63.2136

KERR ADDISON

010

SMERRITT ALEXANDRA TOWNSHIP OPTION

ALEXANDRA TOWNSHIP, ONTARIO

The Smerritt claim group contains 30 claims located in west-central section of Alexandra Township, Porcupine Mining Division, Ontario numbered P 74539 and 40, P 88408 to 10 inclusive, P 89913 to 16 inclusive, and P 91668 to 88 inclusive.

Exploration of the claims consisted initially of an electro-magnetic reconnaissance survey covering property on north-south blazed lines at approximately 500' to 600' line intervals. Programme involved 15 miles of in-line type surveying; readings being taken at 100' stations controlled by pace and compass traverses, utilizing the Crone J.E.M. dual frequency instrument. Four conductors (listed 1 - 4) as shown on 400 scale plan were located, of which conductor area including conductors 1 to 3 warranted detail line-cutting and geophysical work. No.4 conductor did not warrant further interest as it was apparent that INCO had tested anomaly sufficiently by trenching and diamond drilling.

Results of detail survey are shown on 100 scale plan. Survey included 5 miles of line-cutting; line separation on grid 1 was 100' and on grid 2 was 200' with lines crossing conductor zones at right angles. The grids were covered geophysically using Crone instrument with in-line and vertical loop configurations, and also utilizing Sharpe Fluxgate and Askania magnetometers; stations were read at 50' intervals.

Geochemical soil sampling of "B" horizon was also performed over conductors with locations being tied into detail grids. 107 samples were taken which were sent to Technical Services Laboratory to be tested for Zn. content, determination method being hot extraction and atomic absorption. Sample results are shown on 100 scale plan.

Anomaly #1 on west shore of Moonbeam creek crossed outcrop exposure which indicated massive pyrrhotite and pyrite barren of base metal mineralization intruding fractures in a biotite-quartz paragneiss. On detailing anomaly #2 a drill hole (INCO) was located which indicated that anomaly was adequately tested. A surface showing on west boundary of claim group was similar to showing underlying #1 anomaly. Zinc content of soil samples was too low to arouse interest in any section of anomaly. No further work was recommended for programme.

Geophysical Survey:

The E.M. survey was completed using the Crone E.M. high and low frequency unit with operators travelling in line along picket lines for control using high frequency 1800 c.p.s. and checking any conductivity with low frequency 480 c.p.s. and by vertical loop.

The E.M. method involves the transmission of an alternating electromagnetic wave of a given frequency which penetrates the ground in the vicinity of a transmitting coil. This wave or field induces an electric current of any conductor on which it is incident. The flow of an alternating current in a conductor sets up its own or secondary radiating electromagnetic field. These two fields form a resultant whose configuration depends on the following characteristics of the sub-surface conductors: (1) size (2) shape (3) electrical conductivity (4) magnetic permeability and (5) frequency of the transmitted wave. To a lesser extent, the resultant is also dependent on material adjacent to the conductor, topography and surface conductivity. The direction of the resultant vector is measured by a small receiving coil timed to the frequency of the transmitted wave.

The basic geophysical survey employs high frequency (1800 cycles). The men are usually spaced 200 feet apart. Each man transmits and receives; and the dip angles are added together algebraically. Readings greater than 3 are considered significant, unless working along the extension of a conductor in which case lower readings may be of value.

If a conductor is present both positive and negative dip angles are obtained. When both men are one side of the conductor the reading is minus; when they straddle the conductor the reading is plus. The coil giving the angle is the coil nearest the conductor. The distance between the crossovers should equal, approximately the interval between the two men (200 feet). Positive angles are important as they frequently indicate vertical conductors close to surface.

The purpose of the "shoot back" method is to eliminate elevation effects. The main advantages of the method are:

1. The men traverse perpendicular to the strike.
2. It is sensitive to both vertical and horizontal conductors.
3. It has good penetration.

The magnitude of the angles depends on the conductivity of the body. The shape of the curve depends on the shape of the conductor. Note that as the conductor becomes wider and deeper the positive angles decrease or become non-existant. With banded multiple conductors the negative readings from one conductor may interfere with the positive readings from another making accurate interpretation difficult.

Noisy readings are most frequent over broad, clay conductors (e.g. on lake bottom). However they may occur in certain locations with the best of sulphide conductors.

Conductors may be caused by a number of geological conditions namely (1) graphitic slates, (2) massive bands of metallic sulphides, etc., (3) interlocked grains of sulphides and oxides and (4) ionized, solution filled, fault zones. It is important from the interpretation standpoint that as much be known about the geological environment as possible, if proper diagnosis is to be made from the results.

