



41010NE0093 2.14522 CUNNINGHAM

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W. TROUP & B. OTTON  
SUMMARY WORK REPORT  
FOR 1991 ON  
THE ISAIAH CREEK PROPERTY  
CUNNINGHAM TOWNSHIP  
N.T.S. 41/0/NE

2.14522

JULY 1991

W.R. TROUP

2.1844 *Qual.*

## SUMMARY

In June and July of 1991, William Troup and Barry Otton completed geological mapping, prospecting, humus geochemical sampling and ground geophysics (ie: Horizontal Loop and Mag) over select portions of the Isaiah Creek Property situated in the northwest sector of Cunningham Township. The property is underlain by an east-west trending sequence of mafic and felsic volcanics, intruded locally by diorite peridotite and granitic stocks. Surface sampling and prospecting confirmed the presence of stringer sphalerite and chalcopyrite mineralization within a graphitic chert-argillite horizon, which extends for approximately 1,400 feet along a felsic-mafic volcanic contact.

The observed stringer mineralization extends locally for up to 200 feet into the footwall felsic volcanics south of the chert-argillite horizon. The horizontal loop survey confirmed the presence of a weak to moderate strength E.M. anomaly, coincident with the cherty argillite horizon.

The geological environment that hosts the observed copper-zinc mineralization represents a favourable host for volcanogenic massive sulphide mineralization. Diamond drilling is warranted to evaluate the economic potential of the mineralized chert unit.



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## INTRODUCTION

In June and July of 1991, 10km of grid was established over the eastern 6 claims of the Isaiah Creek property, with north-south cross lines spaced at 100 metre intervals and in line stations established at 20 metre intervals.

The base line was extended in a westerly direction from the western limit of the eastern grid to allow for the establishment of two additional cross lines, (line 11+00W & 12+00W), to ground check an A.E.M. anomaly of unknown cause. In cutting the main eastern grid, care was taken to position grid lines and stations to coincide with those of a previous survey grid established by Kidd Creek in 1981-82. Prospecting and mapping was directed along trend of a chert-argillite horizon which correlates with a shallow H.E.M. anomaly of variable conductivity, previously delineated by Kidd Creek Mines. Several occurrences of zinc, lead and copper were located along a 1,400 feet section of the chert horizon.

A Max-Min II A.E.M. survey was carried out over the newly established grid. The parameters of the survey were designed to test for conductivity to a depth of approximately 100 metres (approximately twice the depth of penetration of the earlier Kidd Creek Survey). The survey suggests that the conductive chert horizon continues and is locally more conductive with increased depth.

Humus Geochemical sampling was completed on select lines in the east and west portions of the property where outcrop was lacking. No obvious soil anomalies were delineated.

## PROPERTY, LOCATION AND ACCESS

The Isaiah Creek property consists of 15 unpatented mining claims located in the Porcupine mining Division of Ontario. The claims are indicated on claim map G-1095. A portion of this map is presented in figure 2 of this report.

Cunningham Township is located approximately 125 miles north of Sudbury, and 80 miles southwest of Timmins. The main highway between Gogama and Chapleau passes 11 miles south of the claim group. Recent logging operations have provided road access to within 2,640 feet of the south boundary of the property.

The town of Sultan is located 11 miles to the south. The Canadian Pacific Railway passes through Sultan.

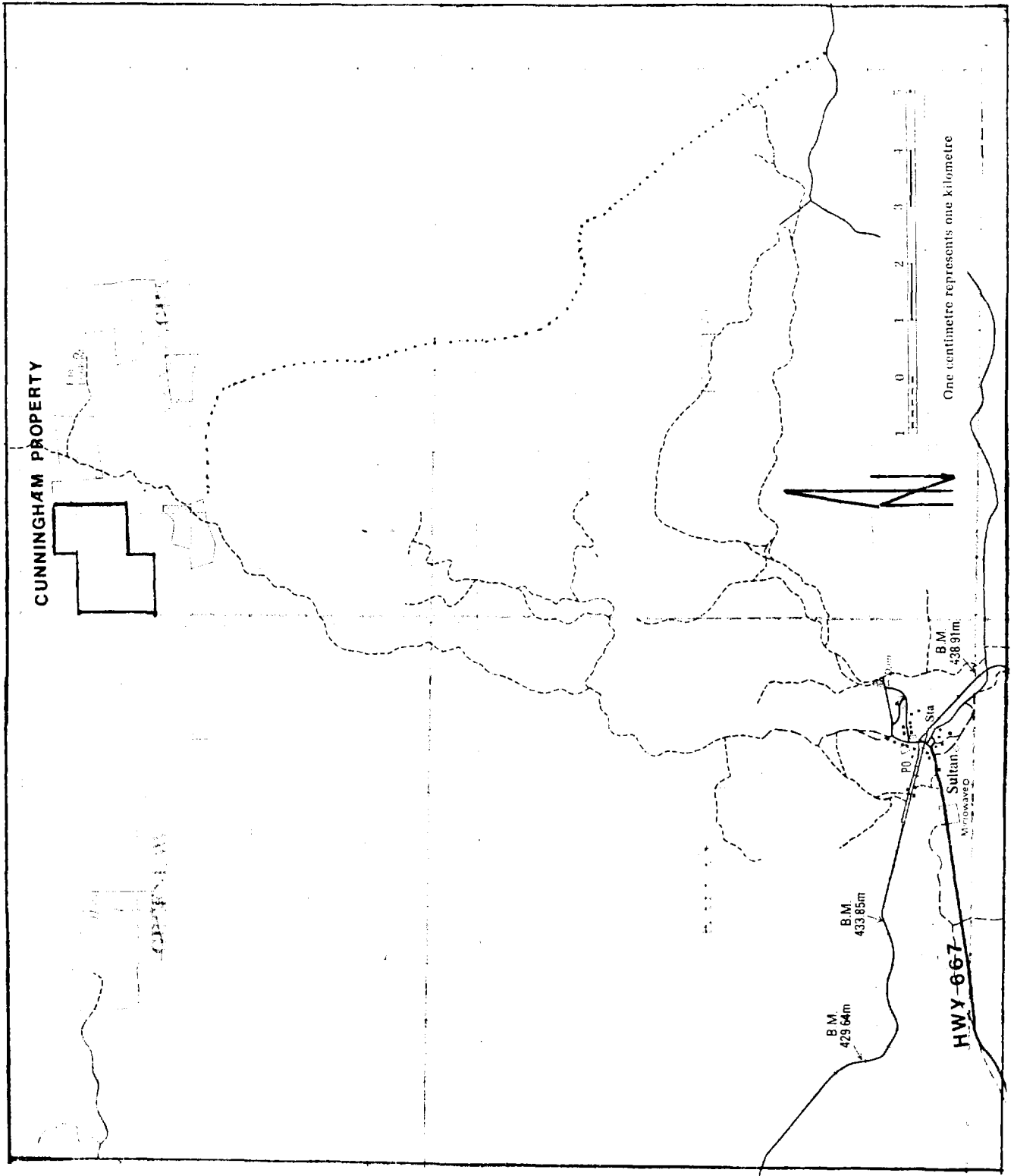
The property was staked on behalf of Mssrs Troup and Otton in August of 1990.

## PREVIOUS WORK

Numerous companies and individuals have worked and prospected throughout Cunningham Township since early in the 1900's. To date, work has been focused on lead and zinc mineralization found in several bands of iron formation, of which the most notable is the Shunsby prospect in the north central part of the township.

Cunningham Township was mapped for the Ontario Department of Mines, by V.B. Meen, in 1941 and by G.M. Siragusa for the Ontario Geological Survey in 1978.

In 1980 the Ontario government flew a Questor A.E.M. Survey over Cunningham Township and the surrounding area. In the area of the Isaiah Creek property, a series of anomalies were outlined along trend of the mineralized iron formation, that to the east is an apparent host to the Shunsby Cu-Zn deposit.

