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**REPORT TO CLEYO RESOURCES
ON THEIR 1983 SUMMER PROSPECTING
PROGRAM, CARSCALLEN TOWNSHIP,
TIMMINS, ONTARIO**

November, 1983

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PORCUPINE MINING DIVISION
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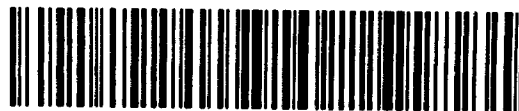


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1. INTRODUCTION

In the spring of 1983, Cleyo Resources Inc., a public company incorporated under the laws of Ontario, was formed to conduct exploration on two groups of claims located in Carscallen Township, Porcupine Mining District, Ontario. These properties were the subject of a report by Thomas Skimming of Thomas Skimming & Associates Ltd. dated February 21, 1983 in which a two stage program of surface exploration and diamond drilling was recommended.

C. von Hessert & Associates Ltd. was retained to conduct the recommended work. This report is the result of the Stage 1 work proposed by T. Skimming and which consisted of line-cutting, geological mapping, trenching and ground geophysics.

2. SUMMARY

During the period July 7 - September 13, 1983, C. von Hessert & Associates Ltd. conducted a geological program on the Carscallen Township properties of Cleyo Resources Inc. to test their gold potential.

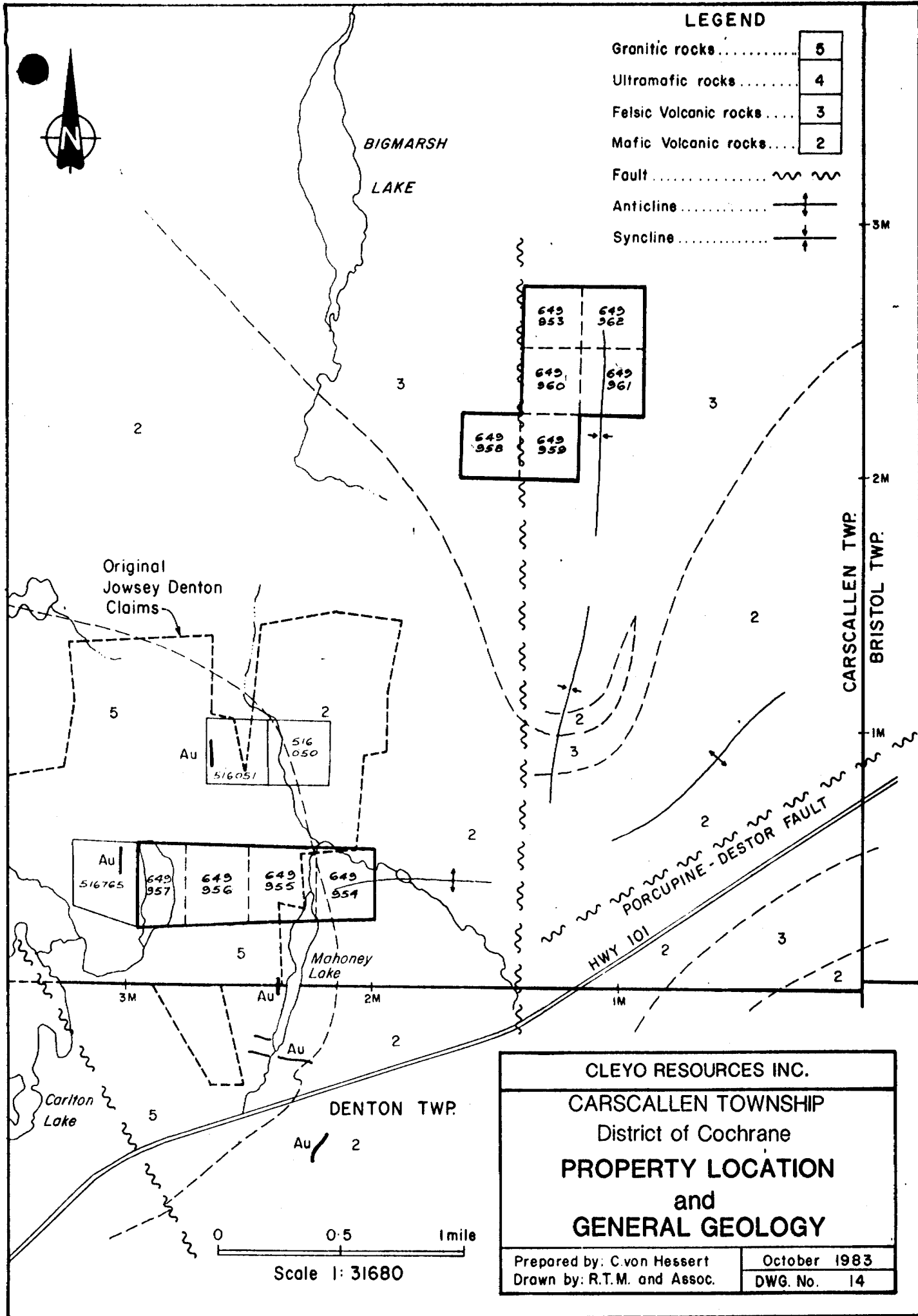
The properties of Cleyo Resources are divided into two groups: 1) the Bigmarsh Group, a northern group of ten claims which are entirely drift covered; and 2) the Mahoney Lake Group a southern group of four claims with abundant outcrop.

A program of line-cutting and geophysical investigation was undertaken on the Bigmarsh Group. A compilation of the results of the geophysical work, ground magnetics, VLF-EM and horizontal loop E-M, suggests that the property is underlain by one or more units of iron formation which may be gold bearing. Neighbouring claims to the south are the site of limited but spectacular occurrences of iron formational gold. A program of eight short diamond drill holes drilled from four set-ups, estimated to cost approximately \$70,000, is recommended for the Bigmarsh Group.

A program of geologic mapping, trenching, sampling, ground magnetic and VLF-EM was conducted on the Mahoney Lake Group. The predominant rock type on this claim group is granodiorite. Two small entries of volcanics with associated quartz porphyry dykes known as the line 8 and line 16 trenches returned gold assays ranging up to 0.46 troy ounces of gold per ton. Unfortunately these assays are discontinuous, associated with volcanics of very limited areal extent, and therefore of limited potential. No further work is recommended for the Mahoney Lake Group at this time.

LEGEND

Granitic rocks.....	5
Ultramafic rocks.....	4
Felsic Volcanic rocks....	3
Mafic Volcanic rocks....	2
Fault.....	~ ~ ~ ~ ~
Anticline.....	↑ ↓
Syncline.....	↓ ↑



Original Jowsey Denton Claims

Au | 516765 649 957 649 956 649 955 649 954

Au | 516051 516050

CLEYO RESOURCES INC.	
CARSCALLEN TOWNSHIP	
District of Cochrane	
PROPERTY LOCATION	
and	
GENERAL GEOLOGY	
Prepared by: C.von Hessert	October 1983
Drawn by: R.T.M. and Assoc.	DWG. No. 14

0 0.5 1mile
Scale 1: 31680

3. PROPERTY DESCRIPTION AND ACCESS

The Carscallen properties of Cleyo Resources Inc. consist of two claim groups, the Mahoney Lake (4 claims) and Bigmarsh Group (6 claims) located in the southern half of Carscallen Township and separated by a distance of 1 1/2 miles.

The Mahoney Lake Group is easily accessible by a main haulage road of the Mallette Lumber Company which transgresses the claim group and connects with Highway 101, seventeen miles west of the city of Timmins. Much of this claim group overlies a small hill which has been completely logged and is covered by a dense growth of young poplar.

The Bigmarsh Group, 1 1/2 miles to the north, is accessible by newly constructed logging roads leading from the main Mallette haulage road. The Bigmarsh Group of claims is covered by mixed fir, hardwood and cedar. The property is extensively drift covered and, in places, marshy.

The claims are numbered as follows:

Mahoney Lake Group

P649954 - 649957

Assessment Work Required
and Due Date

20 days, January 7, 1984

Bigmarsh Group

P649958 - 649962
and P649963

20 days, January 7, 1984
20 days, March 5, 1984

4. REGIONAL GEOLOGY

Rocks underlying the properties of Cleyo Resources are Precambrian in age and belong to the Abitibi supergroup of volcanics and associated granitic intrusives. The geology may be viewed on the Cote-Eldorado Sheet, Ontario Department of Mines Map P118 or Map 359 and P23 also published by the Ontario Department of Mines (Ontario Geologic Survey). The scale of these maps ranges from 1 inch to 1/4 mile to 1 inch to 1 mile. A lack of detail makes these maps poor guides to local geology. Broadly speaking, the Mahoney Lake Group is shown to be underlain by Algoman red granite, granite porphyry and grey biotite granite. Rocks of the Bigmarsh Group are mapped as 'acid extrusives'.

Carscallen Township lies at the western terminus of the Porcupine-Destor as it is presently known. This structural feature is of considerable economic importance because many of the gold mines in the Timmins camp lie on, or within, a few kilometers of the fault and are thought to be genetically related to it.

Late Precambrian diabase dykes striking roughly north-south and crosscutting both volcanic and granitic intrusives are common in Carscallen Township and the entire Timmins camp.

5. PREVIOUS WORK ON THE CARSCALLLEN CLAIMS

In his initial report to Cleyo Resources, Tom Skimming reviews the exploration history of the company properties. The following is a brief and incomplete recapitulation:

1926 Sydney Beanland and Frank Hurst discover wire gold on the eastern section of a claim group in south central Carscallen Township (Jowsey Denton claims, see Figure 14). In describing the history of the Jowsey Denton property, W.D. Harding and L.G. Berry state (ODM annual report, vol. 47, part IV, 1938):

"Gold was first discovered on the western section of the group in shear zones in the granite. In 1926, Sydney Beanland and Frank Hurst discovered wire gold on the eastern section of the group. Since then the iron formation that carried the gold-bearing veins has been diamond-drilled. Apparently no records were kept of this work, and as core has been discarded no information was available to the writer. The claims were subsequently restaked by Dave MacKenzie, who reported the presence of visible gold in the old pit on the iron formation. In 1936, the group was acquired by Jowsey Denton Gold Mines, Limited. The company has since done considerable work, and some additional mineralized showings have been exposed."

1946 During the period June 12-19, 1946, Nelson Hogg, regional Department of Mines geologist for Timmins visited the Jowsey Denton claims and reported:

"The property, except for a small area in the north-east corner, is underlain by grey granite, in the form of a plug about 1 mile in diameter, the eastward extension of a larger granite mass in Keefer and Denton townships. The granite is intersected by several northerly striking quartz diabase dykes, and a

few dykes of quartz-porphyry which strike to the south-east.

In the north-east corner, in claims 11538, 11539, 11541 and 11542, the rock is largely greenstone, but there is very little outcropping. The granite greenstone contact is exposed in claim 11541. The greenstones consist of andesitic lavas, agglomerate, and iron formation. No pillows are exposed, but the Iron Formation has a north-south strike, and shows minor folding. These rocks are also cut by north-striking quartz diabase, and some quartz-porphyry dykes similar to those in the granite.

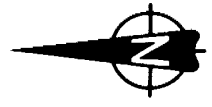
Gold values have been encountered in several different types of occurrence. The major recent developments have been in shears striking north-south through the grey biotite granites; This type includes the 1010 vein in claim P-1010, and the Jowsey vein, in claim P-1385. Both these veins strike north-south and dip steeply to the east and both are more than 1/2 mile from the contact between granite and greenstone. Both veins have been traced intermittently on surface for some 700 feet. They are marked by sharply defined rusty-weathering shears in the granite. . . .

A second type of gold occurrence is the "Wire Gold" showing on claim P-11538. This was originally a spectacular discovery, and a great deal of high grade ore was taken from a surface pit. However, it did not continue at depth, and a repetition of the occurrence has not yet been found. The gold in this case occurs in gash veins of quartz and white calcite extending into the I.F. from the footwall, at a minor fold. . . .

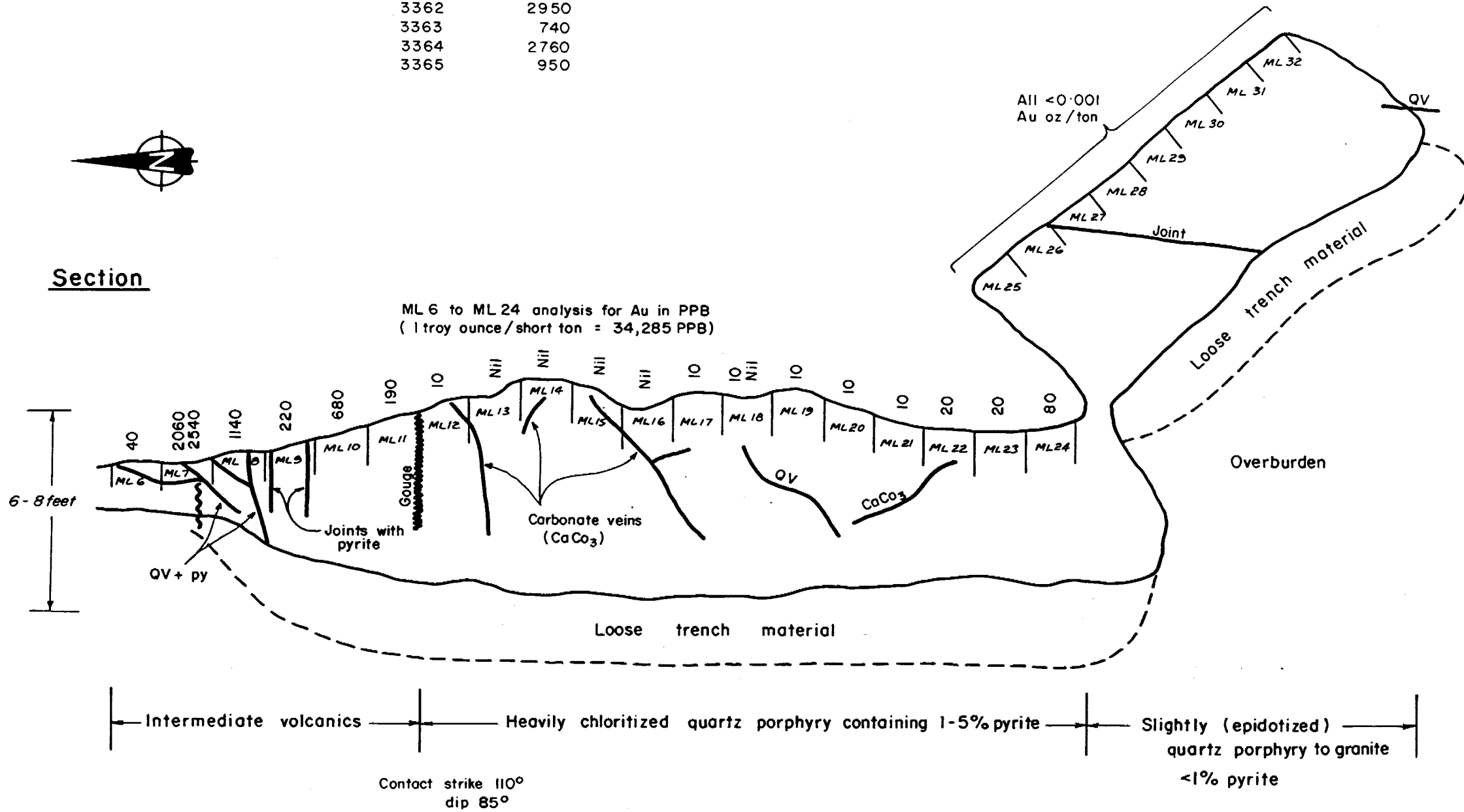
The iron formation is 10 to 30 feet wide, and carries massive pyrrhotite, but no gold values. Its general strike is north-south, and its dip is about 80 E. Surface stripping has uncovered a tight fold in the iron formation, overturned and dipping east. Just below the nose of this gold on the west limb, a series of gash veins occur extending from the footwall, and petering out toward the hanging wall. These veins are filled with quartz and coarsely crystalline white calcite.