The equipment can also be used in a vertical loop configuration to more accurately pin-point the axis of a conductor. One core transmits from a position on or close to the conductor axis and a second coil receives at regular intervals along a line crossing the conductor axis. This method is frequently used in the detailed survey prior to a drill test.

The magnetometer survey was completed using both the Askania Torsion wire magnetometer and the Sharpe MF1 fluxgate magnetometer. The stations were read at 50 foot intervals, tied into a base station adjusted for diurnal variation and plotted.

Soil Samples:

Attached are results of soil samples determined for Zn. content taken over conductor area on the Alexandra Smerritt option.

Zinc content ranges from 7 ppm to 36 ppm. Background or threshold level was calculated to be 27 ppm. Readings of 30 ppm + are weakly anomalous but not indicative of a zinc deposit.

Anomalous readings were found on lines 12W to 24W and might be accounted for by deeper poorly drained swampy overburden. Conductor is weak at this location and on line 26W along N-S ridge where overburden is slight and conductor strong, zinc content is low in the soil.

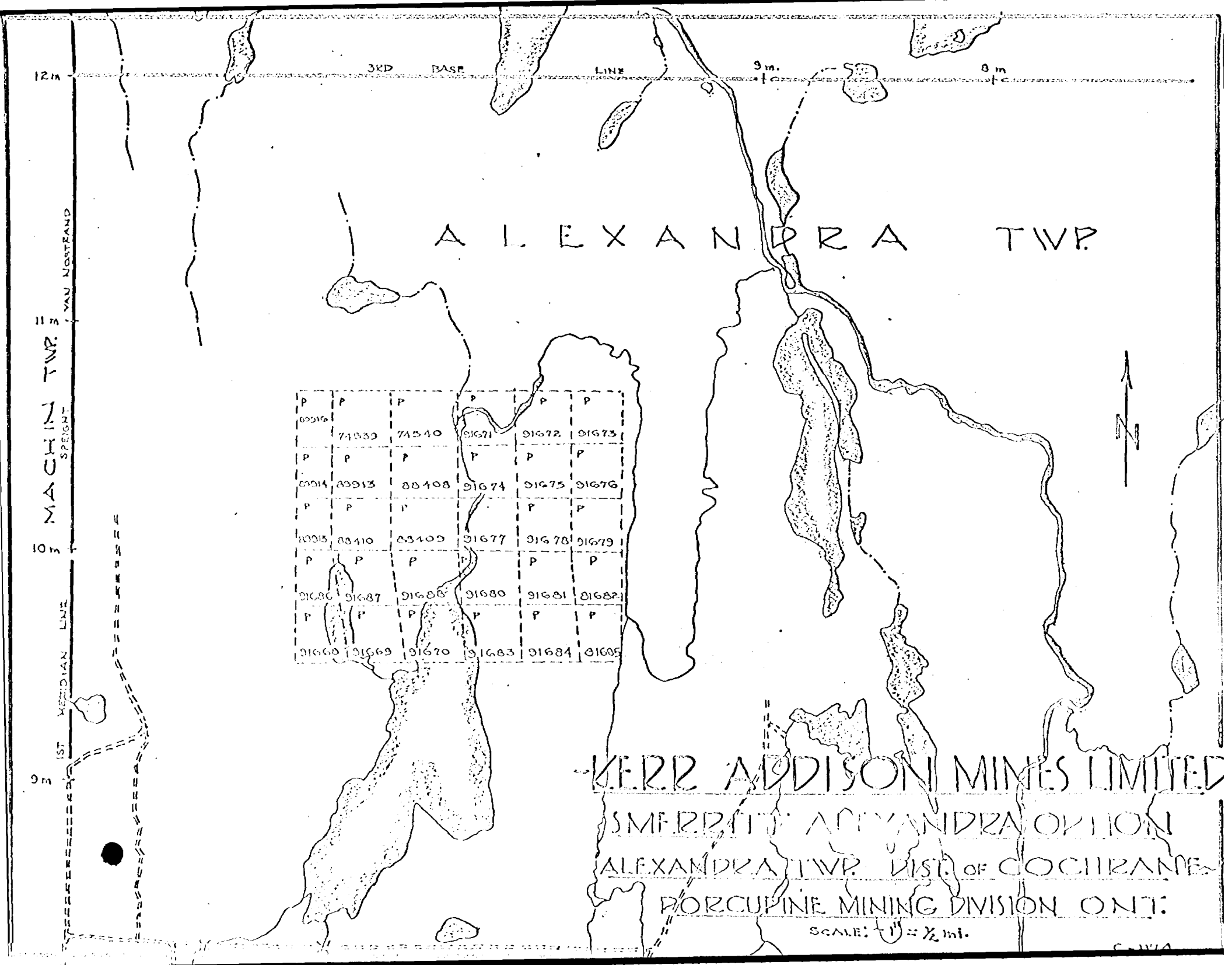
On lines 00 and 2W, two readings of 30 ppm are associated with magnetometer and E.M. coincidence. As INCO has drilled holes in this location, this section is not of interest.

