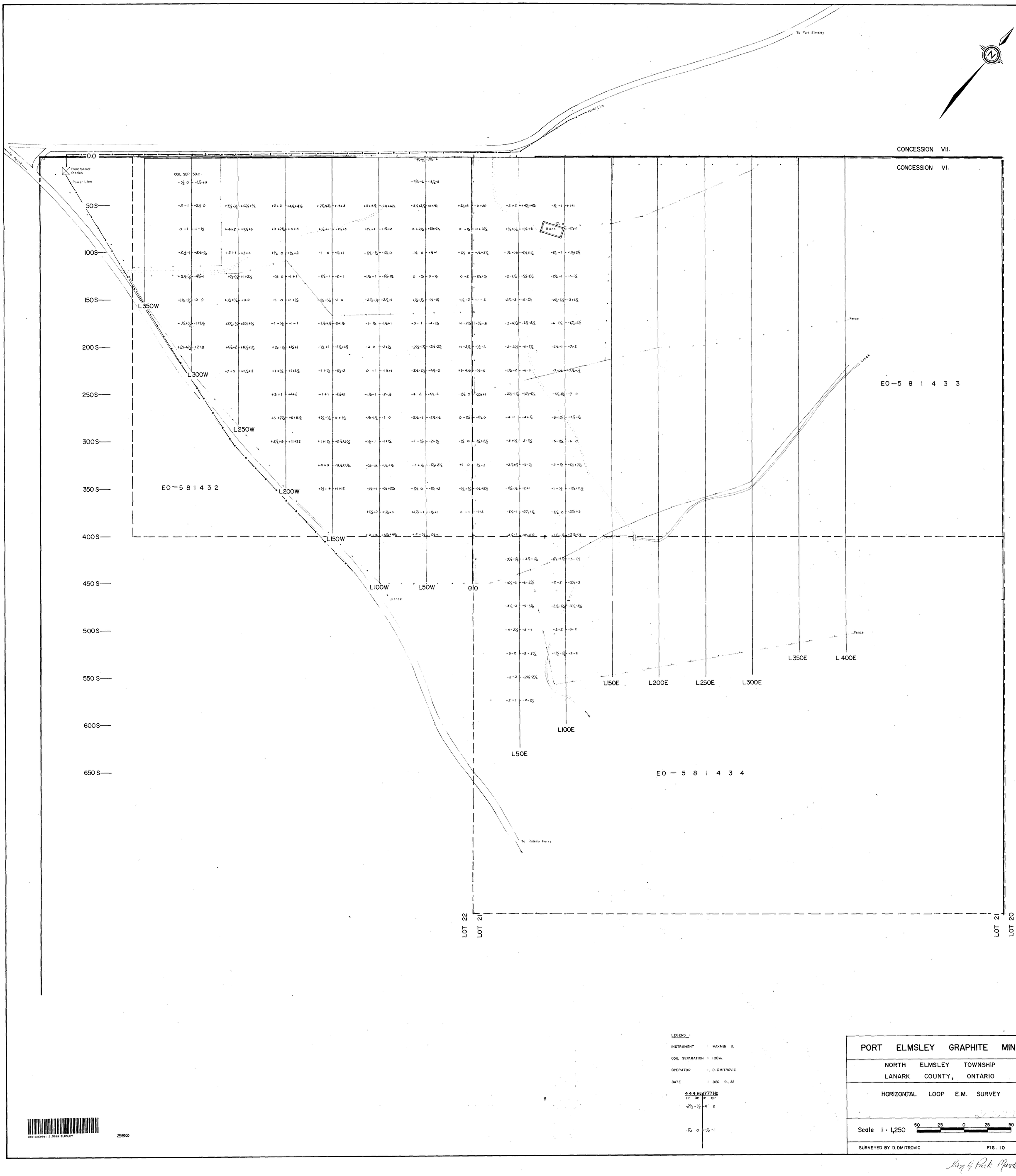
SURVEYED BY D. DMITROVIC

FIG. 9

31C16NE0001 2.5699 ELMSLEY

250

Ian G. Park March 23/83



LEGEND :

INSTRUMENT : MAXMIN II.

COIL SEPARATION : 100m.

OPERATOR : D. DMITROVIC

DATE : DEC. 12, 82

444 Hz / 777 Hz

IP	OP	IP	OP
-2½	-½	↔	0
-1½	0		-½ -1

PORT ELMSLEY GRAPHITE MINE

NORTH ELMSLEY TOWNSHIP

LANARK COUNTY, ONTARIO

HORIZONTAL LOOP E.M. SURVEY

Scale 1 : 1,250 (50 25 0 25 50 m.)

SURVEYED BY D. DMITROVIC

FIG. 10

Mary G Park March 23/83

To Port Elmsley

Power Line

CONCESSION VII.

CONCESSION VI.

To Perth

Transformer Station

Power Line

Barn

Fence

Creek

Fence

Fence

To Rideau Ferry

0+0

50S

100S

150S

200S

250S

300S

350S

400S

450S

500S

550S

600S

650S

L350W

L300W

L250W

L200W

L150W

L100W

L50W

L50E

L100E

L150E

L200E

L250E

L300E

L350E

L400E

EO-5 8 1 4 3 2

EO-5 8 1 4 3 3

EO-5 8 1 4 3 4

LOT 22

LOT 21

LOT 21

LOT 20

LEGEND :

Instrument : Geometrics Unimag G-836

Operator : D. Dmitrovic

Date : Sep. 82

Total magnetic field value 56,000 gammas

CONTOUR INTERVAL : 500, 1000, 1050, 1100, 1150 gammas

25699

PORT ELMSLEY GRAPHITE MINE

NORTH ELMSLEY TOWNSHIP

LANARK COUNTY, ONTARIO

MAGNETIC SURVEY

Scale 1 : 1,250 50 25 0 25 50 m.

SURVEYED BY D. DMITROVIC

FIG. 11

Wm G Pock
F26 27/69.

270