GRAB SAMPLES TAKEN FROM LOOSE TRENCH MATERIAL

Assay No.	Assay(PPB Au)	Description
3358	9260	All samples are a chloritized, carbonatized, pyrite rich (5%) quartz porphyry
3359	7890	
3360	1800	
3361	2610	
3362	2950	
3363	740	
3364	2760	
3365	950	



Section

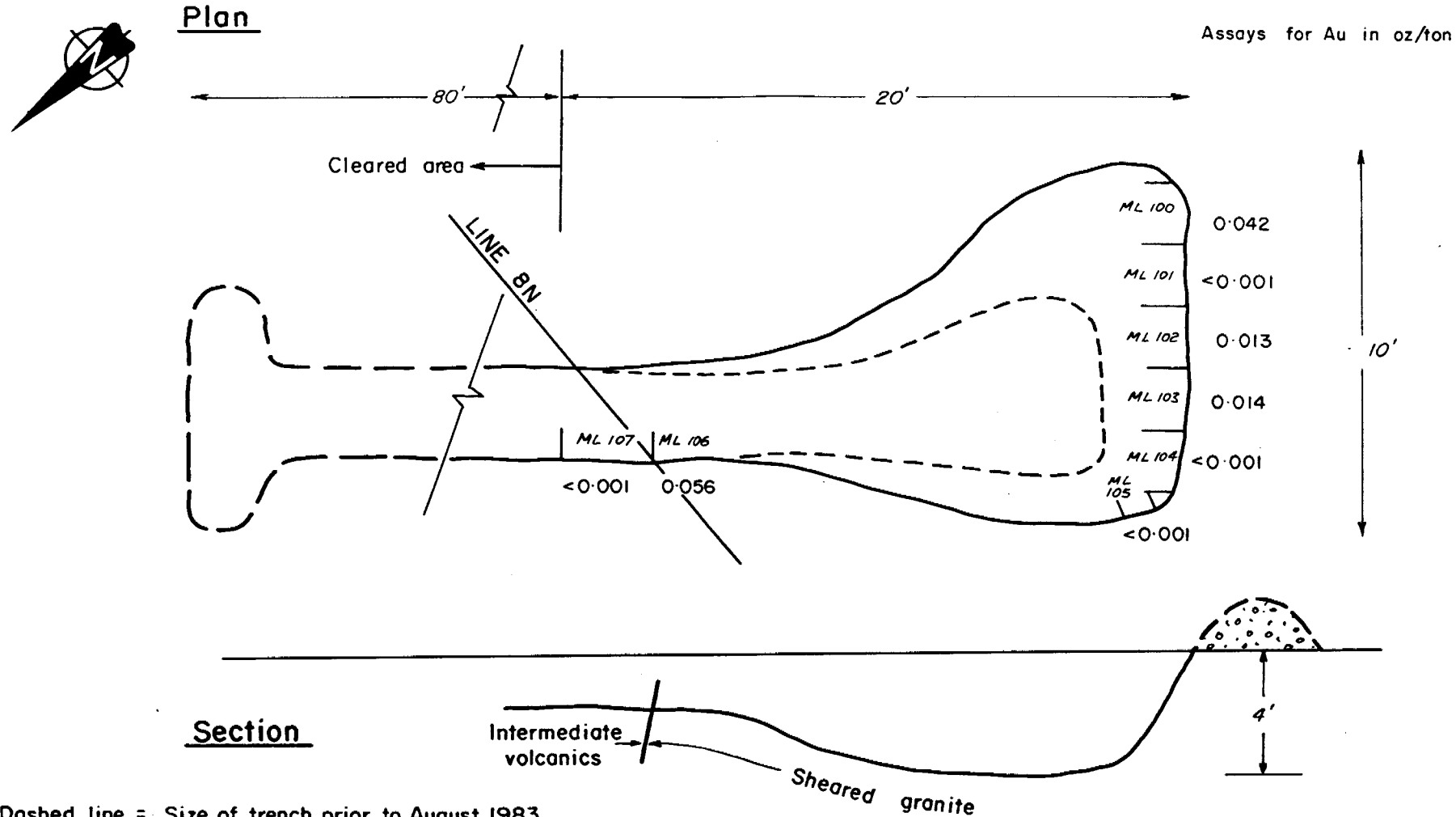


SKETCH OF TRENCH, LINE 16N



LEGEND

- Quartz vein QV
- Pyrite Py
- Vein or joint —
- Shear or fault gouge ~~~~~



Dashed line = Size of trench prior to August 1983.

Solid outline of trench shows 1983 expansion.

SKETCH OF TRENCH, LINE 8N



GRAB SAMPLES TAKEN FROM TRENCH MUCK

Assay No.	Assay (oz Au/ton)	Description
3382	0.054	Intermediate volc. with minor pyrite
3383	0.01	" " " "
3384	0.01	Sheared granite to quartz porphyry
3385	0.002	Intermediate volcanic
3386	0.15	" "
3387	0.46	Sheared granite
3388	0.033	" "
3389	0.075	Intermediate volcanic
3390	0.040	" "
3391	<0.001	Sheared granite
3392	0.14	Intermediate volcanic
3393	0.08	Sheared granite
3394	0.005	Intermediate volcanic
3395	<0.001	Sheared granite
3396	0.064	Intermediate volcanic

CLEYO RESOURCES INC.	
MAHONEY LAKE PROJECT Carscallen Twp., District of Cochrane, Ont.	
DETAIL OF TRENCHES	
Prep. by: R. Sproule; C. von Hessert & Assoc.	Sept. 1983
Drawn by: R. T. Marcroft & Assoc.	Dwg. No. 2

R. Sproule

The quartz occurs as stringers, and as vuggy material with numerous euhedral crystals and extending inward into the vugs. The quartz stringers carry pyrite, pyrrhotite and chalcopyrite, and a light grey mineral said to be a selenite. The wire gold occurs in the calcite, but usually tailing off from a concentration of sulphides originating in one of the quartz stringers. The selenite is closely associated with the gold. Several drill holes have been spotted to probe for extensions or recurrences of this high grade occurrence but no success has been achieved. The original ore was mined out by means of a surface pit, and a great deal of it ended up in mineral collections throughout the country.

A third type of occurrence on the property is a sulphide zone along the hanging wall of a second band of iron formation in 11538. The iron formation is striking N-S. in acid lavas, and for some distance follows the contact of a diabase dyke. It may be the same I.F. as that on the wire-gold occurrence, but no attempt has been made to trace the two bands to the south in order to determine their relationship. It is about 30 feet wide and carries massive pyrrhotite and pyrite in seams and streaks. Only low values have been encountered in this type of deposit."

Nelson Hogg concludes his report:

"Encouraging values have been obtained from the 1010 vein and Jowsey vein, but the other showings in the greenstone have produced only low values. No definite data is available at present. The Northern Miner, July 11, 1946, reports that d.d.h. 25 on the Jowsey vein intersected 1.1 ft. of 2.82 oz. grade at a depth of 60 feet, and 2.4 feet of 0.165 oz. at 141 ft."

A report in the June 6, 1946 Northern Miner describes samples of pyrite and arsenopyrite taken over widths varying from 6 to 12 inches on the 1010 vein as follows in ounces of gold per ton; 2.26, 0.46, 0.44, 3.31, 0.12,

1.72 and 1.42 and averaging 1.39.

According to Skimming, the article continues with a description of the Jowsey vein:

"Sampling results showed 6.0 oz. over 0.7 feet, 3.1 oz. over 1.2 feet, 4.8 oz. over 0.8 feet, 0.22 oz. over 1.0 feet and 5.44 oz. over 0.7 feet. A chip sample taken from several places on the vein assayed 2.66 oz. In the July 11, 1946 issue, one drill hole is reported at a depth of 60 feet, a section of 1.1 feet assayed 2.82 oz. gold."

1946 Hollinger Consolidated Gold Mines drill six holes on a property consisting of 18 unpatented claims directly west and north of the Jowsey Denton claims. The former boundaries of the 1946 Hollinger claim group include the present Bigmarsh claim group of Cleyo Resources Inc. in their entirety. Drilling was confined to the western extremity of the claim group at unspecified locations apparently adjacent to the Jowsey Denton claims.

Drilling was designed to test an unspecified 'electrical survey' which presumably outlined 'sheared conditions' trending east-west from the Jowsey Denton claims.

Holes were directed north-south, intersected brecciated and carbonatized rhyolite, and returned anomalous (0.005 - 0.03 ounces of gold per ton) but unspectacular assays. Occasional sections of iron formation and pyritic-graphitic sediments were encountered.

1959 In 1959 Hollinger Consolidated Gold Mines Ltd. conducts ground magnetic and electromagnetic surveys on ground which, in part, encompasses the Bigmarsh claims of Cleyo Resources. According to Skimming:

"The northern portion of this survey encompassed what is now the Bigmarsh Lake claim along picket lines oriented north-south (parallel to the known geological trend in that area) and for this reason, were ineffective in exploring the property. In the electromagnetic survey, a so-called "hook shaped" conductor was outlined by Hollinger and tested with three diamond drill holes. In each hole, a graphitic tuff containing nodules and bands of pyrite, was intersected. Although the exact location of this anomaly with respect to the boundary of the Cleyo Resources property is unknown, it appears from existing data, that the most southeasterly claim (P649959) in the Bigmarsh Lake claim group, covers a small portion of the anomaly.

A north-south trending magnetic anomaly (assumed to be within claim P649959) was also tested by diamond drilling by Hollinger. A cherty, magnetite iron formation was encountered within an assemblage of intermediate to acid volcanic rocks. Disseminated pyrite and pyrrhotite were reported to be present within the iron formation. The plot of the drill hole on maps prepared by Hollinger suggests that the hole was drilled at a very oblique angle to the strike of the iron formation. No assays are given in the Hollinger report."

1976 Geophysical Engineering drills two holes in east central Carscallen Township, south and east of the Bigmarsh claims. One hole is drill directed due north, the other west. Both encounter rhyolite tuff with graphitic and pyritic subsections. The value of gold assays reported are essentially nil.

1978 Gold Shield Syndicate commissions R.J. Bradshaw, P.Eng., to supervise a magnetic and electromagnetic survey on a group of six claims partially encompassing the Jowsey Denton property. As a result of this work, Bradshaw recommends a \$33,000 program of mapping, sampling, and shallow drilling.

1982 GoWest Amalgamated Resources Ltd. - R.J. Bradshaw, P.Eng., reports on a magnetic and VLF-EM survey covering the same claims as were held by the Gold Shield Syndicate in 1978. The geophysical work in this survey was conducted along lines oriented differently than in the original 1978 survey. As a result of this work Bradshaw recommends a combined program of mapping and drilling of \$80,000.

1983 Cleyo Resources Inc. - Cleyo Resources commissions Thomas Skimming to prepare a qualifying report on its Carscallen properties.

6. RESULTS OF THE 1983 SUMMER PROGRAM

During the period July 7 - September 13, 1983, C. von Hessert & Associates Ltd. conducted a field program of gold prospection on the properties of Cleyo Resources in Carscallen Township, Timmins, Ontario. These properties consist of two non-contiguous but closely related claim groups, the Mahoney Lake and Bigmarsh Groups, totalling ten claims and encompassing approximately 400 acres. The work which has been carried out is comprised of line-cutting (at a 200' spacing), geologic mapping, prospecting, trenching, channel sampling, and geophysical surveying (total field magnetics, VLF and horizontal loop EM).

MAHONEY LAKE

a) Geologic Mapping:

Results of geologic mapping on the Mahoney Lake Group are depicted on Figure 1, 'A Geological Map, Mahoney Lake Project' which accompanies this report. Rocks which underlie the Mahoney Lake Group are almost entirely granodioritic in composition and are part of a regional granite intrusive (Nelson Hogg, 1946). However, in at least two locations on this claim group, intermediate volcanics and intercalated quartz-feldspar porphyries outcrop. It is in these volcanics that gold mineralization occurs in accompaniment with pyrite in sheared porphyries.

The best assay which has been obtained is 0.46 ounces of gold per ton taken from rubble on the line 8 trench (see Figure 1). Channel samples taken from this trench are depicted on Figure 2 and range in grade from 0.056 to less than 0.001 ounces of gold per ton. The host rock is an intermediate composition metavolcanic. This trench has been sampled by

earlier prospectors and has an irregular dimension of approximately eight to twenty feet wide and is one hundred feet long.

The best assay obtained from the line 16 trench is 0.27 ounces of gold per ton taken from rubble (see Figures 1 and 2). Channel samples collected from this trench show that this mineralization grades for 0.03 - 0.05 ounces of gold per ton over a distance of four feet in a trench which extends approximately fifty-two feet.

This is the trench previously sampled by T. Skimming who obtained a chip sample grading 0.15 ounces of gold per ton. Host rock consists of sheared, chloritized quartz porphyry which grades into granodiorite and overlying intermediate volcanics. Due to the limited areal extent of the gold hosting volcanics and porphyries, which appear to be roof pendants set in granodiorite, the opportunity for extending the present zones of mineralization in both the line 8 and line 16 trenches is limited.

On the remainder of the Mahoney Lake claims, approximately fifteen rock samples were collected from scattered locations over the granodiorite and sent for assay. These samples were taken to test for the possible occurrence of gold in the granodiorite. Assays yielded results ranging from NIL to 0.002 ounces of gold per ton indicating that the granodiorite is essentially barren. All samples and assays are plotted on Map No. 1.

In addition to the two known areas of outcropping volcanics, volcanic rocks probably outcrop north of Mahoney Lake near the eastern property boundary. This conclusion is inferred from a 500 gamma magnetic anomaly encountered in this area.

b) Geophysical Surveys (VLF and Mag):

The Mahoney Lake Group was surveyed with a total field precession magnetometer providing an estimated precision of five gammas. The magnetic topography of the claims is featureless reflecting the homogeneity of the underlying granodiorite. The single exception is the previously mentioned magnetic high north of Mahoney Lake (see Figure 4).

A VLF-EM survey conducted on the same grid shows four conductors, three of which trend northwest and one which trends northeast. All conductors are probably caused by surficial features such as clay horizons and water saturated soil. Data has been plotted on Figures 5 and 6, VLF-EM survey profiles and filtered VLF-EM contours, both at a scale of one to twelve hundred. Readings were taken at one hundred foot intervals using a Geonic's EM-16 radio receiver. Profiles were filtered according to Fraser's Rules. The prominent features of both the magnetic and VLF-EM surveys have been plotted on Map No. 3, a Geological-Geophysical Compilation, Mahoney Lake Project.

BIGMARSH GROUP

Geophysics (VLF, HEM and Mag):

The Bigmarsh Group of claims, which are entirely drift covered, have been the subject of three geophysical surveys conducted on lines set two hundred feet apart. The results of this work are the subject of an independent report by John Boniwell, Consulting Geophysicist.

Reconnaissance mapping by C. von Hessert & Associates Ltd. on neighbouring claims south of the Bigmarsh Group have revealed a well developed iron formation set within enclosing volcanic

rocks and striking northwards onto the property of Cleyo Resources Inc. These iron formations are frequently sulphide bearing and evidently have been thoroughly prospected by early prospectors judging by the number and size of exploratory trenches and pits. However, outcrops are infrequent north of the Mahoney Lake Group and cease to exist altogether approximately 1/2 mile south of the Bigmarsh claims. Therefore, despite the intensity of this earlier work, the gold potential of these iron formations is as yet unknown.

Figure 13, 'A Geophysical Compilation of the Bigmarsh Claims', prepared by Boniwell and which accompanies this report, shows the axes of VLF, HEM, and magnetic anomalies as well as the position of inferred faults. There seems little doubt that the iron formations which outcrop to the south on adjacent claims and which are sporadically pyritized and carbonated with ankerite, siderite and calcite extend onto the Bigmarsh claims where they provide strong magnetic anomalies. These north-south striking iron formations appear to be truncated and disrupted by cross cutting faults which are evident in the magnetic profiles and confirmed in some instances by the EM. Coincident with and flanking the presumed iron formations are VLF and HEM conductors. The country rock on the Bigmarsh claims most likely consists of volcanics of intermediate to acidic composition. In addition to these rocks, Boniwell recognizes a diabase dyke which trends northerly along the base line completely transgressing the claim group and a small mafic intrusive centred at station 23E, line 98N. The EM conductors are inferred to dip to the northeast at approximately sixty degrees.

This entire geophysical scenario lends itself to interpretation as sulphide bearing iron formation consisting of individual lenses off-set by cross faults. A possible

exception to this interpretation of the EM conductors is the presence of an exceptionally strong HEM anomaly on line 106N at the southern boundary. This response is probably due to graphitic tuffs which are known to occur within the volcanics in the Bigmarsh area (Hollinger, 1959).

Figures 7 - 12, in the back pocket of this report, show the results of the geophysical work. The magnetic and VLF data has been handled in a manner similar to that of the Mahoney Lake survey.

A MAX-MIN II survey was conducted by J.S. Bortnick Ltd. on the Bigmarsh grid at a coil separation of 600 feet. Readings were taken at frequencies of 444, 1777, and 355 Hertz.

John Boniwell, Consulting Geophysicist, has prepared a brief review of the geophysics on the Bigmarsh claims for Clevo Resources. Describing the MAX MIN, Boniwell states:

"A series of short conductors has been defined trending north-west across the grid area. At least four separate events are involved within this context, (including incomplete responses at the ends of lines 120N, 124N) these so arranged as to give the appearance of either a single conductive horizon which has been broken up by interceding structure, or of a wide lithologic unit which is host to a set of lenses of conductive material therein.

The first alternative, it is to be noted, furnishes a potential marker horizon to the setting. While this may be invaluable to geologic projections through the area, it at the same time presumes a common cause to the observed conduction. Given a sulphide cause, this circumstance would be considered highly advantageous; unfortunately by report (Thomas Skimming, 1983), the reigning probability is that the strongest response of the survey on line 106N, the southerly bounding line of present coverage, related to a graphite occurrence in tuffs. Further, there is no

evidence that it carries gold.

Nevertheless, this relationship is yet to be proven, let alone shown to be persistent. The conductor anomalies as resolved in the survey indicate mediocre sources (no better than 10 mhos/m) of narrow width (less than 3 m (10')). Where dip can be discerned, it is to the east or north-east (circa 60°); cover is generally in the order of 30 m.

It must be said here that this kind of conductor valuation and behaviour lend themselves more to sulphide incidence than graphite on the odds. Thus despite the reservations about graphite, this system retains an appeal that merits further investigation. Most of all, the evident discontinuities imply cross-structural breaks, and these clearly are worth pursuit in any gold exploration where transgressive vein structures are sought.

The second alternative is not so interesting by comparison, as it rather gathers everything up under the wraps of a characteristic internal heterogeneity. It infers that the host unit otherwise extends across the area in good order and says nothing about interacting cross-faulting. Happily, it is believed this is the less likely of the two scenarios conceived."

Boniwell further elaborates with regard to the VLF data:

"In the main, obtained anomaly axes stream north-west across the area. In so doing, they show empathy with the horizontal loop conductors without necessarily producing one-to-one correlations with them. Indeed the V.L.F. axes display a sufficient independence of their own through their linearity, continuity and occasional spatial off-sets to suppose that they are shear structures which control to a marked degree the behaviour and positioning of the horizontal loop events. This is particularly true for the most southerly pair of horizontal loop conductors which are now seen to have been displaced en echelon by an inter-threading shear. The

V.L.F. conduction through this section, it is to be noted, is of above-average quality, and is thus compatible with mineral development along its plane, whether those minerals be clay, graphite or sulphides.

The chief interruption to V.L.F. continuity exists on line 116N at approximately 36E. A cross-fault bearing ENE is presumed responsible, since it finds a ready accommodation with the other features of the area while it itself is expressed, albeit tentatively, in the V.L.F. data.