On reviewing all our results, a mineralized zone of pyrrhotite and magnetite is indicated. No commercial sulphide mineralization is associated with anomalies and further diamond drilling does not appear necessary to substantiate this.

The 106 soil samples were sent to Technical Service Laboratories to have zinc determinations made on them by nitric acid hot extraction method. The cost being $1.20 per determination. Further check work for possible Cu. and Mo. to be decided when above results are obtained.

Attached is a memo outlining sample numbers and location of each sample.

D. Hendrick per Gm.
D. M. Hendrick.
G. Matheson
Jr. Geologists


12 m
3RD BASE LINE
9 m.
8 m
ALEXANDRA TWP.
11 m
VAN NOSTRAND
MACHIN TWP.
SPRIGHT
10 m
IST MERIDIAN LINE
9 m
P 89316
74539
74540
91671
91672
91673
P 89314
89313
88408
91674
91675
91676
P 89315
89410
89409
91677
91678
91679
P 91686
91687
91688
91680
91681
91682
P 91668
91669
91670
91683
91684
91685
KERR ADDISON MINES LIMITED
SMERRITT ALEXANDRA OPTION
ALEXANDRA TWP. DIST. OF COCHRANE
PORCUPINE MINING DIVISION ONT.
SCALE: 1" = ½ mi.

• CHEMICAL RESEARCH AND ANALYSIS
• INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
355 KING ST. W., TORONTO 2B, ONT., CANADA
TELEPHONE: 362-4248 — AREA 416

Representing . . .
JARRELL-ASH COMPANY
HILGER & WATTS LIMITED
SADTLER RESEARCH
ULTRA CARBON CORPORATION
METALS RESEARCH LIMITED

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Assayers Limited,
P.O. Box 665,
183 Gamble St. W
Rouyn, Quebec.

REPORT NO. T04664-1

SAMPLE(S) OF

Attn: Mr. M.J. Shaw

RESULTS IN PARTS PER MILLION

	SAMPLE No	Cu	Pb	Zn	Ag	Ni	Mo		
1	A-1 (L-2-E-00)			9					
2	2			18					
3	3			8					
4	4			7					
5	5			8					
6	6			11					
7	7			8					
8	8			8					
9	9			14					
10	A-10 (L100E-50S)			11					
11	11			13					
12	12			9					
13	13			15					
14	14			12					
15	15			15					
16	16			17					
17	17			19					
18	18			14					
19	19			18					
20	20			14					
21	21			19					
22	A-22 (L-4-E-150S)			17					
23									
24									

DATE Oct 25 - 66

SIGNED Anita Peirce

CTA

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• INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
355 KING ST. W., TORONTO 2B, ONT., CANADA
TELEPHONE: 362-4248 — AREA 416

Representing . . .
JARRELL-ASH COMPANY
HILGER & WATTS LIMITED
SADTLER RESEARCH
ULTRA CARBON CORPORATION
METALS RESEARCH LIMITED

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM

REPORT NO. T-04664-2

SAMPLE(S) OF

RESULTS IN PARTS PER MILLION

	SAMPLE No	Cu	Pb	Zn	Ag	Ni	Mo		
1	A-23 (L-4+00E 3+00S)			10					
2	24			23					
3	25			13					
4	26			11					
5	27			14					
6	28			18					
7	29			16					
8	30			15					
9	31			18					
10	A-32 (L-2+00E-4+50N)			20					
11	33			19					
12	34			18					
13	35			25					
14	36			18					
15	37			20					
16	38			(30)					
17	39			17					
18	40			18					
19	41			(37)					
20	42			(35)					
21	43			15					
22	A-44 (L-4+00-6+50N)			(36)					
23									
24									

DATE Oct 25 - 66 SIGNED Peter Read

CTA

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• INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
355 KING ST. W., TORONTO 2B, ONT., CANADA
TELEPHONE: 362-4246 — AREA 416

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM

REPORT NO. T04664-3

SAMPLE(S) OF

RESULTS IN PARTS PER MILLION

	SAMPLE No	Cu	Pb	Zn	Ag	Ni	Mo
1	A-45 (L-24W - 700 N)			18			
2	46			20			
3	47			15			
4	48			22			
5	49			18			
6	50			26			
7	51			25			
8	52			23			
9	53			23			
10	A-54 (L-26-W - 300 N)			(33)			
11	55			18			
12	56			20			
13	57			25			
14	58			31			
15	59			(35)			
16	60			28			
17	61			(30)			
18	63			27			
19	64			25			
20	65			21			
21	66			21			
22	A-67 (L-12-W - 60S)			(32)			
23							
24							