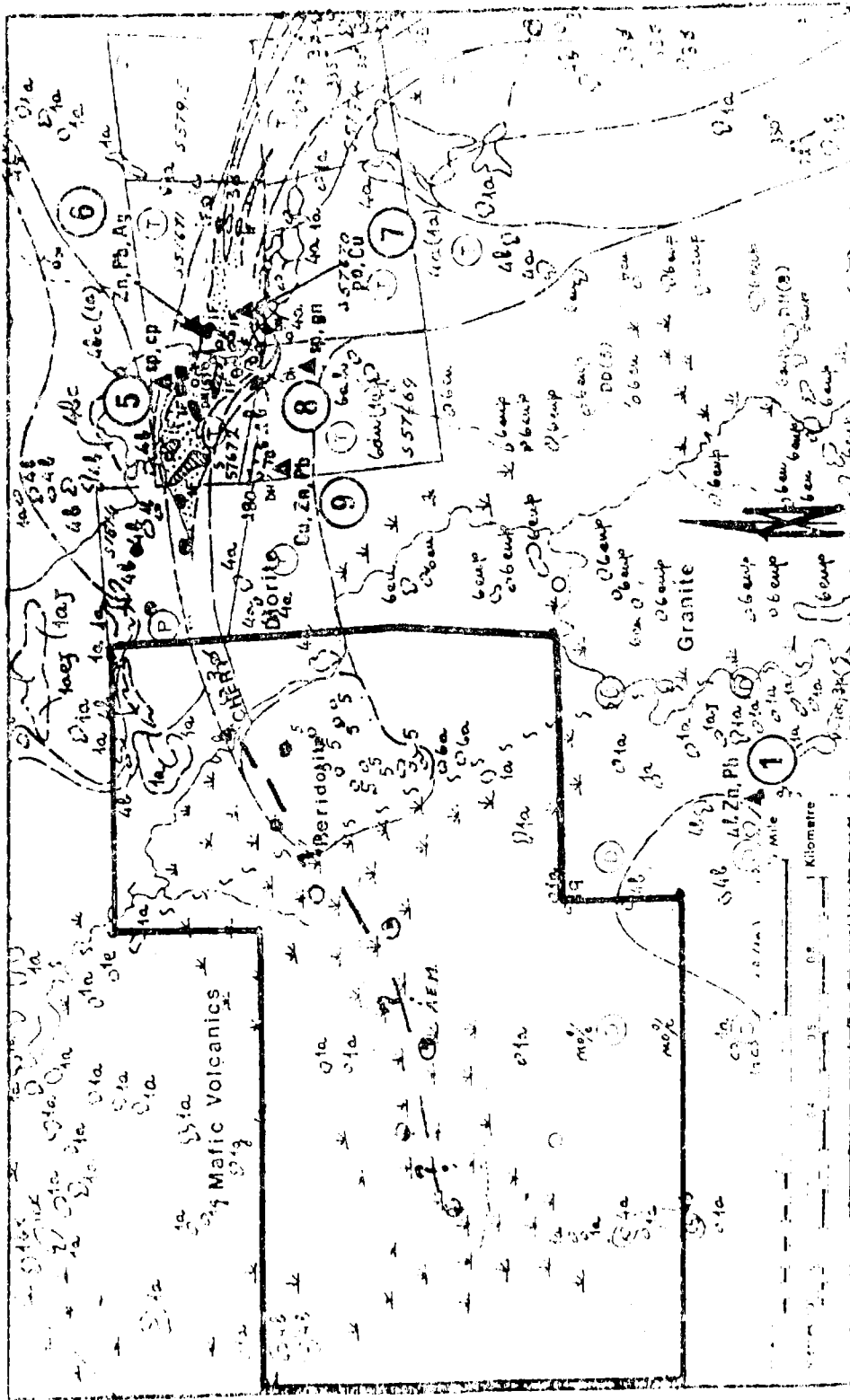


Property Location Map

Figure 1

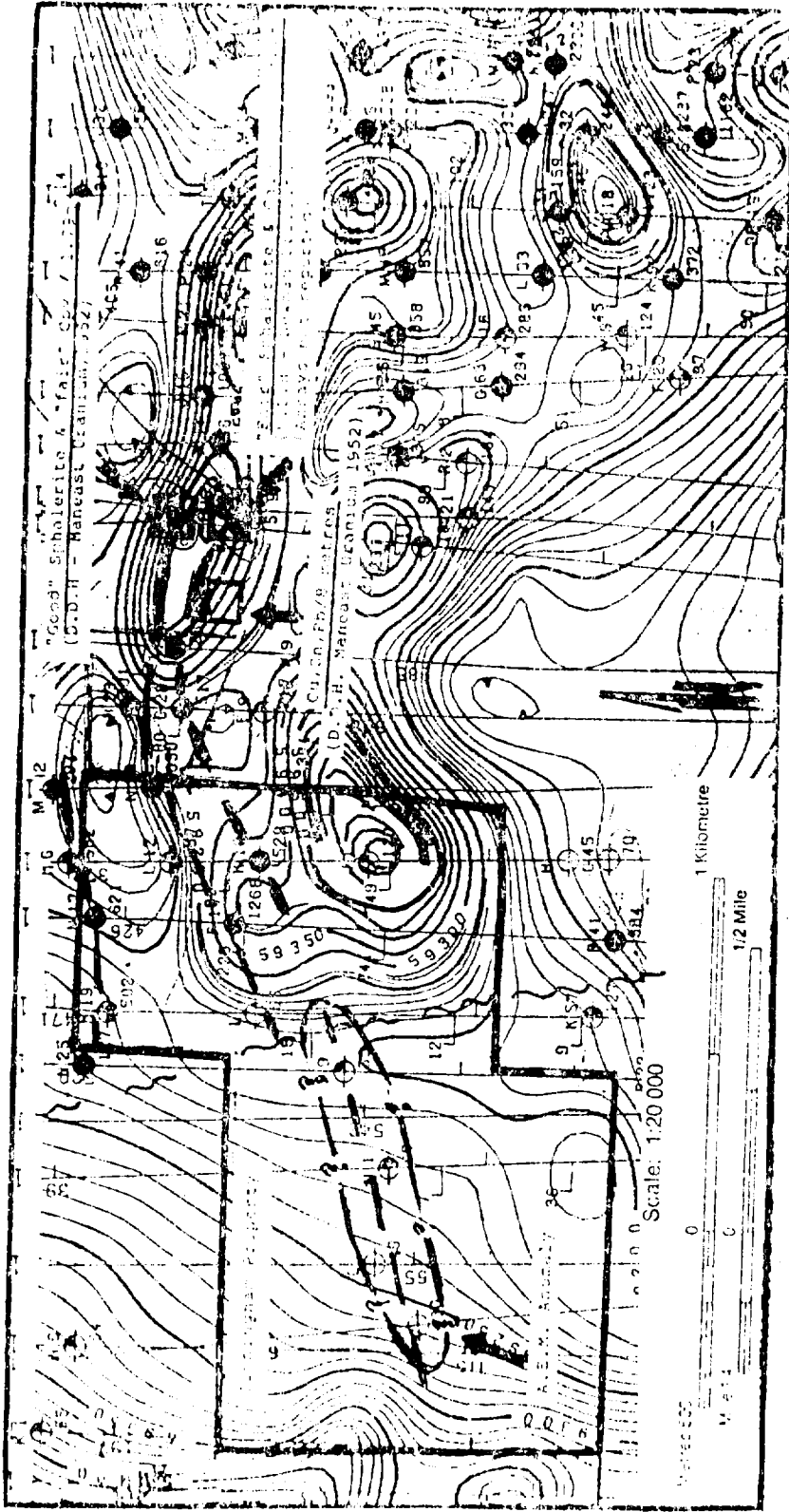






GENERAL GEOLOGY - ISAIAH CREEK PROPERTY

FIGURE #3



GOVERNMENT A.E.M. SURVEY - ISAIAH CREEK PROPERTY

FIGURE 4

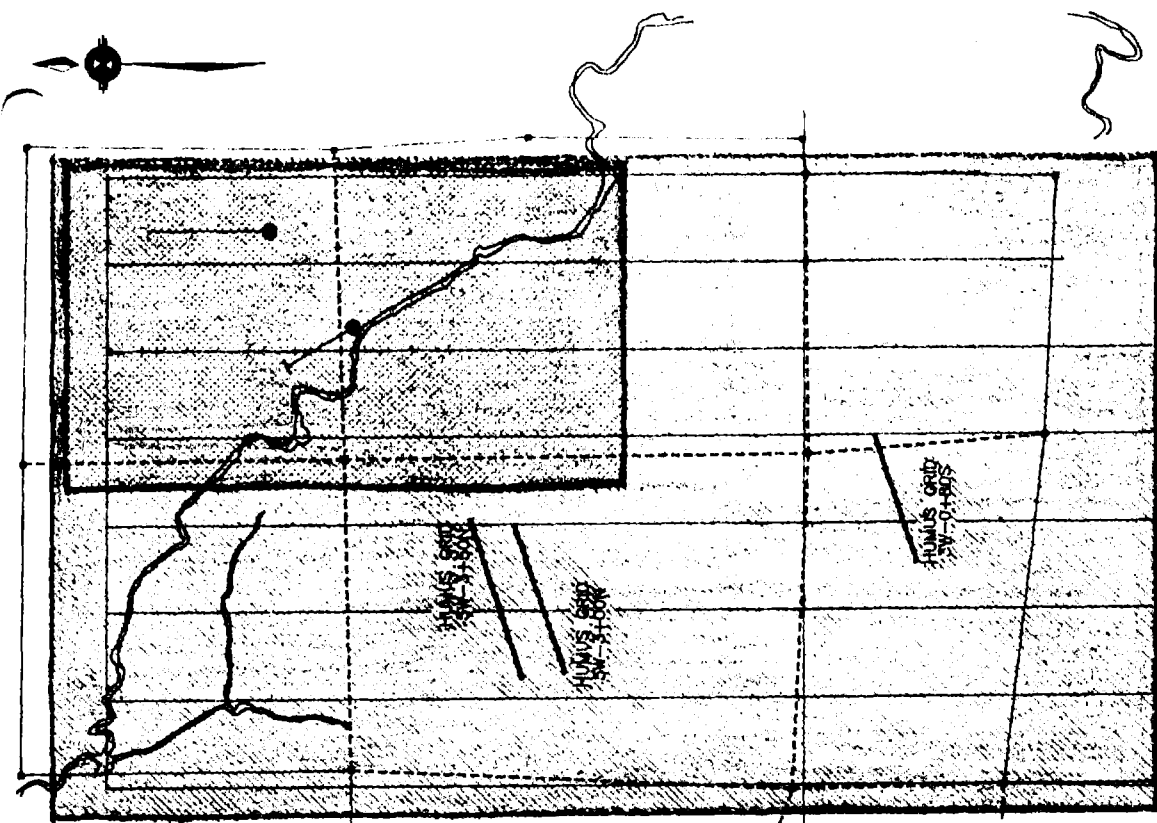
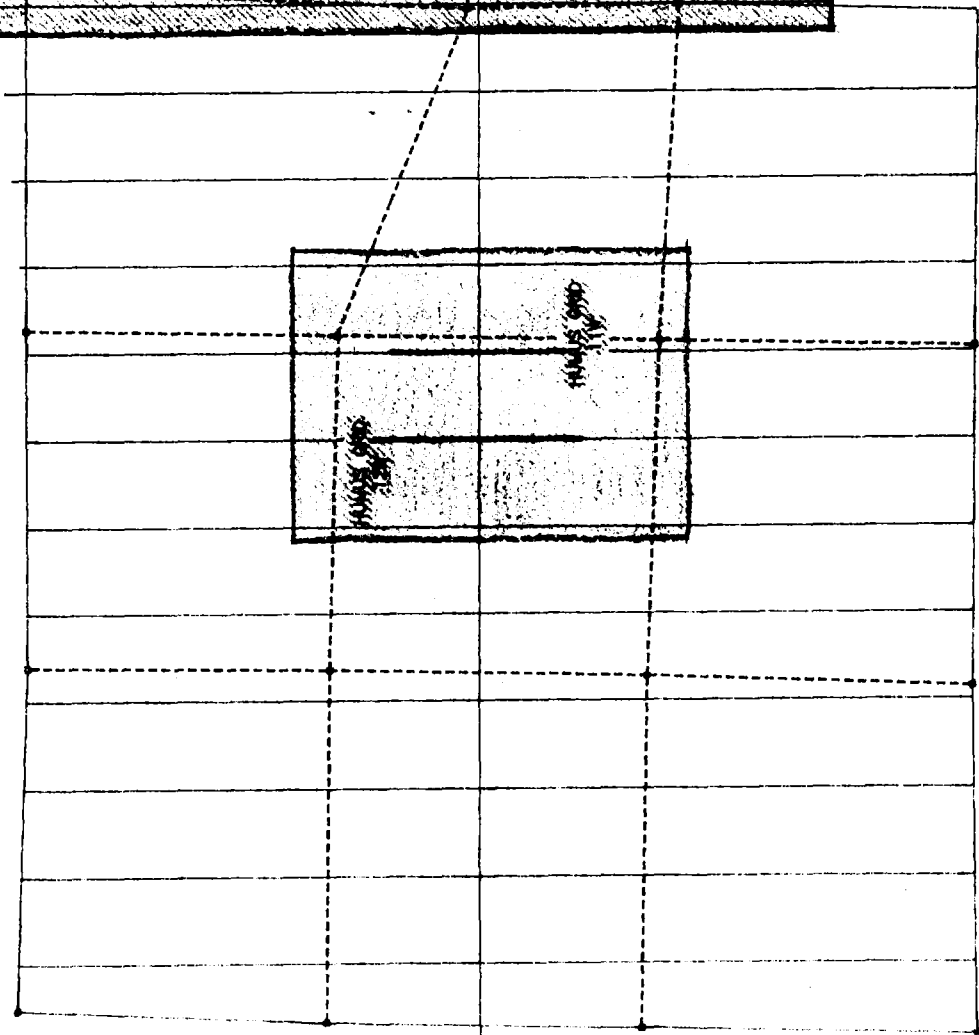
MAGNETICS, MAX-MIN EM 200m CABLE SEPARATION (1777 & 444 Hz)

V.F. MAGNETICS, MAX-MIN EM 100m CABLE SEPARATION (1777 & 444 Hz)

DIAMOND DRILLING, CRAB SAMPLING, MAX-MIN EM 100m CABLE SEPARATION (1777 & 444 Hz)



GREENLAW TWP.  
CUNNINGHAM TWP.



# ISALAH CREEK PROPERTY INDEX MAP

In 1983, Kidd Creek Mines completed geological mapping and ground geophysics over the eastern portion of the property and confirmed that the A.E.M. anomalies had a bedrock origin. Zinc values of up to 4.4% were reported from an area of carbonate veining located approximately 200 feet south of one of the A.E.M. anomalies.

## **GEOPHYSICS**

### **I. Instrumentation**

#### **Magnetometer**

The instrument used to record the Total Field Magnetics was a Scintrex MP-2 Magnetometer. The magnetometer sensitivity is better than 0.1 ~~g~~ gammas. Surveying was completed over two lines in the west 1/2 of the property, to assist in evaluating a weak A.E.M. anomaly.

#### **Horizontal Loop EM (Max-Min)**

The horizontal loop EM survey employs a battery powered transmitter and receiver linked by a signal reference cable. A primary electromagnetic field signal is put out by the transmitter and measured by the receiver through the reference cable. A conductive body in the area will emit its own secondary electromagnetic field after being energized by the primary field. Any secondary electromagnetic field present is then measured by the receiver as a percent of the primary field intensity and phase. Both in-phase and quadrature components of the secondary field are measured.

The instrument, as used in the maximum coupled (co-planar) mode, is well suited to detecting vertically dipping conductive bodies and is less affected by spurious horizontal features such as conductive overburden. Multiple frequencies (1777 + 444 Hz) were measured at stations 20 metres apart to allow more accurate interpretation of anomalies.

Typical conductive bodies could be graphitic horizons, sulphide rich zones or water saturated faults.

## **II. Data Interpretation**

### **Magnetics**

A ground magnetic survey, completed in 1983 by Kidd Creek Mines, outlined two areas of prominent magnetic signature. A large area of intense magnetic highs and lows extends from 0+00, Line 3+00W to 1+60N, Line 0+00 of our newly established grid. This large magnetic feature overlies a large gabbro intrusive within which smaller bodies of peridotite have been mapped.

A second magnetic feature, a discontinuous high extending from 4+00N, Line 4+00W, to 7+00N, Line 0+00, correlates with a magnetic rich section of a cherty, mixed sulphide and oxide facies iron formation. The original Kidd Creek data has been re-contoured and is presented as the east sheet of Appendix E.

### **Horizontal Loop EM Survey**

The horizontal loop survey was carried out with an Apex Parametrics Max-Min II Unit. Over the main east grid a 200 metre cable spacing was utilized. In the area of the mineralized iron formation the survey was repeated with a 100 metre cable spacing. Care was taken to extend the present survey across Isaiah Creek. An earlier 1983 survey by Kidd Creek Mines which did not extend across the creek, left large gaps in the geophysical coverage.

The 200 metre survey indicated a very broad zone of conductivity extending across the property from L5+00W, 6+00N, to L0+00, 7+00N.

The results of the 100 metre cable survey suggest that two or more semi-parallel conductors extend across the property and converge to the northeast. The southerly of these two conductors correlates with exposures of cherty-argillite and magnetite-sulphide iron formation.

The somewhat more uniform magnetitude of the EM anomaly detected with the 200 metre cable, in comparison with the 100 metre cable, suggests that the mineralized chert-iron formation, although it pinches and swells along its strike, remains of fairly uniform composition.

The 100 metre cable survey indicated areas of higher conductivity at L0+00, 7+10N and L3+00W, 4+50N.

The 100 metre cable survey completed on lines 11+00W & 12+00W suggest the A.E.M. response at that location has a bedrock origin. The anomaly however is very weak and not a priority base metal target.

## GEOLOGY

Situated in the northwest corner of Cunningham Township, the Isaiah Creek property is underlain by a generally east-west trending sequence of felsic to mafic volcanics, intruded locally by diorite, peridotite and granodiorite intrusives. The mafic volcanics are locally pillowed with local top determinations suggesting that stratigraphic tops face north.

A chert-argillite (locally oxide-sulphide facies iron formation) extends in an east-northeast direction across the northeast sector of the property, where it is coincident with a medium strength Max-Min anomaly. A few exposures of intermediate to felsic tuff underly the iron formation. The remainder of the stratigraphic footwall has been intruded by diorite, peridotite and granodiorite. Porphyritic mafic (flows?) are present

to the north, stratigraphically above the iron formation. In the area of the chert formation dips are steeply south, indicating that stratigraphy is locally overturned.

Laminations of magnetite are locally present in the chert-argillite horizon, which two miles to the east is the apparent host to the "Shunsby" base metal prospect.

The Isaiah Creek property is bisected by a prominent north-northwest trending fault (The Isaiah Creek Fault). The Isaiah Creek Fault appears sinistral in nature with an apparent displacement of approximately 2km.

### **PROSPECTING AND SAMPLING**

Prospecting along trend of the chert formations resulted in the discovery of several Cu-Zn-Pb showings. At station 0+63W, 6+30N, stringers and veins of chalcopyrite and sphalerite occur in chert-argillite. Pyrrhotite, pyrite and magnetite are locally present in the chert horizon. The observed copper-zinc mineralization occurs on the south edge of an outcrop ridge. Surface channel sampling in this area returned 1428 PPM Zn and 692 PPM Cu across 6 feet.

In the area of 0+00, 6+70N chip channel sampling of the same chert horizon returned 4350 PPM Zn across 2 feet.

Further channel sampling of the chert-argillite formation in the area of L3+00W, 4+67N, returned assays of up to 2750 PPM Zn across a 3' sample length. Typically, geochemically anomalous values of copper and lead occur with the zinc.

Elsewhere on the property, veinlets of chalcopyrite and sphalerite were found in mafic volcanics at station 0+42E, 1+19N.



Humus sampling, carried out on select lines over the Isaiah Creek Fault in the east sector of the property and over a weak A.E.M. anomaly in the west, revealed no surprises in precious metals. (See figure 5 for survey location)

### CONCLUSIONS AND RECOMMENDATIONS

Preliminary surface sampling identified geochemically anomalous copper and zinc values along a 1,400 foot strike length of the chert-argillite horizon. The geological environment is considered a very favourable host environment for volcanogenic base metal mineralization.

Diamond drilling is recommended to evaluate the economic potential of the chert-argillite horizon, with station 0+63W, 6+30N representing a preferred target area.

## REFERENCES

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Geology of the Cunningham-Garnet Area, Ontario Department of Mines, Vol 51, Part 7, 1942. Accompanied by Map No. 51f, scale 1 inch to 1 mile.
2. Mullen, D.:  
Report on the Geology of Cunningham 31, Properties, Kidd Creek Mines 1983 (Assessment file, Ontario)
3. Ploeger, F.R. (1982):  
Geological Report on cunningham 31 property; Running Ghost Lake, Peter Lake, Skunk Creek and Duck Pond grids, Kidd Creek Mines Report. (Assessment files, Ontario)
4. Siragusa, G.M. (1980):  
Cunningham Township Area, District of Sudbury; Ontario Geological Survey Preliminary Map P.2339 Geological Series, Scale 1:15840 or 1 inch to 1/4 mile, Geology 1978.
5. Slankis, J.A.:  
Report on Geophysical work in Cunningham Township, Peter Lake North Grid 1984. (Assessment files, Ontario)
6. OGS, 1982:  
Airborne Electromagnetic and Total Intensity Magnetic Survey, Swayze Area, Isaiah Lake Sheet, District of Sudbury; by Questor Surveys Limited for the Ontario Geological Survey, Map 80 546 Geophysical/Geochemical Series, Scale 1:20,000. Survey and Compilation December, 1980, to February, 1981.