There is some additional evidence for a closely N-S striking conduction in a couple of places. These indications where they occur -- at the BL between 104N-106N, and through 16E/96N -- imply V.L.F. axes that are more likely to reflect intraformational causes than structural."

With regard to the magnetics, Boniwell recognized three major features: 1) a Matachewan age diabase dyke straddling the base line up to line 118 and beyond which transgresses the grid; 2) iron formation(s) which produce the greatest magnetic relief and trend north-south; and 3) a small mafic plug centred on stations 23+00E and 98+00N.

The abrupt termination of the iron formation and the apparent offsets of flanking VLF and MAX-MIN conductors are best interpreted as resulting from east-west faulting (in the opinion of the writer).

7. CONCLUSIONS AND RECOMMENDATIONS

On the basis of the work completed to date, it can be concluded that on the Mahoney Lake Group:

- 1) The opportunities for finding additional gold bearing zones are limited due to the predominance of barren granodiorite which is the prevalent rock type.
- 2) The likelihood of improving the tenor of known gold occurrences on the claims is poor because hosting porphyries and shears are narrow, limited in areal extent, and low in grade. Therefore no further work on the Mahoney Lake Group is recommended unless new conformation which materially affects the interpretation of the claim geology becomes available.

With regard to the Bigmarsh Group, it can be concluded:

- 1) That the geology inferred by the geophysics reveals an encouraging picture for the occurrence of gold. Coincident VLF and HEM conductors may represent gold bearing sulphide zones hosted within iron formations. This is a common setting for gold in general and is exemplified in particular by the nearby occurrences on claim 11538 and claim 1010 (Hogg, 1946). In addition, the probable cross fractures which transgress the iron formations may represent dilatent zones infilled with gold bearing quartz and carbonate. Such structures are known to host gold in the Timmins camp and have been described by Hogg to occur as tension gashes in the nose of folded iron formation at the site of the spectacular wire gold showing. Therefore, a program to test the gold potential of the Bigmarsh claims is warranted and recommended. This additional work should consist of diamond

drilling from four set-ups to test both EM and cross cutting (structural) anomalies. Two short holes should be drilled from each set, totalling an aggregate footage of approximately 2,000 feet.

Approximate set-up locations and drill azimuths and inclinations should be:

<u>Holes</u>	<u>Location</u>	<u>Azimuth</u>	<u>Inclinations</u>
CR-1	106+75N, 46+00E	240	-45°
CR-2	106+75N, 46+00E		-55°
CR-3	113+50N, 39+00E	230	-45°
CR-4	113+50N, 39+00E		-55°
CR-5	118+50N, 42+25E	210	-45°
CR-6	118+50N, 42+25E		-55°
CR-7	119+00N, 35+80E	220	-45°
CR-8	119+00N, 35+80E		-55°

Naturally, the site, depth and inclination of successive holes are subject to change as the drill program unfolds.

8. ESTIMATED PROGRAM COST

The cost of the drill program as outlined is estimated as follows:

1)	Direct drill costs: 2,000 of BQ drilling @ \$25 per foot including mobilization and demobilization, moving from hole to hole, casing in overburden, pumping water, core boxes, and coring	\$ 50,000
2)	Drill supervision: geologist, 25 days @ \$250. . .	6,250
3)	Transportation and accommodation for the program duration.	2,750
4)	Assays.	1,000
5)	Engineering, report preparation	<u>2,500</u>
	Total	\$ 62,500
	12% Contingency	<u>7,500</u>
	Grand Total	\$ 70,000

Actual drilling costs may vary considerably depending on the speed and the efficiency with which the drill contractor completes his work. Hopefully, this estimate is on the higher side.

November 4, 1983

Christian von Hessert
Consulting Geologist

R. M. Sproule

Rick Sproule
Geologist

9. REFERENCES CITED

- Bradshaw - 1978, Report on the Gold Shield Syndicate property, Carscallen Township, Ontario.
- George - 1979, Property Evaluation, Gagnon property Denton and Carscallen Township, Ontario for Speculator's Guild Inc.
- Skimming - 1983, Report on the Property of Cleyo Resources Inc., Carscallen Township Claims, Ontario.
- Geology of Keefer-Eldorado Area, ODM 47th Annual Report, Vol. XLVII, Part IV, 1938.
- von Hessert - 1983, Progress Report to Cleyo Resources Inc. on Geological Work Conducted on their Carscallen Township Properties, Timmins, Ontario.
- Boniwell - 1983 - An untitled review of Geophysics on the Bigmarsh Claim Group.

MAP REFERENCES

- Map 2299G O.D.M. - G.S.C.
Airborne Magnetic Survey (Dana Lake Sheet) Parts of Cochrane, Sudbury and Timiskaming Districts.
Scale - 1:63,360 (1964)
- Map 20,001G Geological Survey of Canada High Resolution Aeromagnetic Survey, 42A/5G Parts of Carscallen and Turnbull Townships, District of Cochrane.
Scale - 1:25,000 (1973)
- Map 20,004G Geological Survey of Canada High Resolution Aeromagnetic Survey 42A/5H Parts of Turnbull, Carscallen, Bristol and Godfrey Townships, District of Cochrane.
Scale - 1:25,000 (1973)
- Map No. 35g Ontario Department of Mines
The Townships of Carscallen, Bristol and Ogden, District of Cochrane, Ontario.
Scale - 1:47,520 (1926)
- Map No. 47d Ontario Department of Mines
Keefer-Eldorado Area, District of Timiskaming, Ontario
Scale - 1:63,360 (1938)
- Prel. Map P-118 Ontario Department of Mines
Cote-Eldorado Sheet, District of Cochrane, Ontario.
Scale - 1:63,360 (1962)
- Map P23 Ontario Department of Mines
Carscallen Township
Scale - 1:15,840 (1957)
- Map 2205 Ontario Division of Mines
Timmins-Kirkland Lake Geological Compilation Series
Scale - 1:253,440 (1973)

10. APPENDIX

Sample Assays, Descriptions and Locations

<u>Sample Number</u>	<u>Assay Number</u>	<u>Location</u>	<u>Assay*</u>	<u>Description</u>
CR-1	3246	LN0 30+10W	nil	Weathered grey granite
CR-2	3247	LN0 30+50W	nil	Granite slightly carbonate altered
CR-3	3248	40 ft S of LN0 @ 32 W	.002	Sheared granite (quartz chlorite schist)
CR-4	3249	60 ft S of LN0 @ 32 W	.01	Sheared granite (quartz chlorite schist)
CR-5	3250	LN2+00N 31+00W	nil	Sheared clay altered granite
CR-6	3251	LN4+00N 19+25W	.002	Weathered granite
CR-7	3252	LB8+00N 21+75W	nil	Weathered granite < 1% Py
CR-8	3253	LN8+00N 21+10W (Old trench material)	.002	Sheared altered granite-diorite, 80-90% quartz 10-20% light green clay mineral, 2-5% Py disseminated throughout
CR-9	3254	LN8+00N 21+10W	.005	Same as CR-8, loose trench material
CR-10	3255	LN8+00N 21+10W	.01	Loose trench material, int volcanic flow with 1-3% disseminated Py
CR-11	3256	LN8+00N 30+30W	.002	Int volcanic flow <1% disseminated Py
CR-12	3257	LN16+00N 34+90W	nil	Int volcanic flow slight carbonate alteration 3-5% disseminated Py
CR-13	3258	LN16+00N 39+00W	.02	Loose trench material chlorotized quartz porphyry. A quartz vein cuts the sample & approximately 15% Py is disseminated throughout
CR-14	3259	LN16+00N 39+00W	.002	Loose trench material as CR-13 but without the quartz vein & only 2-5% Py
CR-15	3260	LN16+00N 39+00W	.002	Loose trench material as CR-14 only 1% disseminated Py. Also slight effervesence noted along hair line fractures

*NOTE: All assays are in ounces of gold per ton unless specified otherwise.

Py = pyrite

Int = Intermediate

<u>Sample Number</u>	<u>Assay Number</u>	<u>Location</u>	<u>Assay*</u>	<u>Description</u>
ML-1	3307	LN16+00N 39+00W	.019	ML-1 - ML-5 2' Chip samples taken from cleaned trench. All are a chlorotized quartz porphyry with 1-5% Py
ML-2	3308	" "	.02	
ML-3	3310	" "	.12	
ML-4	3311	" "	.003	
ML-5	3312	" "	.001	
ML-2a	3309	" "	.094	
ML-6	3339	LN16+00N 39+00W	40ppb	ML6 - ML-11 are 2' wide channel samples. All are int volcanic with varying amounts of disseminated Py
ML-7	3340	" "	2060ppb (2540)	
ML-8	3341	" "	1140ppb	
ML-9	3342	" "	220ppb	
ML-10	3343	" "	680ppb	
ML-10	3343	" "	680ppb	
ML-11	3344	" "	190ppb	
ML-12	3345	LN16+00N 39+00W	10ppb	
ML-13	3346	" "	nil	
ML-14	3347	" "	nil	
ML-15	3348	" "	nil	
ML-16	3349	" "	nil	
ML-17	3350	" "	10ppb	
ML-18	3351	" "	10ppb	
ML-19	3352	" "	10ppb	
ML-20	3353	" "	10ppb	
ML-21	3354	" "	10ppb	
ML-22	3355	" "	20ppb	
ML-23	3356	" "	20ppb	
ML-24	3357	" "	80ppb	
ML-25	3374	LN16+00N 39+00W	<.001	ML-25 - ML-32 are 2' wide channel samples taken from slightly altered quartz porphyry to granite. Py content < 1%
ML-26	3375	" "	"	
ML-27	3376	" "	"	
ML-28	3377	" "	"	
ML-29	3378	" "	"	
ML-30	3379	" "	"	
ML-31	3380	" "	"	
ML-32	3381	" "	"	

*NOTE: All assays are in ounces of gold per ton unless specified otherwise.

Py = pyrite

Int = Intermediate

<u>Sample Number</u>	<u>Assay Number</u>	<u>Location</u>	<u>Assay*</u>	<u>Description</u>
ML-P16-G	3358	LN16N 39+00W	9260ppb	Samples ML-P16-G are all samples of loose trench material & are composed of Py rich 2-5% chlorotized quartz porphyry
	3359	" "	7870ppb	
	3360	" "	1800ppb	
	3361	" "	2610ppb	
	3362	" "	2950ppb	
	3363	" "	740ppb	
	3364	" "	2760ppb	
	3365	" "	950ppb	
ML-P8-G	3382	LN8+00W 21+10W	.054	Samples listed below are grab samples. Int volcanic with minor <1% Py Int volcanic with minor <1% Py Sheared granite with minor <1% Py Int volcanic with minor <1% Py Int volcanic 2% Py Sheared granite 1-2% Py Int volcanic 2% Py Int volcanic 1-2% Py Int volcanic 1-2% Py Sheared granite with minor <1% Py Int volcanic 1-2% Py Sheared granit 1-2% Py Int volcanic 1-2% Py Sheared granite 1-2% Py Int volcanic 1-2% Py
	3383	" "	.01	
	3384	" "	.01	
	3385	" "	.002	
	3386	" "	.15	
	3387	" "	.46	
	3388	" "	.15	
	3389	" "	.075	
	3390	" "	.040	
	3391	" "	<.001	
	3392	" "	.14	
	3393	" "	.080	
	3394	" "	.005	
	3395	" "	<.001	
	3396	" "	.064	
	ML-100	3366	7+80N 21+10W	
ML-101	3367	" "	<.001	
ML-102	3368	" "	.013	
ML-103	3369	" "	.014	
ML-104	3370	" "	<.001	
ML-105	3371	" "	<.001	
ML-106	3372	8+00N 21+10W	.56	2' wide chip samples of int volcanic Py = 1-3%
ML-107	3373	" "	<.001	

*NOTE: All assays are in ounces of gold per ton unless specified otherwise.

Py = pyrite

Int = Intermediate



371/83

Type of Survey(s): MAGNETOMETER VLF GM.

Claim Holder(s): CLG40 RESOURCES

Address: 1165 McLEAN DR. TIMMINS ONT.

Survey Company: C. VON HESSGART AND ASSOCIATES

Date of Survey (from & to): 7 7 83 to 13 9 83

Total Miles of line Cut: 10.6

Name and Address of Author (of Geo-Technical report): RICHARD H. SPROULE 40 C. VON HESSGART & ASSOCIATES 49 WELLINGTON ST E. TORONTO ONT.

Township or Area: CARSCALLEN

Prospector's Licence No.: M 20951

Credits Requested per Each Claim in Columns at right

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	649953	
	649958	
	649959	
	649960	
	649961	
	649962	

RECEIVED
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed: _____

Performed on Claim(s): CLG40

Calculation of Expenditure Days Credits: 781 ÷ 15 = 51.6

Total Expenditures: \$ _____

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.

Date: Dec 1/83

Recorded Holder or Agent (Signature): R.H. Sproule

Total number of mining claims covered by this report of work: 6

For Office Use Only

Total Days Cr. Recorded: 480

Date Recorded: Dec 2/83

Date Approved as Recorded: _____

Mining Recorder: [Signature]

Branch Director Mining Recorder: _____

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: DAVID R. BELL GEOLOGICAL SERVICES INC. P.O. Box 1450 TIMMINS, ONT. P4N 5J8

Date Certified: Dec 6, 1983

Certified by (Signature): [Signature]

372/93

Your file - 2.6137 Jan 31st
 Instructions: - Please type or print.
 - If number of mining claims traversed exceeds space on this form, attach a list.
 - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
 - Do not use shaded areas below.

2.6137

The Mining Act

Type of Survey(s) GEOLOGICAL MAGNETOMETER VLF EM		Township or Area CARSKILL	
Claim Holder(s) CLGYO RESOURCES		Prospector's Licence No. M 20951	
Address 1165 HELEN DR. TIMMINS ONT.			
Survey Company C. VAN HESSEGT AND ASSOCIATES	Date of Survey (from & to) 7 7 83 13 9 83		Total Miles of line Cut 7
Name and Address of Author (of Geo-Technical report) REHARD M. SPRAWLE % C VAN HESSEGT & ASSOCIATES 49 WELLINGTON ST. E. TORONTO ONT.			

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

Mining Claims Traversed (List in numerical sequence)			Mining Claims Traversed (List in numerical sequence)		
Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
P	649954				
	649955				
	649956				
	649957				

Already sent out.

RECEIVED

MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed
FORCUPINE MINING DIVISION

Performed on (Date)
RECEIVED DEC - 2 1983

Calculation of Expenditure Days Credits	P.M.	Total Days Credits
Total Expenditures	7 8 9 10 11 12 1 2 3 4 5 6	
\$	÷ 15 =	

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.

Total number of mining claims covered by this report of work. **4**

For Office Use Only

Total Days Cr. Recorded 320	Date Recorded Dec 2/83	Mining Records
	Date Approved as Recorded 8.7.1	Director of Mining Records

Date
Dec. 1/83

Recorded Holder or Agent (Signature)
R.M. Sprawle

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
RICHARD M. SPRAWLE % C VAN HESSEGT AND ASSOCIATES 49 WELLINGTON ST. E. TORONTO ONT. M5E 1C9

Date Certified
Dec 6 1983

Certified by (Signature)
R.A. Bell

1985 02 22

Your File: 371
Our File: 2.6137

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Notice of Intent dated February 5, 1985
Geophysical (MaxMin, VLF & Magnetometer)
Survey on Mining Claims P 649953, et al,
in the Township of Carscallen

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,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1K3
Phone: (416)965-4888

D. Kinviq:mc

cc: Clevo Resources
1165 McLean Drive
Timmins, Ontario

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

cc: Resident Geologist
Ministry of Natural Resources
Timmins, Ontario

Encl.

L.D. *L.D.*



Ontario

Ministry of Natural Resources

Technical Assessment Work Credits

File 2.6137

Date 1985 02 05

Mining Recorder's Report of Work No. 371

Recorded Holder	CLEYO RESOURCES
Township or Area	CARSCALLEN TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ VLF 40 _____ days Magnetometer _____ 20 _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	P 649953 649958 to 62 inclusive

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:

Recorded Holder
CLEYO RESOURCES

Township or Area
CARSCALLEN TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<p>Geophysical</p> <p>Electromagnetic <u>MaxMin</u> <u>20</u> days</p> <p>Magnetometer _____ days</p> <p>Radiometric _____ days</p> <p>Induced polarization _____ days</p> <p>Other _____ days</p> <p>Section 77 (19) See "Mining Claims Assessed" column</p> <p>Geological _____ days</p> <p>Geochemical _____ days</p> <p>Man days <input type="checkbox"/> Airborne <input type="checkbox"/></p> <p>Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/></p> <p><input type="checkbox"/> Credits have been reduced because of partial coverage of claims.</p> <p><input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.</p>	<p>P 649953 649960 to 62 inclusive</p>

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

5 DAYS ELECTROMAGNETIC

P 649959

No credits have been allowed for the following mining claims

not sufficiently covered by the survey Insufficient technical data filed

P 659958

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:



Feb. 20/85

1985 02 05

Your File: 371
Our File: 2.6137

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

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

T.R.K. D. Kinvig:mc

Encls.

cc: Cleyo Resources
1165 Mclean Drive
Timmins, Ontario

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



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1985 05 02

2.6137/371

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.

2.6137

REGISTERED

1984 06 25

File: 2.6137

Cleyo Resources
1165 McLean Drive
Timmins, Ontario

Dear Sirs:

RE: Geophysical (MaxMin, V.L.F. & Magnetometer)
and Geological Survey submitted on Mining
Claims P 649953 et al in the Township of
Carscallen.

Enclosed is a copy of our letter dated March 12, 1984
requesting additional information for the above-described
survey.

Unless you can provide the required data by July 5, 1984,
the mining recorder will be directed to cancel the
work credits recorded on December 2, 1983..