DATE Oct 25 - 66

SIGNED Inta Grund

CTA

• CHEMIC. RESEARCH AND ANALYSIS
• INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
555 KING ST. W., TORONTO 2B, ONT., CANADA
TELEPHONE: 362-4248 — AREA 416

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM

REPORT NO. T04664-4

SAMPLE(S) OF

RESULTS IN PARTS PER MILLION

	SAMPLE No	Cu	Pb	Zn	Ag	Ni	Mo		
1	A-68(L12W-00)			21					
2	69			(30)					
3	70			24					
4	71			37					
5	72			22					
6	73			27					
7	74			25					
8	75			17					
9	76			20					
10	77			17					
11	A-78(L-10W-3+50N)			24					
12	79			19					
13	80			25					
14	81			15					
15	82			18					
16	83			19					
17	84			19					
18	85			20					
19	86			19					
20	87			30					
21	88			18					
22	A-89(L-6W-100N)			15					
23									
24									

DATE October 25-66 SIGNED Peter Read

CTA

• CHEMIC RESEARCH AND ANALYSIS
• INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
555 KING ST. W., TORONTO 2B, ONT., CANADA
TELEPHONE: 362-4248 — AREA 416

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM

REPORT NO. T04664-S

SAMPLE(S) OF

RESULTS IN PARTS PER MILLION

	SAMPLE No	Cu	Pb	Zn	Ag	Ni	Mo		
1	A-90 (L-6-N-40N)			12					
2	91			18					
3	92			20					
4	93			16					
5	94			20					
6	95			20					
7	96			15					
8	97			18					
9	98			19					
10	99			15					
11	A-100 (L-2N. 300 N 10 FSL)			12					
12	101			15					
13	102			20					
14	103			15					
15	104			17					
16	105			20					
17	106			30					
18	107			19					
19	A103 (L-2-N. 240S)			19					
20									
21									
22									
23									
24									

DATE Oct 25-66 SIGNED [signature]

CTA

ALEXANDRA TOWNSHIP SOIL SAMPLING

	Sample No.	Location	Assay
[illegible]	1	00	
	2	0+50 S	
	3	1+00 S	
	4	2+00 S	
	5	3+00 S	
	6	4+00 S	
	7	0+50 N	
[illegible]	9	0+50 N	
	10	0+50 S	
	11	1+40 S	
	12	2+00 S	
	13	3+00 S	
	14	4+00 S 10 E	
[illegible]	8	10 E	
	15	0	
	16	0+40 S	
[illegible]	17	00	
[illegible]	18	2+00 S	
	19	1+00 S	
	20	00	
[illegible]	21	1+00 N	
	22	1+50 S	
	23	3+00 S	
[illegible]	24	1+00 S	
	25	0+20 S	
	26	0+50 N	
	27	1+00 N	
	28	1+50 N	
	29	2+00 N	
	30	2+50 N	
	31	3+50 N	
	32	4+50 N	

Alexandra Twp. Soil Sampling

Line	Sample No.	Location	Assay
00	33	20 W	
	34	1+00 S	
	35	0+50 N	
	36	1+00 N	
	37	1+50 N	
	38	2+00 N	
2 W	100	3+00 N	10 f. s-w
	101	4+00 N	
	102	5+00 N	
	103	2+50 N	
	104	2+00 N	
	106	1+00 N	
	107	0+50 N	
	108	2+00 S	
4 W	92	0+40 S	
	93	00	
	94	0+50 N	
	95	1+00 N	
	96	1+50 N	
	97	2+15 N	
	98	2+50 N	
	99	3+00 N	
6 W	84	4+00 N	
	85	3+00 N	
	39	5+00 N	
	86	2+50 N	
	87	2+00 N	
	88	1+50 N	
	89	1+00 N	
	90	0+40 N	
	91	1+00 S	
8 W	82	2+30 N	
	83	3+00 N	
10 W	76	4+50 N	
	77	4+00 N	
	78	3+50 N	
	79	2+50 N	
	80	00	
	81	1+00 S	20 E
12 W	67	0+60 S	
	68	00	
	69	1+00 N	
	70	1+50 N	
	71	2+00 N	
	72	2+50 N	