CERTIFICATE OF QUALIFICATIONS

I, William R. Troup, of Mississauga, Ontario, Herby certify and declare the following:

1. I am a Consulting Geologist and President of Alcanex Ltd., a service company providing geological services and project management to the mineral exploration industry.
2. I graduated from the University of Waterloo with an MSc. degree in Geology in 1975.
3. I have been practising my profession for the past 16 years.
4. I am a fellow in the Geological Association of Canada.
5. I directed the field program on the Isaiah Creek property during the summer of 1991.
6. At the time of the field program the concerned claims were recorded in my name.
7. The opinions expressed in this report are based on my own observations and on a review of public geological reports on the area, and government assessment files.



William R. Troup, MSc., BSc.,  
F.G.A.C.

Mississauga, Ontario  
January 1992.

**APPENDIX "A"**

**HUMUS SURVEY - GEOCHEM RESULTS**

**(See figure 5 for Survey locations)**



**CERTIFICATE OF ANALYSIS**  
**REPORT 16159**

TO: ALCANEX LTD.  
 ATTN: W. R. TROUP  
 1365 CLARKSON ROAD NORTH  
 MISSISSAUGA, ONTARIO  
 L5J 2W6

CUSTOMER No. 2150

DATE SUBMITTED  
 4-Jul-91

REF. FILE 10273-

Total Pages 6

74 HUMUS Proj. SWAYZE

	METHOD	DETECTION LIMIT		METHOD	DETECTION LIMIT
AU PPB	NA	1.	AG PPM	NA	2.
NA PPM	NA	100.	CD PPM	NA	2.
CA %	NA	.5	SB PPM	NA	.1
SC PPM	NA	.2	BA PPM	NA	100.
CR PPM	NA	1.	LA PPM	NA	1.
FE %	NA	.05	CE PPM	NA	1.
CO PPM	NA	1.	SM PPM	NA	.1
NI PPM	NA	20.	TA PPM	NA	.5
ZN PPM	NA	20.	W PPM	NA	1.
AS PPM	NA	1.	IR PPB	NA	10.
SE PPM	NA	2.	HG PPM	NA	.5
BR PPM	NA	1.	TH PPM	NA	.5
RB PPM	NA	20.	U PPM	NA	.1
MO PPM	NA	.5			

\*\*\* UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS 90 DAYS \*\*\*  
 AND REJECTS 30 DAYS FROM DATE OF THIS REPORT

DATE 25-JUL-91

CERTIFIED BY 

Philip Boctor, Laboratory Manager



SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
3.5N-0+50W	2	400	1.0	.4	5	.17	1	<20	60
3.5N-0+40W	4	700	.9	.6	7	.24	1	<20	50
3.5N-0+30W	2	300	.8	.3	3	.14	1	<20	80
3.5N-0+20W	3	400	<.5	.4	5	.17	1	<20	60
3.5N-0+10W	4	700	<.5	.7	7	.25	1	<20	60
3.5N-0+00	9	400	.6	.4	4	.18	1	<20	60
3.5N-0+10E	4	400	.5	.4	5	.17	1	<20	80
3.5N-0+20E	4	500	<.5	.5	7	.22	1	<20	70
3.5N-0+30E	4	400	.5	.4	5	.17	1	<20	90
3.5N-0+40E	2	600	<.5	.6	7	.20	1	<20	70
3.5N-0+50E	2	400	.6	.4	5	.18	1	<20	100
3.5N-0+60E	2	400	.7	.3	4	.14	1	<20	110
3.5N-0+70E	<1	200	.8	.2	2	.10	1	<20	100
3.5N-0+80E	2	600	.5	.6	7	.22	1	<20	80
3.5N-0+90E	1	400	.9	.4	5	.17	1	<20	140
80S-0+00W	4	600	.6	.3	5	.15	2	<20	70
80S-0+10W	6	2300	.7	1.1	25	.38	3	<20	100
80S-0+20W	3	1800	.7	1.2	13	.43	3	<20	100
80S-0+30W	7	3600	.9	1.5	31	.54	4	20	60
80S-0+40W	3	1300	.8	1.1	11	.37	4	<20	50
80S-0+50W	4	3200	.5	1.7	27	.55	3	<20	70
80S-0+60W	5	3400	.7	1.5	20	.44	2	<20	90
80S-0+70W	5	3500	.9	1.5	27	.42	3	<20	40
80S-0+80W	2	1300	.7	.6	13	.25	3	<20	60
80S-0+90W	2	2200	<.5	1.1	15	.39	4	<20	50
80S-1+00W	2	900	<.5	1.5	9	.61	3	<20	50
80S-1+10W	2	3700	.6	1.4	20	.44	3	<20	60
80S-1+20W	2	3600	.6	1.6	25	.50	3	<20	80
80S-1+30W	1	6500	1.0	2.7	45	.73	6	20	70
80S-1+40W	1	3900	<.5	1.7	21	.50	2	<20	70
80S-1+50W	1	5300	.7	2.4	32	.66	3	<20	110
L12W-1+20S	1	500	2.5	.4	5	.17	1	<20	60
L12W-1+00S	1	500	3.7	.5	6	.29	4	<20	100
L12W-0+80S	2	600	2.6	.5	6	.23	1	<20	80
L12W-0+60S	2	400	3.3	.4	3	.16	1	<20	50
L12W-0+50S	5	500	2.4	.5	5	.22	1	<20	60
L12W-0+40S	3	300	2.9	.3	4	.15	3	<20	70
L12W-0+30S	1	400	2.9	.3	3	.15	1	<20	60
L12W-0+20S	2	400	2.3	.4	5	.17	2	<20	60
L12W-0+10S	3	300	1.9	.3	3	.12	1	<20	60
L12W-0+00	4	4800	<.5	1.4	21	.54	2	<20	70
L12W-0+10N	2	1000	<.5	.8	11	.30	1	<20	50
L12W-0+20N	1	200	2.4	.9	3	.30	2	<20	70
L12W-0+30N	1	200	2.1	.2	2	.21	1	<20	40
L12W-0+40N	1	200	2.6	.2	2	.15	1	<20	60
L12W-0+60N	1	200	3.1	.2	2	.39	1	<20	60
L12W-0+80N	1	200	2.4	.2	3	.30	1	<20	120
L12W-1+00N	2	200	2.1	.2	2	.30	1	<20	70
L12W-1+20N	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS
L11W-1+00S	1	500	3.2	.3	3	.15	2	<20	120

SMP.MISS. - SAMPLE WAS NOT RECEIVED AT XRAY.

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
L11W-0+80S	1	300	3.4	.3	4	.15	1	<20	70
L11W-0+60S	2	300	3.4	.2	3	.11	1	<20	70
L11W-0+40S	2	500	4.1	.4	6	.20	2	<20	70
L11W-0+30S	1	400	3.5	.4	5	.17	2	<20	80
L11W-0+20S	<1	300	3.6	.3	3	.17	3	<20	90
L11W-0+10S	1	500	1.5	.5	5	.18	1	<20	60
L11W-0+00	5	200	2.9	.2	2	.09	1	<20	60
L11W-0+10N	<1	300	2.4	.3	2	.18	4	<20	50
L11W-0+20N	2	200	1.6	.2	3	.14	1	<20	50
L11W-0+30N	1	200	2.2	.2	2	.18	1	<20	50
L11W-0+40N	<1	300	2.5	.3	3	.21	1	<20	50
L11W-0+50N	1	600	2.6	.4	4	.23	2	<20	70
L11W-0+60N	<1	200	2.5	<.2	2	.25	1	<20	70
L11W-0+80N	1	300	3.0	.3	4	.65	2	<20	70
L11W-1+00N	1	300	2.9	.3	4	.74	3	<20	60
V11W-1+20N	<1	1200	.6	2.2	15	.54	4	<20	60
V.0N-0+00	2	400	.5	.4	4	.16	<1	<20	60
V.0N-0+10E	3	500	.6	.5	5	.21	1	<20	90
3.0N-0+20E	2	400	.8	.4	3	.17	1	<20	90
3.0N-0+30E	1	400	1.2	.4	3	.33	1	<20	90
3.0N-0+40E	2	800	.8	.8	8	.27	1	<20	120
3.0N-0+50E	2	800	.8	.8	8	.27	1	<20	140
3.0N-0+60E	2	1100	.8	.9	8	.34	2	<20	150
V.0N-0+70E	1	800	.8	.7	6	.27	1	<20	170



SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
3.5N-0+50W	7	<2	18	<20	.5	<2	<2	1.1	<100
3.5N-0+40W	5	<2	16	<20	<.5	<2	<2	1.4	<100
3.5N-0+30W	3	<2	16	<20	<.5	<2	<2	.7	<100
3.5N-0+20W	5	<2	23	<20	<.5	<2	<2	.7	<100
3.5N-0+10W	7	<2	10	<20	<.5	<2	<2	1.8	<100
3.5N-0+00	5	<2	12	<20	<.5	<2	<2	.9	<100
3.5N-0+10E	4	<2	15	<20	<.5	<2	<2	.8	<100
3.5N-0+20E	6	<2	12	<20	.5	<2	<2	1.2	<100
3.5N-0+30E	4	<2	10	<20	<.5	<2	<2	.7	<100
3.5N-0+40E	6	<2	7	<20	<.5	<2	<2	1.7	<100
3.5N-0+50E	7	<2	9	<20	<.5	<2	<2	.9	<100
3.5N-0+60E	8	<2	15	<20	.5	<2	<2	.9	<100
3.5N-0+70E	3	<2	7	<20	<.5	<2	<2	.5	<100
3.5N-0+80E	6	<2	7	<20	.8	<2	<2	1.4	100
3.5N-0+90E	5	<2	16	<20	<.5	<2	<2	1.0	<100
80S-0+00W	2	<2	13	<20	.7	<2	<2	.4	<100
80S-0+10W	4	<2	10	20	.5	<2	<2	1.1	100
80S-0+20W	7	<2	13	<20	.7	<2	<2	1.1	100
80S-0+30W	5	<2	10	<20	.8	<2	<2	1.7	100
80S-0+40W	6	<2	14	<20	1.8	<2	<2	1.3	100
80S-0+50W	5	<2	9	20	1.0	<2	<2	1.8	200
80S-0+60W	5	<2	9	20	<.5	<2	<2	1.1	200
80S-0+70W	3	<2	9	<20	1.1	<2	<2	1.1	200
80S-0+80W	4	<2	11	<20	<.5	<2	<2	.8	100
80S-0+90W	4	<2	15	<20	.7	<2	<2	.7	100
80S-1+00W	4	<2	13	<20	.7	<2	<2	.8	100
80S-1+10W	4	<2	9	<20	<.5	<2	<2	.8	100
80S-1+20W	6	<2	10	<20	1.0	<2	<2	1.4	100
80S-1+30W	4	<2	9	20	<.5	<2	<2	1.2	300
80S-1+40W	5	<2	6	20	1.0	<2	<2	1.4	200
80S-1+50W	6	<2	10	20	1.5	<2	<2	2.0	300
L12W-1+20S	5	<2	10	<20	<.5	<2	<2	1.0	<100
L12W-1+00S	6	<2	27	<20	1.1	<2	<2	.9	100
L12W-0+80S	6	<2	15	<20	<.5	<2	<2	1.1	<100
L12W-0+60S	4	<2	21	<20	<.5	<2	<2	.8	<100
L12W-0+50S	6	<2	17	<20	<.5	<2	<2	1.1	<100
L12W-0+40S	3	<2	22	<20	.5	<2	<2	.8	<100
L12W-0+30S	3	<2	18	<20	<.5	<2	<2	.5	<100
L12W-0+20S	4	<2	17	<20	<.5	<2	<2	.7	<100
L12W-0+10S	3	<2	13	<20	<.5	<2	<2	.5	<100
L12W-0+00	5	<2	11	<20	.8	<2	<2	1.1	100
L12W-0+10N	4	<2	6	<20	.6	<2	<2	1.2	100
L12W-0+20N	3	<2	9	<20	.5	<2	<2	.5	<100
L12W-0+30N	2	<2	12	<20	<.5	<2	<2	.4	<100
L12W-0+40N	3	<2	16	<20	<.5	<2	<2	.2	<100
L12W-0+60N	3	<2	23	<20	1.0	<2	<2	.3	<100
L12W-0+80N	5	<2	20	<20	.7	<2	<2	.5	<100
L12W-1+00N	3	<2	18	<20	<.5	<2	<2	.3	<100
L12W-1+20N	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS
L11W-1+00S	3	<2	25	<20	<.5	<2	<2	.4	<100

SMP MISS. - SAMPLE WAS NOT RECEIVED AT XRAL



SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
L11W-0+00S	5	<2	19	<20	<.5	<2	<2	.6	<100
L11W-0+60S	4	<2	23	<20	.5	<2	<2	.6	<100
L11W-0+40S	5	<2	32	<20	<.5	<2	<2	.9	<100
L11W-0+30S	5	<2	24	<20	<.5	<2	<2	1.0	<100
L11W-0+20S	3	<2	39	<20	<.5	<2	<2	.6	<100
L11W-0+10S	4	<2	11	<20	<.5	<2	<2	1.2	<100
L11W-0+00	2	<2	17	<20	<.5	<2	<2	.3	<100
L11W-0+10N	5	<2	17	<20	<.5	<2	<2	.9	<100
L11W-0+20N	2	<2	28	<20	<.5	<2	<2	.3	<100
L11W-0+30N	4	<2	16	<20	<.5	<2	<2	.6	<100
L11W-0+40N	3	<2	19	<20	<.5	<2	<2	.7	<100
L11W-0+50N	4	<2	17	<20	<.5	<2	<2	.9	<100
L11W-0+60N	2	<2	12	<20	<.5	<2	<2	.3	<100
L11W-0+80N	5	<2	29	<20	<.5	<2	<2	.4	<100
L11W-1+00N	9	<2	32	<20	<.5	<2	<2	.4	<100
L11W-1+20N	3	<2	11	<20	<.5	<2	<2	.7	100
3.0N-0+00	5	<2	6	<20	<.5	<2	<2	1.2	<100
3.0N-0+10E	5	<2	15	<20	<.5	<2	<2	.9	<100
3.0N-0+20E	7	<2	15	<20	<.5	<2	<2	1.1	<100
3.0N-0+30E	7	<2	17	<20	.6	<2	<2	.9	<100
3.0N-0+40E	6	<2	13	<20	.7	<2	<2	1.7	100
3.0N-0+50E	6	<2	12	<20	.9	<2	<2	1.8	100
3.0N-0+60E	7	<2	16	<20	<.5	<2	<2	1.5	100
3.0N-0+70E	8	<2	12	<20	.5	<2	<2	1.9	100