For further information, please contact Mr. Ray
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
Phone: (416)965-1380

S. Hurst:sc

cc: Mining Recorder
Timmins, Ontario

Encl.

*called
84-06-26
will be sending
back maps shortly*

Ray

Your File: 2.6137

Your File: #371/83,
#372/83

March 12, 1984.

Cleyo Resources
1165 McLean Drive
Timmins, Ontario

Dear Sir:

RE: Geophysical (MaxMin, V.L.F. and Magnetometer) and Geological
Survey submitted on mining claims P 649953 to 62 inclusive
in the Township of Carscallen.

received April 4/84
Enclosed are the geological and the MaxMin plans, in duplicate,
for the above mentioned survey. Please indicate the outcrops
in colour, indicate the actual readings at each station on the
MaxMin plans, and return all of the maps to this office.

For further information, please contact Mr. F.W. Matthews at
416/965-6918.

Yours very truly,

S. E. Yundt
Director
Land Management Branch

Whitney Block
Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-6918

D. Kinvig:dg

Encls:

cc: C. von Hessert & Associates Ltd.
49 Wellington Street East
Toronto, Ontario M5E 1C9

cc: Mining Recorder
Timmins, Ontario.



Mining Lands Comments

- you wanted to see this file again

To: Geophysics *Mr. Barlow.*

Comments
- Horiz loop EM maps missing

Approved

Wish to see again with corrections

Date *April 18/84*

Signature *R. Raley*

To: Geology - Expenditures

Comments
*- This ~~file~~ was sent from O.G.S. to A.F.R.O. by accident, and was 'lost' for several months. It is now over 6 months from date of Recording. One of the claims that should have been cut back wasn't, due to it becoming in jeopardy. It was therefore approved.
- The Horiz. loop E.M. maps are present & acceptable.*

Dennis King / Jan. 25/85.

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)

CHRISTIAN VON HESSERT
CONSULTING GEOLOGIST
SUITE 200 - 49 WELLINGTON STREET EAST
TORONTO, ONT. M5E 1C9

(416) 863-6796

Your File: 2.6137

March 30, 1984

F.W. Mathews
Ministry of Natural Resources
Whitney Block
Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Sir:

RE: Geophysical (MaxMin) and Geological Survey Maps returned for
addition of data and colour.

Enclosed are coloured Geological plans, in duplicate for the above mentioned survey.

The MaxMin plans which were also returned to us for the addition of the actual readings, have been forwarded to the subcontractor who did the survey. He will forward these plans to you in the near future

Yours truly,
C. von Hessert & Associates Ltd.



Richard M. Sproule
Geologist

Encls:

cc: Cleyo Resources
1165 McLean Drive
Timmins, Ontario

RECEIVED
MAY 7 1984
MINING LANDS SECTION



Mining Lands Comments

No. T.O. statement

- no qualifications for R.M. Sprankle.
- geological map not coloured.

To: Geophysics Mr. R. Barlow

Comments

- horizontal loop em map requires
raw readings plotted

Approved Wish to see again with corrections

Date Jan 17/84 Signature R Barlow

To: Geology - Expenditures Mr. C. Krusta

Comments

Approved Wish to see again with corrections

Date Jan 16/84 Signature C Krusta

To: Geochemistry

Comments

L.D.

Approved Wish to see again with corrections

Date Signature

Initial Check

Dec. 28, 1983 Mary-Elle Anderson

Assessed

29/2/84 D.K. - letter

Approved Reports of Work
sent out

Notice of Intent filed

Approval after Notice of Intent
sent out

Duplicate sent to Resident
Geologist

Duplicate sent to A.F.R.O.

1983 12 15

Our File: 2.6137

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Geological and Geochemical survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P 649953 to 62 inclusive in the Township of Carscallen.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

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

A. Barr:mc

cc: Cleo Clement
1165 McLean Drive
Timmins, Ontario

cc: C. von Hessert & Associates Ltd
49 Wellington Street East
Toronto, Ontario
M5E 1C9

2.6137

	<u>E.M.</u>	<u>Mag.</u>	<u>Geol.</u>		<u>E.M.</u>	<u>Mag.</u>	<u>Max. Mine</u>	
P. 649954	✓	✓	1/4 ✓	P. 649953	✓	✓	1/4	→ approve?
55	✓	✓	✓	649958	✓	✓	0	No problem.
56	✓	✓	✓	59	✓	✓	3/4	
<u>649957</u>	1/2	1/2	1/2	60	✓	✓	1/4	→ approve?
				61	✓	✓	✓	
				649962	✓	✓	✓	

APPROVE! because claim will be forfeited with no recourse otherwise.

-20-

July 8/82 -

P.K.

CARSCALLEN

COCKFANE

PORCUPINE
MINING DIVISION

SCALE 1 INCH = 10 CHAINS

DISPOSITION OF CROWN LANDS

- SURFACE RIGHTS ONLY
 - SURFACE RIGHTS ONLY
 - MINING RIGHTS ONLY
 - LEASE, SURFACE AND MINING RIGHTS
 - SURFACE RIGHTS ONLY
 - MINING RIGHTS ONLY
 - ▼ LICENCE OF OCCUPATION
-
- ROADS
 - IMPROVED ROADS
 - KING'S HIGHWAYS
 - RAILWAYS
 - POWER LINES
 - MARSH OR MUSKOG
 - MINES
 - CANCELLED

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

This Township lies within the Municipality of the CITY OF TORONTO.

AREAS WITHDRAWN FROM STAKING

Section	Date	By	Disposition
52821			
52822			
52823			
52824			
52825			
52826			
52827			
52828			
52829			
52830			
52831			
52832			
52833			
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52839			
52840			
52841			
52842			
52843			
52844			
52845			
52846			
52847			
52848			
52849			
52850			

DATE OF ISSUE
FEB 28 1984
 Ministry of Natural Resources
 TORONTO

01/30/84

PLAN NO. M.267

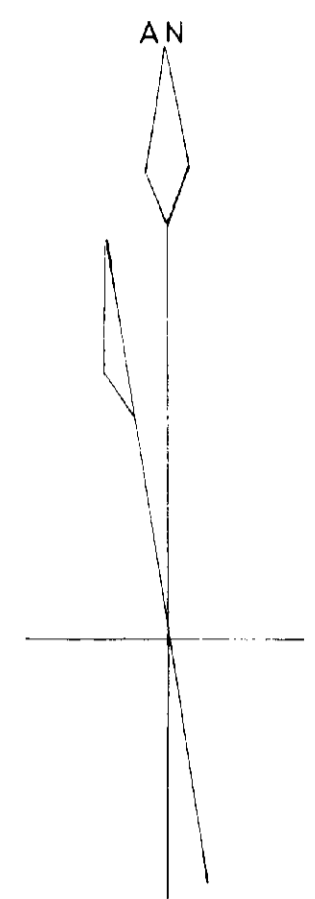
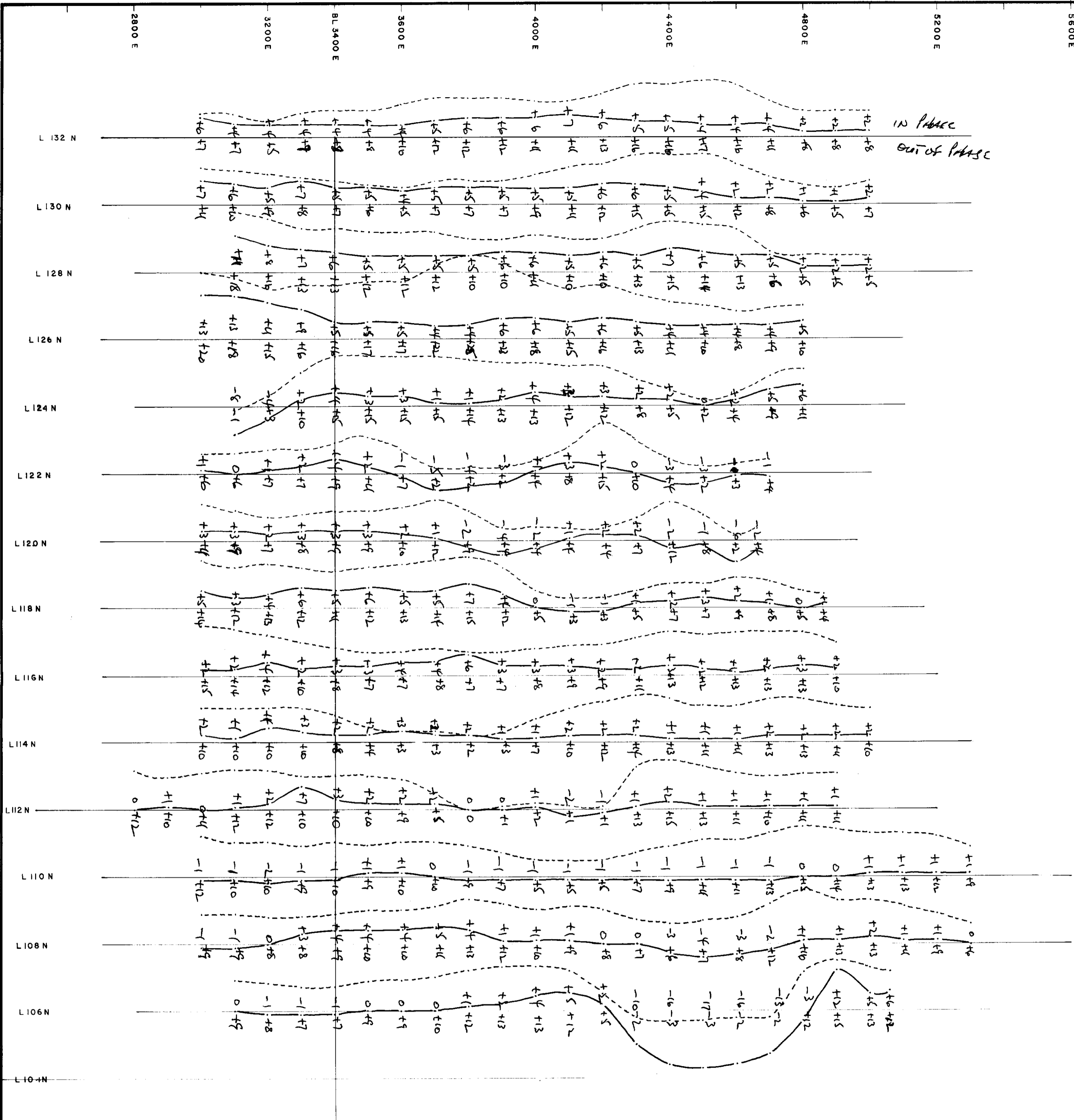
MINISTRY OF NATURAL RESOURCES
TORONTO

Whitesides Twp - M.318

Bristol Twp - M.264

Denton Twp - M.273





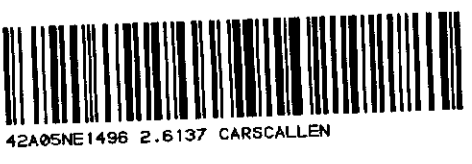
LEGEND
 1" = 20% 1777 Hz.

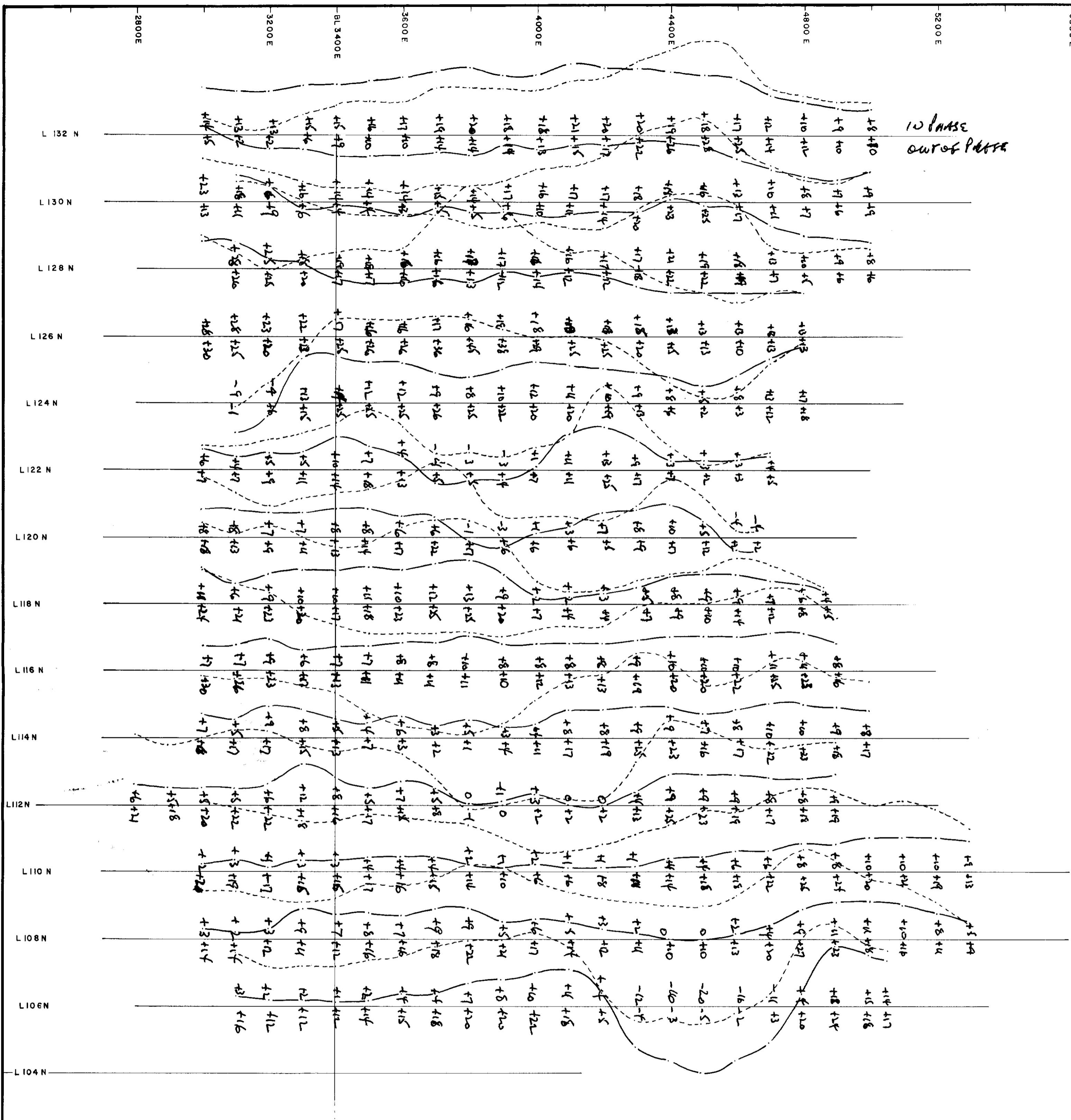
———— IN PHASE
 - - - - - QUADRATURE

CLEYO RESOURCES INC.	
BIG MARSH PROPERTY	
CARSCALLLEN TWP.	TIMMINS AREA
MAX MIN II E.M. SURVEY	
1777 Hz.	
BY	
J. S. BORTNICK	EXPLORATIONS CO. LTD.
SCALE 1 : 2400	AUGUST 1983