Alexandra Twp. Soil Sampling

Line	Sample No.	Location	Assay
32 W	73	3+00 N	
	74	4+00 N	
	75	5+00 N	
28 W	63	4+00 N	
	64	4+50 N	
	65	5+00 N	
	66	5+75 N	
20 W	55	5+00 N 50 E	
	56	4+50 N	
	57	4+00 N	
	58	2+90 N	
	59	2+50 N	
	60	2+00 N	
	61	1+50 N	
24 W	40	4+50 N	
	41	5+00 N	
	42	5+50 N	
	43	6+00 N	
	44	6+50 N	
	45	7+00 N	
	46	8+00 N	
	47	9+00 N	
26 W	48	7+00 N	
	49	6+50 N	
	50	5+00 N	
	51	4+50 N	
	52	4+00 N	
	53	3+50 N	
	54	3+00 N	

TRIM LINE

Hurdman Twp.(M.509)

Machin Twp.(M.1025)

Webster Twp.(M.612)

Haggart Twp.(M.488)

THE TOWNSHIP OF 63.2136

ALEXANDRA

DISTRICT OF COCHRANE

PORCUPINE 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	
CANCELLED	C

NOTES

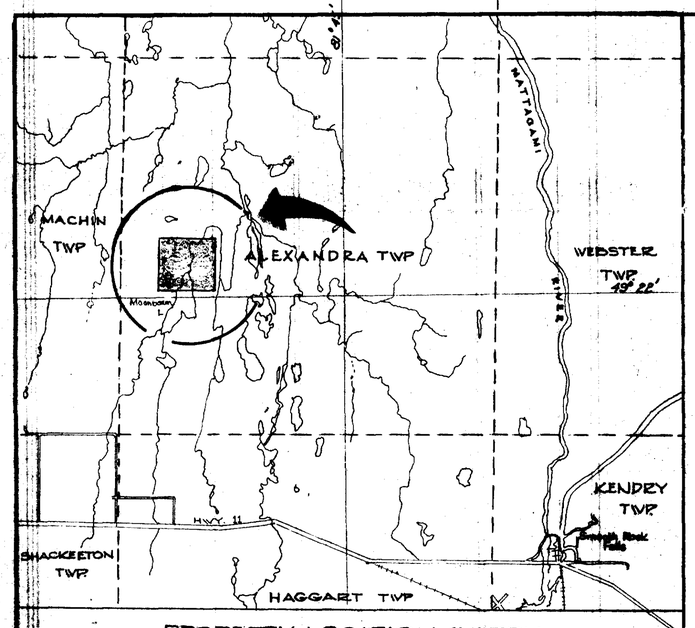
THE SUBDIVISION OF THIS TWP., SURVEYED BY WALTER BEATTY O.L.S., AS SHOWN ON PLAN DATED 23RD DEC. 1910, IS ANNULLED UNDER AUTHORITY OF SUBSECTION 1, SECTION 11, OF PUBLIC LANDS ACT, 21TH. JUNE 1962. MINING CLAIMS MAY BE STAKED AS IN UNSUBDIVIDED TERRITORY.

400' Surface Rights Reservation Around All Lakes And Rivers.

PLAN NO.- M.1867

DEPARTMENT OF MINES
– ONTARIO –

TRIM LINE



-PROPERTY LOCATION SKETCH-

SCALE: 1" = 2 miles

SURVEY DATA

INSTRUMENT M.F-1 FLUXGATE MAG. & ASKANIA TORSION MAG. CRONE J.E.M. VERTICAL LOOP

OPERATORS MACIEJ, PEACOCK, JOHNSON.