SAMPLE	LA PPM	CE PPM	SM PPM	TA PPM	W PPM	IR PPB	HG PPM	TR PPM	U PPM
3.5N-0+50W	2	3	.2	<.5	<1	<10	<1	.5	.1
3.5N-0+40W	3	5	.4	<.5	<1	<10	<1	.6	.2
3.5N-0+30W	2	3	.2	<.5	<1	<10	<1	<.5	.1
3.5N-0+20W	2	4	.2	<.5	<1	<10	<1	<.5	.1
3.5N-0+10W	4	6	.4	<.5	<1	<10	<1	.7	.2
3.5N-0+00	2	3	.2	<.5	<1	<10	<1	<.5	.1
3.5N-0+10E	2	4	.3	<.5	<1	<10	<1	.5	.1
3.5N-0+20E	3	4	.3	<.5	<1	<10	<1	.5	.2
3.5N-0+30E	2	3	.3	<.5	<1	<10	<1	<.5	.2
3.5N-0+40E	4	6	.4	<.5	<1	<10	<1	.9	.2
3.5N-0+50E	2	4	.3	<.5	<1	<10	<1	<.5	.1
3.5N-0+60E	2	4	.3	<.5	<1	<10	<1	.5	.1
3.5N-0+70E	1	2	.2	<.5	<1	<10	<1	<.5	.1
3.5N-0+80E	3	6	.4	<.5	<1	<10	<1	.7	.2
3.5N-0+90E	2	4	.3	<.5	<1	<10	<1	.5	.2
80S-0+00W	2	3	.2	<.5	<1	<10	<1	<.5	.1
80S-0+10W	6	10	.6	<.5	<1	<10	<1	1.0	.4
80S-0+20W	6	8	.7	<.5	<1	<10	<1	.9	.3
80S-0+30W	8	13	.9	<.5	<1	<10	<1	1.2	.4
80S-0+40W	8	10	.8	<.5	<1	<10	<1	.9	.3
80S-0+50W	10	14	1.0	<.5	1	<10	<1	1.4	.5
80S-0+60W	10	15	1.1	<.5	1	<10	<1	1.5	.5
80S-0+70W	8	11	.9	<.5	<1	<10	<1	1.2	.3
80S-0+80W	5	6	.4	<.5	<1	<10	<1	.6	.2
80S-0+90W	6	11	.7	<.5	<1	<10	<1	.7	.3
80S-1+00W	9	14	1.1	<.5	<1	<10	<1	.8	.4
80S-1+10W	7	10	.8	<.5	<1	<10	<1	1.2	.3
80S-1+20W	7	12	.8	<.5	<1	<10	<1	1.3	.4
80S-1+30W	12	16	1.1	<.5	<1	<10	<1	1.6	.6
80S-1+40W	11	16	1.1	<.5	<1	<10	<1	1.6	.5
80S-1+50W	13	20	1.3	<.5	<1	<10	<1	2.2	.8
L12W-1+20S	3	5	.3	<.5	<1	<10	<1	.5	.2
L12W-1+00S	3	6	.4	<.5	<1	<10	<1	.6	.2
L12W-0+80S	3	5	.4	<.5	<1	<10	<1	.6	.3
L12W-0+60S	2	4	.3	<.5	<1	<10	<1	.5	.1
L12W-0+50S	3	4	.4	<.5	<1	<10	<1	.6	.2
L12W-0+40S	2	6	.3	<.5	<1	<10	<1	<.5	.1
L12W-0+30S	2	4	.2	<.5	<1	<10	<1	<.5	.1
L12W-0+20S	2	5	.3	<.5	<1	<10	<1	.5	.1
L12W-0+10S	2	3	.2	<.5	<1	<10	<1	<.5	.1
L12W-0+00	7	11	.8	<.5	<1	<10	<1	1.2	.4
L12W-0+10N	4	8	.5	<.5	<1	<10	<1	.8	.3
L12W-0+20N	2	4	.3	<.5	<1	<10	<1	<.5	.1
L12W-0+30N	1	2	.1	<.5	<1	<10	<1	<.5	<.1
L12W-0+40N	1	2	.1	<.5	<1	<10	<1	<.5	<.1
L12W-0+60N	1	3	.2	<.5	<1	<10	<1	<.5	.1
L12W-0+80N	1	2	.2	<.5	<1	<10	<1	<.5	.1
L12W-1+00N	1	2	.1	<.5	<1	<10	<1	<.5	.1
L12W-1+20N	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS
L11W-1+00S	2	3	.2	<.5	<1	<10	<1	<.5	.1

SMP.MISS. - SAMPLE WAS NOT RECEIVED AT XRAL

SAMPLE	LA PPM	CE PPM	SM PPM	TA PPM	W PPM	IR PPB	HG PPM	TH PPM	U PPM
L11W-0+80S	2	3	.2	<.5	<1	<10	<1	<.5	.1
L11W-0+60S	1	2	.1	<.5	<1	<10	<1	<.5	<.1
L11W-0+40S	3	4	.3	<.5	<1	<10	<1	.5	.1
L11W-0+50S	5	4	.3	<.5	<1	<10	<1	.5	.2
L11W-0+20S	2	3	.3	<.5	<1	<10	<1	<.5	.2
L11W-0+10S	3	5	.3	<.5	<1	<10	<1	.5	.2
L11W-0+00	1	2	.2	<.5	<1	<10	<1	<.5	.1
L11W-0+10N	2	3	.3	<.5	<1	<10	<1	<.5	.1
L11W-0+20N	1	2	.1	<.5	<1	<10	<1	<.5	.1
L11W-0+30N	1	2	.2	<.5	<1	<10	<1	<.5	.1
L11W-0+40N	2	3	.2	<.5	<1	<10	<1	<.5	.1
L11W-0+50N	2	4	.3	<.5	<1	<10	<1	<.5	.1
L11W-0+60N	1	1	.1	<.5	<1	<10	<1	<.5	.1
L11W-0+80N	2	3	.2	<.5	<1	<10	<1	<.5	.1
L11W-1+00N	2	5	.2	<.5	<1	<10	<1	<.5	.1
L11W-1+20N	4	8	.6	<.5	<1	<10	<1	.6	.2
3.0N-0+00	2	4	.2	<.5	<1	<10	<1	<.5	.1
3.0N-0+10E	3	5	.3	<.5	<1	<10	<1	<.5	.1
3.0N-0+20E	2	4	.3	<.5	<1	<10	<1	<.5	.1
3.0N-0+30E	3	4	.3	<.5	<1	<10	<1	.5	.1
3.0N-0+40E	4	7	.5	<.5	<1	<10	<1	.7	.3
3.0N-0+50E	4	7	.5	<.5	<1	<10	<1	.7	.3
3.0N-0+60E	5	8	.6	<.5	<1	<10	<1	.9	.3
3.0N-0+70E	4	7	.5	<.5	<1	<10	<1	.8	.3

**APPENDIX "B"**

**ROCK SAMPLE GEOCHEMISTRY**



CERTIFICATE OF ANALYSIS

REPORT 15609

TO: WILLIAM R. TROUP  
 1365 CLARKSON ROAD WEST  
 MISSISSAUGA, ONTARIO  
 L5J 2W6

CUSTOMER No. 1482

DATE SUBMITTED  
 28-May-91

REF. FILE 10021-F4

Total Pages 1

8 ROCKS

	METHOD	DETECTION LIMIT
AU PPB	FADCP	1.
CO PPM	DCP	1.
NI PPM	DCP	1.
CU PPM	DCP	.5
ZN PPM	DCP	.5
MO PPM	DCP	1.
AG PPM	DCP	.5
CD PPM	DCP	1.
PB PPM	DCP	2.

DATE 06-JUN-91

CERTIFIED BY  .....

Philip Boctor, Laboratory Manager

AMPLE	AU PPM	CO PPM	NI PPM	CU PPM	ZN PPM	MO PPM	AG PPM	CD PPM	PB PPM
17734	<1	49	253	114.	1570.	3	1.5	5	2110
17735	12	12	6	8.8	67500.	4	<.5	219	7700
17736	2	12	13	117.	313.	5	<.5	2	21
17737	4	30	28	655.	1090.	44	.5	3	34
17738	5	36	46	103.	95.7	3	<.5	<1	<2
17739	11	132	261	1910.	2630.	10	6.0	9	196
17740	10	47	115	886.	1930.	5	2.5	6	308
17741	25	311	196	2150.	366.	8	8.0	3	145



CERTIFICATE OF ANALYSIS  
 REPORT 15977

TO: ALCANEX LTD.  
 ATTN: W. R. TROUP  
 1365 CLARKSON ROAD NORTH  
 MISSISSAUGA, ONTARIO  
 L5J 2W6

CUSTOMER No. 2150

DATE SUBMITTED  
 4-Jul-91

REF. FILE 10274-B4

Total Pages 1

45 ROCKS

	METHOD	DETECTION LIMIT
AU PPB	FADCP	1.
CO PPM	DCP	1.
NI PPM	DCP	1.
CU PPM	DCP	.5
ZN PPM	DCP	.5
MO PPM	DCP	1.
AG PPM	DCP	.5
CD PPM	DCP	1.
PB PPM	DCP	2.

\*\*\* UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS 90 DAYS \*\*\*  
 AND REJECTS 30 DAYS FROM DATE OF THIS REPORT

DATE 10-JUL-91

CERTIFIED BY .....

Philip Boctor, Laboratory Manager

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	MO PPM	AG PPM	CD PPM	PB PPM
17752✓	9	144	219	1160.	1980.	13	4.3	7	203
17753✓	15	10	16	224.	876.	6	1.7	3	286
17754✓	80	5	15	69.4	2740.	7	1.0	11	640
17755✓	14	36	54	176.	4350.	22	2.0	15	720
17756	14	11	19	164.	1490.	5	.5	6	14
17757	93	24	17	512.	2090.	10	6.4	9	227
17758	2	20	40	4860.	863.	7	1.9	2	27
17759✓	<1	8	13	23.5	44.7	4	<.5	<1	2
17760✓	<1	4	6	4.8	41.1	6	<.5	<1	<2
17761✓	<1	5	5	5.7	29.0	5	<.5	<1	<2
17762✓	<1	5	4	7.9	29.9	9	<.5	<1	2
17763✓	<1	4	4	5.6	21.2	5	<.5	<1	<2
17764✓	<1	3	5	15.2	17.6	4	<.5	<1	<2
17765✓	9	4	10	16.2	8.4	5	<.5	<1	<2
17766✓	2	2	7	11.5	15.0	6	<.5	<1	3
17767✓	7	2	5	36.3	48.9	5	<.5	<1	5
17768✓	8	11	19	46.0	64.0	8	<.5	<1	<2
17769✓	5	11	19	59.8	342.	8	<.5	2	<2
17770✓	5	21	37	239.	884.	8	.7	4	9
17771✓	19	44	59	414.	1340.	8	2.4	5	88
17772✓	12	10	14	264.	153.	5	1.1	<1	68
17773✓	50	12	14	383.	1230.	10	1.6	3	65
17774✓	<1	2	3	26.0	21.2	3	<.5	<1	<2
17775✓	<1	2	4	33.4	110.	4	<.5	1	<2
17776✓	51	27	23	347.	2750.	11	1.3	7	22
17777✓	2	2	4	15.4	43.3	3	<.5	<1	<2
17778✓	<1	3	5	16.6	61.0	4	<.5	<1	<2
17779✓	27	3	6	15.2	49.5	4	<.5	<1	<2
17780✓	7	14	6	70.7	191.	4	.6	<1	22
17781✓	13	98	118	268.	760.	4	<.5	1	4
17782✓	6	45	85	206.	369.	6	.9	1	10
17783✓	7	20	37	118.	196.	6	1.0	<1	5
17784✓	<1	21	58	105.	25.8	99	.9	<1	<2
17785	<1	28	35	116.	63.5	5	.6	<1	<2
17786	3	26	46	105.	60.1	3	.6	<1	<2
17787✓	1	4	8	8.1	27.8	3	<.5	<1	<2
17788✓	8	4	4	34.3	34.4	4	<.5	<1	<2
17789	3	29	62	48.9	96.3	4	.8	2	4
17790✓	<1	3	7	38.1	15.7	4	<.5	<1	<2
17791	34	42	52	502.	1630.	10	2.6	6	1130
17792	40	29	115	260.	980.	6	2.6	3	149
17793	1	52	126	9.8	165.	4	<.5	<1	2
17794✓	1	38	86	18.1	2030.	5	.8	5	600
17795✓	2	5	9	5.3	190.	3	<.5	1	42
17796✓	<1	38	91	84.9	2130.	6	1.1	5	920



**APPENDIX "C"**

**ROCK SAMPLE DESCRIPTIONS**

**(See figure 5 for Survey location)**

## ROCK SAMPLE DESCRIPTIONS

SPL #	LOC'N	TYPE	DESCRIPTIONS
17734	L0+00, 1+20N	grab	-sheared diorite,
17735	L3+00W, 3+30N	grab	-carb vein, 6"-8", sph. + galena
17736	L3+00W, 4+00N	grab	-bx., cherty-tuff, (py on fractures)
17737	L3+00W, 4+00N	grab	-q.c. vein (1-3% diss py)
17738	L2+50W, 1+00S	grab	-rusty pervasive carb alt'n in gr. int. (1-3% diss py)
17739	L0+50W, 7+00N	grab	-cherty-tuff, pyritic, (cpy + sph in stringers)
17740	L0+50W, 7+00N	grab	-as per 17739
17741	L0+50W, 7+00N	grab	-as per 17739
17752	L0+63W, 6+30N	2'chip	-chert-argillite
17753	L0+63W, 6+30N	3'chip	-N continuation of 17752
17754	L0+00, 6+70N	2'chip	-dark chert (tr py on fractures)
17755	L0+05W, 6+70N	2'chip	-bx. chert-arg., 5%py (cpy +sph)
17756	L0+50E, 6+60N	2'chip	-arg., tr-5% py
17757	L0+50E, 6+60N	3'chip	-N. continuation from 17756
17758	L0+50E, 6+70N	grab	-chert w c.g. py on fractures
17759	L3+00W, 2+37N	3.5M chip	-cherty f.v., tr diss py.
17760	L3+00W, 4+42N	.5M chip	-chert-arg. +q.v's (strike 90 deg. dip 85 S)
17761	L3+00W, 4+51N	1M chip	-diorite, diss. py + mag. + po
17762	L3+00W, 4+52N	1.5Mchip	-m.v. with mag.+po+py
17763	L3+00W, 4+53.5N	1M chip	-int-maf. volc., tr sulph (sph?)
17764	L3+00W, 4+54.5N	1M chip	-felsic - int. volc. tr-1% diss py
17765	L2+90W, 4+70N	1M chip	-recr. chert, tr.-3% py on fract's, sph.?
17766	L2+90W, 4+71N	1M chip	-as for 17765
17767	L2+90W, 4+72N	1.3M chip	-as for 17766
17768	L3+00W, 4+60N	1M chip	-mag rich I.F.
17769	L3+00W, 4+61N	1M chip	-graph.-arg., tr py
17770	L3+00W, 4+62N	1M chip	-chert-arg., tr-3% py, mag.
17771	L3+00W, 4+63N	1M chip	-graph.-chert-arg 23%py
17772	L3+00W, 4+64N	.5 M chip	-recr. chert.
17773	L3+00W, 4+64.5N	1M chip	-recr. chert.
17774	L3+00W, 4+65.5N	1M chip	-chert-arg., py+po+tr-1% mag present locally
17775	L3+00W, 4+66.5N	1M chip	-as per 17774, 3-5% diss py in chl. areas
17776	L3+00W, 4+67.5N	1M chip	-mag. rich recr. chert.
17777	L3+00W, 4+68.5N	1M chip	-recr. chert