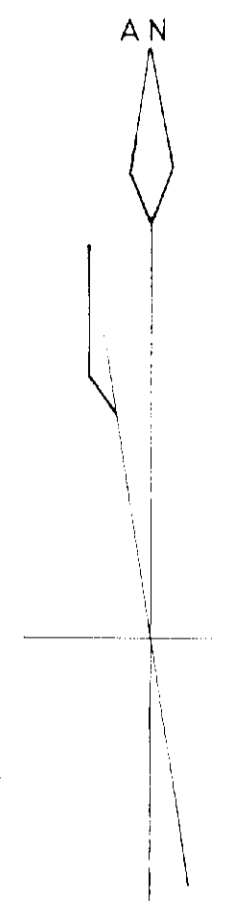
Dwg. No. 11 *J. S. Bortnick*

NTS. No. 42 A





10 PHASE
out of phase



LEGEND
 1" = 20% 3555 Hz.
 ——— IN PHASE
 - - - - - QUADRATURE

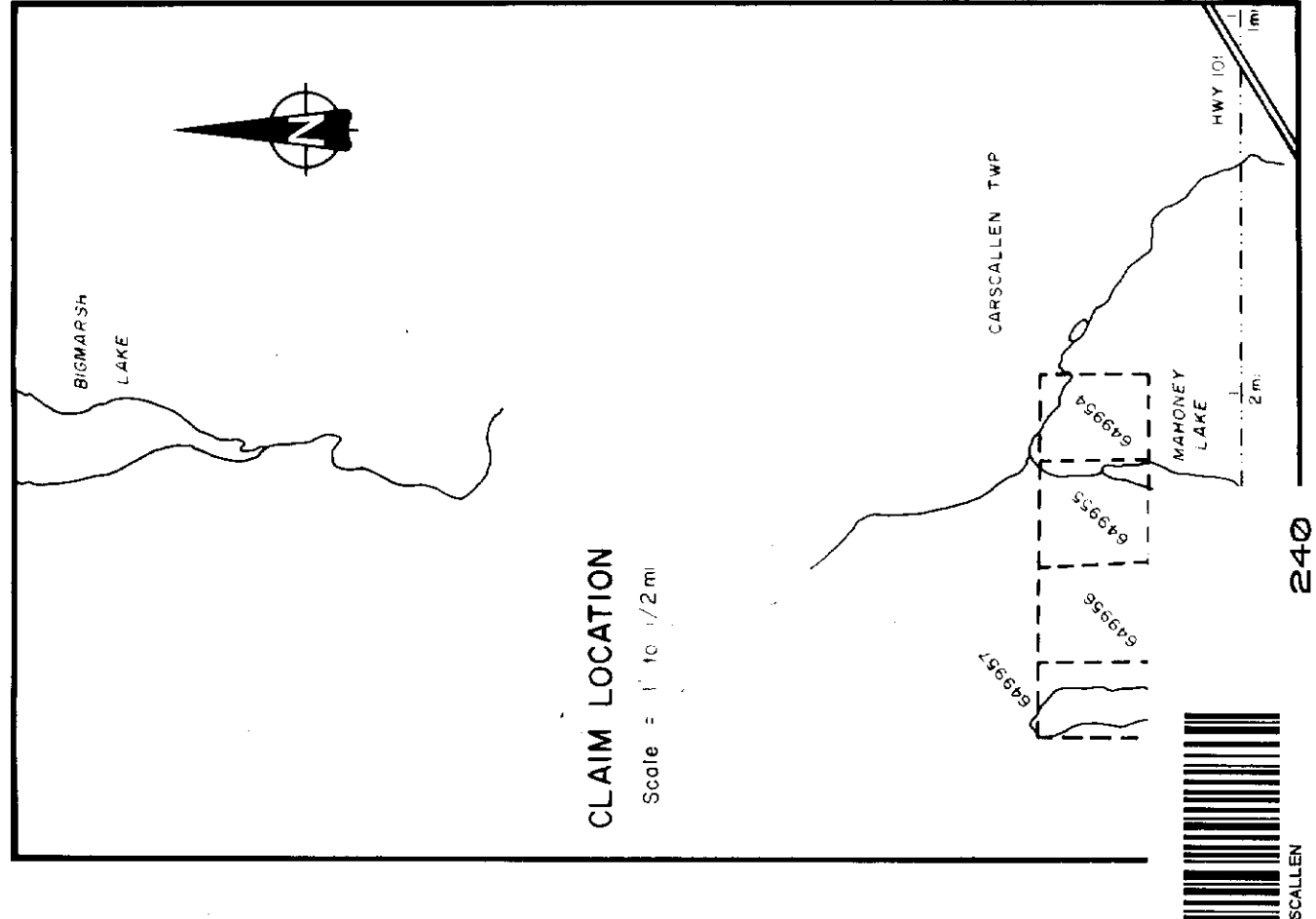
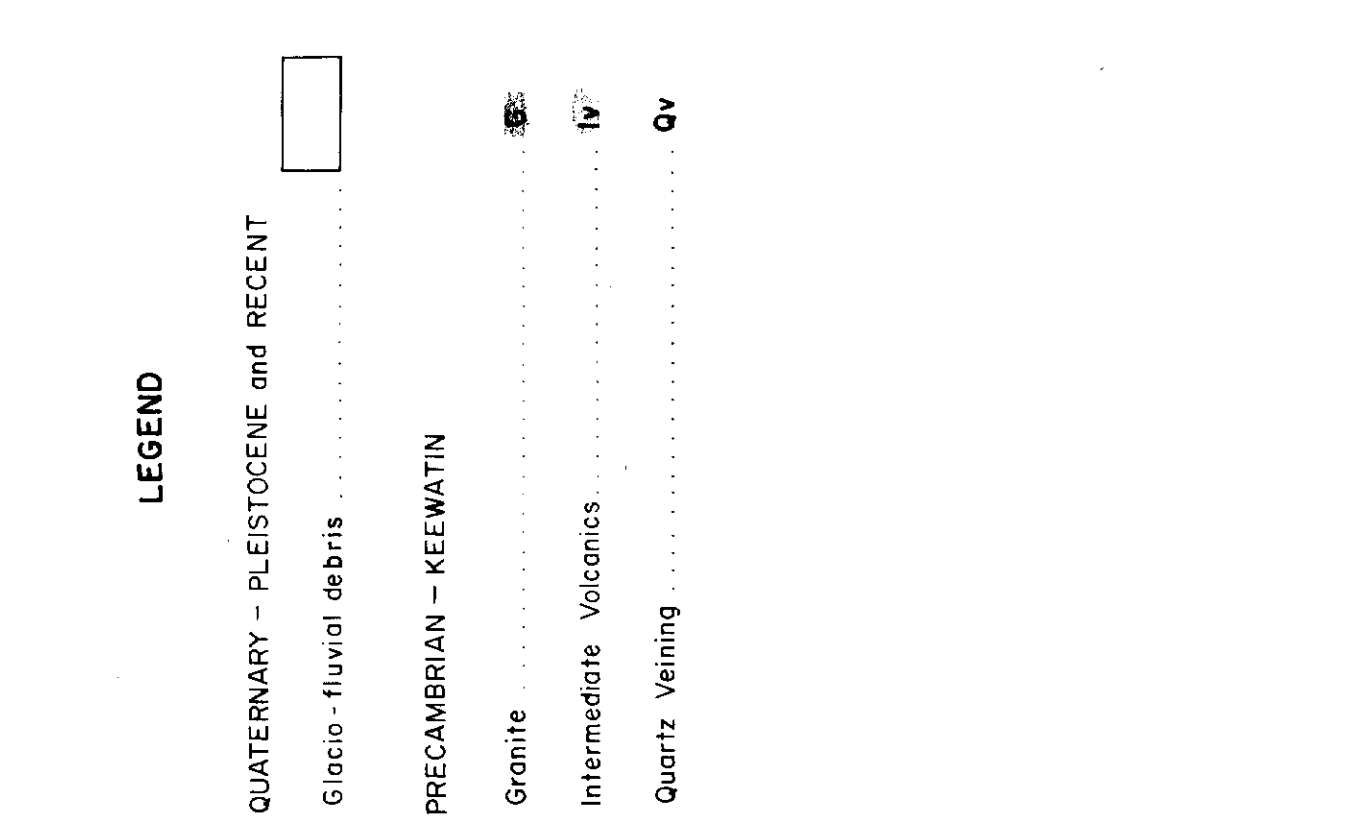
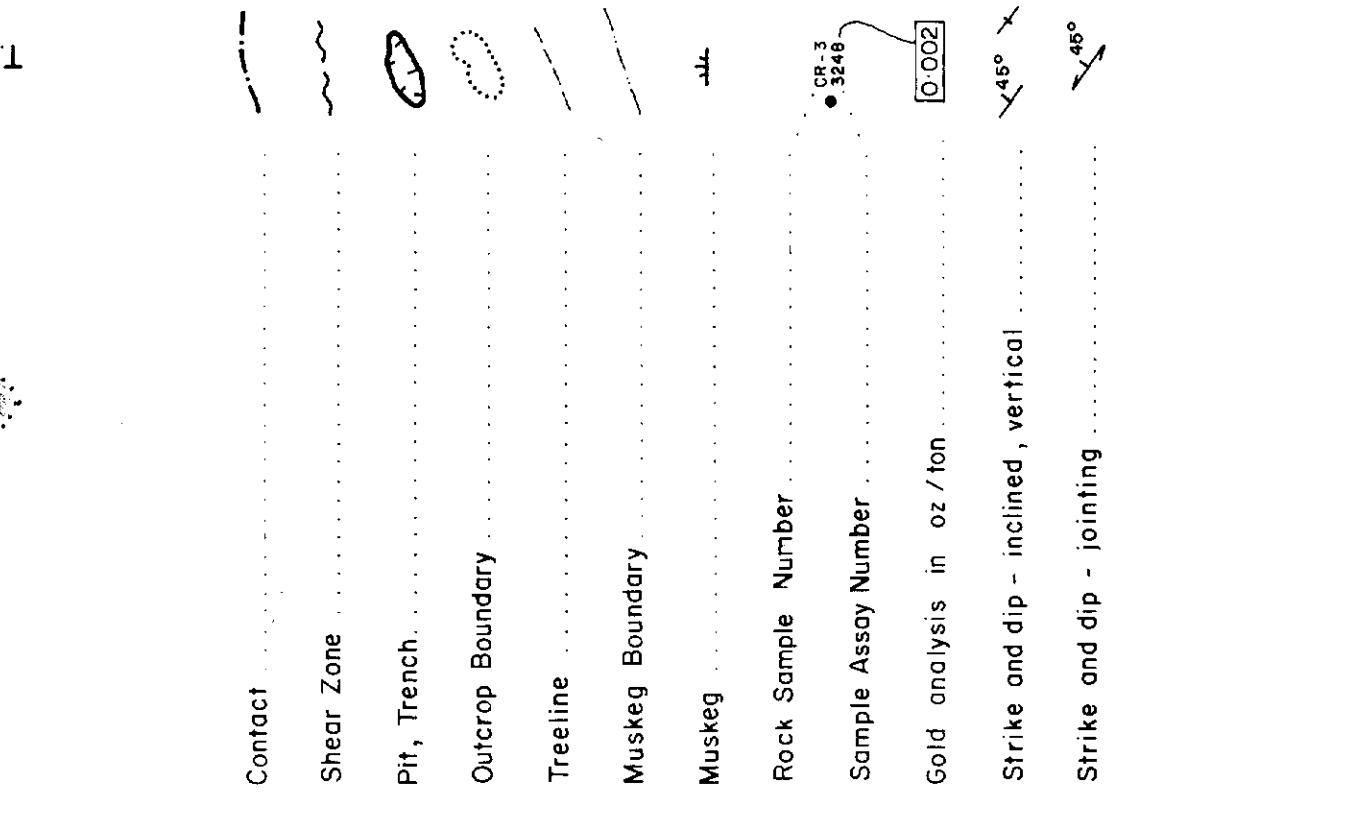
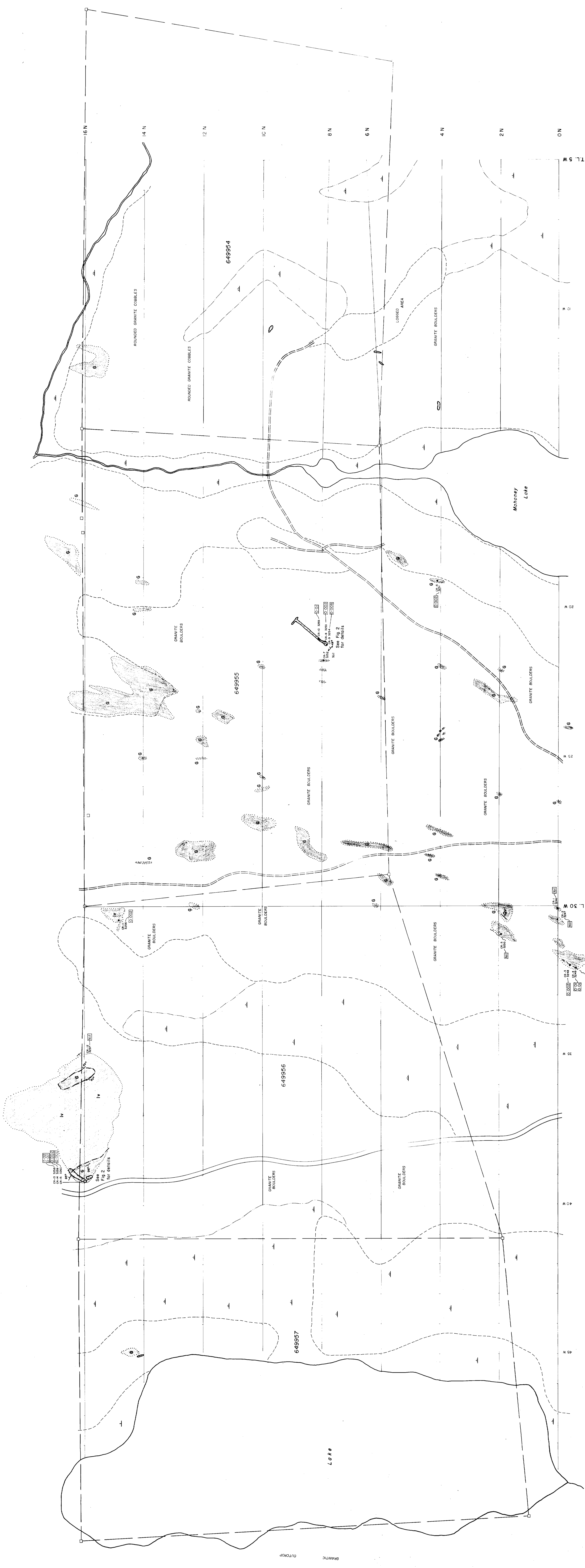
CLEYO RESOURCES INC.	
BIG MARSH PROPERTY	
CARSCALLEN TWP.	TIMMINS AREA
MAX MIN II E.M. SURVEY	
3555 Hz.	
BY J. S. BORTNICK EXPLORATIONS CO. LTD.	
SCALE 1 2400	AUGUST 1983

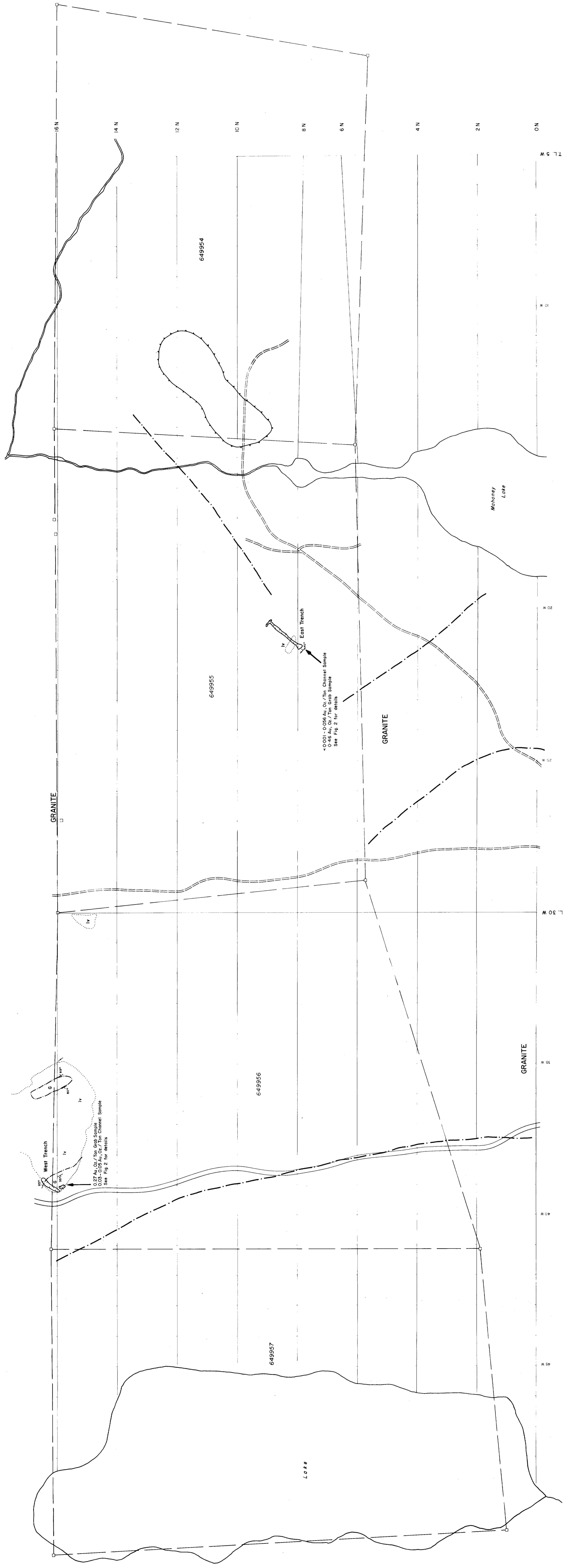
Dwg. No. 12 *J. Spruce*

N.T.S. No. 42 A



R. Souda 26/83

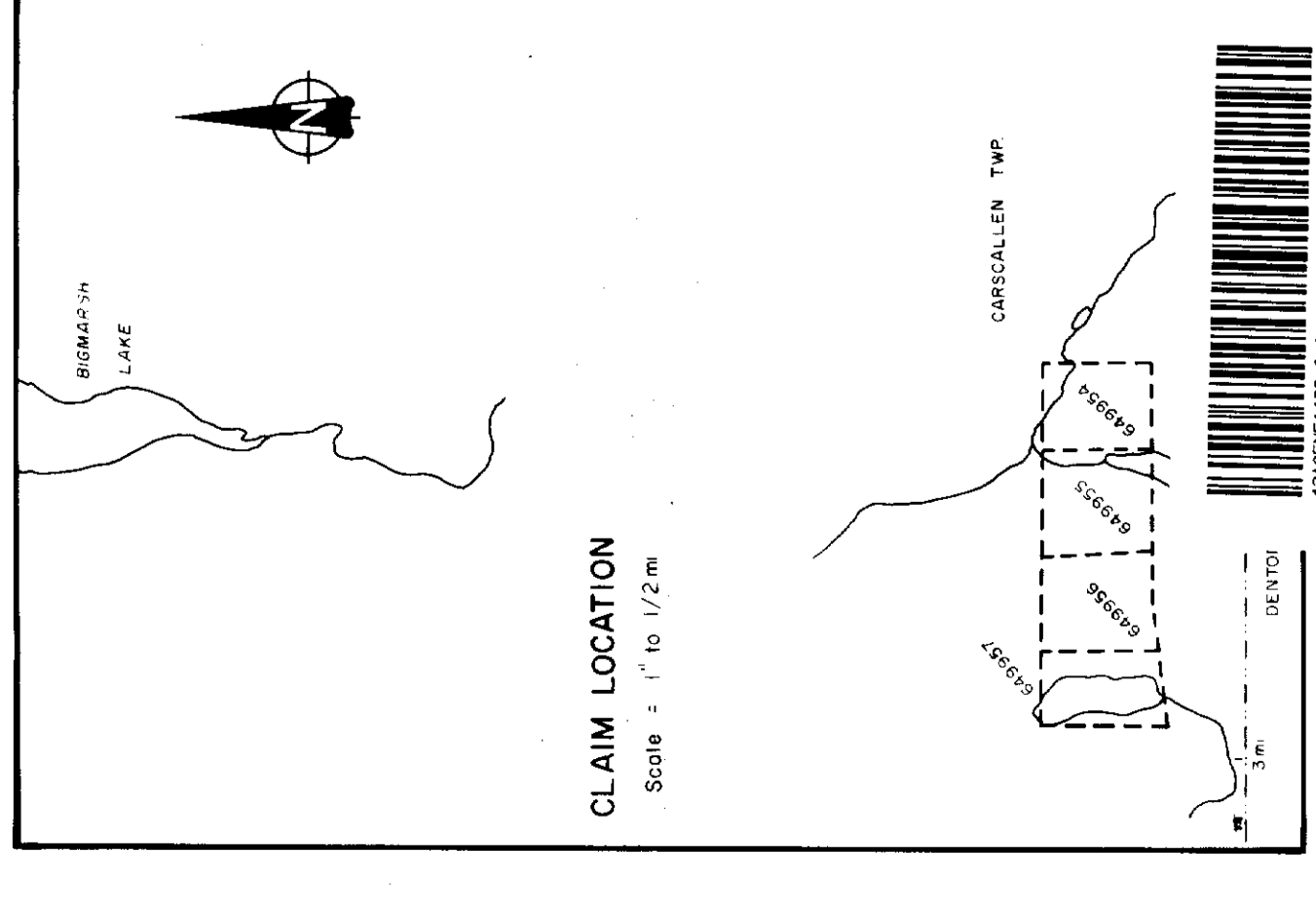
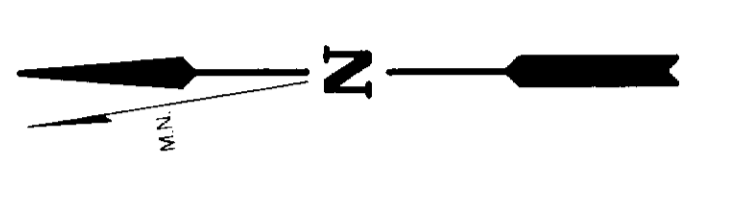