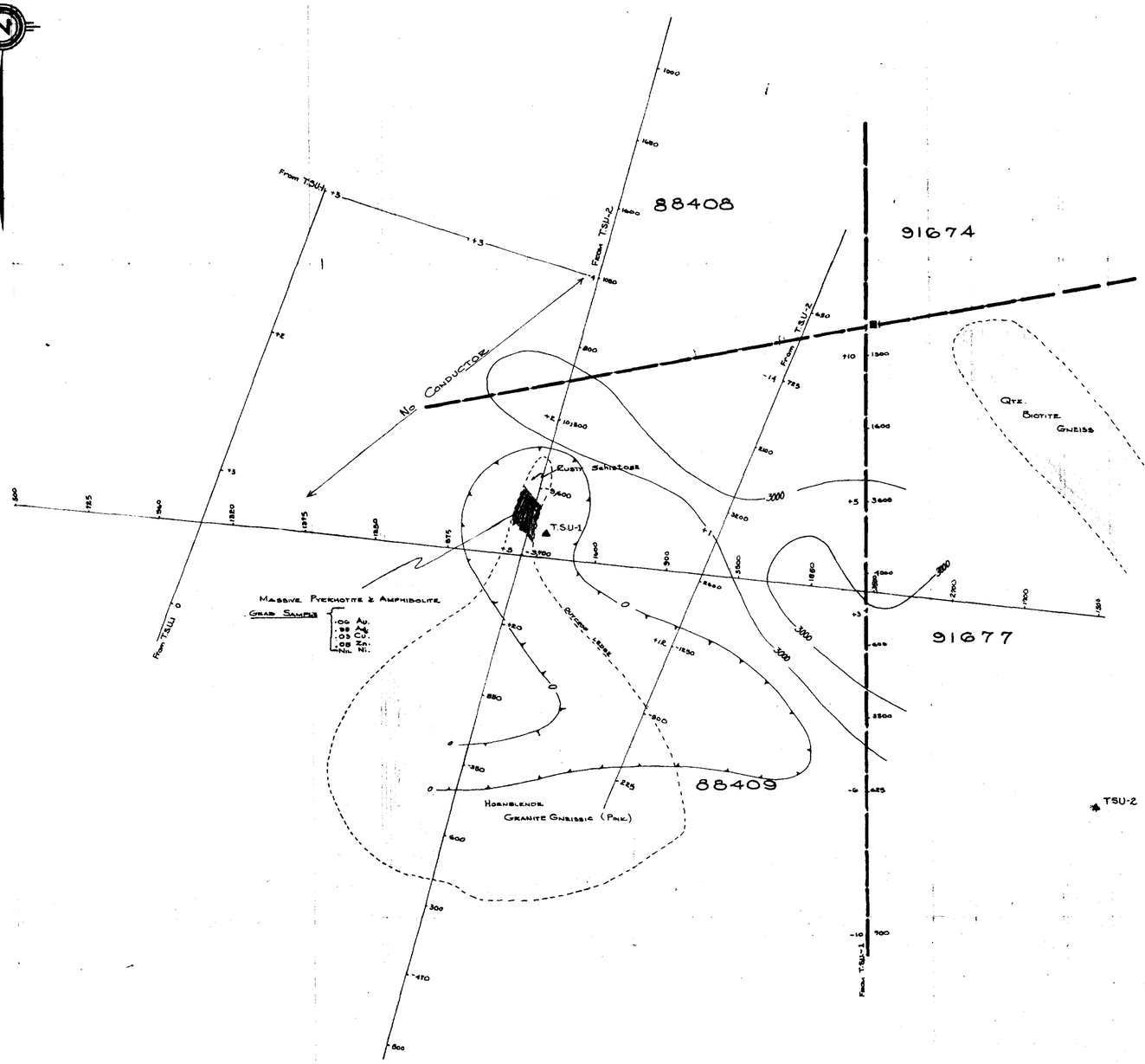
READINGS MAG. @ 25' INTERVALS. E.M. @ 50' INTERVALS