FOOT SAMPLE DESCRIPTIONS CONT'D

17778	L1-00W, 4-69.5N	1M chip	-recr. chert
17779	L3+00W, 4-70.5N	1M chip	-recr. chert, nil silph.
17780	L3+00W, 4-71N	grab	-chl., py rich shear, 2 cm wide
17781	L2-90W, 4-73N	grab	-arg.
17782	L1-40W, B.L.	1.25M chip	-chert-arg., tr-1% diss py (poss sph on fractures trend 60 deg. and dip vertical)
17783	L1-40W, 0+1.25N	.5M chip	-Int?, siliceous, black and f.g.
17784	L1-40W, 0+20N	.3M chip	-black, f.g. M-Int volc., tr-2% diss py
17785	L3+22W, 1+00S	grab	-m-i volc., tr-2% diss py
17786	L0+10W, 4+40N	grab	-mafic int., 2% diss py
17787	L0+15W, 6+70N	grab	-chert-I.F. neg. sulph.
17788	L0+15W, 6+70N	grab	-chert-I.F.
17789	L0+35W, 6+90N	grab	-m.v., 1-2% fine diss py
17790	L0+06E, 6+73N	grab	-Magnetite rich I.F.
17791	L0+50E, 6+70N	1M chip	-py arg., -cpy
17792	L0+50E, 6+69N	.75M chip	-silicified arg.
17793	L0+42E, 0+93N	.6M chip	-10 cm wide shear trend 51 deg. dip 68.5 E., host m.v.
17794	L0+33E, 1+22N	.3M chip	-m.v., silicified
17795	L0+42E, 1-22N	grab	-felsite dike
17796	L0+42E, 1-19N	grab	-sheared m.v.

**APPENDIX "D"**

**HORIZONTAL LOOP EM SURVEY**

**200 Metre Cable**

- a) 1777 Hz - East Sheet
- b) 444 Hz - East Sheet

**100 Metre Cable**

- c) 1777 Hz - West Sheet
- d) 444 Hz - West Sheet
- e) 1777 Hz - East Sheet
- f) 444 Hz - East Sheet



Ontario



41010NE0093 2.14522 CUNNINGHAM

900

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Mining Lands Branch  
Geoscience Approvals Section  
159 Cedar Street, 4th Floor  
Sudbury, Ontario  
P3E 6A5

Telephone: (705) 670-7264  
Fax: (705) 670-7262

May 27, 1992

Our File: 2.14522  
Transaction #W9260.0015

Mining Recorder  
Ministry of Northern Development  
and Mines  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir/Madam:

**SUBJECT: APPROVAL OF ASSESSMENT WORK SUBMITTED ON MINING CLAIMS  
P1158590 ET AL. IN CUNNINGHAM TOWNSHIP**

The assessment work credits for the Geological, Geophysical and Geochemical surveys, sections 12, 13 and 14 of the Mining Act Regulations have been approved as outlined on the attached Assessment Work Credit Form.

The approval date is May 25, 1992.

Please indicate this approval on your records.

Yours sincerely,

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

*JLJ*/jl  
Enclosures:

cc: Resident Geologist  
Timmins, Ontario

Assessment Files Office  
Toronto, Ontario

ASSESSMENT WORK CREDIT FORM

FILE NUMBER: 2.14522  
DATE: April 10, 1992  
RECORDER'S REPORT NUMBER: W9290.00015

RECORDED HOLDER: William Troup

CLIENT NUMBER: 203289

TOWNSHIP OR AREA: Cunningham Township

CLAIM NO.	VALUE OF WORK DONE ON THIS CLAIM	VALUE APPLIED TO THIS CLAIM	VALUE ASSIGNED FROM THIS CLAIM
P1158590	\$1950	\$2000	0
1158591	1350	2000	0
1158592	2650	2000	650
1158593	2760	2000	760
1158597	1650	2000	0
1158598	1900	2000	0
1158594	850	800	50
1158599	850	800	50
1158604	0	400	0
1158595	469	800	0
1158600	1710	800	910
1158603	0	400	0
1158596	0	139	0
1158601	0	0	0
1158602	0	0	0
	-----	-----	
	16,139	16,139	



# Report of Work Conducted After Recording Claim

Transaction Number  
**W9260.00015**

Ontario

## Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 870-7264.

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

Recorded Holder(s) <b>William R. Troup</b>		Client No. <b>203289</b>
Address <b>1365 CLARKSON RD. N. MISSISSAUGA L5S 2W6</b>		Telephone No. <b>(416) 823-5730</b>
Mining Division <b>Porcupine</b>	Township/Area <b>CUNNINGHAM TWP</b>	M or G Plan No. <b>6-1095</b>
Date Work Performed From: <b>May 1, 1991</b>		To: <b>July 1, 1991</b>

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

Work Group	Type
<input checked="" type="checkbox"/> Geotechnical Survey	<b>Geology, Geophysics, Geochem - Prospecting</b>
<input type="checkbox"/> Physical Work including Drilling	
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	

**RECORDED**

**JAN 13 1992**

Receipt \_\_\_\_\_

Total Assessment Work Claimed on the Attached Statement of Costs \$ ~~17,249.46~~ 17,250.

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

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

Name	Address
<b>William R. Troup</b>	<b>1365 CLARKSON RD. N / MISSISSAUGA</b>
<b>Barry Gordon</b>	<b>L5J 2W6</b>

**RECEIVED**

**APR 08 1992**

(attach a schedule if necessary)

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

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <b>Oct 30/91</b>	Recorded Holder or Agent (Signature) <b>William R. Troup</b>
--	--------------------------	---

**Certification of Work Report**

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying <b>William R. Troup</b>		
Telephone No. <b>(416) 823-5730</b>	Date <b>Nov 25, 91</b>	Certified By (Signature) <b>William R. Troup</b>

**For Office Use Only**

Total Value Cr. Recorded <b>\$ 17,250.</b>	Date Recorded <b>JAN 13/92</b>	Mining Recorder <b>[Signature]</b>	Province of Ontario Mining Division <b>RECEIVED</b>
	Date Approved <b>APRIL 12/92</b>	Date Approved	<b>JAN 13 1992</b>
	Date Notice for Amendments Sent		<b>[Signature]</b>







Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

W9260.00015

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

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

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour <i>Geol Mapping</i> Main-d'oeuvre <i>Sampling</i>	1800	
	Field Supervision Supervision sur le terrain		1,800
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type <i>Geoph - Max-Min</i>	3100 <sup>00</sup>	
	<i>Line Cutting</i>	3,640 <sup>00</sup>	
	<i>Assays Report</i>	1,938.50 750.00	9,428 <sup>50</sup>
	Supplies Used Fournitures utilisées	Type <i>Hardware + Tax</i>	352.48
	<i>Fuel (truck/ck fuel)</i>	310.40	
	<i>Airphotos</i>	172.67	
	<i>Tire &amp; Rim</i>	115.00	950.50
Equipment Rental Location de matériel	Type <i>Max-Min Rental</i>	1,200 <sup>00</sup>	
	<i>Repairs Max-Min</i>	651.00	
	<i>Chain Saw</i>	350 <sup>00</sup>	
	<i>Canoe</i>	35 <sup>00</sup>	2,236.80
Total Direct Costs Total des coûts directs			14,415.94

2. Indirect Costs/Coûts indirects

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

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type <i>3 weeks</i> <i>4x4 Bronco</i>	1,000	
	RECORDED JAN 13 1992 Receipt		
			1,000 <sup>00</sup>
Food and Lodging Nourriture et hébergement	<i>Restaurant</i>	70.93	
	<i>Groceries</i>	461.19	
	<i>Lodging (Cabin etc)</i>	801.40	1,333.52
Mobilization and Demobilization Mobilisation et démobilitation			500.00
Sub Total of Indirect Costs Total partiel des coûts indirects			2,833.52
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			2,833.52
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			17,249.46
			17,250 <sup>00</sup>

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

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

Timing Discounts

Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

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

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

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

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0.50
	RECEIVED

Certification Verifying Statement of Costs

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

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

To make this certification

Attestation de l'état des coûts

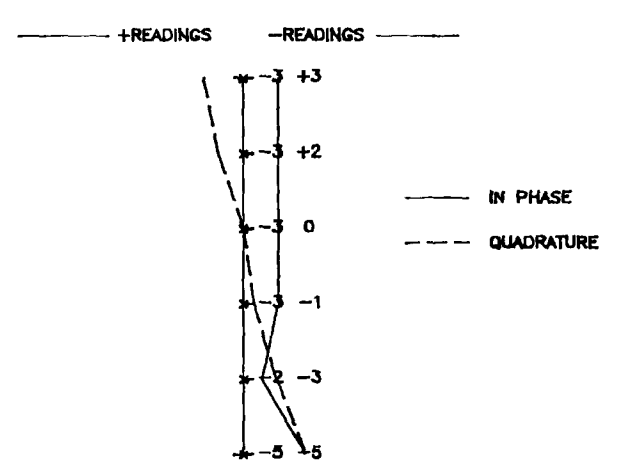
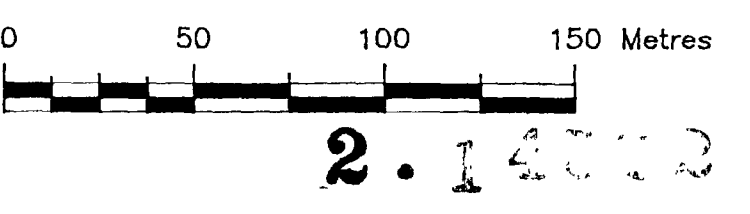
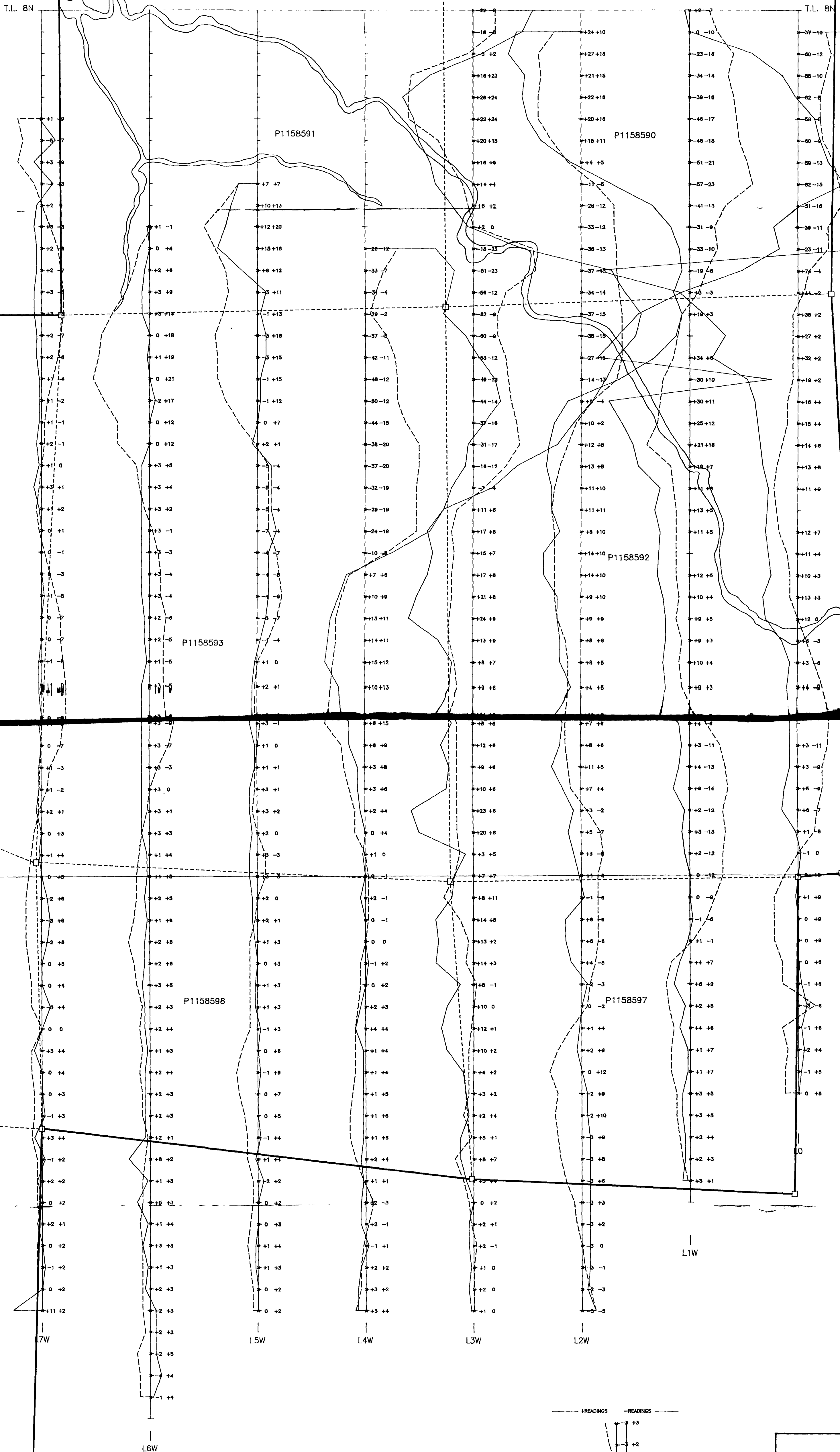
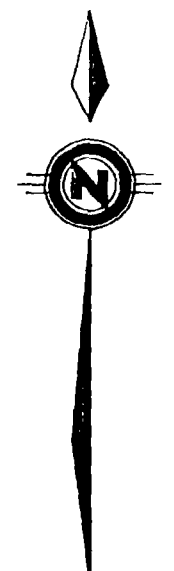
J'atteste par la présente : que les montants indiqués sont aussi précis que possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

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

à faire cette attestation.