West Trench
 0.27 Au, Oz./Ton Grab Sample
 0.03 - 0.05 Au, Oz./Ton Channel Sample
 See Fig. 2 for details

East Trench
 <0.001 - 0.05 Au, Oz./Ton Channel Sample
 0.46 Au, Oz./Ton Grab Sample
 See Fig. 2 for details

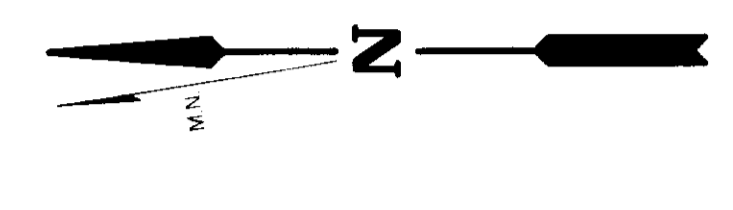
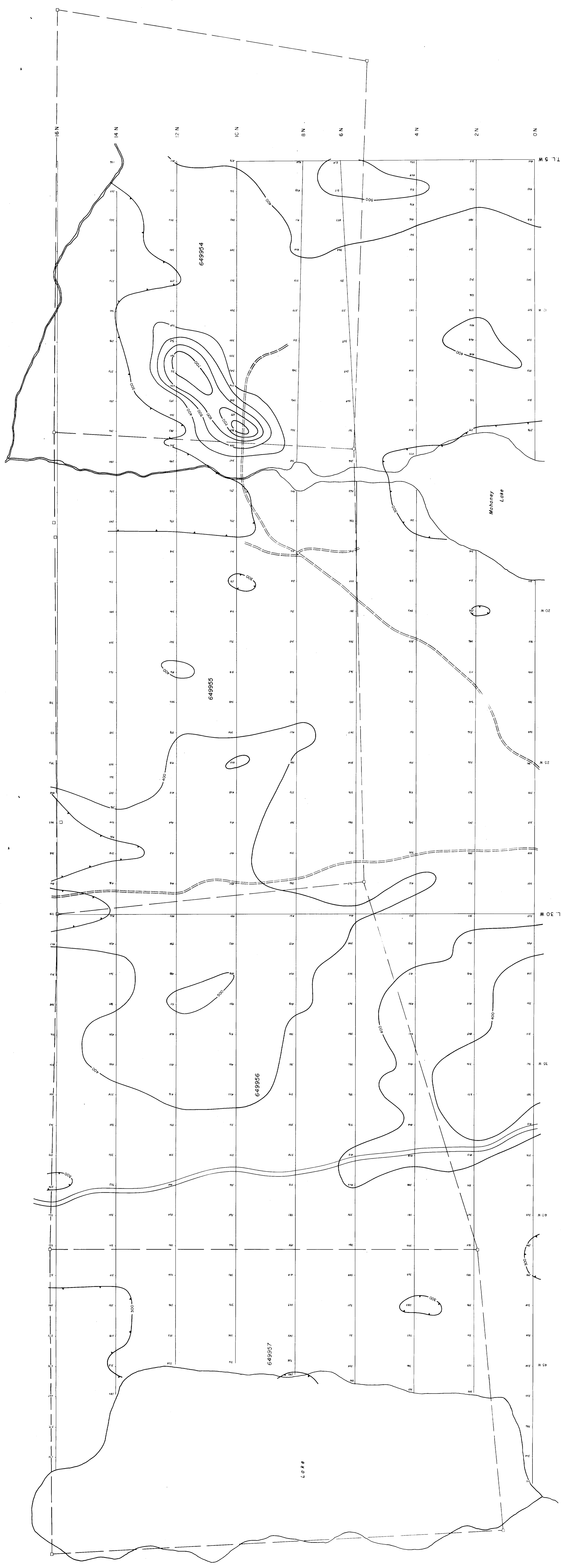
- LEGEND**
- V.L.F. Conductor Axis
 - Magnetic High
 - Lithological Boundary
 - Intermediate Volcanics
 - Granite
 - Trench
 - Strike and dip - inclined, vertical
 - Strike and dip - planing



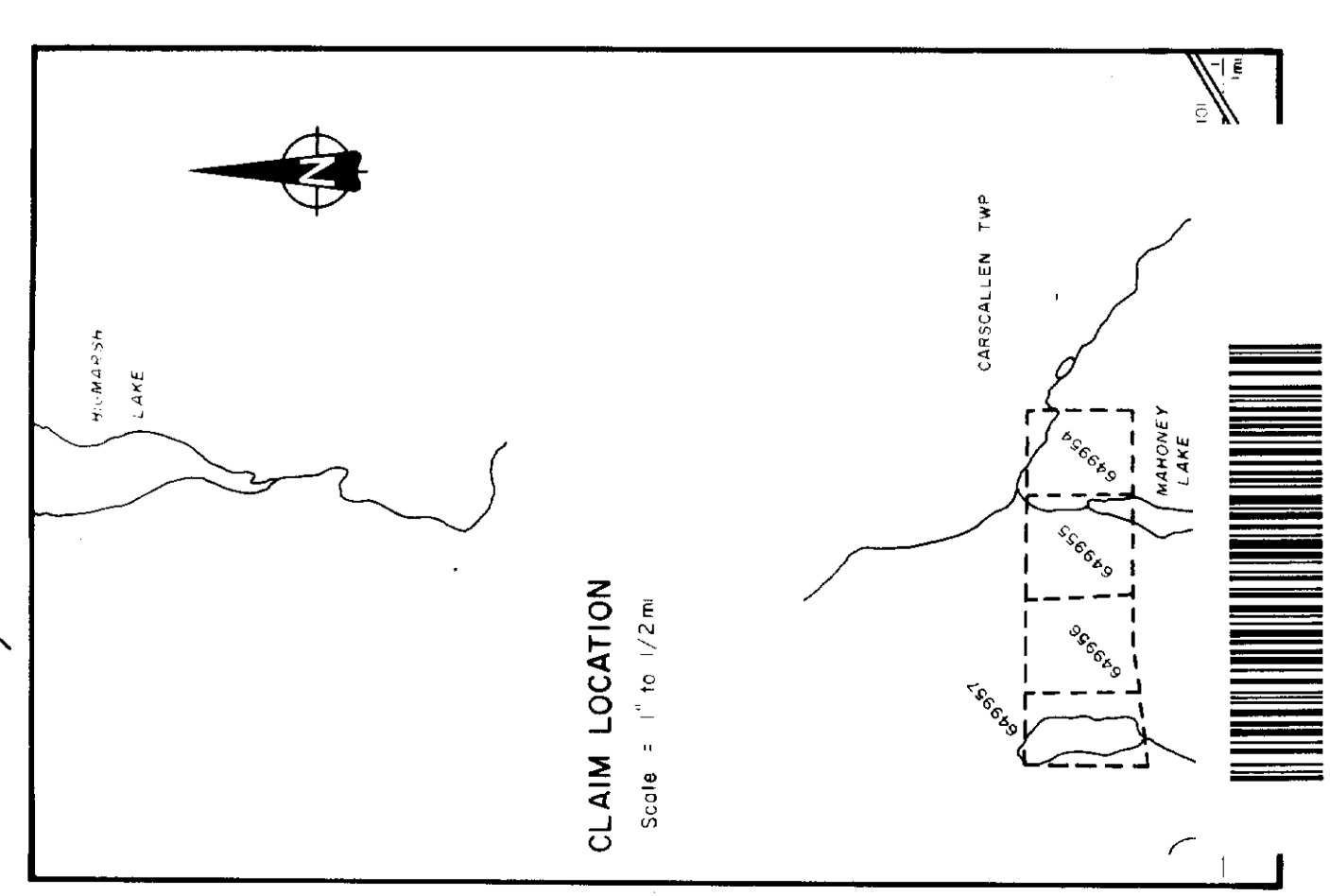
CLEVO RESOURCES INC.
 MAHONEY LAKE PROJECT
 Carleton Place, District of Cochrane, Ont.
**GEOLOGICAL-GEOPHYSICAL
 COMPILATION**

Prepared by: B. Sproule, C. Conner & Assoc. | September 1983
 Drawn by: T. MacCort & Assoc. | Draw No.: 3

26137

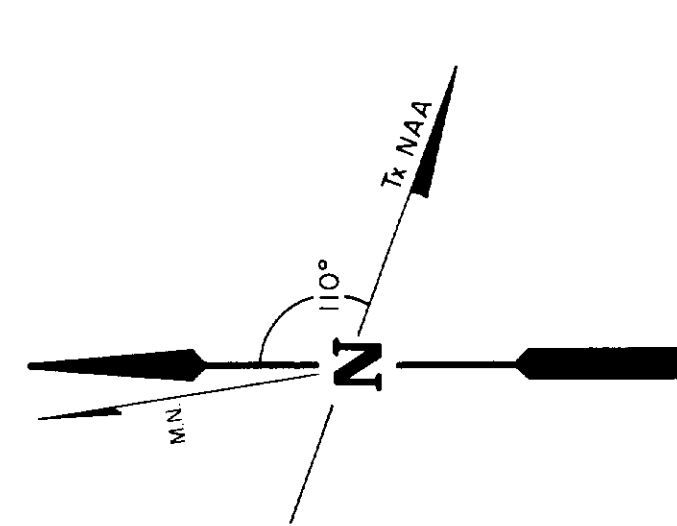
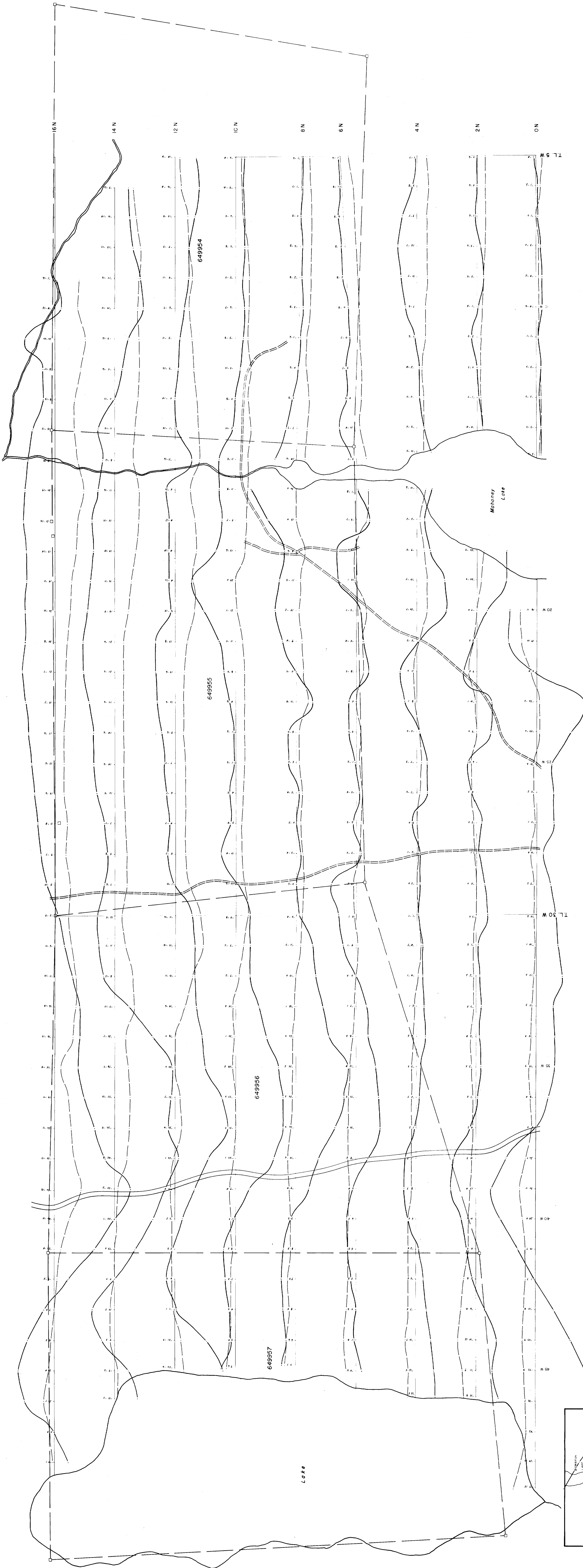


LEGEND
 Values above base level of 59,000 gammas
 Contour interval: 100 gammas
 100 gamma contour
 Depression



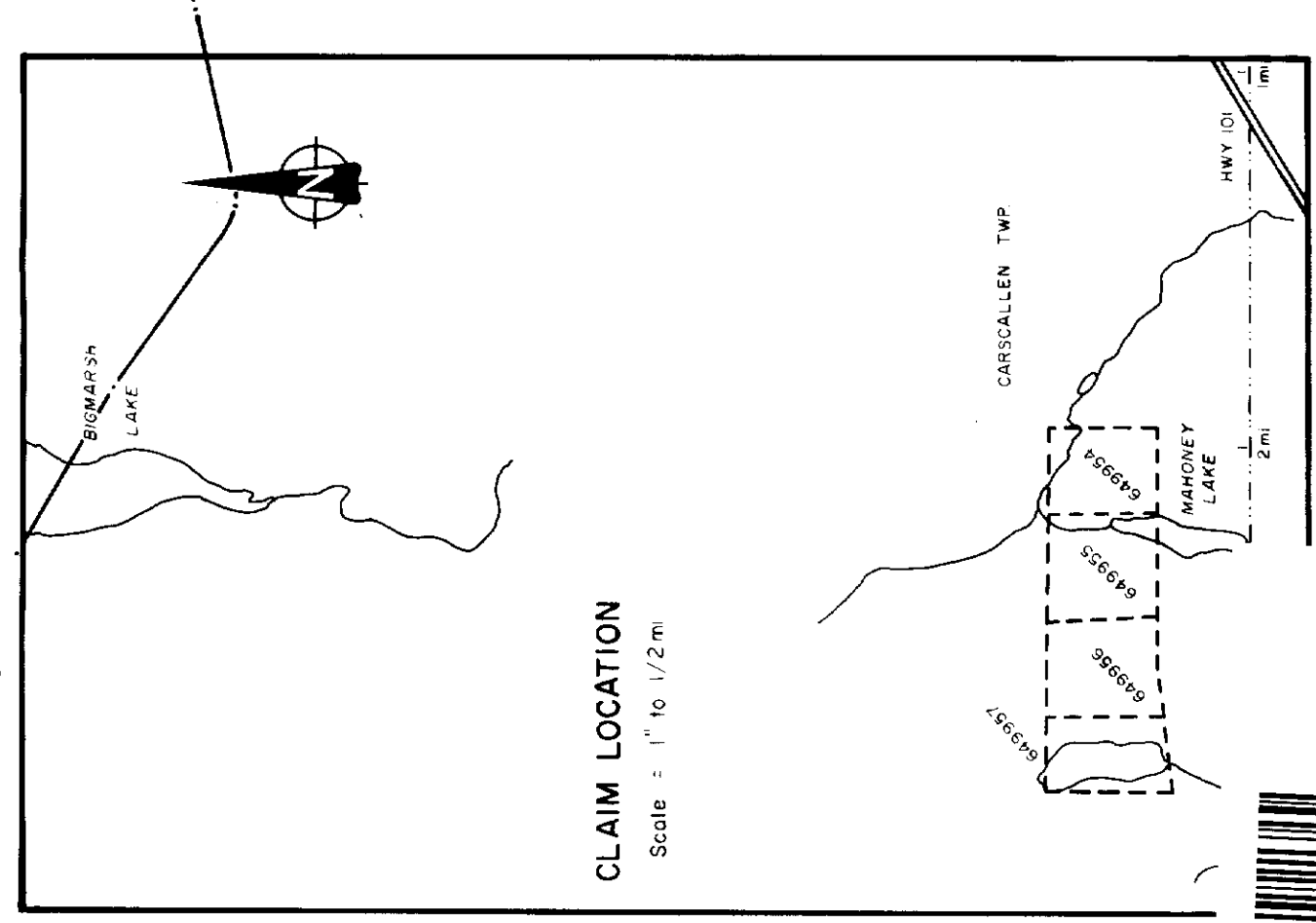
CLEVO RESOURCES INC.
 MAHONEY LAKE PROJECT
 Carleton Place, District of Cochrane, Ont.
**TOTAL FIELD
 MAGNETIC CONTOURS**
 Prepared by: R. Spence, C. McMaster, B. Abbot
 Drawn by: E.T. MacCoff, B. Abbot
 Scale: 1:10,000
 Date: 1983
 Draw No.: 4