▲T.S.U.-1 TRANSMITTER SET UP. # 1

From T.S.U.-1 READINGS FROM TRANSMITTER SET UP # 1

-LEGEND-

- OUTCROP
- CONTACT
- STRIKE, & DIP OF SCHISTOSITY (50)
- SULPHIDE SHOWING



KERR ADDISON MINES LIMITED

SMERRITT ALEXANDRE OPTION

GEOLOGICAL,

MAGNETIC AND ELECTROMAGNETIC SURVEYS

ALEXANDRA TWP. TIMISKIMING MINING DIVISION

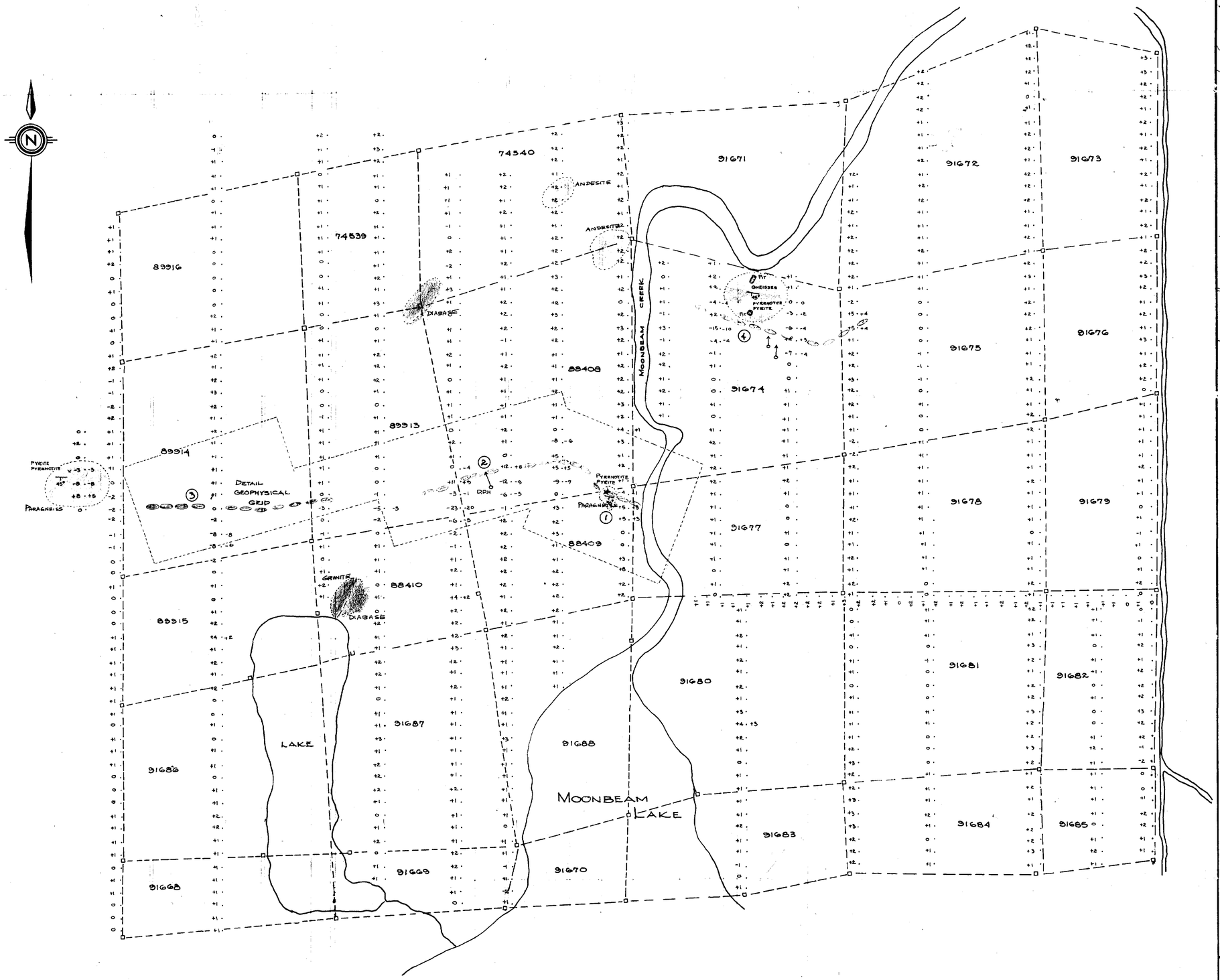
DISTRICT OF COCHRANE

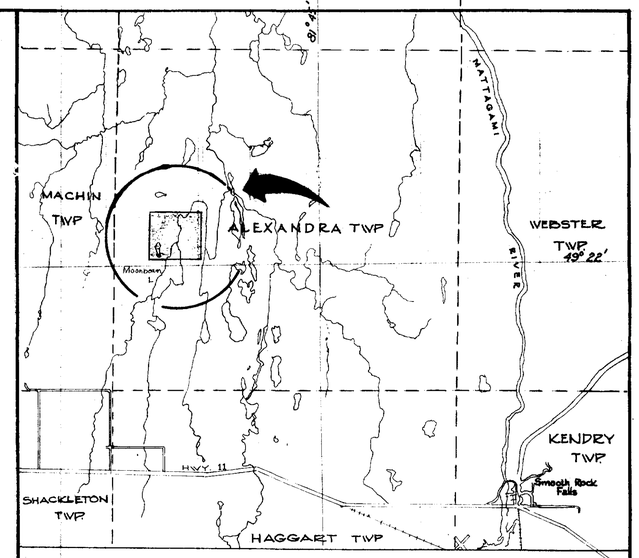
ONTARIO

SCALE: 1" = 25' SEPT 1966

Drawn by J.E.S.

1/210





-PROPERTY LOCATION SKETCH-

SCALE: 1" = 2 miles

SURVEY DATA

METHOD IN LINE 200' COIL SEPARATION

INSTRUMENT CRONE HIGH & LOW FREQUENCY

OPERATORS MACIES, PEACOCK, JOHNSTON.

READINGS @ 100' INTERVALS
H.F. LEFT SIDE OF LINE
L.F. RIGHT SIDE OF LINE

-LEGEND-

- OUTCROP
- CONTACT
- STRIKE, & DIP OF SCHISTOSITY (50°)
- X SULPHIDE SHOWING
- CONDUCTOR AXIS
- GRANITE
- DIABASE
- PARAGNEISS
- ANDESITE