Signature: William R. Trapp Date: 11/28/91

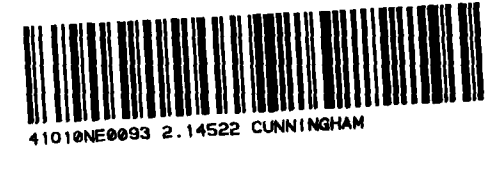
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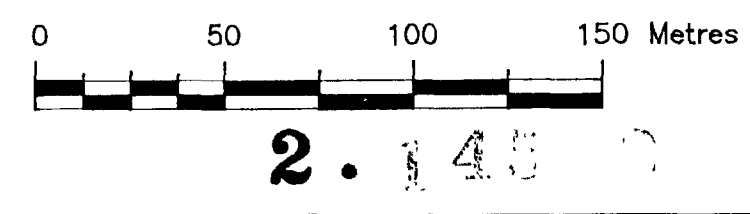
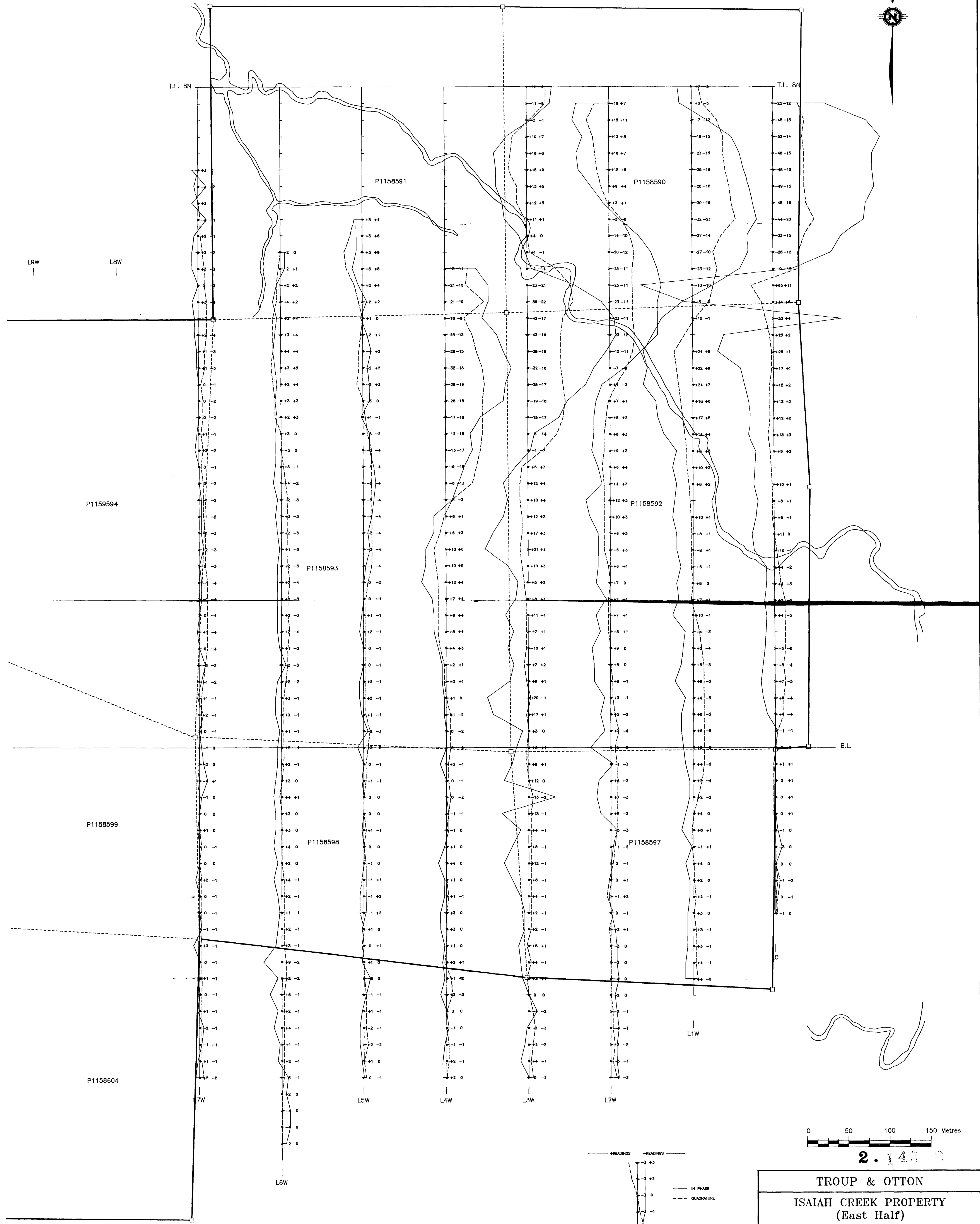
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FREQUENCY: 177Hz  
COIL SPACING: 200 Metres  
PROFILE SPACING: 1cm = 10%

**TROUP & OTTON**  
**ISAIAH CREEK PROPERTY**  
**(East Half)**  
**1777 Hz, 200m CABLE SEPARATION**

Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawing: gphy-e
Province: Ontario	NTS: 41 0/10



L7W L6W L5W L4W L3W L2W L1W L0



**TROUP & OTTON**  
**ISAIAH CREEK PROPERTY**  
**(East Half)**  
**444 Hz, 200m CABLE SEPARATION**

Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawing: gphy-e
Province: Ontario	NTS: 41 0/10

INSTRUMENT: APEX PARAMETRICS MAXMIN II  
 FREQUENCY: 444Hz  
 COIL SPACING: 200 Metres  
 PROFILE SPACING: 1cm = 10%





L18W | L17W | L16W | L15W | L14W | L13W | L12W | L11W | L10W | L9W | L8W

GREENLAW TWP.  
CUNNINGHAM TWP.

B.L.

P1158596

P1158595

P1158594

P1158601

P1158600

Conductor

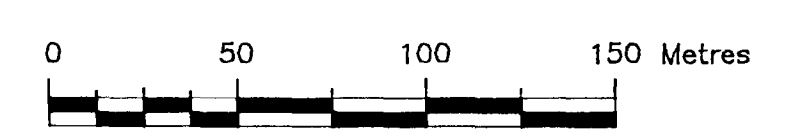
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P1158602

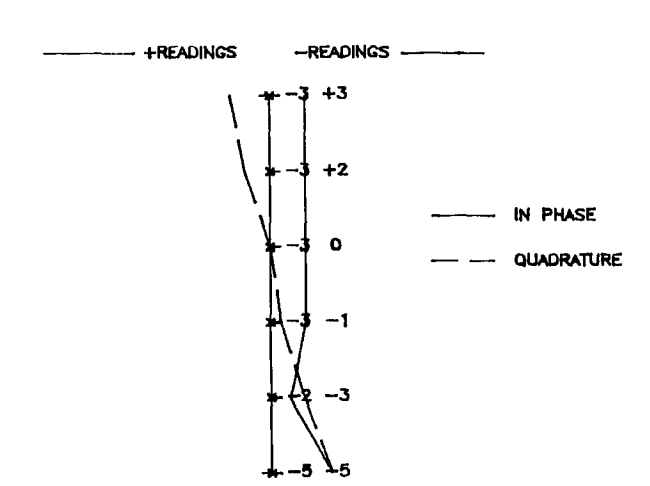
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P1158604

L18W | L17W | L16W | L15W | L14W | L13W | L12W | L11W | L10W | L9W | L8W

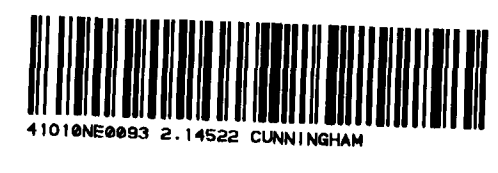
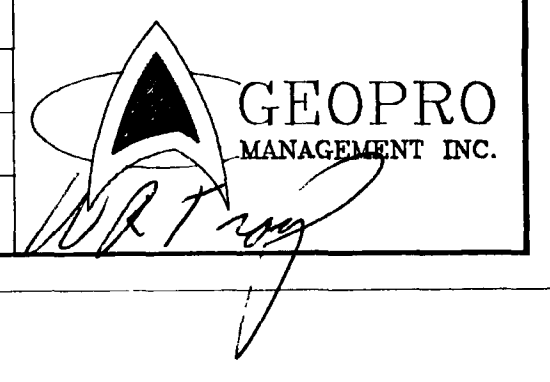


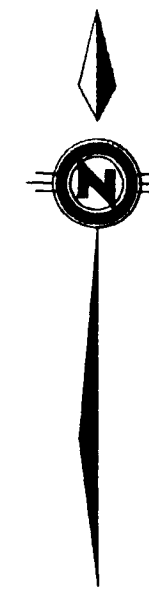
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INSTRUMENT: APEX PARAMETRICS MAXMIN II  
FREQUENCY: 1777Hz  
COIL SPACING: 100 Metres  
PROFILE SPACING: 1cm = 10%

<b>TROUP &amp; OTTON</b>	
<b>ISAIAH CREEK PROPERTY (West Half)</b>	
1777 Hz, 100m CABLE SEPARATION	
Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawing: gphy-w
Province: Ontario	NTS: 41 0/10





L18W L17W L16W L15W L14W L13W L12W L11W L10W L9W

GREENLAW TWP.  
CUNNINGHAM TWP.

B.L.

P1158596

P1158595

P1159594

P1158601

P1158600

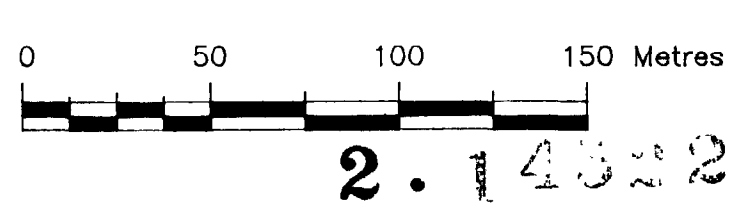
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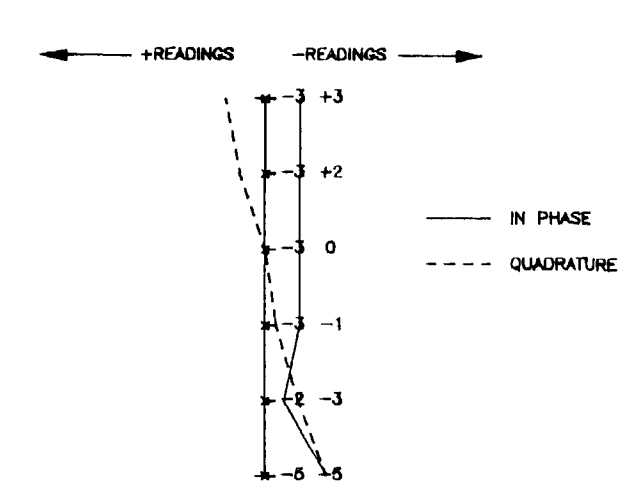
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P1158604

L18W L17W L16W L15W L14W L13W L12W L11W L10W L9W



2. 4522

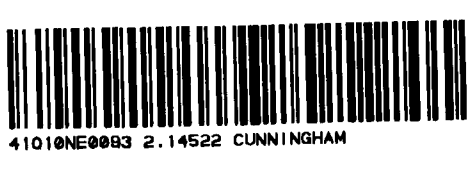


INSTRUMENT: APEX PARAMETRICS MAXMIN II  
FREQUENCY: 444Hz  
COIL SPACING: 100 Metres  
PROFILE SPACING: 1cm = 10%

**TROUP & OTTON**  
**ISAIAH CREEK PROPERTY**  
 (West Half)  
 444 Hz, 100m CABLE SEPARATION

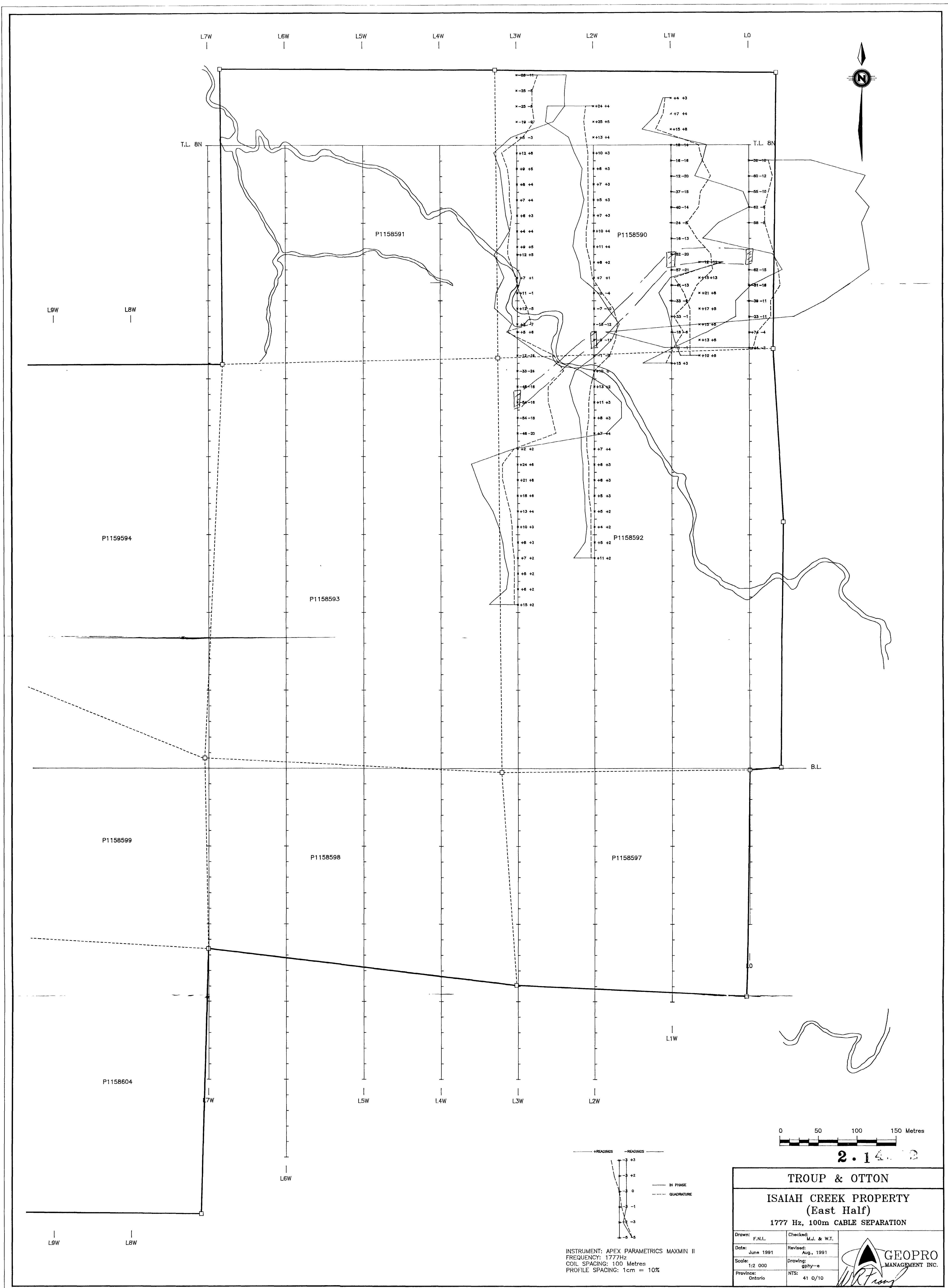
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Date: June 1991	Revised: Aug., 1991
Scale: 1:2,000	Drawing: CUN-WEST
Province: Ontario	NTS: 41 0/10

GEOPRO  
MANAGEMENT INC.