R. Spence
 2/6/83



LEGEND

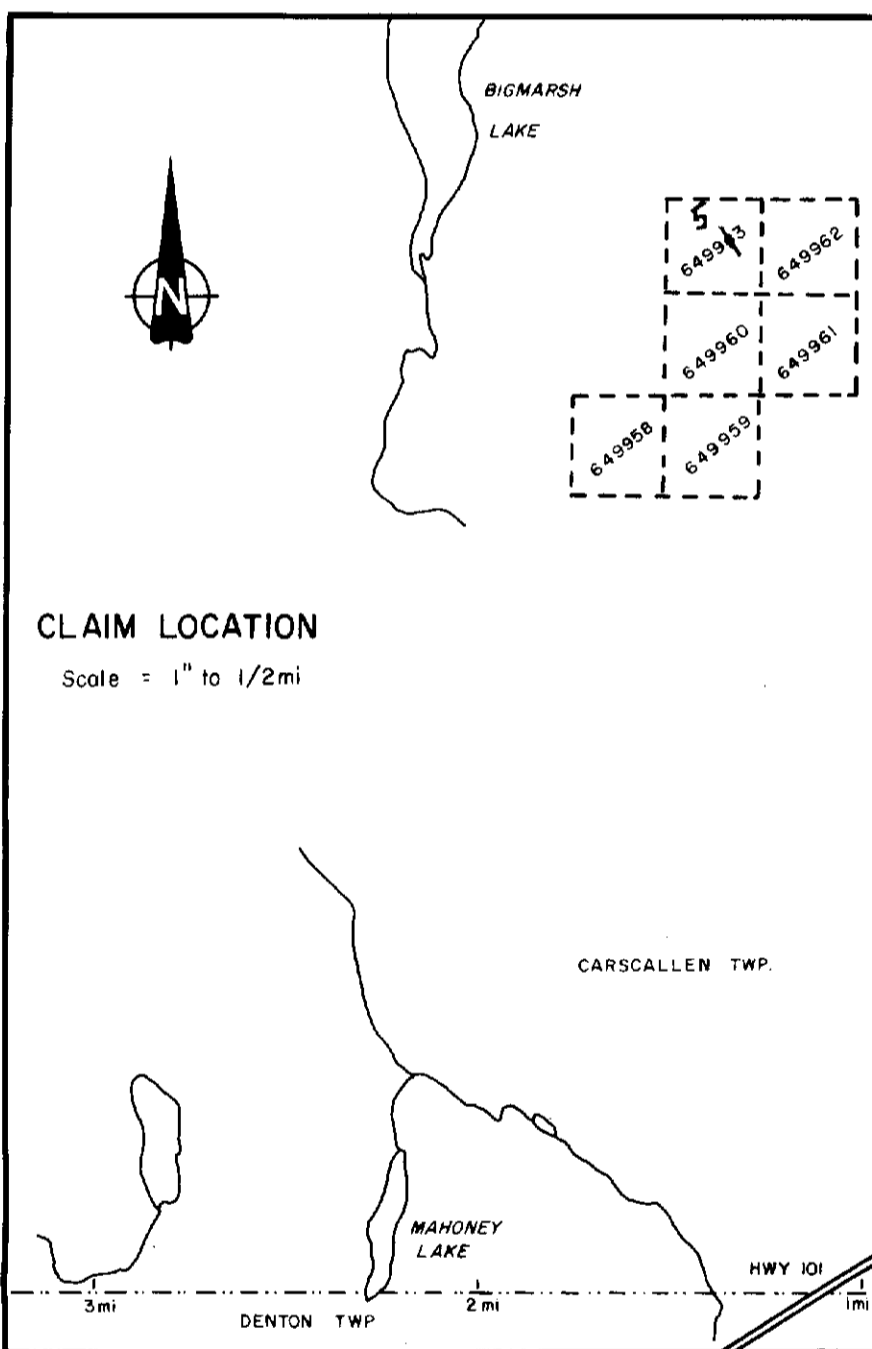
- Instrument Geonics EM-16
- Transmitter NAA, Cedar Mine, 12.8kHz
- Readings plotted 5
- Profiles, scale 1" = 20% plotted
- Impulse profile 1
- Outcropure profile 1



CLEVO RESOURCES INC.
MAHONEY LAKE PROJECT
 Carleton Twp., District of Cochrane, Ont.
VLF EM PROFILES

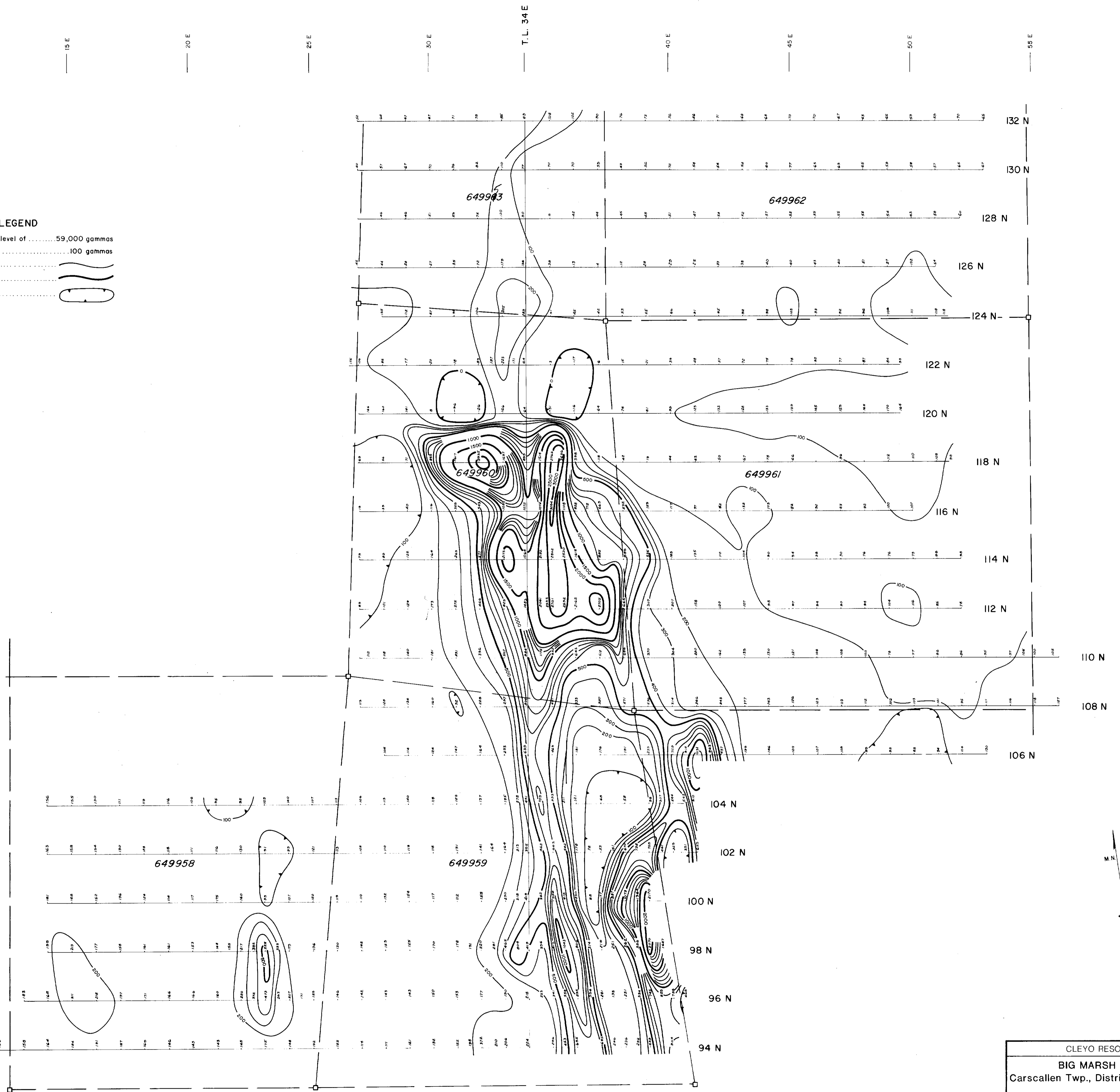
Prepared by: R. Spohn, Consultant & Assoc. September 1983
 Drawn by: P.L. McCroft & Assoc. Draw No.: 3

R. Spohn
 26137



LEGEND

Readings above base level of 59,000 gammas
 Contour interval 100 gammas
 100 gamma contour.....
 500 gamma contour.....
 Depression



CLEYO RESOURCES INC.
 BIG MARSH PROPERTY
 Carleton Twp., District of Cochrane, Ont.

**PROTON
 MAGNETOMETER SURVEY**

0 200 400 600'
 SCALE 1:2400

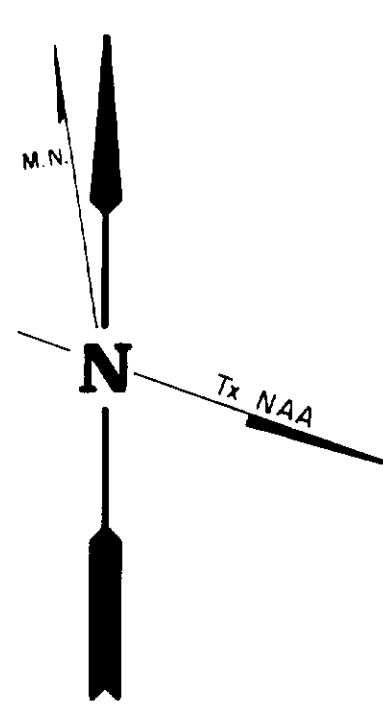
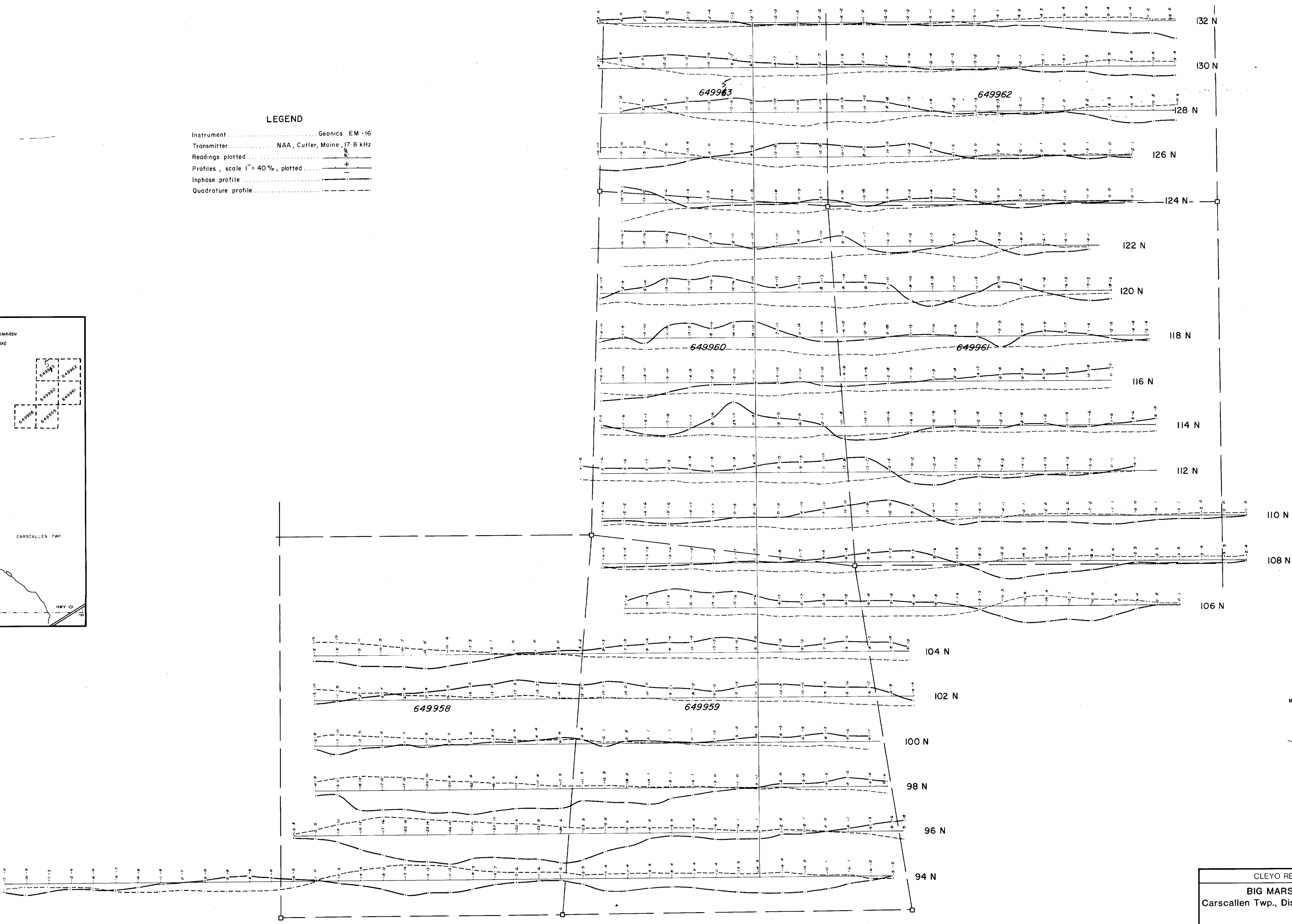
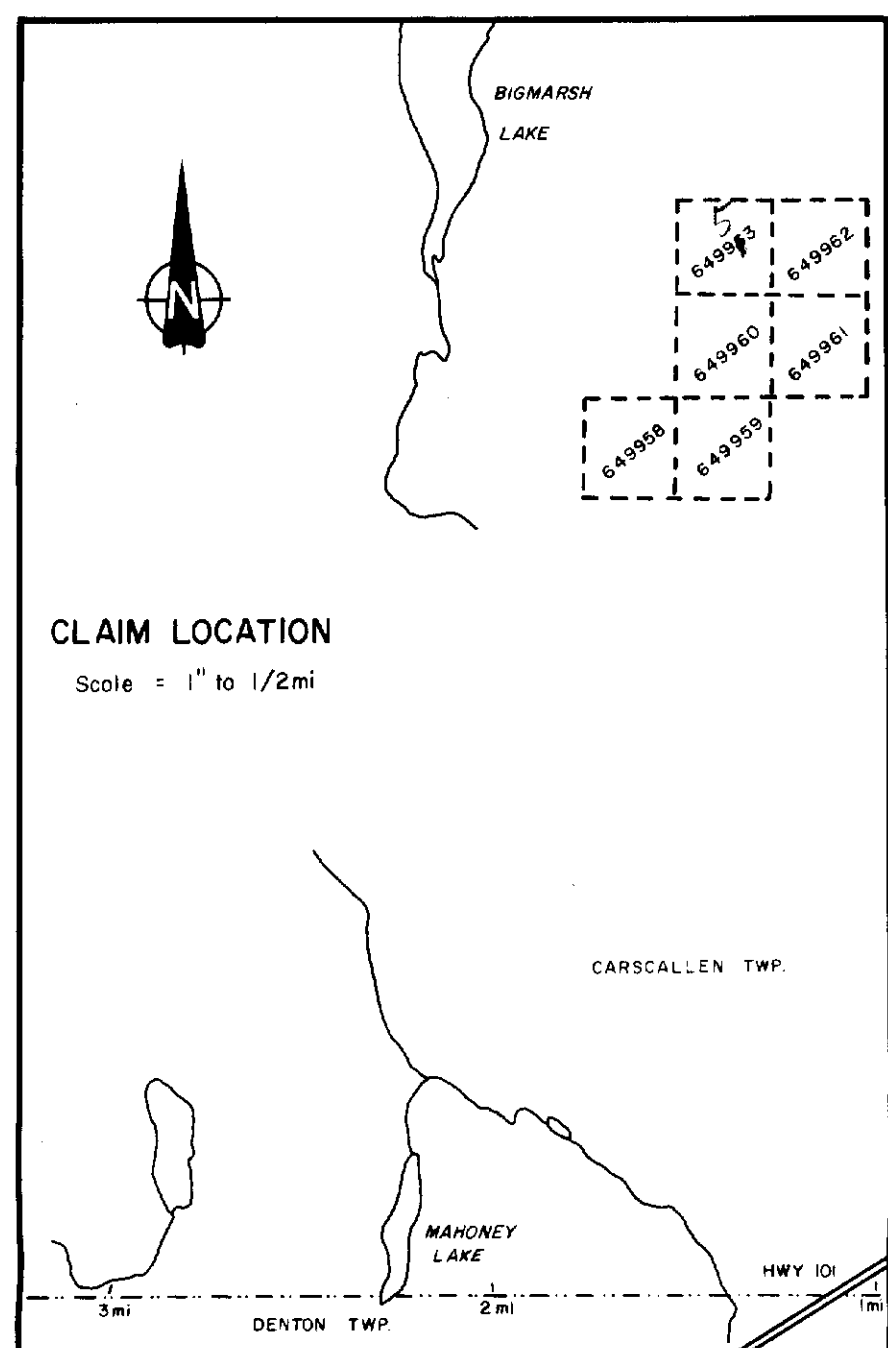
Prepared by: R. Spraul, C. von Hesser & Assoc. September 1983
 Drawn by: R.T. Macroft & Assoc. Dwg. No. 7

R. Spraul

0 BL 5 E 10 E 15 E 20 E 25 E 30 E T.L. 34 E 40 E 45 E 50 E 55 E

LEGEND

Instrument Geonics EM - 16
 Transmitter NAA, Cutler, Maine, 17.8 kHz
 Readings plotted +
 Profiles, scale 1" = 40%, plotted -
 Inphase profile -
 Quadrature profile -



CLEYO RESOURCES INC.
BIG MARSH PROPERTY
 Carscallen Twp., District of Cochrane, Ont.