-KERR ADDISON MINES LIMITED-

SMERRITT ALEXANDRE OPTION

CRONE J.E.M. RECONAISSANCE SURVEY

ALEXANDRA TWP TIMISKIMING MINING DIVISION

DISTRICT OF COCHRANE

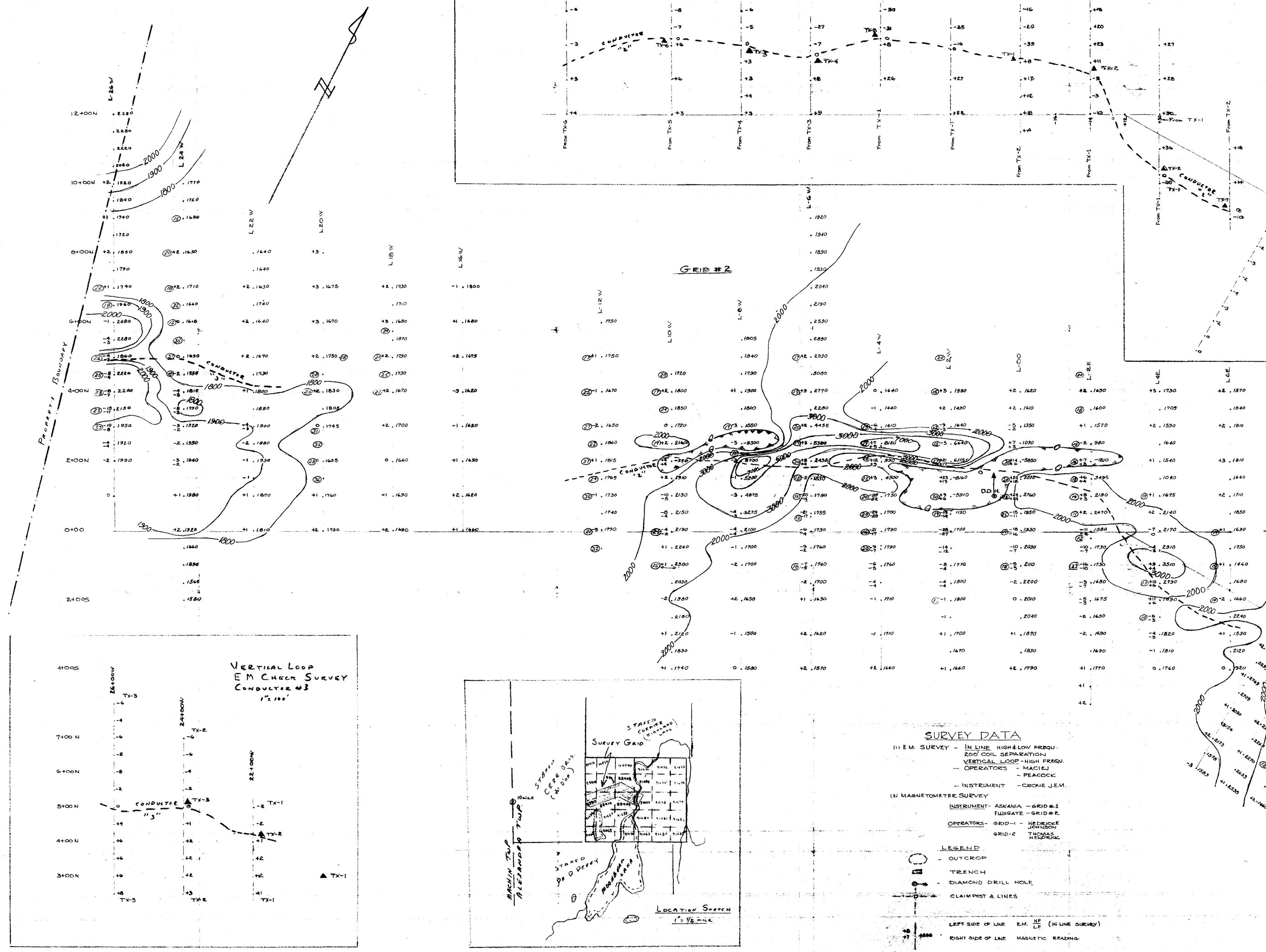
ONTARIO

SCALE: 1"= 400'

SEPT 1966

DRAWN by J.E.S.

63.2136


L-26 W
L-24 W
L-22 W
L-20 W
L-18 W
L-16 W
L-14 W
L-12 W
L-10 W
L-8 W
L-6 W
L-4 W
L-2 W
L-0
L-2E
L-4E
L-6E
12+00N
10+00N
8+00N
6+00N
4+00N
2+00N
0+00
2+00S
Property Boundary
Conductor "2"
Conductor "3"
GRID #2
GRID #1
Claim 8840S
Claim 9474
Claim 8841
Claim 8842
Claim 8843
Claim 8844
Claim 8845
Claim 8846
Claim 8847
Claim 8848
Claim 8849
Claim 8850
Claim 8851
Claim 8852
Claim 8853
Claim 8854
Claim 8855
Claim 8856
Claim 8857
Claim 8858
Claim 8859
Claim 8860
Claim