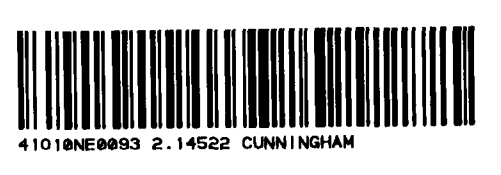
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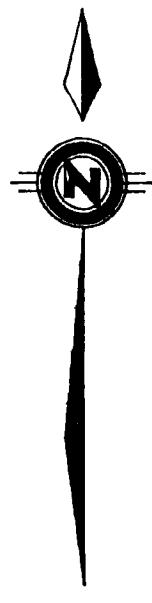
FIGURE 6d



<b>TROUP &amp; OTTON</b>	
<b>ISAIAH CREEK PROPERTY (East Half)</b>	
1777 Hz, 100m CABLE SEPARATION	
Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawing: gphy-e
Province: Ontario	NTS: 41 0/10

INSTRUMENT: APEX PARAMETRICS MAXMIN II  
 FREQUENCY: 1777Hz  
 COIL SPACING: 100 Metres  
 PROFILE SPACING: 1cm = 10%





L18W | L17W | L16W | L15W | L14W | L13W | L12W | L11W | L10W | L9W | L8W

GREENLAW TWP.  
CUNNINGHAM TWP.

P1158596

P1158595

P1159594

P1158601

P1158600

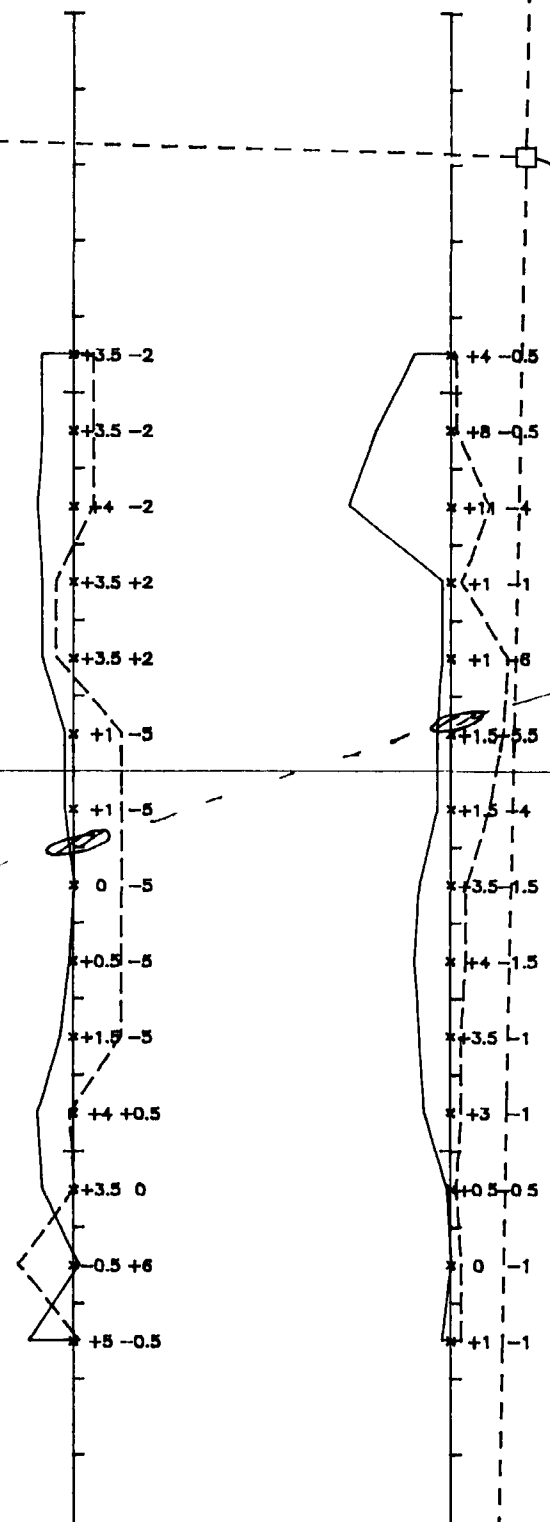
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P1158602

P1158603

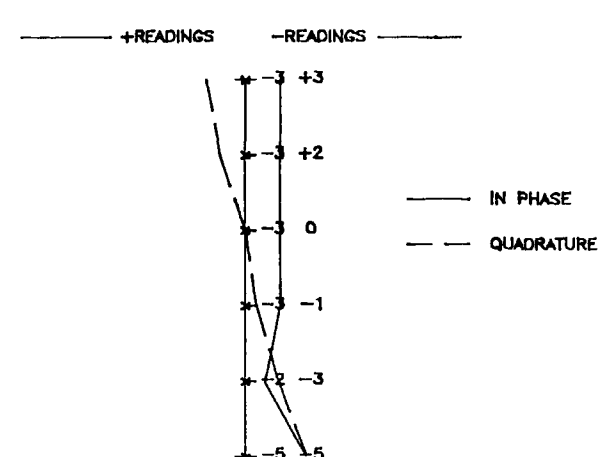
P1158604

L18W | L17W | L16W | L15W | L14W | L13W | L12W | L11W | L10W | L9W | L8W



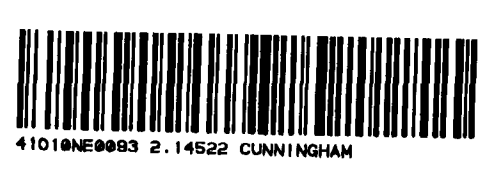
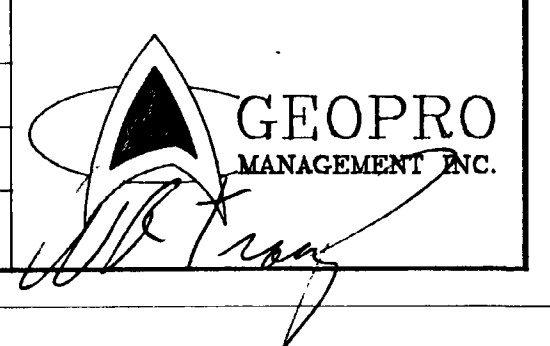
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2.14.000

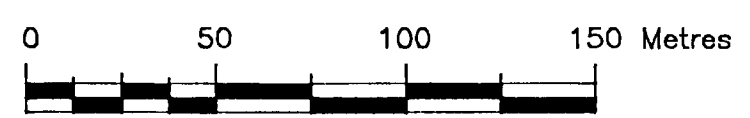
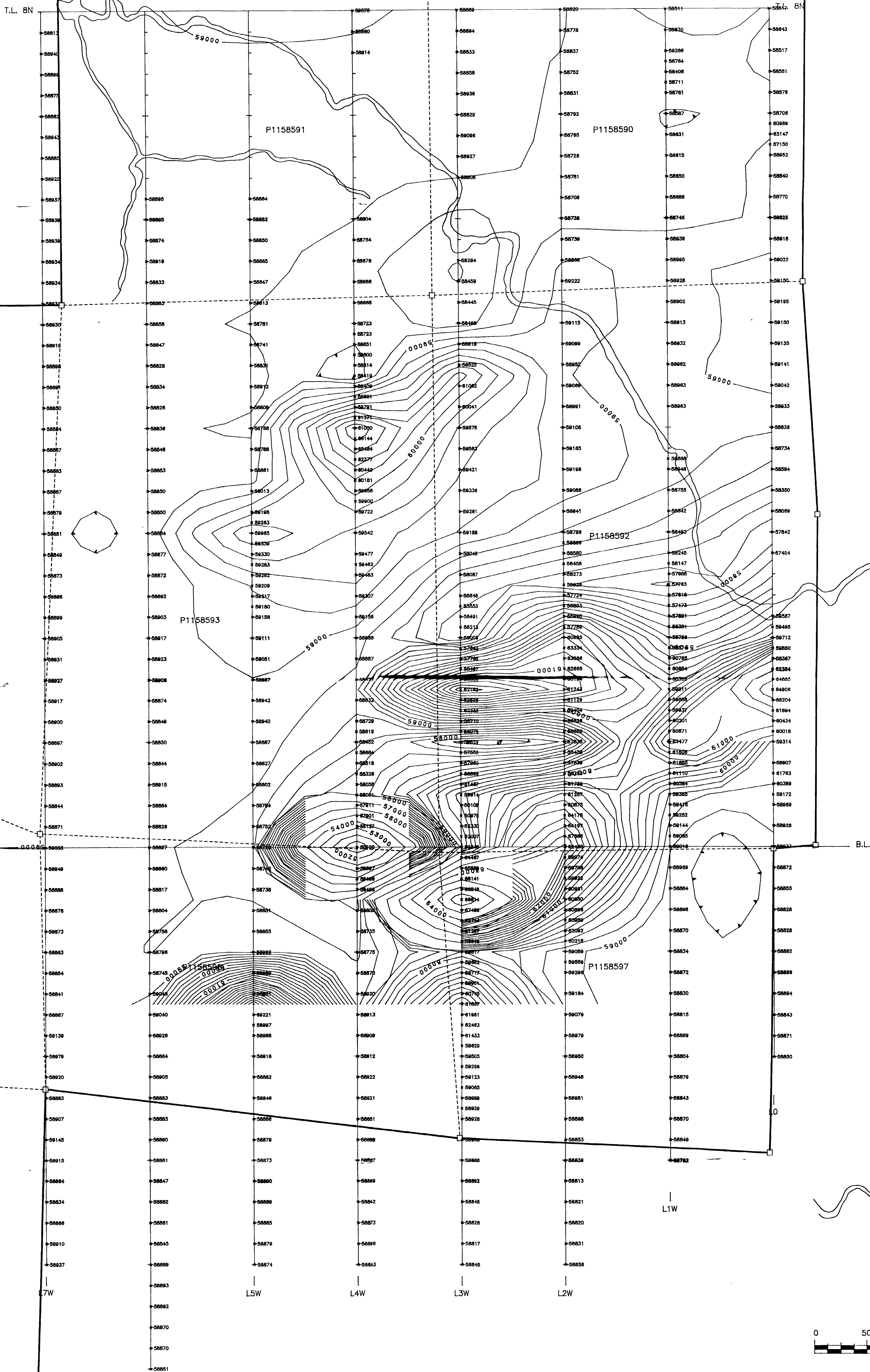


INSTRUMENT: APEX PARAMETRICS MAXMIN II  
FREQUENCY: 444Hz  
COIL SPACING: 100 Metres  
PROFILE SPACING: 1cm = 10%

TROUP & OTTON	
ISAIH CREEK PROPERTY (West Half)	
444 Hz, 100m CABLE SEPARATION	
Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawing: gph-y-w
Province: Ontario	NTS: 41 0/10



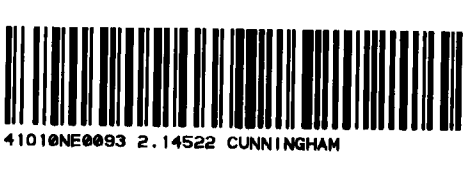
L7W | L6W | L5W | L4W | L3W | L2W | L1W | L0



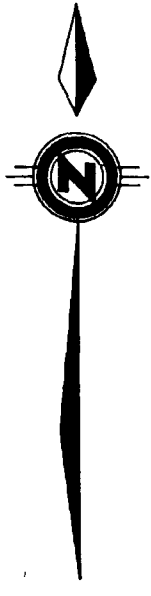
**TROUP & OTTON**  
**ISAIAH CREEK PROPERTY**  
**(East Half)**  
**MAGNETIC SURVEY**

Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawing: gphy--e
Province: Ontario	NTS: 41 0/10

**GEOPRO**  
 MANAGEMENT INC.

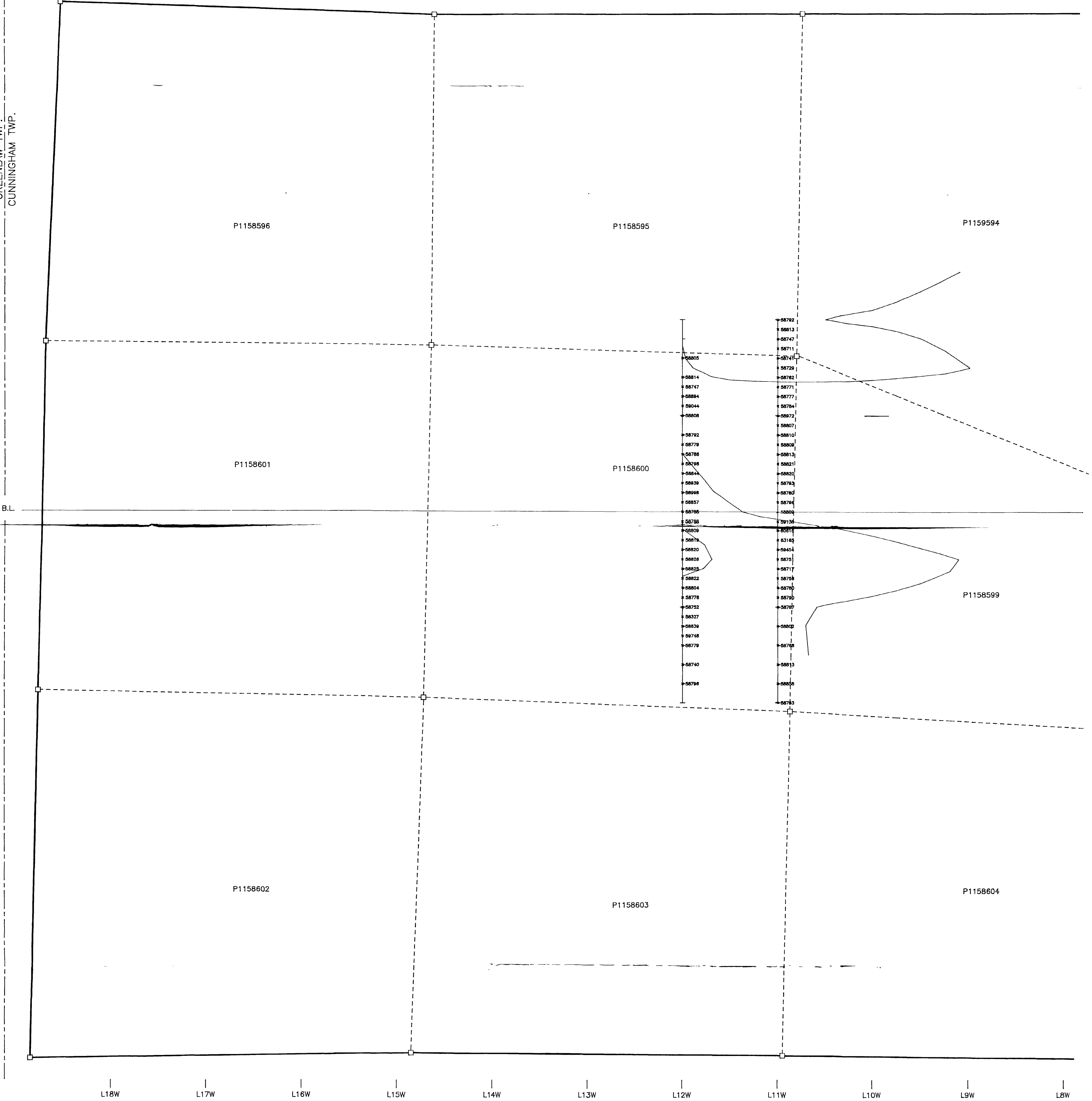






L18W | L17W | L16W | L15W | L14W | L13W | L12W | L11W | L10W | L9W | L8W

GREENLAW TWP.  
CUNNINGHAM TWP.