VLF EM PROFILES

0 200 400 600'
 SCALE: 1:2400

Prepared by: R. Sproule, C. von Hesserl & Assoc. September 1983
 Drawn by: R.T. Macroff & Assoc. Dwg. No.: 8

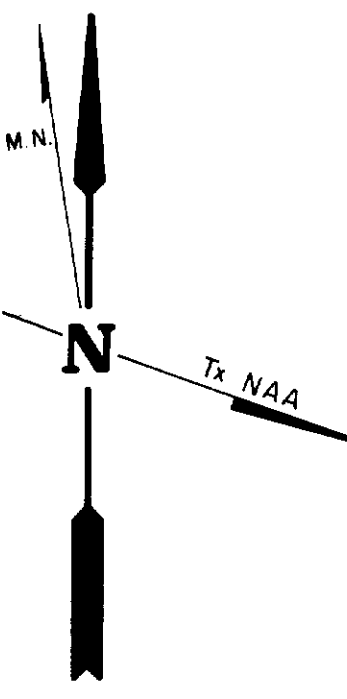
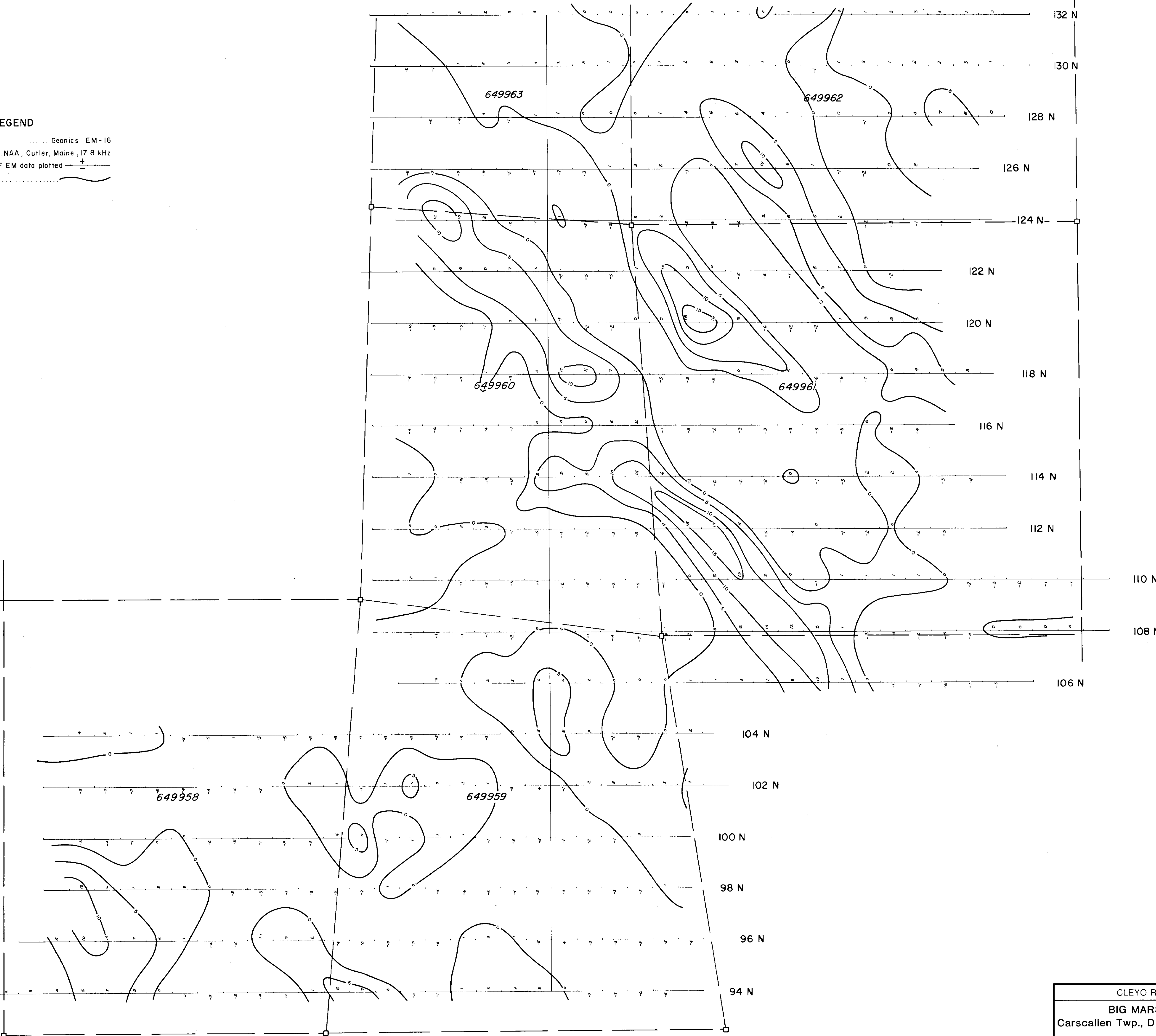
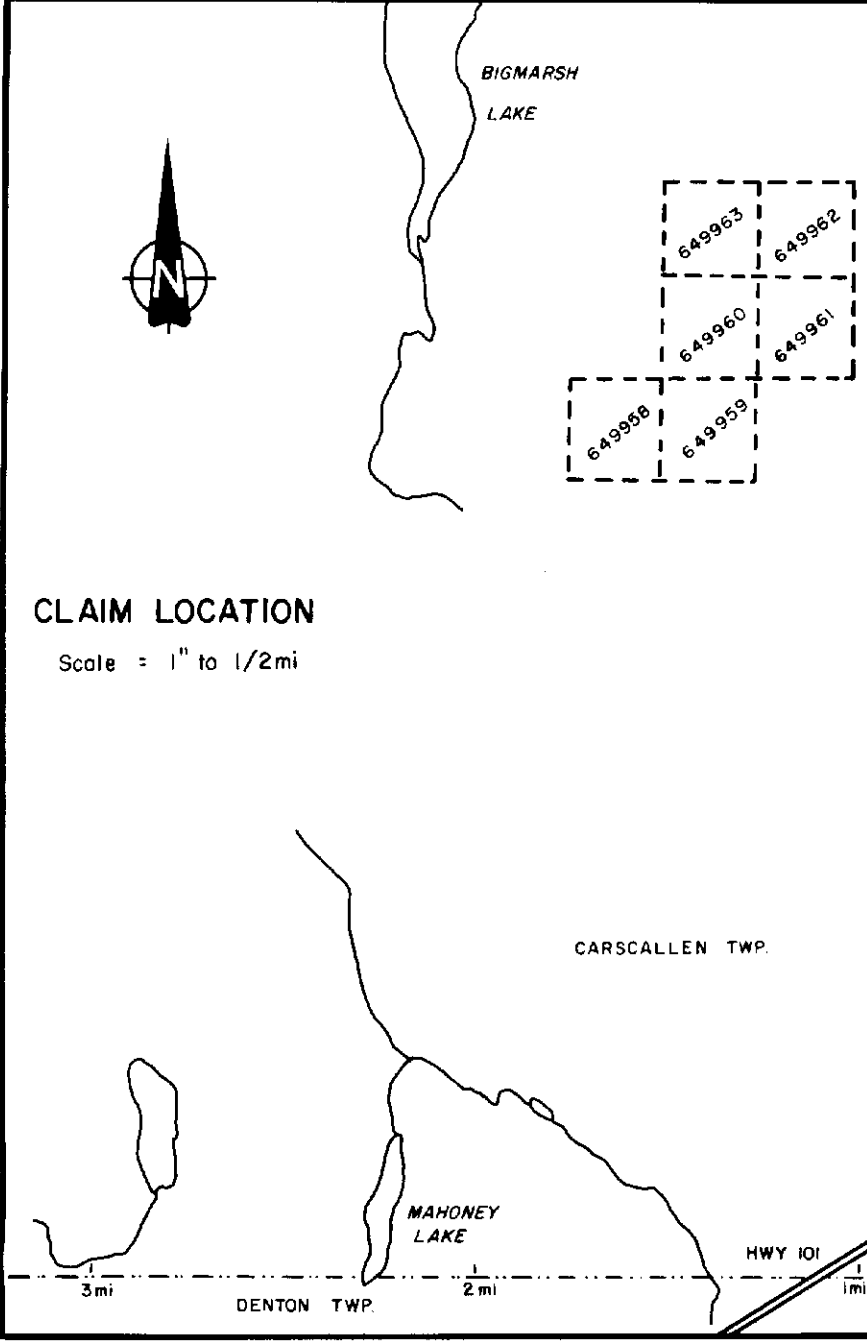
R. Sproule 2637



0 B L 5 E 10 E 15 E 20 E 25 E 30 E T.L. 34 E 40 E 45 E 50 E 55 E

LEGEND

Instrument Geonics EM-16
 Transmitter NAA, Cutler, Maine, 17.8 kHz
 Fraser-filtered inphase VLF EM data plotted +
 Contour, interval +5



CLEYO RESOURCES INC.
BIG MARSH PROPERTY
 Carscallen Twp., District of Cochrane, Ont.

FILTERED VLF EM CONTOURS

0 200 400 600'
 SCALE 1:2400

Prepared by: R. Sproule, C. von Hesserl & Assoc. September 1983
 Drawn by: R.T. Macraff & Assoc. Dwg. No. 9

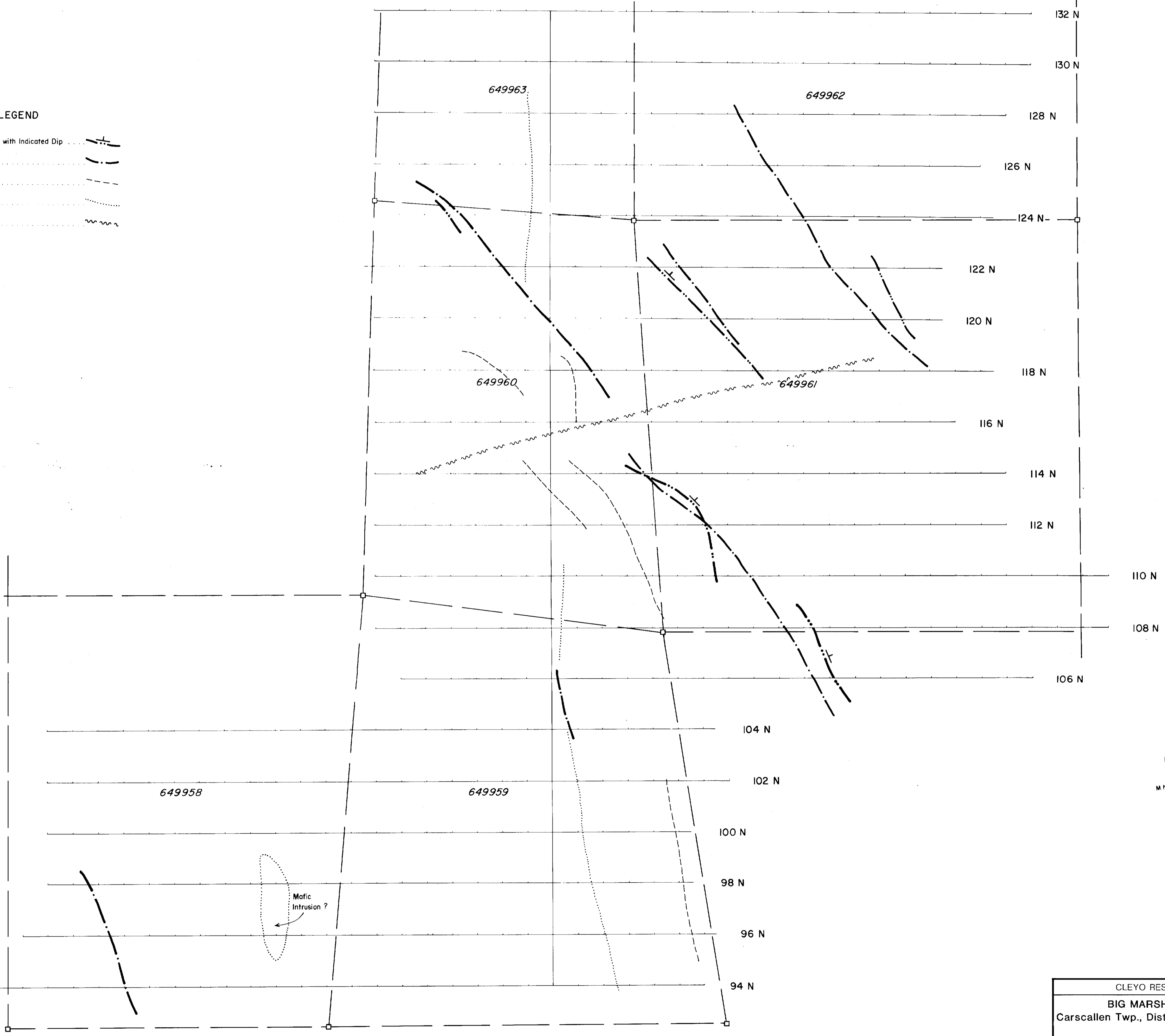
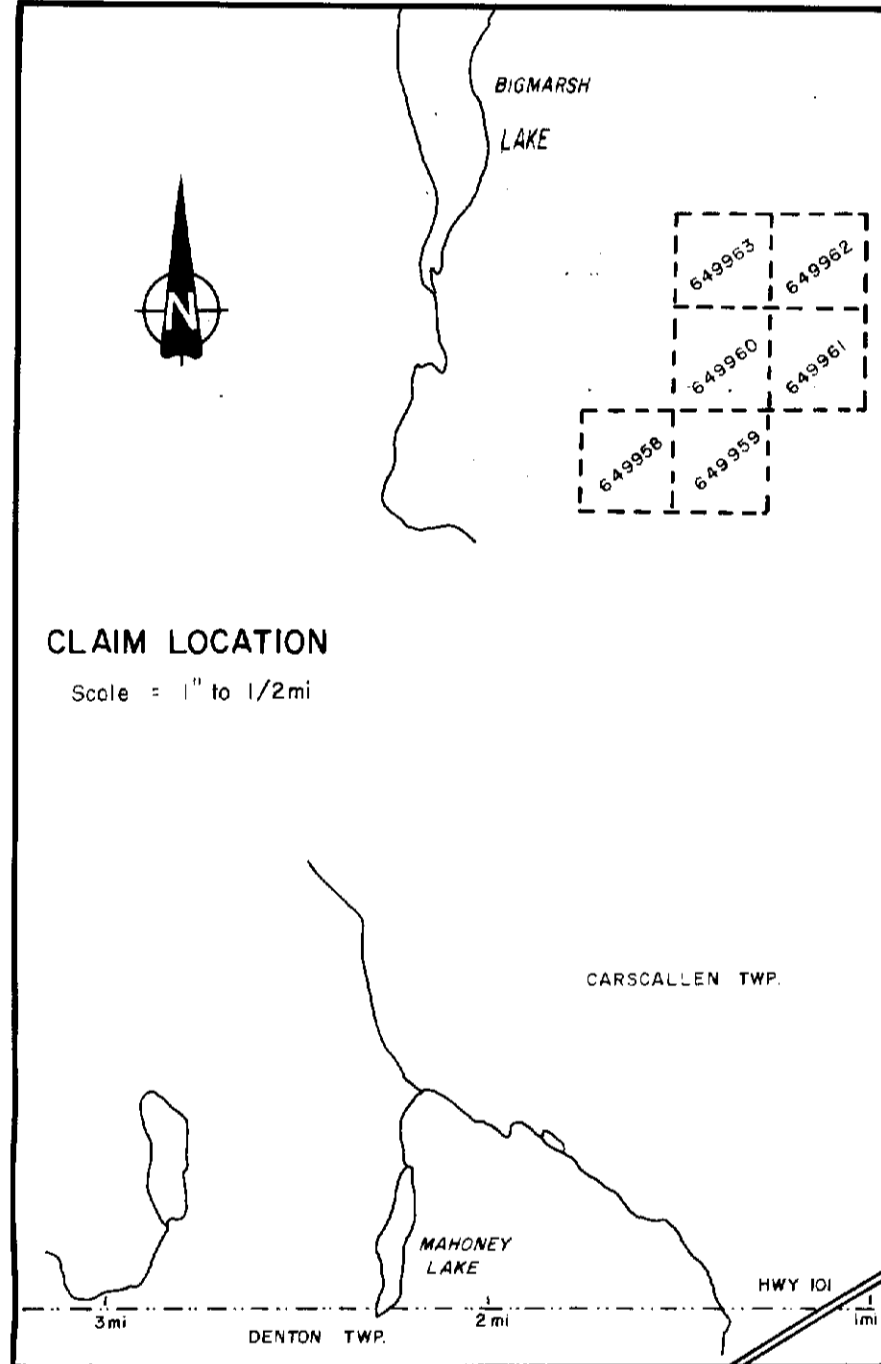
R. Sproule

26137

0 B.L. 5 E 10 E 15 E 20 E 25 E 30 E T.L. 34 E 40 E 45 E 50 E 55 E

LEGEND

- H.L.E.M. Conductor Axis with Indicated Dip
- V.L.F. Anomaly Axis
- Magnetic Iron Formation
- Diabase Dyke
- Interpreted Fault



CLEYO RESOURCES INC.
BIG MARSH PROPERTY
 Carscallen Twp., District of Cochrane, Ont.

GEOPHYSICAL COMPILATION
 (After Boniwell)

0 200 400 600'
 SCALE 1: 2400

Prepared by: R. Sproule, C. von Hesserl & Assoc. September 1983
 Drawn by: R.T. Marcroft & Assoc. Dwg. No. 13

R. Sproule

26137