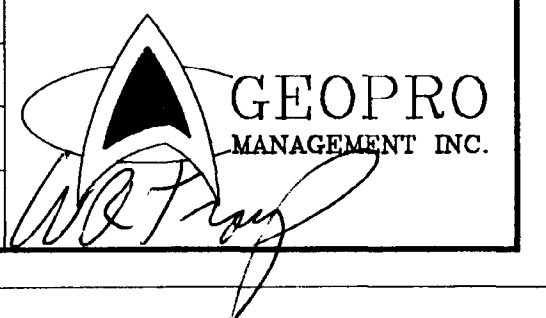
0 50 100 150 Metres

2.1402

TROUP & OTTON

ISAIAH CREEK PROPERTY  
(West Half)  
MAGNETIC SURVEY

Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawing: gpty-w
Province: Ontario	NTS: 41 0/10





L18W | L17W | L16W | L15W | L14W | L13W | L12W | L11W | L10W | L9W | LBW

GREENLAW TWP.  
CUNNINGHAM TWP.

P1158596

P1158595

P1158594

P1158601

P1158600

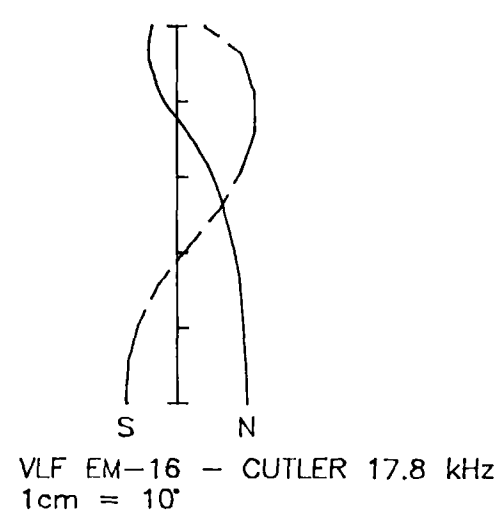
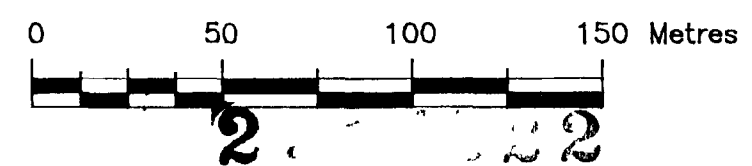
P1158599

P1158602

P1158603

P1158604

L18W | L17W | L16W | L15W | L14W | L13W | L12W | L11W | L10W | L9W | LBW



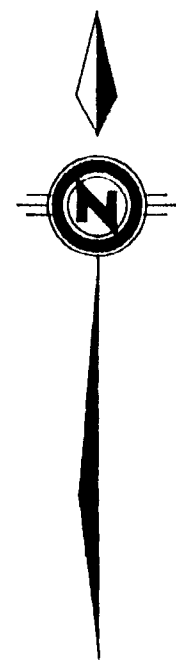
Conductor Axis

TROUP & OTTON

ISAIAH CREEK PROPERTY  
(West Half)  
VLF EM-16, CUTLER

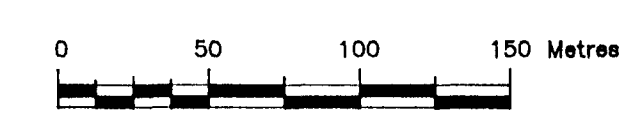
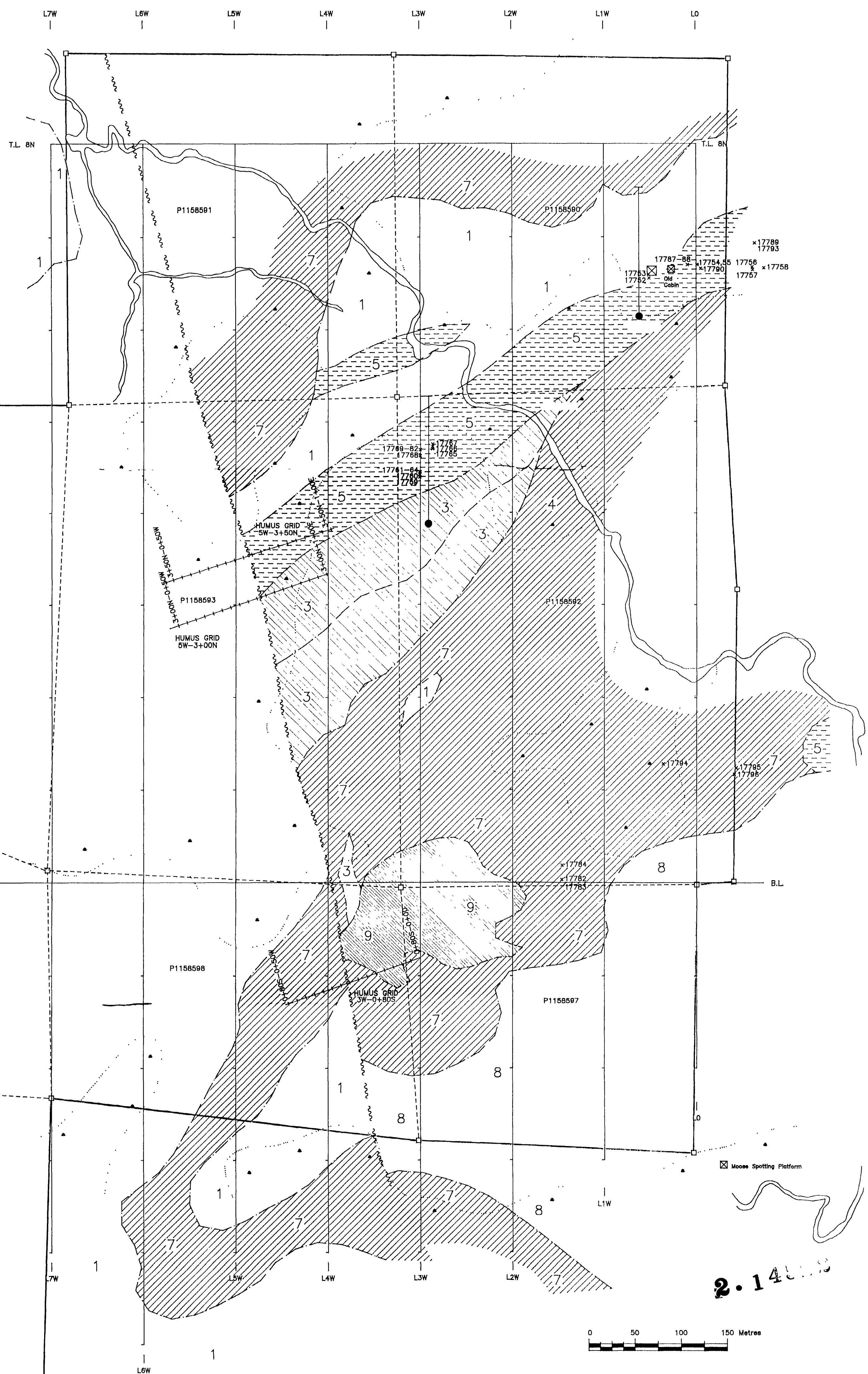
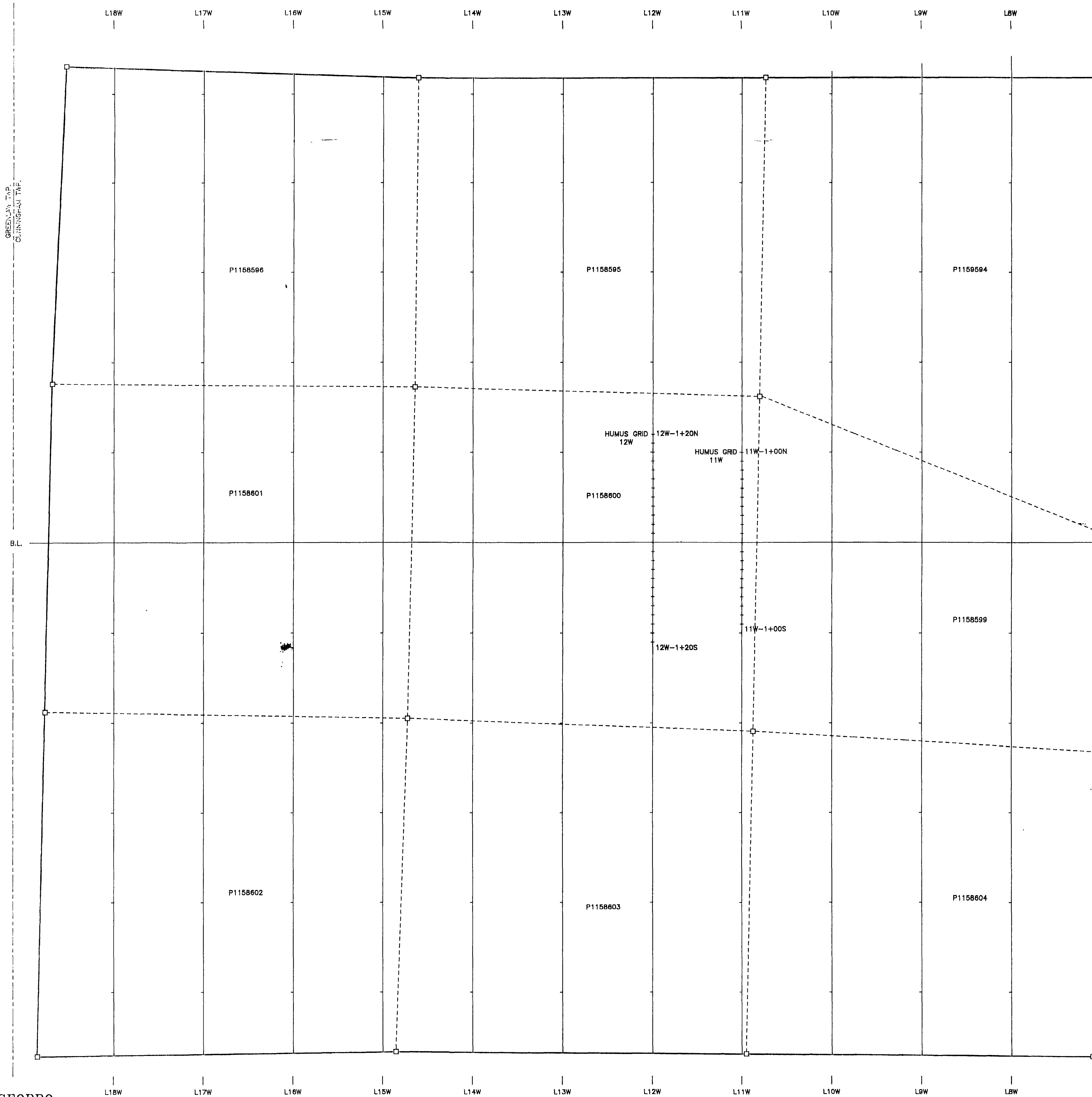
Drawn: F.N.L.	Checked: M.J. & W.T.
Date: June 1991	Revised: Aug., 1991
Scale: 1:2 000	Drawn: gphy-w
Province: Ontario	NTS: 41 0/10





- 9 Peridotite
- 8 Felsic Intrusive  
8Gr granite, 8Gd monzodiorite, 8DI leucodiorite, 8Fa felsite, 8Qd quartz diorite
- 7 Mafic Intrusive  
7Ga gabbro, 7Di diorite, 7Qg quartz gabbro
- 6 QFP quartz feldspar porphyry, QP quartz porphyry, FP feldspar porphyry
- 5 Metasediments  
5b carbonate metasediments, 5cht chert, 5arg argillite, 5IF iron formation, 5q quartzite, 5wke wacke/sandstone, 5cgl conglomerate
- 4 Volcaniclastics (general)
- 3 Felsic metavolcanic  
3fl flow, 3IF porphyritic flow, 3t tuff, 3lt lapilli tuff, 3tbx tuff breccia
- 2 Intermediate metavolcanic  
2fl flow, 2IF porphyritic flow, 2t tuff, 2lt lapilli tuff, 2tbx tuff breccia
- 1 Mafic metavolcanic  
1fl flow, 1IF porphyritic flow, 1p pillowed flow, 1t tuff, 1lt lapilli tuff, 1tbx tuff breccia

- qv quartz veined
- sl siliceous
- cb carbonaceous
- cl chloritic
- bl biotitic
- gf graphitic
- se sericitic
- mu muscovite
- ep epidote
- c calcite
- do dolomite
- serp serpentine
- gt garnet
- h,c hematite, iron carbonate
- mt,j magnetite, jasper
- py,po pyrite, pyrrhotite
- cp,sp chalcopyrite, sphalerite
- gl,mo galena, molybdenite



ISAIAH CREEK PROPERTY  
COMPILATION MAP

2.14

*WR King*